

Granville Neighbourhood Structure Plan

Office Consolidation June 2017

Prepared by:

***Current Planning Branch
Sustainable Development
City of Edmonton***

Bylaw 14699, was adopted by Council in August 2007. In June 2011, this document was consolidated by virtue of the incorporation of the following bylaws:

Bylaw 14699 Approved August 21, 2007 (to adopt the Granville Neighbourhood Structure Plan)

Bylaw 15754 Approved June 10, 2011(to consolidate the commercial land uses in the NW portion of the plan area to allow for mixed commercial uses and update the Land use statistics to reflect the new NSP Terms of Reference)

Bylaw 16087 Approved June 18, 2012 (to reconfigure an area in the eastern portion of the plan from low to medium density residential uses)

Bylaw 18041 Approved June 12, 2016 (to reconfigure an area in the western portion of the plan from medium density residential to low density residential)

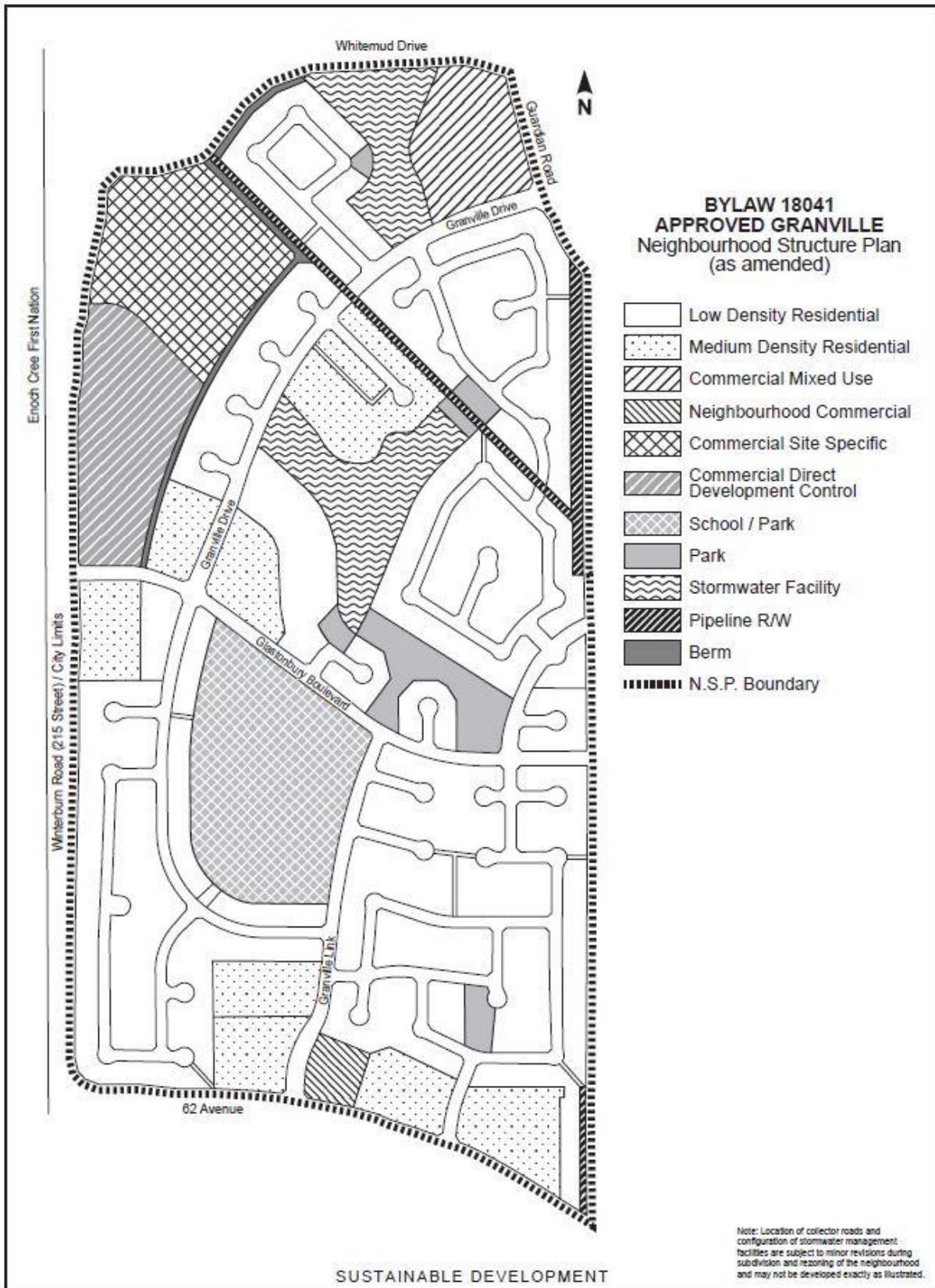
Editor's Note:

This is an office consolidation edition of the Granville Neighbourhood Structure Plan, Bylaw, as approved by City Council on August 21, 2007. This edition contains all amendments and additions to Bylaw 11749.

For the sake of clarity, new maps and a standardized format were utilized in this Plan. All names of City departments have been standardized to reflect their present titles. Private owners' names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaws. All text changes are noted in the right margin and are italicized where applicable.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the office of the City Clerk.

City of Edmonton



**GRANVILLE NEIGHBOURHOOD STRUCTURE PLAN
LAND USE AND POPULATION STATISTICS
BYAW 18041
Amended June 12, 2017**

| | | <u>AREA (ha)</u> | | | | |
|---|------------------|------------------|--------------|-----------------|-------------------|---|
| GROSS AREA* | | 136.22 | | | | |
| Arterial Roadways | | | | | | |
| Whitemud Drive | 7.25 | | | | | |
| 215 Street (includes widening) | 7.98 | | | | | |
| 207 Street (Guardian Road) | 1.50 | | | | | |
| 62 Avenue | 1.70 | 18.43 | | | | |
| Resource Pipelines and Facilities | | | | | | |
| Chevron Canada Resources Ltd. | 1.02 | | | | | |
| Northwestern Utilities Limited | 0.79 | 1.81 | | | | |
| Plan 0321752 (Glastonbury Commercial) | 0.43 | 0.43 | | | | |
| GROSS DEVELOPABLE AREA | | 115.55 | | | | |
| Stormwater Management Facilities | | | | | | |
| Municipal Reserve | 6.85 | | | | | |
| School / Park | 8.67 | | | | | |
| Dispersed Parks | 3.04 | 11.71 | | | | |
| Non-Residential Land Uses | | | | | | |
| Commercial / Mixed Use* | 3.17 | | | | | |
| Neighbourhood Commercial | 0.81 | | | | | |
| Commercial – 215 Street | 11.25 | 15.83 | | | | |
| Circulation (Collector, Local Roads and Walkways – 18% of GDA) | 20.80 | | | | | |
| Sub-Total | | 54.59 | | | | |
| NET RESIDENTIAL AREA | | 60.96 | | | | |
| RESIDENTIAL LAND USE ANALYSIS | | | | | | |
| Land Use | Area (ha) | Units/ha | Units | Pop/Unit | Population | LDR/MDR RATIO |
| Low Density Res. | 47.02 | 25 | 1,175 | 2.80 | 3,290 | 57.1% LDR 42.90% MDR |
| Medium Density Res. (MDR) | 10.24 | 45 | 460 | 2.80 | 1288 | |
| Medium Density Res. (MDR) / Mixed Use (3.17 ha)** | | 45 | 143 | 2.80 | 400 | 33.7 upnrha |
| Low-rise/Medium Density | 3.1 | 90 | 279 | 1.8 | 502 | |
| TOTAL | 60.36 | | 2,057 | | 5,480 | Persons per Gross Developable Hectare 48 |

STUDENT GENERATION STATISTICS

| LEVEL | Public | Separate | Total |
|--------------|---------------|-----------------|--------------|
| Grades K-8 | 312 | 94 | 406 |
| Grades 9-12 | 156 | 46 | 202 |
| | 468 | 140 | 608 |

* Percentage for Low Density Residential (LDR) and Medium Density Residential (MDR) are based on the number of residential units

**The 3.17 ha of Mixed Use was counted above as commercial land use and is only used in the Residential Land Use Analysis for calculating population and number of units.

Alldritt Development Limited

GRANVILLE NEIGHBOURHOOD STRUCTURE PLAN

August 2007

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this Neighbourhood Structure Plan (NSP) is to describe a land use framework for the development and servicing of the *Granville* NSP, referenced as Neighbourhood 3 within The *Grange Area Structure Plan (ASP)* (**Exhibit 1**). *The Granville* NSP encompasses lands immediately south of Whitemud Drive and the proposed intersection improvements at Whitemud Drive and Winterburn Road (215 Street); west of the *Glastonbury* NSP; east of the Enoch Cree First Nation Reserve; and north of the future 62 Avenue within the City of Edmonton and approximating a gross area of 135 ha.

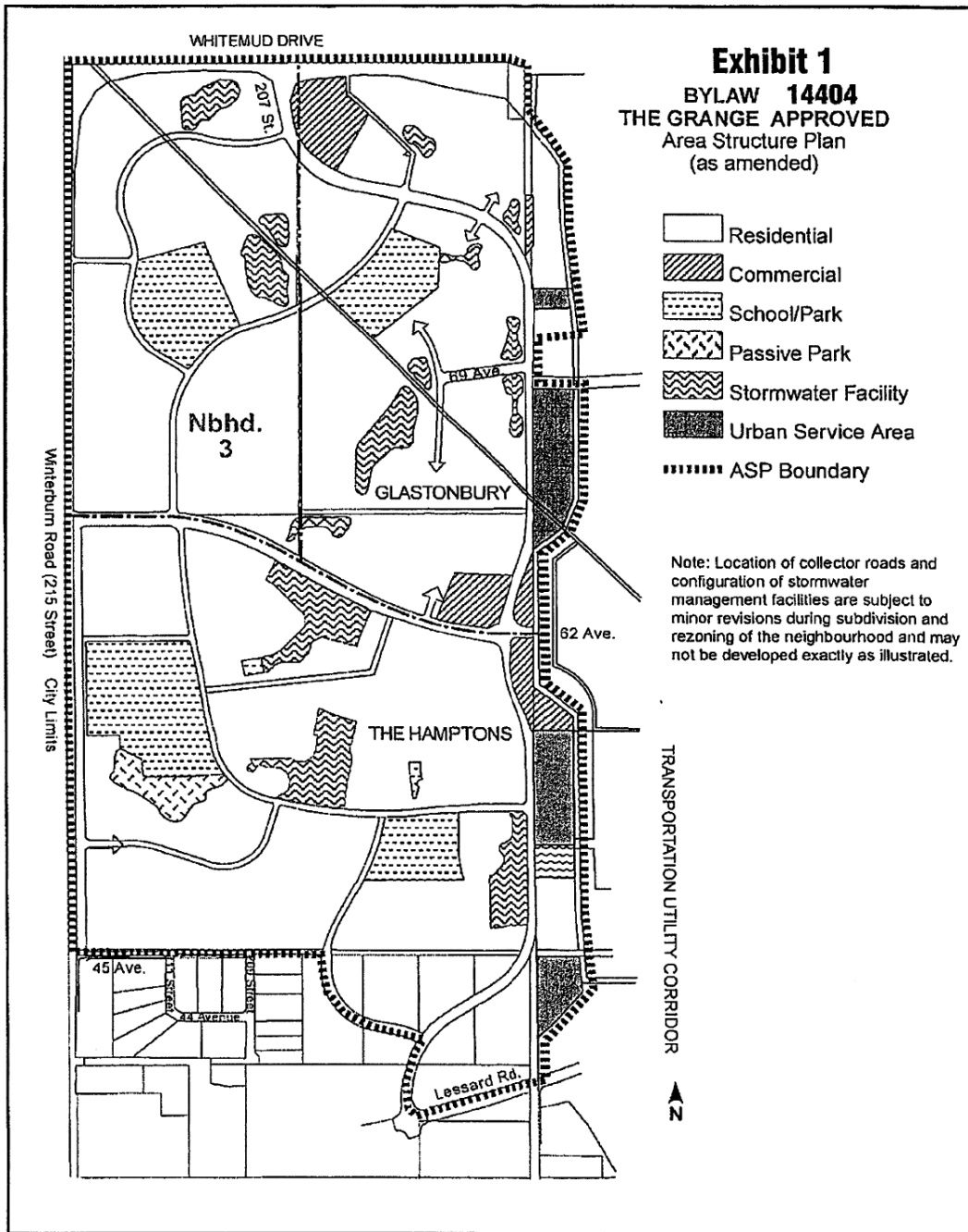
The Granville NSP has been prepared by IBI Group on behalf of a private development company, the registered owner of the majority of lands within this NSP. *Granville* is in general conformance with *Plan Edmonton*, Edmonton's *Municipal Development Plan (MDP)*, *the Grange ASP* and other relevant municipal policies and guidelines set out in Section 7 of this report. *Granville* will implement the general land use framework set out in *the Grange ASP* by establishing the policies, objectives, principles and guidelines relating to the:

*Amended
by Editor*

- type, density, location and distribution of various land uses, including residential, commercial, parks, open space, and public utilities;
- transportation network;
- conceptual servicing scheme for the provision of utility services and infrastructure;
- environmental features; and
- implementation and staging of development.

The Granville NSP will be used as a tool to guide future rezoning, subdivision, and development of the lands in an orderly and effective manner. Over time, it is intended that the implementation of these objectives and principles will result in a healthy, sustainable neighbourhood.

The final property boundary at 215 Street and Whitemud Drive is currently being resolved by the Transportation Department. The functional plan for this intersection will determine the final property line and therefore the boundary of this NSP. This adjustment shall not precipitate nor constitute the need for an amendment.



2.0 DEVELOPMENT CONCEPT

2.1 Concept Highlights

The Development Concept designed for *Granville* is illustrated in **Exhibit 2**. The Development Concept reflects the locational attributes of the neighbouring Glastonbury Neighbourhood and incorporates the Development Objectives and Principles outlined within Section 5. The Development Concept creates an attractive, accessible community with direct linkages for residents to local amenities and services. The Development Concept is aligned to be compatible with technical studies and recommendations, such as the Neighbourhood Design Report, the Transportation Impact Assessment, Geotechnical studies, and the Commercial Demand study.

The Development Concept establishes key focal points that offer different opportunities and appeal to different interests and users. Each sub-neighbourhood contains its own easily accessible focal point or characteristic that defines its immediate character. Neighbourhood linkages will provide cohesive elements that link the individual sub areas. The stormwater management facilities offer natural aesthetic environments and a destination along a linkage of greenways while integrating elements of existing natural/environmental features. The 8.67 ha park/school in the south creates a neighbourhood focal point and venue for active recreation; and the dispersed parks provide access to the natural environment on passive open space.

2.2 Distribution of Land Uses

Granville is planned as a residential area of approximately 136 ha, of which approximately 60 ha are designated for residential development. A statistical summary of the existing and proposed land uses is shown in **Exhibits 13 and 14** respectively.

The net residential area is approximately 52% of the gross developable area, with the balance designated for stormwater management facilities, public parks/schools and open space, commercial services, and circulation. When fully developed, the neighbourhood will accommodate approximately 5,700 people at forecasted densities with an overall density of 49 persons per gross developable hectare.

2.3 Residential Land Use

The detailed planning of the residential areas will be guided by this NSP and consideration of a combination of market conditions, consumer preferences, and site conditions. The intent is to provide a range of housing types to accommodate various lifestyles, income levels, and age groups while creating a strong sense of neighbourhood identity and liveability. This is accomplished through the creation of well-designed subdivisions, site planning and building designs that encourage quality, connectivity, neighbourhood cohesiveness, and inclusion.

Residential land use is designed for medium and low-density housing. Of the approximately 60 ha of residential land, approximately 17 ha will be medium density housing in the form of row housing, low-rise apartments, and stacked town housing with zones, such as RF5, RA6 and RA7, and based on an overall average density of 50 units per hectare or 40 units per hectare for mixed use development. Low-density residential (LDR) development will occupy approximately 46 ha of land mostly in the form of single-detached housing with a variety of lot sizes based on an overall average density of 20 units per hectare. The ratio of low density residential to medium density residential will be approximately 53% to 47%.

2.3.1 LOW DENSITY RESIDENTIAL

Low-density residential land uses are distributed in all portions of the neighbourhood as shown in **Exhibit 2**. The residential environment is designed to take advantage of neighbourhood amenities and focal points.

The planning and design of the low-density areas will use a variety of subdivision design, site planning and architectural and landscaping techniques to create safe, attractive streetscapes and an integrated residential environment. The residential design and street pattern will take advantage of and enhance views and vistas created by dispersed parks, SWMFs and other amenities.

2.3.2 MEDIUM DENSITY RESIDENTIAL

The Medium Density Residential (MDR) sites are distributed along collector roads and amenities as shown in **Exhibit 2**. MDR sites range from 0.80 ha to 2.0 ha in size.

MDR developments will incorporate design principles to create building forms that minimize domination of the street frontage, foster diversity, and fit within the context of the neighbourhood. The principles will deal with human-scaled buildings, quality materials, landscaping and building setbacks, and promote pedestrian circulation through the sites and to other sites within the area.

The Medium Density Residential (MDR) site located in the extreme southeast corner of the NSP area shall be buffered from the Glastonbury Community with Low Density Residential (RF4 or RSL) in the eastern portion of the site. The balance of the MDR site shall be development with RF6.

Bylaw 16087
Approved June
18 2012

2.4 Commercial Land Use

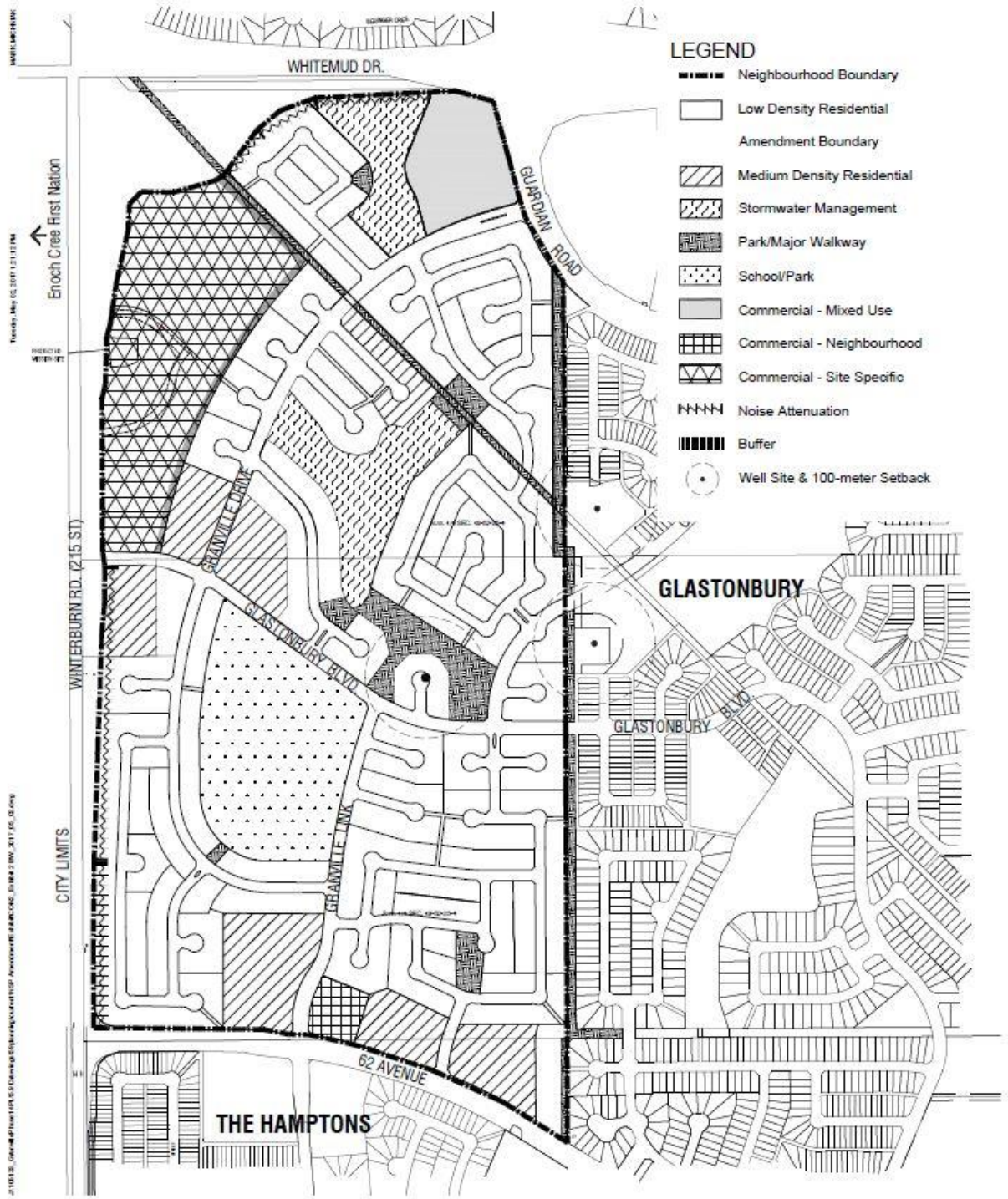
Granville includes commercial uses that are consistent with and that generally carry out *The Grange ASP's* commercial principles (Section 4.2.2) of *The Grange ASP*. The proposed re-designations will:

- provide commercial opportunities within *The Grange* to serve area residents;
- mitigate the impact of commercial development on adjacent land uses through transitional land uses;
- locate commercial sites along collector and arterial roadways.

Three commercial sites are included in Granville (see Exhibit 2):

Bylaw 15754
June 20, 2011

- *A 3.17 ha commercial/mixed use site in the northeast at Guardian Road and Whitemud Drive;*
- *A 11.03 ha Site Specific/Direct Development Control site in the northwest at 215 Street; and*
- *A 0.81 ha neighbourhood commercial site in the south located at 62 Avenue.*



GRANVILLE
Neighbourhood Structure Plan

EXHIBIT 2 | Proposed Development Concept

DATE: May 2, 2017
DESIGNED BY: MM
DRAWN BY: MM
CHECKED BY: CCB
SCALE: NTS
JOB NUMBER: 105133



The proposed 3.17 ha commercial site in the northeast will provide local-level shopping services and is easily accessible by multiple modes of transportation. The site will generate local pedestrian and bicycle trips. In addition, the site will be easily accessed by a north-south linkage of parks and open space running much of the length of the proposed neighbourhood. The stormwater facility that abuts the west edge of this commercial site provides opportunities for innovative design such as the integration of the facility's water and open space features. To the east, in the Glastonbury neighbourhood and separated by Guardian Road, is a commercial site that is currently under development. The two sites will complement each other with respect to attracting consumers, thus establishing the area as a local commercial node for nearby residents.

In the south of the neighbourhood is a 0.81 ha site. The site is intended to provide neighbourhood level commercial services. The location of the commercial in the south is appropriate in the context of the medium density residential uses in the south sector of the NSP and adjacent to the north boundary of the adjoining neighbourhood (The Hamptons).

Bylaw 15754
June 20, 2011

A commercial site is proposed along 215 Street in the northwest sector of this NSP. This site totals 11.03 ha and accommodates the protected Winterburn Oblate Mission Site. This commercial site is intended to be an auto-oriented destination that will not only provide commercial services to the area but also act as a transition and buffer area between residential uses and the planned entertainment/casino activities located on the adjoining Enoch Cree First Nation Reserve. The site will only be accessible by 215 Street only, with an orientation away from the rest of the neighbourhood. *A Direct Control zoning 'Direct Development Control' DC1 will be pursued for this site to ensure high design standards for building height, form and massing, urban design details, siting, buffering and landscaping.*

Bylaw 15754
June 20, 2011

A commercial demand study has been completed and submitted under separate cover.

2.5 Circulation

The circulation network creates opportunities to access community features while also providing multi-modal transportation options such as walking and bicycling, residential and commercial uses, school sites, and neighbourhood parks.

2.5.1 VEHICULAR CIRCULATION

Granville is bound on the north, northeast, west, and south by major roadways: Whitemud Drive, Guardian Road, 215 Street, and 62 Avenue respectively. From these arterial roadways, five (5) entrances to the neighbourhood are planned at Guardian Road, Glastonbury Boulevard, 62 Avenue, Grantham Drive and 215 Street. See **Exhibit 3 – Transportation Network**.

The collector roadway system is designed to provide efficient service for local residents and efficient access into and out of *Granville*.

Traffic calming measures in the form of two roundabouts, plus curb extensions (bulbing intersections to reduce road width and to provide shorter pedestrian crosswalks) and/or other traffic calming measures, at a maximum of one additional location, shall be constructed along Glastonbury Boulevard through the *Granville* neighbourhood, subject to detailed design and approvals by the City of Edmonton, and such measures to be paid for by the developer. Further, the Administration will review traffic volumes and speed occurring on Glastonbury Boulevard, within two years of Glastonbury Boulevard being connected to 215 Street, to determine if collector road standards of 5,000 vehicles per day have been exceeded.

2.5.2 MULTI-USE TRAILS/WALKWAYS

Granville proposes pedestrian and bicycle linkages between major attractions such as school sites, parks, SWMFs, commercial and residential uses. The pedestrian/bicycle connectors will include pipeline rights-of-way, parks, school sites and planned walkways combined with sidewalks. Locations will be better defined at more detailed levels of planning. A Transportation Impact Assessment will be submitted under separate cover.

Pedestrian and bicycle circulation will be accommodated through multi-use trails, local roadways, and connector walkways. Walkways will be provided such that they are clearly visible at logical connections with local sidewalks. The pedestrian/bicycle linkages are shown in **Exhibit 4** and will complement the sidewalk system in the neighbourhood.

Walkway widths and materials will be consistent with City standards and will be detailed through the subdivision process. The City's landscaping and lighting standards will also be implemented.

2.5.3 TRANSIT SERVICE

Public transit service will be provided on the collector roads and adjacent arterial roads as presented in **Exhibit 3**. Access to transit will be within a 400 metre walking distance from all residential areas.

To establish transit ridership in the neighbourhood, transit funding will be provided by the Developer for the first few years of development until the basic threshold of population is attained.

2.6 Parks, Schools & Open Space

The parks and open space system includes a combination of active and passive recreation opportunities that link important destinations and provide transportation options for residents. On-street sidewalks, walkways and greenways as illustrated in **Exhibit 4** connect these amenities.

A neighbourhood park/school site of 8.67 ha is centrally located in neighbourhood. This school/park site is intended to act as a focal point and to accommodate active recreational needs. It will also provide enough space for a K-8 public elementary school and community league. As shown in **Exhibits 13 and 14**, the Student Generation Statistics show a marked decrease in the number of students. The decline is due to a new calculation for generating student numbers¹ and the expectation that elementary and secondary school population growth will slow down.

Dispersed park sites are proposed throughout *Granville* to provide open space linkages and to take advantage of natural amenities such as existing tree stands. Viewpoint pocket parks are provided in strategic locations adjacent to stormwater management facilities. The approximate area of tree stands is 15 ha (see **Exhibit 12**). Of the existing tree stands, approximately 3 ha lie within a designated park/school site that may or may not be capable of preservation, depending upon park and school facility requirements. A treed area, centrally located in *Granville* and in close proximity to the operative *private* oil well, and the Oblate Mission site, located in the north-east, are slated for preservation. ECOMARK Environmental completed a Phase II NSA study which has been submitted under separate cover; the study indicates that the potential exists for approximately 21% of the treed area to be saved.

*Amended
by Editor*

¹ The new calculation comes from Edmonton Public Schools and is for calculating student populations in Edmonton Public Schools.

The pipeline corridors are also integrated into the open space network, providing additional linkage opportunities. The open space system is intended to provide a variety of opportunities for active and passive recreation while linking parks, school, and open space.

The stormwater management ponds located in the central and northeastern portions of the neighbourhood provide a utility function as well as an open space amenity for passive recreation and active transportation. Multi-use trails for pedestrian and bicycle circulation will run along portions of the perimeter of stormwater management pond in accordance with City Standards. Both facilities front on collector roads and provide view opportunities.

2.7 Berm & Buffers

Buffering shall be provided in all instances where commercial uses adjoin residential uses.

2.7.1 COMMERCIAL/RESIDENTIAL INTERFACE & BUFFER

Commercial uses within the northwest quadrant of *Granville* will require buffering to mitigate impacts on adjoining residential uses. A landscape buffer comprised of fencing, landscaping and/or berming shall serve to buffer the commercial uses from the residential uses. Site Specific *Direct Development Control zoning (DC2 and DC1)* shall be implemented, incorporating specific buffering provisions.

Bylaw 15754
June 20, 2011

A mixed-use site within the northeast quadrant of the NSP development area will also employ Site Specific Direct Control zoning to ensure quality design and appropriate buffering and landscaping where the need arises.

2.7.2 NOISE ATTENUATION

The Developer shall carry out noise studies at the subdivision stage, and noise attenuation shall be provided in accordance with the findings of the noise study and to the satisfaction of the Transportation Department.

3.0 ENGINEERING SERVICES

3.1 Provision of Utility Services

The *Granville NSP* plans for cost-effective municipal infrastructure and services as required by the goals of *Plan Edmonton*. *Granville* is engineered to provide services that are safe and sustainable, with the latest technologies to ensure lower maintenance and servicing costs.

The servicing schemes for *Granville* are described in the following sections.

3.2 Stormwater Management Services & Drainage

The stormwater management facilities, detailed in **Exhibit 5**, have been located to conform to the natural contours of the land and low-lying areas. The facilities present amenity opportunities and are shaped to provide views from residential enclaves as well as from the circulation network. Pedestrian access will be provided along portions of the perimeter of each stormwater facility in compliance with City policy.

Detailed information regarding the proposed storm drainage system may be obtained from the Neighbourhood Drainage Report submitted for approval under separate cover.

3.3 Sanitary Services

The proposed sanitary system for *Granville* is detailed on **Exhibit 6** and will follow approximately the same design rationale as the storm drainage system.

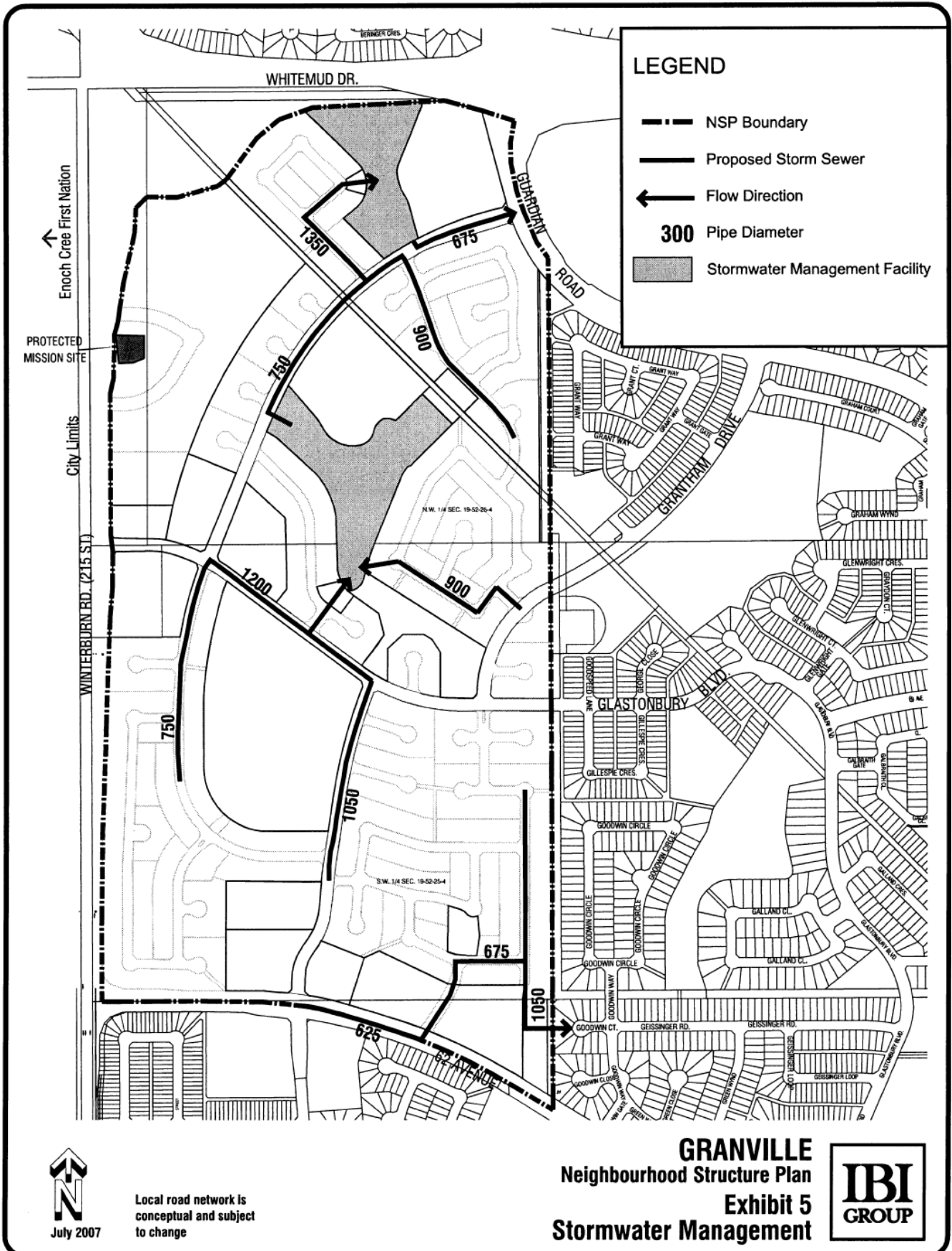
Detailed information regarding both the sanitary drainage system and the required storage and pumping capacities is provided in Neighbourhood Drainage Report, submitted under separate cover.

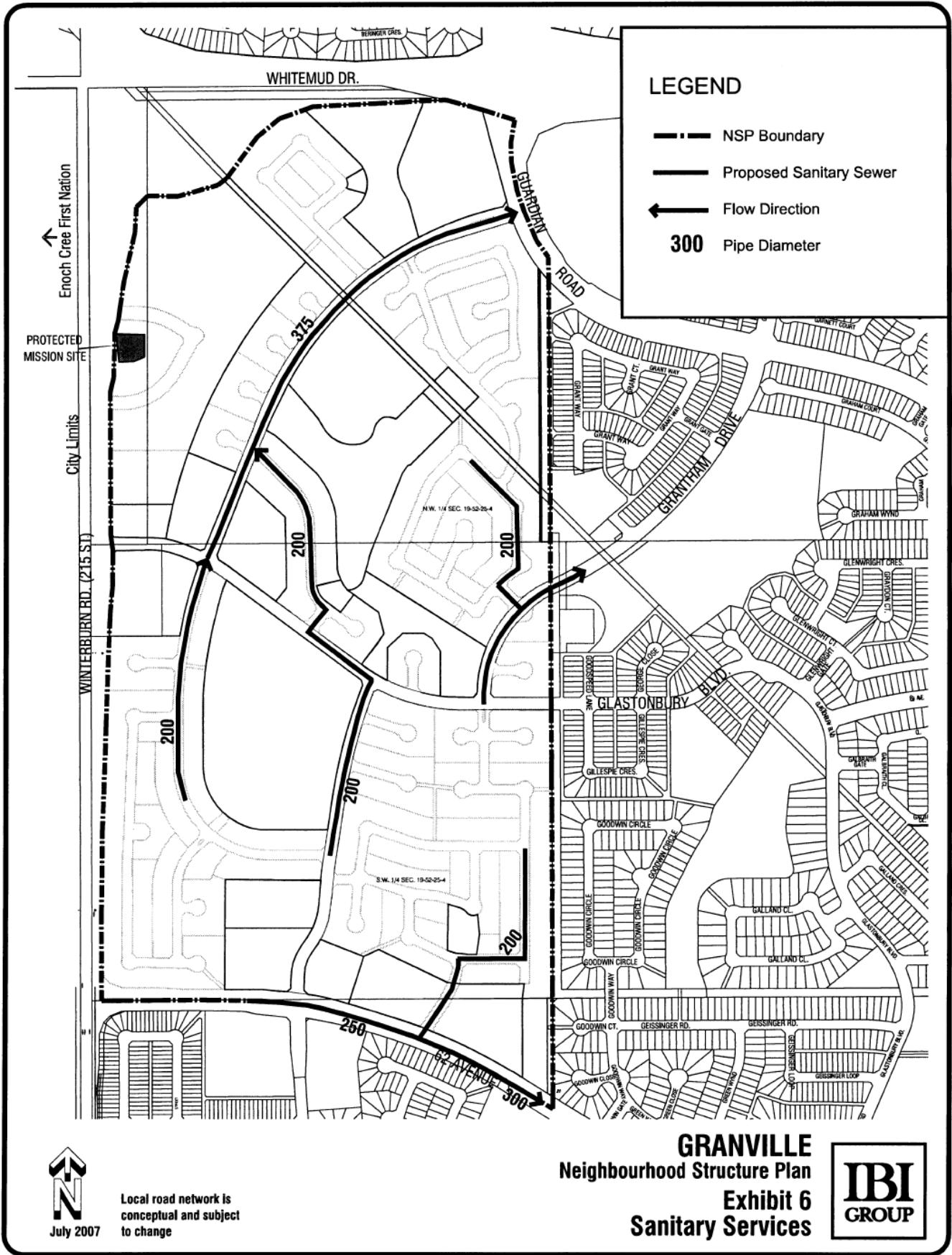
3.4 Water Services

Water servicing, **Exhibit 7**, will be designed to provide peak hour flows and fire flows for single family, multi-family, schools, and commercial uses. Water looping will be provided in accordance with EPCOR's requirements. Prior to detailed design, a Water Network Analysis will be submitted to EPCOR for approval.

3.5 Shallow Utilities

Electric power, natural gas, and telecommunication infrastructure are all situated within close proximity and will be extended into the neighbourhood as required to service the proposed development pattern.





4.0 PLAN IMPLEMENTATION

4.1 Development Staging

The staging of future development within *Granville* will proceed through the logical progression of the extension of servicing infrastructure. A directional sequence of staging that is likely to occur is illustrated in **Exhibit 8**.

Generally, infrastructure required to service development on any parcels will require extensions from established utility and transportation facilities from the Glastonbury Neighbourhood to the east. The initial stages of residential and commercial development are expected to proceed from Guardian Road and Grantham Drive. Development will continue to proceed to the west and south depending on market demand.

5.0 DEVELOPMENT OBJECTIVES, PRINCIPLES & COMMUNITY ENHANCEMENT

The land within *Granville* will be developed as a sustainable, primarily residential neighbourhood with commercial land uses where residents can live safely in a healthy, well-designed, pedestrian friendly environment with adequate services and amenities accessible to all residents. The design goal is to maximize the proximity of the commercial services, natural vistas and planned development of stormwater lakes and neighbourhood parks which will be made accessible to pedestrians and vehicles by a walkway and road system that will lead to the adjacent neighbourhoods and associated amenities.

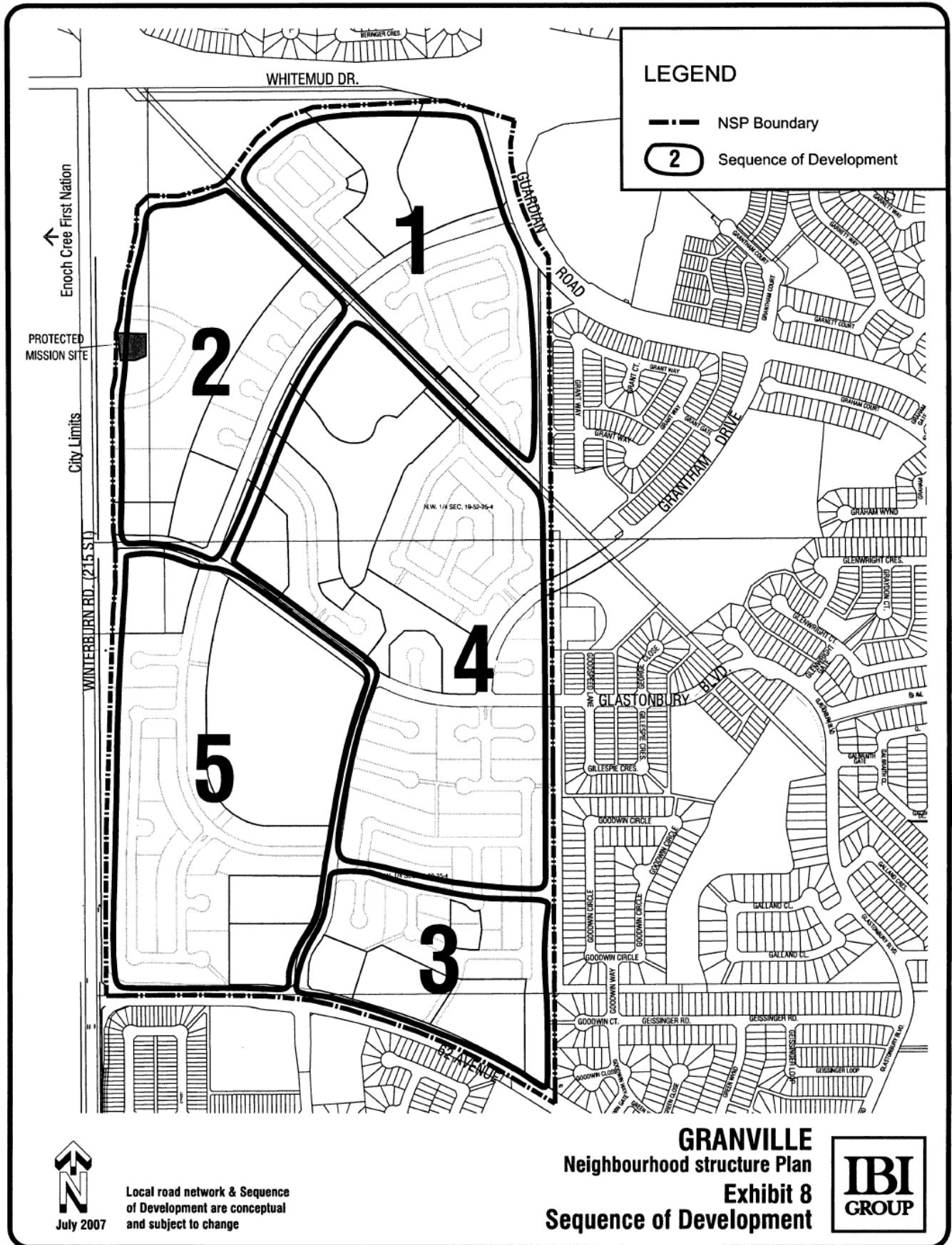
5.1 Development Objectives & Principles

Granville was developed in the context of *The Grange ASP* and other relevant policies outlined in Section 7. The Objectives and Principles outlined below will provide direction so that the Development Concept outlined in Section 2 is achieved.

5.1.1 OBJECTIVES

The key objectives for this development are as follows:

- to develop a liveable residential environment to accommodate various age groups, income levels and lifestyles;
- to provide a range of densities and planning to integrate these sites and the greater neighbourhood;
- to provide for parks, open spaces and community focal points throughout the neighbourhood;
- to integrate the natural environment where practical;
- to provide active and passive recreational opportunities;



- to provide a balanced active transportation system within the neighbourhood that incorporates linked parks, open spaces, neighbourhood focal points and commercial areas;
- to provide efficient, contiguous and cost effective infrastructure and services;
- to provide local commercial services that residents can access through a variety of transportation modes;
- to provide a well designed major commercial site that is appropriately buffered from residential land uses.

5.1.2 PRINCIPLES

Development of the various land uses will be guided by the following general principles:

A Liveable Residential Environment

- provide for a liveable, compact, residential environment with a variety of housing types to accommodate various age groups, income levels, and lifestyles;
- establish a compact development pattern that promotes a strong sense of neighbourhood identity through the creation of well-designed subdivisions;
- accommodate a range of residential densities and housing types to support the establishment and operation of neighbourhood facilities, commercial facilities, recreation facilities, and public transit;
- locate larger parcels of medium density development toward the collector and arterial road systems to provide efficient access;
- encourage the development of pedestrian-friendly streets and streetscapes;
- provide opportunities for innovation in low density residential areas in regards to subdivision housing type and lotting pattern, and live-work opportunities, as well as a high degree of accessibility, connectivity and linkages to enhance social interaction and liveability;
- encourage multi-modal transportation by providing options of accessibility to local commercial services.

Scale of Architecture & Community Enhancement

- use principles of massing, setbacks and design character for residential development to encourage building forms that minimize the domination of street frontage, foster diversity and fit within the context of the neighbourhood;
- provide attractive site planning that is sensitive to the provision of local amenity areas and streetscapes for medium density residential areas;
- ensure transition, integration and buffering between commercial and residential land uses through the use of appropriate development guidelines;
- create focal points throughout the neighbourhood consisting of a large school/park site, dispersed parks and stormwater management facilities that are accessible to all residents;

- integrate local-oriented commercial development into the neighbourhood through the encouragement of pedestrian level architectural scale;
- ensure high quality urban design and architectural standards for all commercial sites.

Parks, Open Spaces & Community Focal Points

- provide a linked open space system to connect the stormwater management facilities, the school/park site, the dispersed parks and pipeline corridors with direct and obvious connections to residential and commercial areas;
- provide multi-use trails along a minimum of fifty percent of the stormwater management ponds to allow easy pedestrian access for residents;
- provide for both active and passive recreation within the stormwater management facilities, neighbourhood park/school site, dispersed parks and other open spaces;
- provide for landscaping and lighting within parks and greenways;
- enhance higher density locations with dispersed, accessible park sites.

Enhance & Preserve the Natural Environment

- integrate natural areas into stormwater management ponds, parks and development where practical;
- encourage naturalized landscaping on public and private lands to minimize environmental and economic costs associated with their maintenance.

Balanced Transportation System

- provide a logical, safe and efficient transportation system to address the multi-modal transportation needs of residents moving within, to and from the neighbourhood;
- provide efficient walkways and/or multi-use trails connecting community amenities and focal points to residential areas;
- minimize walking distances through the use of sidewalks and inter-connected street systems combined with clearly defined walkways.

Cost Effective Infrastructure & Services

- all development shall be serviced with storm, sanitary and water that follows best practices in engineering and meets municipal standards;
- encourage compact land use patterns, intensification and shared infrastructure to reduce servicing costs and improve servicing efficiency;
- utility rights-of-way, easements and other instruments will be provided to accommodate services and shallow utilities, as determined by utility agencies and City Departments.

Protect Historical/Cultural Sites

- protect and recognize historical and cultural sites to enable future mitigation and study of these sites.

6.0 DEVELOPMENT CONTEXT

6.1 Land Ownership

As illustrated in **Exhibit 9** - Local Context, this NSP is located in West Edmonton; the ownership of these lands is comprised of the following:

| Owner | Area (ha) |
|--|---------------------------|
| Private Development Company | 8.09 |
| Private Development Company | 53.76 |
| Public Trustee for the Province of Alberta | 2.02 |
| Private Development Company | 62.78 |
| Private Development Company | 2.52 |
| Private Development Company | 0.43 |
| City-Owned Rights of Way | 6.62 |
| Total | 136.22² |

Amended
by Editor

The distribution of land ownership is illustrated in **Exhibit 10** - Land Ownership.

Amended
by Editor

6.2 Existing Land Uses

The majority of the lands within this NSP have been cleared and are in agricultural use or vacant. There is a residence to the north along 215 Street, an active oil well found along the existing access road running east-west through the property, and an abandoned farmhouse with associated buildings, which is located approximately 170 meters west and 45 meters south of the active oil well (shown on **Exhibit 11**). A 2.02 ha parcel fronting on 215 Street contains a small recreational use facility (Camp Harris), as well as another residence with a garage and several outbuildings. Areas of natural vegetation and an abandoned historic mission site also reside within this NSP.

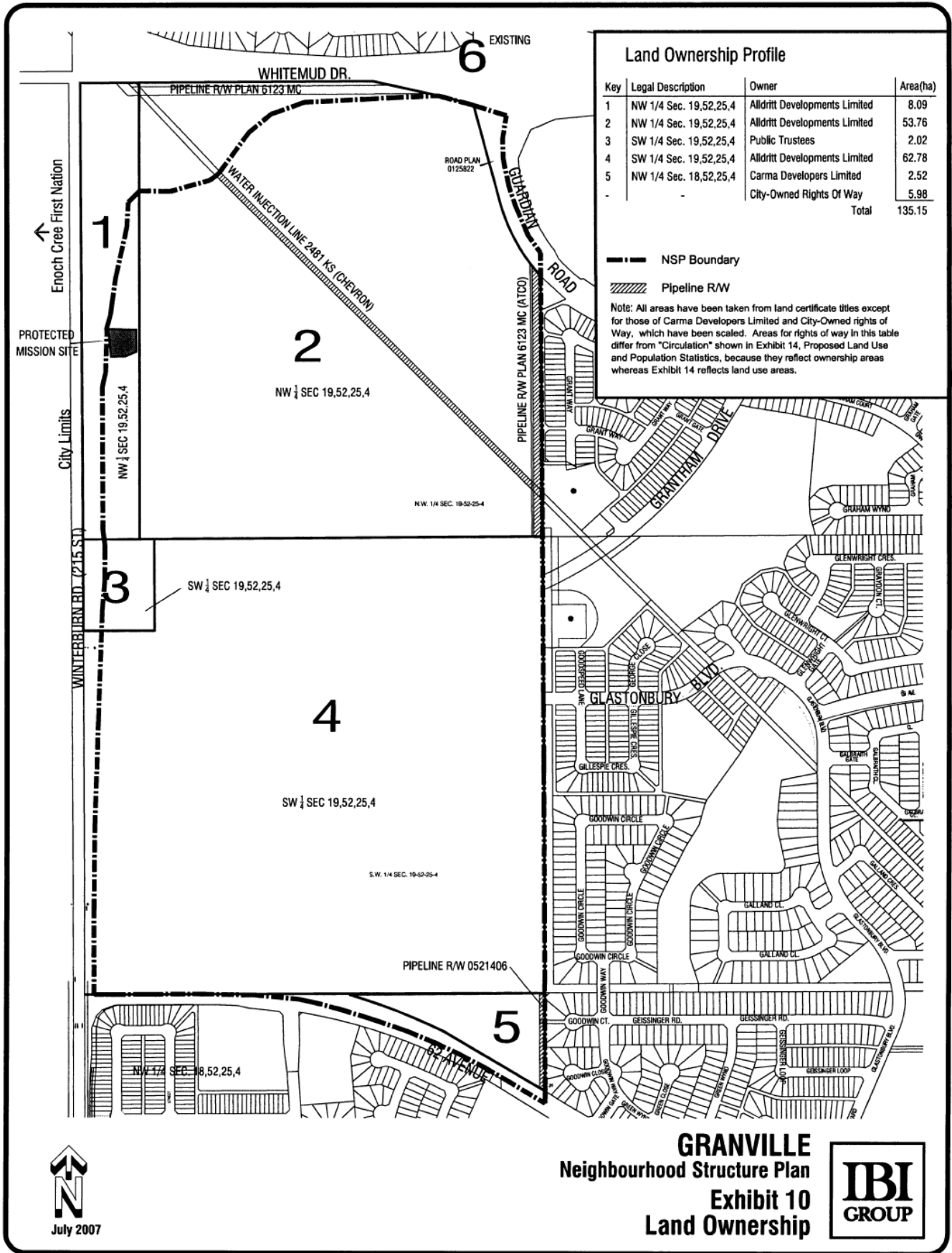
Exhibit 11 presents the location of resource well sites and pipelines. Currently, there are four (4) resource well sites; two (2) of the well sites have been reclaimed (LSD 12-19-52-25-W4M and LSD 04-19-52-25-W4M) and have been issued Reclamation Certificates. Well sites LSD 6-19-52-25-W4M is currently in use and LSD 12-19-52-25-W4M is abandoned. Based on the estimated time of abandonment (around the 1950s) and given the environmental standards at the time, there is a low to moderate risk that subsurface soils on or in the vicinity of the well leases may have been impacted. There has been a proposal to integrate the active oil well site with future urban development. The following table summarizes the resource well sites in *Granville*.

| Location | License No. | Licensee | Date Drilled | Current Status |
|-------------------|-------------|---------------------|--------------|------------------|
| LSD 4-19-52-25-4 | 78931 | Private Oil Company | 1979 | Reclaimed (2000) |
| LSD 6-19-52-25-4 | 79616 | Private Oil Company | 1979 | Crude Oil Pump |
| LSD 12-19-52-25-4 | 82029 | Private Oil Company | 1980 | Reclaimed (1994) |
| LSD 12-19-52-25-4 | 72333Q | Private Oil Company | 1953 | Abandoned |

Amended
by Editor

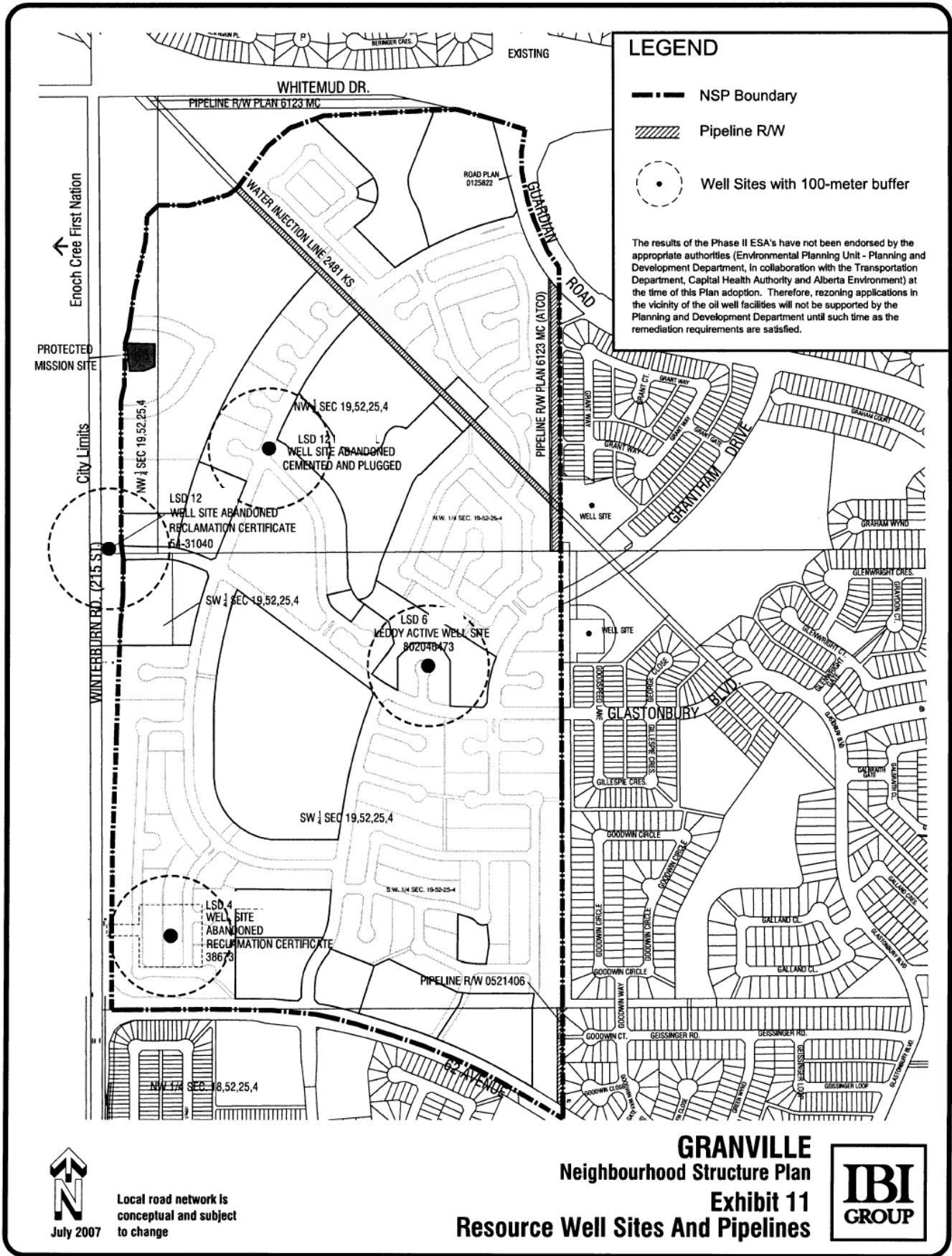
Amended
by Editor

²All areas have been taken from land certificate titles except for those of *the second last private development company*, The Grange Shopping Centre Limited and City-Owned rights of Way, which have been scaled. Areas for rights of way in this table differ from those in Exhibit 14, Proposed Land Use and Population Statistics, because they reflect ownership areas whereas Exhibit 14 reflects land use areas.



GRANVILLE
 Neighbourhood Structure Plan
 Exhibit 10
 Land Ownership





For each of these well sites, a phase II Environmental Site Assessment (ESA) was completed in June 2007. The findings for each well site are listed below:

LSD 4-19-52-25-4 (Reclaimed *Private Oil Company* Exploration Well): The elevated levels of zinc indicated presence of contamination, which may be related to the former oil well at this Site. It is recommended that the contaminated area around borehole BH4 be delineated and remediated to AENV (1994) and CCME (2005) agricultural or residential land use criteria....The elevated levels of toluene and ethylbenzene indicated the presence of contamination, which may be related to the former flare stack at this Site. It is recommended that the contamination around boreholes BH8 and BH9 be delineated and remediated to CCME (2001) agricultural or residential land use criteria.

*Amended
by Editor*

LSD 6-19-52-25-4 (Active *Private Oil Company* Exploration Well): ...there was one elevated level of arsenic detected in borehole BH4 at the 2.25 to 3.0 m depth. The sample contained 10.3 mg/kg of arsenic, compared to the AENV (1994) guideline of 10 mg/kg....It is likely that the soil in the area naturally contained an arsenic level that is close to the AENV (1994) and CCME (2005) agricultural and residential land use criteria. The elevated level of arsenic found at this Site should not be of great concern....No further assessment or remediation work is recommended for this Site.

*Amended
by Editor*

LSD 12-19-52-25-4 (Reclaimed *Private Oil Company* Exploration Well): The elevated levels of zinc, EC and SAR at borehole BH7 indicate presence of contamination, which may be related to the former oil well at this Site. It is recommended that the contaminated area be delineated and remediated to CCME (2005) agricultural or residential land use criteria.

*Amended
by Editor*

LSD 12-19-52-25-4 (Abandoned *Private Oil Company* Well): No further assessment or remediation work is recommended in relation to the abandoned well located at this Site.

*Amended
by Editor*

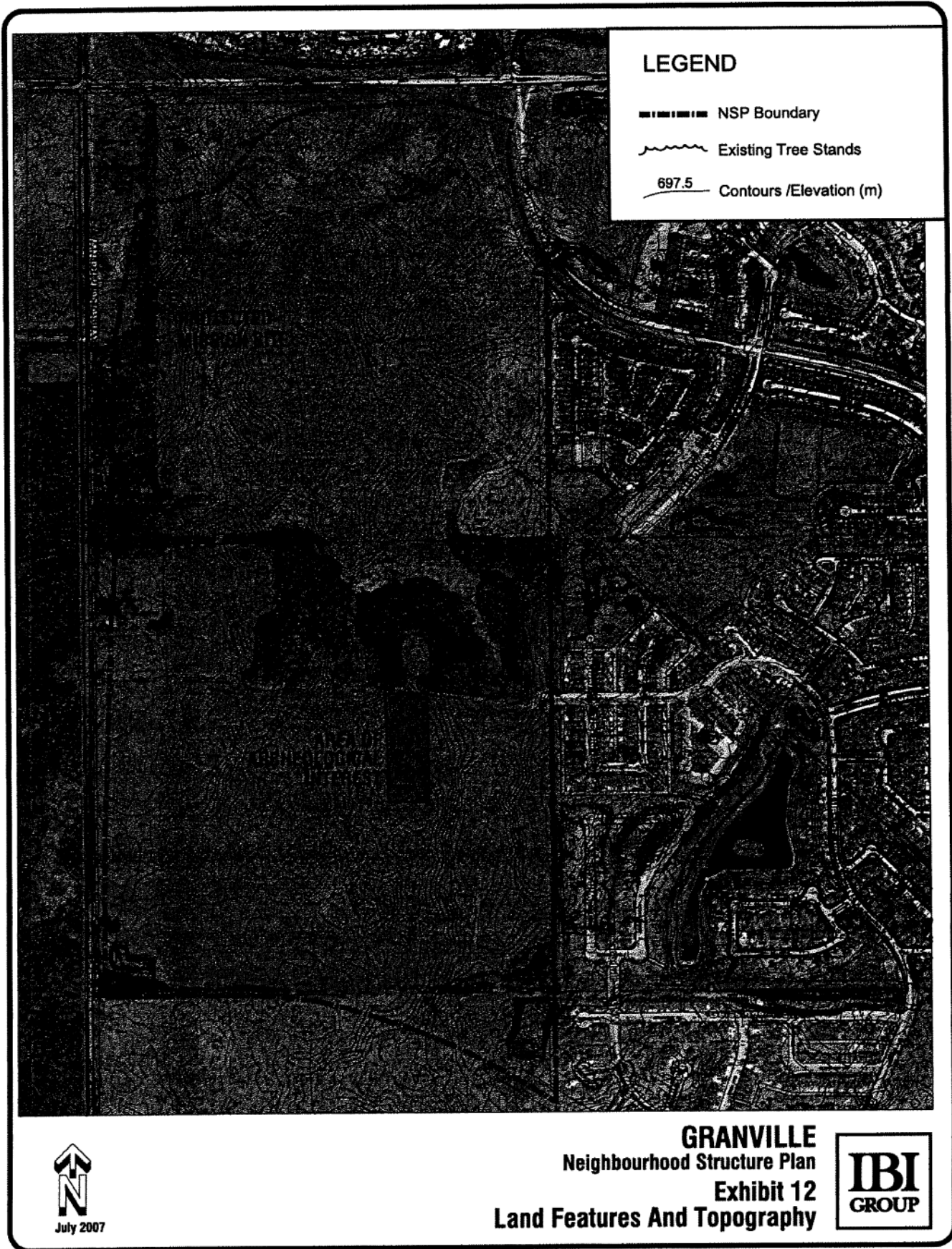
Since the rest of the Phase II ESA's have not been endorsed by the appropriate authorities (Environmental Planning Unit – Planning and Development Department, in collaboration with the Transportation Department, Capital Health Authority and Alberta Environment) at the time of this Plan adoption, rezoning applications in the vicinity of these oil resource facilities will not be supported by the Planning and Development Department until such time as the remediation requirements are satisfied.

The major pipelines that are anticipated to remain in operation are planned for incorporation into the open space system. A pipeline operated by a *private oil company* diagonally traverses from the northwest to the southeast of NW ¼ 19-52-25-4. Another pipeline operated by ATCO, in the same quarter section, runs north-south along the eastern boundary of the site. A third pipeline runs along the east boundary of the neighbourhood in the NW ¼ 18-52-25-4.

*Amended
by Editor*

6.3 Topography & Drainage

Elevation of lands within *Granville* ranges from 694 m to 706 m. The lands are generally flat with some gentle rolling terrain and two high points of three and seven meters in the southwest and southeast corners respectively. These local variations in topography are shown on the contours in **Exhibit 12 - Land Features and Topography**. The topography and natural drainage features will have some implications for design of engineering services.



6.4 Environmentally Sensitive & Significant Natural Areas

The City of Edmonton's *Inventory of Environmentally Sensitive and Significant Natural Areas* (Geowest 1993) identifies a Natural Area NW 292 located in this NSP. This site is located in the central portion of the neighbourhood, adjacent to a *private oil company's* Exploration operating oil extraction facility.

*Amended
by Editor*

Stantec Consulting Ltd. conducted a Stage 1 Natural Site Assessment (July 2004) for an area within this NSP that encompasses the above-mentioned Natural Area NW 292. The initial site investigation identified several environmental components, which are potentially sustainable but may be affected by future developments depending on mitigative measures and development design. This Natural Site Assessment (NSA) was used for the preparation of this NSP report.

An updated Phase 1 Natural Site Assessment for the whole neighbourhood and a Phase II Natural Site Assessment prepared by ECOMARK Environmental has been submitted under separate cover. The Phase II NSA has set forth recommendations for the preservation of certain features, which the Development Concept of *Granville* has taken into consideration. This includes the preservation of a treed area in close proximity to the operative *private oil company's* oil well, where a unique species of plant, the Indian Pipe, was found and where another unique plant, the Leather Grape Fern, is thought to exist but has not been found.

*Amended
by Editor*

6.5 Surrounding Development Activity

The developments of Glastonbury and Lewis Farms have respectively reached the eastern and northern boundary of this NSP with predominantly residential and some commercial land uses.

To the west is the Enoch Cree Nation Reserve and Casino site with a casino, recreation complex, residential and commercial uses planned in various stages. Construction of the Casino facility is underway.

Directly to the south is the Hamptons Neighbourhood, which is presently undergoing development as a standard suburban community.

6.6 Archaeological & Heritage Resources

Settlement Surveys Ltd. conducted a Historical Resources Impact Assessment (HRIA) in NW ¼ 19-52-25-W4M in June 1985. The report recommended further study of the Winterburn Oblate Mission Site (Mission Site).

To satisfy requirements of the Cultural Facilities and Historical Resources Division (CFHRD) of Alberta Community Development, an evaluative historical resources assessment was made by Alberta Western Heritage Inc. (December 2001) on the Mission Site, which is located in the northwest of *Granville*. The report concluded that mitigative steps appropriate to the Mission Site can be taken without impacting the development potential of the surrounding lands.

The CFHRD's requirements include avoidance and formal recognition of the Protected Mission Site as shown on **Exhibits 2-8 and 10-12**. The Mission Site is to be protected by a fence or barrier around the perimeter and this site is to be clearly identified on all plans and planning applications submitted by the developer.

Recent review by the Cultural Facilities and Historical Resources Division of Alberta Community Development, has established that a HRIA is required for the SW 1/4 19-52-25-W4M. A study is currently underway by The Archaeological Group that has confirmed the location of the Protestant Mission referenced within the earlier 1985 Settlement Surveys Ltd. HRIA report. Initial site investigations have confirmed the investigation area of this Mission Site, as shown on **Exhibit 12**. Zoning approval for the area affected by the investigation will be delayed until archaeological studies have been completed and results accepted by the Province.

6.7 Soils & Geotechnical Assessment

A geotechnical investigation was carried out for *Granville* in February 2004 by J.R. Paine & Associates Ltd. The general soil stratigraphy consisted of topsoil overlying clay, followed by silt which are typical of the soil conditions found in this area. The investigation concluded that the soil and groundwater conditions are suitable for both residential and commercial development.

6.8 Environmental Site Assessment

Stantec conducted a Phase 1 Environmental Site Assessment (ESA) in November 2004. The report found no significant environmental concerns as the lands were historically used largely for agricultural purposes.

Hoggan Engineering & Testing (1980) Ltd. conducted an updated Phase I/II ESA in March-June, 2007 (File No: 6131-14). Page two of the report states "...no significant environmental concerns are considered to exist for the subject site. Aside from the visual inspection of the former farm location when the buildings and debris are removed, and some potential further evaluation of the smaller soil stockpile on the southwest corner of the subject site [an elevated F3 result in the soil sample from the stockpile ...indicated the potential for some isolated hydrocarbon contamination], no further environmental investigation is considered necessary at the time of preparation of this report". Hoggan's report has been submitted under separate cover.

Individual Phase II ESA reports were prepared for four (4) wells. The findings of these reports are summarized within Section 6.2 above.

7.0 POLICY CONTEXT

Granville has been prepared with regard to physical geography, statutory plans, policies and design principles that govern land development in the City of Edmonton, including *The Grange Area Structure Plan*, the Edmonton Municipal Development Plan (*Plan Edmonton*), *Edmonton's Suburban Neighbourhood Design Principles* and other relevant planning policies and initiatives.

7.1 The Grange Area Structure Plan

The Grange ASP, adopted by Bylaw 11749, and amended by Bylaws 12869, 13187, 13298, 13594, 13624, 13928 and 14404, provides general guidelines to facilitate the orderly development in terms of proposed land uses, density of development, location of major roads and facilities and sequence of development. The *Granville* NSP is a more detailed extension of the land use framework described in the ASP and is consistent with development objectives described within Section 4.1 of *The Grange ASP*, namely:

- To develop a plan consistent with the general intent and purpose of the City of Edmonton *Municipal Development Plan*.

The Grange ASP and the Granville NSP are consistent with the general content of the City of Edmonton Municipal Development Plan.

- to provide a framework to deliver a high quality, comprehensively planned residential area by defining the basic roadway network, pattern and composition of land uses, location of school/park sites and servicing designs.

Granville provides a more detailed description of the proposed land uses and how they tie into the collector and arterial roadway system as well as describing the servicing methods to be employed.

- to integrate natural features of the area into the plan where feasible and economically viable.

Natural low areas have been incorporated into the stormwater management systems and portions of significant vegetation stands are planned to be retained, where possible.

- to allow implementation of the plan on an orderly, staged basis with flexibility to adapt to changing market conditions.

The sequence of development is illustrated in **Exhibit 8**. This plan proposes a staged development scheme to ensure orderly and economical implementation of the Plan.

7.2 Plan Edmonton

Plan Edmonton, Bylaw No. 11777 (as amended), sets out a strategy to accommodate the future growth and development of the City. The following are strategic objectives and policies that apply to *Granville*.

Planned Growth

Creating Liveable Communities

- 1.1.1 *Provide for choices regarding the types of developments in which people want to live and do business.*
- 1.1.2 *Address compatibility of land use in the development and review land use plans and development proposals.*
- 1.1.3 *Use and promote urban design principles and guidelines that enhance the quality of the urban environment.*

The land development philosophy is to create a balance of residential, commercial and open space land uses, address compatibility between these uses, and create a liveable community.

Managing Our Resources Wisely

- 1.1.12 *Place a high priority on the effective and efficient use of land.*
- 1.1.13 *Plan for urban development which is environmentally and fiscally sustainable in the long term, based on the City's financing, infrastructure and environmental strategies.*

Granville responds to the above noted policies by proposing efficient development and land use patterns.

Accommodating Resource Industries

- 1.1.14 *Maintain the integrity of pipelines and utility corridors while planning for growth and development.*

The *Granville* NSP plans for the eventual decommissioning of resource well sites and pipelines and takes into consideration that development may occur prior to, or during, this process. The City’s policy guidelines for integration of resource operations and those of the AEUB will be followed. Utility corridors are proposed to be integrated into the open space system of the Plan.

Utilization of Existing Infrastructure

- 1.3.3 *Promote intensification of development around transportation corridors and employment areas.*
- 1.3.4 *Support continuous development that is adjacent to existing development in order to accommodate growth in an orderly and economical fashion.*

More intensive development is proposed adjacent to Whitemud Drive and 215 Street, which are both major transportation corridors. Development is proposed to be phased and in such a way as to take advantage of developed roadways and existing infrastructure.

Preservation and Enhancement of the Natural Environment and Open Spaces

- 1.6.1 *Develop a comprehensive, integrated plan for the river valley, natural areas and open space lands that:*
 - *integrates and connects natural areas within the urban fabric to provide access.*
 - *develops access and recreational use opportunities while protecting the natural environment.*
 - *encourages the conservation and integration of natural areas that are sustainable and feasible.*

Natural areas and open spaces have been designed to be accessible by multiple modes of transportation, and connected in such a way as to provide active transportation opportunities as well as recreational activities.

Granville provides sustainable and feasible opportunities to protect the neighbourhood’s most significant natural areas by integrating them into the overall design.

Managing Suburban Growth

- 1.7.1 *Accommodate growth in an orderly, serviced and cost-efficient manner.*
- 1.7.2 *Provide for a range of housing types and densities in each residential neighbourhood.*
- 1.7.3 *Encourage flexibility in creating attractive and functional residential neighbourhoods and business areas.*

This NSP responds to the above noted strategies by proposing land uses that are responsive to the market and creating opportunities for attractive and functional residential neighbourhoods. Business areas are proposed along major thoroughfares to optimize practical function and economic efficiency.

- *1.7.4 Ensure availability and access to recreational opportunities and open space.*

Granville proposes park sites that are accessible by various modes and that may allow for earlier development of these sites.

7.3 Suburban Neighbourhood Design Principles

Edmonton's Suburban Neighbourhood Design Principles (January 1996) provide guidelines in assessing the design and servicing of new suburban neighbourhoods. The following principles, in Section 2, relate to *Granville*:

- *Design Principle 1 - Design Neighbourhoods with the intent of sharing common infrastructure facilities among neighbourhoods.*

Infrastructure is in place to the east within the Glastonbury NSP and will be extended as required.

- *Design Principle 2 - Design and locate school and community facilities to provide inter-neighbourhood focal points.*

The proposed school is centrally located on major collector roadways and can be readily accessed by adjacent neighbourhoods.

- *Design Principle 4 - Design neighbourhood streets (both neighbourhood design and cross section of roadway) with standards that cater to the main intended use of the road.*

Internal roadways will be developed as a mixture of collector and local roadways. Adjacent land uses will assist in the determination of appropriate road right-of-way widths and cross-sections. All public roadways will be constructed to City of Edmonton standards. Road profiles and intersections will acknowledge key pedestrian linkages through design details.

- *Design Principle 5 - Provide convenient pedestrian and bicycle access throughout the neighbourhood and especially between destination points within and outside the neighbourhood.*

Bicycle and pedestrian movement throughout *Granville* and the larger Grange area is intended to follow the local, collector and arterial roadway network, as well as incorporate walkways/trails into open space corridors such as pipeline ROWs.

- *Design Principle 6 - Provide transit services to the edges of the new neighbourhoods using the arterial and collector roadways in conjunction with appropriately designed, strategically located and conveniently accessed transit-waiting zones.*

Future transit service can be accommodated along the arterial and collector roadway network, which provides excellent accessibility from individual residential development areas. Access to transit will generally be within 400 metre walking distance from all parts of *Granville*.

- *Design Principle 7 - At the Area and Neighbourhood planning stage, plan the location of the school/park facilities relative to neighbourhood staging such that they can be consolidated, serviced and available early in the development of a neighbourhood or catchment area.*

The school/park facilities are located so that they can be developed in a manner that coincides with the staging of development.

- *Design Principle 8 - Design park and institutional sites and buildings within the neighbourhood and community focal points to be adaptable to other uses or levels of education over time.*

The park and institutional sites are located with access characteristics that could accommodate other land uses over time.

- *Design Principle 9 - Explore opportunities to provide smaller, dispersed open space and parks in a neighbourhood to provide for localized needs while meeting the recreational needs of residents of the catchment area.*

Dispersed parks and open space are proposed in the neighbourhood to provide accessible localized recreation and open-space areas for residents. Careful consideration has been given to their location to ensure that they are linked via the pedestrian circulation system and that the dispersed areas benefit the neighbourhood as a whole.

- *Design Principle 10 - Optimize the use of land and capital requirements for facilities such as churches, schools, community leagues and stormwater management facilities.*

The proposed SWMFs, natural areas and school sites optimize land use and efficient development.

- *Design Principle 11 - Create a linked open space system through open spaces created by stormwater management facilities, some utility rights-of-ways, preservation of appropriate natural areas and drainage courses, and school and park open spaces.*

A system of walkways and sidewalks will provide linkages between retained natural areas, pipeline corridors, passive parks, school sites and stormwater management facilities.

- *Design Principle 12 - Locate multi-family uses toward the edges of new neighbourhoods and close to the community and neighbourhood focal points.*

Multi-family residential parcels of varying sizes are proposed alongside collector and arterial roads and park sites; the parcels will be easily accessed by pedestrian, bicycle, transit and vehicle traffic.

- *Design Principle 15 - Provide opportunity through the residential districts of the Land Use Bylaw for the intensification of housing forms and for alternative site design and building siting.*

In accordance with market demands, opportunities for innovative housing, site design and building siting will be pursued through the rezoning and subdivision processes. The proposed multi-family residential uses provide site design and building siting options that can accommodate a variety of more intensive housing forms.

- *Design Principle 16 - Use current population and student generation formulas when planning facilities for a neighbourhood. Take into account the life cycle of the neighbourhood.*

The *Granville* NSP was prepared with consideration to current population and student generation formulas.

7.4 Policy Guidelines for the Integration of Resource Operations with Urban Development

Development of lands within *Granville* will be in accordance with the City of Edmonton's *Policy Guidelines for the Integration of Resource Operations with Urban Development* (1985). These guidelines focus on:

- resource consolidation by the operators;
- development setbacks;
- urban design;
- surface improvements for resource leases and flow-line right-of-way;
- operating guidelines.

Development of the neighbourhood will respond to these guidelines and will be dealt with in further detail at the time of rezoning and subdivision.

7.5 Alberta Energy & Utilities Board (AEUB) Guidelines

The AEUB, the agency with jurisdiction on matters related to oil and gas resource activities, has rules, regulations and guidelines for these activities in their predevelopment, operating and post-operating (abandoned) stages. *Granville* will abide by the AEUB guidelines which govern development around operating facilities.

The AEUB has well-established procedures for well site abandonment, reclamation and guidelines for development around abandoned facilities. Abandoned wells in *Granville* are planned to be located within future roadways, open space/park areas and public utility lots.

7.6 Transportation Master Plan

Granville conforms to *Edmonton's Transportation Master Plan*, approved by City of Edmonton Council April 14, 1999. The proposed land use and road network:

- is compatible with the proposed arterial system;
- allows for future transit routing;
- ensures safe and dispersed flow of traffic through the neighbourhood with multiple access points to the arterial road system;
- provides road widening for the expansion of Whitemud Drive and 215 Street

7.7 Crime Prevention through Environmental Design (CPTED)

The *Granville* NSP incorporates principles and guidelines established by Crime Prevention Through Environmental Design (CPTED) to minimize the number of crime prone areas. Development of the road network, parks, stormwater management facilities, and the built environment will use CPTED principles to help create a safe and secure neighbourhood.

7.8 Smart Choices

In 2004, City Council approved a report entitled *Smart Choices For Developing Our Community*. This report recommends an inclusive set of initiatives that encourage a more fiscally and environmentally sustainable future for the way Edmonton grows and redevelops.

The Smart Choices program has established “Four Smart Choices Fundamentals” to guide implementation of the Program. These Fundamentals are seen as the essential characteristics of a good place to live:

1. **Options:** *A variety of choices regarding location, housing, work and transportation. The City and private sector work to provide options by offering different neighbourhood types, housing types, business and work locations, and transportation modes.*

Granville incorporates residential designations that offer home consumers the option of low-density and medium density housing. The commercial areas offer employment opportunities while providing local commercial services as an option to outlying, regional service centres. Public transit opportunities are provided as well as an extensive, well-linked pedestrian and bicycle network that provides convenient choice for multiple modes of transportation.

1. **Access:** *A city with access to a variety of amenities and destinations. The need for access influences individual decisions about locating near places of work and learning, community facilities and services, recreation and entertainment, health and emergency services, open space and natural areas and shopping.*

This NSP incorporates a variety of residential, recreational and commercial amenities that are conveniently and safely accessible by arterial, collector and local roads, sidewalks, walkways, and multi use trails.

2. **Vitality:** *A vibrant city, interesting to live in, and attractive for business. Vitality requires a mix of activities and uses, community interaction, heritage, culture and beauty, diversity, interest and excitement, active democracy, and strong downtown and commercial areas.*

The proposed development concept promotes vitality and community interaction through the arrangement of land uses.

3. **Viability:** *A viable city with valuable assets and a continuing infusion of community and business support. Viability requires efficient use of resources, an adequate revenue base, economic growth, investment and reinvestment, affordable infrastructure and services, social cohesion and shared goals.*

Development of *Granville* is a logical next step considering the extent of existing infrastructure and services and the need to service the significant residential and commercial demand in West Edmonton. The residential and commercial mix of uses is a feasible investment for the area and will provide sustainable property tax revenue for the City.

Exhibit 13

**The Grange Area Structure Plan - Approved Neighbourhood 3 Land Use and Population Statistics
Bylaw 11749**

| | | | <u>AREA (ha)</u> | | | |
|---|------------------|-----------------|------------------|-----------------|-------------------|---|
| Gross Area | | | 135.00 | | | |
| Arterial Roadways | | | | | | |
| Whitemud Drive | 19.04 | | | | | |
| 215 Street | 2.73 | | | | | |
| 207/199 Street | 1.23 | | | | | |
| 62 Avenue | 1.70 | | | | | |
| 45 Avenue | <u>0.00</u> | | 24.70 | | | |
| Resource Pipelines and Facilities | | | | | | |
| Chevron Canada Resources Ltd. | 0.87 | | | | | |
| Northwestern Utilities Ltd. | 0.60 | | | | | |
| NUL Gate Station | <u>0.00</u> | | 1.47 | | | |
| Gross Developable Area (GDA) | | | 108.83 | | | |
| Stormwater Management Facilities | 6.43 | | | | | |
| Municipal Reserve | | | | | | |
| District Campus Site and K-8 Public School | 0.00 | | | | | |
| K-8 Public and K-9 Separate Schools and Neighbourhood Park (2sites) | 11.27 | | | | | |
| K-8 Public School and Neighbourhood Park (1 site) | 0.00 | | | | | |
| Winterburn Woodlot | 0.00 | | | | | |
| Dispersed Parks | <u>0.40</u> | | 11.67 | | | |
| Non-Residential Land Uses | | | | | | |
| Commercial-Shopping Centre | 0.43 | | | | | |
| Commercial-Neighbourhood Convenience | 1.93 | | | | | |
| Urban Services | <u>0.00</u> | | 2.36 | | | |
| Circulation (Collector and Local Road, and Walkways) | <u>18.56</u> | | | | | |
| Sub-Total | | | <u>39.02</u> | | | |
| Net Residential Area | | | 69.81 | | | |
| Residential Land Use Analysis | | | | | | |
| <u>Land Use</u> | <u>Area (ha)</u> | <u>Units/ha</u> | <u>Units</u> | <u>Pop/Unit</u> | <u>Population</u> | <u>LDR/MDR Ratio</u> |
| Low Density Res. | 57.45 | 20 | 1149 | 3.46 | 3976 | 65.0% LDR |
| Medium Density Res. | <u>12.36</u> | 50 | <u>618</u> | 2.98 | <u>1842</u> | 35.0% MDR |
| Total | 69.81 | | 1767 | | 5818 | Persons per Gross Developable Hectare: 53.45 |
| Student Generation Statistics | | | | | | |
| Level | <u>Public</u> | <u>Separate</u> | <u>Total</u> | | | |
| Grades K-8 | 813 | 257 | 1070 | | | |
| Grades 9-12 | 302 | 95 | 397 | | | |
| Total | <u>1115</u> | <u>352</u> | <u>1467</u> | | | |

Exhibit 14
GRANVILLE NEIGHBOURHOOD STRUCTURE PLAN
LAND USE AND POPULATION STATISTICS
BYAW 18041
Amended June 12, 2016

| | | <u>AREA (ha)</u> | | | | |
|---|--------------|------------------|--------------|----------|--------------|---|
| GROSS AREA* | | 136.22 | | | | |
| Arterial Roadways | | | | | | |
| Whitemud Drive | 7.25 | | | | | |
| 215 Street (includes widening) | 7.98 | | | | | |
| 207 Street (Guardian Road) | 1.50 | | | | | |
| 62 Avenue | 1.70 | 18.43 | | | | |
| Resource Pipelines and Facilities | | | | | | |
| Chevron Canada Resources Ltd. | 1.02 | | | | | |
| Northwestern Utilities Limited | 0.79 | 1.81 | | | | |
| Plan 0321752 (Glastonbury Commercial) | 0.43 | 0.43 | | | | |
| GROSS DEVELOPABLE AREA | | 115.55 | | | | |
| Stormwater Management Facilities | | | | | | |
| Municipal Reserve | | 6.85 | | | | |
| School / Park | 8.67 | | | | | |
| Dispersed Parks | 3.04 | 11.71 | | | | |
| Non-Residential Land Uses | | | | | | |
| Commercial / Mixed Use* | 3.17 | | | | | |
| Neighbourhood Commercial | 0.81 | | | | | |
| Commercial – 215 Street | 11.25 | 15.83 | | | | |
| Circulation (Collector, Local Roads and Walkways – 18% of GDA) | | 20.80 | | | | |
| Sub-Total | | 54.59 | | | | |
| NET RESIDENTIAL AREA | | 60.96 | | | | |
| RESIDENTIAL LAND USE ANALYSIS | | | | | | |
| Land Use | Area (ha) | Units/ha | Units | Pop/Unit | Population | LDR/MDR RATIO |
| Low Density Res. | 47.02 | 25 | 1,175 | 2.80 | 3,290 | 57.1% LDR 42.90% MDR |
| Medium Density Res. (MDR) | 10.24 | 45 | 460 | 2.80 | 1288 | |
| Medium Density Res. (MDR) / Mixed Use (3.17 ha)** | | 45 | 143 | 2.80 | 400 | 33.7 upnrha |
| Low-rise/Medium Density | 3.1 | 90 | 279 | 1.8 | 502 | |
| TOTAL | 60.36 | | 2,057 | | 5,480 | Persons per Gross Developable Hectare 48 |

STUDENT GENERATION STATISTICS

| LEVEL | Public | Separate | Total |
|-------------|--------|----------|-------|
| Grades K-8 | 312 | 94 | 406 |
| Grades 9-12 | 156 | 46 | 202 |
| | 468 | 140 | 608 |

* Percentage for Low Density Residential (LDR) and Medium Density Residential (MDR) are based on the number of residential units

**The 3.17 ha of Mixed Use was counted above as commercial land use and is only used in the Residential Land Use Analysis for calculating population and number of units.