

South Terwillegar Neighbourhood Area Structure Plan

Office Consolidation July 2011

Prepared by:

*Planning and Policy Services Branch
Planning and Development Department
City of Edmonton*

Bylaw 13454 was adopted by Council in September 2003. In July 2011, this document was consolidated by virtue of the incorporation of the following bylaws:

- Bylaw 13454* Approved September 18, 2003 (to adopt the South Terwillegar Neighbourhood Area Structure Plan)
- Bylaw 13682* Approved May 18, 2004 (to introduce a mixed use -institutional and residential- designation in the northwestern portion of the plan area)
- Bylaw 13992* Approved May 25, 2005 (to adjust boundaries of existing land use designations to reflect updated stormwater management facility and land ownership boundaries)
- Bylaw 14513* Approved June 11, 2007 (to redesignate a portion of a low density residential site to medium density residential and realign a short stretch of 156th Street)
- Bylaw 15651* Approved January 31, 2011 (to decrease medium density residential and increase low density residential)

Editor's Note:

This is an office consolidation edition of the South Terwillegar Neighbourhood Area Structure Plan, Bylaw 13454, as approved by City Council on September 18, 2003 and subsequently amended.

This edition contains all amendments and additions to Bylaw 13454. For the sake of clarity, new maps and a standardised format were utilised in this Plan. All names of City departments have been standardised 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 italicised 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
Planning and Development Department

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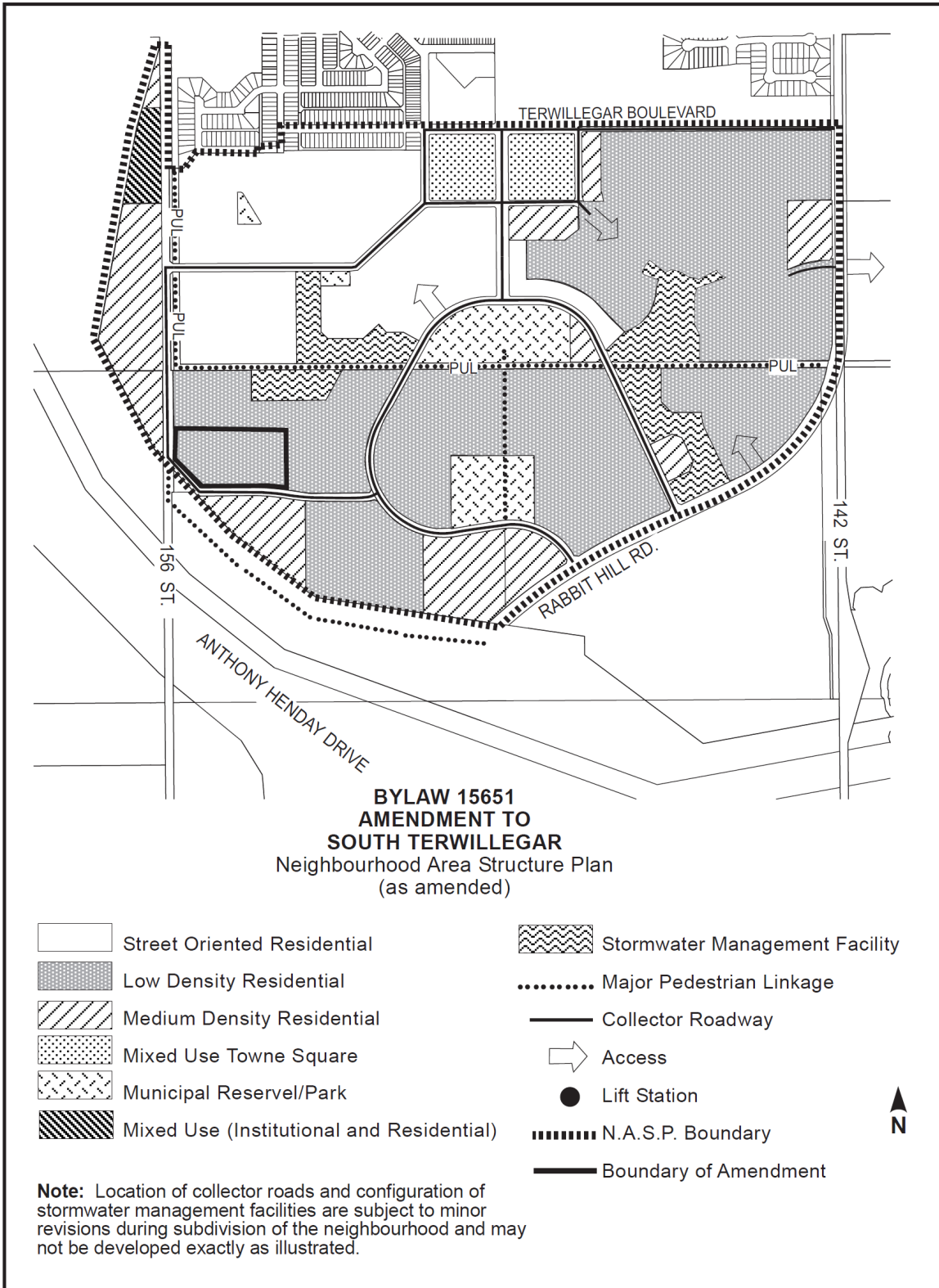
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**SOUTH TERWILLEGAR NEIGHBOURHOOD AREA STRUCTURE PLAN
LAND USE AND POPULATION STATISTICS
BYLAW 15651**

	Area (ha)	% of GA	% of GDA
GROSS AREA	168.00	100.0%	
Pipeline ROW	2.45	1.5%	
142 Street Arterial Widening	3.45	2.1%	
Total Non-Developable Area	5.90	3.5%	
GROSS DEVELOPABLE AREA	162.10		100.0%
Municipal Reserve (MR)	8.20		5.1%
Town Square (non-residential portion)	2.50		1.5%
Circulation	32.42		20.0%
Stormwater Management Facilities	10.57		6.5%
Total Non-Residential Area	53.69		33.1%
Net Residential Area (NRA)	108.41		66.9%

RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION							
Land Use	Area (ha)	Units/ha	Units	% of Total	People/Unit	Population	% of NRA
Street Oriented Housing	38.70	35	1,355	30.0%	2.8	3,793	35.7%
<i>Single/Semi-detached, Row Housing</i>							
Low Density Residential	45.51	25	1,138	25.2%	2.8	3,186	42.0%
<i>Single/Semi-detached</i>							
Medium Density Residential	19.57	90	1,761	39.0%	1.8	3,170	18.1%
<i>Row Housing, Low-rise/Medium Density Housing</i>							
Town Square MDR	3.00	75	225	5.0%	1.8	405	2.8%
Mixed Use (Institutional & Residential)	1.63	23	37	0.8%	1.8	67	1.5%
Total Residential	108.41		4,516	100.0%		10,620	100.0%

SUSTAINABILITY MEASURES

Gross Population Density	65.5	persons per gross developable hectare
Net Population Density	98.0	persons per net residential hectare
Net Unit Density	41.7	units per net residential hectare
LDR / MDR Ratio	55.2%	/ 44.8%

STUDENT GENERATION

Public School Board		648
Elementary	324	
Junior / Senior High	324	
Separate School Board		259
Elementary	130	
Junior High	65	
Senior High	65	
Total Student Population		908

1.0 Introduction

1.1 PURPOSE

The purpose of this Neighbourhood Area Structure Plan is to establish the land use framework and development objectives for South Terwillegar, a plan area consisting of 168.0 hectares and one of 7 neighbourhoods within the area governed by the Terwillegar Heights Servicing Concept Design Brief (see Figure 1.0 - Location Plan). Terwillegar Heights is a community of approximately 873.50 hectares of land immediately north of the Transportation and Utility Corridor (TUC), and south of a *private corporation's* power right-of-way.

Amended by
Editor

The Neighbourhood Area Structure Plan (NASP) will implement the general land use framework set out in the Terwillegar Heights Servicing Concept Design Brief (SCDB) by more specifically identifying the type, size and location of various land uses, density and pattern of development, location of roadways, conceptual servicing schemes and sequence of development.

The South Terwillegar NASP has been prepared on behalf of *five private developers*, owners and/or beneficial owners of approximately 152.75 hectares of land within the NASP.

Amended by
Editor

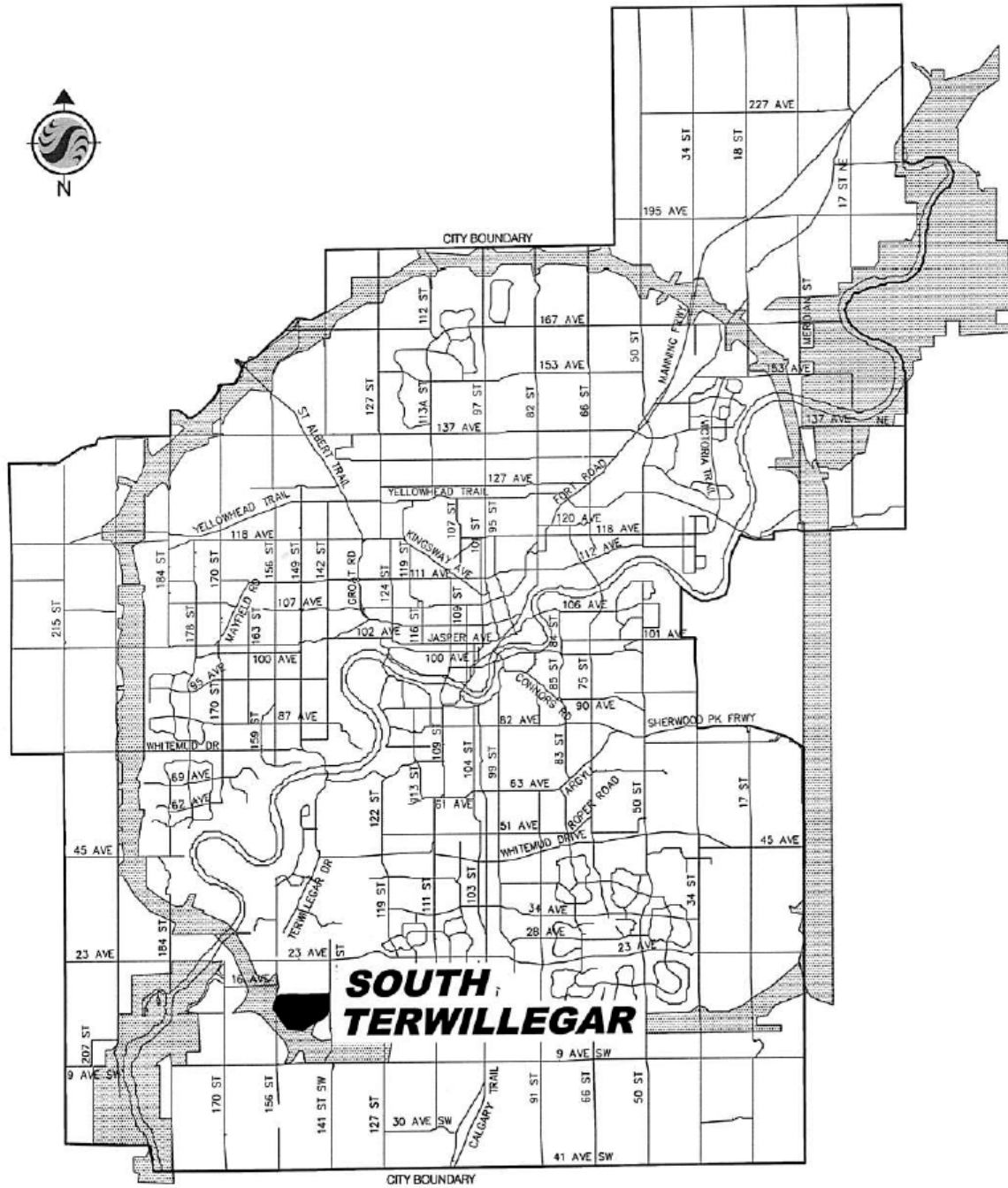
1.2 DEFINITION OF PLAN AREA

The South Terwillegar Neighbourhood Area Structure Plan is comprised of a number of parcels within SE and SW 35-51-25-W4, NE-26-51-25-W4 and NW 26-51-25-W4 plus a few other adjoining parcels. The total area for the NASP is 168.0 hectares. As shown on Figure 2.0 – Context Plan, the NASP is defined by the following boundaries:

- **Northern Boundary** – Terwillegar Towne
- **Western Boundary** – Terwillegar Drive
- **Eastern Boundary** – 142nd Street (*renamed Rabbit Hill Road*)
- **Southern Boundary** – Transportation and Utilities Corridor (TUC)

Amended by
Editor

Figure 1.0* - Location Plan



Stantec

***Bylaw 13454 September 18, 2003**

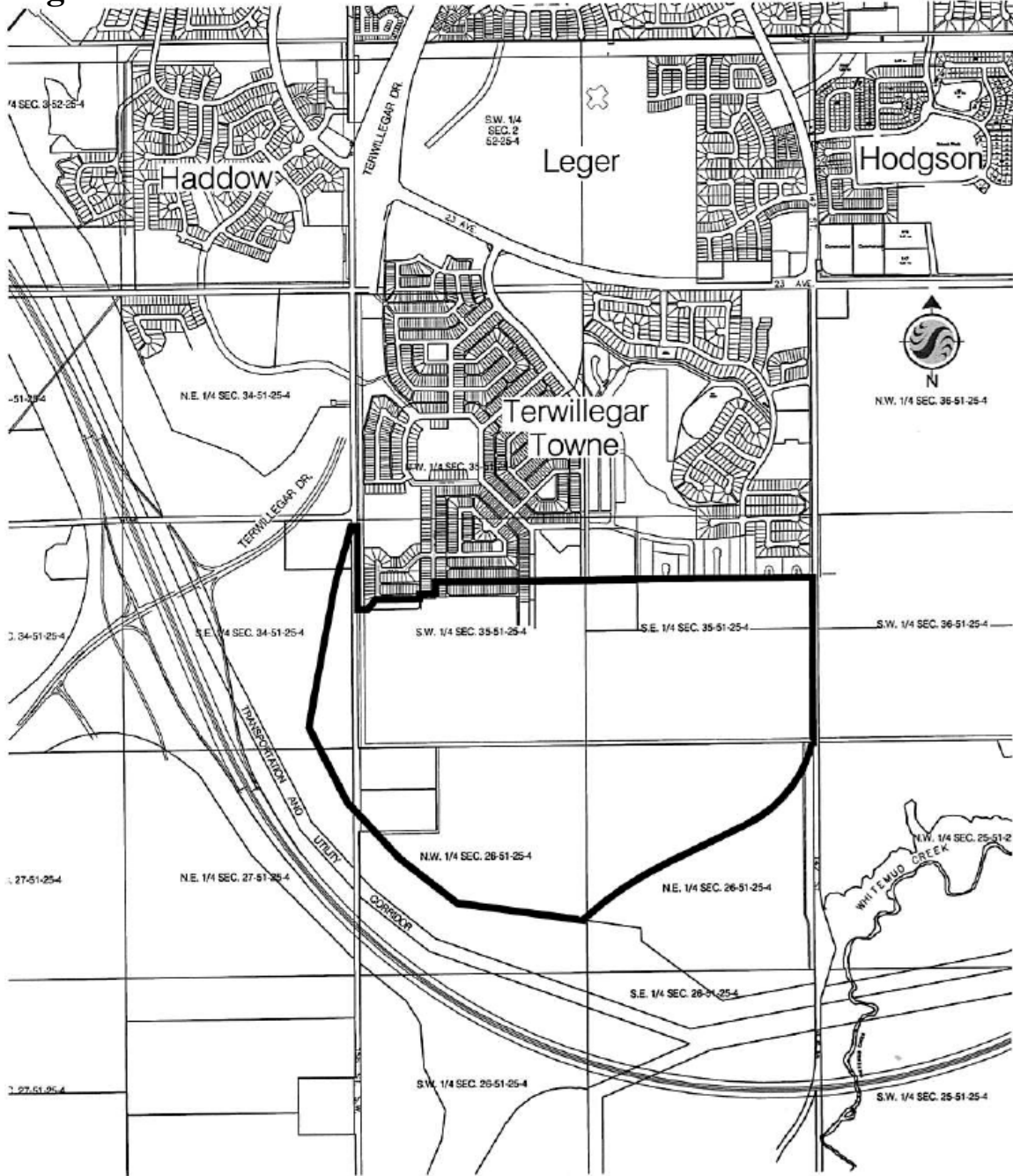
Project
SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
1.0

Title
Location Plan

August, 2003
161 50402

Figure 2.0* - Context Plan



SCALE 1:20,000



Stantec

***Bylaw 13454 September 18, 2003**

Client/Project
SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
2.0

Title
Context Plan

August, 2003
151 50402

The South Terwillegar NASP constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations and is consistent with the general area identified in the Terwillegar Heights SCDB for preparation of the NASP. Concurrent with this NASP, an amendment to the Terwillegar Towne NASP will be completed to make the southern boundary of Terwillegar Towne coterminous with the northern boundary of South Terwillegar.

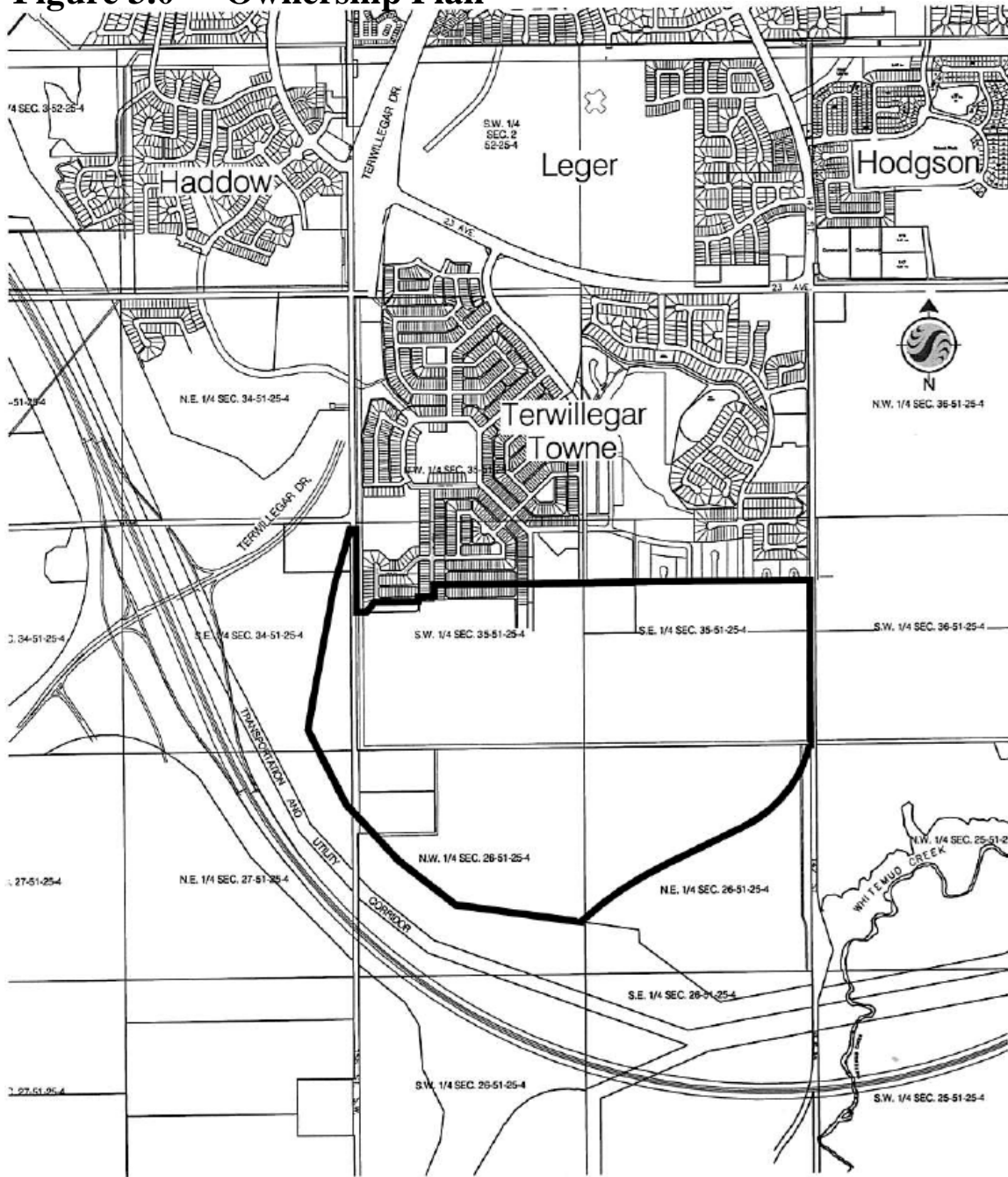
1.3 LAND OWNERSHIP

Approximately 90% of the land within the South Terwillegar NASP is either owned or under agreement for sale by the proponents of the plan. Three individual landowners own the remaining 7 hectares. Current land ownership is shown on Figure 3.0 – Land Ownership. A listing of the legal parcels is provided on Table 1 – Land Ownership.

TABLE 1 – LAND OWNERSHIP
SOUTH TERWILLEGAR NASP (as amended by Editor)

	Titled Owner	Legal Description	Area (ha) in NASP
1.	<i>Private Developer</i>	SW-35-51-25-W4	44.18
2.	<i>Private Developer</i>	Ptn. Lot 1, Block 1 Plan 022 1834	3.02
3.	<i>Private Developer</i>	Ptn. Lot 2, Block 1, Plan 022 1834	10.5
4.	<i>Private Developer</i>	S1/2 SE-35-51-25-W4	32.4
5.	<i>Private Developer</i>	NE-26-51-25-W4	16.5
6.	<i>Private Developer</i>	Block 1, Lot 1, Plan 002 0909	10.5
7.	<i>Private Developer</i>	NW-26-51-25-W4	32.6
8.	<i>Private Owner</i>	Block 2, Plan 6532 KS	3.8
9.	<i>Private Developer</i>	Block 1, Plan 6532 KS	3.9
10.	<i>Private Owners</i>	Ptn. NE-27-51-25-W4	1.3
11.	<i>Private Developer</i>	Ptn. SE-34-51-25-W4	5.2
12.	<i>Private Owner</i>	SE-34-51-25-W4	1.6
13.	<i>Private Owners</i>	Ptn. Plan 752 0201	0.3
13.	The City of Edmonton	156 Street GRA	2.2
		Total	168.0

Figure 3.0* - Ownership Plan



SCALE 1:20,000



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***Bylaw 13454 September 18, 2003**

Client/Project
SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
2.0

Title
Context Plan

August, 2003
151 50402

2.0 Statutory Plan & Policy Context

2.1 THE WAY WE GROW, MUNICIPAL DEVELOPMENT PLAN, BYLAW 15100

Bylaw 15651
January 31, 2011

In May 2010, Edmonton City Council approved a new Municipal Development Plan (MDP), entitled 'The Way We Grow'. The south Terwillegar NASP complies with the following relevant MDP Policies:

3.6.1.6 – Support contiguous development and infrastructure in order to accommodate growth in an orderly and economical fashion.	<i>The South Terwillegar NASP represents contiguous growth in south-west Edmonton, allowing for economic use of major infrastructure.</i>
4.4.1.1 – Provide a broad and varied housing choice, incorporating housing for various demographic and income groups in all neighbourhoods.	<i>The South Terwillegar NASP allows for the development of a range of residential housing types based on single/semi-detached, row housing, stacked row housing, and low-rise/medium density housing.</i>
5.6.1.4 – Design density, land uses and buildings to benefit from local transit service by minimizing walking distances to transit service and by providing safe and comfortable pedestrian streetscapes and high quality transit amenities.	<i>Higher density residential areas have been located near arterial and/or collector roadways to promote walkability and transit usage. Street layouts and design, including in the neo-traditional neighbourhood area, promote pedestrian movement.</i>
7.4.1.1 – Link parks and open spaces with natural systems through development and design to strengthen the connectivity of Edmonton’s ecological network, where feasible.	<i>Parks and SWMFs have been located and inter-connected to promote them as walking destinations for pedestrians and cyclists and to provide for passive recreation opportunities. Multi-use trails provide safe and attractive routes for residents.</i>
8.1.3.1 – Plan for residential and economic development within the City which supports the Capital Region Growth	<i>The South Terwillegar neighbourhood is located in Priority Growth Area “B” which sets a minimum density target of 30 units per net residential hectare.</i>

<p><i>Plan.</i></p> <p>8.1.7.3 – Upon provincial approval of the Capital Region Plan Addendum, Edmonton’s new Area Structure and Neighbourhood Structure Plans in the Capital Region Plan’s priority growth area B, F, C_w or C_e will be required to meet or exceed the Capital Region’s minimum density targets.</p>	<p><i>The NASP exceeds this target, providing a net density of approximately 42 units/ha.</i></p>
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2.1.1 Planned Growth - Land Development Philosophy

“Develop and utilize a land development philosophy that meets the City’s long-term development needs and achieves the optimal balance between residential, industrial, commercial, institutional and recreational land use.”

This philosophy has been accomplished through the following applicable strategies:

Strategy 1.1.1 - *Provide for choices regarding the types of developments in which people want to live and do business.*

The South Terwillegar NASP provides for a mix of low and medium density housing opportunities within a growing sector of the City of Edmonton.

Strategy 1.1.2 - *Address compatibility of land use in the development and review of land use plans and development proposals.*

The South Terwillegar NASP proposes the continuation of Terwillegar Towne’s traditional neighbourhood development patterns for SW 35-51-25-W4 and Ptn. Lot 1, Block 1 Plan 022 1834. The continuation of the typical suburban development pattern found on the east side of Terwillegar Towne will occur for the balance of the lands. This does not preclude future amendments to respond to market shifts or innovations in which case appropriate amendment will made as required.

Amended by
Editor

Attention has been paid to transitions of development style via the Towne Centre, stormwater management facilities and walkway corridors. Higher

density uses are located next to arterial roadways and neighbourhood amenities.

Strategy 1.1.3 – *Use and promote urban design principles and guidelines that enhance the quality of the urban environment.*

South Terwillegar has been developed with numerous linkages providing convenient, non-vehicular access to nodes within the community. The Towne Square has been linked to the central park area via a continuation of Towne Centre Boulevard. The central park area is in-turn linked via an east west walkway that ties the four storm water management facilities together.

Strategy 1.1.12 - *Place a high priority on the effective and efficient use of land.*

The South Terwillegar NASP plans for a mix of residential uses in an efficient land use pattern while respecting both ownership boundaries and other development constraints. Nodes such as parks and the Towne Square have been located along collector roadways to ensure the efficient movement of traffic. These nodes are also linked via a network of walkways providing an alternative form of circulation (pedestrian/cycle) throughout the neighbourhood.

The northwest portion of the neighbourhood has been designed with traditional neighbourhood design (TND) principles, which promotes housing form mixes and integration.

Strategy 1.1.13 – *Plan for urban development which is environmentally friendly and fiscally sustainable in the long term, based on the City's financing, infrastructure and environmental strategies.*

South Terwillegar will be developed in as environmentally responsible a fashion as possible. Residential densities will be relatively high to ensure efficient use of land. The extensive pedestrian network will encourage walking and cycling. Naturalized stormwater management facilities will enhance the quality of stormwater runoff and provide additional habitat for wildlife.

The South Terwillegar NASP provides for the efficient, cost effective and coordinated delivery of engineering services. Existing distribution systems are to be extended and constructed at the cost of the developer with appropriate rebates coming from EPCOR and other participating utilities. Stormwater is to be detained onsite and discharged at predevelopment rates via a series of stormwater management facilities and will be constructed at the developers cost. The sanitary sewerage system will be constructed on site at the developer's cost and tie into the system located

in the developed areas to the north. The developers will pay for the construction of the first two lanes of arterial roadways through the Arterial Roadway Assessments program, and will pay the full cost of collector and local roadways within the neighbourhood. The developers will also pay to provide topsoil, grade, level and seed the two large park sites in the neighbourhood.

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

The South Terwillegar NASP contains a significant east west and north-south pipeline corridor that has been integrated into the plan and, where appropriate, will be utilized as part of the open space and walkway system.

2.1.2 Planned Growth - Utilization of Existing Infrastructure

“Encourage maximum development around City infrastructure.”

Strategy 1.3.3 - *Support contiguous development that is adjacent to existing development in order to accommodate growth in an orderly and economical fashion.*

The South Terwillegar NASP is situated immediately south of the Terwillegar Towne neighbourhood currently under development. Development within this area is nearing completion. The lands within the South Terwillegar NASP can be serviced from the same existing and planned infrastructure being installed in the areas to the north.

Strategy 1.3.4 – *Promote intensification of development around transportation corridors and employment areas.*

The South Terwillegar NASP has grouped a significant amount of medium density residential (MDR) housing along the collector roadway network as well as in close proximity to walkway corridors. MDR has also been placed next to the east side of the Town Square locating higher densities next to opportunities in the Town Square.

2.1.3 Planned Growth - Managing Suburban Growth

“Manage suburban growth in a manner that ensures adequate infrastructure and services and maintains a balance of residential, commercial, industrial and recreational land uses.”

Strategy 1.7.1 - *Accommodate growth in an orderly, serviced and cost-effective manner.*

Given its contiguous nature (from both a land use and servicing perspective) with other developing and approved neighbourhood plans, the South Terwillegar NASP represents a logical location in southwest Edmonton for the development of appropriate suburban land uses. Services can be extended into this area in a cost-effective manner.

Strategy 1.7.2 - *Provide for a range of housing types and densities in each residential neighbourhood.*

The South Terwillegar NASP allows for a range of low and medium density residential development to take place.

2.2 CAPITAL REGION GROWTH PLAN

The primary purpose of the Capital Region Growth Plan is to sustainably manage growth in a way that protects the region’s environment and resources, minimize the regional development footprint, strengthens communities, increases transportation choice and supports economic development. The South Terwillegar NASP aims to accomplish these objectives through an integrated and strategic approach to planning which coordinates planning and development decisions in the Region and identifies a regional development pattern to complement existing infrastructure, services and land uses.

Bylaw 15651
January 31, 2011

II. Minimize Regional Footprint:	
B. Concentrate New Growth Within Priority Growth Areas	
<p>Policy (i) Most new growth shall occur within priority growth areas.</p> <p>Policy (ii) Priority shall be given to accommodating growth in major employment areas and in locations that meet at least three of the following four criteria:</p> <ul style="list-style-type: none"> • Existing and proposed multi-movement corridors, including transit nodes; • Adjacent to existing and proposed major 	<p>The South Terwillegar neighbourhood is located in Priority Growth Area “B” which sets a minimum density target of 30 units per net residential hectare in order to facilitate development within existing development patterns.</p> <p>The NASP exceeds the density target by providing approximately 42 units per net residential hectare.</p> <p>South Terwillegar is located:</p> <ul style="list-style-type: none"> • adjacent to Anthony Henday Drive and Terwillegar Drive • takes advantage of existing infrastructure and servicing capacity in the Terwillegar

<p><i>employment areas;</i></p> <ul style="list-style-type: none"> • <i>Redevelopment and intensification opportunities within existing urban areas; and</i> • <i>Locations that utilize existing infrastructure and servicing capacity or logical and efficiently extend that infrastructure.</i> <p>Policy (v) <i>Priority growth areas shall incorporate intensive forms of development that significantly exceed existing development patterns.</i></p>	<p><i>Heights SCDB area.</i></p> <p><i>The NASP provides development which is more intensive than existing patterns in south-west Edmonton.</i></p>
<p><i>D. Support Expansion of Medium and Higher Density Residential Housing Forms</i></p>	
<p>Policy (i) <i>New residential development shall provide a greater proportion of high density residential units.</i></p> <p>Policy (iv) <i>Transit accessibility must be included in the design of all new developments.</i></p>	<p><i>The South Terwillegar NASP provides approximately 45% of the overall number of residential units as medium density housing, in highly accessible locations adjacent to transit service and in proximity to commercial land uses.</i></p> <p><i>The roadway network has been designed with transit routing throughout the neighbourhood.</i></p>
<p>III. Strengthen Communities:</p>	
<p><i>B. Support Healthy Communities</i></p>	
<p>Policy (ii) <i>Improve accessibility to community services by providing sidewalks, bicycle trails to encourage walking and cycling and locate these services within proximity to transit,</i></p>	<p><i>The South Terwillegar NASP has a well connected and integrated open space system which allows residents the opportunity to choose alternative modes of transportation other than the vehicle, with great access to transit.</i></p>

<i>where possible.</i>	
C. Support Public Transit	
<p>Policy (i) Provide a mix of higher intensity land uses along transit corridors, at nodes, and employment centres.</p> <p>Policy (iii) New developments shall be designed for connectivity and accessibility to transit facilities.</p>	<p>Higher residential densities have been located adjacent to arterial and/or collector roadways to promote walkability and transit usage.</p>
D. Support Innovative and Affordable Housing Options	
<p>Policy (ii) All residential developments shall provide a greater variety of housing types.</p>	<p>The South Terwillegar NASP allows for the development of a range of residential housing types based on single/semi-detached, row housing, and low-rise/medium density housing.</p>
IV. Increase Transportation Choice:	
A. Integrate Transportation Systems with Land Use	
<p>Policy (iii) Design transportation infrastructure to support multiple modes of transport.</p> <p>Policy (iv) Support development of inclusive communities to reduce the need for travel.</p>	<p>A network of roadways, along with sidewalks, walkways and multi-use trails provides residents with the ability to drive, walk, or cycle, through the neighbourhood or into the surrounding region.</p>
B. Support the Expansion of Transit Service in Various Forms	
<p>Policy (i) Expand and extend the level, quality and range of public transportation options available to serve the Region.</p> <p>Policy (iv) Support multi-modal transportation options by providing multi-use streets</p>	<p>A network of roadways, along with sidewalks, walkways and multi-use trails provides residents with the ability to drive, walk, or cycle, through the neighbourhood or into the surrounding region. Transit service is provided in the neighbourhood, according to ETS</p>

<i>sufficient to accommodate bicyclists, motorists and pedestrians.</i>	<i>standards.</i>
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2.3 TERWILLEGAR HEIGHTS SCDB

The Terwillegar Heights SCDB provides general guidelines to facilitate the orderly development of the plan area in terms of proposed land uses, density of development, location of major roads and facilities and sequence of development.

The SCDB establishes a number of principles or guidelines for subsequent development in the area:

- “A variety of housing types at various densities should be provided to meet the needs of diverse residents and to achieve a balanced and integrated social structure.”

The South Terwillegar NASP proposes a number of housing opportunities and densities under the Low Density Residential, Street Oriented Residential and Medium Density Residential designations. Possible housing forms include single family, both front drive and rear drive garage, semi-detached, row housing, standard row housing and apartments. Opportunities also exist in the Street Oriented Residential for accessory dwelling units such as garage suites and secondary suites.

- “Additional Employment Opportunities should be planned to offer a range of options.”

The South Terwillegar NASP incorporates the southern portion of Terwillegar Towne’s Towne Square which contains employment opportunities. Additionally, home business activities are possible in accordance with the Zoning Bylaw in all applicable residential areas.

- “Transportation alternatives should foster improved opportunities for non-motorized means of travel.”

The neighbourhood has been planned to encourage walking and cycling and other means of non-motorized forms of transportation. A major walkway is planned to follow a pipeline right-of-way which bisects the plan area and links a series of ponds and the central park site. Another walkway will be constructed inside the Transportation and Utility Corridor on the south and west sides of the neighbourhood to facilitate non-motorized transportation to other neighbourhoods. Higher density housing

has been located adjacent to the collector roadway network to provide ease of access to transit.

- “An activity focus for the neighbourhood should offer a range of functions, services and activities that will bring local residents into the specialized area.”

South Terwillegar NASP is adjacent to, and incorporates, the Terwillegar Towne Square which is intended to act as a commercial and social focus for the surrounding area. In addition, a central park area, located at the southern terminus of Towne Centre Boulevard, will provide recreational opportunities in the centre of the plan area. This park’s location at the end of Towne Centre Boulevard and along the walkway corridor will ensure ease of access.

- “The natural topography and environment should be protected and enhanced for both environmental and marketing reasons.”

The storm water management system for the area proposes a series of “naturalized wetlands”. These wetlands will provide opportunity for filtration of runoff and increased water quality. These ponds will also provide passive and visual amenities for adjacent residents as well as the wider neighbourhood, and, over time, provide some habitat for birds and small mammals.

- “A variety of urban design features should be incorporated into the plan to create a more human scale living environment.”

Towne Centre Boulevard will be continued through the Towne Square area directly south, terminating at a park site. This park site will provide an attractive vista from the roadway. The view potential of the park will be enhanced by the natural topography of the plan that sees a slope down from north to south.

A major linear open space will be located in the centre of the plan area that provides a connection between existing recreational and focal points in Terwillegar Towne and future development east of 142nd Street. Along the corridor various types of visual and active amenities such as storm ponds, park area and pocket parks will be located. Appropriate transitions between built forms and density will be applied to ensure that scale of the built environment is well integrated.

Localized open spaces and focal points will also be incorporated in the Street Oriented Residential design to provide localized visual amenities. Medium density housing will be designed and located in proximity to open space, storm water management facilities and the Towne Square to concentrate higher populations around these activity nodes.

2.3.1 Amendment to the Terwillegar Heights SCDB

Concurrent with the approval of the South Terwillegar NASP map amendments to the Terwillegar Heights SCDB will occur reflecting the revised 142nd Street alignment, neighbourhood boundary and revised school site requirements in the SCDB area.

2.4 AIRPORT PROTECTION OVERLAY

The Edmonton International Airport Vicinity Protection Area Regulation regulates land use that may affect the use of the Edmonton International Airport, and establishes Noise Exposure Factor (NEF) contours within which residential development may be controlled or precluded. The South Terwillegar NASP lies entirely outside the designated area. Therefore, there is no restriction on residential development within the plan area arising from this regulation.

2.5 SUBURBAN NEIGHBOURHOOD DESIGN PRINCIPLES

The City of Edmonton's Suburban Neighbourhood Design Principles report describes a variety of design principles intended to encourage flexibility and innovation in the design and servicing of new neighbourhoods.

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

Infrastructure to service the South Terwillegar NASP is part of a larger system to service lands in the entire SCDB area. Existing roadways such as 142nd Street will be upgraded and widened with the overall pace of development and intersections will be aligned to share future signalized traffic movements.

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

Given the large area of South Terwillegar, programmable park sites are designated within the central portions of the community to facilitate easy access for all residents. A school site has not been planned for the neighbourhood because the Edmonton Public Schools has determined that schools in adjacent neighbourhoods can accommodate students living in South Terwillegar. Extensive pedestrian linkages will allow ease of access to the area by residents of the Neighbourhood as well as 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.*

Roadways within the neighbourhood 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 roadways will be constructed to City of Edmonton standards.

For the area intended for traditional neighbourhood design a continuation of the road patterns and standards in Terwillegar Towne will be applied.

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

Local, collector and arterial roads will be designed to encourage walking and cycling. Walkways and other open space corridors will also accommodate bicycle and pedestrian movement when possible and cost effective. The pipeline corridor traversing the neighbourhood provides excellent linkages between the park sites and adjacent neighbourhoods.

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

Future transit service is appropriate along the collector roadway network as well as along 142nd Street (*Rabbit Hill Road*). Given the shape of South Terwillegar and the alignment of the collector roadway, access to transit is generally within 400m walking distance of virtually all parts of the neighbourhood.

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Editor

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 central parks site within South Terwillegar has been located such that the area may be dedicated and developed in stages.

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.*

Two small park sites have also been located within the traditional neighbourhood design area of the plan and are intended to further

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strengthen traditional aspects of *this area* by acting as street level open spaces and visual amenities.

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

The pipeline corridors within and extending beyond South Terwillegar provide excellent opportunities to provide pedestrian linkages throughout and beyond the plan area to connect residents with amenities, transit and commercial uses. The stormwater management facilities provide opportunities both for visual amenity and as additional open space for residents.

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

Medium density residential parcels of varying sizes have been designated throughout the plan area alongside collector and arterial roads, SWM facilities, pipeline corridors, park sites and Towne Centre areas. Some parcels are located at the periphery of the neighbourhood while others are more internalized but still easily accessed by pedestrian, bicycle, transit and vehicle traffic. Multi family uses have been also concentrated next to arterial roadways, amenities and the Towne Centre providing access to transit, services and recreation.

Design Principle 13 - *Use stormwater management techniques that provide an alternative (s) to the man made lakes and dry ponds typical to Edmonton.*

The stormwater management facilities in South Terwillegar will be “naturalized wetlands” to improve the quality of stormwater runoff.

Design Principle 14 - *Minimize the use of public utility lots and maximize the use of easements for underground services not located in road rights-of-way.*

This principle is recommended for use in the South Terwillegar NASP and can be best implemented at the subdivision and engineering design stage.

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.*

A range of low and medium density residential housing forms will be developed within the South Terwillegar NASP with concentrations of higher densities clusters. In accordance with market demands, opportunities for innovative site design and building siting may be pursued through the redistricting and subdivision processes.

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 population and student generation ratios provided in the NASP were developed in consultation with Edmonton Public Schools and the Planning and Development Department.

3.0 Site Context and Development Considerations

3.1 TOPOGRAPHY & VEGETATION

As shown on figure 4.0 – Site Contours, the topography of the lands within the South Terwillegar NASP is generally flat throughout, with a gentle slope to the southeast. Elevations range from 686 m in the northwest to 684m in the southeast.

There is limited vegetation scattered throughout the plan area mostly associated with existing dwellings and along fence lines.

Soils in the area are a blend of moderately to well drained Orthic Black and Gleyed Black Chernozems on glaciolacustrine material. The soil conditions do not present any impediment to urban development.

3.2 EXISTING LAND USES

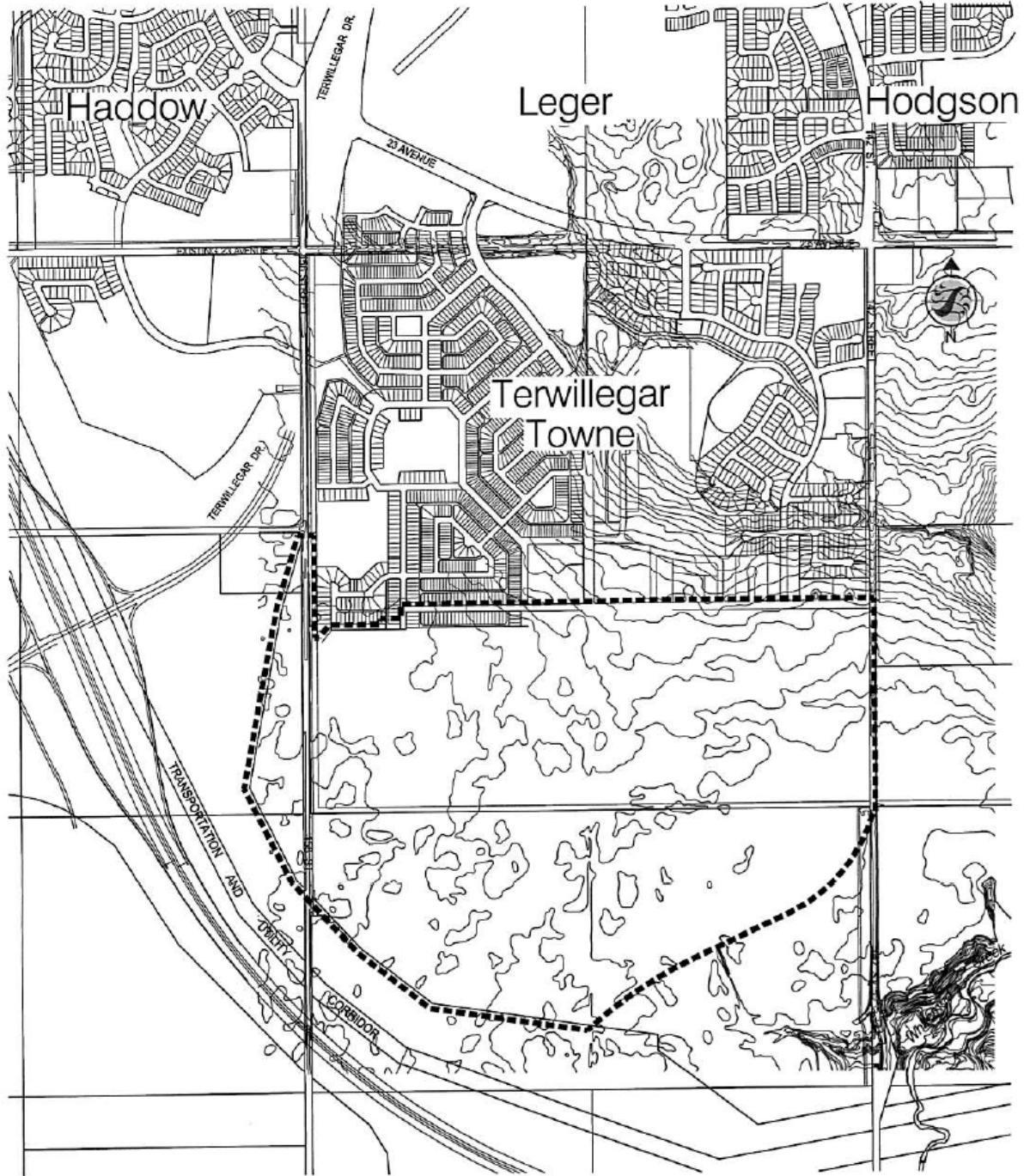
As shown on Figure 5.0 – Site Features, the South Terwillegar area is under agricultural production, with a few exceptions. Holy Trinity Chinese Anglican Church is located on the west side of 156 Street in the northwest portion of the proposed neighbourhood. There are two yard sites located in the southwest portion of the plan. The northerly yard site (Block 1, Plan 6532 KS) contains a house, garage, storage building and cottage like building. The second yard site located directly to the south (Block 2, Plan 6532 KS) contains a large metal building and numerous trees.

The remainder of the lands, with the exception of a small woodlot in the northwest corner of NE 26-51-25-4, are cleared and under cultivation. None of these uses pose any particular constraints to future urban development. However, future development of any and all properties within the neighbourhood is the option of the respective landowners.

3.3 SURROUNDING LAND USES

The plan area is bound on the north by the Terwillegar Towne neighbourhood, the east by 142nd Street and south by the TUC and the west by Terwillegar Drive.

Figure 4.0* - Site Contours Plan



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SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
4.0

Title
Site Contours Plan

August, 2003
161 50402

***Bylaw 13454 September 18, 2003**

3.4 ENVIRONMENTAL RESOURCES

The City of Edmonton's Inventory of Environmentally Sensitive and Significant Natural Areas (1993) identifies no Significant Natural Areas or no Local Environmentally Sensitive Areas within the South Terwillegar NASP.

3.5 ENVIRONMENTAL SITE ASSESSMENT

A phase I Environmental Site Assessment (ESA) undertaken by Sentar Consulting Ltd in 1994 covered the entire plan area. An update to the 1994 report was conducted in 2003. These reports have been submitted under separate cover. Given the largely agricultural history of the land holdings, there are no outstanding concerns for lands contained within the plan area.

3.6 HISTORICAL RESOURCES

Alberta Community Development have advised that pursuant to previous historical studies completed in 1994 by Sentar Consulting and the long cultivated and agricultural history of the plan area, further historical study is not required.

However, pursuant to Section 31 of the Historical Resources Act, development proponents and their representative are required to report the discovery of any archaeological, historic period or paleontological resources which may be encountered during construction.

3.7 ENERGY & NATURAL RESOURCES

3.7.1 Oil & Gas Well Sites

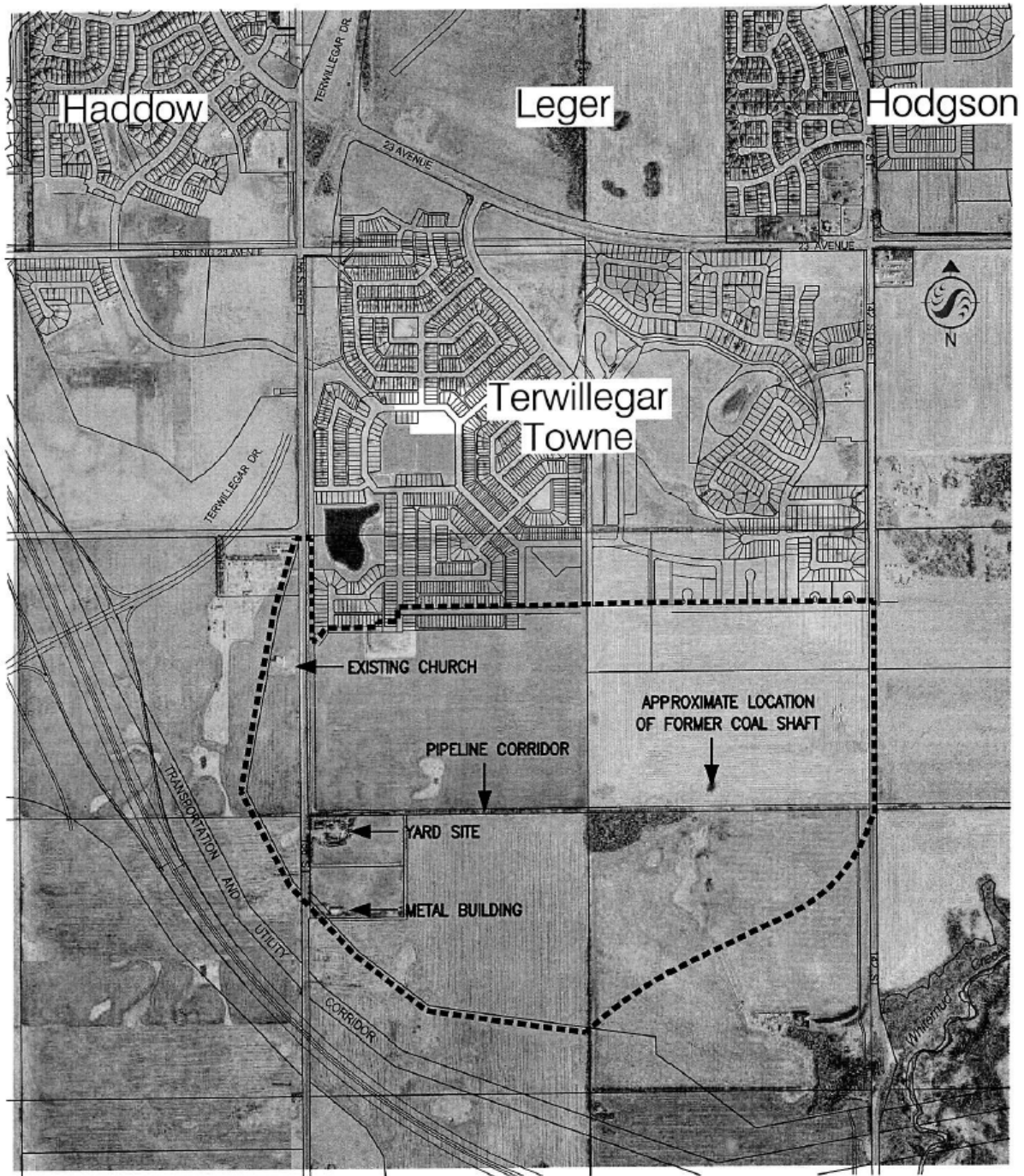
A review of information provided in the Phase 1 Environmental Report indicates that there are no active or suspended oil or gas wells within the boundaries of the South Terwillegar NASP.

3.7.2 Coal Mines

An area in the south central portion of *S ½ SE-35-51-25-W4* (see Figure 5.0) has been identified as containing a former coalmine shaft. The area is designated as a storm water management facility in the development concept. A geo technical investigation, completed by Thurber Engineering and submitted under separate cover, reveals that this area can be developed for limited number of uses including storm water management facilities. For further information reference should be made to the Thurber geo technical report.

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Figure 5.0* - Site Features Plan



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SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
5.0

Title
Site Features Plan

August, 2003
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3.7.3 Pipeline Rights-of-Way and Facilities

As shown on Figure 5.0, one pipeline transmission facility runs through the South Terwillegar NASP, cutting east-west through the centre of the neighbourhood and north-south on the east side of the 156 Street government road allowance. The Alberta Energy and Utilities Board Pipeline License Register identifies the following pipeline transmission license within the South Terwillegar Neighbourhood Area Structure Plan (summarized on Table 2 - Existing Pipeline Transmission Facilities.)

TABLE 2				
SOUTH TERWILLEGAR NASP				
EXISTING PIPELINE TRANSMISSION FACILITIES (as amended by Editor)				
Company	Substance	H₂S Content (mol/kmol)¹	Max. Operating Pressure (kPa)²	Max. Outside Diameter (mm)³
<i>Private</i>	Natural Gas	0.00	3,475	323.9
¹ sour natural gas occurs when the H ₂ S content is greater than 10.0 mol/kmol ² a high pressure line has a maximum operating pressure greater than or equal to 3,475 kPa ³ a high pressure line has an outside diameter greater than or equal to 323.9 mm				

The pipeline corridor in the western portion of the neighbourhood will have a limited impact on the land use plan for South Terwillegar since it does not bisect the neighbourhood to any large extent. The pipeline corridor running east-west has dictated the adjacent land use patterns and will be integrated into the neighbourhood as a walkway.

The City of Edmonton's *Policy Guidelines for the Integration of Transmission Pipelines and Urban Development (1985)* and subsequently adopted policy and other relevant Provincial legislation will be employed when considering redistricting and subdivision applications near or adjacent to the above noted pipeline.

4.0 Development Objectives & Principles

4.1 DEVELOPMENT OBJECTIVES

The South Terwillegar NASP has been prepared as a comprehensively planned residential neighbourhood taking advantage of the natural topography, pipeline corridors and locational attributes of the area. The main objectives of the South Terwillegar NASP are:

- to develop a plan consistent with the general intent and purpose of the City of Edmonton Municipal Development Plan and the Terwillegar Heights Servicing Concept Design Brief;
- to provide a framework to deliver a high quality, comprehensively planned residential area by defining the general pattern and composition of land uses, linkages, servicing designs and development staging;
- to ensure implementation of the plan in an orderly, staged basis.

4.2 DEVELOPMENT PRINCIPLES

Development of the various land uses within the South Terwillegar NASP is defined through the following general principles:

4.2.1 Residential

- Encourage a variety of housing types; including single and semi-detached housing, row housing, apartments, stacked row housing and accessory dwelling units such as garage suites and secondary suites as well as opportunities for home office uses. Housing forms and options will recognize consumer preferences and be in conformance with municipal standards and policies.
- Encourage pedestrian friendly streetscapes and building forms.
- Development of TND housing forms in the Traditional Neighbourhood Expansion area.

- Establish sufficient overall residential densities within the South Terwillegar NASP to help support the efficient provision of neighbouring educational facilities, recreational facilities and municipal services such as public transit in a timely fashion.
- Provide direct and safe linkages to the community nodes such as the Towne Square, central park areas, higher density nodes and adjacent neighbourhoods.
- Design residential developments to take advantage of natural and man-made features such as SWM facilities, park/open spaces and pipeline corridors.
- Orient larger parcels of medium density residential development toward the collector and/or arterial road system to provide easy access to transit.
- Orient higher density uses (semi detached, row housing and apartment housing) toward the Towne Centre.
- Integrate smaller parcels of medium density residential development within the neighbourhoods adjacent to low-density residential development to provide alternative housing options within the community.

4.2.2 Municipal Reserves and Community Facilities

- Provide park sites for formalized recreation and community league facilities within the neighbourhood through the dedication of municipal reserves.
- Provide dispersed parks, through the dedication of municipal reserve such that open space and passive recreation opportunities are within easy walking distance of most residents.
- Ensure that a variety of park opportunities are present in the plan area that addresses a wide variety of users. Alternatives to large, assembled and programmable park spaces will be encouraged to ensure a balanced open space system. These nodes should be located along pedestrian corridors, in residential precincts or at strategically located view point opportunities.

4.2.3 Existing Uses

- Accommodate the continuing use of any existing residential development while allowing for future re-development of these lands if and when the owners choose to pursue that opportunity.

4.2.4 Transportation

- Provide a logical, safe and efficient transportation system within the plan area to address the pedestrian, bicycle, transit and vehicular transportation needs of residents moving to, from and within the South Terwillegar NASP as well as the adjacent neighbourhoods.
- Provide non-vehicular circulation options through and around the South Terwillegar area with special attention to linkages to the Towne Square and central park area.
- Minimize trip distance by creating an interconnected street network where possible and providing walkways where road connections are not feasible.

4.2.5 Resource Operations

- Accommodate the safe and nuisance-free operation of existing utility rights-of-way and integrate pipeline corridors into the development concept as walkways and open space linkages where feasible.

5.0 Development Concept

5.1 NEIGHBOURHOOD UNIT

The development concept for the South Terwillegar NASP has been prepared in response to current and anticipated residential market trends in the Edmonton region. An analysis of these trends and an assessment of their implications help shape the plan with respect to the type, size and location of various land uses.

The South Terwillegar NASP is comprised of 168.00 hectares and is bound on all sides by an existing neighbourhood, existing/future arterial and freeway roadways. These elements create a logical planning unit as shown on Figure 6.0 - Development Concept.

5.2 RESIDENTIAL

The majority of land within South Terwillegar is intended for residential development as shown on Figure 6.0. A mix of low and medium density residential dwelling units are described and will be implemented based on market conditions and consumer preferences at the time of development. *Residential land will typically be developed at densities of 25 units per net low density residential hectare, 35 units per net street oriented residential hectare, 90 units per net medium density residential and 75 units per net Towne Square medium density residential hectare. This would result in approximately 10,620 people and a density of approximately 35 units and 96 people per net residential hectare.*

Bylaw 13992
May 25, 2005

Bylaw 15651
January 31, 2011

5.2.1 Low Density Residential (LDR)

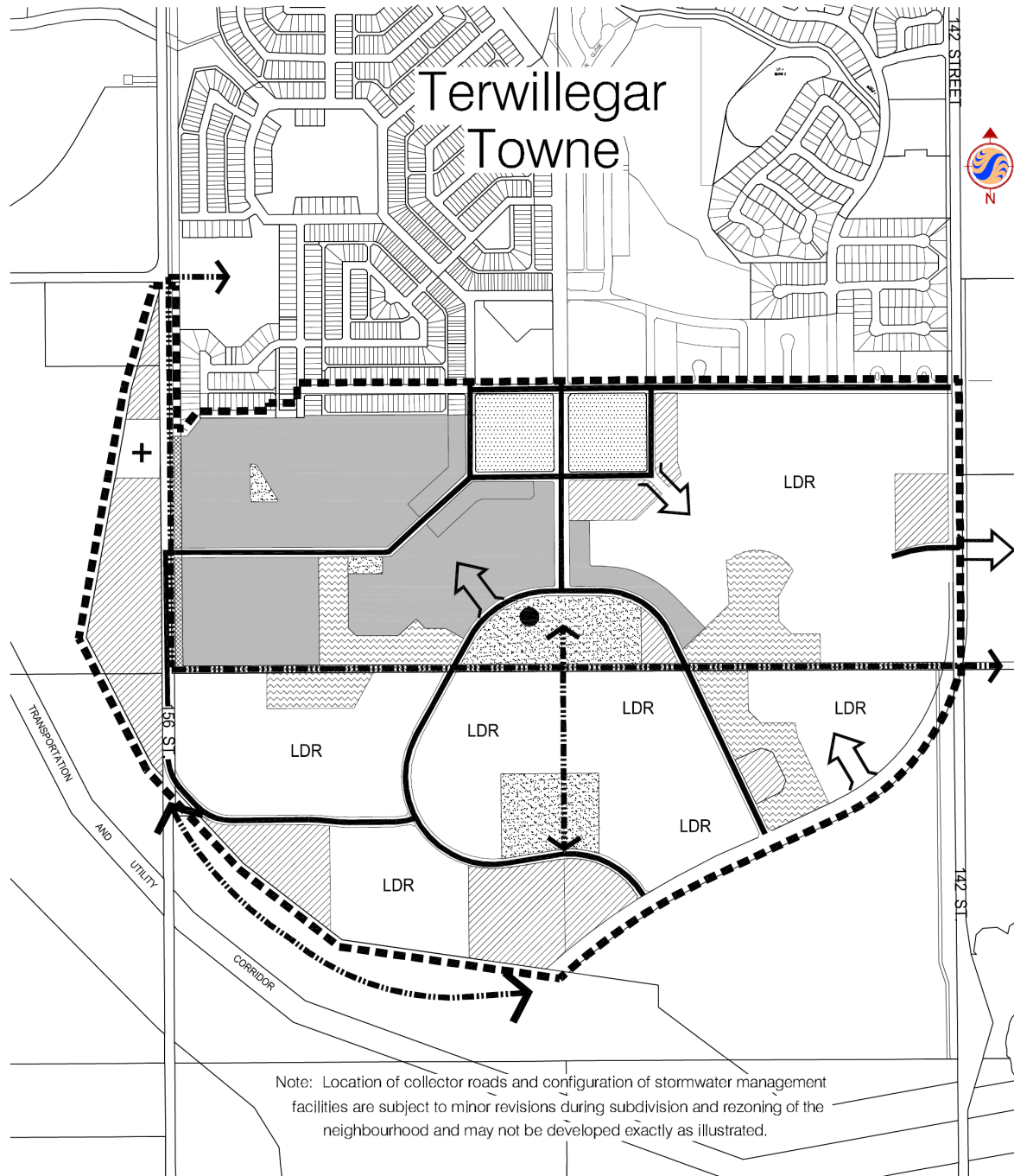
As shown on Figure 6.0, consideration has been given to the location of low-density residential development in proximity to the amenity offered by the stormwater management facilities, walkways and park sites. Within the low density residential area identified in the plan, housing forms will be predominantly single and semi-detached housing catering to a variety of lot and house sizes.

5.2.2 Street Oriented Residential (SOR)

It is intended to continue the existing form of traditional neighbourhood development for *SW-35-51-25-W4 and Ptn. Lot , Block 1 Plan 022 1834*. As indicated on Figure 7.0 – Traditional Neighbourhood Extension Area, the highlighted area will be designated as Street Oriented Residential

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Figure 6.0* - Development Concept Plan



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Legend

- | | | |
|--------------------------------|-------------------------|--------------------------|
| LDR | Low Density Residential | Mixed Use Towne Square |
| Street Oriented Residential | | Major Pedestrian Linkage |
| Medium Density Residential | | Collector Roadway |
| Municipal Reserve - Park | | Access |
| Stormwater Management Facility | | Church Site |
| Public Utility | | Lift Station |
| | | NASP Boundary |

Project

SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
6.0

Title
Development Concept Plan

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***Bylaw 15651 January 31, 2011**

(SOR) and will be developed consistent with current forms and standards of Terwillegar Towne.

The SOR area will allow for a range of single unit housing including front attached, rear attached and rear detached garages as well as semi detached and row housing with up to 4 dwellings per building.

To ensure continuity between existing and future development, Section 920 (Special Area Terwillegar Towne) of the Land Use Bylaw will be amended, concurrently with this NASP Bylaw, to cover the area indicated on Figure 7.0. This will ensure that the Terwillegar Towne Neighbourhood elements and design principles will be applied to the developments in the area indicated in Figure 7.0.

As with the zoning regulations, engineering standards currently being applied in Terwillegar Towne will be applied to the area highlighted in Figure 7.0.

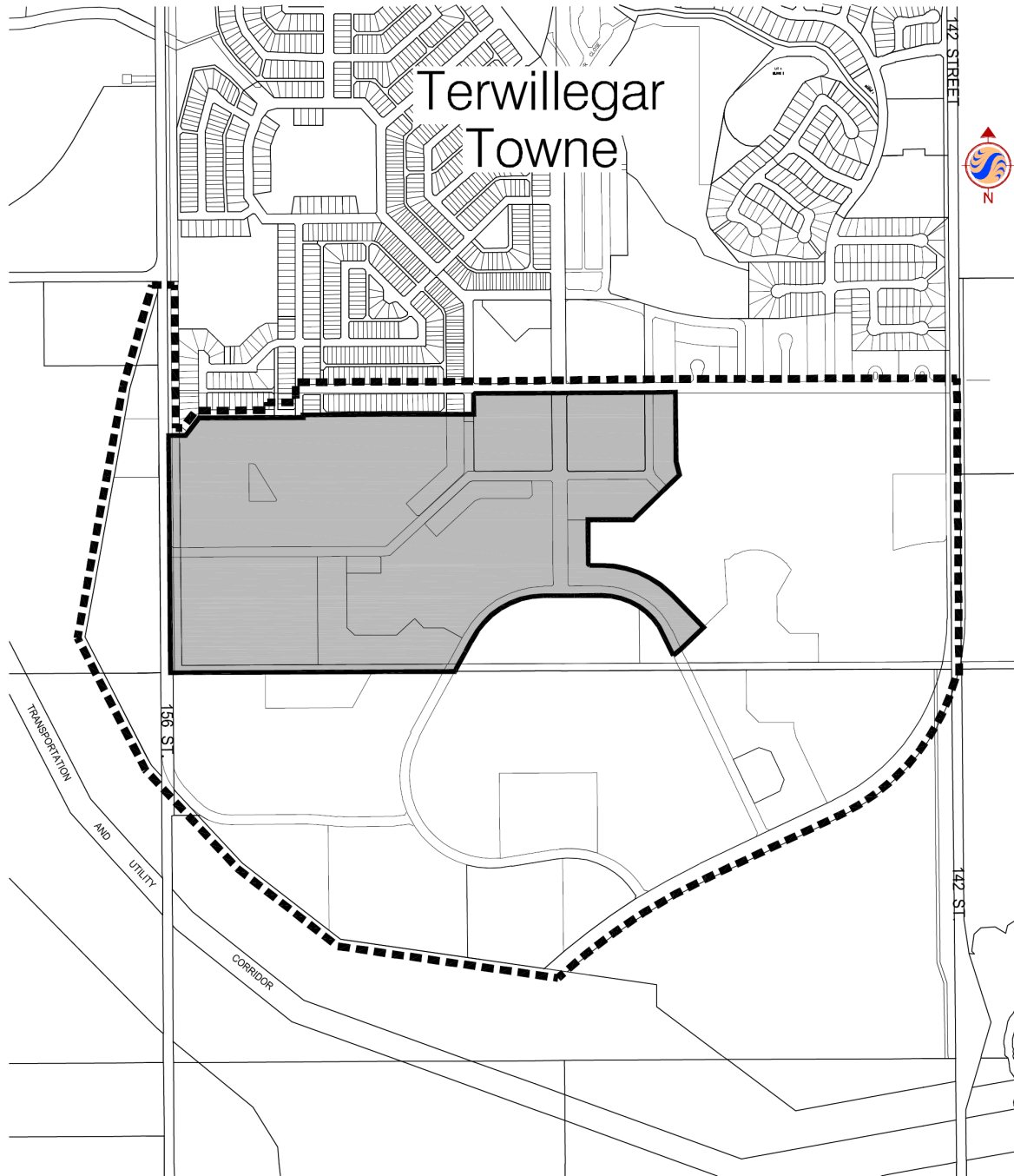
The area, number of dwelling units and population attributed to low-density residential development and street oriented development are shown in the Appendix.

5.2.3 Medium Density Residential

Opportunities exist within the South Terwillegar NASP for a variety of medium density housing forms and densities including townhouses, stacked townhouses and low-rise apartment buildings. Future market demands will determine the type of medium density residential pursued in each particular circumstance.

Market trends in medium density residential development points to a growing interest in more lifestyle oriented housing and, thus, consideration is given locating medium density sites in proximity to walking corridors, amenities and services. This plan proposes that MDR sites be integrated into the community with access off internal roadways. These sites adjacent to park sites, pipeline corridors, stormwater management facilities, existing institutional areas and the Towne Square will help ensure exposure of these features to many residents. It should be noted, however, that the location of these sites still respects the fact that through traffic within low density residential areas should be limited where possible. These areas are also well served by pedestrian linkages allowing convenient access to commercial development, open space areas and transit connections.

Figure 7.0* - Neo Traditional Neighbourhood Extension Area



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Legend
 Traditional Neighbourhood Extension Area

Project
 SOUTH TERWILLEGAR
 NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
7.0

Title
Neo Traditional Neighbourhood Extension Area

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Other medium density residential sites have been located on the periphery of the neighbourhood in accordance with the Suburban Neighbourhood Design Principles.

Medium density residential uses have been designated for the northern portion of *SE-34-51-25-W4* as requested by representatives of the Holy Trinity Chinese Anglican Church. The adjacent triangular parcel has also been designated for medium density housing at the request of the Province of Alberta, owner of the parcel when this plan was being prepared. The location of these uses is appropriate given their peripheral location and proximity to collector roadways.

Amended by
Editor

The medium density parcels are likely to be developed on a self-contained basis with the exception of those adjacent to the Towne Square, which will be developed as street-oriented townhousing fronting onto the Towne Square. These developments will be integrated alongside low-density residential housing through sensitive streetscape design and attention to transitioning.

The area, number of dwelling units and population attributed to medium density residential development are shown in the Appendix.

5.3 TOWNE SQUARE

The South Terwillegar plan proposes that the southern half of the Terwillegar Towne Square be located within in its area. The concept for the Towne Square will see the development of a mixture of land uses including some day-to-day commercial needs. The overall commercial component in the Towne Square will be limited to approximately 70 000 sq.ft. of retail space oriented primarily to the two collector roadways. It is intended to develop the southern portion of the Towne Square consistent with the relevant goals and objectives found within the Terwillegar Towne NASP.

To ensure continuity and as depicted in Figure 7.0, the zoning regulations under section 920 of the Land Use Bylaw will be extended concurrently to this area.

5.4 INSTITUTIONAL

The plan recognizes an existing institutional use located in the extreme northwest portion of the plan area. Currently, *a private organization* operates a religious assembly on a 1.6 hectare parcel of land located along the existing 156 Street Government Road Allowance. The southern portion of the property, where the church is located, has been designated as a church site on Figure 6, while the northern portion, as mentioned above, has been designated as MDR. The area's location next to a collector roadway and in proximity to other medium density residential uses ensures that appropriate traffic dispersion and transitions are provided.

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5.5 OPEN SPACE & PEDESTRIAN LINKAGES

5.5.1 Open Space

As shown on Figure 6.0, a neighbourhood park site has been designated within South Terwillegar at the south terminus of Towne Centre Boulevard. This approximately 4.3 hectare site has been located with access to the pedestrian network as well as the collector roadway network and is intended to accommodate programmable playing fields, a community league building and associated hockey / tennis facility.

A second large park site has been located south of the above noted park area. As with the north site this approximately 3.25 hectare site will accommodate two programmable playing fields as well as parking opportunities. It will be linked to the north park by a landscaped pedestrian walkway.

This two-site configuration provides a logical and equitable distribution of municipal reserve in the South Terwillegar area while yielding greater frontage onto a collector roadway which provides a dispersion of potential congestion experienced during events. The developers have committed to topsoil, grade, level and seed these two parks at their expense.

Two smaller park sites have also been located within the traditional area of the plan and are intended to further strengthen traditional aspects of *SW-35-51-25-W4 and Ptn. Lot 1, Block 1 Plan 022 1834* by acting as street level open spaces as well as visual amenities. These open spaces create unique, small, residential precincts typical of traditional design.

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Editor

Open space will also be provided around the stormwater management facilities as part of public utility lots. The extent of public open space (and private land) around these facilities will conform to City policies at the time of development and will augment planned open spaces and pedestrian corridors.

The areas of the park sites are detailed in the Appendix.

5.5.2 Pedestrian Linkages

Linear open space corridors are an important element of a neighbourhoods circulation patterns. As shown on Figure 8.0, Pedestrian Linkages, three primary walkways have been planned for South Terwillegar. The first, occupying the main pipeline corridor, will be a 3.0 m asphalt trail connecting South Terwillegar between the Transportation and Utility Corridor and the future neighbourhood east of 142 Street. Where the walkway crosses collector roadways within the neighbourhood, crosswalks with curb extensions or other traffic management devices will be installed to improve the safety of pedestrians and cyclists.

The second walkway will run north-south, providing a landscaped pedestrian linkage between the two large parks in the neighbourhood. Adjacent residential development will be connected to the walkways with pedestrian walkways to facilitate their recreational use and convenience as alternative routes through the neighbourhood.

The third walkway will be a 3.0 m granular facility within the TUC providing pedestrian linkages between South Terwillegar subdivisions and subdivisions in adjacent neighbourhoods. This walkway will be accessed via a number of connections from the neighbourhood. The exact location and configuration of these accesses will be determined at the subdivision stage.

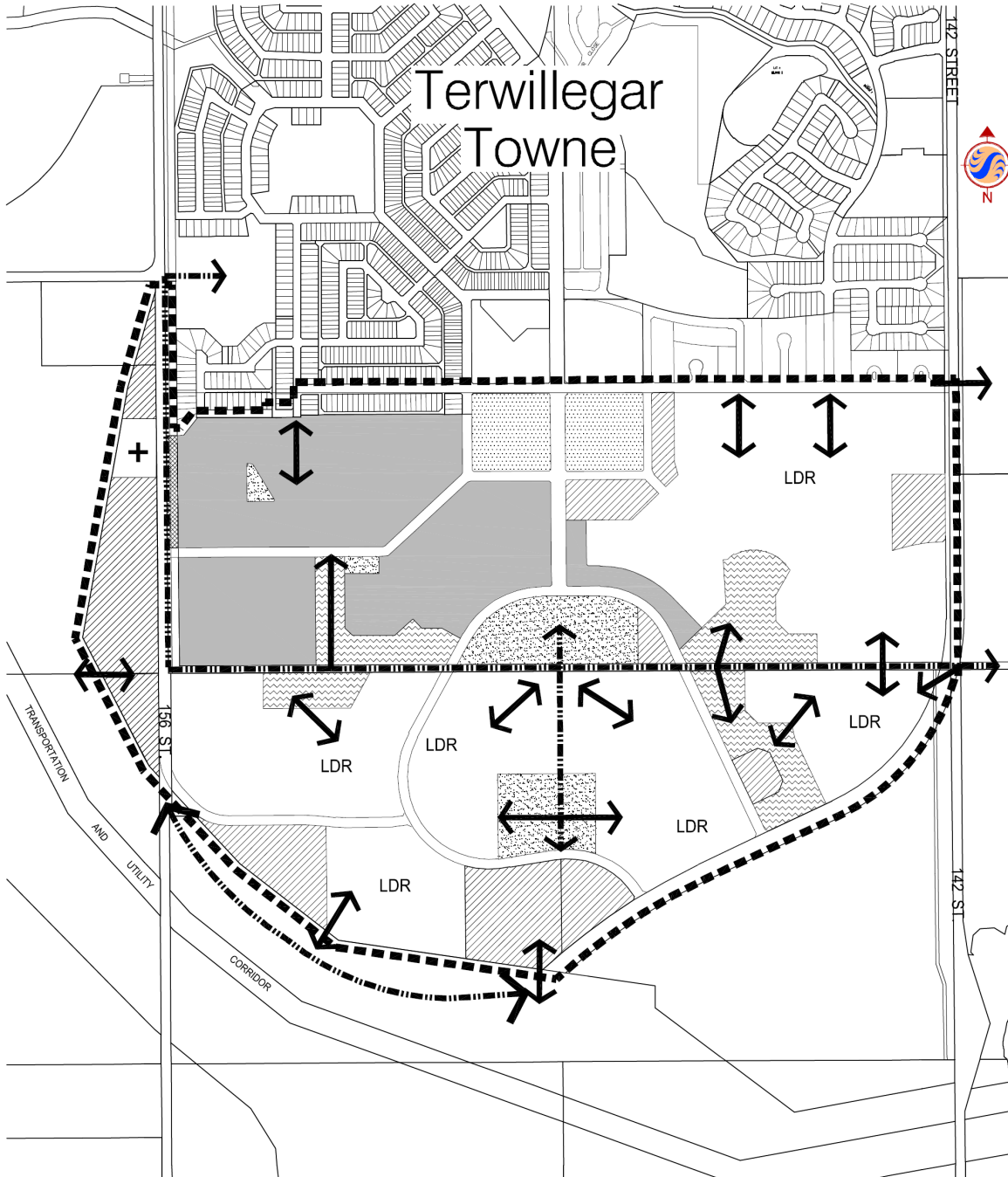
The neighbourhood will also have other trails, including one within the 142 Street road right-of-way.

Development cells without street interconnections and long cul-de-sacs will be joined via walkways to enhance connectivity within the neighbourhood. These walkways will be determined during the subdivision stage and will be provided where appropriate.

5.6 STORMWATER MANAGEMENT FACILITIES

Stormwater management facilities have been located to reflect the natural drainage patterns of the area, equitable distribution between the various ownership, and with the goal of creating an extensive, linked, open space system. These facilities primarily act as a public utility with secondary functions as neighbourhood amenities. In their design consideration has been given to their shape to provide views from both residential enclaves as well as from the open space and collector/arterial roadway networks.

Figure 8.0* - Pedestrian Linkage Plan



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***Bylaw 15651
January 31, 2011**

Legend

- LDR Low Density Residential
- Street Oriented Residential
- Medium Density Residential
- Municipal Reserve - Park
- Stormwater Management Facility
- Public Utility
- Church Site
- Proposed Pedestrian Linkages
- Major Trails
- NASP Boundary

Project

SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.

8.0

Title

Pedestrian Linkage Plan

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5.7 TRANSPORTATION

The South Terwillegar neighbourhood will be well served by arterial roadways as shown on Figure 6.0. There are three access points into the neighbourhood off 142nd Street as well as access from the north via Towne Centre Boulevard. These access points have been planned based on existing and future anticipated intersections on the opposite side of the respective roadways.

A looping collector roadway will service the southern portion of the plan and link at the north end of the central park area to Towne Centre Boulevard.

Walkways will be provided throughout the plan area to connect points within and outside the neighbourhood. Any physical improvements to the utility corridors will be done in consultation with the City of Edmonton and the respective utility companies.

6.0 Engineering Services

6.1 STORMWATER DRAINAGE

As shown on Figure 9.0 - Stormwater Drainage, four stormwater management facilities are designated within South Terwillegar. These facilities have been located based on the natural drainage patterns of the area as well as ensuring that the various ownerships in the plan area have an equitable amount of pond area. These facilities, which will be “naturalized wetlands”, will have an outfall into Whitemud Creek.

Further details regarding the stormwater drainage schemes for South Terwillegar are provided in the associated Neighbourhood Designs Report submitted under separate cover. Other reports such as Environmental Impact Assessment for the stormwater outfall into Whitemud Creek will also be submitted under separate cover.

6.2 SANITARY SERVICING

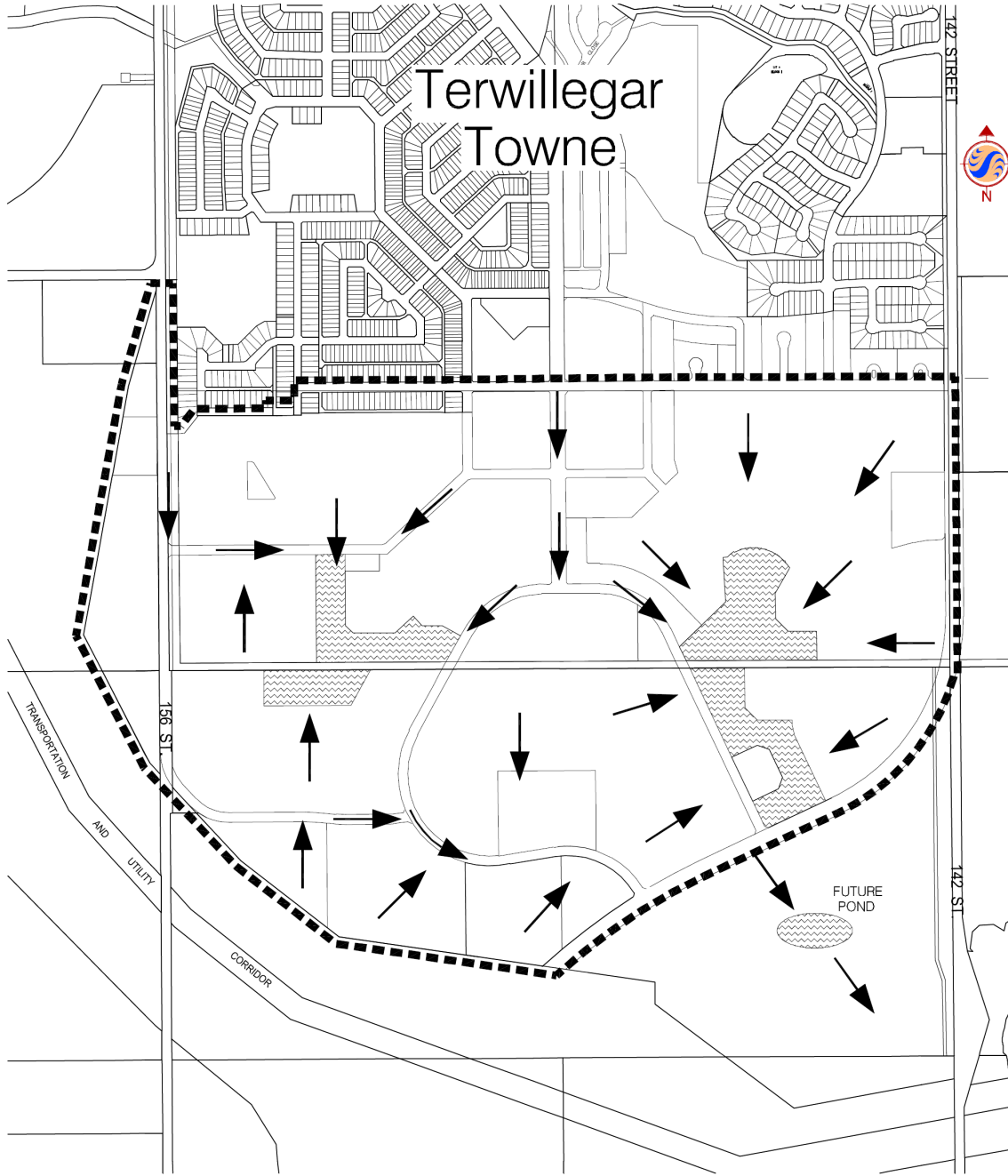
As shown on Figure 10.0 - Sanitary Servicing, sanitary services for South Terwillegar will connect into existing lines located in the developing areas to the north. The on-site sanitary network will follow the internal roadway network and associated public utility lots. The exact location of the lift station has not been determined. If it is to be located in a prominent location at the terminus of Towne Centre Boulevard, it will be designed with attractive architecture that will complement and help enhance the area’s overall aesthetics.

Further details regarding the sanitary drainage schemes for South Terwillegar are provided in the associated Neighbourhood Designs Report submitted under separate cover.

6.3 WATER SERVICING



Water servicing within the neighbourhood will be designed to provide peak hour flows and fire flows for low density and medium density uses. Water looping will be provided in accordance with the requirements of EPCOR. Prior to detailed design, a Water Network Analysis will be submitted to EPCOR for review and approval.

Figure 9.0* - Storm Drainage Plan



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Legend
 Stormwater Management Facility
 Conceptual Direction of Flow

Project
 SOUTH TERWILLEGAR
 NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
9.0

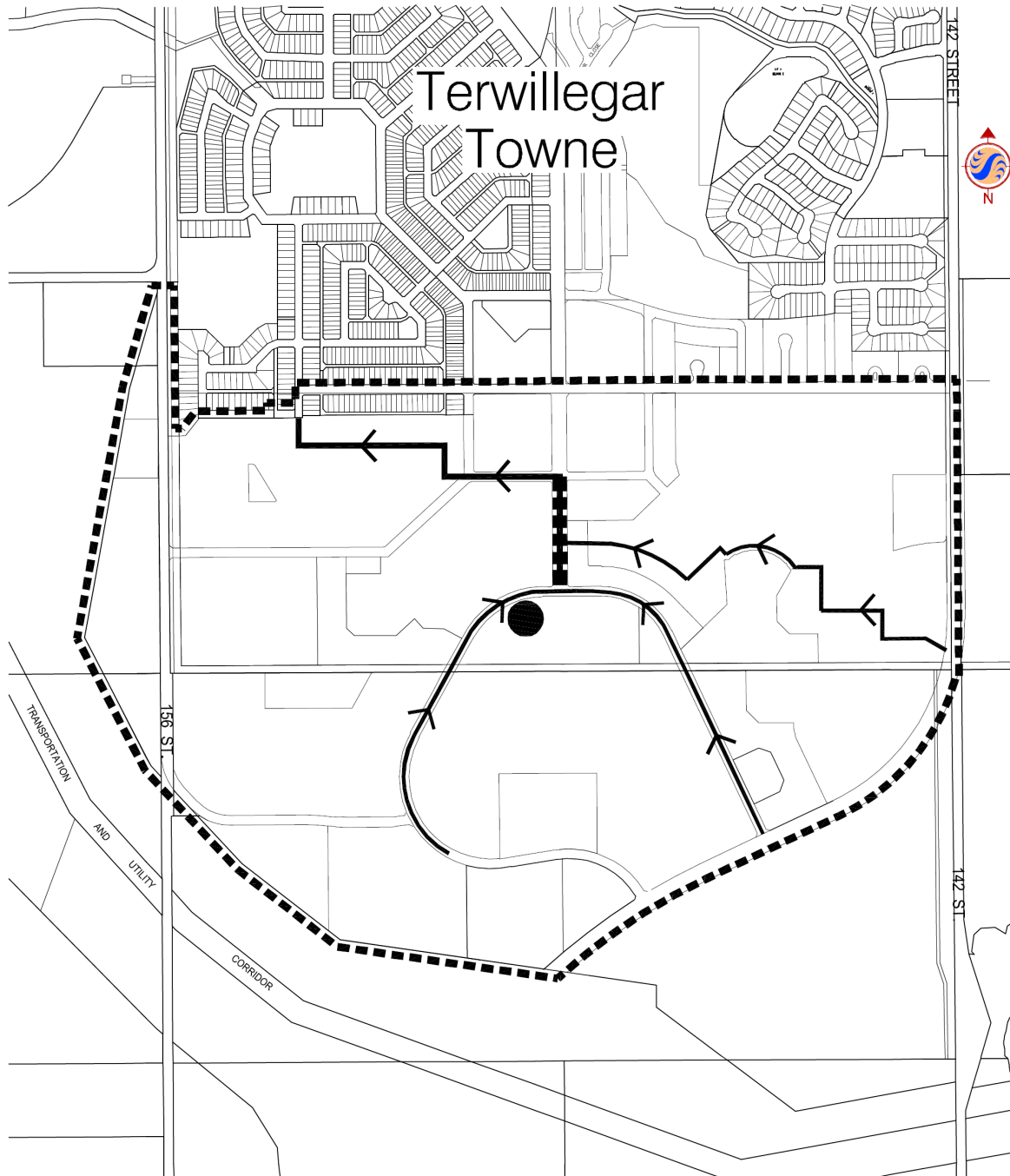
Title
Storm Drainage Plan

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***Bylaw 15651 January 31, 2011**

Figure 10.0* - Sanitary Servicing Plan






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***Bylaw 15651 January 31, 2011**

- Legend
-  Sanitary Truck Sewer (Gravity)
 -  Approximate Lift Station Location
 -  Forcemain

Project
SOUTH TERWILLEGAR
NEIGHBOURHOOD AREA STRUCTURE PLAN

Figure No.
10.0

Title
Sanitary Servicing Plan

July 2010
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6.4 SHALLOW UTILITIES

Power, gas and telecommunication services are all located within close proximity to the South Terwillegar NASP and will be extended as required.

7.0 Transportation

7.1 TRANSPORTATION

The transportation network in and near South Terwillegar will consist of a system of freeway, arterial, collector and local roadways and walkways to accommodate the movement of automobiles, transit vehicles, pedestrians and bicycles.

This hierarchy of roads will provide the necessary interconnections appropriate to efficiently and effectively accommodate traffic flows at the arterial, collector and local roadway levels.

Alternative opportunities for circulation throughout the neighbourhood are provided via a walkway network connecting key nodes in South Terwillegar. Convenient linkages between open space, higher density residential and Town Centre areas are provided. These linkages provide easy access for pedestrians and cyclists. Local streets should be interconnected where possible.

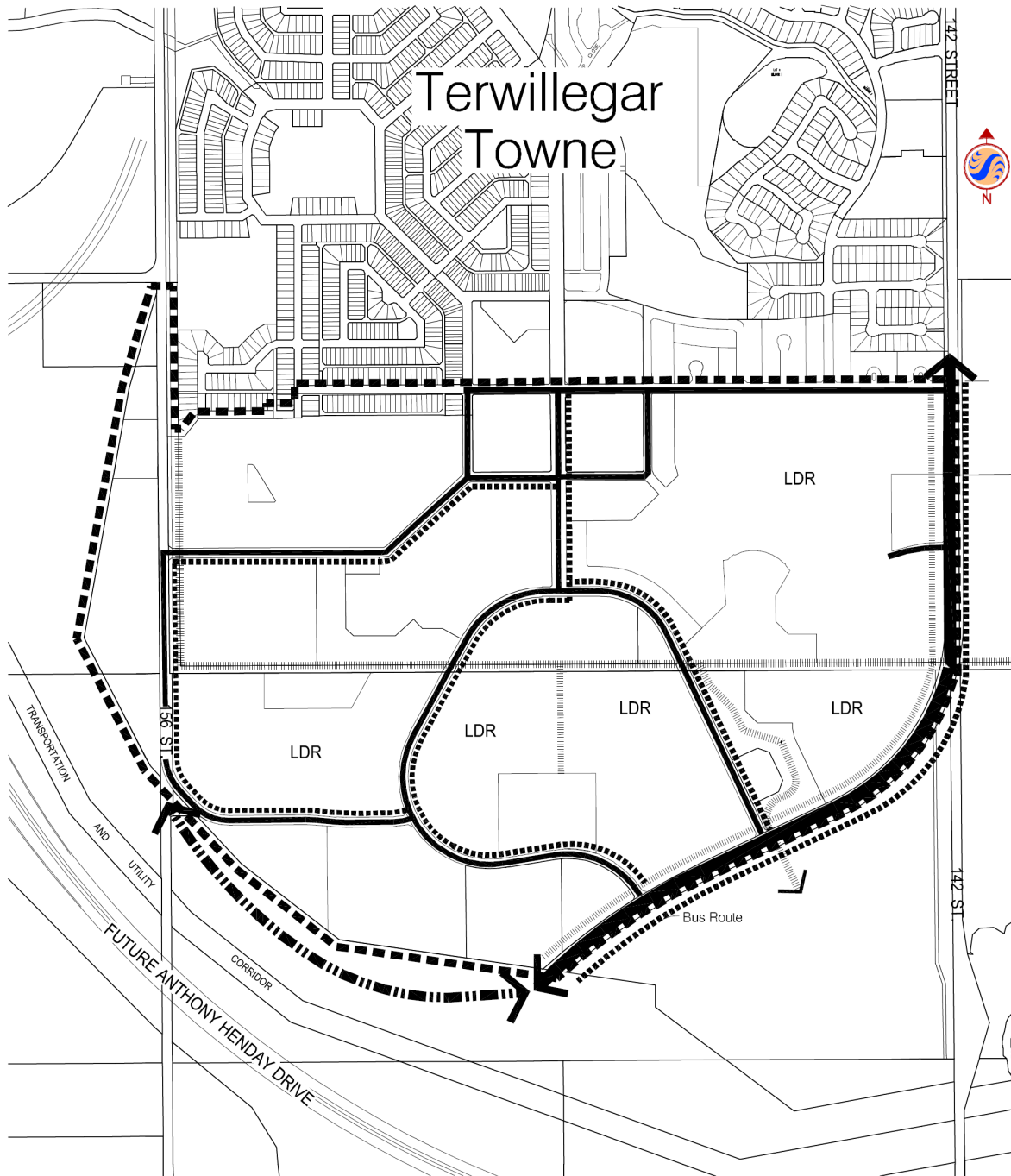
A concurrently submitted Transportation Impact Assessment provides details and recommendations regarding the traffic of the South Terwillegar Area. The South Terwillegar neighbourhood will be participating in the construction of roadways to service the Terwillegar Area via the Arterial Roadway Assessment program, as outlined in the Transportation Impact Assessment.

7.2 ROADWAY NETWORK

As shown on Figure 11.0 - Transportation, the proposed development will enjoy a high level of accessibility by virtue of its close proximity to Anthony Henday Drive, 142nd Street and the existing Towne Centre Boulevard. A looping collector roadway will provide access off the arterial roadway network into the neighbourhood and onto the local roadway network. Several access points into the neighbourhood off 142nd Street have been planned, based on existing and future anticipated intersections on the opposite side of the respective roadways.


Anthony Henday Drive, part of the Province of Alberta's North-South Trade Corridor, will be located adjacent to the southern boundary of the neighbourhood. When opened in 2006, it will be a 4 laned, divided expressway standard roadway. Initial construction will include a grade separated intersection at the intersection with Terwillegar Drive.

Figure 11.0* - Transportation



Note: Multi-use Trail along 142nd Street located within 142nd Street Road Right of Way

NTS



Legend

- Arterial
- Collector
- Bus Route
- Multi Use Trail
- TUC Trail

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In the initial stages Terwillegar Drive, which forms the western boundary of the South Terwillegar plan, will be widened to 4 lanes all the way to Anthony Henday Drive.

When 142nd Street is extended to Anthony Henday Drive, it will form a T-intersection providing right in and right out access.

The Province will provide noise attenuation along the corridor in accordance with the City of Edmonton's Urban Traffic Noise Policy. The City's Urban Traffic Noise Policy states "Where a freeway or arterial is proposed to be built or upgraded through or adjacent to a residential area, the roadway is to be built to meet a noise level as low as possible below 65 dBA with an objective of achieving 60 dBA". Where traffic noise levels are not expected to exceed 60 dBA, no noise attenuation is required according to the policy.

Further noise level evaluations will be carried out during the design phase of this project to verify if these and other locations merit noise reduction measures. If during the course of these further evaluations the locations are confirmed to exceed the 60 dBA objective, noise attenuation will be provided at these locations. The Province is committed to providing noise attenuation wherever it is needed along Anthony Henday Drive to satisfy the 60 dBA (24 hr) objective. The Province has indicated that they will generally not permit noise attenuation berming within the TUC. Should berming be required, the land for the berms will be accommodated within the plan area.

The local roadway pattern in the plan will develop in the form of TND street patterns and more typical suburban curvilinear streets and cul-de-sacs. These street patterns eliminate short cutting and promotes many CEPTED principles such as natural surveillance. Pedestrian access from the neighbourhood will be provided via walkways linking to a granular trail system running through the TUC.

7.3 ROADWAY STAGING

A roadway staging plan was prepared as part of the review and approval process for this NASP's which addresses the planned upgrades that will be undertaken to 23rd Avenue and 142nd Street. Full development of the Terwillegar area requires additional upgrading of 23 Avenue and 142 Street, as outlined in Section 4.2 of the Transportation Impact Assessment.

23 Avenue is currently a two lane arterial and the main east-west roadway servicing the development area. Long term plans for 23 Avenue include a five lane cross section. Short term plans for 23 Avenue include a four lane

cross section beginning approximately 300 metres west of 142 Street and ending approximately 600 metres east of 142 Street.

142 Street is currently a two lane arterial and connects to 23 Avenue at a signalized intersection. 142 Street currently provides access to the east side of the Terwillegar Towne neighborhood. Ultimately, 142 Street will connect to Anthony Henday Drive with a grade-separated interchange. In the short term 142 Street will connect to Anthony Henday Drive as a right-in/right-out.

Towne Centre Boulevard is a four lane divided collector road. It is currently connected to 23 Avenue at an unsignalized intersection. It provides access to the Terwillegar Towne neighborhood and will ultimately connect to the center of the South Terwillegar neighborhood. A modern single lane roundabout is planned for the intersection of Town Centre Boulevard – Terwillegar Boulevard in the center of the Town Square.

Other collector and local roadways will be constructed in concert with subdivision development in the neighbourhood. Arterial roadway upgrades, as outlined in the Transportation Impact Assessment, will be constructed as necessary with subdivision development.

7.4 TRANSIT SERVICE

Future transit service is appropriate along the collector roadway network as well as along 142nd Street. Given the shape of South Terwillegar and the alignment of the collector roadway, access to transit is generally within 400m walking distance of virtually all parts of the neighbourhood.

Existing and future transit routes will follow 142nd Street and along the looping collector roadway and have been / will be established on the basis of the proportion of trips which are expected to be generated from within the neighbourhood and adjacent areas.

7.5 PEDESTRIAN & BICYCLE CIRCULATION

Sidewalks will be provided along all adjacent arterial roadways, collector and internal local roadways in accordance with City policies and practices. Walkways will be provided to connect sidewalks along the internal roadway network with the stormwater management areas and pipeline corridors. These corridors will be clearly marked and separated from vehicular traffic. Walkways will also be provided to minimize walking distances where street interconnections are not feasible.

The bicycle circulation system for South Terwillegar and adjacent neighbourhoods will be developed with wide curb lanes along the arterial

roadway network on 142nd Street and where appropriate and logical within the residential area. In addition to the wide curb lanes on 142nd Street, a 2.5 m wide multi-use trail will be constructed within the road right of way.

A major walkway will bisect the plan area along the pipeline right-of-way and will be constructed as a 3.0 m wide asphalt trail. Where trails are provided adjacent to stormwater management facilities they will be constructed to a minimum of 2.5 m wide asphalt trails. A 3.0 m wide multi use granular trail will also be constructed in the TUC that will connect to the multi use trail along 142nd Street.

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7.6 ACCESS

Access to MDR sites will generally be provided off of internal collector roadways in accordance with the requirements of the City of Edmonton Transportation and Streets Department. In accordance with this principle the MDR site, located in the north western portion of the plan area adjacent to 142nd Street, will not have any access permitted from 142nd.

7.7 PARKING

Parking for vehicles will generally be provided off-street in conjunction with residential development.

8.0 Implementation

8.1 DEVELOPMENT STAGING

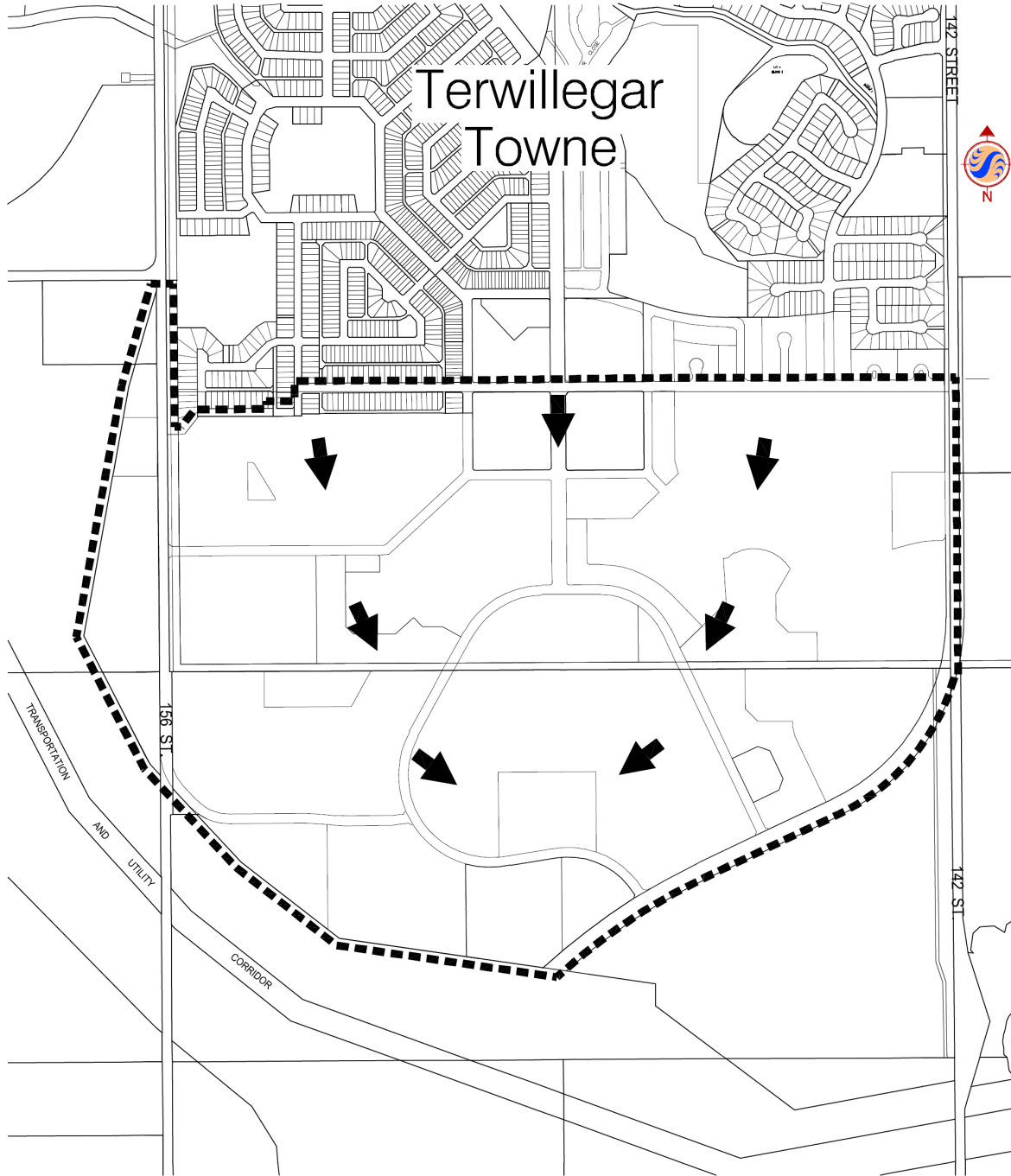
Infrastructure to service the initial stages of the South Terwillegar will be extended into the neighbourhood from existing developments to the north.

As shown on Figure 12.0 - Staging Plan, initial stages of residential development are intended to begin from the north and progress southward. However, all lands in the plan area are developable. All areas will have the opportunity to proceed provided acceptable servicing and transportation solutions become available.

8.2 REZONING & SUBDIVISION

Rezoning and subdivision of the land to conform to the land uses designated in the NASP will be undertaken when necessary.

Figure 12.0* - Staging Plan



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