# **Planning Justification Report**

# 5081 Wellington Road 32

Xinyi Canada Glass Limited

Guelph Eramosa Township

Proposed Zoning By-law Amendment

April 2018



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Prepared for: Xinyi Canada Glass Limited 3601 Highway 7 East, Suite 702-704 Markham, ON L3R 0M3

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### Contents

1.0	Intro	duction	2
2.0	Site	Description and Surrounding Uses	5
3.0	Land	Use Policy and Regulatory Context	7
	3.1	Provincial Policy Statement, 2014	7
	3.3	Growth Plan for the Greater Golden Horseshoe, 2017	9
	3.4	County of Wellington Official Plan10	0
	3.5	Township of Guelph Eramosa Zoning By-law 40/201613	3
4.0 C	Conce	ptual Site Plan15	5
5.0 P	ropos	ed Zoning By-law Amendment and Planning Analysis18	8
6.0	Prov	incial Policy, Plans and County Official Plan Analysis24	4
	6.1	Provincial Policies	4
		The Provincial Policy Statement24	4
		Growth Plan27	7
	6.2	County of Wellington Official Plan	8
7.0 C	Conclu	ision	0

Appendix A – Memorandum from RWDI Re: Noise

# **1.0 Introduction**

GSP Group Inc. (GSP) has been retained by Xinyi Canada Glass Limited ("Xinyi") to prepare a Planning Justification Report in support of a Zoning By-law Amendment application on lands known municipally as 5081 County Road 32 (the "Site"). The property is legally described as Part Lot 2, Concession 2, Division 'B', Geographic Township of Guelph, Township of Guelph-Eramosa. (Figure 1).

Xinyi Glass Holdings Limited, a major supplier in the global supply chain, was founded in 1988. They are the world's leading integrated glass manufacturer of a wide range of products including high-quality float glass, automobile glass, engineering glass and electronic glass, and other products. Xinyi is also committed to the use and development of energy saving products including the Xinyi's SOLAR-X heat reflecting automobile glass.

Xinyi now is looking to establish itself in Canada and has selected the Site for a new float glass manufacturing facility. The Site was selected due to numerous locational attributes, including:

- location proximate to market;
- good connectivity to County Roads and the Provincial Highway system;
- proximity to rail for raw product supply;
- local post-secondary educational facilities for staffing;
- the Site's size and configuration; and,
- the in-force official plan and zoning permissions.

The proposed industrial use consists of the following:

- Approximately 165,050 square metres of manufacturing and warehousing floorspace. The majority of this space will be in one large building, with additional supporting accessory buildings and structures. It is noted that loading of finished product will be internal to the main building;
- A corporate campus precinct is proposed to locate along the County Road 32 frontage and will consist of an office building (approximately1,675 square metres); multi-purpose facility for meetings, training, employee health and fitness facilities and corporate events; and, accessory dwelling units providing short-term accommodation. These accessory dwelling units are intended to house employees temporarily for training and specialized work such as on-site caretaking and maintenance; specialized staff to provide on-site training of local employees; specialized service and maintenance personnel; and, visiting company executives for on-site meetings. Given the scale of the facilities, Xinyi requires "just-in-time" maintenance of their operations on a 24/7 basis if there is an issue with the manufacturing operations.





Source: Wellington County Online Mapping (March 2018)



Planning Justification Report | Xinyi Canada Glass Limited GSP Group | March 2018

Xinyi has indicated that the proposed facility will employ between 400 to 450 people, with approximately 140 employees per shift.

The Site is designated "Rural Employment Area" in the County of Wellington Official Plan, which permits dry industrial uses including: manufacturing; processing, fabrication and assembly of raw materials or repair, servicing, distribution and storage of materials as well as accessory uses.

The Site is zoned "Rural Industrial - M1" in the Township of Guelph/Eramosa Zoning By-law 40/2016. A range of industrial uses are permitted including industrial uses, offices, or facilities for employees (including recreational uses, a child care centre, and a restaurant), and other accessory uses.

The proposed float glass manufacturing facility is permitted by the Official Plan designation and Zoning By-law, however, site specific zoning provisions are being sought as follows:

- Parking 1 space per 900 square metres of manufacturing/warehouse space; and, 0.5 spaces per accessory dwelling unit. (These site specific regulations reflect the employee demand specific to this facility);
- Loading permit a site specific loading requirement of 0 spaces (as all loading of finished product will occur within the main manufacturing/warehouse building.
- Building Height increase from 15 metres to 22 metres applicable to all buildings (to accommodate specialized equipment requirements in some of the accessory buildings;
- Building setback of 10.6 metres to County Road 32, whereas 22.5 metres is required;
- Increase the maximum lot coverage from 40% to 50% of lot area. This will provide for additional flexibility to accommodate building design and siting of accessory structures; and,
- Adding permission of "Accessory Dwelling Units directly associated with the operation of the manufacturing facility".

GSP Group attended a Pre-Consultation meeting with Wellington County and Township of Guelph Eramosa staff on December 12, 2017, to discuss the proposed use and to identify the requirements of a complete application for a Zoning By-law Amendment. The Township has requested the preparation of a Planning Justification Report and Conceptual Site Plan demonstrating the suitability of the Site for the proposed development. It is noted that the development approvals will be subject to a future detailed Site Plan application that will be supported by detailed plans and reports, and subject to Township, County and Provincial agency review.

This Report has been structured to provide:

- A description of the Site, its existing physical conditions and its context within the surrounding community;
- A description of the Conceptual Site Plan illustrating the proposed development;
- An outline of the proposed Zoning Amendment;
- An overview of the relevant planning policy and regulations that affect the proposed planning application, including Provincial, County and Township policy, regulations and guidelines; and,
- An assessment of the proposed planning applications with respect to the relevant policy and regulatory frameworks and justification for the proposed planning application.

### 2.0 Site Description and Surrounding Uses

The property is located on the east side of Wellington County Road 32, north of the CN Rail Line north of County Road 124, and is municipally know as 5081 County Road 32 (the "Site") (Figure 2).

The Site is approximately 49 ha (122 acres) with in size and is approximately 502 m wide and 1,017 m deep. Along the County Road 32 frontage, there is a small parcel (60 metres by 61 metres), which is not part of the Site, that is occupied by a navigation tower associated with Waterloo International Airport.

The majority of the site has been farmed. A small portion of the Site is currently used for the outside storage of materials (wood pallets) and there are four buildings on Site including two framed drive sheds, a barn and an unoccupied two-storey residence with an attached garage. All existing building will be removed for the development of the Site.

A 30 m wide easement in favour of HydroOne runs along the north side of the property. Additionally, a 10.6 m wide strip along the Site's County Road 32 frontage is subject to a Union Gas easement.

The Site topography is varied, with gentle slopes throughout from north to south and limited vegetation outside of the agricultural operations and trees along the Site's edges. The Site is surrounded by agricultural lands to the north and southwest.

Land to the northeast is designated and zoned for employment use, however it is presently used for agricultural purposes.

Other industrial uses are located southeast of the Site along County Road 124 including: Superior Propane, Winmar Restoration, Gerry's Industrial Service, GR Garrity Appliance Service, Magnet Signs Guelph Mobile and Portable Sign Rentals, UPI Energy, Cormakye Transportation Ltd., Royal Stainless Steel Tank and Truck, and Pets Above on the north side of County Road 124; and, Quality Ready Mix, Sodrox Chemicals Ltd., Clark's Mini Storage, Fortress on the south side of County Road 124.

There are currently two existing access points to the Site, including a driveway off County Road 32 immediately north of the navigation tower site that leads straight to the east end of the Site and a secondary access to County Road 124 over the CN Rail line and neighbouring property through an easement in favour of the Site. Xinyi is proposing two access points on County Road 32 for vehicle access to the Site.

A CN Rail line runs along the southeastern border of the Site. Xinyi intends to construct private rail spur lines onto the Site to facilitate the delivery and export of materials and has been in close contact with CN Rail to coordinate same.

In accordance with the Official Plan and Zoning, the Xinyi development will be served by private onsite water and sanitary services.





Air Photo Source: Google Earth (2018) Figure

## **3.0 Land Use Policy and Regulatory Context**

The following provides a summary of the relevant planning policy and regulatory framework. This Planning Justification, as it related to these policies, can be found in Sections 5 and 6 of this Report.

Please note that policy or section numbers are referenced in parenthesis, where necessary.

#### 3.1 Provincial Policy Statement, 2014

The Provincial Policy Statement ("PPS") provides direction on matters of provincial interest, and guides growth and development in Ontario. The PPS is issued under Section 3 of the Planning Act and came into effect on April 30, 2014. It applies to all land use planning matters considered after this date. It supports land use planning that contributes to effective and efficient growth and development, long-term economic prosperity and the well-being of residents. The following provides a summary of the key policy considerations of the PPS as they relate to the proposed development.

Policies 1.3.1 and 1.3.2 speak to employment and the promotion of economic development and competitiveness. These sections require planning authorities to:

- provide for an appropriate mix and range of employment uses to meet long-term needs;
- provide opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;
- encourage compact, mixed-use development that incorporate compatible employment uses to support liveable and resilient communities;
- ensure the necessary infrastructure is provided to support current and projected needs;
- plan for, protect and preserve employment areas for current and future uses; and,
- protect employment areas in proximity to major goods movement facilities and corridors for employment uses that require them.

Policy 1.2.6.1 states that,

"major facilities and sensitive land uses should be planned to ensure they are appropriately designed, buffered and/or separated from each other to prevent or mitigate adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term viability of major facilities." The PPS allows for individual on-site water services where municipal sewage services and municipal water services or private communal sewage services and private communal water services are not provided, if site conditions are suitable for the long-term provision of such services with no negative impacts (s. 1.6.6.4).

Policy 1.6.6.7 requires stormwater management to minimize, or, where possible, prevent increases in contaminant loads and the changes in water balance and erosion. It requires the maximization of the extent and function of vegetative and pervious surfaces and promotes the use of best practices. It also requires that there be no increase risk to human health, safety and/or property damage.

The PPS also emphasizes the need to plan for land uses near rail facilities so that their long-term operation and economic role is protected (s.1.6.9.1a).

Planning authorities are to support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and climate change adaptation through land use and development patterns that promote compact form and that focus major employment, commercial and other travel-intensive land uses (s.1.8.1). They also encourage freight-intensive land uses to be situated near major highways and rail facilities and that the mix of employment and housing uses be improved to shorten commute times and decrease transportation congestion. The PPS also promotes design and orientation that maximizes energy efficiency and conservation and use of renewable energy systems and alternative energy systems (s.1.8.1).

Section 3 of the PPS speaks to Ontario's long-term prosperity, environmental health and social well-being. It promotes the reduction of the potential public cost or risk to Ontario's residents from natural or human-made hazards and speaks to the protection and conservation of Natural Heritage features (s.2.1). Significant built heritage resources and cultural heritage landscapes shall also be conserved (s.2.6.2).

Further analysis of the proposed development, in the context of these policies, is provided in Section 5 and 6 of this Report.

#### 3.3 Growth Plan for the Greater Golden Horseshoe, 2017

The 2017 Growth Plan for the Greater Golden Horseshoe ("Growth Plan") is the Province's growth strategy for the Greater Golden Horseshoe ("GGH") region. The Growth Plan builds on the PPS and provides growth management direction to municipalities. It promotes mixed-use, compact urban form, redevelopment and intensification, and the efficient use of community infrastructure. The Growth Plan intends to plan and manage growth to support a strong and competitive economy.

The Growth Plan derives its authority from the Places to Grow Act, 2005, and guides decision making regarding growth and development. The following provides a summary of the key policy considerations of the Growth Plan as related to the Proposed Development.

One of the guiding principles of the plan is to, "*Provide flexibility to capitalize on new economic and employment opportunities as they emerge, while providing certainty for traditional industries, including resource-based sectors.*" (Section 1.2.1).

Section 2.2.5.1 states that economic development and competitiveness in the GGH will be promoted by:

- a) "making more efficient use of existing employment areas and vacant and underutilized employment lands and increasing employment densities;
- *b)* ensuring the availability of sufficient land, in appropriate locations, for a variety of employment to accommodate forecasted employment growth to the horizon of this Plan;
- c) planning to better connect areas with high employment densities to transit; and,
- d) integrating and aligning land use planning and economic development goals and strategies to retain and attract investment and employment."

In accordance with Section 2.2.5.8, "municipalities may identify employment areas located adjacent to or near major goods movement facilities and corridors, including major highway interchanges, as prime employment areas and plan for their protection for appropriate employment uses over the long-term."

The Growth Plan provides population and employment forecasts for upper tier municipalities for the planning and management of growth. The County of Wellington growth forecasts are as follows:

#### Table 1: Distribution of Population and Employment for the Greater Golden Horseshoe

	Population			Employment		
Year	2031	2036	2041	2031	2036	2041
County of Wellington	122,000	132,000	140,000	54,000	57,000	61,000

Source: Growth Plan for the Greater Golden Horseshoe, Schedule 3 (2017)

Policy 2.2.9.5 of the Growth Plan states that:

"Existing employment areas outside of settlement areas on rural lands that were designated for employment uses in an official plan that was approved and in effect as of June 16, 2006 may continue to be permitted. Expansions to these existing employment areas may be permitted only if necessary to support the immediate needs of existing businesses and if compatible with the surrounding uses."

From a transportation perspective, municipalities are to provide for the establishment of priority routes for goods movement, where feasible, into and out of employment areas (s.3.2.4).

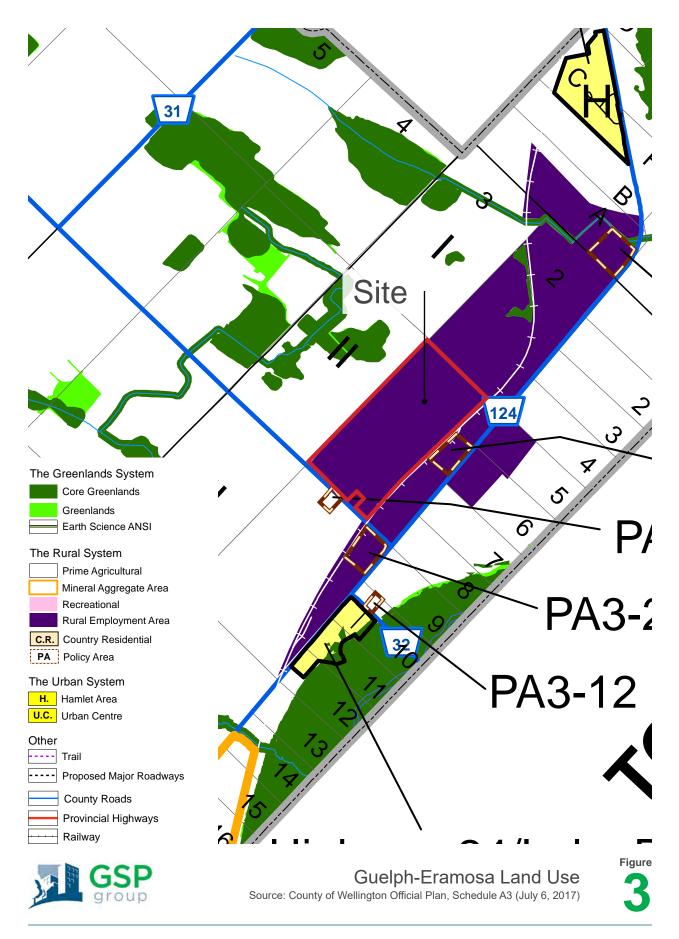
Municipalities are also expected to provide direction that supports a culture of conservation and support reductions in greenhouse gas emissions (s.4.2.10.1.h and i).

Further analysis of the proposed development, in the context of these policies, is provided in Section 6 of this Report.

#### 3.4 County of Wellington Official Plan

The County of Wellington Official Plan (the "OP") came into effect on May 6, 1999, and provides general policies and guidelines for development of land in the County. Only select municipalities within the County have their own lower-tier Official Plans. All other municipalities, including the Township of Guelph Eramosa, use the policies in the County's Plan to direct and implement development.

The OP designates the Site as "Rural Employment Area" and identifies County Road 32 as a "County Road" (Figure 3). Policies for land designated "Rural Employment Area" are provided in Section 6.8 of the OP. Rural Employment Areas are set aside for industrial uses that would benefit from a rural location due to:



- The need for a relatively large site; or
- The need for access to major transportation routes; or
- The need to be close to rural resources.

These areas are expected to provide diversity to Wellington's employment base. In all cases, the uses are to be "dry" industrial which rely on private water and sewer systems (s.6.8.1). Dry industrial uses do not use significant amounts of water in their operation, nor do they produce significant amount of effluent.

A wide range of industrial uses are permitted in this designation, including: manufacturing, processing, fabrication and assembly of raw materials or repair, servicing, distribution and storage of materials. Commercial uses are to be service focused with limited accessory retail and may include business and professional offices, small scale motels or inns and small-scale restaurants (s.6.8.2).

#### Growth

Based on the targets provided in the Growth Plan, the County is responsible for allocating the forecasted growth to local municipalities. The growth targets for the Township of Guelph Eramosa are as follows:

	2016	2036	2041
Total Population	13,400	14,625	14,575
Households	4,395	4,915	4,940
Total Employment	4,820	5,910	6,100

#### Table 1: Township of Guelph Eramosa Projected Growth in Wellington County to 2041

Source: Wellington County Official Plan, Table 6

The OP suggests that the location of growth in the County will be influenced by several factors including market forces, available land and services, and planning policies (s.1.4). Regarding employment growth, section 4.2.1 of the OP states that:

"Wellington County will ensure that sufficient land is designated and available to accommodate an appropriate range and mix of employment opportunities (including industrial, commercial and institutional uses) to meet projected needs for the growth forecast.

The County will encourage and support decisions, which ensure that an adequate supply of employment lands is available at all times. An adequate supply includes

maintaining a range and choice of suitable sites of various sizes for employment uses which support a wide range of economic activities and ancillary uses and take into account the needs of existing and future businesses."

The OP supports the creation and development of opportunities for industrial activities in appropriate locations. Most opportunities will occur in urban areas but other locations in the Rural System, will be considered where "they offer advantages to business such as large sites, compatibility or proximity to resources or major transportation facilities" (s.4.2.3). The Site is located outside the designated urban areas but is located within an appropriate area that has been designated and zoned for industrial development adjacent to CN Rail Line and County Roads. These are essential transportation systems for the movement of raw products (by rail) and finished goods (by road) for the success of this business.

Furthermore, the OP specifically permits the Rural System to provide opportunities for employment. It is expected that the Rural System can contribute sites for employment that are large in size with larger buffers for compatibility and that they may be located in close proximity to rural resources or access to major roads (s.4.2.5).

Through Section 4.6.1 of the OP, the County may require studies to be undertaken to measure various impacts and to propose methods of reducing or eliminating negative impacts such as: planning impacts; environmental impacts; traffic impacts; agricultural impacts and fiscal impacts.

Section 4.9 of the OP deals with Water Resources. Section 4.9.4 the County OP has specifically committed to "ensuring that land use planning contributes to the protection, maintenance and enhancement of water and related resources and aquatic systems on an integrated watershed management basis".

The Site is identified within Wellhead Protection Area (WHPA) D and is not identified within a WHPA Q1 or WHPA Q2 area within the OP on Schedule B3. New large-scale developments on individual on-site water supply outside a WHPA Q1 or WHPA Q2 shall be required to demonstrate to the satisfaction of the County and the local municipality that, "adequate water supply is available and that the proposed water taking will not interfere with existing or future municipal water supply and private wells" (s.4.9.5.6). New large-scale development is also required to provide a scoped water budget and water conservation plan for the development.

Section 4.1.5.i speaks to cultural heritage and archaeological resources and states that, "*Where development and site alteration is allowed, significant archeological resources must be conserved.*" Consideration is also required when development is to occur in proximity to existing airfields to ensure the development does not create any adverse effects (s.12.7).

Further analysis of these policies, in the context of the proposed development, is provided in Section 6 of this Report.

#### 3.5 Township of Guelph Eramosa Zoning By-law 40/2016

The Township of Guelph Eramosa Zoning By-law 40/2016 ("Zoning By-law") identifies the Site as "Rural Industrial (M1)" (Figure 4). The following uses are permitted in the M1 Zone:

- Accessory Retail Store, Wholesale Outlet, Showroom, Office, or facilities for employees including: Recreational Uses, a Child Care Centre, and a Restaurant.
- Accessory Use (Section 4.2)
- Agricultural Service Establishment
- Agricultural Supply Establishment
- Automobile Body/Repair Shop
- Brewing-on-Premise Establishment
- Catering Service

- Construction Company
- Contractor or Tradesperson Establishment
- Industrial Use
- Plaza Complex
- Recreational Trailer Sales and Service
   Establishment
- Rental Outlet
- Scientific Research Establishment
- Self-Storage
- Transport Establishment

The Zoning By-law provides the following definition of "Industrial Use":

"means the manufacturing, processing, production, fabrication, packaging, assembly, stamping, treating, finishing, testing or warehousing of goods or raw materials. Industrial uses shall be "dry" uses which do not use significant amounts of water and which do not produce significant amounts of effluent."

The following development regulations apply to the M1 Zone:

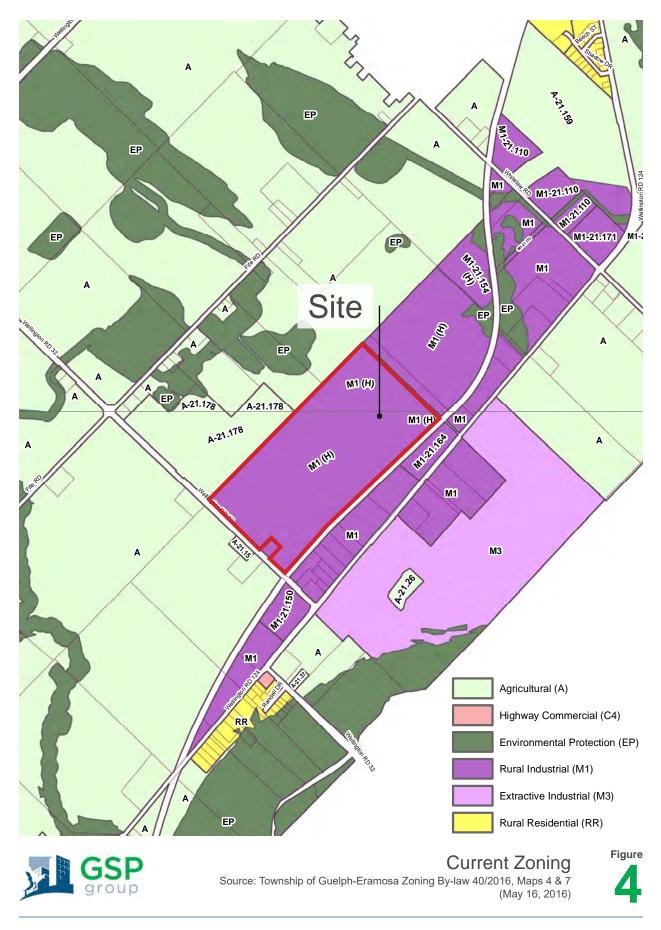
Regula	tion	Proposed/Compliance
Minimum Lot Area	0.4 ha	49.04 ha – Complies
Minimum Lot Width	30 m	Complies
Lot Coverage	40% (maximum)	50% - Requires
		amendment
Maximum Building Height	15 m	22m – Requires
		amendment
Minimum Front Yard	7.5m	Complies
Minimum Rear Yard	7.5m	Complies
Minimum Landscaped Open	10%	Complies
Space		

Planting Strip	1.5 m	Complies
Parking	1 space per 90 m <sup>2</sup>	Site specific provision
	(manufacturing)	required to reflect
	1 space per 200 m <sup>2</sup>	employee parking
	(warehouse)	demand.
	1 space per 28 m <sup>2</sup> (office)	
Buffering	15 metres from residential	Complies
	zone (M2-40 provision)	
Loading Spaces	Dependent on gross floor	Site specific provision to
	area (5.3)	eliminate outdoor loading
		spaces as all loading
		contemplated is interior to
		the building.
Open Storage	Not permitted in a yard	Complies
	abutting a street (4.28). Must	
	be screened and buffered so	
	as not to be visible from a	
	street or residential or	
	institutional use.	

Section 4.20 of the General Zoning Provisions require a 22.5 m setback from a County Road. The development concept plan proposes a 10.6 m setback. Therefore, a site specific regulation is required.

The Zoning By-law Amendment does not permit accessory dwelling units in the M1 Zone. Therefore, a site specific amendment is required to permit this use.

A future Site Plan application will accompany the proposed development proposal and will demonstrate compliance with the requirements in the requested amendments to M1 Zone.



### 4.0 Conceptual Site Plan

As outlined in the introduction, Xinyi is looking to develop a new float glass manufacturing facility.

Figure 5 provides a concept of the proposed development. It includes the main building manufacturing and warehousing building and several smaller buildings to be used for specialized components of the manufacturing operation.

The footprint of the proposed industrial use and accessory buildings will be approximately 196,180 square metres. To facilitate site development, future site alteration and grading is necessary to provide a suitable developable footprint and access to rail infrastructure. As such all existing buildings on the Site will be removed.

The main manufacturing building is approximately 165,050 square meters in area and includes the furnace/manufacturing area along the eastern portion of the building with the manufacturing and production lines along the northern part of the building. The product finishing and warehousing area is in the western portion of the main building. Loading of the finished float glass product will occur internally within the building. A number of truck access doors will be integrated into the building. The size of the building, integration of interior cranes and pitch of the roof will require a site specific height provision of 22 metres.

Part of the manufacturing facility will be a chimney stack of approximately 100 m in height. It is noted that chimneys are exempted from the Zoning By-law height limit.

Additionally, the northwest portion of the site is proposed to accommodate a corporate campus to support the permitted manufacturing use. The corporate campus will include the following uses:

- Office building;
- Corporate training and multi-use building; and,
- Accessory Dwelling Units directly associated with the operation of the facility (described in further detail below).

The concept is preliminary and may be subject to changes during the Site Plan application and approval process.

Elements of the proposed development have triggered the need for an amendment to the existing zoning to increase the allowable lot coverage; building height; required parking; loading, and to add accessory dwelling units as an additional permitted accessory use.

The proposed Corporate Campus will include training rooms, offices, cafeteria facilities, recreation facilities, and temporary and short-term accessory dwelling units for up to 50 people. These uses are to be situated as far as possible from any heavier operations of the plant and rail line to reduce potential impacts such as noise and dust, etc. On-site buffering and mitigation measures to address provincial noise guidelines will also be incorporated into the site design.

From an environmental perspective, Xinyi continues to increase its investment in technological innovation, energy saving and environmental protection facilities to create an environmental-friendly, innovative world-class brand. Xinyi uses natural gas and promotes desulfurization, denitrification and waste heat power generation projects to reduce their carbon emissions.

Xinyi also takes advantage of their extensive built form by adding rooftop and photovoltaic power generation infrastructure (i.e. solar panels) to generate their own electricity. In addition, water will be used for cooling in the production of glass, using a closed water recycling system.

Two vehicular access points to the Site are proposed on to County Road 32. The primary access point is located approximately 300 m from the southerly property line. A secondary access is located along the northern property line. It is anticipated that the main site access will be signalized. Additionally, turning lanes may be required to facilitate safe and efficient traffic movement in the area. A traffic study has been prepared in support of the future site plan application to address the road improvements for the Xinyi facility.

The Conceptual Site Plan shows the addition of private rail spur lines onto the site from the adjacent CN Rail Line. Xinyi will use rail to bring raw materials used in glass production to the Site. There also may be opportunities to use rail to export finished product from the plant. Xinyi is working in collaboration with CN with respect to the design, review and approval of these rail side tracks.

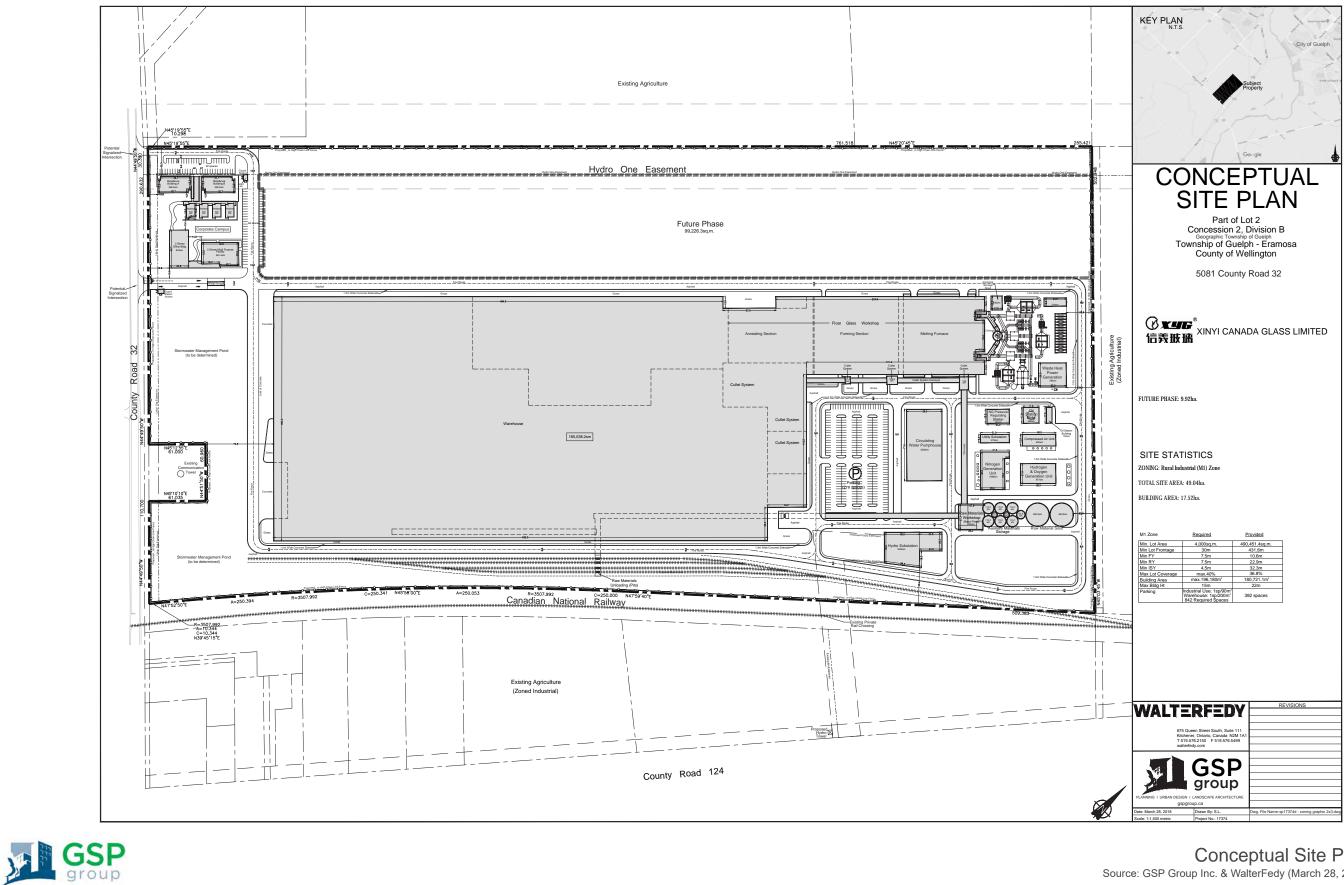
Parking is provided at the Corporate Campus area for the office employees and visitors and at the southeast part of the manufacturing facility building for other employees.

Between the main manufacturing building and County Road 32 are large ponds. These ponds are to be used for stormwater management and as a reservoir for firefighting purposes. The edges of these ponds will be landscaped to enhance the visual appearance of these features and the facility.

The land north of the main manufacturing/warehouse building is reserved for future use. At this time there are no formal plans for this area. This area could be developed for other permitted use, subject to necessary municipal review and approvals. The 30 m wide hydro easement is shown along the north property line. No buildings are proposed in this easement. Parking and driveway access at the north end of the Corporate Campus is shown in the Hydro Easement and will be subject to an encroachment application made to HydroOne.

The Site will be serviced by multiple private wells. Detailed hydrogeological reports and water balance calculations will be provided to the Township, County and Ministry of Environment and Climate Change (MOECC) as part of the detailed site plan application and MOECC approvals.

Private sanitary service will be provided to the Site. The glass manufacturing process only uses water for cooling purposes and does not produce industrial sewage effluent. The sewage generated from the facility will be domestic usage associated with employees and the Corporate campus. Private on-site sanitary services are proposed in accordance with the Official Plan and Zoning. Detailed design and plans for the private sanitary servicing will be submitted with the Site Plan application and subject to municipal/agency approval.





#### Conceptual Site Plan

Figure 5

Source: GSP Group Inc. & WalterFedy (March 28, 2018)

### 5.0 Proposed Zoning By-law Amendment and Planning Analysis

The Site is zoned "Rural Industrial - M1" in the Township of Guelph/Eramosa Zoning By-law 40/2016. A range of industrial uses are permitted including industrial uses, offices, or facilities for employees (including recreational uses, a child care centre, and a restaurant), and other accessory uses.

The proposed float glass manufacturing facility is considered an "industrial use" permitted by the Official Plan designation and Zoning. The components of float glass (silica sand, soda ash, etc.) are dry ingredients. The float glass manufacturing process uses water only for cooling purposes, however it is noted that the cooling water is contained within a closed system and recirculated or evaporated as steam during the process. At different points in the process, significant amounts of cooling water are proposed to be added to the stormwater management/fire protection pond and be infiltrated into the ground. The facility will take its potable water for employee needs and cooling water from a number of proposed wells on site. Preliminary assessment of the aquifer and testing has indicated that there is sufficient water supply on the site to accommodate the proposed demand without impact to adjacent private wells. Water usage will be subject to detailed review through the Site Plan and Ministry of the Environment and Climate Change (MOECC) Permit to Take Water application and review process.

The OP states that the Rural System is to provide opportunities for employment uses and supports the creation and development of opportunities for industrial activities in appropriate locations. Most opportunities will occur in urban areas but other locations in the Rural System, will be considered where "they offer advantages to business such as large sites, compatibility or proximity to resources or major transportation facilities" (s.4.2.3). The subject lands are located outside urban areas but are designated and zoned for industrial development and are appropriate for industrial development.

The Site is within the Rural System identified by the Official Plan. The Rural System includes Rural Employment Areas (s.4.9.5.8). The OP designates the Site as "Rural Employment Area" (Figure 3), which permits a wide range of uses including: manufacturing, processing, fabrication and assembly of raw materials or repair, servicing, distribution and storage of materials. These areas are typically set aside for industrial uses that would benefit from a rural location. Xinyi selected the Site as they require a large industrial site with access to major transportation routes, including rail and road networks, that will allow for their glass manufacturing business.

Based on the policies outlined above, the proposed development meets the requirements of the County of Wellington Official Plan and the proposed manufacturing facility is permitted by the Wellington Official Plan

To facilitate the proposed development, the following site specific zoning provisions are being sought:

- Site specific parking for the manufacturing/warehouse use of 1 space per 900 m<sup>2</sup> of manufacturing/warehouse space; and 0.5 spaces per accessory dwelling unit. (These site specific regulations reflect the employee demand specific to this facility the facility);
- Site specific loading requirement 0 spaces (as all loading of finished product will occur within the main manufacturing/warehouse building, or by rail);
- Site specific Building Height increase from 15 m to 22 m applicable to all buildings (to accommodate specialized equipment requirements in some of the accessory buildings and also seek relief to Section 4.10 which limits height of accessory buildings to 4.5 m);
- Site specific building setback of 10.6 m to County Road 32, whereas 22.6 metres is required;
- Increase the maximum building coverage from 40% to 50% of lot area. This will provide for additional flexibility to accommodate building design and siting of accessory structures; and,
- Adding permission of "Accessory Dwelling Units directly associated with the operation of the manufacturing facility".

A planning justification is provided for each of the requested provisions as follows:

#### Parking

#### Manufacturing/Warehouse

The parking standard for Industrial Use is 1 space per 90 square metres of gross floor area. For warehouse the parking rate is 1 space per 200 square metres gross floor area. Based on the preliminary conceptual plans and applying these standard requirements for the proposed Xinyi facility, approximately 840 parking spaces would be required.

The actual parking requirement, however is much lower. The proposed float glass facility will employ approximately 400 to 450 people. The typical shift would be approximately 140 employees. The facility itself is of a large size and furnace and machinery take up large portions of floorspace. The advanced manufacturing process is also highly automated further reducing the floor space to employee ratio.

Much of the floor space is also used for warehousing raw material that must be kept dry and finished product. This large amount of space dedicated to storage requires few employees. Further, much

of the floor space within the finished product area is dedicated to the interior loading and maneuvering of trucks. This further reduces the floorspace to employee ratio and therefore reduces the parking demand for the use.

The concept plan shows approximately 292 parking spaces dedicated to the manufacturing and warehouse operations of the facility at the southeast portion of the Site.

Based on 180,721 square meters of floor space and the anticipated 140 employees per shift count (which also includes employees in the office building), a site specific parking standard for industrial/warehouse use of 1 space for 900 m<sup>2</sup> GFA is supportable. This would provide for 201 parking space which will account for cross-over parking demands during shift changes.

Additionally, the reduction in parking rate means that less of the Site will be covered by impermeable surface and would facilitate more efficient use of land and also allow for more of the site available for landscaping and infiltration.

#### Accessory Dwelling Unit Parking

It is proposed that a parking rate of 0.5 parking space per dwelling unit will be provided on the site. Xinyi has indicated that many visiting staff and specialists will not be driving their own vehicles, and/or would share vehicles or use taxi service for any travel to and from the Site. Based on this, it is our opinion that a site specific parking rate of 0.5 parking spaces for accessory dwelling unit is appropriate for the proposed use.

#### Loading Spaces:

A site specific loading space regulation is proposed requiring 0 loading spaces. Given the base M1 Zone loading requirements of 1 space per 930 square metres, approximately 200 loading spaces would be required. Loading of finished product to the Xinyi facility will occur entirely within the interior to the buildings, therefore no loading spaces (as defined in the Zoning By-law) are required. Additionally, raw materials for manufacturing will be brought to the facility by rail and unloaded through specialized hoppers. This does not require loading spaces as defined by the Zoning By-law.

Therefore, it is our opinion that the site specific loading space requirements are appropriate for the proposed facility.

#### **Building Height:**

The M1 Zone permits a maximum building height of 15 metres. Given the nature of the advanced manufacturing operations of the proposed facility, a maximum building height of 22 metres is requested. This will accommodate indoor cranes and equipment.

Given the size of the property, change in grade from the northern property line and distance from neighbouring properties, the increase of 7 metres of permitted building height will not have a significant impact. This increase in height will apply to some of the manufacturing and accessory buildings and is not anticipated to apply to buildings within the Corporate Campus.

In our opinion, the proposed increase in building height is appropriate for the Site.

#### County Road 32 Setback:

Section 4.20 of the Zoning By-law requires that no building or structure shall be located closer than 22.5 m to County Roads, with the exception of those buildings or structures located within the boundaries of Urban Centre or Hamlet as identified in the Wellington County Official plan. A site specific setback of 10.6 m setback is proposed.

It is noted that the front yard setback for the M1 Zoning is 7.5 metres. The proposed 10.6 m minimum setback is greater than this. Additionally, the minimum setback will functionally apply to the northwest corner of the site where the Corporate Campus will be located. The reduced setback will allow for the Corporate Campus to have greater visual prominence to the road frontage. Additionally, it is noted that other buildings in the vicinity of the Site are situated closer to the County Road 32 right of way than the require 22.5 metres.

It is our opinion that the 10.6 metre setback is supportable as it allows for sufficient space for landscaping and future road widenings (if required).

#### Lot Coverage:

The M1 Zone permits a maximum lot coverage of 40% of the lot area. A site specific zoning provision permitting a maximum lot coverage of 50% is requested.

The requested increase in lot coverage will provide additional flexibility for the detailed siting and design of the operation.

The purpose for the maximum lot coverage is to ensure that there is sufficient lot area to account for private septic systems, parking and landscaping. With smaller scale industrial development, a 40% lot coverage may be reasonable. However, in the case of the proposed Xinyi development, the Site is very large (49 ha). Much of the loading areas for finished product are internal to the building, rather than in external paved areas and there is no outdoor storage (i.e. internal loading, warehousing, covered storage of raw materials). This results in increased the building area, and therefore increased coverage.

It is proposed that rainfall from rooftops and driveways will be collected and diverted to stormwater management facilities and infiltration galleries. Detailed site planning will look at means of collecting stormwater and infiltrating runoff into the ground.

Based on the above, it is our opinion that the increase in lot coverage to 50% is supportable.

#### **Accessory Dwelling Units:**

The requested site-specific zoning by-law amendment proposes to add "Accessory dwelling units directly associated with the operation and maintenance of a manufacturing use." as a permitted use.

These dwelling units would accommodate up to 50 employees on a short term basis and are considered similar to hotels and motels or caretakers quarters that are permitted in industrial zones in many other jurisdiction's zoning by-laws.

The Accessory Dwelling Units are critical to the functioning and operations of the proposed manufacturing use. Specialty-trained staff would be brought on site to provide direct access to the facility for timely and critical maintenance, and/or to direct and organize appropriate operational adjustments as necessary, in the event of a process breakdown. It is necessary to eliminate potential for downtime at the facility, as restart of the furnace after a shutdown can take upwards of 9 months.

Other staff would be brought to the site from other international facilities for training and would not reside at the facility on a permanent basis. These employees' length of stay would range between 1 to 26 weeks. This form of on-site accommodation would be temporary, similar to using Hotels and Motels, which are often located in employment areas throughout the Province of Ontario.

Given that the facility will operate 24 hours per day, 365 days a year, the accommodation units will also house on-site caretakers and/or on-site First Responding Team members to ensure immediate response to issues such as power failures, spills and/or fire occur within a 20-minute timeframe. These employees are essential to the company's facility emergency management plans and programs. As noted above, many Ontario Zoning By-laws permit this type of dwelling unit as an accessory use to an industrial/employment use for the owner, caretaker or security guard, whose presence on the premises is necessary. Another similar form of employment is a fire station with temporary employee accommodation.

By permitting caretaker units on site, the proposal would be consistent with the Public Health and Safety provisions of the PPS.

These Accessory Dwelling Units will be located away from any heavier manufacturing operations and railway tracks to reduce potential impacts such as noise and dust, etc. Notwithstanding this, on-site buffering and mitigation measures to meet provincial noise guidelines will also be incorporated into the site/building design. RWDI Consulting, a noise and vibration consultant, has the Provincial Noise Guideline (NPC-300) that applies to sound emanating from the site. The definition of "noise sensitive land use" in NPC-300 states: "A land use that would normally be considered noise sensitive, such as a dwelling, but is located within the property boundaries of the stationary source is not considered a noise sensitive land use." (See RWDI's memo attached as Appendix A)

On the basis of the above, the requested additional permitted use of Accessory Dwelling units conforms to the PPS and is permitted under provincial guidelines.

#### Summary of Zoning By-law Amendment Analysis

The proposed float glass manufacturing use is permitted by the in-force "rural employment" Official Plan designation and the "Rural Employment" Zoning. The proposed Zoning By-law Amendment generally adds site specific provisions to the in-force Zoning applicable to the property.

The requested Site Specific Zoning amendments are necessary to accommodate some specific functional and operational needs and design details necessary to accommodate the proposed buildings, parking and loading facilities and will result in a more efficient use of land.

The requested additional accessory dwelling units is necessary to enable emergency repair and timely operational adjustments be made to ensure the safety and functionality of the facility. Many Zoning By-laws in other Ontario municipalities include permissions for dwelling units for owners and caretakers quarters on industrial sites.

The Site will be serviced by well and septic systems.

Site Plan approval will be required prior to the development of the Site and will address Zoning Bylaw compliance and urban design.

The proposed development complies with the policies of the Official Plan and no Official Plan Amendment is required.

# 6.0 Provincial Policy, Plans and County Official Plan Analysis

This section provides an analysis of the proposed application within the context of applicable Provincial, County and Town land use policies. This section will also speak to site suitability and the overall appropriateness of the development.

#### 6.1 **Provincial Policies**

#### **The Provincial Policy Statement**

The PPS emphasizes the need to leverage rural assets and amenities as a foundation for a sustainable economy (s.1.1.4) and encourages municipalities to retain opportunities for new land uses that require separation from other uses (s.1.1.5.6). The subject property is large, provides rail access and is located in an industrial area away from other more sensitive land uses. The Township intentionally designated these lands for industrial use to promote opportunities for economic development and community investment-readiness. The Township also removed a Holding Zone from the property to make the development of the lands more appealing to prospective businesses and to promote its long-term economic prosperity, as promoted by the PPS (p.1.7.1).

With the approval of this zoning amendment, the proposed development would be able to efficiently develop the Site for the proposed employment use and utilize County Road and rail transportation infrastructure. The development will also utilize proximate hydro and natural gas infrastructure.

The introduction of Xinyi to the area would promote the diversification of the economic base and increase the number of employment opportunities in Guelph Eramosa and surrounding areas.

#### Employment

The following Table outlines how the proposed development meets the PPS requirements for promoting economic development and competitiveness (s.1.3):

Policy	Response
a) providing for an appropriate mix and range	The scale and type of use proposed is unique to
of employment and institutional uses to meet long-term needs;	the area and will provide a wide range of job opportunities to meet the long-term employment
	needs.

b) providing opportunities for a diversified	The Township has maintained the designation and
economic base, including maintaining a	zoning of the Site to be used for industrial
range and choice of suitable sites for	purposes. They recently the holding zone from the
employment uses which support a wide	Site and surrounding area support economic
range of economic activities and ancillary	activity and growth. The proposed use would help
uses, and take into account the needs of	the Township and the County achieve the existing
existing and future businesses;	and future employment needs of the area.
c) encouraging compact, mixed-use	The zoning amendment requested includes an
development that incorporates compatible	increase in the maximum height and lot coverage.
employment uses to support liveable and	These changes will help maximize the developable
resilient communities; and	area and support more compact development.
d) ensuring the necessary infrastructure is	No municipal water and sanitary services are
provided to support current and projected	available in this area. Adequate well and septic
needs.	services will be provided as well as appropriate
	stormwater management facilities. Road, rail,
	natural gas and hydro services are adjacent to the
	Site.
d) ensuring the necessary infrastructure is provided to support current and projected	No municipal water and sanitary services are available in this area. Adequate well and septic services will be provided as well as appropriate stormwater management facilities. Road, rail, natural gas and hydro services are adjacent to the

By promoting and diversifying the economic base and employment opportunities through goods and services, including value-added products, the proposed development is supporting a "*healthy, integrated and viable rural area*", which is a policy of the PPS (p.1.1.4.1).

#### Sewage, Water, Stormwater & Transportation

The PPS permits the use of individual on-site sewage services and on-site water services if municipal sewage services and municipal water services or private communal sewage services and private communal water services are not provided (s.1.6.6.4). Through the Site Plan process, studies will be completed, and appropriate permits and approvals will be obtained, to demonstrate that site conditions are suitable for the long-term provision of private services. A stormwater management report will also be completed during the site plan.

The PPS encourages land use patterns, densities and specific uses that minimize the length and number of vehicle trips and support current and future use of transit and active transportation (s.1.6.7.4). The Xinyi proposal would make use of existing rail infrastructure to reduce the amount of truck traffic required to deliver materials. The Site is also located on a County Road network that provides connections to the Provincial Highway system.

#### Climate Change, Hazards & Heritage

The PPS (s 1.8.1) requires municipalities to support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and implement climate change adaptation through land use and development patterns by:

	Policy	Response
a.	promoting compact form and a structure of nodes and corridors;	The requested zoning amendment would increase the lot coverage and building height to allow for the development of a more compact site, while still being able to adequately service and design for stormwater management requirements.
C.	focusing major employment, commercial and other travel- intensive land uses on sites which are well served by transit where this exists or is to be developed, or designing these to facilitate the establishment of transit in the future;	Currently the Township and the County do not have any transit service. However, given the intensification of this Site, the surrounding employment uses, this area would be a good location for transit options to be considered here in the future.
d.	focus freight-intensive land uses to areas well served by major highways, airports, rail facilities and marine facilities;	The proposed use will use the rail line by introducing private rail access directly into the Site. Additionally, the local County Road network provides connections to the Provincial Highway System.
f. i. ii.	promote design and orientation which: maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation; and maximizes opportunities for the use of renewable energy systems and	The proposed plant will incorporate a number of energy conservation measures. These include using waste heat to heat the proposed facility; using a closed cooling system reducing the water needs of the facility; incorporating infiltration measures though stormwater management techniques. Additionally, Xinyi intends to cover portions of the facility roof with solar panels to supplement the facility's observation
	alternative energy systems;	electricity needs.

To adequately protect the potential for public cost or risk to Ontario's residents from natural or human-made hazards, development is to be directed away from areas of natural or human-made hazards, and not create new or aggravate existing hazards. In order to mitigate these risks, the proposed accessory dwellings and Corporate Campus will be adequately setback from the proposed manufacturing use and will be appropriately buffered.

The proposed development will encourage strong, healthy, liveable and safe communities by promoting the efficient development of the Site by accommodating an appropriate range and mix of uses including training/caretaker spaces to meet the needs of the main industrial use as well as the needs of the municipality. The increase in lot coverage and height requested will help minimize land consumption. The propose development will not interfere with the efficient expansion of settlement areas.

It is not anticipated that the development will cause any environmental or public health and safety concerns. A stationary Noise Assessments will be required as part of the Site Plan process. Furthermore, the Site is not located within any known hazardous sites. An Archaeological Assessment will also be completed as part of the Site Plan process to identify any areas of archaeological potential.

Based on the policies outlined above, the proposed development is consistent with the PPS.

#### **Growth Plan**

The proposed development represents an opportunity to provide, "the flexibility to capitalize on new economic and employment opportunities, while providing certainty for traditional industries" (p.1.2.1).

#### Employment

The proposed development promotes economic development and competitiveness by (p. 2.2.5.1):

	Policy	Response
e)	making more efficient use of existing employment areas and vacant and underutilized employment lands and increasing employment densities;	The proposed development makes efficient used of the Site through the development of a vacant designated and zoned employment area. The proposed site specific zoning provisions will support more efficient use of land.
f)	ensuring the availability of sufficient land, in appropriate locations, for a variety of employment to accommodate forecasted employment growth to the horizon of this Plan;	The County and the Township designated and zoned these lands for industrial uses. The proposed amendments will allow Xinyi to efficiently develop this Site in accordance with the designation and contribute to meeting the forecasted employment growth for this area.
g)	planning to better connect areas with high employment densities to transit; and	Although no transit options are currently available, development of the site and surrounding area could lend itself to the creation of a transit service near this location should transit operations be considered for the Township or County in the future.

<ul> <li>h) integrating and aligning land use planning and economic development goals and strategies to retain and attract investment and employment.</li> </ul>	The size and location of this Site, proximity of rail infrastructure and County Roads has promoted this area of Guelph Eramosa as an attractive location for business investment and employment. The proposed development will implement the planned function of this strategically located site, promoting the economic development and prosperity of the area.
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#### **Rural Areas**

The proposed industrial use is rural in nature in that it is not appropriate for settlement areas and can be adequately sustained by rural service levels. Policy 2.2.9.5 of the Growth Plan states that:

"Existing employment areas outside of settlement areas on rural lands that were designated for employment uses in an official plan that was approved and in effect as of June 16, 2006 may continue to be permitted..."

The proposed industrial use will not adversely affect the protection of agricultural uses and other resource-based uses.

#### Transportation & Climate Change

Adequate routes for the movement of goods and people are available for use from the Site. The transportation routes being used include County Roads 32 and 124 as well as the existing rail lines.

The development will also incorporate solar panels to reduce Xinyi's reliance on the grid and will help to reduce their impact on the environmental.

Based on the policies outlined above, the proposed development is in conformity with the Growth Plan.

#### 6.2 County of Wellington Official Plan

Based on the character of the area, the proposed development is compatible with the existing agricultural and industrial uses. The proposed development will help introduce more jobs, contributing to the County's employment targets and ultimately helping to support the local economy.

#### Employment

The OP specifically permits the Rural System to provide opportunities for employment uses and supports the creation and development of opportunities for industrial activities in appropriate locations. Most opportunities will occur in urban areas but other locations in the Rural System, will be considered where "they offer advantages to business such as large sites, compatibility or proximity to resources or major transportation facilities" (s.4.2.3). The Site is located outside urban areas but are designated and zoned for industrial development and are appropriate for industrial development.

#### Development Impacts

Given that the neighbouring community is made up of other non-sensitive uses such as agricultural lands and other industrial or employment type uses, the potential for impact is limited. However, there are dwellings to the north associated with agricultural parcels and dwellings fronting Fife Road. As noted on the conceptual Site Plan, there is a 30 metre wide hydro easement on the Site which will provide separation distance between buildings and the northern property line. Fife Road is approximately 500 metres from the northern property line which provides ample separation form the manufacturing plant. It is also noted that the warehouse portions of the building will be sited over 100 metres from County Road 32. The setbacks set out in the zoning and from the anticipated site layout provide for sufficient transitions between the Site and neighbouring uses.

Further studies regarding groundwater and servicing will be completed at the site plan stage to demonstrate how the site can be serviced and how stormwater management can be dealt with on site without impact. Furthermore, an archeological assessment will be completed as part of the site plan process.

#### The Rural System

The subject lands form part of the Rural System which includes rural employment areas (s.4.9.5.8). The OP designates the Site as "Rural Employment Area" (Figure 4), which permits a wide range of uses including: manufacturing, processing, fabrication and assembly of raw materials or repair, servicing, distribution and storage of materials. These areas are typically set aside for industrial uses that would benefit from a rural location. Xinyi chose this Site as they require a large industrial site with access to major transportation routes that will allow for their glass manufacturing business.

Based on the policies outlined above, the proposed development meets the requirements of the County of Wellington Official Plan.

## 7.0 Conclusion

Xinyi Canada Glass Limited is proposing a manufacturing facility, a use permitted by the Official Plan and Zoning By-law. In order to facilitate the efficient development of the Site, a site specific Zoning By-law amendment is requested to:

- Provide specific parking rates of 1 space per 900 square metres of manufacturing/warehouse space; and, 0.5 spaces per accessory dwelling unit;
- Provide a site specific loading requirement of 0 spaces (as all loading of finished product will occur within the main manufacturing/warehouse building);
- Provide for a site specific maximum building height of 22 metres applicable to all buildings;
- Establish a minimum building setback of 10.6 metres from County Road 32;
- Permit a maximum lot coverage of 50% of lot area, and,
- Add permission of "Accessory Dwelling Units directly associated with the operation of the manufacturing facility".

The proposed Zoning By-law Amendment would facilitate a development that:

- Promotes the development of a large parcel of vacant land, designated and zoned for industrial uses within the Township of Guelph Eramosa;
- Contributes to the mix and type of industrial businesses available within the Township and the County;
- Assists the Township in growing the local economy, providing approximately 400-450 new direct jobs to the area and increasing the potential to draw spin-off industries and employment;
- Contributes to the range of land uses to meet the long term needs of the community;
- Provides sufficient buffering from adjacent land uses; and,
- Promotes development that efficiently utilizes land and existing road, rail, hydro and natural gas infrastructure.

Detailed plans, reports and studies will be provided at the Site Plan Stage and specific MOECC permit processes to demonstrate how the Site can be serviced with onsite well and septic systems and provide sufficient infrastructure to manage stormwater management.

The proposed amendment is consistent with policies in the Provincial Policy Statement, conforms to policies of the Growth Plan for the Greater Golden Horseshoe and County of Wellington Official Plan. The proposed Zoning By-law Amendment will appropriately implement the development of the Site for the proposed use. Therefore, it is our opinion that the proposed amendment is in the public interest and represents good planning.

### APPENDIX A Memorandum from RWDI Re: Noise



600 Southgate Drive Guelph ON Canada NIG 4P6 Tel: +1.519.823.1311 Fax: +1.519.823.1316 E-mail: solutions@rwdi.com

### MEMORANDUM

DATE:	2018-03-08	RWDI Reference No.: 1802200
то:	Jason Chang	EMAIL: jchang@walterfedy.com
FROM:	Peter VanDelden	EMAIL: peter.vandelden@rwdi.com
RE:	Temporary Dwelling for Worke Xinyi Glass Guelph, ON	rs - Noise

Dear Jason,

The assessment of noise is based on sound levels at noise sensitive land uses. We have specifically considered the temporary dwelling for workers planned for the northwest corner of the site. The NPC-300 guideline that applies to sound from the site discusses this condition under the definition of "noise sensitive land use", where it states:

"A land use that would normally be considered noise sensitive, such as a dwelling, but is located within the property boundaries of the stationary source is not considered a noise sensitive land use."

Sound originating from the facility does therefore not need to be considered at the temporary dwelling for workers on site. I have confirmed this understanding in conversation with a senior noise reviewer at the Ministry of Environment and Climate Change. Sound from the Xinyi Glass facility would therefore only be evaluated at off site noise sensitive land uses in accordance with the MOECC guideline NPC-300.

Yours truly,

RWDI

Pet**d**r VanDelden, P.Phys., INCE Technical Director

PV/klm

