Analysis of Development Alternatives at Bishops Bay: CRANES Westport Prairie and the T. Wall Properties Master Development Plan

A report for the Capital Region Advocacy Network for Environmental Sustainability (CRANES)

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Introduction

A master development plan for Bishops Bay has been proposed by the land owner and anticipated developer, T. Wall Properties (T. Wall Plan, 2010). The proposed development would create 1,660 single family homes and town homes as well as 1,290 apartment units, condos, and assisted living units over an area of approximately 350 residential acres. The development would also include up to 51 acres of commercial or mixed-use development, 83 acres of institutional use, and approximately 231 acres of parks and open space. Located north of Lake Mendota, the development area spans the present boundary between the City of Middleton and the Town of Westport and surrounds the Bishops Bay Country Club. The area is enclosed by county Hwy Q (on the west) county Hwy M (on the south and east), and Oncken Rd (on the north).

Under the proposed development, approximately 394 of the new single family homes would be located on 116 acres in the Westport portion of the development at densities below 4 dwelling units per acre. The majority of the housing would be located (along with most of the commercial and institutional uses) in the Middleton portion of the development in neighborhoods of various densities ranging from 4.2 to 14.5 dwelling units per acre.

An alternative development scenario, the CRANES Westport Prairie proposal, would locate all of the proposed housing in Middleton. This approach would increase the average residential densities in the Middleton portion from about 11 dwelling units per acre to 12.7 dwelling units per acre (according to summary data provided by City of Middleton Planning Staff), and would leave most if not all of the acreage in Westport undeveloped. The total number of homes and the general
mix of housing types would remain the same under either scenario.

This report briefly explores the likely impact of the development on K-12 school enrollment in the Waunakee Community School District. The impact on student enrollment is considered, here, to be the same under either development scenario.

The report also estimates several potential cost savings (benefits) that would come from the CRANES Westport Prairie proposal as an alternative to T. Wall’s master development plan. These savings are estimated in terms of various costs that could be avoided upon switching from the T. Wall development scenario to the CRANES Westport Prairie proposal. In particular: the public cost of certain highway improvements that would be needed specifically to accommodate access to new houses in Westport; the private developer cost of local roads, sidewalks, and utility infrastructure within the Westport portion of the development; and the cost of community services (specifically for the Town of Westport) that would be demanded by any new development in Westport.

School Enrollment: 1,335 additional students by 2035

Upon completion, the proposed Bishop’s Bay development would add 2,950 housing units to the Waunakee Community School District. (A map of the district is provided on page 5 at the end of this document.) The majority of these (numbering 1,660) would be single family homes and townhomes. Approximately 1,050 would be apartments and condominiums, and 240 would provide for assisted living. All of these housing units would be located within the current geographic boundaries of the Waunakee Community School District under T. Wall Properties’ current master development plan, as well under CRANES’s Westport Prairie Alternative.

These additional housing units would likely increase the number of school-aged children in the Waunakee Community School District by about 1,335 students— or 37% as much as Waunakee’s current total K-12 enrollment. This estimation of the impact of the additional housing units is arguably conservative for Waunakee in that it averages out to just 0.45 school-aged children per household, which is considerably lower than the current average number of school children per household within the Waunakee school district. Conservative as it may be, this independent estimate of the number of school-aged children in the Bishops Bay development at 100% build-out happens to be fairly consistent with the developer’s projections for the average household sizes (persons per dwelling unit) for each housing type. Given the school district’s current average cost per student, an additional 1,335 students represents an increased cost of roughly $14.7 million annually (not discounted over time).

In the near term, the enrollment impact of the proposed development would increase each year, reaching 450 additional students during the 2018-2019 school year. This is based on approximately 34% of total build-out which is assumed to be completed by that time. Given the school district’s current average costs per student, these additional students could potentially increase the school district’s costs by $4.9 million. The proposed development would also generate some additional revenue for the school district. The overall financial impacts for the school district have yet to be estimated in light of this reasonable expectation of additional enrollment.

Public cost savings associated with CRANES Westport Prairie proposal: $1.3 million

Foreseeable public capital costs hinge primarily on the potential avoidance of intersection improvements on County Highway M. Leaving Westport undeveloped and not building a connection to Hwy M on the eastern edge of the property could save the public approximately $1.3 million dollars in avoidable intersection improvements. This estimate is based predominantly on avoided costs

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1 The estimation approach used here is based on typical historical household demographic information specific to each housing type (single family detached, townhome, apartment or condominium), specific for Wisconsin metropolitan statistical areas (excluding Milwaukee) according to the census of population and housing. See: [http://www.lci.wisc.edu/shapingdane/facilitation/all_resources/impacts/worksheets/worksheet2_16.htm](http://www.lci.wisc.edu/shapingdane/facilitation/all_resources/impacts/worksheets/worksheet2_16.htm)

2 Alternatively, simply assuming the Waunakee school district average (about 0.62 school-aged children per household, U.S. Census, 2005-2009) for each of the 2,710 non-assisted living homes that are proposed would result in 1,667 additional school-aged children in the community, rather than just 1,335.

3 The Wisconsin Tax Payers Alliance studied the financial impact of the Bishops Bay development on the Waunakee school district (WTA, 2010). However the analysis had assumed far too low an impact on enrollment by 2018-2019 school year (less than half of what is reasonable for this development) based on a misinterpretation of a prior report prepared for the school district by the Applied Population Laboratory (APL, 2009). The APL report did not intend to specifically identify the effect of Bishops Bay on enrollment. It projected total enrollment according to various underlying trend assumptions. One projection did include Bishops Bay, however its effect was not isolated.
(material costs, installation costs, and contractors’ overhead costs) of a set of traffic lights that might otherwise be necessary to control the traffic at that intersection.4

The anticipated intersection improvements on Oncken Road and other traffic control measures on County Highway Q would still be needed even under CRANES’s Westport Prairie proposal, and they might even be needed sooner than 2035. The question of any further improvements on Oncken Road to handle a heavier traffic load was not explored.

Private Developer cost savings associated with CRANES Westport Prairie proposal: $7.4 million

Generally proposing to locate all of the new homes in Middleton in somewhat greater density, and to leave the Westport portion of the proposed development undeveloped, CRANES’s proposal would eliminate the majority of roads, sidewalks, water/sewer and other utility lines on the Westport side of the development. The associated cost savings (from avoided infrastructure) are estimated in this section. Because the developer (T. Wall Properties) is responsible for any on-site infrastructure improvements, these avoided infrastructure costs represent a private cost savings.

Regarding the proposed master development plan (particularly Map 3 and Map 4; T. Wall Plan, 2010), this analysis assumes that the majority roads, sidewalks, and underlying utilities that would be expected in the Westport portion of the development could be avoided under the CRANES Westport Prairie alternative. In particular, it assumes that the only remaining road in Westport would be that which is shown to run SW to NE between “The Landing” and “The Farm” - just east of the northern portion of the current jurisdictional boundary delineating Middleton and Westport. And in this scenario it is assumed that any of the houses remaining in Westport (if any) would be located along that road in close proximity to “The Landing”.

The anticipated site-related infrastructure avoided under this scenario would be as follows:

- Approximately 3.7 miles of local roads
- Approximately 4.8 miles of sidewalks
- Approximately 3.8 miles of combined utility infrastructure, including:
  o common water distribution piping
  o common sewerage piping
  o storm water management infrastructure
  o natural gas distribution lines
  o buried electricity and telephone lines

The above figures pertain only to the common infrastructure that would have to run between individual parcels in the Westport portion of the development under T. Wall Properties’ proposed development (T. Wall Plan, 2010). For example, the total miles of local roads could be reduced under CRANES’s proposal (as shown above), yet the total number of driveways would remain the same. Under CRANES’s Westport Prairie proposal, the houses (along with their connections to common infrastructure) would be re-located in greater density in the Middleton portion of the development and connected to common infrastructure lines there, rather than being dispersed through-out the Westport portion of the development. In general, relatively-dispersed residential parcels (as proposed in Westport under T. Wall’s plan for Bishops Bay) require greater lengths of infrastructure connecting them. It is these lengths that could likely be reduced (as estimated above) under the CRANES’s Westport Prairie proposal.

This infrastructure avoidance, as outlined above, results in an estimated cost savings (to the private developer) of approximately $7.4 million5. This estimate of potential savings is based on a series of assumptions regarding typical infrastructure requirements along with average unit costs provided in the RS Means Site Work & Landscape Cost Data 2009 handbook, (28th edition), adjusting cost data for the Madison region. Of these total estimated cost savings, about $3.3 million would be from avoided local roads and sidewalks construction costs, while up to about $4.1 million would be from avoided utility infrastructure costs.

Cost implications for the Town of Westport:
$180,000 to $290,000 per year

This section explores the potential annual costs of community services to the Town of Westport if 394 new homes were located there, as proposed under the T. Wall Plan.

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4 This estimate is based on cost data from RS Means Site Work & Landscape Cost Data 2009 handbook (RS Means, 2009), assuming an intersection with 4 traffic signals including 2 with a left turn signal.

5 Complete avoidance of any new roads or infrastructure in the Westport portion of the development would likely save $7.8 million in private developer costs.
master development plan. Both the Westport and Middleton portions of the proposed Bishops Bay development are located entirely within the Waunakee Community School District and within the Middleton Fire District. There is no municipal police department in Westport; the Westport portion is instead patrolled by Dane County. Many of the local services in Westport - such as water supply, sewerage, and waste disposal - are paid for by residents through user fees. That said, any new homes located in the Town of Westport would demand several other community services to be provided by the town. These other services - such as general government services and road maintenance - would likely have to be paid for predominantly through property taxes. It is difficult to estimate with any certainty the Town of Westport’s annual costs of servicing the approximately 400 homes to be built in Westport under the T. Wall Properties development plan. Nonetheless, this section attempts to estimate a reasonable range of these potential costs to the Town of Westport.

The Town of Westport is directly responsible for general government, some public safety, as well as public works (the most predominant of which is highway maintenance including plowing). According to its most recent operating budget, the town’s 2010 general tax revenues totaled $1.3 million; about $1.0 million of this came directly from the town levy of assessed property value. Approximately $1.1 million was spent on public works. Public works costs are assumed (in this analysis) to have been spent predominantly on road maintenance at a unit cost of up to $20,000 per mile. General government expenses totaled approximately $560,000 (roughly $148 per capita) and public safety expenses totaled approximately $490,000 (roughly $130 per capita). Where overhead capacity exists, new development can be effectively serviced at lower-than-average (historical) costs. This analysis assumes a 20% to 50% reduction in costs, relative to the current average “per-unit” costs described here. The proposed development (as proposed by T. Wall Properties) would put approximately 1,000 additional people, and approximately 4 additional miles of local roads, in Westport. All told, it is plausible that the costs to the Town of Westport of servicing these 394 new residences - regarding general government, public safety, and public works - would be between $180,000 and $290,000 per year (not discounted over time).

Under CRANES’s Westport Prairie proposal to locate most if not all of the development in Middleton, the responsibility to provide these community services would not be placed on the Town of Westport, and the town would avoid these costs.

Not considered in this cost analysis is the potential revenue for the Town of Westport if development does occur in the Westport portion. Much of the land that would become home sites in the Town of Westport is presently in agricultural use. Under Wisconsin law, this acreage is assessed at the agricultural use-value and likely does not currently generate as much property tax revenue for the Town of Westport as it would if it were residential. It is plausible that increased tax revenue under the proposed development could cover much of the increased costs of community services provided by the Town of Westport. If the proposed development were unable to fully “pay for itself” through increased property value or other revenue sources (specifically with respect to the cost of services provided by the Town of Westport), the impact on existing Westport taxpayers would likely be modest. Most of the local property taxes in Westport go toward dedicated levies aimed at covering the costs of fire protection and schools in the taxpayers’ respective service districts, so the general town levy is a relatively small portion of local property taxes.

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6 This is a very rough high-end approximation based on public works expenses in the 2010 budget and the approximate number of highway miles currently serviced.

7 In order for all additional costs to be covered through property taxes alone, (given the general town-wide levy currently set at $1.37 per $1,000), the net increase in assessed property value would have to be between $132,000,000 and $211,000,000. That would be an average assessed property value increase of about $330,000 to $540,000 per home site.
Citations


