

SECTION 30

SUBAREA MASTER PLAN

TWC Project #03-134

February 2004

Prepared for:

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SECTION 30
SUBAREA MASTER PLAN

February 2004

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INTRODUCTION

Clark County (County), the City of Vancouver (City), and the Evergreen School District have collaborated on developing a Subarea Master Plan for Section 30, a square mile of land located in east Clark County, Washington. The resulting plan and implementation strategies are described in this report.

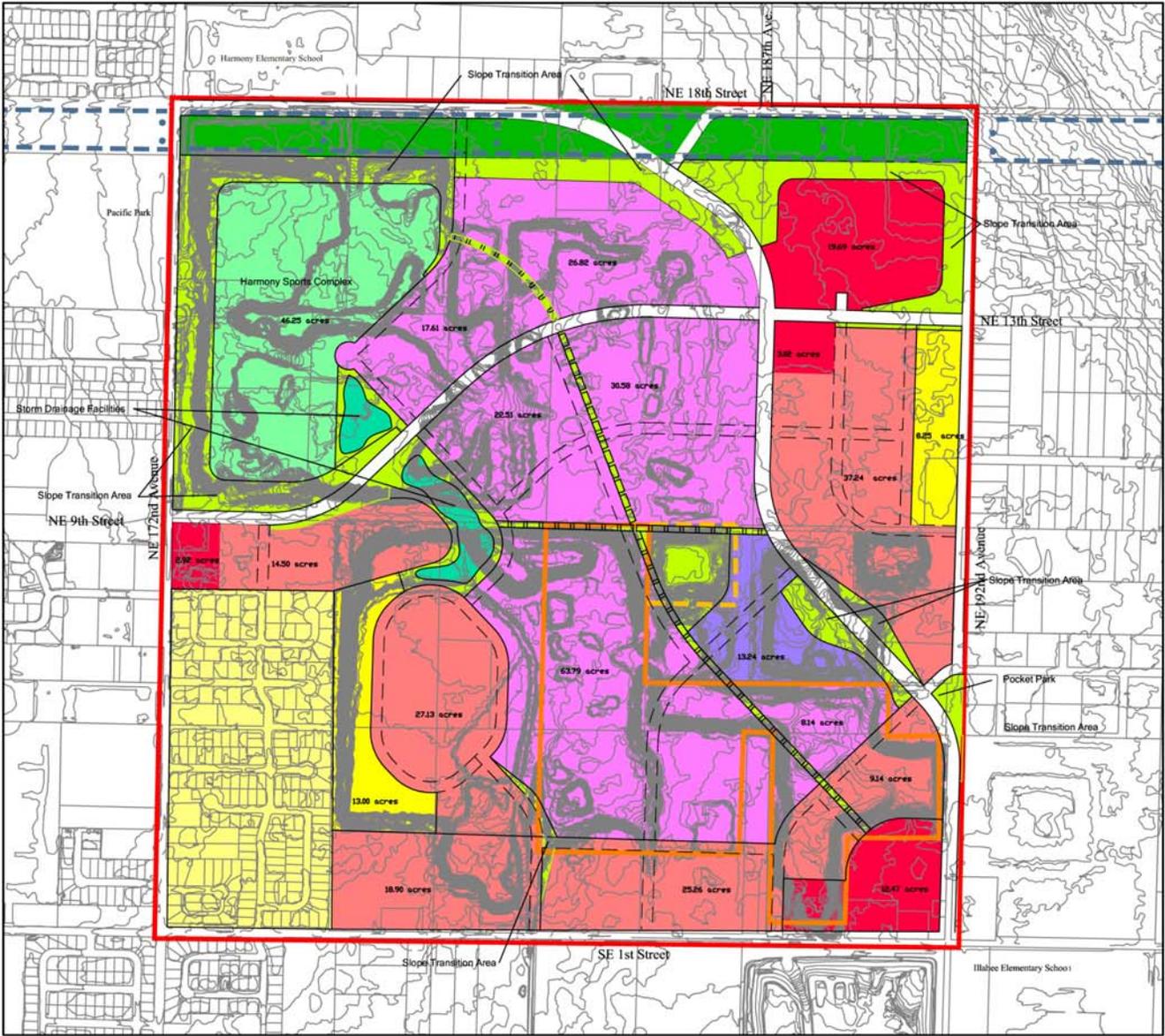
The history and complexity of this site presented a challenge to the planning team. Even today, ongoing conflicts such as the proposed East County Reclamation Center cloud the opportunities that might lie ahead for these properties. However, by establishing some basic tenets to guide the planning effort (see Project Planning Tenets below) and through tremendous participation by the key stakeholders, an implementable and economically pragmatic plan has been developed.

The successful outcome of this effort would not have been possible without the diligent participation of City and County staff, the Project Advisory Committee (PAC), the Real Estate Expert Review Panel, and members of the public. Through those different perspectives, a plan evolved that, while perhaps not completely satisfactory to all, captures the key elements expressed by most stakeholders during the process.

The recommended Subarea Master Plan (see Exhibit 1—Final Draft Subarea Master Plan) provides over 300 acres of land to be developed for employment-based uses, nearly 40 acres of new retail sites, more than 20 acres of residential and live/work space, 46 acres of youth sports facilities, and more than 20 acres for government facilities. The plan reconfigures two principal arterials and reduces traffic impacts on the existing residential communities around Section 30. The proposed east/west connector would allow cross circulation for the first time through the study area. Finally, the plan builds in maximum flexibility in phasing to allow the marketplace to dictate the sequence of development within an overall framework.

This report is organized to include a series of memorandums supporting this Subarea Master Plan document. They include:

- Economic Development Plan
- Capital Facilities Plan
- Economic and Fiscal Benefits Assessment



Section 30 A Clark County and City of Vancouver Partnership

**Exhibit 1
Final Draft Subarea Master Plan**

Legend

- Proposed East County Reclamation Fill Boundary
- Former Landfill
- BPA Easement
- Project Boundary

	<u>acres</u>
	retail commercial 38.10
	mixed use employment 132.17
	employment 170.02
	mixed use residential 21.25
	government facilities 13.24
	open space 172.50
	primary public street
	secondary street network (tentative)

0' 150' 300' 600'
25 November 2003

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SUBAREA MASTER PLAN DESCRIPTION

Background

Section 30 is a square mile of land in unincorporated east Clark County, Washington, bounded on the west by NE 172nd Avenue, on the east by NE 192nd Avenue, on the south by SE 1st Street and on the north by NE 18th Street (see Exhibit 2—Air Photo Surrounding Area). About 70 acres of its 640-acre total is developed as single-family housing. Another nearly 100 acres of property are owned by Clark County; much of this property is used as a youth sports facility operated by the Harmony Sports Association (HSA). The bulk of the square mile is used—as it has been for more than four decades—by gravel mining and mining-related uses. Over time, these uses have provided a growing Clark County with a significant economic resource in the form of sand and gravel for roads and concrete.

Over the last ten years, growth and development—much of it residential—have progressively encroached on Section 30. These changes have escalated real and perceived conflicts between the historically very intense heavy industrial users in Section 30 and the surrounding residential community. Typically centering on truck traffic, noise, and dust, these conflicts add urgency to addressing the policy question of how land will be used within Section 30 after mining activities cease.

Excluding the single-family subdivision in the southwest corner of the site, ownership of the bulk of the property within Section 30 is limited to a handful of entities and families (see Exhibit 3—Property Owners). The primary larger-scale owners—representing more than 500 acres or nearly 80% of the total—are indicated in the following table.

Table 1. Key Section 30 Ownerships

Owner	Approximate Acres ¹
Clark County	99.54 ²
Columbia Rock & Aggregate	49.55
English/Bjornsen Family	89.84
Friberg Family	156.06
Glacier NW	4.40
Rinker Materials	59.55
Schmid Family LTD Partnership I	15.45
Subterranean Asset LLC	36.68
Total Acreage	511.07

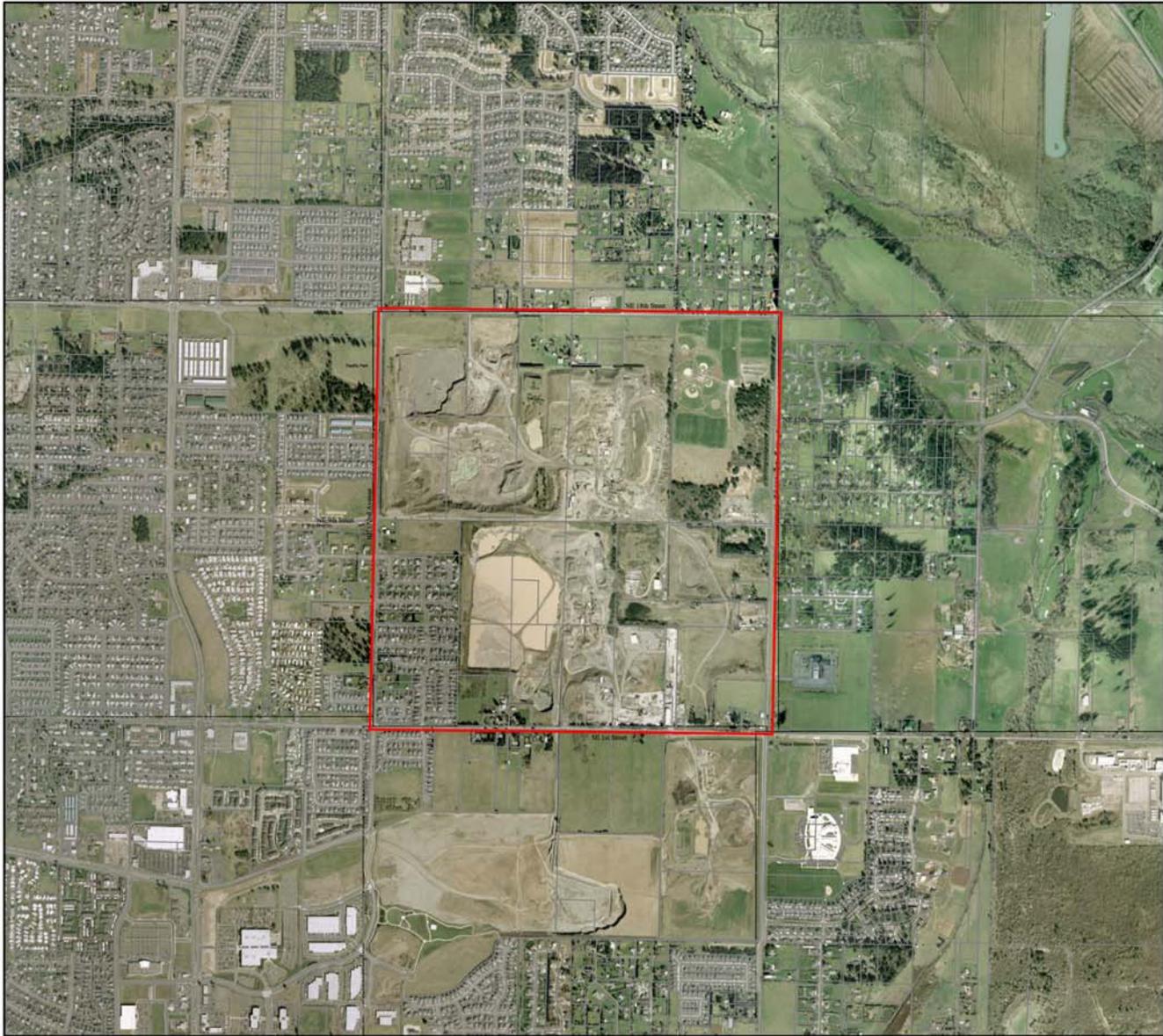
¹ Family acreages are aggregated even though individual family members have distinct and separate ownerships.

² Approximately 40 acres of the County ownership is currently leased to the Harmony Sports Association for use as sports fields for youth.

Over its history, the levels of controversy and community attention regarding the activities within Section 30 have ebbed and flowed. However, in the last four years, the community’s attention has dramatically increased with the recycling center and landfill proposed by East County Reclamation for the lands now owned by Rinker Materials and Subterranean Asset LLC. The issue has been hotly debated and at this writing remains unresolved in legal appeals¹. It is likely that no final decision will be forthcoming before 2007.

Because such information is proprietary, it is not known precisely how much useful economic life remains in the gravel sites; a span of between three and ten or more years is likely. Given that relatively short horizon, the County and the City determined that it was appropriate to develop a subarea master plan for the area that would guide a post-mining policy direction for land use.

¹ The Board of County Commissioners denied this application in 2003. An appeal of that decision and an appeal of the adequacy of the project’s environmental impact statement are both being pursued in court.



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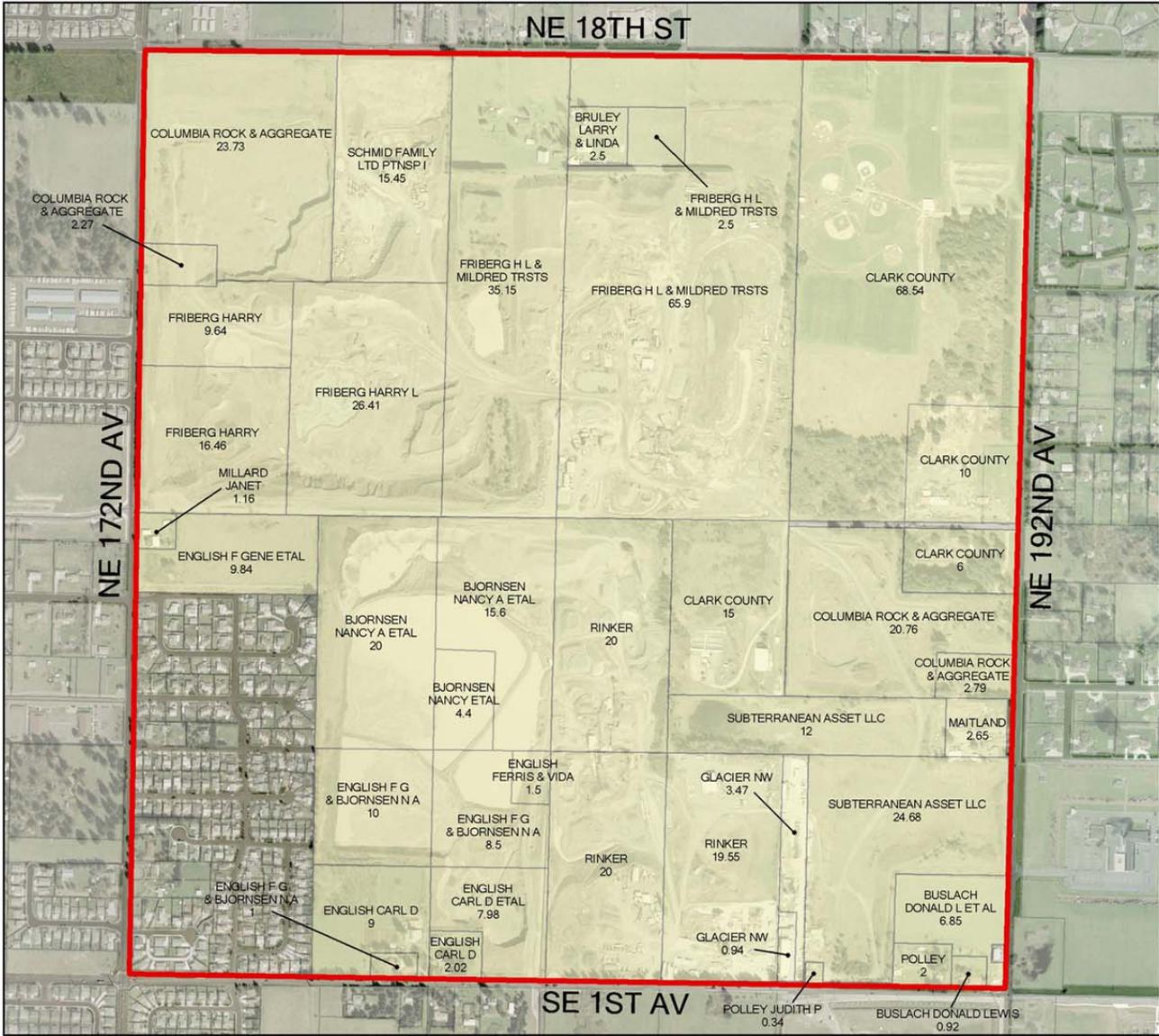
Exhibit 2
Air Photo Surrounding Area

0' 300' 600' 1200' 26 January 2004

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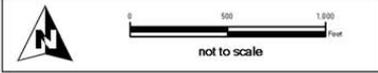
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Exhibit 3
Property Owners

Legend

Study Area

Property Labels include owner and acreage



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Existing Uses

The uses within Section 30 are varied, but most are devoted to or aligned with gravel mining (see Exhibit 3—Property Owners). Among the current owners and uses are:

- Columbia Rock & Aggregate—ongoing mining operations (also on Friberg properties)
- Rinker Materials—processing of gravel transported via conveyor from Section 31 and asphalt batch plant
- Bjorensen/English—ponds for cleaning of gravel from Rinker
- Schmid—gravel mining and heavy equipment storage
- English Winery—vineyard and winery, with ancillary production facilities
- Glacier NW—ongoing production of concrete
- City of Vancouver—operations outpost
- Clark County Sheriff—firing range
- Clark County—English Pit firing range (recreational shooting)
- Clark County—closed solid waste landfill (commonly referred to as Mt. Trashmore)
- Harmony Sports Complex—soccer and baseball fields for youth sports programs

In addition, a number of subdivisions comprising about 200 home sites (many overlooking excavated portions of Section 30) are located in the southwest corner of the study area. There is also an approved site plan for a 37.75-acre retail commercial center at the southeast corner of Section 30.

Current Policy Framework

This plan has been developed within the context of current public policy. Specifically, the plan attempts to respond to two policy areas.

- First, both the County and the City have identified creating jobs by providing land that can be developed for employment-based uses as a key strategy behind the current revision of their respective comprehensive plans. This is driven by two needs: addressing the growing employment out-migration to Oregon, and developing additional tax base for local communities.
- The second key policy area is related to mineral resource recovery. Clark County's accelerated recent growth has significantly depleted the area's historically plentiful inventory of gravel. Recovering the gravel resources before development makes the mineral inaccessible is important so that the more costly importation of gravel from other areas can be delayed. To this end, the County's current comprehensive plan offers some strong policy direction:

Goal: To protect and ensure appropriate use of gravel and mineral resources of the county, and minimize conflict between surface mining and surrounding land uses.

Policies:

Land² shall not be used for any activity other than surface mining or uses compatible with mining until the gravel or mineral resource is depleted, reasons for not mining the site are clearly demonstrated, or the site has been reclaimed.

4.5.13 Prior to the removal of the surface mining designation, the landowner needs to show that the extraction of the mineral resource is not feasible.³

² The term *land* refers to sites that have the County's mining overlay district placed on them.

³ Clark County 20-Year Plan, December 1994, Revised May 1996, pages 4-8.

Perhaps the best example of this policy in play is Columbia Tech Center, where extraction of the gravel occurs in concert with the implementation of a master plan. These County policies drive the plan's recommendation that the Harmony site be mined and, ultimately, redeveloped after mining has ended.

Project Planning Tenets

The client and consulting team both thought the Section 30 Subarea Master Plan project could not be approached as a clean slate. The uses that now exist in Section 30 have rights that vest from many years of active use on this site. Those rights need to be recognized throughout the planning effort; the assumption should not be made that these uses will simply decide to move. The team developed three basic tenets that underlie planning for existing uses:

- *The planning effort (and the eventual plan) will not interfere with any legally existing use.* Substantial suspicion existed within the mining and landowner interests, and it was important to state explicitly that this effort was not a ruse to terminate their legally existing uses. Many of these uses, by virtue of their character, would be extremely difficult to re-permit elsewhere in the community, even if appropriate sites could be found.
- *The East County Reclamation landfill, by virtue of its vested application, is assumed as a given.* The premise was that it would be far easier to develop a plan that assumed the existence of the landfill and adjust the plan later if the landfill's application were not approved, than vice versa.
- *Should the plan determine that private properties are needed for public or semi-public uses (e.g., roads, open space, Harmony Sports Complex), such acquisition will reflect a fair market value approach.* This acknowledgement of private property rights and values allowed the team to more fully explore alternatives that included possible acquisition of private properties without being a threat to those property owners.

These tenets were recited at virtually every AC meeting and public gathering. The second tenet—the position on the landfill—created some angst on the part of a few stakeholders, because it might be construed as suggesting that the team in some way blessed the project. To the contrary, the team's intent was to work around a potential major impact by planning to include the landfill and its attendant implications and, it was hoped, buffer its impacts.

Public Process

The City and County were very clear; they wanted to make sure that the public involvement process leading to the development of the plan was transparent and inclusive. The outreach effort had three key components: the Project Advisory Committee or PAC, the design dialogue, and open houses and project communications.

Project Advisory Committee (PAC)

Because of the history of distrust and conflict within Section 30, it was important that the Project Advisory Committee itself be a vehicle to build trust among all of the participants. Membership in the PAC therefore was limited primarily to property owners. However, to make sure that other perspectives were clearly heard, non-owner members included two neighborhood representatives, a representative of the Evergreen School District, a representative of Columbia Tech Center, and a representative of the HSA. The group met four times over the six-month planning period. All of the PAC's meetings were advertised and open to the public, and each agenda set time aside for comments or observations by the public. A list of the members of the Advisory Committee can be found in the Appendix of this report.

Design Dialogue

A design dialogue is a focused, cost-effective process for receiving critical information from stakeholders and shaping it into plan elements. On Tuesday and Wednesday, August 26–27, 2003, the planning team literally set up shop in the gym at Illahee Elementary School near Section 30. Over those two days, more than 20 stakeholders discussed their objectives, concerns, and issues with the team. That intensive dialogue resulted in the production of three alternative plans for public review on the night of August 27.

Much of the information shared during design dialogue meetings was—to at least some degree—proprietary. Although those conversations could not be formally recorded, the planning team used the information to guide its thinking and help identify key elements of the plan.

Open Houses/Project Communication

During the six months of plan preparation, three open houses were held and two project newsletters were published. The newsletter mailing list included all residents and businesses within a half-mile radius of Section 30. This area for communications was extended somewhat on the south to include additional residences to ensure adequate coverage south of Columbia Tech Center. Approximately 2,900 copies of each newsletter were mailed and additional copies were available at public meetings for Section 30 and related projects, and at City and County offices. Newsletters communicated project information and progress, and advertised open houses and other opportunities for public involvement.

The first open house was held on August 27, 2003, immediately following the two-day design dialogue workshop described in the preceding section. The design dialogue developed alternative plan Options I, II, and III. These three options were shared with the public and comments about them collected at the first open house. Following the open house, the options were revised in response to public comments and input from the PAC and the Real Estate Expert Panel. Option IV (the Draft Concept Plan) resulted and was presented at the next open house, on September 24, 2003. The third and final open house, October 22, 2003, asked attendees to respond to the Final Draft Subarea Master Plan, which refined the Draft Concept Plan.

All three open houses featured information on the objectives and process of the project, and public comment forms were provided and collected. Attendance at the three open houses was estimated at 75.

In addition, a project web site was created and linked to the City and County web sites. Project information, including the draft plan drawings, was posted on the web site as quickly as it became available. The site turned out to be a good source of information not just for the public, but for local officials and members of the PAC as well.

Real Estate Expert Panel

In order to ground truth the planning concepts, the planning team assembled an outstanding panel of expert real estate professionals and developers. These volunteers took time to review the planning team's assumptions and provide critical comments on the development feasibility of the plan alternatives. The panel included developers based in Clark County, the Portland metro area, and outside the region. Their experience ranges from large, multi-use master planned projects to retail leasing. Collectively, they represent more than 140 years of real estate business background in some of the most dynamic markets in the country.

Initially, the panel was unimpressed with Section 30 as a development site. Given that most panel members work in a project timeframe of five years or less, they were challenged to think in the longer term demanded by the Section 30 context. The panel had some discomfort that the planning effort did not include a market analysis, which would predict the likely absorption period of Section 30 development sites. However, panel members came to realize that, given the likely extended development timeframe, such a study would not be meaningful.

Even though panel members may at first have been skeptical, their response to the three alternatives developed by the design dialogue was extremely insightful. Specifically, they encouraged the development of a plan that:

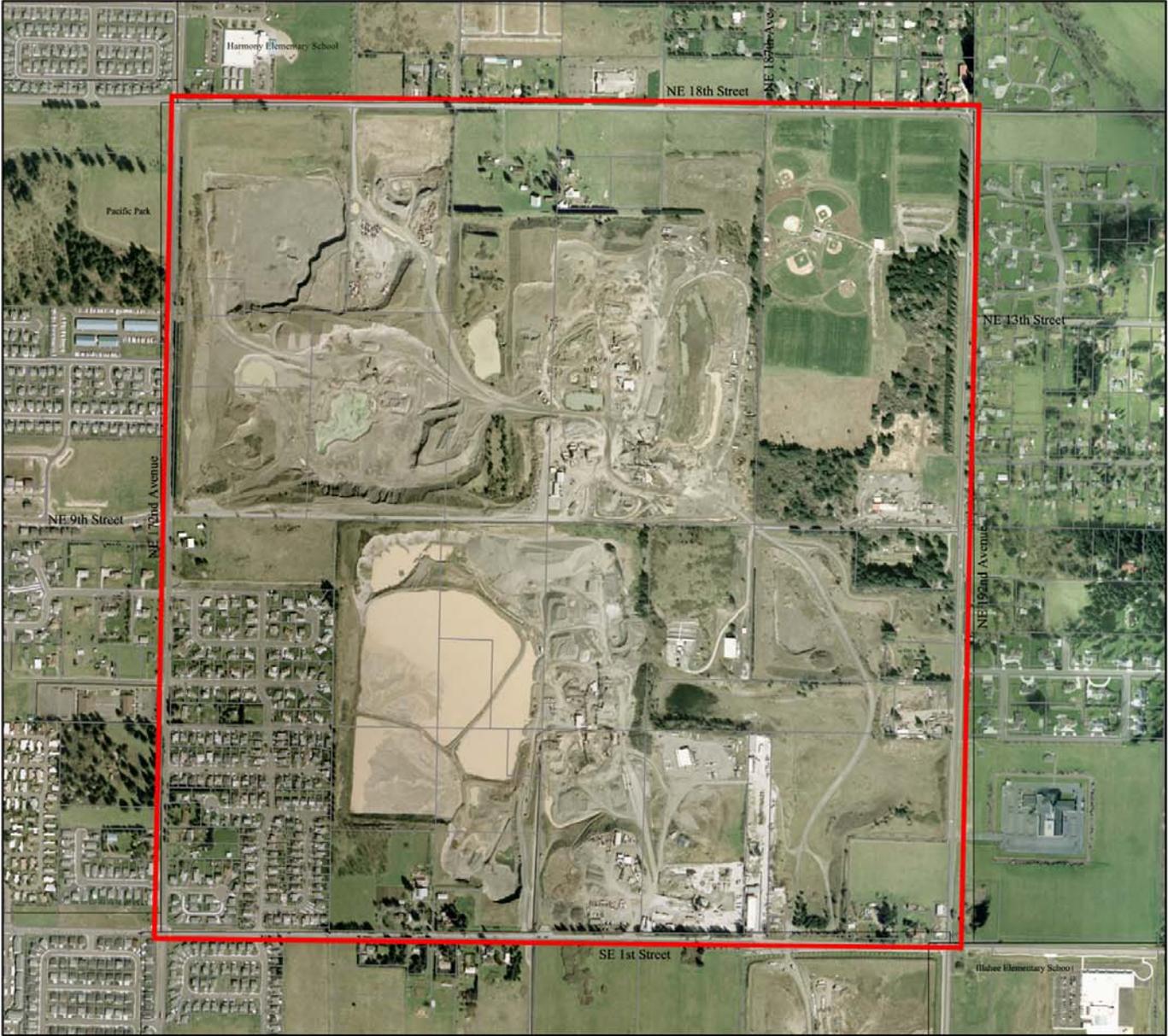
- minimized the infrastructure needed to create development opportunities
- provided a way for the public sector to seed development through the provision of infrastructure
- wisely used publicly owned facilities (e.g., the Harmony site)
- afforded maximum flexibility in phasing

By its second meeting in mid-October, the refined draft alternative had begun to address the panel's specific concerns. Panel members offered a series of specific ideas, suggesting that the amounts of both retail and residential land in the draft plan be bolstered.⁴ They also observed that incentives would need to be clearly articulated to the development community to help developers understand how their risk would be minimized by the participation of others. Finally, they suggested that developing a high-end product type unique to this part of the community could make the redevelopment of Section 30 successful. Interestingly, this comment was heard from members of the public as well. Overall, the panel's comments on the plan suggested that, over the long term and with the right level of local government involvement, Section 30 can become a viable development opportunity.

Key Plan Elements

The planning team was challenged to create a plan that reflects what is on the ground today, but also captures some of the long-term potential for redevelopment in a way that strengthens the viability of the community around Section 30 (see Exhibit 4—Air Photo Section 30 Only). In overall terms, the plan describes a development scenario where the most likely case is that redevelopment will occur from the outside in. In other words, sites along the existing perimeter streets—given their ownership, current uses, and proposed uses—probably will be earlier candidates for development than more central sites. Responding to the realigned road network, proposed uses along the perimeter are intended to be more compatible with existing development adjacent to Section 30, particularly residential development to the north, east, and west of the study area. The key elements that make up the recommended plan are described below.

⁴ The planning team did increase the amount of retail land as a result of this input. However, based on policy directives noted earlier, the amount of residential land was not increased.



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Exhibit 4
Air Photo Section 30 Only

0' 150' 300' 600' 26 January 2004

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Land Use

Consistent with the policy directives noted above, most of the land use allocation suggested in the recommended plan is for employment-based uses. Nearly 295 acres of the site are designated Employment or Mixed Use Employment. The uses anticipated in each are described below. Given typical lot coverage development patterns, the plan estimates that as much as 3.8 million square feet of building area could result on the land carrying these designations over the life of the plan (See Table 2).

Table 2. Net Constructed Development Calculations—Section 30

Land Use Designation	Key Assumptions		Net Constructed Development
	Intensity	Applied To	
Employment ⁵	Office building area based on 35% lot coverage	32.45 acres (20% of total 162.23 ac ⁶)	495,000 sf
	Flex/light industrial area based on 25% ⁷ lot coverage	129.8 acres (80% of total 162.23 ac)	1.41 million sf
Mixed Use Employment ⁸	Office building area based on 35% lot coverage	105.74 acres (80% of total 132.17 ac)	1.61 million sf
	Retail based on 25% lot coverage	26.43 acres (20% of total 132.17 ac)	288,000 sf
Retail	Building area based on 25% lot coverage	37.75 acres	411,000 sf
Government Facilities	Building area based on 20% ⁹ lot coverage	21.38 acres	186,000 sf
Mixed Use Residential	Residential @ 12 du/ac	21.25 ac	255 units in townhome/small lot configuration
	Office @ 800 sf/10 du/ac	255 du	20,400 sf of office in live/work configuration

Open Space

The PAC and community members frequently expressed the need for the Section 30 Subarea Master Plan to include an integrated system of trails, particularly connecting activity centers to the adjacent residential areas. In addition to standard bike paths on the new streets, the plan identifies one potential opportunity for a trail connection.

Harmony Sports Complex

The HSA has a lease with the County that entitles the Association to develop, maintain, and use youth sport athletic facilities. These facilities are intensively used during the soccer and baseball seasons, including for regional tournaments, which reportedly draw up to 4,000 people to this site. A key strategic component of the recommended plan is to relocate the sports facilities to the northwest corner of Section 30, on properties currently owned by the Friberg family, the Schmid family, and Columbia Rock & Aggregate. After this relocation, the plan envisions mining the former Harmony site in a controlled manner to recover the gravel resource, and completing reclamation, resulting in marketable commercial development sites.

Relocation of the Harmony facilities results in a series of net benefits both to the plan itself as well as surrounding neighbors. Those include a better proximity to neighborhood amenities and educational facilities,

⁵ Assumes that 80% of the land designated will be developed as flex/light industrial, 20% as office.

⁶ This figure differs from the current map due to the transfer of 19.34 acres of Employment designation being changed to retail (northeast corner of new 192nd and east/west connection).

⁷ Amended down from 30% per December 17, 2003, e-mail from Mike Mabrey.

⁸ Assumes that 80% of the land designated will be developed as office, 20% as retail.

⁹ Amended down from 25% per December 17, 2003, e-mail from Mike Mabrey.

the ability to provide lighted fields below grade mitigating light and glare impacts to neighbors, a more efficient design and layout of the fields and parking, the possibility of adding all weather fields and certainty as to the long term disposition of the county owned property.¹⁰ Mining interests advised the planning team that removing gravel down to a minus 40-foot level on the Harmony site could be accomplished within 3–5 years. Some neighbors who live near Harmony are concerned about those operations and have asked for consideration of mitigating measures that would decrease the impacts they expect to see.

HSA has been clear about two preconditions to its relocation. First, the Association wants facilities that are at least equal (in quantity and quality) to the existing facilities. Second, the Association wants its relocation scheduled so that a season of play is not missed. By relocating this facility to the proposed site, these goals can be accomplished. The leadership of the Association can and should have an active role in the design of new facilities. The Economic Development Plan spells out in some detail how this can work logistically.

Employment

The plan recommends that just over 162 acres of Section 30 be designated as Employment. For purposes of the plan, the Employment designation is proposed to include both typical light industrial uses along with more traditional freestanding office use. The suggestion is that the predominant use be light industrial and flex space, to include light manufacturing, assembly, and distribution. However, a minority portion of each building typically would be devoted to office space supporting the industrial function. The plan assumes that a *minimum* of 80% of the land carrying the Employment designation (129.8 acres) would be developed accordingly. Given that assumption, approximately 1.41 million square feet of building area in light manufacturing, assembly, and distribution can be developed. The plan also assumes that a *maximum* of 20% of the land in the Employment designation (34.45 acres) can be developed as pure office space, with no industrial component. Accordingly, approximately 495,000 square feet of office space also can be developed within the Employment designated land. Columbia Tech Center and Eastridge Business Park serve as examples of the kind of development anticipated. County staff has recommended that the county's current Light Manufacturing (ML) zoning district be applied to the Employment designation.

Mixed Use Employment

Mixed Use Employment (MUE), as defined by the plan, is predominantly professional office development supported by retail development. Unlike the Employment designation where a *maximum* allocation of office is suggested, the uses allowed in the MUE are suggested to be market-driven in their proportion between retail and office. However, the plan does assume that 80% of the plan's total MUE designation (106 of 132 acres) will be developed as office, resulting in approximately 1.61 million square feet of building area. The remaining allocation of 20% of the land under the MUE designation, if developed as retail, results in 288,000 square feet on the remaining 26+ acres. County staff has recommended that the county's new Business Park (BP) zoning district be applied to the Mixed Use Employment designation.

Retail

The plan also includes 37.75 acres of exclusive retail designation, which could generate about 411,000 square feet of building area. The most prominent retail site is likely to be the nearly 20-acre retail portion of the mined (County-owned) Harmony site, situated at the northeast corner of the relocated NE 192nd Avenue and the new east/west connector. County staff has recommended that the county's current Limited Commercial (CL) zoning district be applied to the retail designation.

¹⁰ These amenities and educational facilities include Pacific Community Park, Harmony Elementary, and Pacific Junior High, all near NE 18th Street and NE 172nd Avenue.

Government Facilities

About 21 acres is designated as Government Facilities, creating the opportunity for about 186,000 square feet of building area. The plan provides the opportunity for current facilities owned by local government to relocate into this area should they so desire, with the exception of the Sheriff's firing range (unless it is converted to an indoor training facility). If the site is not needed for these facilities, the space could easily be converted to an Employment designation. County staff has recommended that the county's current Public Facilities (PF) plan designation be applied to the Government Facilities area with an employment zoning designation such as Business Park.

Mixed Use Residential

The plan designates approximately 21 acres as Mixed Use Residential, recommended to include live/work product. This product type will likely have one of two configurations. First is a segregated product where the housing and the office space are built in proximity, but not in the same building. The connection between the two is more flexible—office occupants are not as likely to be residents as well. A second configuration is as a townhouse where the workspace occupies all or a portion of the ground floor, while the balance of the unit is intended for living. A recent local example of this type of development can be found in the Main Street townhouses at Anthem Park, a project located just south of Fourth Plain Boulevard on Main Street in downtown Vancouver. This designation—regardless of how it is configured—requires a relatively high level of density (12 units/acre), resulting in about 255 dwelling units, along with over 20,000 square feet of connected or integrated office space.

Given its apparent inconsistency with developing an employment center, including any residential use in the Subarea Master Plan was a matter of great discussion throughout the process. Ultimately, the argument prevailed that including some residential would not substantially detract from the employment goal, but would instead create more of a true mixed-use development pattern for Section 30. This designation is recommended for two sites, but only with a concomitant rezone agreement that would cap the amount of residential development while allowing land so designated to be developed exclusively for office development. County staff has recommended that the county's current Mixed Use (MX) zoning district be applied to the Mixed Use Residential designation.

Finally, the plan calls for the creation of a new facility for the HSA. Approximately 46 acres are so designated, not including the Association's possible use of Bonneville Power Administration right-of-way for soccer fields, similar to the arrangement the Association has now.

In addition, the plan provides direction for a system of local connecting streets, assumed to be built in conjunction with (and at the expense of) nearby development and/or property owners. The plan also includes schematic direction for a bike and trail system. Finally, the plan calls for the creation of regional stormwater facilities that will help increase net developable area on specific sites while reducing costs to individual developers.

Transportation

Section 30 is surrounded by roadways designated as urban collectors (NE 172nd Avenue and SE 1st Street within the City) and principal arterials (NE 18th Street, NE 192nd Avenue, and a portion of SE 1st Street).¹¹ Three of these—NE 172nd Avenue, NE 192nd Avenue, and NE 18th Street—separate activities within Section 30 from neighboring residential uses. However, no public roadways serve the interior of the site. (See the for the complete analysis of anticipated transportation impacts.)

In general terms, the transportation component of the plan proposes to accomplish two goals: 1) provide access to the interior of the site, and 2) provide some buffering for the surrounding residential areas from both Section 30 activities and major roadways. Current County and City plans call for the improvement of NE 18th Street

¹¹ A portion of SE 1st Street inside the unincorporated area is classified as a principal arterial (Pr-4cb), which is no longer appropriate given the new alignment of the Mill Plain extension.

from NE 172nd Avenue to NE 192nd Avenue and of NE 192nd Avenue from SE 1st Street to NE 18th Street. Both of these two-lane roadways are planned for expansion to five-lane configurations (two travel lanes in each direction with a center left turn lane). It is unclear from those plans, however, exactly what would happen where those two roadways meet at a right angle. The plan acknowledges these desired improvements and proposes a realigned 18th Street/192nd Avenue connection. This has beneficial effects, including pulling both roadways off much of their existing residential frontages and opening the interior of the site for development. In addition, a new three-lane east/west connector is proposed that would tie NE 9th Street through the site to NE 13th Street. As NE 13th Street continues to the east, it becomes Goodwin Road, which connects to the Green Mountain and Camas Meadows developments.

For purposes of igniting development interest in Section 30, the plan envisions significant—but not exclusive—public investment in roadway infrastructure, primarily on the public roadways mentioned above (see Economic Development Plan). Benefiting landowners and developers will need to share in the cost of infrastructure. The local service roads outlined by the plan are expected to be built as a result of private development. The optional sources of funding are explored in detail in the Economic Development Plan.

Implementation of the plan will require updating the functional classifications of some streets and including the new streets proposed to be added to Section 30. These changes could include:

- Designate the new 18th Street/192nd Avenue connection through the site to Pr-4cb
- Designate the new east/west connection between 9th Street and 13th Street (to be determined)
- Lower the classifications of the existing segments of 18th Street and 192nd Avenue north and east of the arterial realignment
- Add the new alignment of the Mill Plain Extension as a Pr-4cb
- Lower the classification of SE 1st Street west of 192nd Avenue to M2cb

Water & Sewer

Because Section 30 is within its Urban Growth Boundary, the City will be responsible for providing water and sewer service to Section 30 as it develops. Commitment of public funds to build at least a skeleton system for water and sewer will be necessary to bring about the desired development within Section 30. After that, however, system expansion will be expected to follow the standard City policies. A detailed analysis of what the likely system requirements will be, along with preliminary costs, is provided in the Capital Facilities Plan, which is a part of the Appendix to this report.

ECONOMIC IMPACT ASSESMENT

The long-term impacts of redevelopment of Section 30 have been estimated in the memorandum Economic and Fiscal Benefits Assessment in the Appendix. The intent was to provide a global view of a likely scenario of benefits. Due to the uncertainty of the timing of redevelopment, no effort was made to predict the likely timing of these impacts, nor their sequence. Rather, the question that is posed and answered is simply: Does it make sense for local jurisdictions to invest in the redevelopment effort based on economic returns?

In summary, the analysis indicates that the following economic and fiscal benefits can be expected with development of Section 30 as proposed under the current Subarea Master Plan:

- Buildout of Section 30 will result in 1.4 million square feet of flex/light industrial space, 2.1+ million square feet of office, 700,000 square feet of retail, 186,000 square feet of government, and 255 housing units. The facilities are estimated to produce a market value of \$495.2 million. Approximately 3,800 construction jobs will be supported over the entire construction period. Construction workers will earn an average annual wage of \$45,700 per worker.
- Development of Section 30 will create secondary economic opportunities for Clark County. Construction activities will support another \$129.0 million in other market investments, as well as supporting 3,100 workers in other industries at an average annual wage of \$30,700.

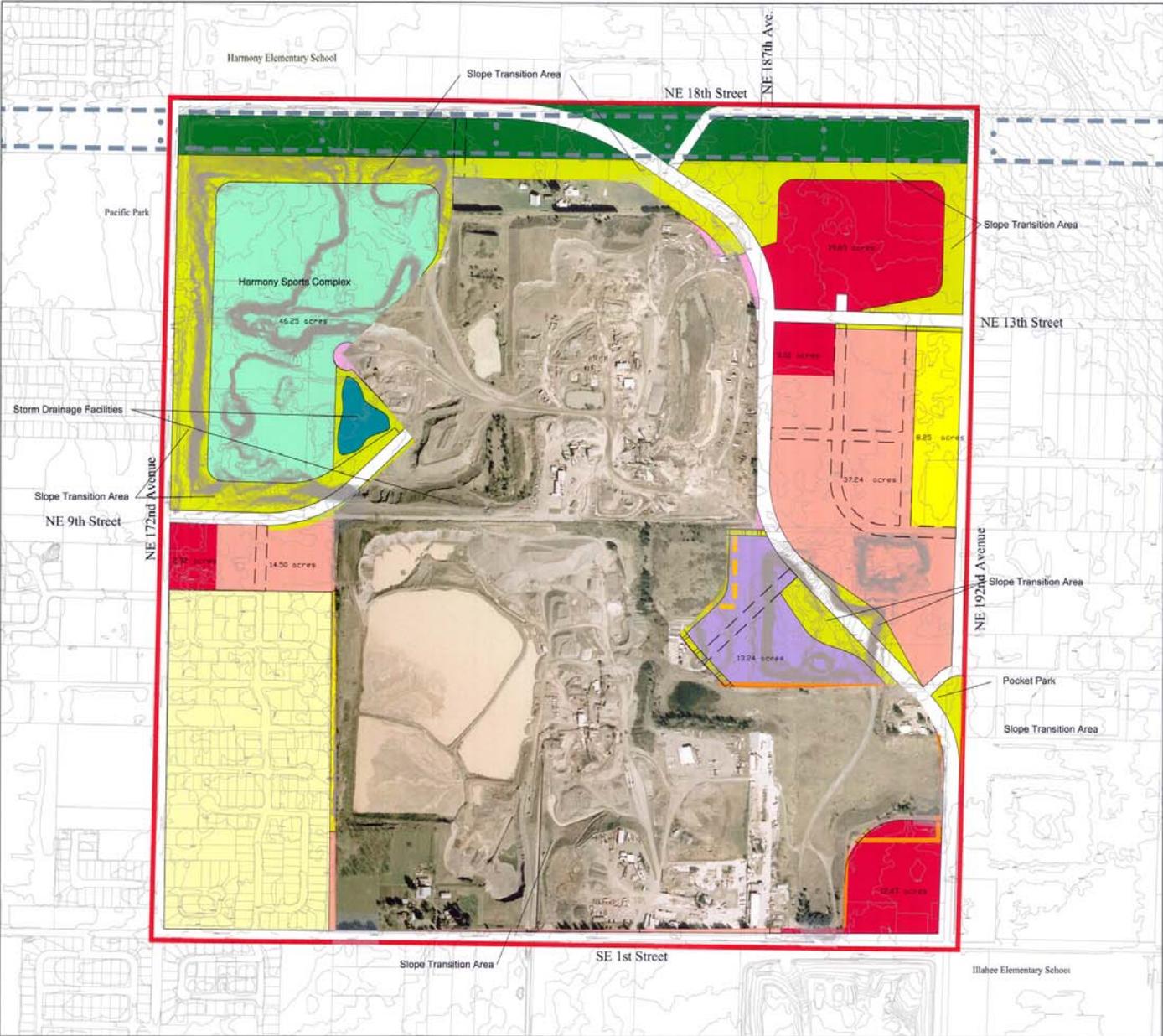
- Businesses locating in Section 30 are estimated to produce \$1.4 billion of gross business income at full buildout. Section 30 companies will also make \$18.4 million of taxable retail purchases annually within Clark County. Businesses are expected to hire 13,700 workers with an average compensation package of \$35,200 per year, generating a total payroll of \$482.7 million.
- Businesses within Section 30 will stimulate other economic activity countywide, such as an additional \$8.9 million of taxable retail purchases, 7,900 jobs, and \$250.5 million of household income.
- Development of Section 30 will generate a series of tax benefits for both local and state jurisdictions, primarily in the form of sales tax. Construction of facilities will produce \$35.2 million of sales taxes. The state will collect the largest share at \$32.2 million, with the City /Clark County collecting \$3.0 million.
- Businesses operating within Section 30 will produce substantial tax benefits each year. Annual property taxes distributed to major local taxing jurisdictions will amount to \$5.3 million, with the state collecting \$1.3 million of K-12 education. The Evergreen School District will collect the largest amount (\$2.5 million), followed by the City (\$1.5 million), state K-12 funding (\$1.3 million), and the Clark County general fund (\$776,000).
- Section 30 businesses will also produce sales taxes. The state will collect \$1.2 million annually, with the City and Clark County getting \$221,400.
- The proposed 700,000 square foot retail center will produce sales taxes in addition to the tax benefits described above. Retail centers typically generate annual sales of \$300 per square foot across all store types. This translates into \$210.0 million of annual sales and \$16.2 million of annual retail sales taxes.

PHASING

One of the most difficult challenges in developing a plan for Section 30 is the aspect of phasing. Where the remaining economic life of these operations might differ by years, and where large unknowns such as the proposed landfill exist, flexibility in phasing becomes a critical issue. It is important to maximize the potential for each property owner to develop independently, while minimizing the potential for incompatible uses to develop adjacent to each other.

The plan works the phasing around the development of infrastructure, in particular of the road network. By building the roadways as shown in this plan, all of the properties that lie to the east of the relocated 192nd Avenue and north of the east/west connector can be developed in the near term. The remaining properties—where the most ambiguity exists around remaining life—can be developed over whatever timeframe suits the needs of the owners (see Exhibit 5—Final Draft Subarea Master Plan with Gravel Area). The most notable exception to any expectation of rapid change is likely to be the Glacier NW facility; given its strategic location, this facility is likely to have a significantly longer economic life than many other operations in the area.

While it is fully expected that constructing the road network will create momentum away from the existing uses and toward a redevelopment scenario, the success of the plan (with the exception of the Harmony relocation) is not predicated on any particular parcel redeveloping at a specific point in time.



Section 30 A Clark County and City of Vancouver Partnership

Exhibit 5
Final Draft Subarea Master Plan
with Gravel Area

Legend

- Proposed East County Reclamation Fill Boundary
- Former Landfill
- BPA Easement
- Project Boundary

	acres
 retail commercial	38.10
 mixed use employment	132.17
 employment	170.02
 mixed use residential	21.25
 government facilities	13.24
 open space	172.50

- primary public street
- secondary street network (tentative)

0' 150' 300' 600'

25 November 2003

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OTAK

IMPLEMENTATION

Implementing the Section 30 Subarea Master Plan will be a project of significant magnitude and complexity. Its successful delivery is going to take a focused effort. The Section 30 Subarea Master Plan recommends the establishment of the Section 30 Public Development Authority (PDA) to carry out the plan's implementation.

The objective of the PDA should be specific: to undertake the implementation actions that bring the plan to realization. The creation of the PDA would provide the Board of County Commissioners and City Council the ability to focus on their day-to-day assignments and delegate the implementation of the plan to a highly qualified panel and staff.

Beyond the decision to create a Section 30 PDA, the most important decision will be selecting the members of the PDA board. The success of the implementation will be directly related to the quality and skill set of the members of the board. The board should comprise individuals who can effectively implement redevelopment within the project area. The board should represent community interests, development interests, and legal and funding concerns, and should comprise leaders who are known in the community and acknowledged for their ability to get things done. The appointing body—whether the county, the city or, preferably a joint effort—may wish to consider appointing a Commission or Council member to the PDA board to serve as the policy link between the jurisdictions and the PDA.

Staff support is important to the success of the PDA and the jurisdictions should be prepared to provide that support. The staff should:

- provide the PDA with an economic development plan and program setting out development benchmarks for the PDA in compliance with the Section 30 Subarea Master Plan
- assist in developing funding sources
- report to the County and/or City executives and Commission and/or Council in order to facilitate Commission/Council oversight of PDA projects
- be provided with both the political and financial support sufficient to allow entrepreneurial implementation of the plan

Given the uncertainty of timing, it is hard to predict when—or if—some authority should shift from the County to the City. However, in establishing the PDA, the planning team strongly recommends that the transition issue be discussed at the earliest possible opportunity. Like many issues, transitioning authority will be a problem only if it is not addressed directly and early.

In terms of commencing the plan implementation, the sequence of events is suggested as follows:

Action	Acting Body	Sequence						
Development of Interlocal Agreements (Cost/Revenue Sharing)	City/County							
Plan Adoption	City/County							
Development of Agreements w Harmony Sports Association	County							
Develop Charter for Public Development Authority	City/County							
Appoint Public Development Authority	City/County							
Negotiate Terms of Mining of Harmony Site	County							
— <i>Staff led, oversight by PDA</i>								
Negotiate Purchase of New Harmony Site	County							
— <i>Staff led, oversight by PDA</i>								
Award Harmony Mining Contract	County							
Administer Harmony Mining Contract	PDA							
Develop PDA Work Plan	PDA							
Develop Infrastructure Finance Plan	PDA							

Ultimately, the guiding philosophy of local governments should be to create as many incentives and measures to reduce barriers as possible for prospective users and developers. As noted by the Real Estate Expert Panel, this is not a development site that intuitively beckons to most developers, particularly when it competes with other sites in the region that appear to be more ready-to-go. Rather, Section 30—at least initially—will need significant political and financial support. The sponsoring jurisdictions should consider utilizing incentives used in other successful subarea plans in the state, including completing the subarea planning process with an environmental impact statement (EIS) and planned action ordinance. These actions can relieve site developers from the additional time and expense of SEPA review, since the EIS will have completed most, if not all, of the environmental review obligation.

KEY REMAINING UNRESOLVED ISSUES

The Section 30 Subarea Master Plan, while making significant progress on many fronts, does not address several larger policy and legal issues. For the plan’s implementation to begin, the resolution of these issues should be at least begun, if not completed.

Cost & Revenue Sharing

The plan does not address which jurisdiction should pay for which improvements or in what proportion. However, the most significant source of revenue that could be tapped is the Harmony site—its gravel deposit and its real estate. Clearly, questions will be raised from a policy perspective as to whether the County should commit those funds to infrastructure when the City (after annexation) likely would be the primary beneficiary of the tax base (property and sales) that would be generated within Section 30. Additionally, both local governments will need to know the level of investment that private sector players are willing to make.

This project should be looked at like any other investment: What is the likely return for any individual’s investment. This plan envisions at least three primary investors in the redevelopment of Section 30: the county, the city and private owners/developers. Each of these entities is entitled to a reasonable return on their investment and will need to be convinced that their investment will be favorably returned over an agreed upon time frame. A true sense of partnership—shared risk and shared reward—will be essential if this plan is to ever reach the implementation stage. The issue can—and probably should—be addressed through some form of cost and revenue sharing model or interlocal agreement.

Annexation

Section 30 is within the Vancouver Urban Growth Area, and is assumed but not required under the Washington Growth Management Act to annex to the City of Vancouver over time. The Clark County Community Framework Plan adopted by local jurisdictions calls for annexation, or commitment to annexation, for developing urban areas.

In 2002, the Washington Supreme Court found the direct petition method of annexation to be unconstitutional. This left intact the election method of annexation, and provided no means for annexation of uninhabited lands. During the 2003 legislative session, a new direct petition method of annexation became effective. This new method makes it possible for the City to once again annex uninhabited lands. The pertinent legislation, SSB 5409, states that to annex contiguous inhabited territory, a petition must be signed by: 1) owners of a majority of the acreage in the area to be annexed, and 2) a majority of registered voters in the area to be annexed. To annex contiguous uninhabited territory, a petition must be signed by the owners of a majority of the acreage in the area to be annexed.

In December 1996, the City entered into an agreement with several mining interests within Sections 30 and 31. The agreement specifies that the non-residential sections of Section 30 and the northeastern 160 acres of Section 31 are not appropriate for annexation to the City until such time as surface mining operations have ceased and the property is reclaimed for urban development. The City agreed it would not initiate, promote, or further the annexation of these properties until the mining operations cease and property owners make the land available for development. The agreement was effective December 31, 1996, and will terminate after 15 years. Under the agreement, it is possible that the majority of Section 30 would remain in unincorporated Clark County until 2011, unless the agreement is renegotiated or property owners decide that it is in their best interest to annex due to desires to redevelop in other uses.

Since the agreement's effective date, a limited number of parcels within Section 31 have released the City from the agreement and have annexed. In all cases, annexation has occurred only after mining or excavation was completed and the land was being readied for redevelopment. Based on conversations with the various mining interests within Section 30 during the process of developing this plan, the planning team believes it is reasonable to assume this practice will continue. Since there are several different mining interests and varying expectations for the continuity of mining or related activities, it is unlikely that all of Section 30 would be annexed simultaneously. Instead, annexation to the City is likely to occur sequentially as mining and related activities are completed and parcels are readied for development. Earlier annexation may be possible if the City and property owners can reach mutually agreeable terms. It is possible that redevelopment may be more efficient if the entire square mile is annexed in its entirety rather than piecemeal.

SUMMARY

Through strategic public and private investment, the Subarea Master Plan for Section 30 can create a new employment center for east Clark County/Vancouver which also will function to provide expanded retail, housing, and open space opportunities to residents of the area. While the infrastructure necessary to support and ignite development of this area is not inexpensive, the long-term return on the investment is substantial. Phasing the plan can accommodate differences in the needs and interests of individual owners, including working around the proposed recycling center/landfill currently in the permitting process.

While many may look at Section 30 as just an enormous hole in the ground, after six months of intensive work it is clear to the planning team that this site offers some of the most promising economic development opportunities in the region. It will take a bold move on the part of local government—most likely framework road and utility construction—to help others begin to see the potential. But that investment should be made with the understanding that it unlocks millions of dollars in private investment and job creation potential. As noted in the Economic Development Plan, the redevelopment of Section 30

begins with the relocation of the Harmony Sports Complex and the mining of the County-owned property where Harmony currently sits. It ends with a significant addition to the community that not only helps the City and County achieve their long-term goals, but also helps bring a level of diversity and stability to the surrounding community that Section 30 in its current state does not offer.

APPENDIX

Project Advisory Committee Job Description

Project Advisory Committee Members

Economic Development Plan

Capital Facilities Plan

Economic & Fiscal Benefits Assessment

SEPA Checklist

Traffic Information

**PROJECT OVERVIEW &
ADVISORY COMMITTEE JOB
DESCRIPTION**

SECTION 30 SUBAREA MASTER PLAN

Project Overview & Advisory Committee Job Description

OVERVIEW OF PROJECT

Clark County and the City of Vancouver have partnered to develop a long-term land use plan that will guide future development of Section 30, one square mile located in unincorporated Clark County within the Vancouver Urban Growth Area. Section 30 is bounded by NE 18th Street to the north, 192nd Avenue to the east, SE 1st Street to the south, and 172nd Avenue to the west.

Section 30 is home to a variety of land uses including mineral extraction and processing, the Harmony Sports Complex, rifle ranges, a winery, and residential subdivisions. A new commercial development, including a shopping center, has been submitted for permit approval for the northwest corner of the intersection of 192nd Avenue and SE 1st Street.

One of the few remaining large tracts of land within the existing Vancouver Urban Area, Section 30 presents a unique opportunity to plan future growth in a predictable comprehensive manner. Through the subarea planning process, the City and the County hope to develop an economically feasible plan for the long term that will bring new jobs and services to the area in a way that integrates well with the surrounding area and enhances the quality of life for area residents and businesses. Many of the operations in Section 30 today likely will remain for many years to come; however, planning for the area's long-term conversion to higher uses is timely and important to all affected property owners and residents.

PROJECT OBJECTIVES

The Section 30 subarea master planning process represents an opportunity to create complementary land uses that collectively add to the long-term quality of life and the economic viability of Clark County and the City of Vancouver. As owners in and around Section 30 make investment decisions—whether it's buying a house nearby or building a shopping center—it is important for everyone to have a notion of what the long-term picture looks like for this area. While some uses still have years of viable operation ahead, a transition plan will provide certainty to property owners and neighbors. It will also establish a plan for water, sewer and transportation infrastructure that will be needed for redevelopment.

Much of the effort in planning for Section 30 will be to evaluate how family wage jobs can be attracted to this area. The uses that are in the area now, however, will be recognized and their owners' plans will be incorporated.

Overall, the project objectives include

- Developing a land use plan that will guide long-term growth and create compatible development patterns within and around the project area.
- Evaluating long term redevelopment opportunities and reclamation of mineral resource areas.
- Identifying the capital facility projects (roads, water, and sewer) needed to support planned development and the cost and timing of these improvements.
- Generating new employment opportunities.

PURPOSE OF ADVISORY COMMITTEE

The committee will advise Clark County, the City of Vancouver, and the consultant team in the development of the Subarea Master Plan, consistent with the plan objectives as stated above. More specifically, the committee will provide feedback on appropriate land uses, infrastructure, phasing strategies, financing, and public vs. private roles. A final decision on the plan will be made by the Board of County Commissioners and the Vancouver City Council early in 2004.

Advisory Committee candidates comprise diverse interests such as sports and recreation, the school district, mineral resource operators, property owners, and nearby business and residential interests. The Advisory Committee will serve as a sounding board advising the project team on critical issues that must be considered in order to develop a plan that is supported by diverse interests and can be implemented.

COMMITTEE MEMBER RESPONSIBILITIES

Advisory Committee members are expected to:

- Come prepared to actively participate in all Advisory Committee meetings. Four meetings are planned from July–December 2004. Meetings will range from 1½ -2 hours in length and will be professionally facilitated to ensure equal opportunities for participation and focused productive discussions.
- Participate in the three public open house meetings and the small group alternatives development Design Dialogue process.
- Work collaboratively with other committee members and the project team to meet the Section 30 Subarea Master Plan project objectives.
- Seek common solutions, which, in your judgment, best meld the interests of landowners, neighbors, and the public at large.
- Serve as an information conduit between those you represent and the project team. This means proactively sharing project information with your constituents and bringing their feedback to the project team. Project materials will be available in hard copy and electronic formats to facilitate this two-way communication.

**PROJECT ADVISORY COMMITTEE
MEMBERS**

PROJECT ADVISORY COMMITTEE MEMBERS

Name	Affiliation
Commander Tony Barnes	Clark County Sheriff's Office
Nancy Bjornsen	English Property
Jim Etzkorn	Coalition of East Vancouver Communities
Joni Kartchner	Neighbor
David Lampe	Rinker Materials
Steve Madison	Columbia Tech Center
Reg Martinson	Evergreen School District
Pat Nelson	Columbia Rock & Aggregates, Inc.
David Nierenberg	Neighbor
Bill Rivas	Harmony Sports Association
Bob Short	Glacier Northwest, Inc.
Jim Schmid	George Schmid & Sons, Inc.
Judy Teitzel	Friberg Property
Alex Veliko	Parks and Recreation Commission

ECONOMIC DEVELOPMENT PLAN

ECONOMIC DEVELOPMENT PLAN FOR SECTION 30

TWC Project #03-134

December 2003

Prepared for:

**Clark County
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Vancouver, Washington 98668-5000**

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**ECONOMIC DEVELOPMENT PLAN
FOR SECTION 30**

December 2003

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PURPOSE

The purpose of this plan is to outline the key elements of an implementation strategy to bring about the successful redevelopment of lands within Section 30. This strategy considers public investment requirements, public ownership of resources (gravel and land), phasing, sequencing and a suggested implementation model. The intent of this strategy is to serve as a point of beginning for a series of crucial steps that must be undertaken if the near-term redevelopment of Section 30 and the conversion of most of the mining activities on the site to other uses are to be realized. While considerable public investment will be required, the returns—both direct and indirect—are expected to be substantial. In addition, they are expected to further the objectives of the City and the County of continuing to build an employment base in Clark County.

LOGIC BEHIND THE PLAN

From the outset, it has been assumed that the master plan for Section 30 needed to accomplish two critical thresholds:

- provide a land base that can be used to develop a substantial number of jobs; and,
- build a financial scenario that provides for infrastructure development resulting in expenditures that are within or only nominally outside the public investment that would be required over the long term even if the plan was not being implemented.

Both have been achieved. Approximately 295 acres of land will be available for redevelopment as industrial or office development (referred to in the plan as Employment and Mixed Use Employment designations). Projections are that this could result in the accommodation of 13,700 new direct jobs in the community. In addition, 38 acres will also be available for retail commercial development. Retail development is important to provide greater retail access to neighboring residents and to create sales tax revenue to local jurisdictions. (Please see the Economic and Fiscal Benefits Assessment in the Appendix to this report.) Finally, in order to balance the plan and to help create a full community within Section 30, 21 acres are recommended to be available for use as residential or live/work development.

Blending all this together is a substantial amount of open space, primarily in the form of a relocated Harmony Sports complex. In addition, a conceptual system of pedestrian trails and bikeways is proposed to allow easy access into and around the site.

In terms of infrastructure development, the master plan for Section 30 suggests three key components:

- A sanitary sewer system that will utilize pump stations to tie to the surrounding system
- A storm sewer system that will include sub-regional water quality facilities
- A street system that includes improvements to NE 18th Street and NE 192nd Avenue (both of which are on the County's long-term plan for improvement) and a new east/west connector that extends from NE 9th Street on the west to NE 13th Street on the east (not currently anticipated in the County's plan).

As a result, the only significant improvement that falls outside current jurisdictional plans in the east/west connector. However, the timing of the proposed improvements will likely be sooner than anticipated by current plans. The strategy assumes that the combination of available sites from a mined county property (HSA) and ready-to-go infrastructure will ignite developer interest in the area. Key elements of the infrastructure will need to be installed as a part of creating a viable market for the development sites.

The plan assumes that an equitable investment strategy will include a variety of potential funding sources for the primary infrastructure:

- Revenues from mining royalties
- Revenues from the sale of County-owned development sites
- City of Vancouver funds
- Property owner contributions, most likely in the form of a Local Improvement District
- Economic development component of the Real Estate Excise Tax (REET)
- Water and sewer fund monies
- County road fund monies
- Developer contributions
- Dedicated Traffic Impact Fees

Exactly what combination of these funds is used to build infrastructure is, at this point, undetermined. This will be a balancing act that needs to be explored in depth using more detailed estimates for both construction and land values than are available at this level of planning. However, given the fact that the site is currently in unincorporated Clark County but will, at some point, be annexed to the City of Vancouver, it is essential that sources of funding recognize that eventual transition. The plan speaks specifically to balancing the investment and return for all investors, including the city, county and private entities.

KEY INITIATIVES

What unlocks the potential for redevelopment of Section 30 is the county ownership of the 80 acres where the Harmony Sports Complex and other uses currently reside. This parcel not only represents a significant financial resource by virtue of the gravel beneath the site, but also has even more significant value as development sites, which are proposed to be sold after the removal of the gravel, and after the construction of the new road network.

Precedent to the mining and redevelopment of that property, however, is the relocation of the Harmony Sports Complex. Harmony currently is home to soccer fields and baseball fields. A few of the fields are lighted, and parking is provided on site. The complex is managed by the Harmony Sports Association (HSA), a volunteer-based group responsible for both the development and the maintenance of these facilities. The group's 30-year lease agreement with the County for the property has about 23 years of its term remaining.

From the beginning of the planning process for Section 30, HSA has been clear with the consulting team that while the group is not averse to a relocation, HSA needs assurances that:

- the resulting facilities will be at least as good (quality and quantity) as the current facilities, and
- the group will not lose a season of play.

In addition, HSA has asked that if possible, more land be provided to assist with long-term expansion and growth. The plan recommended by the Advisory Committee suggests that Harmony be relocated to the northwest corner of Section 30, on property currently owned by Columbia Rock, the Friberg family, and the Schmid family. The allocated site is 46.25 acres, which is about 6 acres larger than the current facility.

The relocation of Harmony is problematic in that it will have to be done before any money is realized through the mining of the County property or the sale of development parcels therein. In addition, installation of some infrastructure will be required as a part of the relocation. However, it is clear that unless that action is taken, the likelihood of any significant movement toward redevelopment of Section 30 is virtually zero.

IMPLEMENTATION MODEL

Implementing the Section 30 Subarea Master Plan is a project of significant magnitude and complexity. Its successful delivery is going to take a focused effort. The establishment of a Public Development Authority (PDA) is a vehicle that would appear to meet the need. The establishment of a Public Development Authority (PDA) is a vehicle that would appear to meet the need although there may be equally viable mechanisms that become more obvious as the development process moves along. In any event, it will be important to find some entity who will accept “ownership” of the plan and, thereby, responsibility for its successful implementation.

Washington State statutes allow the creation of PDAs that can form public/private partnerships that enable the pursuit of public interest projects such as Section 30. A PDA must have a public purpose and function and may own and sell property, enter into contracts, lend and borrow funds, issue bonds and debt instruments and perform any type of community service. However, a PDA does not have the power of eminent domain or the power to levy taxes. Given this broad authority, it is the conclusion of the consultants that a PDA could be effective in implementing the redevelopment of Section 30.

PDAs have been successful in Washington and Clark County for high priority public projects and activities that require creative entrepreneurship and innovative and flexible private sector financial participation. A well-known local example—one that has been quite successful—is the Downtown Redevelopment Authority (DRA) which has overseen the redevelopment of the Esther Short District in downtown Vancouver. Many other examples exist across the state including the Pike Place Market PDA (established in 1973), the Bellingham PDA used in downtown redevelopment, and a Mercer Island PDA used to develop a new city hall.

If established, the objective of the PDA should be specific: to undertake the implementation actions that bring the plan to realization. The creation of the PDA would provide the County Commission and City Council the ability to focus on their day-to-day assignments and delegate the implementation of the plan to a highly qualified panel and staff.

Beyond the decision to create a Section 30 PDA, the most important decision will be the selection of the members of the PDA board. The success of the implementation will be directly related to the quality and skillset of the members of the board. The board should comprise individuals who can effectively implement redevelopment within the project area. The board should be able to represent the interest of the community, development interests, and legal and funding concerns and should comprise leaders in the community who are known and acknowledged for their ability to “get things done.”

Given the fact that Section 30 is within the Urban Growth Area of the City of Vancouver, there will at some point be a jurisdictional transition through annexation. For this reason, the City and County should consider jointly appointing members of the PDA. Additionally, the County Commission and City Council may wish to consider appointing one of their own members to the PDA board to serve as the policy link between the County and City and the PDA.

Staff support is important to the success of the PDA and the jurisdictions should be prepared to provide that support. The staff should:

- be charged with providing the PDA with an economic development plan and program setting out development benchmarks for the PDA in compliance with the Section 30 Subarea Master Plan;
- assist in developing funding sources;
- report to the County or City Executive and Commission or Council in order to facilitate jurisdictional oversight of PDA projects;
- be provided both political and financial support that allows entrepreneurial implementation of the plan.

Ultimately, as many incentives and barrier-reducing measures as possible should be made available to prospective users and developers. The sponsoring jurisdictions should consider completing the subarea planning process with an environmental impact statement and planned action ordinance.

SEQUENCE OF EVENTS

In terms of commencing the plan implementation, the sequence of events is suggested as follows:

Action	Acting Body	Sequence						
Development of Interlocal Agreements (Cost/Revenue Sharing)	City/County	■						
Plan Adoption	City/County	■						
Development of Agreements w Harmony Sports Association	County		■					
Develop Charter for Public Development Authority	City/County		■					
Appoint Public Development Authority	City/County		■					
Negotiate Terms of Mining of Harmony Site	County			■				
— <i>Staff led, oversight by PDA</i>				■				
Negotiate Purchase of New Harmony Site	County			■				
— <i>Staff led, oversight by PDA</i>				■				
Award Harmony Mining Contract	County				■			
Administer Harmony Mining Contract	PDA					■		
Develop PDA Work Plan	PDA						■	
Develop Infrastructure Finance Plan	PDA							■

The creation of an interlocal agreement that defines costs and benefits to be attributed to all jurisdictions is critical to a clear path to plan implementation. As soon as that has been completed and the plan has been adopted by each jurisdiction in the most appropriate format, attention should be turned toward creating the most effective implementation mechanism. As noted above, given what is known at this point, it would appear that a Public Development Authority would be a leading candidate.

If a PDA is established, the first order of business is suggested to be the preparation of a charter for it and adoption of enabling legislation. This includes appointing board members and assigning staff to support the group. The PDA should then (following any due diligence the City and County believe necessary) be charged to engage in the following activities:¹²

Development of Section 30 Business Plan

Section 30 has unique opportunities and obligations. The opportunities include royalties from mining activities and the sale of development parcels after mining. The obligations include providing infrastructure and managing the overall redevelopment process. Much more detailed information needs to be developed about both so that a clear, strategic business plan can be developed that will guide the implementation of the plan. Among other items, the business plan will need to include clear assumptions about what is expected out of the mining contractor, what an equitable distribution of cost will be for infrastructure, and values to be realized from the sale of development parcels.

Oversight of Mining Contract

According to County staff, the Board of Commissioners has the ability to negotiate a contract for the removal of gravel on the Harmony site with one or more mining interests without having to go through a

¹² For example, among other items, this should include analysis of the existing Harmony site to confirm the quality and quantity of rock assumed as part of this study.

public bid process. This is important because it will give the Board the opportunity to negotiate not only price for the gravel (royalties) but also any other conditions that would appear to be feasible and appropriate. Neighbors have expressed concern, for example, over how long the mining of the County site will go on. Mining interests have provided the consulting team with a bracketed estimate of between three and five years. If the Board believes that shorter is better, they should so negotiate.¹³ There may other accommodations required of a successful bidder that the board believes should be part of any mining contract. Staff should be able to provide additional guidance on this issue.

Purchase of Harmony Relocation Site

As noted above, the site is currently under three ownerships: Columbia Sand & Gravel, the Friberg family, and the Schmid family. Only the Columbia property is acquired in whole as part of this recommendation. Although these parties have made no commitments implicit or explicit, each was represented on the Advisory Committee and is aware of this proposal. It is fair to say that they will not be surprised by an inquiry from the County regarding the purchase of their land. Obviously, appraisals will be needed before any transaction can be finalized. According to some general assessments made by a knowledgeable appraiser, the values (on a per square foot basis) on the excavated and unreclaimed portions of these lands will be less than if the properties were at grade, like the current HSA site. In total, the plan is recommending the purchase of 46.25 acres for the relocation. This will provide HSA with some expansion room should it be needed. In addition, the plan assumes that the BPA right-of-way along SE 1st Street will be available for use as soccer fields as is currently the case along the BPA frontage of the existing site.

Relocation of Harmony Sports Complex

The construction of HSA's new facility can occur without disturbing either the existing Harmony site or adjacent landowners. Given the porous nature of the soils, it is likely that grading and site preparation can be done any time of the year, regardless of weather. It is estimated that it will take approximately 9-12 months to construct the facilities and have them ready for use. It will be important to try to have the ready date as close to the beginning of the sports season as possible so that little time elapses between HSA's vacation of the existing site and the commencement of mining of that site.

Funding & Development of Infrastructure

Second only to mining the existing Harmony site, the provision of infrastructure in Section 30 is the most important action that local governments can take to entice redevelopment of the area. As noted above, a wide variety of options exists that can be utilized to build a funding package that is equitable to all interests. The PDA should be charged with developing a capital facilities financing plan for Section 30 that equitably assigns proportionate shares of cost among the benefiting parties and determines a phasing plan for construction.

Marketing of Development Parcels

The carefully planned mining of the Harmony site and the provision of infrastructure will create several very desirable development parcels that the PDA/County will then be able to sell. The value of these sites varies with the intended use, but conservatively it is estimated that the retail site could sell for as much as \$7 per square foot, with Mixed Use/Employment sites selling for as much as \$5 per square foot and residential sites selling for as much as \$150,000 per acre. An overall accounting indicates that the value (after mining and provision of infrastructure) of the County sites could exceed \$16 million.

¹³ Other concerns of the neighbors regarding mining of the existing Harmony site can be found in the public involvement discussion, which is part of the Section 30 Master Plan report.

CAPITAL FACILITIES PLAN



Memorandum

105 W. Evergreen Blvd.
Suite 300
Vancouver, WA 98660-3123
Phone (360) 737-9613
Fax (360) 737-9651

To: John White
From: Bob Vaught & Kelly Wood
Copies: Tom Litster, Project File
Date: December 2, 2003
Subject: *Liabilities – Option A Infrastructure Improvements*

The purpose of this memo is to summarize the preliminary cost estimates for infrastructure improvements related to the proposed Section 30 liabilities under Option A for phasing. The cost estimates are based on the latest proposed plan for land use and zoning provided to Otak.

Background

Clark County has chosen the Section 30 area for investigation into whether proposed assets compare favorably to proposed liabilities. The J. D. White Company, through a planning process, has identified a proposed plan for consideration. The following cost estimates are for roadway, water, and sewer improvements to support the proposed plan following Option A phasing.

Summary of Cost Estimates

The following is a summary of the liabilities for the proposed improvements:

Roadways	\$20,800,000
Water	\$2,220,000
Storm Sewer	\$905,000
<u>Sanitary Sewer</u>	<u>\$4,510,000</u>
Total Liabilities:	\$28,435,000

Roadway Improvements

The roadway cost estimate includes both the primary north – south roads, required half-street improvements for SE 1st Street, 172nd Avenue, and NE 18th Street, and part of an east-west road. The north – south roadway consists of a four-lane arterial with a turn lane and bike lanes, while the east – west roadway configuration assumes a two-lane collector with a turn lane and two bike lanes. The roadway construction cost was based on a Clark

County general figure for costs per square foot of paved area. Landscaping costs assume a four-foot width planter strip, on both sides of the roadway, for the length of the roads. Lighting costs are based on a nondecorative street light design. The proposed plan requires roadway improvements for approximately two and a half miles of primary and bordering roadways.

Water Improvements

Water system improvements include construction of water mains on the primary (north-south) roadway and on SE 1st and NE 18th Streets. Water main within the east – west roadway will be a stub from the 172nd Avenue or north –south roadways. All water mains would be a 12-inch diameter to meet City of Vancouver requirements for Section 30. Fire hydrants also would be served directly from the network. High water demand industries may be required to present additional information to obtain approval for development. 192nd Avenue comprises the border for the City of Vancouver’s water service area, and extensions to serve locations further east will not be considered.

Sanitary Sewer Improvements

The sanitary sewer improvements include a branch main through the primary north - south road, with service on the east – west primary road. Two pump stations are assumed. One pump station would send flows for the entire section to the closest pump station with available capacity, located on NE 59th Street, west of 164th Avenue. The figure for the sanitary sewer improvements includes allowances for trenching, traffic control, and erosion control on existing roads. This first pump station collects only the northwestern half of Section 30 through a gravity system. The second pump station collects flows from the southern half of Section 30, which is at a substantially lower elevation than the north half, and directs these flows, along with the northwestern section, to the first pump station. Because the future location of both pump stations is not known, a lump sum cost has been included both for their interconnection and for the force main from the first pump station to the NE 18th Street and 172nd Avenue. This estimate also assumes that the ridges in the southern half of the section will be evened out to allow a gravity collection system to operate.

Storm Sewer Improvements

The storm sewer improvements include only the facilities serving the two primary roads of Section 30. Costs for the conveyance system are included in the cost of the road construction, as are costs for erosion control, traffic control, and asphalt pavement. This estimate assumes that the stormwater conveyance system will be constructed in conjunction with road construction. Stormwater falling within the east – west roadway and northern half of the north – south roadway will be directed to two stormwater ponds. Stormwater falling within the southern half of the north – south roadway will be directed to an infiltration facility. This estimate assumes that the difference in elevation between the northern and southern halves of Section 30 will not be completely graded out.

Assumptions for Roadway Preliminary Cost Estimate

Mobilization - 10% of subtotal

\$8.25/SF is general cost figure from Clark County

Includes road, bases, sidewalk, storm sewer

SF figured based on curb to curb paved width

Half street improvements required at border of Section 30

Roadway Name	Alignment Length (ft)	Number Lanes (12' / lane)	Bike Lanes (5' / lane)	Paved Width (ft)	Paved Area square ft	Cost \$8.25/SF
NE 18th St. (at 172nd) to 192nd Ave. (at ~NE 5th St.)	8795	5	2	70	615,650	\$5,079,113
NE 9th to NE 13th St. (172nd - 192nd Ave.)	3023	3	2	46	139,058	\$1,147,229
172nd Ave. (SE 1st - NE 18th)	5272	1.5	1	23	121,256	\$1,000,362
SE 1st St. (172nd - 187th Ave)	5022	2.5	1	35	175,770	\$1,450,103
Spur on NE 18th St.	2149	3	2	46	98,854	\$815,546
	24261			SUM:	1,150,588	\$9,492,351

Fill and Grading - Rough cost of 1.2 million

Substantial cuts and fills will be required, based on today's topography

However, topo will change in the future as mining operations continue

Landscaping - based on 63rd Street estimate

30% cost was \$81,000 for 5500 LF

Proportionsally, $24,261 / 5500 = 4.41$

$4.41 * \$81,000 = \$357,210$

Round up to \$360,000

Remove exist traffic signal

From DKS, figure \$100,000 per each

Lighting - from DKS

Range for street lights, high end is more decorative

From Battle Ground project, $\$403,000 / 10,400 = \$38.75/LF$

Use $\$40/LF \times 24,261 LF = \$970,440$

Round to \$975,000

New Traffic Signals - from DKS

Figure \$250,000 per each

Preliminary Cost Opinion Primary Roadways for Section 30 Option A		Otak Project No. 11822 Date 1/15/2004			
Owner: Clark County		Prepared By: Kelly Wood, PE Bob Vaught, PE			
Item	Description	Quantity	Unit	Unit Price	Item Amount
	1 Mobilization/ Demobilization	1	LS	\$127,500.00	\$127,500
	2 Roadway Construction	1,150,588	SF	\$8.25	\$9,492,351
	3 Landscaping	1	LS	\$360,000.00	\$360,000
	4 Fill and Grading	1	LS	\$1,200,000.00	\$1,200,000
	5 New Traffic Signals	2	EA	\$250,000.00	\$500,000
	6 Remove Existing Traffic Signal	1	LS	\$100,000.00	\$100,000
	7 Lighting	1	LS	\$975,000.00	\$975,000
	Subtotal				\$12,754,851
	Contingency (30%)				\$3,826,455
	Subtotal with Contingency				\$16,581,306
	Engineering and Administration (15%)				\$2,487,196
	Construction Management (10%)				\$1,658,131
	Estimated Project Total				\$20,726,633

Preliminary Cost Opinion Stormwater Management Improvements Section 30 Option A		Otak Project No. 11822 Date 1/15/2004			
Owner: Clark County		Prepared By: Kelly Wood, PE Bob Vaught, PE			
Item	Description	Quantity	Unit	Unit Price	Item Amount
	1 Mobilization/ Demobilization	1	LS	\$58,300.00	\$58,300
	2 Infiltration Ponds	1	LS	\$200,000.00	\$200,000
	3 Infiltration Facility	1	LS	\$75,000.00	\$75,000
	4 Water Quality Facilities	1	LS	\$250,000.00	\$250,000
	Subtotal				\$583,300
	Contingency (30%)				\$174,990
	Subtotal				\$758,290
	Engineering and Administration (15%)				\$87,495
	Construction Management (10%)				\$58,330
	Estimated Project Total				\$904,115

Assumptions for Preliminary Storm Water Management Cost Estimate

Mobilization/demobilization is 10% of CCE costs

Trench Path to be in existing R/W, no new R/W purchase

Storm system path is internal to Section 30 primary roads, and does not include secondary roads.

All stormwater is to be treated and infiltrated on site.

No storm system exists immediately outside Section 30
Infiltration is to occur primarily at a regional facility, although individual parcels may need to infiltrate on site if road grades do not permit gravity flows to trunk system

Pipe costs paid as part of road estimate, see applicable cost estimate

Route collection system to regional facility
Secondary facility needs to be located at government facilities area, which is in a 40' deep pit

Erosion Control

All EC measures will be placed and paid as part of road project

Traffic Control

All EC measures will be placed and paid as part of road project

Infiltration Ponds - based on similar projects

Infiltration Facility - based on similar projects

Water Quality Facilities - based on similar projects

Preliminary Cost Opinion		Otak Project No.		11822	
Sanitary Force Main, Pump Station, and Collection System		Date		1/15/2004	
Section 30 Flows to PS on 59th Street					
Option A					
Owner: Clark County		Prepared By:		Kelly Wood, PE Bob Vaught, PE	
Item	Description	Quantity	Unit	Unit Price	Item Amount
1	Mobilization/ Demobilization	1	LS	\$277,300.00	\$277,300
2	Temporary Erosion Control Measures	1	LS	\$18,000.00	\$18,000
3	Sawcut AC	15,800	LF	\$2.00	\$31,600
4	Sanitary Sewer Manhole, 48" Diameter	25	EA	\$2,000.00	\$50,000
5	PVC Sanitary Sewer Pipe, 8" Diameter	5,800	LF	\$58.00	\$336,400
6	C900 PVC Sanitary Force Main, 4" Diameter	15,800	LF	\$31.00	\$489,800
7	Gravel Base	3,350	CY	\$25.00	\$83,750
8	Asphalt Concrete Pavement	2,720	TN	\$45.00	\$122,400
9	Traffic Control	1	LS	\$50,000.00	\$50,000
10	Potholing	200	EA	\$350.00	\$70,000
11	Pump Station #1	1	LS	\$750,000.00	\$750,000
12	C900 PVC Sanitary Force Main, 4" Diameter,	1	LS	\$90,000.00	\$90,000
13	Pump Station #2	1	LS	\$350,000.00	\$350,000
14	C900 PVC Sanitary Force Main to PS #1	1,500	LF	\$31.00	\$46,500
15	Pavement Design Report	1	LS	\$7,500.00	\$7,500
Subtotal					\$2,773,250
Contingency (30%)					\$831,975
Subtotal with Contingency					\$3,605,225
Engineering and Administration (15%)					\$540,784
Construction Management (10%)					\$360,523
Estimated Project Total					\$4,506,531

Assumptions for Preliminary Sanitary Cost Estimate

Mobilization/demobilization is 10% of CCE costs

Trench Path to be in existing R/W, no new R/W purchase

Assumed Route for pressure main from PS #1 (north)
Start at NE 18th Street and 172nd Avenue
Go north on 172nd to minimize restoration requirements
Turn west on 39th Street (end of 172nd Ave.)
Turn north on 164th Avenue, follow to 59th Street
Go west on 59th to existing PS with capacity

From Clark County Arterial Atlas - Road Classification
NE 18th St. - Principal Arterial w/4 lanes and bike lanes
172nd Ave - Collector, 2 lanes w/bike lanes
NE 39th St. - Collector, 2 lanes w/bike lanes
162nd Ave - Principal Arterial w/4 lanes and bike lanes
NE 59th St. - Collector, 2 lanes w/bike lanes

From City of Vancouver Standard Details
Restoration Requirements for Trenched Roadways
Basis is 1" + Requirements of New Roadway Section
Principal Arterial - CDF Backfill, 11" AC
 min trench width of pipe OD+2' (8" dia or more)
 granular backfill or CDF permitted in pipe zone
 AC width a min of 40"
 Pavement design report will be required
Approx 5400 feet in 162nd Avenue and NE 18th Street (principal arterials)

Collector - granular backfill, 8" base, 9" AC
 min trench width of pipe OD+2' (8" dia or more)
 AC width a min of 40"
 Pavement design report required if road used for
 industrial purposes
Approx 7800 feet in 172nd Ave, NE 39th Streets (collectors)
Approx 2600 feet in native backfill, no road in NE 59th St

Trench Section
 Assume 3.' depth of cover for FM, 6" bedding
 4" pipe from spreadsheet
 Total depth 48", +/-
 Pipe zone depth 22 inches

4" Pipe (FM) Costs include pipe, fittings, and installation
Pipe Costs also include exc, bedding, backfill
Estimate as \$20/LF, based on bid tabs
Add \$20 + \$5.20 (exc) + \$4.25 (gravel bedding/backfill)
+ \$0.33 (native backfill) + \$1.17 (CDF backfill)
= \$30.95/LF, round to \$31/LF

Assumptions for Preliminary Sanitary Cost Estimate

8" Collection Pipe Costs include pipe, and installation
Pipe Costs also include exc, bedding, backfill
Internal (to Section 30) network only
Estimate as \$25/LF, based on bid tabs
Add \$25 + \$12.35 (exc) + \$19.75 (bedding/backfill)
= \$57.10/LF, round to \$58/LF

Route collection system to south PS or north PS
South PS pumps to north PS, north PS to 59th Street
by 4" pipeline
Approximately 5800 LF of sewer pipe, min dia. 8"
Lump sum item for connection to other PS

Traffic Control

Assume Contractor can manage 200 ft/day with work restrictions
Two flaggers required for 27 days in arterials, round to 30 days
Additional traffic control devices required on collectors (signs, cones)
Steel plates definitely required

Potholing Estimate 1/100 LF = 158, round to 200
Estimate cost as \$10/EA (bid tabs)
Applies only to force main route

Manholes

Every 400 ft minimum; $5800/400 = 14.5$
round to 25 manholes to include maintenance on FM
Estimate each manhole as \$2000/EA, from bid tabs

PS #1 Approximate cost for 1 MGD PS
Rough estimate \$750,000, based on previous jobs

PS #2 Approximate cost for 0.5 MGD PS
About half the cost for above
Round at \$350,000

Connection to PS #1 from PS #2
Estimate as \$40,000, approx. 1500 LF @\$31/LF
Figure that PS located in mixed use area south of pond

Sawcut AC - Estimate \$2/LF, based on bid tabs

Assumptions for Preliminary Sanitary Cost Estimate

Excavation Calculations

4" - Trench width 2.5' x 4' deep x 15,800 feet long
= $158,000 \text{ ft}^3 / 27 = 5852 \text{ CY}$, round to 5860 CY
Add in additional 10" wide x 11" for 5400 feet
and 10" wide x 16" for 7800 feet
to cover additional excavation for AC and base
($0.83 \times 0.92 \times 5400$) + ($0.83 \times 1.33 \times 7800$)
= $12,734 \text{ ft}^3 / 27 = 472 \text{ CY}$, round to 480 CY
Estimate \$13/ CY, from bid tabs
Add 5860 to 480 and it equals 6340 CY excavation
Equals $0.40 \text{ CY/LF} \times \$13/\text{CY} = \$5.20/\text{LF}$

8" - Trench width 3.0' x 8.5' deep x 5,800 feet long
= $147,900 \text{ ft}^3/27 = 5,478 \text{ CY}$, round to 5,500 CY
Equals $0.95 \text{ CY/LF} \times \$13/\text{CY} = \$12.35/\text{LF}$

Bedding and Backfill

4" Principal arterials - granular bedding in pipe zone only
(1.84 ft depth x 2.5 ft width x 5400 ft) / 27 = 920 CY

Collectors - granular bedding and backfill
(1.84 depth x 2.5 ft width x 7800 ft)
= $35,880 \text{ ft}^3 / 27 = 1,329 \text{ CY}$, round to 1,330 CY
Estimate cost \$25/CY

For open field area, granular bedding only
1.84 ft depth x 2.5 ft width x 2600 feet / 27 = 443 CY, round to 450 CY

Total 3/4" Minus = $920+1330+450= 2,700 \text{ CY}$
Equals $0.17 \text{ CY/LF} \times \$25/\text{CY} = \$4.25/\text{LF}$

8" Collectors - granular bedding and backfill
(7.08 depth x 3 ft width x 5,800 ft)= $123,192 \text{ ft}^3/27=4,563 \text{ CY}$
Equals $0.79 \text{ CY/LF} \times \$25/\text{CY}=\$19.75/\text{LF}$

Base Collector only, 4" diameter only
 $0.67 \times 3.33 \text{ ft width} \times 7800 \text{ ft} = 17,402.58 \text{ ft}^3/27 = 645 \text{ CY}$
8" diameter covered under street construction project

Native Backfill

4" only In undeveloped areas only, incl. haul, small volumes
 $2.16 \text{ ft depth} \times 2.5 \text{ ft width} \times 2600 \text{ feet} / 27 = 520 \text{ CY}$, round to 520 CY
Estimate cost as \$10/CY
Equals $0.033 \text{ CY/LF} \times \$10/\text{CY} = \$0.33/\text{LF}$
No native backfill allowed for collection system (8") sewers

Assumptions for Preliminary Sanitary Cost Estimate

CDF (Controlled Density Fill)

4" only Required for principal arterials only
Assume use limited to backfill and base
Depth = 4' - 1.84' - 0.92' = 1.24 feet
 $(1.24 \times 2.5' \text{ width} \times 5400 \text{ feet}) / 27 = 620 \text{ CY}$
Estimate cost as \$30/CY
Equals $0.039 \text{ CY/LF} \times \$30/\text{CY} = \$1.17/\text{LF}$

AC Surfacing

4" only Principal arterials - 11" AC, 3-4 lifts
 $(0.92 \text{ ft depth} \times 3.33 \text{ ft width} \times 5400 \text{ ft}) = 16,544 \text{ ft}^3$
 $16544 \text{ ft}^3 \times 150 \text{ lbs/ft}^3 / 2000 \text{ lbs/TN} = 1241 \text{ TN}$, round to 1250 TN

Collectors - 9" AC, in 3-4 lifts
 $(0.75' \text{ depth} \times 3.33 \text{ ft width} \times 7800 \text{ ft})$
 $= 19,480 \text{ ft}^3 \times 150 \text{ lbs/ft}^3 / 2000 \text{ lbs/TN} = 1461 \text{ TN}$, round to 1470

Total = $1250 + 1470 = 2720 \text{ TN}$
From bid tabs, estimate as \$60/TN

Erosion Control

Temporary Silt Fence: $5200 \text{ LF} \times \$2/\text{LF}$ (bid tabs) = \$10,400
Silt fences for 4" on 59th Street, 5200 LF of fence
Inlet protection to cover storm drains everywhere else
Assume 2 catch basins/250 feet road, 127 total
Inlet Protection : $\$25/\text{biobag} \times 130 \text{ EA}$
Seeding of disturbed area, approx. 2900 SY, 0.6 acres
Mulching and Seeding cost, 1 acre, \$6000
Total = $\$10,400 + \$3250 + \$3600 = \$17,250$
Round to \$18,000

Traffic Control

Devices - signs, cones - allow \$1500
Labor - 30 days x 2 x 8 hours = 480 hours
Round to 500 hours, \$32/hr

Connection to 172nd and NE 18th Street

Estimate as \$31/LF, approx. 3000 LF
Final location of PS assumed just east
of NE 9th Street and 172nd Ave.

Pavement Design Report -

Required for all trenching in existing principal arterials
Estimate cost as approximately \$7500

Preliminary Cost Opinion Water Supply Main 172nd Ave. Loop Option A		Otak Project No. 11822 Date 1/15/2004			
Owner: Clark County		Prepared By: Kelly Wood, PE Bob Vaught, PE			
Item	Description	Quantity	Unit	Unit Price	Item Amount
	1 Mobilization/ Demobilization	1	LS	\$137,600.00	\$137,600
	2 Temporary Erosion Control Measures	1	LS	\$30,000.00	\$30,000
	3 Sawcut AC	18,950	LF	\$2.00	\$37,900
	4 Gravel Base	310	CY	\$30.00	\$9,300
	5 Asphalt Concrete Pavement	3,020	TN	\$45.00	\$135,900
	6 Class 52 Ductile Iron Pipe for Water Main, 12" Dia.	15,780	LF	\$55.00	\$867,900
	7 Butterfly Valve, 12"	17	EA	\$900.00	\$15,300
	8 12" Connection to 172nd Ave. Pipeline	2	EA	\$4,000.00	\$8,000
	9 Traffic Control	1	LS	\$25,000.00	\$25,000
	10 Potholing	200	EA	\$10.00	\$2,000
	11 Pavement Design Report	1	LS	\$7,500.00	\$7,500
	12 Fire Hydrant Assembly	40	EA	\$2,500	\$100,000
	Subtotal				\$1,376,400
	Contingency (30%)				\$412,920
	Subtotal with Contingency				\$1,789,320
	Engineering and Administration (15%)				\$268,398
	Construction Management (10%)				\$178,932
	(Required ROW or Easements are not included)				
	Estimated Project Total				\$2,236,650

Assumptions for Preliminary Water Cost Estimate

Mobilization/demobilization is 10% of CCE costs
Trench Path to be in existing R/W, no new R/W purchase

Assumed Route

Start at SE 1st Street and 172nd Avenue
Go east on 172nd Avenue to reach 192nd Avenue
Tie in at 192nd.
North on 192nd Ave. to edge of property
Head north and west up projected Section 30 Avenue
2nd Main starts at NE 18th Street, east of 172nd Avenue
Proceeds east to 187th Avenue
Tie in at Section 30 branching main, on south side.

From Clark County Arterial Atlas - Road Classification

192nd Ave. - Principal Arterial w/4 lanes, center turn and bike lanes
172nd Ave - Collector, 2 lanes w/center turn & bike lanes
SE 1st St. - Collector, 2 lanes
NE 18th Street - Principal Arterial w/4 lanes, center turn and bike lanes
Assume new road classified same as 172nd Ave.

From City of Vancouver Standard Details

Restoration Requirements for Trenched Roadways
Basis is 1" + Requirements of New Roadway Section
Principal Arterial - CDF Backfill, 11" AC
 min trench width of pipe OD+2' (8" dia or more)
 granular backfill or CDF permitted in pipe zone
 AC width a min of 40"
 Pavement design report will be required
Approx 5100 feet in 192nd Avenues and NE 18th Street (principal arterials)

Collector - granular backfill, 8" base, 9" AC

 min trench width of pipe OD+2' (8" dia or more)
 AC width a min of 40"
 Pavement design report required if road used for
 industrial purposes
Approx 4450 feet in SE 1st Street (collector),
and 6230 feet in Section 30 Avenue (eventual collector)

Trench Section

 Assume 3.' depth of cover for water main, 6" bedding
 12" minimum size of pipe (COV standards)
 Total depth 54", +/-
 Pipe zone depth 30 inches.

Pipe Costs include pipe, fittings, and installation for Ductile Iron, Class 52

 Estimate as \$35/LF, based on bid tabs
 Pipe Costs also include exc, bedding, backfill, testing
 \$35 + \$7.55 (exc) + \$6.75 (gravel bedding & backfill)
 + \$1 (native) + \$1.20 (CDF backfill) = \$35 + \$16.50
 = \$51.50, approx, \$52/LF, round to \$55/LF

Assumptions for Preliminary Water Cost Estimate

Erosion Control Assume 2 inlets/250 feet of road, $7900/125=64$

Assume inlet protection needed for new collectors
Increase # of inlets based on road improvements to
Round to 80 for future improvements, 2 biobags/inlet
Silt fences for Section 30 St. & Ave., 7900 LF of fence
Inlet protection to cover storm drains everywhere else
Includes seeding of disturbed area 10' wide, ~8800 SY
1.81 acres, \$6000/acre

Traffic Control

Assume Contractor can manage 200 ft/day w/work restrictions
Two flaggers required for 26 days in arterials, round to 30 days
Additional traffic control devices required on collectors
(signs, cones)
Steel plates definitely required

Potholing Estimate 1/100 LF = 192, round to 200
Estimate cost as \$10/EA (bid tabs)

Gate Valves

City Standard is 2/tee, 3/cross, 1/1000 LF
Place 1 at both tie-ins to 172nd Ave., two each at
175th and 187th Ave, two at Section 30 north end.
One more at dead end of NE 18th Street & 187th Ave.
Place 2 at east/west branch in Section 30
Add 6 more for 1000 foot intervals
Total = $1+1+2+2+2+1+2+6=17$
Estimate \$900/EA from Battle Ground bid tab

No water services, these areas are not served now. No reconections.

Testing

Includes pressure test, disinfection, and microbiological
Included in the pipe costs

Sawcut AC - Estimate \$2/LF, based on bid tabs

Excavation Calculations

Trench width 3' x 4.5' deep x 15,780 feet long
 $= 213,030 \text{ ft}^3 / 27 = 7890 \text{ CY}$

Add in additional 2' wide x 11" for 5100 feet
and 1' wide x 17" for 4450 feet

to cover additional excavation for AC and base

$(2 \times 0.92 \times 5100) + (1 \times 1.42 \times 4450)$

$= 15,703 \text{ ft}^3 / 27 = 582 \text{ CY}$, round to 600 CY

Estimate \$13/ CY, from bid tabs

Add 7890 to 600 and it equals ~8500 CY excavation

Equals $0.58 \text{ CY/LF} \times \$13/\text{CY} = \$7.55/\text{LF}$

Assumptions for Preliminary Water Cost Estimate

Bedding and Backfill

Principal arterials - granular bedding in pipe zone only
(2.5 ft depth x 3 ft width x 5100 ft) / 27 = 1417 CY
Round to 1420 CY

Collectors - granular bedding and backfill
(3.08 depth x 3 ft width x 4450 ft)
= 41,118 ft³ / 27 = 1,523 CY, round to 1,550 CY
Estimate cost \$25/CY

For open field area, granular bedding only
2.33 ft depth x 3 ft width x 6230 feet / 27 = 1613 CY, round to 1620 CY

Total 3/4" Minus = 1,420+1,550+1620= 4,590 CY
Equals 0.27 CY/LF x \$25/CY = \$6.75/LF

Base Course - disregard interior collector - assumed part of new road project

Collectors - aggregate base course only, assume 3/4" minus
 $0.67 \times (4450 + 7900) \times 1 = 8,274.5 \text{ ft}^3 / 27 = 307 \text{ CY}$, round to 310
Revise to $0.67 \times 4450 \times 1 = 2981.5 \text{ ft}^3 / 27 = 111 \text{ CY}$

Native Backfill

In undeveloped areas only, incl. haul, small volumes
2.16 ft depth x 3 ft width x 7900 feet / 27 = 1896 CY, round to 1900 CY
Estimate cost as \$10/CY
Equals 0.1 CY/LF x \$10/CY = \$1/LF

CDF (Controlled Density Fill)

Required for principal arterials only
Assume use limited to backfill and base
Depth = 4.5' - 2.33' - 0.92' = 1.25 feet
(1.25 x 3' width x 5100 feet) / 27 = 708 CY, round to 710 CY
Estimate cost as \$30/CY
Equals 0.04 CY/LF x \$30/CY = \$1.20/LF

AC Surfacing - disregard interior collector - assumed part of new road project

Principal arterials - 11" AC, 3-4 lifts

(0.92 ft depth x 5 ft width x 5100 ft) = 23,460 ft³
23,460 ft³ x 150 lbs/ft³ / 2000 lbs/TN = 1759 TN, round to 1760 TN

Collectors - 9" AC, in 3-4 lifts
(0.75' depth x 5 ft width x 4450 ft)
= 16,688 ft³ x 150 lbs/ft³ / 2000 lbs/TN = 1252 TN, round to 1260

Total = 1760 + 1260 = 3020 TN
From bid tabs, estimate as \$45/TN
Equals 0.16 TN/LF x \$60/TN = \$7.20/LF

Assumptions for Preliminary Water Cost Estimate

Erosion Control

Temporary Silt Fence: 6230 LF x \$2/LF (bid tabs)
Inlet Protection : \$25/biobag x 160 EA
Mulching and Seeding, 1.8 acre, \$6000/acre

Traffic Control

Devices - signs, cones - allow \$1500
Labor - 30 days x 2 x 8 hours = 480 hours
Round to 500 hours, \$32/hr

Connection at 172nd Ave and SE 1st Street

Assume size on size hot tap or
install 12" tee, taking system down temporarily
Tees not to be installed at the same time
Assume isolation valves allow tee installation
Then, evening work, allow 8 hours
Estimate at \$3000-\$4000, use \$4000 per each

Connection at 175th Ave and SE 1st Street

Tee installed w/SE 1st Street main
Contractor shuts down system, abandons
existing 8" main, connects and closes
Estimate at \$2000

Fire Hydrants: 1/400 feet of waterline per COV

1/600 feet of waterline in SFR areas
Assume 1/400 feet, SFR limited
 $15,780/400=39.5$, round to 40
\$2500/assembly per bid tabs

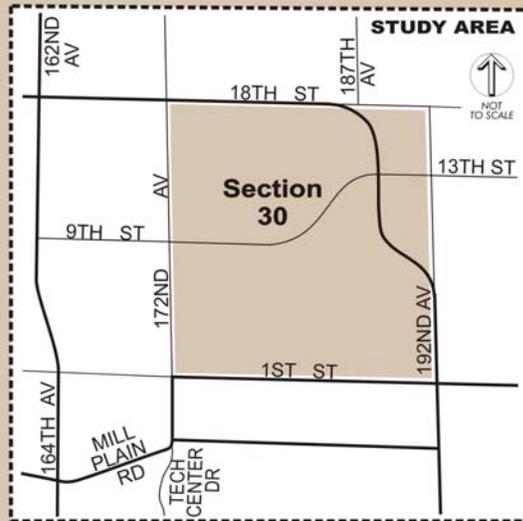
Pavement Design Report -

Required for all trenching in existing principal arterials
Estimate cost as approximately \$7500

Draft Report to



Section 30 Subarea Plan Transportation Analysis



Prepared by

DKS Associates

TRANSPORTATION SOLUTIONS

January 2004

1: Introduction and Summary

This draft report provides a feasibility transportation analysis for the Section 30 Subarea Master Plan located in Clark County, Washington. The purpose of this study is to identify potential transportation impacts from the proposed development project. The plan provides a roadway circulation plan, appropriate functional classifications and conceptual mitigation measures required to accommodate the proposed land use changes.

The following feasibility transportation analysis focuses on the operating conditions of select intersections in the project study area. The most recent available traffic volumes were reviewed to assess existing traffic conditions. The findings of this report identify transportation impacts from the proposed development alternative and conceptual mitigation measures that are needed to address these impacts.

Project Description

The Section 30 project site is located in Clark County, Washington just northeast of the City of Vancouver city limits and inside the Vancouver Urban Growth Area. Section 30 is bounded by SE 1st Street, NE 18th Street, NE 172nd Avenue and NE 192nd Avenue and covers approximately 600-acres or one square-mile. The transportation analysis focuses on a study area which extends approximately one half-mile outside Section 30. Figure 1 shows the project study area.

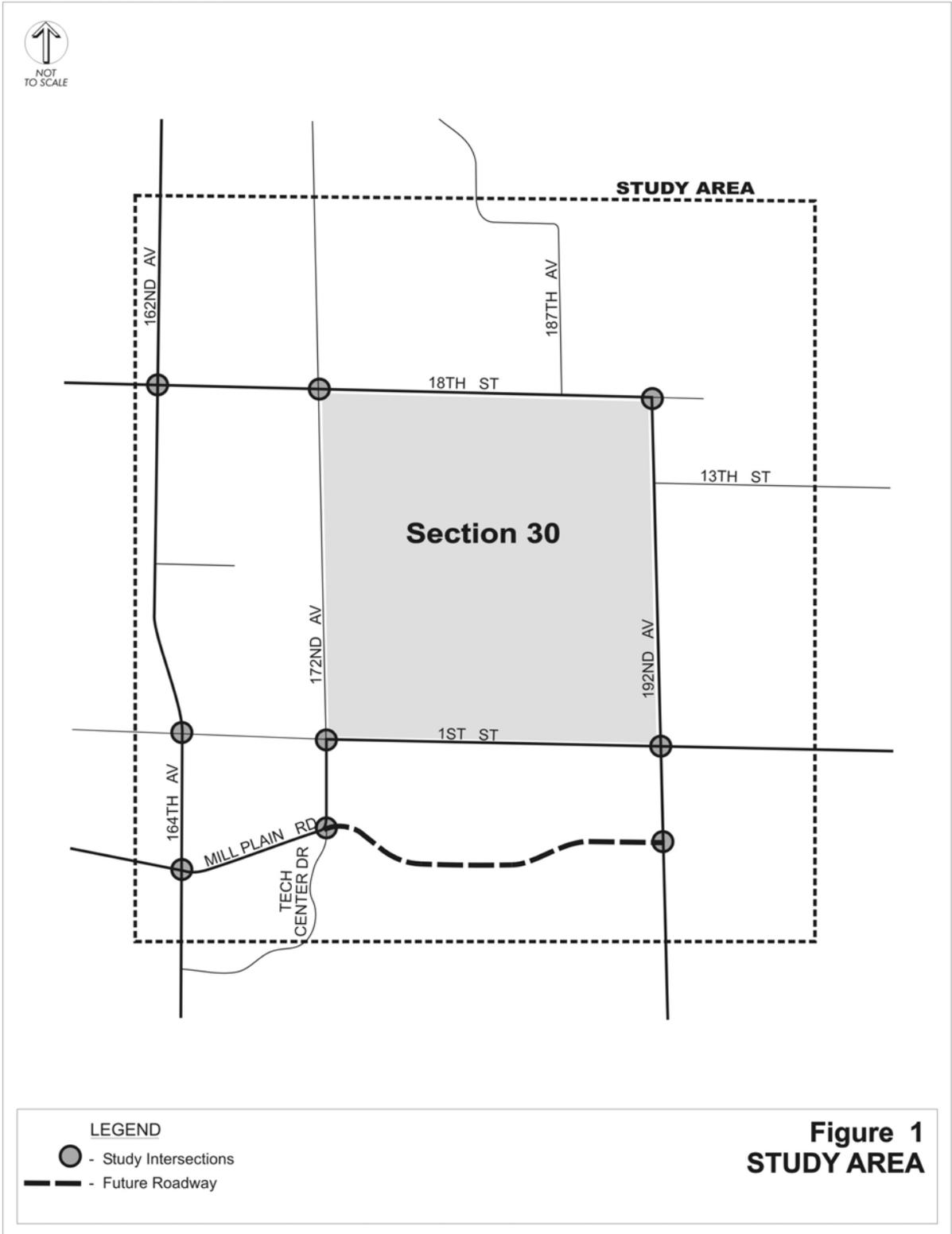
Currently the area within Section 30 is generally developed with primarily heavy industrial mining and extraction uses. The proposed development project would phase out the heavy industrial uses over time and redevelop with a mix of employment uses ranging from office buildings to light industrial/flex space to retail buildings and limited residential.

Existing Conditions

The existing conditions include roadway geometries, traffic volumes, posted vehicles speeds, safety data and pedestrian, transit and bicycle facilities. Existing operating conditions of roadways and key intersections in the study area are also discussed.

The following intersections were selected for focused analysis in this section based on their proximity and access to the proposed development.

- SE 1st Street/NE 164th Avenue
- SE 1st Street/NE 172nd Avenue
- SE 1st Street/NE 192nd Avenue
- NE 18th Street/NE 162nd Avenue
- NE 18th Street/NE 172nd Avenue
- NE 18th Street/NE 192nd Avenue
- SE Mill Plain Road/SE 164th Avenue



The most recent available vehicle turn movement count data for the study intersections was obtained for the evening peak period (4:00 to 6:00 p.m.). The majority of available count data was conducted in 2002. However, the available count data at a few study intersection was less recent (1999 to 2001) and therefore adjusted when necessary to represent the 2002 base condition. All study area intersections currently operate at LOS D or better during the PM peak hour, except the unsignalized SE 1st Street/NE 192nd Avenue intersection which operates at LOS E. The City of Vancouver's preferred minimum performance level is LOS D for signalized and LOS E for unsignalized intersections. All signalized study area intersections operate at acceptable levels during the PM peak hour.

Project Traffic Impacts

The proposed development project would include approximately 4.4 million square-feet of retail/office/light industrial uses and 255 townhouses generating approximately 6,795 PM peak hour net new vehicle trips (1,857 in/4,938 out) onto the adjacent roadway system. The net new trips represent total project trips after reductions for internal trips and retail passby trips. The traffic from the proposed project would have significant impacts on nearby roadways and intersections during the PM peak hour.

Table 1 presents the operating conditions at the study intersections for each scenario. Without the proposed development of Section 30, three study intersections would degrade to LOS F conditions by the year 2023 with background growth. The proposed project would degrade all but one of the study intersections to LOS F. However, with the recommended mitigation measures, all of the study intersections operate at an acceptable service level.

Table 1: Study Intersection Operating Conditions (PM Peak Hour)

Study Intersection	Level of Service			
	Existing	2023 Base	2023 Base with Project	Mitigated 2023 Base with Project
SE 1 st Street/NE 164 th Avenue	D	F	F	D
SE 1 st Street/NE 172 nd Avenue	A	F	F	D
SE 1 st Street/NE 192 nd Avenue	E*	C	F	D
NE 9 th Street/NE 162 nd Avenue	--	--	F/F	C
NE 9 th Street/NE 172 nd Avenue	--	--	B/F	D
NE 13 th Street/NE 192 nd Avenue	--	--	F	D
NE 18 th Street/NE 162 nd Avenue	D	F	F	D
NE 18 th Street/NE 172 nd Avenue	B	B	F	D
SE Mill Plain Road/SE 164 th Avenue	C	D	F	D
SE Mill Plain Road/SE 172 nd Avenue	--	D	F	D
SE Mill Plain Road/SE 192 nd Avenue	--	C	D	C
LOS	Level of service			
V/C	Volume to capacity ratio of the intersection			
A/A	LOS refers to level of service at an unsignalized intersection for left turning traffic from major street and the level of service of traffic turning from the minor street onto the major street.			
*	Four-way stop controlled intersection.			

Mitigation Measures

Conceptual mitigation measures to the study area transportation system have been identified based on forecasted 2023 traffic volumes with the addition of the Section 30 development to bring all study intersections to acceptable service levels. The 2023 impact analysis assumed the construction of all projects identified in the current City's and County's transportation improvement programs. The improvements required to accommodate background growth have been identified separately from those required to accommodate the proposed project. The mitigation measures are described below and shown in Figure 7.

To Accommodate Background Traffic (Year 2023)

- Add a separate southbound right turn lane and a second northbound left turn lane at NE 18th Street/NE 162nd Avenue.
- Add a second southbound left turn lane at SE 1st Street/SE 164th Avenue.
- Add a separate northbound left turn lane with north-south permitted phasing at SE 1st Street/SE 172nd Avenue.

To Accommodate the Section 30 Development Plan (Year 2023)

- Construct a new five lane facility which reroutes NE 192nd Avenue (from approximately 1,300-feet north of SE 1st Street) to the west then curves to meet NE 18th Street (approximately 2,000-feet west of NE 192nd Avenue). This new five lane facility would extend from the north leg of SE 192nd Avenue at SE 1st Street to the east leg of NE 18th Avenue at NE 172nd Avenue.
- Construct a new three lane facility which extends NE 13th Street to NE 9th Street at NE 162nd Avenue.
- Install a traffic signal at the new NE 13th Street/NE 192nd Avenue intersection. Provide separate left turn lanes with protected phasing on all approaches. Provide separate right turn lanes for the northbound, eastbound and westbound approaches.
- Widen NE 18th Avenue to a five lane facility from NE 172nd Avenue to the west of NE 162nd Avenue.
- Widen NE 162nd Avenue to a seven lane facility from SE 1st Street to north of NE 18th Street.
- Widen SE 1st Street to five lanes from SE 192nd Avenue to SE 164th Avenue.
- Install a traffic signal at NE 9th Street/NE 162nd Avenue with double westbound and southbound left turn lanes and a separate northbound right turn lane.
- Install a traffic signal at NE 9th Street/NE 172nd Avenue with separate left turn lanes on all approaches and separate northbound and westbound right turn lanes.
- At SE 1st Street/SE 192nd Avenue, add separate southbound and eastbound right turn lanes.
- Add a separate southbound right turn lane at the new alignment of Mill Plain Road/SE 192nd Avenue.

- At NE 18th Street/NE 172nd Avenue, add separate left turn lanes with protected phasing on all approaches and a second northbound left turn lane.
- Add second northbound, southbound and eastbound left turn lanes and a separate southbound right turn lane at NE 18th Street/NE 162nd Avenue.
- Add a separate southbound right turn lane and a second eastbound through lane at Mill Plain Road/SE 164th Avenue. There are currently two eastbound through lanes on Mill Plain Road west of SE 172nd Avenue.
- Add a separate westbound right turn lane and second northbound and southbound left turn lanes at Mill Plain Road/Tech Center Drive/SE 172nd Avenue.
- At SE 1st Street/SE 172nd Avenue, add separate southbound, eastbound and westbound right turn lanes and second eastbound and westbound left turn lanes.
- Add second southbound and eastbound left turn lanes and add a separate northbound right turn lane at SE 1st Street/SE 164th Avenue.
- Increase peak hour traffic signal cycle lengths at the study intersections as needed to balance the needs of motorists and pedestrians.

2: Existing Conditions

The purpose of the Section 30 Subarea Master Plan transportation analysis is to identify roadway improvements, a circulation plan and roadway classifications needed to accommodate the proposed land use changes in Section 30 as part of the Comprehensive Plan update. The project site is located in Clark County, Washington just north of the City of Vancouver city limits and inside the Vancouver Urban Growth Area. Section 30 is bounded by SE 1st Street, NE 18th Street, NE 172nd Avenue and NE 192nd Avenue and covers approximately 600-acres. The transportation analysis focuses on a study area which extends approximately one half-mile outside Section 30.

The existing transportation conditions for the Section 30 study area are discussed in the following sections. The existing conditions include roadway geometries, traffic volumes, posted vehicles speeds, safety data and pedestrian, transit and bicycle facilities. Existing operating conditions of roadways and key intersections in the study area are also discussed.

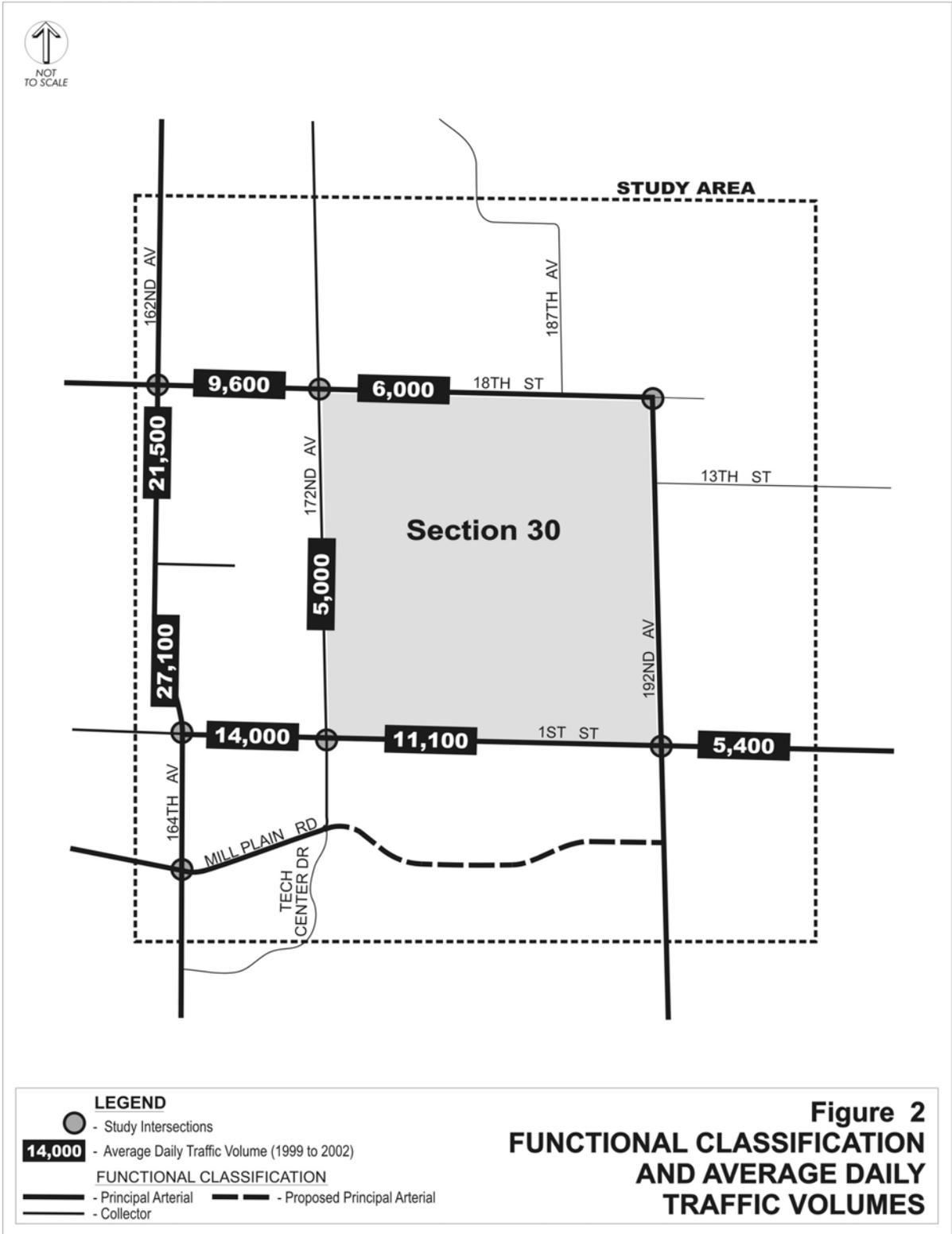
The following intersections were selected for focused analysis in this report based on their proximity and access to the proposed development.

- SE 1st Street/NE 164th Avenue
- SE 1st Street/NE 172nd Avenue
- SE 1st Street/NE 192nd Avenue
- NE 18th Street/NE 162nd Avenue
- NE 18th Street/NE 172nd Avenue
- NE 18th Street/NE 192nd Avenue
- SE Mill Plain Road/SE 164th Avenue

Roadway Network

This section describes the key roadways that would serve the proposed project. The key roadways in the study area are described below. Figure 2 identifies the roadway functional classifications designated in the Clark County Arterial Atlas¹ and the average daily traffic volumes on key roadways within the study area.

¹ Arterial Atlas, Clark County Department of Community Development, January 1998.



162nd/164th Avenue is a north-south roadway classified as a Principal Arterial by Clark County². It operates as a four to seven-lane roadway within the study area. It carries approximately 27,100 vehicles daily (two-way) north of SE 1st Street and 21,500 vehicles south of NE 18th Street. The posted speed limit is 40 miles per hour in the study area. Sidewalks are generally provided on both sides of the roadway throughout most of the study area. Designated bike lanes are present on both sides of the roadway from SE 1st Street to north of NE 18th Street.

172nd Avenue is a north-south roadway classified as a Collector by Clark County. It operates as a two-lane roadway within the study area. It carries approximately 5,000 vehicles daily (two-way) north of SE 1st Street. The posted speed limit is 40 miles per hour. Sidewalks are present mainly near SE 1st Street and along recent development frontage. No bike facilities are provided on the roadway within the study area.

192nd Avenue is a north-south roadway classified as a Principal Arterial by Clark County. It operates as a two-lane roadway within the study area. It carries approximately 7,000 vehicles daily (two-way) north of SE 1st Street. The posted speed limit is 40 miles per hour in the study area. No sidewalks or bike lanes are provided on the roadway within the study area.

1st Street is an east-west roadway classified by Clark County as a Principal Arterial east of NE 182nd Court and as a Collector to the west. It operates as a two-lane roadway within the study area. It carries approximately 14,600 vehicles daily (two-way) east of SE 164th Avenue. The posted speed limit is 40 miles per hour in the study area. Sidewalks are present mainly west of SE 172nd Avenue and along recent development frontage. No bike facilities are provided on the roadway within the study area.

18th Street is an east-west roadway classified as a Principal Arterial by Clark County within the study area. It operates as a two-lane roadway and carries approximately 9,600 vehicles daily (two-way) east of NE 164th Avenue. The posted speed limit is 40 miles per hour in the study area. Sidewalks are present mainly west of NE 172nd Avenue and along recent development frontage. No bike facilities are provided on the roadway within the study area.

Existing Intersection Performance

Definition of Level of Service

Level of service (LOS) is used as a measure of effectiveness for intersection operation. It is similar to a "report card" rating based upon average vehicle delay. Level of service A, B and C indicate conditions where vehicles can move freely. Level of service D and E are progressively worse. Level of service F represents conditions where traffic volumes exceed the capacity of a specific movement, in the case of unsignalized intersections, or an entire intersection, in the case of signalized control, resulting in long queues and delays. A summary of the level of service descriptions is provided in the appendix.

Evaluating Intersections without Traffic Signals

The unsignalized intersection level of service calculation evaluates each movement separately to identify problems (typically left turns from side streets). The calculation is based on the average stopped delay per vehicle for stop controlled movements. Level of service (LOS) F indicates that there are insufficient gaps of suitable size to allow minor street traffic to safely enter or cross the major street. This is generally evident by long delays and queuing on the

² Arterial Atlas, Clark County Department of Community Development, January 1998.

minor street. Level of service F may also result in more aggressive driving, with side street vehicles accepting shorter gaps. In such cases, some increase in conflicts and disruption to major street traffic can result. It should be noted that the major street traffic can still move effectively at LOS F and only side street left turns experience difficulty, which may be only a small percentage of the total intersection volume. It is for these reasons that level of service results must be interpreted differently for signalized and unsignalized locations.

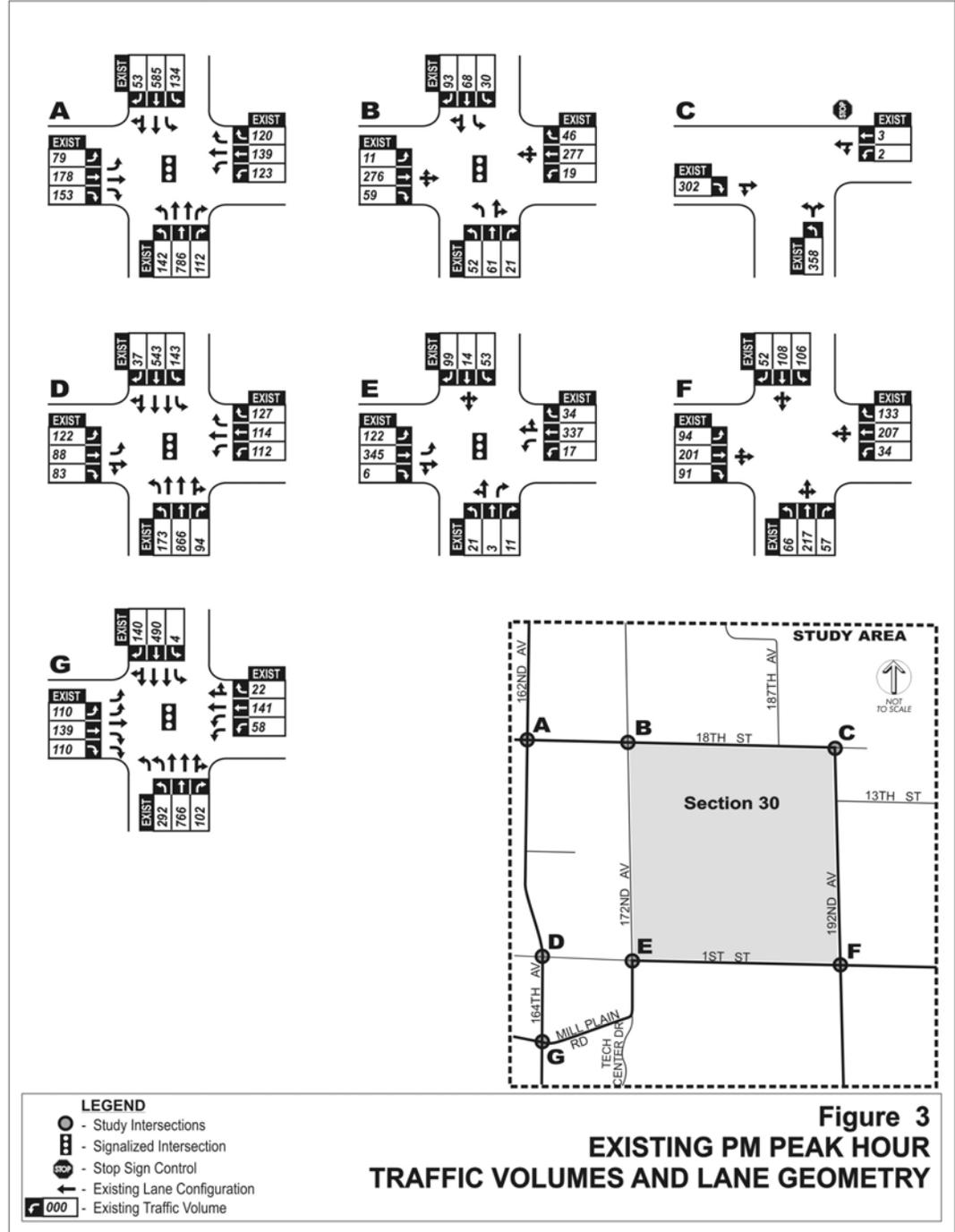
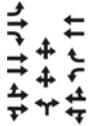
The most recent available turn movement count data for the study intersections was obtained for the evening peak period (4:00 to 6:00 p.m.). The majority of available count data was conducted in 2002. However, the available count data at a few study intersection was less recent (1999 to 2001) and therefore adjusted when necessary to represent the 2002 base condition. Figure 3 summarizes the available PM peak hour turn movement data and the existing lane configurations at the study intersections. Existing level of service (LOS) operating conditions at the study intersections were determined based on the 2000 Highway Capacity Manual methodology for signalized and unsignalized intersections.³

The results of the intersection analysis are shown in Table 2. The City of Vancouver’s preferred minimum performance level is LOS D for signalized and LOS E for unsignalized intersections. All signalized study area intersections operate at acceptable levels during the PM peak hour. Level of service descriptions and calculations are provided in the appendix.

Table 2: Intersection Levels of Service – Existing Traffic Volumes

Study Intersection	Level of Service		
	Delay	LOS	V/C
<i>Signalized Intersections</i>			
SE 1 st Street/NE 164 th Avenue	40.1	D	0.55
SE 1 st Street/NE 172 nd Avenue	7.7	A	0.43
SE Mill Plain Road/SE 164 th Avenue	30.9	C	0.39
NE 18 th Street/NE 162 nd Avenue	39.9	D	0.52
NE 18 th Street/NE 172 nd Avenue	10.1	B	0.38
<i>Unsignalized Intersections</i>			
SE 1 st Street/NE 192 nd Avenue	48.9	E	0.97
NE 18 th Street/NE 192 nd Avenue	0.2	A/C	--
LOS	Level of service		
V/C	Volume to capacity ratio of the intersection.		
A/A	LOS refers to level of service at an unsignalized intersection for left turning traffic from major street and the level of service of traffic turning from the minor street onto the major street.		

³ Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, Chapters 16 and 17.



Bicycle and Pedestrian Facilities

Within the study area, sidewalks are present along roadways with recent frontage development. Sidewalks are generally provided on both sides of the street on 162nd/164th Avenue and on SE 1st Street and NE 18th Street near 162nd/164th Avenue. Small sections of sidewalk are present on the remaining study roadways resulting in large gaps in the pedestrian network.

On-street bike lanes are provided on 162nd/164th Avenue from SE 1st Street to north of NE 18th Street. Bike lanes are not provided on other roadways in the study area. Due to current low traffic volumes (less than 5,000 vehicles daily) it is appropriate for bicycles to share the roadway with vehicles on NE 172nd Avenue, NE 192nd Avenue and SE 1st Street and NE 18th Street east of NE 192nd Avenue.

Transit Facilities

Existing transit service to the study area is currently provided by C-Tran with two bus routes. Bus route #30 (Burton) provides service between the 7th Street Transit Center located in downtown Vancouver and the Fisher's Landing Transit Center with 30 minute headways during the morning and evening commuting hours. Within the study area, bus route #30 travels on 162nd/164th Avenue from south of Mill Plain Road to north of NE 18th Street. Bus route #37 (Mill Plain) provides service between the 7th Street Transit Center located in downtown Vancouver and the Fisher's Landing Transit Center with 15 minute headways during the morning and evening commuting hours. Within the study area, bus route #37 travels on SE 164th Avenue south of Mill Plain Road and on Mill Plain Road west of SE 164th Avenue. The transit routes provided within the study area are shown in Figure 4.

Vehicle Collision History

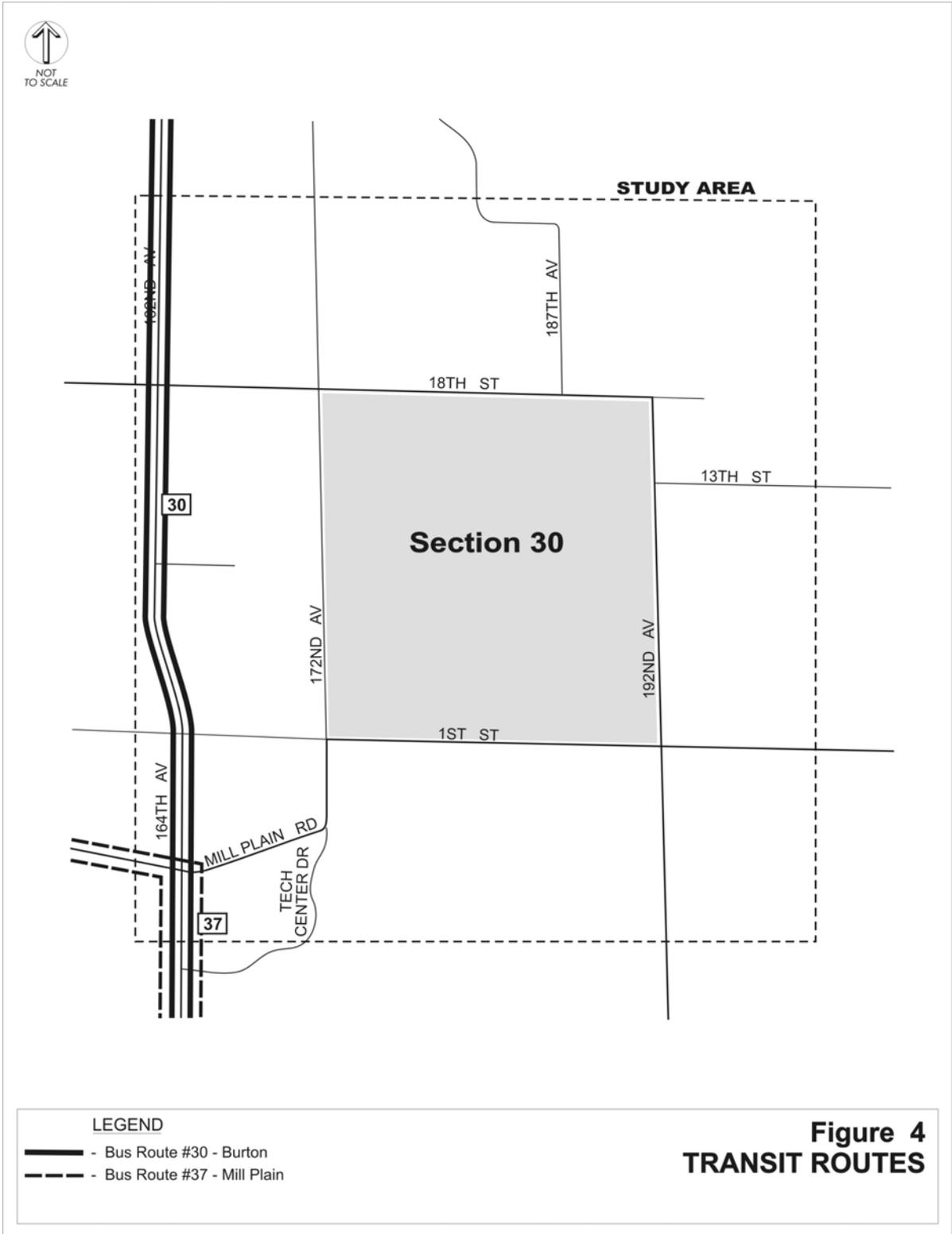
The City of Vancouver and Clark County historical collision data was reviewed for the recent three-year period (2000 through 2002). Table 3 summarizes the number of reported collisions and the annual collision rate⁴ over this three-year period at each study intersection. The collision rates do not indicate there is a significant vehicle safety problem at the study intersections. The collision rate at Mill Plain Road/SE 164th Avenue has reached the threshold where a detailed safety evaluation should be considered. A preliminary review of the types of collisions at each study intersection does not show a specific reoccurring accident problem that would indicate a roadway improvement project is needed.

⁴ Collision rates for intersections are calculated as the number of collisions per million vehicles entering the intersection annually. A ratio over 1.00 generally indicates that the intersection has a higher number of collisions than expected, and conducting a detailed safety evaluation should be considered.

Table 3: Study Area Collision Summary (2000 through 2002)

Study Intersections	Total Number of Reported Collision			Collision Rate Per Million Annual Vehicles
	2000	2001	2002	
SE Mill Plain Road/SE 164 th Avenue	10	10	7	1.03
SE 1 st Street/NE 164 th Avenue	6	3	5	0.51
NE 18 th Street/NE 162 nd Avenue	1	8	4	0.46
SE 1 st Street/NE 172 nd Avenue	Data not available			--
NE 18 th Street/NE 172 nd Avenue	1	4	2	0.64
SE 1 st Street/NE 192 nd Avenue	3	3	0	0.40
NE 18 th Street/NE 192 nd Avenue	1	3	2	0.82

Source: City of Vancouver and Clark County accident database.



3: Project Impacts

This chapter reviews the impact of the proposed development project on the study area transportation system. The analysis includes an assessment of project trip generation, trip distribution, operating conditions at study intersections for future 2009 and 2023 with proposed development project scenarios.

Project Description

The Section 30 project site is located in Clark County, Washington just northeast of the City of Vancouver city limits and inside the Vancouver Urban Growth Area. Section 30 is bounded by SE 1st Street, NE 18th Street, NE 172nd Avenue and NE 192nd Avenue and covers approximately 600-acres or one square-mile. The transportation analysis focuses on a study area which extends approximately one half-mile outside Section 30.

Currently, the area within Section 30 is generally undeveloped with primarily heavy industrial uses. The primary land use is heavy industrial with activities such as gravel mining, rock-crushing and hauling materials. The second largest land use is park and public facilities occupied by an outdoor sports complex and Clark County offices. The remainder of the area is occupied by a residential subdivision with approximately 200 lots, agriculture land with a few houses and limited retail developments.

The proposed development plan would impact all of Section 30 with the exception of the existing single family subdivision. The plan would propose to phase out the heavy industrial uses over time and replace them with a mix of employment uses ranging from office buildings to light industrial/flex space to retail buildings and limited residential. The existing subdivision would remain unchanged. The outdoor sports complex would be relocated within Section 30 with a slightly larger parcel.

Project Development Plan

The proposed development plan was based on significant input from current land owners within Section 30 and residents within the study area. There was a considerable need for employment in the area to balance the substantial amount of housing available and to provide for local jobs. The proposed land uses within Section 30 include mixed use residential, mixed use employment, general employment, retail and government facilities.

The mixed use residential would comprise townhomes with a small lot configuration and attached office/studio space to represent a live/work environment. The mixed use employment would be made up of office buildings and retail. Office buildings and flex/light industrial buildings would compose the general employment use. Retail use would be made up of shopping centers, big box retail and neighborhood commercial centers. Government facilities (assumed to be occupied by Clark County and/or the City of Vancouver) would comprise office buildings and light industrial buildings for maintenance activities.

The development plan proposes to add approximately 4.4 million square-feet of building space and 255 townhouses within Section 30. The proposed land uses for the Section 30 development plan is summarized in Table 4. The total area of each general designation was divided into specific land uses. An appropriate building to land ratio was applied to the area of each specific land use to determine the resulting square-footage.

Table 4: Section 30 Development Plan

General Designation	Total Area	Land Use	Building To Land Ratio	Area	Net Development
Mixed Use Residential	21.25 acres	Townhouse	12 DU/acre	21.25 acres	255 townhomes
		Office	800 SF/10 DU	255 DU	20.4 KSF
Mixed Use Employment	132.17 acres	Office (80%)	35%	105.74 acres	1,610 KSF
		Retail (20%)	25%	26.43 acres	280 KSF
General Employment	162.23 acres	Office (20%)	35%	32.45 acres	495 KSF
		Flex/Light Industrial (80%)	25%	129.80 acres	1,410 KSF
Retail	37.80 acres	Retail (100%)	25%	37.75 acres	411 KSF
Government Facilities	21.40 acres	Office (50%)	20%	10.70 acres	93 KSF
		Light Industrial (50%)	20%	10.70 acres	93 KSF
TOTAL	374.85 acres				255 townhomes + 4,420 KSF
KSF – 1,000 Square-Feet					
DU – Dwelling Unit					

Project Trip Generation

The trip generation for the project was estimated for the PM peak hour based on the land uses the proposed development plan. The trip generation estimates are based on research conducted by the Institute of Transportation Engineers⁵ (ITE) for land uses similar to the proposed project. The outdoor sports complex was not included in the trip generation estimates because it is an existing facility and therefore included in existing traffic counts. The development plan proposes the relocation of the outdoor sports complex within Section 30 with a slightly larger parcel with limited additional vehicle trips during the PM peak hour. The trip generation estimate accounts for internal and passby trip reductions to determine net new trips to the project site.

⁵ *Trip Generation Manual, 7th Edition*, Institute of Transportation Engineers, 2003.

Internal Trips

A reduction of internal trips was evaluated for each development area within Section 30 to reflect trips with multiple destinations within the same development. The ITE⁶ internal capture summary worksheet was utilized for estimating internal capture of various uses in the PM peak hour⁷. Based on the internal trip estimate, 238 trips would be reduced from the base number of expected trips during the PM peak hour. Adequate internal vehicle and pedestrian circulation is necessary to achieve this level of internal trip reduction.

Passby Trips

The trip generation estimates for the retail land use assume a 34% passby trip⁸ reduction to account for vehicle trips that were already present on the roadway. The reduction percentage was based on ITE passby surveys taken at sites with similar land use and square footage as the proposed project. Approximately 1,286 retail passby trips would be reduced from the base number of expected trips during the PM peak hour.

The proposed development project would include approximately 4.4 million square-foot and generate approximately 6,795 PM peak hour net new vehicle trips (1,857 in/4,938 out) onto the adjacent roadway system (after internal and passby trip reductions). Trip generation calculations for the project are summarized in Table 5 and included in the appendix.

Table 5: Trip Generation Estimate Summary (PM Peak Hour)

General Designation	Land Use	Net Development	PM Peak Hour Trips		
			In	Out	Total
Mixed Use Residential	Townhouse	255 townhomes	52	26	78
	Office	20.4 KSF	13	60	73
Mixed Use Employment	Office	1,610 KSF	325	1,588	1,913
	Retail	288 KSF	462	501	963
General Employment	Office	495 KSF	123	604	727
	Flex/Light Industrial	1,410 KSF	174	1,273	1,447
Retail	Retail	411 KSF	679	735	1,414
Government Facilities	Office	93 KSF	21	102	123
	Light Industrial	93 KSF	7	50	57
TOTAL			1,857	4,938	6,795

Note: Includes internal and passby trip reductions.

⁶ *Trip Generation Handbook*, Institute of Transportation Engineers, October 1998, pages 83-94.

⁷ *Trip Generation Handbook*, Institute of Transportation Engineers, October 1998, Table 7.1.

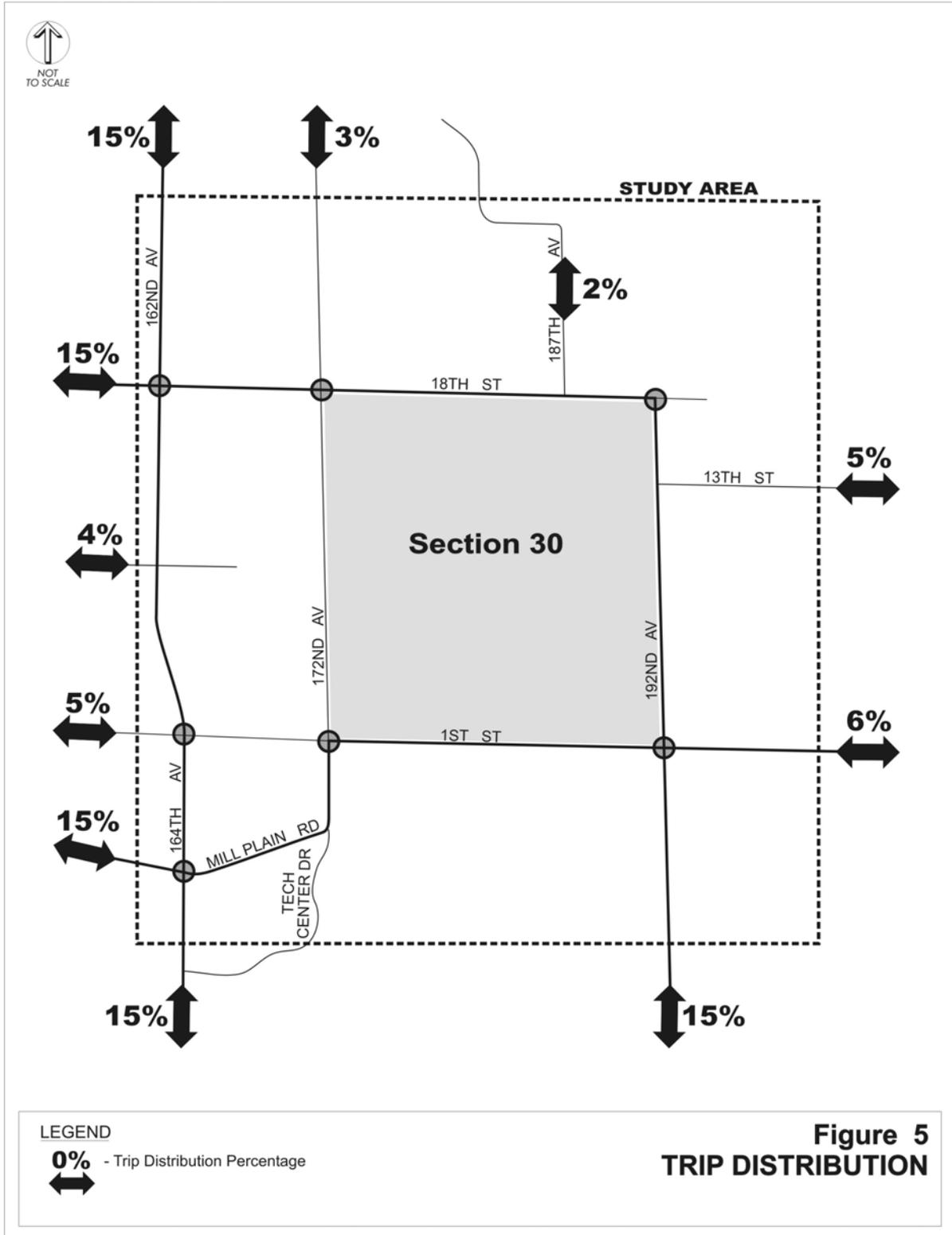
⁸ *Trip Generation Handbook*, Institute of Transportation Engineers, October 1998, Chapter 5.

Project Trip Distribution

Trip distribution was based on the RTP 2023 travel demand model and vehicle turn movements observed at study area intersections. The RTP 2023 travel demand model included a mix of employment and residential trips, therefore it was determined the trip distribution obtained from the model would be appropriate to represent all of the proposed land uses within Section 30. In general, the trips to and from the project site are distributed equally between the major roadways within the study area. Table 6 summarizes the project trip distribution in the study area. The project trip distribution is shown in Figure 5.

Table 6: Project Site Traffic Distribution (PM Peak Hour)

Site Trip Origins and Destinations	Percent of Site Vehicle Trips
South on 192 nd Avenue	15%
South on 164 th Avenue	15%
West on Mill Plain Road	15%
West on 18 th Street	15%
North of 162 nd Avenue	15%
East on 1 st Street	6%
West on 1 st Street	5%
East on 13 th Street	5%
West on 9 th Street to neighborhood	4%
North of 172 nd Avenue	3%
North of 187 th Avenue to neighborhood	2%
Total for All Directions	100%



Background Model Growth

A 2023 base scenario was established to assess the increase in background traffic on study area roadways based on anticipated land use changes over an approximately 20 year period. These projected background traffic volumes are based on travel demand forecast information provided by RTC (Regional Transportation Council). The current zoning within Section 30 would allow for some increase in development by 2023. The 2023 travel demand model estimates a growth of approximately 250 PM peak hour trips generated by the entire project site with current zoning. To represent conservative future 2023 forecasts, the background growth was not reduced to account for these vehicle trips from current zoning.

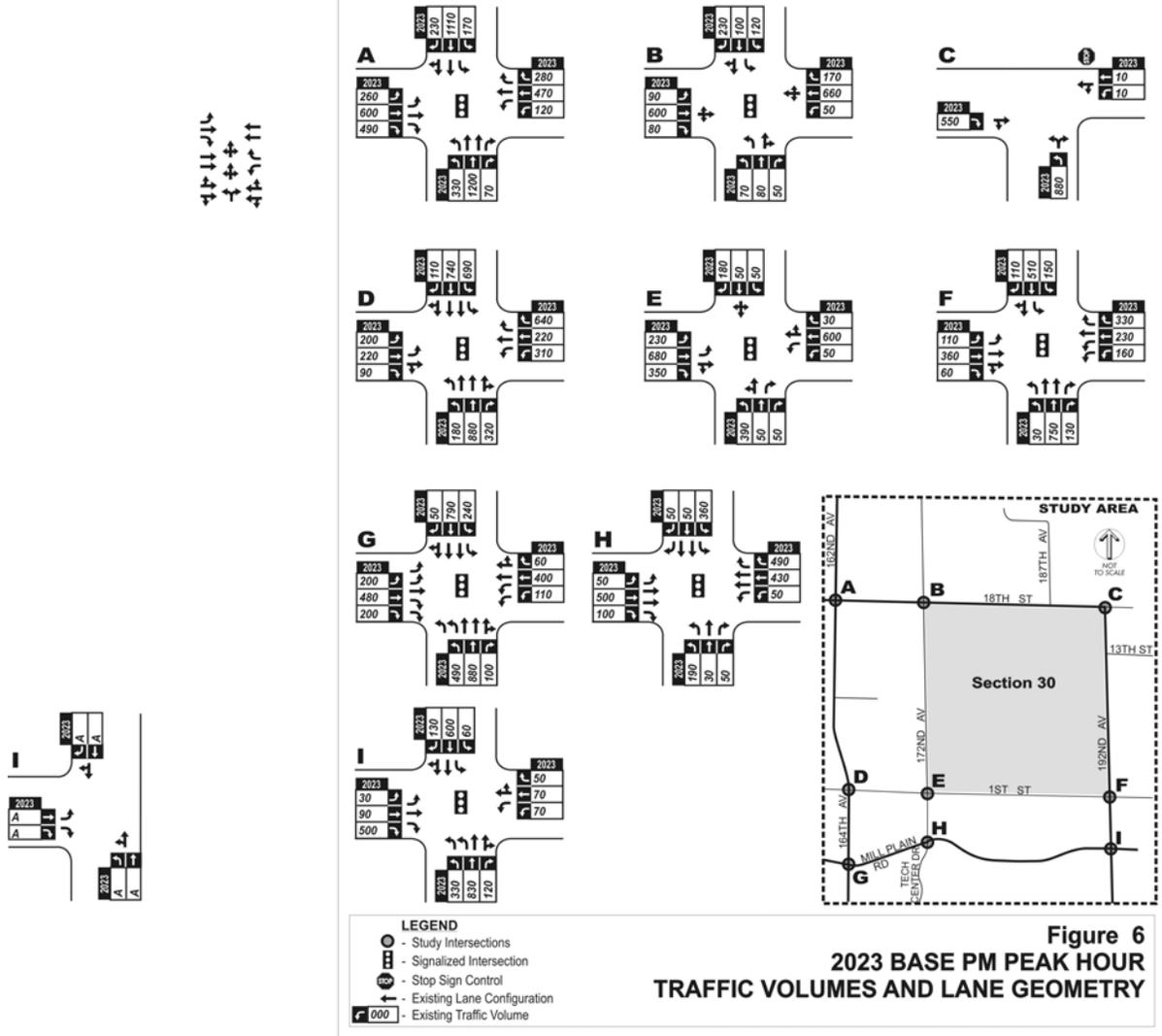
The RTP travel demand model for 2000 and 2023 were compared to estimate traffic growth generated by development outside of the study area. The 23-year background traffic growth volumes were added to the most recent available turn movement count data (ranging from 1999 to 2002) to represent a 2023 future base scenario. The resulting volumes represent the 2023 base scenario.

The future 2009 intersection turn movement volumes were determined based on the 2023 forecasts. Approximate 30% of the 23-year background traffic growth (representing approximately seven years of traffic growth) was added to the most recent available turn movement count data to estimate 2009 turn movement volumes. The resulting volumes represent the 2009 base scenario.

Planned Transportation Improvement Projects

The future 2009 base and 2023 base scenario performance analysis was based on the existing roadway network and intersection geometries with the addition of planned improvement projects within the study area. The current transportation improvement programs (TIP) for the City of Vancouver and Clark County were reviewed to identify transportation improvement projects that are scheduled for construction within the study area over the next six years. The Vancouver TIP identified the Mill Plain Boulevard extension project from SE 172nd Avenue to SE 192nd Avenue and the upgrade of NE 172nd Avenue from NE 18th Street to Mill Plain Boulevard to an arterial standard. The Clark County TIP had no priority project identified within the study area. These TIP projects were assumed to be complete in all future study scenarios.

Traffic signals were recently installed at the SE 1st Street/SE 192nd Avenue intersection and the Mill Plain Road/SE 192nd Avenue intersection. These traffic signals were still under construction and not operational when the existing traffic counts were conducted, therefore the existing conditions analysis shows the SE 1st Street/SE 192nd Avenue intersection as unsignalized and does not evaluate the Mill Plain Road/SE 192nd Avenue intersection. The traffic signal phasing and lane geometry at these intersections in the 2023 performance analysis are based on the traffic signal design plans provided by the City of Vancouver.



Study Intersection Performance

The forecasted volumes for the 2009 base, 2023 base and 2023 base + project scenarios were evaluated during the PM peak hour to determine the impacts of short-term and long-term background growth and the proposed project within the study area. The City of Vancouver's preferred minimum performance level is LOS D for signalized and LOS E for unsignalized intersections. The intersection operating conditions for each study scenario are summarized in the following sections.

2009 Base Conditions

The forecasted 2009 base volumes were evaluated during the PM peak hour to determine the short-term future base operating conditions at the study intersections. Background traffic is expected to grow approximately 2.5% per year over the next six years. The SE 192nd Avenue intersections at SE 1st Street and Mill Plain Road and the SE 172nd Avenue/Tech Center Drive/Mill Plain Road intersection are currently under construction. Therefore the planned intersection improvements (traffic signals, lane geometry and signal phasing) were assumed in the 2009 base conditions analysis.

All of the study intersections are expected to operate at an acceptable level of service with the addition of background growth during the PM peak hour. The 2009 base operating conditions are shown in Table 7.

Table 7: 2009 Base Operating Conditions (PM Peak Hour)

Study Intersection	Level of Service		
	Delay	LOS	V/C
<i>Signalized Intersections</i>			
SE 1 st Street/NE 164 th Avenue	46.1	D	0.68
SE 1 st Street/NE 172 nd Avenue	10.0	A	0.53
NE 18 th Street/NE 162 nd Avenue	44.5	D	0.68
SE 1 st Street/NE 192 nd Avenue	33.3	C	0.43
NE 18 th Street/NE 172 nd Avenue	10.4	B	0.47
SE Mill Plain Road/SE 164 th Avenue	35.8	D	0.47
SE Mill Plain Road/SE 172 nd Avenue	26.8	C	0.29
SE Mill Plain Road/SE 192 nd Avenue	23.0	C	0.27
<i>Unsignalized Intersections</i>			
NE 18 th Street/NE 192 nd Avenue	0.4	A/C	--
LOS	Level of service		
V/C	Volume to capacity ratio of the intersection.		
A/A	LOS refers to level of service at an unsignalized intersection for left turning traffic from major street and the level of service of traffic turning from the minor street onto the major street.		

2023 Base Conditions

The forecasted 2023 base volumes were evaluated during the PM peak hour to determine the future base operating conditions at the study intersections. Background traffic is expected to grow approximately 2.5% per year over the next 20 years, adding significant traffic onto the study roadways. The planned intersection improvements at the SE 192nd Avenue intersections at SE 1st Street and Mill Plain Road and the SE 172nd Avenue/Tech Center Drive/Mill Plain Road intersection were assumed in the 2023 base conditions analysis.

Three of the study intersections are expected to operate with conditions below the preferred minimum performance level during the PM peak hour. The remaining study intersections are expected to operate at an acceptable level of service with the addition of background growth. The 2023 base operating conditions are shown in Table 8.

Table 8: 2023 Base Operating Conditions (PM Peak Hour)

Study Intersection	Level of Service		
	Delay	LOS	V/C
<i>Signalized Intersections</i>			
SE 1 st Street/NE 164 th Avenue	>80.0	F	>1.0
SE 1 st Street/NE 172 nd Avenue	>80.0	F	>1.0
NE 18 th Street/NE 162 nd Avenue	>80.0	F	>1.0
SE 1 st Street/NE 192 nd Avenue	34.8	C	0.65
NE 18 th Street/NE 172 nd Avenue	18.5	B	0.85
SE Mill Plain Road/SE 164 th Avenue	43.7	D	0.75
SE Mill Plain Road/SE 172 nd Avenue	37.8	D	0.87
SE Mill Plain Road/SE 192 nd Avenue	34.5	C	0.64
<i>Unsignalized Intersections</i>			
NE 18 th Street/NE 192 nd Avenue	0.6	A/F	--
LOS	Level of service		
V/C	Volume to capacity ratio of the intersection.		
A/A	LOS refers to level of service at an unsignalized intersection for left turning traffic from major street and the level of service of traffic turning from the minor street onto the major street.		

2023 Base Conditions + Project

The 2023 future conditions with the proposed development project were evaluated to assess the impact to the roadway network. To support the proposed project, a primary roadway network within Section 30 would have to be established. The 2023 base conditions plus project scenario assumes the following roadway improvements. These improvements are identified as initial mitigations measures required to support the proposed project in the next section.

- A new five lane facility through Section 30 which reroutes NE 192nd Avenue (from approximately 1,300-feet north of SE 1st Street) to the west then curves to meet NE 18th Street (approximately 2,000-feet west of NE 192nd Avenue).
- A new three lane facility through Section 30 which extends NE 13th Street to NE 9th Street at NE 162nd Avenue.
- A traffic signal at the intersection of the two new roadways (NE 13th Street/NE 192nd Avenue) with protected left turn lanes on each approach.

With the addition of the proposed development, all of the study intersections operate with a demand greater than the available intersection capacity. Therefore, mitigation measures will be required at each study intersection with the proposed project. The 2023 base plus project operating conditions are shown in Table 9.

Table 9: 2023 Base + Project Operating Conditions (PM Peak Hour)

Study Intersection	Level of Service		
	Delay	LOS	V/C
SE 1 st Street/NE 164 th Avenue	>80.0	F	>1.0
SE 1 st Street/NE 172 nd Avenue	>80.0	F	>1.0
SE 1 st Street/NE 192 nd Avenue	>80.0	F	>1.0
NE 9 th Street/NE 162 nd Avenue	>50.0	F/F	--
NE 9 th Street/NE 172 nd Avenue	>50.0	B/F	--
NE 13 th Street/NE 192 nd Avenue (central intersection)	>80.0	F	>1.0
NE 18 th Street/NE 162 nd Avenue	>80.0	F	>1.0
NE 18 th Street/NE 172 nd Avenue	>80.0	F	>1.0
SE Mill Plain Road/SE 164 th Avenue	>80.0	F	>1.0
SE Mill Plain Road/SE 172 nd Avenue	>80.0	F	>1.0
SE Mill Plain Road/SE 192 nd Avenue	53.9	D	>1.0
LOS	Level of service		
V/C	Volume to capacity ratio of the intersection.		
A/A	LOS refers to level of service at an unsignalized intersection for left turning traffic from major street and the level of service of traffic turning from the minor street onto the major street.		

Proposed Mitigation Measures

Conceptual mitigation measures to the study area transportation system have been identified based on forecasted 2023 traffic volumes with the addition of the Section 30 development to bring all study intersections to acceptable service levels. The 2023 impact analysis assumed the construction of all projects identified in the current City's and County's transportation improvement programs. The improvements required to accommodate background growth have been identified separately from those required to accommodate the proposed project. The mitigation measures are described below. The resulting study intersection operating conditions are summarized in Table 10. The 2023 plus project traffic volumes and mitigated lane geometry are shown in Figure 7.

To Accommodate Background Traffic (Year 2023)

- Add a separate southbound right turn lane and a second northbound left turn lane at NE 18th Street/NE 162nd Avenue.
- Add a second southbound left turn lane at SE 1st Street/SE 164th Avenue.
- Add a separate northbound left turn lane with north-south permitted phasing at SE 1st Street/SE 172nd Avenue.

To Accommodate the Section 30 Development Plan (Year 2023)

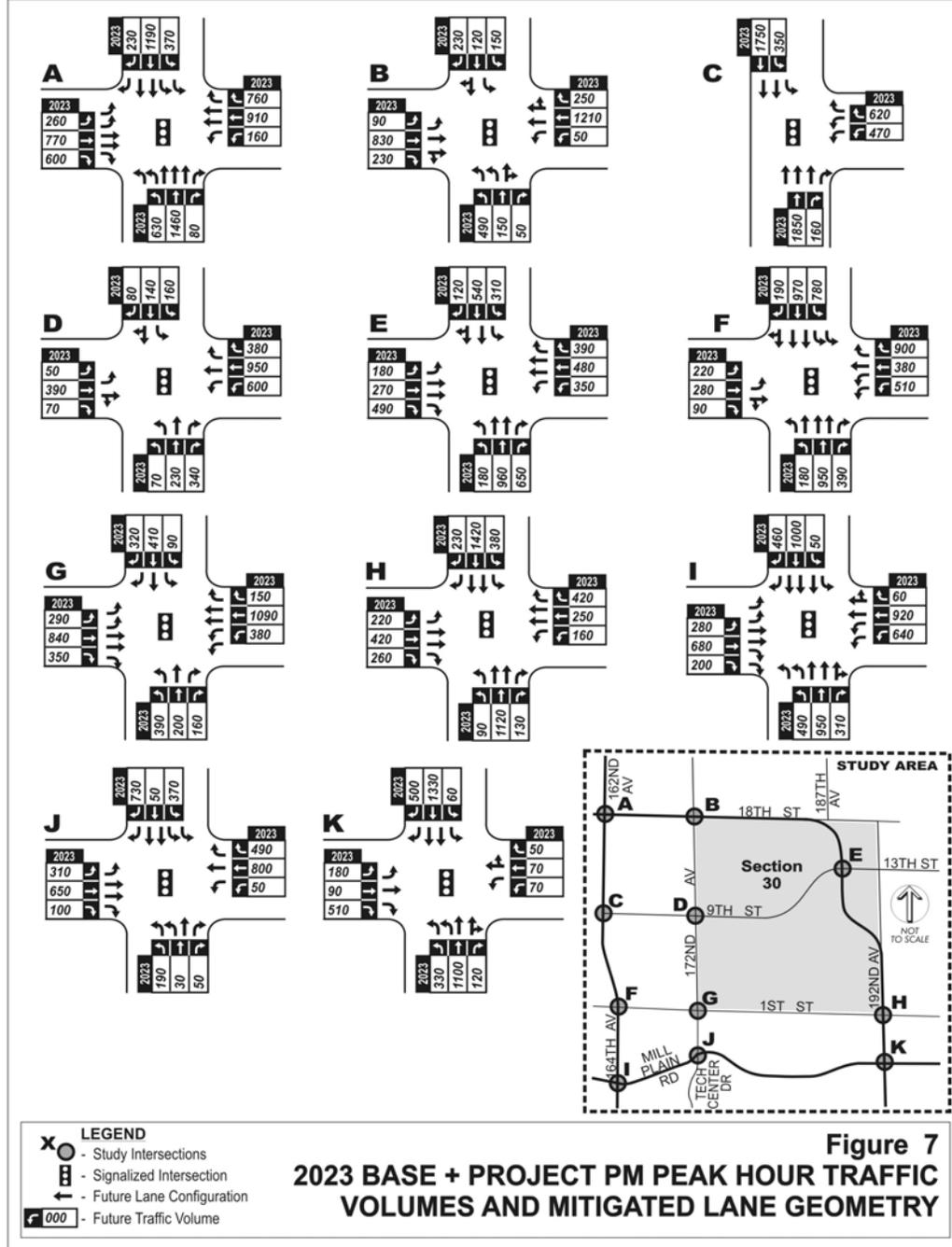
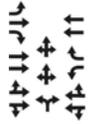
- Construct a new five lane facility which reroutes NE 192nd Avenue (from approximately 1,300-feet north of SE 1st Street) to the west then curves to meet NE 18th Street (approximately 2,000-feet west of NE 192nd Avenue). This new five lane facility would extend from the north leg of SE 192nd Avenue at SE 1st Street to the east leg of NE 18th Avenue at NE 172nd Avenue.
- Construct a new three lane facility which extends NE 13th Street to NE 9th Street at NE 162nd Avenue.
- Install a traffic signal at the new NE 13th Street/NE 192nd Avenue intersection. Provide separate left turn lanes with protected phasing on all approaches. Provide separate right turn lanes for the northbound, eastbound and westbound approaches.
- Widen NE 18th Avenue to a five lane facility from NE 172nd Avenue to the west of NE 162nd Avenue.
- Widen NE 162nd Avenue to a seven lane facility from SE 1st Street to north of NE 18th Street.
- Widen SE 1st Street to five lanes from SE 192nd Avenue to SE 164th Avenue.
- Install a traffic signal at NE 9th Street/NE 162nd Avenue with double westbound and southbound left turn lanes and a separate northbound right turn lane.
- Install a traffic signal at NE 9th Street/NE 172nd Avenue with separate left turn lanes on all approaches and separate northbound and westbound right turn lanes.
- At SE 1st Street/SE 192nd Avenue, add separate southbound and eastbound right turn lanes.
- Add a separate southbound right turn lane at the new alignment of Mill Plain Road/SE 192nd Avenue.

- At NE 18th Street/NE 172nd Avenue, add separate left turn lanes with protected phasing on all approaches and a second northbound left turn lane.
- Add second northbound, southbound and eastbound left turn lanes and a separate southbound right turn lane at NE 18th Street/NE 162nd Avenue.
- Add a separate southbound right turn lane and a second eastbound through lane at Mill Plain Road/SE 164th Avenue. There are currently two eastbound through lanes on Mill Plain Road west of SE 172nd Avenue.
- Add a separate westbound right turn lane and second northbound and southbound left turn lanes at Mill Plain Road/Tech Center Drive/SE 172nd Avenue.
- At SE 1st Street/SE 172nd Avenue, add separate southbound, eastbound and westbound right turn lanes and second eastbound and westbound left turn lanes.
- Add second southbound and eastbound left turn lanes and add a separate northbound right turn lane at SE 1st Street/SE 164th Avenue.
- Increase peak hour traffic signal cycle lengths at the study intersections as needed to balance the needs of motorists and pedestrians.

Table 10: 2023 Base + Project With Mitigation Operating Conditions (PM Peak Hour)

Study Intersection	Level of Service		
	Delay	LOS	V/C
SE 1 st Street/NE 164 th Avenue	53.7	D	0.88
SE 1 st Street/NE 172 nd Avenue	52.4	D	0.99
SE 1 st Street/NE 192 nd Avenue	46.6	D	0.95
NE 9 th Street/NE 162 nd Avenue	33.4	C	0.98
NE 9 th Street/NE 172 nd Avenue	39.4	D	0.87
NE 13 th Street/NE 192 nd Avenue (central intersection)	50.5	D	0.97
NE 18 th Street/NE 162 nd Avenue	52.7	D	0.92
NE 18 th Street/NE 172 nd Avenue	51.1	D	0.97
SE Mill Plain Road/SE 164 th Avenue	50.8	D	0.84
SE Mill Plain Road/SE 172 nd Avenue	48.9	D	0.99
SE Mill Plain Road/SE 192 nd Avenue	34.4	C	0.83

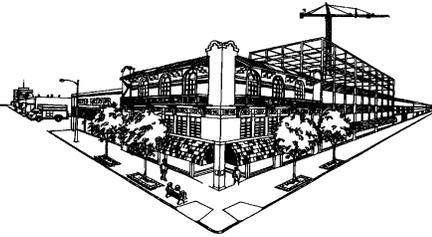
LOS Level of service
V/C Volume to capacity ratio of the intersection.



ECONOMIC & FISCAL BENEFITS ASSESSMENT

E. D. Hovee & Company

Economic and Development Services



EXECUTIVE SUMMARY

To: John White, The JD White Company, Incorporated
From: Paul Dennis, AICP/Cascade Planning Group
Eric Hovee/E.D. Hovee & Company
Subject: Economic & Fiscal Benefits Assessment of Section 30 Subarea Master Plan
Date: January 19, 2004

Clark County (County), the City of Vancouver (City), and the Evergreen School District have collaborated on developing a Subarea Master Plan for Section 30, a square mile (or 640 acres) of land located at English Pit in east Clark County, Washington. The master plan calls for the development of 426 acres consisting of 300 acres for employment uses, 40 acres for retail services, 20 acres for residential, 20 acres for governmental facilities, and 46 acres for youth sports facilities.

This economic and fiscal effect assessment has been prepared as an informational item to illustrate the potential economic and tax benefits that might result from implementation of the Section 30 Subarea Master Plan. Information has been obtained from sources deemed to be reliable, but accuracy is not guaranteed as market conditions and regulatory/permitting process can affect the development proposal.

SUMMARY RESULTS

In summary, this analysis indicates that the following economic and fiscal benefits can be expected with development of Section 30 as proposed under the current master plan:

- Buildout of Section 30 will result in 1.4 million square feet of flex/light industrial space, 2.1+ million square feet of office, 700,000 square feet of retail, 186,000 square feet of government, and 255 housing units. The facilities are estimated to produce a market value of \$495.2 million. Approximately 3,800 construction jobs will be support over the entire construction period. Construction workers will earn an average annual wage of \$45,700 per worker.
- Development of Section 30 will create secondary economic opportunities with Clark County. Construction activities will support another \$129.0 million in other market investments, as well as supporting 3,100 workers in other industries at an average annual wage of \$30,700.
- Businesses locating in Section 30 are estimated to produce \$1.4 billion of gross business income at full buildout. Section 30 companies will also make \$18.4 million of taxable retail

purchases annually within Clark County. Businesses are expected to hire 13,700 workers with an average compensation package of \$35,200 per year, generating a total payroll of \$482.7 million.

- Businesses within Section 30 will stimulate other economic activity countywide, such as an additional \$8.9 million of taxable retail purchases, 7,900 jobs, and \$250.5 million of household income.
- Development of Section 30 will generate a series of tax benefits for both local and state jurisdictions, primarily in the form of sales tax. Construction of facilities will produce \$35.2 million of sales taxes. The state will collect the largest share at \$32.2 million with the City of Vancouver/Clark County collecting \$3.0 million.
- Businesses operating within Section 30 will produce substantial tax benefits each year. Annual property taxes distributed to major local taxing jurisdictions will amount to \$5.3 million with the state collecting \$1.3 million of K-12 education. The Evergreen School District will collect the largest amount at \$2.5 million followed by the City of Vancouver (\$1.5 million), state K-12 funding (\$1.3 million), and the Clark County general fund (\$776,000).
- Section 30 businesses will also produce sales taxes. The state of Washington will collect \$1.2 million annually, with the city of Vancouver and Clark County getting \$221,400.
- The proposed 700,000 square foot retail center will produce sales taxes in addition to the tax benefits described above. Retail centers typically generate annual sales of \$300 per square foot across all store types. This translates into \$210.0 million of annual sales and \$16.2 million of annual retail sales taxes.

ECONOMIC & FISCAL ASSUMPTIONS

Information for this assessment has been obtained from The JD White Company, Inc., the Clark County Assessor’s Office, Metro, the Minnesota IMPLAN Group, and the Washington State Department of Revenue.

Background. Consistent with the policy directives of the Section 30 Subarea Master Plan, most of the land use allocation suggested in the recommended plan is for employment-based uses. Nearly 375 acres of the site are designated Employment or Mixed-Use Employment. The uses anticipated in each are described below. Given typical lot coverage development patterns, the plan estimates that as much as 4.4 million square feet of building area could result on the land carrying these designations over the life of the plan.

Figure I. Net Constructed Development Calculations – Section 30

Land Use Designation	Key Assumptions		Net Constructed Development
	Intensity	Applied To	
Employment ¹	Office building area based on 35% lot coverage	32.45 acres (20% of total 162.23 ac ²)	495,000 sf
	Flex/light industrial area based on 25% ³ lot coverage	129.8 acres (80% of total 162.23 ac)	1.41 million sf
Mixed Use Employment ⁴	Office building area based on 35% lot coverage	105.74 acres (80% of total 132.17 ac)	1.61 million sf
	Retail based on 25% lot coverage	26.43 acres (20% of total 132.17 ac)	288,000 sf
Retail	Building area based on 25% lot coverage	37.75 acres	411,000 sf
Government Facilities	Building area based on 20% ⁵ lot coverage	21.38 acres	186,000 sf
Mixed Use Residential	Residential @ 12 du/ac	21.25 ac	255 units in townhome/small lot configuration
	Office @ 800 sf/10 du/ac	255 du	20,400 sf of office in live/work configuration

Notes: ¹ Assumes that 80% of the land designated will be developed as flex/light industrial, 20% as office. ² This figure differs from the current map due to the transfer of 19.34 acres of Employment designation being changed to retail (northeast corner of new 192nd and east/west connection). ³ Amended down from 30% per December 17, 2003, e-mail from Mike Mabrey. ⁴ Assumes that 80% of the land designated will be developed as office, 20% as retail. ⁵ Amended down from 25% per December 17, 2003, e-mail from Mike Mabrey.

Source: Clark County Section 30 Subarea Master Plan.

Construction. Economic effects during construction are shown as a one-time snap shot of the entire benefit at 2004 values. Construction will occur over a multi-year period of time; and thus, economic and fiscal benefits will occur over time as well. Development of Section 30 will result in 1.4 million square feet of flex/light industrial space, 2.1+ million square feet of office, 700,000 square feet of retail, 186,000 square feet of government, and 255 housing units. The facilities are estimated to produce a market value of \$495.2 million based upon similar nearby developments.

Due to the fact that Clark County is located near Portland – a larger market offering a greater level of services and skills – it is assumed that only 50% of the capital investment results from local

resources (e.g. contractors, building materials, etc.). The number of construction workers and associated wages that will be supported by development of Section 30 is estimated using the IMPLAN model's estimate of revenue per worker and average wage per worker.

Operations. The 4.4 million square feet of building space devoted to employment uses will accommodate approximately 13,700 local workers earning an average compensation package of \$33,900 per year. As noted above, construction will occur over a multi-year period of time; and thus, economic and fiscal benefits associated with long term business operations will occur over time as well. Economic effects as a result of ongoing business operations are shown at full buildout of the project site, illustrating annualized 2004 values.

Economic effects directly attributable to the estimated market investments are made using information collected from the Minnesota IMPLAN Group, Clark County, and Metro. Job estimates are derived using the estimated building square footages for each proposed use and average number of employees per building square foot. Business revenues and payroll are calculated using average business revenues and average wage data from the IMPLAN model. Annual taxable retail purchases were estimated within the IMPLAN model based upon typical level of spending that would result from the estimated gross business revenues.

Initial multiplier estimates are made using the IMPLAN Input-Output economic model that measures inter-industry transactions between all segments of the Clark County economy. The economic *multiplier* is defined as the total direct benefit plus indirect benefit divided by the direct effect. For example, a jobs multiplier of 2.0 means that one job could be created indirectly for every new job at the project site.

Fiscal Effects. As part of this benefit analysis, major fiscal revenue sources are estimated based on direct impacts only. Those taxes are state and local sales tax and property tax by taxing district. Not estimated with this analysis are fiscal effects associated with indirect (or multiplier) activity, utility taxes, or development exactions/fees.

Figure 2 on the following page provides a summary table of the quantitative assumptions utilized in this impact evaluation.

Figure 2. Economic & Fiscal Assumptions

Assumption	LI/Flex	Office	Retail	Government	Residential
Capital Investment:					
Building Square Footage or Units	1,410,000	2,125,400	699,000	186,000	255
Value per Square Foot or Unit	\$70	\$120	\$110	\$120	\$165,500
Market Value	\$98,700,000	\$255,048,000	\$76,890,000	\$22,320,000	\$42,202,500
– % Clark County Purchases	50%	50%	50%	50%	50%
Revenue per Worker	\$127,200	\$127,200	\$127,200	\$166,800	\$162,600
Average Compensation (includes benefits)	\$46,200	\$46,200	\$46,200	\$62,900	\$30,700
Output Multiplier	1.52	1.52	1.52	1.53	1.52
Jobs Multiplier	1.80	1.80	1.80	2.10	2.02
Income Multiplier	1.53	1.53	1.53	1.53	2.05
Operations:					
Jobs per Square Foot	450	250	500	250	0
Number of Workers	3,100	8,500	1,400	700	0
– % Local Hires	100%	100%	100%	100%	0%
Average Compensation (includes benefits)	\$48,100	\$32,300	\$19,800	\$44,700	\$0
Projected Revenues per Worker	\$137,800	\$102,900	\$45,100	\$99,700	\$0
Annual Taxable Retail Purchases	\$5,465,800	\$10,977,400	\$1,381,700	\$625,000	\$0
<i>Multipliers:</i>					
Output Multiplier	1.53	1.46	1.48	1.49	0.00
Jobs Multiplier	1.80	1.55	1.26	1.56	0.00
Income Multiplier	1.55	1.53	1.39	1.39	0.00
Fiscal Taxes Rates:					
Washington State Sales Tax	6.5%	6.5%	6.5%	6.5%	6.5%
<i>Local Sales Tax:</i>					
– City/County	0.8%	0.8%	0.8%	0.8%	0.8%
– Local Transit	0.3%	0.3%	0.3%	0.3%	0.3%
– County Criminal Justice	0.1%	0.1%	0.1%	0.1%	0.1%
Washington State Warehousing B&O Tax	0.00484	0.15000	0.00471	0.00000	0.00000
<i>Property Tax (per \$1,000 AV):</i>					
– State Schools	\$2.85040	\$2.85040	\$2.85040	\$0.00000	\$2.85040
– County General	\$1.64189	\$1.64189	\$1.64189	\$0.00000	\$1.64189
– City of Vancouver	\$3.24936	\$3.24936	\$3.24936	\$0.00000	\$3.24936
– Evergreen School District	\$5.22898	\$5.22898	\$5.22898	\$0.00000	\$5.22898
– Port of Vancouver	\$0.43781	\$0.43781	\$0.43781	\$0.00000	\$0.43781
– Conservation Futures	\$0.06250	\$0.06250	\$0.06250	\$0.00000	\$0.06250
– Mosquito Control	\$0.01044	\$0.01044	\$0.01044	\$0.00000	\$0.01044
– Fort Vancouver Inter-Co Lib	\$0.51673	\$0.51673	\$0.51673	\$0.00000	\$0.51673
– All Taxing Districts	\$13.99811	\$13.99811	\$13.99811	\$0.00000	\$13.99811

Source: E.D. Hovee & Company/Cascade Planning Group from information provided by project proponent, Minnesota IMPLAN Group, Metro, Washington State Department of Revenue, and Clark County Assessment & GIS.

ECONOMIC BENEFITS

Economic benefits are categorized into two different stages, construction and ongoing operations. The economic benefits associated with the construction phase appear significant but will typically last a relatively short six to eighteen month time period for each development project. Economic benefits estimated for the operations phase are anticipated to recur annually, lasting as long as the facility is in operation.

Economic effects from construction are shown as a one-time snap shot of the entire development benefit in 2004 values. As mentioned earlier, construction will occur over a multi-year period of time consisting of a series of investments. The same is true for the operations phase; long term business operations will build up over time as well. Economic effects as a result of ongoing business operations are shown at full buildout of the project site, illustrating annualized 2004 values.

Construction Phase

The redevelopment of Section 30 could result in \$495.2 million of capital investments. At least half of the investment is expected to be procured directly within Clark County, as local contractors are expected to be hired. The Section 30 investments could indirectly stimulate another \$128.9 million in other Clark County business revenues for a total Clark County economic benefit of \$376.4 million.

It is estimated that development of Section 30 could result in the need for 3,780 construction jobs over the entire (cumulative) construction period; however, the number of construction workers on site will vary substantially between development projects and will not likely exceed a couple of hundred workers at any one time. Construction jobs would likely support as much as another 3,120 Clark County jobs for a total cumulative of 6,900 jobs over the entire construction period. It is further assumed that construction workers will likely earn approximately \$45,700 per year on average, generating a total cumulative construction payroll of \$172.8 million. This construction payroll could generate another \$95.7 million of income in other industries during the construction phase, for a total Clark County cumulative payroll benefit of \$268.5 million.

Figure 3. Economic Benefits Associated with Construction (Cumulative)

Impact Category	Cumulative Economic Benefits		
	Direct	Indirect	Total
Capital Investment	\$495,160,500	–	–
– Washington State	\$247,580,500	–	–
– Clark County	\$247,580,000	\$128,850,000	\$376,430,000
Construction Jobs	3,780	3,120	6,900
Construction Payroll	\$172,800,000	\$95,720,000	\$268,520,000
– Average Wage	\$45,700	\$30,700	\$38,900

Source: E.D. Hovee & Company and Cascade Planning Group.

Operations

At full buildout, businesses located in Section 30 are anticipated to generate \$1.4 billion of gross business income. Section 30 businesses are expected to make \$18.4 million of taxable retail

purchases annually within Clark County. Local taxable retail purchases from local suppliers could generate another \$8.9 million, as local sales ripple through the Clark County economy. Section 30 businesses will employ 13,700 workers at full buildout. These workers will earn an annual compensation package of \$35,200. Operations could support an additional 7,900 jobs elsewhere in Clark County.

Figure 4. Annual Economic Benefits Associated with Section 30 Buildout

Impact Category	Annual Economic Benefits		
	Direct	Indirect	Total
Business Revenues	\$1,364,970,000	–	–
– Taxable Retail Purchases	\$18,449,900	\$8,915,900	\$27,365,800
Number of Jobs	13,700	7,900	21,600
Total Payroll	\$482,670,000	\$250,535,900	\$733,205,900
– Average Wage	\$35,200	\$31,700	\$33,900

Source: E.D. Hovee & Company and Cascade Planning Group.

FISCAL EFFECTS

Section 30 is anticipated to generate tax benefits both to Washington State and to local taxing jurisdictions within Clark County. Tax benefit estimates are focused on both the construction of buildings and subsequent business operations. Construction tax benefits are cumulative over the entire site development and operation tax benefits are annual estimates at buildout.

The estimated \$495.2 million investment will generate approximately \$6.6 million in property taxes. The Evergreen School District will collect the largest amount (\$2.5 million) followed by the City of Vancouver (\$1.5 million), state K-12 funding (\$1.3 million), and Clark County general fund (\$0.8 million). *Note:* Property tax payments will vary from these estimates over time and depending on real versus personal property investments and the phasing of development, as a company’s personal property (e.g. equipment, tools, etc.) will depreciate each year according to DOR depreciation tables.

Section 30 businesses will provide additional benefits in the form of state/local sales taxes. The state would collect \$32.2 million in sales taxes due to facility construction and \$1.2 million annually from local purchases made by Section 30 businesses. The City will receive \$2.0 million from facility construction and \$147,600 from annual purchases associated with Section 30 businesses.

Figure 5. Tax Revenues Associated with Section 30

Tax Generated	Estimated \$ Value ¹	
	Construction	Operations
State B&O Tax for Warehousing	–	\$133,562,441
Sales Tax:		
Washington State	\$32,185,433	\$1,199,244
Clark County/Vancouver	\$1,980,640	\$147,599
C-Tran Transit	\$742,740	\$55,350
County Criminal Justice	\$247,580	\$18,450
All Taxing Jurisdictions	\$35,156,393	\$1,420,642
Property Tax:²		
State Schools	\$0	\$1,347,785
County General	\$0	\$776,352
City of Vancouver	\$0	\$1,536,429
Evergreen School District	\$0	\$2,472,474
Port of Vancouver	\$0	\$207,014
Conservation Futures	\$0	\$29,553
Mosquito Control		\$4,936
Fort Vancouver Inter-Co Lib	\$0	\$244,331
All Taxing Jurisdictions	\$0	\$6,618,873

Note: 1) Construction estimates are cumulative over entire construction phase; operation estimates are for revenues attributed directly to business purchases at full buildout. Indirect tax revenue effects are not estimated. 2) Property taxes exclude value of land lease, which will add 12.84% of the annual lease value.

Source: E.D. Hovee & Company and Cascade Planning Group.

The proposed 700,000 square foot retail center will produce sales taxes in addition to the tax benefits described above. Retail centers typically generate annual sales of \$300 per square foot across all store types. This translates into \$210.0 million of annual sales and \$16.2 million of annual retail sales taxes.

Figure 6. Retail Sales Tax Associated with Section 30 Retail Center

Assumption	Value	Comment
Size of Retail Center (sf)	700,000	Section 30 Subarea Master Plan
Typical Sales (\$ per sf)	\$300	Urban Land Institute
Annual Retail Sales	\$210,000,000	
State Sales Taxes	\$13,650,000	Rate at 6.5%
Local Sales Taxes	\$2,520,000	
– City/County	\$1,680,000	Rate at 0.8%
– Local Transit	\$630,000	Rate at 0.3%
– County Criminal Justice	\$210,000	Rate at 0.1%
Total Sales Taxes	\$16,170,000	

Source: E.D. Hovee & Company and Cascade Planning Group using information from Section 30 Subarea Master Plan, Urban Land Institute's *Dollar and Centers of Shopping Centers*, and Washington State Department of Revenue.