PART 1

Summary

Purpose of and Need for Proposed Action

The proposed action that is the subject of this environmental impact statement (EIS) is the construction of a new combined middle school/high school in Sammamish, Washington. The project proponent is Eastside Catholic High School (ECHS).

Project Purpose and Need

ECHS is a private coeducational college preparatory school with a wide range of accelerated courses. The school also has programs for a limited number of students who have special learning and developmental challenges. The school is owned by parents and governed by an elected board of trustees. ECHS has been operating for 24 years in a rented facility in southeast Bellevue, Washington. In order to achieve what it considers a school of optimal size for its academic, athletic, aesthetic, and fiscal purposes, ECHS seeks to construct a new school with classrooms and other facilities.

Proponent's Objectives

ECHS proposes to develop a new private middle school/high school campus on 51.5 acres of property it owns, has under purchase contract, or intends to purchase. This property (from here forward called "the project site") is located east of the intersection of SE Fourth Street and 228th Avenue SE in Sammamish, Washington (Figure 1).

ECHS proposes to construct a classroom building and other school facilities, including an auditorium and a gymnasium, to serve approximately 1,200 students. Although originally proposed as a high school, the plans have been modified to include a mix of 300 to 400 students in a middle school and 800 to 900 students in a high school (see the description of Alternative 3 in the section "Summary of Project Alternatives"). The site development would include ball fields and parking lots. ECHS proposes to create a campus that integrates existing wetland and forest features into the site design to provide educational opportunities for its students.

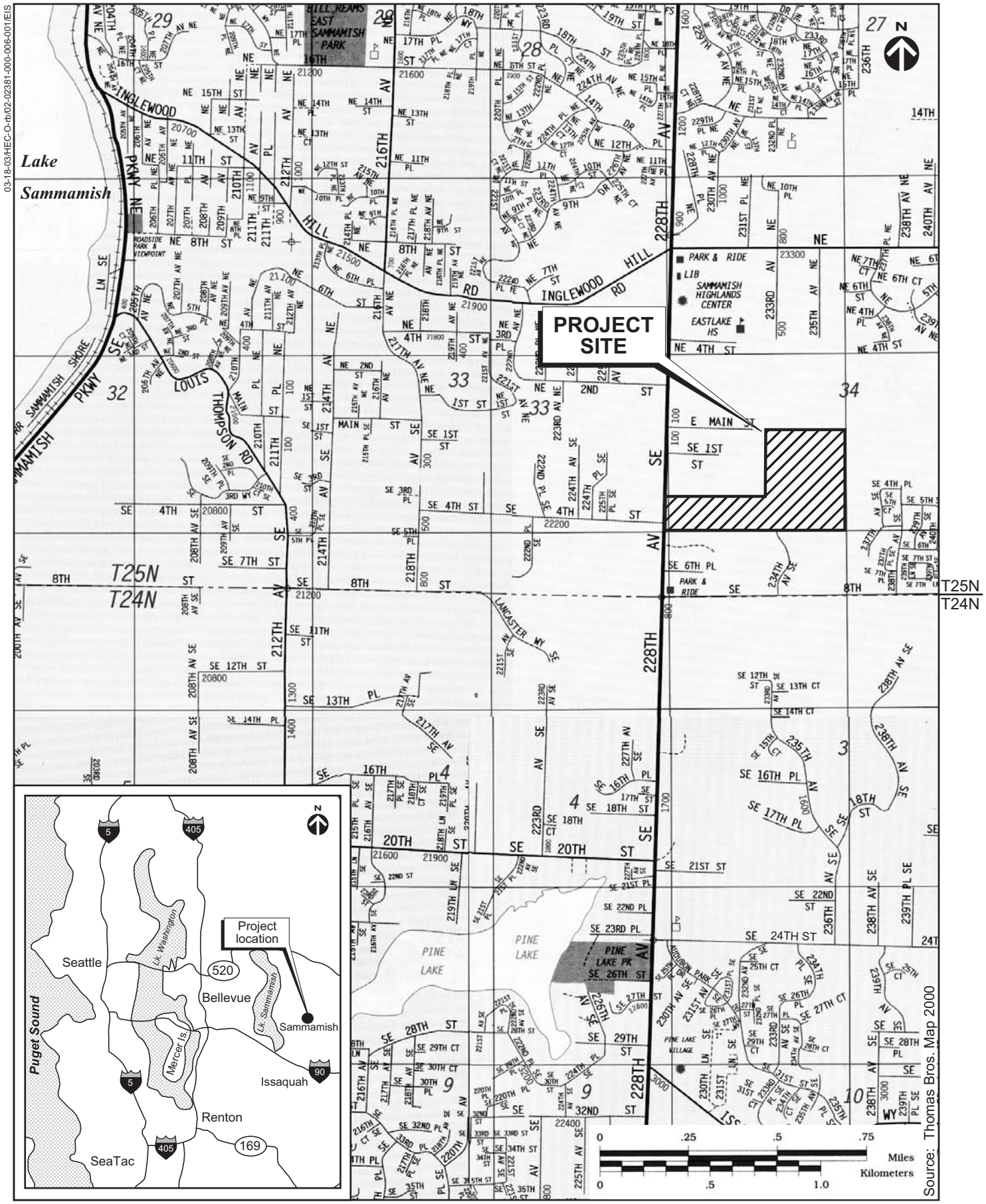

Figure 1. Vicinity map of the Eastside Catholic High School project site in Sammamish, Washington.

Summary of Project Alternatives

The project site consists of 51.5 acres of land in Sammamish, Washington (Figure 1). It includes a large tract known as the "Lein farm," and a group of properties that provide access to the Lein farm from 228th Avenue SE. This latter group of properties (parcels 1241100020, 1241100021, 1241100022, and 1241100023) is referred to in this EIS as the "panhandle" portion of the site (Figure 2).

Two development alternatives were evaluated in the draft EIS: Alternative 1 (construction of a 1,200-student high school) and Alternative 2 (construction of a smaller 1,000-student high school). A No-Action Alternative (no construction) was also evaluated. ECHS has proposed a third development alternative (Alternative 3) for evaluation in this final EIS. These alternatives are summarized below.

Alternative 1: 1,200-Student School

Alternative 1 includes the construction of an approximately 205,000-square-foot building with classrooms, an auditorium, a gymnasium, and other school facilities to serve approximately 1,200 high school students. The campus would include an outdoor stadium capable of seating approximately 2,000 spectators, a baseball diamond, a soccer field, and tennis courts. Under this alternative, 674 parking spaces would be provided, primarily in three areas on the west side of the school. The parking layout includes 187 spaces of overflow parking for use during special events and 487 spaces for daily use.

Access to the site would be via a private road connecting to a proposed new intersection at SE Fourth Street and 228thAvenue SE. Although not proposed by ECHS, an additional access scenario is discussed in the section "Transportation" in Part 3 of the draft EIS as a potential measure for mitigating traffic impacts.

The wetlands and wetland buffers that bisect the site would remain largely intact (see the section "Plants and Animals" in Part 3 of the draft EIS), and the existing vegetation would be augmented with new plantings. Stormwater runoff from the school campus would be detained and treated in three new surface detention ponds, three wet ponds, and one underground detention vault, with discharge to existing surface water bodies west and north of the project site.

The five existing homes located on the project site would be demolished.

Alternative 2: 1,000-Student School

Alternative 2 includes the construction of an approximately 176,500-square-foot building with classrooms, an auditorium, a gymnasium, and other school facilities to serve approximately 1,000 high school students. The campus would include an outdoor stadium capable of seating

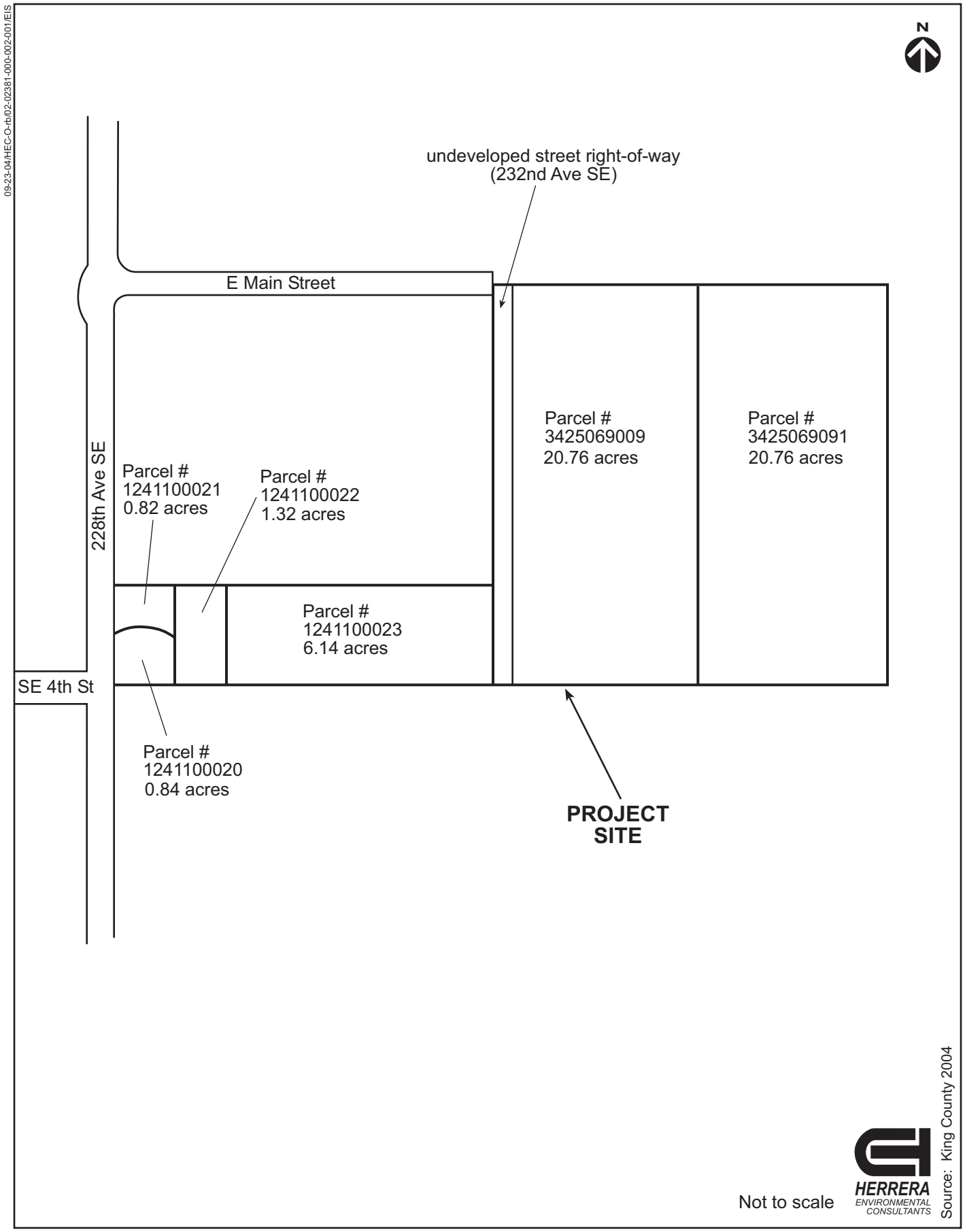

Figure 2. Site map of the Eastside Catholic High School project site in Sammamish, Washington.

approximately 1,700 spectators, a baseball diamond, a soccer field, and tennis courts. Under this alternative, 487 parking spaces would be provided, primarily in three parking areas.

Access to the site would be as described for Alternative 1.

The existing wetlands and wetland buffers that bisect the site would remain largely intact (see the section "Plants and Animals" in Part 3 of the draft EIS), and the existing vegetation would be augmented with new plantings. Stormwater runoff from the site would be detained and treated in four underground detention vaults and two wet ponds, with discharge to existing surface water bodies west and north of the site.

Alternative 3: 1,200-Student Middle School/High School

Alternative 3, the proponent's preferred alternative, includes the construction of an approximately 205,000-square-foot building with classrooms, an auditorium, a gymnasium, and other school facilities to serve approximately 1,200 students, including 300 to 400 middle school students and 800 to 900 high school students. The campus would include an outdoor stadium capable of seating approximately 1,500 spectators, a baseball diamond, a soccer field, and tennis courts. Under this alternative, 505 parking spaces would be provided, primarily in three areas on the west side of the school (Figure 3).

Similar to Alternatives 1 and 2, access to the site would be via a private road connecting to a proposed new intersection at SE Fourth Street and 228th Avenue SE. The access road would be aligned with SE Fourth Street, consisting of four lanes near the intersection and then tapering to two lanes after it enters the site. The access road would cross the stream on the Lein farm property via a new bridge. The existing stream crossing via the gravel driveway north of the bridge would be retained for maintenance and emergency access only. The internal driveway and parking areas are designed to provide circulation for cars and buses that are dropping off and picking up students.

Similar to Alternatives 1 and 2, the five existing homes located on the project site would be demolished.

The wetlands and wetland buffers that bisect the site would remain largely intact (see the section "Plants and Animals" in Part 2 of this final EIS), and the existing vegetation would be augmented with new plantings. ECHS is proposing to compensate for 10,365 square feet of wetland fill and alteration with 41,500 square feet of mitigation in the form of wetland enhancement. Stormwater runoff from the school campus would be detained and treated in one new surface detention/wet pond, one new surface detention pond, one new surface wet pond, and one underground detention vault, with discharge to existing surface water bodies west and north of the project site.

No-Action Alternative

Under the No-Action Alternative, the project site would remain open space and could continue to be used for horse pasture. Existing wetlands and wetland buffers would continue to be subjected to trampling by horses. Under current zoning, the property owners could propose development with single-family detached housing to a density of six dwelling units per acre. However, such development would require approvals related to issues such as wetland and stream buffer protection, water availability, property subdivision, and street right-of-way; development to the full density allowed in the zone might not be achievable. For purposes of the analysis in this EIS, the site in its current state and use constitutes the No-Action Alternative.

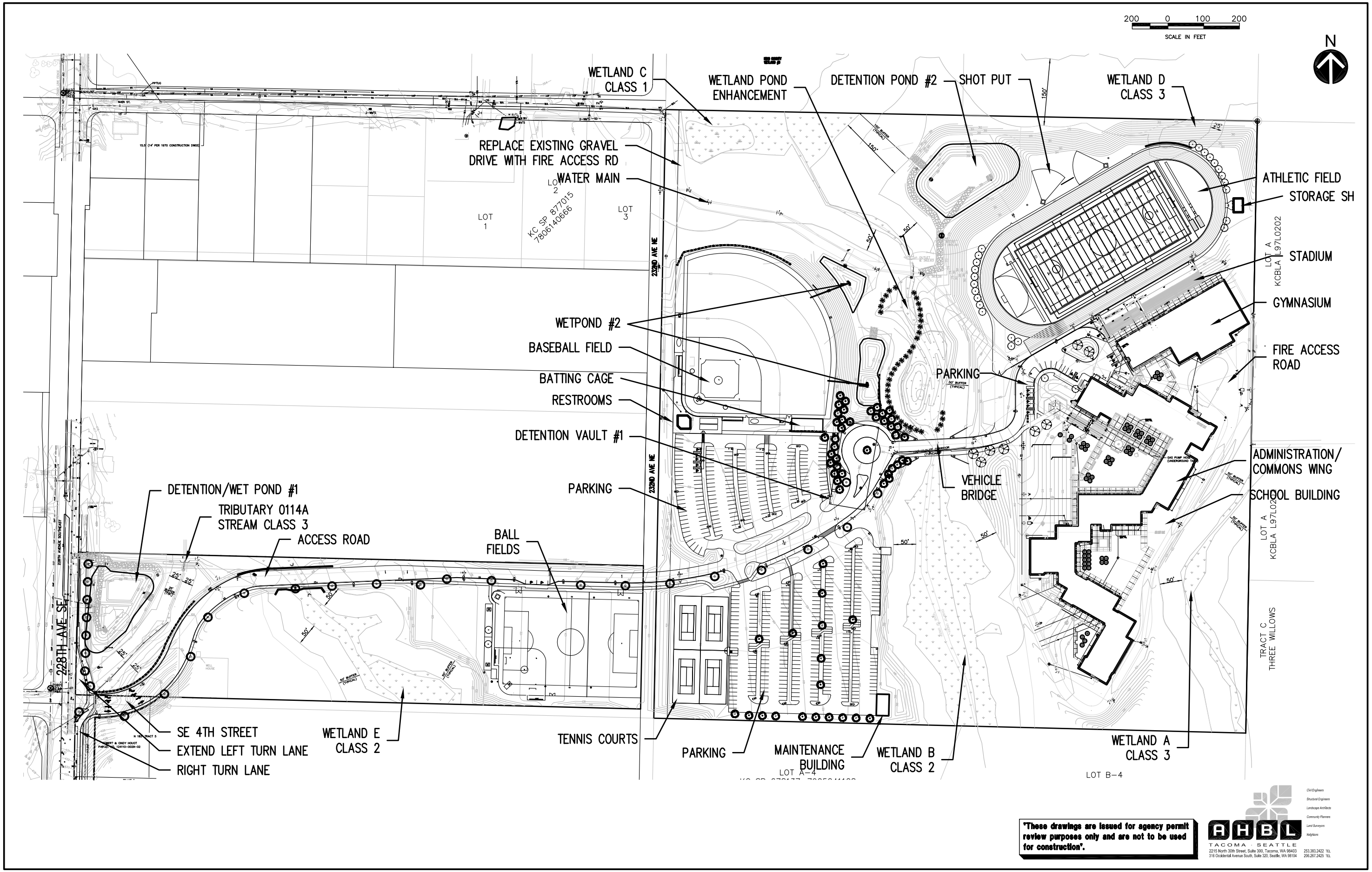

Figure 3. Alternative 3 (1,200-student school) for the Eastside Catholic High School project.

Summary of Environmental Impacts

This section summarizes the impacts, mitigation measures, and significant unavoidable adverse impacts expected under the alternatives considered in the EIS. The summary is organized by the various elements of the environment that were evaluated.

Water Resources

George Davis Creek, some of its tributaries, and the buffer of King County Wetland 9 are located within the boundaries of the project site and could be affected by increased erosion and sedimentation, as well as small spills of hazardous materials used during construction. However, these impacts could be mitigated through proper use of appropriate best management practices (BMPs) during construction.

Because water quality and flow control requirements are the same for all three development alternatives, and similar stormwater control practices would be implemented under all three alternatives, the differences in potential impacts on water quality and runoff quantity between the alternatives are minor and are discussed below.

Implementation of any of the development alternatives (Alternative 1, 2, or 3) would result in a large increase in impervious surface area and a corresponding increase in stormwater runoff rates and volumes at the project site. Minor differences in the long-term hydrologic impacts of the development alternatives could be expected because of minor variations in the layout of the school buildings and grounds, including slight differences in new impervious surface area. In general, a larger impervious surface area on the site would result in a greater change in site runoff and ground water recharge characteristics. Both Alternative 2 and Alternative 3 would include the use of artificial turf in the stadium, which is considered impervious. Among the development alternatives, Alternative 3 would have the largest total area of impervious surfaces (14.87 acres) and therefore would result in the greatest impacts on surface water hydrology and ground water recharge. Alternative 1 would have the smallest total area of impervious surfaces (12.44 acres) and therefore would result in the least impacts on surface water hydrology and ground water recharge. Alternative 2 would have a smaller school but would use impervious artificial turf in the football field, and would have a total impervious area of 14.51 acres.

However, each of the development alternatives includes extensive measures to manage peak flow rates for the protection of George Davis Creek as required by the Sammamish Municipal Code (Sammamish 2004). Specifically, Level III stormwater detention facilities would be constructed in accordance with City of Sammamish requirements under each of the development alternatives (controlling peak flow rates and flow durations to replicate runoff discharge conditions that would occur with a mixture of forest, pasture, and wetlands on the site). These stormwater detention facilities should reduce the impacts of the increased runoff on downstream hydrology to insignificant levels. Whereas onsite ground water recharge would decrease because of the addition of new impervious surfaces, the overall recharge of water supply aquifers in the

area would remain essentially unchanged because any decrease in infiltration on the site would be offset by increased infiltration of surface water downstream, because George Davis Creek completely infiltrates into the ground downstream of the site.

Implementation of any of the development alternative would result in an increase in loading of various pollutants to the George Davis Creek system, despite the facilities established to mitigate water quality effects. In general, a greater area of pollution-generating impervious surface (parking lots, roadways, and driveways) correlates with a greater potential for long-term water quality impacts. Alternative 3 would likely result in greater long-term water quality impacts compared to the other two development alternatives because it would have the largest area of impervious surfaces subject to vehicle traffic (approximately 7 acres). Alternative 1 would have a slightly smaller area of pollution-generating impervious surfaces (5.5 acres) compared to Alternative 2 (5.6 acres) and therefore could be expected to result in the lowest level of long-term water quality impacts of the development alternatives. Large stormwater wet ponds sized and designed to meet the City of Sammamish sensitive lake protection standards would be constructed as the primary water quality mitigation measure under each of the development alternatives. These ponds would remove most of the pollutants in runoff from the impervious surface areas draining to them.

Each of the development alternatives would also have the potential for long-term water quality impacts due to runoff from sports fields and other pervious areas of the school grounds where turf grass and other landscaping is managed with chemicals and/or fertilizers. These pervious areas would not drain to the proposed stormwater treatment ponds. Differences among the development alternatives in terms of pervious surface impacts on water quality are harder to quantify. It is likely that all of the development alternatives would have a similar potential for water quality impacts associated with runoff from pervious surfaces on the site. Under each of the development alternatives, the project proponent proposes to implement a landscape management plan for sports fields and other pervious areas to greatly reduce the pollutant loading in site runoff, such as through limiting pesticide and fertilizer use.

The direct effects of all of the project site pollutant loadings on surface water quality would be small. Those pollutant loadings would initially be diluted to insignificant levels by runoff from other contributing areas of the watershed. However, the cumulative effect of development in the watershed on surface waters over time, in combination with development of the proposed project, could become significant.

None of the development alternatives should result in significant effects on recharge to ground water or ground water quality. According to the existing data, drinking water in deeper aquifers should be adequately protected under all of the project alternatives by the filtering capacity of the intervening soil layers.

No significant unavoidable adverse impacts related to water resources would occur as a direct result of any of the alternatives. Without additional mitigation for pollutant loading, the project could contribute cumulatively to significant impacts on surface water quality in George Davis Creek as other development occurs in the project vicinity.

Plants and Animals

The project site encompasses wetlands and riparian vegetation and is situated near a large, high-quality wetland system that provides habitat for diverse plant and animal species. Alternative 1 would result in greater overall temporary and permanent impacts on wetlands and wetland buffers compared to Alternative 2 or Alternative 3, primarily because of the use of more surface detention ponds constructed in wetland buffers in Alternative 1.

All three development alternatives would result in construction-phase impacts on wetlands and wetland buffers on the project site. Areas with temporary construction-phase impacts would be restored and replanted with native wetland or wetland buffer vegetation. Construction-phase impacts have the potential to increase sediment delivery to and particulate deposition into wetlands and streams. Increased noise and light may result in temporary impacts on wildlife species in the vicinity of the site. Alternative 1 would have a greater area of construction-phase impacts on both wetlands and wetland buffers than Alternative 2 and a greater area of construction-phase impacts on wetland buffers than Alternative 3. Alternative 3 would have the greatest area of construction-phase impacts on wetlands because of the proposed disturbance within Wetland B. Table 1 shows a summary of the construction-phase and long-term impacts to wetland and stream buffers under each alternative analyzed in the EIS.

Table 1. Summary of wetland and buffer impact areas.

	Alternative 1	Alternative 2	Alternative 3
Wetland Impacts			
Construction-Phase (square feet)	2,875	1,246	21,755
Long-Term (square feet)	8,176	8,501	8,878
Buffer Impacts			
Construction-Phase (square feet)	82,661	30,133	66,188
Long-Term (square feet)	120,210	34,282	19,677

Restoration and enhancement of the wetland and buffer areas would compensate for any temporary construction-phase impacts. Long-term impacts on wetlands and buffers will be mitigated through enhancement of existing wetlands in accordance with local, state, and federal requirements.

No significant unavoidable adverse impacts related to plants and animals would occur under any of the alternatives. Long-term impacts on plants and animals due to increased light and noise are not considered to be significant because of the high-quality habitat available north of the site and the lack of sensitive species using onsite habitats.

Land Use

With the exception of the areas occupied by the five private residences, the project site is largely pasture land and open space. Under each of the development alternatives the use would change, coincident with an introduction of new traffic, noise, and aesthetic impacts.

The proposed ECHS project would be compatible with the residential and commercial land uses in Sammamish. Under all the development alternatives, the project would comply with the goals and policies of the City's Comprehensive Plan (Sammamish 2003).

Alternative 1 would require a Director's determination to allow the proposed parking arrangement. The parking layout for Alternative 1 provides enough conventional parking spaces for daily demand but would use "stacked" parking (double-parking) for events, which is not allowed under the City parking design requirements. Under Alternatives 2 and 3, the proposed parking would meet both the parking requirements of the Sammamish Municipal Code (Sammamish 2004) and the expected demand.

Under all the development alternatives, a conditional use permit would be required. Conditions may be attached to this permit in order to ensure that any approved facilities comply with the City's land use policies and regulations.

Alternative 3 (1,200-student middle school/high school) would be similar to Alternative 1 in terms of size and intensity of use. Under Alternative 3, the high school student population would be smaller; therefore, there might be slightly fewer after-school activities, which include both indoor and outdoor athletic practices and spectator events, as compared to those that would be expected under Alternative 1 or Alternative 2.

No significant unavoidable adverse impacts related to land use would occur under any of the alternatives.

Transportation

The impacts resulting from any one of the development alternatives would include short-term increases in traffic to and from the project site during construction, long-term changes in trip distribution patterns, site access, intersection and traffic operations, and parking demand.

Alternative 1 is anticipated to generate approximately 925 trips during the AM peak hour, the busiest period of operation at the school. Approximately 760 trips are expected during special events. Site access is proposed via one access road, which would be the east leg of the SE Fourth Street/228th Avenue SE intersection. The intersection would be modified to a four-leg intersection with the proposed access road extending east of the intersection.

With some exceptions, all intersections would operate at level of service (LOS) D or better for all alternatives. Five intersections that would operate at LOS E or F under the No-Action Alternative would generally experience slight increases in delays with each of the development alternatives. During special events, the intersection at SE 24th Street/228th Avenue SE would be degraded to LOS E.

Under Alternative 1, parking demand is estimated to be 461 parking spaces for daily operations. Special event parking demand would be 522 spaces, which could be accommodated by means of the proposed overflow parking arrangement, which uses stacked parking. Stacked parking is not a permitted parking arrangement under the Sammamish Municipal Code (Sammamish 2004). A reduction in the minimum number of parking spaces may be requested provided the applicant demonstrates that the parking demand can be met with a reduced parking requirement. The proposed arrangement would, however, require a Director's determination to allow for a modified parking configuration to meet the parking requirement in the municipal code for events. If such a request is applied for and not approved, a modified proposal would be necessary to meet the minimum requirements of the municipal code.

Under Alternative 2, the impacts would be similar to those described for Alternative 1, with the exception of traffic volumes, which would be expected to be approximately 17 percent lower. While intersection and traffic operations were not evaluated for Alternative 2, the impacts are expected to be less, and parking demand could be accommodated without the need for overflow parking areas.

Under Alternative 3, the impacts would be slightly higher than those resulting from Alternative 1 during the AM peak hour due to a higher percentage of students being dropped off for the middle school. All other time periods would have impacts that are fairly comparable or less than those of Alternative 1. Alternative 3 is anticipated to generate approximately 1,020 trips during the AM peak hour. This is approximately 95 trips more than that under Alternative 1, most of which would be outbound trips due to more parent drop offs that leave the site. Site access would be exactly the same as that under Alternative 1, with overall operational delays that are slightly higher. Most of the added delay would occur on the westbound approach of the SE Fourth Street/228th Avenue SE intersection for vehicles trying to exit the site during the AM peak hour. The levels of service for offsite intersections would be the same as those under Alternative 1, with average delays that are slightly higher than those under Alternative 1. The mitigation measures identified for Alternative 1 would also mitigate the impacts resulting from Alternative 3.

A second access point at East Main Street was identified in the draft EIS as Option I, which could be required under any of the development alternatives but is not proposed by ECHS. The need for secondary access for emergency vehicles during peak use hours was subsequently examined by City of Sammamish fire officials and the police chief, who have determined that secondary access will be required for any of the three development alternatives. Mitigation may involve widening and paving portions of East Main Street, as well as other improvements to meet City standards.

Under Alternative 3, the level of service at one intersection (Inglewood Hill Road/East Lake Sammamish Parkway) would be degraded to less than the City's level of service standards. The substandard level of service at this intersection could be mitigated by means of a signal timing adjustment or by the coordination of game schedules by the local high schools to avoid concurrent high-attendance sporting or special events. Although coordination with other schools would be the most effective means of mitigating the impact, it cannot be required of other schools and thus may not occur.

Under the No-Action Alternative, no traffic impacts would occur.

No significant unavoidable adverse impacts are expected if the recommended mitigation is provided.