PROPOSED EMERGENCY DEPARTMENT/OPERATING ROOM (ED/OR) PROJECT

Addendum to the Final EIS for the Children's Hospital & Regional Medical Center Major Institution Master Plan

Prepared for:

City of Seattle
Department of Design, Construction & Land Use

January 30, 2003

URS

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This EIS Addendum has been prepared in compliance with the State Environmental Policy Act of 1971 (Chapter 43.21C, Revised Code of Washington); the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and Seattle's Environmental Policies and Procedures Code (Chapter 25.05, City of Seattle Municipal Code), which implement SEPA. Preparation of this EIS Addendum is the responsibility of the Seattle's Department of Design, Construction & Land Use (DCLU). In managing preparation of this EIS Addendum, DCLU has determined that this document has been prepared in a responsible manner using appropriate methodology and DCLU has directed the areas of research and analysis that were undertaken in preparation of this document.

Date of Issuance of this EIS Addendum.....January 30, 2003

Preface

The purpose of this EIS Addendum is to provide site-specific information for Children's Hospital & Regional Medical Center's (Children's) proposed *Emergency Department / Operating Room Project (ED/OR).*

This EIS Addendum adds information to the Draft and Final EISs that were prepared for Children's *Major Institution Master Plan.*[1] This EIS Addendum is not an authorization for an action, nor does it constitute a decision or a recommendation for action. This EIS Addendum will accompany the proposed *ED/OR Project* proposal through the City's review processes and be considered by City officials in making the necessary permitting/approval decisions regarding this proposed development, as noted on page i of the *Fact Sheet* to this EIS Addendum.

Elements of the environment that were analyzed in the Draft and Final EISs for Children's *Major Institution Master Plan* included the following:

- Air Quality
- Water/Stormwater Runoff
- Energy and Natural Resources
- Environmental Health/Noise
- Land Use/Population
- Light/Glare/Shadows
- Aesthetics
- Transportation
- Public Services and Facilities (Utilities)

The Draft EIS for the *Major Institution Master Plan* was issued in October 1992 and the Final EIS was issued in June 1993. The Final EIS provided clarification concerning the Draft EIS, based on the written comments and testimony received; incorporated new information that became available since the Draft EIS was issued; and responded to specific comments regarding the Draft EIS. The Draft and Final EIS for Children's *Major Institution Master Plan* are adopted for purposes of this environmental review.

This EIS Addendum provides additional site-specific information concerning the proposed *ED/OR Project.* The EIS Addendum is organized into three major sections. The *Fact Sheet* (starting on page i) provides an overview of the proposed project and location, permits required, and points of contact. *Section I* provides a summary of the proposed action and a comparison of the development proposed as part of the approved *Major Institution Master Plan. Section II* describes the *Proposed Action. Section III* provides additional information relative to the environmental impacts associated with the *Proposed Action.*

[1] Seattle, DCLU, 1992 and 1993 (refer to the *References* section of this EIS Addendum for the complete citation).

Fact Sheet

Name of Proposal	Children's Hospital & Regional Medical Center – *Emergency Department/Operating Rooms (ED/OR) Project*
Proponent	CHILDREN'S HOSPITAL & REGIONAL MEDICAL CENTER
Location	The *Proposed Action* is located in northeast Seattle on the 21.7-acre campus of Children's Hospital & Regional Medical Center. Specifically, the site of the proposed *ED/OR Project* is in the north-central portion of the campus.
Proposed Action	The *Proposed Action* is the development of the *ED/OR Project* to Children's Hospital & Regional Medical Center. The proposed *ED/OR Project* would be a three-story structure (above-grade) with one floor below-grade. The entire building would contain approximately 50,000 sq.ft. of floor area.[2] The ground floor would contain supply and equipment storage and support services; the upper three floors would contain examining rooms, offices and reception space. The proposed *ED/OR Project* would also require internal renovation of the existing emergency department (approx. 33,500 sq.ft.) to allow for more efficient emergency vehicle circulation.
Lead Agency	City of Seattle, Department of Design, Construction & Land Use
Responsible Official	Diane Sigumura, Acting Director City of Seattle, Department of Design, Construction & Land Use Key Tower, 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-7195
Contact Person	Carol I. Proud Senior Land Use Planner Department of Design, Construction & Land Use Key Tower, 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-7195 Telephone: (206) 233-7197 Fax: (206) 386-4039

[2] This encompasses all gross floor area in the building including the area below-grade and mechanical spaces.

Addendum; SEPA Documents Adopted

This EIS Addendum adds information to the Draft and Final EISs for the Children's Hospital & Regional Medical Center's *Major Institution Master Plan*[3] (MIMP). In addition to the Draft and Final EISs for Children's MIMP, the following SEPA documents are adopted:

EIS Addendum – *A and B-Wing Bed Renovations*[4]
EIS Addendum – *Proposed Parking Garage*[5]
EIS Addendum – *Proposed Inpatient Wing*[6]

Master Use Permit

Project No. 2206214

Required Approvals

Preliminary investigation indicates that the following permits and/or approvals could be required for the *Proposed Action.* Additional permits/approvals may be identified during the review process.

- ***State of Washington***
  Department of Health

  Labor & Industries
  Elevator Permits

- ***Puget Sound Clean Air Agency***

  - Asbestos Survey
  - Demolition Permit

- ***City of Seattle***
  Department of Design, Construction & Land Use
  permits/approvals associated with the proposed project:

  - Master Use Permit
  - Grading Permit/Shoring Permit
  - Demolition Permit
  - Building Permit
  - Mechanical Permits
  - Electrical Permits
  - Occupancy Permit
  - Drainage Control Plan Review and Approval[7]

  Seattle-King County Department of Health
  - Plumbing Permits

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3 Op cit
4 Seattle, 1996
5 Seattle, 2001
6 Seattle, 2002
7 SMC 22.802.020

Authors and Principal Contributors to this EIS Addendum

The *ED/OR Project* EIS Addendum has been prepared under the direction of the Department of Design, Construction & Land Use. Research and analysis was provided by the following consulting firms:

- **URS Corporation**
- **Huckell/Weinman Associates, Inc.**

Location of Background Data

City of Seattle
Department of Design, Construction & Land Use
City of Seattle, Department of Design, Construction & Land Use
Key Tower, 700 Fifth Avenue, Suite 2000
Seattle, WA 98104-7195

URS Corporation
1501 Fourth Avenue, Suite 1400
Seattle, WA 98101-1616

Date of Issuance of this EIS Addendum

January 30, 2003

Date of Issuance of the Final EIS

June 17, 1993

Date of Issuance of the Draft EIS

October 15, 1992

Availability/Cost of the EIS Addendum

Copies of this EIS Addendum have been distributed to agencies, organizations and individuals noted on the Distribution List (*Appendix A* to this document).

Copies of this document are also available for review at the Seattle Dept. of Design, Construction & Land Use Public Resource Center, which is located in Suite 2000 of Key Tower in Downtown Seattle (700 Fifth Avenue) and at the following branches of the Seattle Public Library

- Central Library (800 Pike Street [temporary location]
- North East branch (6801 – 35th Avenue NE).

A limited number of complementary copies of this EIS Addendum may be obtained from the Dept. of Design, Construction & Land Use Public Resource Center while the supply lasts. Additional copies may be purchased at Dept. of Design, Construction & Land Use Public Resource Center for the cost of reproduction.

Table of Contents

List of Tables

List of Figures

Section I – Project Summary

A. PROPONENT AND PROJECT LOCATION

Proponent

The proposed *Emergency Department / Operating Room Project (ED/OR)* is sponsored by Children's Hospital & Regional Medical Center (Children's).

Project Location

The site of the proposed *ED/OR Project* is on the campus of Children's, which is located in northeast Seattle. The proposed *ED/OR Project* would be located in the north-central area of the campus, immediately north of D-Wing, where the current emergency room entrance is located; the proposed *ED/OR Project* would also encompass the Hospital's existing F-Wing.

B. RELATIONSHIP OF PROPOSED PROJECT TO APPROVED MAJOR INSTITUTION MASTER PLAN

In September 1994, the Seattle City Council adopted Children's *Major Institution Master Plan* (MIMP) (Ord. #117319). As approved, the plan is intended to provide a long-range facility plan to guide Children's programmatic and capital decision-making processes for the next 15 years. The MIMP established the standards, general location and size of development that is authorized. The MIMP included 16 projects totaling 262,630 square feet of additional space.

The proposed ED/OR Project was identified in the MIMP as Emergency/Surgery Expansion and incorporates projects identified in the MIMP as MIMP projects 9, 12 and 12A. The purpose of those projects was to provide space for the clinic, examining rooms, offices and storage space to meet patient needs.

Table S-1 summarizes the amount of square footage that was approved in the MIMP, the square footage and percentage that has been constructed or is under construction to date, the amount proposed for the *ED/OR Project*, and the amount remaining for future development. Table S-2 provides a detailed summary of the projects that were identified as part of the MIMP, those that have been constructed or are under construction, the proposed *ED/OR Project*, and the undeveloped MIMP square footage.

Figure 1 follows the tables and shows the location of the projects identified in the Master Plan.

The *ED/OR Project* is comprised of MIMP-approved projects #9, #12 and #12A (see Table S-2 in Section I). Project #9 was identified in the MIMP as the Diagnostic and Treatment (D & T) South-Wing expansion. Expanding the D & T South-Wing would provide growth for D & T services and allow space for administrative functions currently occupying the B-Wing. The first floor of the B-Wing could then be renovated for inpatient care. A corridor connection linking the D-Wing and the D & T South-Wing expansion would provide an additional "staff" oriented east-west circulation spine.

Project #12 and #12A is the D-Wing Infill expansion. Building two more floors above the planned ER/D-Court Infill would provide additional space for ambulatory care, diagnostic, and

therapeutic services. A portion of D-Wing Level 3 (Project #12A) would be finished for central storage and materials management.

	square footage (BGSF[8])
Approved MIMP Project #9 – D & T South	46,400
Approved MIMP Project #12 – D Wing Infill	7,500
Approved MIMP Project #12A – D-Wing Level 3	1,900
Total Authorized	55,800
Proposed *ED/OR Project*	**50,000**
(Demolition and replacement	20,206)
(Net additional area	29,794)

Demolition required for building the ED/OR Project is anticipated to be 20,206 square feet. Portions of D-Wing (2,738 square feet) and F-Wing (17,468 square feet) will be demolished. The 20,206 square feet of demolished space will be replaced plus an additional 29,794 square will be built, for a total of 50,000 square feet.

With the proposed ED/OR Project, the area that has been constructed, is under construction, or is proposed for construction would total 173,735 square feet, or 60 percent of the allowable area.

Table S-1
MIMP Development To Date

	Approved in MIMP	Constructed or Under Construction	Proposed ED/OR Project	Future Development
Square Footage	287,295	123,735	50,000	113,560
Percentage of MIMP Approved	(100%)	43%	17%	40%
Percentage of area constructed or proposed to date		60%		
Percentage remaining for future development				40%

Details of MIMP development are summarized in Table S-2. The summary of calculations associated with the proposed ED/OR Project, indicates that the proposed project was contemplated by and is consistent with Children's approved MIMP as shown in Table S-2.

[8] Building Gross Square Footage

Table S-2
Summary of MIMP Development

Project Name	MIMP BGSF	MIMP Demolition	Replacement	Additional Demolition	Constructed or Under Construction	Proposed ED/OR Project	Undeveloped MIMP Square Footage
Miscellaneous Minor Projects (completed)							
Plaza Level (1996)					9,350		
Level 1 (1996)					2,200		
Level 4 (1996)					3,450		
Level 4 (1999)					335		
Level 5 (1999)					3,200		
Window Push Out					1,000		
Bike Shelter					400		
Total Minor Projects:					**19,935**		
Inpatient Bed Building (under construction)							
MIMP Project # 10	59,000						
MIMP Project #11	15,100						
Total	**74,100**						
Square footage above grade[a]					85,245[b]		
Inpatient Bed Building Actual					**103,800**		
Total Constructed or Under Construction					**123,735**		
Emergency / Surgery Expansion (proposed and submitted)							
MIMP Project # 9	46,400						
MIMP Project # 12	7,500						
MIMP Project # 12A	1,900						
D - Wing Demolition and replacement				2,738			
MIMP Project #13 F - Wing Demolition and replacement		-15,000	15,000	2,468			
Total	**55,800**						
Emergency / Surgery Expansion Actual						**50,000**	

[a] SMC 23.69.035 B.3 Below grade development is "exempt" for purposes of changes in the approved MIMP (SMC 23.69.035B5) but it is counted against the total authorized MIMP development (SMC 23.69.035B.)

[b] SMC 23.69.035B3. An addition to a structure not yet constructed but approved in the master plan that is no greater than twenty percent (20%) of the gross floor area of that structure or twenty thousand (20,000) square feet, whichever is less is an exempt change.

Table S-2 (Continued)
Summary of MIMP Development

Project Name	MIMP BGSF	MIMP Demolition	Replacement	Additional Demolition	Constructed or Under Construction	Proposed ED/OR Project	Undeveloped MIMP Square Footage
Future Development							
MIMP Project #1	8,500						
MIMP Project #6	47,000						
MIMP Project # 6B	9,000						
MIMP Project # 8	2,880						
MIMP Project # 10A	2,400						
MIMP Project # 5	6,000						
MIMP Project # 6A	24,000						
MIMP Project # 14	47,100						
G - Wing Demolition and Replacement		-33,250					
MIMP Project # 14A	30,900						
MIMP Project # 14B	3,200						
Total	**180,980**						**113,560**[d]
Total Construction Approved in MIMP	**310,880**				123,735	50,000	113,560[d]
Less Original Demolition per MIMP		**-48,250**					
Net Construction adjusted for Demolition per MIMP		**262,630**					
Adjustments to MIMP SF			**15,000**				
Exemption for Mechanical Equipment Area Footnote c			**4,459**[c]				
Adjustments to MIMP SF				**5,206**			
Allowed SF =	**287,295**						
Total of all Construction allowed per MIMP (including demolition)	**287,295**				123,735	50,000	113,560[d]

[c] MIMP Findings Conclusions and Decision of the City Council, Development Standards Details, exempts three and one-half percent (3 1/2 percent) of the gross floor area for mechanical equipment.
[d] Does not include square footage of demolition and replacement.

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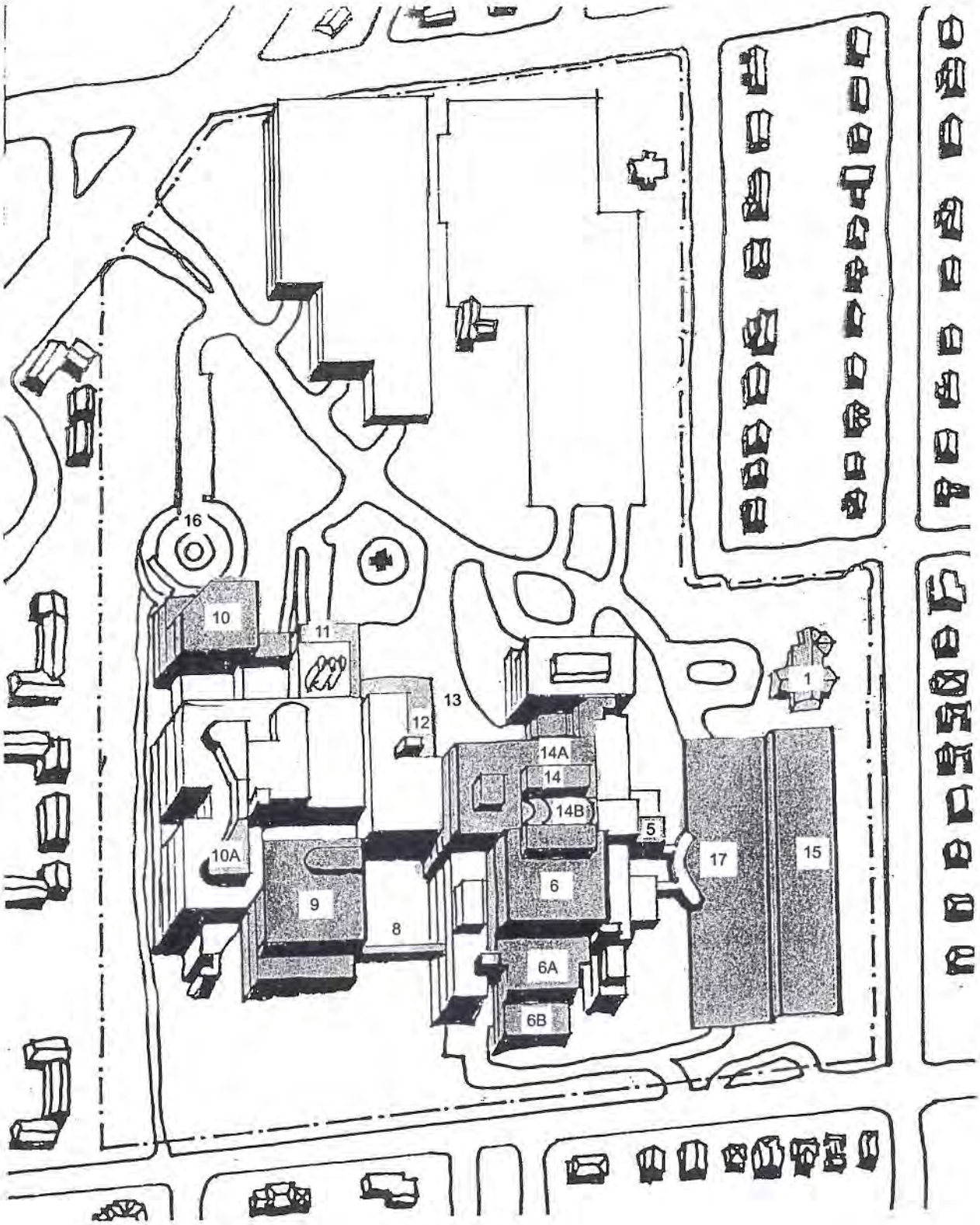


Source: HKS, Inc.

Figure 1
Projects Identified in the Major Institution Plan

C. SUMMARY OF SITE-SPECIFIC ENVIRONMENTAL INFORMATION

A summary comparing potential environmental impacts disclosed in the EIS and additional site-specific information for the *ED/OR Project* Addendum is provided in Table S-3. It should be noted than these impacts can be mitigated to a level that is less than significant. Mitigation measures are listed in Table S-4.

Table S-3
Summary Comparison of Impacts Disclosed in EIS with Site-Specific Information

Environmental Element	Construction and Operation Phases	Impacts Previously Disclosed in EIS	Site-Specific Information Provided in this Addendum
Air Quality	Construction	A temporary increase in particulates related to site preparation and new building construction was anticipated and mitigated.	No new or significantly different impacts have been identified.
	Operation	The increase in vehicle emissions was not expected to have a significant affect on air quality.	No new or significantly different impacts have been identified.
Water	Construction	With implementation of proposed mitigation measures, no significant impacts are anticipated with regard to surface water. No groundwater impacts are anticipated.	No new or significantly different impacts have been identified.
	Operation	No impacts.	No new or significantly different impacts have been identified. The lot coverage for the *ED/OR Project* is roughly 39 percent less than the lot coverage assumed in the Draft EIS for projects #9, #12, and #12A.
Energy and Natural Resources	Construction	An increase will occur in consumption of natural resources during construction of approved MIMP projects.	No new or significantly different impacts have been identified.
	Operation	The proposed energy conservation measures, as well the Transportation Management Program, would likely reduce energy consumption, but would not eliminate it.	No new or significantly different impacts have been identified. The energy consumption estimated for the *ED/OR Project* level is approximately 15 percent less than the demand that was estimated for projects #9, #12 and #12A in the Draft EIS.
Environmental Health and Noise	Construction	The proposed project would result in temporary increases of noise levels. Construction noise levels would be within the applicable limits prescribed by the Seattle Noise Ordinance.	No new or significantly different impacts have been identified.
	Operation	No noise impacts anticipated. Disposal of toxic/hazardous materials would occur pursuant to all applicable federal, state, and local requirements.	No new or significantly different impacts have been identified.

Table S-3 (Continued)
Summary Comparison of Impacts Disclosed in EIS with Site-Specific Information

Environmental Element	Construction and Operation Phases	Impacts Previously Disclosed in EIS	Site-Specific Information Provided in this Addendum
Land Use/ Population	Construction	No impacts.	No new or significantly different impacts have been identified.
	Operation	No impacts.	No new or significantly different impacts have been identified.
Light/Glare/ Shadows	Construction	No impacts.	No new or significantly different impacts have been identified.
	Operation	Spillover site lighting may negatively impact nearby residences. Potential glare impacts from Project #9 would be most noticeable to residents on NE 45th Street during winter.	No new or significantly different impacts have been identified. In general, it is anticipated that the proposed *ED/OR Project* would result in far less light, glare and shadow impacts than were described in the Draft and Final EISs when Project #9 was proposed to be constructed south of the existing C-Wing. Because of the central location on Children's campus and the height of the proposed addition, no significant off-campus shadow impacts are anticipated.
Aesthetics	Construction	Short-term temporary impacts due to construction activities may occur.	No new or significantly different impacts have been identified.
	Operation	The visual appearance of Children's campus will be altered by the proposed MIMP projects in that new buildings would be larger than existed previously and would contribute to the cumulative impact. No views from public places, including landmarks, public parks, or designated view corridors, would be impacted by Children's proposed projects.	No new or significantly different impacts have been identified.

Table S-3 (Continued)
Summary Comparison of Impacts Disclosed in EIS with Site-Specific Information

Environmental Element	Construction and Operation Phases	Impacts Previously Disclosed in EIS	Site-Specific Information Provided in this Addendum
Transportation and Parking	Construction	Potential construction impacts identified in the EIS included: • Arrival, departure, and parking of construction worker vehicles; • Delivery of construction materials; • Removal of debris associated with demolition activity; • Delivery of construction vehicles and machinery; and • Delivery or removal of material associated with fill or excavation activity.	More detail has been provided in *Section III* of this Addendum for potential construction impacts. No new or significantly different impacts have been identified.
	Operation - Traffic Volumes	Refer to Draft EIS for traffic volumes or Table 1 of this Addendum.	Cumulative traffic (background plus project) is predicted to be lower than EIS estimates, except at one intersection, the intersection of NE 55th Street / 40th Avenue NE. AM peak hour volumes are predicted to 54 cars (or approximately 7 percent) higher than shown in the Draft EIS. This is primarily due to higher actual traffic counts for existing traffic levels (50 cars higher).
	Operation - Trip Generation	The Draft EIS provided trip generation forecasts of approximately 2,260 trips per day for the entire campus at build-out of the MIMP, including 153 trips during the AM peak hour and 167 trips during the PM peak hour.	The current forecast of Children's staff population for 2010 is 12 percent greater than that in the Draft EIS. Forecasts of total annual patients in 2010 have decreased by approximately 6 percent from that in the Draft EIS. Daily trips generated by the MIMP projects would be 195 trips more than noted in the Draft EIS. AM peak hour and PM peak hour trip generation would be 38 and 40 trips, respectively, more than indicated in the Draft EIS.

Table S-3 (Continued)
Summary Comparison of Impacts Disclosed in EIS with Site-Specific Information

Environmental Element	Construction and Operation Phases	Impacts Previously Disclosed in EIS	Site-Specific Information Provided in this Addendum
	Operation - Levels of Service	Three of the study intersections were forecast to operate at LOS F in 2010 with and without the Master Plan projects: NE 45th Street / Union Bay Place (capital improvements programmed for 2003 will improve the LOS at this intersection); NE 45th Street / Montlake Boulevard; and Sand Point Way / NE 50th Street. The other study intersections were forecast to operate at LOS E or better in 2010 with and without the project. The NE 55th Street/40th Avenue NE intersection was forecast to operate at LOS A in the AM peak hour and LOS D in the PM peak hour.	The three study intersections forecasted to operate at LOS F would still do so. Based on 2000 count data, 2010 traffic volumes at the NE 55th Street/40th Avenue NE intersection may be up to 7 percent higher than those identified in the EIS. The higher traffic volumes would result in LOS B in the AM peak hour and LOS E in the PM peak hour. This change in LOS is due to changes in background conditions and new data, not the proposed action.
	Operation - Helistop	No impacts.	No new or significantly different impacts have been identified.
	Operation - Transportation Management Plan	The purpose of the TMP is to maintain the number of eligible day shift hospital employees commuting in single occupant vehicles (SOVs) to 50 percent or less and to help mitigate potential impacts that would be generated by the MIMP projects.	The results of a survey conducted in 2000, indicated that approximately 50 percent of the employees covered by the TMP were commuting in SOVs. On-going monitoring since that time indicates that Children's continues to meet or exceed the goal.
	Operation - Parking	Parking demand forecasts in the Draft EIS were: Staff 177, Physicians 51, and Patients/Visitors 185.	Parking demand forecasts have increased for staff and slightly decreased for patients, resulting in greater demand.
Public Services and Utilities	Construction	Demand for fire protection and prevention services would increase during construction phases and during project operation.	No new or significantly different impacts have been identified.

Table S-3 (Continued)
Summary Comparison of Impacts Disclosed in EIS with Site-Specific Information

Environmental Element	Construction and Operation Phases	Impacts Previously Disclosed in EIS	Site-Specific Information Provided in this Addendum
	Operation	No significant impacts to police services would occur as a result of proposed projects under the MIMP. While Fire Department service impacts as a result of the MIMP are not anticipated to be significant, they could contribute to cumulative impacts. Storm water runoff and water consumption are expected to increase.	No new or significantly different impacts have been identified.

Table S-4
Summary of Mitigation Measures

Environmental Element	Mitigation Measures
Air Quality	*Construction* • Children's will participate in project review with the Puget Sound Clean Air Agency (PSCAA). • The construction contractor(s) will be required to comply with PSCAA's Regulation I, Section 9.15, which requires reasonable precautions to avoid dust emissions. • Children's will require contractors to use electrical, non-CO-producing equipment, whenever possible. • During construction, exposed soils and debris will be sprayed with water or other dust suppressants to reduce dust; truck wheels and undercarriages will be brushed/washed or pressure-sprayed before leaving the site; quarry spall areas[9] will be provided on-site;[10] and truck loads and routes will be monitored to minimize impacts. • The use of well-maintained equipment will reduce emissions from construction equipment and trucks. • Prolonged periods of vehicle idling and engine-powered equipment will be avoided to reduce emissions. • Delivery of materials that are transported by truck to and from the project area will be scheduled to minimize congestion during peak travel times on adjacent City streets. This will minimize secondary air quality impacts that would otherwise be caused by traffic having to travel at reduced speeds. • The existing asphalt between the building and the helistop will remain during construction and will be cleaned and washed on a regular basis. • Any exposed slopes/dirt will be covered with sheets of plastic. • Perimeter railings around the new building will have mesh partitioning to prevent movement of debris during helicopter landings. *Building Operation* • Continued implementation of the Children's Transportation Management Plan (TMP) will reduce air quality impacts related to longer-term vehicle use. • "State-of-the-art" mechanical venting systems from Children's facilities will be utilized to minimize potential air quality impacts. • Leaves and sticks and natural vegetation on and around the helistop will continue to be picked up on a regular basis.

[9] Quarry spalls are large aggregate that earth-moving trucks would travel over to loosen material on truck tires and the undercarriage before a truck departs the project site.
[10] EIS Addendum for the *Proposed Parking Garage* (p. 30).

Table S-4 (Continued)
Summary of Mitigation Measures

Environmental Element	Mitigation Measures
Water	*Construction* • Children's will comply with all applicable requirements related to surface water runoff control and water quality including the Seattle Stormwater, Grading and Drainage Control Code (SMC. 22.800). • A Comprehensive Drainage Control Plan, including short-term plans during construction phases will be prepared consistent with City requirements. Specific measures in the Comprehensive Drainage Control Plan could include oil/water separators, additional stormwater retention/detention, and provision of catch basins with clean-outs. • Temporary sedimentation collection facilities will be provided and maintained to ensure that sediment or other hazardous material does not enter the storm drainage system. • The footing drainage system and the roof downspout system will not be interconnected unless such connection is at least one foot below the footing drainage and downslope of the building foundation. *Building Operation* • Water conservation programs will continue to be discussed with Seattle Public Utilities, evaluated by Children's, and implemented, as appropriate.
Energy and Natural Resources	*Construction* • Children's will comply with all applicable requirements of the Seattle Energy Code, specifically the requirements for major projects. • Seattle City Light's "Smart Design" program will be utilized by Children's. • The comprehensive energy analysis requirements of Director's Rule 5-92 will be provided. *Building Operation* • Children's will work with the City regarding physical plant system improvements to select the most appropriate energy conservation mitigation measures. • Children's will continue its recycling programs to reduce energy impacts related to the manufacture and disposal of materials.

Table S-4 (Continued)
Summary of Mitigation Measures

Environmental Element	Mitigation Measures
Environmental Health and Noise	*Construction* • Children's will comply with provisions of Seattle's Noise Ordinance (SMC 25.08). • Outside construction activity associated with the proposed *ED/OR Project* will be limited to weekdays between 8 AM and 5 PM, excluding all holidays observed by the construction trades. • Children's will require contractors to minimize construction noise and vibration impacts by requiring shielding of noise equipment. • Acoustical or enclosures will be provided, as needed. • Electric rather than diesel or gas-powered machinery will be used, where practical. • If pneumatic tools are used, such tools will be those pre-fitted by the manufacturer with mufflers equal to those manufactured by Hushpower or Nicholson. • Mufflers will be used on all other internal combustion engine-driven equipment. • Building components will be assembled off-site, where practical. • Concrete will be mixed off-site. • Noisy equipment will be kept as far as possible from the site boundaries, whenever possible; • Idling equipment will be turned off. • Construction traffic will be routed away from residential areas, where possible. • Children's will comply with applicable requirements related to asbestos and hazardous substances. • Children's will comply with applicable requirements related to toxic/hazardous wastes. *Building Operation* • Children's will comply with provisions of Seattle's Noise Ordinance (SMC 25.08). • Venting, fans and other equipment will be located away from noise sensitive receptors to the extent possible. • Contractors will be required to maintain delivery vehicles in good operating condition (particularly brakes and mufflers) such that they meet Seattle's Noise Ordinance (SMC 25.08.430) limitations concerning noise levels for individual vehicles. • Packaged air handling units or injection-type cooling towers will be used, with properly-designed acoustical enclosures. • Licensed contractors will continue to be used to transport and dispose of toxic/hazardous materials. • Children's will restrict all deliveries, garbage pick-up and other large truck trips, to between the hours of 7:30 a.m. and 6:00 p.m., except such of these trips that are made to the designated loading and unloading dock in the center of the campus core. This restriction does not apply to medical emergency vehicles.

Table S-4 (Continued)
Summary of Mitigation Measures

Environmental Element	Mitigation Measures
Land Use/Population	*Construction* • No specific construction-related mitigation is necessary relative to *Land Use/Population*. *Building Operation* • Children's will comply with the intent and requirements of the City's Major Institution policies, the City's Land Use Code, and development standards that were approved as part of the MIMP. • Work shifts will be staggered to help reduce operational employment population increases. • Children's will continue to coordinate with the City, the University of Washington and neighborhood groups to help address cumulative impacts and assist in joint mitigation.
Light/Glare/Shadows	*Construction* • Construction-related lighting will be provided as necessary for safety. Such lighting will be directed toward functions at the job site and away from nearby residences. *Building Operation* • Building design will incorporate window recesses/overhangs and façade modulation. • Nighttime illumination of the site and selected buildings will be restricted and provided only when function or safety requires it. • Interior areas not in use will have lighting reduced to the minimum allowable level. • Light from vehicle traffic associated with the *ED/OR Project* will be shielded to the greatest extent possible by the surrounding buildings and building overhang. • Lighting fixtures will provide down-lighting or be oriented away from nearby residences. • Landscaping will be provided to minimize off-site light spillage.
Aesthetics	*Construction* No specific construction-related mitigation is necessary relative to *Aesthetics*. *Building Operation* • Scale-reducing elements, particularly at areas exposed to people activity (e.g., building entrances, adjacent to walkways, places of high visibility) have been identified and encouraged during project design. • Pedestrian amenities will be provided as site improvements. • Landscaping will be provided for pedestrian interest, scale and building contrast.

Table S-4 (Continued)
Summary of Mitigation Measures

Environmental Element	Mitigation Measures
Transportation and Parking	*Construction* • Contractors will be required to direct that all construction worker vehicles be parked in a remote off-site parking lot or in a temporary on-site parking area. • Construction activities will be scheduled so that the most intensive activities in terms of construction traffic are spread out over time. • Safe pedestrian and vehicular circulation will be provided adjacent to the construction site through the use of temporary walkways, signs, and manual traffic control (flaggers). *Building Operation* • Children's TMP will continue to be re-evaluated, enforced and augmented. • Hospital employees are prohibited from parking on neighborhood streets and compliance with this provision will remain a condition of employment.
Public Services and Utilities	*Construction and Building Operation* • Building design will provide adequate exterior lighting and lines of sight. • Where appropriate, transparent security screening will be provided rather than opaque walls. • Building design is such that hiding places for criminal activity has been minimized. • The proposed *ED/OR Project* has been designed to comply with appropriate fire and life safety code provisions. • Children's will continue its water conservation programs – both in grounds maintenance and facility operations. • Children's will aggressively continue implementation of its waste reduction programs and evaluate any new opportunities.

Section II – Project Description

A. PROJECT PROPONENT

The project proponent for the proposed *Emergency Department / Operating Room Project (ED/OR)* is Children's Hospital & Regional Medical Center (Children's).

B. PROJECT LOCATION, CAMPUS ACCESS AND PARKING

Project Location

The site of the proposed *ED/OR Project* is on the campus of Children's Hospital & Regional Medical Center, which is located in northeast Seattle (see Figure 2). The campus comprises approximately 21.7 acres, bounded by NE 50th and NE 47th Streets on the north, NE 45th Street on the south and 44th Avenue NE and 45th Avenue NE on the east. The campus extends roughly 1,300 feet in a north-south direction and 900 feet in an east-west direction. An area of approximately 200 lineal feet in the northwest corner of the campus borders Sand Point Way NE.

As shown in Figure 3, Children's building complex is situated in the south-half of the campus, with parking on the northern and eastern portions of the campus. The entire complex contains approximately 664,825 sq.ft. of gross floor area and includes the hospital's admitting area, clinics, patient rooms, surgery center, emergency rooms, and ancillary support services. The building complex is referred to as the Pavilion and Wings A through I.

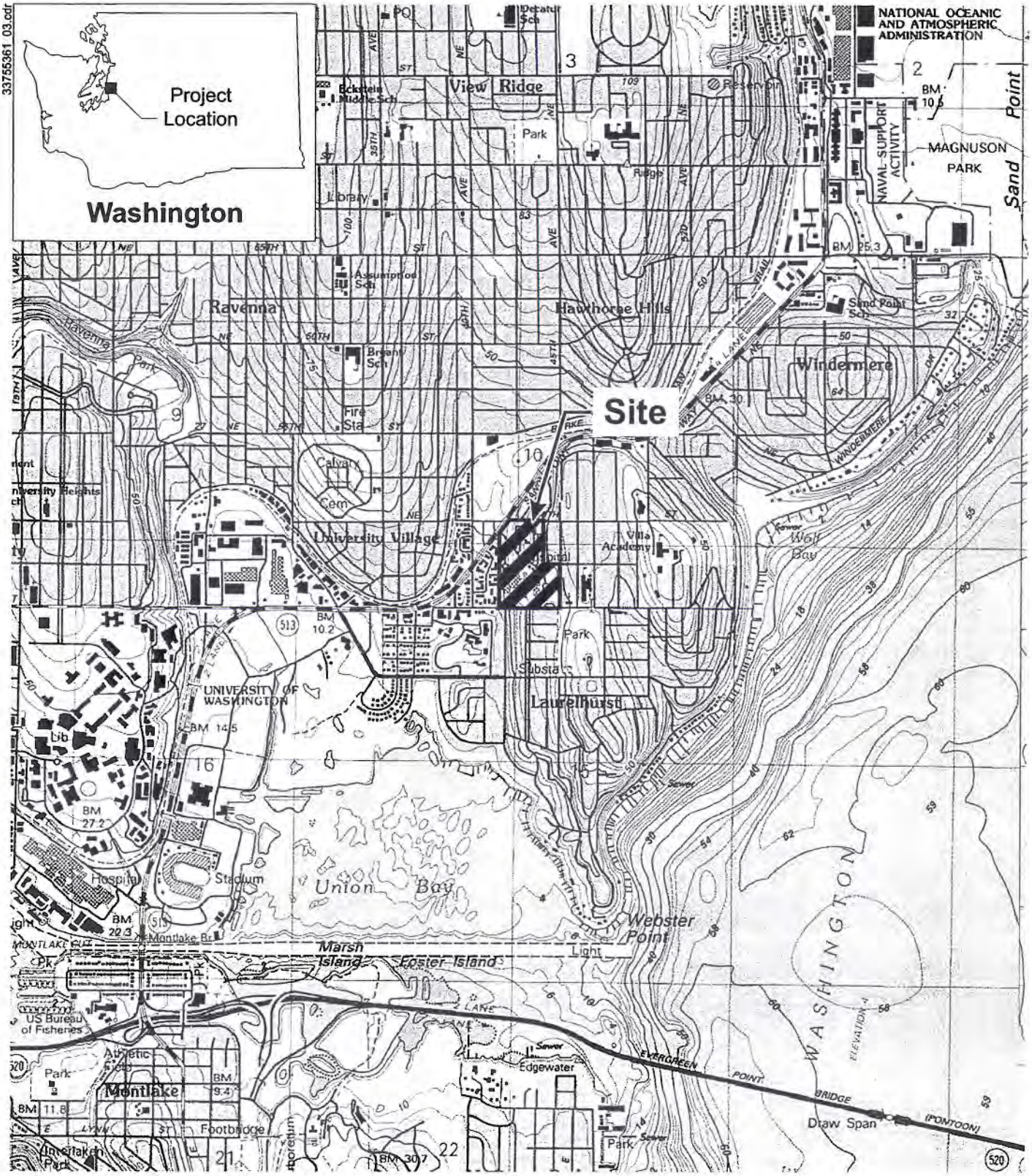
The proposed *ED/OR Project* would be located in the south-central area of the campus, immediately east of C-North-Wing, where the current emergency room entrance is located (Figures 3 and 4). As shown on Figure 4, the site of the proposed *ED/OR Project* encompasses a portion of the existing emergency entrance to the Hospital, together with the Hospital's existing F-Wing.

Campus Access

Vehicular access to the campus is via one main internal access roadway that extends from Sand Point Way NE in the northwest corner of the campus to the southeast corner of campus (Figure 3). This roadway, referred to as Penny Drive, provides internal vehicle access to the entire campus.

Three King County/Metro bus loading and unloading areas are located on or adjacent to campus – two are on NE 45th Street and one is on Sand Point Way NE.

There are four public pedestrian entrances to the hospital complex. They include: Inpatient Entrance (northwest corner of the building), Emergency Entrance (north-central portion of the building), Airplane Entrance (northeast corner of the building), and Whale Entrance (east-side of the building).



Map created with TOPO!™ © 1997 Wildflower Productions, www.topo.com, based on USGS topographic map

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Approximate Scale in Miles

Figure 2
Vicinity Map

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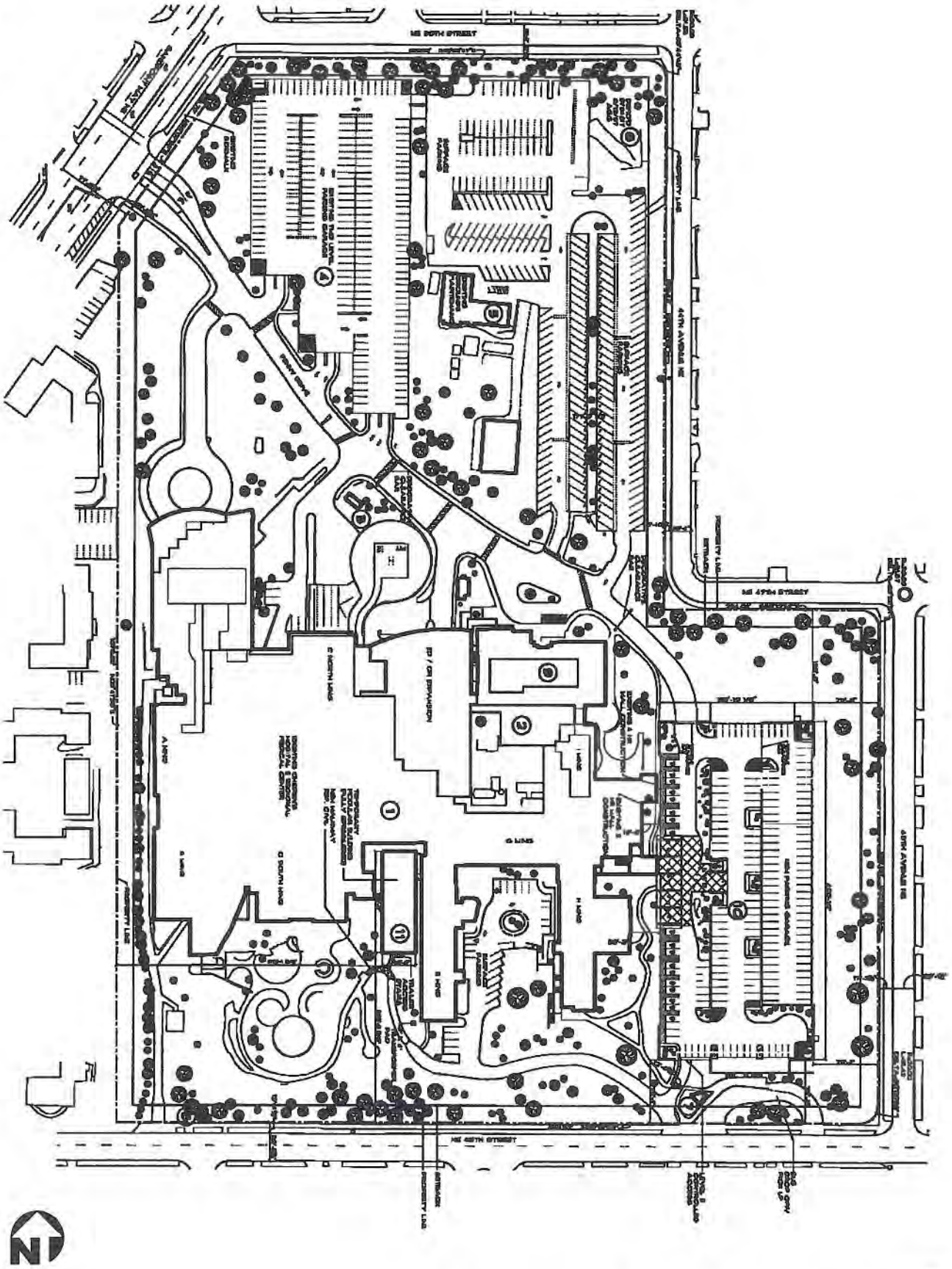

Source: HKS, Inc.

Figure 3
Campus Plan with Proposed Development

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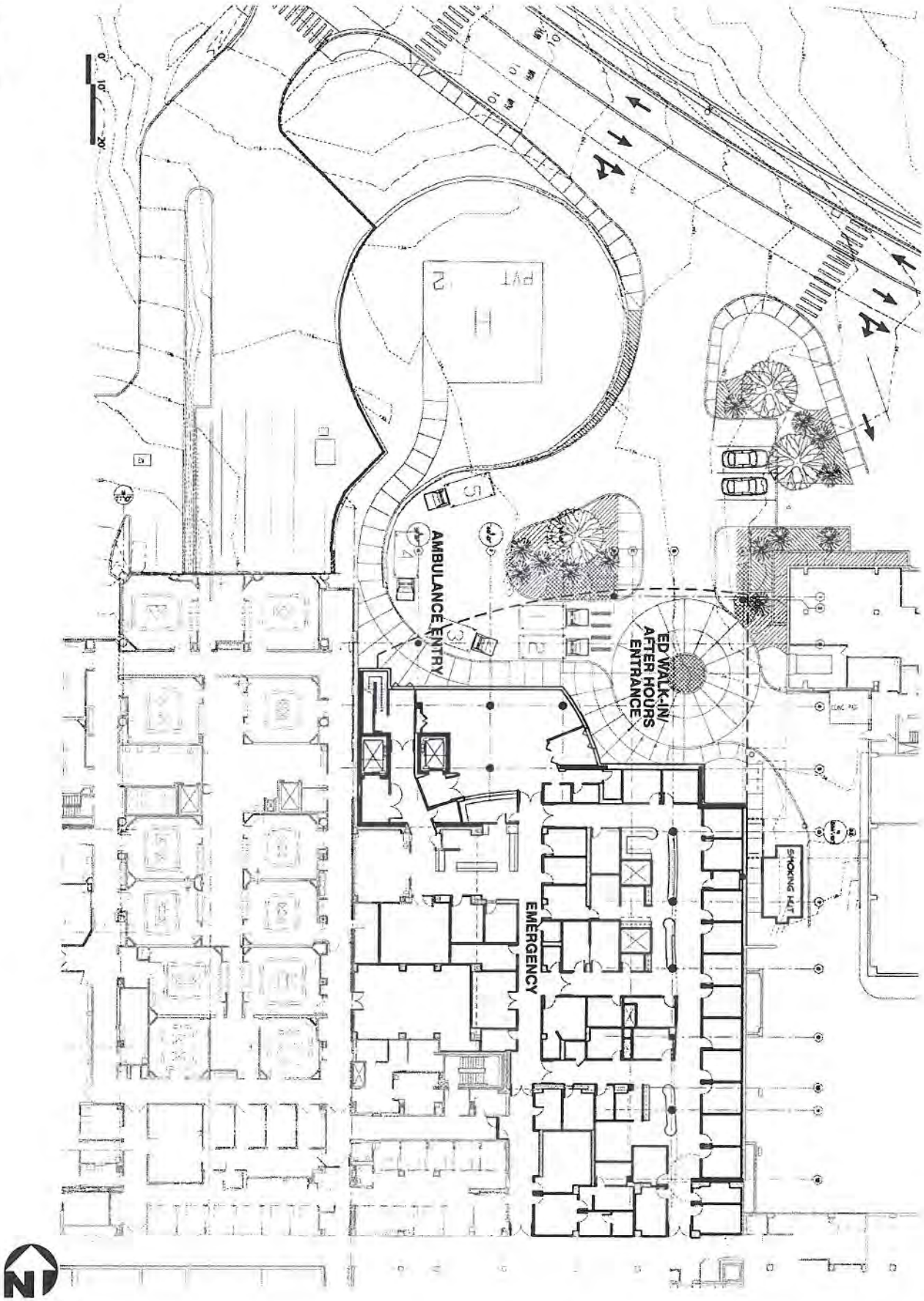

Source: HKS, Inc.

Figure 4
Site Plan for Proposed ED/OR Project

Access by Emergency Vehicles and Helicopters

Patients requiring emergency care are brought to Children's both by ambulance or passenger vehicles and by helicopter. Vehicles access the emergency department via Sand Point Way NE and Penny Drive. Helicopters land outside of the emergency department on an emergency helicopter landing stop.

On-Campus Parking

Existing parking facilities on-campus includes both structured and surface parking. The hospital has two parking garages – Staff Parking (parking structure closest to the project site), which is located in the north portion of the campus and the Whale Parking structure in the southeast corner of campus. A surface parking lot is located in the northeast portion of the campus (referred to as the Lot 4 parking area). As described in the EIS Addendum for the *Parking Garage*[11] (Whale Parking), the parking supply is approximately 1,636 spaces – comprised of 1,225 current spaces on-site with a net increase of 411 parking spaces associated with the Whale Parking Garage.

C. BACKGROUND INFORMATION

The following provides an overview of the services that are provided by Children's Hospital & Regional Medical Center, together with general information concerning the hospital's *Major Institution Master Plan* (MIMP) and the environmental analysis that has occurred for the MIMP.

Scope of Services -- Children's Hospital & Regional Medical Center

Children's was founded in 1907 as the first orthopedic facility for children on the West Coast. The initial site of the hospital was in a wing of Seattle General Hospital on Seattle's Capitol Hill. The following year the hospital moved to its own facility on Queen Anne Hill, and in 1911 moved to an adjacent site and opened a 40-bed hospital. In 1953, Children's moved to its present location in Northeast Seattle.

Mission: As both a community hospital for greater Seattle and the pediatric referral center for the Pacific Northwest, Children's provides, directly or in partnership with others, excellent pediatric care, education and research programs. Children's is an advocate on behalf of health care needs for children at local, state and national levels. Children's provides health care appropriate for the special needs of children regardless of race, sex, creed, ethnicity or disability. Financial assistance is provided based upon family need and hospital resources.

Growth in Need for Services: Over the past decade, Children's Hospital & Regional Medical Center has continued to serve a growing number of children as the population of the region has grown. As medical technology and expertise has advanced, Children's has been able to develop a greater ability to treat children with complex, life threatening diseases. Within the past five years, the Emergency Department has seen a 40 percent increase in visits. Advances in technology have supported the growth of less invasive surgical intervention. The result has been a significant growth in procedures that can be done without an overnight admission, but are procedures that require added space to support anesthesia recovery. Other expanding technologies that will be supported by the proposed *ED/OR Project* include: renal dialysis, infusion and neurophysiology testing.

[11] Seattle DCLU, 2001, Table 2

Major Institution Master Plan and Associated Environmental Analysis

- A Draft Environmental Impact Statement (EIS) was prepared for Children's *Major Institution Master Plan* (MIMP) and issued by Seattle's Department of Design, Construction and Land Use (DCLU) on 10/15/92. That Draft EIS evaluated the environmental impacts associated with development of 16 projects totaling approximately 263,680 sq.ft. of new development.[12] Nine major environmental parameters were evaluated in the Draft EIS, including: air, stormwater runoff, energy, environmental health/noise, land use/population, light/glare/shadows, aesthetics, transportation/parking, and public services/utilities.

- A Final EIS was prepared for the MIMP and issued by DCLU on 6/17/93. The Final EIS evaluated the environmental impacts associated with development of approximately 262,630[13] sq.ft. The Final EIS provided additional environmental analysis relative to noise, light/glare/shadows, aesthetics, and transportation/parking. DCLU found that the EIS (Draft and Final) adequately disclosed probable, adverse environmental impacts, discussed reasonable mitigating measures and formed an adequate basis for making final decisions regarding the proposed MIMP.

- The proposed campus master plan that was evaluated in the Final EIS differed slightly from that of the Draft EIS. The modifications were in response to comments and recommendations from the City, the hospital's Master Plan Advisory Committee, public comments, and to address potential environmental impacts that were noted in the Draft EIS.

- As required by Seattle Municipal Code, a public hearing concerning the proposed MIMP was conducted by Seattle's Hearing Examiner (January 1994). The Hearing Examiner's decision recommended approval of the MIMP.

- In September 1994, the Seattle City Council adopted Children's Hospital & Regional Medical Center's MIMP (Ord. #117319). As approved, the plan was intended to provide a long-range facility plan to guide Children's programmatic and capital decision-making processes for the next 15 years. The MIMP established the standards, general location and size of development that is authorized.

- An EIS Addendum[14] was issued in 1996 in conjunction with A and B-Wing Bed Renovations.

- An EIS Addendum[15] was issued in January 2001 for the *Parking Garage* (Whale Parking) and ancillary facilities.

- An EIS Addendum[16] was issued in March 2002 for the *Inpatient Wing.*

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12 Draft EIS, Table 1, pg. 16

13 This area is 1,050 sq. ft. less than the amount of development noted in the Draft EIS (Draft EIS Table 1, pg. 16 and Final EIS Table 1, pg. 20).

14 Seattle, 1996.

15 Seattle DCLU (January 25, 2001).

16 Seattle DCLU, 2002.

This EIS Addendum provides additional site-specific information concerning the proposed *ED/OR Project* – to add to and/or update information contained in Final EIS for Children's Hospital & Regional Medical Center's *Major Institution Master Plan*.

Communications with Surrounding Community

The approved 15-year Major Institution Master Plan was developed through the work of dedicated community representatives meeting with the City of Seattle and Children's. The Master Plan Standing Advisory Committee, staffed in conjunction with the City of Seattle's Department of Neighborhoods, meets at least twice each year. Children's submits an annual report to DCLU relative to activity associated with implementation of their MIMP. Children's has an extensive transportation management program, which continues to meet City requirements and has received awards for innovation and results.

Children's takes many steps to maintain close communication with its neighbors about on-going operations, construction, and future development at the Hospital. On an on-going basis, Children's works with individual neighbors, neighborhood organizations, and community advisory committees to foster effective communication and to be responsive to community questions and concerns. The purpose of such efforts is to be a good neighbor, to work collaboratively with neighbors on projects of mutual benefit, and to mitigate adverse impacts of hospital construction and operations on the neighborhood to the greatest degree possible.

Children's most immediate neighbors bordering the campus receive frequent communication with Children's staff through attendance at local organization board meetings and by telephone, email, and informal meetings with individual neighbors, representatives of the Laurelhurst School, local businesses, and other institutions. Children's and its contractors work with individuals and groups to implement additional specific mitigation steps whenever needed and feasible to address impacts of hospital operations and construction.

Children's maintains ongoing communications with the Laurelhurst Community Club and the Laurelon Terrace Apartment Association through a variety of means. The Laurelhurst Community Club is represented on Children's Master Plan Standing Advisory Committee, and Children's attends Laurelhurst Community Club board of trustees meetings periodically. Children's communicates regularly with the Laurelhurst Community Club and the Laurelon Terrace Apartment Association via email and telephone, and Laurelhurst Community Club provides the neighborhood updates of hospital happenings in their newsletter.

Summary reports about the critically ill children who are transported to Children's emergency helistop are provided to the community, and a review committee, which includes community representatives, meets at Children's to monitor this important program. Children's distributes annual reports and newsletters throughout the community and provides tours of the hospital upon request.

D. DESCRIPTION OF THE PROPOSED ACTION

The *Proposed Action* involves siting and development of a new *ED/OR Project* to the hospital complex for emergency medical services. The proposed facility is depicted in Figure 3 in the context of the entire campus and Figure 4 is the site plan of the proposed facility. Figure 5 is an architectural perspective of the *ED/OR Project,* Figure 6 depicts building elevations and Figure 7 shows the proposed pedestrian and vehicular traffic flow near the *ED/OR Project.*

As shown by Figure 4, the proposed *ED/OR Project* would be attached to the north/east-side of the Hospital's D-Wing. The *ED/OR Project* would include three stories above-grade and one story below-grade (50,000 sq.ft. of total gross floor area including above-grade, below-grade and mechanical areas).

Building Height: The height of the proposed *ED/OR Project* would be approximately 34.5 feet to the roof of the building, 40.5 feet to top of the building parapet, and 62.5 feet to the top of the screened mechanical equipment. Refer to the MUP plans on file with DCLU.

Architectural Materials: The proposed structure would be poured in place concrete. The façade of the proposed *ED/OR Project* would be comprised of exposed architectural precast, cast in place concrete, glazed aluminum wall system, granite composite panel system, and aluminum wall system with composite metal wall panel infill.

Proposed Landscaping: The amount of landscaping that is proposed for the new emergency department entrance includes three deciduous trees, 13 evergreen trees, and groundcover. Landscape quantities would meet or exceed the amount required based on DCLU Director's Rule 13-92. Site preparation and construction of the proposed *ED/OR Project* would require replacement of most of the existing vegetation that is now located in and around the existing emergency department entrance. All plantings would be irrigated (except where designated) as drought tolerant areas (drought tolerant areas would be temporarily irrigated until plant materials mature). Refer also to MUP, Sheet L1.

Lot Coverage: As defined in Children's MIMP,[17] lot coverage is a measure of the amount of the hospital campus that is covered by structures[18] and is presented as a percentage of the total lot area. Existing lot coverage is approximately 26.62 percent. With the proposed *ED/OR Project*, lot coverage would increase to approximately 26.93 percent of the total campus area (see discussion in *Section III* B. of this EIS Addendum).

Access to Emergency Room: The existing access to the emergency room entrance is from Penny Drive. The *Proposed Action* would modify the existing emergency department entrance to provide more efficient circulation for emergency vehicles and patients. A large covered drop-off area created by the building overhand will provide for patient protection from the weather. The 4 existing parking spaces will be relocated to facilitate better circulation. Figure 7 shows the proposed traffic flow onsite.

Construction: It is anticipated that construction of the proposed *ED/OR Project* would take approximately 18 months. This includes site demolition and site preparation work, excavation and construction. As required by MIMP conditions, construction of this or any other project will not begin until at least six months after completion of the foundation and shell for the *Inpatient Wing* (currently under construction). Based on MIMP conditions, hours of outside construction activity would be weekdays from 8 AM to 5 PM, excluding all holidays observed by the construction trades. Such holidays include New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, the day after Thanksgiving, and Christmas Day. Construction vehicle ingress and egress to the site would be via Penny Drive.

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[17] Pg. 97

[18] Lot coverage does not include paved surfaces (e.g., walkways, driveways, surface parking, etc.).

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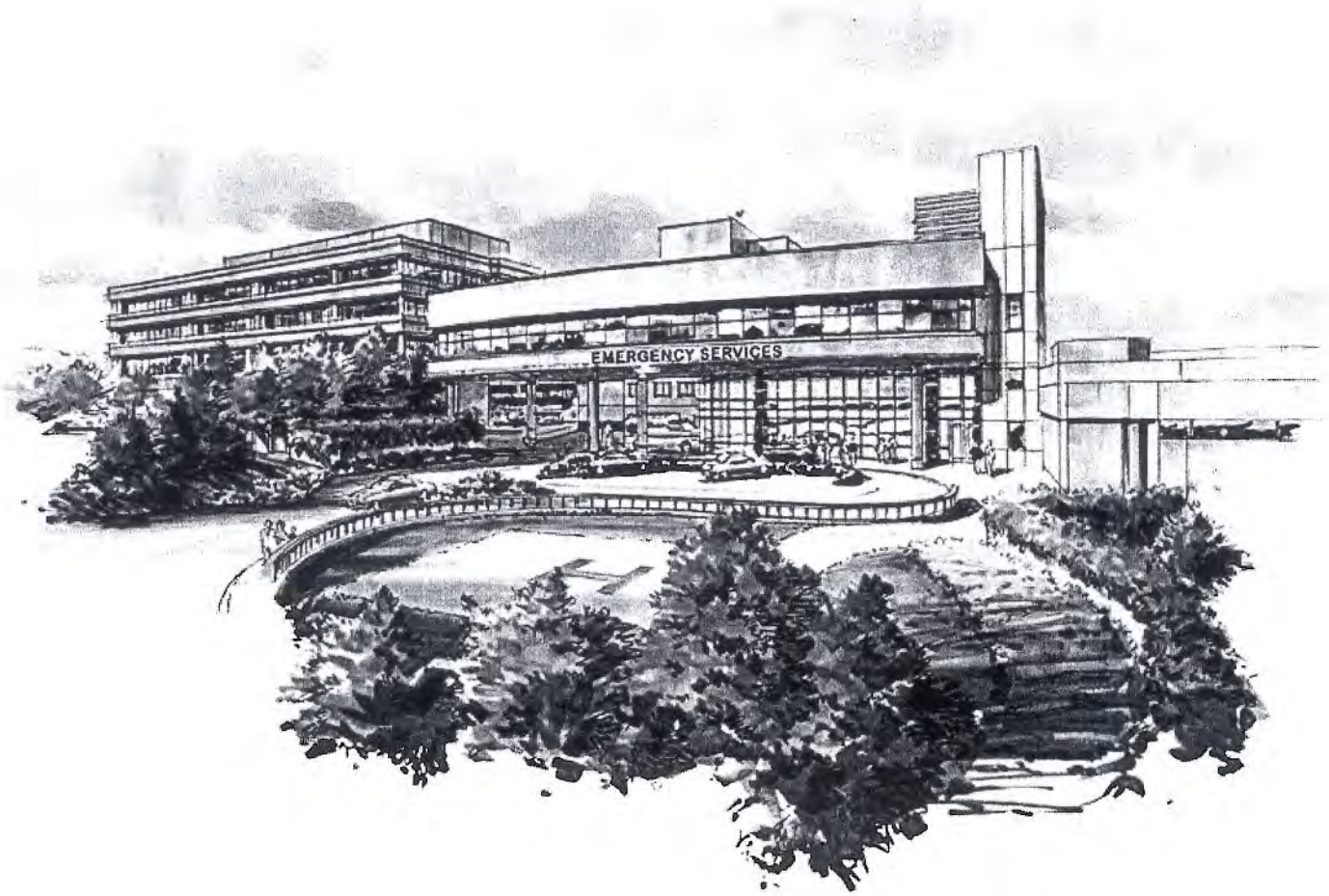

Source: HKS, Inc.

Figure 5
Architectural Perspective of Proposed ED/OR Project

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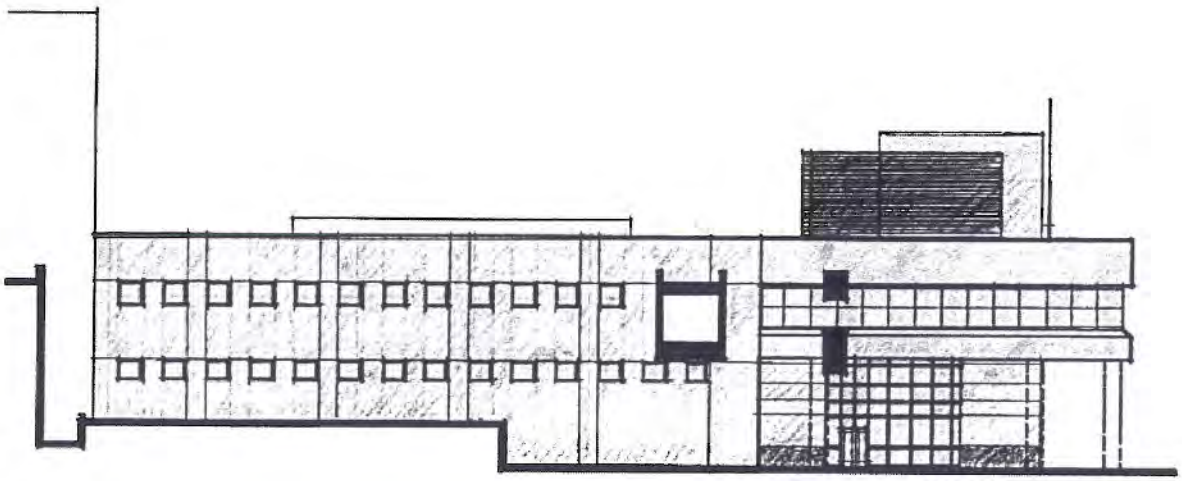
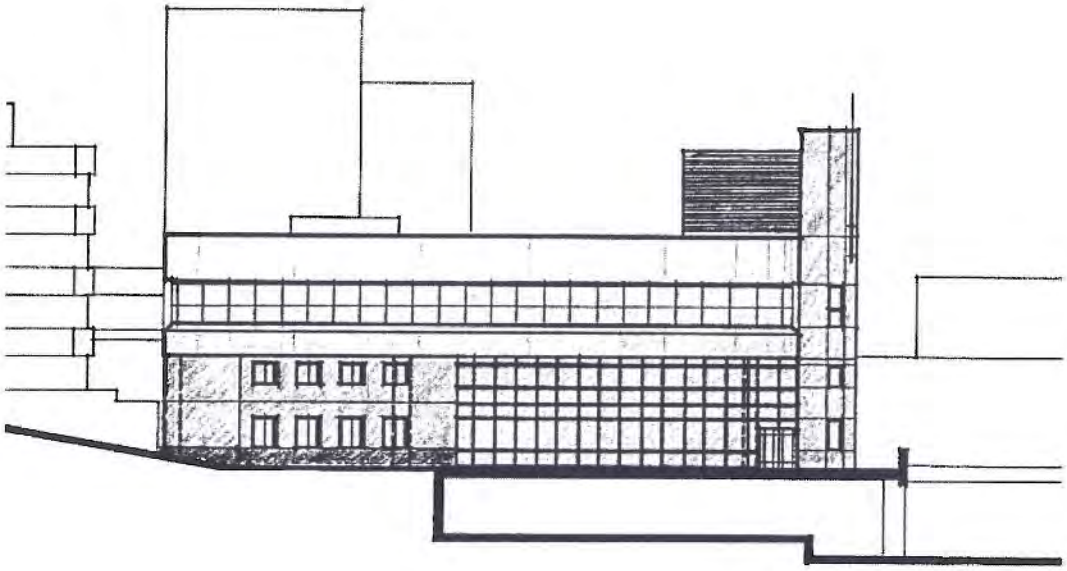


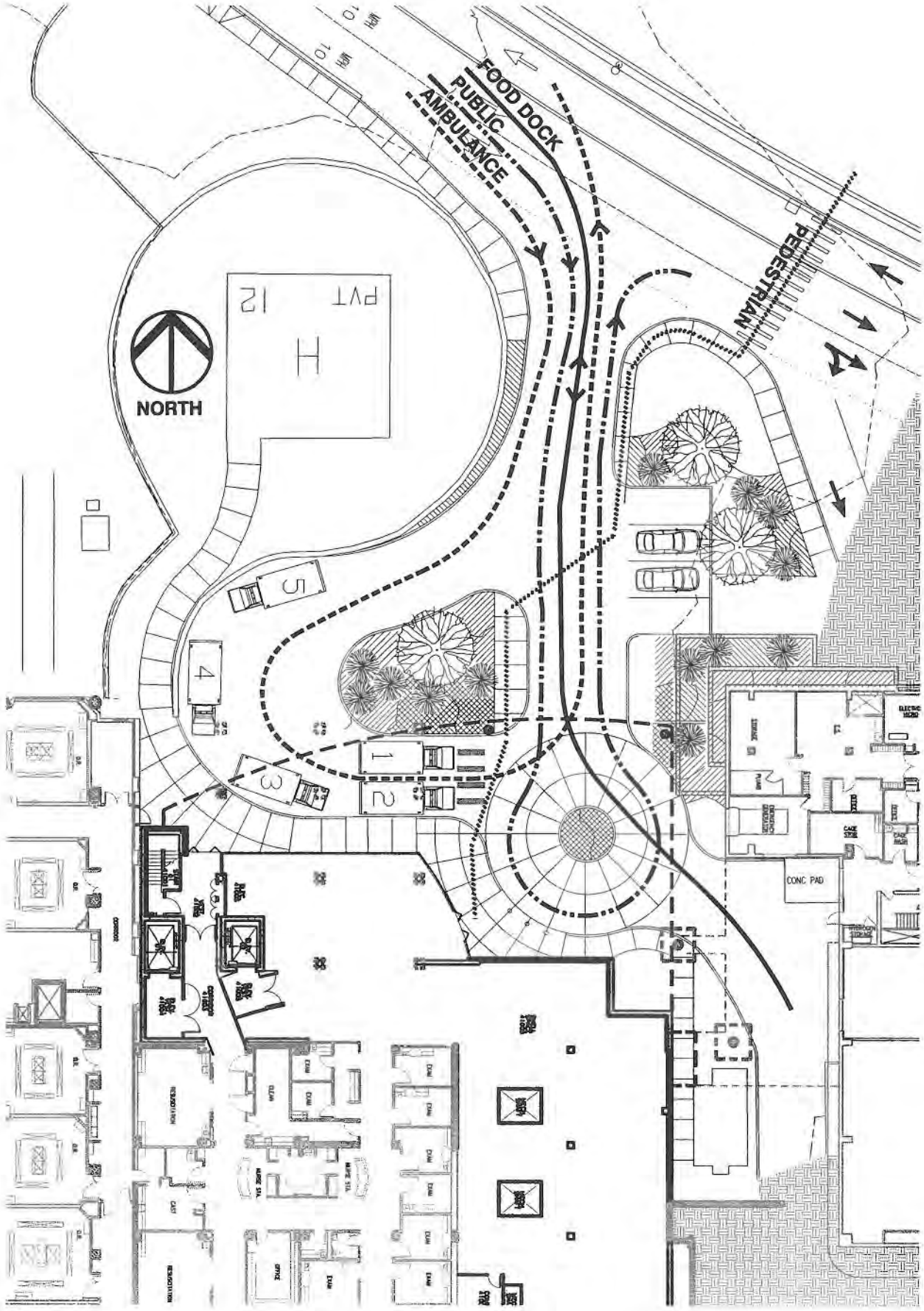
East Elevation



North Elevation

Source: HKS, Inc.

Figure 6
Building Elevations



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Source: HKS, Inc.

Figure 7
Traffic Flow

ED/OR Project EIS Addendum
Children's Hospital & Regional Medical Center

Section III - Additional Information About Environmental Impacts & Mitigation Measures

A. OVERVIEW

This document is an Addendum to the Draft[19] and Final[20] EIS that was prepared for Children's Hospital & Regional Medical Center's *Major Institution Master Plan* (MIMP) in 1992/1993. The EIS evaluated several alternatives and the environmental impacts and mitigation measures associated with each alternative. The Draft and Final EISs are available for review at DCLU and at local libraries listed in the *Fact Sheet* of this EIS Addendum. Those documents are being adopted for purposes of SEPA compliance.

Pursuant to SEPA Rules[21], an EIS Addendum is an environmental document used to provide additional information or analysis that does not substantially change the analysis of significant impacts and alternatives in existing environmental documents (WAC 197-11-706, 197-11-600[4][c]). Existing environmental documents may be used in whole or part to address environmental considerations. The previous proposal and this proposed project need not be identical but must have similar elements that provide a basis for comparing environmental consequences (RCW 43.21C.034).

The MIMP Draft and Final EISs contain detailed environmental analyses relative to each of the environmental parameters noted below:

- Air Quality
- Water
- Energy and Natural Resources
- Environmental Health (noise)
- Land Use/Population
- Light/Glare/Shadows
- Aesthetics
- Transportation
- Public services and Utilities

This EIS Addendum provides additional or updated information regarding the environmental impacts of the proposed project. It compares environmental impacts associated with the Children's currently proposed *ED/OR Project* with those previously described for this site within the MIMP planning area. No new or significantly different impacts have been identified relative to the analysis in the MIMP EIS. In light of the analysis and the similarity of impacts of this proposed project to actions contemplated and evaluated in the MIMP EIS, an Addendum to the existing EIS is the appropriate SEPA document to be used.

Mitigation measures that are identified in this section of the EIS Addendum incorporate mitigation that was contained in the Draft and Final EISs as well as the approved MIMP and represent mitigation that would be provided by Children's in conjunction with the proposed *ED/OR Project.*

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[19] Seattle, DCLU, 1992.
[20] Seattle, DCLU, 1993.
[21] Chapter 197-11 Washington Administrative Code

B. AIR QUALITY

Impacts Previously Disclosed in the EIS

Proposed development would impact air quality in the short-term due to construction activity and in the long-term due to on-going facility operations. A temporary increase in particulates related to site preparation and new building construction was anticipated. Excavation for buildings and foundations may add to suspended particulates, especially during dry seasons of the year and that wind could carry the dust to the surrounding neighborhood. Uncovered trucks carrying debris and/or soil could also contribute to the pollution. Localized air quality would be affected by carbon monoxide emissions from construction machinery and increased trips related to the construction site. While the impacts would be temporary (associated with specific projects), construction activity would occur periodically throughout the 15-year master plan horizon.

Longer-term air quality impacts are those primarily attributable to increases in vehicle emissions resulting in localized increases in carbon monoxide emissions. This increase in activity was not expected to have a significant affect on air quality. It was anticipated that the overall attainment rankings of Seattle by Puget Sound Air Pollution Control Agency[22] (PSAPCA) would not be affected by the proposed Children's MIMP.

EIS Addendum Information

Affected Environment

Much of the following information has been derived from the detailed air quality analysis that is contained in the EIS Addendum for Children's *Parking Garage.*[23]

Typical sources of air pollution within the Laurelhurst project area include vehicular traffic, a variety of commercial enterprises, and residential wood-burning devices (e.g., wood-burning fireplaces, stoves). The major concern with regard to air pollution from vehicular traffic is carbon monoxide (CO). CO is the pollutant that is emitted in the largest quantity for which ambient air standards exist.

Other pollutants generated by traffic include the ozone precursors: hydrocarbons and nitrogen oxides. Fine particulate matter (PM_{10} and $PM_{2.5}$) is also emitted in vehicle exhaust and generated by tire action on pavement (or unpaved areas). However, the amount of PM_{10} and $PM_{2.5}$ generated by individual vehicles is small compared with other sources (e.g., wood-burning fireplaces, stoves). In addition, sulfur oxides and nitrogen dioxide are also emitted by motor vehicles, although concentrations of these pollutants are usually not high unless near large industrial facilities.

Children's project study area is in an ozone air quality "maintenance" area. This is a nonattainment area that has been found to be in attainment of the standard, but which is still subject to special air quality reviews until the standard has been maintained for at least 10 years. Under current air quality plans and policies, this status has no direct implications for the *Proposed Action.*

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[22] Since the MIMP FEIS was published, Puget Sound Air Pollution Control Agency (PSAPCA) has changed it's name to Puget Sound Clean Air Agency (PSCAA).

[23] op cit

Federal, state, and local regulations set limits on the concentrations of particles less than or equal to about 10 micrometers in diameter. This fraction of particulate matter, called PM_{10}, is important in terms of potential human health impacts, because particles this size can be inhaled deeply into human lungs. PM_{10} is generated by fuel combustion sources (e.g., residential wood burning, motor vehicle engines, etc.); industrial activities and operations; and other sources. Such sources occasionally cause high PM_{10} levels in the Puget Sound region, and three areas in Seattle, Tacoma, and Kent have been declared nonattainment areas because PM_{10} concentrations sometimes exceed health standards. There are no PM_{10} monitors in the immediate project area. The project area is not in a non-attainment or maintenance area for PM_{10}.

Children's campus is located in what was previously designated a CO nonattainment area (established in 1991) that encompasses a large portion of the Everett-Seattle-Tacoma urban area. This designation required PSCAA and the Washington State Department of Ecology to develop strategies and plans to work toward complying with the ambient standards, and affected transportation planning and emission control policies throughout the nonattainment area. In 1997, the U.S. Environmental Protection Agency re-designated the Central Puget Sound region as attainment for CO, and approved the associated maintenance plan to ensure the area remains attainment for the CO National Ambient Air Quality Standards. The proposed *ED/OR Project* site is, therefore, located in a carbon monoxide maintenance area.

The air quality of the area at present is likely to be typical of the urbanized areas of the Puget Sound. It is expected that typical conditions of 2-3 parts per million of CO are present in the area, but that under atypical circumstances, concentrations may rise to 2-3 times that level. The National, State and PSCAA standard for CO is 9 ppm. Atypical air quality conditions could include cold temperatures and high traffic volumes.

Impacts

The proposed *ED/OR Project* would result in construction-related impacts comparable to those described in the Draft EIS. The proposed project would result in localized increases in air quality emissions as a result of construction activity and vehicular traffic. No new or significantly different impacts have been identified.

In general, construction of the proposed *ED/OR Project* could produce dust from excavation and grading activities, which could contribute to localized, temporary increases in ambient concentrations of suspended particulate matter. It is estimated that approximately 5,000 cubic yards of material would be excavated and transported off-site and an additional 400 cubic yards of material could be imported to the site for use as backfill, etc. In addition, trucks would remove construction/demolition debris from the site. (See discussion in *Section III* H. *Transportation* concerning the estimated number of construction-related truck trips.) Construction-related truck traffic could also track earth from the construction site and deposit it on public streets where it could become airborne by wind and traffic. No burning of land debris is proposed.

Construction activity would involve the use of heavy trucks and dozers, as well as smaller equipment (e.g., generators, compressors, etc.). Engines associated with such equipment would emit air pollutants that could slightly degrade localized air quality. These emissions, however, would be temporary (construction-related) and, because the equipment would be substantially fewer in number (compared with the volume of traffic operating on adjacent City streets), it is anticipated that emissions from such equipment would be less than that from

normal vehicular traffic operating. Construction, material hauling, and detours associated with excavation and grading could affect localized traffic flow and associated emissions. In the event that construction activity results in delays in traffic sufficient to significantly reduce travel speeds, general traffic-related emissions could increase.

Helicopters landing on the helistop near the *ED/OR Project* construction site, have the potential to stir up site dirt, dust and debris. Mitigation measures would be implemented that would prevent significant impacts.

Once the proposed *ED/OR Project* is operational, no significant air quality emissions from the structure are anticipated. Increases in vehicular traffic and resultant air quality emissions were addressed previously in the MIMP Draft EIS and the EIS Addendum for the *Parking Garage*.

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- Children's will participate in project review with the Puget Sound Clean Air Agency (PSCAA).
- The construction contractor(s) will be required to comply with PSCAA's Regulation I, Section 9.15, which requires reasonable precautions to avoid dust emissions.
- Children's will require contractors to use electrical, non-CO-producing equipment, whenever possible.
- During construction, exposed soils and debris will be sprayed with water or other dust suppressants to reduce dust; truck wheels and undercarriages will be brushed/washed or pressure-sprayed before leaving the site; quarry spall areas[24] will be provided on-site[25] and truck loads and routes will be monitored to minimize impacts.
- The use of well-maintained equipment will reduce emissions from construction equipment and trucks.
- Prolonged periods of vehicle idling and engine-powered equipment will be avoided to reduce emissions.
- Delivery of materials that are transported by truck to and from the project area will be scheduled to minimize congestion during peak travel times on adjacent City streets. This will minimize secondary air quality impacts that would otherwise be caused by traffic having to travel at reduced speeds.
- The existing asphalt between the building and the helistop will remain during construction and will be cleaned and washed on a regular basis.
- Any exposed slopes/dirt will be covered with sheets of plastic.
- Perimeter railings around the new building will have mesh partitioning to prevent movement of debris during helicopter landings.

Building Operation

- Continued implementation of the Children's Transportation Management Plan (TMP) will reduce air quality impacts related to longer-term vehicle use.
- "State-of-the-art" mechanical venting systems from Children's facilities will be utilized to minimize potential air quality impacts.

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[24] Quarry spalls are large aggregate that earth-moving trucks would travel over to loosen material on truck tires and the undercarriage before a truck departs the project site.

[25] EIS Addendum for the *Proposed Parking Garage* (p. 30).

- Leaves and sticks and natural vegetation on and around the helistop will continue to be picked up on a regular basis.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse air quality impacts are anticipated.

C. WATER

Impacts Previously Disclosed in the EIS

All project components of the plan could result in surface water quality and quantity impacts during the site preparation/excavation phases of construction. With proposed mitigation measures, however, no significant impacts are anticipated with regard to surface water. No groundwater impacts are anticipated.

EIS Addendum Information

Affected Environment

Approximately 26.62 percent of the campus is presently covered by structures. It is estimated that the proposed *ED/OR Project* would increase the amount of coverage to approximately 26.93 percent. The proposed *ED/OR Project* would have a building footprint of approximately 10,558 sq.ft. -- compared to the proposed 17,250 sq.ft. that was noted for projects #9, #12, and #12A in the MIMP.[26]

In the past, on rare occasions extraordinarily heavy rains have overwhelmed the campus stormwater drainage system and affected the Laurelon Terrace Condominium complex that is located immediately west of the campus (and immediately west of the Inpatient Wing). Buildings in this complex are at the base of the hillside, roughly 12 to 15 feet below the elevation of Children's A-Wing and the site of the Inpatient Wing.

To alleviate these infrequent drainage problems, Children's designed and installed an above-ground storm water overflow system to the west of the Hospital to accommodate excess stormwater runoff.

As a further safeguard and as part of the Inpatient Wing Project, Children's designed and installed a wide French drain at the base of the west slope of Children's property to collect stormwater runoff. The runoff is then piped through Laurelon Terrace property and connected with the existing public storm sewer drain that is located in 41st Avenue NE. The combination of the overflow system and the French drain is adequate to accommodate the surface water from existing structures and proposed Hospital expansions.

Impacts

Impacts associated with the amount of impervious lot coverage associated with the proposed *ED/OR Project* would be comparable to those described previously in the Draft EIS. No new or

[26] See additional discussion with regard to Impacts.

significantly different impacts have been identified. Construction-related impacts would be addressed through previously-identified mitigation. As noted, the amount of lot coverage associated with the proposed *ED/OR Project* is 10,558 sq.ft., which is roughly 39 percent[27] less than the lot coverage assumed in the Draft EIS for projects #9, #12, and #12A.

Mitigation

The following mitigation measures will be implemented by Children's. See also MUP plan C0.0 (on-file with DCLU) for a comprehensive list of storm drainage and erosion/sediment control notes.

Construction

- Children's will comply with all applicable requirements related to surface water runoff control and water quality including the Seattle Stormwater, Grading and Drainage Control Code (SMC. 22.800).
- A Comprehensive Drainage Control Plan, including short-term plans during construction phases will be prepared consistent with City requirements. Specific measures in the Comprehensive Drainage Control Plan could include oil/water separators, additional stormwater retention/detention, and provision of catch basins with clean-outs.
- Temporary sedimentation collection facilities will be provided and maintained to ensure that sediment or other hazardous material does not enter the storm drainage system.
- The footing drainage system and the roof downspout system will not be interconnected unless such connection is at least one foot below the footing drainage and downslope of the building foundation.

Building Operation

- Water conservation programs will continue to be discussed with Seattle Public Utilities, evaluated by Children's, and implemented, as appropriate.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse water quality impacts are anticipated.

D. ENERGY AND NATURAL RESOURCES

Impacts Previously Disclosed in the EIS

Development of all proposed Children's projects would result in increased consumption of natural resources (natural gas, electrical and petroleum resources) during construction of approved MIMP projects and once the projects become operational. The proposed energy conservation measures, as well the Transportation Management Program, would likely reduce energy consumption, but would not eliminate it.

The MIMP Draft EIS estimated that projects number #9, #12, and #12A would consume approximately 1,811,064 kwh/yr of energy with roughly 218 kw associated with winter peak demand and 290 kw associated with summer peak demand. It was noted that new technologies and medical equipment would continue to create energy consumption demands, that a

[27] 17,250-10,558=6,692; 6,692/17,250=38.79%

substantial amount of "state-of-the-art" equipment was already in use at Children's, and the pattern of use was expected to continue in the future. Energy consumption projections analyzed in the Draft EIS accounted for such equipment demands.

EIS Addendum Information

Energy would be consumed during construction and operation of the proposed *ED/OR Project.* Applying the methodology (and multipliers) that were utilized for the Draft EIS, it is estimated that the proposed *ED/OR Project* could result in total energy consumption of approximately 1,541,737 kwh/yr with roughly 188 kw associated with winter peak demand and 251 kw associated with summer peak demand. The energy consumption estimated for the *ED/OR Project* level is approximately 15 percent less than the demand that was estimated for projects #9, #12 and #12A in the Draft EIS. More-detailed energy analysis would be performed as part of the Building Permit process for this project.

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- Children's will comply with all applicable requirements of the Seattle Energy Code, specifically the requirements for major projects.
- Seattle City Light's "Smart Design" program will be utilized by Children's.
- The comprehensive energy analysis requirements of Director's Rule 5-92 will be provided.

Building Operation

- Children's will work with the City regarding physical plant system improvements to select the most appropriate energy conservation mitigation measures.
- Children's will continue its recycling programs to reduce energy impacts related to the manufacture and disposal of materials.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse energy-related impacts are anticipated.

E. ENVIRONMENTAL HEALTH/NOISE

Impacts Previously Disclosed in the EIS

Construction of the proposed on-campus projects, including the proposed project, would result in temporary increases of noise levels. These temporary impacts would include noise from construction activity, equipment and construction-related vehicles associated with implementation of MIMP-approved projects.

The Final EIS included an additional noise impact analysis, which provides further discussion of anticipated noise levels. Construction activities could produce noise levels above (up to 20 dBA) the daytime ambient noise levels. Heavy trucks alone could be expected to create noises

as high as 80 dBA. Construction noise levels would be within the applicable limits prescribed by the Seattle Noise Ordinance.

In addition to noise issues, the Draft EIS also included discussion and analysis relative to environmental health -- hazardous materials. In general, the Draft EIS states that toxic/hazardous materials would continue to be produced and handled in most buildings on Children's campus, including the proposed *ED/OR Project*. Disposal of toxic/hazardous materials would occur pursuant to all applicable federal, state, and local requirements.

EIS Addendum Information

Implementation of the *Proposed Action* would result in construction-related and operational impacts that would be comparable to those described in the Draft and Final EISs. No new or significantly different impacts have been identified. With regard to construction-related noise, one of the major contributors is truck traffic associated with excavation and construction activity. Information relative to truck traffic is presented in *Section III. Transportation* of this EIS Addendum. Excavation[28] and demolition together are estimated to result in approximately 700 truck trips[29], importation of backfill could generate approximately 40 truck trips,[30] and normal construction deliveries are estimated to generate an additional 2,300 construction delivery truck trips[31] throughout the 18-month construction period associated with this project (or an approximate average of 8 trucks per day).

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- Children's will comply with provisions of Seattle's Noise Ordinance (SMC 25.08).
- Outside construction activity associated with the proposed ED/OR Project will be limited to weekdays between 8 AM and 5 PM, excluding all holidays observed by the construction trades.
- Children's will require contractors to minimize construction noise and vibration impacts by requiring shielding of noise equipment.
- Acoustical or enclosures will be provided, as needed.
- Electric rather than diesel or gas-powered machinery will be used, where practical.
- If pneumatic tools are used, such tools will be those pre-fitted by the manufacturer with mufflers equal to those manufactured by Hushpower or Nicholson.
- Mufflers will be used on all other internal combustion engine-driven equipment;
- Building components will be assembled off-site, where practical.
- Concrete will be mixed off-site.
- Noisy equipment will be kept as far as possible from the site boundaries, whenever possible.
- Idling equipment will be turned off.
- Construction traffic will be routed away from residential areas, where possible.

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28 To a depth of about 21 ft.

29 700 combined truck trips consisting of an estimated 350 loaded outbound truck trips and a corresponding 350 inbound empty truck trips; assumes 20 cubic yard truck capacity.

30 20 loaded inbound truck trips and a corresponding 20 outbound empty truck trips; assumes 20 cubic yard truck capacity.

31 1,150 loaded inbound truck trips and a corresponding 1,150 outbound empty truck trips.

- Children's will comply with applicable requirements related to asbestos and hazardous substances.
- Children's will comply with applicable requirements related to toxic/hazardous wastes.

Building Operation

- Children's will comply with provisions of Seattle's Noise Ordinance (SMC 25.08).
- Venting, fans and other equipment will be located away from noise sensitive receptors to the extent possible.
- Contractors will be required to maintain delivery vehicles in good operating condition (particularly brakes and mufflers) such that they meet Seattle's Noise Ordinance (SMC 25.08.430) limitations concerning noise levels for individual vehicles.
- Packaged air handling units or injection-type cooling towers will be used, with properly-designed acoustical enclosures.
- Licensed contractors will continue to be used to transport and dispose of toxic/hazardous materials.
- Children's will restrict all deliveries, garbage pick-up and other large truck trips, to between the hours of 7:30 a.m. and 6:00 p.m., except such of these trips that are made to the designated loading and unloading dock in the center of the campus core. This restriction does not apply to medical emergency vehicles.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse environmental health-related impacts are anticipated.

F. LAND USE/POPULATION

Impacts Previously Disclosed in the EIS

The MIMP would not significantly impact the size or the composition of the population associated with the surrounding community. Children's MIMP did not propose expansion of the campus's zoning boundaries into the residential neighborhood.

EIS Addendum Information

Affected Environment

The proposed *ED/OR Project* would include three levels above grade and one level entirely below-grade. The addition would be connected to each floor (and roof) of the Hospital's existing D-Wing.

The entire building would contain approximately 50,000 sq.ft. of floor area. The ground floor would contain supply and equipment storage and support services; the upper three floors would contain examining rooms, offices and reception space. The proposed *ED/OR Project* would also require internal renovation of the existing emergency department (approx. 33,500 sq.ft.) to allow for more efficient emergency vehicle circulation.

The existing emergency room entrance would be reconfigured as part of the proposed Action. The new entrance would improve access and circulation to the Hospital's proposed *ED/OR Project.*

Impacts

As described in *Section I* of this EIS Addendum, combining approved projects #9, #12 and #12A into the proposed *ED/OR Project* is consistent with Children's MIMP and within the provisions of the City's Land Use Code.

The *Proposed Action* would not impact the size or composition of the surrounding population. Other land use impacts associated with the MIMP and the proposed *ED/OR Project* are identified in the Draft and Final EIS. No new or significantly different impacts have been identified.

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- No specific construction-related mitigation is necessary relative to *Land Use/Population.*

Building Operation

- Children's will comply with the intent and requirements of the City's Major Institution policies, the City's Land Use Code, and development standards that were approved as part of the MIMP.
- work shifts will be staggered to help reduce operational employment population increases.
- Children's will continue to coordinate with the City, the University of Washington and neighborhood groups to help address cumulative impacts and assist in joint mitigation.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse land use-related impacts are anticipated.

G. LIGHT/GLARE/SHADOWS

Impacts Previously Disclosed in the EIS

Reflected light impacts would occur as a result of vehicle headlights. Residences along 44th and 45th Avenue NE would be most effected due to the proposed locations of the parking garage and surface parking. Site lighting already exists and would be modified by siting of new buildings and related site improvements. Lighting is intended to improve safety, both for vehicles and pedestrians. Site lighting could affect public and employee safety by improving visibility. At the same time, spillover lighting may negatively impact nearby residences.

Light, glare and shadow impacts for Project #9 (a 4-story, 46,400 sq.ft. addition south of the existing C-Wing) were analyzed in the Draft EIS (pp. 108-134) and the Final EIS (pp. 92-100).

Potential glare impacts from Project #9 would be most noticeable to residents on NE 45th Street during winter.

EIS Addendum Information

Light and Glare

Typical stationary sources of light that could expect to be generated by the proposed project would include interior lighting, pedestrian level lighting (along proposed sidewalks, entryways) and illuminated signs. Mobile sources of light include light from vehicle headlights. Specific information relative to stationary building fixtures and signage would be provided as part of the construction-level plans associated with the Building Permit process. At times during the construction period, required area lighting of the job site would be provided.

Light and glare from the completed project is not be expected to cause safety hazards nor significantly affect surrounding land uses because the building would be located centrally on the campus. It is anticipated that the type of glazing that would be specified for the proposed *ED/OR Project* would be similar to Solarban80, which is an energy efficient glass in terms of solar heat gain and light transmittance. The glass has a satin reflective finish with an approximate reflectance of 32 percent and a visible light transmission of approximately 47 percent.

Children's Emergency Department is the primary entrance for patients and families after 9:00 PM. The design of the exterior of the ED/OR entrance has a drive up feature where a car will drive under the building. The 4th and 5th floors of the building (actually ground floor and one floor up) step back, so that the 6th floor creates an overhang. This feature replaces the current glass awning that is lit. The new entrance will direct light downward that should decrease the visible light from the north and northwest. The interior of the ED/OR will be lit as needed to fulfill clinical functions.

Shadows

Because more-detailed information is available concerning design of the proposed *ED/OR Project*, as compared with information presented in the Draft EIS, a shadow analysis has been conducted for the *ED/OR Project*. Factors that influence the extent of shading that may occur include: weather (e.g., cloud cover); building height, width and facade orientation; and the proximity of other intervening structures and/or significant landscaping.

The shadow analysis for this project evaluates shading associated with the proposed building for two times of the day (8 AM and 4 PM) on two key solar days of the year -- summer solstice (June 21st) and winter solstice (December 21st). These two days depict the minimum and maximum impacts relative to shadows cast by the proposed project. Shadow-related impacts, however, may occur throughout the year and not only on these two days. Because of the earth's rotation, the duration of shadow-related impacts varies for a stationary observer based on season, depending upon the width of the shadow.

The following summarizes the shadow analysis for two times of the day on each of these key days of the solar year.

Summer Solstice -- Climatic data indicates that June typically has 5 clear days, 8 partly cloudy days and 17 cloudy days.

- At 8:00 AM, shadows from the proposed *ED/OR Project* would extend in a west/southwesterly direction a distance of approximately 80 feet and would periodically shade portions of the plant services area of the Hospital immediately west of the ED/OR Project site.

- At 4:00 PM, shadows from the proposed *ED/OR Project* would extend east/northeast of the proposed building and would periodically shade the drive-up entry associated with ED/OR.

Winter Solstice -- Although Seattle's December weather typically includes 2 clear days, 4 partly cloudy days and 25 cloudy days, because of the relatively low altitude of the sun above the horizon at this time of the year[32] and, in particular at 8:00 AM and 4:00 PM, the extent of shadow impacts can be far reaching.

- At 8:00 AM, shadows from the proposed *ED/OR Project* would extend in a northwesterly direction to the east façade of the Hospital's *Inpatient Wing*. While at this time of the day and day of the year shadows from the proposed *ED/OR Project* would not extend off-campus, later in the morning (roughly 9:00 to 10:00 AM) shadows could extend northwesterly along Penny Drive to areas located west of Sand Point Way NE.

- At 4:00 PM, shadows from the *ED/OR Project* would extend in a northwesterly direction toward the Hospital's Lot 4 and off-campus toward residences along 44th Avenue NE, south of NE 50th Street. It is anticipated that existing dense vegetation located in and adjacent to Lot 4, as well as landscape buffering that is provided in the northeast portion of the campus (west of 44th Avenue NE), is expected to block potential shading impacts that may result from the proposed building at this time of the day and day of the year.

In general, it is anticipated that the proposed *ED/OR Project* would result in far less light, glare and shadow impacts than were described in the Draft and Final EISs when Project #9 was proposed to be constructed south of the existing C-Wing. Because of the central location on Children's campus and the height of the proposed addition, no significant off-campus shadow impacts are anticipated.

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- Construction-related lighting will be provided as necessary for safety. Such lighting will be directed toward functions at the job site and away from nearby residences.

Building Operation

- Building design will incorporate window recesses/overhangs and façade modulation.
- Nighttime illumination of the site and selected buildings will be restricted and provided only when function or safety requires it.
- Interior areas not in use will have lighting reduced to the minimum allowable level.
- Light from vehicle traffic associated with the *ED/OR Project* will be shielded to the greatest extent possible by the surrounding buildings and building overhang.

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[32] On winter solstice (December 21st), the sun's altitude or angle is approximately 19 degrees at noon. This compares with the sun's altitude on summer solstice (June 21st) when the sun's angle is approximately 66 degrees at noon.

- Lighting fixtures will provide down-lighting or be oriented away from nearby residences.
- Landscaping will be provided to minimize off-site light spillage.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse light, glare or shadow-related impacts are anticipated.

H. AESTHETICS

Impacts Previously Disclosed in the EIS

The visual appearance of Children's campus will be altered by the proposed MIMP projects in that new buildings would be larger than existed previously and would contribute to the cumulative impact. Although existing building heights would not be exceeded, proposed projects would increase the overall bulk associated with the Hospital complex and proposed infill development would locate buildings closer to the campus boundaries.

No views from public places -- including landmarks, public parks, or designated view corridors -- would be impacted by Children's proposed projects. While views into the Children's site would reveal a larger grouping of buildings, street views would remain relatively unobstructed. The Children's campus would continue to be visible from the Laurelhurst Playfield.

Short-term temporary impacts due to construction activities may occur.

EIS Addendum Information

Affected Environment

The height of the proposed *ED/OR Project* would be approximately 34.5 feet to the roof of the building, 40.5 feet to top of the building parapet and 62.5 feet to the top of the screened mechanical equipment. Refer to the MUP plans on file with DCLU.

The new emergency department entrance would be landscaped with three deciduous trees, thirteen evergreen trees and ground cover. Planting quantities were derived from DCLU Director's Rule #13-92 and meet or exceed the required quantities of trees, shrubs and ground covers. See MUP Landscape plan, sheet L1.

Impacts

Overall, the proposed *ED/OR Project* would result in aesthetic impacts comparable to or less than those described in the Draft EIS. No new or significantly different impacts have been identified. No public vistas or view corridors along public right-of-ways would be affected as a result of the proposed project An architectural perspective of the proposed facility is shown in Figure 5 and building elevations of the proposed project are depicted in Figure 6 (*Section II* of this EIS Addendum).

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- No specific construction-related mitigation is necessary relative to aesthetics.

Building Operation

- Scale-reducing elements, particularly at areas exposed to people activity (e.g., building entrances, adjacent to walkways, places of high visibility) have been identified and encouraged during project design.
- Pedestrian amenities will be provided as site improvements.
- Landscaping will be provided for pedestrian interest, scale and building contrast.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse aesthetic-related impacts are anticipated.

I. TRANSPORTATION/PARKING

Construction

Impacts Previously Disclosed in the EIS

Potential construction impacts identified in the Draft EIS included:

- Arrival, departure, and parking of construction worker vehicles;
- Delivery of construction materials;
- Removal of debris associated with demolition activity;
- Delivery of construction vehicles and machinery; and
- Delivery or removal of material associated with fill or excavation activity.

EIS Addendum Information

Construction-related vehicle traffic would be a major impact associated with construction of the proposed *ED/OR project.* Excavation[33] and demolition is estimated to result in approximately 700 truck trips[34] (350 loaded outbound truck trips and a corresponding 350 inbound empty truck trips). Excavation is expected to take about 45 working days. Importation of backfill could generate approximately 40 truck trips (20 loaded inbound truck trips and a corresponding 20 outbound empty truck trips) and is expected to take several working days to complete. Delivery of construction materials to the site is estimated to generate an additional 2,300 construction delivery truck trips throughout the 18-month construction period, assuming an average of three inbound construction deliveries per day for the duration of the construction period.[35] While Children's would develop a detailed construction vehicle routing plan in conjunction with DCLU and SDOT prior to issuance of the Building Permit for this project, it is anticipated that all construction vehicles would enter and exit the campus from Penny Drive (see Figures 3 and 4 in *Section II* of this EIS Addendum).

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[33] To a depth of about 21 ft.

[34] This assumes use of 20 cy trucks.

[35] Assuming a total of 381 working days and three deliveries per day, this equates to 381 x 6 (3 inbound + 3 outbound trips) = 2,286 construction delivery truck trips.

A crane will be in place for a portion of the proposed ED/OR construction. The circumference of the swing of the crane boom will not encroach into the area of the helistop. In order to assure safe landing at Children's helistop when a crane is in place for construction, Children's contractor will work very closely with Airlift Northwest. As is the practice during Children's patient care building construction, Children's contractor will have direct communication with Airlift Northwest to know when a helicopter is dispatched to Children's helistop. Children's security staff will also contact Children's contractor notifying them of a dispatched landing. Children's contractor will then secure the crane to allow for Airlift Northwest to land safely at the helistop. A light on the crane indicates to Airlift Northwest that the crane is secured for a landing. The same procedure will be applied prior to Airlift Northwest departing from Children's helistop. Outside of construction hours, the crane will be locked in position pointed away from the helistop to allow for safe landing. At the pilot's discretion in times of high wind or potential obstruction, the University of Washington Intramural helistop would be used.

Background Traffic Volumes

Impacts Previously Disclosed in the EIS

Forecasts of 2010 horizon year background (non-MIMP) traffic volumes were developed using a 2 percent annual growth rate, based on forecasts prepared for the University District by the Seattle Office for Long Range Planning and accounted for anticipated and potential development in the study area and in the University District.

EIS Addendum Information

AM and PM peak hour traffic counts were conducted in October 2000 at the seven study intersections that were analyzed in the Draft EIS. Table 1 of this EIS Addendum compares the traffic volumes from those counts to those that would have been anticipated based on a 2 percent annual increase of the 1992 traffic volumes identified in the Draft EIS. Forecast data in Table 1 is for the entire Children's campus – not just traffic volumes associated with the proposed *ED/OR Project.*

As shown in Table 1, traffic volumes at the study area intersections have not increased at the rate anticipated in the EIS except at the NE 55th Street / 40th Avenue NE intersection. At this intersection, AM peak hour volumes are 50 cars (or 7 percent) higher than expected based on the Draft EIS's 2 percent annual growth rate.

At all the other study intersections, peak hour volumes are significantly less than what would have been expected based on the Draft EIS's 2 percent annual growth rate. As a result, the 2010 horizon year forecasts of background traffic volumes in the EIS at these intersections would appear to be conservatively high.

As a check to the validity of the above counts, the volumes from the 2000 peak hour counts were compared to the City of Seattle Transportation Department (SEATRANS)[36] counts collected in 1999 as part of the City's annual count program. The 2000 counts were consistent with the SEATRAN counts, varying by 7 percent or less.

[36] The department is now known as the Department of Transportation and referred to as SDOT.

Table 1
Peak Hour Background Traffic Volumes

	2000 EIS Forecast[a]	2000 Actual Count	Change: 2000 Actual vs EIS Forecast
AM Peak Hour			
Sand Point Way NE /Children's Driveway	1,955	1,590	-365
Sand Point Way NE / NE 50th Street	1,790	1,495	-295
Sand Point Way NE / Princeton Ave NE	1,770	1,535	-235
NE 55th Street / 40th Avenue NE	695	745	+50
NE 45th Street / Sand Point Way NE	2,740	2,265	-475
NE 45th Street / Union Bay Place NE	4,630	3,690	-940
NE 45th Street / Montlake Blvd NE	4,075	3,545	-530
PM Peak Hour			
Sand Point Way NE /Children's Driveway	2,165	1,740	-425
Sand Point Way NE / NE 50th Street	1,860	1,530	-330
Sand Point Way NE / Princeton Avenue NE	2,000	1,775	-225
NE 55th Street / 40th Avenue NE	1,305	1,050	-255
NE 45th Street / Sand Point Way NE	2,930	2,450	-480
NE 45th Street / Union Bay Place NE	4,830	4,095	-735
NE 45th Street / Montlake Blvd NE	4,385	4,120	-265

a. Based on the EIS's 2 percent annual growth rate.

Trip Generation

Impacts Previously Disclosed in the EIS

The Draft EIS provided trip generation forecasts of approximately 2,260 trips per day for the entire campus at build-out of the MIMP -- including 153 trips during the AM peak hour and 167 trips during the PM peak hour. The trip generation estimates were based on projected increases in the hospital's staff, physician, patient and visitor populations that would occur between 1992 and 2010. Trip generation was not estimated for each individual building.

EIS Addendum Information

Construction of the proposed *ED/OR Project* was included in trip generation forecasts (as projects #9, #12 and #12A) for the entire hospital campus and described in the Draft EIS. As noted previously, trip generation estimates in the Draft EIS at build-out of the MIMP projects were based on projected increases in the hospital's staff, physician, patient, and visitor populations that would occur between 1992 and 2010. As was noted in the traffic and parking analysis associated with EIS Addendum for the *Parking Garage*, on-going changes in the healthcare field since 1992 and refinement of the hospital's employment and patient forecasts have resulted in changes to forecasts of the hospital's 2010 population from those identified in the Draft EIS. The current forecast of staff population for 2010 is 12 percent greater than that in the Draft EIS. Forecasts of total annual patients in 2010 have decreased by approximately 6 percent from that in the Draft EIS. As medical advances have occurred, higher intensity of care is delivered on an outpatient basis, thus slowing the growth of the number of inpatients served.

At the same time, children being cared for in conjunction with inpatient service are sicker and require a higher level of care, thus the number of staff have increased to support the increasingly critical level of patients that are hospitalized.

The resulting changes to trip generation for the MIMP associated with these changes in anticipated staff and patient populations are summarized in Table 2. Again, this is aggregate, campus-wide data compiled in 2001 as part of the EIS Addendum for the *Parking Garage*. Daily trips generated by the MIMP projects would be 195 trips more than noted in the Draft EIS. AM peak hour and PM peak hour trip generation would be 38 and 40 trips, respectively, more than indicated in the Draft EIS.

Table 2
MIMP Trip Generation

MIMP Trip Generation	EIS	EIS Addendum[37]	Change: Addendum Vs EIS
Daily	2,260	2,455	+195
AM Peak Hour	153	191	+38
PM Peak Hour	167	207	+40

The net new square footage (does not include existing square footage that would be demolished and replaced) of the proposed *ED/OR Project* is approximately 11.3 percent of the total net new square footage of the MIMP. After weighting the MIMP Projects for intensity of use, the proposed *ED/OR Project* would account for an estimated 211 daily trips of the total trips generated by the MIMP.

Table 3 summarizes changes in MIMP traffic volumes at the study intersections from those identified in the Draft EIS. At intersections to the north and east of the Children's campus, MIMP traffic volumes would be 5 to 10 cars more than that noted in the Draft EIS. At intersections to the west and south, project traffic volumes would be approximately 15 to 20 cars more than noted in the Draft EIS. These differences represent less than one percent of total traffic volumes at the intersections and would not change the levels of service from those identified in the Draft EIS.

Table 4 summarizes the changes in MIMP and background traffic volumes from those identified in the Draft EIS. The predicted cumulative intersection estimates are lower than those shown in the Draft EIS except for the intersection of NE 55th Street / 40th Avenue NE, primarily due to the increase in background traffic.

[37] EIS Addendum for the *Proposed Parking Garage*

Table 3
Peak Hour MIMP Traffic Volumes

	EIS	EIS Addendum	Change: EIS Addendum vs. EIS
AM Peak Hour			
Sand Point Way NE / Children's Driveway	153	186	+33
Sand Point Way NE / NE 50th St	32	39	+7
Sand Point Way NE / Princeton Ave NE	38	46	+8
NE 55th St / 40th Ave NE	17	21	+4
NE 45th St / Sand Point Way NE	104	122	+18
NE 45th St / Union Bay Pl NE	104	122	+18
NE 45th St / Montlake Blvd NE	83	96	+13
PM Peak Hour			
Sand Point Way NE / Children's Driveway	167	202	+35
Sand Point Way NE / NE 50th St	37	44	+7
Sand Point Way NE / Princeton Ave NE	36	43	+7
NE 55th St / 40th Ave NE	18	22	+4
NE 45th St / Sand Point Way NE	116	136	+20
NE 45th St / Union Bay Pl NE	111	130	+19
NE 45th St / Montlake Blvd NE	91	108	+17

Table 4
Peak Hour Cumulative Traffic Volumes (Background and MIMP Project)

	Background Change: 2000 Actual vs EIS Forecast	MIMP Project Change: EIS Addendum vs. EIS	Net Change from EIS
AM Peak Hour			
Sand Point Way NE /Children's Driveway	-365	+33	-332
Sand Point Way NE / NE 50th Street	-295	+7	-288
Sand Point Way NE / Princeton Ave NE	-235	+8	-227
NE 55th Street / 40th Avenue NE	+50	+4	+54
NE 45th Street / Sand Point Way NE	-475	+18	-457
NE 45th Street / Union Bay Place NE	-940	+18	-922
NE 45th Street / Montlake Blvd NE	-530	+13	-517
PM Peak Hour			
Sand Point Way NE /Children's Driveway	-425	+35	-390
Sand Point Way NE / NE 50th Street	-330	+7	-323
Sand Point Way NE / Princeton Avenue NE	-225	+7	-218
NE 55th Street / 40th Avenue NE	-255	+4	-251
NE 45th Street / Sand Point Way NE	-480	+20	-460
NE 45th Street / Union Bay Place NE	-735	+19	-716
NE 45th Street / Montlake Blvd NE	-265	+17	-248

Levels of Service

Impacts Previously Disclosed in the EIS

Three of the study intersections were forecast to operate at LOS F in 2010 with and without the Master Plan projects: NE 45th Street / Union Bay Place; NE 45th Street / Montlake Boulevard; and Sand Point Way / NE 50th Street. Capital improvements programmed for implementation in 2003 at the intersection of NE 45th Street / Union Bay Place, in conjunction with current development at University Village, are forecast to improve traffic operations. The other study intersections were forecast to operate at LOS E or better in 2010 with and without the project.

EIS Addendum Information

Although the 2010 horizon year traffic forecasts in the EIS appear to be high based on actual 2000 traffic counts, the three intersections that were forecast to operate at LOS F in 2010 in the EIS would likely operate at LOS F even with the lower increases in traffic volumes. However, delays at these intersections would be less than that noted in the EIS. This was a finding in the EIS Addendum for the *Parking Garage*.

At the NE 55th Street / 40th Avenue NE intersection, the EIS noted that 2010 levels of service at this intersection was forecast to be LOS A during the AM peak hour and LOS D during the PM peak hour with and without the Master Plan projects. Based on 2000 count data, 2010 traffic volumes at this intersection may be up to 7 percent higher than those identified in the EIS. The higher traffic volumes would result in LOS B conditions during the AM peak hour and LOS E during the PM peak hour. This change in LOS is due to changes in background conditions and new data, not the proposed action.

Helistop

Impacts Previously Disclosed in the EIS

An air space protection area defined by the Federal Aviation Administration (FAA) is required. At the helistop location, a minimum clearance (i.e. no obstruction) of 35 feet is specified. The distance from the center of the helistop to the existing canopy is 88 feet, exceeding the FAA requirement. The proposed MIMP projects are not located within the navigational space of the helistop.

EIS Addendum Information

No new or significantly different impacts have been identified. Children's security staff secure the Emergency Department and helistop for helicopter landings. A Children's security staff is posted during helicopter landings, while the helicopter remains on the helistop, and during departure. The distance from the center of the helistop to the new building overhang is 89 feet, exceeding the FAA requirement.

Transportation Management Program

Impacts Previously Disclosed in the EIS

Children's has had a Transportation Management Program (TMP) at the campus since 1985, which has been updated several times. The purpose of the TMP is to maintain the number of eligible day shift hospital employees commuting in single occupant vehicles (SOVs) to 50 percent or less and to help mitigate potential impacts that would be generated by the MIMP projects. The current TMP was developed as part of the MIMP and implemented through a Memorandum of Agreement that was executed between Children's and the City of Seattle.

EIS Addendum Information

A transportation survey of hospital employees was conducted in September 2000 as part of the required Washington State Commute Trip Reduction (CTR) program. Children's supplemented the CTR survey with additional questions in order to better assess the progress of their TMP, and Children's monitors compliance with TMP requirements of the MIMP on an on-going basis. The results of the 2000 survey indicated that approximately 50 percent of the employees covered by the TMP were commuting in SOVs. On-going monitoring since that time indicates that Children's continues to meet or exceed the goal. Children's assesses and improves the TMP incentive program on an on-going basis to increase the number of employees using non-SOV modes of transportation. 155 of Children's staff are exempt from the TMP. Children's has reached the non-SOV participation goal of the TMP of 50 percent. At the time of Children's last annual report, the non-SOV participation was 51 percent.

Parking

Impacts Previously Disclosed in the EIS

Table 5 summarizes the parking demand estimates identified in the MIMP Final EIS.

Table 5
Estimated Parking Demand Generated By MIMP Projects

User Group	Demand for Parking Stalls
Staff	177
Physicians	51
Patients / Visitors	185
TOTAL	413

Source: 1993 MIMP Final EIS.

The Whale Parking Garage, now constructed, provides an additional 411 parking spaces. As noted in the *Parking Garage* EIS Addendum, construction of the parking garage was a condition of approval of the MIMP and was required prior to any additional major building on-campus. Hospital employees are prohibited from parking on neighborhood streets and complying with this provision is a condition of employment.

EIS Addendum Information

Currently, four emergency services patient parking stalls are located in front of the existing emergency entrance. These would be relocated and moved to the east.

The constructed Whale Parking Garage is designed to meet the maximum parking allowed for full build out of the MIMP. With the proposed *ED/OR Project*, the constructed projects will represent 60 percent of the MIMP anticipated development. (Refer to the MIMP Draft EIS for analysis of the total anticipated population and total buildout and corresponding parking demand.) The net new square footage (does not include existing square footage that would be demolished and replaced) of the proposed *ED/OR Project* is approximately 11.3 percent of the total net new square footage of the MIMP. The proposed *ED/OR Project* would account for an estimated demand of approximately 47 parking stalls of the total MIMP parking demand.

While Children's levels of staffing have grown with the increased intensity of hospitalized patients, an increase in Children's regional activity (in clinics in Olympia, Federal Way, Bellevue, Everett, and through affiliations with health care organizations in Anchorage, Kennewick, Wenatchee and Yakima) has allowed children to be treated closer to home and therefore has reduced the level of growth in clinic visits at Children's that was anticipated at the time the MIMP was complete. Children's will continue to review the TMP, meet or exceed the 50 percent goal, and ensure that there is adequate parking for patients, visitors and staff.

Mitigation

The following mitigation measures will be implemented by Children's.

Construction

- Contractors will be required to direct that all construction worker vehicles be parked in a remote off-site parking lot or in a temporary on-site parking area.
- Construction activities will be scheduled so that the most intensive activities in terms of construction traffic are spread out over time.
- Safe pedestrian and vehicular circulation will be provided adjacent to the construction site through the use of temporary walkways, signs, and manual traffic control (flaggers).

Building Operation

- Children's TMP will continue to be re-evaluated, enforced and augmented.
- Hospital employees are prohibited from parking on neighborhood streets and compliance with this provision will remain a condition of employment.

Significant Unavoidable Adverse Impacts

With implementation of the mitigation measures, no significant unavoidable adverse transportation-related impacts are anticipated.

J. PUBLIC SERVICES AND UTILITIES

Impacts Previously Disclosed in EIS

No significant impacts to police services would occur as a result of proposed projects under the MIMP. Demand for fire protection and prevention services would increase during construction

phases and during project operation. While Fire Department service impacts as a result of the MIMP are not anticipated to be significant, they could contribute to cumulative impacts.

Public utilities systems are available to service the demands of the proposed MIMP projects. Storm water runoff and water consumption are expected to increase.

EIS Addendum Information

The proposed *ED/OR Project* would not result in changes to the amount of total Children's development approved in the MIMP. Impacts on police, fire, and other public services generated by the proposed project would be the same as those identified in the Draft EIS.

Mitigation

The following mitigation measures will be implemented by Children's, as appropriate, during construction and building operation.

Construction and Building Operation

- Building design will provide adequate exterior lighting and lines of sight.
- Where appropriate, transparent security screening will be provided rather than opaque walls.
- Building design is such that hiding places for criminal activity has been minimized.
- The proposed *ED/OR Project* has been designed to comply with appropriate fire and life safety code provisions.
- Children's will continue its water conservation programs – both in grounds maintenance and facility operations.
- Children's will aggressively continue implementation of its waste reduction programs and evaluate any new opportunities.

Significant Unavoidable Adverse Impacts

With the implementation of the mitigation measures, no significant unavoidable adverse public service or utility impacts are anticipated.

References

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Appendix A
Distribution List

Appendix A
Distribution List

Federal Agencies:

Environmental Protection Agency, Region X
Department of Housing and Urban Development, Region X
Centers for Medicare and Medicaid Services, Region X
U.S. Department of Transportation, Federal Aviation Administration

State of Washington:

Governor of the State of Washington
Department of Ecology
Department of Social and Health Services
Department of Transportation
Department of Community Development
Office of Archaeology & Historic Preservation
Department of Trade and Economic Development

Regional Agencies:

King County Metro, Environmental Planning
Puget Sound Clean Air Agency (formerly Puget Sound Air Pollution Control Agency)
Puget Sound Regional Council

City of Seattle:

Office of the Mayor
Department of Design, Construction & Land Use
Department of Neighborhoods
Department of Parks and Recreation
Fire Department
Office of Urban Conservation
Police Department
Seattle City Light
Seattle Design Commission
Seattle Public Utilities (formerly Water Department and Sewer Utility)
Seattle Department of Transportation -- SDOT (formerly Department of Engineering)
SEPA Public Information Center (DCLU)

Utility Companies:

Puget Sound Energy
Seattle Steam Corporation
US WEST

Libraries:

King County Library System
Seattle Public Library, Central Branch

Newspapers:

Seattle Times
Seattle Post Intelligencer
Daily Journal of Commerce

Special Interest: Children's Major Institution Master Plan Standing Advisory Committee

Groups & Individuals:

Theresa Doherty
Sue Heffernan, RN
Dick Hillman
Todd Donato
Cheryl Kitchen
Charlotte Utting
Ray Meuse
Teresa Moore
Ruth Benfield
Suzanne Petersen
Sarah Erickson
Cliff Louie
Jann Blackborn
Jennifer Biely
League of Women Voters
Allied Arts of Seattle
University of Washington Facilities Management Office
University of Washington Medical Center
King County Medical Society
King County Emergency Medical Services Advisory Committee
Harborview Medical Center
Washington State Medical Association
Washington State Hospital Association
Airlift Northwest
Laurelhurst Community Club
Laurelon Terrace Apartments Association
View Ridge Community Club
Hawthorne Hills Community Club
Windermere Corporation
Montlake Community Club
City-University Citizens Advisory Committee
University District Community Council
Ravenna-Bryant Community Association
Greater University Chamber of Commerce
University Neighborhood Service Center
Ravenna Springs Community Council