

Project Request Report

Construction of a New RTC Health Sciences Center



2019-21
Renton Technical College



The Future of Health & Human Services Training at Renton Technical College



RENTON
TECHNICAL
COLLEGE®

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HEALTH SCIENCES CENTER RENTON TECHNICAL COLLEGE

1.0 EXECUTIVE SUMMARY

1.1 Problem Statement/Type of Project Request

Health Sciences programs are among the most popular offerings at Renton Technical College (RTC), and with good reason. The college boasts a well-qualified, dedicated faculty and demand for qualified healthcare workers in the region is strong and growing. However, one major obstacle prevents the college from delivering the finest Health Sciences education possible: outdated and poorly configured buildings that house these programs. Scattered around campus, Building B and two other decades-old facilities restrict the use of modern technologies and prevent inter-professional collaboration, two mainstays of contemporary healthcare occupations.

For more than ten years, the number one priority of RTC's facilities master plan has been to build a state-of-the-art Health Sciences Center to replace these inadequate facilities. Most of the programs are taught in the 50-year-old Building B that is not only awkwardly configured for labs, it is also in diminished condition due to its age. The Facility Condition Survey (FCS) states that the building has "poor amenities for contemporary allied health education" and "should be replaced" given "significant system deterioration." Program educators are challenged with major, ongoing facility deficiencies that are listed as sub-standard by accrediting teams during their site evaluations. Among the most common deficiencies accreditors note are insufficient lab space, lack of dedicated simulation space, and lack of storage that results in equipment being "parked" in the hallways. [Facility Condition Survey \(7.2.1\)](#) [Building B Floor Plan \(7.2.2\)](#)

Besides being unsatisfactory for housing Health Sciences education, Building B has inadequate way-finding, ADA accessibility issues, and is not compliant with current building codes. In the future, through a comprehensive renovation, Building B could potentially revert to a standard classroom building. For this reason, the building will not be razed at the time it is vacated. However, the scale of Building B, its construction type and lack of modern infrastructure renders it inappropriate for lab space.

The consequences of continuing to teach highly technical and collaborative coursework in multiple, substandard, under-scaled facilities include failing to meet students' educational needs or fulfill future demands for both enrollment and community healthcare employment. For students in the Health Sciences programs, it means limited opportunities to practice hands-on skills required in the contemporary healthcare workplace, skills that are best learned and assessed in simulation labs outfitted with modern equipment and technology, and reinforced through inter-professional teamwork.

In essence, a new Health Sciences Center is crucial to further the mission and plan of Renton Technical College. The mission of RTC is to engage a diverse student population through educational opportunities for career readiness and advancement, serving the needs of individuals, the community, businesses, and industry. With the expanding demand for qualified healthcare workers in Renton and beyond, it is RTC's role to educate students for success in these careers. RTC is excited about how this project will transform the delivery of Health Sciences education on campus, how it will improve student and faculty experiences at RTC and how it will improve

outreach to other educational entities like the Renton School District while strengthening health-care partnerships with industry leaders such as UW Medicine.

1.2 Proposed Solution

RTC purchased a 4.7-acre parcel from King County, directly across 4th Street from the main campus, for the expressed purpose of constructing a new Health Sciences Center. The college was especially fortunate to acquire this parcel - the only adjacent property suitable for campus expansion - because of its convenient access and prominent siting. Development on this location will significantly raise the college's profile within the community and promote community outreach and partnerships with other agencies and education institutions. [Site Map \(6.7\)](#)

Most significantly, the new facility will consolidate RTC Health Sciences programs into a single building to promote inter-professional collaboration among students and faculty, and further the development of technological and pedagogical approaches to Health Sciences instruction. It will allow for dedicated lab space with the technology infrastructure needed to deliver high-quality healthcare education that reflects the contemporary workplace. Being able to provide a learning environment representative of what graduates will find in the workplace will lead to greater student access and improved success rates. [Drawings & Sketches \(6.8\)](#)

The proposed new building will allow for flexible adjustments to the mix of programs in order to respond to the evolving needs of the healthcare economy. The building will be cost-efficient, program-driven, and environmentally sustainable. It will be a source of pride, for not only the college but the entire community, as it connects the school to residents through several public healthcare offerings. From an urban planning standpoint, the new building will create a dynamic portal to campus. The project will improve Health Sciences education across the board, facilitating RTC student success and helping fulfill workforce demands in Renton and the larger region.

The project concept included in this proposal is simple and achievable. The new building averts programmatic disruptions on campus during construction and avoids having to modify existing buildings. The new building will have an effective life span exceeding 50 years and will be designed to flex with industry developments, and even grow through future expansion. The college is excited about how this project will transform the delivery of Health Sciences education on the RTC campus and the community outreach and partnerships it will facilitate.

1.3 Programs Addressed by Project

Programs to be relocated into the Health Sciences Center were strategically chosen for their traditionally high growth potential, local employment demand and their ability to attract and retain diverse student populations. Most RTC Health Sciences programs include one or more quarters in internships or practicum at community hospitals, clinics and/or nursing facilities. This demonstrates the strong, ongoing relationship RTC maintains with healthcare industry partners.

Anesthesia Technologist - Accredited by the American Society of Anesthesia Technologists and Technicians (ASATT).

RTC offers the only Anesthesia Tech program in Washington State. It is a 6-quarter program that includes medical terminology, pharmacology, EKG analysis, anesthesia equipment principles and applications, and general medical knowledge. Intensive clinical experience in local area hospitals

is provided during the program.

Central Service Technician - In this 4-quarter program students study the principles of microbiology with emphasis on decontamination, disinfection and sterilization, medical terminology, human anatomy, proper care and handling of surgical instrumentation, basic surgical instrument identification, inventory control, distribution, purchasing, and healthcare trends. An internship at a local hospital is included in the program.

Dental Assistant – Accredited by the Commission on Dental Accreditation (CODA). In this 4-quarter program students learn tasks such as four-handed dentistry, bookkeeping, x-rays, and expanded functions. The program includes lectures, demonstrations, small and large group discussions, and practicum. RTC operates a Dental Clinic where students receive hands-on experience working with the public.

Massage Therapy Practitioner - Accredited by Washington State Commission on Massage Therapy Accreditation-(COMTA)/Washington State Department of Health. This 3-quarter program prepares students for professional licensure to practice therapeutic massage for health maintenance, assessment, and rehabilitation of body tissues and systems. The program offers training in diverse modalities including Swedish massage, deep tissue massage, myofascial release, hydrotherapy and hot stone massage.

Medical Assistant - Accredited by the Medical Assistant Education Review Board (MAERB) and the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The curriculum for this program includes three quarters in the classroom and one in a practicum. Students learn to set up clients for examination, draw blood for basic lab studies, administer certain medications, perform EKG's, assist with minor surgical procedures and master front office skills related to medical records and billing.

Medical Coding - Students develop skills to work with doctors, managers, and other healthcare professionals to translate written terminology or descriptions into universal language. Curriculum includes learning medical terminology, word processing, spreadsheet applications, and computerized patient accounting.

Nursing Programs – Approved by the Washington State Department of Health Nursing Care Quality Assurance Commission. RTC offers two Nursing Programs. Students in the Registered Nurse program learn to utilize informatics and information technology to provide optimal, evidence-based nursing. RTC also offers a Nursing Assistant Certification Program in which graduates are eligible for employment in hospitals, clinics, long-term care facilities, retirement/assisted living facilities, adult family homes, and in-home healthcare. Skills are practiced in the program laboratory. Clinical experience occurs in acute hospitals or skilled nursing facilities.

Ophthalmic Assistant – Accredited by the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO). This RTC program is just one of two such programs offered in Washington state. In this 4-quarter program students learn medical terminology, anatomy and physiology, history, visual and pupil-

lary assessment, pathophysiology, lensometry, basic tonometry, instrument maintenance, medical ethics, regulatory and legal issues. Included in the program are clinical experiences in ophthalmologist private clinics, teaching hospitals, and eye centers.

Pharmacy Technician – Accredited by the American Society of Health-System Pharmacists (ASHP) and Washington Department of Health.

Students in this 4-6 quarter program practice computer order entry, pharmaceutical calculations, record keeping, mixing intravenous solutions, and product compounding. Externship experience in retail and hospital pharmacies is included.

MA-Phlebotomy Technician – This single quarter program teaches the history of phlebotomy, clinical laboratory setting, legal and ethical issues, infection control precaution and prevention, CPR/First Aid, anatomy and physiology, medical terminology, proper body mechanics, various blood draw techniques, safety aspects of phlebotomy, complications of phlebotomy, handling of non-blood specimens and OSHA safety standards.

Surgical Technologists – Accredited by the Accreditation Review Committee for Surgical Technology and Surgical Assisting ARC/STSA, and the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

In this 4-quarter program, students learn about invasive surgical procedures, how to ensure safe operating rooms, and maintain equipment to maximize patient safety. Application of sterile and aseptic techniques, human anatomy, surgical procedures, and implementation tools and technologies is studied. Additional training occurs in a variety of regional healthcare facilities.

Veterinary Assistant

The Veterinary Assistant program prepares students for all aspects of animal care. Veterinary Assistants provide surgical and nursing care to animals in a variety of settings including animal hospitals and clinics, animal shelters, laboratories, zoos, and animal parks. The program includes classroom theory, laboratory, and internship experience in local veterinary clinics. During this 4-quarter program, students receive hands-on experience with animals.

1.4 Probable Cost Summary and Comparison to Benchmark (reasonableness of cost)

The total escalated cost of the project is estimated at \$44,555,452. The escalated cost of the Building is estimated at \$42,434,781, which is less than the state's expected cost per SF for this facility type. The escalated cost of the Infrastructure is estimated at \$2,120,671, which is less than 5% of the of the total escalated cost of the project. [C-100s \(6.1\) Expected Cost Calculations \(7.4.9\)](#)

1.5 Project Schedule

Pre-Design	July 2019 – December 2019
Design/ Construction Documents	January 2020 – April 2021
Bid	May 2021
Notice to Proceed	July 2021
Substantial Completion/Commissioning	December 2022
Building Occupancy	January 2023
Final Completion	February 2023

1.6 Project Funding (state funds, local funds, COPs)

Renton Technical College is requesting state capital funds for the construction of a Health Sciences Center. Pre-Design and Design phase funding is requested for the 2019-2021 biennium. Construction funds will be requested for the 2021-2023 biennium. No local funds or COPs are anticipated.

2.0 PROBLEM STATEMENT, OPPORTUNITY OR PROGRAM REQUIREMENT

2.1 Short Description of the Project and Its Benefits

The current RTC Building B is a 50-year old structure that does not function well as laboratory space. It is in diminished condition due to its age, and is not large enough to accommodate all Health Sciences programs. Co-location of programs is crucial for replicating the inter-professional teamwork training that students will need in or during their careers. The [Facility Condition Survey \(7.2.1\)](#) states that the building has “poor amenities for contemporary allied health education” and “should be replaced” given “significant system deterioration.” Program accreditors, identified above, cite insufficient lab space, lack of dedicated simulation space, and lack of storage that results in equipment being “parked” in the hallways. [Building B Floor Plan \(7.2.2\)](#)

Currently, poor facilities also stifle the college’s ability to maximize opportunities with education and industry agency partners. The college recruits heavily in the Renton School District. It is clear during site visits, that many potential students are unimpressed by the old, cramped spaces in Building B. The proposed new plan and property has energized faculty and staff especially since it will aid in both student recruitment and student retention. RTC community partners are also enthused over the possibility for a new facility. RTC’s new Health Sciences Center has the power to improve the community, helping build stronger relationships with other schools and industry partners to provide joint training, certification and employment opportunities. [Letters of Support \(7.4.4\)](#)

The priority of RTC’s facilities master plan is to build a state-of-the-art Health Sciences Center to replace inadequate facilities. The concept for the proposed building is a new, 69,992 SF, three-story Health Sciences Center. The new facility will be able to replicate real-life adjacencies that students and faculty encounter in a hospital or clinic setting by co-locating all RTC Health Sciences programs within one contiguous building. [Drawings & Sketches \(6.8\)](#)

First-floor building circulation replicates an ambulatory healthcare model in which visitors -members of the public who are program clients- are dispersed to main floor programs, mimicking what a patient typically encounters at a hospital or medical clinic. RTC directly serves the public through their Dental Assistant, Message Therapy, Veterinary Assistant, and Phlebotomy programs. This is the perfect partnership in which students gain hands-on healthcare experience, and the community receives free or reduced fee healthcare services.

The ground floor Lobby serves as a visual and physical link between the new south campus and the main north campus across 4th Street. This active gathering space will be multi-functional as a place for students to socialize over a cup of coffee from the espresso kiosk, or meet with fellow students to work on a small group project. The Lobby will be flexible enough to act as a conference space for college events. For instance, faculty will be able to host Health Sciences education

conferences conveniently within a single building, utilizing the Lobby for convening and the large Lecture Classrooms for seminars and presentations.

The first floor also includes a shared Biology/Chemistry Lab, since these courses are required of every student in a Health Sciences Program – even those studying Medical Coding. A basement level will economically house mechanical and electrical equipment as well as provide necessary program storage.

The second level includes the Medical Assistant, Anesthesia Technician, Ophthalmic Assistant, Surgical Technician and Central Services programs. The grouping of programs on this floor allows the sharing of mock surgical spaces for efficiency and to model real-life adjacencies. Faculty offices are grouped on the second and third floors to facilitate professional collaboration while remaining accessible to the students in the nearby programs.

The top floor co-locates the Nursing programs, Pharmacy Technician and Medical Coding programs. Simulation labs are proposed in these programs as an effective way to teach concepts and accurately assess student progress.

Besides being conveniently situated for community out-reach at a major Renton intersection, the Health Sciences Center property allows for ideal east-west building orientation for the construction of teaching gardens on the ground level, daylight harvesting at the interior spaces, and spectacular views to Mount Rainier on the top floors.

Benefits of Proposed Solution

The new facility will;

- Promote student learning and attainment by creating real-world, multi-disciplinary program environments with close proximity to technology tools, faculty offices, and informal learning and student social spaces.
- Meet industry demand for healthcare professionals who can function effectively in today's coordinated healthcare environment.
- Address the needs of the college's exceptionally diverse, economically disadvantaged community by offering flexible delivery models — like I-BEST and modular courses — that support working adults, English Language Learners, and other basic skills students.
- Consolidate closely-related programs into one integrated instructional environment, facilitating increased collaboration among complementary disciplines.
- Maximize program space through flexible design and the shared utilization of resources
- Modernize lab and classroom space with current technologies, including a simulated 21st-century multi-disciplinary healthcare setting.
- Improve the quality of the learning environment through the integration of faculty spaces into associated program areas, the creation of informal learning space, and the addition of windows (lacking in the existing facility) to bring daylight into program spaces. These improvements will help attract students and highly qualified faculty.
- Comply with ADA accessibility requirements in lab spaces which are currently cramped and do not allow for wheelchair maneuverability between stations.
- Provide appropriate space and design for professional development activities in concert with industry partners and supporting integrated, team-based healthcare practices.

- Provide multi-functional and shared program spaces to maximize resources and accommodate a variety of community and college events, including education conferences.
- Offer future flexibility through a post-and-beam structural system and non-bearing partition walls.
- Demonstrate a flagship example of a sustainable LEED Silver facility.

2.2 How This Project Relates to

2.2.1 Relationship to Facilities Master Plan

RTC has advocated so strongly for a new Health Sciences Center, that it spent years negotiating the acquisition of a 4.7-acre property across from the main campus, for the express intent of constructing this transformative project. The RTC Campus Master Plan, updated in 2017, identifies strategies for campus improvements over the next few decades. During the planning process that included extensive programs interviews, tours, and studies of student and workplace demand, a Health Sciences Center was re-confirmed to be the college’s highest priority. The prominence of the building site within the community is an added benefit that will help the college not only solve programmatic challenges, but will facilitate stronger partnerships to help achieve institutional goals. [RTC Campus Master Plan \(7.3.1\)](#)

2.2.2 & 2.2.3 Relationship to Strategic Plan and Institutional Goals

Renton Technical College Mission, Vision and Values are as follows:

MISSION

Renton Technical College engages a diverse student population through educational opportunities for career readiness and advancement, serving the needs of individuals, the community, businesses, and industry.

VISION

Renton Technical College will be a locally, regionally, and nationally recognized leader for improving lives and inspiring lifelong learning.

VALUES

Community – Create an inclusive environment where all are affirmed and welcomed.

Empowerment – Promote strength and confidence to embrace challenge, creativity, and intellectual risk.

Equity – Nurture an academic and work environment that identifies and addresses systemic and institutional barriers and promotes fairness.

Integrity – Foster an ethical environment of trust and honesty.

Learning – Pursue excellence through critical thinking, problem solving, and technical expertise.

Respect – Value humanity and the diversity of people, perspectives, and ideas.

Stewardship – Build a stronger, accountable institution for future generations.

Renton Technical College has firmly aligned its strategic plan, core themes and campus master planning to the mission, vision, and values of the institution. The College’s Strategic Plan includes four strategic goals. For each strategic goal, objectives define a roadmap for achieving desired outcomes. The proposed Health Sciences Center directly supports RTC’s Mission and

Strategic Goals in the following ways:

Strategic Goal 1: RTC will be a learning community in which students, faculty, and staff all strive for excellence and growth

Objective 1.1: Increase student progress and completion.

Within this objective, Renton Technical College has committed to:

- *Fully implementing guided pathways and expanding program offerings to ensure more inclusive access and success for all students.*

The new Health Sciences Center will allow programs to expand to accommodate an increase in student enrollment. Access, in the literal sense, will be improved by providing a facility with full ADA accessibility and functional elevators that do not experience the frequent downtime for maintenance experienced in the current building.

- *Fostering continuous growth and professional development and developing a college-wide learning assessment strategy.*

The new Health Sciences Center will help foster student growth and professional development by offering learning experiences that mirror professional healthcare practices. Proper training and accurate assessment of student progress in simulation labs, outfitted with modern equipment, will better prepare students making them more valuable in the job market and able to garner higher wages. Most of RTCs health programs lead to jobs that are in high demand in the region; jobs that pay more than the regional median wage.

[Healthcare Employment Data \(7.4.6\)](#)

Strategic Goal 2: RTC will foster an academic and work environment of equity, inclusion, and collaboration

Objective 2.4: Improve policies, procedures, and infrastructure to ensure equity among all campus constituencies.

Within this objective, Renton Technical College has committed to:

- *Evaluating and updating technologies and facilities to ensure accommodation of all campus constituents, and closing equity gaps for the under-represented, low income and first-generation students.*

Healthcare fields are technology-driven and continuously evolving. Proper Health Sciences education requires a facility that can adapt to accommodate new technologies, new equipment, new procedures and new teaching strategies. A Learning Resource Lab is included in the project for ensuring equity; making computer access available to all students outside of the classroom.

- *Attracting and retaining diverse faculty and staff; increasing cultural competency; and improving policies, procedures, and infrastructure to ensure equity among all campus constituencies.*

RTC's Building B is one of the oldest facilities on campus and it is too small to accommodate all of the college's Health Sciences programs. Co-location of all Health Sciences programs under one roof will offer opportunities for inter-professional collaboration and will replicate real-life experiences that the current facility cannot begin to offer. Students will benefit from collaborative experiences that not only mimic the profession, and but also strengthens their connection

to faculty and the institution; important factors in student retention. Similarly, a modern Health Sciences facility will make it easier for the college to attract and retain a diverse and highly-talented teaching faculty by providing properly sized classrooms, contemporary teaching amenities, and collective office suites for the sharing of professional best practices. The new facility will also provide standard human comforts that Building B lacks, such as adequate heat, ventilation and access to daylight.

Strategic Goal 3: RTC will engage the greater community through intentional partnerships and responsive programming

Objective 3.1: Prepare skilled workers and leaders for the businesses and industries that power our regional and global economy.

Within this objective, Renton Technical College has committed to:

- *Investing in new program offerings based on labor market demand and student needs.*
The new Health Sciences Center, prominently placed as a campus gateway along a major Renton corridor, will help attract students to healthcare fields and help the region fill its expanding, unmet healthcare labor market demand.
- *Ensuring current programming remains relevant and up-to-date with industry trends.*
The new building will be flexible and expandable. It will include systems that are easy to update and spaces that can readily accommodate new equipment, new technologies and new teaching strategies.
- *Providing corporate and continuing education courses and programs that increase responsiveness to the needs of businesses and industry*
The new Health Sciences Center will allow RTC faculty to better host seminars on healthcare practice, and conferences on healthcare education by providing multi-purpose lecture, presentation and dining spaces. The new facility will be located on a major Renton thoroughfare, with ample close parking, making it an especially desirable place to host the continuing education courses needed by healthcare industry partners.
- *Exploring partnerships for capital and program development*
The city of Renton is home to many prestigious healthcare facilities. Although once associated almost solely with the Boeing Company's airplane fabrication facility, Renton now has a much more diversified economy. It is quickly becoming the hub of Puget Sound's healthcare ecosystem. Healthcare is vital to its economic strength. A new, state-of-the-art Health Sciences Center, conveniently located on a major Renton thoroughfare, will allow RTC to foster new industry partnerships and expand existing ties other education institutions and the entire community. The Mayor of Renton, the Superintendent of the Renton School District and the CEO of UW Medicine have all written [letters in support](#) of this project. Rich Roodman, UW Medicine's CEO, states that their partnership with RTC includes collaboration through mentoring, training and employment opportunities. RTC is fortunate to have several major local healthcare employers that provide internships for students and employment following graduation. UW Medicine/Valley Medical Center is Renton's primary medical facility and is the largest nonprofit healthcare provider between Seattle and Tacoma. Established in 1947, the medical center is one of Renton's primary employers. Valley Medical is now joined by the significant expansion of Kaiser-Permanente, Providence St. Joseph Health, and HealthPoint. Healthcare and Human Services is now Renton's third largest industry sector in terms of employment, accounting for 7,385 jobs in 2017 - a remarkable 79% increase over 4,120

similar jobs in 2015. [Renton Businesses & Jobs \(7.4.7\)](#)

Strategic Goal 4: RTC will enhance institutional strength and resilience

Goal 4 focuses on improving the integration of planning, evaluation, and resource allocation; increasing financial security by maximizing professional-technical programming and the diversification of funding; implementing intentional systems improvement; and investing in the College's infrastructure.

Particularly relevant to this project is the commitment to align institutional priorities to the facilities master plan. It cannot be over-stated that for many years, a new Health Sciences Center has been the most important project outlined in the college's facilities Master Plan. Institutional strength results, in part, from programs that attract students and community, business and industry support. This is difficult to accomplish in antiquated facilities that are not sufficient to meet current and future needs. Healthcare is an increasingly important part of the Renton economy and needs a workforce training facility appropriate to the challenge. Facility flexibility will be crucial for institutional resilience in the face of change.

2.3 How this project relates to the SBCTC System Direction goals for Economic Demand, Student Success, and Innovation

Goal 1: Economic Demand – Strengthening state and local economies by meeting the demands for a well-educated and skilled workforce.

Healthcare is vital to Renton and Washington State's economic strength and data correspondingly indicates a significant increase in jobs in the past two years. (See below). Requiring both technical and interpersonal skills to ensure patient well-being, health care employers demand an especially well-educated workforce.

In King County, employment data shows significant, unmet labor demand in healthcare fields. Seven of the top-ten, in-demand programs are taught at RTC. These include Registered Nurse, Medical Assistant, Surgical Technician, Ophthalmic Technician, Pharmacy Technician, Phlebotomist, and Massage Therapist. Most of these positions earn more than the median regional wage. Sub-baccalaureate healthcare careers pay an average salary of over \$43,000. The rate for Registered Nurses, for example, is typically above \$52,000 per year.

Goal 2: Student Success – Achieving increased educational attainment for all residents across the state.

RTC's Health Sciences programs are among the most demographically diverse profiles in the state. This is by design. A key component of RTC's mission is to engage a diverse student population through educational opportunities for career readiness and advancement. RTC empowers individuals to embrace risk and promotes equity in the academic and work environment to break down systemic barriers, and foster lifelong learning. Especially in the technical and collaborative field of healthcare, well-designed, functional facilities create the framework for supporting effective pedagogy, delivering relevant curriculum, and encouraging socialization and informal learning through small group work – critical components for ensuring student attainment and success in school, and in their careers.

Goal 3: Innovation – Using technology, collaboration and innovation to meet the demands of the economy and improve student success.

Uniting dispersed RTC Health Sciences programs under one roof is the single most important step the college can take to realize innovation, maximize opportunities for technology, and support collaboration.

Technology is crucial for healthcare delivery - from patient charting and sharing medical records, to the use of technically sophisticated machines, instruments, and diagnosing processes, to the increasing popularity of on-line “telemedicine”. RTC’s Health Sciences Center will be constructed with the utmost flexibility in infrastructure to respond to changing technological needs in healthcare education over the life of the building.

Collaboration is a best practice required for effective and efficient healthcare delivery. In the workplace, inter-professional communication and teamwork between a variety of specialty fields and occupations improves patient outcomes. Students must learn these skills before entering the field to ensure career preparedness. In the Health Sciences Center, active spaces dedicated to informal learning and student socializing will not only strengthen a student’s academic success, they will help students form a bond to classmates, faculty and programs for improved retention rates. Likewise, faculty offices are being intentionally consolidated, and grouped in open office suites, to encourage professional sharing.

Innovation is key to improved healthcare instructional delivery. Inventive ways to simulate hands-on healthcare delivery in an education setting are continuously being developed with technological advances. Providing simulation labs is the delivery method of choice, both as an effective pedagogical approach and one that eases pressure on demands for clinical placements with RTC healthcare partners. For example, new rules from the state Nursing Commission allow for up to 50% of clinical hours to be met by approved simulation lab training (WAC 246-840-534) and allow innovation projects (WAC 246-840-553). RTC will bring an innovative mindset to healthcare instruction by providing true-to-life healthcare experiences that Building B cannot accommodate.

2.4 Table Showing a Summary of Program and Related Space

Program Summary	Net Area (ASF)	Gross Area (GSF)
Health Sciences Classrooms	10,600	16,061
Lecture/Assembly	5,100	7,727
Health Sciences Labs	24,370	36,924
Resource Library	1,400	2,121
Administration	4,725	7,159
TOTAL	46,195	69,992

For planning purposes, the building is programmed at 66% efficiency, to allow for support spaces such as restrooms, mechanical, electrical, technology and storage.

[Detailed Building Program \(7.4.8\)](#)

2.5 Increased Type 1 & Type 2 Full Time Equivalent Students Accommodated by Project

The Health Sciences Center accommodates an increase of 182 annual FTE. This increase will occur in the new facility and vacated spaces. In alignment with increased program demand, guided pathways, and increases in Running Start, the following additions are anticipated:

Type 1 FTE Increases - 131 AFTE

Registered Nurse	49 AFTE	Medical Assistant	21 AFTE
Information Technology	21 AFTE	General Education	40 AFTE

Type 2 FTE Increases - 51 AFTE

Information Technology	21 AFTE	General Education	40 AFTE
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Total FTE Increases - 182 AFTE

2.6 Table of Affected Existing Buildings with Identifier, Dates Built and Square Footages

Existing campus buildings will not be affected by this project, except for vacating space, below:

BUILDING	FACILITY IDENTIFIER, UFI	DATE BUILT	AREA VACATED
B	A00284	1966	46,435 SF
H	A01938	1993	5,780 SF
J	A05747	1988	1,190 SF

3.0 ANALYSIS OF ALTERNATIVES

3.1 Define the Capital Problem in Terms of Building Age, Condition, Functionality, Health, Safety, Code Issues

RTC Building B, which houses most of the healthcare programs, was constructed in the 1960s and poses significant facility challenges for Health Sciences programs. The most significant shortcomings of the building include poor layout and a size deficiency that results in the scattering of Health Sciences classrooms across campus into three separate buildings. Quality education, especially in healthcare, should replicate what students will encounter in the contemporary workplace. For Health Sciences, co-locating related programs as one would find in a hospital or clinic setting, is imperative for students to learn the interdisciplinary teamwork skills that are needed in the field.

Building B is poorly configured and is under-scaled for laboratories. Systems are deteriorating due to its age. The HVAC has inadequate capacity, zoning and distribution. No ventilation is provided in hazardous areas, and the offices lack air conditioning. The FCS states, the “facility was constructed in three stages” and it offers “poor amenities for contemporary allied health education; (and) should be replaced.” The FCS also contends that the building’s “Life expectancy is less than 5 years; (with) significant system deterioration.” The building includes badly designed additions that result in difficult wayfinding and dark, uninviting interior spaces. Some instructional rooms, including labs, are not fully ADA accessible. The elevator is obsolete and unreliable, requiring extensive refurbishment. The student experience is compromised in nearly every way, including the lack of any social and informal learning spaces for small group work.

[Facilities Condition Survey \(7.2.1\)](#)

3.2 Describe the Obvious and Critical Needs That Are Driving the Project

3.2.1 New Spaces for Enrollment Demand

Two unassigned classrooms and a general use biology/chemistry lab will accommodate a new program or expansion of existing programs. For example, the Medical Assisting program shows potential to expand from three annual student cohorts to four. The Registered Nursing program anticipates increasing from two student cohorts per year to three.

3.2.2 Renovation/Replacement

This is a new facility. There is no renovation or replacement included in this request.

3.2.2.1 Program Mix Changes

The program mix at RTC strongly aligns with both current regional healthcare employment demand and student enrollment. Depending on project timing and market analysis, the building will include Health Sciences programs already offered by the college, yet is flexible enough to accommodate new programs. By incorporating state-of-the-art technologies, campus resources will be maximized by being able to offer additional hybrid, distance-learning and other flexible delivery methodologies into Health Sciences instruction. In addition, the Health Sciences Center's new convenient location, with easy access to parking, will allow the college to explore opportunities including the expansion of Health Sciences programs into evening and weekends, and teaming with local partners to host more education conferences, training seminars and Continuing Education courses.

3.2.2.2. Simplifying Space Relationships

Simplifying program relationships is one of the most important benefits of the proposed project. The Health Sciences Center will consolidate all healthcare-related programs into one building, replicating adjacencies found in the contemporary healthcare workplace.

Currently, the Ophthalmic Assistant program, Medical Coding program and Registered Nursing laboratory and simulation facilities are in multiple buildings, separate from the other Health Sciences programs, despite needing to access similar resources. Co-locating all Health Sciences programs will facilitate cross-discipline collaboration and create additional shared educational opportunities. For instance, the Registered Nursing, Surgical Tech and Anesthesia Tech programs currently engage students in an interdisciplinary activity involving a patient undergoing a Caesarian-section. Having lab facilities large enough to accommodate more of these types of cross-discipline activities will enhance each individual program curriculum while encouraging students to explore alternative career pathways.

3.2.3 Accreditation Needs

Health Sciences programs must meet the requirements of many different accrediting agencies. Those specific bodies are noted above, in [Section 1.3 Programs Addressed by Project](#). Besides setting maximum cohort sizes, accreditors evaluate facilities to note deficiencies for healthcare instruction. Accrediting agencies have noted the following facility deficiencies in RTC's Health Sciences program spaces:

- Non-dedicated, multi-purpose labs. Many classrooms double as laboratories, which compromises full opportunities and requires excessive time for set-up and teardown.

- Lack of dedicated simulation labs.
- Insufficient quantity of classrooms.
- Improperly sized classrooms – low SF/student ratio.
- Shortage of computer lab space for testing. Available program testing spaces are too far from the classrooms.
- Undersized program storage for specialty equipment. Equipment is often “parked” in hallways or classrooms, compromising the safety of students and equipment.
- Lack of suitable office space and conferencing capabilities.
- To correct accreditor-noted deficiencies, the new Health Sciences Center will:
- Provide better trained health care workers, meeting growing community needs and statewide demand for trained allied health and nursing professionals.
- Relieve significant space shortages hampering all the RTC Health Sciences programs.
- Provide space to add new Health Sciences programs to meet significant needs in Western Washington.
- Address overall space shortages and correct instructor/student ratios, thus improving operations for space-constrained programs that can grow into new Health Sciences spaces.
- Consolidate programs, strengthen adjacencies and provide convenience for students.
- Add space to address academic adjustments for students with disabilities.
- Create a flexible, adaptable facility to meet the ever-changing needs of academic programs.
- Develop a building that is cost efficient, program-driven, and environmentally sustainable.
- Provide proportional lecture/lab ratios for students.
- Produce safe healthcare practitioners through additional lab space.

3.3 Alternatives Considered

3.3.1 Programmatic Facility Related

RTC has studied all options - renovation, replacement and new construction. The best option for the college is to build new program space. The primary goal of the college is to consolidate all Health Sciences programs into one building, to strengthen collaboration between faculty and students, share resources, and better represent healthcare delivery in the real world. No other option available can produce these attributes.

3.3.2 Consequences of Doing Nothing

The consequences of doing nothing include failure to meet student enrollment and failure to provide top-notch Health Sciences education. Students and faculty will continue to operate in outdated labs that are not fully accessible with equipment that does not reflect what is found in the workplace. Doing nothing fails to prepare students properly for careers in fields that increasingly rely on innovative technologies and multi-discipline teamwork. In addition:

- Student wait lists will grow. Students will leave the district to enroll at other public and private institutions with greater capacity and more contemporary Health Sciences education facilities, unimpressed by the old, cramped facilities of Building B.
- Healthcare job openings in Renton and the region will likely remain unfilled if RTC is unable to keep up with growing demand and technical changes in the industry.
- Program and Institutional goals will not be achieved.
- Cohorts will not have access to modern technology, leaving students unprepared for the workplace.
- Instructional methodologies will be limited, making it harder to attract and retain quality

faculty.

- Interdisciplinary project learning, and connections with STEM will not be realized.
- Health and safety issues in Building B will continue to grow. Some students will be prevented from full access due to ADA accessibility issues.
- Operational and maintenance costs paid by the state will rise exponentially, as systems continue to decline in current aging facilities.

3.3.3 Cost Estimate for Each Alternative

The RTC campus has no remaining open construction sites available for construction of a Health Sciences Center. There are no vacated buildings on campus that could be adequately remodeled to support the mission of this project. The concept presented in this Project Request Report is the most economically feasible option, and for this reason, is the only proposal presented. The project will be realized within the established state guidelines of reasonable cost. The escalated cost of the Building is estimated at \$42,434,781, which is less than the state's expected cost per SF for this facility type. [Cost Estimation C-100 \(6.1\)](#) [Expected Cost Calculations \(7.4.9\)](#)

4.0 PROJECT PLANNING OF PREFERRED ALTERNATIVE

4.1. History of Building and Original Funding Source, if applicable

A new building is being requested, therefore history of building and original funding source are not applicable.

4.2 Life of Proposed Facility

The life of the proposed facility is a minimum of 50 years. By specifying high-quality, low-maintenance materials and incorporating flexible elements into the design, it is anticipated that the building will have a lifespan far greater than the stated minimum.

4.3 Discussion of Sustainability – LEED Silver Standard Required

The Health Sciences Center will be designed to Leadership in Energy and Environmental Design (LEED) Silver standards. The college will select those LEED-endorsed building and site strategies with the greatest return on investment, such as providing high efficiency energy systems to reduce operation costs. [LEED Checklist \(6.5\)](#)

RTC is also committed to reducing its greenhouse gas emissions. This project will incorporate at least 10 best practices to support the greening of the campus and work towards CO2 emission reductions as stated in the college's [Greenhouse Gas Reduction Plan. \(7.4.2\)](#) These action items include:

- Installing high-efficiency gas-fired condensing boilers to achieve a 95% efficiency, exceeding the code requirement of 80%.
- Using natural gas instead of electricity as the heating source.
- Performing post-occupancy commissioning to ensure systems are operating at maximum efficiency.
- Specifying occupancy and time-of-day controls for lighting.
- Utilizing energy efficient LED lighting.
- Minimizing building surface area by building a three-story facility, minimize the building's impervious footprint on the site.
- Choosing roofing materials with high solar reflectance and reliability.

- Orienting building in the east-west direction for ideal solar exposure and daylight harvesting.
- Paving pathways with high solar reflectance materials.
- Increasing and encouraging alternative transportation choices to and from campus. The Health Sciences Center will be located on a major bus route through Renton, making public transportation especially accessible to all students and faculty.

4.4 How this Project Will Impact Deferred Maintenance and Repair Backlog

The proposed project is new space and reduces \$75,000 of deferred maintenance and repair backlog needed for the existing 1962 facility, Building B. In the short-term, Building B will be used as-is, as classroom surge space. Significant building deficiencies, such as correcting issues of ADA accessibility non-compliance, and replacing the obsolete single piston elevator will be addressed only if a major renovation of Building B is requested as a future Capital Project. [Facility Condition Survey \(7.2.1\)](#)

4.5 Acquisition Needs

No site acquisition is needed. RTC recently acquired the proposed project site for the express purpose of constructing a new Health Sciences Center. The property was previously developed in 1967, with a building that now is “in below average condition and is nearing the end of its functional life,” according to a property appraisal report compiled by Appraisal Group of the Northwest for Real Property Agent, John Ely. The appraisal report indicates that the “highest and best use of the site, as improved,” is to demolish the existing obsolete improvements to make way for a new commercial development.” The college supports the appraiser’s assessment that the building is not suitable for renovation, especially considering the building’s scale, code challenges, inefficient use of the site, and diminished condition. Further detailed in Section 4.12 below, the history of this Former Public Health building will be recognized in the new facility and fully documented before demolition. [Property Appraisal Report \(7.1.2\)](#)

4.6 Mitigation and Neighborhood Related Issues

The college met with the city of Renton on November 6, 2017 to discuss this project. There are no known mitigations, neighborhood issues or special permits required. A traffic study will be commissioned to determine impacts, which are anticipated to be minimal. The city will require impact fees for this development and street front improvement, both of which have been included in the [cost estimation. \(6.1\)](#)

4.7 Parking Expansion Directly Related to the Project

As a part of the 2016 master planning process, a complete Parking and Trip Generation Study was completed. This study indicated that parking on campus is slightly below 100% utilization. In a meeting with the City of Renton regarding this project, planners advised the college to propose a parking quantity for the new building based on estimated building needs, rather than strict adherence to their municipal code. This proposal includes a parking lot accommodating 120 new parking stalls. This quantity is based on historical parking demands, adjacent parking on the main campus, and access to mass transit along 4th Street, which is a major collector distributor through the city. [Parking Utilization Study \(3.7.2\)](#)

4.8 Permit Issues, Variances Required

No permit or variance issues are anticipated. Educational Uses are permitted outright in the

Commercial Arterial (CA) zone of the project site. City officials have confirmed that the project is not only allowed, but is a welcomed development in the community as indicated in the Renton Mayor's [letter of support. \(7.4.4\)](#)

4.9 Utility and other Infrastructure Needs

Since the site has been previously developed, some re-use of existing infrastructure is anticipated. A preliminary civil engineering report, completed as a part of this proposal, notes the need for a new 8-inch water loop through the site for fire protection and approximately five new fire hydrants on-site to cover the building and property. A 4-inch domestic water service meter and 6-inch fire service meter are also anticipated. [Civil Report \(7.1.1\)](#)

4.10 Storm Water and Other Environmental Issues

Soils on site are assumed to be well-draining, based on historical data for the area. A detention volume of approximately 32,000 CF is estimated, and may be handled with surface ponds or an underground vault. An estimated 8" storm connection to the city's storm main will be required. At this time, the site is largely flat and paved, therefore minimal grading is required to achieve finish surface. Hazardous material abatement will likely be required during the demolition of the former King County Health building. [Civil Report \(7.1.1\)](#)

4.11 Roads and Traffic Signals

Roads and traffic signals are currently in-place, adjacent to the proposed site. An existing traffic signal on the west side of Jefferson Avenue requires modifications to add pedestrian crossing signals for improved connection between the new south campus and the main campus to the north. Based on the meeting with the city, frontage improvements, including a widened sidewalk/bike path, landscaping and lighting, are required with the redevelopment of this site. Costs associated with the new crossing signals, plus sidewalk and landscaping modifications including improvements on the north side of 4th Street, have been included in the cost estimate.

4.12 Department of Archeology and Historic Preservation (DAPH) and Tribal Reviews

Like hundreds of other aging, state-owned buildings, DAPH indicates that the existing 8,600 SF building on RTC's new parcel may have some historic significance. The college recognizes the value of protecting the heritage of this nation, state, and region, which serves to enrich present and future generations of RTC students and staff as well as the greater Renton community. However, given the extremely poor condition of the building - which likely includes hazardous materials - its inappropriate scale for a lab building, and its inefficient placement directly in the center of the site, adaptive re-use as part of the new Health Sciences Center is not functionally or fiscally feasible.

During the planning phases, the college will take appropriate measures to protect archaeological, historic, and cultural resources on the new property. Preservation of building components may include reclaiming wood from the structure for re-use in the new building, and creating a visual display such as a memory wall. The [cost estimation](#) prepared as a part of this proposal includes a dedicated line item, *Historical Mitigation*, for this recognition. In addition, photographs will be provided to the state as a part of DAPH requirements to document the building prior to its demolition. [DAHP and Tribal Review \(6.4\)](#)

The college also has funds set aside in the cost estimate for *Archeological Mitigation* which specifies actions to be followed if items are unearthed during excavation that appear to be a cultural artifact.

4.13 Utilization of Classrooms, Laboratories and All Instructional Areas on Campus

The most important benefit to utilization will be RTC's ability to successfully offer more evening options - in addition to daytime programs - by promoting their state-of-the-art, healthcare training facility that is conveniently located and includes ample parking close-by. With hospitals and clinics being a major employer in Renton, evening continuing education healthcare courses is a strong, untapped market. [Fall 2016 Utilization and Future Utilization \(7.4.10\)](#)

4.14 New Programs; Changing Mix of Programs

The new Health Sciences Center will accommodate new programs as they are developed, to meet market demand. Contemporary classroom and lab spaces will be created for existing programs that consistently show the greatest potential for growth in this region.

RTC regularly conducts demand, supply and market opportunity analyses to determine if new programs should be considered. Analysis of student, industry and community demand, as well as the assessment of market potential, reveals market saturation and helps to identify market size, market share potential, and suggests target populations inclined to respond positively to a new program offering. The current program mix has been deemed to be the most advantageous.

As part of the strategic planning process, a shortlist of 14 academic programs were identified for possible future viability. The recommendations were based specifically on programs that will provide a significant opportunity for an increased quantity of current student types. Other factors studied included mission fit, RTC distinctiveness, market match, capacity and infrastructure, cost/benefit outcomes, and data informed rationale. The college plans to explore additional Health Sciences related fields that will have the most growth potential from 2020-2025.

[Program Growth Trends \(7.4.5\)](#)

4.15 New Space, What Happens to Vacated Space - (renovated or demolished)?

With construction of the Health Sciences Center, 46,435 SF of vacated space is created in Building B. Building B performs very poorly for lab-heavy, contemporary Health Sciences education. However, since it could provide future classroom surge space, or it could be converted into a Basic Studies facility at a later date, Building B will not be demolished at this time. A major renovation of the Building B may be considered for a future Capital Project request, however, no funds for an existing building renovation are included in this project request.

4.16 Comparison of existing and new spaces to the capital analysis model in Appendix F.

The Health Sciences Center building program addresses specific area shortfalls on campus. According to the Capital Analysis Model (CAM), the college has a shortage of Assembly and Library Resource spaces, and Faculty Offices. The proposed project provides 5,100 SF of new Assembly space, 1,440 SF of new Library space and 4,725 SF of new Faculty Office space to help off-set established area shortages. [CAM \(7.4.3\)](#)

4.17. Need and Availability of Surge Space

Since the project is constructed on a different site than the existing Health Sciences building, no surge space is needed during construction. Programs will remain in Buildings B, H and J until the new facility is ready for move-in.

4.18. Flexibility and Adaptability of Proposed Space

The ever-changing nature of healthcare, and education in Health Sciences, necessitates facilities that can easily adapt over time. For the proposed building, flexibility will be maximized by specifying a post-and-beam steel structural system to produce large, clear span areas. Individual rooms will be created by non-load bearing partition walls that can be altered relatively simply, to suit future program needs as they arise. Primary mechanical and electrical spaces - which are difficult to relocate - will be in the basement, so they do not impede future building remodels.

Flexibility will be built into the project by creating spaces that are multifunctional and able to accommodate a variety of events. For example, the Lobby will act as an ambulatory model for community members who visit the Message, Phlebotomy, Dental and Veterinary programs. The Lobby will also be a vibrant gathering spot for students to socialize over a snack or cup of coffee. In addition, each of the three, level-floored, lecture classrooms on the building's west side can be subdivided into two smaller classrooms by a moveable partition wall, allowing the rooms to accommodate a variety of student and faculty assemblies. The combination of these flexible spaces in the Health Sciences Center will allow faculty to conveniently host healthcare education symposiums and conferences; providing adequate lecture, presentation and dining zones within a single building.

5.0 PROJECT BUDGET ANALYSIS OF PREFERRED ALTERNATIVE

5.1 Prediction of Overall Project Cost

The total escalated cost of the project is estimated at \$44,555,452. The escalated cost of the Building is estimated at \$42,434,781, which is less than the state's expected cost per SF for this facility type. The escalated cost of the Infrastructure is estimated at \$2,120,671, which is less than 5% of the of the total escalated cost of the project.

[Cost Estimation C-100 \(6.1\)](#) [Expected Cost Calculations \(7.4.9\)](#)

5.2. Comparisons of \$/FTE to Similar Washington Community/Technical College Projects

The total escalated cost of the RTC Health Sciences project is estimated at \$44,555,452. It will provide 522 FTEs, at \$85,355/FTE. The average \$/FTE for all major projects included in the SBCTC 2018 Capital Request is \$114,925/FTE. The \$/FTE of the project is less than the state average, and it is also less than similar project types. For comparison, the Bates Medical Mile Health Sciences Center is \$242,900/FTE and the Shoreline Allied Health, Science & Manufacturing Building is \$176,570/FTE.

5.3. Anticipated Annual Impact on College’s Operating & Maintenance Budget in Program 090 FTES and M&O cost

	Increase in FTEs (or Cost/Unit)	Anticipated Increase in College Operating Budget/Year
5.3.1. Janitorial		
Custodian	2.0	\$102,952
5.3.2. Utility	\$2.30/SF	\$161,982
5.3.3. Technology		
Technology Staff	1.0	\$ 74,250
5.3.4 Capital maintenance		
Maintenance Services	.5	\$39,604
5.3.5. Grounds Maintenance		
Grounds	.25 FTE	\$18,500
Furniture/Equipment	Included in Estimate	
5.3.6. Security	\$.15/SF	\$10,499
5.3.7. Administration		
Simulation Labs Staffing	1.0	\$65,000
Learning Resource Lab	.5	\$24,553
TOTAL ESTIMATED M&O		\$497,340

5.3.8. Desired Construction Method – Design/Bid/Build, GC/CM, or Design Build

The college will use the Department of Enterprise Services to accomplish a Design, Bid, Build project. This matches RTC’s funding pattern and it is the most efficient and cost-effective process in the South Sound area.

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Renton Technical College	
Project Name	Health Sciences Center	
OFM Project Number		

Contact Information

Name	McGranahan & C&N	
Phone Number	253-383-3084 / 206-830-0543	
Email	gail.merth@mcgranahan.com	

Statistics

Gross Square Feet	69,992	MACC per Square Foot	\$377
Usable Square Feet	46,195	Escalated MACC per Square Foot	\$426
Space Efficiency	66.0%	A/E Fee Class	B
Construction Type	College classroom facilit	A/E Fee Percentage	6.87%
Remodel	No	Projected Life of Asset (Years)	

Additional Project Details

Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	2.80%	Higher Ed Institution	Yes
Sales Tax Rate %	10.00%	Location Used for Tax Rate	Renton
Contingency Rate	5%		
Base Month	November-17		
Project Administered By	DES		

Schedule

Predesign Start	July-19	Predesign End	December-19
Design Start	January-20	Design End	May-21
Construction Start	July-21	Construction End	February-23
Construction Duration	19 Months		

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Project Cost Estimate

Total Project	\$37,718,180	Total Project Escalated	\$42,434,781
		Rounded Escalated Total	\$42,435,000

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Renton Technical College	
Project Name	Health Sciences Center	
OFM Project Number		

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0

Consultant Services			
Predesign Services	\$250,000		
A/E Basic Design Services	\$1,313,344		
Extra Services	\$1,247,000		
Other Services	\$840,053		
Design Services Contingency	\$182,520		
Consultant Services Subtotal	\$3,832,917	Consultant Services Subtotal Escalated	\$4,190,816

Construction			
Construction Contingencies	\$1,319,330	Construction Contingencies Escalated	\$1,492,295
Maximum Allowable Construction Cost (MACC)	\$26,386,603	Maximum Allowable Construction Cost (MACC) Escalated	\$29,797,027
Sales Tax	\$2,770,593	Sales Tax Escalated	\$3,128,933
Construction Subtotal	\$30,476,526	Construction Subtotal Escalated	\$34,418,255

Equipment			
Equipment	\$2,579,728		
Sales Tax	\$257,973		
Non-Taxable Items	\$0		
Equipment Subtotal	\$2,837,701	Equipment Subtotal Escalated	\$3,209,725

Artwork			
Artwork Subtotal	\$148,985	Artwork Subtotal Escalated	\$148,985

Agency Project Administration			
Agency Project Administration Subtotal	\$0		
DES Additional Services Subtotal	\$0		
Other Project Admin Costs	\$0		
Project Administration Subtotal	\$0	Project Administration Subtotal Escalated	\$0

Other Costs			
Other Costs Subtotal	\$422,051	Other Costs Subtotal Escalated	\$467,000

Project Cost Estimate			
Total Project	\$37,718,180	Total Project Escalated	\$42,434,781
		Rounded Escalated Total	\$42,435,000

Cost Estimate Details

Acquisition Costs					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	\$0		NA	\$0	

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Cost Estimate Details

Consultant Services				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study	\$250,000			
Other				
Insert Row Here				
Sub TOTAL	\$250,000	1.0617	\$265,425	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	\$1,313,344			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	\$1,313,344	1.0814	\$1,420,251	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	\$85,000			
Geotechnical Investigation	\$40,000			
Commissioning	\$25,000			
Site Survey	\$40,000			
Testing	\$40,000			
LEED Services	\$75,000			
Voice/Data Consultant	\$40,000			
Value Engineering	\$45,000			
Constructability Review	\$45,000			
Environmental Mitigation (EIS)	\$40,000			
Landscape Consultant	\$90,000			
ELCCA	\$50,000			
LCCT	\$75,000			
Reimbursables inc Reprographics prior to bid	\$50,000			
Advertising	\$2,000			
Traffic Analysis	\$30,000			
Hazardous Materials Consultant	\$40,000			
Acoustic Design	\$40,000			
Interior Design	\$50,000			
Security Consultant	\$35,000			
Audio Visual Consultant	\$50,000			
Lighting Consultant	\$35,000			
Value Engineering Participation	\$40,000			
Constructability Review Participation	\$40,000			
Environmental Graphics/Signage	\$30,000			
Cost and Scheduling	\$25,000			
Door Hardware Consultant	\$10,000			
Envelope Consultant	\$50,000			
SEPA/Land Use	\$30,000			
Sub TOTAL	\$1,247,000	1.0814	\$1,348,506	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	\$590,053			31% of A/E Basic Services

HVAC Balancing				
Staffing				
Commissioning & Training	\$100,000			
LEED Reporting & Monitoring	\$25,000			
Reimbursables/Reprographics for bid and construction	\$50,000			
Construction Materials Testing	\$75,000			
Sub TOTAL	\$840,053	1.1311	\$950,185	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	\$182,520			
Other				
Insert Row Here				
Sub TOTAL	\$182,520	1.1311	\$206,449	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	\$3,832,917		\$4,190,816	

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Cost Estimate Details

Construction Contracts				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Site Work				
G10 - Site Preparation	\$494,700			
G20 - Site Improvements	\$1,012,721			
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
General Conditions	\$135,668			
Contractors Overhead and Profit	\$82,154			
Sub TOTAL	\$1,725,243	1.1065	\$1,908,982	
2) Related Project Costs				
Offsite Improvements	\$260,989			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	\$260,989	1.1065	\$288,785	
3) Facility Construction				
A10 - Foundations	\$449,222			
A20 - Basement Construction	\$545,723			
B10 - Superstructure	\$2,993,731			
B20 - Exterior Closure	\$2,960,028			
B30 - Roofing	\$583,835			
C10 - Interior Construction	\$2,689,821			
C20 - Stairs	\$191,500			
C30 - Interior Finishes	\$1,613,339			
D10 - Conveying	\$198,000			
D20 - Plumbing Systems	\$1,294,852			
D30 - HVAC Systems	\$3,406,511			
D40 - Fire Protection Systems	\$349,960			
D50 - Electrical Systems	\$3,413,510			
F10 - Special Construction				
F20 - Selective Demolition	\$77,679			
General Conditions	\$1,918,402			
E10 Equipment Installed by Contractor	\$207,500			
E20 - Furnishings Installed by Contractor	\$340,366			
Contractors Overhead and Profit	\$1,166,391			
Sub TOTAL	\$24,400,371	1.1311	\$27,599,260	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	\$26,386,603		\$29,797,027	

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7) Construction Contingency

Allowance for Change Orders	\$1,319,330		
Other			
Insert Row Here			
Sub TOTAL	\$1,319,330	1.1311	\$1,492,295

8) Non-Taxable Items

Other			
Insert Row Here			
Sub TOTAL	\$0	1.1311	\$0

Sales Tax

Sub TOTAL	\$2,770,593		\$3,128,933
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CONSTRUCTION CONTRACTS TOTAL	\$30,476,526		\$34,418,255
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Cost Estimate Details

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment	\$769,912			
E20 - Furnishings	\$1,119,872			
F10 - Special Construction				
Simulation Mannequins	\$200,000			
A/V Systems	\$262,470			
Telecom/Data Cabling/Equipment	\$227,474			
Sub TOTAL	\$2,579,728	1.1311	\$2,917,931	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1311	\$0	
Sales Tax				
Sub TOTAL	\$257,973		\$291,794	
EQUIPMENT TOTAL				
	\$2,837,701		\$3,209,725	

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Cost Estimate Details

Artwork					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Project Artwork	\$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	\$148,985				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	\$148,985		NA	\$148,985	

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Cost Estimate Details

Project Management					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$0				
Additional Services					
Other					
Insert Row Here					
PROJECT MANAGEMENT TOTAL	\$0		1.1311	\$0	

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Cost Estimate Details

Other Costs					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Permit and Plan Review Fees	\$207,451				
City of Renton Transportation Impact Fee	\$164,600				
Historic Mitigation	\$35,000				Memory wall or other tribute item for existing 50+ year old building to be demolished
Archeological Mitigation	\$15,000				Potential tribal monitoring of site excavation
OTHER COSTS TOTAL	\$422,051		1.1065	\$467,000	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Renton Technical College	
Project Name	Health Sciences Center - Infrastructure Costs	
OFM Project Number		

Contact Information

Name	McGranahan & C&N	
Phone Number	253-383-3084 / 206-830-0543	
Email	gail.merth@mcgranahan.com	

Statistics

Gross Square Feet	69,992	MACC per Square Foot	\$21
Usable Square Feet	46,195	Escalated MACC per Square Foot	\$23
Space Efficiency	66.0%	A/E Fee Class	B
Construction Type	College classroom facilit	A/E Fee Percentage	9.93%
Remodel	No	Projected Life of Asset (Years)	

Additional Project Details

Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	2.80%	Higher Ed Institution	Yes
Sales Tax Rate %	10.00%	Location Used for Tax Rate	Renton
Contingency Rate	5%		
Base Month	November-17		
Project Administered By	DES		

Schedule

Predesign Start	July-19	Predesign End	December-19
Design Start	January-20	Design End	May-21
Construction Start	July-21	Construction End	February-23
Construction Duration	19 Months		

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Project Cost Estimate

Total Project	\$1,918,006	Total Project Escalated	\$2,120,671
		Rounded Escalated Total	\$2,121,000

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Renton Technical College	
Project Name	Health Sciences Center - Infrastructure Costs	
OFM Project Number		

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0

Consultant Services			
Pre-design Services	\$0		
A/E Basic Design Services	\$105,081		
Extra Services	\$60,000		
Other Services	\$47,210		
Design Services Contingency	\$10,615		
Consultant Services Subtotal	\$222,906	Consultant Services Subtotal Escalated	\$243,926

Construction			
Construction Contingencies	\$73,031	Construction Contingencies Escalated	\$82,606
Maximum Allowable Construction Cost (MACC)	\$1,460,622	Maximum Allowable Construction Cost (MACC) Escalated	\$1,616,179
Sales Tax	\$153,365	Sales Tax Escalated	\$169,879
Construction Subtotal	\$1,687,018	Construction Subtotal Escalated	\$1,868,664

Equipment			
Equipment	\$0		
Sales Tax	\$0		
Non-Taxable Items	\$0		
Equipment Subtotal	\$0	Equipment Subtotal Escalated	\$0

Artwork			
Artwork Subtotal	\$8,081	Artwork Subtotal Escalated	\$8,081

Agency Project Administration			
Agency Project Administration Subtotal	\$0		
DES Additional Services Subtotal	\$0		
Other Project Admin Costs	\$0		
Project Administration Subtotal	\$0	Project Administration Subtotal Escalated	\$0

Other Costs			
Other Costs Subtotal	\$0	Other Costs Subtotal Escalated	\$0

Project Cost Estimate

Total Project	\$1,918,006	Total Project Escalated	\$2,120,671
		Rounded Escalated Total	\$2,121,000

Cost Estimate Details

Acquisition Costs					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	\$0		NA	\$0	

Green cells must be filled in by user

Cost Estimate Details

Consultant Services

Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Pre-Schematic Design Services				
Programming/Site Analysis	\$0			
Environmental Analysis				
Predesign Study	\$0			
Sub TOTAL	\$0	1.0617	\$0	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	\$105,081			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	\$105,081	1.0814	\$113,635	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	\$60,000			
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Sub TOTAL	\$60,000	1.0814	\$64,884	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	\$47,210			31% of A/E Basic Services

HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	\$47,210	1.1311	\$53,400	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	\$10,615			
Other				
Insert Row Here				
Sub TOTAL	\$10,615	1.1311	\$12,007	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	\$222,906		\$243,926	

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Cost Estimate Details

Construction Contracts				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
1) Site Work				
G10 - Site Preparation				
G20 - Site Improvements				
G30 - Site Mechanical Utilities	\$814,500			
G40 - Site Electrical Utilities	\$439,866			
G60 - Other Site Construction				
General Conditions	\$112,893			
Contractors Overhead and Profit	\$68,363			
Sub TOTAL	\$1,435,622	1.1065	\$1,588,516	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Utility Hook-Up	\$25,000			
Insert Row Here				
Sub TOTAL	\$25,000	1.1065	\$27,663	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1311	\$0	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	\$1,460,622		\$1,616,179	

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7) Construction Contingency

Allowance for Change Orders	\$73,031		
Other			
Insert Row Here			
Sub TOTAL	\$73,031	1.1311	\$82,606

8) Non-Taxable Items

Other			
Insert Row Here			
Sub TOTAL	\$0	1.1311	\$0

Sales Tax

Sub TOTAL	\$153,365		\$169,879
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CONSTRUCTION CONTRACTS TOTAL	\$1,687,018		\$1,868,664
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Cost Estimate Details

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment	\$0			
E20 - Furnishings	\$0			
F10 - Special Construction				
	\$0			
	\$0			
Sub TOTAL	\$0	1.1311	\$0	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1311	\$0	
Sales Tax				
Sub TOTAL	\$0		\$0	
EQUIPMENT TOTAL				
EQUIPMENT TOTAL	\$0		\$0	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Project Artwork	\$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	\$8,081				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	\$8,081		NA	\$8,081	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$0				
Additional Services					
TCC Facilities Management	\$0				
Insert Row Here					
PROJECT MANAGEMENT TOTAL	\$0		1.1311	\$0	

Green cells must be filled in by user

Cost Estimate Details

Other Costs				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
Mitigation Costs				
Hazardous Material Remediation/Removal				
Historic and Archeological Mitigation				
Insert Row Here				
OTHER COSTS TOTAL	\$0	1.1065	\$0	

Green cells must be filled in by user



**Renton Technical College
Health Sciences Center
Renton, WA**

PRR Estimate

Estimate Issue Date: December 19, 2017
Estimate Revision: 4

For: Gail Merth

McGRANAHAN architects

2111 Pacific Avenue, Suite 400

Tacoma, WA 98402

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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G

G10 Site Preparation

No work anticipated N/A

Total For Site Preparation _____

G20 Site Improvements

No work anticipated N/A

Total For Site Improvement _____

G30 Site Mechanical Utilities

G 3030 Storm Sewer

Storm Drainage System

Storm drainage piping and fittings	1	LS	55,000.00	55,000
Connections	1	EA	6,050.00	6,050
Manholes, catch basins, area drains, etc	1	LS	30,000.00	30,000
Detention Vault	32,000	CF	13.90	444,795
Water Quality System	1	LS	50,000.00	50,000

G 3020 Sanitary Sewer

Sanitary Sewer System

Sanitary sewer piping and fittings	1	LS	25,000.00	25,000
Manholes, cleanouts, etc	1	LS	15,000.00	15,000
Connections	1	LS	3,850.00	3,850

G 3010 Water Supply

Water piping and fittings

Water piping and fittings	1	LS	100,000.00	100,000
Fire Hydrants	5	EA	4,125.00	20,625
Fire Dept. Connection (FDC)	1	EA	2,200.00	2,200
Post Indicator Valve (PIV)	1	EA	1,980.00	1,980
Valves and specialties	1	LS	20,000.00	20,000
Water meters in vaults	1	LS	25,000.00	25,000

G 3060 Fuel Distribution

Gas Service

Incoming gas service	1	LS	15,000.00	15,000
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Total For Site Mechanical Utilities _____ **814,500**

G40 Site Electrical Utilities & Site Lighting

G 4010 Electrical Distribution

Site electrical utilities, allow

Site electrical utilities, allow	1	LS	100,000.00	100,000
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Electrical transformer	1	LS	120,000.00	120,000
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G 4020 Site Lighting

Site Lighting	1	LS	100,000.00	100,000
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Renton Technical College
Health Sciences Center
PRR Estimate
Infrastructure Improvements



Date: December 19, 2017
Prepared By: AC

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
G 4030 Site Communications and Security Incoming telecom/data from campus	1	LS	119,866.00	119,866
Total For Site Electrical Utilities				<u>439,866</u>

**Renton Technical College
Health Sciences Center
PRR Estimate
Building**

INTRODUCTION

Exclusions from Construction Cost:

- Design fees
- Owners administration costs
- Building and land acquisition fees
- Legal and accounting fees
- Removal of unforeseen underground obstructions
- Owner's furniture, furnishings and equipment
- Owners supplied materials
- Work outside the construction site boundary.
- Moving owners equipment and furniture
- Compression of schedule, premium or shift work, and restrictions on the contractor's working hours
- Assessments, finance, legal and development charges

Assumption used in establishing the estimate:

- Open and competitive bidding among all proportions of the work
- Escalation has been included at 4.5% per annum

Items that may affect the cost estimate:

- Modifications to the scope of work included in this estimate.
- Special phasing requirements other than mentioned above.
- Restrictive technical specifications or excessive contract conditions.
- Any non-competitive bid situations.
- Bids delayed beyond the projected schedule.

Renton Technical College
Health Sciences Center
PRR Estimate
Building



C & N Consultants, Inc.
Construction Cost Consultants

Date: December 19, 2017

Prepared By: AC

OVERALL SUMMARY CONSTRUCTION COST

	Gross Area	\$/SF	\$
Building	69,992 SF	347.34	24,311,008
Sitework	174,700 SF	24.65	1,725,243
Frontage / Off-Site Improvements	30,176 SF	8.65	260,989
Building Demolition and Abatement	8,631 SF	10.30	88,904
Escalation - see C-100 form			
TOTAL CONSTRUCTION COST			26,386,144
Infrastructure Improvements			1,435,622
Escalation - see C-100 form			
TOTAL CONSTRUCTION COST - INFRASTRUCTURE IMPROVEMENTS			1,435,622



BUILDING DATA

Building Area

Lower Level	5,850 SF
Level 1	21,410 SF
Level 2	21,410 SF
Level 3	21,322 SF

Total Gross Floor Area

69,992 SF

	Quantity	Unit	Ratio to Gross Area
Number of stories (x1,000)	4	EA	0.057
Gross Area	69,992	SF	1.000
Footprint Area	21,410	SF	0.306
Volume	1,049,880	CF	15.000
Gross Wall Area	41,493	SF	0.593
Retaining Wall Area	4,200	SF	0.060
Finished Wall Area	37,293	SF	0.533
Windows or Glazing Area	30.00% 11,188	SF	0.160
Roof Area - Flat	21,410	SF	0.306
Roof Area - Sloping	-	SF	
Roof Area - Total	21,410	SF	0.306
Roof Glazing Area	600	SF	0.009
Interior Partition Length	5,370	LF	0.077
Interior Doors Per Leaf	180	EA	0.003
Interior Glazing	2,870	SF	0.041
Finished Area	69,992	SF	1.000
Elevators (x10,000)	1	EA	0.014

Summary of Estimate

No.	Element Description		Element Totals	Group Totals	Cost Per SF
D30	HVAC			3,406,511	48.67
D3010	HVAC		3,406,511		48.67
D40	FIRE PROTECTION			349,960	5.00
D4010	Sprinkler System		349,960		5.00
D50	ELECTRICAL			3,413,510	48.77
D5000	Electrical		3,413,510		48.77
E10	EQUIPMENT			207,500	2.96
E1010	Equipment		207,500		2.96
E20	FURNISHINGS			340,366	4.86
E2010	Fixed Furnishings		340,366		4.86
F10	SPECIAL CONSTRUCTION			-	-
F1010	Special Structure				
F1020	Special Construction				
F20	SELECTIVE BUILDING DEMOLITION			-	-
F2010	Building Demolition				-
		Sub-Total		21,237,899	303.43
	Estimating / Design Contingency	10.00%		Included in Rates	
		Sub-Total		21,237,899	303.43
	General Conditions / General Requirements	9.00%		1,911,411	27.31
		Sub-Total		23,149,309	330.74
	GC Fee	5.00%		1,161,699	16.60
	December 2017 Construction Cost			24,311,008	347.34
	Escalation - see C-100 form				-
	TOTAL CONSTRUCTION COST			\$24,311,008	347.34

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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A10 FOUNDATIONS

A1010 Standard Foundation

A1011 Foundations

Reinforced concrete continuous footings

Excavate for continuous footings, Typ	369	CY	31.70	11,690
Over-Excavate additional 2 feet for continuous footings	461	CY	31.70	14,612
Backfill, assume imported fill, typ	461	CY	38.00	17,516
Backfill for overex area, assume imported fill, typ	177	CY	38.00	6,715
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	1,104	CY	20.40	22,512
Fine grade bottom of footing	6,829	SF	0.75	5,122
Formwork to foundations - sides	5,350	SF	8.85	47,348
Reinforcing steel in foundations	22,553	LB	1.25	28,192
Concrete, 4,000 psi	192	CY	236.00	45,328
Finish to top of footing	6,829	SF	0.80	5,463

A1012 Column foundations

Reinforced concrete spread footings

Excavate for spread footings,	56	CY	31.70	1,786
Over-Excavate for spread footings, 2 feet	75	CY	31.70	2,375
Backfill for overex area, assume imported fill	75	CY	38.00	2,847
Backfill, assume imported fill	28	CY	38.00	1,060
Disposal of excavated material off-site within 8 miles, assumed a 33% swell factor	175	CY	20.40	3,562
Fine grade bottom of footing	284	SF	0.75	213
Formwork to foundations - sides	585	SF	8.85	5,177
Reinforcing steel in foundations	3,102	LB	1.25	3,877
Concrete, 4,000 psi	28	CY	236.00	6,715
Finish to top of footing	284	SF	0.80	227

A1013 Perimeter drainage and insulation

Perimeter drain pipe and rock	802	LF	22.00	17,644
Perimeter insulation	2,406	SF	5.20	12,511

Total For Standard Foundations 262,492

A1020 Special Foundation

A1021 Pile foundations

No work anticipated N/A

Total For Special Foundations

A1030 Slab on Grade

A1031 Standard slab on grade

Reinforced concrete slab on grade	21,410	SF	8.00	171,280
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DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
A1034 Trenches, pits and bases				
Elevator pit	1	EA	10,950.00	10,950
Reinforced concrete pads	1	LS	4,500.00	4,500
Total For Slab on Grade				186,730
A20 BASEMENT CONSTRUCTION				
A2010 <u>Basement Excavation</u>				
A2011 Excavation for basements				
Excavation for basements and removal	5,844	CY	48.00	280,523
A2012 Structure backfill and compaction				
Backfill at basement walls	298	CY	45.00	13,410
A2013 Shoring				
Shoring, assumed not required				N/A
Total For Basement Excavation				293,933
A2010 <u>Basement Walls</u>				
A2021 Basement wall construction				
Retaining walls	4,200	SF	42.20	177,240
A2022 Moisture protection				
Waterproofing system	4,200	SF	9.50	39,900
A2023 Basement wall insulation				
Rigid insulation	4,200	SF	3.75	15,750
A2024 Interior skin				
Gypsum board, painted	4,200	SF	4.50	18,900
Total For Basement Walls				251,790
B1010 <u>Floor & Roof Construction</u>				
B 1010 Floor & Roof Construction				
Steel Structure	979,888	LB	2.40	2,351,731
Metal deck at suspended floors	48,582	SF	3.90	189,470
Metal deck at roof construction	21,410	SF	3.60	77,076
Reinforced concrete topping slab	48,582	SF	7.00	340,074
Fireproofing to structural steel, assumed not required				
Equipment pads and curbs	1	LS	8,500.00	8,500
B1023 Canopies				
Steel framing at canopies	11,200	LB	2.40	26,880
Total For Floor Construction				2,993,731
B20 EXTERIOR CLOSURE				

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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B2010 Exterior Walls

B2011 Exterior wall construction

Cladding systems, 70% of Finish wall area	26,105	SF	38.20	997,215
Metal stud framing	26,105	SF	8.50	221,893
Rigid insulation, 4"	26,105	SF	3.25	84,842
Batt insulation	26,105	SF	1.25	32,631
Gypsum exterior sheathing 5/8"	26,105	SF	3.50	91,368
Plywood sheathing, 1/2"	26,105	SF	3.30	86,147
Air / Vapor barrier	26,105	SF	4.20	109,641
Gypsum board, 5/8"	26,105	SF	3.12	81,448
Paint exposed steel	1	LS	6,000.00	6,000
Extra over for graffiti coatings	1	LS	6,000.00	6,000

B2013 Exterior louvers, screens and fencing

Louvers	1	LS	14,000.00	14,000
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Caulking, sealants and firestopping

Caulking, sealants and firestopping	1	LS	50,000.00	50,000
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Miscellaneous

Finish to backside of parapet walls	1,604	SF	12.50	20,050
Parapet cap	802	LF	35.00	28,070
Sunscreens, allow	1	LS	60,000.00	60,000

Total For Exterior Walls 1,889,305

B2020 Exterior Windows

B2022 Curtain walls

Curtain wall	2,797	SF	110.00	307,667
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B2023 Storefronts

Storefront glazing	8,391	SF	82.00	688,056
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Total For Exterior Windows 995,723

B2030 Exterior Doors

B 2030 Exterior Doors

Entrance doors and frame including hardware	1	LS	45,000.00	45,000
Glazed overhead doors	1	LS	30,000.00	30,000

Total For Exterior Doors 75,000

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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ROOFING

B3010 Roof Covering

B3011 Roof finishes				
Single ply roofing system, complete	21,410	SF	18.50	396,085
B3014 Flashings and trim				
Sheet metal flashings and trim	1	LS	36,500.00	36,500
Canopy, glass	1,300	SF	72.50	94,250
Miscellaneous				
Rough carpentry	1	LS	35,000.00	35,000
Fall arrests	1	LS	22,000.00	22,000

Total For Roofing 583,835

C10 INTERIOR CONSTRUCTION

C1010 Partitions

C1011 Fixed partitions				
Metal stud framing at partitions	118,677	SF	4.55	539,980
Metal studs framing at chase walls	3,200	SF	9.10	29,120
Metal stud framing at shaft walls	2,800	SF	5.60	15,680
Batt insulation	100,875	SF	1.00	100,875
Gypsum board, 5/8"	243,754	SF	3.05	743,450
Gypsum shaftwall, 1"	2,800	SF	4.10	11,480
Gypsum board underlayment	83,074	SF	2.40	199,377
FRP	1,050	SF	6.50	6,825
C1013 Operable and folding panel partitions				
Operable partitions	450	SF	70.00	31,500
C1016 Interior balustrades and screens				
Interior guardrails	340	LF	300.00	102,000
C1017 Interior windows and storefronts				
Interior glazing	2,870	SF	65.00	186,550
Miscellaneous				
Gypsum board bulkheads	1	LS	13,000.00	13,000
Blocking and backing, allow	1	LS	16,500.00	16,500

Total For Interior Partitions 1,996,338

C1020 Interior Doors

C1021 Interior doors				
Interior doors, frames and hardware				
Hollow metal / wood / glazed door and frame including hardware				
Single	140	EA	2,300.00	322,000
Double	20	EA	4,150.00	83,000

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
Specialty hardware, allow	1	LS	14,500.00	14,500
C1025 Interior door sidelights and transoms Included in interior glazing section				N/A
Total For Interior Doors				419,500

C1030 Specialties

C1032 Fabricated compartments and cubicles

Toilet partitions

ADA toilet partition

12 EA 1,610.00 19,320

STD toilet partition

16 EA 1,415.00 22,640

Urinal screens

6 EA 555.00 3,330

C1033 Storage shelving and lockers

Janitors mop rack and shelf

3 EA 450.00 1,350

C1035 Identifying devices

Code signage

69,992 SF 0.15 10,499

Wayfinding and room identification signage

69,992 SF 0.60 41,995

Building signage

1 LS 10,000.00 10,000

C1037 General fittings and misc. metals

Miscellaneous metals, allow 0.4#/SF

27,997 LB 3.25 90,990

Elevator pit ladder

1 EA 800.00 800

Fire extinguisher cabinets

18 EA 230.00 4,140

Grab bars at restrooms per set

12 EA 240.00 2,880

Mirrors

1 LS 2,800.00 2,800

Restroom accessories

1 LS 15,000.00 15,000

Cubicle curtain and track

280 LF 58.00 16,240

Markerboards / tackboards

1 LS 32,000.00 32,000

Total For Fittings and Specialty Items

273,984

C20 STAIRS

C2010 Stair Construction

C 2010 Stair Construction including railings and finish

Exit stairs

7 FLT 19,500.00 136,500

Architectural stairs

1 FLT 55,000.00 55,000

Total For Stair Construction

191,500

INTERIOR FINISHES

C3010 Wall Finishes

C3011 Wall finishes to inside exterior walls

Paint to interior side of exterior walls

26,105 SF 1.10 28,716

C3012 Wall finishes to interior walls

Paint to walls

243,754 SF 1.10 268,129

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
Ceramic tile	5,200	SF	16.85	87,620
Acoustical wall treatments and wall finishes	1	LS	130,000.00	130,000
Total For Wall Finishes				514,465
C3020 Floor Finishes				
C3024 Flooring including base				
Flooring including base	69,992	SF	7.30	510,942
Total For Floor Finishes				510,942
C3030 Ceiling Finishes				
C3031 Ceiling finishes				
Ceiling finishes, allow	69,992	SF	8.40	587,933
Total For Ceiling Finishes				587,933
D10 CONVEYING				
D1010 Elevator & Lift				
D1011 Passenger elevators				
Passenger elevator, 4 stop including cab finish	1	EA	198,000.00	198,000
Total For Elevator & Lifts				198,000
D20 PLUMBING				
D2010 Plumbing				
Plumbing	69,992	SF	18.50	1,294,852
Total For Plumbing				1,294,852
D30 HVAC				
D3010 HVAC				
HVAC	69,992	SF	48.67	3,406,511
Total For HVAC				3,406,511
D40 FIRE PROTECTION				
D4010 Fire Protection				
Fire sprinkler system	69,992	SF	5.00	349,960
Total For Fire Sprinkler System				349,960
D50 ELECTRICAL				
D5000 Electrical				

Renton Technical College
 Health Sciences Center
 PRR Estimate
 Building



Gross Floor Area: 69,992 SF

Date: December 19, 2017

Prepared By: AC

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
Electrical	69,992	SF	48.77	3,413,510
Total For Electrical				3,413,510
E10 EQUIPMENT				
E1010 Equipment				
E1027 Laboratory equipment Laboratory equipment	1	LS	195,000.00	195,000
E1094 Residential equipment Residential equipment, allow	1	LS	12,500.00	12,500
Total For Equipment				207,500
E20 FURNISHINGS				
E2010 Fixed Furnishing				
E2012 Fixed casework Casework	1	LS	295,366.24	295,366
E2013 Blinds and other window treatments Window treatments	1	LS	45,000.00	45,000
E2014 Fixed floor grilles and mats Walk off mats included in floor finish section of the estimate				N/A
Total For Furniture				340,366
F10 SPECIAL STRUCTURES				
F1010 Special Structure				
No work anticipated				N/A
Total For Special Structure				
F1020 Special Construction				
No work anticipated				N/A
Total For Special Construction				
F20 SELECTIVE BUILDING DEMOLITION				
F2010 Building Element Demolition				
No work anticipated				N/A
Total For Selected Demolition				

No.	Element Description		Element Totals	Group Totals	
G	BUILDING SITEWORK			1,507,421	
G10	Site Preparation		494,700		
G20	Site Improvement		1,012,721		
G30	Site Mechanical Utilities				
G40	Site Electrical Utilities				
	Sub-Total			1,507,421	
	Estimating / Design Contingency	10.00%		Included in Rates	
	Sub-Total			1,507,421	
	General Conditions	9.00%		135,668	
	Sub-Total			1,643,088	
	GC Fee	5.00%		82,154	
	December 2017 Construction Cost			1,725,243	
	Escalation - see C-100 form				
	TOTAL CONSTRUCTION COST			\$1,725,243	

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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G

G10 Site Preparation

G 1010 Site Clearing Site clearing	174,700	SF	1.00	174,700
G1022 Demolition of site components Miscellaneous site demolition / relocations	1	LS	20,000.00	20,000
G 1030 Site Earthwork Grading	1	LS	255,000.00	255,000
G1037 Erosion control Erosion control	1	LS	45,000.00	45,000
Total For Site Preparation				494,700

G20 Site Improvements

G 2010 Roadways Hardscape paving at roadways	9,000	SF	5.22	46,980
Curbs at roadways	1	LS	28,500.00	28,500
G 2020 Parking Lots / Pedestrian Paving Hardscape paving at parking	40,100	SF	3.85	154,385
Curbs at parking	1	LS	46,000.00	46,000
Wheelstops	120	EA	80.00	9,600
G 2030 Pedestrian Paving Concrete paving at courtyard	8,700	SF	6.00	52,200
Concrete paving at entry plaza	4,400	SF	10.00	44,000
Pedestrian paving	12,000	SF	6.00	72,000
Pedestrian paving at corridor	4,000	SF	6.00	24,000
G 2040 Site Development Site development including walls, steps, furnishings	1	LS	24,000.00	24,000
G 2050 Landscaping G2051 Fine grading and soil preparation Fine grading and soil preparation	96,500	SF	0.30	28,950
G2053 Top soil and planting beds Top soil	1,787	CY	42.00	75,056
G2055 Planting Softscape planting	96,500	SF	2.30	221,950
G2057 Irrigation system Irrigation system complete	96,500	SF	1.40	135,100

Miscellaneous

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
Archeological resource monitoring	1	LS	15,000.00	15,000
Historical preservation and mitigation "memory wall"	1	LS	35,000.00	35,000
Total For Site Improvement				1,012,721
G30 <u>Site Mechanical Utilities</u>				
Included in Infrastructure Estimate				N/A
Total For Site Mechanical Utilities				
G40 <u>Site Electrical Utilities & Site Lighting</u>				
Included in Infrastructure Estimate				N/A
Total For Site Electrical Utilities				

No.	Element Description		Element Totals	Group Totals	
G	BUILDING SITEWORK			228,038	
G10	Site Preparation		96,065		
G20	Site Improvement		131,973		
G30	Site Mechanical Utilities				
G40	Site Electrical Utilities				
	Sub-Total			228,038	
	Estimating / Design Contingency	10.00%		Included in Rates	
	Sub-Total			228,038	
	General Conditions	9.00%		20,523	
	Sub-Total			248,561	
	GC Fee	5.00%		12,428	
	December 2017 Construction Cost			260,989	
	Escalation - see C-100 form				
	TOTAL CONSTRUCTION COST			\$260,989	



DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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G

G10 Site Preparation

G 1010 Site Clearing Site clearing	18,368	SF	1.43	26,266
G1022 Demolition of site components Miscellaneous site demolition / relocations	1	LS	13,500.00	13,500
G 1030 Site Earthwork Grading	1	LS	37,378.88	37,379
G1037 Erosion control Erosion control	1	LS	18,920.00	18,920
Total For Site Preparation				96,065

G20 Site Improvements

G 2030 Pedestrian Paving Concrete paving	6,560	SF	7.43	48,708
G 2050 Landscaping G2051 Fine grading and soil preparation Fine grading and soil preparation	11,808	SF	0.72	8,443
G2053 Top soil and planting beds Top soil	219	CY	49.50	10,824
G2055 Planting Softscape planting	11,808	SF	2.53	29,874
Trees	24	EA	150.00	3,600
G2057 Irrigation system Irrigation system complete	11,808	SF	2.59	30,524
Total For Site Improvement				131,973

G30 Site Mechanical Utilities

No work anticipated				N/A
Total For Site Mechanical Utilities				

G40 Site Electrical Utilities & Site Lighting

No work anticipated				N/A
Total For Site Electrical Utilities				

No.	Element Description		Element Totals	Group Totals	
G	BUILDING SITEWORK			77,679	
G10	Site Preparation		77,679		
G20	Site Improvement				
G30	Site Mechanical Utilities				
G40	Site Electrical Utilities				
	Sub-Total			77,679	
	Estimating / Design Contingency	10.00%		Included in Rates	
	Sub-Total			77,679	
	General Conditions	9.00%		6,991	
	Sub-Total			84,670	
	GC Fee	5.00%		4,234	
	December 2017 Construction Cost			88,904	
	Escalation - see C-100 form				
	TOTAL CONSTRUCTION COST			\$88,904	

DETAIL OF ESTIMATE

Item Description	Quantity	Unit	Unit Cost	Totals
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G

G10 Site Preparation

G1021 Building demolition				
Demolish Existing Building	8,631	SF	6.00	51,786
Hazardous Material Abatement, Existing Building	8,631	SF	3.00	25,893

Total For Site Preparation	77,679
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G20 Site Improvements

No work anticipated

Total For Site Improvement	
-----------------------------------	--

G30 Site Mechanical Utilities

No work anticipated

Total For Site Mechanical Utilities	
--	--

G40 Site Electrical Utilities & Site Lighting

No work anticipated

Total For Site Electrical Utilities	
--	--

No.	Element Description		Element Totals	Group Totals	
G	BUILDING SITEWORK			1,254,366	
G10	Site Preparation				
G20	Site Improvement				
G30	Site Mechanical Utilities		814,500		
G40	Site Electrical Utilities		439,866		
	Sub-Total			1,254,366	
	Estimating / Design Contingency	10.00%		Included in Rates	
	Sub-Total			1,254,366	
	General Conditions	9.00%		112,893	
	Sub-Total			1,367,259	
	GC Fee	5.00%		68,363	
	December 2017 Construction Cost			1,435,622	
	Escalation - see C-100 form				
	TOTAL CONSTRUCTION COST			\$1,435,622	

Project Parameters

Type of Space	Square Footage	Percent
Renovation of Existing	(S1) = 0	0%
New Space	(S2) = 69,992	100%
Exterior Circulation of Existing. See Appendix H.	(S6) = 0	0%
Demolished Area	(S3) = 0	0%
Total Affected Area	69,992	100%
Net Area Change = New – Demo – Circulation	69,992	100%

Costs	Dollars	Percent
Acquisition	0	0.0%
Consultant Services	4,190,816	9.4%
Construction Contracts (w/o eligible Infrastructure)	34,418,255	77.2%
Eligible Infrastructure Contracts (from C100)	2,120,671	4.8%
Equipment	3,209,725	7.2%
Artwork	148,985	0.3%
Other Costs	467,000	1.1%
Project Management	0	0.0%
Total Project Cost (C1)	44,555,452	100.0%

Funding	Dollars	Percent
State Appropriation	44,555,452	100%
Financed – backed by State Appropriation	0	0%
Local Funds – Cash (see list of qualifying funds)	0	0%
Financed – backed by Local Funds	0	0%
Total Project Funding	44,555,452	100%
Matching	0	0%
Variance = Cost – Funding	0	0%

Project Weighting	Equivalent Area	Percent
Matching	0	0.0%
Infrastructure	3,331	4.8%
Renovation	0	0.0%
Replacement	0	0.0%
New	66,661	95.2%
Total	69,992	100.0%

2019-21 Minimum and Overarching Criteria Points

Evaluation Criteria	Scoring Standard	
College Response	Affected buildings are at a single site.	Yes
College Response	Project does not include improvements to temporary or portable facilities.	Yes
College Response	Project is not a gymnasium or recreational facility.	Yes
College Response	Project is not an exclusive enterprise function such as a bookstore, dormitory or contract food service.	Yes
College Response	Project is not dependent on another project in the current request.	Yes
College Response	Project meets LEED Silver Standard requirements.	Yes
College Response	College has a Greenhouse Gas Emission Reduction plan.	Yes
College Response	The facility is state-owned or a condominium interest is held (state capital funds cannot be spent on leased space).	Yes
College Response	Project will take more than one biennium. And, project costs at least \$5,000,000 and does not exceed 70,000 gsf without WACTC Capital Budget Committee approval.	Yes
College Response	If project includes renovation or replacement, then affected buildings have been owned by the college for 20 years at the time of the request.	N/A - No renovation or replacement
College Response	If project includes renovation, then the project extends the useful life of the affected building at least 20 years.	N/A - No renovation
College Response	If project includes renovation, then the cost does not exceed 80% of the current replacement cost.	N/A - No renovation
Effective use of existing facilities See Appendix C for guidelines on determining existing utilization	Fall 2016 space utilization relative to standards and other proposals. Standards are: Classroom seats used 22 hours per week. Laboratory seats used 16 hours per week.	Up to 9 points
Ability to enhance state and institution's achievement of goals	<i>Add up points from each category: (Max 14)</i> Directly tied to facilities master plan. Directly tied to objectives in strategic plan. Include clear and succinct description of the relationship between the project and its impact on partnerships with K-12, 4 yrs, business, etc. This may be supported by letters from partners describing how the project will benefit the partnership. Project includes at least seven of the best practices identified in Appendix A to reduce greenhouse gas emissions.	4 Yes 4 Yes 4 Yes 2 Yes
Overarching Subtotal (O1)		
Overarching Weighting (O2)		
Overarching Weighted Subtotal (O3 = O1 x O2)		
Overarching Portion of Project (O4)		
Overarching Points (O5 = O3 x O4)		



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

November 27, 2017

Mr. Wayne Doty
Director of Capital Budgets
WA State Board for Community and Technical Colleges
MS 42495
Olympia, WA 98504-2495

In future correspondence please refer to:

Project Tracking Code: 2017-11-08343
Property: Renton Technical College New Health Sciences Center
Re: Determined Eligible

Dear Mr. Doty:

Renton Technical College (RTC) recently contacted the State Historic Preservation Officer (SHPO) and the Washington State Department of Archaeology and Historic Preservation (DAHP) regarding the proposed Health Sciences Center. We have reviewed the information sent to us by Stefanie Fuller of Enterprise Services (DES). This review was conducted on behalf of the SHPO by Deputy SHPO, Greg Griffith; State Archaeologist, Dr. Rob Whitlam; and myself.

It is our opinion that the historic property (ID#537641) acquired by the RTC for the project is eligible to the National Register of Historic Places. Mr. Griffith has informed Ms. Fuller that we are interested in this property as an example of intact mid-20th century modern architecture as well as King County public health efforts in the 1960s. We look forward to further consultation regarding the determination of the project effect on National Register eligible property in the area of potential impact. To continue consultation, please have DES fill out an EZ-3 form.

Furthermore, Dr. Rob Whitlam has conducted a preliminary review of the site at that location and has concluded that the State Board and DES must alert their contractors to standard inadvertent discovery protocols, due to the probability of archaeological resources being present while preparing the site.

Please provide us any correspondence or comments from concerned tribes and other parties that you receive as you consult under the requirements of Governors Executive Order 05-05 (GEO 05-05). These comments are based on the information available at the time of this review and on behalf of the SHPO pursuant to GEO 05-05. Should additional information become available, our assessment may be revised. Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me (360) 586-3533 or russell.holter@dahp.wa.gov.

Sincerely,

Russell Holter
Project Compliance Reviewer
Cc: Stefanie Fuller (DES)





LEED v4 for BD+C: New Construction and Major Renovation
Project Checklist

Project Name: RTC Health Sciences Center
Date: 12.20.17

Y ? N

1			Credit	Integrative Process	1
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10	4	18	Location and Transportation		16
		16	Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
		2	Credit	High Priority Site	2
2	3		Credit	Surrounding Density and Diverse Uses	5
5			Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
1			Credit	Reduced Parking Footprint	1
	1		Credit	Green Vehicles	1

3	3	2	Sustainable Sites		10
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit	Site Assessment	1
		2	Credit	Site Development - Protect or Restore Habitat	2
		1	Credit	Open Space	1
	3		Credit	Rainwater Management	3
2			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

5	2	4	Water Efficiency		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
2	2	2	Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

8	13	12	Energy and Atmosphere		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
3	3		Credit	Enhanced Commissioning	6
4	2	12	Credit	Optimize Energy Performance	18
	1		Credit	Advanced Energy Metering	1
	2		Credit	Demand Response	2
	3		Credit	Renewable Energy Production	3
1			Credit	Enhanced Refrigerant Management	1
	2		Credit	Green Power and Carbon Offsets	2

8	3	2	Materials and Resources		13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
3		2	Credit	Building Life-Cycle Impact Reduction	5
2			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	2		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1	1		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

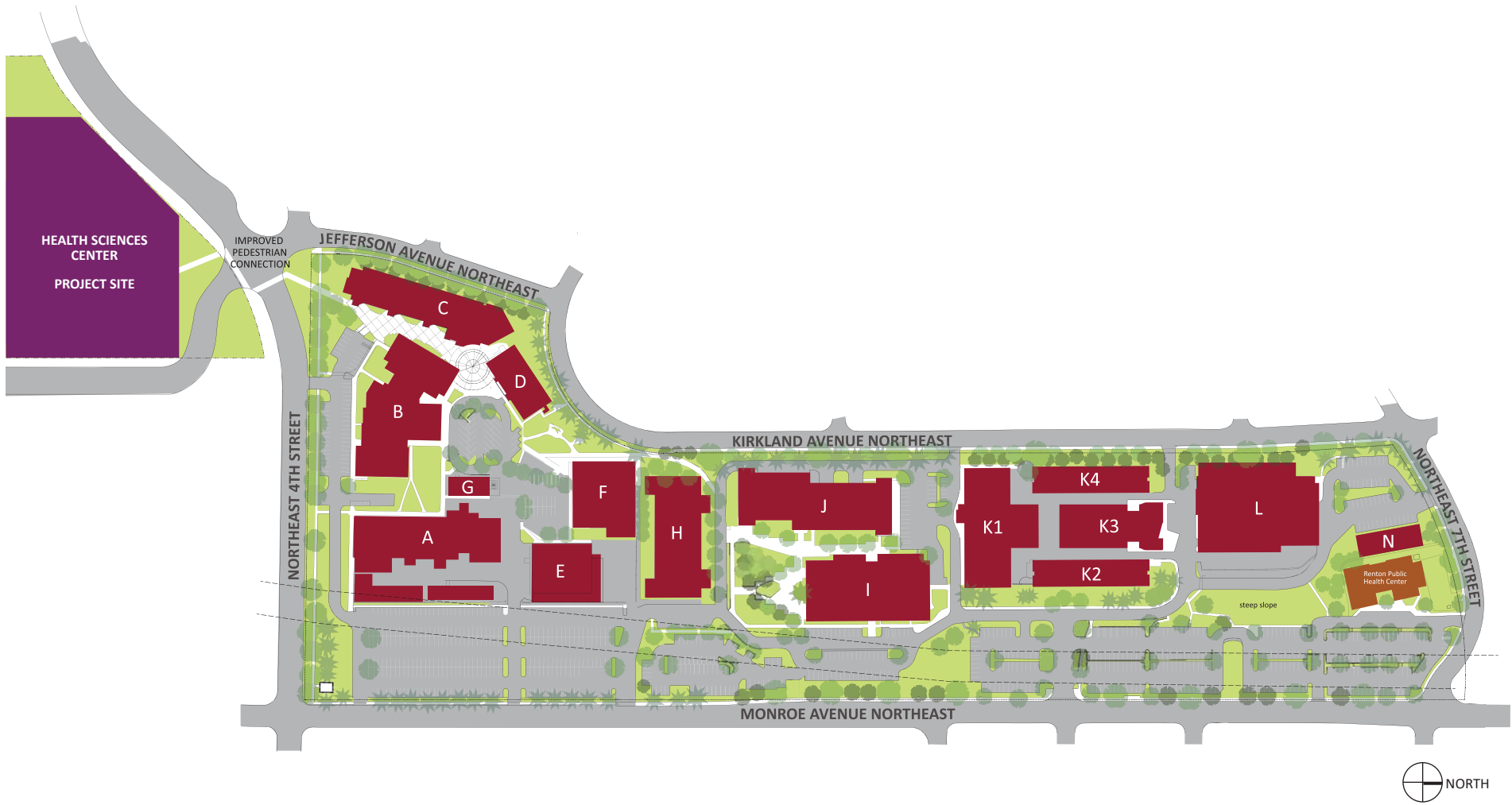
12	3	1	Indoor Environmental Quality		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
3			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
2			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
1	1	1	Credit	Daylight	3
	1		Credit	Quality Views	1
	1		Credit	Acoustic Performance	1

4	2	0	Innovation		6
3	2		Credit	Innovation	5
1			Credit	LEED Accredited Professional	1

2	0	2	Regional Priority		4
1			Credit	Regional Priority: Specific Credit	1
1			Credit	Regional Priority: Specific Credit	1
		1	Credit	Regional Priority: Specific Credit	1
		1	Credit	Regional Priority: Specific Credit	1

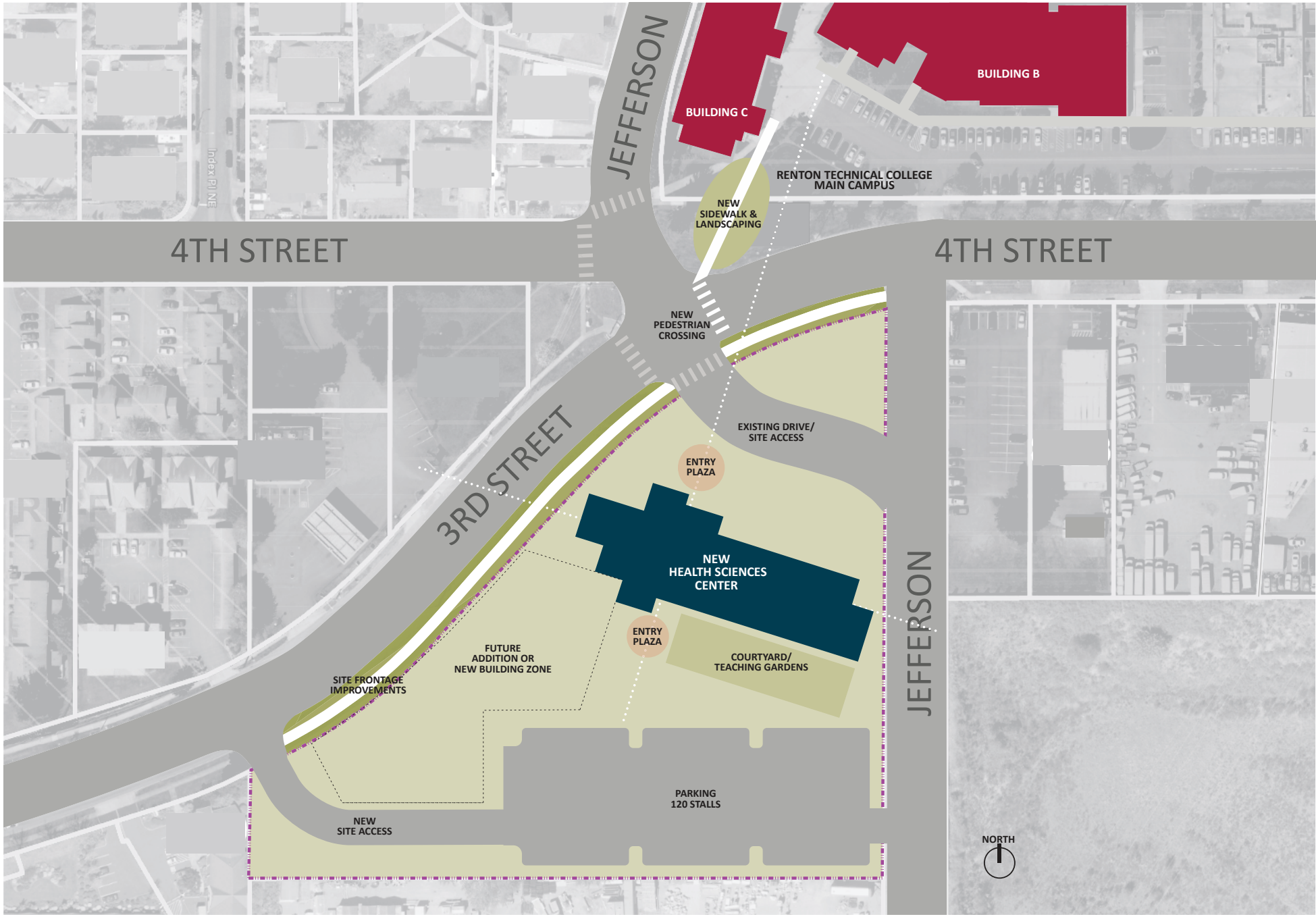
53	30	41	TOTALS	Possible Points: 110
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Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110



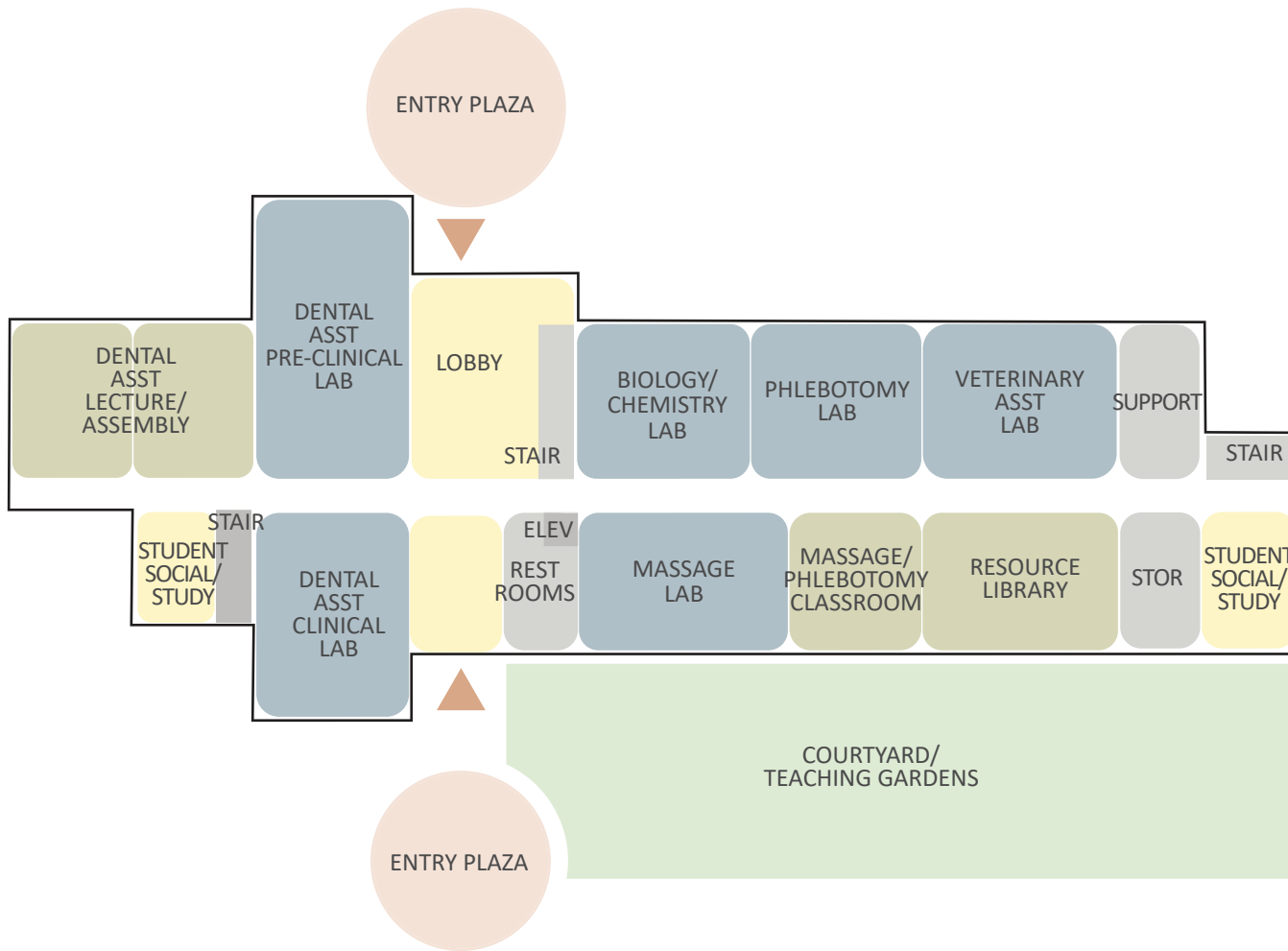
SITE MAP

HEALTH SCIENCES CENTER
RENTON TECHNICAL COLLEGE
20 DECEMBER 2017



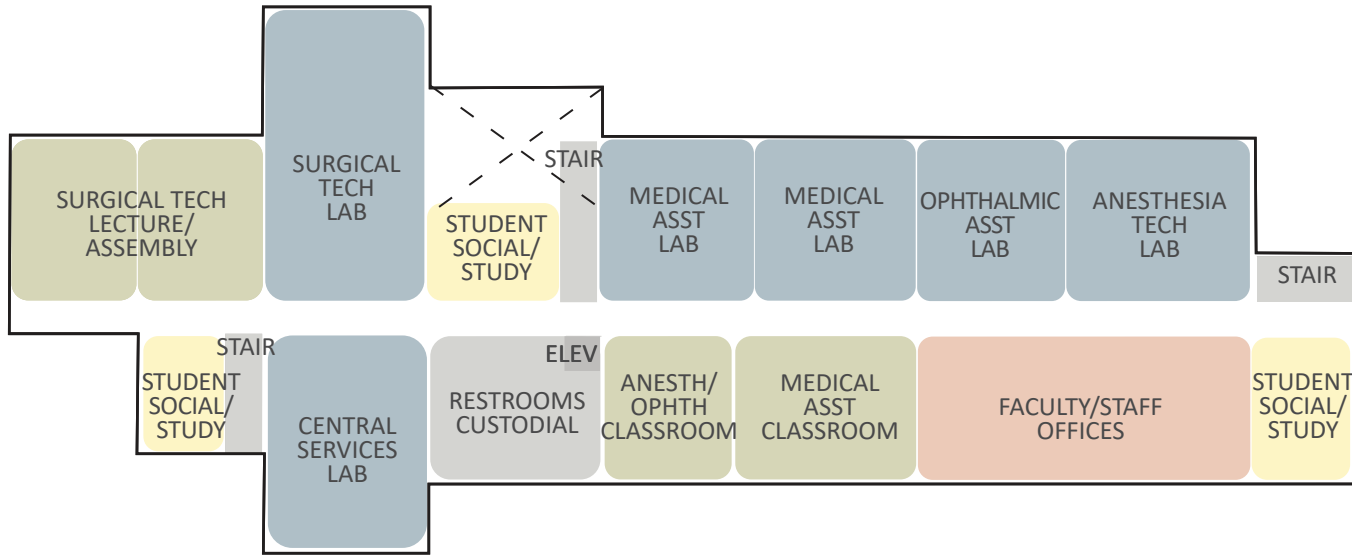
SITE PLAN

HEALTH SCIENCES CENTER
 RENTON TECHNICAL COLLEGE
 20 DECEMBER 2017



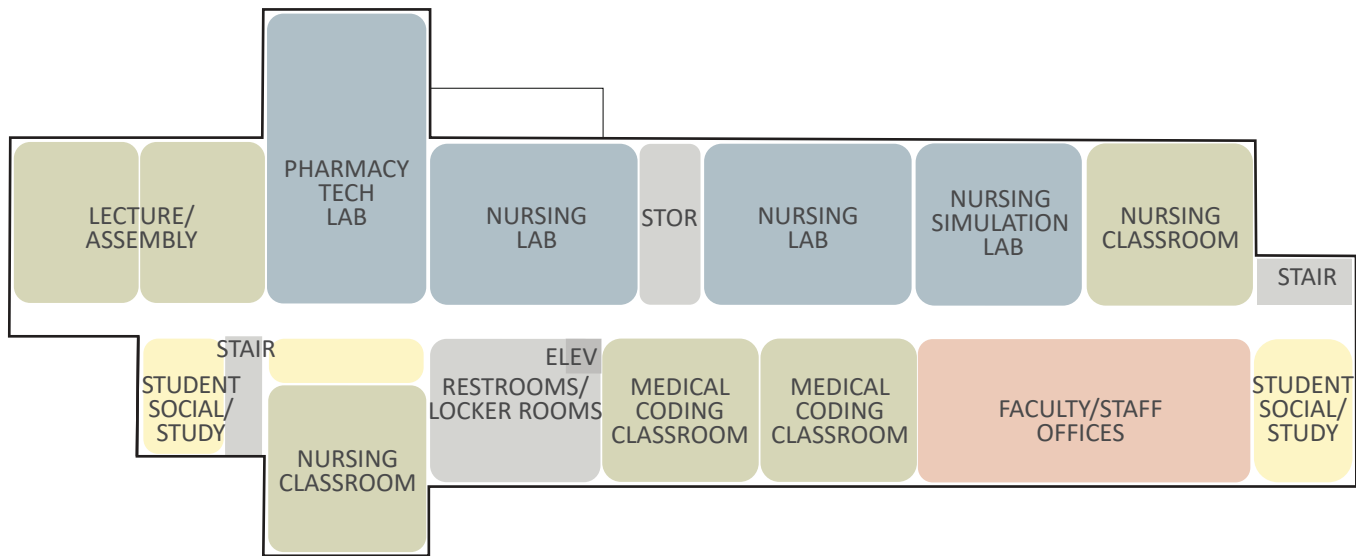
FIRST FLOOR

HEALTH SCIENCES CENTER
 RENTON TECHNICAL COLLEGE
 20 DECEMBER 2017



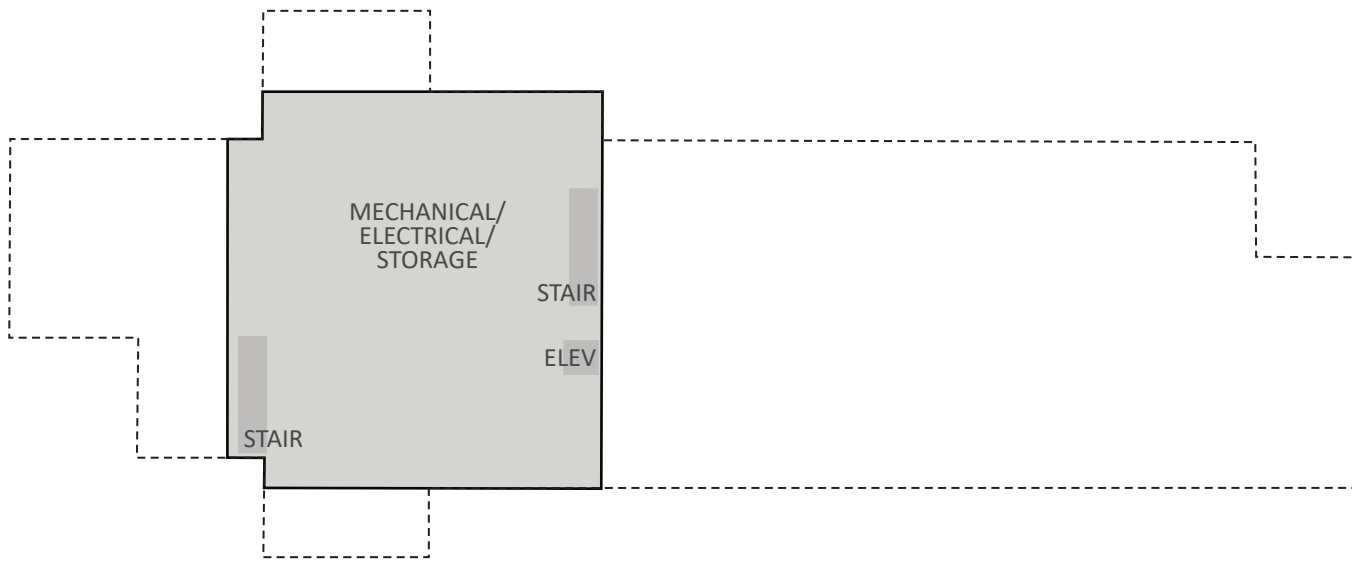
SECOND FLOOR

HEALTH SCIENCES CENTER
 RENTON TECHNICAL COLLEGE
 20 DECEMBER 2017



THIRD FLOOR

HEALTH SCIENCES CENTER
RENTON TECHNICAL COLLEGE
20 DECEMBER 2017



BASEMENT

HEALTH SCIENCES CENTER
RENTON TECHNICAL COLLEGE
20 DECEMBER 2017

Memorandum

DATE December 5, 2017

TO Matt Lane
McGranahan Architects
2111 Pacific Ave, Suite 100
Tacoma, WA 98402

FROM Ken Wiersema P.E.

PROJECT RTC Health Sciences Center

CPL PROJECT # C17 0055-02

SUBJECT Renton Technical College Health Sciences Center

ATTACHMENTS Attachment File Name

Site Overview

Renton Technical College seeks to redevelop a vacant parcel of property south of the main campus recently purchased from King County. The 4.75-acre site is currently developed with an 8,500-Sf single story building, previously used as a health clinic. Other development on the site includes two paved surface parking lots. The site is roughly triangular shaped, with the northwestern side fronted by NE 3rd Street. The south and east sides of the site front other parcels owned by King County. The east frontage is onto a private access road to King County facilities south of the site. This access road connects to 3rd Street through an easement across the north corner of the subject site.

The site is relatively flat, about 10-feet of fall from northeast corner to the southwest, over 800-ft, for about 1.5% average slope across it.

The entire site is potentially available for redevelopment. No critical areas affect the site beyond an aquifer protection overlay, associated with nearby city wells. This overlay may affect water quality treatment requirements if infiltration were to be used as a storm water management technique, from pollution generating surfaces.

City of Renton public utility mains are installed in NE 3rd Street, domestic water, sanitary sewer and storm water mains are all available to serve the site. Electric power and natural gas are available from Puget Sound Energy.

Site Demo and Preparation:

Redevelopment of the site would begin by demolition and removal of the existing building and other site development. Dispose and/or salvage debris in authorized locations.

Due to the relatively flat site and we assume the new building has no below grade elements (Basement/Mech's spaces?), earthwork limited to clearing and grubbing to bearing soils. Though no soils investigation has yet been done on this site, a site to the east of it was operated as a gravel quarry for many years, and soils on the main RTC campus tend to be sandy outwash soils. Extensive cut and fill or other import/export of soils is not expected on this site.

Storm Water:

Based off the current preliminary development layout, it appears that the building and parking will cover about 2-acres of the site with new and replaced impervious surface. We are not including the future building zone, as storm water regulations are changing often, and don't grandfather. Even today's information is not reliable over the potential time line of this project. Under 2017 storm water code, we expect this area to require a detention system of up to 32,000-CF capacity. Using this volume for a construction estimate should cover other methods that might be used on this site to mitigate storm water.

In addition to the detention system used to mitigate the rate and volume of storm water discharged from the site, we will need to provide water quality treatment for the new exposed pollution generating surfaces. For this site, that would be paved areas, subject to vehicular use (about 1-acre of the site). Bio-swales on the surface could be used, relatively inexpensive to install, but they take a lot of surface area. An underground vault with filters frees up site area, it could be installed under the parking lot, but is more expensive to install and has higher long term operating and maintenance costs.

The storm water systems will connect to the city main in 3rd Street.

Water System (Domestic and Fire):

The site will require an 8-inch water loop through it for fire protection and will assist future development of both this site and the King County sites to the south of us. Being a looped system, this will require 2 connections to the City main in 3rd Street.

The water main will need about 5- fire hydrants within the site off it to cover the site & building. Assume a 4-inch Domestic water service meter, and 6-inch Fire service meter for the project, each service will need appropriate backflow prevention devices on them.

The fire main loop and hydrants will need an easement to the City around them, as this system will be operated and maintained by City Public Works, similar to the systems on the main campus now.

Sewer System:

A side sewer out to the City main in 3rd Street, likely an 8-inch diameter pipe, will be needed. Depending on what the existing clinic building has installed and the plumbing demands of the new building, it may be possible to reuse part of the existing side sewer connection from the King County building to the City main.

Some other possible sanitary sewer issues:

- A grease interceptor may be needed at food preparation spaces, if preparation beyond warming is anticipated.
- Acid waste neutralization may be required for discharges from Chemical Laboratory teaching spaces.

On-site Paving:

Assume the parking lot will be paved in asphalt, with concrete curbs around it. The existing condition on the site is largely flat, and should not require extensive earthwork to develop the parking area.

Parking Lot Elements:

- Striping & signage- paint and wheel stops. Signage for accessible parking stalls, wayfinding and other information.
- Lighting- overhead lighting for parking areas, and pedestrian level lighting for on-site pathways.
- Landscape, trees shrubs and ground cover to meet City parking lot standards and campus maintenance standards. Irrigation in parking lot and site planting areas.

Pedestrian circulation around the building and parking is expected to be cast-in-place concrete walks, some areas may get specialty pavers or finish treatments.

Off-Site Improvements:

The City's 3rd/4th Street masterplan indicates the 3rd Street Frontage for this parcel is supposed to have a 15-foot wide paved pedestrian/bike trail. Based off the City GIS, there appears to be about 25-feet from the existing curb to the property line, it looks reasonable to not have to dedicate any space for this future development. This development may be done by the city before the College's development occurs. If not accomplished by the City ahead of time, the redevelopment of the would trigger it

The rest of the frontage would be landscaped with street trees and ground cover.

All of the pavement cuts in the street for utility hook-ups (water, sewer, storm, power, gas, telecom) will require patching of the existing paving to City standards.

Enhancement of the intersection at 3rd/4th & Jefferson:

The existing intersection has pedestrian crossings and signals over two of the four legs.

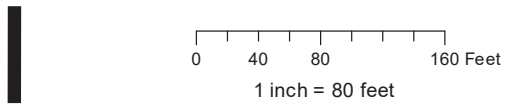
- Add pedestrian signals to the existing signals, for all four ways. May require re-programming of the existing signals, vehicular and pedestrian.
- Add crosswalk markings on the street
- Add Accessible ramps from sidewalks to street on two corners.
- Improve Pedestrian circulation on the north side of 4th Street to enhance pedestrian connection from main campus to the new Health Sciences Center.

Legend

- 2-Ft Contours
- Erosion
- Flood
- Landslide
- Seismic
- Aquifer Protection
- Slope >40%
- Wetlands
- Steep Slope
- Property Lines










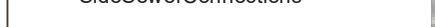





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Renton Technical College
Health Sciences Center
Renton, WA

Legend

-  2-Ft Contours
-  Fire Hydrant
-  Water Valve
-  Water Meter
-  Water Pipe
-  Waste Water MH
-  Waste Water Mains
-  SideSewerConnections
-  CedarRiverSewerStructures
-  CedarRiverSewerMains
-  Stormwater Structure
-  swConveyance (With Flow Direction)
-  Property Lines



0 40 80 160 Feet
1 inch = 80 feet

Renton Technical College
Health Sciences Center
Renton, WA

AFTER RECORDING RETURN TO:
DEPARTMENT OF ENTERPRISE SERVICES
REAL ESTATE SERVICES
P.O. BOX 41468
OLYMPIA, WA 98504-1468

1ST AM
NCS-805346-WA1
(12)

BARGAIN AND SALE DEED

Grantor -- King County, Washington
Grantee -- Washington State Board for Community and Technical Colleges, on behalf of Renton Technical College, acting through the Department of Enterprise Services
Legal -- Lot 1, City of Renton Short Plat No. LUA 01-090, recorded under Recording Number 20020517900003, being a portion of: the Northeast Quarter of the Northwest Quarter of Section 16, Township 23 North, Range 5 East, W.M., in King County, Washington.
Tax Acct. -- 162305-9130-04

The Grantor, KING COUNTY, a political subdivision of the State of Washington, for and in consideration of mutual benefits, pursuant to King County Ordinance No. 18580, does hereby bargain, sell and convey unto the Grantee, Washington State Board for Community and Technical Colleges, on behalf of Renton Technical College, acting through the Department of Enterprise Services, the following real property situated in King County, Washington and described in EXHIBIT A, attached hereto and incorporated herein by this reference, subject to the permitted exceptions set forth in EXHIBIT A. Grantor hereby expressly reserves to itself, its successors and assigns forever the Reservation of Utility Easement attached hereto as EXHIBIT B, which is recorded along with this deed and incorporated herein by this reference.

GRANTOR
King County

BY: Anthony O. Wright
Name: Anthony O. Wright
TITLE: Director, Facilities Management
Division

DATE: 11-15-17

GRANTEE
Washington State Board for Community
and Technical Colleges, on behalf of
Renton Technical College, acting through
the Department of Enterprise Services

BY: Seth Wallace
Name: Seth Wallace
TITLE: Assistant Director, Real Estate
Services, Department of Enterprise Services

DATE: 11/9/17

Approved as to Form:

By: [Signature]
John Briggs
Senior Deputy Prosecuting Attorney

Approved as to Form:

By: [Signature]
Brian Faller
Assistant Attorney General

NOTARY BLOCK FOR KING COUNTY

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this 15th day of November, 2017, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared ANTHONY O. WRIGHT, to me known to be the Acting Director of the Facilities Management Division of the King County Department of Executive Services, and who executed the foregoing instrument and acknowledged to me that HE was authorized to execute said instrument on behalf of KING COUNTY for the uses and purposes therein mentioned.

Thomas Koneg

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.



Catherine Hicks
Catherine Hicks Printed Name
Notary Public in and for the State of Washington, residing
at Seattle, WA
City and State
My appointment expires Apr. 12, 2019

NOTARY BLOCK FOR STATE OF WASHINGTON

STATE OF WASHINGTON)
) SS
COUNTY OF THURSTON)

On this 9th day of November, 2017, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared SETH WALLACE, to me known to be the Assistant Director of Real Estate Services, the Department of Enterprise Services, who executed the foregoing instrument and acknowledged to me that HE was authorized to execute said instrument on behalf of the Washington State Board for Community and Technical Colleges, on behalf of Renton Technical College, acting through the Department of Enterprise Services for the uses and purposes therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.



R. Atwood
R. Atwood Printed Name
Notary Public in and for the State of Washington, residing
at Thurston Co
City and State
My appointment expires 11-24-18

EXHIBIT A
TO BARGAIN AND SALE DEED

LEGAL DESCRIPTION

Real property in the County of King, State of Washington, described as follows:

Lot 1, City of Renton Short Plat No. LUA 01-090, recorded under Recording Number 20020517900003, being a portion of: the Northeast Quarter of the Northwest Quarter of Section 16, Township 23 North, Range 5 East, W.M., in King County, Washington.

Tax Parcel ID No. 162305-9130-04

EXCEPTIONS TO TITLE

SCHEDULE B – SECTION 2
GENERAL EXCEPTIONS

- A. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
- B. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
- C. Easements, claims of easement or encumbrances which are not shown by the public records.
- D. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
- E. (A) Unpatented mining claims; (B) Reservations or exceptions in patents or in Acts authorizing the issuance thereof; (C) Water rights, claims or title to water; whether or not the matters excepted under (A), (B) or (C) are shown by the public records; (D) Indian Tribal Codes or Regulations, Indian Treaty or Aboriginal Rights, including easements or equitable servitudes.
- F. Any lien, or right to a lien, for services, labor or materials or medical assistance heretofore or hereafter furnished, imposed by law and not shown by the public records.
- G. Any service, installation, connection, maintenance, construction, tap or reimbursement charges/costs for sewer, water, garbage or electricity.

H. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof, but prior to the date the proposed insured acquires of record for value the escrow or interest or mortgage(s) thereon covered by this Commitment.

SECTION B – SECTION 2
(continued)
SPECIAL EXCEPTIONS

1. Liability, if any, for pro-rata portion of Real Property taxes which are carried on the King County Tax Rolls, as tax account no. 162305-9130-04, are exempt. None due and delinquent at Date of Policy.

We note Special Charges for the year 2017 in the amount of \$1,196.10, of which \$1,196.10 has been paid. Balance due: \$0.

2. Right of First Offer Agreement and the terms and conditions thereof:

Between: King County, a political subdivision of Washington

And: Renton Technical College

Recording Information: 20130311002095

3. Unrecorded leaseholds, if any, rights of vendors and security agreement on personal property and rights of tenants, and secured parties to remove trade fixtures at the expiration of the term.

4. Easement, including terms and provisions contained therein:

Recording Information: 1695916, January 22, 1923

In Favor of: King County

For: Right of way

5. Easement, including terms and provisions contained therein:

Recorded: November 18, 1929

Recording Information: 2571770

In Favor Of: Puget Sound Energy, Inc., a Washington corporation

For: Electric transmission and/or distribution system

6. Easement, including terms and provisions contained therein:

Recorded: October 31, 1944

Recording Information: 3425304

In Favor Of: Puget Sound Energy, Inc., a Washington corporation

For: Electric transmission and/or distribution system

7. Easement, including terms and provisions contained therein:

Recording Information: 3664560, March 10, 1947

In Favor of: City of Seattle

For: Electric transmission line

Modification and/or amendment by instrument:
Recording Information: 7502140608

8. Easement, including terms and provisions contained therein:
Recording Information: 3875580, February 7, 1949
For: Right-of-way for railroad

Puget Sound Power & Light Company transferred a portion of said easement to King County by Recording Number 5834934.

9. Reservations contained in Deed from the State of Washington recorded under recording no. 3875580, February 7, 1949, reserving all oil, gases, coal, ores, minerals, fossils, etc., and the right of entry for opening, developing and working the same.

10. Easement, including terms and provisions contained therein:
Recorded: May 24, 1979
Recording Information: 7905240853
In Favor Of: Puget Sound Energy, Inc., a Washington corporation
For: Electric transmission and/or distribution system

11. The terms and provisions contained in the document entitled "Ordinance Number 4612"
Recorded: June 21, 1996
Recording No.: 9606210966

12. Any and all offers of dedication, conditions, restrictions, easements, fence line/boundary discrepancies, notes and/or provisions shown or disclosed by Short Plat No. LUA 01-090 recorded under recording number 20020517900003.

13. Easement, including terms and provisions contained therein:
Recording Information: 20131209001066
In Favor of: Qwest Corporation, a Colorado corporation d/b/a CenturyLink QC
For: Wireless Telecommunication Service

Corrected Easement was recorded under Recording Number 20170327000465

EXHIBIT B
TO BARGAIN AND SALE DEED

RESERVATION OF UTILITY EASEMENT

This RESERVATION OF UTILITY EASEMENT ("Utility Easement") is made and effective as of the date of the Bargain and Sale Deed in which it is incorporated and is between KING COUNTY, a political subdivision of the State of Washington (the "County") and the STATE OF WASHINGTON (the "State"). The County and the State are also referred to herein individually as a "Party" or collectively as "Parties."

RECITALS

- A. The State is acquiring from the County and the County is conveying to the State for and in consideration of the terms and conditions of that certain Real Estate Purchase and Sale Agreement between the County and the State dated April 17, 2017, (the "Purchase and Sale Agreement") that certain real property the legal description of which is attached to the Bargain and Sale Deed as EXHIBIT A (the "Property").
- B. The Purchase and Sale Agreement provides that the County shall reserve a utility easement in, on, over, across and through a portion of the Property.
- C. The County's agreement to convey the Property to the State is conditioned upon reservation of the Utility Easement.
- D. Therefore, the County through this instrument is reserving this Utility Easement in, on, over, across, and through that portion of the Property, legally described in EXHIBIT 1 and depicted on EXHIBIT 2 hereto (the "Easement Area"). The Easement Area shall benefit the property owned by the County described in EXHIBIT 3 ("Benefitted County Properties").
- E. By accepting and recording this Utility Easement and in consideration of the terms and conditions of the Purchase and Sale Agreement and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the County and the State mutually covenant and agree as follows:

AGREEMENT

1. **Reservation of Easement.** The County hereby reserves for the purposes stated below, a permanent utility easement to and from the Benefitted County Properties in, on, over, across, and through that portion of the Property legally described in EXHIBIT 1 and depicted in EXHIBIT 2.
2. **Purpose of Easement.** The County shall have the right in the Easement Area to construct, install, repair, replace, maintain, operate and use utilities to and from the Benefitted County

Properties, together with all necessary or convenient appurtenances thereof (the "Easement Improvements"). The rights reserved herein by the County shall be for the purpose of using the Easement Area to provide a means of bringing utilities to and from the Benefitted County Properties.

3. Access. The County's employees, invitees, guests, agents and contractors shall have the right, at all times, without prior notice to the State, to enter upon the Easement Area for the purposes set forth above.

4. Construction License. The County also hereby reserves a temporary construction license over, under and across the Property as reasonably needed by the County to construct, install, repair, replace and maintain the Easement Improvements.

5. Obstructions, Use and Maintenance. The County may from time to time remove structures, trees, bushes, or other obstructions within the Easement Area to the extent reasonably necessary to carry out the purposes set forth herein.

6. Indemnity. Each Party shall defend, indemnify and hold the other harmless from and against any claims, suits, causes of action, judgments, damage, loss or liability for injuries to persons or property (collectively, "Claims") to the extent caused by the negligent acts or omissions or willful misconduct of the other Party or that Party's officers, employees, agents or contractors, arising out of or incidental to the exercise of rights and obligations under this Utility Easement. Where such Claims result from the concurrent fault of the Parties, the indemnity provisions provided herein shall be valid and enforceable only to the extent of each Party's fault. Each of Parties agrees that its obligations under this Section 6 extend to any claim, demand, cause of action and judgment brought by, or on behalf of, any of its employees or agents. For this purpose, each of the parties, by mutual negotiation, hereby waives, with respect to each of the other Party's only, any immunity that would otherwise be available against such claims under the industrial insurance provisions of Title 51 RCW. The Parties acknowledge that these provisions were specifically negotiated and agreed upon by them.

7. No Unreasonable Interference with Easement Rights. The State may use the Easement Area for any purposes that do not unreasonably interfere with the rights herein reserved by the County. The State shall not undertake any digging, tunneling or other form of construction activity in the Easement Area or on the Property which would damage the Easement Improvements or which would unreasonably interfere with the County's reserved right to use the Easement Area unless agreed to in writing by the County.

8. Miscellaneous.

(a) Captions. The captions and paragraph headings contained in this Utility Easement are for convenience of reference only and in no way define, describe, extend or define the scope or intent of this Utility Easement, nor the intent of any of the provisions hereof.

(b) Governing Law. This Utility Easement shall be governed by and construed and enforced in accordance with the laws of the State of Washington. The parties agree that venue of any legal action brought to enforce this Utility Easement shall be in King County, Washington.

(c) Recitals Incorporated; Definitions. Each recital and definition set forth above is incorporated into this Utility Easement as though fully set forth herein.

(d) Exhibits. The exhibits described herein and attached hereto are fully incorporated into this Utility Easement by this reference.

(e) Severability. All provisions of this Utility Easement are severable and the invalidity or unenforceability of any provision shall not affect or impair the validity or enforceability of the remaining provisions.

(f) Binding Effect; Successors and Assigns. The rights and obligations of the parties shall inure to the benefit of and be binding upon their respective successors and assigns and shall be deemed to run with the land. This Utility Easement may be amended or modified only by written instrument, executed and acknowledged by the parties hereto or their successors or assigns, and duly recorded in the records of King County.

(g) Entire Agreement. This Agreement contains the entire agreement of the parties and supersedes any prior written or oral agreements with respect to the matters described herein.

Effective as of this 15TH day of November, 2017.

**Washington State Board for
Community and Technical Colleges,
on behalf of Renton Technical
College, acting through the
Department of Enterprise Services:**

King County:

BY: [Signature]
Seth Wallace
TITLE: Assistant Director,
Real Estate Services,
Department of Enterprise Services

BY: [Signature]
Anthony O. Wright
TITLE: Director,
Facilities Management Division

DATE: 11/9/17

DATE: 11.15.17

Approved as to Form:

Approved as to Form:

By: [Signature]
Brian Faller, Assistant Attorney General
Date: 11/8/17

By: [Signature]
John Briggs, Deputy Prosecuting Attorney
Date: _____

NOTARY BLOCKS APPEAR ON NEXT PAGE

NOTARY BLOCK FOR STATE OF WASHINGTON

STATE OF WASHINGTON)
) SS
COUNTY OF THURSTON)

On this 9th day of November, 2017, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared SETH WALLACE, to me known to be the Assistant Director of Real Estate Services, the Department of Enterprise Services, who executed the foregoing instrument and acknowledged to me that HE was authorized to execute said instrument on behalf of the Washington State Board for Community and Technical Colleges, on behalf of Renton Technical College, acting through the Department of Enterprise Services for the uses and purposes therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.



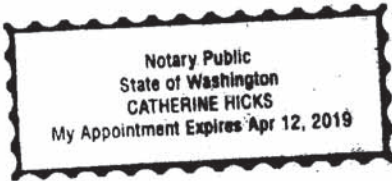
R. Atwood
R. Atwood Printed Name
Notary Public in and for the State of Washington, residing
at Thurston Co WA
City and State
My appointment expires 11-24-18
ela

NOTARY BLOCK FOR KING COUNTY

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

On this 15th day of November, 2017, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared ANTHONY O. WRIGHT, to me known to be the Director of the Facilities Management Division of the King County Department of Executive Services, and who executed the foregoing instrument and acknowledged to me that HE was authorized to execute said instrument on behalf of KING COUNTY for the uses and purposes therein mentioned.

WITNESS my hand and official seal hereto affixed the day and year in this certificate above written.



Catherine Hicks
Catherine Hicks Printed Name
Notary Public in and for the State of Washington, residing
at Seattle, WA
City and State
My appointment expires Apr. 12, 2019

EXHIBIT 1 TO RESERVATION OF UTILITY EASEMENT

Legal Description of Easement Area

Utility Easement (30' wide strip)
Of
Lot 1 City of Renton Short Plat LUA-01-090, SHPL
Parcel Number 162305-9130

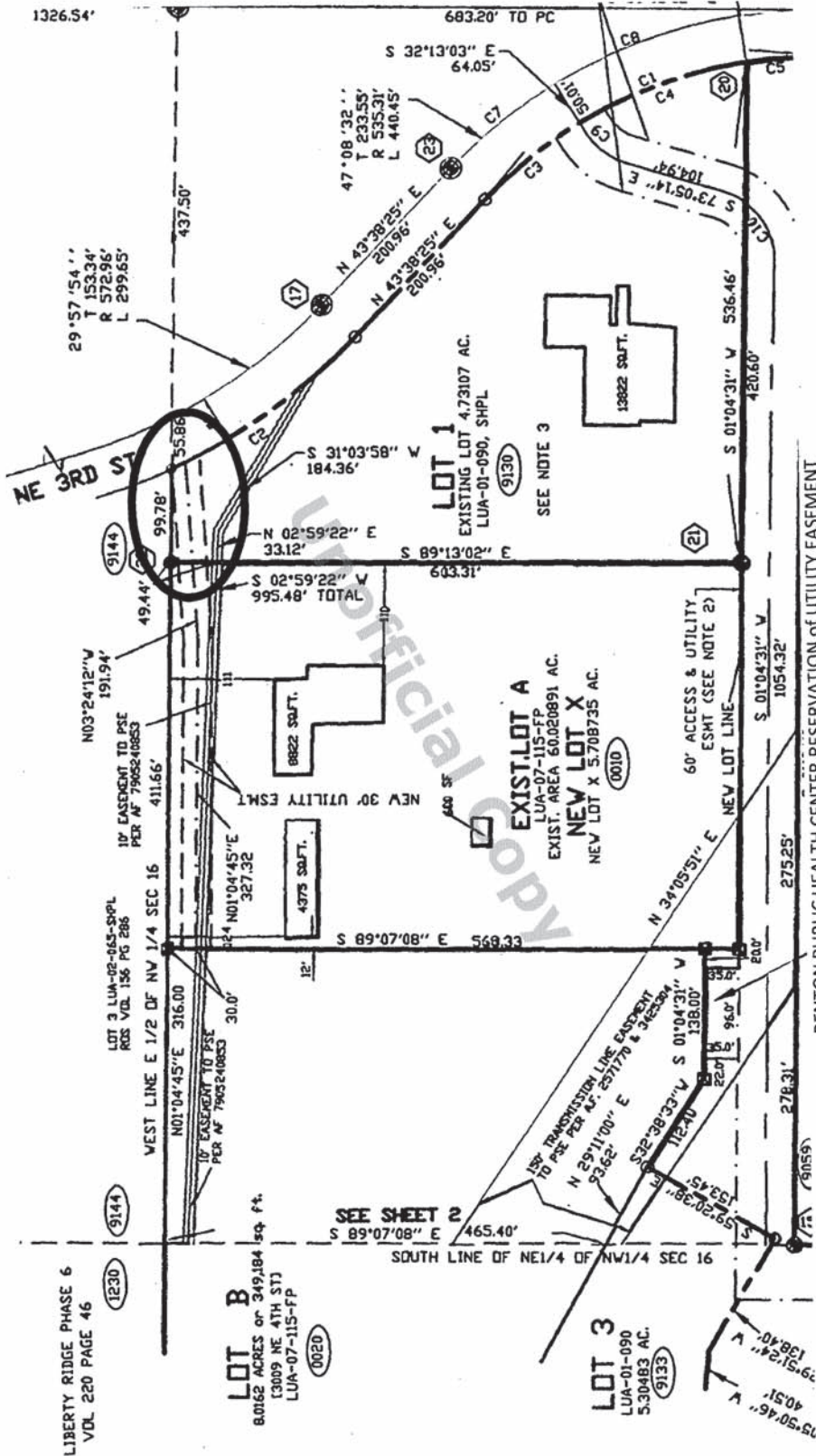
A 30 ft. wide strip through a portion of Lot 1, City of Renton Short Plat number LUA-01-090- SHPL as recorded under recording number 20020517900003 situated in the NE 1/4 of the NW 1/4 of Section 16, T 23N R5E, W.M., King County, Washington, being 15 feet in width on each side of the following described centerline:

Commencing at the SW corner of Lot 1 of said Short Plat, thence S 89°13'02" E 23.39 feet along the South line of said Lot 1 to the Point of Beginning of the 30 ft. wide Utility Easement;
Thence N 3°24'12"W 107.32 feet to the northern terminus of the 30 ft. wide Utility easement, said terminus being a point on the Southerly Right of Way of NE 3rd Street and being 16.70 feet from the Northwest corner of Said Lot 1.

Containing 3,222 square feet, more or less.



2/23/17



RENTON PUBLIC HEALTH CENTER RESERVATION OF UTILITY EASEMENT

EXHIBIT 3 TO RESERVATION OF UTILITY EASEMENT

Legal Descriptions of Benefitted County Properties

LOT X, CITY OF RENTON SHORT PLAT NO. LUA15-00676, RECORDED UNDER RECORDING NUMBER 20160303900006, BEING A PORTION OF: THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 23, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

APN: 143400-0012

LOT B, AS SHOWN ON THE CITY OF RENTON SHORT PLAT NO. LUA15-00676, RECORDED UNDER RECORDING NUMBER 20160303900006, BEING A PORTION OF: THE NORTHEAST QUARTER AND THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 16, TOWNSHIP 23, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

APN: 143400-0020

Unofficial Copy

EXECUTIVE SUMMARY

NAME/ADDRESS

Former Renton Public Health Building
3001 NE 4th Street
Renton, WA 98056

KING COUNTY ASSESSOR'S PARCEL NUMBER

Assessor's Parcel Number (APN): 162305-9130

CENSUS TRACT NUMBER

256.01

LOT SIZE

The subject site contains 206,085 square feet or 4.73 acres of land area.

ZONING

The site is zoned "CA" Commercial Arterial by the City of Renton.

IMPROVEMENTS

The subject is improved with a 1967 built single-story building containing 8,631-square-feet. The building is in average to somewhat below average condition and is nearing the end of its functional life. In order to re-develop this site, the existing obsolete building would need to be demolished.

HIGHEST AND BEST USE "AS VACANT"

The "highest and best use as vacant" is the development of a commercial use in conformance with the surrounding neighborhood and the current zoning regulations.

HIGHEST AND BEST USE "AS IMPROVED"

The highest and best use of the site "As Improved" is to demolish the existing obsolete improvements to make way for a new commercial development.

VALUE CONCLUSION

Value Conclusion	
Value Premise	As Is
Date of Value	<i>March 21, 2016</i>
FINAL ESTIMATE	\$2,250,000

SUBJECT PHOTOGRAPHS



View looking southerly at the subject from the intersection of Jefferson and NE 4th.



View looking southeasterly at the subject building.



View of the building looking southwesterly.



View from the interior of the site looking southerly at the overflow parking lot.



View from the interior of the property looking westerly at the large vacant portion of the site.



View looking easterly at the front parking lot.



Interior view of the reception desk.



Interior view of a work station room.



Street scene of NE 4th Street looking northeast; the subject is on the right.



Street scene of Jefferson Ave NE looking southeast from the intersection of NE 4th Street and Jefferson Ave NE; the subject is visible on the right.



Street scene of Jefferson Ave NE looking northwest; the subject is visible on the left.



Street scene of Jefferson Ave NE looking south; the subject is visible on the right.

BUILDING CONDITION RATING

Health Occupations (270-B) STATE UFI: A00284 Main Campus (270A)
 AREA: 46,435 SF BUILT: 1966 REMODELED: 2002 PREDOMINANT USE: Vocational Arts
 CONSTRUCTION TYPE: Medium CRV/SF: \$316 REPLACEMENT VALUE: \$14,673,460



Primary Systems

COMPONENT: Structure	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Some cracking evident but does not likely affect structural integrity; Visible defects apparent but are non-structural					
COMMENTS: Structural brick, wood/steel roof trusses					
COMPONENT: Exterior Closure	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Sound and weatherproof but with some deterioration evident					
COMMENTS: Brick; concrete; stucco; corrugated metal panels;					
COMPONENT: Roofing	RATING: 3	x	WEIGHT: 10	=	SCORE: 30
Some deterioration is evident in membrane and flashings; maintenance or minor repair is needed					
COMMENTS: BUR w mineral-surfaces capsheet-1999/2002					

Secondary Systems

COMPONENT:	Floor Finishes	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Some wear and minor imperfections are evident; beginning deterioration						
COMMENTS:	Vinyl tile-extensive cracking; ceramic tile; carpet-surface wear; hardwood					
COMPONENT:	Wall Finishes	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Aging surfaces but sound; some maintenance is required						
COMMENTS:	Gypsum board-marred/dinged; brick, ceramic tile; folding wall partitions					
COMPONENT:	Ceiling Finishes	RATING: 1	x	WEIGHT: 6	=	SCORE: 6
Maintainable surfaces in good condition; good alignment and appearance						
COMMENTS:	Gypsum board; direct-adhered and lay-in ceiling tiles					
COMPONENT:	Doors & Hardware	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Functional but dated						
COMMENTS:	Interior laminate doors w HM frames; exterior HM doors/frames/relites-surface wear					

Service Systems

COMPONENT:	Elevators	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Elevators provided but functionality is inadequate; Unreliable operation						
COMMENTS:	2 stop; small/problematic single-piston elevator needs extensive refurbishment					
COMPONENT:	Plumbing	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Fixtures are functional but dated; some leaks; maintenance required						
COMMENTS:	Galvanized, copper, steel, cast iron and PVC piping; porcelain fixtures					
COMPONENT:	HVAC	RATING: 5	x	WEIGHT: 8	=	SCORE: 40
Inadequate capacity, zoning and distribution; equipment deteriorating; No A/C in office areas; no ventilation in hazardous areas						
COMMENTS:	HW boiler and chiller-deteriorating; fan-coil units					
COMPONENT:	Electrical	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Service capacity meets current needs but inadequate for future						
COMMENTS:	1600amp 208/120v					
COMPONENT:	Lights/Power	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Adequate work area illumination; adequate outlets for current use						
COMMENTS:	Ceiling mount, wall mount, lay-in and recessed can fluorescent fixtures					

Safety Systems

COMPONENT:	Life/Safety	RATING: 3	x	WEIGHT: 10	=	SCORE: 30
Generally meets codes for vintage of construction						
COMMENTS:						
COMPONENT:	Fire Safety	RATING: 1	x	WEIGHT: 10	=	SCORE: 10
Locally monitored detection; alarm present; sprinklers in high hazard areas						
COMMENTS:						
COMPONENT:	Modifications	RATING: 1	x	WEIGHT: 7	=	SCORE: 7
Modifications appear to be in compliance with codes and sound construction practices; HVAC/electrical service properly provided						
COMMENTS:						

Quality Standards

COMPONENT:	Maintenance	RATING: 3	x	WEIGHT: 7	=	SCORE: 21
Routine maintenance is required; deferred maintenance is evident; impact is minor to moderate						
COMMENTS:						
COMPONENT:	Remaining Life	RATING: 5	x	WEIGHT: 6	=	SCORE: 30
Life expectancy is <5 years; significant system deterioration						
COMMENTS: Facility was constructed in three stages; poor amenities for contemporary allied health education; should be replaced						
COMPONENT:	Appearance	RATING: 5	x	WEIGHT: 6	=	SCORE: 30
Poor to average construction, but very unattractive exterior and interior spaces						
COMMENTS:						

Heat Loss

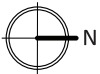
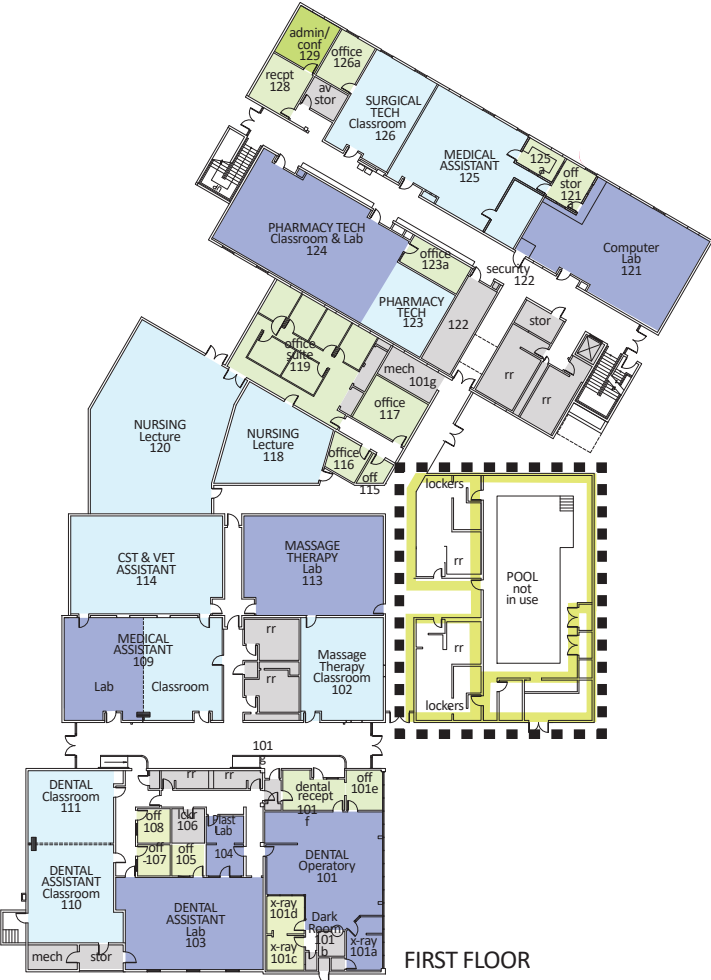
COMPONENT:	Insulation	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Insulation present, but not to current standards (installed prior to 2010)						
COMMENTS:						
COMPONENT:	Glazing	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Double glazing with aluminum/metal window frames						
COMMENTS: Operable units						

TOTAL SCORE = 432 PREVIOUS BIENNIUM SCORE = 444

CONDITION: Needs Improvement/Renovation

BUILDING B

RTC Campus Master Plan
Recommendations



LEGEND

- CLASSROOM
- COMPUTER LAB
- WORKSHOP/LAB
- STUDENT SERVICES
- TUTORING
- PUBLIC SERVICE/RENTAL
- FACULTY/STAFF OFFICE
- CONF ROOM/LOUNGE
- SUPPORT

B



5.0 Recommendations

Project recommendations outlined below are the result of dozens of site tours and interviews with program leaders, meetings with the Master Planning Committee, discussions with the executive oversight group, and the expertise of multiple consultants familiar with campus facilities and infrastructure. Each of the recommendations meets one or more of the Master Planning Goals originally established by the Master Planning Committee to align with the college's Core Themes. The intent of the Recommendations section is to identify potential facility improvements for consideration when funding opportunities arise.

Master plan diagrams on the following pages illustrate general locations established for proposed Capital Projects, Minor Program Improvements and Repairs, and Locally-funded Improvements. An accompanying Project Implementation Schedule outlines potential target dates for submitting Project Request Reports (PRRs) to the state as well as commencement of design and construction phases.

5.1 FACILITY RECOMMENDATIONS

The number of Capital Projects funded each biennium by the Washington State Legislature diminished significantly following the economic recession of the mid-2000's. A severe cutback to the state's Higher Education budget forced the SBCTC to re-think how it had traditionally been awarding construction projects to the 34 colleges in the community and technical college system. In an effort to reduce the number of institutions applying for limited funds, the SBCTC began restricting the number of applicants in the process to just 10 pre-approved colleges each biennium.

With an improving economic forecast, the SBCTC has revised the formal funding process to once again allow all colleges to submit PRRs for the 2019-21 biennium. Those project proposals scoring about 70 points will be placed in a queue for eventual construction, the specific time line being contingent upon the level of funding granted by the state legislature.

CAPITAL PROJECTS

Three potential Capital Projects have been identified for future RTC funding requests. For more information, see MASTER PLAN DIAGRAMS & PROJECT IMPLEMENTATION SCHEDULES that follow project descriptions.

Project One: New Health Sciences Center

Submit Project Request Report (PRR) in December 2017. If funding is approved, design could occur in 2019-21 with construction following in the 2021-23 biennium.



Proposed location of Capital Project One: A New Health Sciences Center on the recently acquired RTC South Campus property (See full campus plan on page 4.)

- Proposed site is a newly acquired property (former King County Health Building) located across NE 4th Street, directly south of the main campus.
- Prior to the Health Sciences Center funding approval, avoid significant improvement investments in the existing Allied Health Building, since Capital Project Two includes a major renovation of Building B.
- Short-term priority for the current Allied Health programs is the addition of a Computer Lab. This could be a shared space located in Building D. Other projects identified include a small renovation to improve the functionality of the Phlebotomy & Surgery Tech Classrooms and improving the privacy in Office Suite B119.

In the PRR, consider bundling these related program and site improvements:

- Pedestrian cross walk improvements across 4th Street and Jefferson Avenue.

RTC Campus Master Plan

Recommendations

- Create a new pedestrian walkway and landscaping between the northeast corner of the 4th Street/Jefferson Avenue intersection and existing entry plaza on the east side of Building C.
- Develop Teaching Gardens on the building's south side as a practical site amenity.
- Renovate current educational spaces in Buildings H and J into alternative uses following relocation of Health programs into new replacement building.

Project Two: Basic Studies - Building B Major Renovation

Submit Project Request Report in December 2023, or thereafter if prior milestones have not been met. With funding approval, design would begin in the 2025-2027 biennium with construction following in 2027-2029 biennium.

- Proposed site is existing Building B, along 4th Street.
- With the SBCTC's anticipated revisions to the project funding process, the proposed PRR submittal time lines for Capital Projects Two and Three may need to be adjusted accordingly.

In the PRR, consider bundling these related infrastructure, program and site improvements:

- Develop a common Greenspace on the north side of the building.
- Create a strong pedestrian corridor between Parking Lot P2 on the east side of campus, extending west to the new Greenspace between Buildings A and E.

- Renovation of current Building D and other spaces in campus that will be located in the renovated Building B.



Proposed concept for pedestrian walkway from 4th Street/Jefferson Avenue Intersection to plaza at Building C.

Project Three: Trade & Industries - Building A Major Renovation

Submit Project Request Report in 2029. With funding approval, design would take place in the 2031-33 biennium with construction occurring in 2033-35.

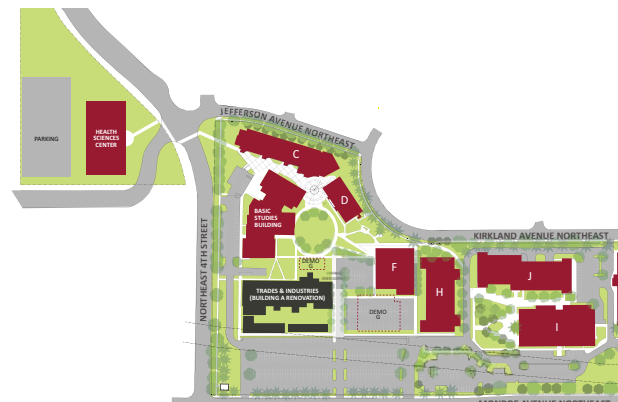
In the PRR, consider bundling these related infrastructure and site improvements:

- Replacement of facilities Building G and remaining HVAC conversion projects associated with demolition and removal of Building G.
- Landscape the vacant site of Building G, to connect with main Greenspace to the west.

See following full campus maps.



Proposed location of Capital Project Two - a Basic Studies facility in the fully renovated Building B. (See full campus plan on page 5.)











Proposed location of Capital Project Three - a renovated Trades & Industries facility housed in Building A. (See full campus plan on page 6.)

EXISTING CAMPUS PLAN











LEGEND

- | | |
|---|---|
|  EXISTING BUILDING |  NEW/REPLACEMENT BUILDING |
|  PROPOSED BUILDING ZONE |  MAJOR BUILDING RENOVATION |
|  PROPOSED DEMOLITION |  PARKING |
|  BUILDING LEASED TO TENANT |  OVERHEAD POWER LINES |

CAPITAL PROJECT ONE — HEALTH SCIENCES CENTER



LEGEND









- | | | | |
|---|---------------------------|---|---------------------------|
|  | EXISTING BUILDING |  | NEW/REPLACEMENT BUILDING |
|  | PROPOSED BUILDING ZONE |  | MAJOR BUILDING RENOVATION |
|  | PROPOSED DEMOLITION |  | PARKING |
|  | BUILDING LEASED TO TENANT |  | OVERHEAD POWER LINES |



CAPITAL PROJECT TWO — TRADES & INDUSTRIES REPLACEMENT BUILDING



LEGEND

- | | | | |
|---|---------------------------|---|---------------------------|
|  | EXISTING BUILDING |  | NEW/REPLACEMENT BUILDING |
|  | PROPOSED BUILDING ZONE |  | MAJOR BUILDING RENOVATION |
|  | PROPOSED DEMOLITION |  | PARKING |
|  | BUILDING LEASED TO TENANT |  | OVERHEAD POWER LINES |

CAPITAL PROJECT THREE — NEW BASIC STUDIES BUILDING



LEGEND









EXISTING BUILDING	NEW/REPLACEMENT BUILDING
PROPOSED BUILDING ZONE	MAJOR BUILDING RENOVATION
PROPOSED DEMOLITION	PARKING
BUILDING LEASED TO TENANT	OVERHEAD POWER LINES



LONG-TERM CAMPUS MASTER PLAN



LEGEND

- | | | | |
|---|---------------------------|---|--------------------------|
|  | EXISTING BUILDING |  | NEW/REPLACEMENT BUILDING |
|  | PROPOSED BUILDING ZONE |  | PARKING |
|  | BUILDING LEASED TO TENANT |  | PEDESTRIAN CIRCULATION |
|  | FOCAL POINT |  | NODE |



PROJECT DESCRIPTION	SHORT TERM						MID TERM						LONG TERM							
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
MAJOR CAPITAL PROJECTS																				
New HEALTH SCIENCES CENTER	Submit PRR December 2017 *		design			construction														
BASIC STUDIES Building Major Renovation of Building B							Submit PRR December 2023 *		design			construction								
TRADES & INDUSTRIES Building Major Renovation of Building A													Submit PRR December 2029 *		design		construction			
MINORS, REPAIRS & LOCALLY FUNDED PROJECTS	DESIGN/CONSTRUCTION TIMELINES OF MINORS, REPAIRS AND LOCALLY-FUNDED PROJECTS TO BE DETERMINED AS FUNDING BECOMES AVAILABLE																			
Renovation of Miscellaneous Restrooms	<p style="text-align: center;">MAJOR PROGRAMMATIC IMPROVEMENT PROJECTS (PARTIAL BUILDING RENOVATIONS)</p>																			
AEROSPACE- Building A Relocate Program from Building J Partial Renovation																				
GEN ED SCIENCE LAB - Building F New Lab																				
COMPUTER SCIENCE PROGRAMS - Building J Partial Renovation																				
STUDENT SERVICES - Building I Improve Student Success/Enrollment Consolidate Other Student Services																				
EXECUTIVE ADMINISTRATION - Building C Relocate President/VPs From Building I																				
BAND INSTRUMENT REPAIR (BIRT) - Annex Relocate Program from Building J																				
CULINARY ARTS - Building I Expand Bakery to Add Stations																				
IT & CUSTODIAL - Building N Co-locate Departments on Upper Level																				
STUDENT CENTER - New Facility Financed Through Public/Private Partnership, COP																				
CAMPUS LANDSCAPE Replace Irrigation System	<p style="text-align: center;">INFRASTRUCTURE IMPROVEMENTS & REPAIRS</p>																			
ELECTRICAL Upgrade Buildings to LED Fixtures Study Site Lighting																				
CIVIL Repair Heaving Concrete Utility Vaults Repave Miscellaneous Parking Lots																				
TRAFFIC Re-stripe to Add Parking Capacity																				

Campus Parking “Zone” Designations and Existing Demand Analysis

Generally, existing parking zones currently identified by RTC (zones P1 through P13 in **Attachment B**) were used as the basis for parking zone observations by TENW. Parking “outside” these zones was also noted during data collection efforts. Currently, there are approximately 997 stalls provided on-site at the RTC Campus, with 42 stalls designated as ADA, and an additional 68 stalls at the RTC Annex. In total, off-street parking supply is approximately 1,065 stalls for RTC programs. In addition to these stalls within off-street parking lots, parallel parking along the street frontages of Jackson Avenue, NE 5th Place/Kirkland Avenue NE, and Monroe Avenue NE were also utilized by activities at the RTC Campus.

Figure 2 overviews the existing configuration of parking throughout the RTC campus and the location of observed “off-campus” parallel parking along adjacent streets. **Table 2** summarizes parking counts collected by TENW in January 2016. As shown, with observed “off-campus parking”, average peak demand was approximately 1,047 stalls at 11:00 a.m., resulting in a utilization rate of approximately 98 percent. Based on peak average observations, an existing peak parking demand rate of approximately 2.32 stalls per 1,000 square-foot of gross floor area was determined. Based on a per student parking ratio, a 0.25 stalls per student was observed (or 1 stall per every 4 students). It should be noted, that this peak parking demand ratio includes students, faculty, and staff.

Table 2
RTC Campus Peak Parking Utilization
Winter Quarter 2016

Parking Lot	Average Peak Observed Demand	Percent Utilization
Average Weekday		
6:00 AM	96	9.0%
9:00 AM	1,041	97.7%
11:00 AM	1,047	98.3%
1:00 PM	910	85.4%
4:00 PM	521	48.9%
6:00 PM	273	25.6%

Source: TENW summary of data collected by observations, Winter Quarter 2016.

As noted above, the currently observed parking ratio is 0.25 stalls per student (which includes all faculty and staff demand as well). Removal of parking demand associated with 364 faculty/staff on-site to estimate “student only” parking demand, would result in a parking ratio of approximately 0.17 stalls per student. Current City code requires a minimum of 1 stall per employee, plus 0.5 space for every full-time student not residing on campus. As documented in this trip generation and parking demand study, “observed” parking demand is significantly less than this code requirement, and would neither be feasible or practical to meet this requirement for existing or future campus buildings. In addition, the peak observed parking demand of 1,047 stalls is below the built off-street supply currently available to the RTC campus (1,065 stalls) by approximately 22 stalls.

Appendix E – Average Useful Life of Infrastructure

The following average useful lives are used in accounting for depreciating assets. Since this is an average, about half of the infrastructure is expected to last longer. Projects involving infrastructure with different average lives shall use a cost weighted average life for scoring relative to the criteria. If replacing existing infrastructure, the proposal will have both the cost weighted average useful life of the existing and proposed infrastructures.

Infrastructure	Average Useful Life ¹	Estimated Cost	Cost Weighted Life
Electrical Service/Distribution – underground	20	100,000	2,000,000
Electrical Utility Pole	20		
Electrical Transformer – pad mounted	5	120,000	600,000
Electrical Transformer – in vault	5		
Electrical Generator – free standing	5		
Potable Water – piping	25	100,000	2,500,000
Potable Water – meters	25	25,000	625,000
Sewer lines – concrete	50		
Sewer lines – brick	90		
Sewer lines – metal	40		
Storm lines – PVC	25	55,000	1,375,000
Storm drains – cast iron	30		
Storm drains – metal corrugated	30		
Storm detention vault / area drains / catch basins - concrete	40	475,000	19,000,000
Storm drains – ditch/trench	100		
Telecommunication – fiber optic conductors	5		
Telecommunication networks between buildings ²	7.5		
Inter building communication infrastructure ³	25	120,000	3,000,000
Sewer lines – PVC	25	25,000	625,000
Natural Gas - Iron	30	15,000	450,000
Subtotals		A = 1,035,000	B = 30,175,000
Cost Weighted Average Useful Life			B / A = 29.15

Notes:

¹ Average Useful Life in years is from Section 30.50.10 of the State Administrative & Accounting Manual Issued by Office of Financial Management unless otherwise noted.

² California State University Capital Asset Guide, April 2012.

³ University of New Mexico Design Guidelines for Information Technology Infrastructure Facilities.

⁴ Provide copy or link to Other data used in analysis.

Appendix A – Best Practices to Reduce Greenhouse Gas Emissions

System / Best Practices	Included in Project?
Mechanical	
Solar water heating	
Above code HVAC system efficiency	Yes
Use natural gas instead of electricity for heating	Yes
Geothermal heat pump	
Post occupancy commissioning	Yes
Interconnectivity of room scheduling in 25Live and HVAC controls	
Electrical	
Photovoltaic energy systems	
Time of day and occupancy programming of lighting	Yes
Efficient lighting	Yes
Envelope	
Minimize building surface area for necessary floor area	Yes
Roofing materials with high solar reflectance and reliability	Yes
Green roofs to absorb heat and act as insulators for ceilings	
Site	
Orient building for natural light and reduced heating and cooling loads	Yes
Trees and vegetation planted to directly shade building	
Paving materials with high solar reflectance, enhanced water evaporation, or otherwise designed to remain cooler or require less lighting than conventional pavements	Yes
Increase transportation choices – drive, walk, bike or public transit	Yes
Total number of these best practices included in project:	10

RENTON TECHNICAL COLLEGE

Strategy for Reducing Greenhouse Gas Emissions

1. Background

In 2009, the Legislature and Governor adopted the State Agency Climate Leadership Act (Engrossed Second Substitute Senate Bill 5560 – Chapter 519, Laws of 2009). The Act committed state agencies to lead by example in reducing their greenhouse gas (GHG) emissions to:

- 15 percent below 2005 levels by 2020.
- 36 percent below 2005 by 2035.
- 57.5 percent below 2005 levels by 2050 (or 70 percent below the expected state government emissions that year, whichever amount is greater.)

The Act, codified in RCW 70.235.050-070 directed agencies to annually measure their greenhouse gas emissions, estimate future emissions, track actions taken to reduce emissions, and develop a strategy to meet the reduction targets. The strategy is required by law in [RCW 70.235.050](#) section (3):

By June 30, 2011, each state agency shall submit to the department a strategy to meet the requirements in subsection (1) of this section [greenhouse gas reduction targets]. The strategy must address employee travel activities, teleconferencing alternatives, and include existing and proposed actions, a timeline for reductions, and recommendations for budgetary and other incentives to reduce emissions, especially from employee business travel.

Starting in 2012 and every two years after each state agency is required to report to Ecology the actions taken to meet the emission reduction targets under the strategy for the preceding biennium.

- Renton Technical College is committed to progressing towards a healthy, sustainable and efficient campus. We have and will continue to become better stewards of the use of our natural resources and will continue to research, develop and implement plans to reduce our output of greenhouse gases.

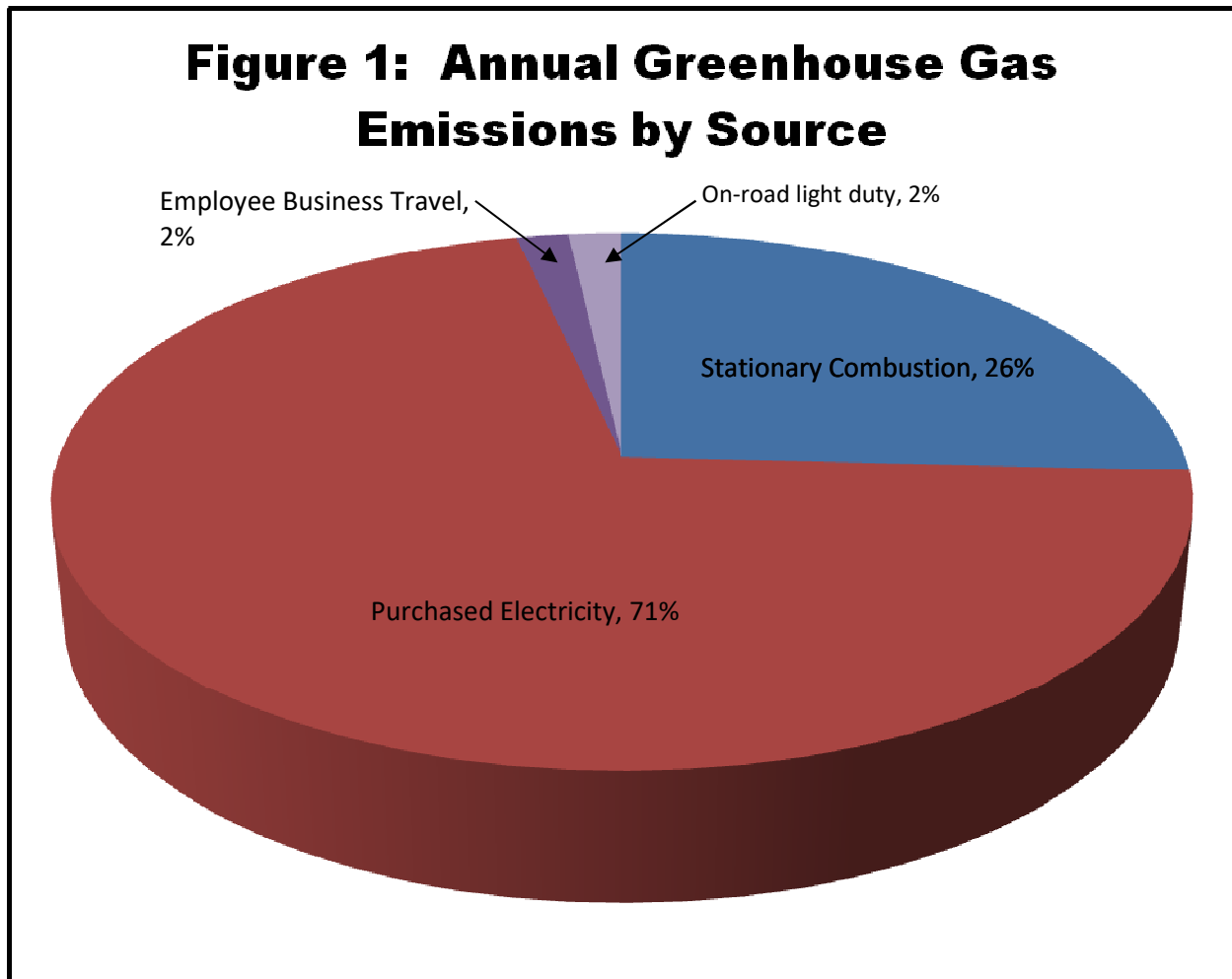
2. Greenhouse Gas Emissions from Agency Operations

A. Direct sources of GHG emissions from building and fleet energy use:

Year	Greenhouse Gas Emissions (metric tons carbon dioxide equivalent, MTCO _{2e})
2005	2908
2013	2,743.6
2020 (projected)	2,579
2035 (projected)	2,424

(Note: Figures do not include GHG emissions from buildings owned by General Administration. However, they do include GHG emissions from use of the GA Motor Pool.)

B. Main sources of direct GHG emissions



C. Greenhouse Gas Reduction Targets

Year	GHG Reduction Target (MTCO_{2e})
2020 (15% below 2005)	2,472
2035 (36% below 2005)	1,861
2050 (57.5% below 2005)	1,236

D. Level of GHG Reduction Needed to Meet Targets

Note 2050 is not included below because the estimate would be highly uncertain. This strategy should focus on meeting the 2020 and 2035 targets.

Year	Amount of GHG Reduction Needed to meet Targets (MTCO_{2e})
2020	107
2035	563

3. Overarching Strategies (if applicable)

The agency identified several cross-cutting strategies to help in reducing GHG emissions:

- Improve tracking of information used to quantify GHG emissions
- Integrate GHG reduction goals and actions into sustainability efforts and track progress
- Choose recycled products where possible. Choose high efficiency sustainable systems in new construction and renovations.
- Research benefits of energy savings projects through Department of Commerce.

4. Greenhouse Gas Reduction Strategies for Direct Emission Sources (Building and Fleet Energy Use)

A. Strategies and Actions with Low to No Cost

Strategies and Actions	GHG Reduction Estimate Annual (MTCO_{2e})	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Building Energy Use				
Reduce energy consumption by 5% <ul style="list-style-type: none"> • Before extended breaks in occupancy (i.e. spring and summer breaks, holiday break) send reminder email requesting computers shut down and 	500	\$500	2	14-16 biennium

off, power strips turned off, refrigerators emptied and unplugged, and all other appliances turned off. Replace inefficient appliances with energy star products.				
<ul style="list-style-type: none"> At time of appliance failure, if necessary to replace, choose high rated Energy Star appliances. 	270	0	immediate	14-16 biennium
<ul style="list-style-type: none"> Reduce lighting energy by turning lights off when not needed. 	900	0	immediate	14-16 biennium
Fleet Energy Use				
<ul style="list-style-type: none"> Increase instances of security patrols on bicycles in lieu of cars. 	16.3	\$1,500	immediate	14-16 biennium
<ul style="list-style-type: none"> Replace older vehicles with new hybrid vehicles (2). 	60.3	\$75,000	11.2	14-16 biennium
TOTALS:			N/A	N/A

B. Strategies and Actions with Payback up-to Twelve Years (or other time period determined by your agency)

Strategies and Actions	GHG Reduction Estimate (MTCO _{2e})	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Building Energy Use				
<ul style="list-style-type: none"> PSE Energy Grant to replace old exterior lighting fixtures. 	63.7	\$226,099	13.4	14-16 biennium
<ul style="list-style-type: none"> Replace old water heaters with high efficiency gas water heaters. 	25	\$30,000	6.5	14-16 biennium
Fleet Energy Use				
TOTALS:			N/A	N/A

C. Strategies and Actions with High Cost and Long Payback (more than 12 years or other time period determined by your agency)

Strategies and Actions	GHG Reduction Estimate (MTCO _{2e})	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Building Energy Use				
<ul style="list-style-type: none"> Replace pneumatic temperature control systems with DDC. 	107.6	\$200,000	10	14-16 biennium
<ul style="list-style-type: none"> LEED Certify all new building projects. 		Variable		14-16 biennium
<ul style="list-style-type: none"> Replace old gas boilers with efficient condensing boilers. 	43	\$125,000	15.6	14-16 biennium
<ul style="list-style-type: none"> Energy improvements for south end chiller system. 	25	\$85,000	18	14-16 biennium
Fleet Energy Use				
TOTALS:			N/A	N/A

5. Greenhouse Gas Reduction Strategies for Other Emission Sources (Employee Business Travel and Commuting)

The agency also quantified greenhouse gas emissions from employee commuting and business travel. GHG emissions from these sources were not included in the 2005 baseline because of insufficient data, and are therefore are not included in the reduction targets. Also, the agency has less operational control over these sources. The agency evaluated these sources separately in this strategy and identified reduction strategies for these sources.

Source of GHG Emissions	GHG Emissions, 2013 (MTCO _{2e})
Business Travel	48
Employee Commuting	Data Not Available

Strategies and Actions	GHG	Upfront	Payback	Date to
------------------------	-----	---------	---------	---------

	Reduction Estimate (MTCO_{2e})	Cost Estimate (\$)	Period Estimate (Years)	Implement Estimate
Employee Business Travel				
<ul style="list-style-type: none"> Reduce employee travel by 15%. 	15.0	0	immediate	14-16 biennium
<ul style="list-style-type: none"> Conduct some business meetings on-line instead of commuting. 	15	0	immediate	14-16 biennium
Employee Commuting				
TOTALS:			N/A	N/A

6. Additional Sustainability Strategies and Actions (if applicable)

Strategies and Actions	Co-benefits for GHG Reduction	Implementation Date Estimate
<ul style="list-style-type: none"> Replace old plumbing fixtures with low flow toilets. 		14-16 biennium
<ul style="list-style-type: none"> Provide more recycling containers across campus. 		14-16 biennium

7. Next Steps and Recommendations

Renton Technical College is committed to reducing its carbon emissions. The college will continue to plan its future new construction and renovations with reducing its carbon footprint in the forefront. Clean alternative energy resources for heating, cooling and lighting will be researched and implemented wherever practical. The college will encourage the use of passive solar energy for natural heating through design, construction and landscaping techniques. Designers of exterior building space will be advised that we are looking to increase accessibility, convenience, safety and security for pedestrians and bicyclists.

Renton Technical College staff will continue to seek alternatives to single person personal occupancy vehicle travel miles, whether that is through other forms of communication rather than face to face, seeking carpools with other college staff or even nearby colleges' staff, or using mass transportation when economically feasible.

The college leadership will spearhead efforts to reduce waste and increase recycling amongst staff and students. College custodial and facilities staff will endeavor to use more green cleaning products and low VOC paints.

If additional information is needed, you may contact Mark Johnson, Business Office, Financial Services Director, (425) 235-2352 x5509, mjohnson@rtc.edu

Preliminary for 2019-21 Project Requests
 CAPITAL ANALYSIS MODEL (CAM) GENERATED SPACE
 DirectLine inventory data April 2017
 COLLEGE: **Renton**
 TYPE: **Technical College**

All FTE *	FALL 2014	FALL 2024	Growth	Percent	FTE/Year
Academic	398	423	25	6%	3
Vocational	1,283	1,364	81	6%	8
Basic Skills/Dev Ed	1,990	2,116	126	6%	13
TOTAL	3,671	3,903	232	6%	23

Type 1 FTE	FALL 2014	FALL 2024	Growth	Percent	FTE/Year
Academic	181	192	11	6%	1
Vocational	564	600	36	6%	4
Basic Skills/Dev Ed	1,218	1,295	77	6%	8
TOTAL	1,963	2,087	124	6%	12

Type 2 FTE	FALL 2014	FALL 2024	Growth	Percent	FTE/Year
Academic	358	380	22	6%	2
Vocational	613	652	39	6%	4
Basic Skills/Dev Ed	1,283	1,364	81	6%	8
TOTAL	2,253	2,396	143	6%	14

* All funding sources, all ages, all intents (excluding community service), all enrollments (excluding DOC)
 Type 1 = Day On-Campus (excludes Online)
 Type 2 = Day On-Campus + Online

TYPE OF SPACE	FAE CODING	FTE TYPE	2016 SPACE AVAILABLE	COMMITTED CHANGES 2016-26	2026 SPACE AVAILABLE	2026 CAM ALLOWANCE	2019-21 SPACE DEFICITS		SHORTAGE AS % OF 2019-21 CAM ALLOWANCE
							SHORTAGE	OVERAGE	
GEN. CLASSROOM	A1	1	9,178		9,178	6,881	0	2,297	0%
BASIC SKILLS LABS (open)	A2	2	10,278		10,278	37,646	27,368	0	73%
SCIENCE LABS.	B1	1	1,591		1,591	1,824	233	0	13%
COMPUTER LABS. (open)	B2,B4,B5	2	14,414		14,414	3,648	0	10,766	0%
ART	C1	2	0		0	0	0	0	0%
MUSIC	C2	2	0		0	0	0	0	0%
DRAMA	C3	2	0		0	0	0	0	0%
Subtotal Instruction			35,461	0	35,461	49,999	27,601	13,063	55%
AUDITORIUM	C4	2	830		830	9,000	8,170	0	91%
LIBRARY/LRC	E1	2	2,164		2,164	37,232	35,068	0	94%
PHYS. EDUCATION	H3	2	3,690		3,690	9,880	6,190	0	63%
FACULTY OFFICE	F1	2	16,412		16,412	21,168	4,756	0	22%
Subtotal Instructional Support			23,096	0	23,096	77,280	54,184	0	70%
Total Instructional Space			58,557	0	58,557	127,279	81,785	13,063	64%
ADMIN./STU.SERV.	G1,G2	2	18,836		18,836	20,115	1,279	0	6%
STU.CTR.& RELATED	H1,H2	2	8,148		8,148	29,703	21,555	0	73%
C.STORES/MAINT.	I1	2	6,231		6,231	13,724	7,493	0	55%
CHILD CARE	H4	2	4,127		4,127	8,146	4,019	0	49%
Subtotal Student Service/Other			37,342	0	37,342	71,688	34,346	0	48%
TOTAL CAM SPACE			95,899	0	95,899	198,967	116,131	13,063	58%

TOTAL ASSIGNED	472,531
CAM/TOT. ASSIGN.	20%



Denis Law Mayor

December 8, 2017

Dr. Kevin McCarthy
President
Renton Technical College
3000 NE 4th Street
Renton, WA 98056

Dear Dr. McCarthy:

I am writing to voice my strong support for Renton Technical College's capital request to build a Health Sciences Center on the former King County Public Health property that the College recently purchased.

The City of Renton has an increasingly diversified economy, and healthcare is a vital component of the city's economic strength. Indeed, Renton is becoming a hub of the Puget Sound's healthcare ecosystem. UW Medicine/Valley Medical Center is Renton's primary medical facility and is the largest nonprofit healthcare provider between Seattle and Tacoma. Established in 1947, the medical center is one of Renton's primary employers. Valley Medical is now joined by a significant expansion of Kaiser-Permanente, with Providence St. Joseph Health and HealthPoint also at the forefront. Healthcare and Human Services is now Renton's third largest industry sector in terms of employment, accounting for 7,385 jobs in 2017—a remarkable 79% increase since 2015.

Renton has been one of the fastest growing communities in the Seattle area, with over 106,000 residents today. As the region continues to expand, so will the demand for health care and health-related services.

Renton Technical College excels in workforce training and has the highest community and technical college graduation rates in the state, but it cannot rest on its laurels or dated infrastructure. As the city's and region's education and training needs continue to grow in order to attract business and industry to bolster our overall economic health, our higher education partner, Renton Technical College, needs to grow as well. RTC needs this new health sciences center to expand its capacity and train at the highest levels, with the most up-to-date equipment and technology expected by business and industry.

We are excited about the proposed Health Sciences Center at Renton Technical College and strongly support this proposal as a high priority in your system. It is an exciting proposal that will greatly assist the City of Renton's plans and future development and will benefit students and the community.

Sincerely,

Denis Law
Mayor

DL:aa

17-178

UW Medicine

VALLEY MEDICAL CENTER

December 6, 2017

Kevin McCarthy, President
Renton Technical College
3000 NE 4th Street
Renton, WA 98056

Re: Letter of Support for New Health Sciences Building at Renton Technical College (RTC)

Dear President McCarthy,

I am writing to express Valley Medical Center's support for a new Health Sciences Building at RTC. For decades our organizations have worked collaboratively to offer training, mentorship and employment opportunities for students with an interest in a healthcare career. We estimate 20% of our current staff are graduates of RTC and believe the new Health Sciences Building will help grow and further enhance the programs housed there, giving over 550 students per semester access to programs for:

Anesthesia Tech
Central Service Tech
Dental Assistant
Massage Therapy
Medical Assisting
Medical Coding
Phlebotomy
Nursing assistant
Ophthalmic Assistant
Pharmacy Tech
Registered Nurse
Surgical Tech
Veterinary Asslstant

RTC is a critical resource for students in South King County, providing affordable educational opportunities for an extremely diverse and rapidly growing community. It is also a critical resource for surrounding healthcare organizations, like Valley, that are in need of talented staff who are representative of the diverse patient populations we serve. RTC contributes to our local economy and our community's well-being and I tremendously appreciate our long-standing partnership.

On behalf of Valley Medical Center, I am honored to provide this letter of support.

Sincerely,



Rich Roodman, CEO
UW Medicine | Valley Medical Center



Office of the Superintendent

November 28, 2018

Renton Technical College
Attn: Dr. Kevin McCarthy
3000 NE 4th St
Renton, WA 98056

RE: Letter of support for a new Health Sciences building at Renton Technical College

Dear Dr. McCarthy:

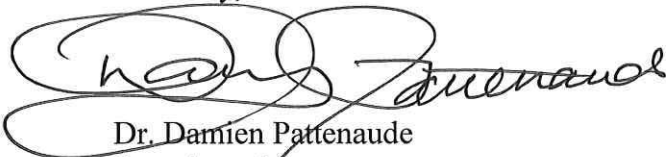
The Renton School District is pleased to provide this letter of support for Renton Technical College for the addition of a new Health Sciences building. One of the school district's Board adopted goals is to ensure that each student will graduate with the necessary skills and appropriate plan to continue to post-secondary options. College and career readiness is a top priority for Renton School District. Renton Technical College (RTC) and Renton School District have a long-standing partnership in helping students attain this goal through programs like Running Start.

Currently RTC serves over 550 Renton School District students. These students are accessing programs in the arena of Health Sciences such as; Anesthesia Tech, Central Service Tech, Dental Assistant, Massage Therapy, Medical Assisting, Medical Coding, Phlebotomy, Nursing Assistant, Ophthalmic Assistant, Pharmacy Tech, Registered Nurse, Surgical Tech, and Veterinary Assistant.

The evidence above shows that a Health Sciences building at RTC would greatly benefit the students in Renton School District as well as post graduates and numerous others in our community. The addition of this building would directly support the development of the highly skilled workforce needed in the health industry.

I highly value the important work of RTC and look forward to continuing our work together. On behalf of Renton School District students their families and the Renton School Board, I fully support the college's renovation proposal for its Health Sciences building.

Sincerely,



Dr. Damien Pattenaude
Superintendent

Renton Technical College | Program Growth Trends

RTC Program Title	SocCode	Occupation Title	Estimated Employment	Long Term Growth Rate	Short Term Forecast	Demand Status	Short Term Trend	Long Term Trend	Est. Employment 2020	Est. Employment 2025	Avg. Growth Rate 2015-20	Avg. Growth Rate 2020-25	Avg. Openings 2015-20	Avg. Openings 2020-25
Anesthesia Technologist	29-1071	Physician (Anesthesiologist) Assistants	1,162	2.67%	401	In demand	growth	growth	1,345	1,513	2.97%	2.38%	379	423
	31-9092	Medical Assistants	4,805	2.05%	1,571	In demand	growth	growth	5,394	5,886	2.34%	1.76%	1,507	1,635
Central Service Technician	31-9093	Medical Equipment Preparers	497	2.22%	144	In demand	growth	growth	563	619	2.53%	1.91%	137	150
Dental Assistant	31-9091	Dental Assistants	3,989	1.74%	1,458	In demand	growth	growth	4,399	4,740	1.98%	1.50%	1,406	1,510
Massage Therapy Practitioner	31-9011	Massage Therapists	3,694	2.97%	1,830	In demand	growth	growth	4,368	4,949	3.41%	2.53%	1,717	1,944
Medical Assistant	31-9092	Medical Assistants	4,805	2.05%	1,571	In demand	growth	growth	5,394	5,886	2.34%	1.76%	1,507	1,635
Medical Assistant - Phlebotomy	31-9097	Phlebotomists	526	2.20%	150	In demand	growth	growth	588	654	2.25%	2.15%	142	158
Medical Office Programs	29-2071	Medical Records and Health Information Technicians	1,988	1.93%	626	In demand	growth	growth	2,217	2,406	2.20%	1.65%	603	650
	43-4171	Receptionists and Information Clerks	8,474	1.54%	3,152	In demand	growth	growth	9,266	9,871	1.80%	1.27%	3,056	3,247
	43-6013	Medical Secretaries	3,678	2.09%	1,204	In demand	growth	growth	4,131	4,524	2.35%	1.83%	1,153	1,256
Nursing Assistant	31-1014	Nursing Assistants	8,841	1.53%	3,562	In demand	growth	growth	9,563	10,290	1.58%	1.48%	3,432	3,691
Ophthalmic Assistant	29-2057	Ophthalmic Medical Technicians	713	2.56%	264	In demand	growth	growth	824	918	2.94%	2.18%	250	277
Pharmacy Technician	29-2052	Pharmacy Technicians	2,608	1.64%	858	In demand	growth	growth	2,862	3,070	1.88%	1.41%	830	886
Registered Nurse	29-1141	Registered Nurses	22,148	2.25%	6,588	In demand	growth	growth	25,050	27,657	2.49%	2.00%	6,284	6,891
Surgical Technologist	29-2055	Surgical Technologists	856	2.29%	232	In demand	growth	growth	971	1,073	2.55%	2.02%	222	243
Veterinary Assistant	31-9096	Veterinary Assistants and Laboratory Animal Caretakers	1,082	1.99%	470	In demand	growth	growth	1,205	1,318	2.18%	1.81%	449	490
ALL OCCUPATIONS											2.05%	1.36%		

Data Sources:

Occupation Information: <https://esd.wa.gov/labormarketinfo/LAAO>

Projections: <https://esd.wa.gov/labormarketinfo/projections>

King County/Seattle WDA

Healthcare Employment Data | Largest Growth 2020-25

SOC code	Occupational title	Estimated employment 2025	Average annual growth rate 2020-2025	Average annual total openings 2020-2025
15-1134	Web Developers	6,845	3.90%	2,102
19-4091	Environmental Science and Protection Technicians, Including Health	261	3.76%	66
27-1029	Designers, All Other	196	3.76%	77
19-3091	Anthropologists and Archeologists	140	3.65%	41
47-2171	Reinforcing Iron and Rebar Workers	280	3.57%	133
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	19	3.50%	4
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	672	3.35%	304
15-1111	Computer and Information Research Scientists	1,604	3.31%	342
15-2041	Statisticians	1,032	3.14%	271
27-3041	Editors	2,015	3.04%	601
19-2041	Environmental Scientists and Specialists, Including Health	2,413	3.01%	634
29-2032	Diagnostic Medical Sonographers	538	3.00%	128
11-9071	Gaming Managers	80	3.00%	19
11-3021	Computer and Information Systems Managers	13,124	3.00%	3,756
31-2012	Occupational Therapy Aides	51	3.00%	18
15-1132	Software Developers, Applications	81,201	2.97%	21,361
15-1141	Database Administrators	2,343	2.96%	659
13-1161	Market Research Analysts and Marketing Specialists	17,924	2.95%	5,392
29-1128	Exercise Physiologists	222	2.95%	77
41-3011	Advertising Sales Agents	2,015	2.93%	567
29-2092	Hearing Aid Specialists	201	2.93%	63
41-3041	Travel Agents	1,589	2.89%	439
23-2091	Court Reporters	279	2.89%	76
41-2012	Gaming Change Persons and Booth Cashiers	215	2.83%	52
47-2161	Plasterers and Stucco Masons	316	2.82%	145
19-2043	Hydrologists	196	2.77%	51
47-2022	Stonemasons	464	2.76%	202
25-1071	Health Specialties Teachers, Postsecondary	5,309	2.76%	1,046
29-2031	Cardiovascular Technologists and Technicians	498	2.74%	110
29-1011	Chiropractors	818	2.73%	323
39-1012	Slot Supervisors	32	2.71%	8
29-1181	Audiologists	377	2.70%	120
39-3012	Gaming and Sports Book Writers and Runners	121	2.68%	29
15-1121	Computer Systems Analysts	18,345	2.68%	5,171
27-3091	Interpreters and Translators	1,266	2.66%	422
43-3041	Gaming Cage Workers	74	2.63%	18
39-3011	Gaming Dealers	2,103	2.62%	520
19-4092	Forensic Science Technicians	198	2.62%	33
41-9041	Telemarketers	2,131	2.61%	666
39-1011	Gaming Supervisors	232	2.61%	56
15-1100	Computer Occupations	173,978	2.60%	47,168
19-3032	Industrial-Organizational Psychologists	50	2.59%	19
15-0000	Computer and Mathematical Occupations	176,967	2.59%	47,793
11-2021	Marketing Managers	6,367	2.58%	1,864
27-1014	Multimedia Artists and Animators	3,730	2.57%	1,091
39-7012	Travel Guides	17	2.53%	5
27-1024	Graphic Designers	5,957	2.53%	1,813
31-9011	Massage Therapists	4,949	2.53%	1,944
39-7000	Tour and Travel Guides	776	2.53%	296
39-7011	Tour Guides and Escorts	759	2.53%	291
31-2022	Physical Therapist Aides	222	2.52%	78
13-1111	Management Analysts	20,652	2.51%	5,656
17-2061	Computer Hardware Engineers	2,018	2.50%	562

Healthcare Employment Data | Largest Growth 2020-25

SOC code	Occupational title	Estimated employment 2025	Average annual growth rate 2020-2025	Average annual total openings 2020-2025
25-1069	Social Sciences Teachers, Postsecondary, All Other	147	2.49%	29
29-2091	Orthotists and Prosthetists	156	2.48%	45
29-9092	Genetic Counselors	61	2.47%	13
25-3099	Teachers and Instructors, All Other	3,867	2.45%	877
49-9011	Mechanical Door Repairers	285	2.41%	127
29-1171	Nurse Practitioners	1,532	2.41%	391
47-2132	Insulation Workers, Mechanical	205	2.41%	74
29-1127	Speech-Language Pathologists	1,529	2.40%	389
29-2056	Veterinary Technologists and Technicians	815	2.40%	305
11-2011	Advertising and Promotions Managers	845	2.39%	239
15-1199	Computer Occupations, All Other	7,536	2.39%	2,465
29-1071	Physician Assistants	1,513	2.38%	423
47-2021	Brickmasons and Blockmasons	326	2.37%	155
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	145	2.37%	44
29-1041	Optometrists	200	2.36%	71
27-2012	Producers and Directors	2,948	2.36%	992
11-9121	Natural Sciences Managers	1,174	2.36%	301
15-1151	Computer User Support Specialists	12,352	2.35%	3,970
29-1122	Occupational Therapists	1,622	2.35%	501
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	119	2.34%	55
47-2121	Glaziers	1,194	2.33%	546
47-2181	Roofers	1,819	2.33%	861
47-2141	Painters, Construction and Maintenance	8,953	2.31%	3,921
43-4041	Credit Authorizers, Checkers, and Clerks	250	2.31%	73
47-2044	Tile and Marble Setters	1,827	2.31%	818
31-2000	Occupational Therapy and Physical Therapist Assistants and Aides	689	2.30%	243
47-2043	Floor Sanders and Finishers	216	2.28%	99
47-2053	Terrazzo Workers and Finishers	216	2.28%	95
19-2000	Physical Scientists	4,991	2.28%	1,275
27-3043	Writers and Authors	3,399	2.26%	1,030
29-1123	Physical Therapists	2,355	2.26%	770
41-9099	Sales and Related Workers, All Other	1,287	2.26%	390
13-2071	Credit Counselors	288	2.22%	75
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	96	2.22%	44
39-5093	Shampooers	377	2.21%	163
27-1011	Art Directors	1,704	2.20%	570
43-9031	Desktop Publishers	184	2.20%	47
13-1022	Wholesale and Retail Buyers, Except Farm Products	3,485	2.19%	1,129
29-2057	Ophthalmic Medical Technicians	918	2.18%	277
11-2000	Advertising, Marketing, Promotions, Public Relations, and Sales Managers	14,496	2.17%	4,249
39-5092	Manicurists and Pedicurists	3,827	2.17%	1,651
15-1122	Information Security Analysts	1,528	2.16%	420
19-2042	Geoscientists, Except Hydrologists and Geographers	918	2.16%	258
11-3131	Training and Development Managers	662	2.16%	178
33-9031	Gaming Surveillance Officers and Gaming Investigators	89	2.16%	21
47-2041	Carpet Installers	554	2.15%	229
31-2011	Occupational Therapy Assistants	99	2.15%	35

Data Source:

Projections: <https://esd.wa.gov/labormarketinfo/projections>

King County/Seattle WDA

Healthcare Employment Data | Fastest Growing

Rank	Occupation	2014 Employment	2024 Employment	Percent Change	Earnings	Typical Education
2	<u>Web Developers</u>	5,560	8,430	52%	Median wage is greater than \$56,230 per year	Associate's degree
8	<u>Massage Therapists</u>	10,230	14,460	41%	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
24	<u>Environmental Science and Protection Technicians, Including Health</u>	870	1,170	35%	Median wage is between \$34,760 to \$56,120 per year	Associate's degree
26	<u>Veterinary Technologists and Technicians</u>	1,940	2,620	35%	Median wage is between \$22,610 and \$34,720 per year	Associate's degree
29	<u>Physical Therapist Assistants</u>	1,360	1,820	34%	Median wage is between \$34,760 to \$56,120 per year	Associate's degree
38	<u>Diagnostic Medical Sonographers</u>	1,500	1,960	31%	Median wage is greater than \$56,230 per year	Associate's degree
58	<u>Cardiovascular Technologists and Technicians</u>	950	1,220	28%	Median wage is between \$34,760 to \$56,120 per year	Associate's degree
66	<u>Barbers</u>	4,160	5,280	27%	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
72	<u>Manicurists and Pedicurists</u>	8,350	10,610	27%	Median wage is less than \$22,330 per year	Postsecondary non-degree award
74	<u>Ophthalmic Medical Technicians</u>	990	1,260	27%	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
93	<u>Hairdressers, Hairstylists, and Cosmetologists</u>	16,520	20,590	25%	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
99	<u>Phlebotomists</u>	2,280	2,850	25%	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
101	<u>Skincare Specialists</u>	1,110	1,390	25%	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
105	<u>Agricultural and Food Science Technicians</u>	350	430	24%	Median wage is between \$34,760 to \$56,120 per year	Associate's degree
107	<u>Court Reporters</u>	290	350	24%	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
109	<u>Emergency Medical Technicians and Paramedics</u>	2,470	3,060	24%	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
116	<u>Occupational Therapy Assistants</u>	400	500	24%	Median wage is greater than \$56,230 per year	Associate's degree
120	<u>Semiconductor Processors</u>	1,220	1,510	24%	Median wage is between \$22,610 and \$34,720 per year	Associate's degree
121	<u>Sound Engineering Technicians</u>	400	490	24%	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
131	<u>Nuclear Technicians</u>	310	380	23%	Median wage is greater than \$56,230 per year	Associate's degree
134	<u>Radiation Therapists</u>	410	500	23%	Median wage is greater than \$56,230 per year	Associate's degree
142	<u>Computer Network Support Specialists</u>	3,470	4,230	22%	Median wage is greater than \$56,230 per year	Associate's degree
144	<u>Dental Hygienists</u>	6,260	7,630	22%	Median wage is greater than \$56,230 per year	Associate's degree
150	<u>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</u>	4,920	6,010	22%	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award

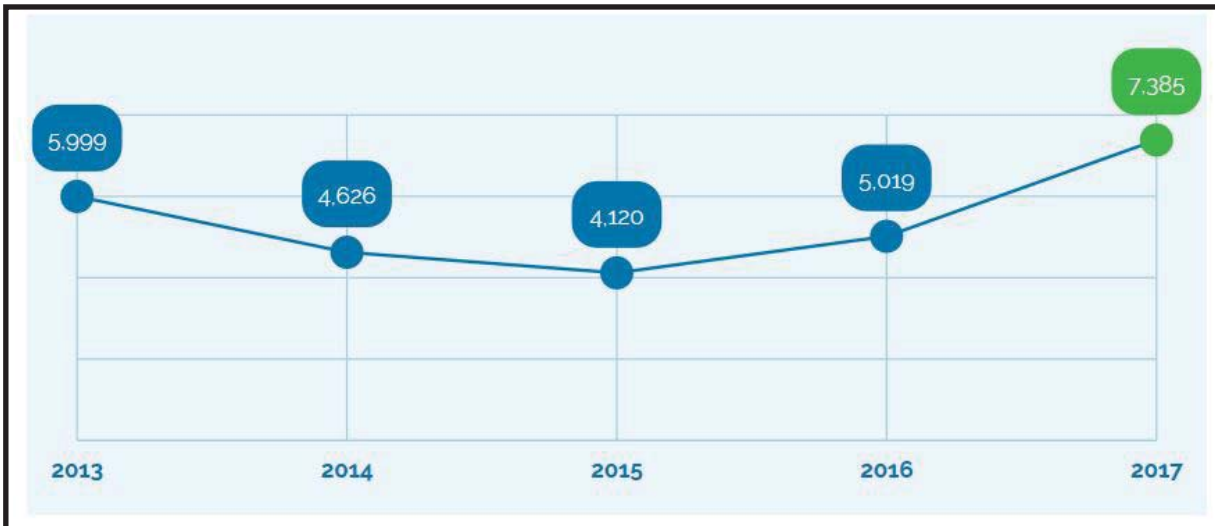
Healthcare Employment Data | Most Openings

Rank	Occupation	2014 Employment	Projected Annual Openings	Earnings	Typical Education
26	<u>Nursing Assistants</u>	27,170	1,140	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
30	<u>Heavy and Tractor-Trailer Truck Drivers</u>	35,440	1,100	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
40	<u>Hairdressers, Hairstylists, and Cosmetologists</u>	16,520	890	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
55	<u>Automotive Service Technicians and Mechanics</u>	15,890	580	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
58	<u>Medical Assistants</u>	12,920	560	Median wage is between \$22,610 and \$34,720 per year	Postsecondary non-degree award
64	<u>Massage Therapists</u>	10,230	520	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
68	<u>Dental Assistants</u>	10,300	500	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
70	<u>Preschool Teachers, Except Special Education</u>	9,090	470	Median wage is between \$22,610 and \$34,720 per year	Associate's degree
87	<u>Web Developers</u>	5,560	380	Median wage is greater than \$56,230 per year	Associate's degree
91	<u>Firefighters</u>	8,140	360	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
110	<u>Licensed Practical and Licensed Vocational Nurses</u>	7,650	310	Median wage is between \$34,760 to \$56,120 per year	Postsecondary non-degree award
116	<u>Manicurists and Pedicurists</u>	8,350	300	Median wage is less than \$22,330 per year	Postsecondary non-degree award
127	<u>Dental Hygienists</u>	6,260	250	Median wage is greater than \$56,230 per year	Associate's degree

Businesses and Jobs

Renton has a total of 3,975 businesses. In 2017, the leading industries in Renton were Manufacturing, Retail, Health Care and Social Services, and Accommodation and Food Services.

What are the top industries by jobs?



Health Sciences Center | Renton Technical College | Revised 12/05/2017

CLASSROOMS	QNTY	SF	TOTAL
Anesthesia Tech	0.5	850	425
Massage Therapy	0.5	850	425
Dental Assistant	2.0	850	1,700
Medical Assistant	1.0	1,200	1,200
Nursing Programs	2.0	1,200	2,400
Ophthalmic Assistant	0.5	850	425
Phlebotomy	0.5	850	425
Surgical Tech	2.0	850	1,700
Medical Coding	2.0	1,400	2,800
Basic Skills - Shared Health Science Programs A2/210	2.0	850	1,700
Lobby/Student Informal Learning/Social Space	1.0	2,500	2,500
CLASSROOM TOTAL	14.0	12,250	15,700

RESOURCE LIBRARY	QNTY	SF	TOTAL
Departmental Resource Library	1.0	1,400	1,400
LIBRARY TOTAL	1.0	1,400	1,400

LABS	QNTY	SF	TOTAL
Anesthesia Tech	1.0	1,200	1,200
Central Services Lab	1.0	1,200	1,200
Central Services Testing Room	1.0	200	200
Dental Assistant Clinical Lab	1.0	1,400	1,400
Dental Assistant Pre-Clinical Lab	1.0	1,400	1,400
Dental Assistant Plaster Room	1.0	500	500
Dental Assistant X-ray/Dark Room	2.0	150	300
Dental Assistant Reception	1.0	220	220
Massage Therapy Clinical Lab - expand by 2 beds	1.0	1,400	1,400
Medical Assistant	2.0	1,200	2,400
Pharmacy Tech	1.0	2,000	2,000
Phlebotomy	1.0	1,200	1,200
Surgical Tech Mock Surgery Room	4.0	600	2,400
Scrub Room	1.0	150	150
Nursing Programs	2.0	1,400	2,800
Nursing Simulation/Locker Rooms/Laundry	1.0	1,500	1,500
Ophthalmic Assistant - Eye Exam Lab	1.0	1,000	1,000
Vet Assistant	1.0	1,400	1,400
Vet Assistant Mock Exam Room	2.0	100	200
Vet Assistant Mock Treatment Room	1.0	100	100
Health Sciences Biology/Chemistry Lab	1.0	1,400	1,400
LAB TOTAL	28.0	19,720	24,370

OFFICE	QNTY	SF	TOTAL
Faculty/Staff Offices	2.0	2,000	4,000
Large Conference Room	1.0	300	300
Staff Work Room	1.0	225	225
Staff Lounge/Kitchenette	1.0	200	200
OFFICE TOTAL	5.0	2,725	4,725

NET BUILDING AREA			46,195
SUPPORT (Non-assignable at 66% efficiency factor)			23,797
TOTAL BUILDING AREA			69,992

Expected Cost Calculations

Construction Mid-point: Start (Bid) End (SC)
 8/1/2022 7/1/2021 9/1/2023
 Expected Cost Multiplier: 1.40 from Appendix B
 Project GSF: 69,992 S4 from Project Parameters

Facility Type	Expected Cost / GSF in 2008\$	Expected Cost / GSF	GSF by Type	Expected Cost	Point Thresholds	My Project
Classrooms	\$420	\$586	-	\$ -		
Communications buildings	\$378	\$527	-	\$ -		
Science labs (teaching)	\$437	\$610	67,871	\$ 41,375,180		
Research facilities	\$623	\$869	-	\$ -		
Administrative buildings	\$309	\$431	-	\$ -		
Day care facilities	\$283	\$395	-	\$ -		
CTC Libraries	\$361	\$504	2,121	\$ 1,068,125		
			69,992	\$ 42,443,305	100%	\$ 42,434,781
			-	\$ 47,112,068	111%	
				\$ 58,147,327	137%	
					<137%	

The following data is based on the December 2016 Global Insight forecast for state and local government spending and is to be used for adjusting the expected costs from July 1, 2008, to the mid-construction date for comparison to project estimates.

Mid-construction Date	Expected Cost Multiplier
7/1/2008	1.000
5/16/2016	1.184
8/15/2016	1.187
11/15/2016	1.195
2/14/2017	1.204
5/16/2017	1.214
8/15/2017	1.224
11/15/2017	1.233
2/14/2018	1.242
5/16/2018	1.251
8/15/2018	1.260
11/15/2018	1.269
2/14/2019	1.278
5/16/2019	1.287
8/15/2019	1.297
11/15/2019	1.306
2/15/2020	1.315
5/16/2020	1.324
8/15/2020	1.332
11/15/2020	1.341
2/14/2021	1.350
5/16/2021	1.359
8/15/2021	1.368
11/15/2021	1.377
2/14/2022	1.386
5/16/2022	1.395

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Fall 2016 Utilization - used in Overarching Criteria for all projects. See Appendix C.

	Contact Hours	Work-stations	Fall 2016 Utilization
Classes	17,528.60	1,445	12.13
Labs	26,841.73	1,358	19.77
Campus	44,370.33	2,803	15.83

Future Utilization - use for projects with net **New Area**. See Appendix D.

State Board enrollment projections are available here -

<http://www.sbctc.edu/colleges-staff/programs-services/capital-budget/capital-budget-development.aspx>

1,963	Fall 2016 Type 1 FTE
2,087	Fall 2026 Type 1 FTE
124	Net New Type 1 FTE
250	This project net new Classroom workstations
272	This project net new Laboratory workstations
522	Net new workstations in project

	Contact Hours	Work-stations	Future Utilization
Classes	18,733.26	1,695	11.05
Labs	28,152.41	1,630	17.27
Campus	46,885.67	3,325	14.10