House Higher Education Committee Request for Information, Charge 2

University of Houston System

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Chairman Turner and Members,

Thank you for the opportunity to provide information related to the current and future capital infrastructure needs at Texas public universities and health-related institutions, in preparation for potential legislation to be considered by the 87th Legislature. The following are the University of Houston System's responses to the committee's questions.

As a result of the pandemic, have institutions' infrastructure needs changed?

The pandemic has significantly impacted the University of Houston and in order to maintain a safe learning and working environment, it has been necessary for the University to make changes to the physical environment and infrastructure including HVAC and IT systems, custodial and auxiliary services.

The University is following CDC guidelines for social distancing in classrooms, labs and public spaces. In addition to requiring that masks be worn on campus, classroom and lab seating has been marked to ensure students are at least 6-feet apart. This significantly impacts the capacity of existing spaces. While online classes are a higher percentage of the overall class offerings, it is expected that this will not offset the classroom occupancy reductions and will impact the University's planning for future buildings. More space will need to be dedicated to classrooms, labs, public areas, and offices to allow for social distancing, while maintaining capacity requirements. Additional IT support has been required since the University now offers a large number of online courses.

Many steps have been taken to ensure the University is providing a safe environment for staff, faculty and students. Every classroom has a station with disinfecting wipes and hand sanitizer to allow individuals to clean their area. Hand sanitizers have been installed throughout every building on campus. At service areas, Plexiglas barriers have been installed and 6-foot distancing markers have been provided to allow for safe queuing. Public restrooms have been retrofitted to with touch-free faucets and paper towel dispensers. All new facilities will be designed with touch-free fixtures. Many existing spaces are also being retrofitted with motion sensor lighting controls to reduce contact.

The University has also enhanced the level and frequency of custodial services. This includes frequent cleaning of high touch surfaces and fixtures. Each night, every classroom will be sanitized using an electrostatic disinfecting fogger. The increased custodial practices required the addition of approximately 40 new custodial staff. The enhanced cleaning and equipment has also increased the need for custodial storage space. Increased custodial storage will need to be included in all future buildings.

There are also changes within Campus Auxiliary Services. The Dining Halls are moving to cashless transactions and self-service food stations are no longer offered. One-way traffic management will be implemented and social distancing will be practiced in all serving lines. Each dining hall will operate at a new, reduced capacity threshold. Tables, chairs and high touch surfaces will be continuously cleaned throughout hours of operation. Outside guests are only allowed in public areas, but they are not permitted the resident's rooms.

Based on the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Reopening guide for Schools and Universities the filters in the air handling units are being upgraded where possible to a minimum efficiency reporting value of 13 (MERV-13). Older buildings are being evaluated to upgrade filter ratings to MERV-13 or the maximum efficiency level of filtration possible without affecting the building ventilation system performance. The preventative maintenance program will initiate a new higher frequency schedule for filter replacement when the upgrades are installed that will require increased maintenance needs over the course of the life lifecycle of the facility. Future facilities will need expanded HVAC systems that will be able to address viral transmission concerns.

The University of Houston requires building systems to adhere to industry standards and the feasibility of increasing building outside air flow rate and building air exchange is currently under review. Current codes do not adequately address concerns regarding airflow rates as well as the associated changes resulting in controlling temperature and humidity that occur when adjusting the systems. These factors heavily impact the quality of the building environment and can cause mold propagation in warmer climates.

How have institutions' needs changed since the 86th Legislature? Are there projects that were included in HB 2000 that are no longer needed; i.e., were funded through other means?

The University received some General Revenue funds for the Hobby School and The Law Center. Funds are still required, as both projects are moving forward and are about to be under construction.

Are there projects that were not included in HB 2000 that now are a need? If so, why?

Yes, our universities continue to grow in the number of students and the need for more opportunities for learning. One of the lessons we have learned from the covid-19 pandemic is that despite success in delivering classes online, our students still prefer and crave face to face interaction, which means that we cannot abandon investment into educational infrastructure.

In that regard, the University of Houston is recognized as one of the world's leaders in entrepreneurship and innovation. The Wolf Center for Entrepreneurship is the #1 rated undergraduate entrepreneurship program in the nation and the University of Houston has regularly rated as the #1 producer of patents among universities without a medical school. To continue to grow upon this excellence, the University of Houston is proposing state investment into an Innovation Building to support maker space available to all students, faculty and staff consisting of a variety of resources, including access to equipment for simple and early-stage prototyping, 3D printers, design software, and basic tools. The building will be configured to provide as much "non-structured" interactions as possible to support collaboration and interaction of multi-disciplined entrepreneurial teams.

In addition, the University of Houston at Sugar Land continues to grow at a tremendous rate and is already in need of an additional academic building for continued expansion of the College of Technology, laboratories in tele-health, infrastructure for cybersecurity courses, and other classroom space for the expansion of programs in Business, Nursing, and Education. All of these expansions are an effort to support the expanding economic opportunities in the Sugar Land/Fort Bend area.

If the pandemic has changed institutional needs, are there federal funds that could qualify to help offset COVID-related changes?

As a result of the pandemic, our universities have worked tirelessly to retrofit classrooms to upgrade technology needs in order to deliver classes virtually and still provide the same excellence to our students. There has been specific federal funding for these needs.

Has the economic recession impacted borrowing costs for a potential Tuition Revenue Bond? Are there any anticipated changes to the costs of borrowing in the future, should conditions remain as they are?

The onset of the pandemic initially sent the municipal bond market into a state of illiquidity. In March, tax-exempt rates rose as much as 1.5% on high grade long term bonds such as TRB's. Since then rates have dropped precipitously and are at near record lows. If UH were to issue revenue bonds for TRB projects now, the True Interest Cost would be approximately 2.3%.

Are there financial or other benefits to paying for TRBs with cash rather than borrowing money?

The UH System does not borrow money to pay the debt service on TRBs. Paying for TRB projects with cash (General Revenue) would avoid interest costs on issuing bonds, however there are constitutional limits on the use of General Revenue for construction projects.

What kinds of longer-term impacts will we see to institutions if TRBs continue to be pushed off?

Pushing off TRB authorizations would likely cause the UH System to delay construction projects to a future date, which would impair institutions' ability to meet the needs of their growing enrollments and continued investment in excellence.