NOTICE OF
OPPORTUNITY FOR PUBLIC COMMENT RELATED TO
PASSENGER FACILITY CHARGES

PROJECT 02-001 – Terminal D, Mickey Leland International Terminal (MLIT), Rehabilitation and Expansion

Description:
This project includes the design and construction necessary for the rehabilitation and expansion of Terminal D, the Mickey Leland International Terminal (MLIT). This project also includes the integration of the existing Terminal C North and Terminal D into this new single common-use international facility. The MLIT consolidated terminal building configuration will be approximately 685,000 square feet which includes the new Pier D West expansion and the rehabilitation of existing Terminal D, C Knuckle, and C-D Connector spaces. The terminal building will provide between 15 and 22 contact gates, depending on the mix of aircraft. Thirteen (13) gates will be capable of accommodating wide-body aircraft, including 2 gates for A380s. The project also includes associated apron work, utilities, and connections to other airport facilities including the Federal Inspection Facilities (FIS) and the New Terminal C North Pier.

New Construction.
The expansion portion of this project will include the construction of a New Pier D West totaling approximately 156,000 square feet. This will require the demolition of the existing Old C North facility. This new pier will accommodate 6 Group V gates. Pier D West will consist of eligible spaces including holdrooms, public restrooms, circulation spaces, sterile corridors, and eligible mechanical space. The new pier will also include ineligible spaces including concessions and operations. This scope will include the acquisition and installation of 12 passenger loading bridges and foundations with associated ground power and pre-conditioned air. The New Pier D West will be 3 levels: 1) an Apron level with ramp operations, support space (mechanical, electrical and telecommunications), concession space and vertical circulation; 2) a Departures level consisting primarily of holdrooms, circulation, public restroom and concession spaces with some limited airline, airport and CBP spaces, support space (mechanical, electrical and telecommunications), and vertical circulation; and 3) the Arrivals level including primarily circulation spaces and an international arrivals connector bridge, along with some airport space, support space and vertical circulation.

Terminal D is currently used by over twenty (20) foreign flag air carriers on a common use basis. The additional gates and loading bridges provided in this New Pier D West will be owned by the Houston Airport System (HAS) and will be leased on a preferential and common use basis.

The expansion work also includes the construction of approximately 48,000 square feet of new space adjacent to the southeast corner of the existing terminal. The ground and apron levels of this project will provide space for a new Foreign Flags Checked Baggage Inspection System (CBIS) building. HAS has inquired with the Transportation Security Administration regarding grant funds for the design only of these facilities, but at this time, no grant award has been made

for either the design or the construction of these facilities. The departure level of this addition will consist of new club space.

Rehabilitation.
The rehabilitation portion of this project includes the rehabilitation of the existing Terminal D, the Terminal C-D Connector, and the "knuckle" intersection of the New Pier D West and the C-D Connector. One phase of rehabilitation will include the rehabilitation or replacement of flooring, wall coverings, ceiling and lighting. This phase will include approximately 106,000 square feet of public spaces, primarily in hold rooms and circulation spaces. Rehabilitation will also include the replacement of public holdroom seating. The second phase of rehabilitation will be the rehabilitation of existing building systems to provide an additional ten (10) years of useful life to those building systems. The systems to be rehabilitated will include electrical systems, including distribution and switchgear equipment; HVAC equipment; roof membranes; sanitary sewer system improvements; fire suppression; ground power and pre-conditioned air; and rehabilitation of vertical and horizontal movement systems including elevators and escalators. The existing C Knuckle and C-D Connector will be upgraded with sprinkler, fire alarm system, and fireproofing to meet current code requirements.

Rehabilitation scope in this project includes the rehabilitation of various building systems in Terminal and the C/D Connector area, including electrical, HVAC, roofing, sanitary sewer, fire suppression, GPU/PC Air, and vertical circulations systems. These systems, which serve the original approximately 486,000 square feet of space, were all included in the terminal's 1990 construction and have received only limited repairs and maintenance work since originally constructed. Much of the equipment is 30 years old with the newest equipment being 10 years old. Rehabilitation to heated and chilled water connections will be required to provide adequate service to the entire expanded structure.

Other rehabilitation work includes rehabilitation in the Terminal D and C Knuckle (where the passenger corridor between Terminal C, the New Pier D West, and Terminal D intersect) in order to bring these areas into current code compliance.

On the exterior landside of the MLIT, the existing passenger drop-off lanes will be shut down and converted to new bypass roadways. The current public entries into MLIT will be closed to prevent access into D Terminal from curbside.

Associated Airside Work included in this project:
Selected apron pavement systems, constructed of portland cement concrete, and associated infrastructure and utilities including grading and storm water drainage, potable water, sanitary sewer, power and communications, and hydrant fueling system from the terminal building curtain wall to the tail-of-stand-road (vehicle service road), including the vehicle service road and pavement markings. This represents approximately 448,000 square feet of apron paving. Existing hydrant fueling system modifications will be made as required to service new aircraft parking positions.

The apron included in this project is the aircraft parking apron surrounding the New Pier D West. The vehicle service road mentioned in the project description refers to the area of pavement

designated (by pavement markings only) for the movement of non-aircraft vehicles (baggage carts, maintenance vehicles, etc). The project budget does include funds for possible environmental remediation. Those costs as well as any estimated costs related to the fuel pits and fuel hydrant system included in this scope of work have been identified as ineligible costs and programmed using local airport funds.

Justification:
IAH is the nation's eighth busiest international gateway and the second fastest growing since the events of September 11, 2001. In 1990 when the Terminal D was opened, international enplanements at IAH were 1,096,635. In 2018, international enplanements had grown to 5,390,421. That represents a compound annual rate of growth from 1990 to 2018 of 5.85%. The Master Plan update for IAH completed in 2015 forecasted continued international growth at an estimated 5.1% per year from 2016 to 2021 and 5.0% from 2021-2026. Terminal D is at capacity during peak hours and exceeds capacity numerous times during the year, especially during summer to winter, winter to summer months. Expansion and modernization of the facility is needed to accommodate current demand and future international growth. In addition, the terminal building and many of its systems need to be rehabilitated to meet current building codes and operational standards. The interior of the terminal suffers from inadequate seating in the holdrooms, inadequate restroom facilities, concession facilities that do not meet customer expectations and insufficient space for new or enlarged airline clubs. Rehabilitation efforts will address these deficiencies, will improve visual connectivity and homogeneity throughout the terminal building, and improve functional space definition. The supporting infrastructure has also reached the end of their useful lives with limitations in providing sufficient HVAC, water and sanitary sewer, and electrical power. Additionally, because of its narrow, linear design, the existing terminal space is no longer optimally configured for today's ticketing and baggage screening/handling operations.

The need for additional gates in Terminal D has been analyzed for several years. The most recent analysis and basis for the design of this project was conducted in 2018. Based on that analysis, the peak month for Terminal D was July and the average day of that peak month was July 27th. The table below reflects the estimated number of foreign flag carriers arriving and departing passengers and flights on the average day of peak month for 2018 and forecasted for 2030 and 2035.

Average Day of Peak Month				
Year	Arriving Passengers	Departing Passengers	Arriving Flights	Departing Flights
2018	5,680	5,342	31	29
2030	8,580	8,242	45	43
2035	9,918	9,580	52	50

Terminal D currently has 12 gates, seven wide body gates and five narrow gates. That is the maximum number of gates which could be used simultaneously. Based on the mix of wide body and narrow body aircraft, that number is typically fewer than 12 gates. Upon completion of this project, Terminal D will be able to accommodate 15-22 aircraft parking positions, depending on the mix of wide body and narrow body aircraft. (22 parking positions could only be

accomplished assuming all narrow body aircraft.) The anticipated utilization would include 12 wide body and two narrow body aircraft (including two ADG-VI positions) or 13 wide body and three narrow body aircraft. Typical utilization would be 16 aircraft gates. Based on the 2030 and 2035 forecasts, the typical utilization of 16 gates is sufficient to meet the forecasted demands in 2030 and 2035.

The end result is that the existing Terminal D structure now requires a major renovation or replacement to meet current passenger demand, aircraft up-gauging, and current code requirements as well as the need to replace and expand the building systems to meet current demands.

Project Implementation Date: November 2019
Estimated Project Completion Date: September 2023

Project Eligibility

The estimated capital cost of this project is $524,969,000. This estimate has been broken down into the various scopes of work included in this project, recognizing that the different scopes of work have different PFC eligibility.

PFC eligible costs included in this project:

- New Pier D West includes eligible terminal spaces as provided for in Table N-5 of the current AIP Handbook. These include holdroom spaces, public circulation spaces, public restrooms, international arrivals bridge, vertical circulation and prorated costs of mechanical spaces.
- Apron pavement for aircraft parking at the New Pier D West.
- High cost PFC eligible equipment including passenger loading bridges, elevators, baggage handling systems, and fixed passenger holdroom seating.
- New CBIS/CBRA facilities.
- PFC eligibility of the rehabilitation of existing spaces has been evaluated based on the specific area/item being rehabilitated.
    - Terminal systems including electrical, HVAC, roofing, sanitary sewer infrastructure, fire suppression, etc. have been evaluated based on the PFC eligibility of the existing Terminal D and C/D Connector spaces based on the current AIP handbook.
    - Rehabilitation for code compliance in the C Knuckle and the Terminal D, is based on the eligibility of the spaces in those areas.
    - Rehabilitation of flooring, wall coverings, ceilings and lighting primarily includes eligible public holdrooms and circulation spaces.
    - Rehabilitation of heated and chilled water connections to serve the expanded Terminal D facility, based on PFC eligibility of the completed facility.

Ineligible portions of this project to be paid for with airport funds:

- New Pier D West includes ineligible terminal spaces as provided for in Table C-2 of the current AIP Handbook. These include concession spaces, ATO, CBP, and HAS spaces, and janitors' closets.

- Construction of a new passenger lounge on the departures level.
- Ineligible areas of the rehabilitation of existing spaces includes:
    - Ineligible portions of the rehabilitation work described above.
    - Rehabilitation of the USO lounge and the old passenger lounge into a prayer room, footwash room and diplomatic suite.
- Underground fuel systems remediation.
- Fuel pit and fuel hydrant system.
- HAS Civic Art Program Costs.

The estimated total capital cost of this project is approximately $524,969,000 with funding anticipated follows:

PFC Funds – Pay-Go	$211,250,000
PFC Funds – Bond Capital	$181,540,000
Other/Local Funds	$132,179,000
Total Estimated Capital Costs	$524,969,000
PFC Funds – F&I	$138,736,000
Total PFCs Requested	$531,526,000

Changes to Aircraft Gates and Passenger Processing Facilities – The schedule provided below reflects the number of aircraft gates and passenger processing facilities (including ticket counter positions, baggage claim devices, security screening checkpoint lanes, and CBP processing kiosks and agent positions) before and after the completion of this project and project 02-002.

George Bush Intercontinental Airport (IAH)
Terminal D (MLIT), Terminal E and Federal Inspection Services (FIS)
PFC Projects 02-001 and 02-002
Changes to Aircraft Gates and Passenger Processing Facilities

	Existing - Before Expansion/Reconfiguration			After Expansion/Reconfiguration		
	Terminal D	FIS	Terminal E	Terminal D	FIS/ICP	Terminal E
Aircraft Gates (Narrow Body Equivalent)	12	N/A	23	22	N/A	23
Ticket Counters Positions	66	N/A	31	0	108	0
Security Screening Checkpoint Lanes	5	6	6	0	18	0
Baggage Claim Devices - Domestic	1	0	0	1	2	0
Baggage Claim Devices - International	0	10	0	0	12	0