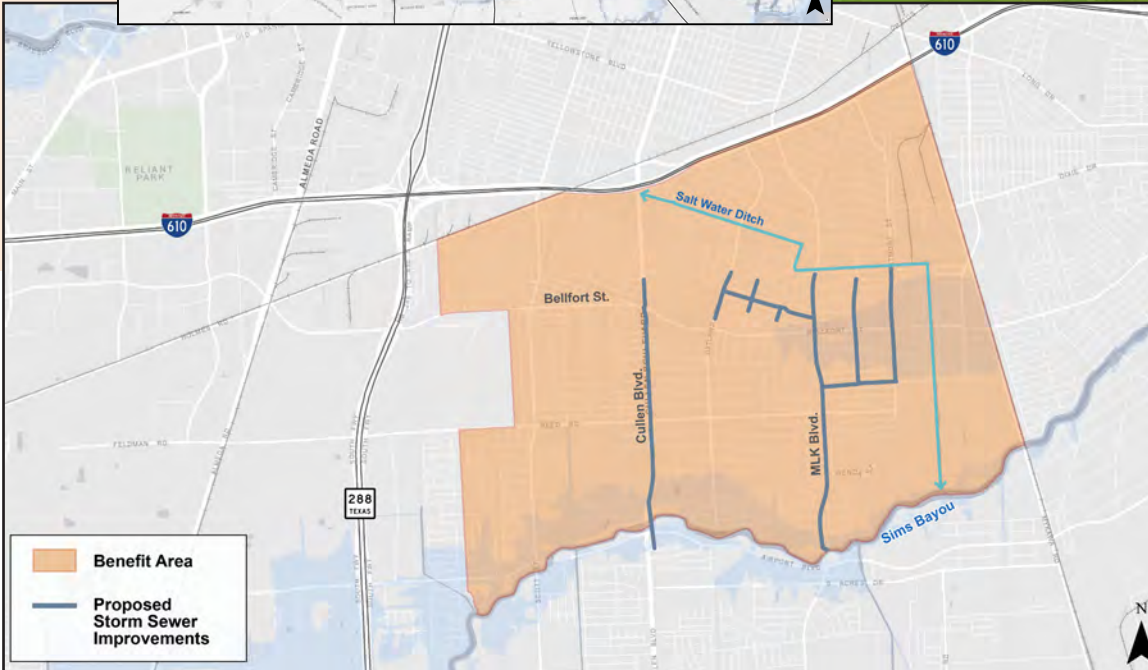
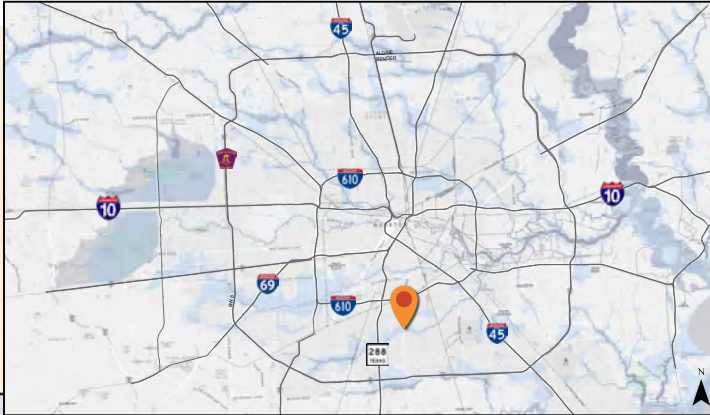


HOUSTON SUNNYSIDE AREA FLOOD MITIGATION



Scope of Work	<p>The project area bounded by Cullen Blvd. on the west, Salt Water Ditch (HCFCD Channel C118-00-00) on the north and east, and Sims Bayou on the south. The project includes new storm sewer trunk systems on Cullen Blvd. and MLK Blvd., new storm sewer systems on Crestmont St., Southbank, and Vasser Rd., and storm sewer improvements on Jutland Rd., Herschelwood St., and Lyndhurst Dr.</p> <p>The project will also require construction of detention basins to mitigate the improvements.</p>
Budget	\$111,251,647
Sources of Funding	Community Development Block Grant (CDBG) Mitigation and Dedicated Drainage and Street Reconstruction Fund (DDSRF)



Project SCOPE OF WORK

Section 1 of 3: Project Scope of Work



Hazard Mitigation

The Sunnyside Area Flood Mitigation Project will address risks associated with hurricanes/tropical storms/tropical depressions in the Sunnyside and South Park areas.

The Sunnyside Area Flood Mitigation Project will reduce the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by more rapidly conveying water from the identified service areas to reduce flooding. Dynamic hydraulic and hydrologic (H&H) modeling was used to identify existing ponding impacts and illustrate the benefits of reduced ponding associated with the proposed project.

The H&H modeling identified flooding issues under existing conditions, including structures inundated and ponding above the curb (6 inches of water) that impacts safe roadway mobility. The impacts are further validated by other data points including FEMA National Flood Insurance Program (NFIP) data, FEMA Individual Assistance (IA) data, and/or calls for service.

The Sunnyside Area drainage infrastructure was constructed beginning in the 1950's. The Area is also served by Salt Water Ditch (Harris County Flood Control District Channel C118-00-00) as well as Channels C122-00-00 and C128-00-00. All drainage infrastructure drains to Sims Bayou (Channel C100-00-00). The existing drainage system is a mix of curb and gutter and roadside ditch systems and provides less than 10-year level of service (LOS) under Atlas 14 rainfall. The H&H models show that 9,123 properties are inundated in the 100-year rain event, and 92.3 miles of street experience more than 6 inches of water.

The proposed project will replace and improve existing storm sewers and construct larger trunks throughout the neighborhood. The proposed improvements will increase the capacity of the existing system, increasing the LOS to 25-year, reduce ponding on 12.6 miles of street, and remove 3,460 properties from flood risk.

Project Summary

- **Proposed Improvements**
- Replace or improve storm sewer systems on the following streets:
 - Martin Luther King Boulevard, Salt Water Ditch - Sims Bayou
 - 19,500 LF of 10'x10' RCB
 - 88 Type "BB" inlets
 - 44 manholes
 - Southbank Street, Salt Water Ditch - Beldart St.
 - 3,000 LF of 60" RCP
 - 33 Type "BB" inlets
 - 13 manholes

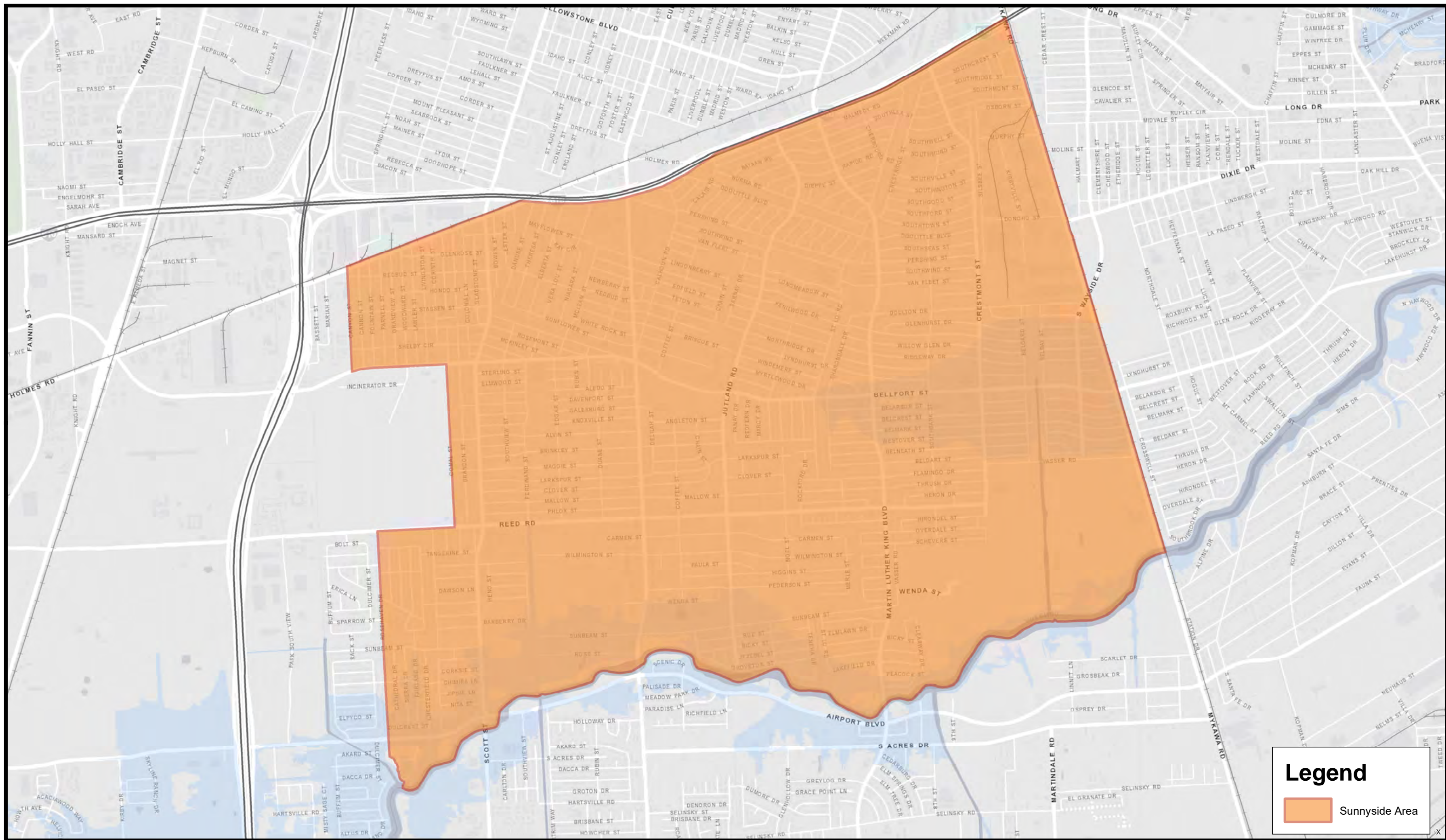
- 5,000 SY of 6" reinforced concrete pavement
 - 3,750 LF of 6" concrete curb
 - 2,100 SY of 5' concrete sidewalk
- Crestmont Street, Salt Water Ditch - Beldart St.
 - 3,150 LF of 60" RCP
 - 33 Type "BB" inlets
 - 12 manholes
 - 5,000 SY of 6" reinforced concrete pavement
 - 3,750 LF of 6" concrete curb
 - 2,100 Sy of 5' concrete sidewalk
- Between Beldart Street and Flamingo Drive, Crestmont St. - MLK Blvd.
 - 1,330 LF of 10'x8' RCB
 - 8 manholes
- Jutland Road, Crane St. Willow Glen Dr. - Pensdale St.
 - 1,710 LF of 48" RCP
 - 14 Type "BB" inlets
 - 10 manholes
 - 3,230 SY of 6" reinforced concrete pavement
 - 3,140 LF of 6" concrete curb
 - 1,520 SY of 5' concrete sidewalk
- Herschelwood Drive, Willow Glen Dr. - Windemere St.
 - 1,120 LF of 48" RCP
 - 12 Type "BB" inlets
 - 7 manholes
 - 2,120 SY of 6" reinforced concrete pavement
 - 1,880 LF of 6" concrete curb
 - 820 SY of 5' concrete sidewalk
- St. Lo Road, Lyndhurst Dr. - Windemere St.
 - 450 LF of 48" RCP
 - 2 Type "BB" inlets
 - 2 manholes
 - 600 SY of 6" reinforced concrete pavement
 - 450 LF of 6" concrete curb
 - 250 SY of 5' concrete sidewalk
- Lyndhurst Drive, Jutland Rd. - MLK Blvd.
 - 3,110 LF of 6'x5' RCB
 - 12Type "BB" inlets
 - 2 manholes
 - 4,000 SY of 6" reinforced concrete pavement
 - 1,000 LF of 6" concrete curb
 - 560 SY of 5' concrete sidewalk
- Cullen Boulevard, Briscoe St. - Sims Bayou
 - 985 LF of 10'x5' RCB

- 14,110 LF of 10'x8' RCB
 - 48 Type "BB" inlets
 - 28 manholes
 - 1,600 SY of 6" reinforced concrete pavement
 - 950 LF of 6" concrete curb
 - 800 SY of 5' concrete sidewalk
- Construct the following dry-bottom detention facility with green space, pedestrian trail, and amenities to contribute to the overall required mitigation volume of 55 acre-feet:
 - Detention Basin D, 679 acre-feet (15 feet deep)
 - Detention Pond E, 435 acre-feet (11 feet deep)

MAPPING

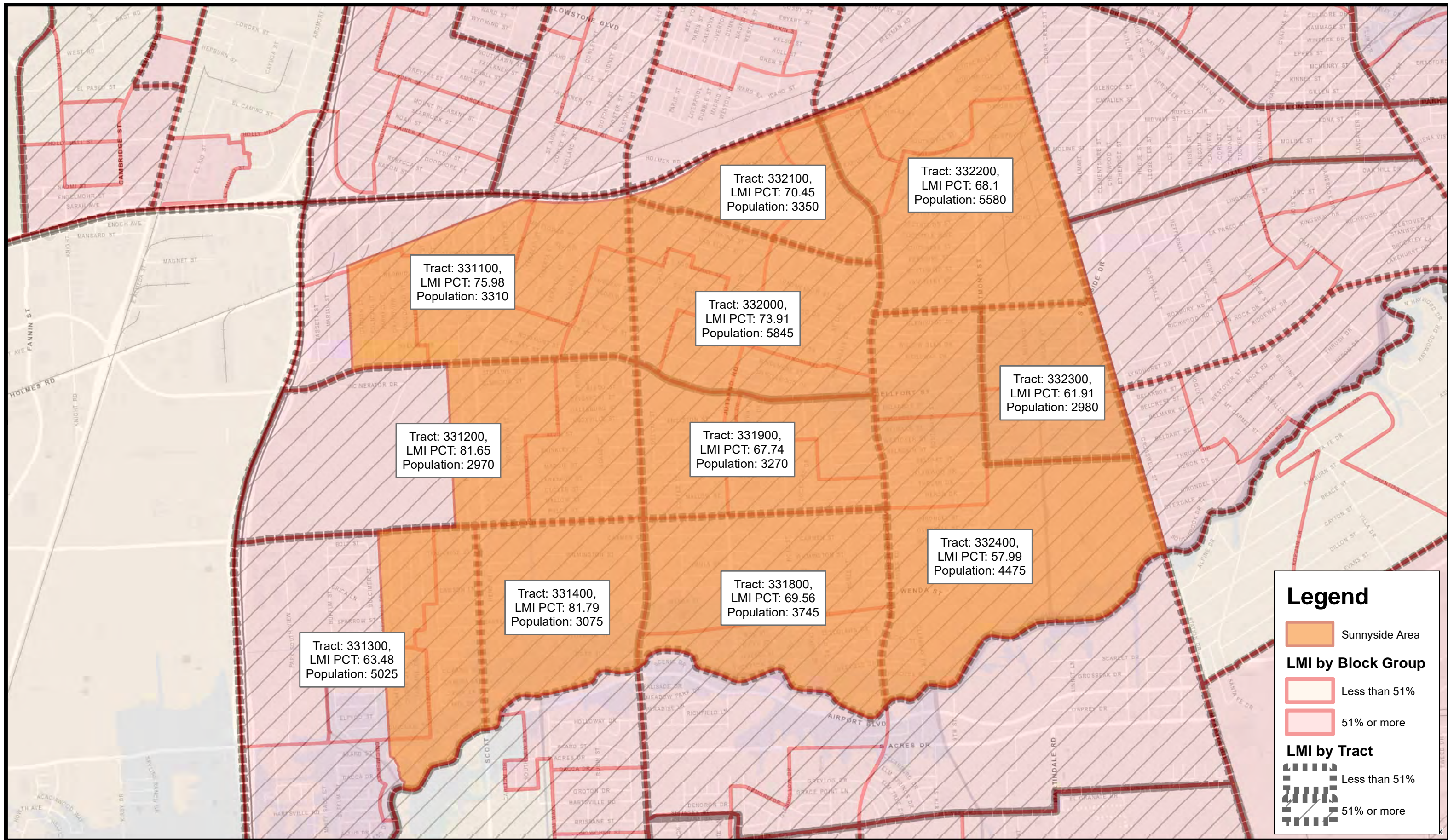
Section 2 of 3: Mapping





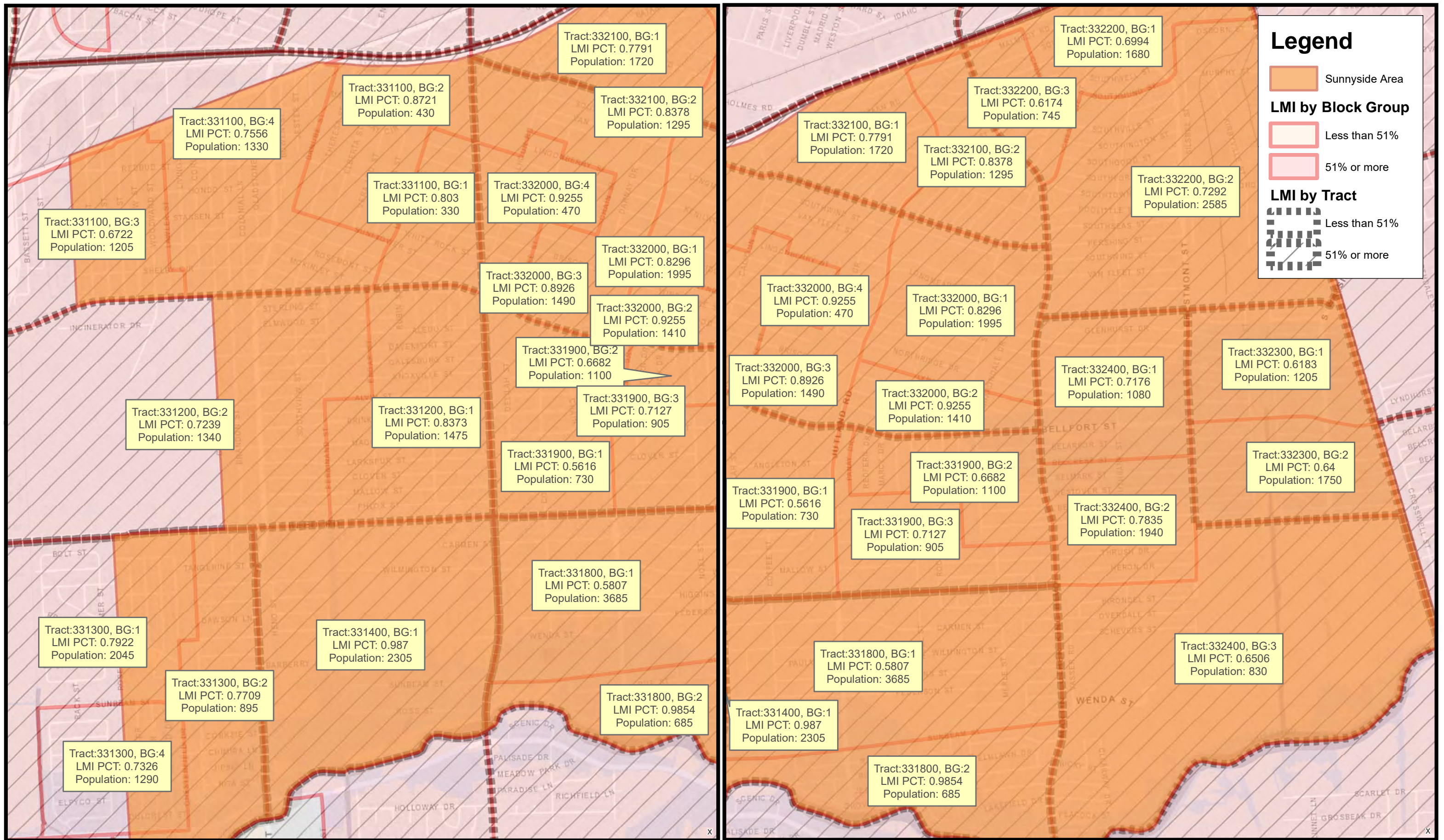
Location Map: Latitude 29.665045, Longitude -95.345983





Beneficiary Map: Entire Sunnyside Area





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Beneficiary Map: West and East Insets - Sunnyside Area

BUDGET & SOURCES OF FUNDING

Section 3 of 3: Budget and Sources of Funding



SUNNYSIDE

Grand Total **\$111,251,647.34**

BUDGET CATEGORIES	FUNDING SOURCES				
	Estimated Cost	1%	Overage Allocation	Local	CDBG-MIT
Construction	\$ 83,880,010.50	\$ 838,800.11	\$ 6,830,540.34	\$ 7,669,340.45	\$ 76,210,670.05
Engineering	\$ 12,582,001.58	\$ 125,820.02	\$ 1,520,869.63	\$ 1,646,689.65	\$ 10,935,311.93
Acquisition	\$ 4,724,034.00	\$ 47,240.34	\$ 571,025.19	\$ 618,265.53	\$ 4,105,768.47
Environmental	\$ 5,032,800.63	\$ 50,328.01	\$ 608,347.85	\$ 658,675.86	\$ 4,374,124.77
Administration	\$ 5,032,800.63	\$ 50,328.01	\$ 608,347.85	\$ 658,675.86	\$ 4,374,124.77
TOTAL	\$ 111,251,647.34	\$ 1,112,516.47	\$ 10,139,130.87	\$ 11,251,647.34	\$ 100,000,000.00



**CDBG-MIT: Budget Justification of Retail Costs
(Former Table 2)**

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

Applicant/Subrecipient:	City of Houston					
Site/Activity Title:	City of Houston Sunnyside/Southpark Drainage Improvements - Drainage Improvements					
Eligible Activity:	Flood control and drainage improvements					
Materials/Facilities/Services	\$/Unit	Unit	Quantity	Construction	Acquisition	Total
General Items						
Traffic Control and Regulation, including signs, barrels, barricades, and flagmen	\$ 1,021,000.00	LS	1	\$ 1,021,000.00	\$ -	\$ 1,021,000.00
Temporary Sediment Control including Inlet protection barrier, Stage I and II inlets and existing inlets, including filter fabric fence, gravel bags, repair and replacement, maintenance and removal of sediments, complete in place the sum of:	\$ 590,000.00	LS	1	\$ 590,000.00	\$ -	\$ 590,000.00
Utility Conflicts / Relocation/Adjustment/Landscaping	\$ 4,572,500.00	LS	1	\$ 4,572,500.00	\$ -	\$ 4,572,500.00
Subtotal General Items:						\$ 6,183,500.00

Paving Items						
Existing Concrete pavement removal, complete in place the sum of:	\$ 7.00	SY	21,550	\$ 150,850.00	\$ -	\$ 150,850.00
6" thick reinforced concrete pavement, including reinforcement, joints and grading, complete in place the sum of:	\$ 80.00	SY	21,550	\$ 1,724,000.00	\$ -	\$ 1,724,000.00
11" thick reinforced concrete pavement, including reinforcement, joints and grading, complete in place the sum of:	\$ 100.00	SY	-	\$ -	\$ -	\$ -
8" lime stabilized subgrade, including grading, mixing, compacting and curing, complete in place the sum of:	\$ 4.00	SY	26,410	\$ 105,640.00	\$ -	\$ 105,640.00
Lime for lime stabilized subgrade (7% minimum by dry weight), complete in place the sum of:	\$ 165.00	TON	755	\$ 124,575.00	\$ -	\$ 124,575.00
6" concrete curb, including reinforcement and joints, complete in place the sum of:	\$ 5.00	LF	14,920	\$ 74,600.00	\$ -	\$ 74,600.00
5' concrete sidewalk, complete in place the sum of:	\$ 65.00	SY	8,150	\$ 529,750.00	\$ -	\$ 529,750.00
Concrete curb ramp per ADA requirements, complete in place the sum of:	\$ 2,000.00	EA	70	\$ 140,000.00	\$ -	\$ 140,000.00
Driveway Reconnection	\$ 125,900.00	LS	1	\$ 125,900.00	\$ -	\$ 125,900.00
Subtotal Paving Items:						\$ 2,975,315.00

Drainage Items						
Remove existing storm sewer, all sizes and all depths, complete in place the sum of:	\$ 30.00	LF	41,205	\$ 1,236,150.00	\$ -	\$ 1,236,150.00
Remove existing storm sewer inlet/manhole, complete in place the sum of:	\$ 600.00	EA	372	\$ 223,200.00	\$ -	\$ 223,200.00
48" RCP, ASTM C76, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 250.00	LF	3,280	\$ 820,000.00	\$ -	\$ 820,000.00
60" RCP, ASTM C76, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 350.00	LF	6,150	\$ 2,152,500.00	\$ -	\$ 2,152,500.00
96" RCP, ASTM C76, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 500.00	LF	-	\$ -	\$ -	\$ -
5'x4' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 325.00	LF	-	\$ -	\$ -	\$ -
6'x5' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 490.00	LF	3,110	\$ 1,523,900.00	\$ -	\$ 1,523,900.00
9'x6' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 800.00	LF	-	\$ -	\$ -	\$ -
10'x5' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 808.00	LF	985	\$ 795,880.00	\$ -	\$ 795,880.00
10'x6' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 845.00	LF	-	\$ -	\$ -	\$ -
10'x7' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 865.00	LF	-	\$ -	\$ -	\$ -
10'x8' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 900.00	LF	15,440	\$ 13,896,000.00	\$ -	\$ 13,896,000.00
10'x9' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 905.00	LF	-	\$ -	\$ -	\$ -
10'x10' RCB, Class III storm sewer, rubber gasket joints, all depths, cement stabilized sand bedding and backfill, complete in place the sum of:	\$ 916.00	LF	19,500	\$ 17,862,000.00	\$ -	\$ 17,862,000.00
Manholes (For 48" to 72" Dia. Pipe) (All Typ)	\$ 6,340.00	EA	46	\$ 291,640.00	\$ -	\$ 291,640.00
Manholes (For 78" Dia. Pipe and Larger) (All Types)	\$ 16,500.00	EA	80	\$ 1,320,000.00	\$ -	\$ 1,320,000.00
Inlets (Type BB with grate)	\$ 3,000.00	EA	242	\$ 726,000.00	\$ -	\$ 726,000.00
Detention Excavation, piping, stabilization, complete in place	\$ 20.00	CY	-	\$ -	\$ -	\$ -
Detention Excavation, piping, stabilization, complete in place	\$ 10.00	CY	-	\$ -	\$ -	\$ -
Detention Excavation, haul off, piping, stabilization, complete in place	\$ 12.00	CY	1,209,750	\$ 14,517,000.00	\$ -	\$ 14,517,000.00
Subtotal Drainage Items:						\$ 55,364,270.00

TOTAL				\$ 64,523,085.00	\$ -	\$ 64,523,085.00
Estimated Probable Cost of Construction:						\$ 64,523,085.00
30% Contingency:						\$ 19,356,925.50
Total Estimated Probable Cost of Construction:						\$ 83,880,010.50

Engineering (Design, Bidding, Survey, Geotechnical, Construction Phase Services) (15%)						\$ 12,582,001.58
Environmental Investigation and Permitting (6%)						\$ 5,032,800.63
Grant Administration (6%)						\$ 5,032,800.63
OPCC Including Professional Services						\$ 106,527,613.34

1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.
2. Identify and explain any special engineering activities.

	Date:	
	Phone Number:	
Seal	Signature of Registered Engineer/Architect Responsible For Budget Justification:	



**CDBG-MIT: Budget Justification of Retail Costs
(Former Table 2)**

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

Applicant/Subrecipient:	City of Houston					
Site/Activity Title:	City of Houston Sunnyside/Southpark Drainage Improvements - Acquisition					
Eligible Activity:	Acquisition					
Materials/Facilities/Services	\$/Unit	Unit	Quantity	Construction	Acquisition	Total
Pond 1	\$ -	LS	1	\$ -	\$ 4,250,406.00	\$ 4,250,406.00
Pond 2	\$ -	LS	1	\$ -	\$ 473,628.00	\$ 473,628.00
TOTAL					Subtotal Acquisition:	\$ 4,724,034.00
TOTAL					\$ -	\$ 4,724,034.00

1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.
2. Identify and explain any special engineering activities.

Seal	Date:	
	Phone Number:	
	Signature of Registered Engineer/Architect Responsible For Budget Justification:	