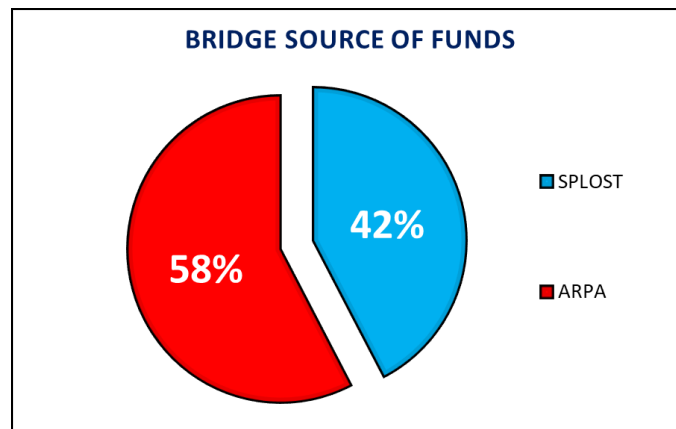


DATE: **October 11, 2024 (Update)**
TO: Mayor and City Council
FROM: Assistant City Manager
SUBJECT: Highway 20 Pedestrian Bridge
Construction Contract Award



BUDGET IMPACT

The project is currently programmed in the 2024 Capital Improvement Budget for the initial stages of construction for the first \$1,805,000, comprised of both SPLOST 2017 and 2023 funds as sources¹. Since the project will span budget years, the balance of the project is budgeted for the remainder of the project in 2025 at an amount of \$4,250,000, comprised of both SPLOST and ARPA funding (now part of General Fund Balance). Breakdown below for both years. **Additional funding is recommended from SPLOST to fully fund the recommended action.**



BACKGROUND

On the basis of staff recommendation and planning documents like our Comprehensive & Downtown Master Plans, City Council approved and adopted the capital improvement budget for 2024 in order to accomplish the action items and work programs associated with the planning efforts. These documents along with the recommendations in them include transportation improvement projects like the pedestrian bridge over Highway 20 to connect segments of the greenway trail system on the north and south sides of the wide section of highway. We use these planning exercises to strategically plan for future conditions.

During the budget presentation, we also considered the 2005 Town Center Master Plan (*see next page*) and its reference to a grade-separated pedestrian crossing of Highway 20 (tunnel). It has taken some twenty (20) years to get to this point where the bridge is needed, but credit is due to the vision of those before us who anticipated the future conditions of a four-lane divided highway, commercial core downtown, or a pedestrian pathway to other parts of the city. A bridge is much needed for conflict avoidance with vehicles (37,800 vpd) as well as for efficient operation of the adjacent intersection. A critical segment for safe pedestrian passage across the road for the 2,700 beneficiaries north of Highway 20 and about 3,000 south of the road or nearly 20% of the city's population of 28,000 (*see updated attachments*).

¹ 2024-2028 CIP, p. 2 *Source of Funds for 2024*

Conceptual Plans

Pedestrian Tunnel

FUTURE RESIDENTIAL DEVELOPMENT

Conceptual Plan #4



- mixed use/retail/office: 275,000 s.f. overall
- high density residential: 90 units as well as 30,000-60,000 s.f. available in upper floors of mixed use buildings
- total parking: approx 850 spaces (dependant on size of parking deck)

2005 Sugar Hill Town Center Master Plan

The primary project objective is to provide a grade-separated pedestrian crossing over the 110-foot wide roadway for safety reasons (conflict avoidance), but also for shortening the signal cycle. Considering a no-build scenario, at the 3.5 fps walking rate for healthy individuals, that would result in a pedestrian phase of the signal at 31 seconds (or 2.5 for older or mobility impaired at 44 seconds), meaning traffic delay. Anticipated greenway use, measured near Gold Mine park is around 130 users a day and it is reasonable to expect a similar, if not higher count at the intersection. This could add upwards of 30-60 minutes of extra cycle length per day along with its associated ripples East and West on 20 as well as onto PIB. Based on the pedestrian phase effects at the intersection, the grade-separated solution is a reasonable, efficient and safer alternative.

DESIGN PHASE:

Location and Alignment: The bridge layout, including ramps were designed to take advantage of both the termini of the greenway connections (both northside and southside) as well as the topography in the location currently proposed. At the time the location was selected, the south side of SR20 was purchased by the city from JW Trucks and the north side was the subject of development interest after the highway widening impacted the northwest corner of Stanley and 20. The ramps were chosen to makeup grade due to the drop in elevation from the E-Center running north and then turning west across 20 to shorten the ramp while meeting ADA slope standards that have been applied to the greenway design. The ramp alignment on the north side also seeks to honor the original Town Center Master Plan destination of the church parking (used for concert parking currently)

Material Selection: The prestressed concrete design was selected during the scoping phase of the project in 2022 as a cost-effective material that does not need as much maintenance as powder coated steel truss, notably over the highway. Lead time, life-cycle cost, appearance and ease of construction are all improved with concrete components. Using pre-stressed concrete instead of steel construction allows many of the downsides of metal to be avoided.

Architectural finishes and aesthetic considerations were then contemplated to provide a form noteworthy of its location of arriving in Sugar Hill. Balancing form and function, the design intent of the bridge seeks to functionally convey pedestrians across the expanse of Highway 20, it also communicates the sense of arrival to a unique place with message of genetic strands that gives Sugar Hill its own DNA. The ribbons also hint at our walkable, vibrant greenway as well as the hills that are often claimed to be “the Hill where the Sugar Spilled.” The steel tube that make up the ribbons are designed by Henry Steel, whose forms give many of the overpass structures on interstates in metro Atlanta a decorative enhancement. A lighter color for the bents and abutments made the foundations less imposing and the lighting components are more modern in shape and form.

The project has been fully designed and permitted through the Georgia Department of Transportation.

BID RESULTS :

OhmShiv	\$7,222,626.50
E R Snell	\$7,319,044.35
eeves Young	\$7,854,698.70

Bids were received from three (3) GDOT prequalified contractors who participated in the pre-bid conference and met the criteria for this type of work. The costs for the project were estimated earlier this year by the city’s engineering consultant to be \$5.5M and the budget set right at \$6M.

All bids are overbudget and staff is seeking to negotiate with the low bidder for a project cost that was closer to the budget while remaining true to the project goals and objectives, otherwise described as value engineering. Updates will be presented at the Council meeting next week and will include funding recommendations from other SPLOST-funded projects for any reductions not achieving the original budget number.

UPDATE:

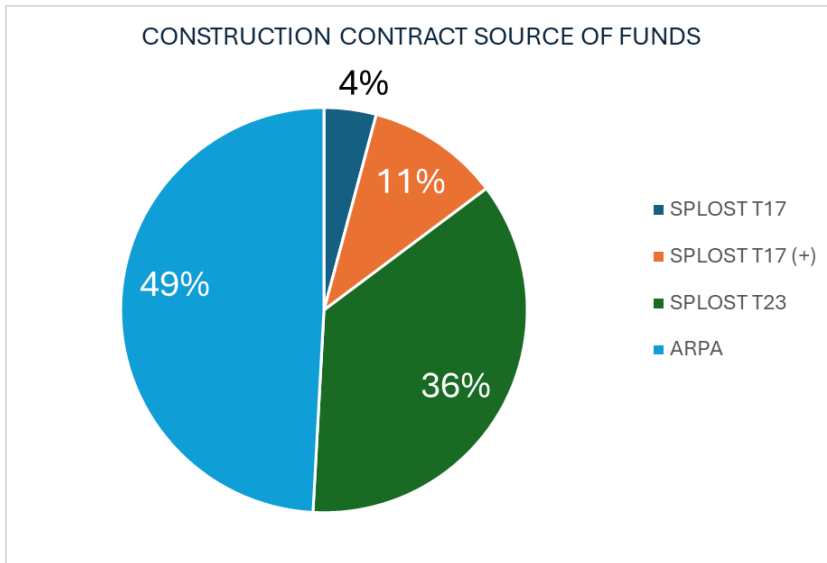
After the bids were received, city staff verified bid calculations and asked the low bidder, OhmShiv to seek out project elements that would deliver the same or similar project result and reduce the cost in a value-engineering exercise. The contractor was able to identify the following items for consideration:

1. Traffic control for location and savings. *(accepted)*.
2. Grading complete item for savings. *(accepted)*.
3. Mobilization items for savings. *(accepted)*.
4. Brick alternative for abutments & bents. *(rejected)*.

Total Savings Identified: \$120,000.

The project budget was originally set at \$6,055,000 and in order to fund the project as bid, additional funds are recommended from other SPLOST project funds (Whitehead Road Roundabout improvements will be rolled into the Downtown Streetscape project with a reduced scope for both) as well as ARPA funds. The capital stack for the reduced contract price will look as follows:

	<u>SOURCE</u>	<u>AMOUNT</u>	<u>DESCRIPTION</u>
	SPLOST T17	\$ 295,000.00	Bridge
NEW	SPLOST T17 (+)	\$ 752,626.50	Roundabout - Streetscape (+)
	SPLOST T23	\$ 2,565,000.00	Bridge
	ARPA	\$ 3,490,000.00	Orrs Ferry Driveway/Culvert
TOTAL:		\$ 7,102,626.50	



RECOMMENDED ACTION

Staff is recommending award of the contract with OhmShiv in the amount of \$7,102,626.50 for project 24-011, the construction of the Highway 20 Pedestrian Bridge. The capital improvement budget will be presented later this month reflecting the new amounts and sources.

Attachments

Encroachment Permit – GDOT (9/26/2024)

Plan Excerpts

Rendering

Beneficiary source information

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA
ATLANTA, GEORGIAAPPROVED DATE
9/26/2024

(FOR DOT USE ONLY)

District No.	1
State Highway No.	00002000
Milepost No.	3.96, 3.98
County	Gwinnett
Permit No.	A-135-011357-1

APPLICATION AND PERMIT FOR SPECIAL ENCROACHMENT

TO: GEORGIA DEPARTMENT OF TRANSPORTATION
ONE GEORGIA CENTER, 600 WEST PEACHTREE STREET, NW, ATLANTA, GEORGIA 30308Application is hereby made by CITY OF SUGAR HILL 770-945-6716
Name of Applicant (Area Code) Phone No.5039 West Broad Street Sugar Hill, GA 30518
Post Office Address City and State Zip Codefor permission to accomplish work on the Right-of-Way of STATE HIGHWAY NO. 00002000
U.S. within the City Limits of Sugar Hill and in Gwinnett County,
in accordance with the ATTACHED PLANS and subject to the Rules and Regulations for Driveway and Encroachment Control
on file in the General Office of the Georgia Department of Transportation, and made a part hereof by reference thereto, and
any SPECIAL REQUIREMENTS set forth herein. The description of the proposed work is to:The City of Sugar Hill proposes to construct a permanent pedestrian bridge crossing SR 20. The town center for
Sugar Hill named The Bowl is growing and the city conducts numerous events throughout the year. The pedestrianThe proposed work site is located on the N side of the highway beginning 65 Feet,
N.S.E.W From Nearest StreetN of the center line, of Stanley Street and fronting 20
N.S.E.W Nearest Street or Road Total Frontage UsedFeet further BACKN along said Highway; and at mile post 3.96 to 3.98
N.S.E.W34.107931 -84.033081Permit requested this 14 day of June, 20 24.By Brandon Hembree

Signed by Type or Print Name

Sign in Ink on All Copies
750380F3846D45CTitle Mayor

If Agent or Official for Applicant

FORM TO BE COMPLETED BELOW THIS LINE BY GEORGIA DEPARTMENT OF TRANSPORTATION

 Non-Limited Access - Approval by District Office Limited Access - Approval by General Office
SPECIAL REQUIREMENTS: (by DOT only)PERMIT GRANTED to perform the above-described work in accordance with REQUIREMENTS of the Georgia Department
of Transportation; 9/26/2024.*This permit is to be strictly construed and no work other than that
specifically described above is hereby authorized. The work authorized
herein must begin within three months from the date of approval and must
become completed on a schedule satisfactory to the department and not to
exceed twelve months from the date the permit is approved.*

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

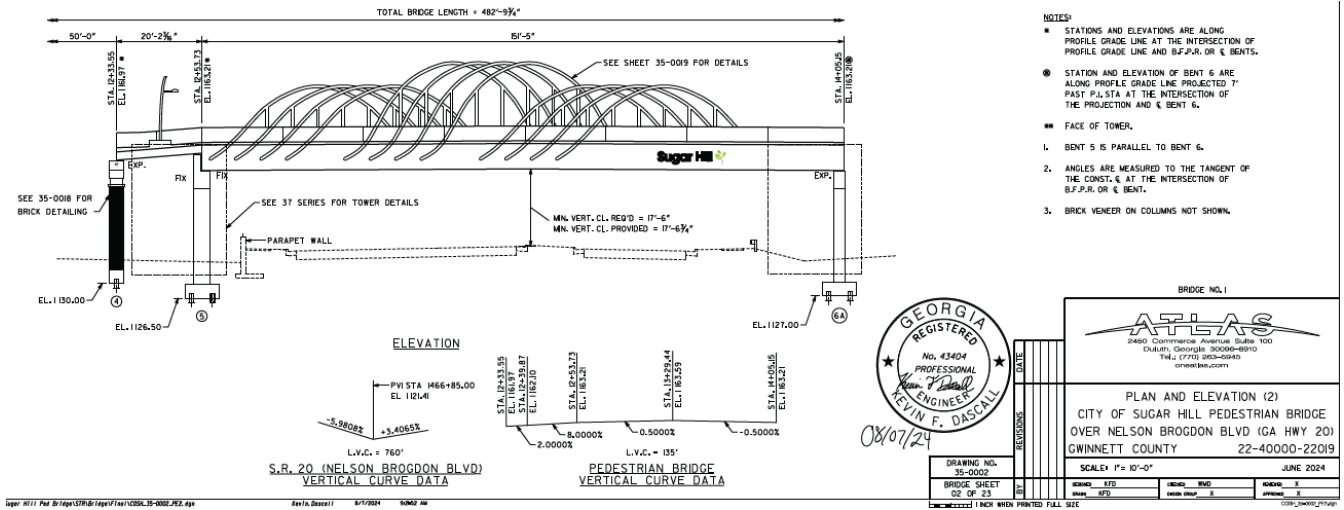
DocuSigned by:

By _____

CBEE6R2AD0318457

District Engineer

Title



UPDATE:

Beneficiaries						
North of Bridge				South of Bridge		
Dev. Name	Units	#	**	Dev. Name	Units	#
Hillcrest Glenn	73	153	SFR	Solis	291	609
Sugar Brook	37	78	SFR	Skyview	28	59
Park at Hillcrest	6	13	TH	The Local	306	640
SFR	13	28	SFR	Hannah St	14	30
Glens of Sugar Hill	40	84	SFR	NGTowns	52	109
Brookdale	16	34	SFR	Castlegate	48	101
Overlook	132	276	TH	Church / Level Ck Rd	5	11
Hillcrest Woods Trailer Pk	92	193	TPARK	The Collier	302	632
Primrose	131	274	SFR	Fides	132	276
Hillcrest TH	49	103	TH	Buford Housing Auth.	18	38
Rivendale Crossing	56	118	SFR	Sugar Hill Station TH	23	49
Hillcrest Landing	63	132	TH	Renew Apt	218	456
Refinery	281	588	APT			
Novare	306	640	APT			
	1295	2,714	2625.276	1437	3,010	

**Based on 2.09 persons per household **Census Bureau estimates 2.65⁹
<https://www.census.gov/quickfacts/fact/table/GA/HSD310222#HSD310222>

QuickFacts

Georgia

What's New

QuickFacts provides statistics for all states and counties. Also for cities and towns with a *population of 5,000 or more*.

Enter state, county, city, town, or zip code -- Select a fact -- CLEAR TABLE CHART

Table

All Topics	Georgia
Persons per household, 2018-2022	2.65
PEOPLE	
Population	
Population estimates, July 1, 2023, (V2023)	11,029,227
Population estimates base, April 1, 2020, (V2023)	10,713,771
Population, percent change - April 1, 2020 (estimates base) to July 1, 2023, (V2023)	2.9%
Population, Census, April 1, 2020	10,711,908
Population, Census, April 1, 2010	9,687,653
Age and Sex	
Persons under 5 years, percent	5.8%
Persons under 18 years, percent	23.0%
Persons 65 years and over, percent	15.4%
Female persons, percent	51.3%
Race and Hispanic Origin	
White alone, percent	58.7%
Black or African American alone, percent (a)	33.2%
American Indian and Alaska Native alone, percent (a)	0.6%
Asian alone, percent (a)	4.9%

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