

RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, ACCEPTING THE CITY MANAGER'S RECOMMENDATION, AND APPROVING OPTION 2 FOR THE COMPLETION OF THE ROADWAY CONSTRUCTION OF THE VENETIAN ISLANDS BID PACKAGE 13C, RIGHT-OF-WAY NEIGHBORHOOD IMPROVEMENT PROJECT, UTILIZING FUNDING FROM THE CURRENT PROJECT BUDGET.**

**WHEREAS** on September 9, 2009, pursuant to Request for Qualifications (RFQ) No. 42-08/09, the Mayor and City Commission adopted Resolution No. 2009-27161, approving and authorizing the Mayor and City Clerk to execute a Professional Services Agreement with Schwebke-Shiskin & Associates, Inc. (SS&A) to provide professional services for the design, bid, award, field inspection, and construction administration of the Venetian Island Bid Package 13C, Right-Of-Way Neighborhood Improvement Project; and

**WHEREAS**, on March 13th, 2013, pursuant to Invitation to Bid (ITB) No. 49-11/12, for the Right-of-Way Infrastructure Improvement Program – Venetian Islands Bid Package 13C, the City Commission adopted Resolution No. 2013-28163, recommending the award of a construction contract to Lanzo Construction Co., Florida (Lanzo), in the amount of \$11,373,491, including contingency; and

**WHEREAS**, the scope of work included, site preparation, earthwork, demolition, storm drainage, roadway paving, sidewalks, concrete valley gutters, watermain installation and street lighting on the islands of San Marino, Di Lido and Rivo Alto; and

**WHEREAS**, the Notice to Proceed (NTP2) for construction was issued, effective November 4, 2013; and

**WHEREAS**, between February, 2014 and January, 2016, the City's Storm Water Management Master Plan was revised, following the recommendations of the Mayor's Blue-Ribbon Panel on Flooding and Sea Level Rise and of the Flooding Mitigation Committee, and, as such, revisions to the design of the project were made by SS&A; and

**WHEREAS**, the revised design included an upgraded stormwater system (with no road raising consideration, due to the advanced construction stage of the project), and the installation of six new stormwater pump stations within existing easements in the three islands; and

**WHEREAS**, the installation of the pumps, at these proposed locations, was heavily opposed by the residents of these islands, requiring several months of research and negotiations to achieve approval, and resulting in various change orders to Lanzo's contract; and

**WHEREAS**, these change orders included incorporating an upgraded stormwater system with upsized pipes and six new stormwater pump stations, with all related equipment and structures; and

**WHEREAS**, Lanzo encountered unforeseen conditions during excavation activities, including unsuitable materials (Muck), and the project team determined that the appropriate mitigation was to implement a revised road restoration detail, by using a mixture of the existing and new subgrade materials, to be used as a subgrade and installing Geosynthetic Grid (GEOGRID) between the limerock base and the subgrade; and

**WHEREAS**, Lanzo experienced additional delays due to the load capacity restrictions of the Venetian Causeway bridges, implemented in 2014 by Miami-Dade County and FDOT, which reduced the truck load capacity by 40%, making removal and import of large amounts of materials impractical; and

**WHEREAS**, installation of the first lift of asphalt began in San Marino Island on May 20, 2015 and within the first month of installation, cracks became evident; and

**WHEREAS** following the installation of the first lift of asphalt on the other two islands, similar cracks developed in varying degrees; and

**WHEREAS**, the project did not include raising of the roads; the final road elevations range from 1.06' to 4.86' NAVD in San Marino Island, from 1.86' to 6.16' NAVD in DiLido Island and from 2.06' to 3.46' NAVD in Rivo Alto Island; and

**WHEREAS**, during construction of the roadway system, the project's Resident Project Representative (RPR), SS&A, issued Lanzo more than sixty (60) notices of non-compliance, where more than fifteen of the notices related to improper mixing of subgrade materials, placement of asphalt during wet conditions, and improper handling of backfill material; and

**WHEREAS**, SS&A and the City did not accept Lanzo's attempted asphalt repairs, as they did not address the cause of the premature asphalt cracking; and

**WHEREAS**, in order to determine the underlying cause, and following SS&A's recommendations, the City tasked the project's geotechnical firm, Universal Engineering (Universal), with performing geotechnical testing on the roadway of all three Islands; and

**WHEREAS**, test results common to all three islands, as provided by Universal, indicated that some areas of the roadway have less than the required overall limerock base and stabilized subgrade thickness, and in some areas showed the migration of silt into the limerock base, thereby reducing the pavement assembly strength; and

**WHEREAS**, at the City's direction, SS&A analyzed Universal's geotechnical data and was directed to submit a roadway design with a design life of 20 years; and

**WHEREAS**, SS&A determined that additional testing was required and hired the professional services of a third-party geotechnical consultant, NV5, they conducted the additional testing and prepared a report that included alternatives, ranging from full-depth section replacement to partial replacement and/or reworking of the existing materials; and

**WHEREAS**, upon review of all tests reports and recommendations, City staff identified the following three options to proceed with the completion of the project:

(1) Option No. 1, proceed with SS&A's proposed restoration, which included full-depth section replacement in some areas, partial replacement and/or reworking of the existing materials, in other areas, and provided a pavement design life of 20 years, with an estimated construction cost of nearly \$3 million; this option is highly invasive, would cause considerable impact to the residents, and does not address sea level rise impacts to the road base, requiring reconstruction to address the road raising prior to the end of the design life of the road; and

(2) Option No. 2, potentially milling the existing 1-inch lift of asphalt and overlaying with 2 inches of new asphalt, matching the proposed elevation on the original plans, and adding the three islands to the City's Road Elevation Strategy and Neighborhood Project Prioritization program, for a future roadway improvement project, with the costs funded from the current project budget; this option is the least invasive option and less impactful to the residents, as it provides

an estimated pavement life of several years and the work could be completed within 6 months; and

(3) Option No. 3, proceed with full reconstruction of the roadway, raising the roads to the current or new criteria, which would entail re-designing the stormwater system to meet the determined criteria, in addition to the road raising and harmonization efforts, and ultimately resulting in a lengthy construction process, with costs estimated to be in excess of \$10 million; and

**WHEREAS**, the data obtained indicated that the roadway failure is attributable to the construction deficiencies, and among other things, exacerbated by the interaction of the high ground water table with the roadway assembly; and

**WHEREAS**, City staff analyzed the test results provided by Universal and NV5, and based on that analysis, the estimated cost to reconstruct those areas attributable to construction deficiencies is over \$2.6 million; and

**WHEREAS**, the City is currently withholding \$1,361,429 in retainage and approximately \$1,355,000 remaining in the contract for work not performed under Lanzo's contract, for a total of approximately \$2,716,900; and

**WHEREAS**, currently, all drainage, watermain, sewer and lighting work under Lanzo's contract have been completed, including all six (6) stormwater pump stations and the restoration of the easements; and

**WHEREAS**, the remaining contractual scope of work under Lanzo's contract includes the placement of the final lift of asphalt and punch list items; and

**WHEREAS**, Lanzo's total construction contract amount, to date, including added scope and all other changes, is \$28,671,330; and

**WHEREAS**, the Administration recommends proceeding with Option 2, utilizing funding from the current project budget.

**NOW, THEREFORE, BE IT DULY RESOLVED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA** that the Mayor and City Commission hereby accept the City Manager's recommendation and approve Option 2 for the completion of the roadway construction of the Venetian Islands Bid Package 13C, Right-of-way Neighborhood Improvement project, utilizing funding from the current project budget.

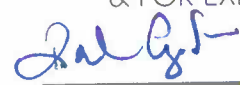
**PASSED AND ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2020.

\_\_\_\_\_  
Dan Gelber, Mayor

**ATTEST:**

\_\_\_\_\_  
Rafael E. Granado, City Clerk

APPROVED AS TO  
FORM & LANGUAGE  
& FOR EXECUTION

  
\_\_\_\_\_  
City Attorney

2-6-20  
\_\_\_\_\_  
Date