



June 24, 2020

Ms. Denise Lucas, Director
City of Austin
Development Services Department
505 Barton Springs Road
Austin, TX 78704



RE: Engineer's Summary Letter
South Lamar Boulevard C1
Barton Springs Rd. to W Riverside Dr.
Austin, Travis County, Texas

Dear Ms. Lucas,

On Behalf of our client, the City of Austin, Austin Transportation Department, HDR Engineering, Inc. is submitting the Street and Drainage Site Plan Application for the South Lamar Boulevard-C1 Barton Springs Rd. to W Riverside Dr. Project.

The proposed development includes improvements to South Lamar Boulevard from Barton Springs Road to Riverside Drive to promote multi-modal travel and improve safety for all roadway users. The proposed design from preliminary engineering phase includes narrowing the existing median and relocating the existing curb and gutter to narrow the existing roadway. The proposed design will have a 13' left turn lane/median and two 11' travel lanes in each direction. Back of curb improvements include a landscape zone, two-way cycle track, and a sidewalk/boulevard section. Existing sidewalk, trees, and streetscape improvements will be maintained where possible. The project will require new signal equipment at the intersections of Barton Springs Road, Toomey Road, and Riverside Drive with South Lamar Blvd.

Construction will take place in multiple phases including the adjustments to the storm sewer system, construction of median islands, bicycle and pedestrian facilities, signalization, and the installation of street trees. The limits of construction associated with this project encompasses approximately 7.78 acres.

This project is located within the West Bouldin Creek and Lady Bird Lake urban watersheds. This site is designing full infiltration rain gardens to capture the required water quality volume (~990 cu. ft.) to the best extent possible without making significant impacts to other aspects of the design. The rain garden soils will be Colorado River Terrace Deposits as identified in the

geotechnical boring logs. The infiltration rate for river terrace deposits exceeds the minimum requirements in the Environmental Criteria Manual (ECM) section 1.6.7(H) for full infiltration rain gardens. The neighboring site (Zach Scott Theater) used an infiltration rate of 0.53 inches per hour (SPC-2010-0061C) in the rain garden design. This site will assume a rate of 0.25 inches per hour.

Per ECM 1.6.7(H) Rain Gardens:

“Soil conditions – When siting a full or partial infiltration rain garden, appropriate soil conditions must be present. The depth to an impermeable layer must be at least 12 inches below the bottom of the rain garden. For full infiltration rain gardens, the underlying native soil must have a design infiltration rate that will draw down the full ponded depth in less than 48 hours. For example, for a 12-inch maximum ponding depth, the design infiltration rate must be at least 0.25 inches per hour. For a 6-inch maximum ponding depth, the design infiltration rate must be at least 0.13 inches per hour. The design infiltration rate is based on applying at least a factor of safety of two (2) to the measured steady state saturated infiltration rate (i.e., the design infiltration rate is equal to one-half of the measured infiltration rate). A higher factor of safety may be used at the discretion of the design engineer to take into variability associated with assessment methods, soil texture, soil uniformity, influent sediment loads, and compaction during construction.”

Additional water quality will also be provided for the outfall to Lady Bird Lake by the Taco PUD (SP-2019-0056C) by a green water quality pond located within public right-of-way. This project is located within the Edwards Aquifer Transition zone and no portion of the project is within the Edwards Aquifer Recharge or Contributing zones. Portions are within the boundaries of the 100 year flood plain of any waterway within the limits of study of the Federal Flood Insurance Administration (FIRM) per FEMA map number 48453C0445J dated January 6, 2016 (Rev. January 17, 2019).

Please contact our office if you require any additional information or have any questions in your review of the application.

Sincerely,
HDR Engineering, Inc.

A handwritten signature in blue ink, appearing to read "Ryan Whitney", enclosed in a light blue rounded rectangular border.

Ryan Andrew Whitney, PE.
SOLA-C1 Project Manager