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November 18, 2020

The Honorable Bob Blumenfield, Chair
Public Works and Gang Reduction Committee
Los Angeles City Council

c/o Keyonna Kidd
Office of the City Clerk
City Hall, Room 395

**COUNCIL FILE 18-1114 REPAIR OF HILLSIDE STREETS / REQUIRING DESIGN AND
ENGINEERING INTERVENTION / DETAILED ANALYSIS / WORK PLAN; AND
COUNCIL FILE 17-1143 COMPREHENSIVE ASSESSMENT / STREETS WITHDRAWN
FROM PUBLIC USE / REINSTATEMENT PROCEDURE**

Dear Councilmember Blumenfield:

RECOMMENDATION

1. Instruct the Bureau of Engineering (BOE) to work with the Bureau of Street Services (StreetsLA), the Los Angeles Fire Department (LAFD), and the Los Angeles Department of Transportation (LADOT) to develop a recommended scope for a comprehensive study to assess hillside streets, and prepare a cost estimate.
2. Direct the BOE to report back within 120 days with details of the recommended study scope of work and associated funding request.

BACKGROUND AND DISCUSSION

This report provides a summary and discussion regarding CF 18-1114 – Repair of Hillside Streets / Requiring Design and Engineering / Detailed Analysis / Work Plan; and CF 17-1143 – Comprehensive Assessments / Streets Withdrawn From Public Use / Reinstatement Procedure.



Repair of Hillside Streets

CF 18-1114 instructed the BOE and StreetsLA to report on a comprehensive list of all hillside streets which cannot be resurfaced in their current condition; to identify the resources necessary to conduct a detailed analysis of these hillside streets and to prepare a work plan to address them. Over 12,400 street segments have been identified to be included within the Baseline Hillside Ordinance area. A large majority of these street segments are not currently constructed to the City's standard for local streets, or even to a Hillside Limited Street, which consists of a 28-foot wide paved roadway within a 36-foot right-of-way (r/w). In fact, the Baseline Hillside Ordinance allows for a minimum 20-foot wide paved roadway in most cases.

Per the California Streets and Highway Code (Division 2.5, Chapter 1, Section 1806), "No City shall be held liable for failure to maintain any road until it has been accepted into the city street system." In the City of Los Angeles, streets or portions of streets are accepted into the street system once it has been improved and accepted per an indexed set of plans approved by the City Engineer. However, the lack of obligation does not prohibit the City from providing maintenance or improvements to roadways that they may not have been legally obligated to maintain.

In order to provide a comprehensive assessment of all 12,400 street segments within the hillside area, the BOE and StreetsLA would require significantly more resources than they currently have. Additionally, many specialized tools and technologies exist in the private industry and academia that could be used to automate the assessment process and complete it more efficiently. The BOE recommends working with a local university to develop this study approach as it may be less costly than hiring a consultant and they are driving the implementation of cutting edge technology.

A local university could make use of innovative methods such as LIDAR (Light Detection and Ranging) surveying and other available technologies that the City currently does not possess to capture the necessary data. The BOE, StreetsLA, LAFD and LADOT could work together with the Council District Offices to devise an assessment plan for the study. The plan would establish a priority system which would identify the street segments that would provide the most overall benefit if they are improved.

The priority system would create assessment criteria which may include:

- Emergency access
- Existing roadway conditions
- The number of homes taking sole access from a segment
- The cost of the improvements
- The ability for StreetsLA to provide maintenance
- The ability for Bureau of Sanitation to provide public services
- Risk reduction/assessment

The local university would provide a comprehensive assessment of all hillside streets Citywide, using the stipulated criteria to prioritize the streets for the future development of projects. The priority list could be used for consideration of future funding for Capital Improvement Projects.

Withdrawn Streets

CF 17-1143 instructed BOE and StreetsLA to report on the assessment of recently reinstated hillside streets previously withdrawn from public use. In response to this, a Task Force was formed consisting of staff from BOE and StreetsLA. The Task Force collaborated to investigate each of the 278 street segments that were reinstated per Ordinance No. 186020, adopted on March 6, 2019. The Task Force visited each segment to determine which segments were suitable to be maintained in their present condition and which segments required some form of improvements before they could be included into the StreetsLA regular maintenance program.

Table 1 below illustrates, by Council District, the number of street segments that were reinstated to public use, the number of segments that can be maintained in their present condition, and segments that cannot be maintained in their present condition.

TABLE 1

Council District	Reinstated to Public Use Ord. 186020	Can be Maintained in Present Condition	Cannot Be Maintained in Present Condition
1	2	2	0
2	12	10	2
3	73	56	17
4	88	5	83
5	18	16	2
6	0	0	0
7	17	3	14
9	0	0	0
10	0	0	0
11	56	23	33
12	11	2	9
13	0	0	0
14	1	1	0
15	0	0	0
Total	278	118	160

The determinations were based on the observed field conditions and what StreetsLA staff determined could be maintained without creating a liability for the City with regards to drainage patterns and stormwater runoff.

During the review of each respective street segment, a number of elements were taken into consideration. One or more of the following could be a reason why a street segment was excluded from the 'Can Be Maintained in Present Condition' category:

1. Width of the Existing Roadway – If the width of the roadway was too narrow, large construction and maintenance vehicles would have significant difficulties maneuvering to and maintaining the segment.
2. Potentially Unstable Hillside Slopes – If the slope adjacent to the roadway appeared to be unstable, it could be unsafe to use heavy construction and maintenance vehicles due to slope stability concerns. These segments will require investigation from the BOE Geotechnical Engineering Division to determine the stability of the adjacent slope.
3. Lack of Adequate Flow Control – If the roadway does not have adequate flow control (i.e. curbs, berms, or center gutters), the placement of new pavement could possibly cause new drainage issues and other liabilities. Additional engineering would be needed to ensure stormwater drainage is addressed to prevent flooding or damage to adjacent private property.
4. Presently a Paper Street – An unimproved public right-of-way where no pavement or roadway exists is considered a Paper Street. Of the 160 segments in Table 1 that require engineering, 22 locations were considered to be a Paper Street.

Considering the elements listed above, 160 street segments were identified as, 'Cannot Be Maintained in Present Condition'. To get these street segments to a condition in which StreetsLA can begin to maintain would involve additional research and the preparation of street design plans, which, in addition to the standard street improvements, may include the acquisition of public r/w, the relocation of private encroachments, construction of retaining walls, and slope stabilization.

It is important to note however, that even the segments that are listed as 'Can Be Maintained in Present Condition' are often not constructed to the current City street standards. There are also street segments within this list that may have a paved roadway width of less than 20-feet or lack of a concrete curb and gutter. As previously mentioned, the width for a Hillside Limited Street standard requires a 28-foot paved roadway within a 36-foot r/w. The vast majority of our hillside streets do not meet this criteria due in large part to the fact that there is an insufficient amount of existing r/w to build out a Hillside Limited Street. In addition, there are a number of older residential communities that include streets without an established street section (no official plans), may not have curbs and gutters, or may have private fences, stairs, landscaping, insufficient r/w and numerous other private encroachments.

CF 17-1143 also instructed BOE and StreetsLA to report on the use of private funds to repave the aforementioned streets. There are a few City processes that can require property owners to construct street improvements, however they normally require the property owner to initiate the redevelopment of their property. The most common City processes include:

- Tract Map
- Parcel Map
- Baseline Hillside Ordinance

A Tract Map is part of the Subdivision Map Act that involves a parcel divided into 5 or more lots. The recordation of a Tract Map may require, as a condition of approval, dedication and improvements of public streets. Once the street improvements have been constructed and accepted by the City, they are added into the City network and maintenance schedule. However, Tract Maps rarely involve properties within the hillside areas.

A Parcel Map is also part of the Subdivision Map Act that involves a parcel divided into 4 or fewer lots. The recordation of a Parcel Map may also require, as a condition of approval, dedication and improvements of public streets. Once accepted by the City, these streets are also added into the City network and maintenance schedule. However, as with Tract Maps, Parcel Maps are also not very prevalent within the hillside areas.

The Baseline Hillside Ordinance is triggered once a property owner builds or redevelops a single-family dwelling on a parcel within the Baseline Hillside Ordinance area. Dedication and street improvements may be required if the roadways adjacent to the property are not at least 20-feet wide. Once street improvements are accepted by the City, they are added to the City network and maintenance schedule. However, since these improvements depend on the property owner redeveloping their property, the improvements are not contiguous and may only require a 20-foot roadway, which is substandard.

In addition to the processes mentioned above, the Assessment Act of 1911 (A'11) provides a funding mechanism that allows property owners to spread improvement costs over a number of years. A'11 projects are initiated by one or more property owners that want to construct street improvements and agree to finance the design and construction costs over a set period of years. The process involves the creation of an assessment district and a petition which requires a majority support from the adjacent property owners. The BOE staff provides project management services to design and manage the construction of the street improvements to City standards. The total cost to design and construct the improvements will be divided among all of the property owners in the assessment district. The cost is assessed on the property owner's property tax bill and is amortized over the course of one to ten years, depending on the total cost of the project. Although a very useful financing tool for constituents, the A'11 projects are rarely utilized to provide street improvements in the hillside areas. Property owners may also obtain B-permits to voluntarily improve streets with their own funding.

In addition to the 160 formerly withdrawn street segments in Table 1 that were identified as 'Cannot Be Maintained in Present Condition', StreetsLA has identified an additional 2,126 other hillside street segments which are currently not included in their regular maintenance program. Converted to miles, the segments add up to an estimated 270 centerline miles of streets which are not currently maintained by StreetsLA. These can also be broken down

by surface type where 148 miles are concrete, 111 miles are asphalt concrete, and 11 miles are dirt.

The cost to improve a mile of roadway based on full reconstruction may include the need for r/w acquisition, retaining walls, slope stabilization and stormwater improvements that will all significantly impact the cost of the project. StreetsLA estimates that on average, the cost for a typical residential (non-hillside) street is approximately \$1,000,000 per mile. Knowing that hillside streets present more issues due to topography and the need for complex improvements such as retaining walls, slope stabilization and acquisition of public right-of-way, the estimate could easily reach \$2,000,000 to \$10,000,000 per mile.

Therefore, the cost for reconstruction of the 270 miles of hillside streets that cannot currently be maintained, could likely exceed \$540,000,000 and up to possibly \$2,700,000,000. Please note that this does not include the cost to upgrade substandard streets that can be maintained in their current condition. A comprehensive assessment would provide a more detailed understanding of the costs to improve hillside streets as well as a method for prioritizing them.

In addition to improving streets that cannot currently be maintained, the study will likely find that there are many streets that can be maintained, but are substandard and may be high priority for improvement due to the other prioritization criteria such as emergency egress during a fire. For that reason, the BOE recommends that the study address all streets within the Baseline Hillside Ordinance Boundary.

If you have any questions concerning this matter, please contact BOE Deputy City Engineer, Ted Allen, at ted.allen@lacity.org.

Sincerely,



Electronically signed by 21866 on 11/19/2020 at 1:19:00 PM

Gary Lee Moore, PE, ENV SP
City Engineer
Bureau of Engineering



Digitally signed by Adel H. Hagekhalil, PE
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Adel Hagekhalil, PE
General Manager and Executive Director
Bureau of Street Services (StreetsLA)

GLM/TA/WT/:jgr:ab

Q:GLM\City_Engineer\GLM Signed Documents\2020 Documents\Report to Council_CF18-1114_CF17-1143_ver 4_Final