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AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Ryan Russo, Director, DOT
Mark Sawicki, Director,
EWD

SUBJECT: Report and Possible Action on Clay
St. Garage Site Redevelopment

DATE: April 16, 2018

City Administrator Approval

Date:

4/19/18

RECOMMENDATION

Report and Recommendation Directing the City Administrator on the Development of the Clay St Garage with a Feasibility Analysis Detailing Several Development Alternatives.

REASON FOR SUPPLEMENTAL

At the April 10, 2018 Public Works Committee, staff was directed to provide a supplemental report with information concerning the seismic safety of the Clay Street Garage and respond to the question of whether it could be used as a temporary housing solution for the homeless at the April 24, 2018 Committee.

Staff has reviewed the Clay Street Garage Conditions Assessment completed by Murakami/Nelson in 2015. The executive summary of that assessment is included in this supplemental report (see **Attachment A**). Under "Seismic Safety," the consultants cite reports dating back to 1994 and conclude the Clay Street Garage has:

"a high potential for collapse in a major earthquake". The seriousness of the problems identified in those reports caused city staff to retain our team to prepare a Tier 1 Seismic Analysis of the building using ASCE 41 as the criteria for evaluation. This analysis confirmed the findings of the 1994 reports and indicates the seismic capacity of the building is worse than originally thought."

With this updated assessment, the City Administration decided that the life safety risk was too great to keep the garage open any longer than necessary. After shoring work to the pedestrian plaza recommended by Murakami/Nelson was completed, the garage was permanently closed on December 3, 2016. Since the closure, all requests to use the garage have been denied. For example, a request to use the garage to store equipment and materials for Art & Soul in 2017 was denied.

Given the seismic safety concerns that led to the closure and consistent with the City's response to previous requests to use the garage for uses other than public parking, staff does

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not recommend that the Clay Street Garage be considered for use as a temporary housing solution for the homeless.

ACTION REQUESTED OF THE PUBLIC WORKS AND COMMUNITY ECONOMIC DEVELOPMENT COMMITTEES

Staff recommends that the City Council receive this report and direct staff to take action on the potential development of the Clay Street Garage site.

For questions regarding this report, please contact Michael Ford, Acting Manager, Parking and Mobility Division, at mford@oaklandnet.com or Patrick Lane, Public/Private Development, at pslane@oaklandnet.com.

Respectfully submitted,



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Attachments:

- A. Murakami/Nelson Seismic Survey (2016), Draft Executive Summary

**CITY OF OAKLAND
CLAY STREET GARAGE
CONDITIONS ASSESSMENT**

October 12, 2015

EXECUTIVE SUMMARY

GENERAL DESCRIPTION

The Clay Street garage is a 146,000 square foot four-story parking structure, with one level of basement parking, constructed in 1960. The garage replaced a previous building constructed in the early 1900's. The prior structure was demolished, except for the structural slabs and steel framing supporting the current sidewalks on 14th Street, Clay Street and a portion of the Frank Ogawa Plaza; the original basement walls and floor slab also remain. A major modification was made to the building's east wall closest to the Oakland City Hall as a result of the base isolation of that building. Otherwise the garage has had only minor changes over its 55 year life.

CONDITIONS ASSESSMENT

As part of the stair replacement project murakami/Nelson reviewed available documents pertaining to the garage and made site observations. During this process the team came across several reports commissioned by the City of Oakland in January and June 1994 and March 1998 which identified the following problems with the garage: seismic deficiencies, cracking of floor slabs, water intrusion and general deterioration of the building. Based upon these reports and the team's observations, the city retained murakami/Nelson and Degenkolb Engineers to make an initial architectural and structural condition assessment of the Clay Street Garage. The results of our assessment identified a series of deficiencies which should be addressed if the city intends to continue to operate the garage in a safe manner and to extend its useful life.

The assessment identified two primary areas of concern:

- **Seismic safety**
- **General building condition**

The Assessment Report identifies deficiencies, recommends corrective action, and provides an order of magnitude cost estimate for specific areas of work. The recommendations are further categorized into **Immediate Projects (within 6-12 months), Near Term Projects (within 1-2 years) and Long Term Projects (within 2-5 years)**. While this report is conceptual in nature it captures the major architectural and structural issues needing attention. It does not address mechanical, electrical, plumbing fire protection or elevator systems. Those systems will be evaluated at a later time.

- **SEISMIC SAFETY**

The two 1994 reports mentioned above identified the Clay Street Garage as having "**a high potential for collapse in a major earthquake**". The seriousness of the problems identified in those reports caused city staff to retain our team to prepare a Tier 1 Seismic Analysis of the building using ASCE 41 as the criteria for evaluation. This analysis confirmed the findings of the 1994 reports and indicates the seismic capacity of the building is worse than originally thought.

Since there is no code mandate to upgrade a seismically deficient building we consider addressing the seismic performance of the garage to be a *long term* project. If the City of Oakland decides to continue to use the Clay Street Garage as a key component of its downtown parking facilities, then the building should be seismically strengthened to prolong its useful life and protect building patrons. If that course is followed, then we recommend the building be strengthened to a Life Safety performance level which is consistent with the performance expected with a new garage.

Our seismic strengthening concept involves constructing concrete shear walls and strengthening wall/floor connections. To aid the city in deciding how to proceed, Murakami/Nelson prepared an order-of-magnitude cost estimate. The cost for this work could vary from **\$3,456,000 to \$4,320,000**. Since this estimate is based upon an initial concept using the Tier 1 Checklist as its basis the conclusions of a more detailed Tier 2 or Tier 3 analysis would provide more accurate information to assess the buildings performance, may refine the proposed concept and could possibly reduce the amount of strengthening required to achieve a life safety performance.

- **GENERAL BUILDING CONDITION**

Water intrusion

Water intrusion is an ongoing problem in the building - at both stairs, in the basement areas under the sidewalks, and on the individual floor levels. Leaks occur as a result of cracks in the concrete slabs and a poorly maintained waterproof membrane at the 4th floor/roof level. Water has penetrated the structure, contributing to corrosion, moisture buildup and mold. Portions of the building exhibit various degrees of corrosion with the most severe structural deterioration occurring at the plaza sidewalk and both stairs. The city has fenced off access to the 1st through 4th floors of Stair #2 to limit the public's use of this stair; unfortunately, this also means that the **garage no longer has the code required two means of egress from the upper floors**. This is a life safety concern. If the garage continues to operate two means of egress should be provided as an *immediate* project.

Basement Ventilation

The code required basement ventilation system appears to be non-functioning or has been intentionally shut off. This is a life safety concern since build of carbon monoxide could be a health risk. This requires *immediate* action.

Access Compliance

The garage stairs, elevator, restrooms, signage do not comply with accessibility regulations. These deficiencies should be corrected and could be a *near term* project.

Stair Tripping Hazards

The stair tripping hazards are an *immediate* concern and should be mitigated as soon as possible. The stair report recommends installing non-slip aluminum tread "covers" as the most cost effective and straightforward way to correct the tripping hazards. An order of magnitude cost for this work could vary from **\$130,000 to \$163,000**. To facilitate the contractor's scheduling and avoid exiting issues we recommend the garage be closed while the work occurs.

Shored Area under the Plaza

As part of the overall garage investigation the team identified the shored area under the Plaza as a potential collapse hazard as the wood shoring supporting this area is failing. The team recommended the city limit loading of this area and prohibit vehicles from driving on it. The city acted upon this recommendation and the area is now cordoned off.

The team also investigated the condition of original concrete and steel structure, sidewalk slab, problematic shoring and the utilities that are located in the shored area. The report identifies three options for dealing with this problem:

1. **Replace the wood shoring with new steel shoring.** The costs for this option could vary from \$433,000 to \$542,000.
2. **Fill the shored basement area with light weight concrete.** The costs for this option could vary from \$769,000 to \$960,000.
3. **Replace the plaza slab over the garage basement with a new structural slab and avoid any shoring.** The costs for this option could vary from \$643,000 to 804,000.

The city will need to select a preferred option before the team can prepare construction documents that would allow a contractor to construct the repair. The murakami/Nelson team considers the shored area of the basement to be an area requiring **immediate** action.

Other Deficiencies

The remaining observations identify less severe issues, but over time will affect the useful life of the building. For example the cracks in the concrete slabs and masonry walls and the corrosion of the steel reinforcing and steel framing do not indicate structural deficiencies at this time. However, lack of protection from future corrosion will shorten the remaining useful life of the structure. We recommend that these deficiencies be addressed to prolong the life of the structure. These could be **long term** projects.

RECOMMENDATIONS

Next Steps:

1. To address the **immediate** concerns (\$803,000-\$1,005,000) the city should take the following actions:
 - a. Proceed with the interim stair repairs to address the corrosion induced tripping hazards at Stair #1 and the basement flight of Stair #2
 - b. Proceed with replacing the shoring supporting the plaza
 - c. Replace Stair #2 due to deterioration and to provide two exits from each floor per code
2. If the garage remains in operation during the review, evaluation, decision making and planning process, the City should take the following **near term** actions (\$2,715,000 -\$3,394,000):
 - a. Replace Stair #1 due to deterioration
 - b. Comply with accessibility regulations
 - c. Add guardrails to mitigate fall hazards
 - d. Provide adequate ventilation for the basement parking level
3. If the City decides to maintain use of the garage, then the city should take the following **long term** actions (\$5,443,000-\$6,803,000) to maximize the useful life of the building:

- a. Undertake a comprehensive assessment of the slab cracks; the mechanical, electrical, fire alarm and fire sprinkler systems; the condition of the elevator and compliance with the city's sustainability policies
- b. Develop a comprehensive program upgrade the building and mitigate any deficiencies
- c. Seismically strengthen the building
- d. Waterproof and repair cracks in the concrete slab at the 4th floor/roof level
- e. Repair cracks in concrete slab at all levels, and repair cracks in the masonry and around steel framing to protect the structure from future corrosion
- f. Replace sidewalks with new concrete sidewalks with waterproof membrane
- g. Install a new roof over Stair #2
- h. Re-pave basement parking area
- i. Paint building inside and outside
- j. Install new signage and wayfinding elements
- k. This work could be accomplished as *near term* or *long term* projects depending on the severity of the deficiencies, scheduling and budgeting.

The total cost to renovate the garage for its long term use would be from \$8,961,000 to \$11,202,000.

Demolition of Existing Garage

Should the City of Oakland decide that rehabilitating the garage is not cost effective, then it should consider demolishing the building. An order-of-magnitude estimate to do this could vary from **\$3,285,000 to \$4,106,000**. This cost would cover just the demolition of the building and fencing the perimeter. Relocation of existing utilities could add to the cost. The site would likely need to be dewatered during the winter. If the project temporarily becomes a surface parking lot the site would need to be filled, the area paved and lighting, striping and signage added. This would be an additional cost.

New Garage

The cost to construct a new 146,000 s.f. garage with basement parking could vary from **\$27,375,000 to \$34,218,000**. At the same time the sidewalks on 14th and Clay Streets should be replaced and the old below-grade walls removed. This work will cost an additional **\$1,088,000 to 1,360,000**. When the demolition costs and sidewalk cost are added to the new garage costs the total could vary from **\$31,748,000 to \$39,684,000**.

CONCLUSION

This report provides basic information for the City of Oakland to begin discussions about how to deal with the condition of the Clay Street Garage to preserve the health and safety of its patrons, comply with accessibility regulations and maintain the useful life of the building. The city may want to consider whether to make only minor improvements to the garage and live with the risk, rehabilitate the entire building to a reasonable level or replace the garage with a modern structure. Further investigations will be necessary to fully understand the extent of the deficiencies and the costs to correct them.

Note: The costs in this report are present day order of magnitude estimates and include City of Oakland management and overhead costs.