LOW BRIDGES TO OLD BRIDGES

How to Haul Hazardous Material Through A Neighborhood

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OUTLINE

Problem
- Site history
- Contaminated soil
- Constrained removal routes

Routes
- Four options
- Advantages
- Disadvantages

Selection
- Process
- Key takeaways and lessons
PROBLEM - SITE HISTORY

California Pressed Brick Company – 1907 to 1960

Mission Clay – 1960 to 1992
PROBLEM – CONTAMINATED SOIL

Bunker Fuel from 1910s to 1930s

Alameda Creek (freshwater source)

PROBLEM – CONSTRAINED REMOVAL ROUTES

Only one way out...

Access Road
PROBLEM - CONSTRAINED REMOVAL ROUTES

Original Plan

Source: Google Earth

Source: CSG Consultants, Inc.

Source: ktvu.com
ROUTES - FOUR OPTIONS

1. Old Canyon Road
2. Orangewood Drive
3. Pickering Avenue
4. Morrison Canyon Road

Start
End

Source: Google Earth
ROUTES - 1. OLD CANYON ROAD

Advantages
- Most direct route
- No direct residential

Disadvantages
- Weight-restricted bridge 1
- Side-street stop onto busy highway 2

Source: Google Earth
Advantages
- 2nd least distance traveled
- Avoids elementary school

Disadvantages
- Directly passes 106 houses
- Metal curb ramp
- Crosses UPRR ROW
Advantages
• Avoids UPRR ROW

Disadvantages
• Directly passes 109 houses
• Passes elementary school
• Height-restricted underpass
Advantages
• No bridges or UPRR ROW

Disadvantages
• Directly passes 123 houses
• Passes elementary school 1
Weight-restriction on Old Canyon Road

- Recommended permissive weight: 16.4 tons
- Empty truck: 17.5 tons
- Absolute max weight: 27.1 tons
- Full truck: 40.0 tons
SELECTION - PROCESS

Routes

1. Old Canyon Road
2. Orangewood Drive
3. Pickering Avenue
4. Morrison Canyon Road

VS.

Source: Google Earth
SELECTION - PROCESS

Height Restrictions

Pickering Ave: 15’-2”

Mission Blvd: 14 FT 0 IN

5-Axle Truck: 10’-6” to 12’-6”

Source: Google Earth

Source: www.artuck.com
SELECTION - PROCESS

Neighborhood Concerns

Haul Route
Vallejo Mill Elementary School
Vallejo Mill Park

Source: Google Earth
SELECTION - PROCESS

City Concerns

Avoid school year
• 2018 Summer Break: June 13 to August 29
  • 53 working days
• 20,963 CY material, 15 CY trucks, 16 trucks, 3 round trips per truck per day
  • 30 working days

Avoid peak congestion
• Recommended 9am-3pm operation

Pavement condition
• Conduct PCI survey before and after haul
Lessons Learned

- Check geometric constraints – weight and height limits
  - Determine truck weight and dimensions from haul contractor

- Assess alternatives
  - Not discussed: two-stage haul, haul by rail

- Consider neighborhood impacts
  - Preempt concerns (such as academic)

- Receive agency buy-in

- Communicate!
QUESTIONS?