



TJPA Citizens Advisory Committee Utility Relocation Update

December 8, 2009

Transbay Transit Center

TJPA





Transbay Transit Center

Agenda

1. Utility Investigation & Design
2. Major Considerations & Alternatives
3. Relocation Strategy
4. Design Status & Construction Schedule
5. Construction Budget



Transbay Transit Center

Transit Center Cross-Section





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Below Grade Encroachments



Minna Street

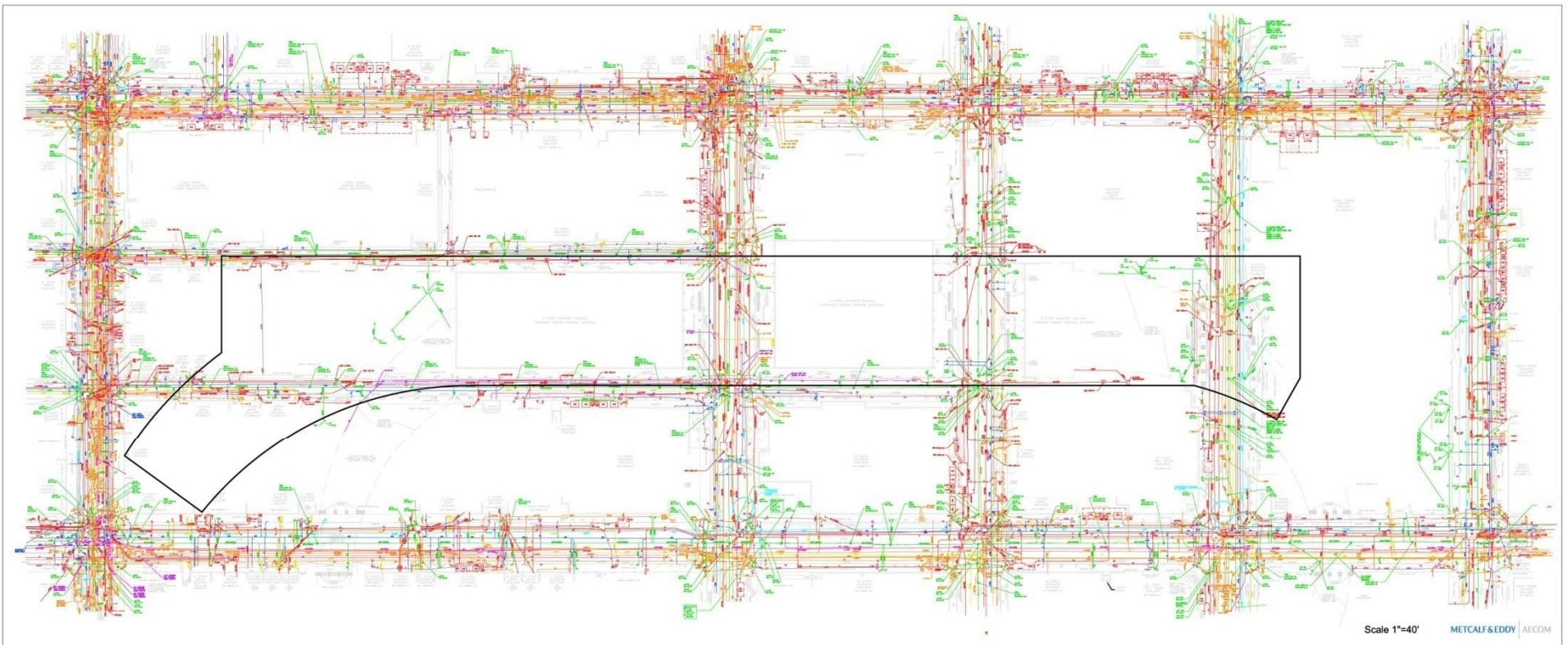


Natoma Street



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Utility Investigation





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Existing Public Utilities

Publicly Owned

- Sewer
- Water (Domestic & Fire)
- Auxiliary Water Supply System
- Telecommunications
- Electrical – Streetlights
- Trolley Lines & Traffic Signals



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Existing Private Utilities

Privately Owned

- PG&E Electrical
- PG&E Gas
- Telecommunications
 - AT&T
 - Verizon
 - Comcast
 - TCG, Qwest, Level 3, Above Net, IPN



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Utility Mapping

Phase 1

- Review Record Drawings & As-Builts
- Designate, Mark, Survey & Record
- Access Manholes & Vaults
- Complete Topographic Survey

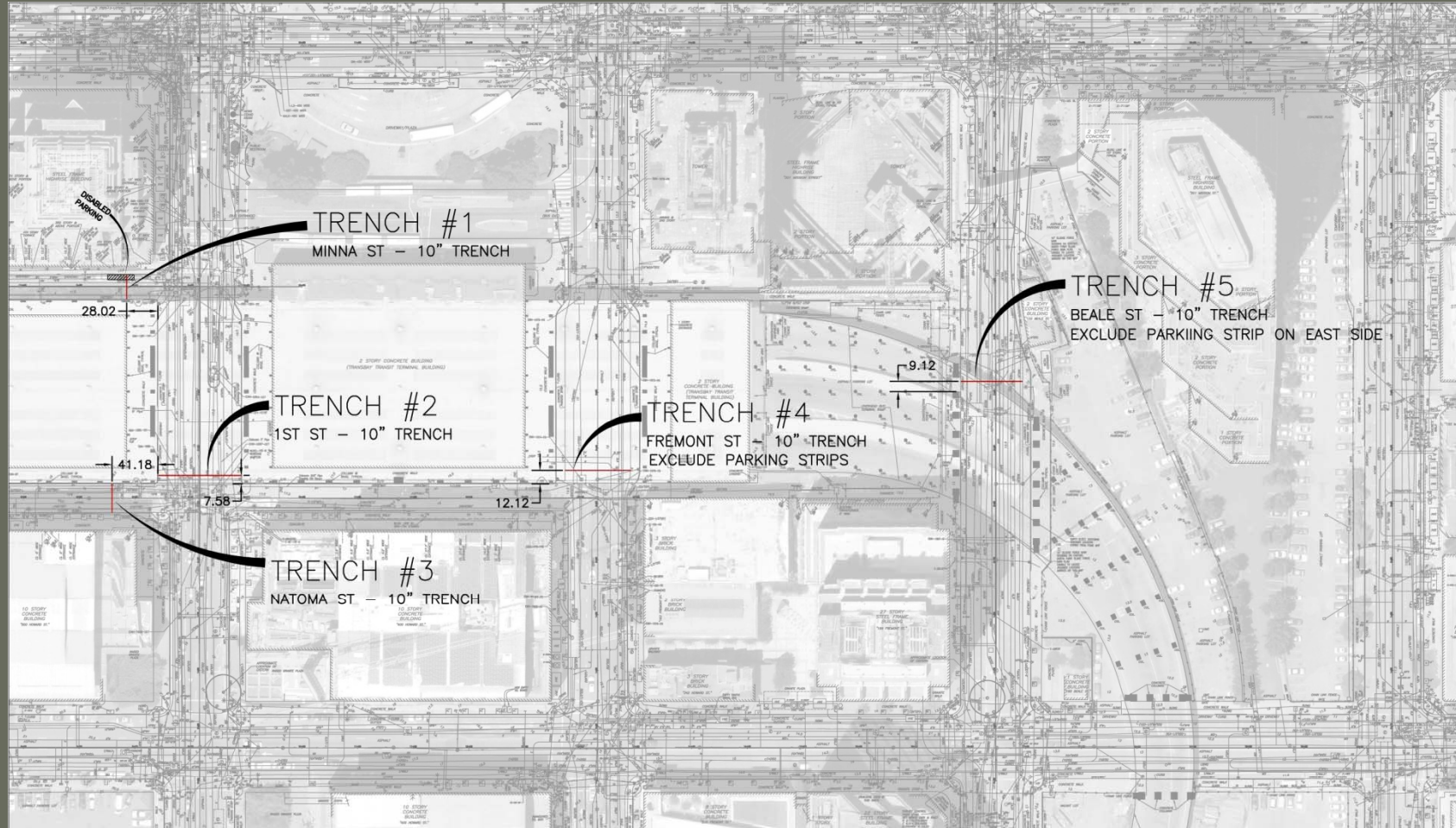
Phase 2

- Exploratory Trenching
- Potholing
- Complete Utility Cross Sections



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Exploratory Trenching



TRANSBAY JOINT POWER AUTHORITY
CONTRACT NO. 07-03-UTIL-000
TRANSBAY TRANSIT CENTER/TERMINAL

AECOM
1300 MARKET ST., SUITE #1100
SAN FRANCISCO, CA 94102
PHONE: 415.774.3000
FAX: 415.774.3001
WWW.AECOM.COM

PROJECT: UTILITY RELOCATION PROJECT
SITE ADDRESS: TRANSBAY TERMINAL AREA
TITLE: TRENCH LOCATIONS
FOR UTILITY LOCATION

DATE: JUNE 18th 2009
SCALE: 1"=40'
BY: AECOM
CHECKED BY: JRM

1"=40'
SCALE
0 20 40
FEET

TR-1



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Ground Penetrating Radar





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Pothole for Shallow Utilities





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Sawcut Pavement





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Remove Pavement & Vacuum Excavate Earth





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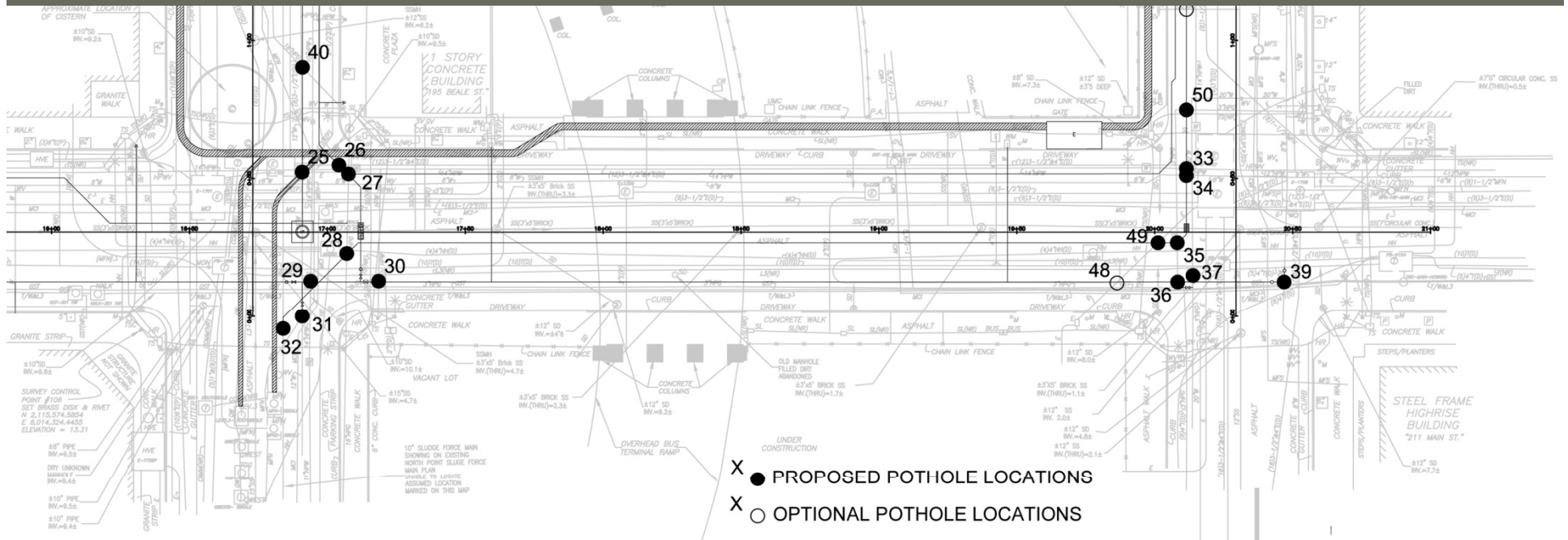
Record Location & Depth Utilities





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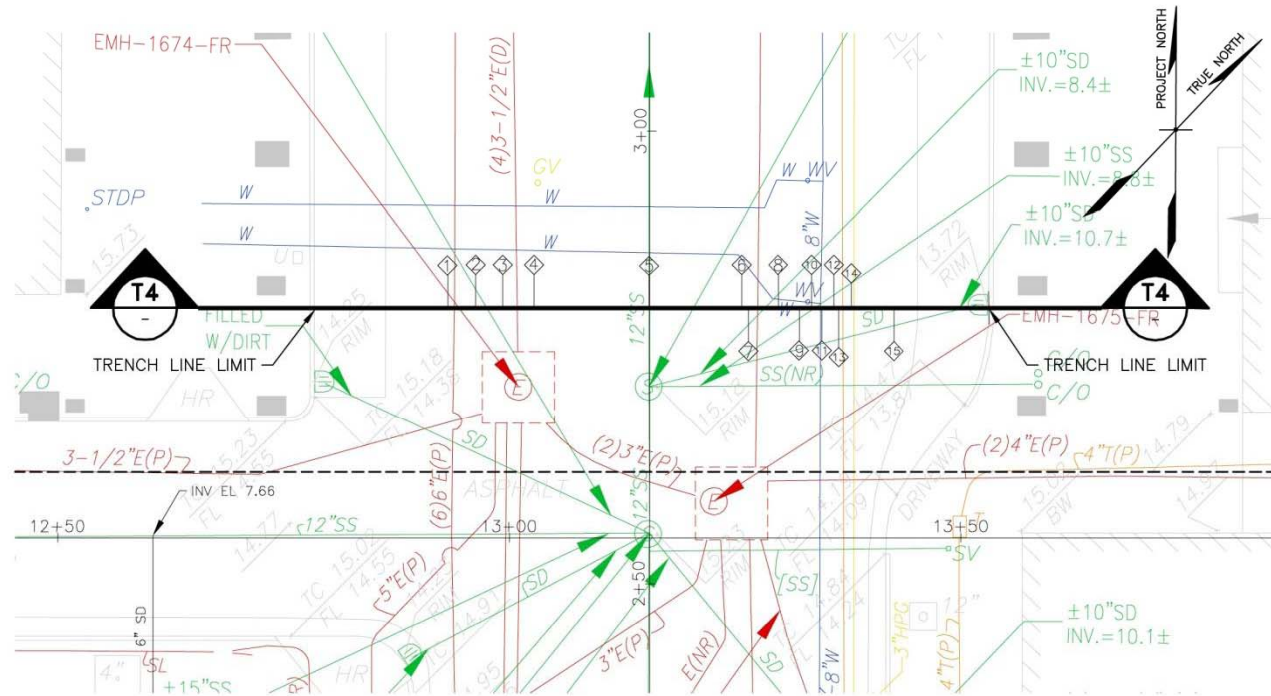
Potholing Plan





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Detailed Horizontal Layout



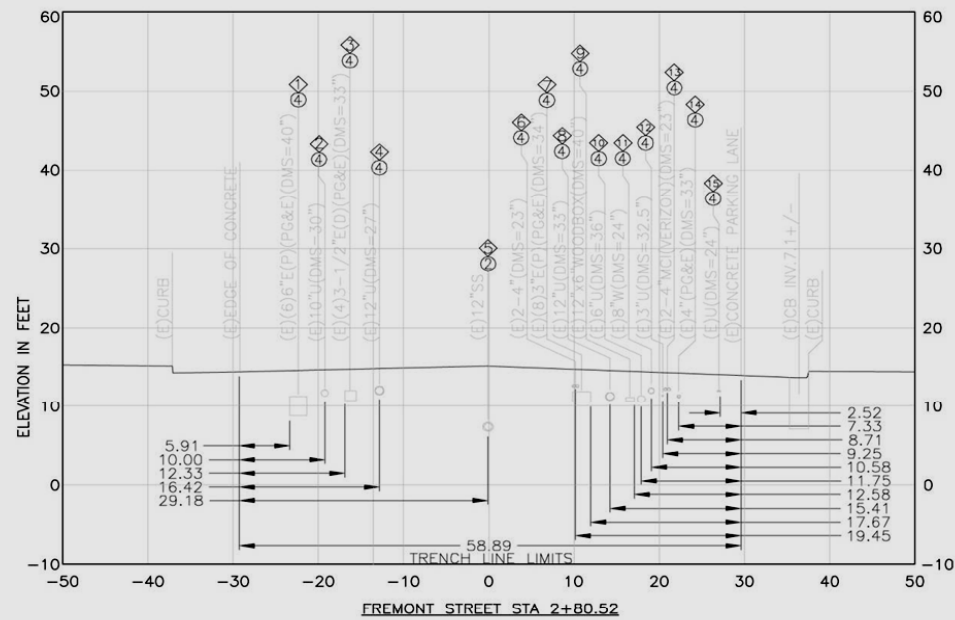
PLAN — FREMONT ST. 2+80.52

SCALE: 1"=10'



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Detailed Cross Section



SECTION

SCALE: 1"=10'H; 1"=10'V





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Major Considerations and Constraints

- First, Fremont & Beale
 - Major utility transmission routes: PG&E, AT&T, Verizon, Water and AWSS
 - Maintain service capability of existing utility lines
 - Maintain three lanes of traffic during construction
- Minna and Natoma
 - Narrow streets limited space for utility relocations
 - Existing building services (delivery trucks) and vehicular entrances must be maintained
 - Other buildings under construction concurrent with Utility Relocation and Shoring Wall Work



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Relocation Alternatives

Alternative 1 – Clear All Existing Utilities from the Transit Center Footprint

Alternative 2 – Temporarily Relocate Utilities Within the Affected Streets

Alternative 3 – Temporarily Span Utilities Overhead (Above Building Excavation Zone)



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Relocation Strategy

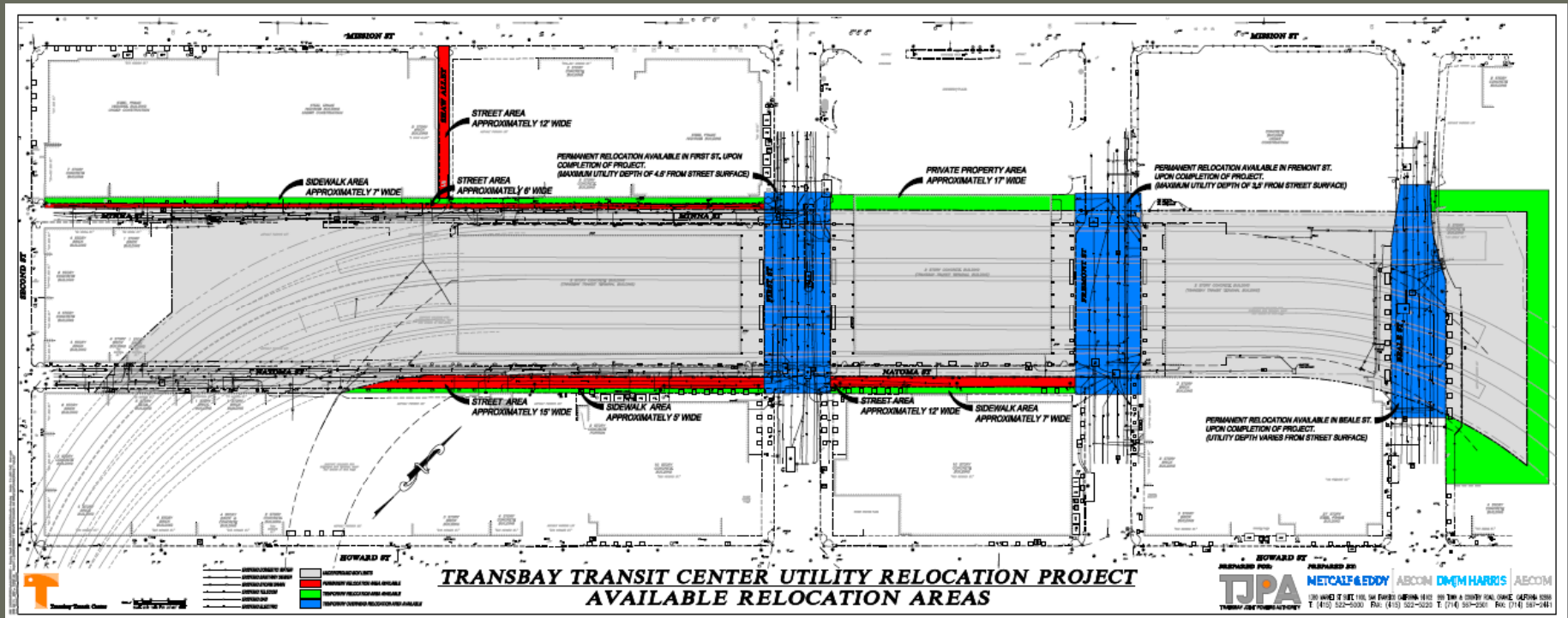
Blended Solution

- Clear Footprint
 - Sewer, Water, High Pressure Gas and AWSS
- Temporarily Span Utilities Overhead
 - Telecommunications
- Temporarily Relocate within Affect Streets
 - PG&E Electric, Telecomm
- Single Relocation Outside Shoring Wall
 - Minna & Natoma Streets



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Relocation Opportunities

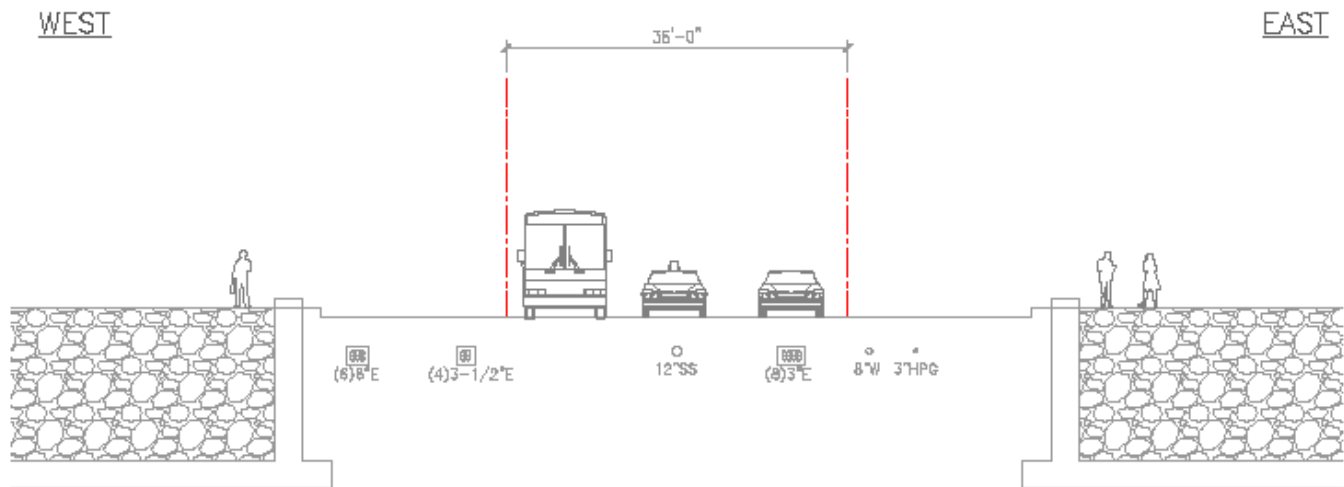




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Relocation Strategy Existing Condition

1. EXISTING CONDITION AFTER BUILDING DEMO COMPLETED

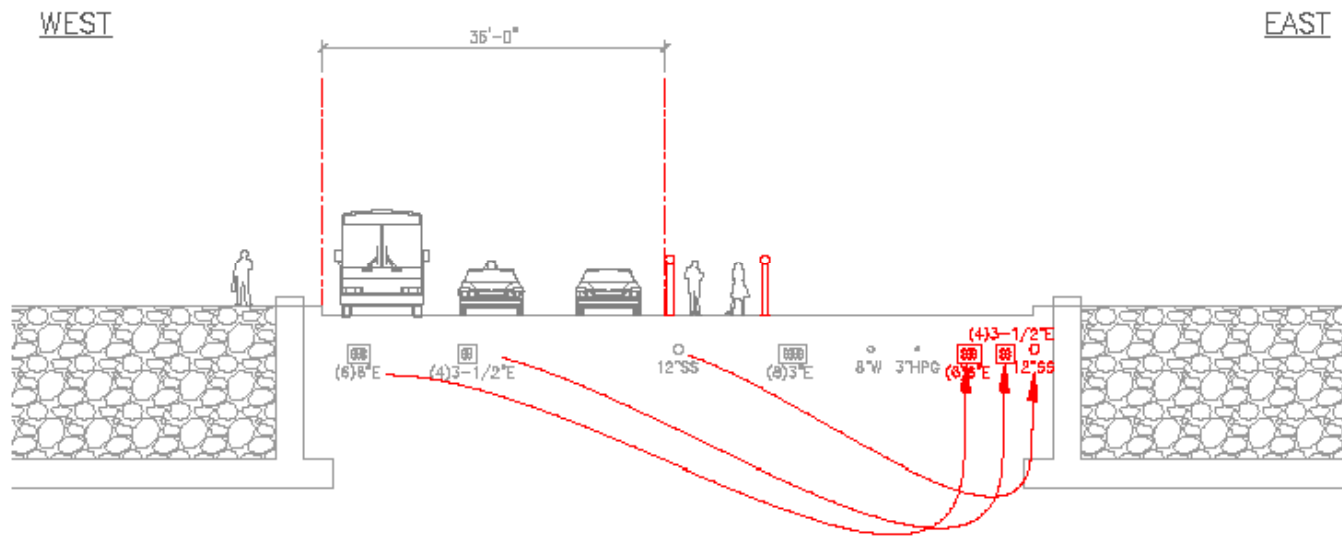




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Relocation Strategy Stage 1

2. INSTALLING TEMPORARY UTILITY LINES AT EAST SIDE

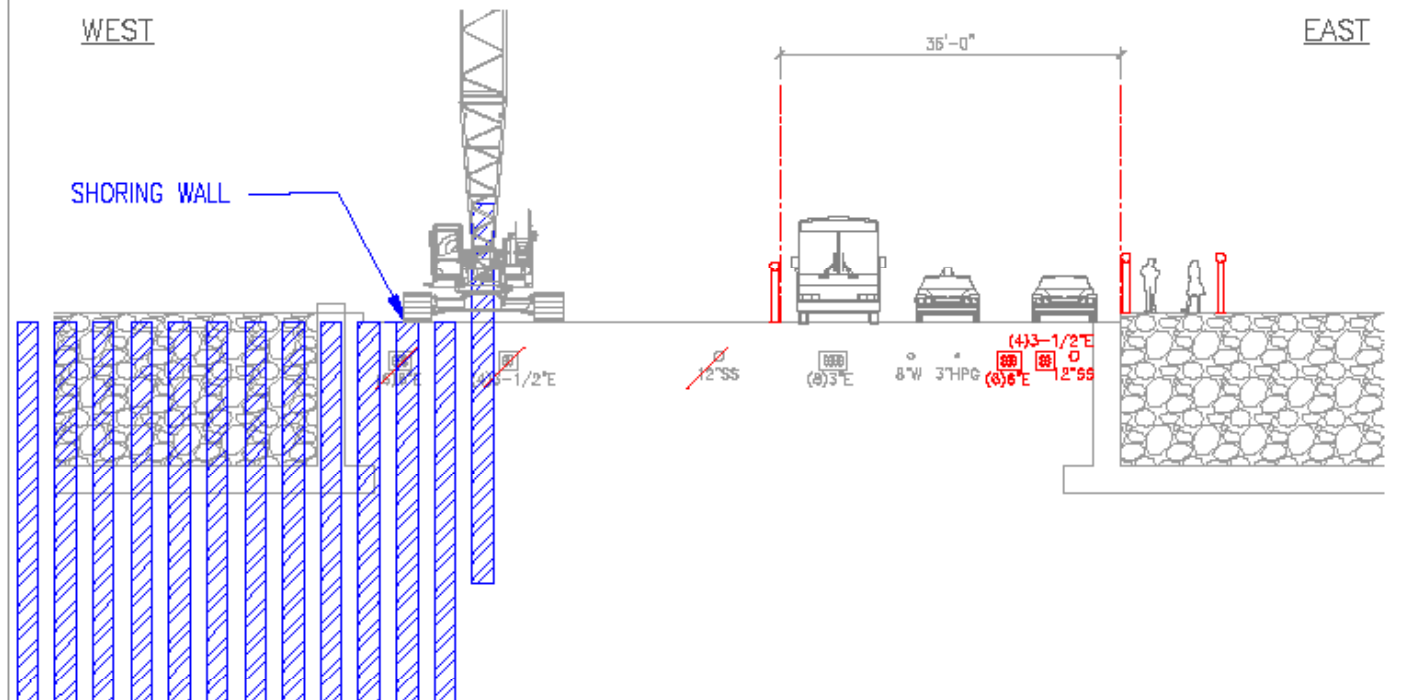




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Relocation Strategy Stage 2

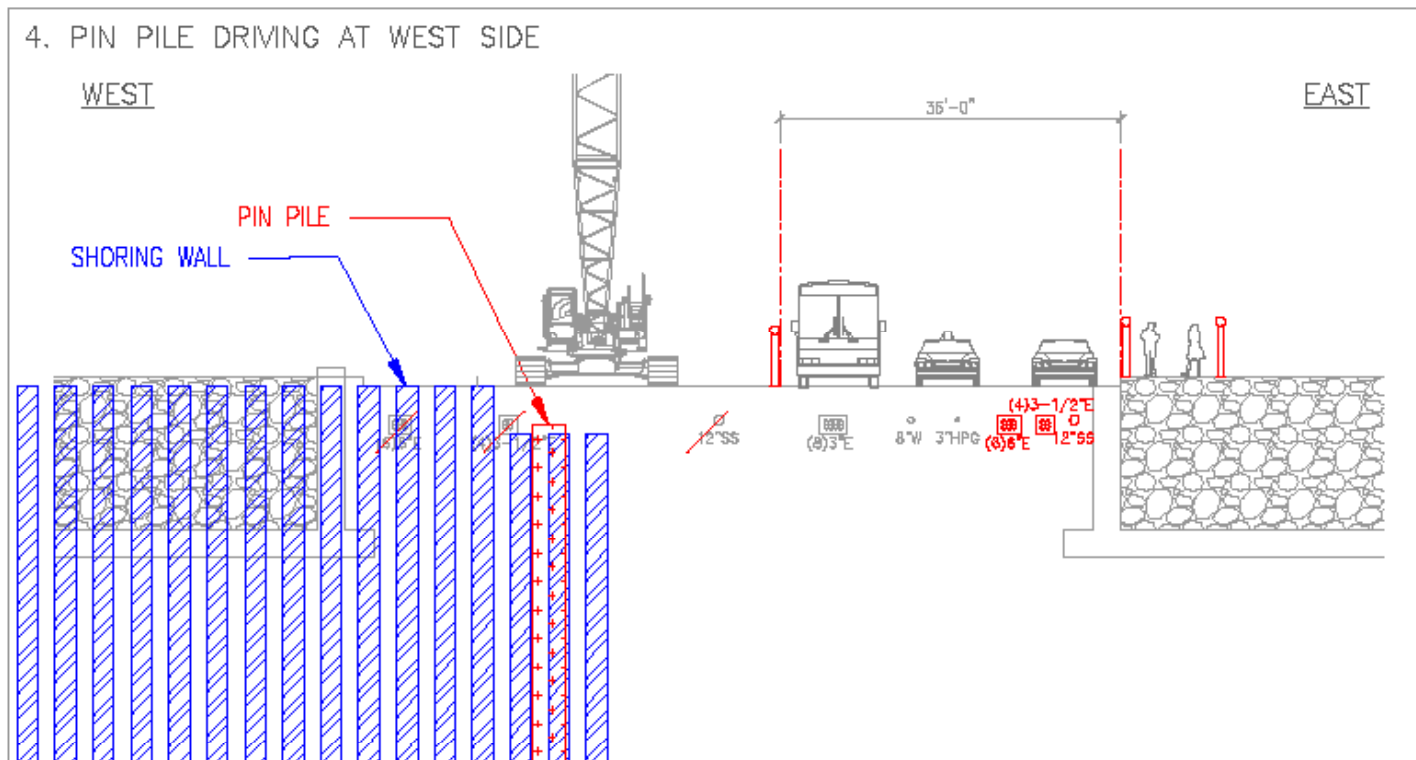
3. TRAFFIC SHIFTED TO EAST SIDE AND SHORING WALL CONSTRUCTION AT WEST SIDE





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Relocation Strategy Stage 3

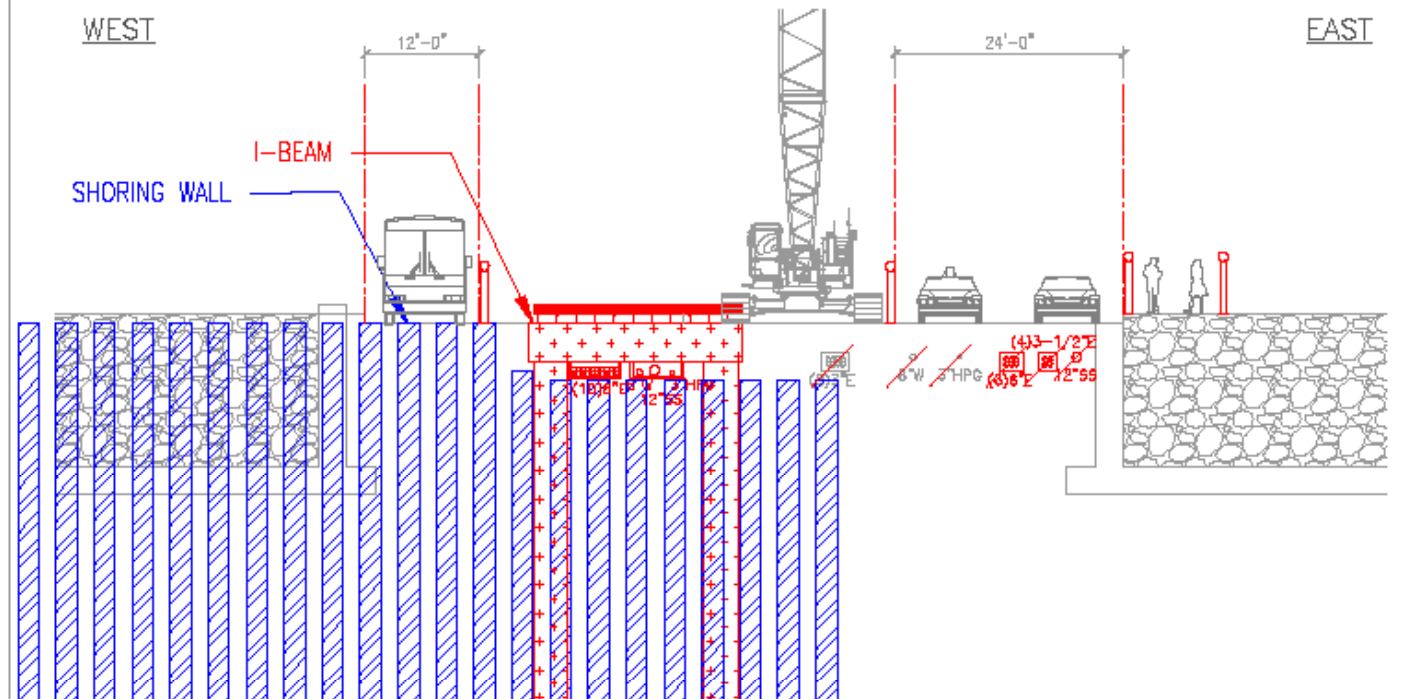




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Relocation Strategy Stage 4

5. SHIFTING ONE LANE TO WEST SIDE AND CONSTRUCTING AT CENTER

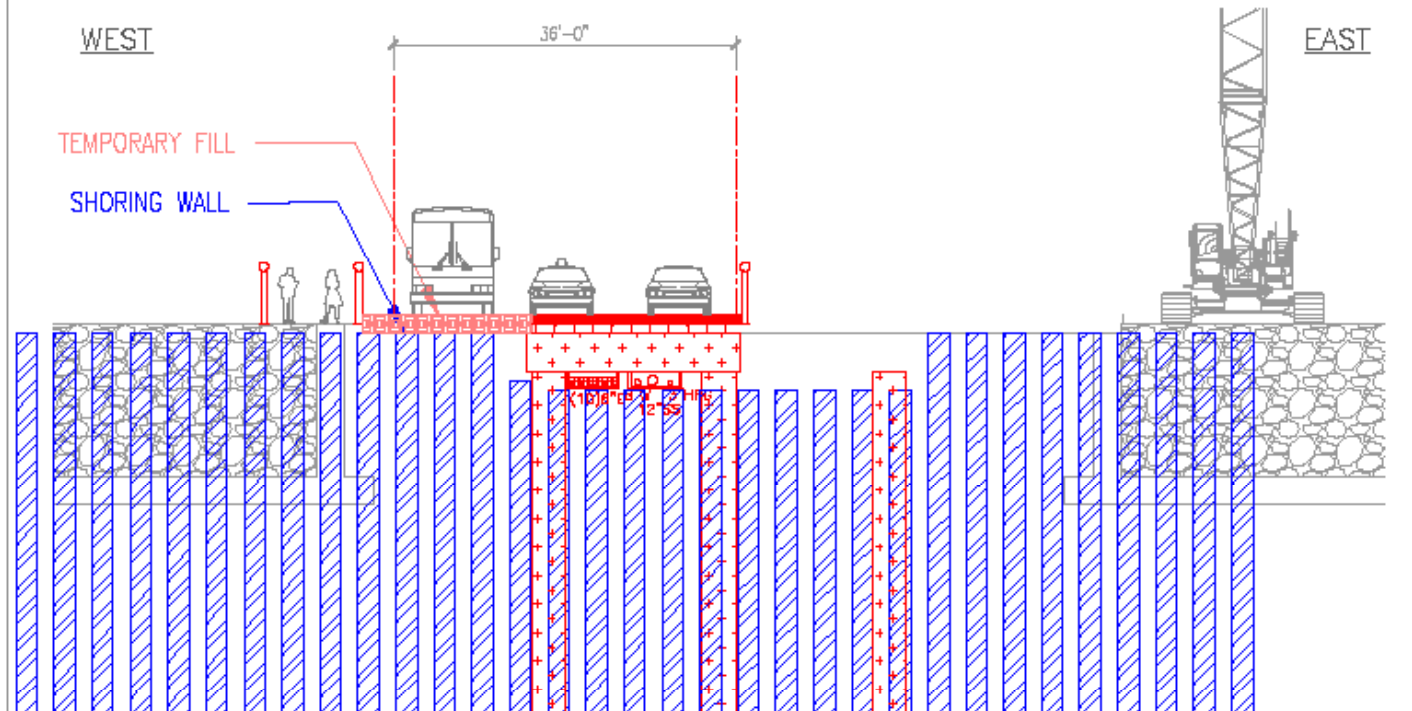




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Relocation Strategy Stage 5

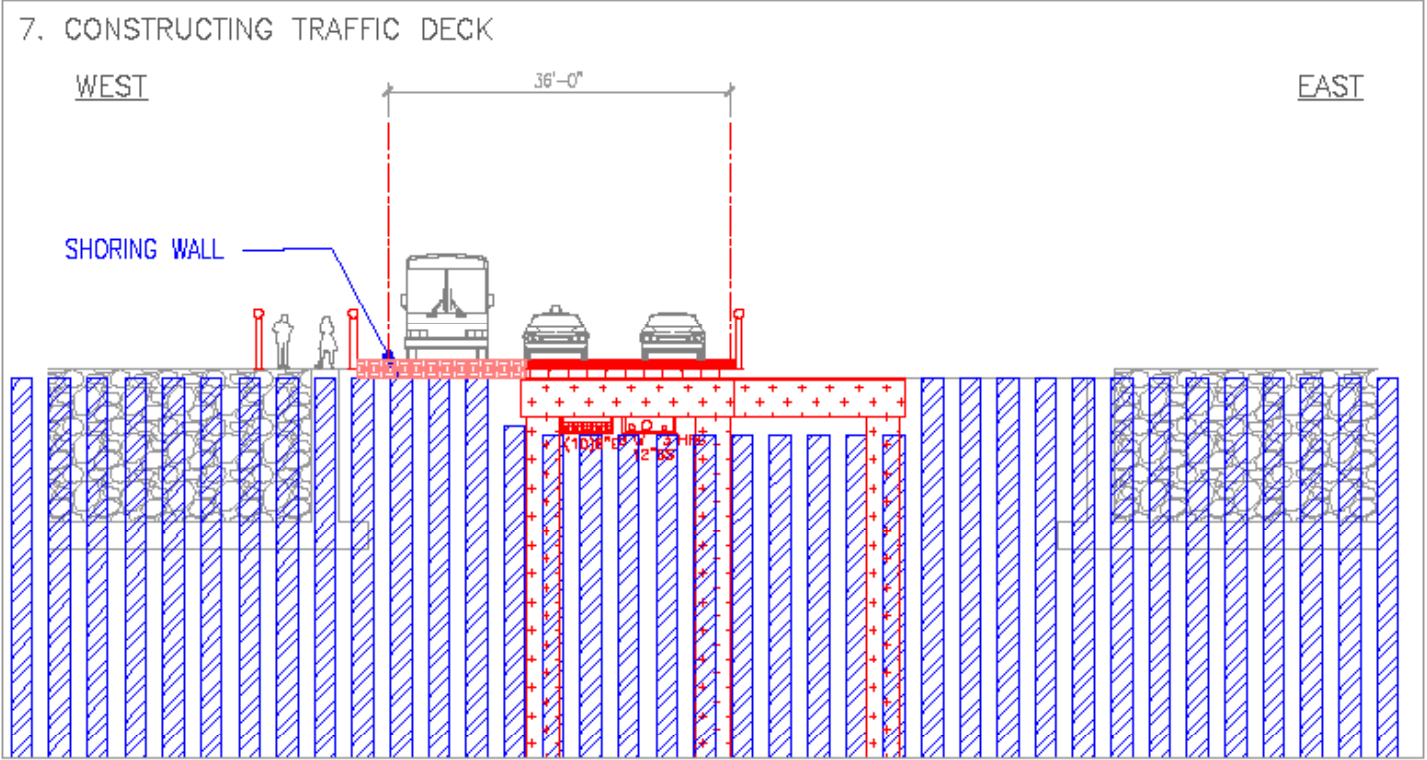
6. SHIFTING THREE LANES TO WEST SIDE AND CONSTRUCTING EAST SIDE





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Relocation Strategy Stage 6

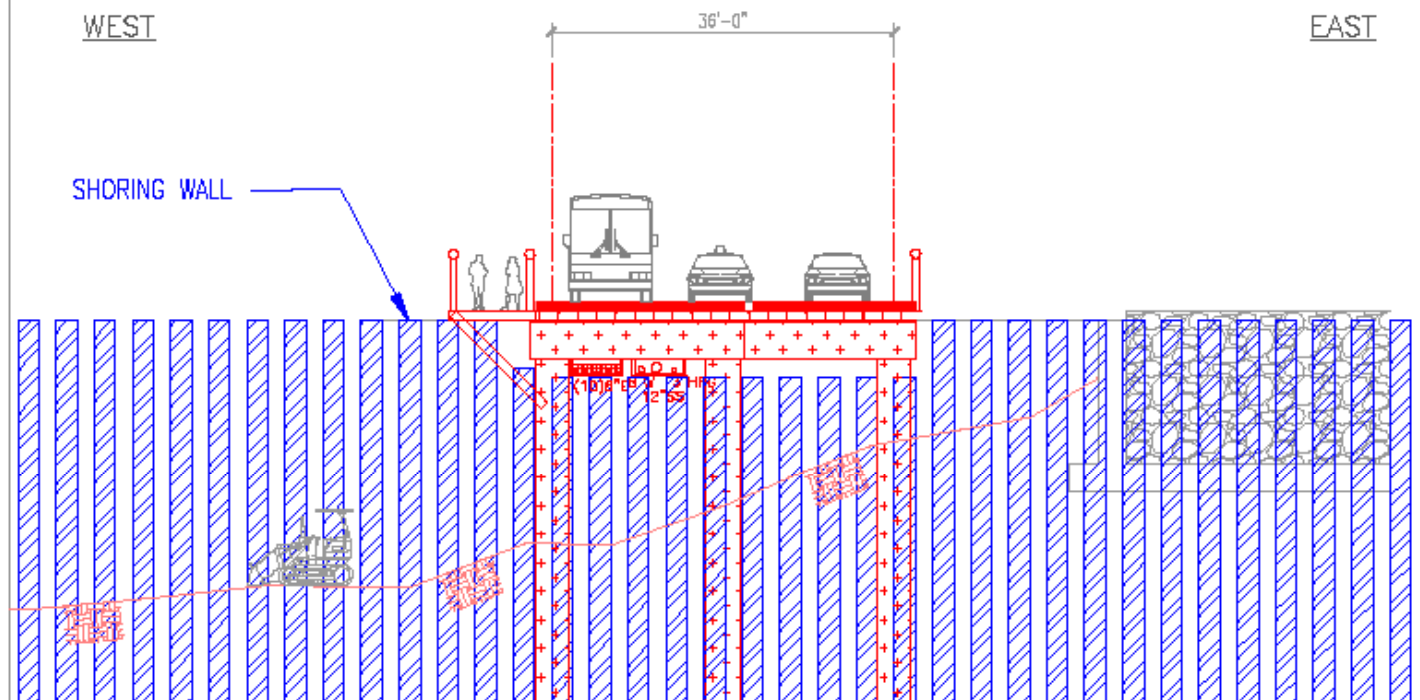




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Relocation Strategy Stage 7

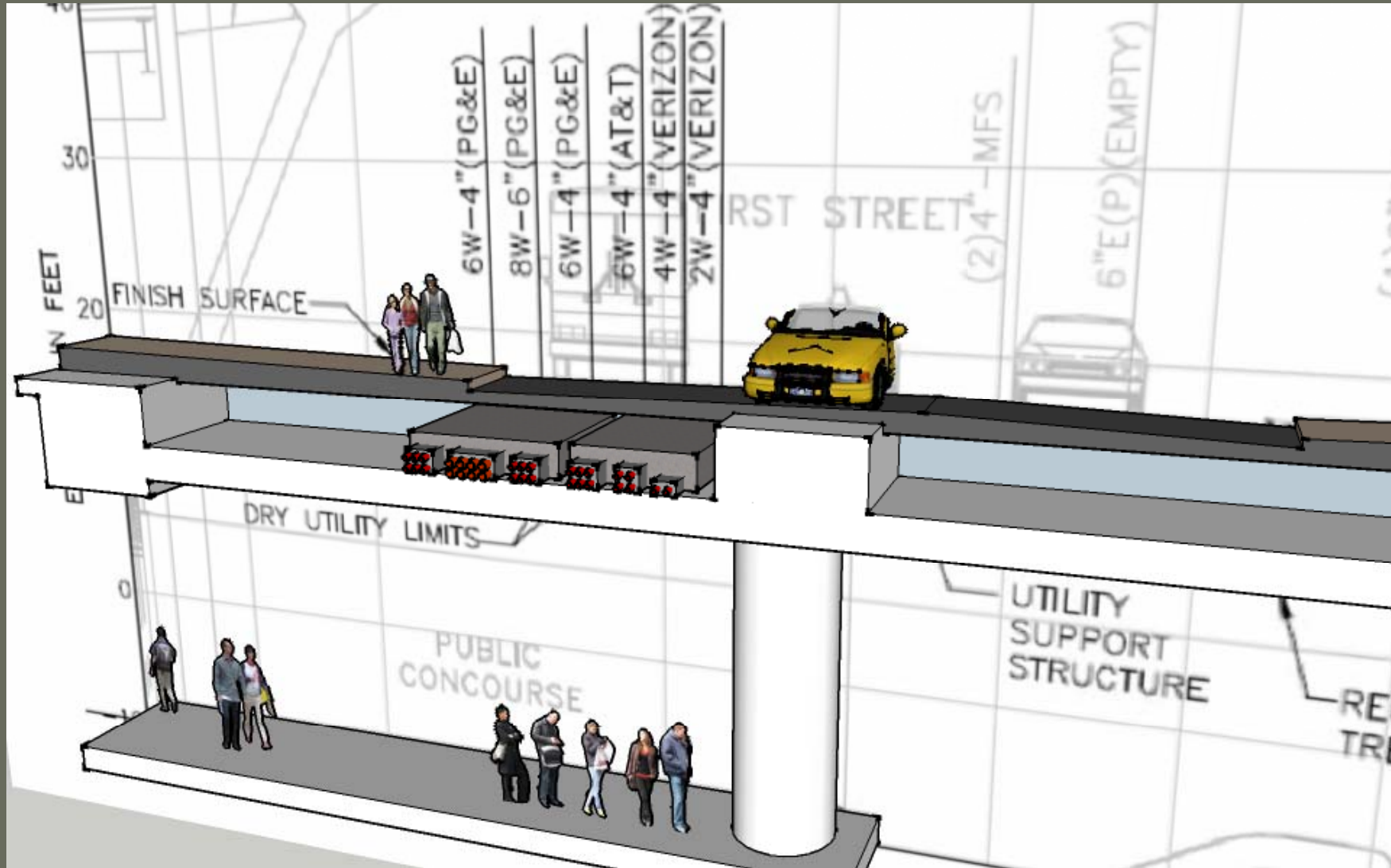
9. STARTING EXCAVATION





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Final Configuration





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Design Status

- | | |
|---------------|-------------------------------|
| March 2009 | - 30% Design Development |
| August 2009 | - 50% Design Development |
| January 2010 | - 90% Design Development |
| February 2010 | - 100% Construction Documents |



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Construction Schedule

- 2nd Quarter 2010 - Start of Demolition
- 2nd Quarter 2010 - Start Utility Relocation “Early Phase”
(Natoma btw. 1st & Fremont)
(Fremont btw. Minna & Howard)
- 3rd Quarter 2010 - Start Utility Relocation “Phase 1”
- 4th Quarter 2010 - Start Shoring Wall Construction



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Construction Budget

New Construction: \$11.9M

Demolition: \$16.2M

Temporary Utilities: \$ 3.1M

Street Restoration: \$ 1.4M

Contingencies: \$14.7M

TOTAL ESTIMATE \$47.3M



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CONTACT INFORMATION

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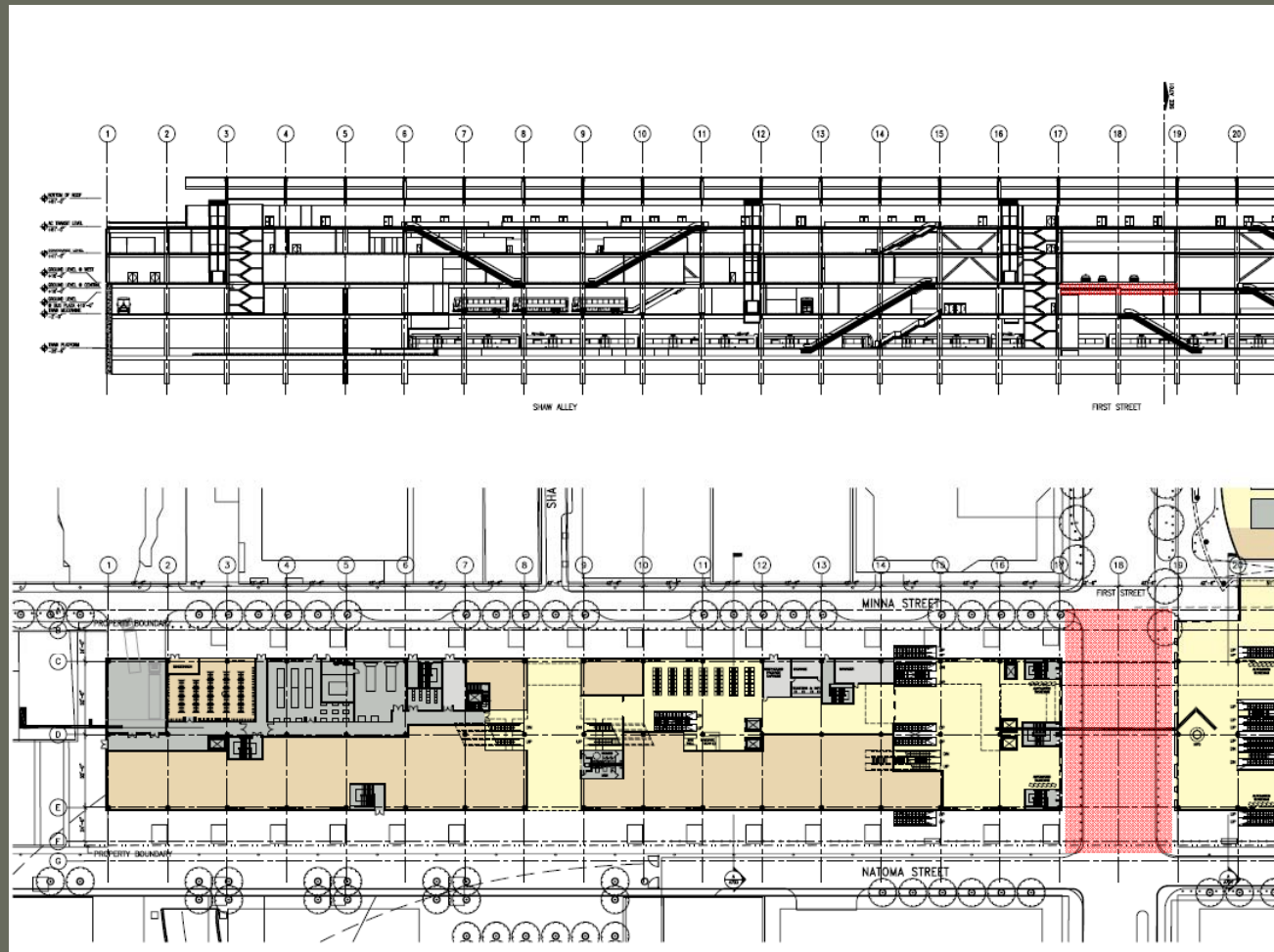
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Utility Corridors Through Transit Center





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Utility Corridors Through Transit Center

