SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL℠ Company

Chino Hills Underground Project Update

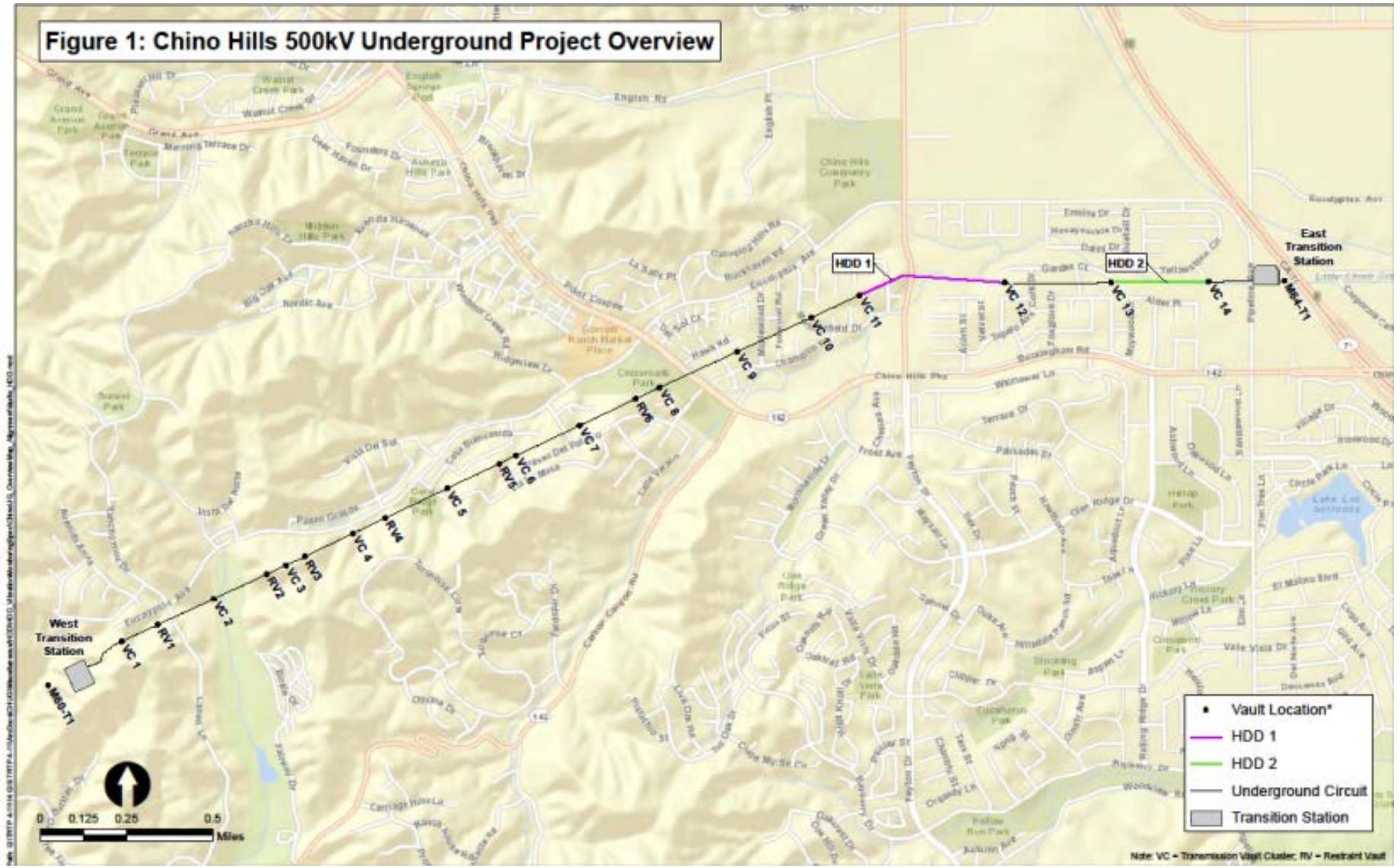
City of Chino Hills

September 23, 2014

Project Overview

- TRTP Segment 8 Phase I Chino Hills Underground
  - -Undergrounding for an approximate 3.7-mile portion of the Mira Loma-Vincent 500 kV transmission line
  - -The majority of the 500kV Cross-linked Polyethylene (XLPE) cable will be installed in underground concrete-encased duct banks and vaults which will be constructed via trenching and backfilling
  - -In select locations, Horizontal Direction Drilling (HDD) will be required to install cable beneath select surface features along the route
  - -Transition stations will be installed to transition the transmission line from an overhead configuration to an underground configuration
  - -Due to areas of hilly terrain, Restraint Vaults will be installed to provide additional cable support

Project Overview - Aerial



Western Transition Station Simulation

Eastern Transition Station Simulations

Rising to cross the 71 Freeway

Duct Banks

- Over 200,000 linear feet of duct bank designed for 3 cables per phase
- The duct bank is mainly comprised of twelve 8-inch schedule 40 PVC ducts arranged 12-inch on center

First 500kV underground in duct banks

Splice Vaults

- 42 splice vaults
- Approximately 18 restraint vaults

This is one Splice Vault, fabricated in sections

Interior view of a Splice Vault Section

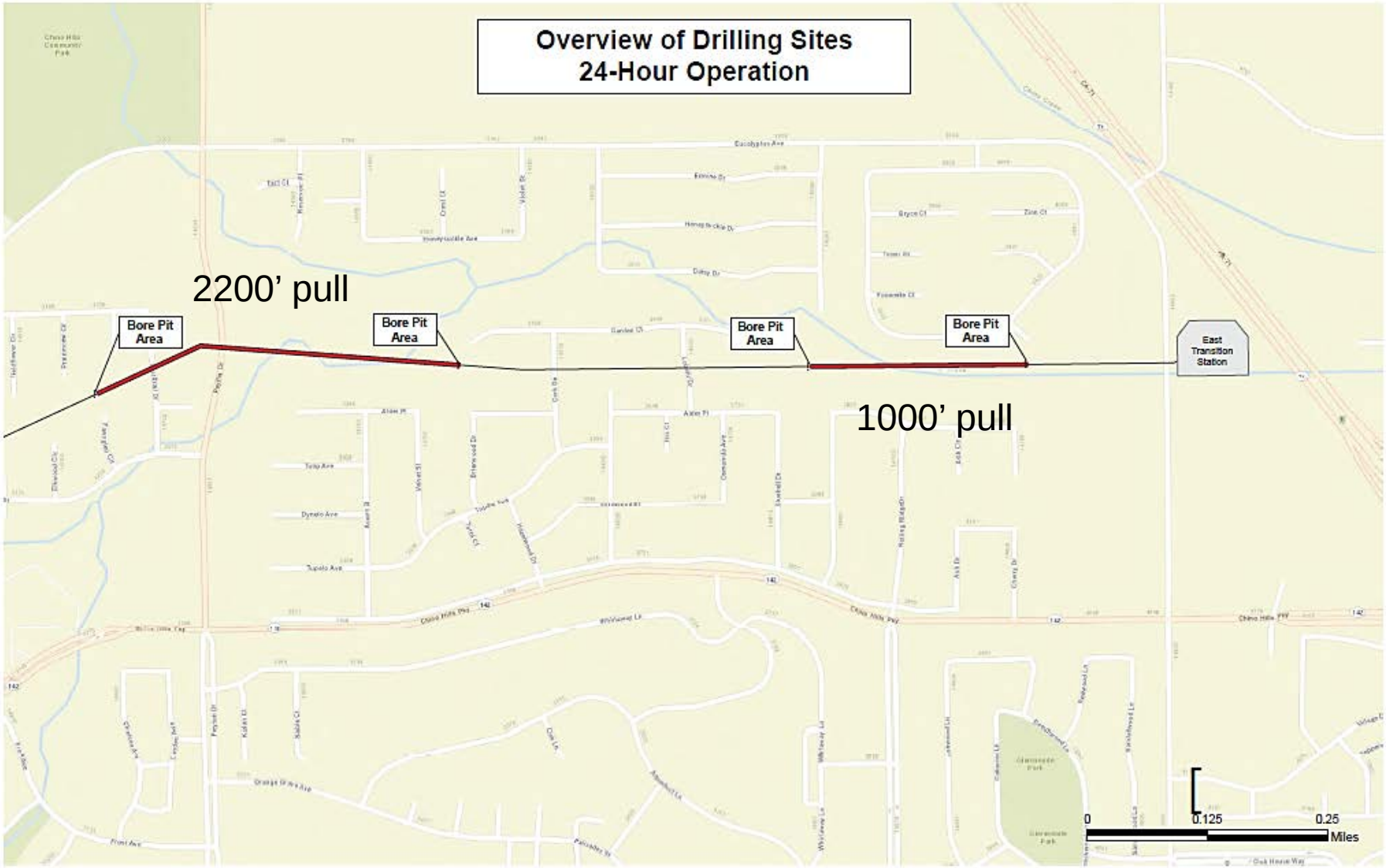
Splicing

- 90 cable pulling segments
- 84 splices
- 12 Terminations

Horizontal Directional Drilling

- Installation of approximately 16,000 feet of bundled HDPE conduit via HDD
- HDD operations may include drilling rigs, vacuum trucks, excavators, water trucks, hydraulic pumps, and other equipment/vehicles as required
- Two HDD locations
- At each bore the following activities will include:
  - Installing two bore pits at each entry and exit pit (18 total bore pits)
  - Drilling and reaming of a borehole using required drilling fluids
  - Installing bundled conduit in boreholes
- Drilling fluids used during HDD operations will be temporarily stored in a settling pit within the boring site disturbance area. After settling, the drilling fluids would be reused, and residual solids may be hauled offsite for disposal at an SCE-approved facility
- It is anticipated that two or three drilling rigs will be operated concurrently during HDD activities

Overview of Drilling Sites



*This information is subject to change as construction is finalized.

HDD Site #1

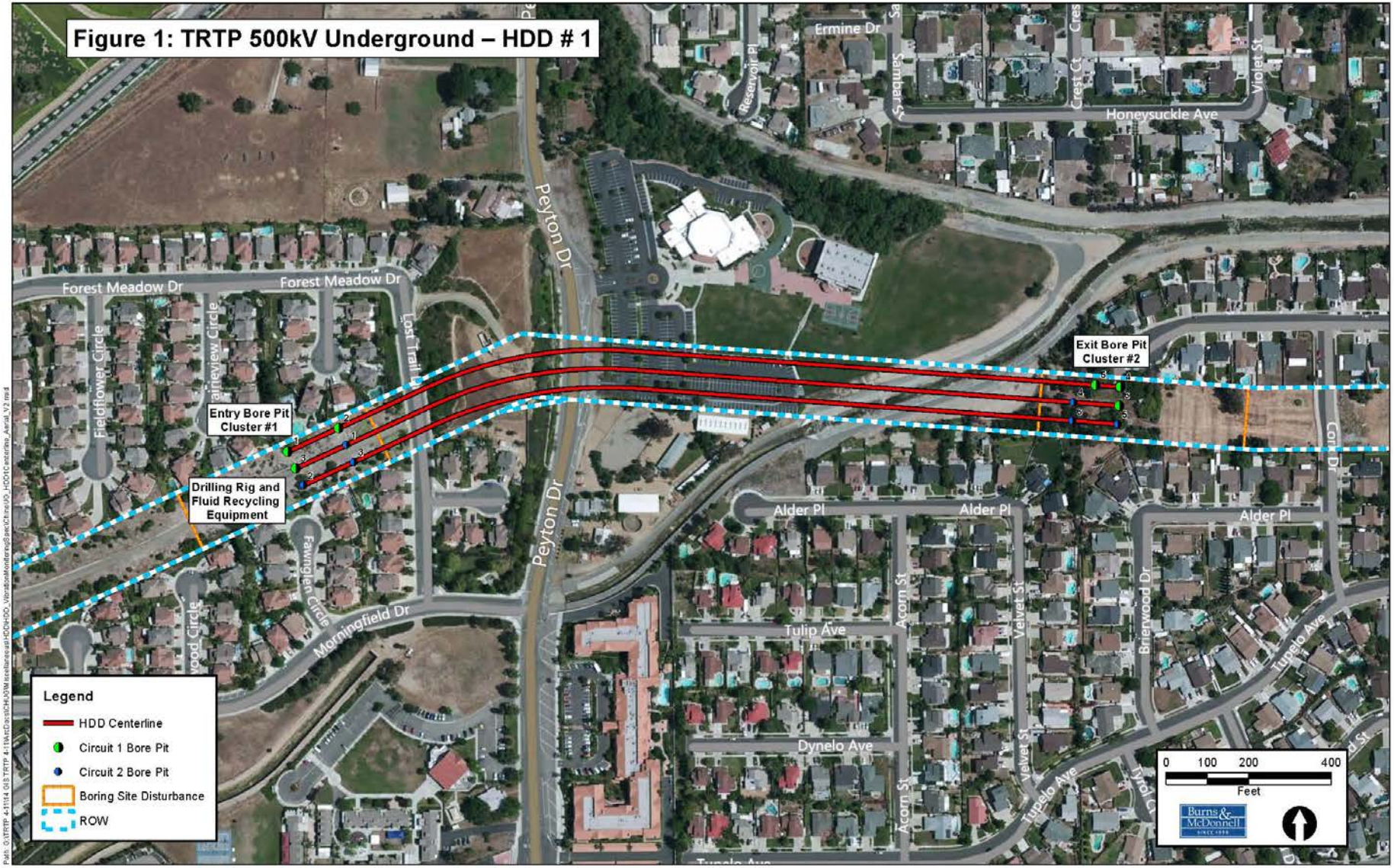


Figure 1: TRTP 500kV Underground – HDD # 1
Ermine Dr
Reservoir Pl
Crest Ct
Violet St
Honeysuckle Ave
Peyton Dr
Forest Meadow Dr
Fieldflower Circle
Lost Trail Dr
Exit Bore Pit Cluster #2
Entry Bore Pit Cluster #1
Drilling Rig and Fluid Recycling Equipment
Fawnglen Circle
Morningfield Dr
Alder Pl
Acorn St
Velvet St
Briarwood Dr
Tulip Ave
Dynelo Ave
Tupelo Ave
Legend
HDD Centerline
Circuit 1 Bore Pit
Circuit 2 Bore Pit
Boring Site Disturbance
ROW
0 100 200 400
Feet
Burns & McDonnell

HDD Site #2

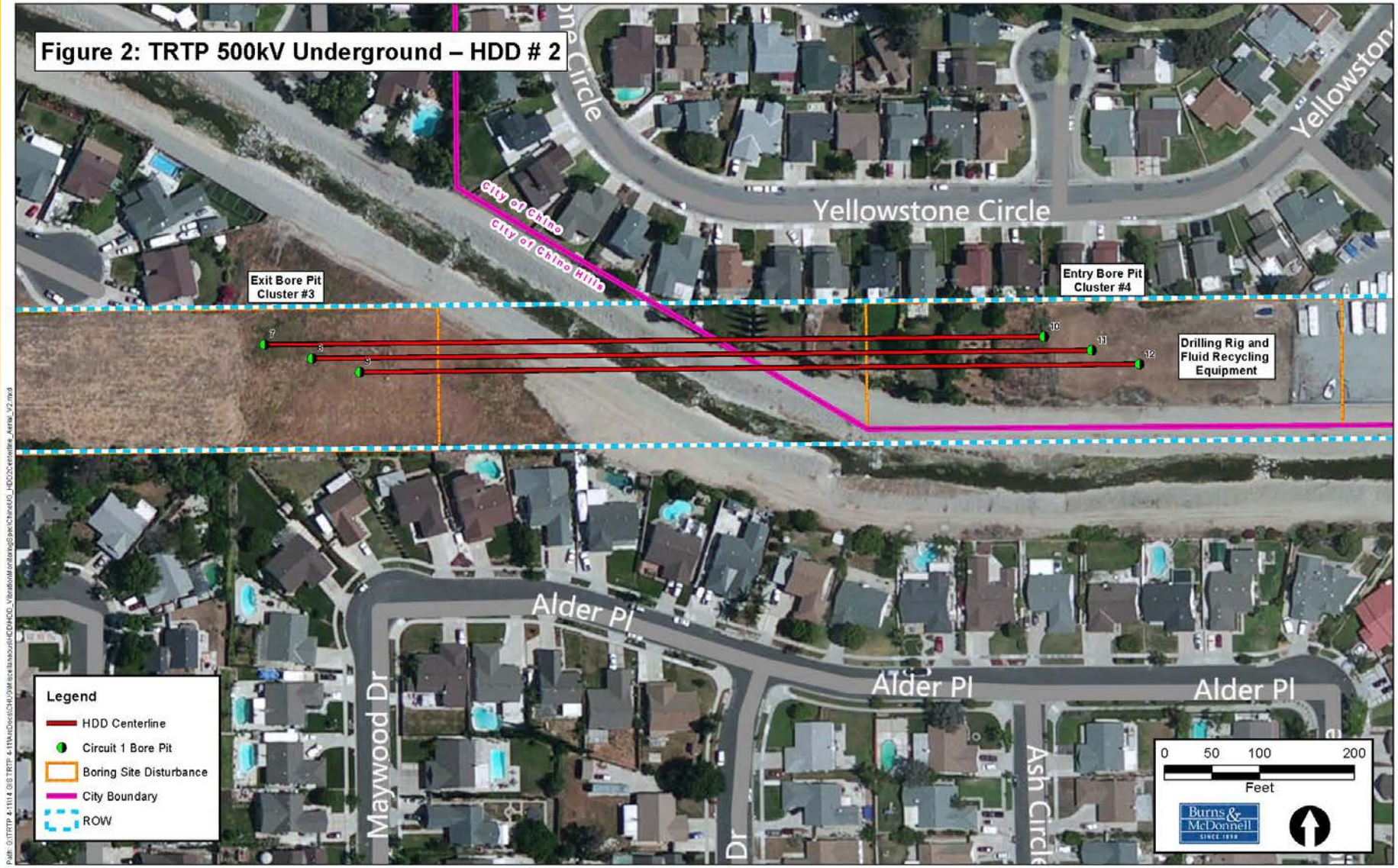
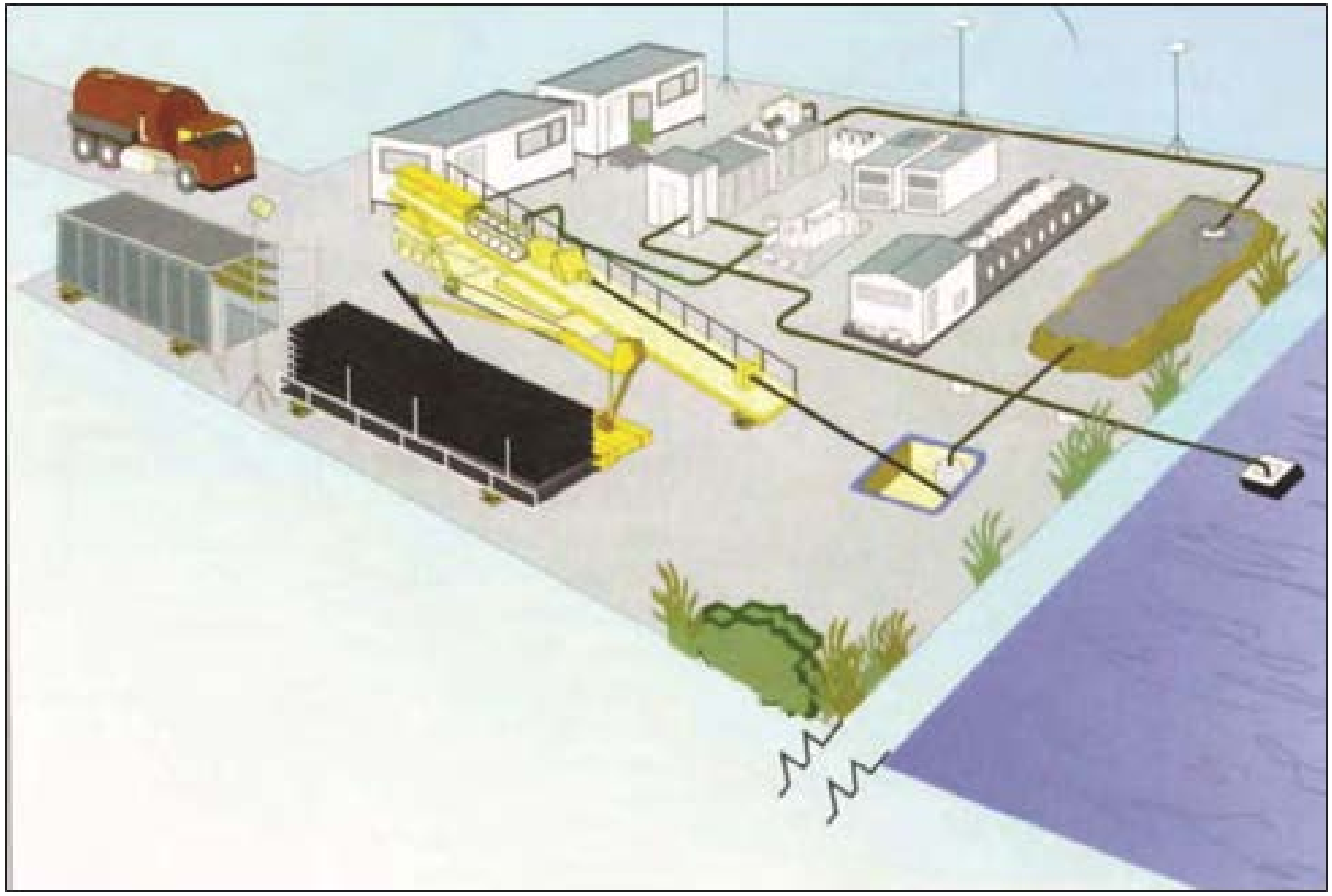


Figure 2: TRTP 500kV Underground – HDD # 2
Yellowstone Circle
Yellowstone Circle
City of Chino
City of Chino Hills
Exit Bore Pit Cluster #3
Entry Bore Pit Cluster #4
Drilling Rig and Fluid Recycling Equipment
7
8
9
10
11
12
Alder Pl
Alder Pl
Alder Pl
Maywood Dr
Dr
Ash Circle
Legend
HDD Centerline
Circuit 1 Bore Pit
Boring Site Disturbance
City Boundary
ROW
0
50
100
200
Feet
Burns & McDonnell
SINCE 1898

Typical HDD Installation



(Source: Power Delivery Consultants, 2012)

Typical HDD Drill Rig

(Source: Power Delivery Consultants, 2012)

4 Bundled HDPE Conduits

Sample HDD Equipment Setup

(Source: Power Delivery Consultants, 2012)

Typical HDD Drill Rig (Pull Back)

Roads and Access throughout the Right-of-Way