

September 8, 2016

## **Los Ranchos, Fourth Street Design**

### ***Project Update for Board of Trustees***

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***Submitted by:*** Sites Southwest and Tierra West

#### **1. Property / Business Owner Coordination**

- a. Sites Southwest has drawn up sketches for about 60% of individual properties that will be effected in some way by the streetscape project along the street frontage of their property (Rights-of-Way, angle-in parking turned into parallel parking or landscape areas, parking areas or entryways changed to accommodate streetscape, etc...) to suggest ways that their property can be used for landscaping or connecting entries of buildings that are well integrated into the streetscape.
- b. Sites Southwest has created CAD drawings that illustrate to business and property owners, how parking on their private property could be reconfigured to accommodate the streetscape and vice versa. This was done to show in a plan-view how they could adjust their needs to the streetscape, an illustration of the El Camino Dining room parking approach is attached as an example. We have completed approximately 90% of the drawings – also see c. below.
- c. We are in the process of interviewing all property/business owners along the phase one project corridor with the above drawings to show what will be occurring along Fourth St that have effects on their properties. We have completed 30% of the interviews as of this date.

#### **2. ABQ Ride**

- a. We are currently working with ABQ Ride to establish potential relocations of bus stops and the potential for custom bus stops to fit with Los Ranchos character.

#### **3. Streetscape Design**

- a. Street and Streetside
  - i. Sites Southwest and Tierra West are working towards a 65% design submittal. Drawings thus far include street, streetside (sidewalks and landscape planters), LID (see below), and landscape planting. Irrigation will be done when landscape planting is completed. Lighting has not been started and is awaiting property interviews referenced above to ensure the street alignment is stable. Drawings are also not complete for the project termini and the transitions on the north and south blocks of the project.
- b. Drainage and Low Impact Development (LID)
  - i. Sites Southwest and Tierra West have been working on drawings for the drainage and LID strategies for the project. This is part of both the drainage and landscape elements of the project because they are integral to each other. Below we offer more detailed descriptions.

- There will be a total of 10 LID underground storage reservoirs, 8 within the 4<sup>th</sup> St. ROW, 1 on Green Valley Rd., and 1 on Pueblo Solano Rd. drainage water will also be driven through the landscape beds and multiple other locations.
  - Storm Runoff Conveyance – Runoff will be conveyed through permeable pavers to perforated pipe in base course level and it will be conveyed from perforated pipe towards water quality manholes before entering LID storage reservoirs. It will also be conveyed through landscape beds to provide water harvesting opportunities.
- ii. LID Storage Reservoir Geometry
- 100 year/24-hour design – the entire volume of a 100-year storm is detained below grade. We are currently looking at a lesser stormwater detention amount to cut costs; the alternative LID layout/configuration will be for capturing the 10 year – 24 hour storm.
  - The design includes rock basins with 30% voids for runoff storage, wrapped with a geotextile fabric on sides and top. Basins along 4th St. have widths ranging between 6 to 10 feet; Basins on side streets have widths of 17 and 20 feet.
  - All 8 basins along 4th St. will be from 5 feet below finished grade to allow for tree/shrub root growth with 4 extending down 15 feet below grade to reach allowable sand infiltration layer, and 4 extending down 12-13 feet below grade to infiltration layer.
  - The 2 Basins on Green Valley and Pueblo Solano will be 2 to 3 feet below grade, respectively, and extend down 13 and 14 feet below grade, respectively.
  - Reservoirs are located for minimum conflicts with utilities.
  - Structural soils are also used to convey water to landscape beds through capillary action.
  - See Constructability Section, item 2 below for excavation/installation components of LID.

#### **4. Utility Coordination**

- a. Comcast has only one line running on the north side of Green Valley Rd., may have conflict with LID reservoir however Comcast sees no issue in relocating line if necessary.
- b. The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) is planning to remove and replace waterlines on both the east and west sides of 4<sup>th</sup> Street along the project extents. This will elongate the construction timeframe for the project, which is an issue for the village of Los Ranchos, we are working with the ABCWUA and will have further information on this issue in the future. This issue includes:

- i. Remove and replace waterlines with PVC material, new waterlines to keep the existing alignments.
  - ii. ABCWUA will want to coordinate with chosen contractor to begin line replacement work and finish prior to beginning of construction on roadway improvements, however this is still under discussion.
  - iii. Sewer line replacements will not be necessary.
  - iv. Contractor for the Fourth St project will have to protect new lines in place when trenching for LID reservoirs if ABCWUA begins construction first.
  - v. In progress of coordinating meeting between Village staff and ABCWUA for the week of 9/12 to discuss water line replacement.
- c. New Mexico Gas Company (NMGC) to look into possible line relocation solutions
  - i. NMGC does not want to be located within structural soil layers. This issue is still under discussion with them.
  - ii. NMGC would like to replace steel lines with plastic lines.
  - iii. One relocation solution is to obtain a utility easement on private property to run distribution lines outside of ROW.
- d. PNM Utility Pole Conflicts
  - i. Utility poles conflicting with LID reservoirs to be adjusted on a case by case basis, pending equipment on each conflicting utility pole. One solution is to move poles outside of ROW and obtain a 5'x5' easement, the utility pole would have a mast arm reaching out back into the ROW to maintain the same overhead line alignment.
  - ii. If poles cannot be relocated, LID reservoir will have to be adjusted around poles to avoid conflicts.
- e. CenturyLink has a fiber optic line running along the entire project corridor on the west side of Fourth St.
  - iii. Contractor for Fourth St will have to protect line in place when trenching for LID reservoirs.
  - iv. CenturyLink is open to line relocation if necessary.
- f. Wi-Fi – we are working with village staff to determine the feasibility of Wi-Fi installation for the entire reach of the project.

## **5. Utility Line Locates/Potholing**

- a. Cardno, the potholing subconsultant, will drill 28 potholes to assess line location, with an average of 4-6 potholes per day. Work was set to begin on Monday 8/29 and end on Wednesday 9/7, pending weather and field conditions. As of 9/2 Cardno has completed 20 of the 28 pothole locations and planning to finish by 9/9.

## **6. Constructability**

- a. Met with RP Bohannon, our construction subconsultant, on 8/17 to discuss constructability of drainage reservoirs and surface improvements.

- b. Excavation of LID reservoirs is to include trench boxing for shoring protection to lessen time of construction for businesses and residents.
  - i. Trench boxes will range between 6 to 8 feet wide, and will require double stacking of boxes and will not allow workers to be inside trench per OSHA requirements to eliminate risk of injury from trench cave-ins deeper than 5 feet.
  - ii. Trench boxes to be lowered in 1 foot increments and follow OSHA regulation 1926.652.
  - iii. Sides of trench boxes will be draped with geotextile fabric and drop gravel inside.
  - iv. There is the potential to place geogrid at the bottom of trenches for LID reservoirs to maintain structural and runoff storage integrity.
  - v. Utility lines close to trenches (fiber, water, gas) will have to be protected in place during the span of each LID reservoir excavation.
  - vi. Utility poles near trenches may require stabilization by holding them in place during LID reservoir excavation.
- c. Other possible solutions for construction efficiency and minimizing business impacts include:
  - i. Perform all excavation and LID rock backfilling before beginning surface improvements.
  - ii. Perform all excavation and LID rock backfilling at night while surface improvements work is performed during the day. Labor costs will increase if this solution is chosen but business impacts will be decreased.
  - iii. Construct and complete surface/subsurface improvements in designated reaches of the project, starting from Schulte Rd. and moving north to minimize traffic barricading on 4<sup>th</sup> Street. Distance of spans to be determined as we complete design.



# LOS RANCHOS, FOURTH STREET DESIGN BOARD OF TRUSTEES UPDATE

September Meeting



sites  
southwest

TIERRA WEST, LLC

# Agenda

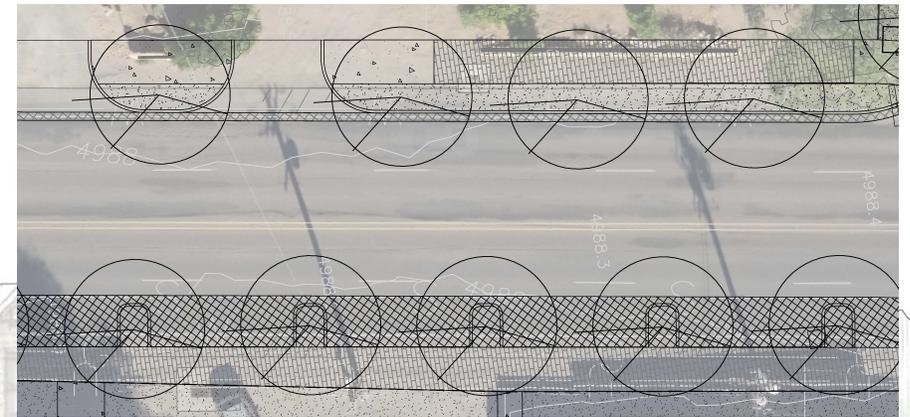
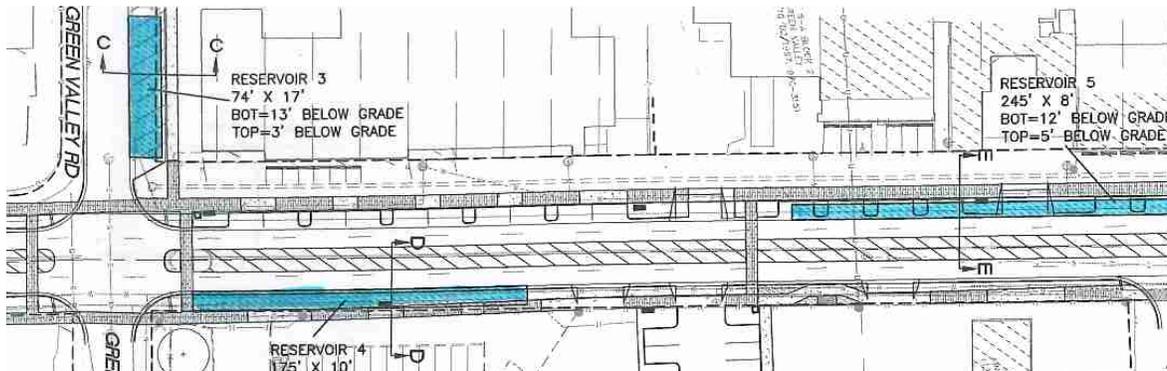
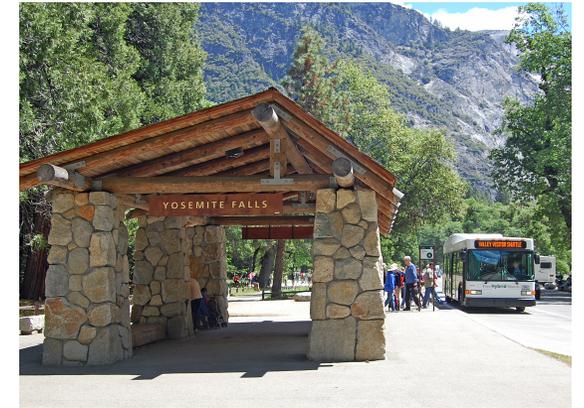
- **Property / Business Owner Coordination**
- **Streetscape Design**
- **Drainage and Low Impact Development (LID)**
- **Utility Coordination**
- **Utility Line Locates / Potholing**
- **Constructability**





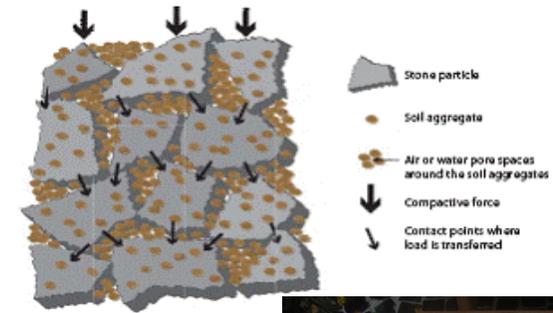
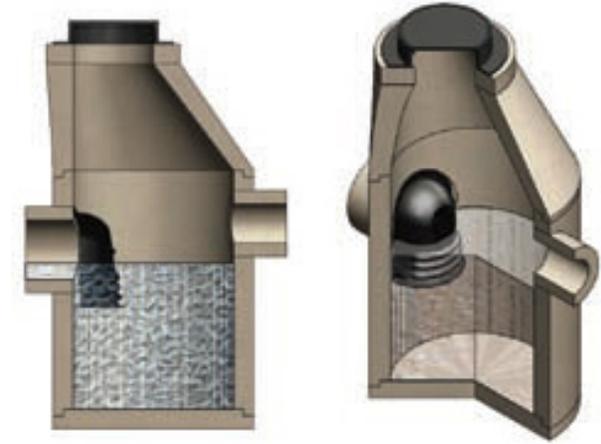
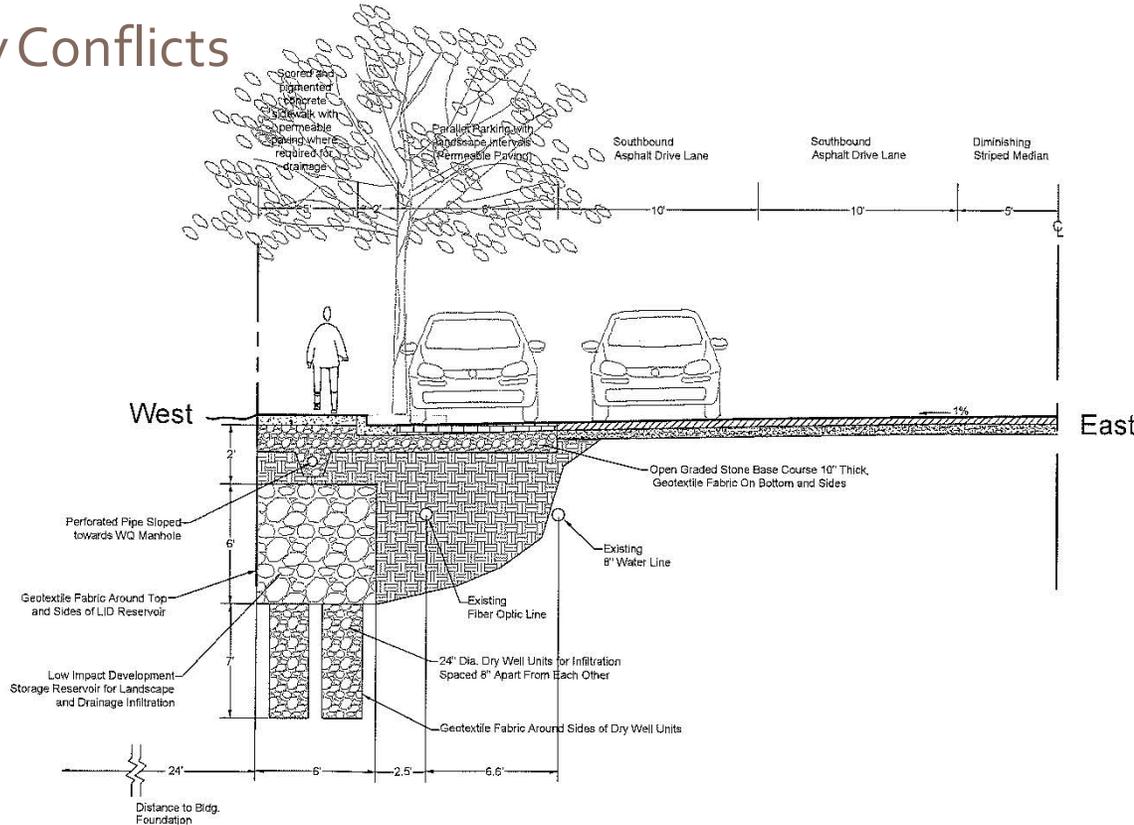
# Streetscape Design

- ABQ Ride – Los Ranchos Style
- Street and Streetside – 65% Submittal
  - Street Plans
  - Streetside Plans
  - Landscaping / Irrigation
  - Lighting (not started)
- Drainage and Low Impact Development



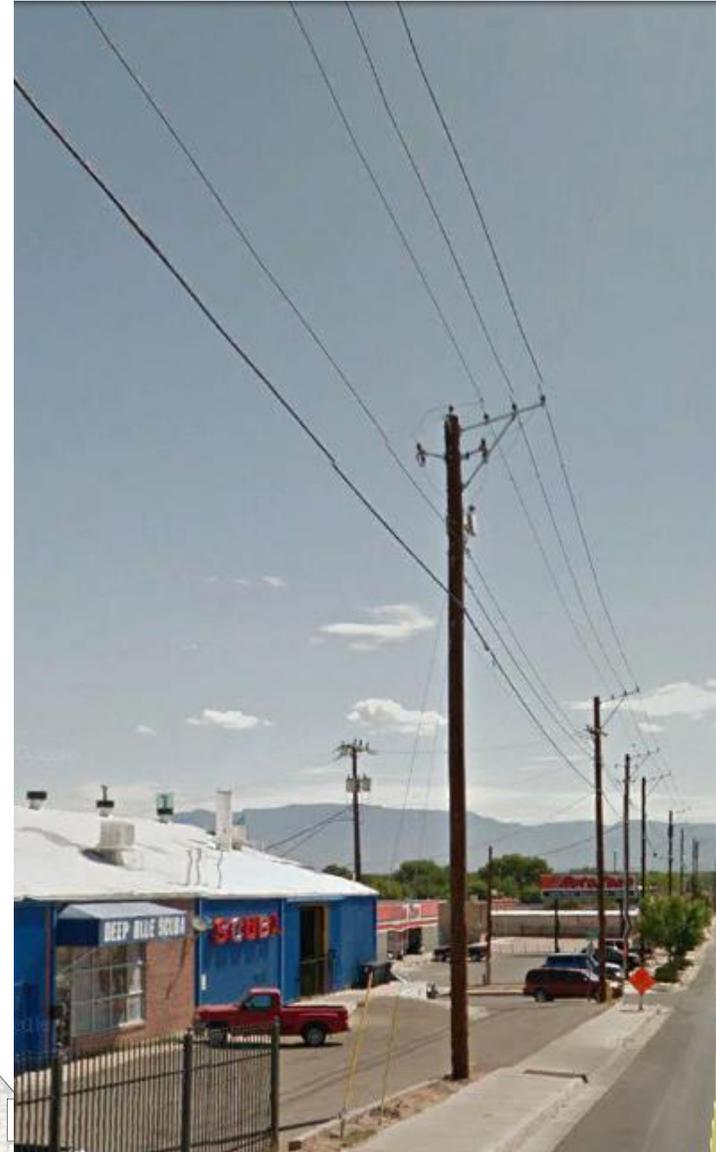
# Streetscape Design

- Drainage and Low Impact Development
- 100 Year vs. 10 Year Storage
- Utility Conflicts



# Utility Coordination

- Comcast
- New Mexico Gas Company
- CenturyLink
- PNM Utility Pole Conflicts
  - Moving poles outside of ROW
- Albuquerque Bernalillo County Water Utility Authority
  - Water line replacement
- Wi-Fi



# Utility Line Locates / Potholing



# Constructability

- Trenching for below grade improvements
- Pits should be built without trench boxes
- Utility poles will have to be protected during construction
- Minimizing business impacts
  - Backfilling LID boxes at night / surface improvements by day
  - Complete surface improvements in designated reaches of the project



# Questions or Comments?

