

THE NEW **W. EDWARD BALMER SCHOOL**

WHITINSVILLE, MASSACHUSETTS



SCHOOL BUILDING COMMITTEE MEETING

JULY 18, 2019



NORTHBRIDGE
PUBLIC SCHOOLS



Massachusetts School Building Authority
Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities



AGENDA

- **CD Progress Report**
- **Minutes Action Items**
 - **EV Charging Stations Update**
 - **Revised Vail Baseball Field Netting**
- **Building Interior Updates**
- **Site Plan Updates:**
 - **Concession Building**
 - **Cpl. Jeffery L. Vail Monument location**
 - **East Property Line Updates**



CD PROGRESS REPORT

- 7/8 Meeting with SecureShade Co.
- 7/10 Accessibility Review meeting with NB Disability Commission, MA Executive Office on Disability
- 7/10 Coordination /BIM meeting with MEP FP consultants
- 7/11 On-Site Construction Progress Meeting
- 7/11 Site Work Kickoff Meeting
- 7/12 Submitted Board of Health permit application
- 7/15 ERP#2 – coordination conference call with Fontaine

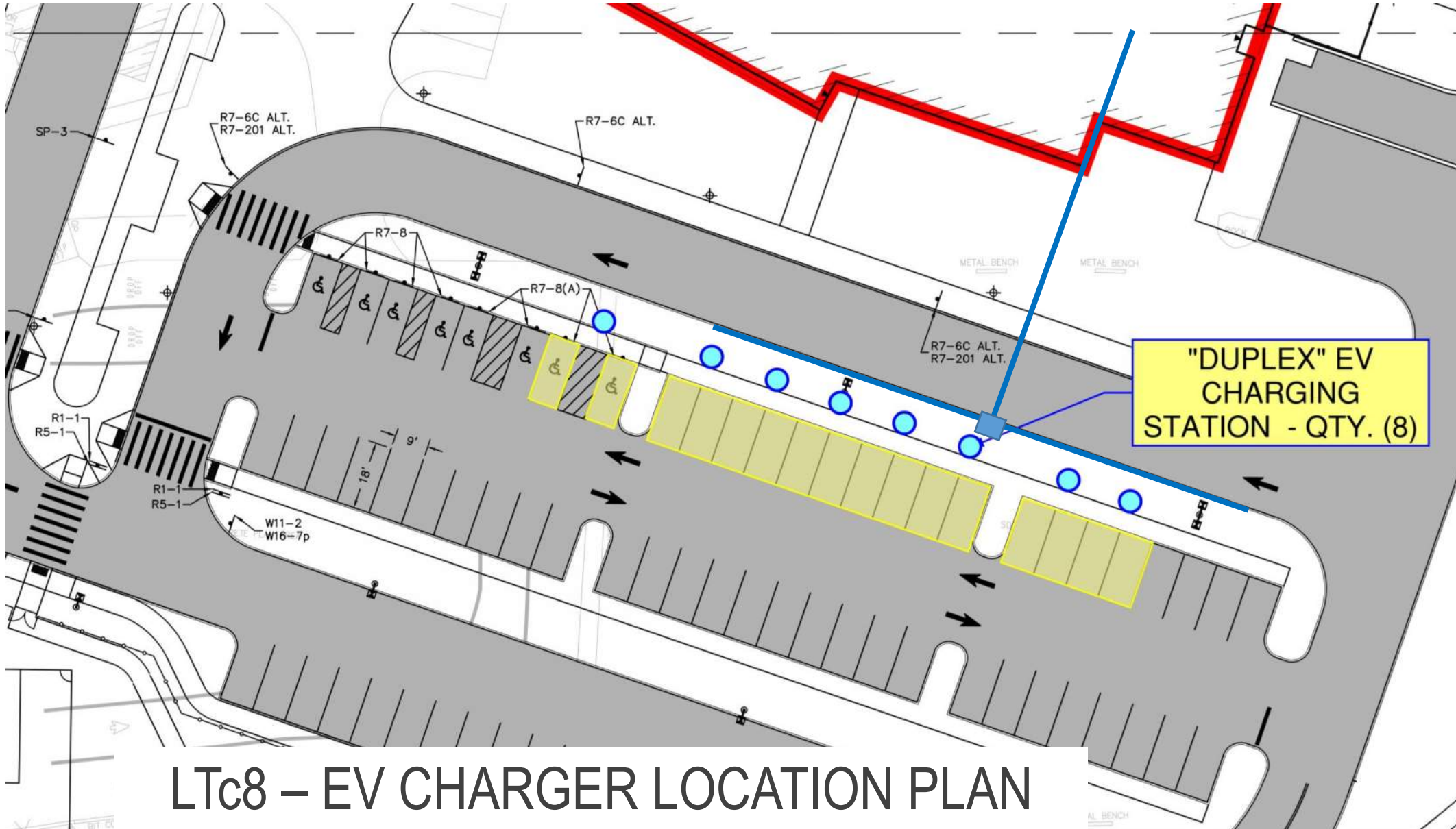
Ongoing: Construction Document Production, Consultant Coordination, Specifications editing and coordination, PM tasks, etc.

Next Deadlines:

- 7/16/19 Structural Peer Review draft comments due
- 7/30/19 ERP#2 Issued – Concrete and Steel (Elev/ Damp) bid package
- 7/31/19 90% CD Pricing Documents issued



LEED – EV CHARGING STATION UPDATE



LTc8 – EV CHARGER LOCATION PLAN

LEED – EV CHARGING STATION Q&A

Q: Would the District own the charging stations and be responsible for maintenance? Any idea of the annual maintenance costs?

A: Ngrid: “Yes, the customer owns the units and would be responsible for maintenance. There is little/no maintenance or maintenance contract required for most units, aside from damage repair (costs vary) or equipment failure. Must remove snow, etc. The most common repairs include replacement of cordset due to vandalism or misuse, and replacement of EVSE unit or cordset at the end of its useful life.”



LEED – EV CHARGING STATION Q&A

Q: Is the billing done entirely through a smartphone app, or does the station have a credit card charging (swipe) unit? Are swipe units on these charging stations secure enough?

A: Ngrid: “Best to check with the EVSE manufacturer or network provider regarding billing and security.”

- D&W: Charging station models vary. Security would theoretically be no worse than a gas pump or card swipe/app-driven parking meter.



LEED – EV CHARGING STATION Q&A

Q: What are any associated fees?

A: US DoE: “If an EVSE unit is networked, the owner will pay a fee that covers the cost for cellular/Wi-Fi network connection and back office support. Network fees can vary from \$100-\$900 annually, depending on the type of EVSE unit (Level 1, Level 2, DCFC), the EVSE unit features, and the EVSE manufacturer or provider.

There may be a charge for the software, these costs vary.”



LEED – EV CHARGING STATION Q&A

Q: Is there an opportunity for the District to make a small amount of revenue to balance/offset the maintenance cost?

A: Ngrid: “It’s your option to charge or not charge to offset usage costs. It should help, but it is not likely generate a profit.”



LEED – EV CHARGING STATION Q&A

Q: What are typical costs per kW/h on these charging units? How does this compare to a residential rate? (I.e. will it be cheaper for someone to park and plug in at the school rather than charging at home, overnight, for example?)

A: Ngrid: “If connected to the site host’s service, the electric rate would be the same as the Site Host’s. The Owner can set a reasonable rate to charge the user above the cost of the power.”



LEED – EV CHARGING STATION Q&A

Q: It appears the SBC would opt for the private workplace option, not the public option, and they would not want the location advertised on apps. Can the public option be selected, not have the location appear on an app, have it be closed to the public during school and after-school hours (~7:00 AM - 3:00 PM) and available to the public at any other time?

SBC also wants to explore different electric rate structure for staff (lower rate) and public (higher rate).

A: See next slide



LEED – EV CHARGING STATION Q&A

NGRID PUBLIC CHARGING STATION REQUIREMENTS:

- Stations displayed on Plugshare and other charging station apps and visible to all
- Stations accessible to the public during normal hours of the site host (minimum of 12 hours per day, seven days a week)
- If a permit is required for site access, then site host will allow EV drivers access to the parking lot without a permit and modify signage, if necessary



CHARGING STATION OPTION 1 – 6 PORTS

What	\$	Notes
Infrastructure Cost	\$60,000	\$10,000 per port (NGrid estimate plus contingency)
Infrastructure Incentive	\$37,500	Interpolated, ballpark non-binding estimate from NGrid.
Infrastructure Net Cost	\$22,500	
ChargePoint Ct4000 Gateway Unit	\$ 7,210	\$7,210 per. Need at least one gateway unit to talk to the network (MSRP) (1 unit)
ChargePoint Ct4000 Non-Gateway Unit	\$ 13,390	\$6,695 per non-gateway units connect through Gateway unit (MSRP) (2)
ChargePoint Network connection	\$ 1,680	\$280 per port (6). (Additional annual fees associated with operation/connection)
Shipping	\$ 600	\$200 per unit (3)
Startup cost	\$ 2,094	\$349 per unit (6)
Installation	\$ 2,250	Average \$750 per unit (3). Could be very different pending actual conditions. Installer needs to review actual plans/conditions
Ballpark total	\$ 27,224	(assumes MSRP for units without incentives)
ASSUME PRIVATE CHARGING	\$ 13,612	50% funding for units through incentive
TOTAL EV SYSTEM COST WITH INCENTIVES	\$36,112	ESTIMATE ONLY!



CHARGING STATION OPTION 3 – 16 PORTS

What	\$	Notes
Infrastructure Cost	\$128,000	\$8,000 per port (Ngrid estimate plus contingency)
Infrastructure Incentive	\$80,000	Ballpark non-binding estimate from Ngrid.
Infrastructure Net Cost	\$48,000	
ChargePoint Ct4000 Gateway Unit	\$ 7,210	\$7,210 MSRP per. Need at least one gateway unit to talk to the network (1 unit)
ChargePoint Ct4000 Non-Gateway Unit	\$ 46,865	\$6,695 MSRP per non-gateway units connect through Gateway unit (7 units)
ChargePoint Network connection	\$ 4,480	\$280 per port (16). (Additional annual fees associated with operation/connection)
Shipping	\$ 1,600	\$200 per unit (8)
Startup cost	\$ 2,792	\$349 per unit (8)
Installation	\$ 6,000	Average \$750 per unit (8). Could be very different pending actual conditions. Installer needs to review actual plans/conditions
Ballpark total	\$ 68,947	(assumes MSRP for units without incentives)
ASSUME PRIVATE CHARGING	\$ 34,474	50% funding for units through incentive
TOTAL EV CHARGING SYSTEM COST	\$ 82,474	ESTIMATE ONLY!



LEED – EV CHARGING STATION COMPARISON SUMMARY

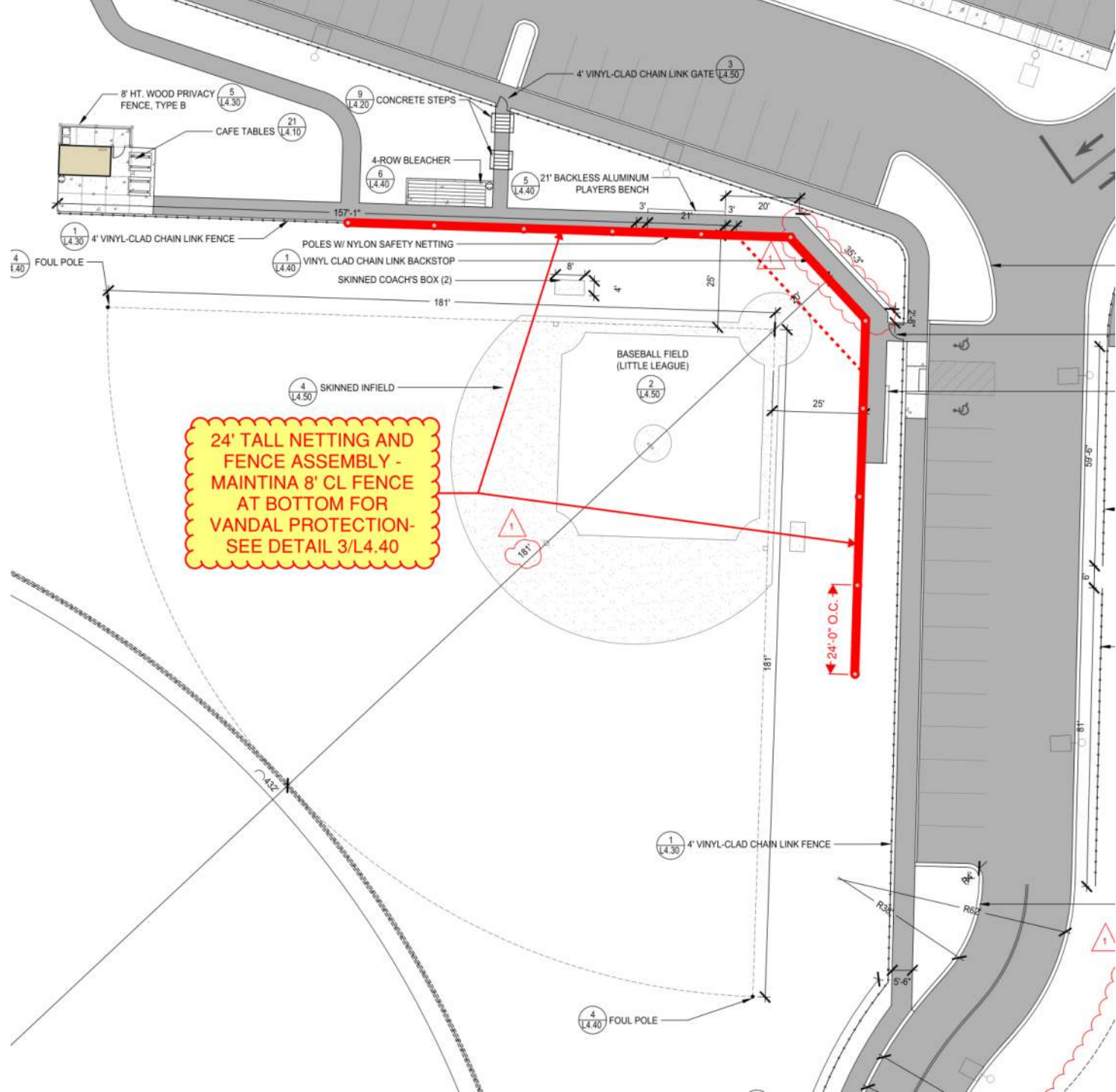
- Option 1 – Build infrastructure for 6 + install 6 stations - **\$29,300* PUBLIC**
- Option 1 – Build infrastructure for 6 + install 6 stations - **\$36,112* PRIVATE**
MEETS LEED REQUIREMENTS TO GET THE CREDIT
- Option 2 – Build infrastructure for 16 + install 6 stations – meets LEED but only get incentives for installed units – NOT ESTIMATED
- Option 3 – Build infrastructure for 16 + install 16 stations - **\$65,300* PUBLIC**
- Option 3 – Build infrastructure for 16 + install 16 stations - **\$82,474* PRIVATE**
- Infrastructure only – 6 stations, NO incentives - **~\$60,000***

*** ESTIMATES ONLY, FOR ORDER OF MAGNITUDE BUDGETING – FINAL COST TBD**

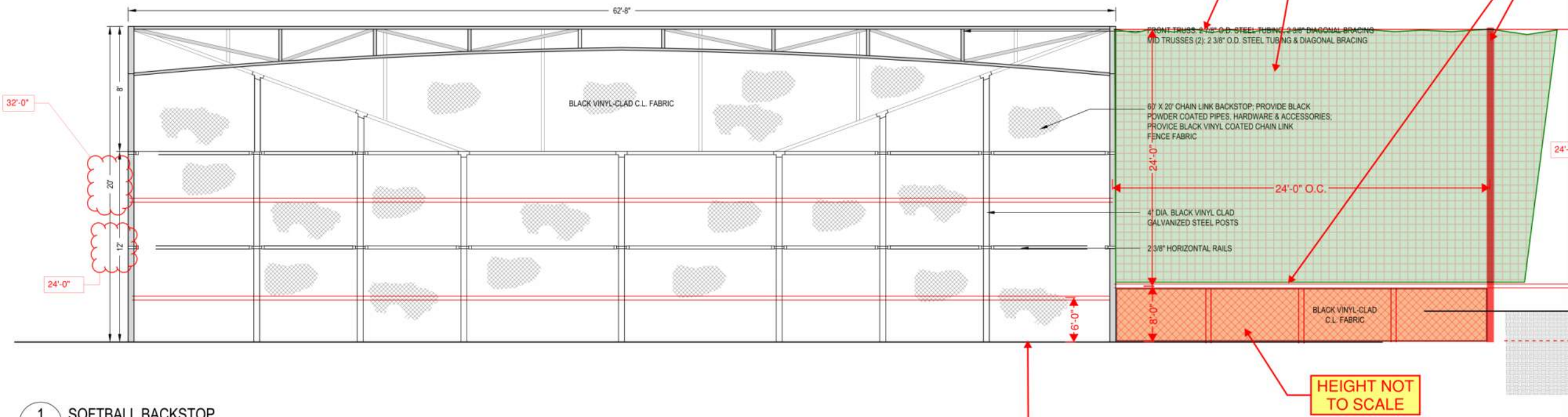
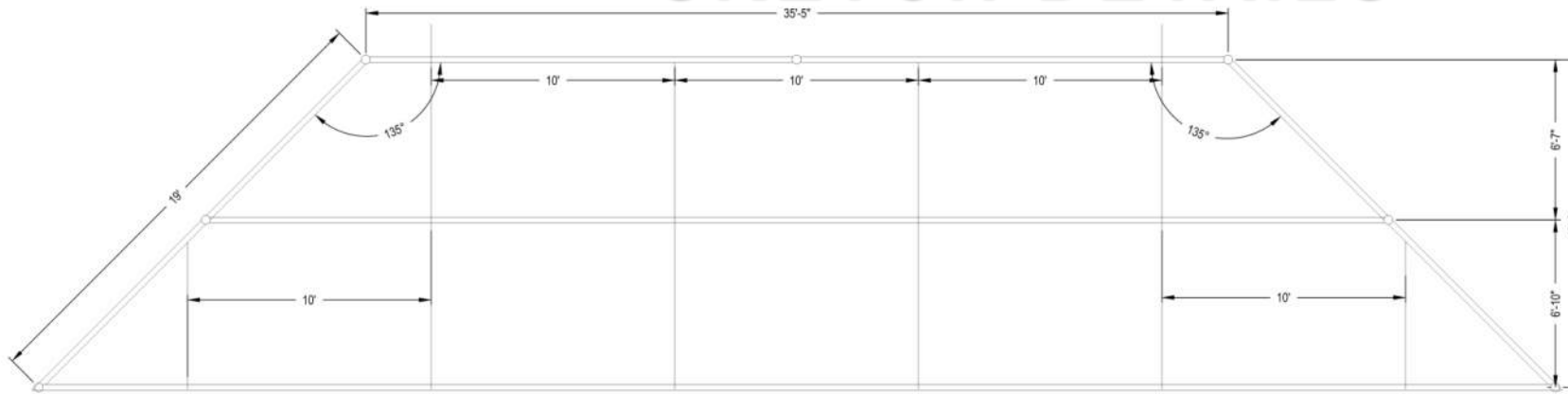


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SITE PLAN UPDATES: BASEBALL FENCING – SMALL FIELD



SITE PLAN UPDATES: BASEBALL FENCING SKETCH DETAILS

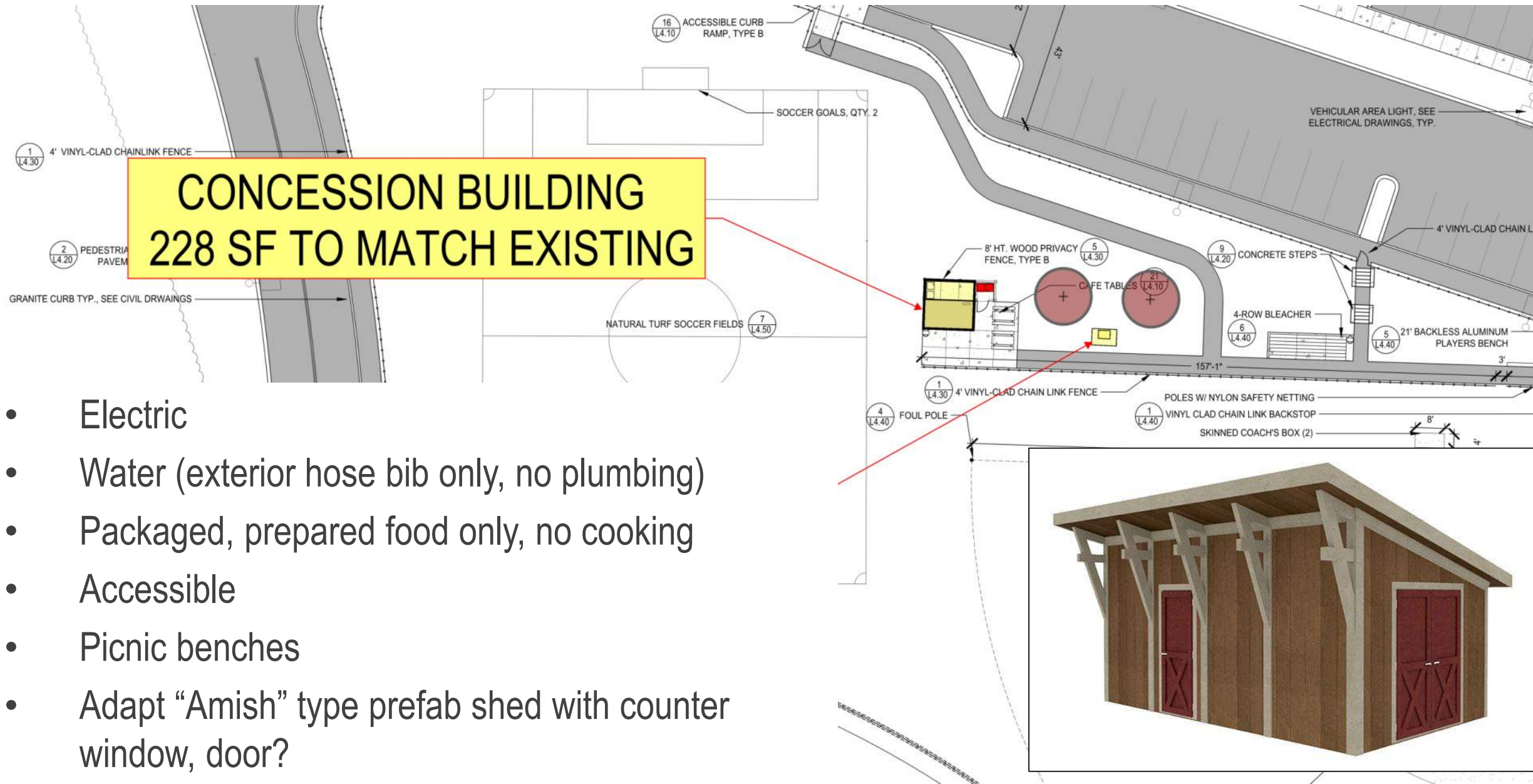


The site plan illustrates the layout of the J.L. Vail Ball Field complex. Key features include:

- Concession Building:** A yellow rectangular building labeled "CONCESSION BUILDING 228 SF TO MATCH EXISTING".
- Monument:** A yellow rectangular area labeled "REDEDICATED CPL J.L. VAIL MONUMENT ON FINISHED CONCRETE BASE".
- Fields:** Multiple "NATURAL TURF SOCCER FIELDS" and "BASEBALL FIELDS" are shown, along with "SHRUB BLEACHERS" and "SHRUB PLAYERS BENCH".
- Infrastructure:** The plan includes "VINYL CLAD CHAIN LINK FENCE", "PEDESTRIAN SIGNPOSTS", "STORMWATER PAVEMENT", and "SLOPED GRANITE CURBS".
- Access:** "ACCESSIBLE CURB RAMP" locations are marked throughout the site.
- Street:** "CRESCENT STREET" is shown at the bottom of the plan.

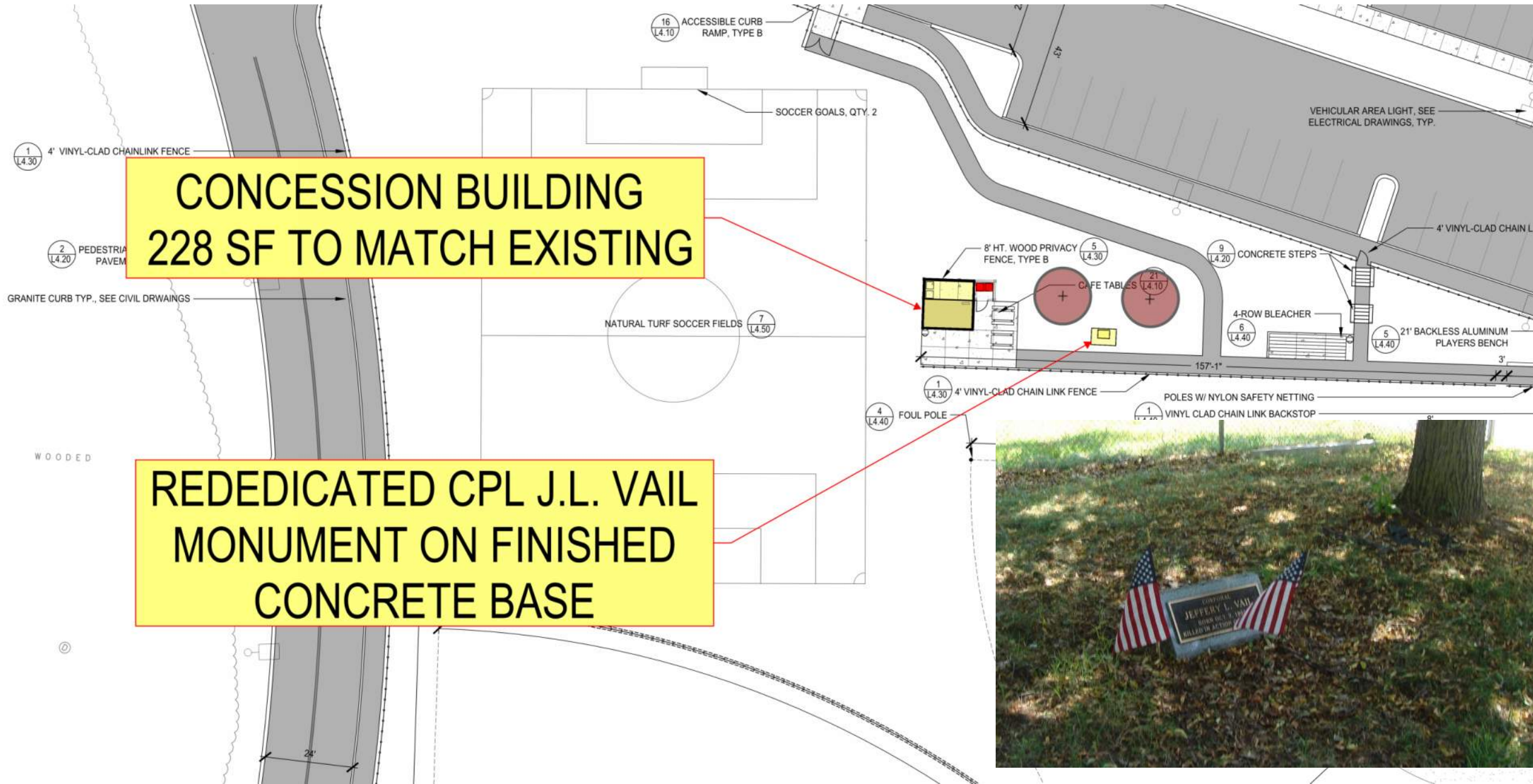


SITE PLAN UPDATES – CONCESSION BUILDING



- Electric
- Water (exterior hose bib only, no plumbing)
- Packaged, prepared food only, no cooking
- Accessible
- Picnic benches
- Adapt “Amish” type prefab shed with counter window, door?

SITE PLAN UPDATES – VAIL MEMORIAL



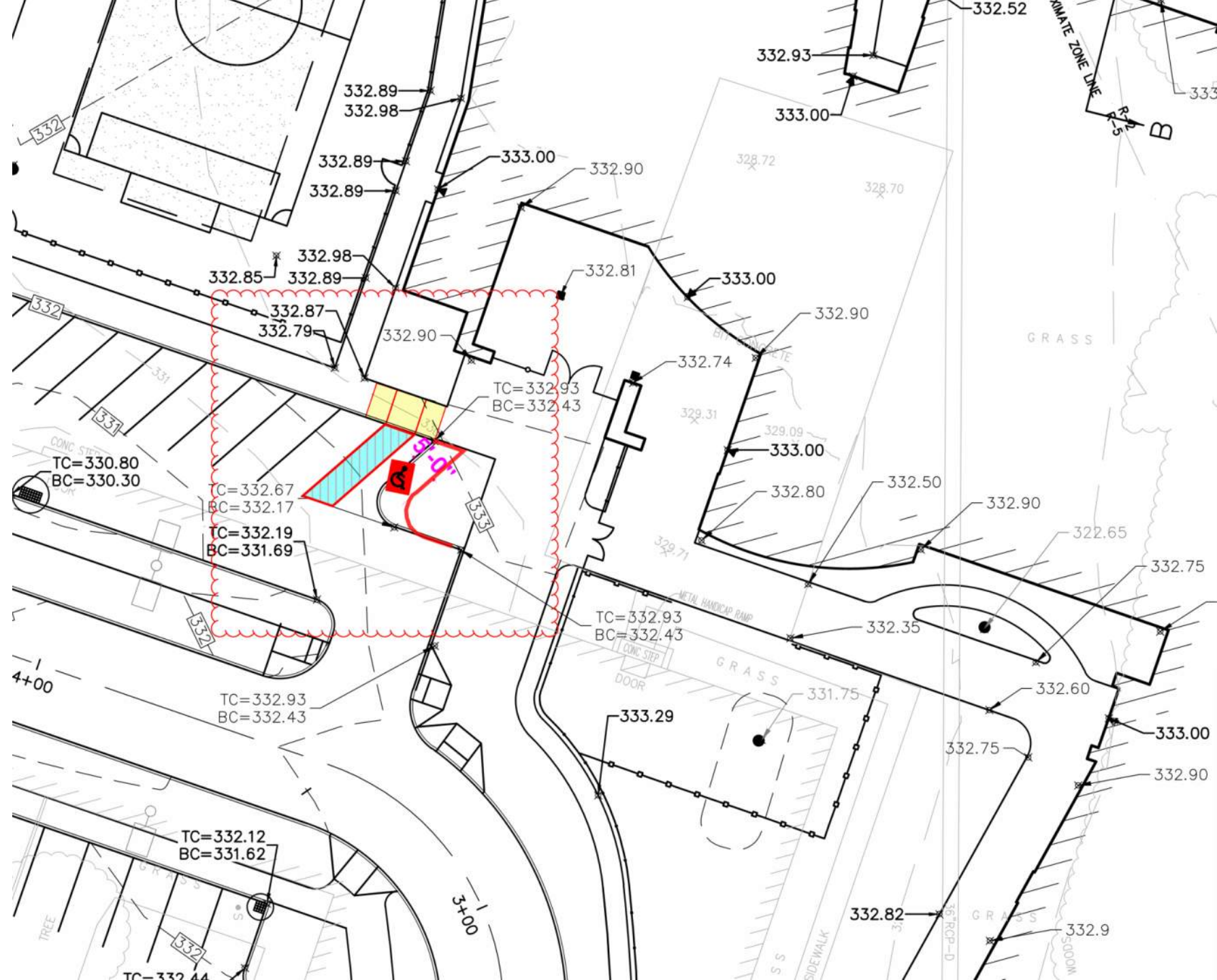
**CONCESSION BUILDING
228 SF TO MATCH EXISTING**

**REDEDICATED CPL J.L. VAIL
MONUMENT ON FINISHED
CONCRETE BASE**



SITE PLAN UPDATES: DISABILITIES COMMISSION REQUESTS

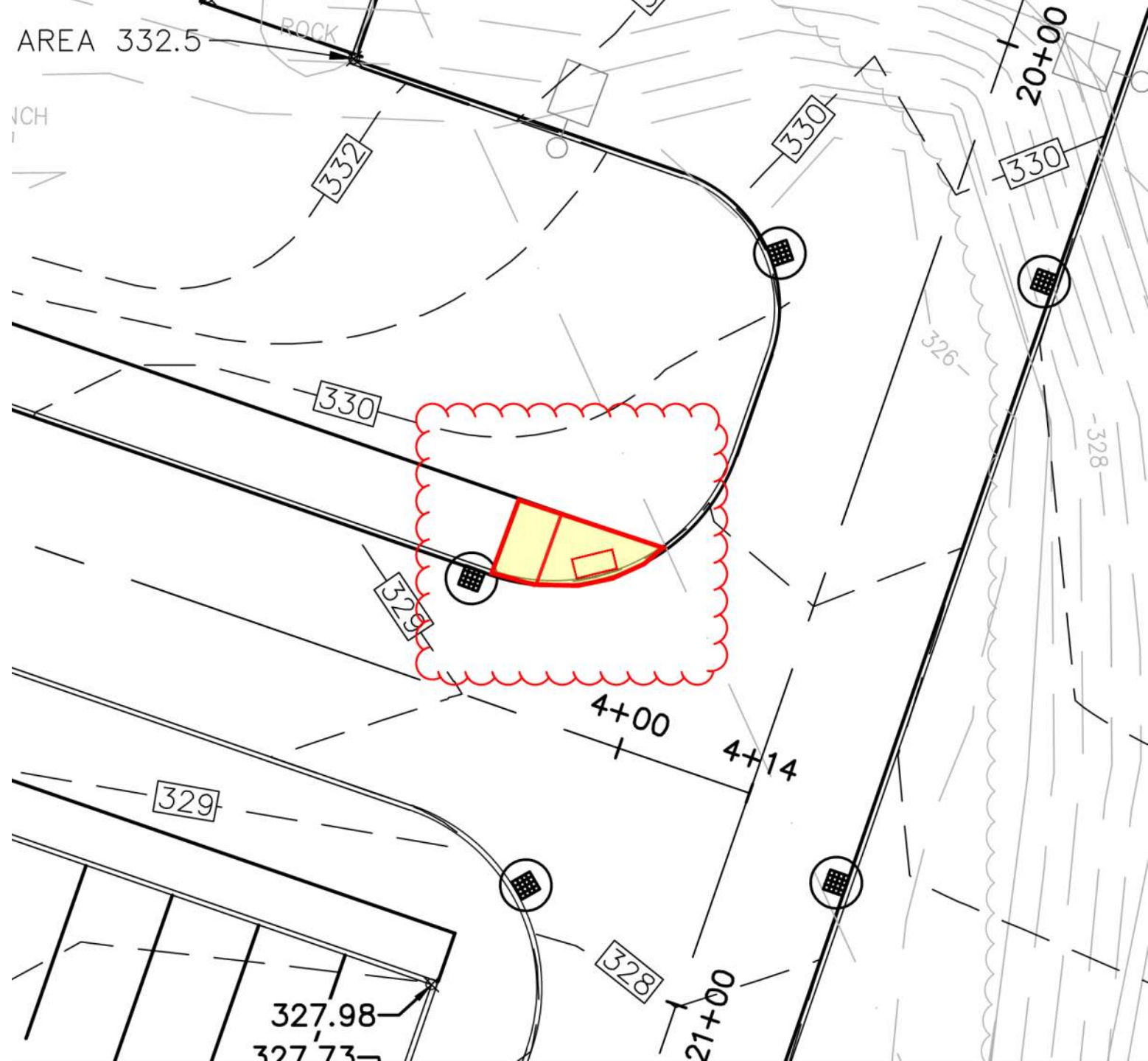
- Add one accessible parking space at Pre-K “park-and-drop” lot.
- Other requests were deemed not achievable for a variety of reasons



SITE PLAN UPDATES:

DISABILITIES COMMISSION REQUESTS

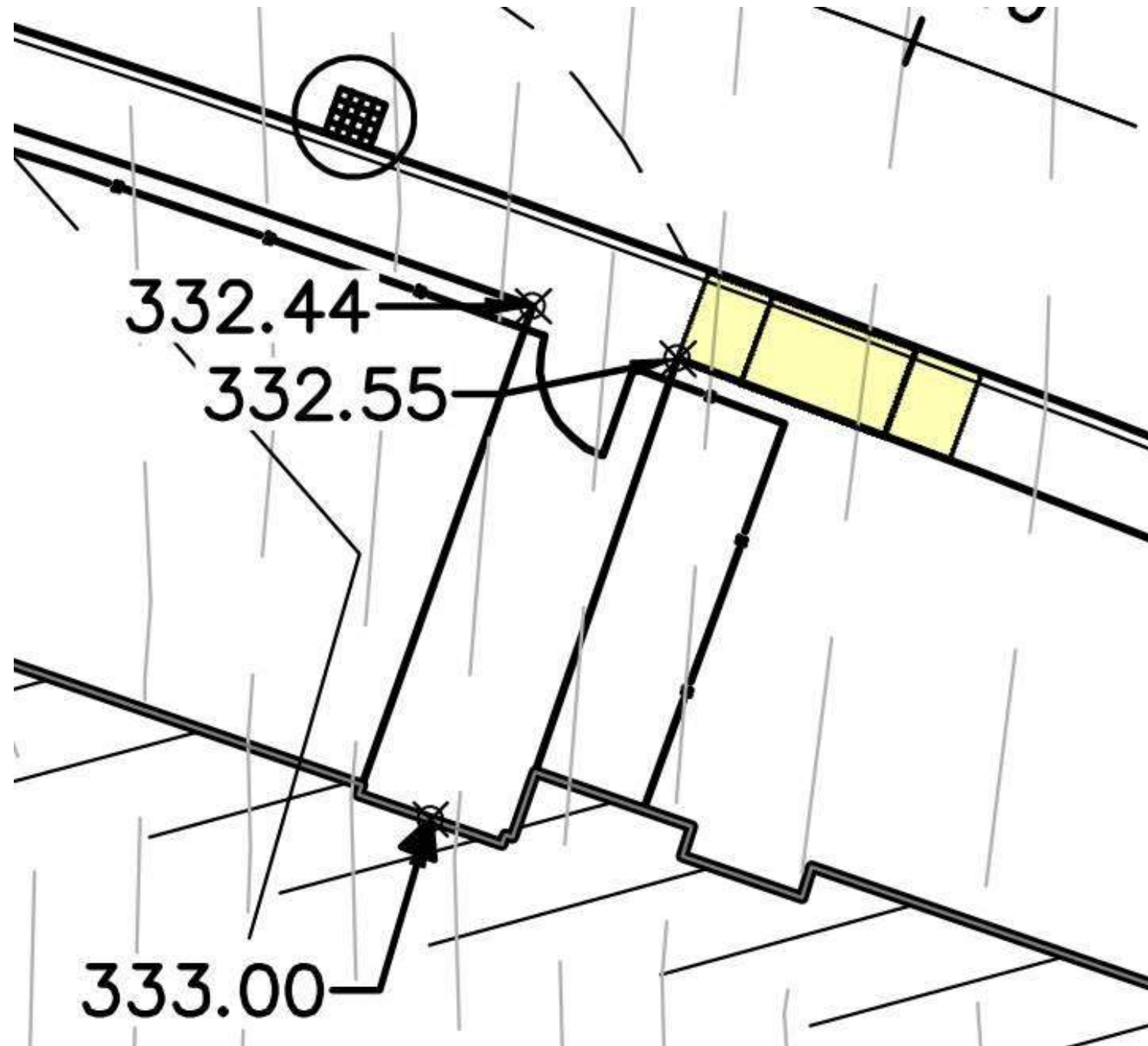
- Add accessible transitions at the ends of sidewalks



SITE PLAN UPDATES:

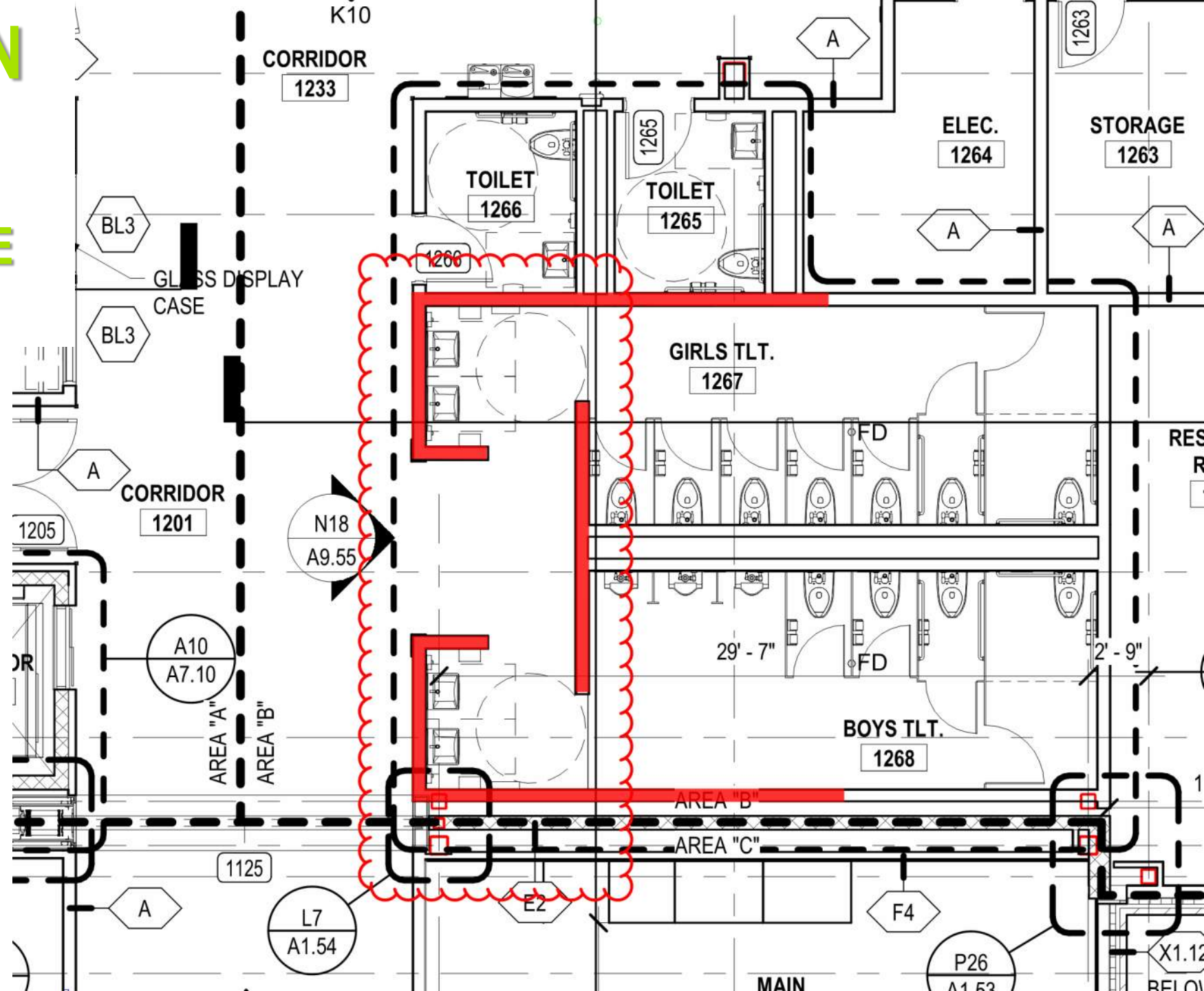
DISABILITIES COMMISSION REQUESTS

- Create ADA sidewalk entry for phasing/temp. use at North Entry/Maker Space



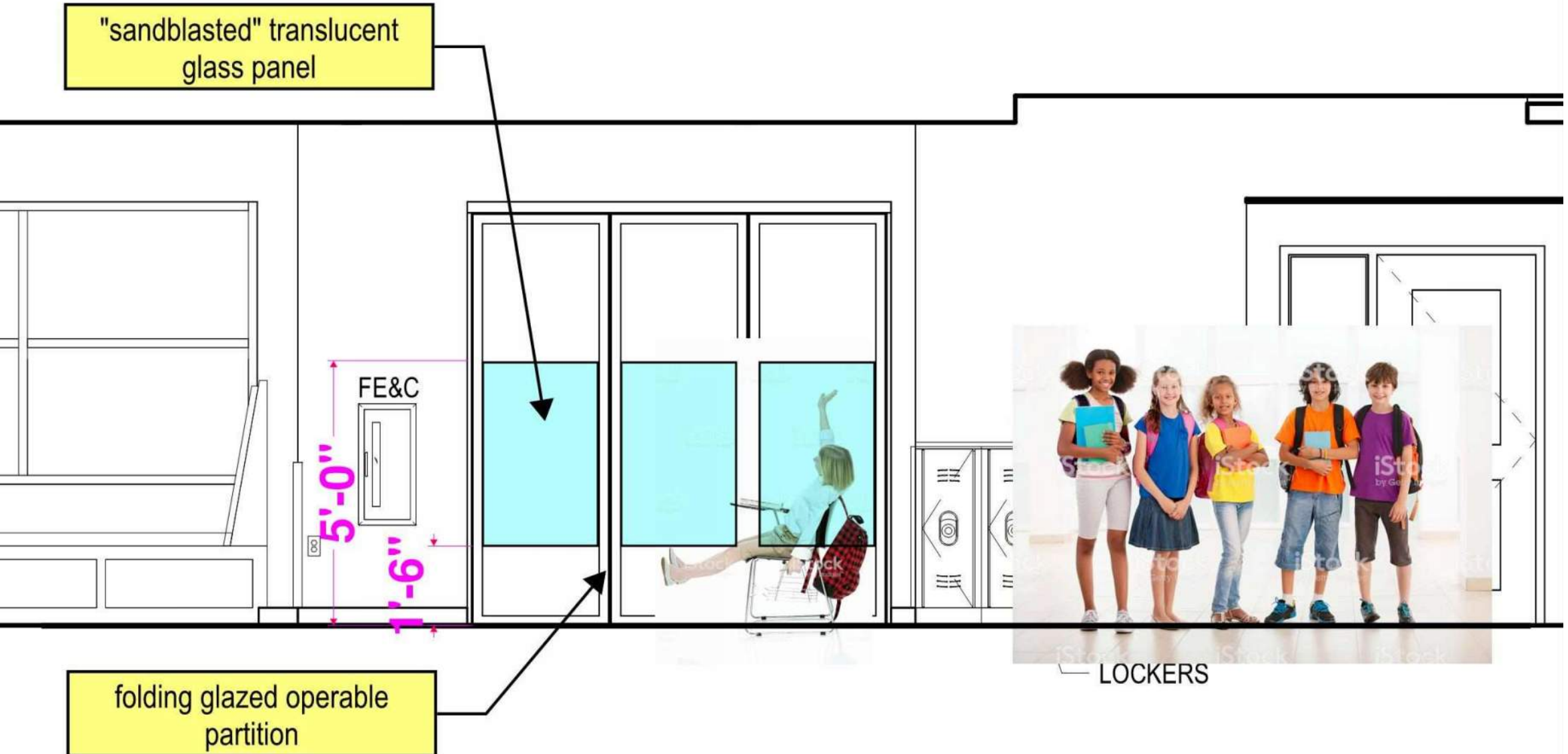
BUILDING PLAN UPDATES: MA PLUMBING CODE BOARD REVIEW

- Recently received a denial on a variance request for another project with similar toilet room design.
- Changed layout to comply with state plumbing code interpretation.



BUILDING PLAN UPDATES: OBSCURE GLASS AT FOLDING GLASS PARTITIONS

"sandblasted" translucent
glass panel



folding glazed operable
partition

LOCKERS



NFPA 241 PLAN

- Fontaine Brothers engaged consultant to prepare an NFPA 241 Plan
- NFPA 241 plan lays out fire prevention strategies to be put in place during construction, for example:
 - Storage of Flammables
 - Hot Work Requirements
 - Temporary Stair and Egress Requirements
- Draft Plan is under review by Fontaine Safety Office and project team, will be reviewed with Northbridge Fire Dept. once finalized.

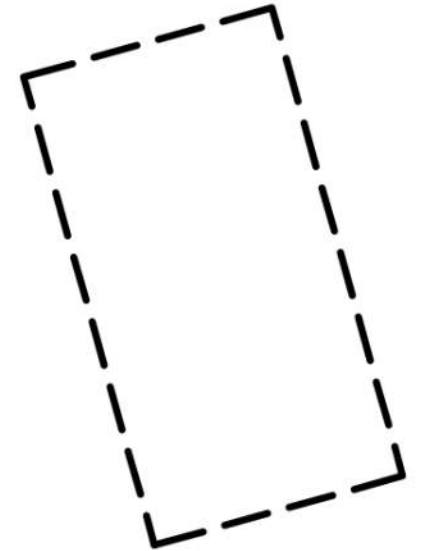


EAST PROPERTY LINE UPDATES: 254 MASON RD.

- 1 or 2 trees with common/ intertwined roots: Owner wants Town to take down and remove

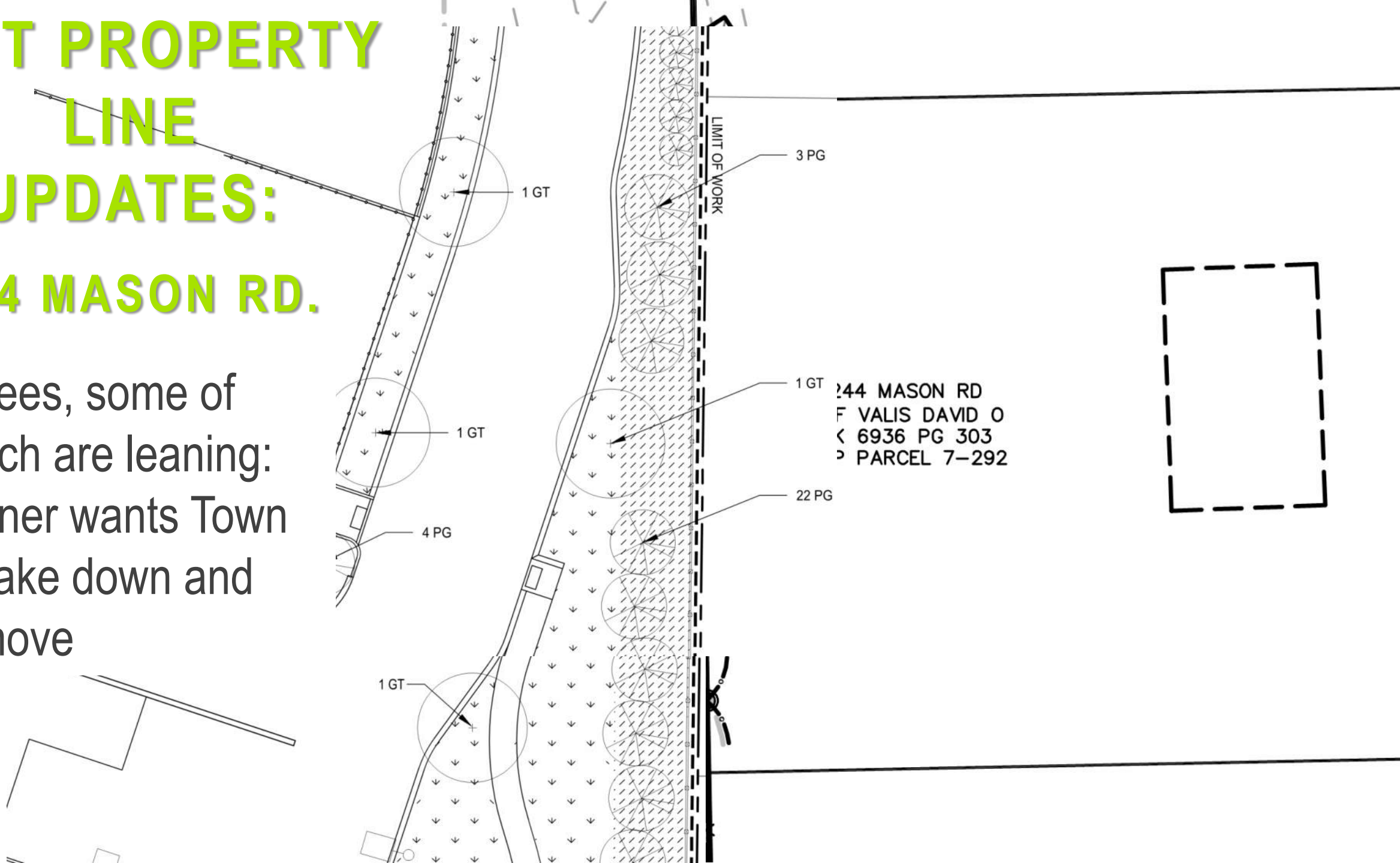


254 MASON RD
N/F ZANELLA PATRICK T
BK 22450 PG 181
MAP PARCEL 7-291



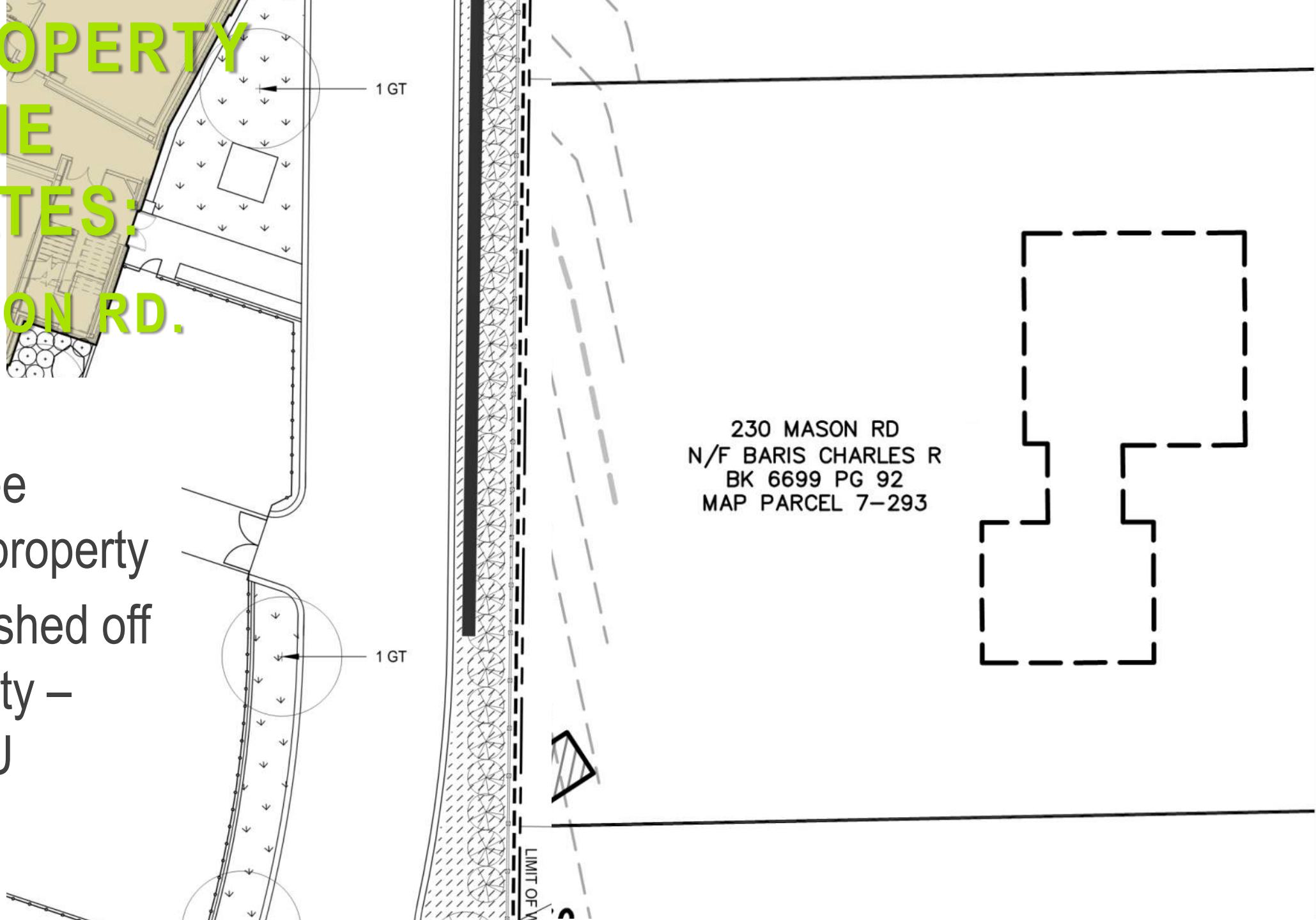
EAST PROPERTY LINE UPDATES: 244 MASON RD.

- 4 trees, some of which are leaning:
Owner wants Town to take down and remove



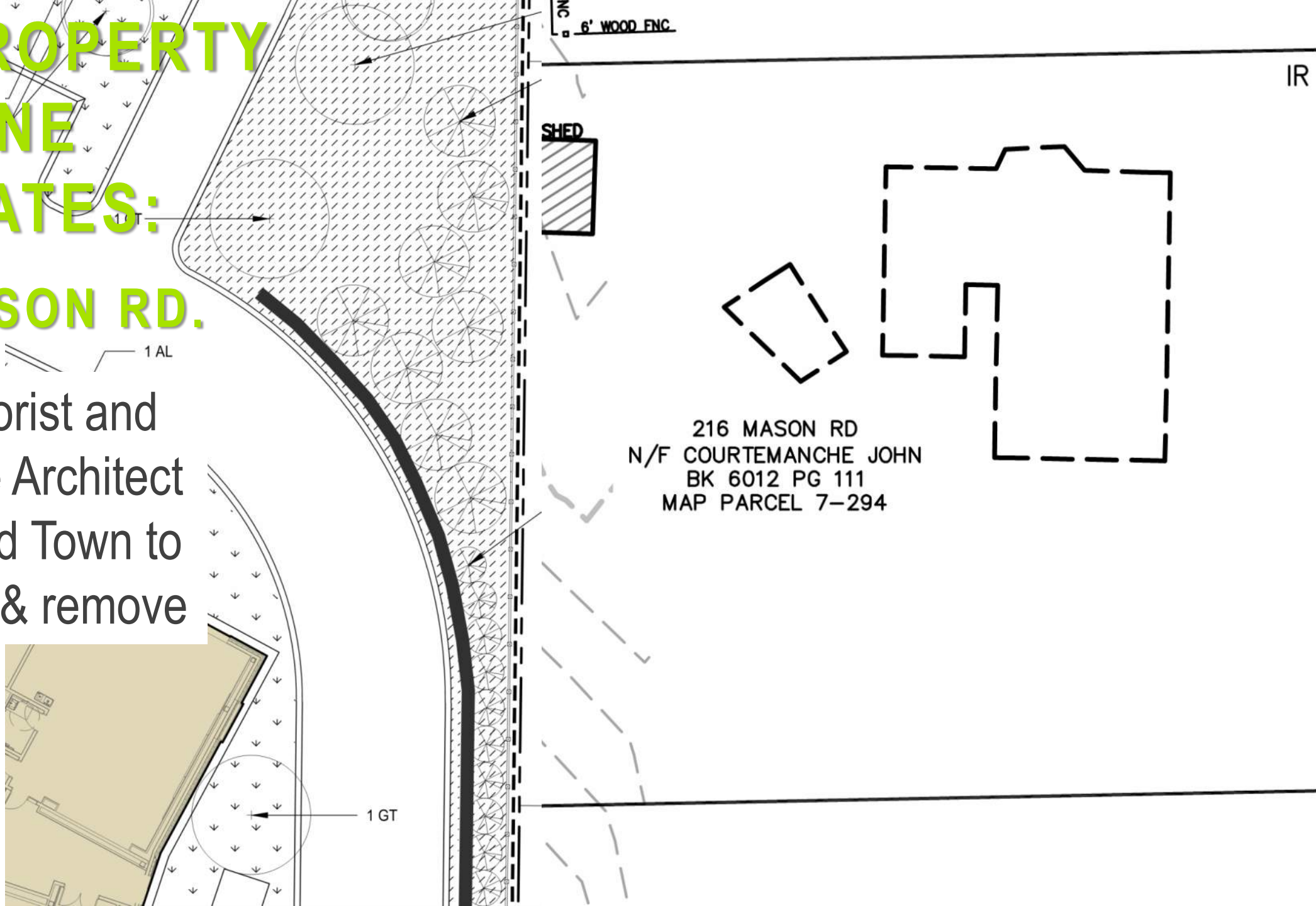
EAST PROPERTY LINE UPDATES: 230 MASON RD.

- Agrees with removing tree adjacent to property
- Has moved shed off Town property –
THANK YOU



EAST PROPERTY LINE UPDATES: 216 MASON RD.

- 1 tree: Arborist and Landscape Architect recommend Town to take down & remove

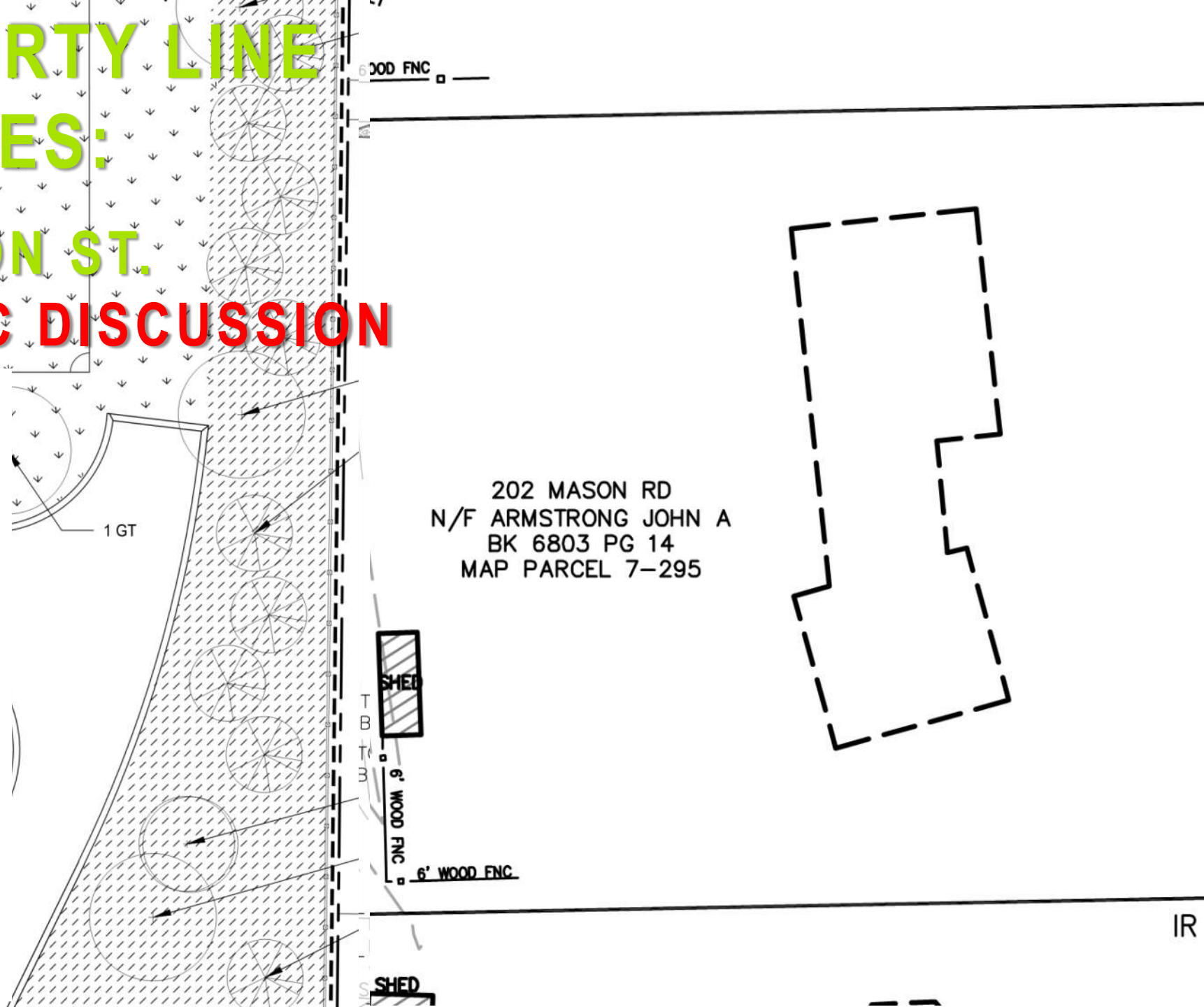


EAST PROPERTY LINE UPDATES:

202 MASON ST.

OPTIONS FOR SBC DISCUSSION

- Option 1: Abutter moves stone wall off Town property; erects wood fence
- Option 2: Town moves stone wall off Town property; Town erects wood fence
- Option 3: Stone wall remains; Town installs wood fence on Town property; grading adjusted, possibly too steep to grow trees

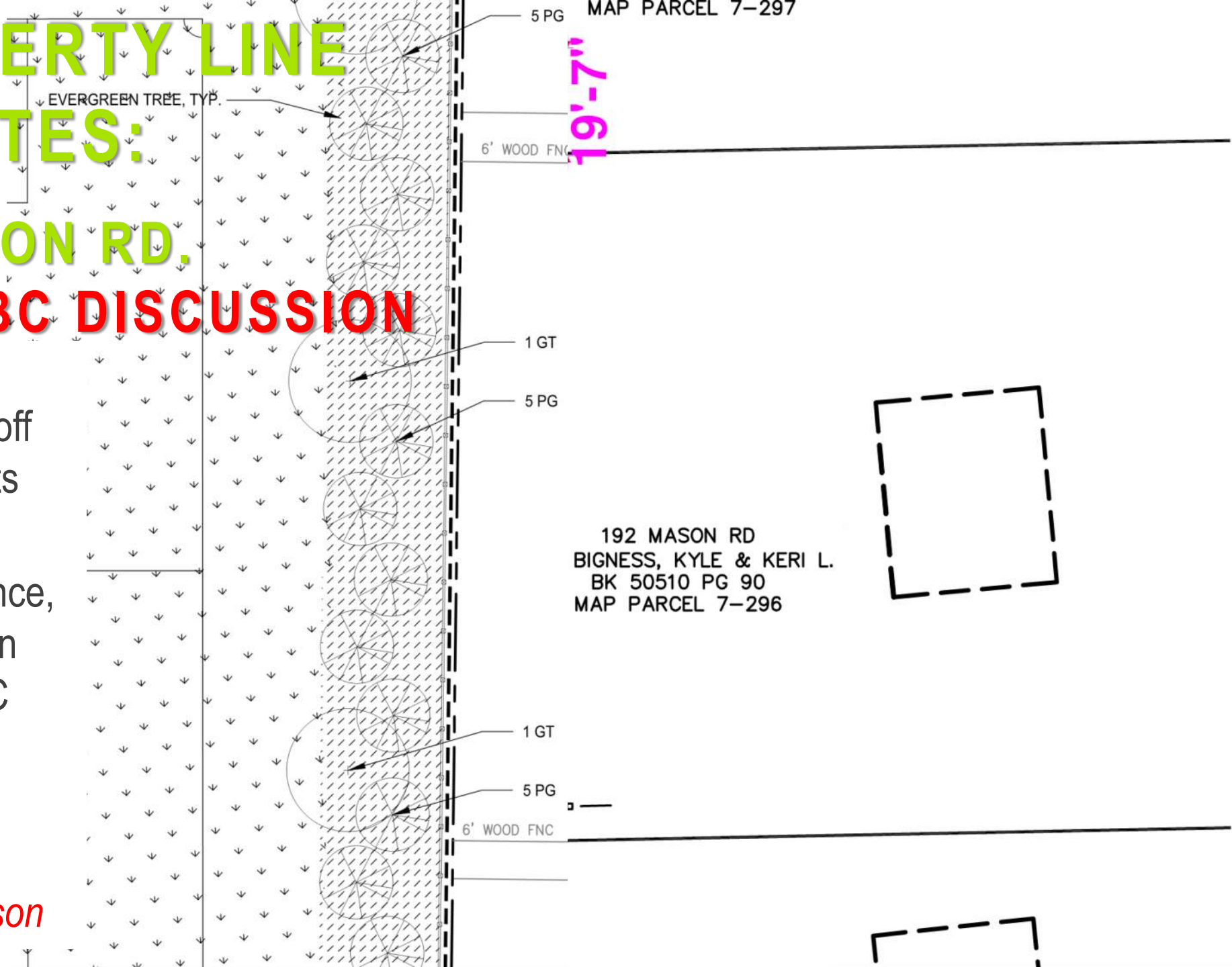


EAST PROPERTY LINE UPDATES:

192 MASON RD.

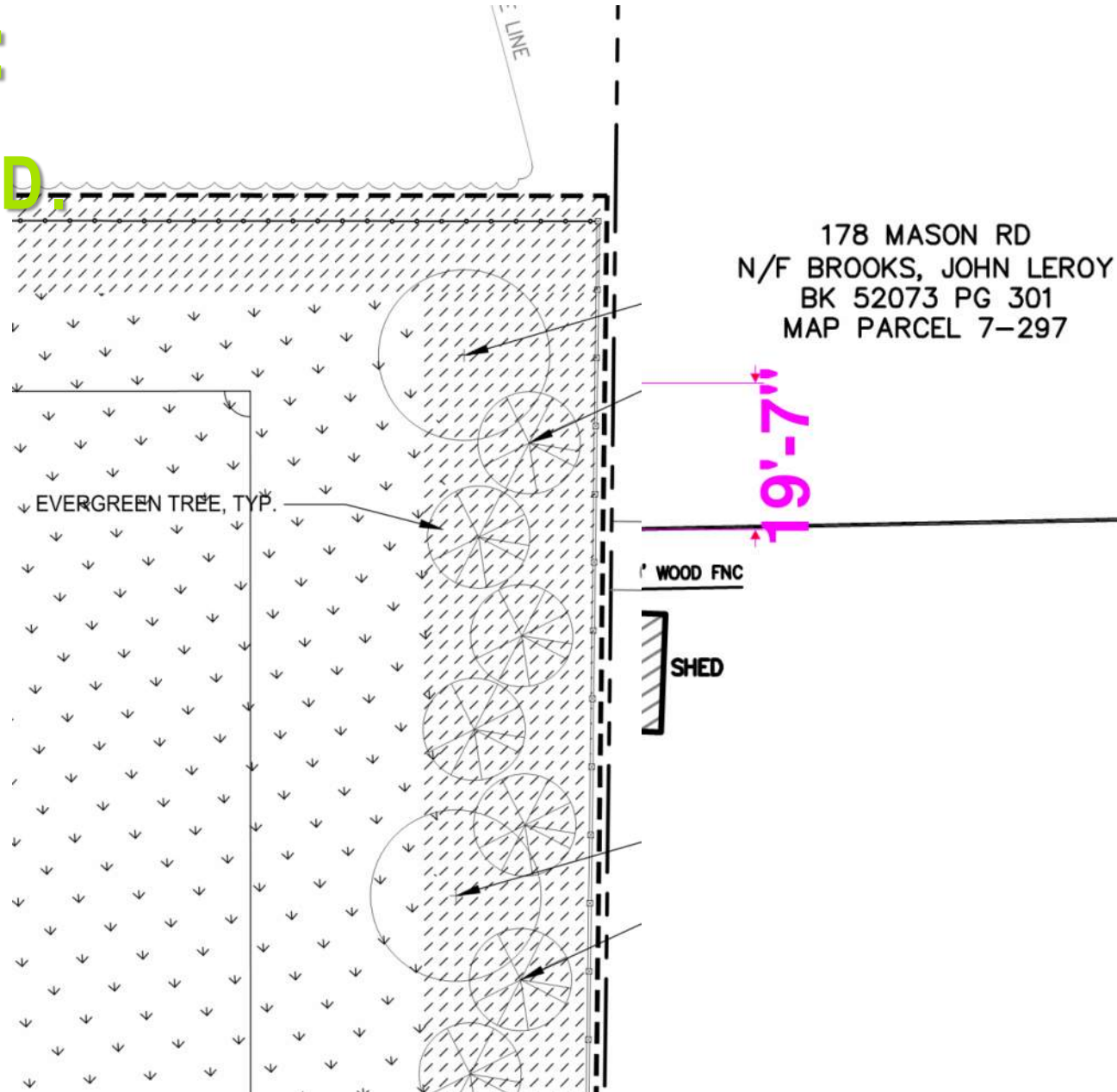
OPTIONS FOR SBC DISCUSSION

- Option 1: Abutter moves fence, shed, and play set off Town property; Town erects PVC fence
- Option 2: Town moves fence, shed, and play set off Town property; Town erects PVC fence
- *Fence is too far on Town Property (9 feet) to adjust grading similar to 202 Mason*



SITE PLAN UPDATES: 178 MASON RD.

- Abutter moved shed
off school property
THANK YOU!



SITE PLAN UPDATES: CONSTRUCTION ACTIVITY



SITE PLAN UPDATES: CONSTRUCTION ACTIVITY



SITE PLAN UPDATES: CONSTRUCTION ACTIVITY





Thank You!