

NORTHERN VIRGINIA STREAM RESTORATION BANK THE GLADE REACHES 5 & 6 PRELIMINARY PLAN

AUGUST 18, 2009

Presented by Michael S. Rolband
P.E., P.W.S., P.W.D.

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THE GLADE REACHES 5 & 6 COMMUNITY OUTREACH SCHEDULE

REACH 5 AND REACH 6 COMMUNITY EVENTS

(AS OF AUGUST 18, 2009)

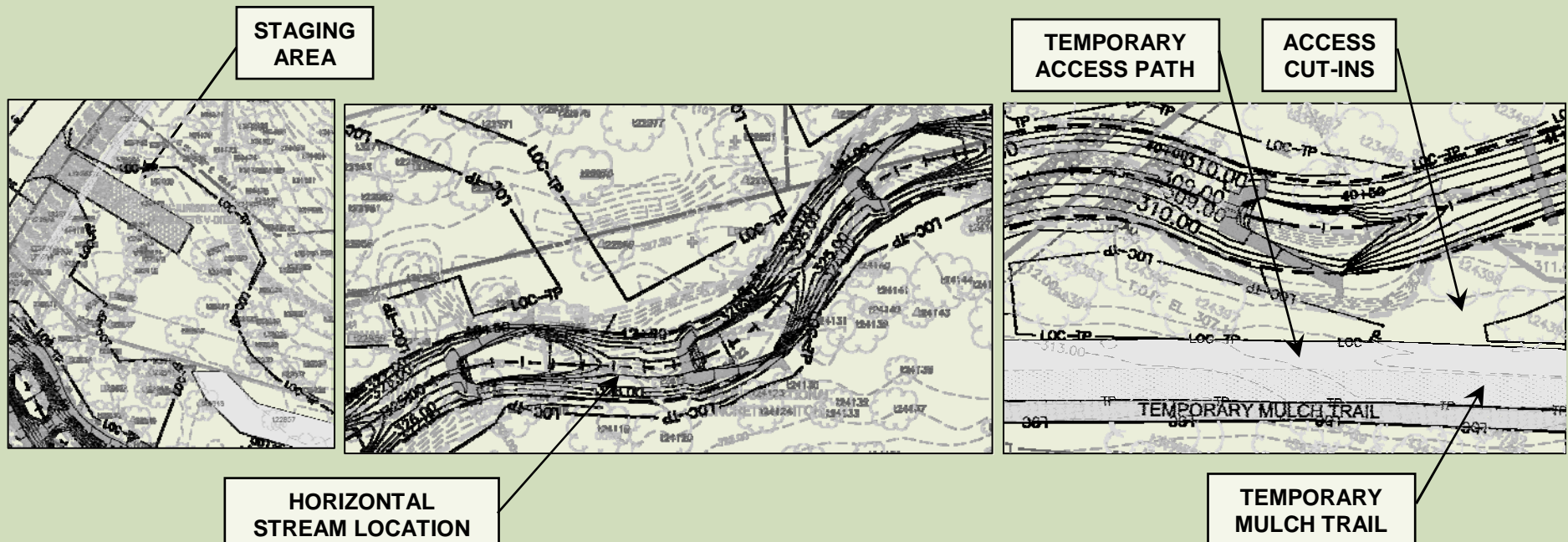
April 18 – Saturday	9:00 AM – Noon	Community-wide Meeting to Discuss Strategy and Access for Reach 5 – Starting at Fire Ring (in Reach 4B)
June 13 – Saturday	9:00 AM – Noon	Community-wide Meeting to Discuss Strategy and Access for Reach 6 – Starting at Basketball Court
June 27 – Saturday	9:00 – 2:00 PM	First Community-wide Meeting on Reach 5 and Reach 6 for Preliminary Plan Review – Starting at Basketball Court
July 25 – Saturday	9:00 – 2:00 PM	Second Community-wide Meeting on Reach 5 and Reach 6 for Preliminary Plan Review – Starting at Basketball Court
August 18 – Tuesday	7:00 PM	DRB – Reach 5 and Reach 6 Preliminary Plan Review
September 12 – Saturday	9:00 – 2:00 PM	First Community-wide Meeting on Reach 5 and Reach 6 Final Plans – Basketball Court
September 15 – Tuesday	7:00 PM	DRB – Status Report
September 26 – Saturday	9:00 – 2:00 PM	Second Final Plan Review for Reach 5 and Reach 6 – Basketball Court
October 20 – Tuesday	7:00 PM	DRB Review of Reach 5 and Reach 6 Final Plans

Tonight

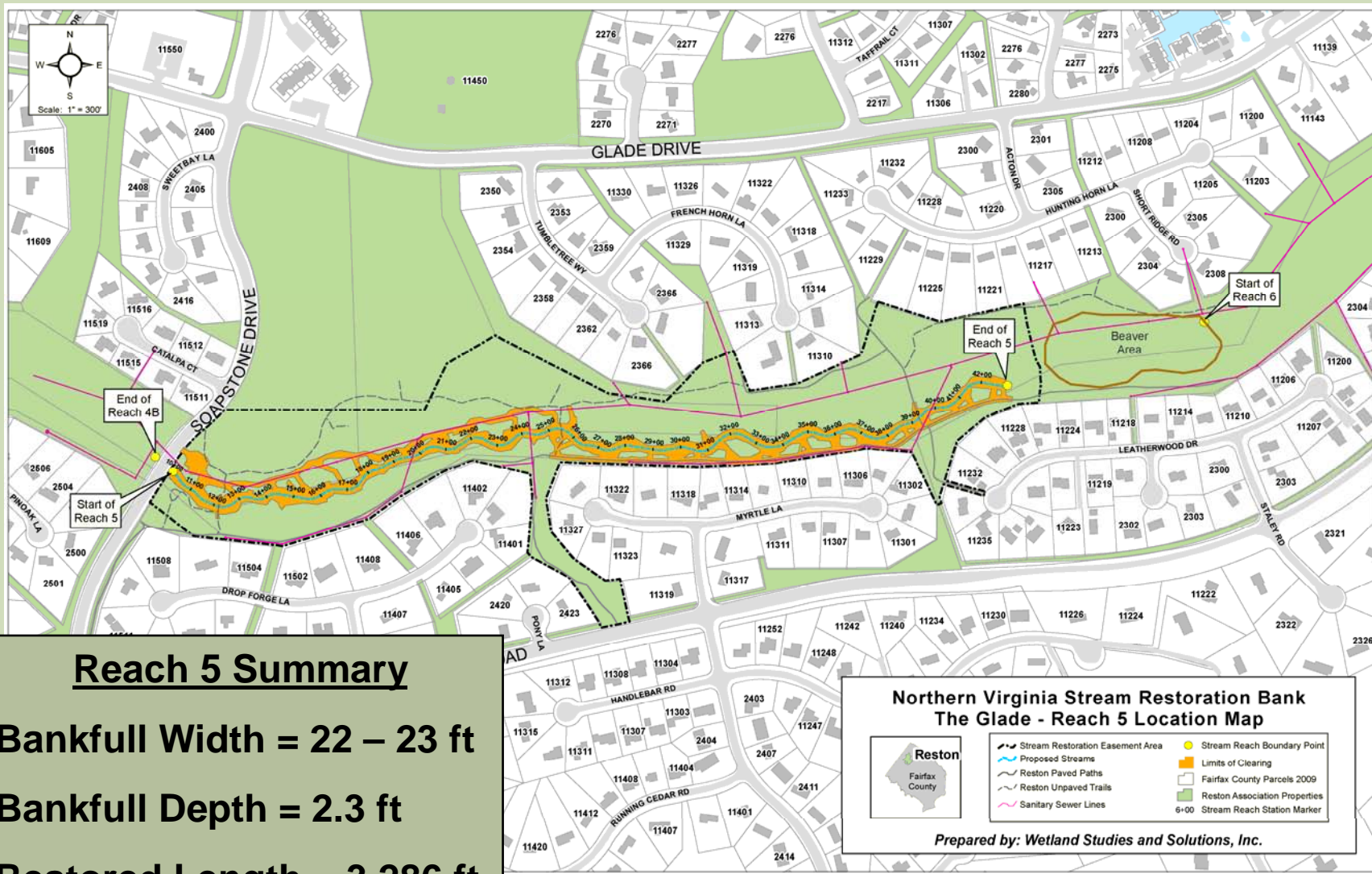
THE GLADE – REACHES 5 & 6

PURPOSE OF PRELIMINARY PLAN

1. To decide upon staging locations, restoration areas, and temporary access paths.
2. To determine horizontal stream location and grading of stream restoration resulting in limits of clearing (LOC) and tree impacts.
3. To determine how to handle pedestrian traffic along construction.

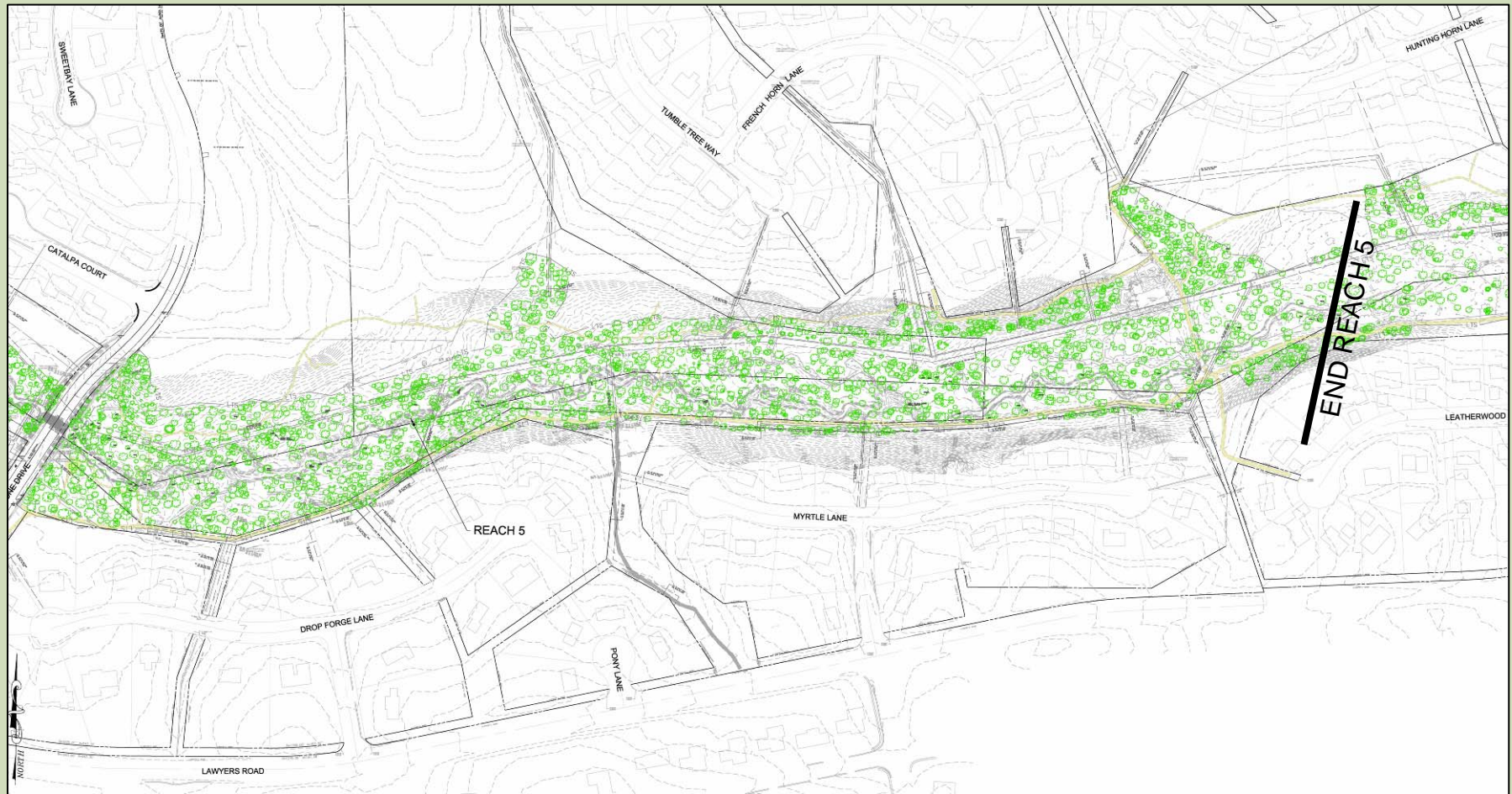


THE GLADE – REACH 5

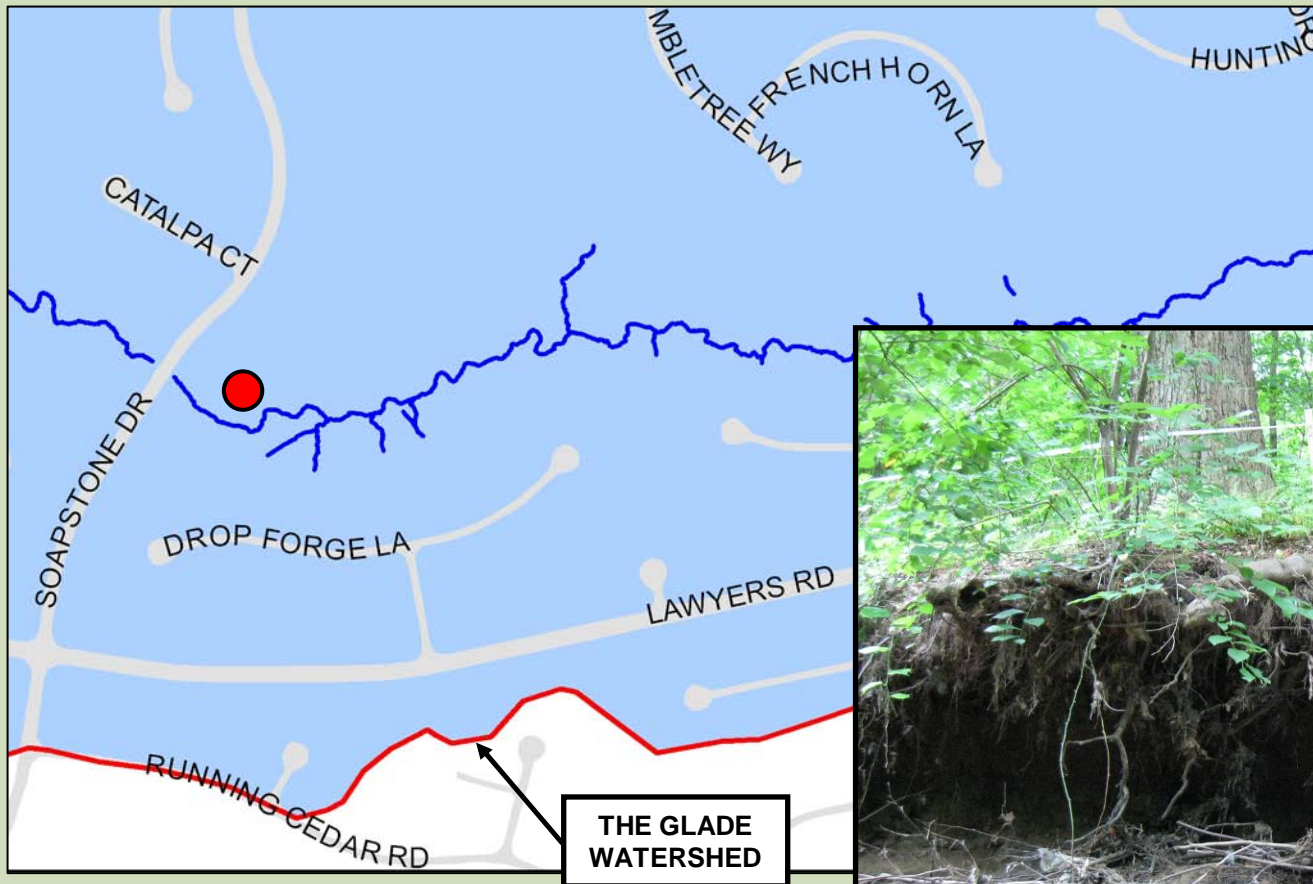


THE GLADE – REACH 5

EXISTING CONDITIONS



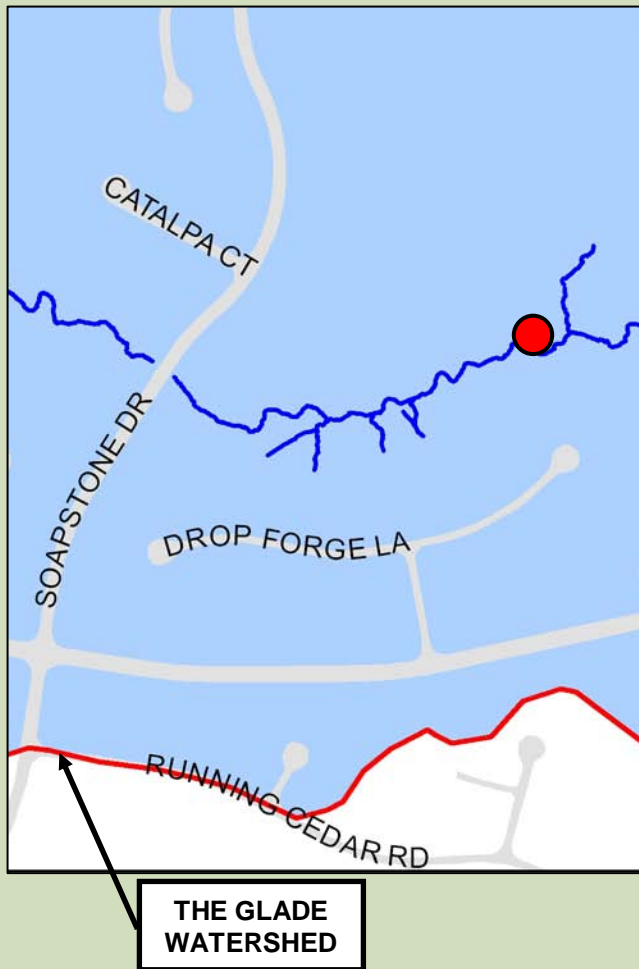
EXISTING CONDITIONS - THE GLADE REACH 5



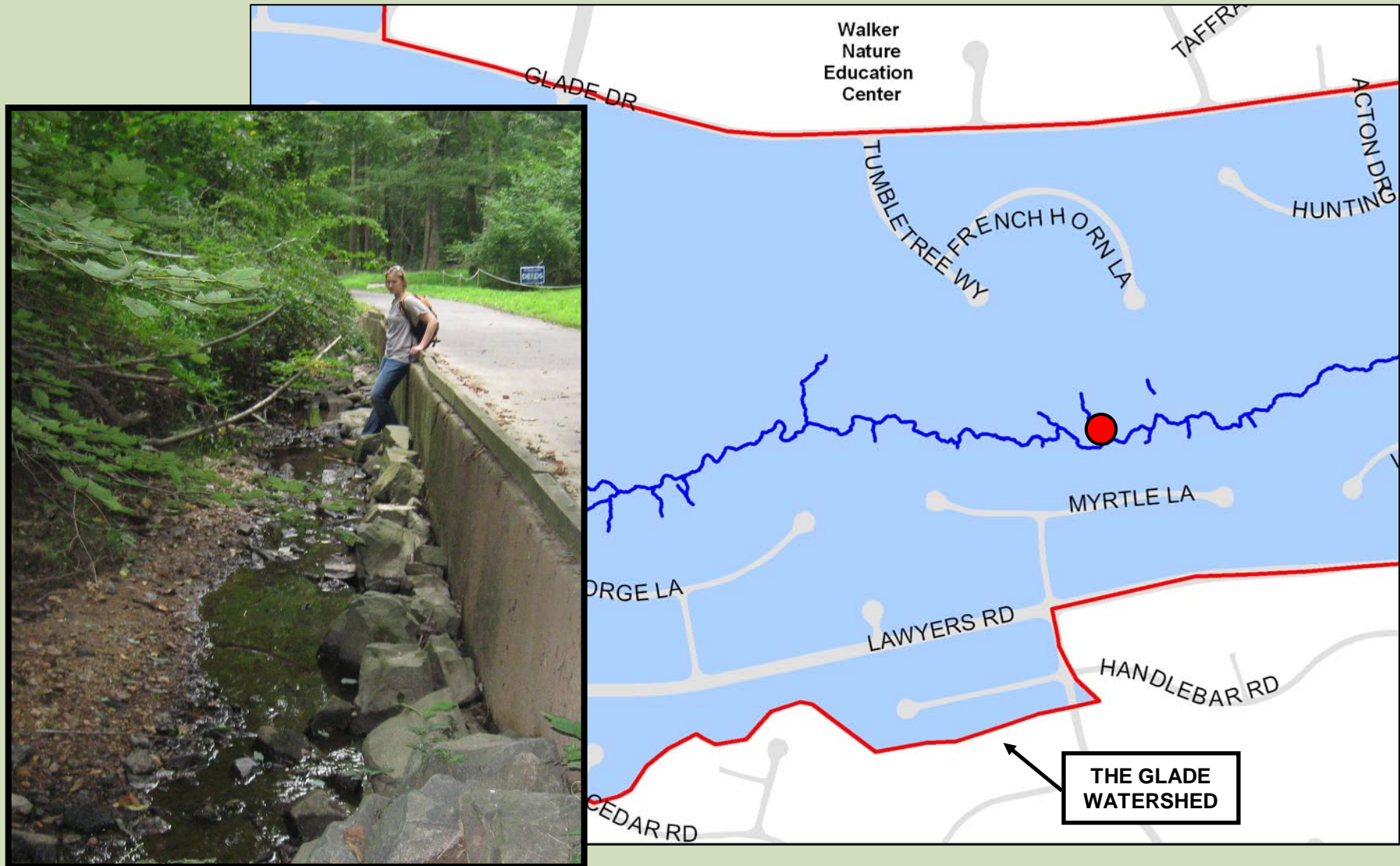
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EXISTING CONDITIONS - THE GLADE REACH 5

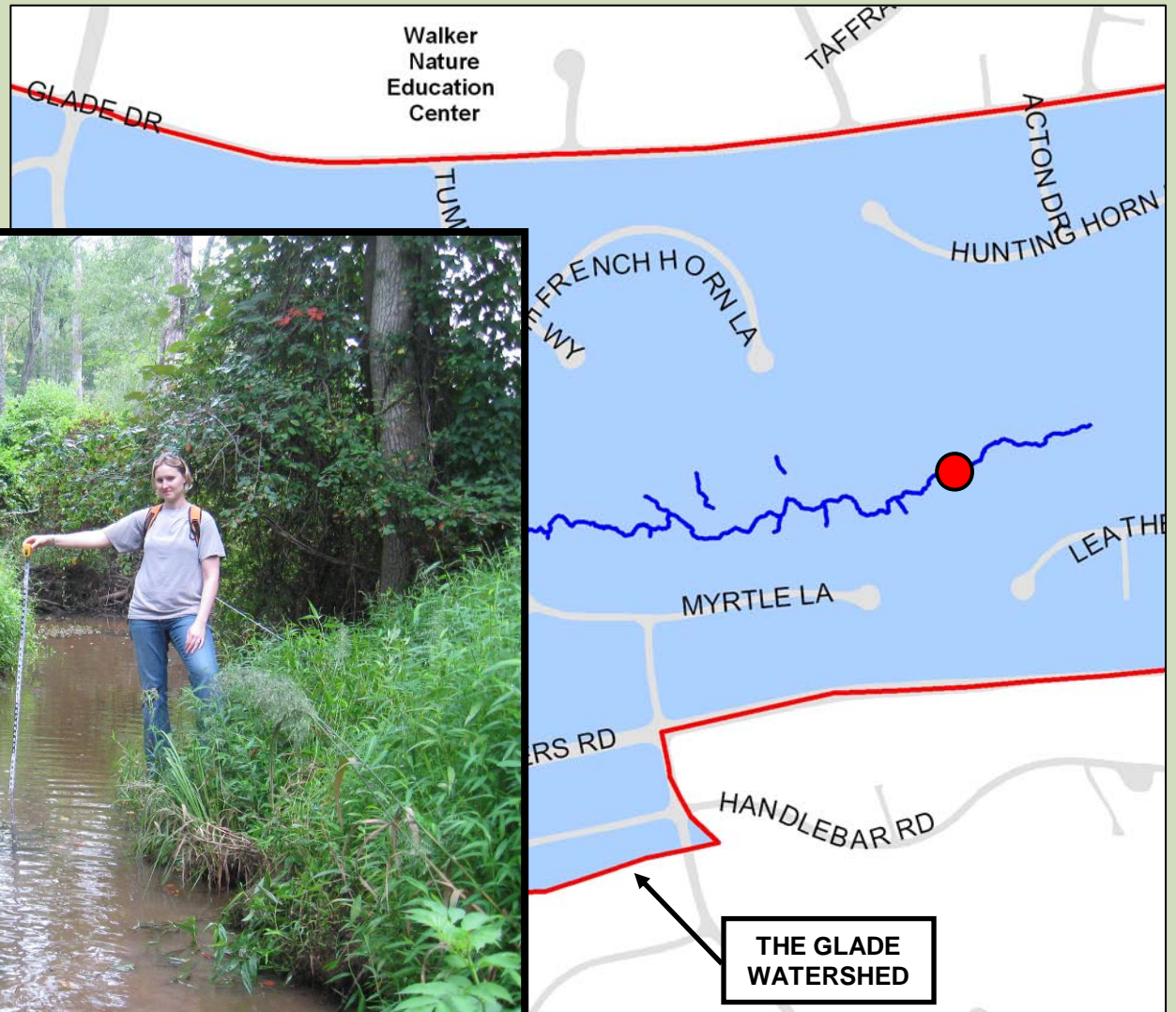


EXISTING CONDITIONS - THE GLADE REACH 5



EXISTING CONDITIONS - THE GLADE REACH 5

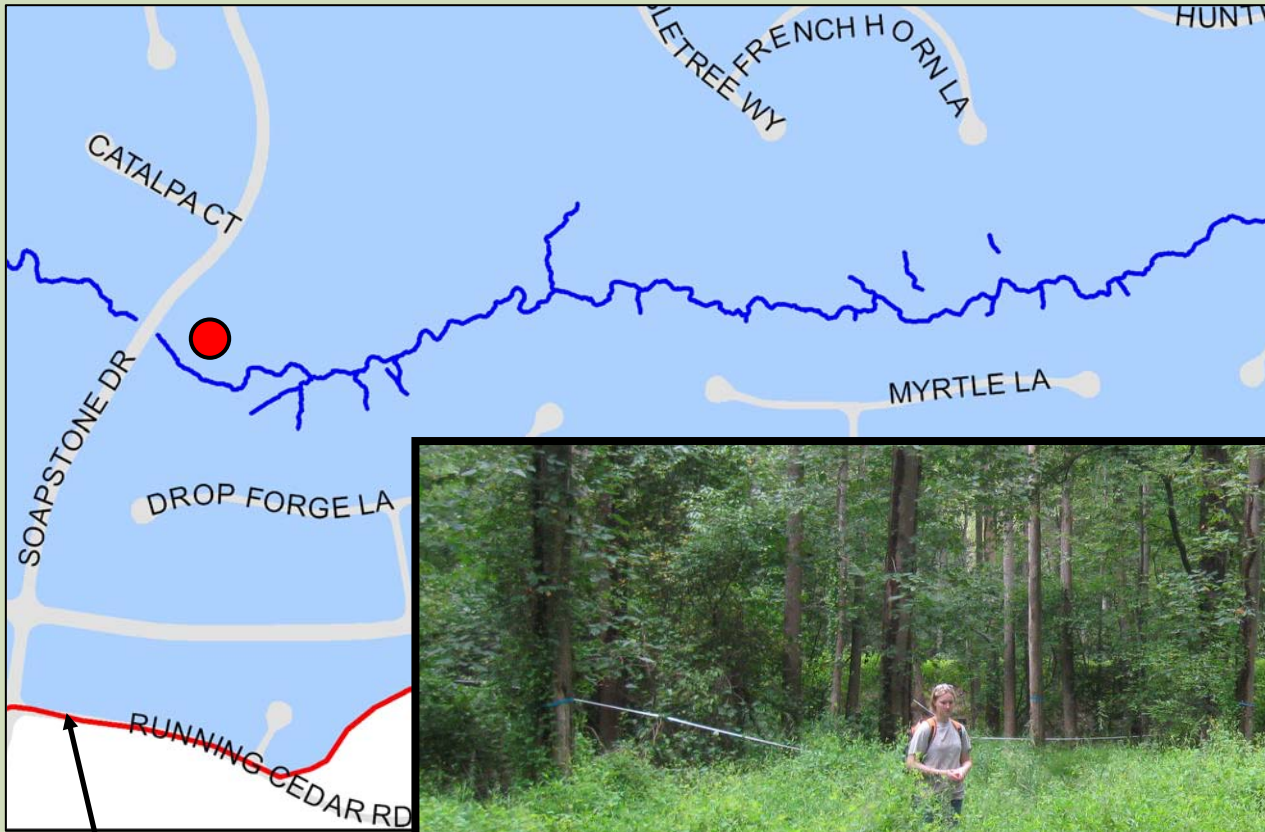
End of Reach 5



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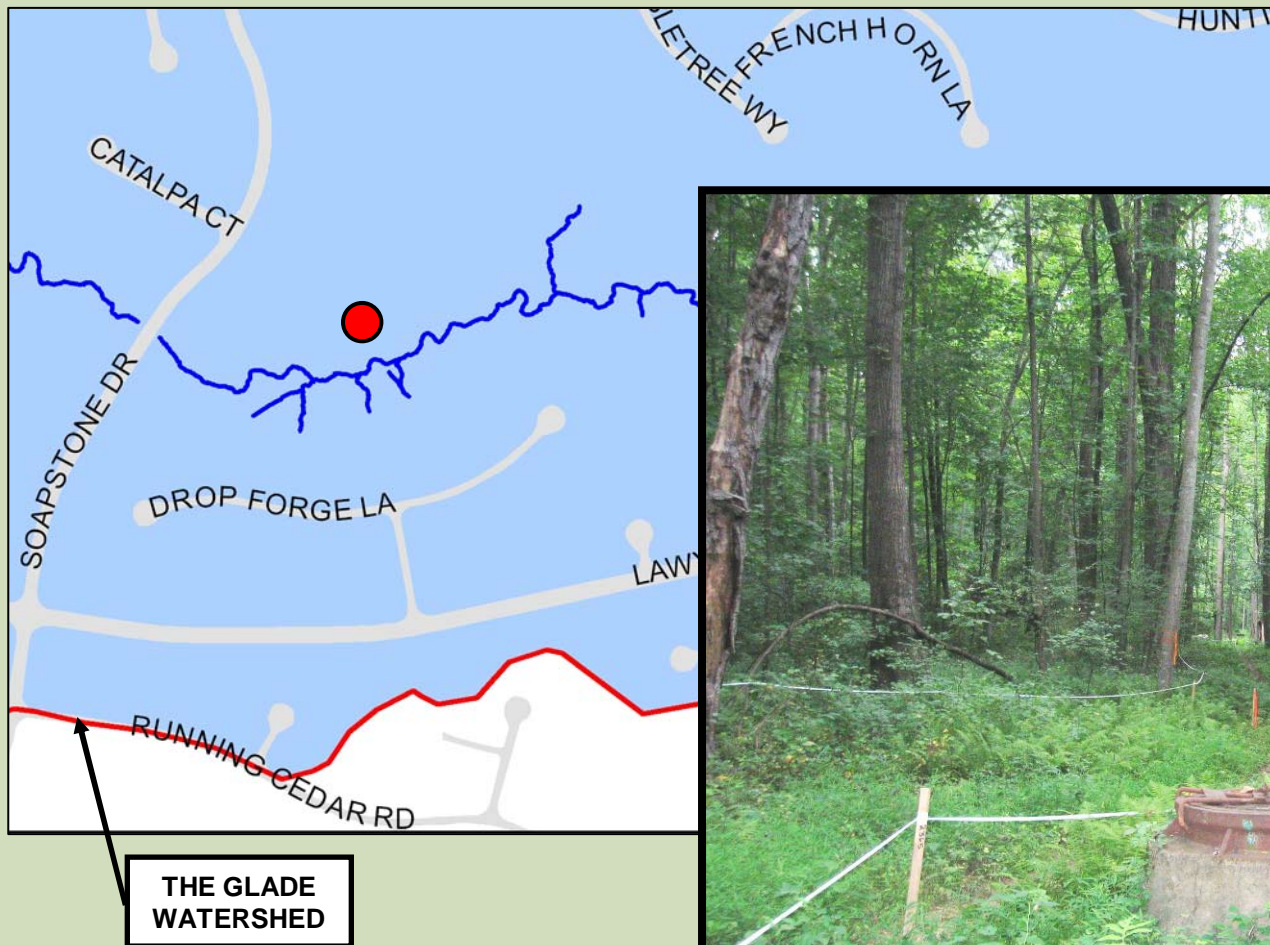
STAGING AREA - THE GLADE REACH 5



THE GLADE
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EXISTING SANITARY SEWER EASEMENT / ACCESS PATH THE GLADE REACH 5



ACCESS ROAD DECK MAT

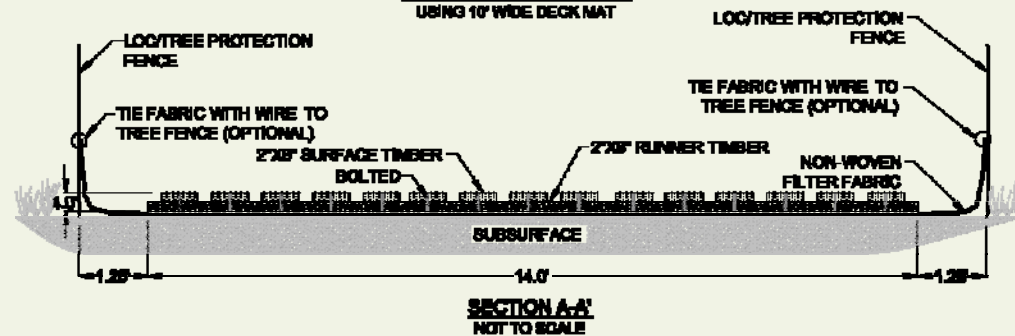
ACCESS ROAD DECK MAT NOT TO SCALE



NOTES:
1. MAT SHALL BE "DECK MAT" BY CAROLINA MAT INCORPORATED OR APPROVED EQUAL.

2. MATS SHALL BE INSTALLED SUCH THAT THE SURFACE TIMBER RUNS PARALLEL WITH THE VEHICLE TREAD. SUBSEQUENT MATS SHALL BE INSTALLED SUCH THAT THEY BUTT UP AGAINST EACH OTHER.

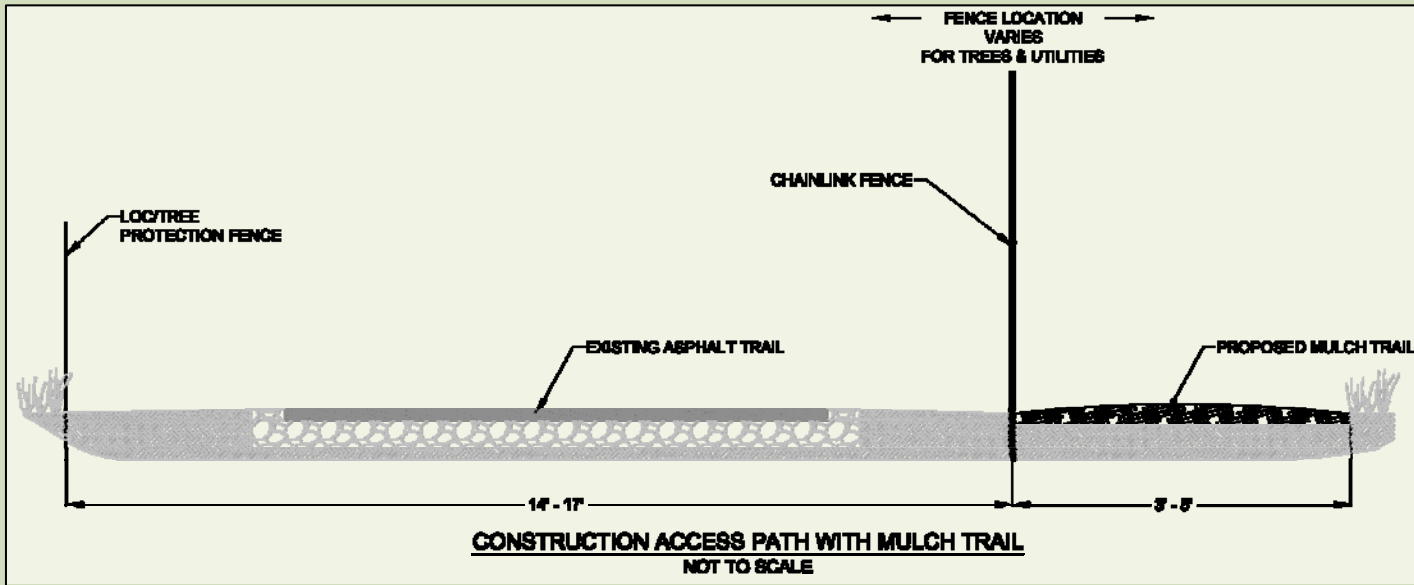
EXAMPLE INSTALLATION USING 10' WIDE DECK MAT



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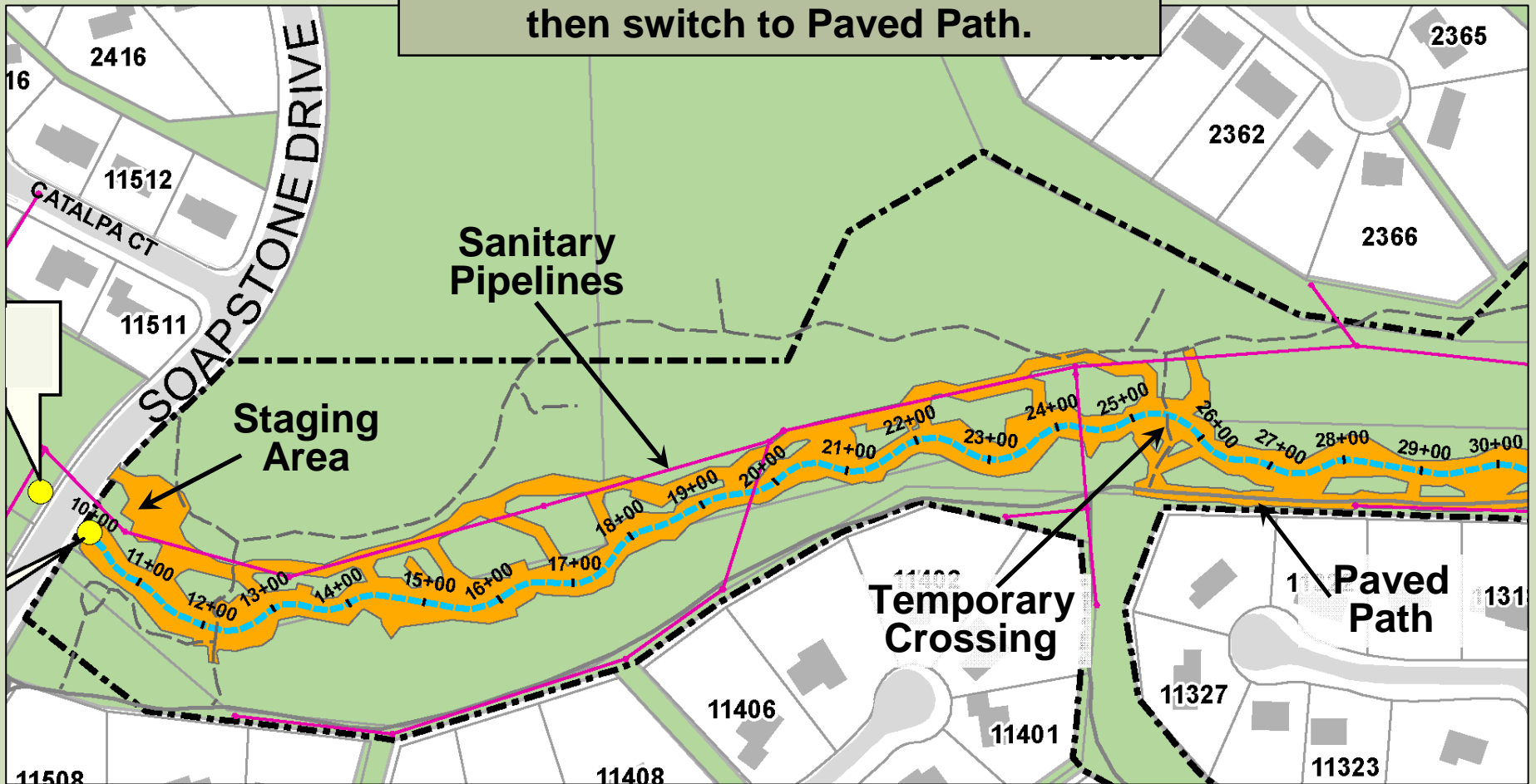
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ACCESS ALONG PAVED TRAIL – WITH MULCH TRAIL



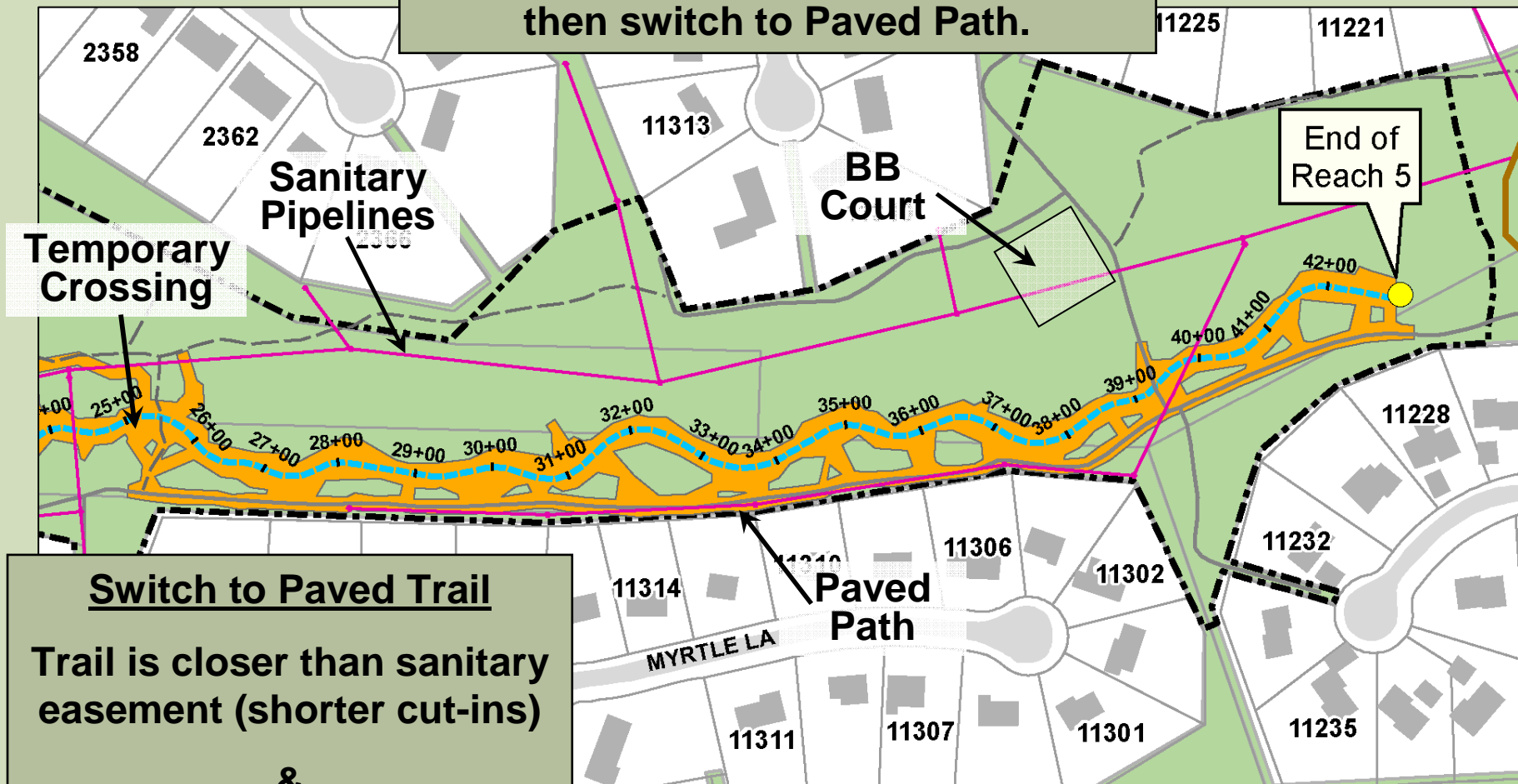
REACH 5 ACCESS PLAN

Use Sanitary Easement to STA 25+00,
then switch to Paved Path.



REACH 5 ACCESS PLAN

Use Sanitary Easement to STA 25+00,
then switch to Paved Path.



Switch to Paved Trail

Trail is closer than sanitary
easement (shorter cut-ins)

&

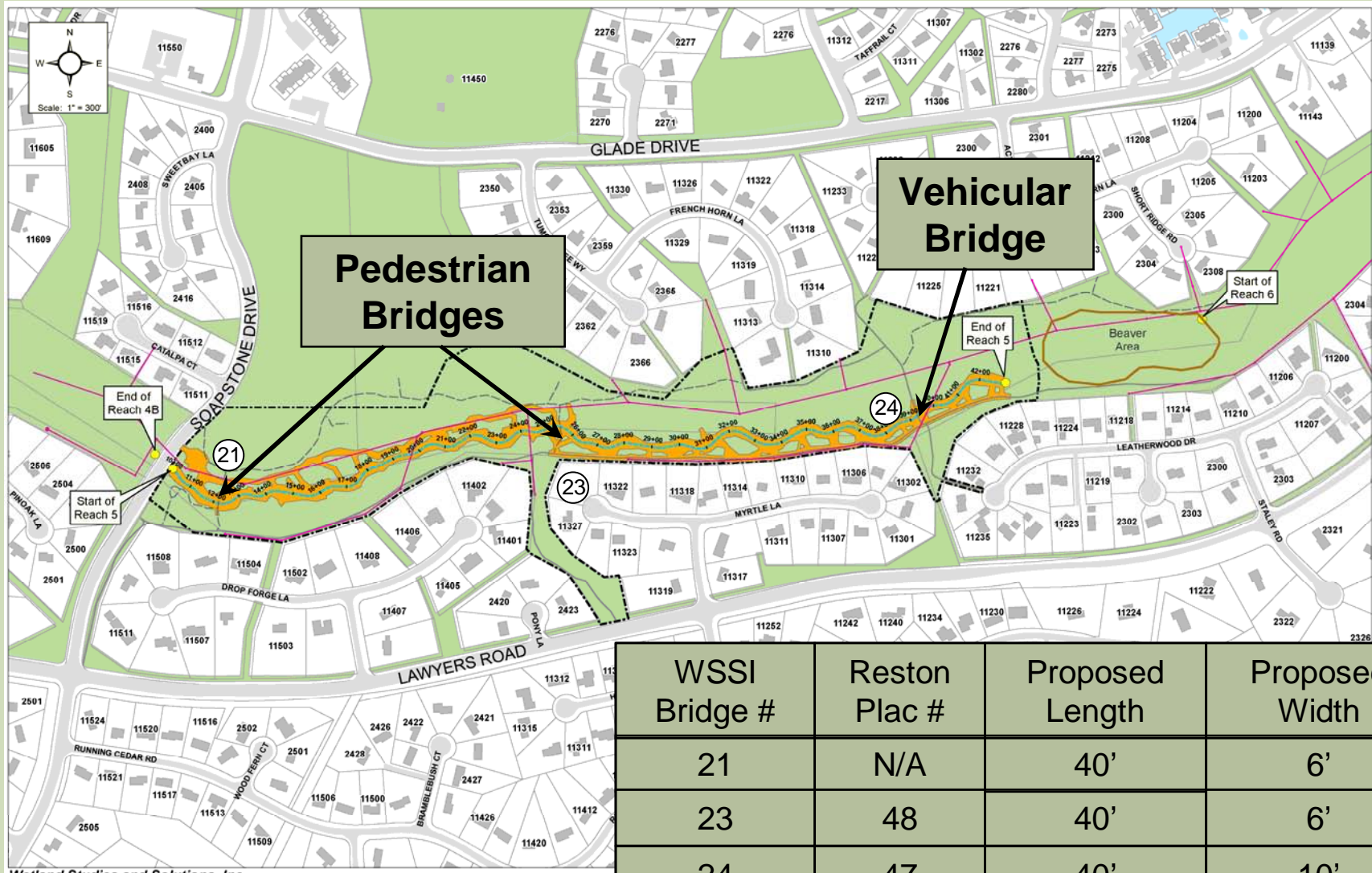
Avoids basketball court
and vernal pool

ACCESS OPTIONS CONSIDERED



- ① Using this Paved Path would disturb established native flower garden & disrupt pedestrian access
- ② Using this Paved Path would also disrupt pedestrian access & is too far from stream in many areas (requires long cut-ins)
- ③ Using these narrow access points require tree removal, disturbs residents, and has no suitable staging areas.

REACH 5 BRIDGES









REACH 5 TREE INVENTORY

TREE INVENTORY SUMMARY THE GLADE - REACH 5

DIAMETER (INCHES)	STATUS *			
	TBR ¹		DND ²	TST ³
	(LIVE)	(DEAD / FALLEN)		
4-5" (Sapling)	32	4	414	450
6-9" (Pole)	57	6	722	785
10-17" (Small)	52	13	650	715
18-29" (Medium)	28	12	424	464
30"+ (Large)	3	3	89	95
	172	38		
TOTAL	210		2299	2509

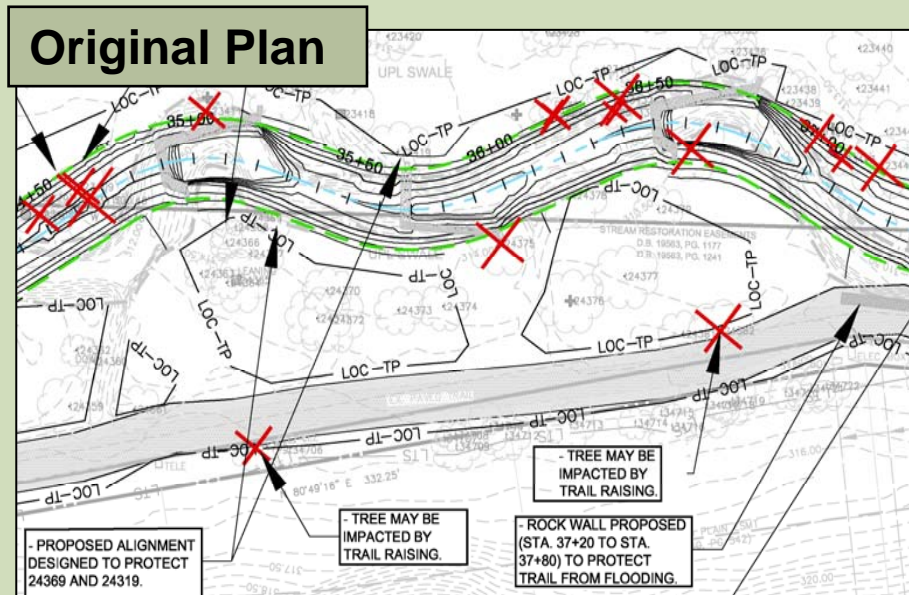
¹ TBR means to be removed.

² DND means do not disturb.

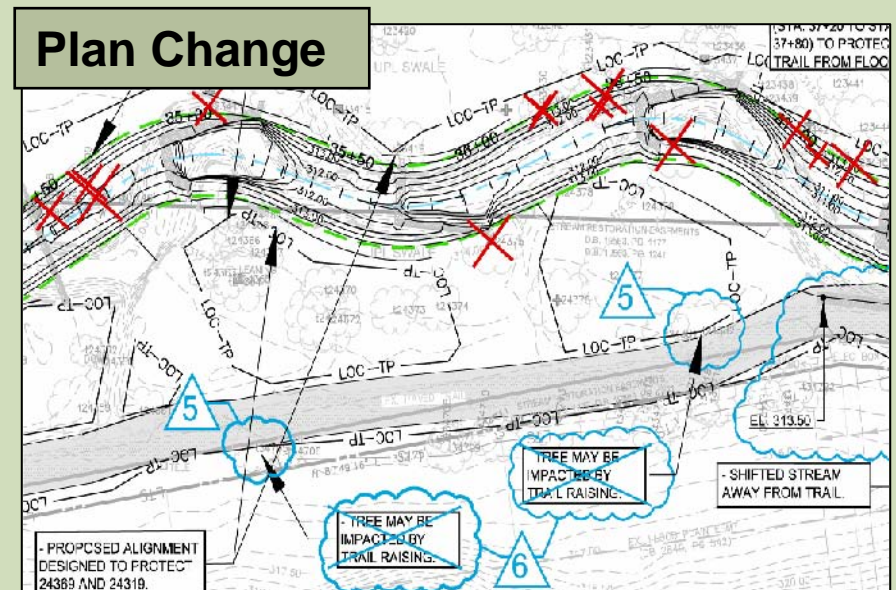
³ TST means total surveyed trees.

* Compiled 04/16/2009, Revised 07/25/2009

THE GLADE REACH 5 CHANGE ELIMINATED TRAIL IMPROVEMENTS

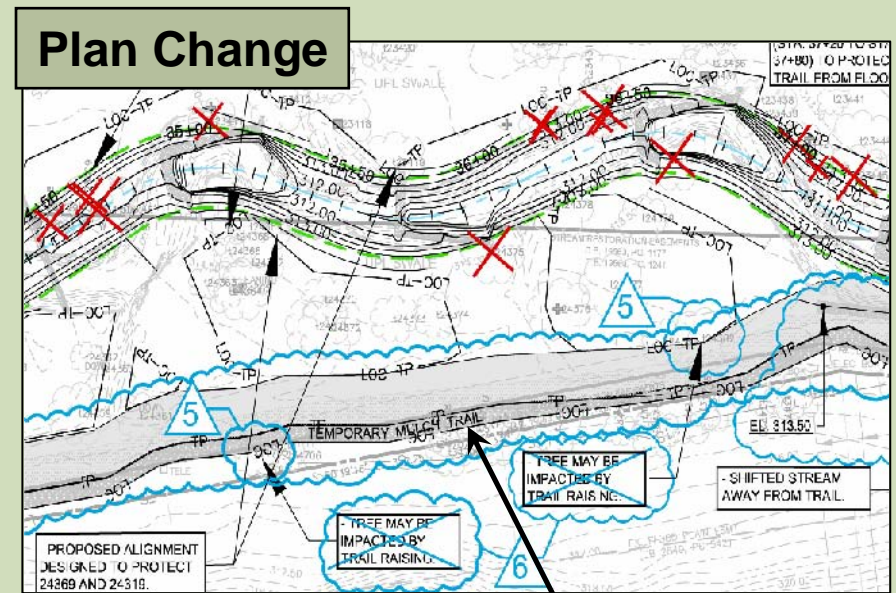
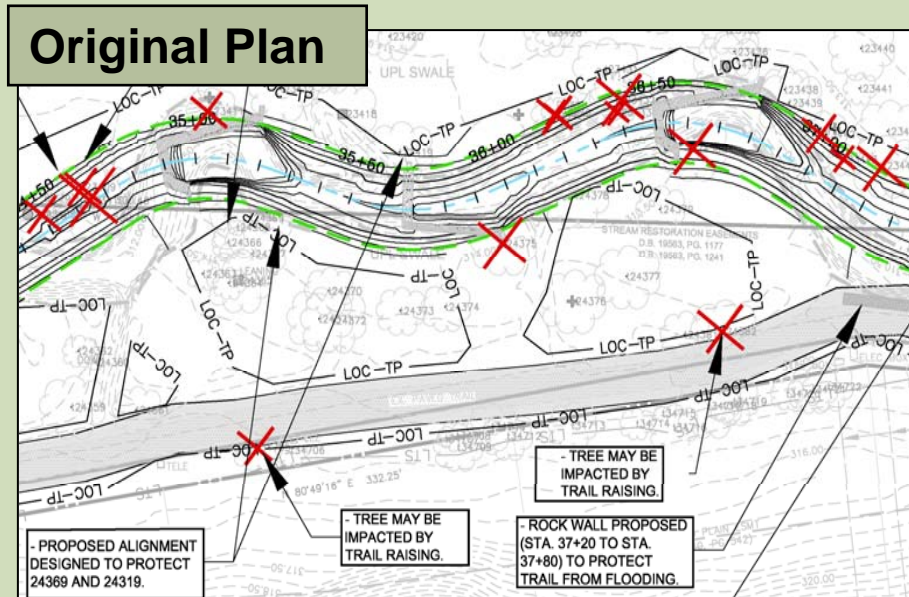


Pre-Design Citizen Request:
Raise trail to reduce flooding and
trail erosion
(incorporated into 1st Prelim Plan)



Preliminary Meeting (June 27, 2009):
Citizen vote to not raise trail.

THE GLADE REACH 5 CHANGE ADDED MULCH TRAIL PARALLEL TO PAVED TRAIL USED FOR ACCESS



*** Chainlink fence will be installed
between Mulch Trail and Access Path.**

BEAVER AREA

**Reach 5 ties into Beaver Area
where incision ends and marsh area begins**



Immediately downstream
of Reach 5



Marsh Area

BEAVER AREA

**Reach 6 starts at 3 headcuts,
650 ft downstream of Reach 5**

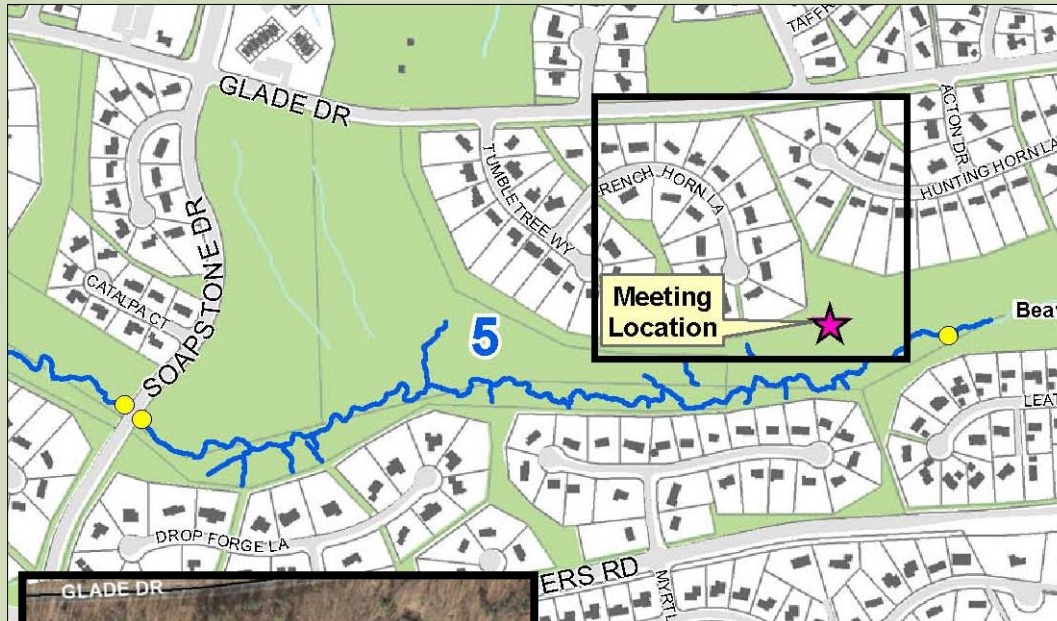


BEAVER AREA

WSSI will only replace fence
where impacted by our work
– we are not installing or
removing entire fence.



BEAVER AREA FUTURE MEETING



Reston Association
will host a meeting
September 26 at 1:30 pm
at Hunting Horn Lane
basketball courts

*(after Reaches 5 & 6
Final Plan meeting)*



THE GLADE – REACH 6

Reach 6 Summary

Bankfull Width = 24 ft

Bankfull Depth = 2.3 – 2.4 ft

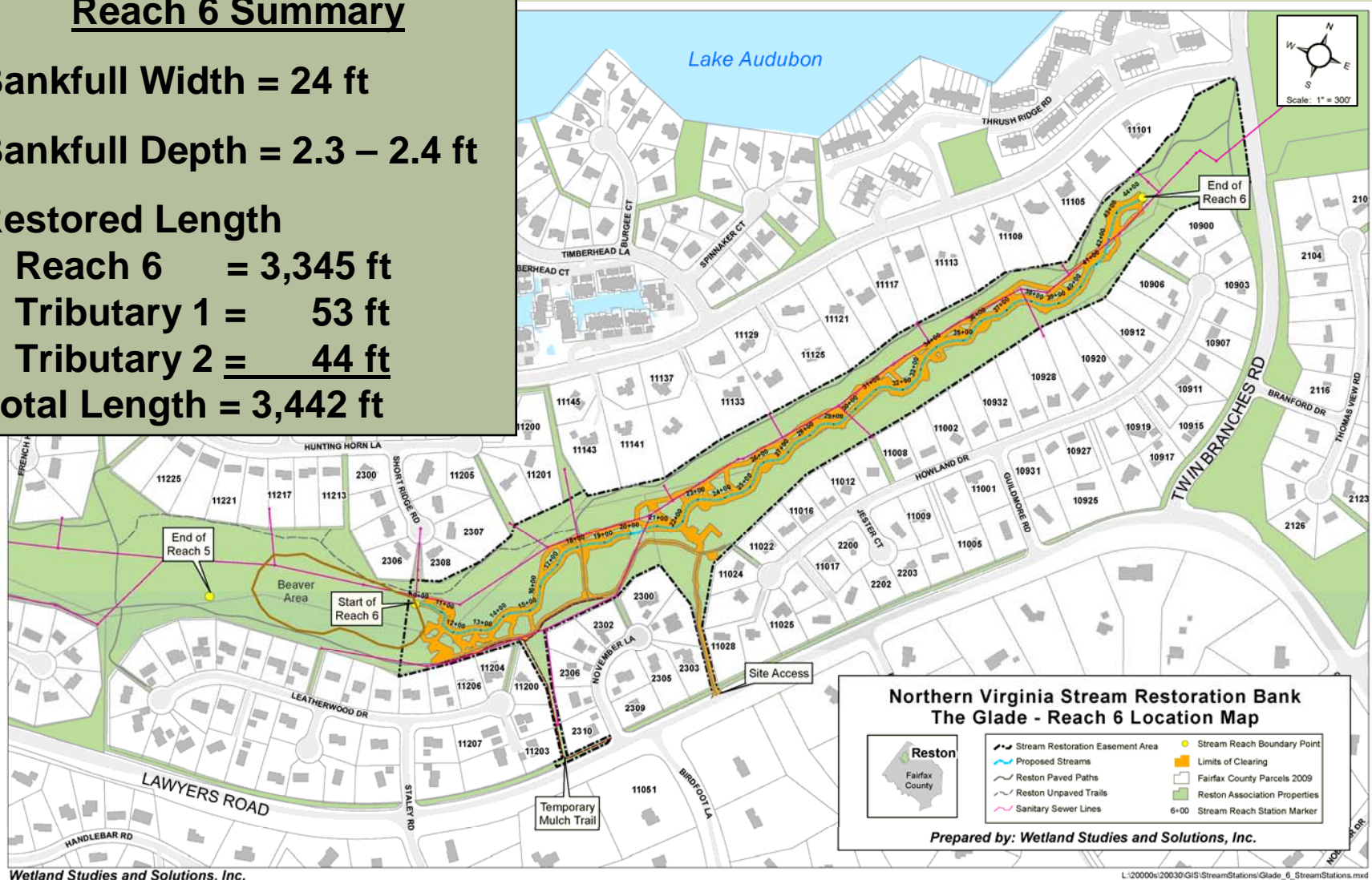
Restored Length

Reach 6 = 3,345 ft

Tributary 1 = 53 ft

Tributary 2 = 44 ft

Total Length = 3,442 ft

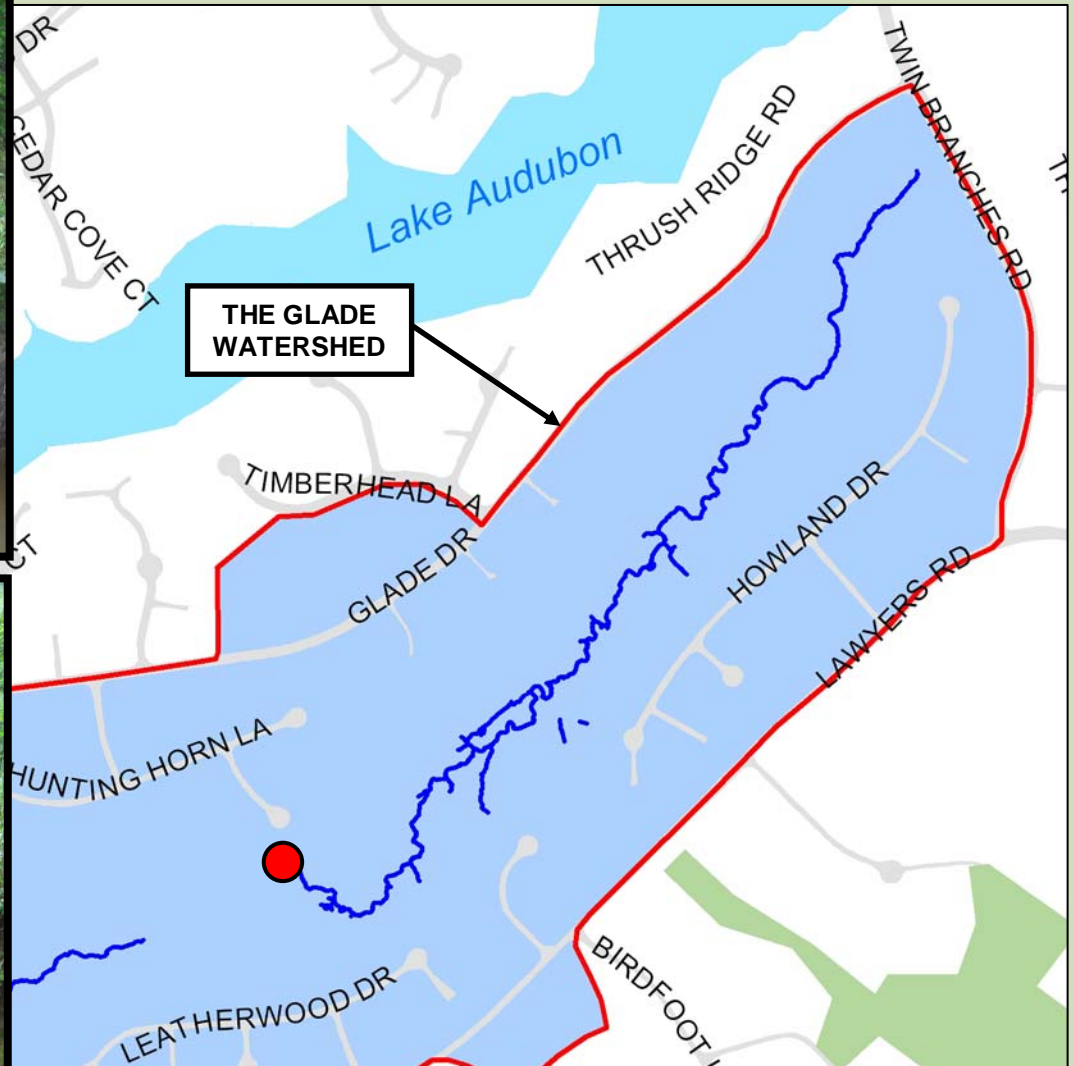


THE GLADE – REACH 6

EXISTING CONDITIONS

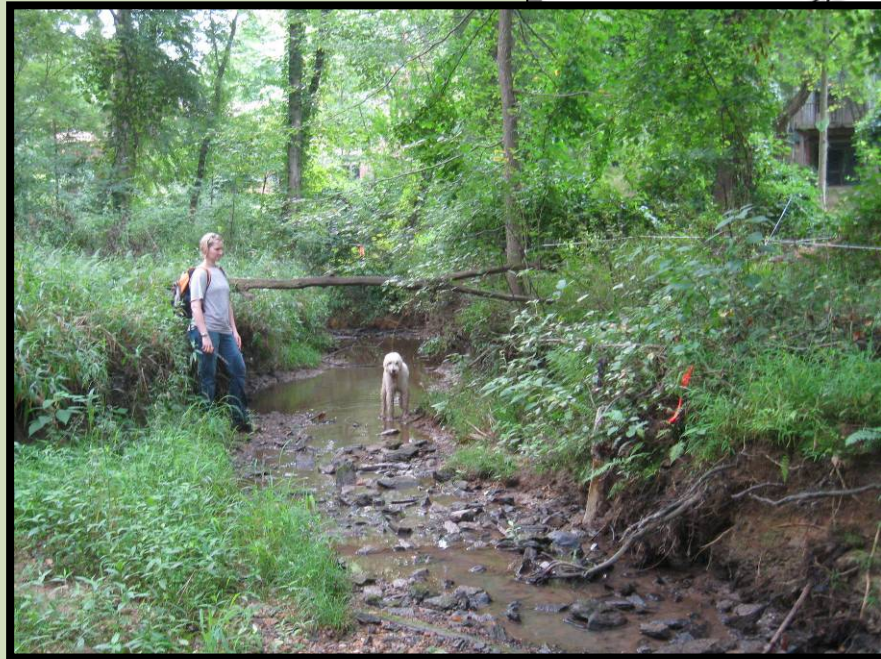


EXISTING CONDITIONS - THE GLADE REACH 6



*** Reach 6 Starts at 3 headcuts.**

EXISTING CONDITIONS - THE GLADE REACH 6



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EXISTING CONDITIONS - THE GLADE REACH 6



Looking upstream into
stable area (± 50 ft) that
will not be disturbed



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EXISTING CONDITIONS - THE GLADE REACH 6



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EXISTING CONDITIONS - THE GLADE REACH 6



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EXISTING CONDITIONS - THE GLADE REACH 6

No work proposed in approx. 350 ft of stable area before Twin Branches



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STAGING AREA - THE GLADE REACH 6



THE GLADE
WATERSHED



ACCESS PATH FROM LAWYERS ROAD THE GLADE REACH 6



EXISTING SANITARY SEWER EASEMENT / ACCESS PATH THE GLADE REACH 6

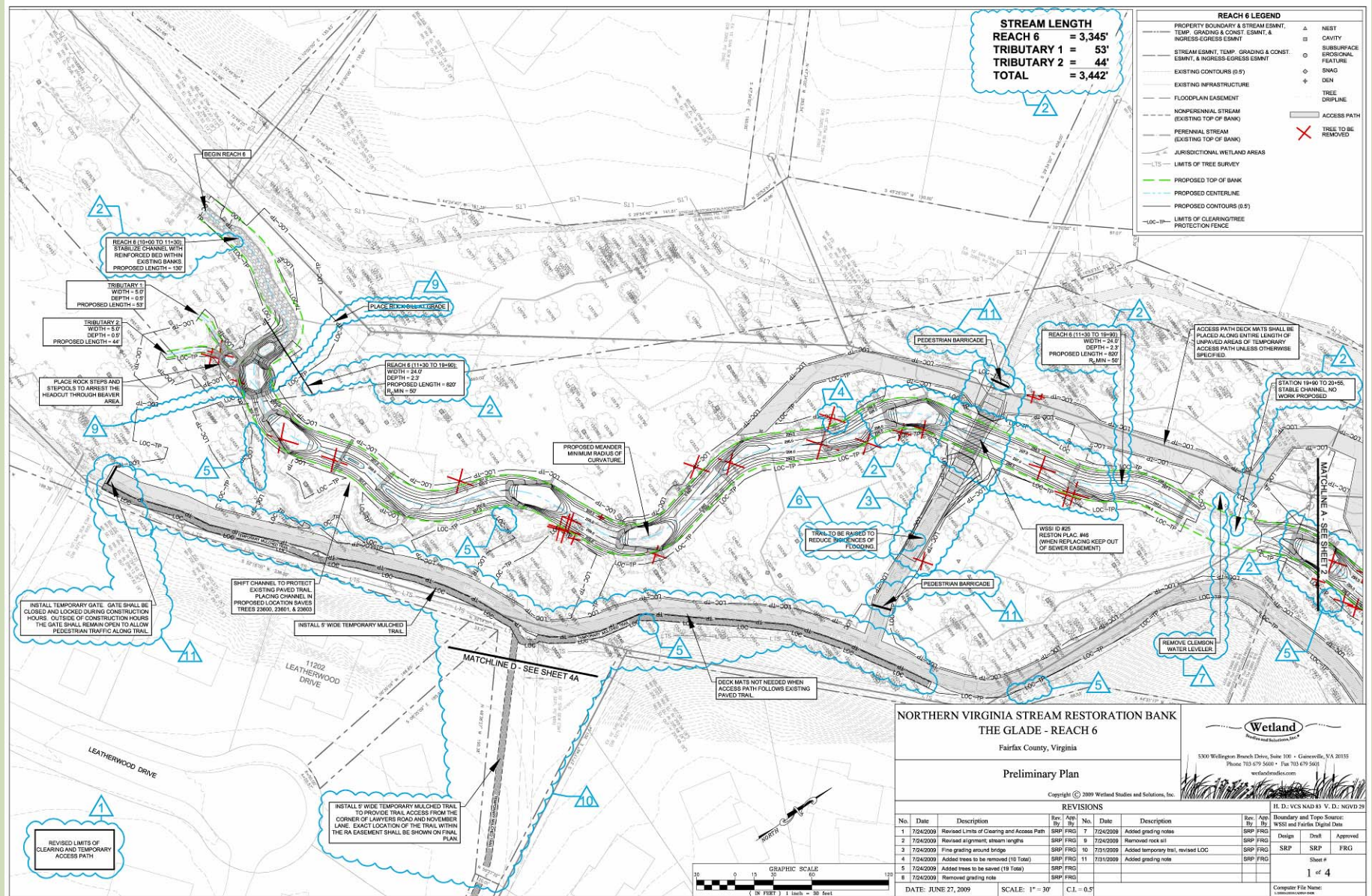


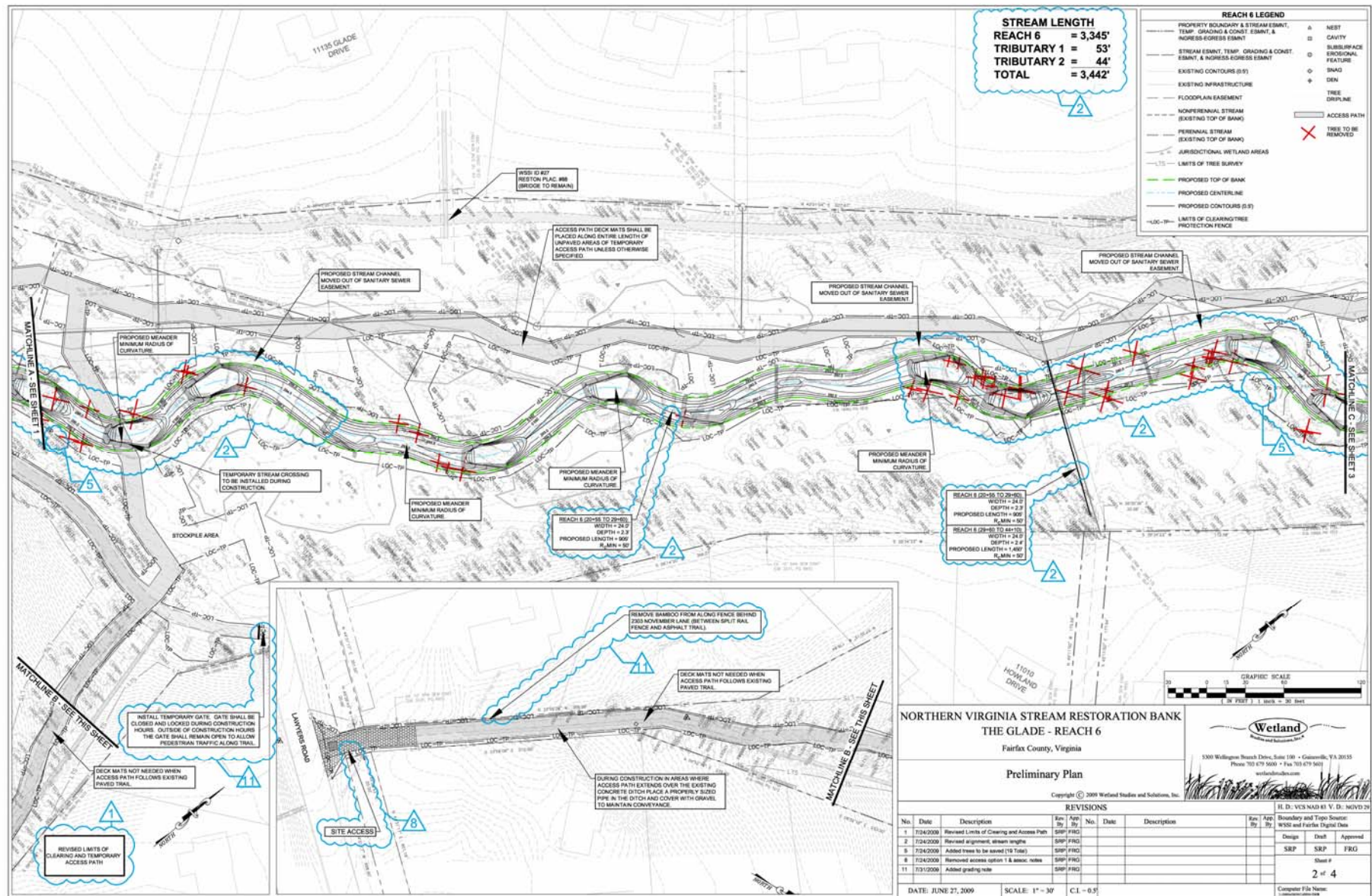
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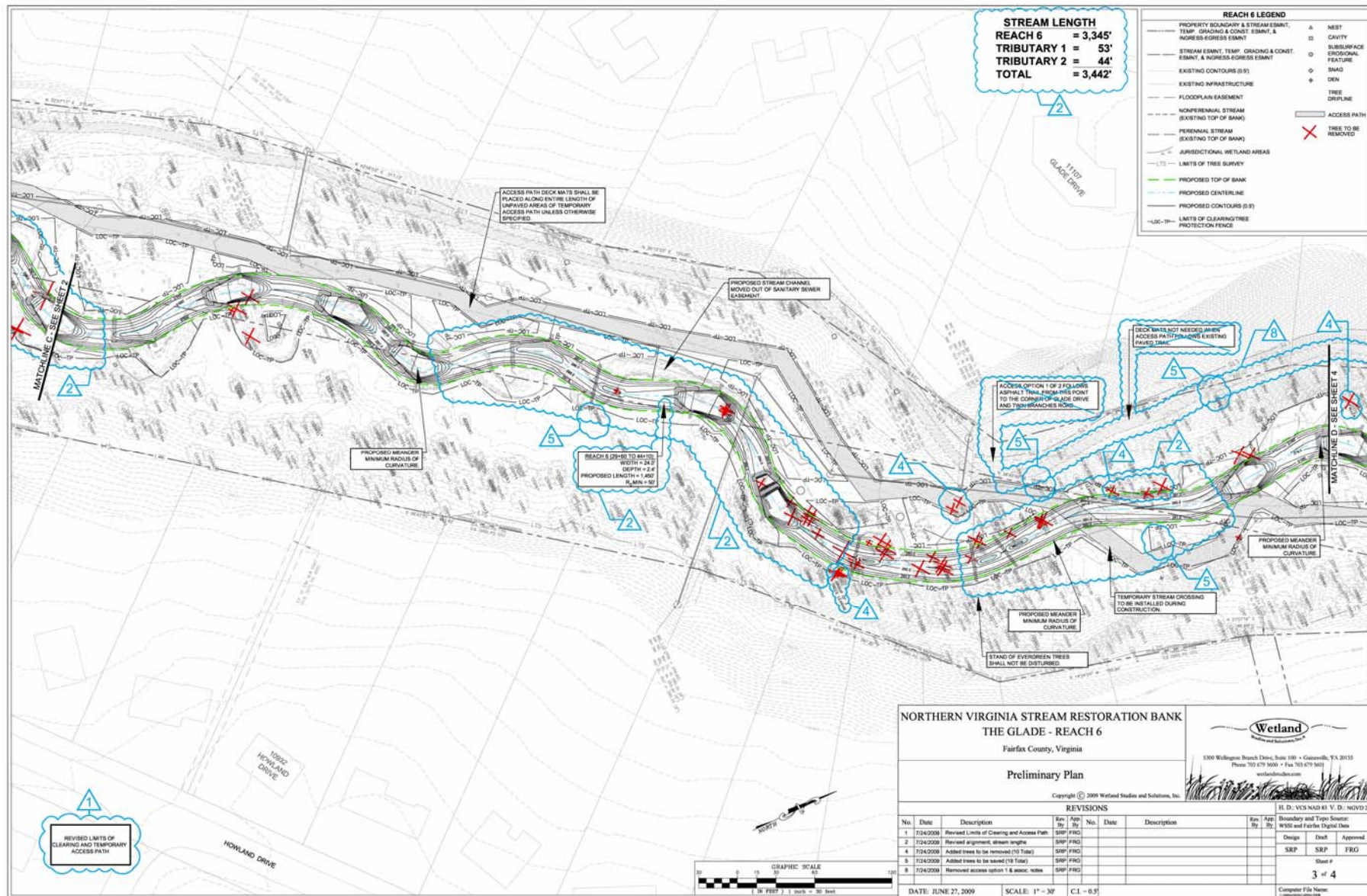
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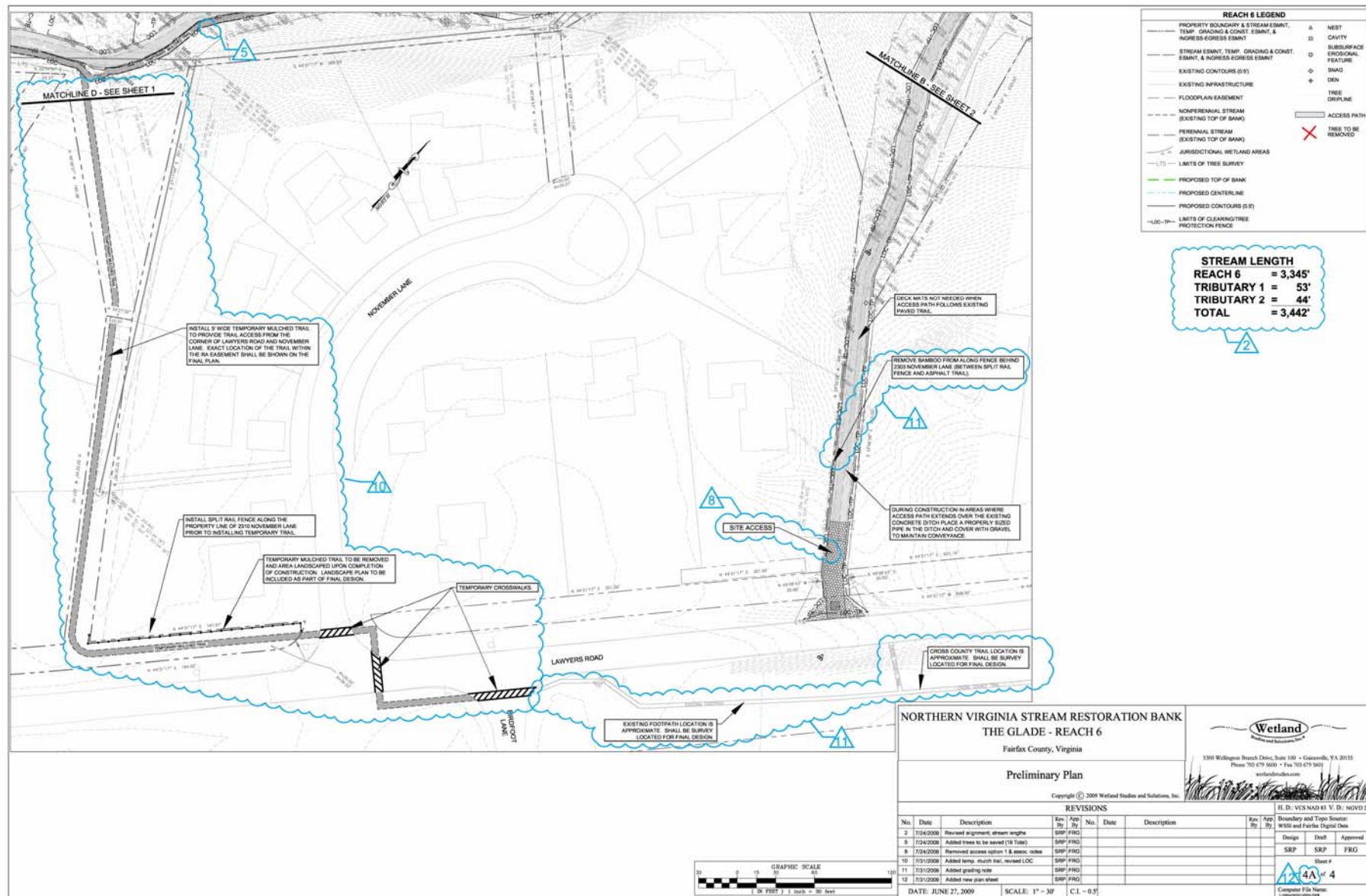
THE GLADE
WATERSHED

40









REACH 6 TREE INVENTORY

TREE INVENTORY SUMMARY THE GLADE - REACH 6

DIAMETER	STATUS*			
	TBR ¹		DND ²	TST ³
(INCHES)	(LIVE)	(DEAD / FALLEN)		
2"	---	---	---	---
4-5" (Sapling)	11	---	410	421
6-9" (Pole)	33	2	757	792
10-17" (Small)	30	12	789	831
18-29" (Medium)	21	4	332	357
30"+ (Large)	5	2	48	55
	100	20		
TOTAL	120		2,336	2,456

1. TBR means to be removed.

2. DND means do not disturb.

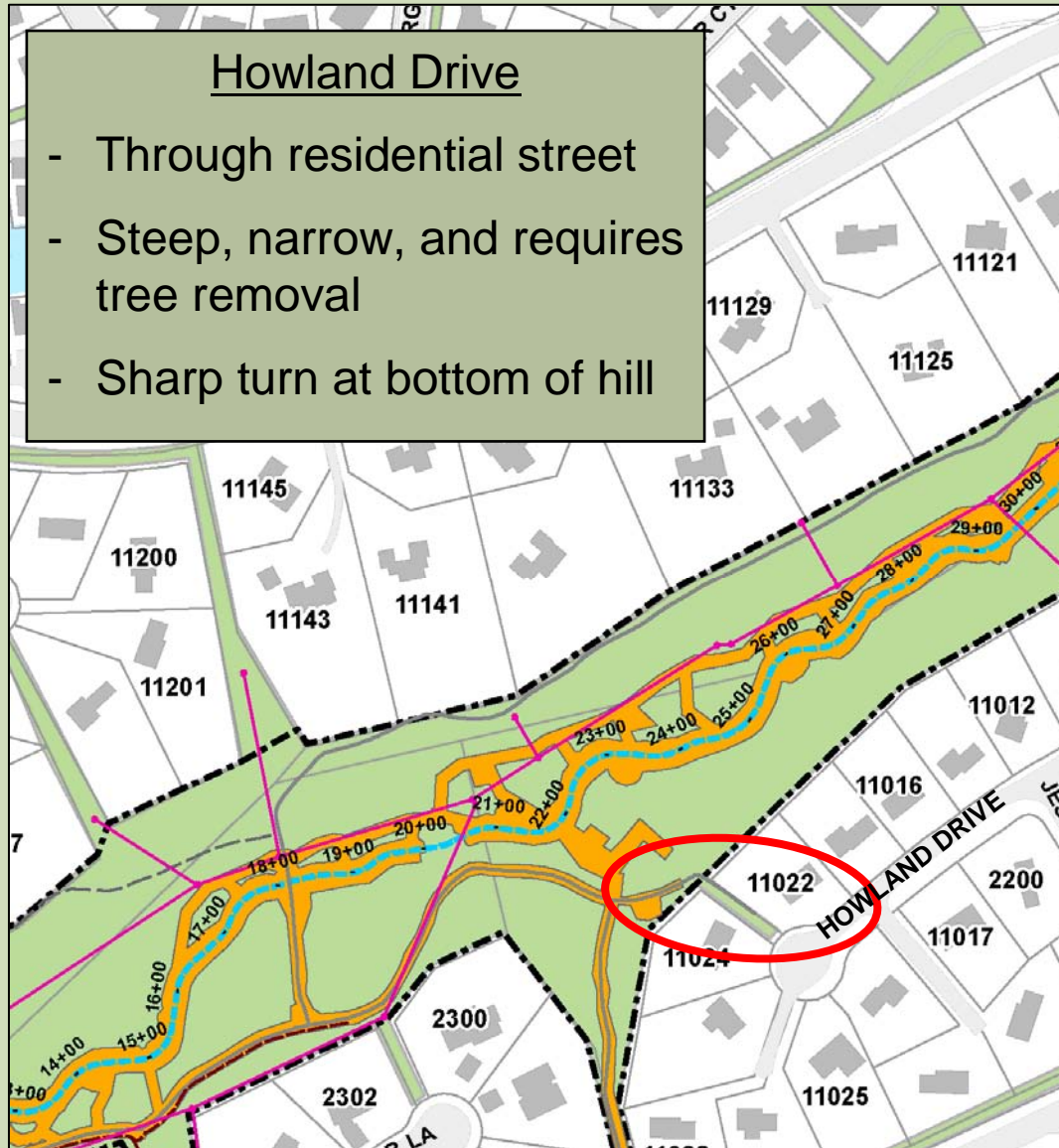
3. TST means total surveyed trees.

* Compiled 06/12/09, Revised 07/24/09

THE GLADE REACH 6 - ACCESS OPTIONS

Howland Drive

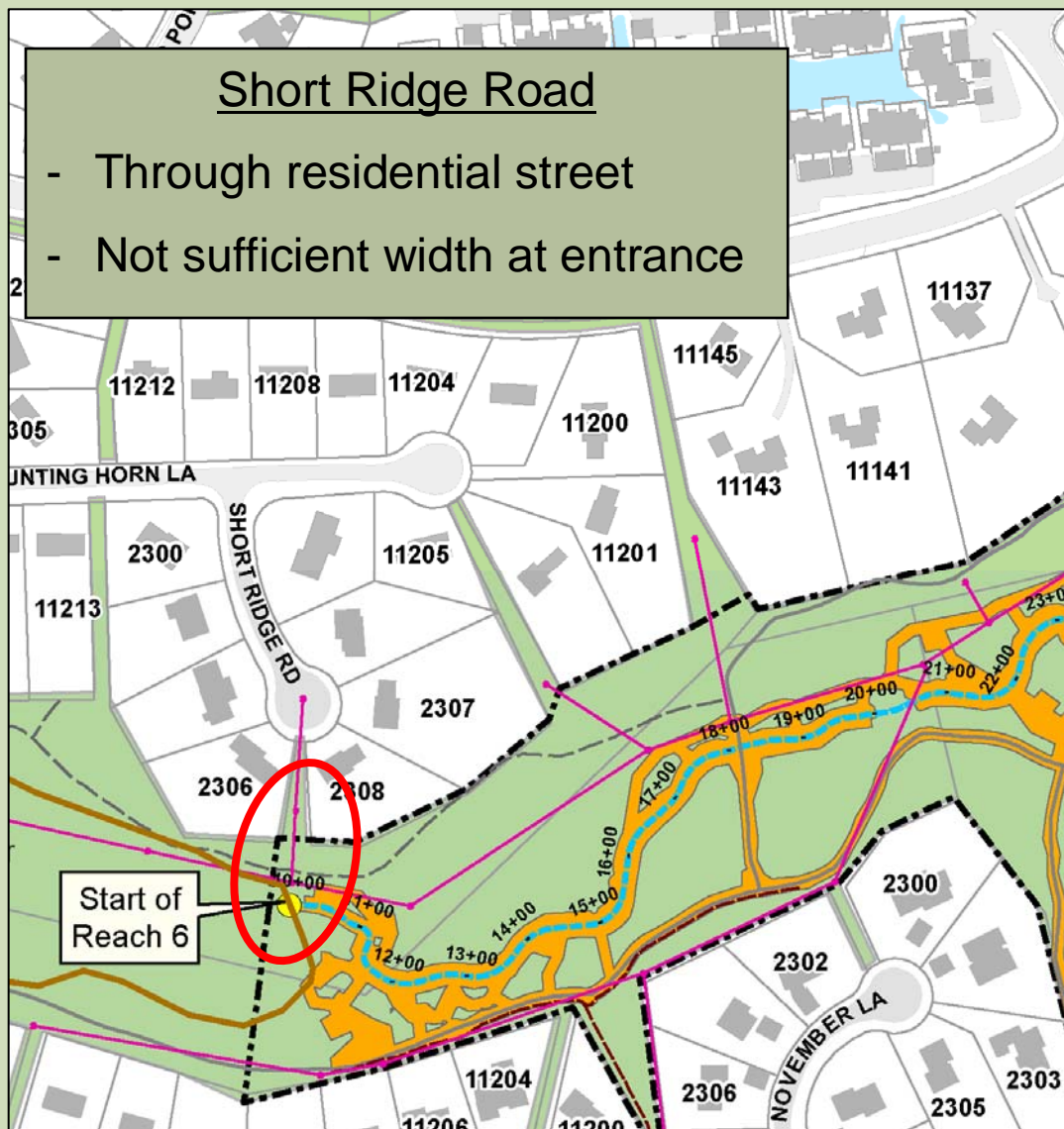
- Through residential street
- Steep, narrow, and requires tree removal
- Sharp turn at bottom of hill



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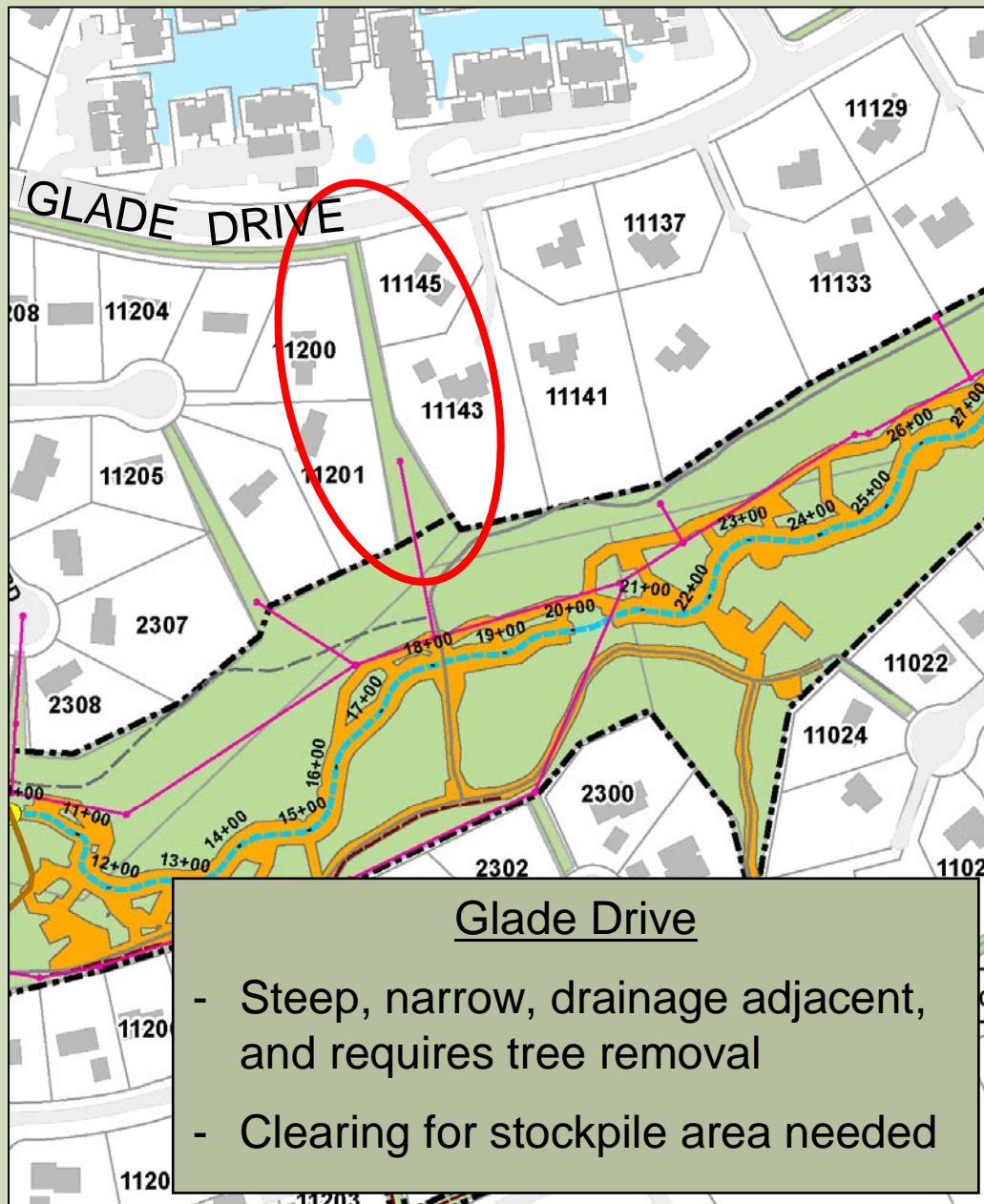
THE GLADE REACH 6 - ACCESS OPTIONS



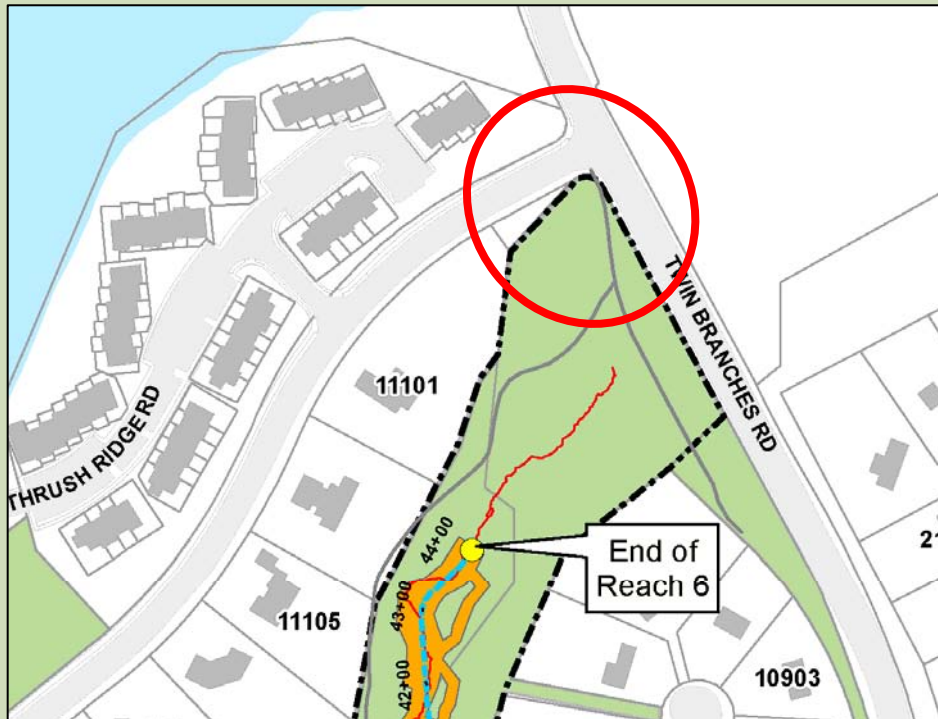
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THE GLADE REACH 6 - ACCESS OPTIONS



THE GLADE REACH 6 - ACCESS OPTIONS



Twin Branches Road and Glade Drive (removed after citizen vote 7/24/09)

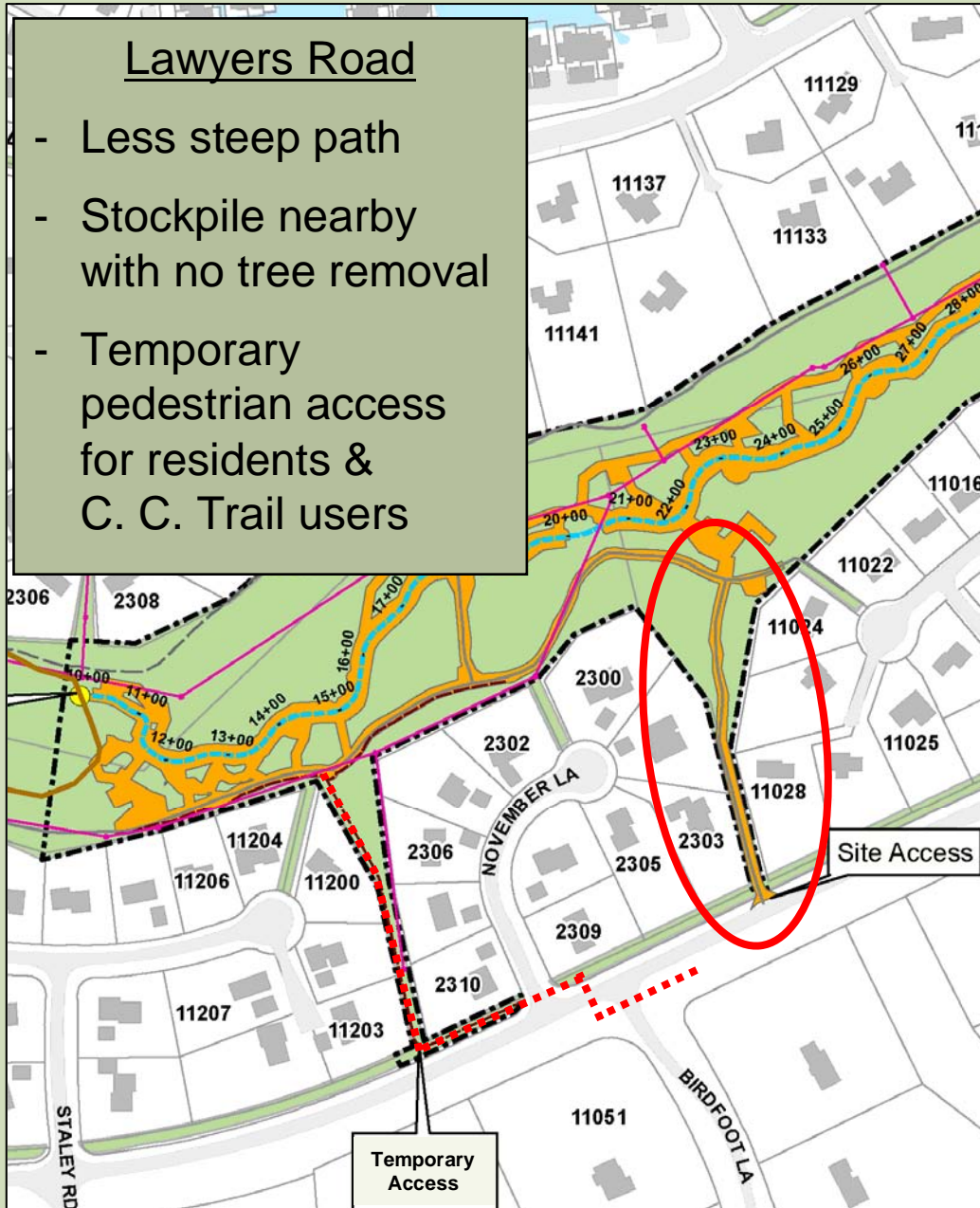
- Busy intersection with odd approach angle
- Steep, narrow path
- Requires tree removal
- Stockpile near area not being restored
- No viable pedestrian access alternatives



THE GLADE REACH 6 - ACCESS PLAN

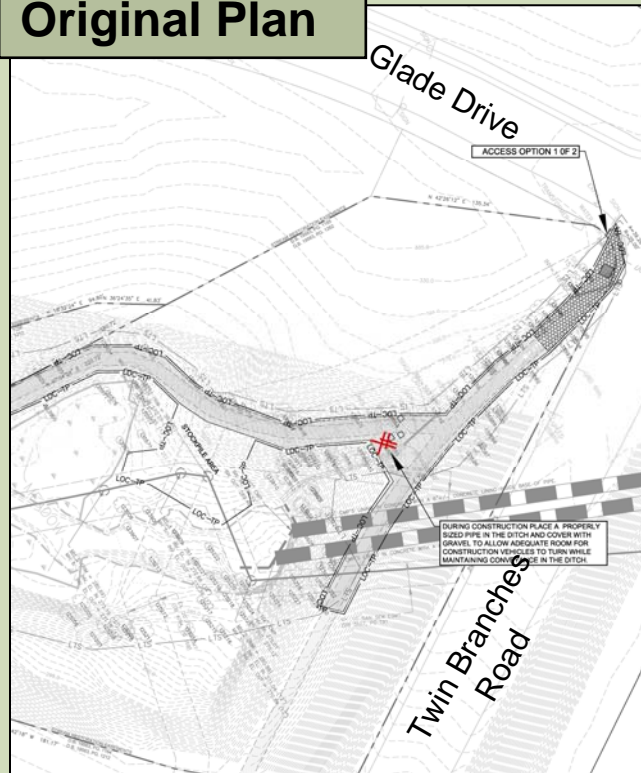
Lawyers Road

- Less steep path
- Stockpile nearby with no tree removal
- Temporary pedestrian access for residents & C. C. Trail users



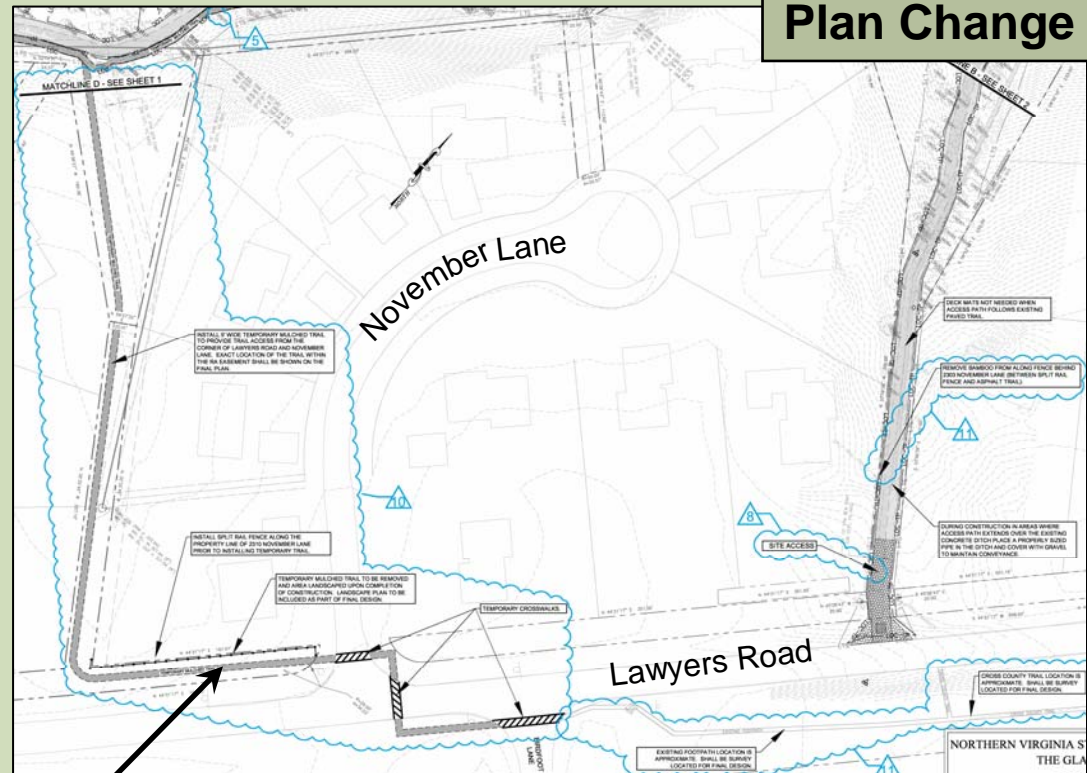
THE GLADE REACH 6 CONSTRUCTION ACCESS CHANGES

Original Plan



Glade / Twin Branches

Plan Change



Lawyers Road

WSSI to add split rail fence & landscaping at 2310 November Lane

November Lane Meeting (July 28, 2009):
Chose location of temporary pedestrian access trail.

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THE GLADE REACH 6

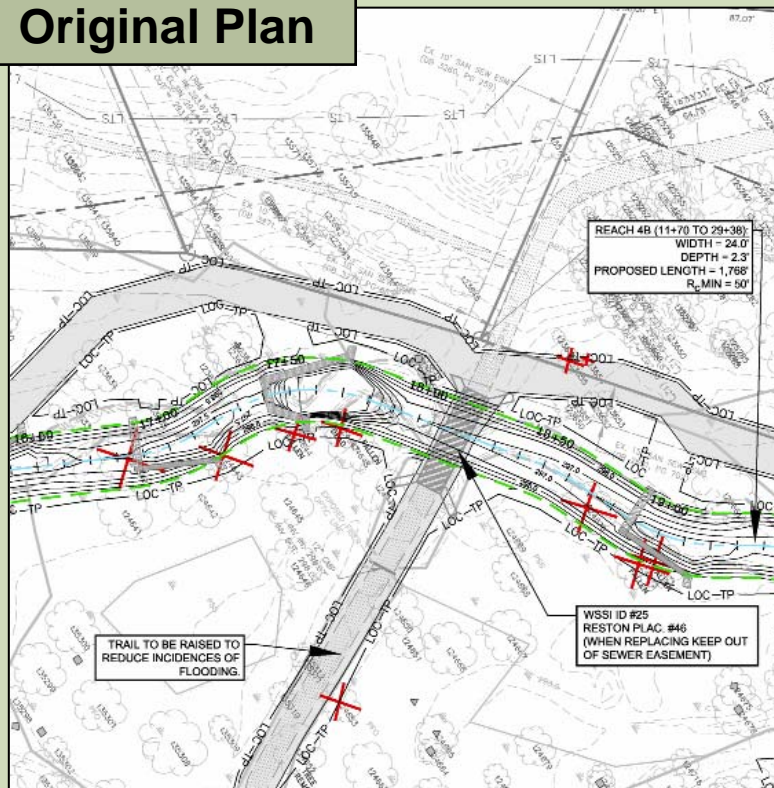
CONSTRUCTION ACCESS CHANGES

RESPONSE TO CITIZEN CONCERNS

- This entrance has adequate sight distance per Minimum Standards of Entrances to State Highways, Table 1.
- There is not continuous traffic flow in and out of the construction entrance.
 - Construction Crew Vehicles: average 5 - 8
 - Material Deliveries: average 15 - 20 per week
- Construction Crew Parking provided for workers adjacent to stockpile area (not on Lawyers Road).
- Temporary pedestrian access trail provided (for November Lane and the Cross County Trail. Trail will be removed once construction is complete).

THE GLADE REACH 6 CHANGE ELIMINATED TRAIL IMPROVEMENTS

Original Plan

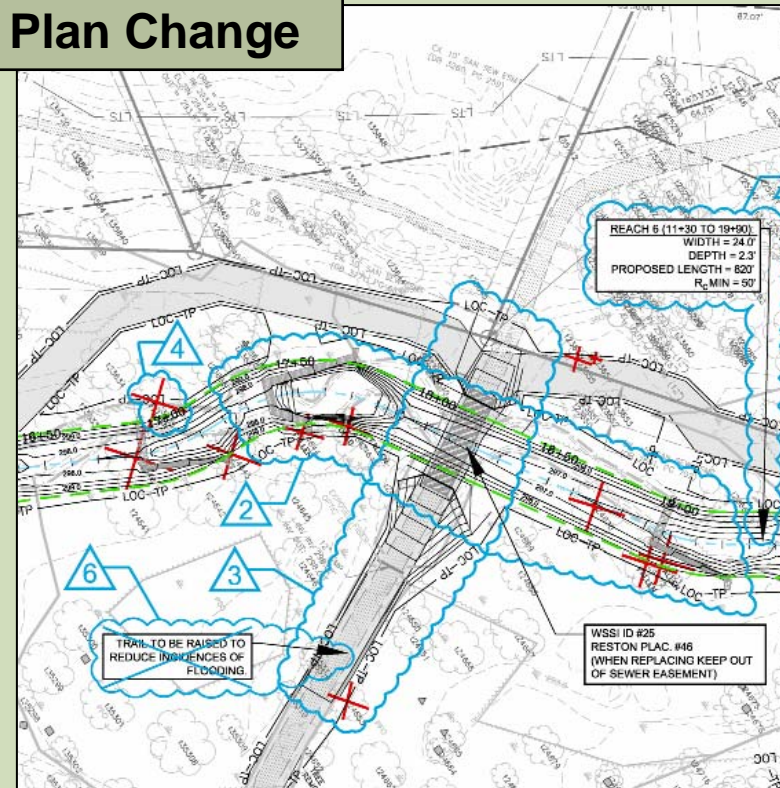


Pre-Design Citizen Request:

Raise trail to reduce flooding
and trail erosion

(incorporated into 1st Prelim Plan)

Plan Change

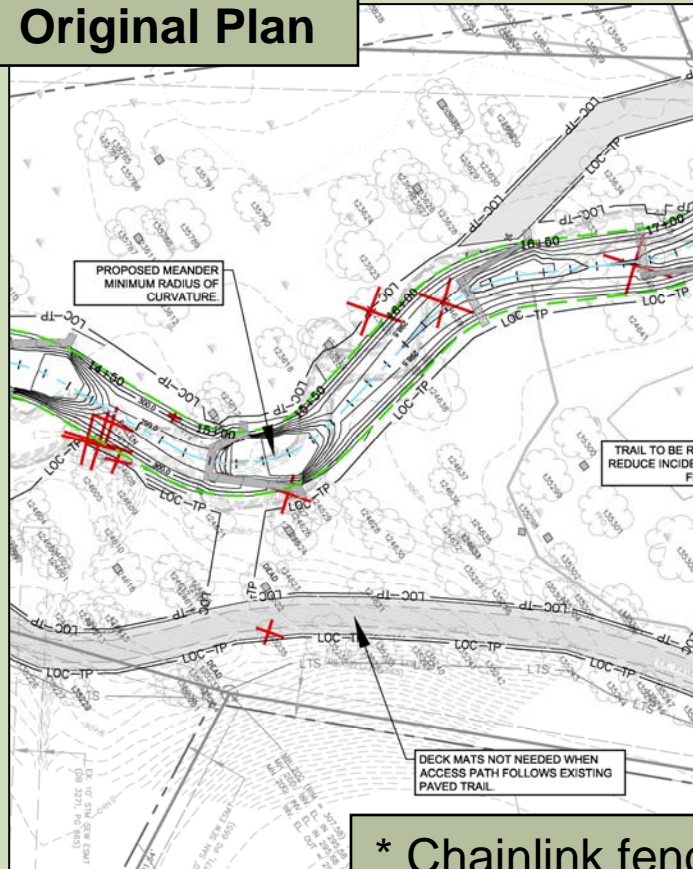


Preliminary Meeting (June 27, 2009):

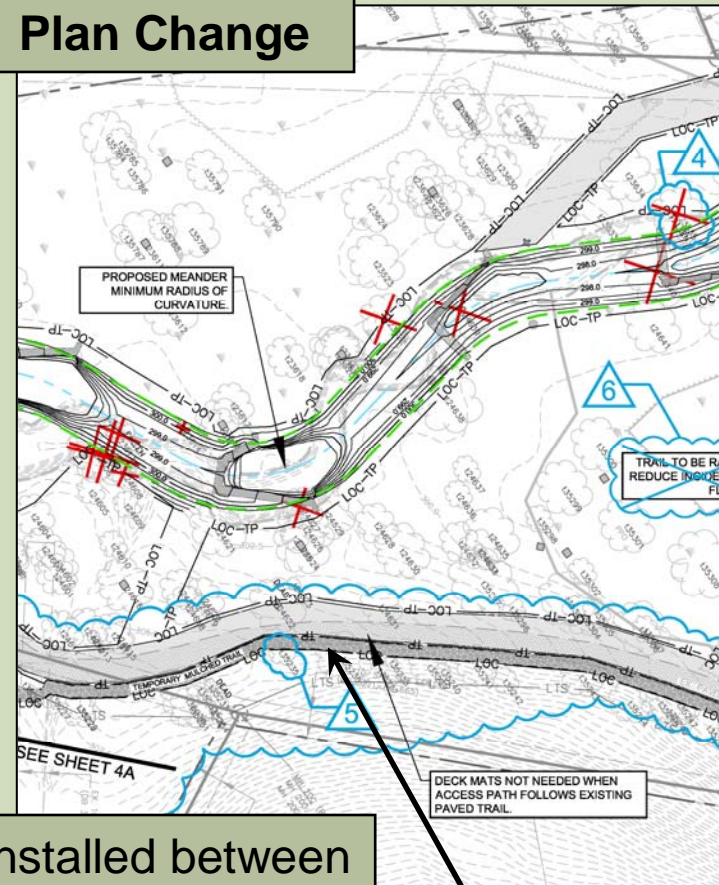
Citizen vote to not raise trail.

THE GLADE REACH 6 CHANGE
ADDED MULCH TRAIL PARALLEL TO
PAVED TRAIL USED FOR ACCESS

Original Plan



Plan Change

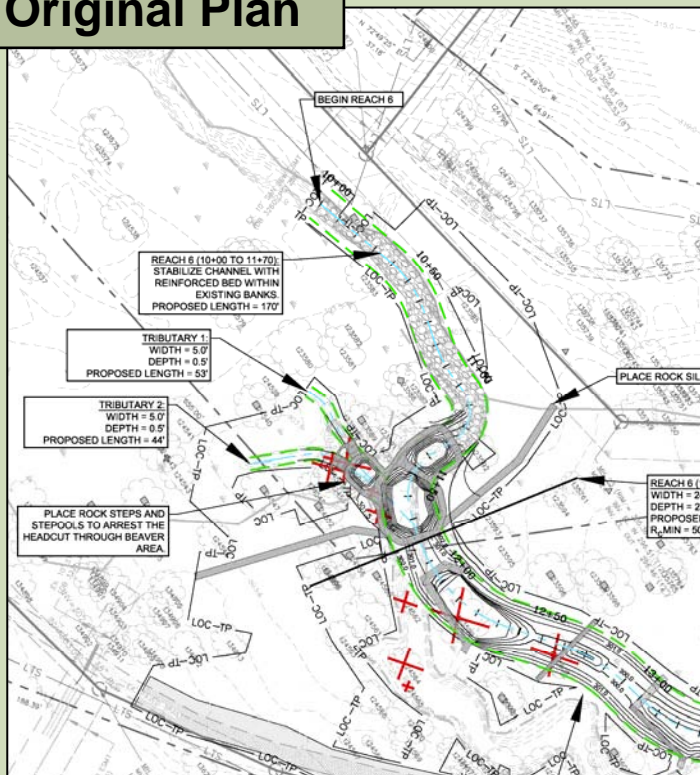


* Chainlink fence will be installed between Mulch Trail and Access Path.

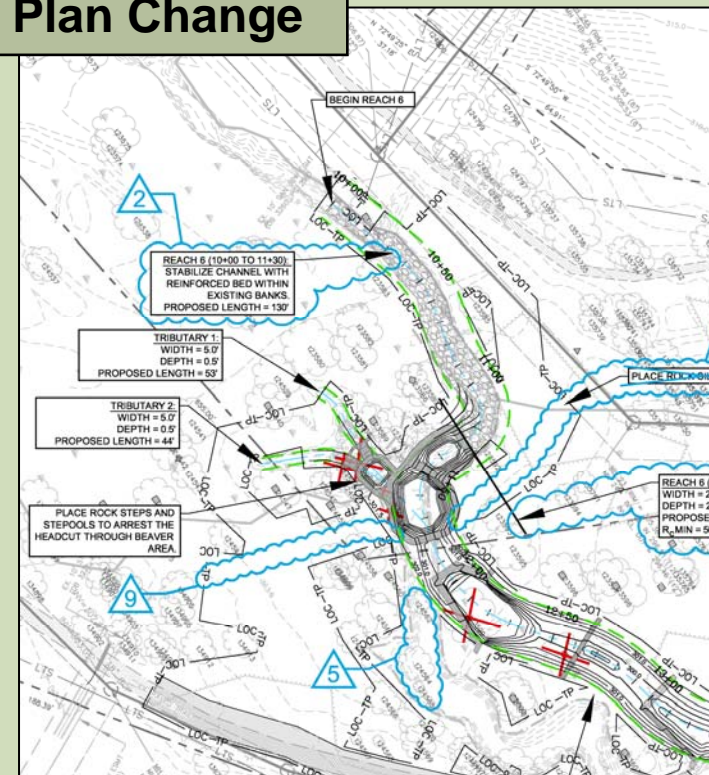
A Mulch Trail Added

THE GLADE REACH 6 CHANGE REMOVED ROCK SILL

Original Plan

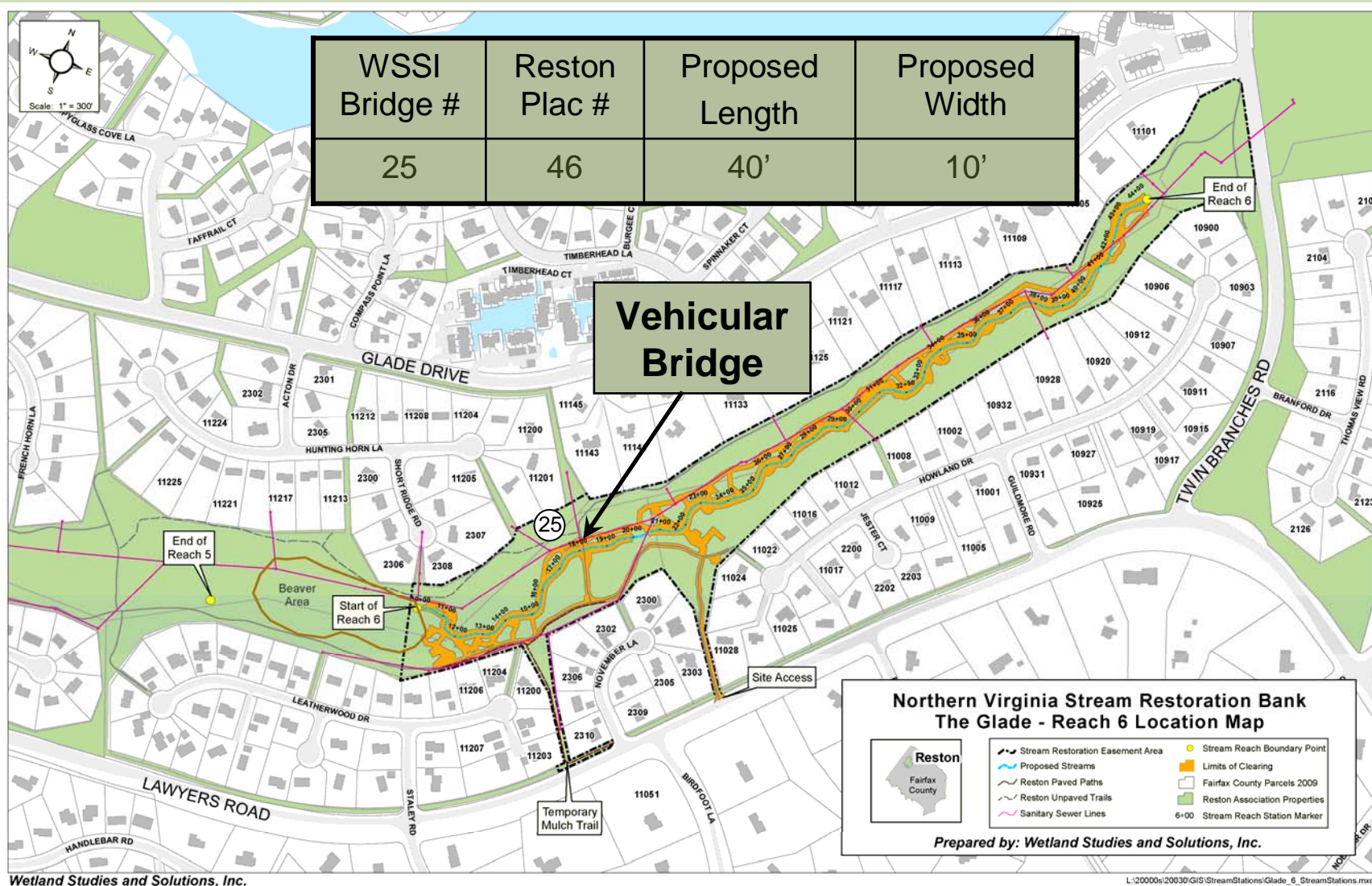


Plan Change



Removed flush rock sills as they are necessary only for short term stabilization until vegetation re-establishes.
This area is close to access if repairs are necessary.

REACH 6 BRIDGE



QUESTIONS?