

Town of Wilmington, Vermont
Hoot Toot & Whistle Trail
Trail Remediation
Preliminary Opinion of Probable Cost



October 2022

SUMMARY TABLE				
Item	Qty	Unit	Calculated Cost	Rounded Cost
Segment 1 - Picnic Area / Boat Launch to Nature Trail Spurr	1	LS	\$ 31,950.45	\$ 32,000.00
Segment 2 - Nature Trail Spurr	1	LS	\$ 29,275.63	\$ 29,000.00
Segment 3 - RailTrail Construction	1	LS	\$ 25,016.67	\$ 25,000.00
Segment 3A - Access off Fairview Ave	1	LS	\$ 22,686.59	\$ 23,000.00
Segment 3B - Fairview Ave Parking Area & Trailhead	1	LS	\$ 58,397.57	\$ 58,000.00
Segment 4 - Nature Trail Spurr to WWTF	1	LS	\$ 11,136.12	\$ 11,000.00
Segment 5 - WWTF to Mill St. Trailhead	1	LS	\$ 4,579.97	\$ 5,000.00
Segment 6 - New Swithback East of WWTF	1	LS	\$ 42,329.55	\$ 42,000.00
			Subtotal	\$ 225,000.00
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	11,250.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	13,500.00
General Conditions (Moderate - 8%)	1	LS	\$	18,000.00
Escalation (Annual - 5%)	1	LS	\$	11,250.00
Construction / Design Contingency (20%)	1	LS	\$	45,000.00
	TOTAL:			\$ 324,000.00
TOTAL COST OF ALL IMPROVEMENTS:			SAY	\$ 324,000.00
Notes:				
1. Estimate based on the October 2022 Hoot, Toot & Whistle Trail Improvement Project plans & details.				



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SEGMENT 1 - PICNIC AREA / BOAT LAUNCH TO NATURE TRAIL SPURR				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.39	AC	\$ 13,745.45	\$ 5,360.73
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	640	LF	\$ 2.93	\$ 1,877.92
Trail Remediation - Trail Leveling (Cut & Fill)	590	LF	\$ 8.28	\$ 4,887.17
Trail Remediation - Trail Leveling (Aggregate Fill)	590	LF	\$ 15.82	\$ 9,335.11
Trail Construction - Wood Bridge	40	LF	\$ 35.00	\$ 1,400.00
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Trail Drainage Improvement - Aggregate Fill	11	EA	\$ 148.57	\$ 1,634.27
Trail Drainage Improvement - Timber Retainer	3	EA	\$ 880.61	\$ 2,641.83
Trail Drainage Improvement - Large Timber Retainer	1	EA	\$ 2,400.00	\$ 2,400.00
Trail Drainage Improvement - Culvert	3	EA	\$ 607.81	\$ 1,823.43
			Subtotal	\$ 31,950.45
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	1,598.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	1,917.00
General Conditions (Moderate - 8%)	1	LS	\$	2,556.00
Escalation (Annual - 5%)	1	LS	\$	1,598.00
Construction / Design Contingency (20%)	1	LS	\$	6,390.00
	TOTAL:			\$ 46,009.45
TOTAL COST OF PHASE 1 IMPROVEMENTS:			SAY	\$ 46,000.00



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October 2022

SEGMENT 2 - NATURE TRAIL SPURR				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.32	AC	\$ 13,745.45	\$ 4,398.54
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	0	LF	\$ 8.28	\$ -
Trail Remediation - Trail Leveling (Aggregate Fill)	1,385	LF	\$ 15.82	\$ 21,913.78
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Trail Drainage Improvement - Aggregate Fill	4	EA	\$ 148.57	\$ 594.28
Trail Drainage Improvement - Timber Retainer	2	EA	\$ 880.61	\$ 1,761.22
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	1	EA	\$ 607.81	\$ 607.81
			Subtotal	\$ 29,275.63
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	1,464.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	1,757.00
General Conditions (Moderate - 8%)	1	LS	\$	2,342.00
Escalation (Annual - 5%)	1	LS	\$	1,464.00
Construction / Design Contingency (20%)	1	LS	\$	5,855.00
	TOTAL:			\$ 42,157.63
TOTAL COST OF PHASE 2 IMPROVEMENTS:			SAY	\$ 42,000.00



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SEGMENT 3 - RAILTRAIL CONSTRUCTION				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0	AC	\$ 13,745.45	\$ -
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	0	LF	\$ 8.28	\$ -
Trail Remediation - Trail Leveling (Aggregate Fill)	0	LF	\$ 15.82	\$ -
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	1,580	LF	\$ 15.83	\$ 25,016.67
Trail Drainage Improvement - Aggregate Fill	0	EA	\$ 148.57	\$ -
Trail Drainage Improvement - Timber Retainer	0	EA	\$ 880.61	\$ -
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	0	EA	\$ 607.81	\$ -
			Subtotal	\$ 25,016.67
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	1,251.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	1,501.00
General Conditions (Moderate - 8%)	1	LS	\$	2,001.00
Escalation (Annual - 5%)	1	LS	\$	1,251.00
Construction / Design Contingency (20%)	1	LS	\$	5,003.00
	TOTAL:			\$ 36,023.67
TOTAL COST OF PHASE 3 IMPROVEMENTS:			SAY	\$ 36,000.00

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October 2022

SEGMENT 3A - ACCESS ROAD OFF FAIRVIEW AVENUE				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.20	AC	\$ 13,745.45	\$ 2,749.09
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	0	LF	\$ 8.28	\$ -
Trail Remediation - Trail Leveling (Aggregate Fill)	0	LF	\$ 15.82	\$ -
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Access Road Construction - Fairview Ave to Rail Bed	225	LF	\$ 88.61	\$ 19,937.50
Trail Drainage Improvement - Aggregate Fill	0	EA	\$ 148.57	\$ -
Trail Drainage Improvement - Timber Retainer	0	EA	\$ 880.61	\$ -
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	0	EA	\$ 607.81	\$ -
			Subtotal	\$ 22,686.59
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	1,134.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	1,361.00
General Conditions (Moderate - 8%)	1	LS	\$	1,815.00
Escalation (Annual - 5%)	1	LS	\$	1,134.00
Construction / Design Contingency (20%)	1	LS	\$	4,537.00
	TOTAL:			\$ 32,667.59
TOTAL COST OF PHASE 3A IMPROVEMENTS:			SAY	\$ 33,000.00

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October 2022

SEGMENT 3B - FAIRVIEW AVENUE PARKING AREA & TRAILHEAD				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.35	AC	\$ 13,745.45	\$ 4,810.91
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	0	LF	\$ 8.28	\$ -
Trail Remediation - Trail Leveling (Aggregate Fill)	0	LF	\$ 15.82	\$ -
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Parking Area - Pavement & Striping	5,520	SF	\$ 7.81	\$ 43,086.67
Parking Area - Trailhead Signage & Kiosk	1	LS	\$ 7,500.00	\$ 7,500.00
Parking Area - Landscape Trees	3	EA	\$ 1,000.00	\$ 3,000.00
Trail Drainage Improvement - Aggregate Fill	0	EA	\$ 148.57	\$ -
Trail Drainage Improvement - Timber Retainer	0	EA	\$ 880.61	\$ -
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	0	EA	\$ 607.81	\$ -
			Subtotal	\$ 58,397.57
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	2,920.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	3,504.00
General Conditions (Moderate - 8%)	1	LS	\$	4,672.00
Escalation (Annual - 5%)	1	LS	\$	2,920.00
Construction / Design Contingency (20%)	1	LS	\$	11,680.00
	TOTAL:			\$ 84,093.57
TOTAL COST OF PHASE 3B IMPROVEMENTS:			SAY	\$ 84,000.00

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October 2022

SEGMENT 4 - NATURE TRAIL SPURR TO WWTF				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.09	AC	\$ 13,745.45	\$ 1,237.09
Remove & Reset WWTF Boardwalk	1	LS	\$ 5,000.00	\$ 5,000.00
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	340	LF	\$ 8.28	\$ 2,816.33
Trail Remediation - Trail Leveling (Aggregate Fill)	0	LF	\$ 15.82	\$ -
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Trail Drainage Improvement - Aggregate Fill	4	EA	\$ 148.57	\$ 594.28
Trail Drainage Improvement - Timber Retainer	1	EA	\$ 880.61	\$ 880.61
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	1	EA	\$ 607.81	\$ 607.81
			Subtotal	\$ 11,136.12
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	557.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	668.00
General Conditions (Moderate - 8%)	1	LS	\$	891.00
Escalation (Annual - 5%)	1	LS	\$	557.00
Construction / Design Contingency (20%)	1	LS	\$	2,227.00
	TOTAL:			\$ 16,036.12
TOTAL COST OF PHASE 4 IMPROVEMENTS:			SAY	\$ 16,000.00

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October 2022

SEGMENT 5 - WWTF TO MILL ST. TRAILHEAD				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.07	AC	\$ 13,745.45	\$ 962.18
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	290	LF	\$ 8.28	\$ 2,402.17
Trail Remediation - Trail Leveling (Aggregate Fill)	0	LF	\$ 15.82	\$ -
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	0	LF	\$ 95.39	\$ -
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Trail Drainage Improvement - Aggregate Fill	0	EA	\$ 148.57	\$ -
Trail Drainage Improvement - Timber Retainer	0	EA	\$ 880.61	\$ -
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	2	EA	\$ 607.81	\$ 1,215.62
			Subtotal	\$ 4,579.97
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	229.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	275.00
General Conditions (Moderate - 8%)	1	LS	\$	366.00
Escalation (Annual - 5%)	1	LS	\$	229.00
Construction / Design Contingency (20%)	1	LS	\$	916.00
	TOTAL:			\$ 6,594.97
TOTAL COST OF PHASE 5 IMPROVEMENTS:			SAY	\$ 7,000.00

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Hoot Toot & Whistle Trail
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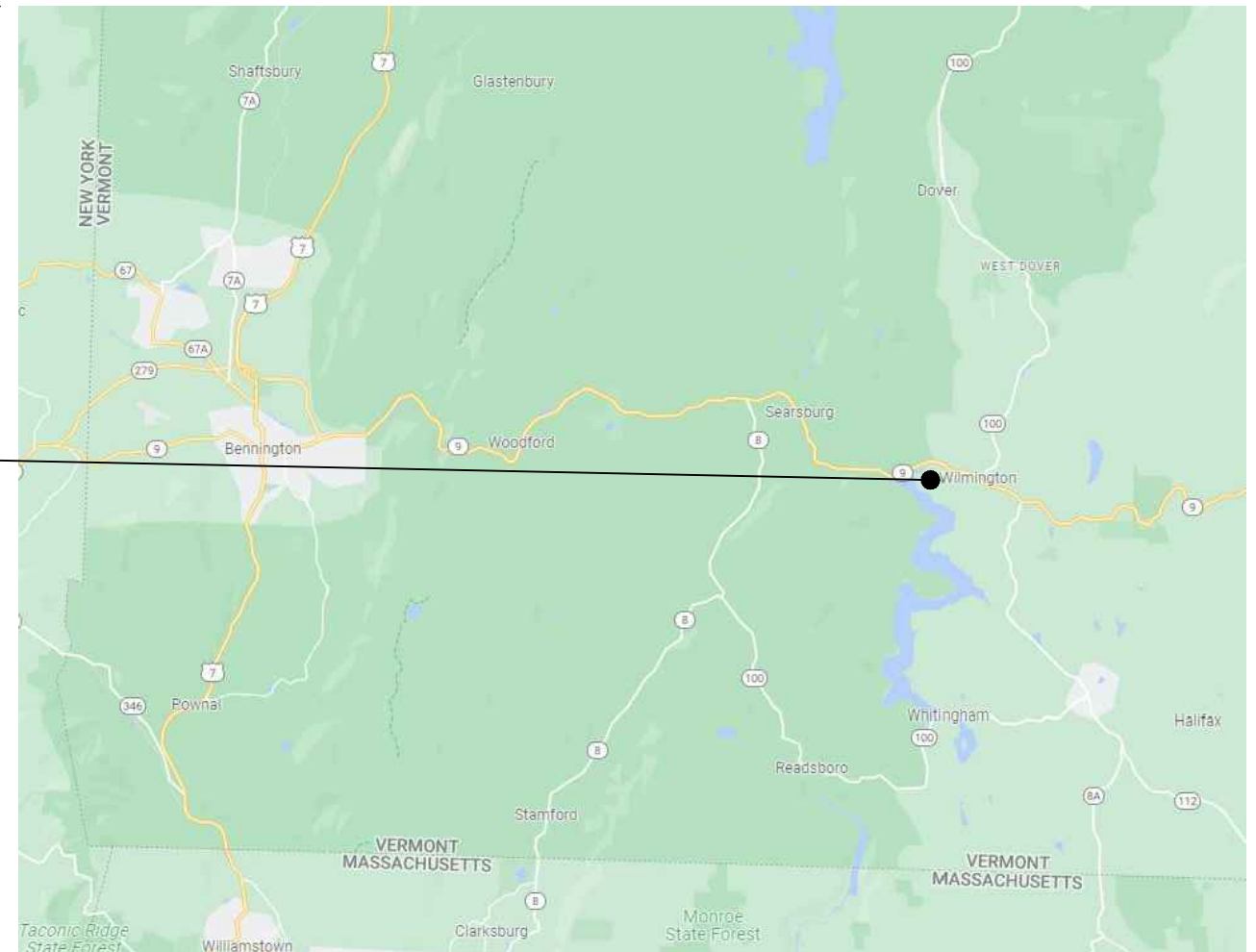
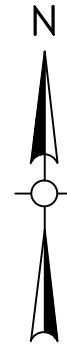
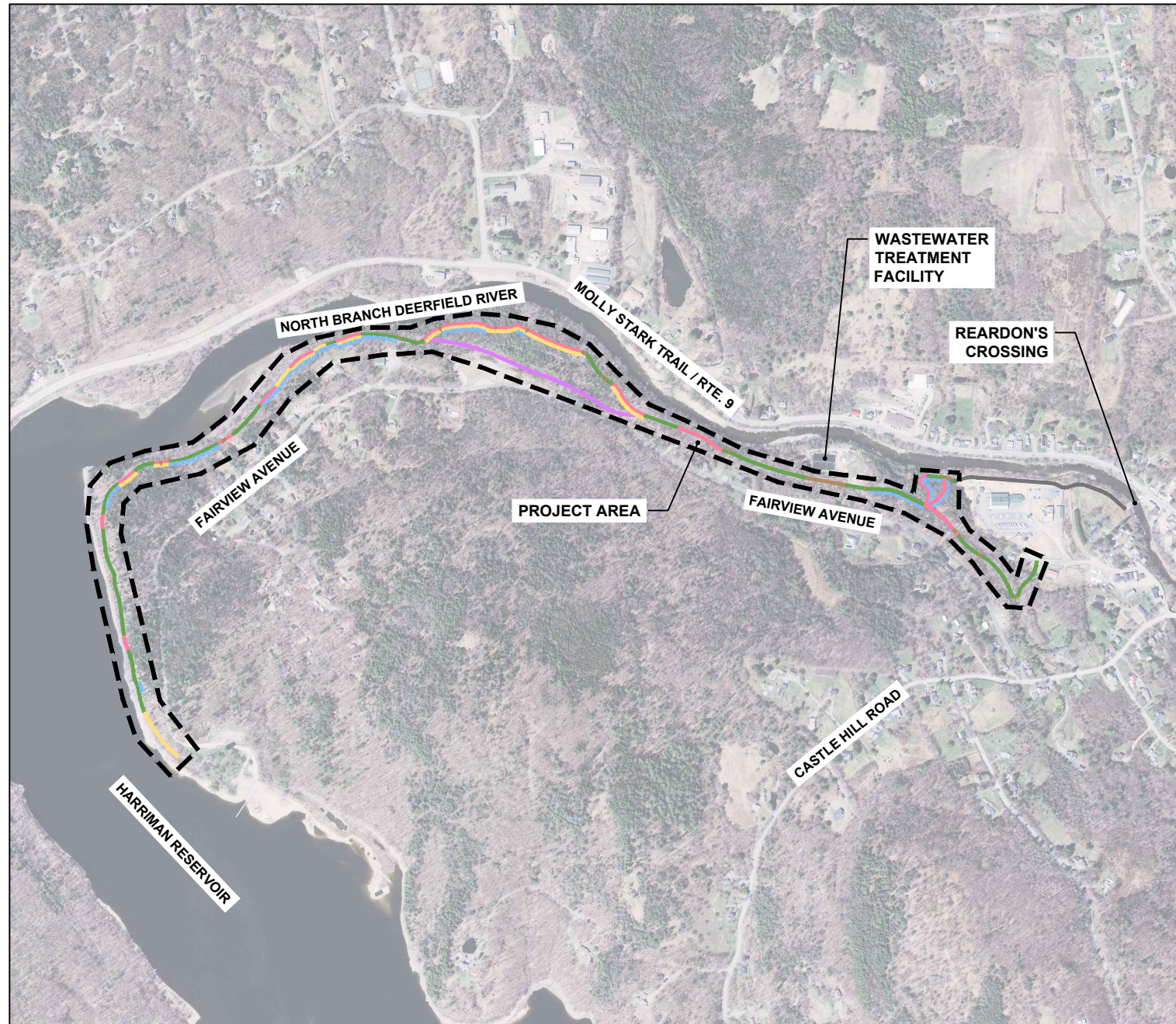


October 2022

SEGMENT 6 - NEW SWITCHBACK EAST OF WWTF				
Item	Qty	Unit	Unit Cost	Ext Cost
Site Improvements				
Site Demolition, Preparation & Earthwork	0.13	AC	\$ 13,745.45	\$ 1,786.91
Remove & Reset WWTF Boardwalk	0	LS	\$ 5,000.00	\$ -
Trail Remediation - Root Removal & Pruning	0	LF	\$ 2.93	\$ -
Trail Remediation - Trail Leveling (Cut & Fill)	0	LF	\$ 8.28	\$ -
Trail Remediation - Trail Leveling (Aggregate Fill)	0	LF	\$ 15.82	\$ -
Trail Construction - Wood Bridge	0	LF	\$ 35.00	\$ -
Trail Construction - Switchback East of WWTF	425	LF	\$ 95.39	\$ 40,542.64
Trail Construction - Conversion of Former Rail Bed to Trail	0	LF	\$ 15.83	\$ -
Trail Drainage Improvement - Aggregate Fill	0	EA	\$ 148.57	\$ -
Trail Drainage Improvement - Timber Retainer	0	EA	\$ 880.61	\$ -
Trail Drainage Improvement - Large Timber Retainer	0	EA	\$ 2,400.00	\$ -
Trail Drainage Improvement - Culvert	0	EA	\$ 607.81	\$ -
			Subtotal	\$ 42,329.55
Drainage & Erosion Control (Moderate - 5%)	1	LS	\$	2,116.00
Mobilization, Bonds & Insurance (Moderate - 6%)	1	LS	\$	2,540.00
General Conditions (Moderate - 8%)	1	LS	\$	3,386.00
Escalation (Annual - 5%)	1	LS	\$	2,116.00
Construction / Design Contingency (20%)	1	LS	\$	8,466.00
	TOTAL:			\$ 60,953.55
TOTAL COST OF PHASE 6 IMPROVEMENTS:			SAY	\$ 61,000.00

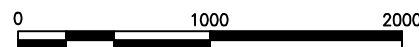
TOWN OF WILMINGTON, VERMONT

HOOT, TOOT, & WHISTLE TRAIL IMPROVEMENT PROJECT



LOCATION MAP
N.T.S.

OVERALL PROJECT AREA

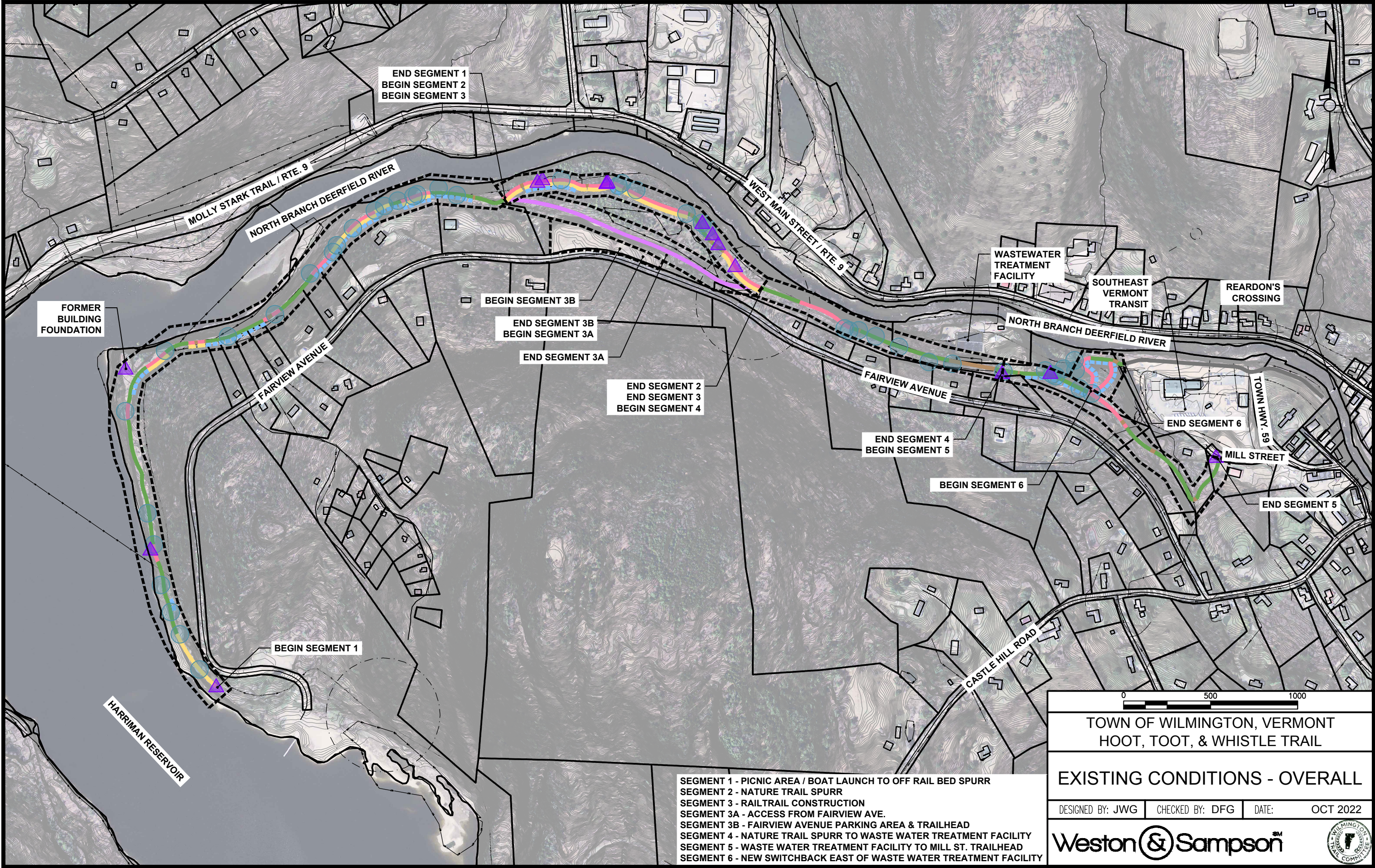


OCTOBER, 2022

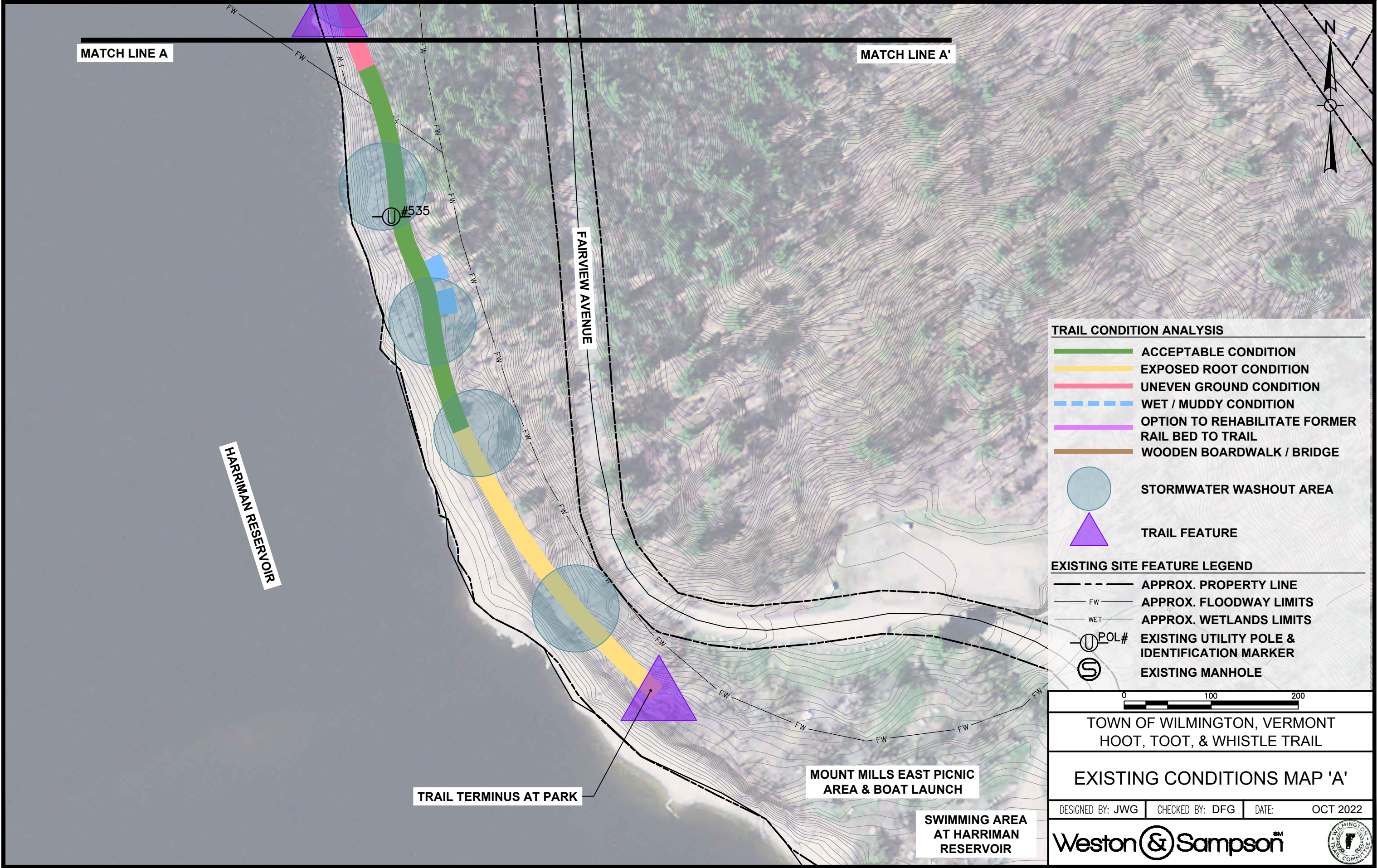


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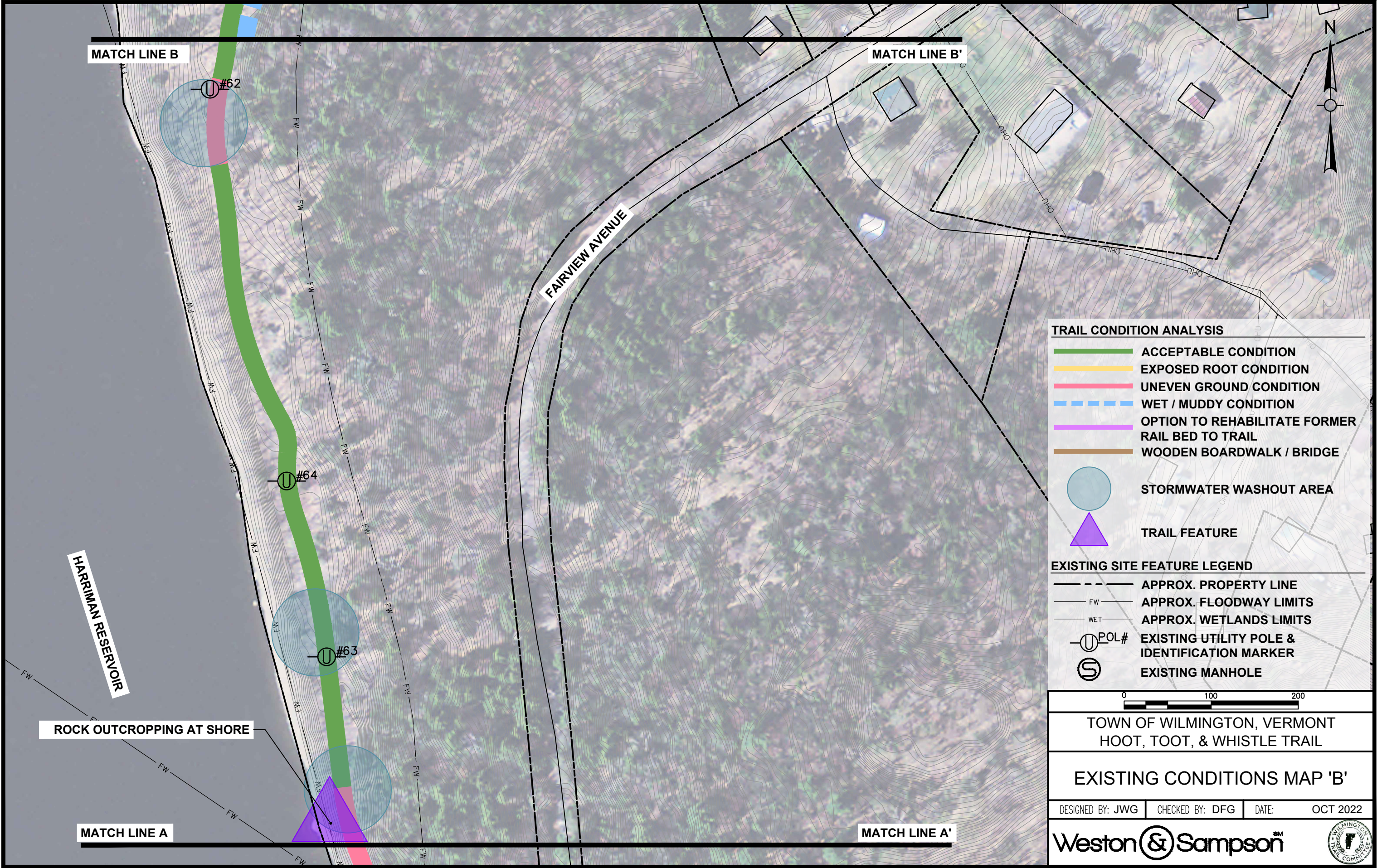
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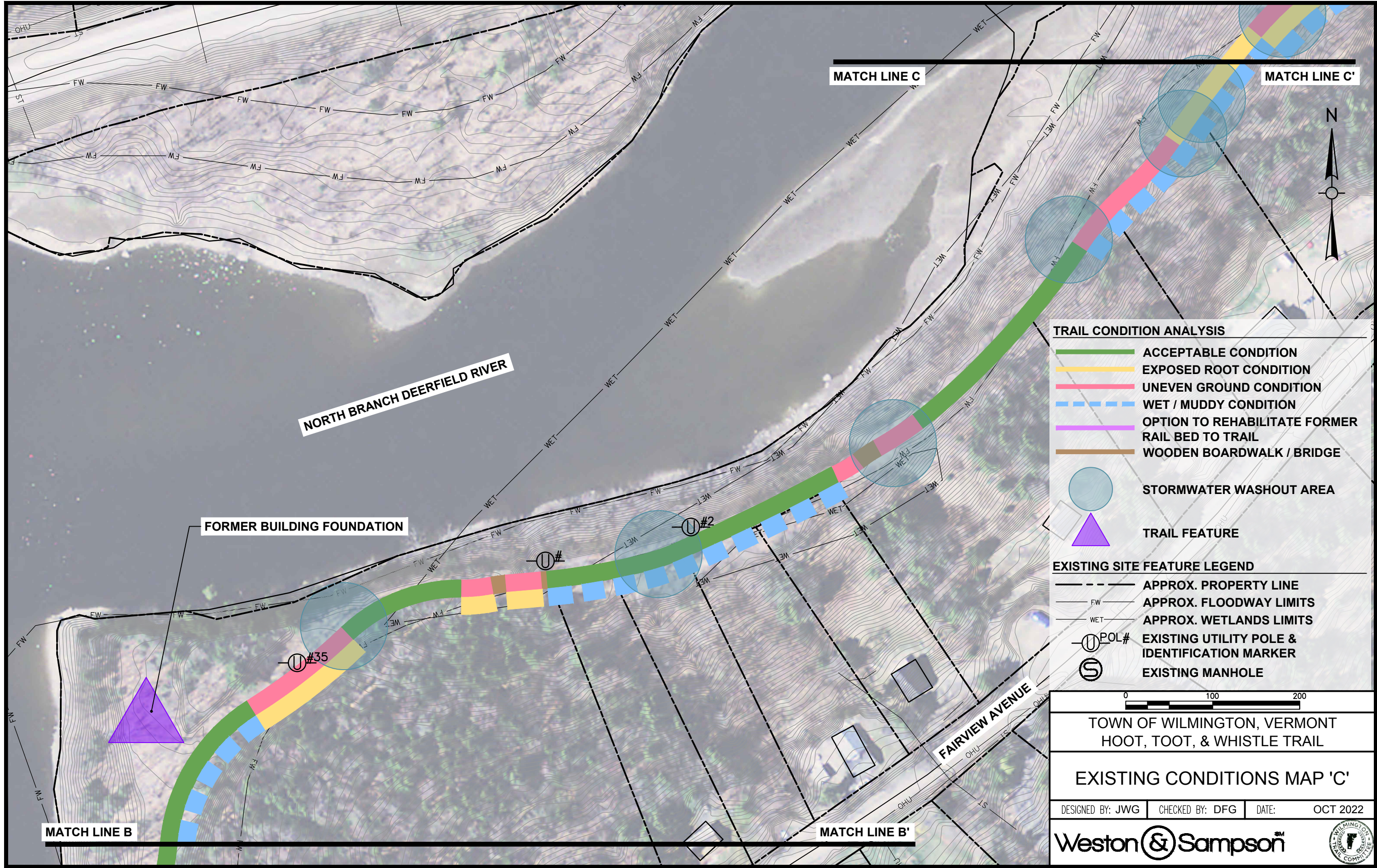
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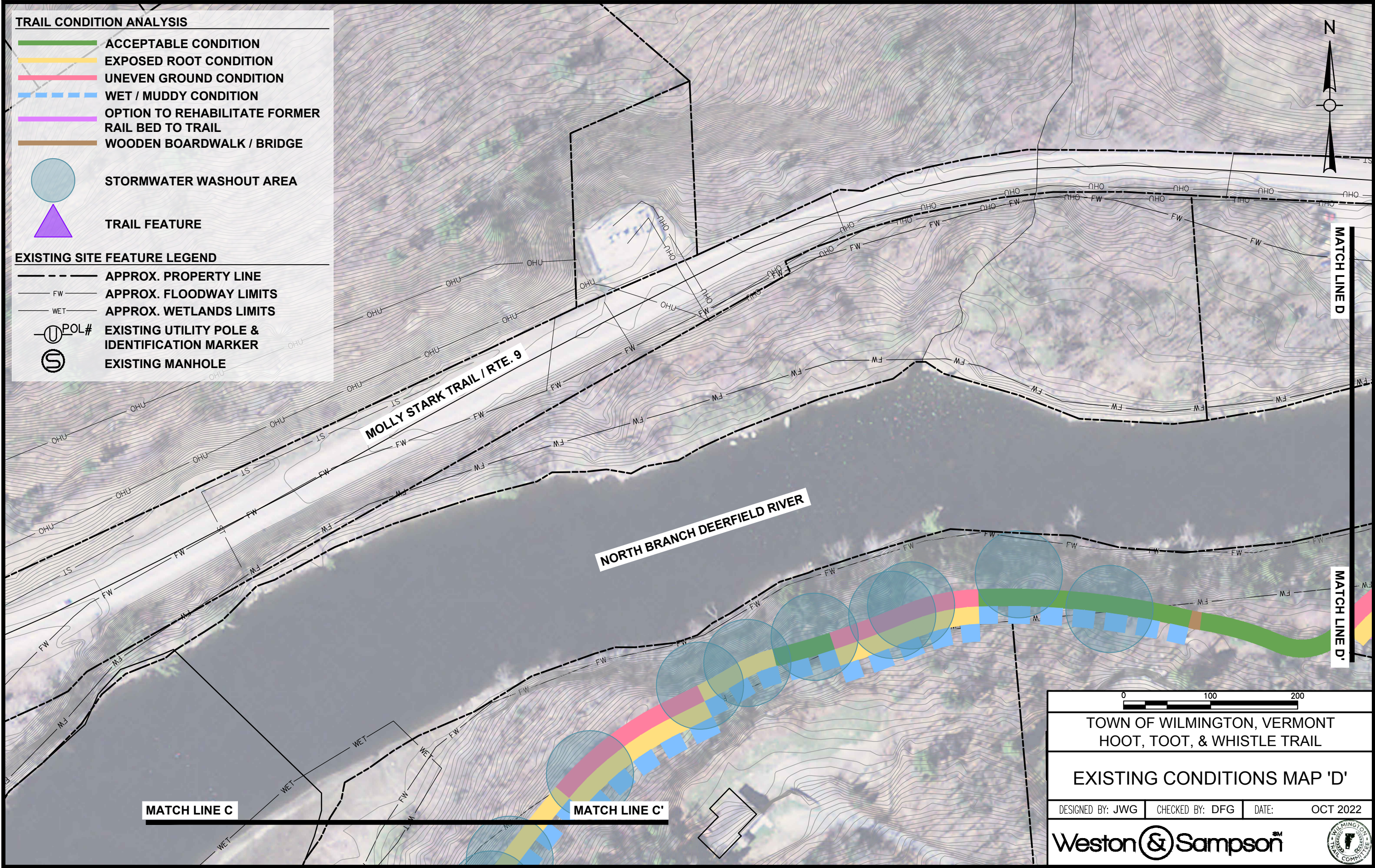
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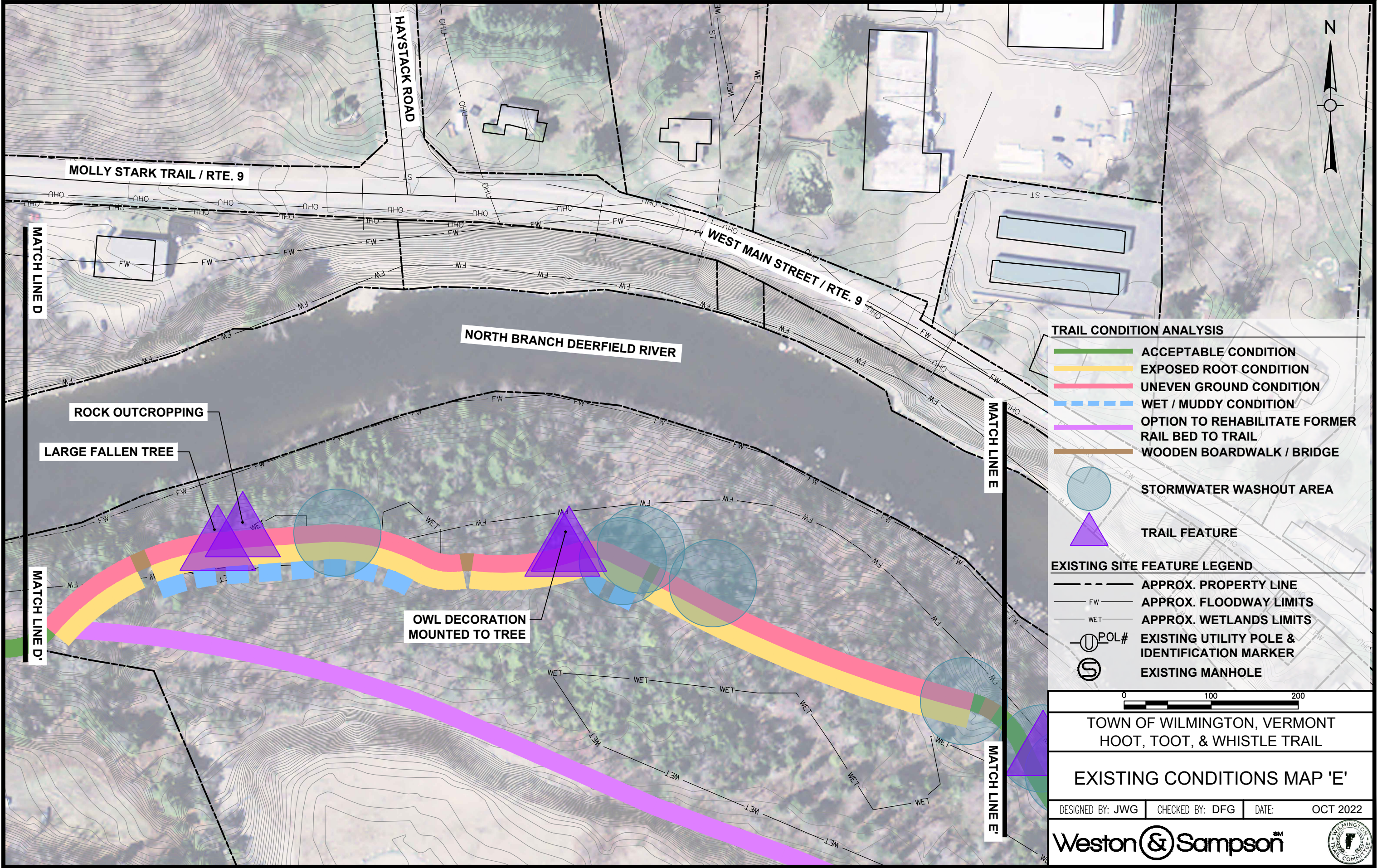
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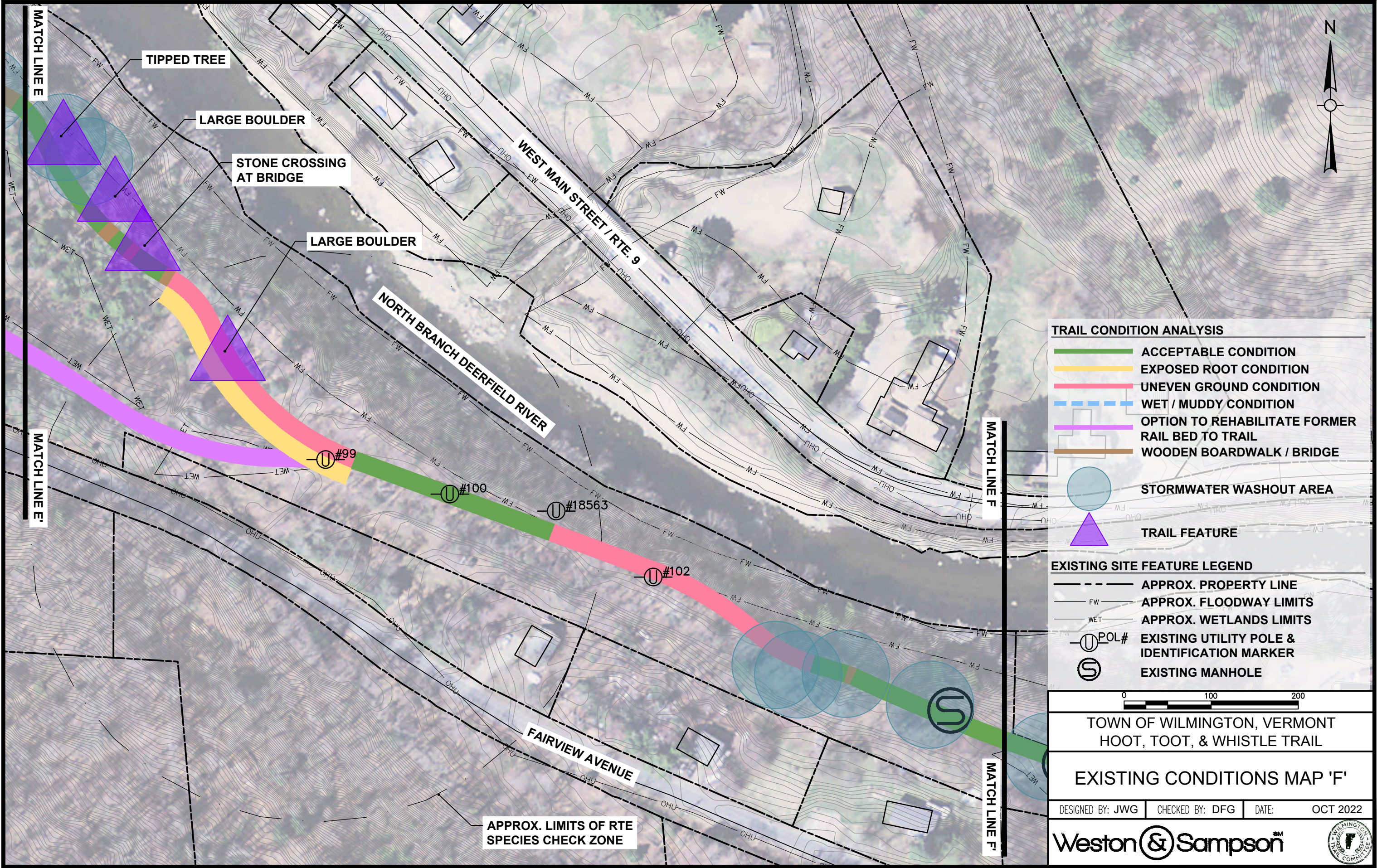
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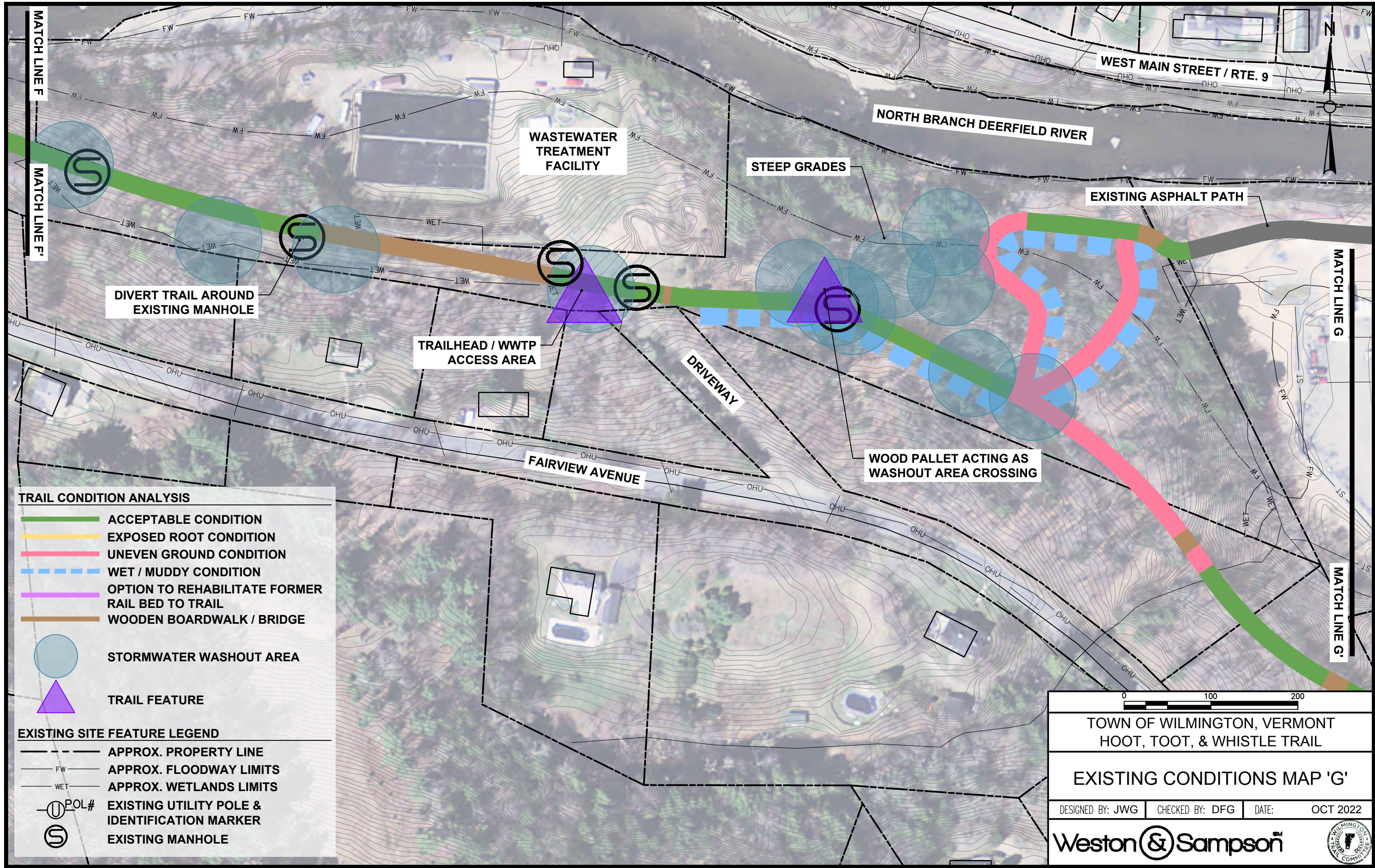
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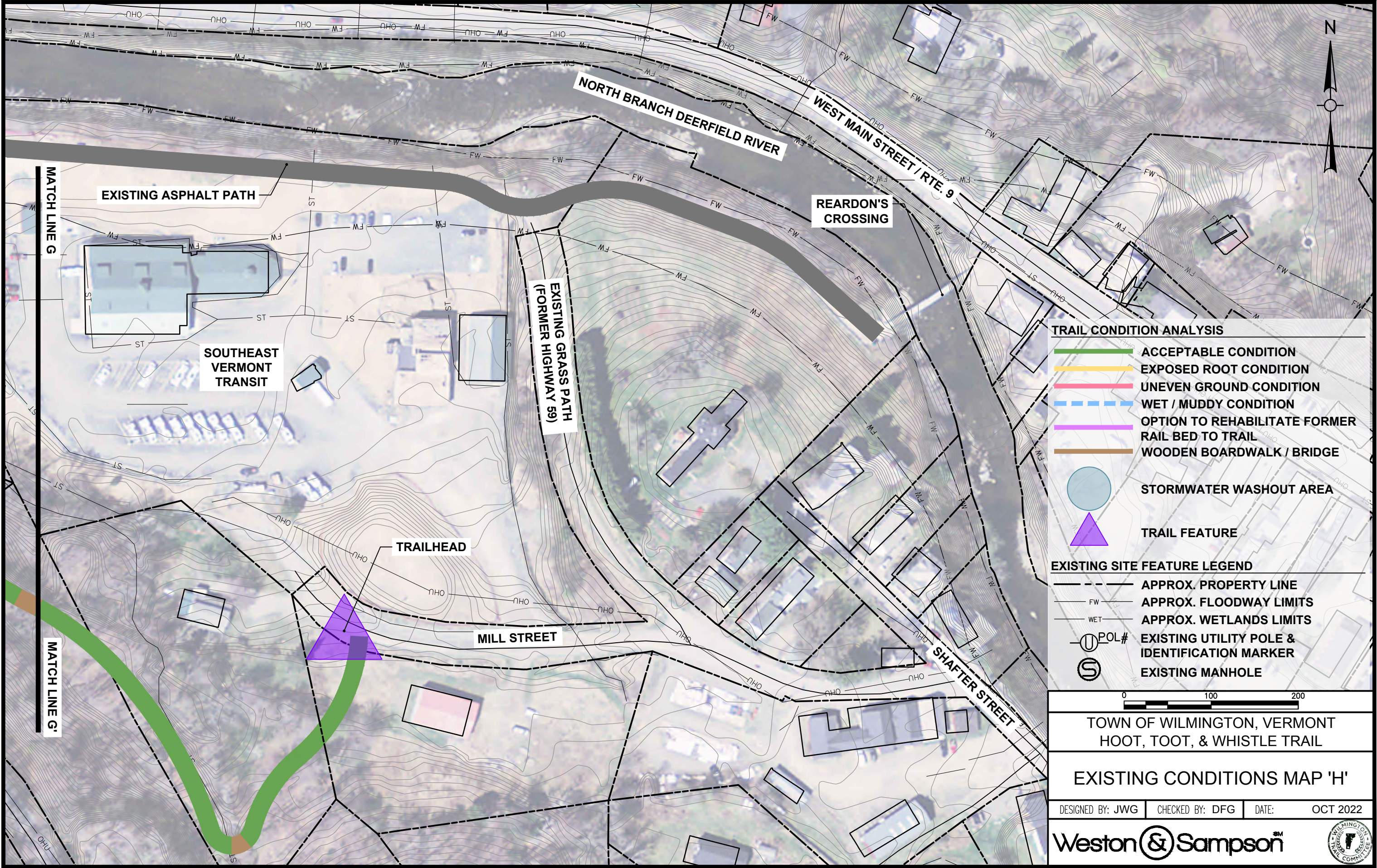
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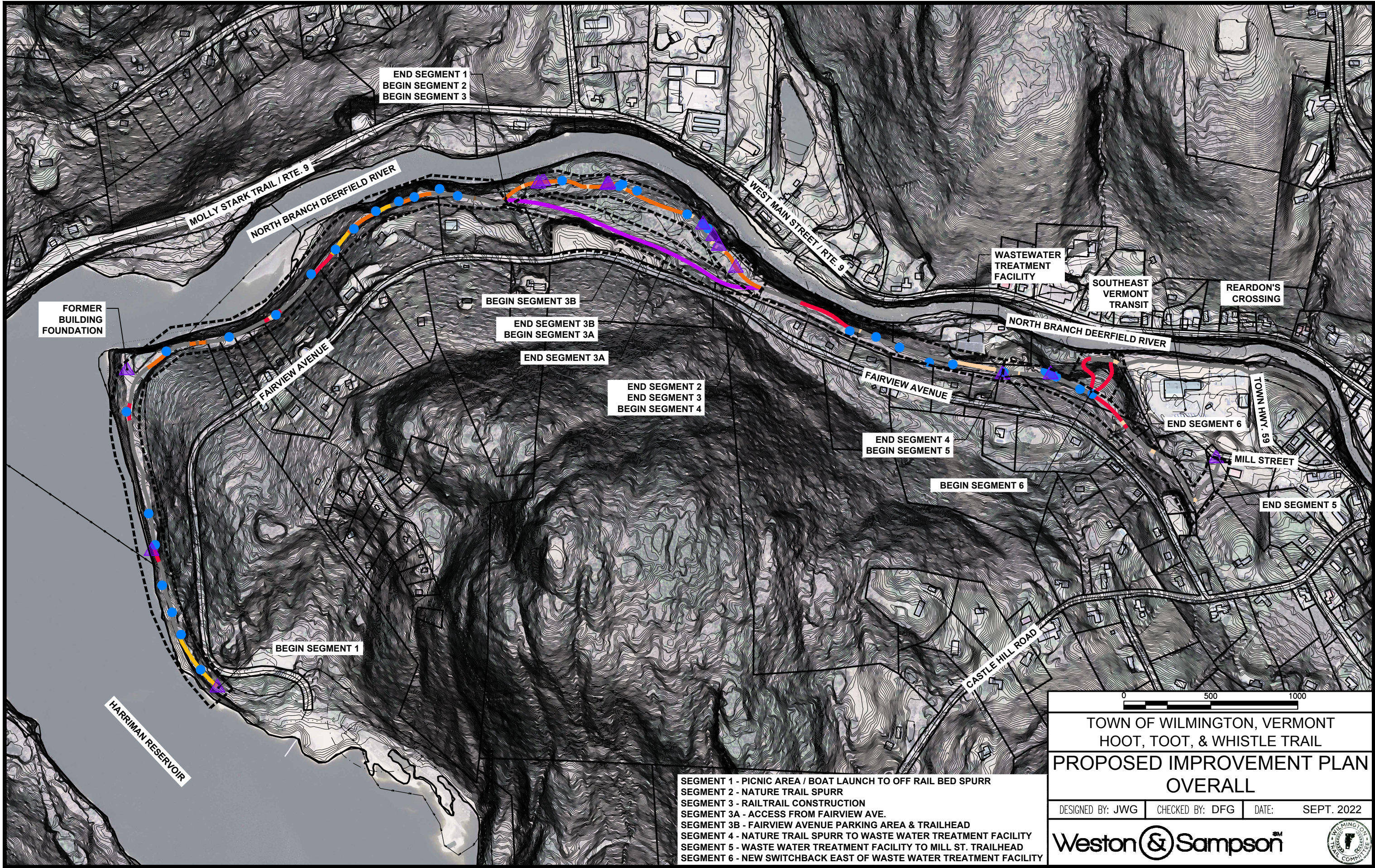
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SEGMENT 1 - PICNIC AREA / BOAT LAUNCH TO OFF RAIL BED SPURR
SEGMENT 2 - NATURE TRAIL SPURR
SEGMENT 3 - RAILTRAIL CONSTRUCTION
SEGMENT 3A - ACCESS FROM FAIRVIEW AVE.
SEGMENT 3B - FAIRVIEW AVENUE PARKING AREA & TRAILHEAD
SEGMENT 4 - NATURE TRAIL SPURR TO WASTE WATER TREATMENT FACILITY
SEGMENT 5 - WASTE WATER TREATMENT FACILITY TO MILL ST. TRAILHEAD
SEGMENT 6 - NEW SWITCHBACK EAST OF WASTE WATER TREATMENT FACILITY

0 500 1000

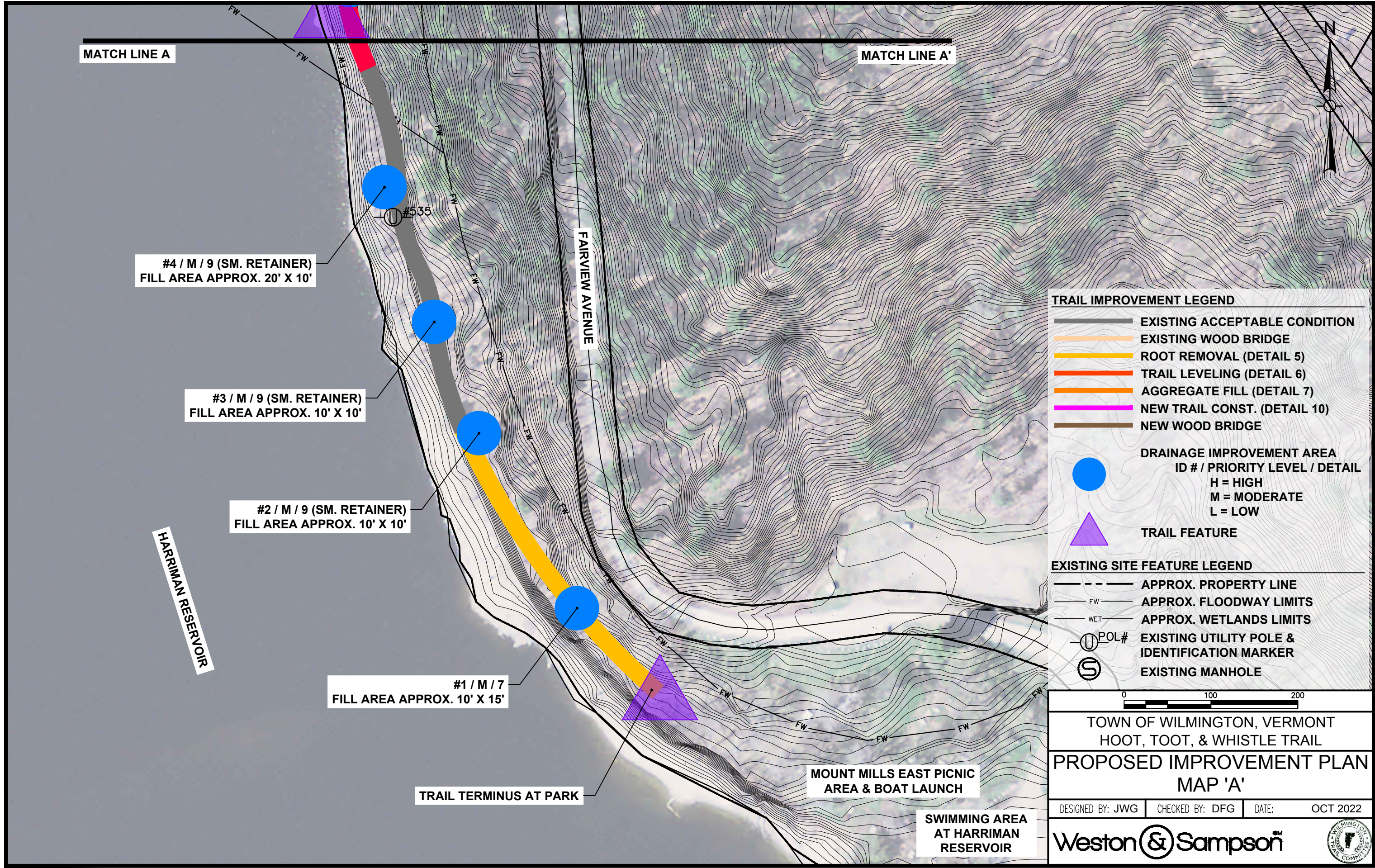
TOWN OF WILMINGTON, VERMONT
HOOT, TOOT, & WHISTLE TRAIL
PROPOSED IMPROVEMENT PLAN
OVERALL

DESIGNED BY: JWG	CHECKED BY: DFG	DATE: SEPT. 2022
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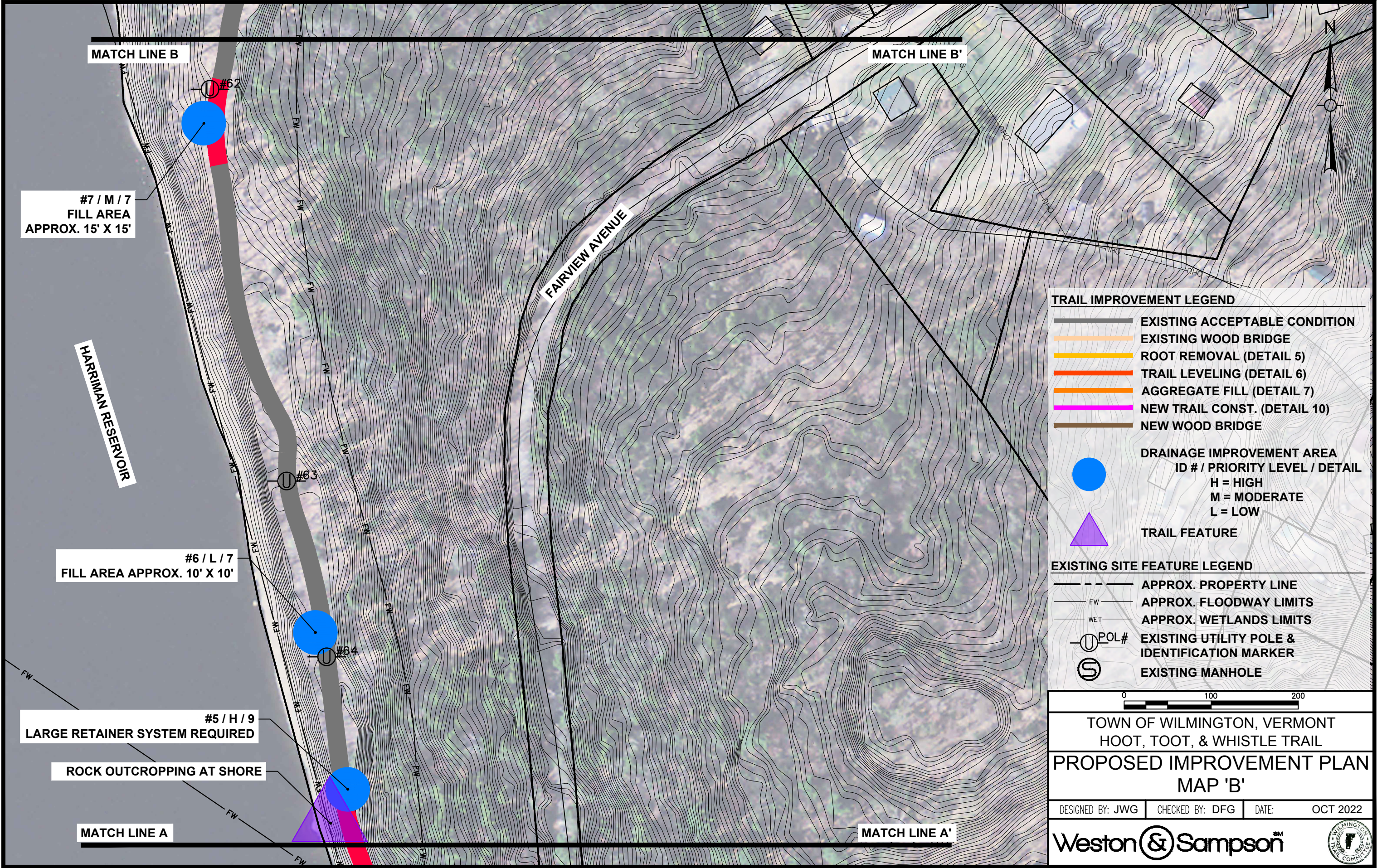
Weston & SampsonSM

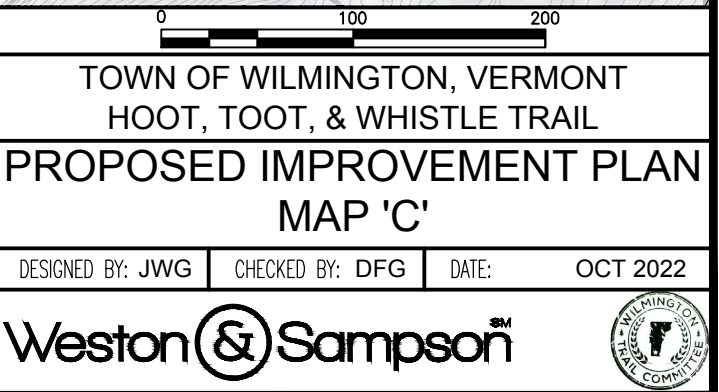
WILMINGTON TRAIL COMMITTEE

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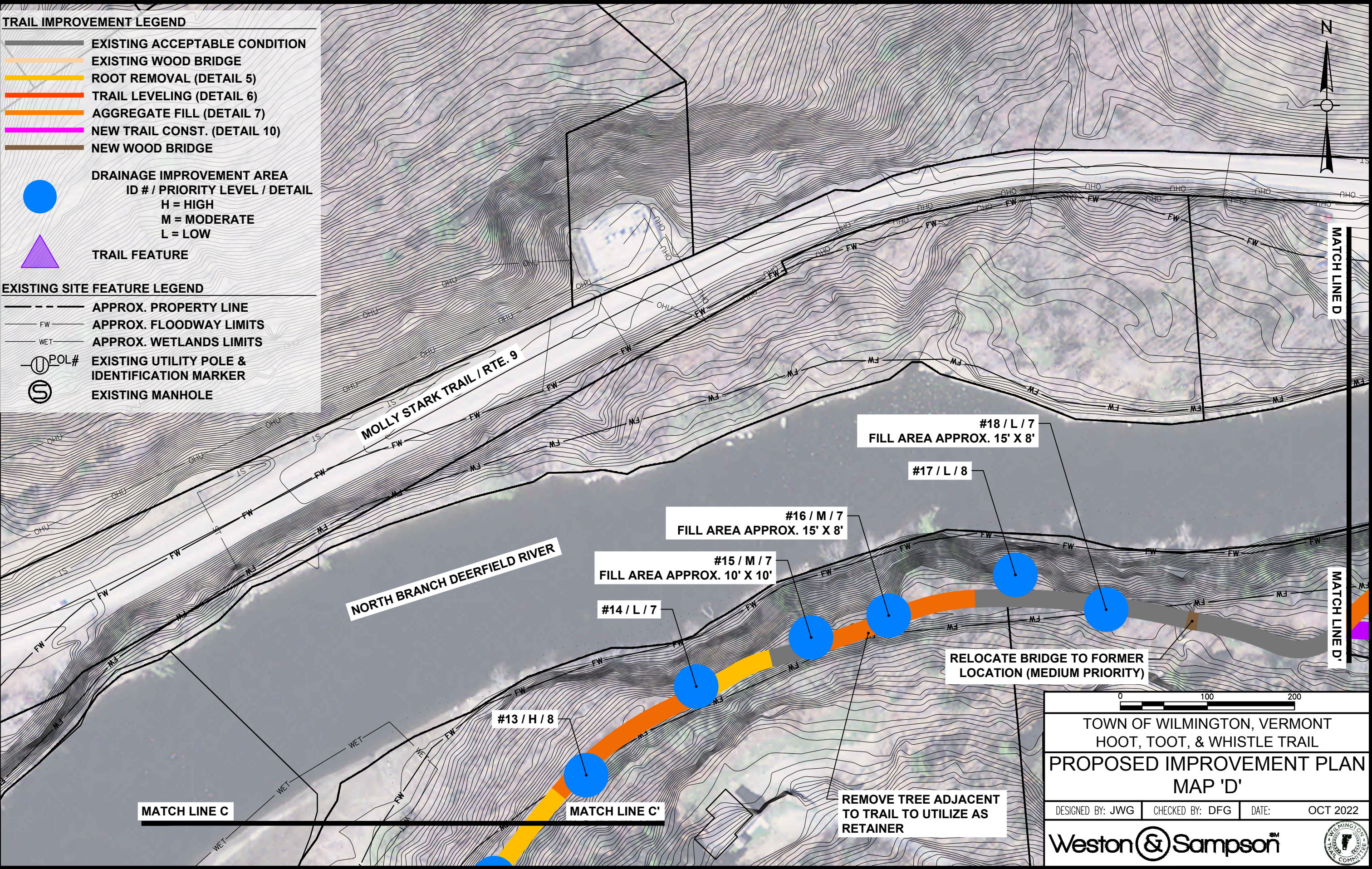
TRAIL IMPROVEMENT LEGEND

- EXISTING ACCEPTABLE CONDITION
- EXISTING WOOD BRIDGE
- ROOT REMOVAL (DETAIL 5)
- TRAIL LEVELING (DETAIL 6)
- AGGREGATE FILL (DETAIL 7)
- NEW TRAIL CONST. (DETAIL 10)
- NEW WOOD BRIDGE

- DRAINAGE IMPROVEMENT AREA
ID # / PRIORITY LEVEL / DETAIL
H = HIGH
M = MODERATE
L = LOW
- TRAIL FEATURE

EXISTING SITE FEATURE LEGEND

- APPROX. PROPERTY LINE
- FW APPROX. FLOODWAY LIMITS
- WET APPROX. WETLANDS LIMITS
- POL# EXISTING UTILITY POLE & IDENTIFICATION MARKER
- S EXISTING MANHOLE



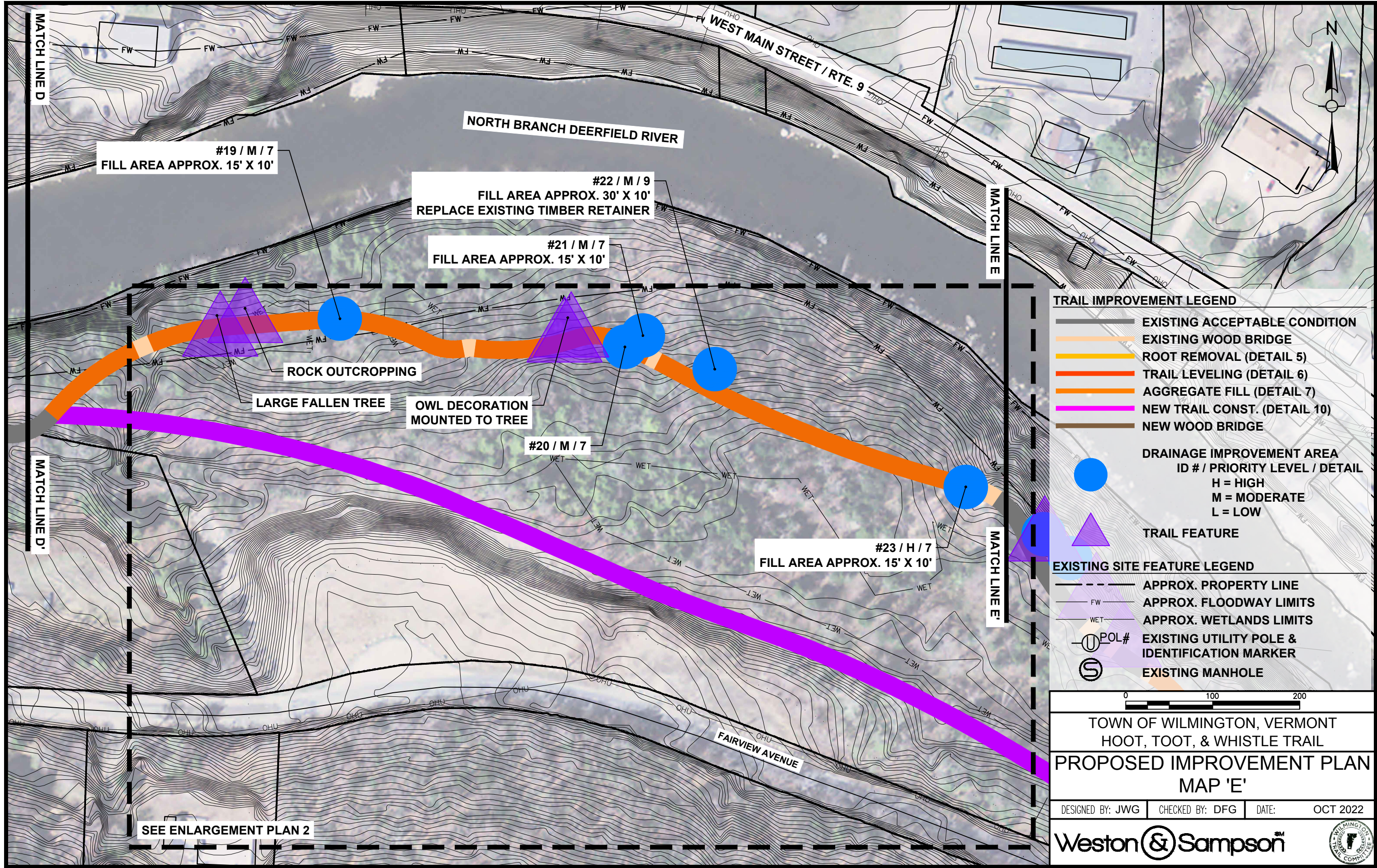
TOWN OF WILMINGTON, VERMONT
HOOT, TOOT, & WHISTLE TRAIL
PROPOSED IMPROVEMENT PLAN
MAP 'D'

DESIGNED BY: JWG CHECKED BY: DFG DATE: OCT 2022

Weston & Sampson



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MATCH LINE D

MATCH LINE E

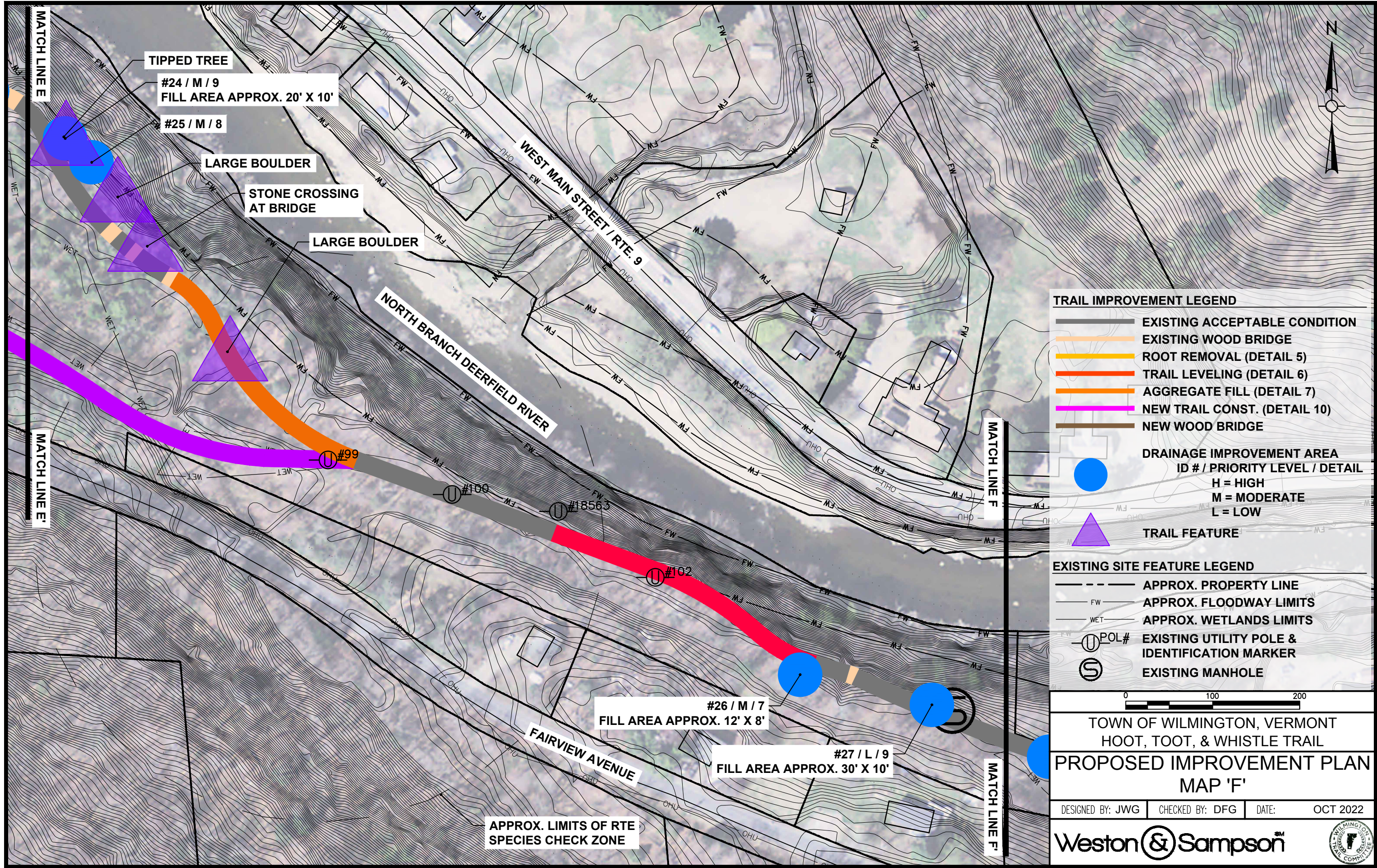
MATCH LINE D

MATCH LINE E

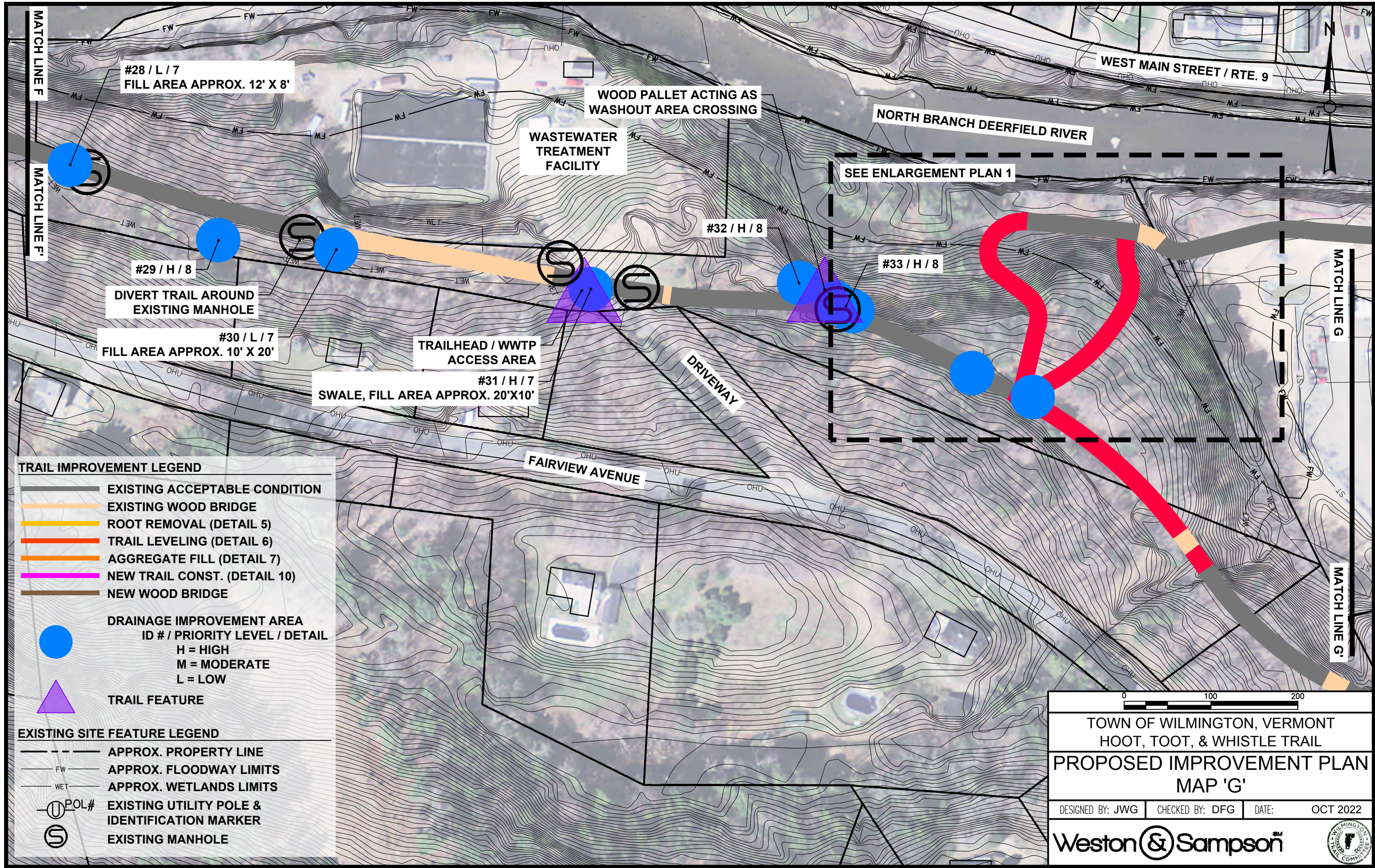
SEE ENLARGEMENT PLAN 2



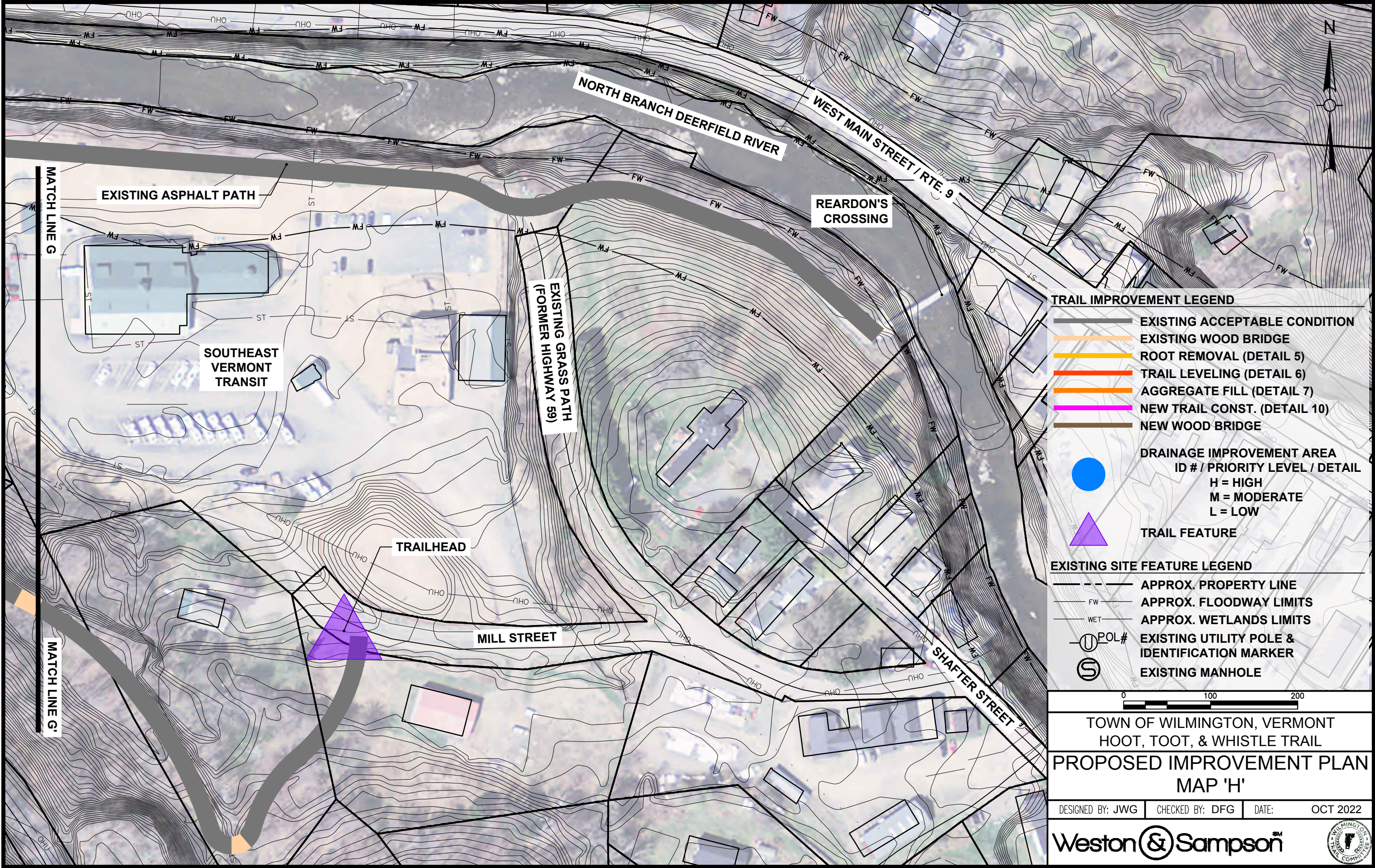
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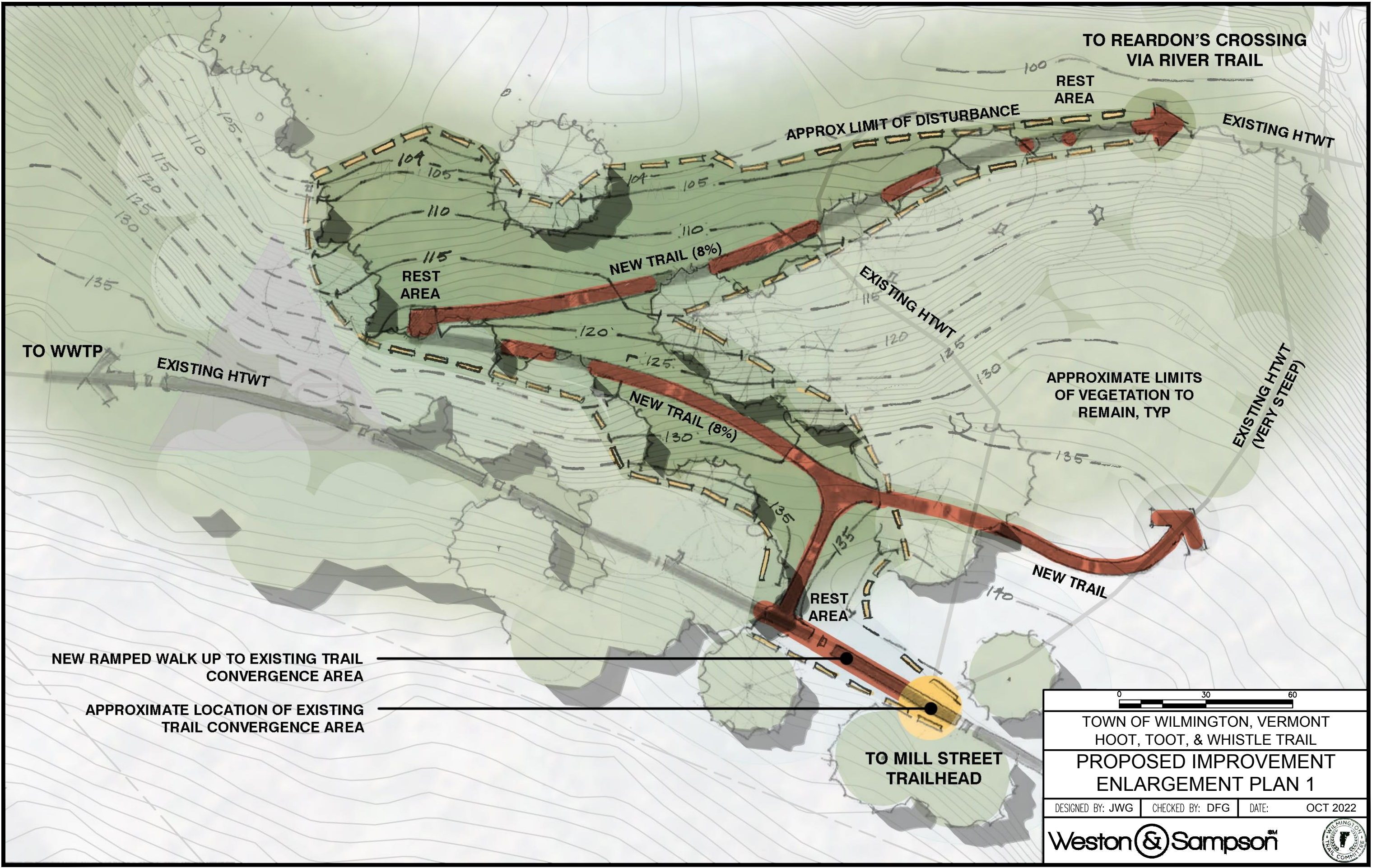
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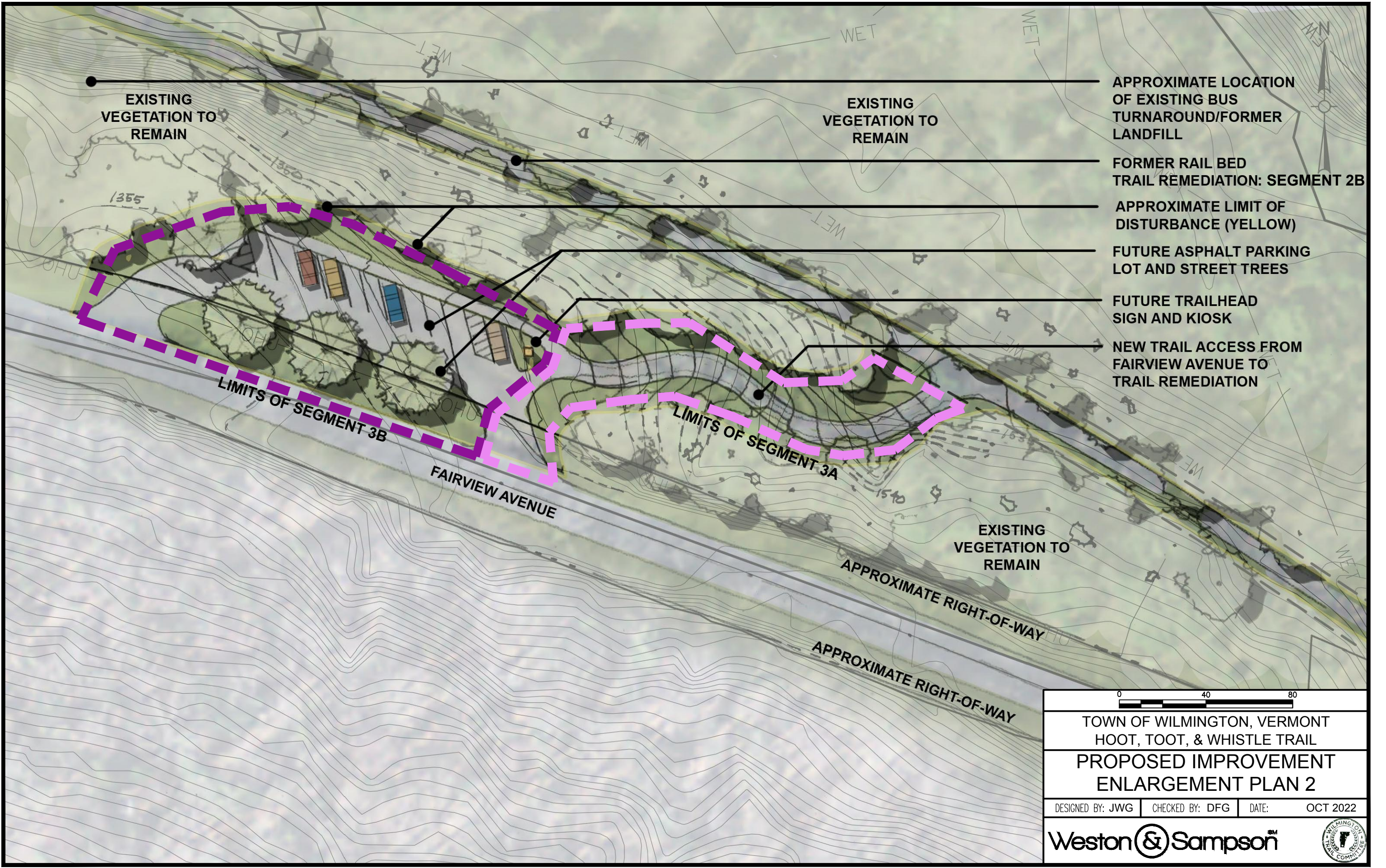
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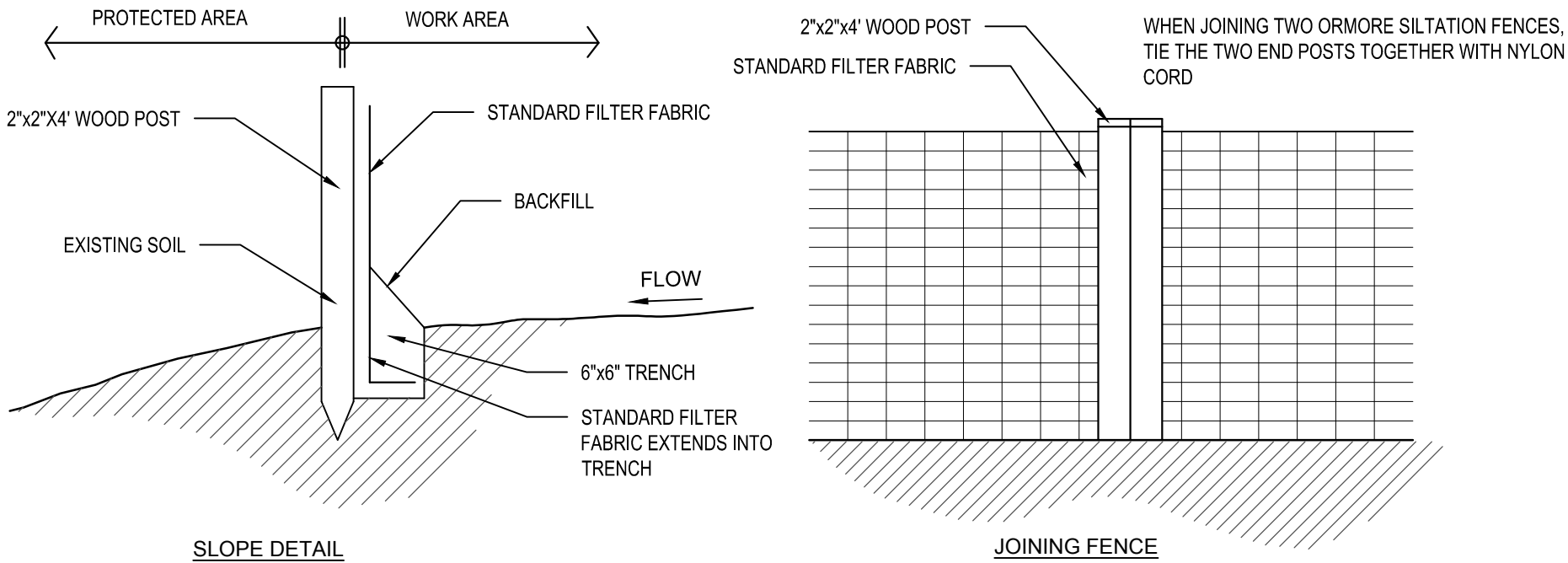
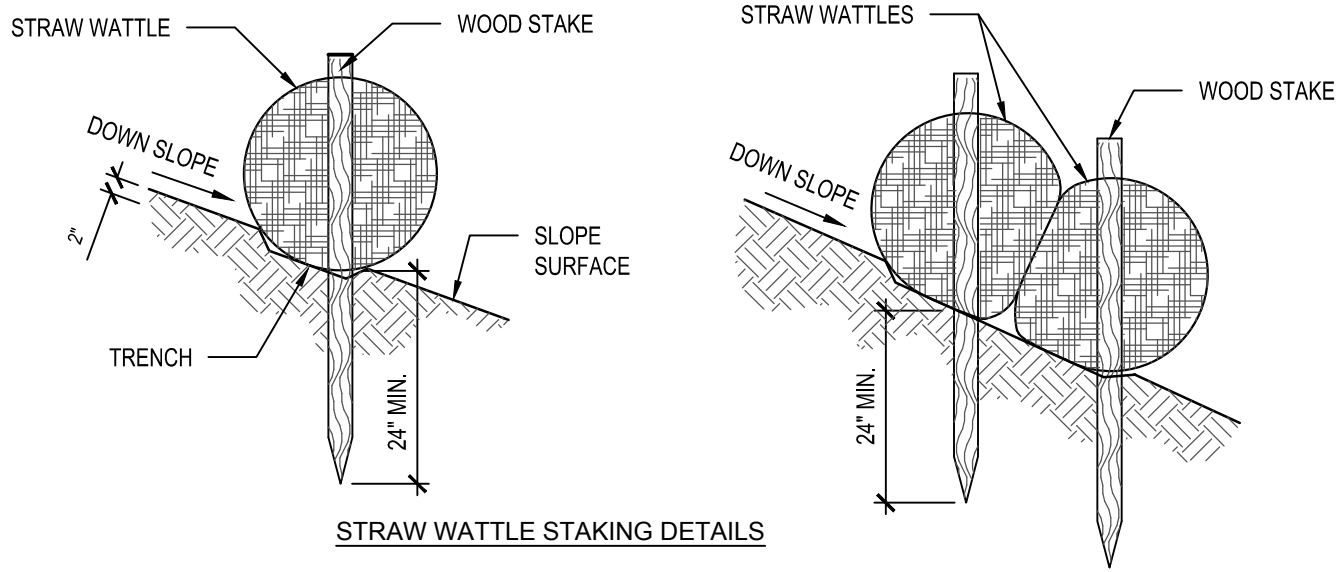
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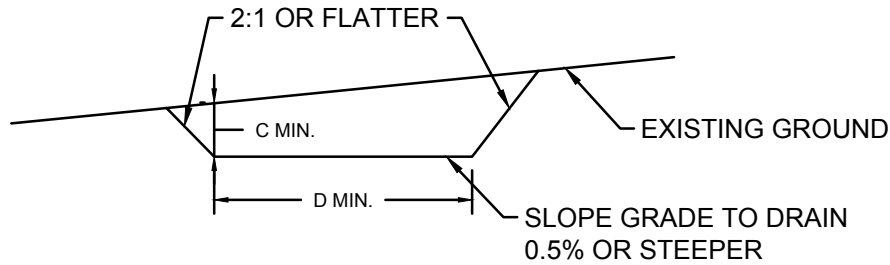
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1 EROSION AND SEDIMENT CONTROL DEVICES
SCALE: NOT TO SCALE

TOWN OF WILMINGTON, VERMONT HOOT, TOOT, & WHISTLE TRAIL			
CONSTRUCTION DETAILS			
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	SWALE A	SWALE B
C	1'	1'
D	4'	6'



SECTION

MINIMUM FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	SWALE A (5ac. OR LESS)	SWALE B (5ac.-10ac.)
1	0.5 - 3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1 - 5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1 - 8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1 - 20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

NOTES:

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREE, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE MINIMUM FLOW CHANNEL STABILIZATION CHART.
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.
10. FLOW CHANNEL STABILIZATION SHOWN ABOVE WILL REQUIRE SUBSEQUENT MAINTENANCE AND ATTENTION. SINCE RUNOFF PATTERNS, QUANTITY, QUALITY AND SEDIMENT CONTENT VARY WIDELY FROM SITE TO SITE, ACTUAL STABILIZATION MAY EXCEED THAT SHOWN IN THE CONTRACT DOCUMENTS. REMOVE SILT ACCUMULATIONS ROUTINELY AND DISPOSE OF PROPERLY SUCH THAT WATER QUALITY IS NOT IMPAIRED. DO NOT INTRODUCE SILT INTO TOPSOIL/RESTORATION AREAS.
11. REMOVE TEMPORARY SWALE WHEN SITE IS SUBSTANTIALLY OR COMPLETELY STABILIZED AND SWALE IS NO LONGER REQUIRED. PERFORM FINAL GRADING AND ESTABLISH VEGETATION AT ALL DISTURBED AREAS.

2

TEMPORARY DIVERSION SWALE

SCALE: NOT TO SCALE

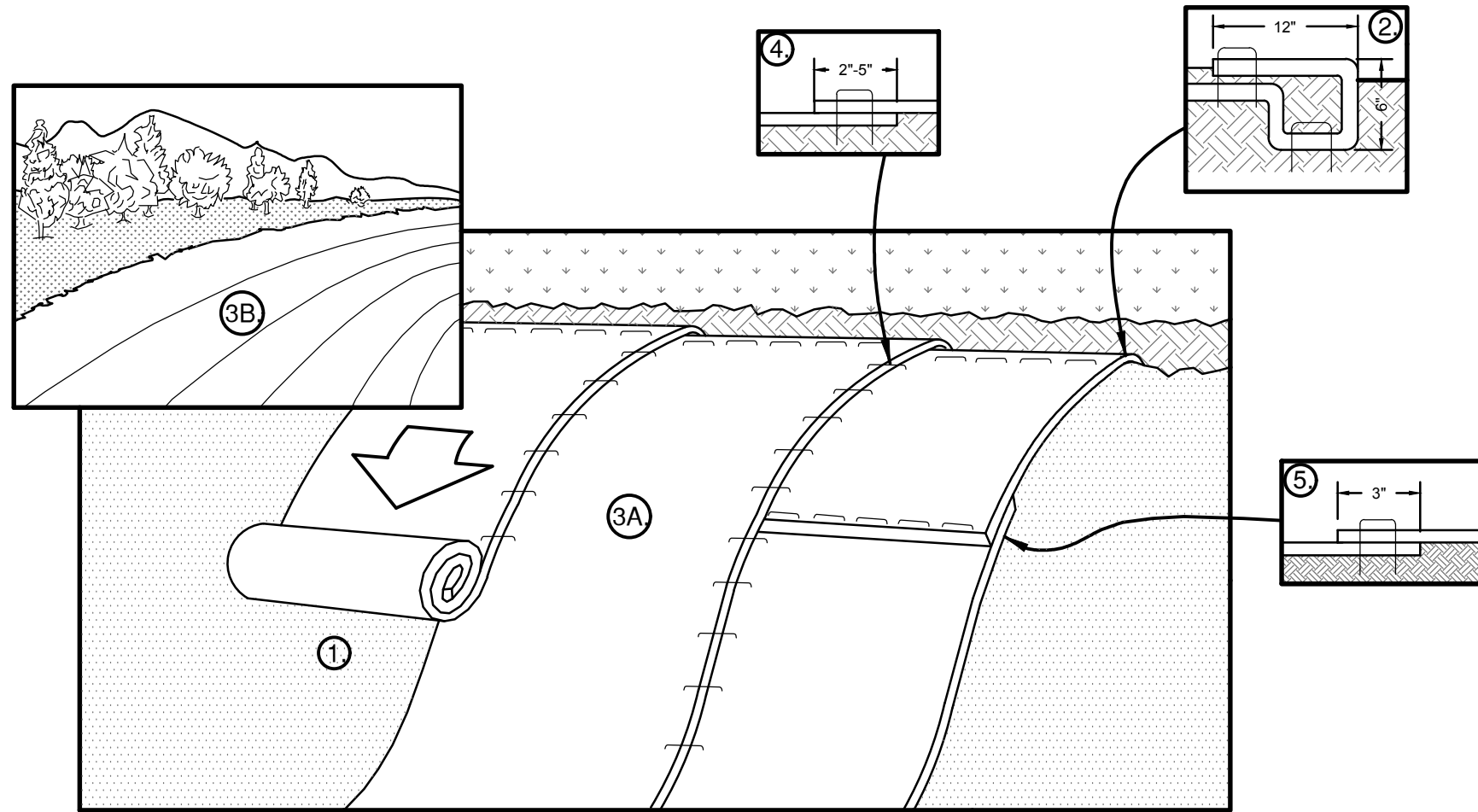
TOWN OF WILMINGTON, VERMONT
HOOT, TOOT, & WHISTLE TRAIL

CONSTRUCTION DETAILS

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- NOTES:
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED. WHEN USING CELL-O-SEED, DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
 3. ROLL THE RECP'S DOWN (A) OR HORIZONTALLY (B) ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
 5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS THE ENTIRE RECP'S TYPE. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE STAKES LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

3

SLOPE STABILIZATION MATTING

SCALE: NOT TO SCALE

TOWN OF WILMINGTON, VERMONT
HOOT, TOOT, & WHISTLE TRAIL

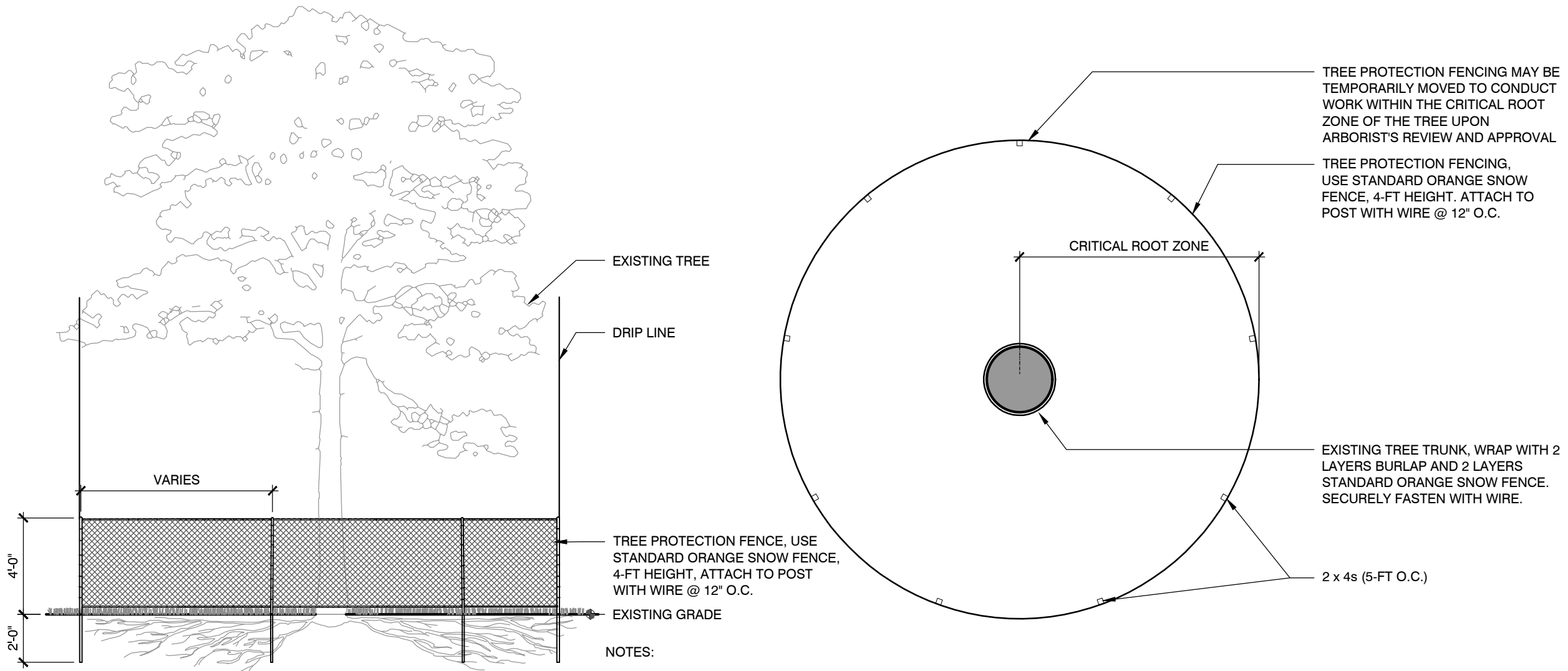
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CRITICAL ROOT ZONE TO BE PROTECTED. ALL WORK NECESSARY WITHIN THE CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND AND LIGHT EQUIPMENT. TO BE APPROVED BY ARBORIST.

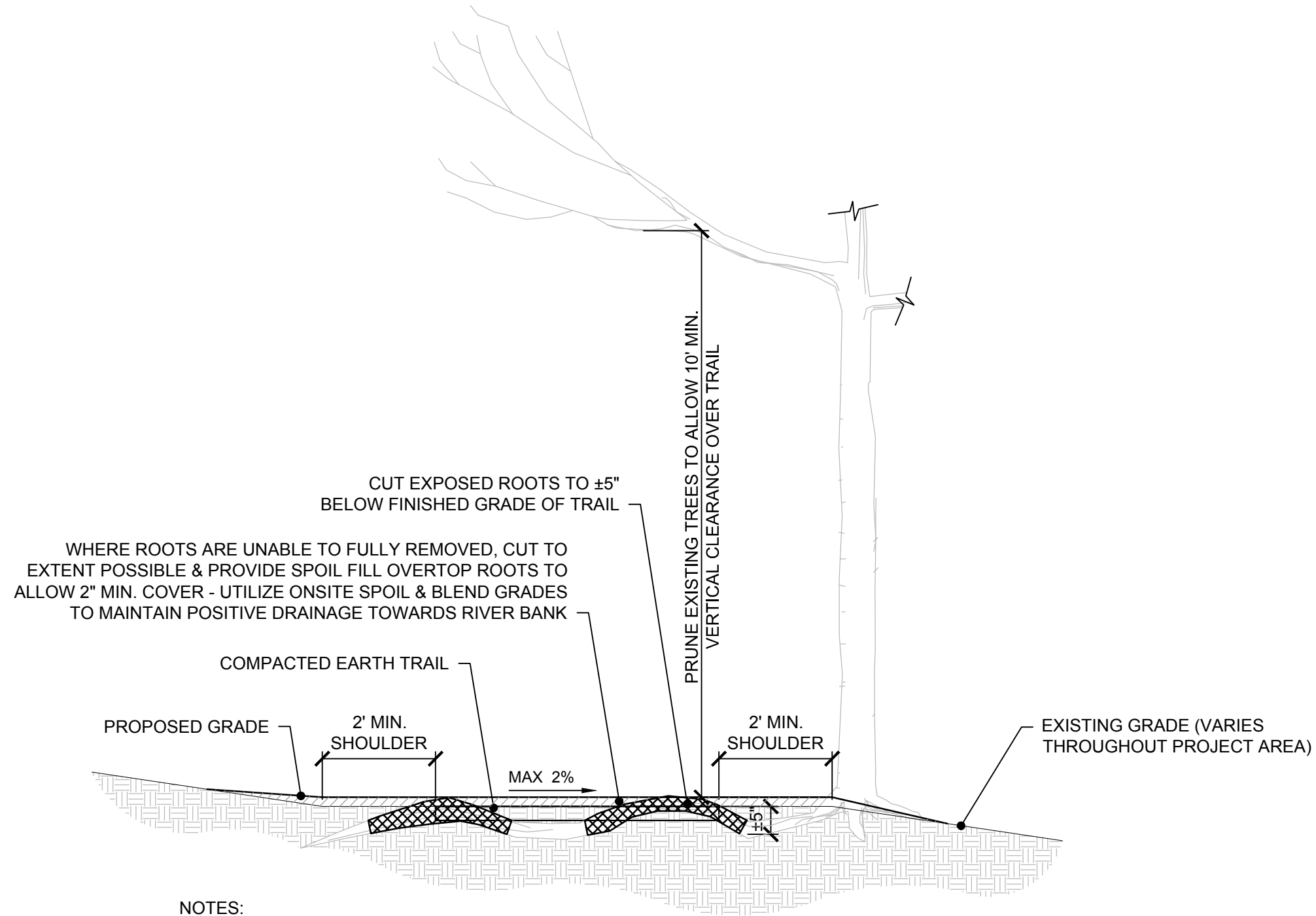
NOTES:

1. WHERE SPACE IS AVAILABLE, TREE PROTECTION FENCING TO BE PLACED A MINIMUM OF 10-FT FROM BASE OF TREE PLUS AN ADDITIONAL 1-FT FOR EACH ADDITIONAL DBH FOR TREES GREATER THAN 10" DBH (DIA. AT BREAST HT.)
2. ALL WORK DONE WITHIN TREE PROTECTION FENCING IS TO BE DONE BY HAND AND LIGHT EQUIPMENT. ARBORIST TO APPROVE EQUIPMENT.
3. ROOTS EXPOSED DURING EXCAVATION SHALL BE NEATLY CUT AND COVERED WITH SOIL IMMEDIATELY.
4. FOR TREES THAT OCCUR IN GROUPS PROVIDE TREE PROTECTION FENCING AROUND ENTIRE AREA. SEE PLAN FOR LOCATIONS.
5. MAINTAIN FENCE PROTECTION IN SOUND CONDITION FOR DURATION OF CONSTRUCTION.
6. A CERTIFIED ARBORIST SHALL DELINEATE LIMIT OF TREE PROTECTION FENCING AS THEY RELATE TO THE LIMITS OF THE CRITICAL ROOT ZONE.
7. THE TOWN'S ARBORIST MUST BE ON SITE PRIOR TO COMMENCING ANY WORK TO REVIEW AND LOCATE TREE PROTECTION FENCING. ROOTS EXPOSED WITHIN THE CRITICAL ROOT ZONE MUST BE APPROVED BY THE ARBORIST PRIOR TO CUTTING.

4 TREE PROTECTION
SCALE: NOT TO SCALE


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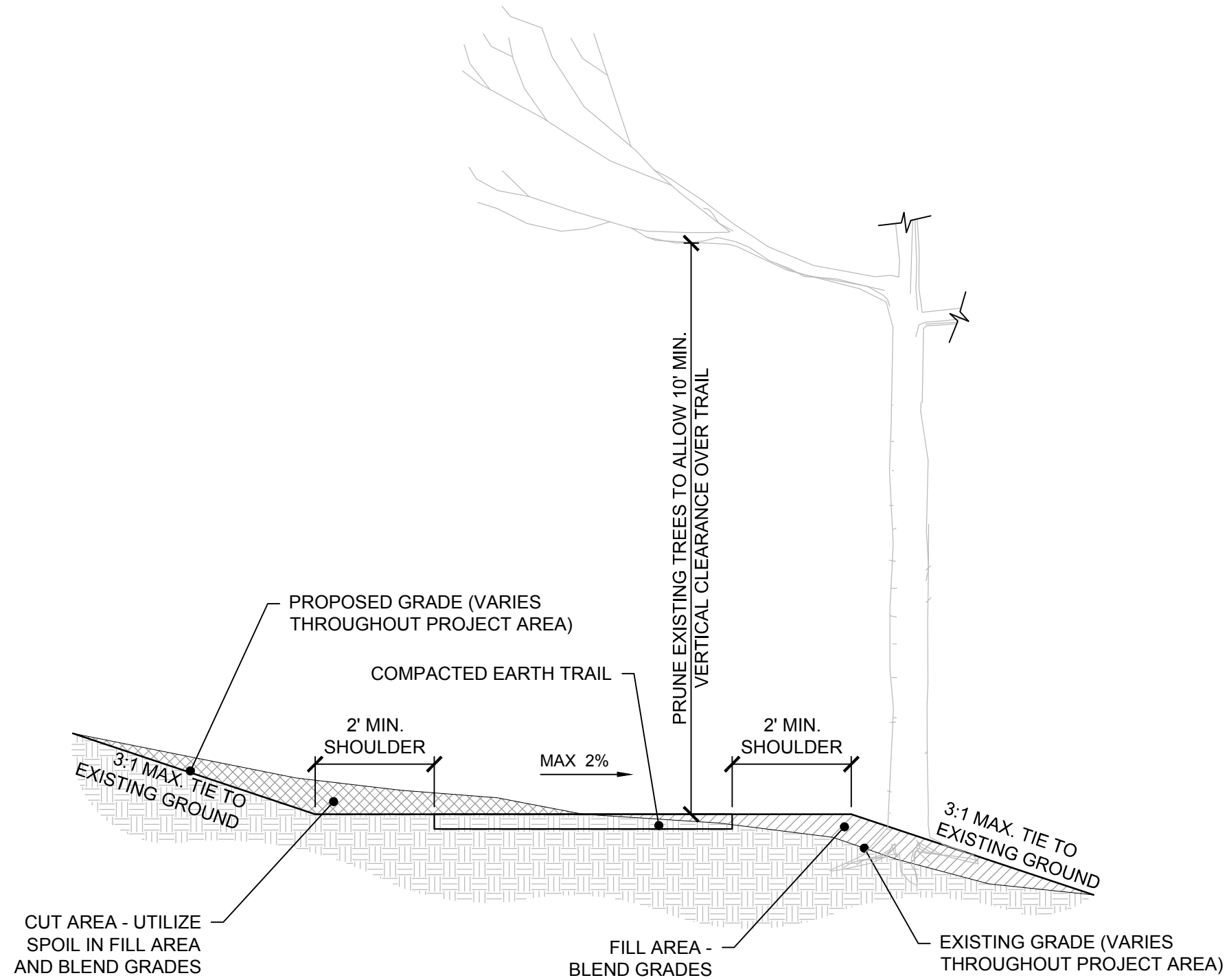
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- NOTES:
1. ALL SPOIL TO REMAIN WITHIN IMPROVEMENT AREA. BLEND GRADES AS NEEDED TO EVENLY DISTRIBUTE SPOIL WHILE MAINTAINING 2% MIN. SLOPE TOWARDS STREAM BANK.
 2. TREE PRUNING SHALL COMPLY WITH THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."
 3. ROOT PRUNING & REMOVAL SHALL COMPLY WITH THE LATEST NATIONAL ARBORIST ASSOCIATION STANDARDS.

5 TYPICAL TRAIL SECTION - ROOT REMOVAL IMPROVEMENT AREA
SCALE: NOT TO SCALE

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NOTES:

1. ALL SPOIL TO REMAIN WITHIN IMPROVEMENT AREA. BLEND GRADES AS NEEDED TO EVENLY DISTRIBUTE SPOIL WHILE MAINTAINING 2% MIN. SLOPE TOWARDS STREAM BANK.
2. TREE PRUNING SHALL COMPLY WITH THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."

6

TYPICAL TRAIL SECTION - TRAIL LEVELING IMPROVEMENT AREA

SCALE: NOT TO SCALE

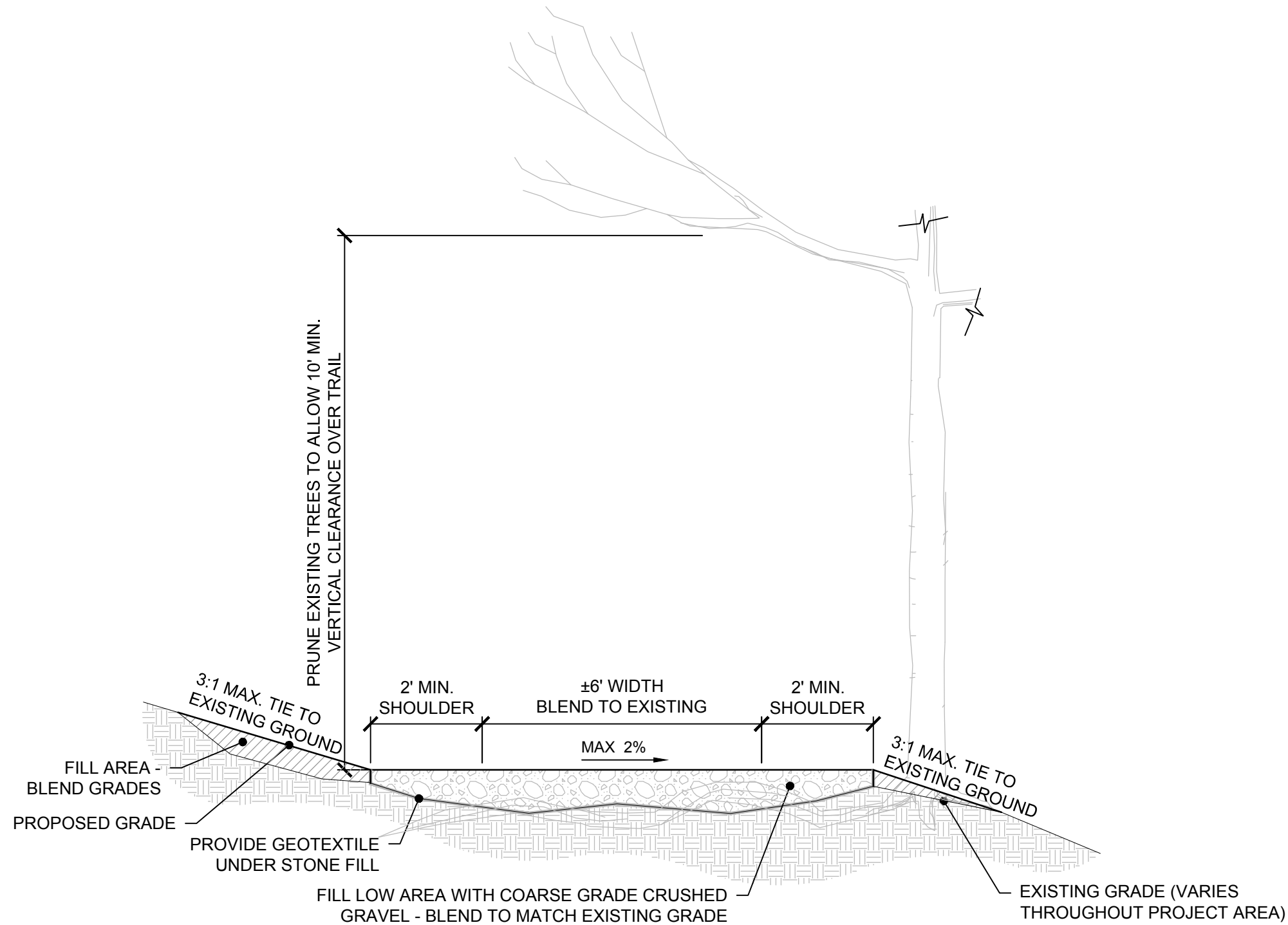
TOWN OF WILMINGTON, VERMONT
HOOT, TOOT, & WHISTLE TRAIL

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NOTES:

1. ALL SPOIL TO REMAIN WITHIN IMPROVEMENT AREA.
2. INSTALL ADEQUATE FILL TO ALLOW FOR ±10' WIDE TRAIL AT 2% MIN. SLOPE TOWARDS STREAM BANK.
3. TREE PRUNING SHALL COMPLY WITH THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."

7

TYPICAL TRAIL SECTION - AGGREGATE FILL LEVELING IMPROVEMENT AREA

SCALE: NOT TO SCALE

TOWN OF WILMINGTON, VERMONT
HOOT, TOOT, & WHISTLE TRAIL

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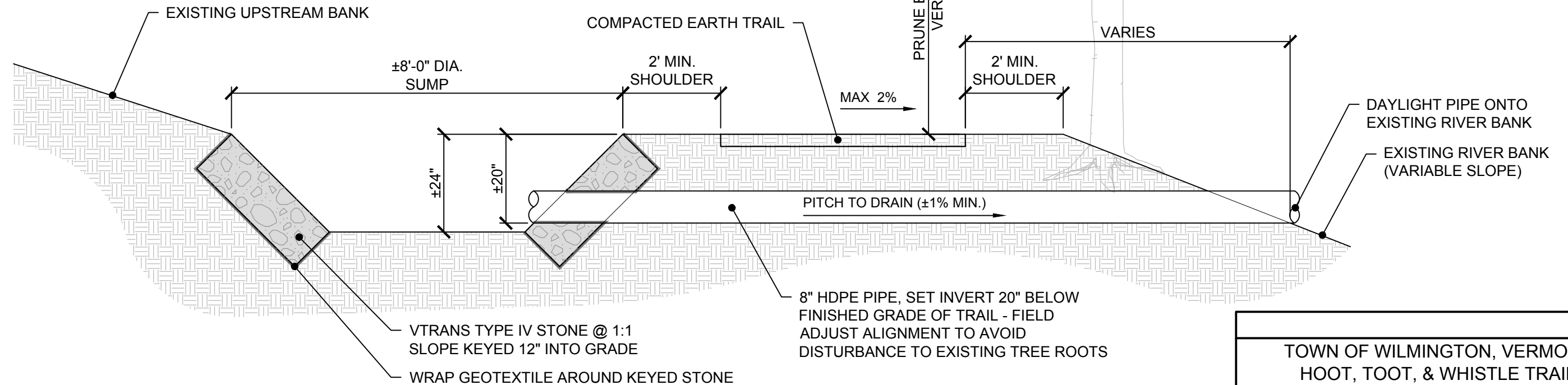
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NOTES:

1. ALL SPOIL FROM SUMP EXCAVATION TO REMAIN WITHIN IMPROVEMENT AREA. DISTRIBUTE SPOIL EVENLY ALONG UPSTREAM BANK AS NEEDED AND BLEND GRADES TO MAINTAIN POSITIVE SLOPE TOWARDS THE SUMP AREAS / EXISTING RIVER BANK.
2. TREE PRUNING SHALL COMPLY WITH THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."



8

TYPICAL TRAIL SECTION - CULVERT DRAINAGE IMPROVEMENT AREA

SCALE: NOT TO SCALE

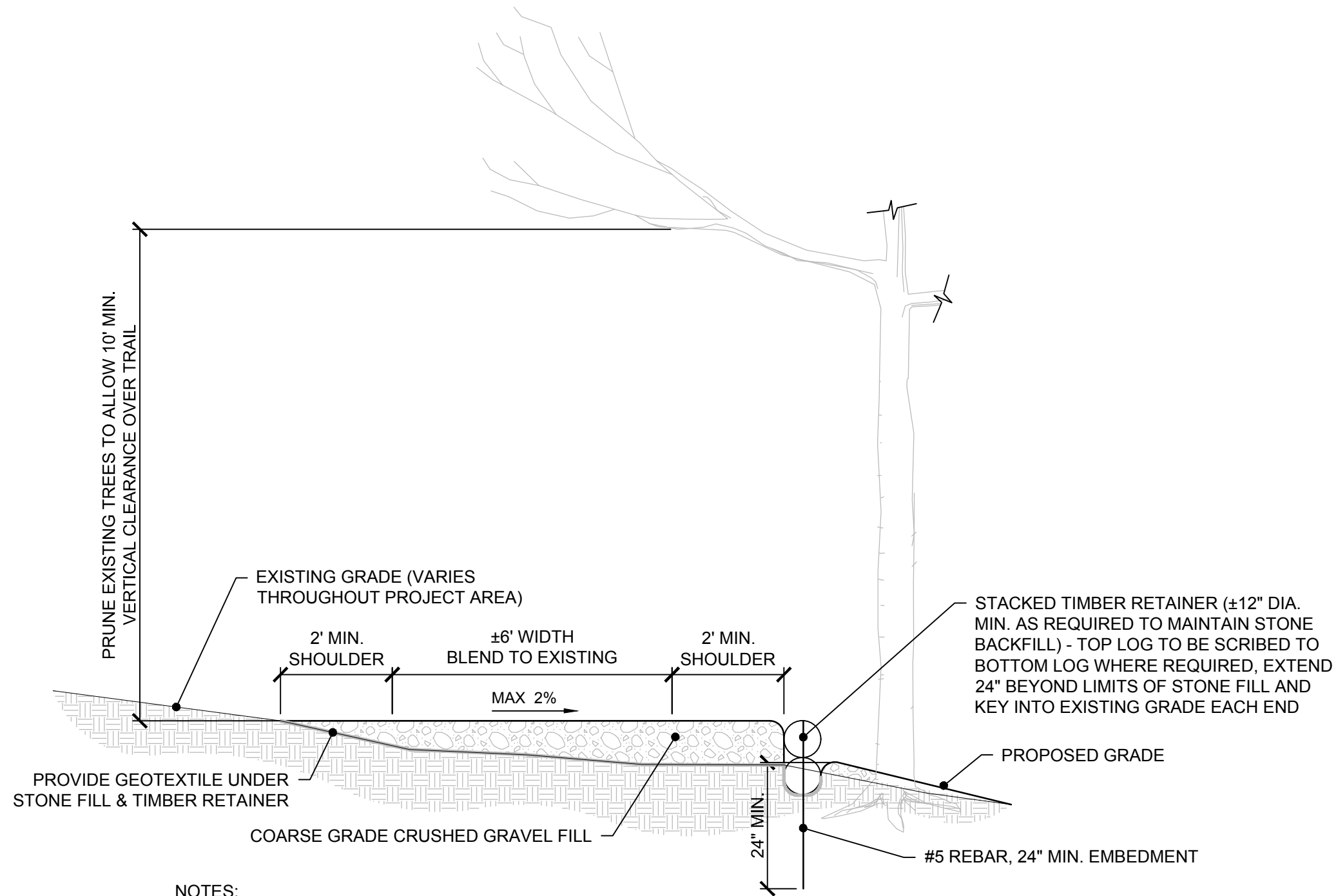
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NOTES:

1. INSTALL ADEQUATE FILL TO ALLOW FOR ±10' WIDE TRAIL AT 2% MIN. SLOPE TOWARDS STREAM BANK.
2. BURY BOTTOM TIMBER RETAINER 4" MIN. BELOW GRADE.
3. TREE PRUNING SHALL COMPLY WITH THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."

9

TYPICAL TRAIL SECTION - TIMBER RETAINER DRAINAGE IMPROVEMENT AREA

SCALE: NOT TO SCALE

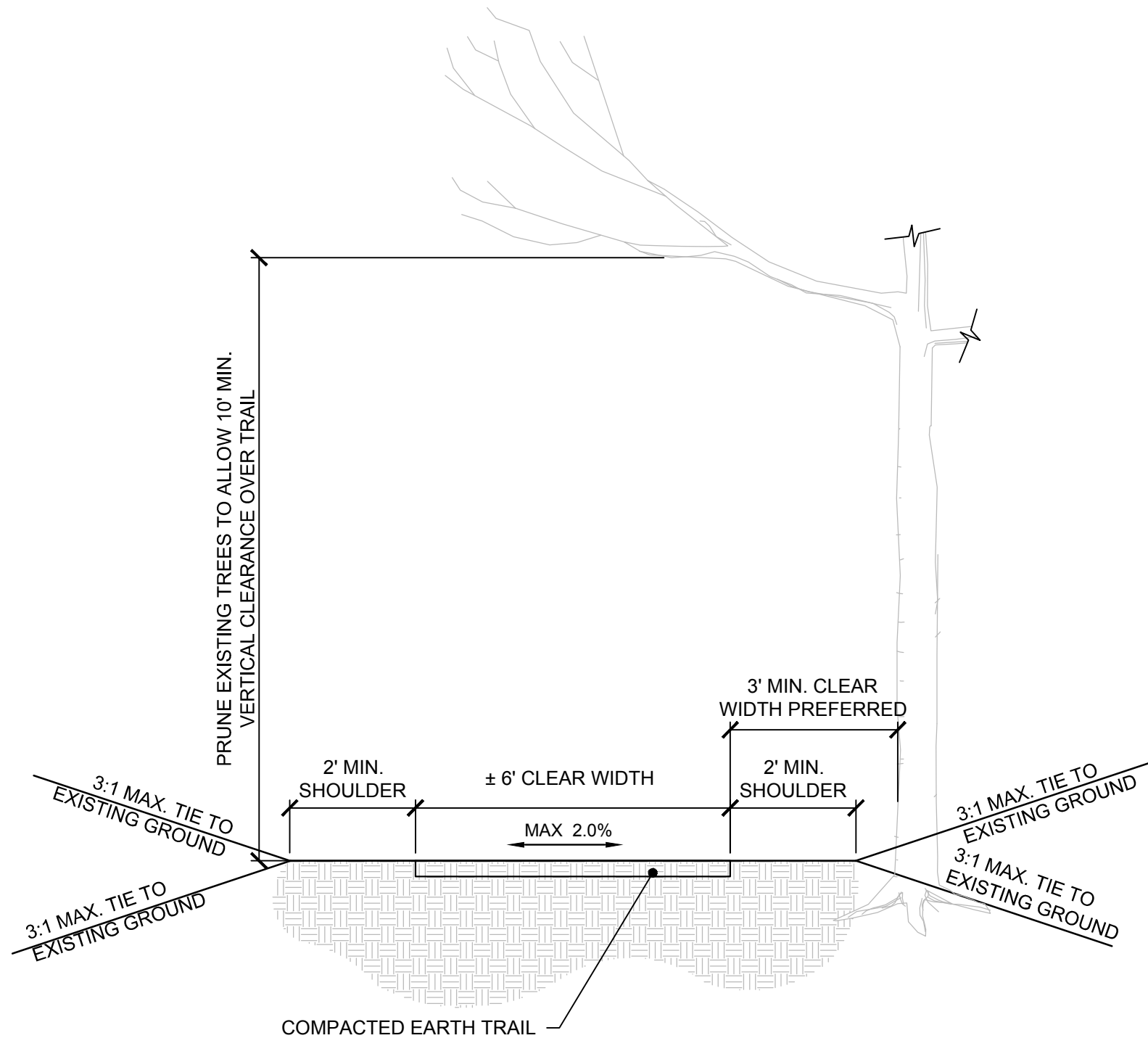
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NOTES:

1. CLEAR AND GRUB TRAIL AREA TO PROVIDE ±10' TRAIL AREA WITH 2% MAX SLOPE - MATCH EXISTING DRAINAGE PATTERNS.
2. TREE PRUNING SHALL COMPLY WITH THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."

10

TYPICAL TRAIL SECTION - NEW TRAIL CONSTRUCTION

SCALE: NOT TO SCALE

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