Napa Valley Transportation Authority

625 Burnell Street
Napa, CA 94559

NAPA VALLEY TRANSPORTATION AUTHORITY

Agenda - Final

Wednesday, April 15, 2026
1:00 PM

JoAnn Busenbark Board Room

NVTA Board of Directors

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Members of the public may comment on matters within the subject matter of the Board's jurisdiction, that are not on the meeting agenda during the general Public Comment item at the beginning of the meeting. Comments related to a specific item on the agenda must be reserved until the time the agenda item is considered and the Chair invites public comment. While members of the public are welcome to address the Board, under the Brown Act, Board members may not deliberate or take action on items not on the agenda, and generally may only listen.

Members of the public may submit a public comment in writing by emailing info@nvta.ca.gov by 10:00 a.m. on the day of the meeting with PUBLIC COMMENT as the subject line (for comments related to an agenda item, please include the item number). All written comments should be 350 words or less, which corresponds to approximately 3 minutes or less of speaking time. Public comments emailed to info@nvta.ca.gov after 10 a.m. the day of the meeting will be entered into the record but not read out loud. If authors of the written correspondence would like to speak, they are free to do so and should raise their hand and the Chair will call upon them at the appropriate time.

1. To comment while attending via Zoom, click the "Raise Hand" button to request to speak when Public Comment is being taken on the Agenda item. You must unmute yourself when it is your turn to make your comment for up to 3 minutes. After the allotted time, you will then be re-muted.

2. To comment by phone, press "*9" to request to speak when Public Comment is being taken on the Agenda item. You must unmute yourself by pressing "*6" when it is your turn to make your comment, for up to 3 minutes. After the allotted time, you will be re-muted.

The methods of observing, listening, or providing public comment to the meeting may be altered due to technical difficulties or the meeting may be cancelled, if needed.

Note: Where times are indicated for agenda items, they are approximate and intended as estimates only, and may be shorter or longer as needed.

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Americans with Disabilities Act (ADA): This Agenda shall be made available upon request in alternate formats to persons with a disability. Persons requesting a disability-related modification or accommodation should contact Laura Sanderlin, NVTA Board Secretary, at (707) 259-8633 during regular business hours, at least 48 hours prior to the time of the meeting.

Acceso y el Titulo VI: La NVTA puede proveer asistencia/facilitar la comunicación a las personas discapacitadas y los individuos con conocimiento limitado del inglés quienes quieran dirigirse a la Autoridad. Para solicitar asistencia, por favor llame al número (707) 259-8633. Requerimos que solicite asistencia con tres días hábiles de anticipación para poderle proveer asistencia.

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1. Call to Order

2. Roll Call

3. Adoption of the Agenda

4. Public Comment

5. Chairperson’s, Board Members’, Metropolitan Transportation Commissioner's, and Association of Bay Area Governments Update

6. Executive Director's Update

7. Caltrans' Update

Note: Where times are indicated for the agenda items, they are approximate and intended as estimates only and may be shorter or longer as needed.

8. PUBLIC HEARINGS

8.1 **First Reading of Napa Valley Transportation Authority's (NVTA's) Biennial Budget for Fiscal Years 2026-27 and 2027-28 (Antonio Onorato)** *(Pages 8-48)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) Board:

1) Open the public hearing and comment period for the biennial budget; and

2) Review and provide comment on the FY 2026-27 NVTA annual operating budget of $57,961,600; and

3) Review and provide comment on the FY 2027-28 NVTA annual operating of $48,218,300.

Estimated Time: 1:35 p.m.

Attachments: Staff Report

8.2 **Napa Countywide Active Transportation Plan Adoption (Patrick Band)** *(Pages 49-62)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) Board:

1) Hold a public hearing to consider adoption of the Napa Countywide Active Transportation Plan, inclusive of minor administrative edits as may be identified, and;

2) Determine that the Plan is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to Public Resources Code (PRC) §21080.20.

Estimated Time: 1:50 p.m.

Attachments: Staff Report

9. CONSENT AGENDA ITEMS

9.1 **Meeting Minutes of March 18, 2026 (Laura Sanderlin)** *(Pages 63-65)*

Recommendation: Board action will approve the meeting minutes of March 18, 2026.

Estimated Time: 2:00 p.m.

Attachments: Draft Minutes

9.2 **Transportation Development Act Article 3 (TDA-3) Call for Projects and Guidelines Approval (Patrick Band)** *(Pages 66-78)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) approve the Transportation Development Act Article 3 (TDA-3) Local Program Guidelines and open a Call for Projects.

Estimated Time: 2:00 p.m.

Attachments: Staff Report

9.3 **Contract Award for State Route 29 (SR29) Comprehensive Multimodal Corridor Plan Update (Jon Stanton)** *(Pages 79-108)*

Recommendation: That the Napa Valley Transportation Authority Board authorize the Executive Director, or designee, to execute NVTA Agreement No. 26-C02 with GHD, Inc. for professional planning services associated with the SR29 Comprehensive Multimodal Corridor Plan update in an amount not to exceed $375,000.

Estimated Time: 2:00 p.m.

Attachments: Staff Report

9.4 **Revised Resolution No. 26-01 Adopting the Transportation Fund for Clean Air (TFCA) Program Manager Expenditure Plan for Fiscal Year End (FYE) 2027 (Addrell Coleman)** *(Pages 109-116)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) Board approve revised Resolution No. 26-01 adopting the Transportation Fund for Clean Air (TFCA) 40% Fund Draft Expenditure Plan for Fiscal Year Ending (FYE) 2027 which includes the Napa County Bikeways program FYE 2027 allocation.

Estimated Time: 2:00 p.m.

Attachments: Staff Report

9.5 **Active Transportation Advisory Committee Member Appointment (Arcie Alvarado)** *(Pages 117-118)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) Board approve the City of Calistoga's nomination for Aaron Heth to serve as representative on the Active Transportation Advisory Committee.

Estimated Time: 2:00 p.m.

Attachments: Staff Report

9.6 **Resolution No. 26-03 Authorizing the execution of the Certifications and Assurances and Authorized Agent Forms for the Low Carbon Transit Operations Program (LCTOP) Cycles A and B (Joanne Au)** *(Pages 119-122)*

Recommendation: That the NVTA Board approve Resolution No. 26-03 for the FY 2025-26 Low Carbon Transit Operations Program (LCTOP Cycles A and B) Zero Emission Bus Project.

Estimated Time: 2:00 pm

Attachments: Staff Report

9.7 **Federal and State Legislative Update (Danielle Schmitz)** *(Pages 123-137)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) Board receive the Federal Legislative update, State Legislative Update, and the updated Bill Matrix for April 2026.

Estimated Time: 2:00 p.m.

Attachments: Staff Report

10. REGULAR AGENDA ITEMS

10.1 **Soscol Junction Project - Suscol Creek Fish Passage Technical Memorandum Overview (Grant Bailey)** *(Pages 138-344)*

Recommendation: Information only

Estimated Time: 2:10 p.m.

Attachments: Staff Report

10.2 **Vine Transit Update (Rebecca Schenck)** *(Pages 345-356)*

Recommendation: That the Napa Valley Transportation Authority (NVTA) Board receives the third quarter of Fiscal Year 2025-26 Vine Transit update.

Estimated Time: 2:35 p.m.

Attachments: Staff Reports

11. FUTURE AGENDA ITEMS

12. CLOSED SESSION

12.1 **CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION** (Government Code Section 54956.9(d)(4) (1 potential case)

Estimated Time: 3:00 p.m.

12.2 **CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION** (Government Code Section 54956.9 (d)(2) Government Claim Received from Monica Lynn Harris

Estimated Time: 3:00 p.m.

13. ADJOURNMENT

13.1 The next Regular Meeting is May 20, 2026.

I hereby certify that the agenda for the above stated meeting was posted at a location freely accessible to members of the public at the NVTA Offices, 625 Burnell Street, Napa, CA by 5:00 p.m. by Friday, April 10.

Laura M. Sanderlin,
NVTA Board Secretary

April 15, 2026
NVTA Agenda Item 8.1
Continued From: New
Action Requested: INFORMATION/ACTION

NAPA VALLEY TRANSPORTATION AUTHORITY
Board Agenda Memo

TO: Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Antonio Onorato, Director - Administration, Finance and Policy
(707) 259-8779 / Email: aonorato@nvta.ca.gov

SUBJECT: First Reading of Napa Valley Transportation Authority's (NVTA's) Biennial Budget for Fiscal Years 2026-27 and 2027-28

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board:

1) Open the public hearing and comment period for the biennial budget; and

2) Review and provide comment on FY 2026-27 NVTA annual operating budget of $57,961,600; and

3) Review and provide comment on the FY 2027-28 NVTA annual operating of $48,218,300.

COMMITTEE RECOMMENDATION

None

EXECUTIVE SUMMARY

Staff are presenting the first reading of the FY 2026-27 and FY 2027-28 Biennial Budget for the Napa Valley Transportation Authority. The biennial budget establishes the Authority's financial plan and spending authority for transportation programs, services, and capital investments over the next two fiscal years beginning July 1, 2026.

The proposed budget supports the Authority's core responsibilities, including:

- Public transit operations and service improvements
- Capital transportation projects
- Transportation planning and program management
- Climate and clean transportation programs
- Maintenance and rehabilitation of transportation infrastructure

The budget reflects NVTA's role as the countywide transportation planning agency and transit operator, administering federal, state, regional, and local transportation funds. This first reading provides the Board an opportunity to review the proposed budget framework, discuss revenue projections and program priorities, and provide guidance prior to formal adoption.

FISCAL IMPACT

Is there a Fiscal Impact? No, this item is informational as a first reading. However, upon adoption – anticipated at the May 20, 2026, NVTA Board meeting, the fiscal impact is anticipated to be $57,961,600 for FY2026-27 and $48,218,300 for FY2027-28.

The draft budget is composed of an operating budget for the Congestion Management Agency, Public Transit, Debt Service for the Bus Maintenance Facility, the Transportation for Clean Air, and a Transit Capital budget.

Final amounts may change based on feedback from the NVTA Board of Directors, staff, and the public.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

BACKGROUND

California Government Code Section 61110 requires the NVTA Board of Directors to adopt an annual budget prior to the beginning of each fiscal year. NVTA utilizes a biennial budgeting approach to strengthen long-range planning, improve program management, and enhance fiscal oversight.

The biennial budget serves as the Authority's primary financial planning document and outlines how transportation resources will be allocated over the next two fiscal years. The budget identifies anticipated revenues and expenditures necessary to maintain transit services, advance regional transportation projects, and support transportation planning activities.

NVTA updates its financial forecasts on a quarterly basis in preparation for the upcoming fiscal year budget. A budget review committee consisting of the NVTA Chair Joseph, Vice Chair Dorhing, and Director Narvaez reviewed the proposed two-year financial plan.

During the public review period between the April and May Board meetings, the NVTA Board of Directors, the Paratransit Coordinating Council, and members of the public will have an opportunity to review the draft budget and provide comments. Staff may revise the proposed budget in response to feedback received during this review period.

Adoption of the budget establishes the legal spending authority required to implement NVTA's programs and services. Amendments to the financial plan may be brought back to the Board during the two-year budget cycle if new projects, programs, or funding opportunities arise.

Biennial Budget Highlights (FY 2026-27 and FY 2027-28)

The proposed NVTA Biennial Budget establishes the financial framework to support transportation services, infrastructure investments, and planning activities throughout Napa County. Key highlights include:

Planning and Regional Transportation Programs

- Funding for long-range transportation planning and corridor studies to identify future transportation improvements.
- Administration of federal, state, and regional transportation funding programs.
- Development of projects that position Napa County to leverage and compete for future transportation funding opportunities.

Climate and Sustainability Investments

- Continued investment in clean transportation and emissions-reduction programs.
- Support for initiatives that promote transit use, walking, and biking as alternatives to driving.
- Programs aligned with regional and state goals to reduce greenhouse gas emissions.

Transit Operations and Mobility

- Continued funding for Vine Transit services, including fixed route and paratransit operations. No significant changes to service hours.
- Investments to improve mobility options for seniors, persons with disabilities, and underserved communities.
- Ongoing support for programs that expand access to jobs, education, and services. MTC one seat ride program, Clipper START and Clipper Bay Pass Programs.

Capital Transportation Projects

- Funding for transportation infrastructure improvements that enhance safety, mobility, and system reliability and are included in Regional Transportation Enhancement Program under Measure U.
- Support for regional transportation projects that improve connections between Napa communities and neighboring counties.

Maintenance and System Preservation

- Prioritization of maintenance and rehabilitation to preserve existing transportation infrastructure and transit assets.
- Investments in system improvements and technologies that enhance efficiency, reliability, and safety.

Alignment with Countywide Transportation Plan (CTP 2050) Adopted Agency Goals
The FY 2027 and FY 2028 biennial budgets and two-year outlook support the adopted goals of the CTP 2050 by directing funding toward equitable transportation access, improved safety, climate-responsive investments, and stewardship of public resources. Budget allocations across transit operations, capital improvements, and regional planning programs advance these strategic objectives. Table 1 summarizes the strategic investments in Napa County's transportation future.

Table 1: Alignment with Countywide Transportation Plan (CTP 2050) Adopted Agency Goals

CTP Goal Category	Goal	Budget Programs / Funding Areas	Budget Activities
Equity	Distribute resources so all community members have access to jobs, services, and education	• Public Transit Operating Budget • Vine Go / Local transit programs • Mobility management • Paratransit / ADA programs	• Expand service coverage and hours in underserved areas • Subsidized transit programs • First/last mile connections
System Safety	Improve system safety for all users	• CMA planning funds • Capital improvement programs • Local safety grants	• Complete Streets projects • Safe Routes to School • Intersection and corridor safety improvements
Strong Stewardship of Public Funds	Optimize financial resources through partnerships and funding leverage	• CMA (planning and programming) • Grant management • Federal & state funding programs	• Leveraging local funds to secure federal/state grants • Program oversight and fiscal accountability • Regional transportation planning
Economic Vitality	Improve the movement of people and goods	• Capital projects • Corridor improvements • Transit operations	• Highway and arterial improvements • Goods movement projects • Transit service improvements supporting tourism and employment
Environmental Sustainability	Reduce transportation impacts on the environment	• Transit capital fund • Clean vehicle investments • TFCA programs	• Zero-emission bus investments • EV infrastructure • Active transportation investments
Maintenance & Rehabilitation	Improve and modernize the existing transportation system	• Capital maintenance programs • Transit fleet replacement • Infrastructure repair	• Fleet replacement • Facility upgrades • Preventative maintenance programs

Economic Forecast and Strategies
NVTA continuously monitors long-term financial forecasts to ensure adequate funding for service delivery, capital investments, and agency operations. These forecasts guide decisions regarding sustainable service levels and appropriate reserve levels to maintain financial stability.

The proposed budget reflects sound fiscal management practices that prioritize operational sustainability, preservation of existing infrastructure, and targeted investments that improve efficiency and service delivery.

Revenue Projections
Revenue indicators show that the local economy will experience flat to modest growth through FY 2027-28. While growth has slowed from recent expansionary periods, the regional economy continues to expand at a stable pace. Slowing growth does not mean the economy is running out of steam. After several quarters of healthy economic expansion, growth is happening at more moderate levels. California's growth rates continue to slow down but growth is not stalling because:

- US economy driving logistics and transportation
- Tourists driving leisure and hospitality
- High rents driving residential construction
- Consumers are driving retail
- Government is expanding modestly on higher tax revenues

This growth pattern is reflected in the minor increase in quarterly Transportation Development Act (TDA) collections of the ¼ cent sales tax receipts of 2% over county projected estimates. TDA revenue comprises approximately 40% of NVTA's combined operating revenues.

The balance of NVTA's revenues come from a number of federal and local sources, including 40% from Federal sources (Federal Transit Administration (FTA), Federal Highway Administration (FHWA), and other federal funds), 8% from farebox revenues (blended rate of 15% when only looking at the Public Transit Fund); 15% from Regional/Local Sources, and 2% from local pass through funds. Federal funds are based on transportation authorization legislation which is funded by a per gallon tax on fuels. FTA funds in Napa are largely based on population factors while FHWA funds are based on various revenue generating factors overlaid by the Metropolitan Transportation Commission polices.

Ridership Trends
In FY 27 and FY28, ridership is projected to be modestly higher at an increase of 7% each year. Vine Transit ridership continues to struggle as work patterns and commutes into the core of the Bay Area have changed the way people take public transit and for what purpose. As such, the agency is focusing on expanding services on its regional routes which has shown the most promise in attracting new ridership to the system.

Proposed Biennial Budget FY 2026-27 and FY 2027-28 Overview

The proposed two-year financial plan represents a balanced budget achieved through careful management of expenditures and the strategic use of operating and grant revenues.

The budget reflects NVTA's commitment to maintaining high-quality transportation services while minimizing costs. Staff anticipate that the agency's current operational goals can be achieved with existing staffing levels. However, anticipated increases in project delivery responsibilities, especially with Measure U oversight over the next several years, may require additional staffing resources.

Table 2 summarizes the consolidated two-year budget and the successive two- year outlook.

Table 2: Consolidated NVTA Budget Summary

NVTA Budget Outlook- Consolidated Budget

CMA, Public Transit, Capital, Debt Service, TFCA

CONSOLIDATED SUMMARY

	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Public Transit Service Projections						
Service Hours	130,724	133,068		133,885	134,743	
Revenue Hours	98,091	99,532		100,086	100,667	
Service Miles	1,743,333	1,772,139		1,784,301	1,797,070	
Revenue Miles	1,409,477	1,435,122		1,443,496	1,452,289	
Ridership	591,622	630,500		673,156	721,279	
Revenues By Fund						
CMA (General Fund)	$ 24,601,800	$ 14,011,900	**$ 38,613,700**	$ 14,280,700	$ 12,558,300	**$ 26,839,000**
Public Transit	22,357,300	23,385,400	**45,742,700**	24,325,200	25,153,800	**49,479,000**
Transit Capital	10,318,500	10,137,000	**20,455,500**	600,000	600,000	**1,200,000**
Debt Service- Bus Maintenance Facility	184,000	184,000	**368,000**	184,000	184,000	**368,000**
Transportation for Clean Air	500,000	500,000	**1,000,000**	500,000	500,000	**1,000,000**
TOTAL	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**
Expenses by Fund						
CMA (General Fund)	$ 24,601,800	$ 14,011,900	**$ 38,613,700**	$ 14,280,700	$ 12,558,300	**$ 26,839,000**
Public Transit (Less Transit Capital)	22,357,300	23,385,400	**45,742,700**	24,325,200	25,153,800	**49,479,000**
Transit Capital	10,318,500	10,137,000	**20,455,500**	600,000	600,000	**1,200,000**
Debt Service- Bus Maintenance Facility	184,000	184,000	**368,000**	184,000	184,000	**368,000**
Transportation for Clean Air	500,000	500,000	**1,000,000**	500,000	500,000	**1,000,000**
TOTAL	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**

NVTA Top Five Budgeted Expenses

1. Purchase Transportation – Vine Transit Contract
2. Professional Fees
3. Personnel Costs
4. Fuel for Public Transit Vehicles
5. General Maintenance of Facilities and Equipment

Congestion Management Agency (CMA)

The CMA budget is composed of three elements: 1) Personnel costs for 19 approved staff positions, 2) agency administration and operations, and 3) Grant Funded projects/programs.

The Top Five grant funded transportation projects or programs are:

1. SR29 American Canyon Corridor Improvements - $10 million
2. SR29/SR12/Airport Environmental Document (South Valley) - $10 million
3. SR29 Improvements/ Napa Forward (Up Valley) - $3.5 million
4. Capital Projects- Project Management/Coordination/Oversight - $600,000
5. Community Based Transportation Plan Implementation - $500,000

Table 3: Congestion Management Agency (CMA) Budget and Outlook

	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
REVENUES	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Budget
Transporation Development Act	$ 3,000,000	$ 3,000,000	$ 6,000,000	$ 3,000,000	$ 3,000,000	$ 6,000,000
Intergovernmental Grants	20,529,200	9,939,300	30,468,500	10,200,100	8,477,700	18,677,800
Investment Earnings	50,000	50,000	100,000	50,000	50,000	100,000
Charges for Services	400,600	400,600	801,200	408,600	408,600	817,200
Transit Chargebacks	622,000	622,000	1,244,000	622,000	622,000	1,244,000
TOTAL REVENUES	**$ 24,601,800**	**$ 14,011,900**	**$38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**
EXPENDITURES						
Salaries and Employee Benefits	$ 3,972,600	$ 4,161,200	$ 8,133,800	$ 4,330,200	$ 4,505,400	$ 8,835,600
Grant Funded Projects/Programs	19,010,000	8,145,000	27,155,000	7,682,000	6,065,000	13,747,000
Administrative and Operations	1,619,200	1,705,700	3,324,900	2,268,500	1,987,900	4,256,400
TOTAL EXPENDITURES	**$ 24,601,800**	**$ 14,011,900**	**$38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**

Public Transit Operations

The transit operating budget supports the Vine transit system and associated mobility programs. Collectively, these services provide over 525,000 trips annually throughout Napa County.

Purchased transportation costs are projected to increase by approximately 3.5% annually due to contractual obligations.

Table 4 illustrates the two-year budget and two-year outlook for the Public Transit Fund.

Table 4: Public Transit Budget and Outlook

FUND- Public Transit	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Transporation Development Act (LTF) Advances	$13,677,730	$12,789,890	**$26,467,620**	$12,649,470	$13,241,360	**$25,890,830**
State Transit Assistance	1,896,300	2,112,000	**4,008,300**	2,212,000	2,312,000	**4,524,000**
Federal Transit Administration (FTA)	3,437,600	3,540,000	**6,977,600**	3,540,000	3,540,000	**7,080,000**
FTA Capital	3,589,000	5,373,700	**8,962,700**	-	-	**-**
Other - Governmental Agencies	1,256,500	1,800,000	**3,056,500**	1,000,000	1,000,000	**2,000,000**
Other GA- Capital	3,654,500	2,520,900	**6,175,400**	-	-	**-**
Investment Earnings	47,000	47,000	**94,000**	47,000	47,000	**94,000**
Farebox	1,267,170	1,288,910	**2,556,080**	1,326,730	1,363,440	**2,690,170**
Other Financing/ Economic Adjustment	3,850,000	4,050,000	**7,900,000**	4,150,000	4,250,000	**8,400,000**
TOTAL REVENUES	**$32,675,800**	**$33,522,400**	**$ 66,198,200**	**$24,925,200**	**$25,753,800**	**$50,679,000**
EXPENDITURES						
Purchase Transportation	$ 13,264,700	$ 14,034,400	**$ 27,299,100**	$ 14,691,300	$ 15,360,500	**$ 30,051,800**
Fuel	2,423,300	2,448,400	**4,871,700**	2,510,200	2,528,000	**5,038,200**
Maintenance and Operational Expenses	2,028,300	2,061,600	**4,089,900**	2,182,700	2,224,300	**4,407,000**
Depreciation Expense	4,019,000	4,219,000	**8,238,000**	4,319,000	4,419,000	**8,738,000**
Chargebacks- Timesheets	622,000	622,000	**1,244,000**	622,000	622,000	**1,244,000**
Total Operational Expenses	22,357,300	23,385,400	**45,742,700**	24,325,200	25,153,800	**49,479,000**
Total Capital Projects	10,318,500	10,137,000	**20,455,500**	600,000	600,000	**1,200,000**
TOTAL EXPENDITURES	**$32,675,800**	**$33,522,400**	**$ 66,198,200**	**$24,925,200**	**$25,753,800**	**$50,679,000**

Capital Projects

Capital investments are detailed in Attachment 5. Table 5 summarizes the different categories of transit capital investments

Transit Capital Investment Program

EXPENDITURE PLAN					
Capital Request	**FY27 Budget**	**FY28 Budget**	**FY29 Budget**	**FY30 Budget**	**Total**
Rolling Stock	$ 5,282,100	$ 9,105,000	$ -	$ -	$ 14,387,101
Bus Shelters and Bus Stops	$ 1,475,000	$ -	$ 200,000	$ 200,000	$ 1,875,000
CAD AVL and DR Set up	$ 924,400	$ -	$ -	$ -	$ 924,400
Facilities Upgrades	$ 2,075,000	$ 550,000	$ -	$ -	$ 2,625,000
Engine Replacements	$ 394,000	$ 310,000	$ 400,000	$ 400,000	$ 1,504,000
Transit Equipment- Other	$ 168,000	$ 172,000	$ -	$ -	$ 340,000
Total Funding	$ 10,318,500	$ 10,137,000	$ 600,000	$ 600,000	$ 21,655,501
TOTAL BIENNIAL BUDGET		$ 20,455,500		$ 1,200,000	

Next Steps

Following the first reading, staff will incorporate feedback from the Board, the Paratransit Coordinating Council, and members of the public. The proposed biennial budget will return to the Board for second reading and adoption in May 2026.

ATTACHMENTS

(1) Draft CONSOLIDATED Biennial Budget and Financial Outlook FY27-FY30
(2) Draft CMA Budgets and Financial Outlook FY27-FY30
(3) Draft Transit Budgets and Financial Outlook FY27-FY30
(4) Draft Transit Capital and Software Budgets and Financial Outlook FY27-FY30

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Consolidated Budget
CMA, Public Transit, Capital, Debt Service, TFCA

CONSOLIDATED SUMMARY

	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Public Transit Service Projections						
Service Hours	130,724	133,068		133,885	134,743	
Revenue Hours	98,091	99,532		100,086	100,667	
Service Miles	1,743,333	1,772,139		1,784,301	1,797,070	
Revenue Miles	1,409,477	1,435,122		1,443,496	1,452,289	
Ridership	591,622	630,500		673,156	721,279	

Revenues By Fund						
CMA (General Fund)	$ 24,601,800	$ 14,011,900	**$ 38,613,700**	$ 14,280,700	$ 12,558,300	**$ 26,839,000**
Public Transit	22,357,300	23,385,400	**45,742,700**	24,325,200	25,153,800	**49,479,000**
Transit Capital	10,318,500	10,137,000	**20,455,500**	600,000	600,000	**1,200,000**
Debt Service- Bus Maintenance Facility	184,000	184,000	**368,000**	184,000	184,000	**368,000**
Transportation for Clean Air	500,000	500,000	**1,000,000**	500,000	500,000	**1,000,000**
TOTAL	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**

Expenses by Fund						
CMA (General Fund)	$ 24,601,800	$ 14,011,900	**$ 38,613,700**	$ 14,280,700	$ 12,558,300	**$ 26,839,000**
Public Transit (Less Transit Capital)	22,357,300	23,385,400	**45,742,700**	24,325,200	25,153,800	**49,479,000**
Transit Capital	10,318,500	10,137,000	**20,455,500**	600,000	600,000	**1,200,000**
Debt Service- Bus Maintenance Facility	184,000	184,000	**368,000**	184,000	184,000	**368,000**
Transportation for Clean Air	500,000	500,000	**1,000,000**	500,000	500,000	**1,000,000**
TOTAL	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**

FUND- Congestion Management Agency	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Transporation Development Act (LTF)	$3,000,000	$3,000,000	**$6,000,000**	$3,000,000	$3,000,000	**$6,000,000**
State Funding	1,300,000	1,300,000	**2,600,000**	1,300,000	1,300,000	**2,600,000**
FED - Other Funding- OBAG Planning	3,434,000	1,553,000	**4,987,000**	972,000	991,000	**1,963,000**
Other - Governmental Agencies	15,795,200	7,086,300	**22,881,500**	7,928,100	6,186,700	**14,114,800**
Investment Earnings	50,000	50,000	**100,000**	50,000	50,000	**100,000**
Miscellaneous/Economic Adjustment	622,000	622,000	**1,244,000**	622,000	622,000	**1,244,000**
Charges for Services	400,600	400,600	**801,200**	408,600	408,600	**817,200**
TOTAL REVENUES	**$ 24,601,800**	**$ 14,011,900**	**$ 38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**
EXPENDITURES						
Salaries and Employee Benefits	$3,972,600	$4,161,200	**$8,133,800**	$4,330,200	$4,505,400	**$8,835,600**
Discretionary (Grant Funded) Programs	19,513,000	8,648,000	**28,161,000**	7,682,000	6,065,000	**13,747,000**
Adminstration/Operations	1,619,200	1,705,700	**3,324,900**	2,268,500	1,987,900	**4,256,400**
TOTAL EXPENDITURES	**$ 25,104,800**	**$ 14,514,900**	**$ 39,619,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**

FUND- Public Transit	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Transporation Development Act (LTF) Advances	$13,677,730	$12,789,890	**$26,467,620**	$12,649,470	$13,241,360	**$25,890,830**
State Transit Assistance	1,896,300	2,112,000	**4,008,300**	2,212,000	2,312,000	**4,524,000**
Federal Transit Administration (FTA)	3,437,600	3,540,000	**6,977,600**	3,540,000	3,540,000	**7,080,000**
FTA Capital	3,589,000	5,373,700	**8,962,700**	-	-	**-**
Other - Governmental Agencies	1,256,500	1,800,000	**3,056,500**	1,000,000	1,000,000	**2,000,000**
Other GA- Capital	3,654,500	2,520,900	**6,175,400**	-	-	**-**
Investment Earnings	47,000	47,000	**94,000**	47,000	47,000	**94,000**
Farebox	1,267,170	1,288,910	**2,556,080**	1,326,730	1,363,440	**2,690,170**
Other Financing/ Economic Adjustment	3,850,000	4,050,000	**7,900,000**	4,150,000	4,250,000	**8,400,000**
TOTAL REVENUES	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
EXPENDITURES						
Purchase Transportation	$ 13,264,700	$ 14,034,400	**$ 27,299,100**	$ 14,691,300	$ 15,360,500	**$ 30,051,800**
Fuel	2,423,300	2,448,400	**4,871,700**	2,510,200	2,528,000	**5,038,200**
Maintenance and Operational Expenses	2,028,300	2,061,600	**4,089,900**	2,182,700	2,224,300	**4,407,000**
Depreciation Expense	4,019,000	4,219,000	**8,238,000**	4,319,000	4,419,000	**8,738,000**
Chargebacks- Timesheets	622,000	622,000	**1,244,000**	622,000	622,000	**1,244,000**
Total Operational Expenses	22,357,300	23,385,400	**45,742,700**	24,325,200	25,153,800	**49,479,000**
Total Capital Projects	10,318,500	10,137,000	**20,455,500**	600,000	600,000	**1,200,000**
TOTAL EXPENDITURES	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**

FUND- Debt Service and TFCA	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
Debt Service for TIFIA Loan for Bus Maintenance Facility	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Revenues	$ 184,000	$ 184,000	**$ 368,000**	$ 184,000	$ 184,000	**$ 368,000**
Expenses	184,000	184,000	**368,000**	184,000	184,000	**368,000**
Net Surplus/(Deficit)	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Transportation for Clean Air (TFCA)	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
43950 - Other - Governmental Agencies	$ 485,000	$ 485,000	**$ 970,000**	$ 485,000	$ 485,000	**$ 970,000**
45100 - Interest	15,000	15,000	**30,000**	15,000	15,000	**30,000**
52310 - Consulting Services	495,000	495,000	**990,000**	495,000	495,000	**990,000**
57900 - Chargebacks- Timesheets	5,000	5,000	**10,000**	5,000	5,000	**10,000**
Net Surplus/(Deficit)	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Consolidated Budget
CMA, Public Transit, Capital, Debt Service, TFCA

NO INPUTS

	FY25 ACTUALS	FY26 Budget	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Budget
Public Transit Service Projections								
Service Hours	128,056	131,596	130,724	133,068		133,885	134,743	
Revenue Hours	95,813	99,887	98,091	99,532		100,086	100,667	
Service Miles	1,692,442	1,785,666	1,743,333	1,772,139		1,784,301	1,797,070	
Revenue Miles	1,449,864	1,548,427	1,409,477	1,435,122		1,443,496	1,452,289	
Ridership	543,032	553,962	591,622	630,500		673,156	721,279	
REVENUES								
Transportation Development Act								
41400 - Transportation Development Act	12,303,486	10,846,000	13,786,730	13,915,490	27,702,220	15,233,470	16,009,360	31,242,830
41410 - Transportation Development Act- Capital	-	1,100,000	3,075,000	2,242,400	5,317,400	-	-	-
Total TDA	**$12,303,486**	**$11,946,000**	**$16,861,730**	**$16,157,890**	**$33,019,620**	**$15,233,470**	**$16,009,360**	**$31,242,830**
Intergovernmental Revenues								
43790 - State Funding	6,947,386	4,060,000	3,196,300	3,412,000	6,608,300	3,512,000	3,612,000	7,124,000
43890 - FED - Other Funding- OBAG Planning	7,004,341	7,800,000	6,871,600	5,093,000	11,964,600	4,512,000	4,531,000	9,043,000
FTA Capital	14,546,120	850,000	3,589,000	5,373,700	8,962,700	-	-	-
43950 - Other - Governmental Agencies	3,102,100	5,915,000	17,535,700	9,371,300	26,907,000	9,413,100	7,487,700	16,900,800
Other GA- Capital	-	-	2,855,500	1,736,900	4,592,400	-	-	-
Total Intergovernmental Revenues	**$31,599,946**	**$18,625,000**	**$34,048,100**	**$24,986,900**	**$59,035,000**	**$17,437,100**	**$15,630,700**	**$33,067,800**
Revenue from Use of Money and Property								
45100 - Interest	2,301,957	1,089,000	912,000	712,000	1,624,000	712,000	712,000	1,424,000
Total Revenue from Use of Money and Property	**$2,301,957**	**$1,089,000**	**$912,000**	**$712,000**	**$1,624,000**	**$712,000**	**$712,000**	**$1,424,000**
Farebox/Charges for Services								
46800 - Charges for Services	1,002,554	1,005,755	1,117,700	1,132,000	2,249,700	1,160,800	1,188,800	2,349,600
46810 - Charges for Svcs - Am Canyon	104,299	129,000	141,200	145,600	286,800	153,300	158,200	311,500
46815 - Charges for Svcs - Napa	123,432	125,200	131,800	131,800	263,600	135,000	135,000	270,000
46820 - Charges for Svcs - Yountville	46,643	62,300	50,670	52,310	102,980	54,630	56,640	111,270
46825 - Charges for Svcs - St. Helena	52,223	52,100	52,500	53,900	106,400	56,000	57,800	113,800
46830 - Charges for Svcs - Calistoga	73,217	63,300	63,300	63,300	126,600	63,600	63,600	127,200
46850 - Charges for Svcs - Napa County	103,545	103,545	110,600	110,600	221,200	112,000	112,000	224,000
Total Charges for Services	**$1,505,912**	**$1,541,200**	**$1,667,770**	**$1,689,510**	**$3,357,280**	**$1,735,330**	**$1,772,040**	**$3,507,370**
Other Financing Sources								
48100 - Sale of Capital Assets	4,363	25,000	-	-	-	-	-	-
49900 - Transit Chargebacks and Adjustments	1,174,857	1,233,600	4,472,000	4,672,000	9,144,000	4,772,000	4,872,000	9,644,000
Total Other Financing Sources	**$1,179,220**	**$1,258,600**	**$4,472,000**	**$4,672,000**	**$9,144,000**	**$4,772,000**	**$4,872,000**	**$9,644,000**
TOTAL REVENUES	**$ 48,890,521**	**$ 34,459,800**	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**
EXPENDITURES								
Salaries and Employee Benefits								
51100 - Salaries and Wages	2,358,171	2,600,000	2,701,800	2,836,700	5,538,500	2,978,700	3,127,900	6,106,600
51110 - Extra Help	6,080	10,000	30,000	30,000	60,000	30,000	30,000	60,000
51130 - Vacation Payout	38,716	-	15,000	15,000	30,000	15,000	15,000	30,000
51200 - 401A Employer Contribution	50,490	50,000	24,500	24,500	49,000	24,500	24,500	49,000
51205 - Cell Phone Allowance	10,300	11,000	20,000	22,000	42,000	22,000	22,000	44,000
51300 - Medicare	32,793	38,000	38,000	38,000	76,000	38,000	38,000	76,000
51305 - FICA	-	-	90,000	90,000	180,000	90,000	90,000	180,000
51400 - Employee Insurance - Premiums	460,876	480,000	500,000	525,000	1,025,000	525,000	525,000	1,050,000
51405 - Workers Compensation	3,425	5,000	9,000	9,000	18,000	9,000	9,000	18,000
51410 - Unemployment Compensation	2,201	5,000	5,000	5,000	10,000	5,000	5,000	10,000
51600 - Retirement	363,249	375,000	400,000	425,000	825,000	450,000	475,000	925,000
51605 - Other Post Employment Benefits	64,411	48,000	68,000	70,000	138,000	72,000	73,000	145,000
51990 - Other Employee Benefits	-	53,700	71,300	71,000	142,300	71,000	71,000	142,000
49900 - Transit Chargebacks	(617,244)	(620,000)	-	-	-	-	-	-
Total Salaries and Employee Benefits	**$2,773,468**	**$3,055,700**	**$3,972,600**	**$4,161,200**	**$8,133,800**	**$4,330,200**	**$4,505,400**	**$8,835,600**
Services and Supplies								
52100 - Administration Services	5,191	5,000	1,000	1,000	2,000	1,000	1,000	2,000
52125 - Accounting/Auditing Services	40,701	81,600	89,800	94,800	184,600	99,800	104,800	204,600
52130 - Information Technology Svcs	181,844	215,000	251,800	258,800	510,600	265,800	273,800	539,600
52131 - ITS Communication Charges	16,974	25,000	12,000	12,000	24,000	12,000	12,000	24,000
52140 - Legal Services	93,231	350,000	75,000	75,000	150,000	75,000	75,000	150,000
52150 - Temporary/Contract Help	19,691	-	2,000	2,000	4,000	52,200	2,000	54,200
52160 - Lobbyist Services	67,000	50,000	100,000	109,000	209,000	118,000	127,000	245,000
52310 - Consulting Services	8,010,434	6,265,000	19,513,000	8,648,000	28,161,000	8,185,000	6,568,000	14,753,000
52325 - Waste Disposal Services	25,704	57,900	60,000	66,000	126,000	72,000	78,000	150,000
52335 - Security Services	34,433	23,000	16,000	16,000	32,000	60,300	16,000	76,300
52340 - Landscaping Services	20,957	105,000	112,000	116,500	228,500	121,000	125,500	246,500
52490 - Other Professional Services	12,413,226	13,405,200	13,264,700	14,034,400	27,299,100	14,691,300	15,360,500	30,051,800
52500 - Maint - Equipment	271,014	340,000	514,500	515,500	1,030,000	569,000	524,500	1,093,500
52505 - Maint - Bldg & Improvements	125,842	175,000	217,400	230,000	447,400	239,900	250,300	490,200
52515 - Maint - Software	267,323	381,403	465,800	467,800	933,600	548,300	663,300	1,211,600
52520 - Maint - Vehicles	28,381	62,000	336,000	336,000	672,000	392,500	341,000	733,500
52600 - Rents/Leases - Equipment	11,266	10,500	10,000	12,000	22,000	14,000	16,000	30,000
52705 - Insurance - Premiums	431,554	471,000	506,000	512,000	1,018,000	518,000	524,000	1,042,000
52800 - Communications/Telephone	138,145	146,300	95,000	107,500	202,500	120,500	134,000	254,500
52810 - Advertising/Marketing	211,231	182,000	181,000	186,000	367,000	191,000	196,000	387,000
52820 - Printing and Binding	56,647	83,700	19,700	20,700	40,400	60,500	22,700	83,200
52825 - Bank Charges	15,069	17,000	5,000	5,200	10,200	5,500	5,800	11,300
52830 - Publications and Legal Notices	8,624	13,000	14,000	14,500	28,500	57,800	15,500	73,300
52840 - Permits/License Fees	5,874	4,000	3,500	3,500	7,000	3,500	3,500	7,000
52900 - Training/Conference Expenses	59,097	50,000	62,000	67,000	129,000	105,800	77,000	182,800
52905 - Business Travel/Mileage	13,206	15,000	15,000	16,000	31,000	52,900	18,000	70,900
53100 - Office Supplies	79,167	30,000	40,000	45,000	85,000	58,100	55,000	113,100
53110 - Freight/Postage	5,745	3,000	5,000	5,500	10,500	53,100	6,500	59,600
53115 - Books/Media/Subscriptions	17,816	6,000	22,000	25,000	47,000	53,100	31,000	84,100
53120 - Memberships/Certifications	116,188	80,000	75,500	82,500	158,000	138,600	94,500	233,100
53205 - Utilities - Electric	281,485	140,000	277,000	301,000	578,000	321,000	340,000	661,000
53220 - Utilities - Water	38,342	65,000	54,500	54,500	109,000	62,000	69,500	131,500
53250 - Fuel	1,739,272	1,850,200	2,424,300	2,449,400	4,873,700	2,511,200	2,529,000	5,040,200
Total Services and Supplies	**$24,850,673**	**$24,707,803**	**$38,840,500**	**$28,890,100**	**$67,730,600**	**$29,829,700**	**$28,660,700**	**$58,490,400**

Other Charges								
54315 - Interest on Other Debt	216,901	183,059	184,000	184,000	368,000	184,000	184,000	368,000
54600 - Depreciation Expense	3,396,859	3,987,742	4,019,000	4,219,000	8,238,000	4,319,000	4,419,000	8,738,000
54700 - Bad Debt Expense	1,599,435	100,000	-	-	-	-	-	-
Total Other Charges	**$5,213,195**	**$4,270,801**	**$4,203,000**	**$4,403,000**	**$8,606,000**	**$4,503,000**	**$4,603,000**	**$9,106,000**
Capital Assets								
55200 - Construction in Progress	-	-	1,500,000	500,000	2,000,000	-	-	-
55400 - Equipment	15,816,968	3,100,000	8,818,500	9,637,000	18,455,500	600,000	600,000	1,200,000
55900 - Capital Outlay Offset	15,816,968	-	-	-	-	-	-	
Total Other Charges	**$31,633,936**	**$3,100,000**	**$10,318,500**	**$10,137,000**	**$20,455,500**	**$600,000**	**$600,000**	**$1,200,000**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	620,622	625,000	627,000	627,000	**1,254,000**	627,000	627,000	1,254,000
Total Special Items	**$620,622**	**$625,000**	**$627,000**	**$627,000**	**$1,254,000**	**$627,000**	**$627,000**	**$1,254,000**
TOTAL EXPENDITURES	**$ 65,091,895**	**$ 35,759,305**	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**
Operations								
Total Revenues	48,890,521	34,459,800	48,442,100	38,865,300	87,307,400	39,889,900	38,996,100	78,886,000
Total Expenditures	33,457,959	29,603,605	47,643,100	38,081,300	85,724,400	39,289,900	38,396,100	77,686,000
Net Surplus / (Deficit)	$15,432,562	$4,856,195	$799,000	$784,000	$1,583,000	$600,000	$600,000	$1,200,000
Capital Investments								
Total Revenues	-	-	9,519,500	9,353,000	18,872,500	-	-	-
Total Expenditures	-	-	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000
Net Surplus / (Deficit)	$0	$0	($799,000)	($784,000)	($1,583,000)	($600,000)	($600,000)	($1,200,000)
Total Operations + Capital								
Total Revenues	-	-	57,961,600	48,218,300	106,179,900	39,889,900	38,996,100	78,886,000
Total Expenditures	-	-	57,961,600	48,218,300	106,179,900	39,889,900	38,996,100	78,886,000
Net Surplus / (Deficit)	$0	$0	$0	$0	$0	$0	$0	$0
			MUST BE ZERO	MUST BE ZERO	MUST BE ZERO	MUST BE ZERO	MUST BE ZERO	MUST BE ZERO

Revenues By Fund							
CMA	$ 24,601,800	$ 14,011,900	$ 38,613,700	$ 14,280,700	$ 12,558,300	$ 26,839,000
Public Transit	$ 22,357,300	$ 23,385,400	$ 45,742,700	$ 24,325,200	$ 25,153,800	$ 49,479,000
Transit Capital	$ 10,318,500	$ 10,137,000	$ 20,455,500	$ 600,000	$ 600,000	$ 1,200,000
Debt Service	$ 184,000	$ 184,000	$ 368,000	$ 184,000	$ 184,000	$ 368,000
TFCA	$ 500,000	$ 500,000	$ 1,000,000	$ 500,000	$ 500,000	$ 1,000,000
TOTAL	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**

Expenses by Fund							
CMA	$ 24,601,800	$ 14,011,900	$ 38,613,700	$ 14,280,700	$ 12,558,300	$ 26,839,000
Public Transit (Less Capital)	$ 22,357,300	$ 23,385,400	$ 45,742,700	$ 24,325,200	$ 25,153,800	$ 49,479,000
Transit Capital	$ 10,318,500	$ 10,137,000	$ 20,455,500	$ 600,000	$ 600,000	$ 1,200,000
Debt Service	$ 184,000	$ 184,000	$ 368,000	$ 184,000	$ 184,000	$ 368,000
TFCA	$ 500,000	$ 500,000	$ 1,000,000	$ 500,000	$ 500,000	$ 1,000,000
TOTAL	**$ 57,961,600**	**$ 48,218,300**	**$ 106,179,900**	**$ 39,889,900**	**$ 38,996,100**	**$ 78,886,000**

NVTA Budget Outlook- Congestion Management Agency
DRAFT BUDGET

NO INPUTS

	FY25 ACTUALS	FY26 Budget	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
			FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Budget
REVENUES								
Transportation Development Act								
41400 - Transportation Development Act	3,829,800	3,500,000	3,000,000	3,000,000	6,000,000	3,000,000	3,000,000	6,000,000
Total TDA	**$3,829,800**	**$3,500,000**	**$3,000,000**	**$3,000,000**	**$6,000,000**	**$3,000,000**	**$3,000,000**	**$6,000,000**
Intergovernmental Revenues								
43790 - ST - Other Funding	4,155,287	1,500,000	1,300,000	1,300,000	2,600,000	1,300,000	1,300,000	2,600,000
43890 - FED - Other Funding- OBAG Planning	1,596,869	2,500,000	3,434,000	1,553,000	4,987,000	972,000	991,000	1,963,000
43950 - Other - Governmental Agencies	478,255	3,500,000	15,795,200	7,086,300	22,881,500	7,928,100	6,186,700	14,114,800
Total Intergovernmental Revenues	**$6,230,411**	**$7,500,000**	**$20,529,200**	**$9,939,300**	**$30,468,500**	**$10,200,100**	**$8,477,700**	**$18,677,800**
Revenue from Use of Money and Property								
45100 - Interest	81,055	50,000	50,000	50,000	100,000	50,000	50,000	100,000
Total Revenue from Use of Money and Property	**$81,055**	**$50,000**	**$50,000**	**$50,000**	**$100,000**	**$50,000**	**$50,000**	**$100,000**
Farebox/Charges for Services								
46800 - Charges for Services	49,195	23,155	100,000	100,000	200,000	100,000	100,000	200,000
46810 - Charges for Svcs - Am Canyon	31,365	31,800	33,500	33,500	67,000	36,000	36,000	72,000
46815 - Charges for Svcs - Napa	123,432	125,200	131,800	131,800	263,600	135,000	135,000	270,000
46820 - Charges for Svcs - Yountville	4,403	4,500	4,700	4,700	9,400	5,000	5,000	10,000
46825 - Charges for Svcs - St. Helena	10,898	11,100	11,700	11,700	23,400	12,000	12,000	24,000
46830 - Charges for Svcs - Calistoga	8,217	8,300	8,300	8,300	16,600	8,600	8,600	17,200
46850 - Charges for Svcs - Napa County	103,545	103,545	110,600	110,600	221,200	112,000	112,000	224,000
Total Charges for Services	**$331,055**	**$307,600**	**$400,600**	**$400,600**	**$801,200**	**$408,600**	**$408,600**	**$817,200**
Other Financing Sources								
49900 - Miscellaneous/Economic Adjustment	-	-	622,000	622,000	1,244,000	622,000	622,000	1,244,000
Total Other Financing Sources	**$0**	**$0**	**$622,000**	**$622,000**	**$1,244,000**	**$622,000**	**$622,000**	**$1,244,000**
TOTAL REVENUES	**$ 10,472,321**	**$ 11,357,600**	**$ 24,601,800**	**$ 14,011,900**	**$ 38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**
EXPENDITURES								
Salaries and Employee Benefits								
51100 - Salaries and Wages	2,358,171	2,600,000	2,701,800	2,836,700	5,538,500	2,978,700	3,127,900	6,106,600
51110 - Extra Help	6,080	10,000	30,000	30,000	60,000	30,000	30,000	60,000
51130 - Vacation Payout	38,716	-	15,000	15,000	30,000	15,000	15,000	30,000
51200 - 401A Employer Contribution	50,490	50,000	24,500	24,500	49,000	24,500	24,500	49,000
51205 - Cell Phone Allowance	10,300	11,000	20,000	22,000	42,000	22,000	22,000	44,000
51300 - Medicare	32,793	38,000	38,000	38,000	76,000	38,000	38,000	76,000
51305 - FICA	-	-	90,000	90,000	180,000	90,000	90,000	180,000
51400 - Employee Insurance - Premiums	460,876	480,000	500,000	525,000	1,025,000	525,000	525,000	1,050,000
51405 - Workers Compensation	3,425	5,000	9,000	9,000	18,000	9,000	9,000	18,000
51410 - Unemployment Compensation	2,201	5,000	5,000	5,000	10,000	5,000	5,000	10,000
51600 - Retirement	363,249	375,000	400,000	425,000	825,000	450,000	475,000	925,000
51605 - Other Post Employment Benefits	64,411	48,000	68,000	70,000	138,000	72,000	73,000	145,000
51990 - Other Employee Benefits	-	53,700	71,300	71,000	142,300	71,000	71,000	142,000
49900 - Transit Chargebacks	(617,244)	(620,000)	-	-	-	-	-	-
Total Salaries and Employee Benefits	**$2,773,468**	**$3,055,700**	**$3,972,600**	**$4,161,200**	**$8,133,800**	**$4,330,200**	**$4,505,400**	**$8,835,600**
Services and Supplies								
52100 - Administration Services	5,191	5,000	1,000	1,000	**2,000**	1,000	1,000	2,000
52125 - Accounting/Auditing Services	36,193	70,000	78,000	83,000	**161,000**	88,000	93,000	181,000
52130 - Information Technology Svcs	181,844	200,000	238,000	245,000	**483,000**	252,000	260,000	512,000
52131 - ITS Communication Charges	16,974	25,000	12,000	12,000	**24,000**	12,000	12,000	24,000
52140 - Legal Services	93,231	350,000	75,000	75,000	**150,000**	75,000	75,000	150,000
52150 - Temporary/Contract Help	19,691	-	2,000	2,000	**4,000**	52,200	2,000	54,200
52160 - Lobbyist Services	67,000	50,000	100,000	109,000	**209,000**	118,000	127,000	245,000
52310 - Grant Funded Projects/Programs	7,560,100	6,000,000	19,010,000	8,145,000	**27,155,000**	7,682,000	6,065,000	13,747,000
52325 - Waste Disposal Services	5,517	33,900	36,000	40,000	**76,000**	44,000	48,000	92,000
52335 - Security Services	(269)	8,000	8,000	8,000	**16,000**	52,300	8,000	60,300
52340 - Landscaping Services	7,462	75,000	80,000	80,000	**160,000**	80,000	80,000	160,000
52500 - Maint - Equipment	1,093	25,000	74,500	75,500	**150,000**	129,000	84,500	213,500
52505 - Maint - Bldg & Improvements	110,041	100,000	165,500	174,300	**339,800**	180,100	185,900	366,000
52515 - Maint - Software	68,031	110,000	106,200	106,200	**212,400**	106,200	214,200	320,400
52520 - Maint - Vehicles	186	2,000	1,000	1,000	**2,000**	52,500	1,000	53,500
52600 - Rents/Leases - Equipment	11,266	10,500	10,000	12,000	**22,000**	14,000	16,000	30,000
52705 - Insurance - Premiums	63,577	85,000	95,000	100,000	**195,000**	105,000	110,000	215,000
52800 - Communications/Telephone	47,243	55,000	59,000	65,500	**124,500**	72,000	79,500	151,500
52810 - Advertising/Marketing	43,251	75,000	105,000	110,000	**215,000**	115,000	120,000	235,000
52820 - Printing and Binding	8,370	15,000	12,000	13,000	**25,000**	52,800	15,000	67,800
52825 - Bank Charges	2,689	15,000	3,000	3,200	**6,200**	3,500	3,800	7,300
52830 - Publications and Legal Notices	7,849	8,000	9,000	9,500	**18,500**	52,800	10,500	63,300
52840 - Permits/License Fees	4,350	4,000	3,500	3,500	**7,000**	3,500	3,500	7,000
52900 - Training/Conference Expenses	59,097	50,000	62,000	67,000	**129,000**	105,800	77,000	182,800
52905 - Business Travel/Mileage	13,206	15,000	15,000	16,000	**31,000**	52,900	18,000	70,900
53100 - Office Supplies	67,612	25,000	35,000	40,000	**75,000**	53,100	50,000	103,100
53110 - Freight/Postage	5,745	3,000	5,000	5,500	**10,500**	53,100	6,500	59,600
53115 - Books/Media/Subscriptions	17,816	6,000	22,000	25,000	**47,000**	53,100	31,000	84,100
53120 - Memberships/Certifications	116,188	80,000	75,500	82,500	**158,000**	138,600	94,500	233,100
53205 - Utilities - Electric	97,007	120,000	110,000	115,000	**225,000**	120,000	125,000	245,000
53220 - Utilities - Water	18,467	45,000	20,000	25,000	**45,000**	30,000	35,000	65,000
53250 - Fuel	750	1,000	1,000	1,000	**2,000**	1,000	1,000	2,000
Total Services and Supplies	**$8,756,768**	**$7,666,400**	**$20,629,200**	**$9,850,700**	**$30,479,900**	**$9,950,500**	**$8,052,900**	**$18,003,400**
Other Charges								
54315 - Interest on Other Debt	19,959	-	-	-	-	-	-	-
Total Other Charges	**$19,959**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
TOTAL EXPENDITURES	**$ 11,550,195**	**$ 10,722,100**	**$ 24,601,800**	**$ 14,011,900**	**$ 38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**
AGENCY USE ONLY								
Total Revenues	**$10,472,321**	**$11,357,600**	**$24,601,800**	**$14,011,900**	**$38,613,700**	**$14,280,700**	**$12,558,300**	**$26,839,000**
Total Expenditures	**$11,550,195**	**$10,722,100**	**$24,601,800**	**$14,011,900**	**$38,613,700**	**$14,280,700**	**$12,558,300**	**$26,839,000**
Net Surplus / (Deficit)	**($1,077,874)**	**$635,500**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
			MUST BE ZERO	MUST BE ZERO	MUST BE ZERO	MUST BE ZERO	MUST BE ZERO	MUST BE ZERO

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Vine Transit
CONSOLIDATED DRAFT BUDGETS

NO INPUTS

GO TO INPUTS PAGE HERE

	FY25 ACTUALS	FY26 Budget/Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	128,056	131,596	130,724	133,068		133,885	134,743	
Revenue Hours	95,813	99,887	98,091	99,532		100,086	100,667	
Service Miles	1,692,442	1,785,666	1,743,333	1,772,139		1,784,301	1,797,070	
Revenue Miles	1,449,864	1,548,427	1,409,477	1,435,122		1,443,496	1,452,289	
Ridership	543,032	553,962	591,622	630,500		673,156	721,279	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	8,273,686	7,346,000	10,602,730	10,547,490	21,150,220	12,049,470	12,641,360	24,690,830
41410 - Transportation Development Act- Capital	-	-	3,075,000	2,242,400	5,317,400	600,000	600,000	1,200,000
Total TDA	**$8,273,686**	**$7,346,000**	**$13,677,730**	**$12,789,890**	**$26,467,620**	**$12,649,470**	**$13,241,360**	**$25,890,830**
						12,649,470	13,241,360	
Intergovernmental Revenues								
43790 - State Transit Assistance	2,720,099	2,560,000	1,896,300	2,112,000	4,008,300	2,212,000	2,312,000	4,524,000
43890 - FTA	5,407,472	5,300,000	3,437,600	3,540,000	6,977,600	3,540,000	3,540,000	7,080,000
FTA Capital	-	250,000	3,589,000	5,373,700	8,962,700	-	-	-
43950 - Other - Governmental Agencies	2,338,550	800,000	1,256,500	1,800,000	3,056,500	1,000,000	1,000,000	2,000,000
Other GA- Capital	-	-	3,654,500	2,520,900	6,175,400	-	-	-
Total Intergovernmental Revenues	**$10,466,121**	**$8,910,000**	**$13,833,900**	**$15,346,600**	**$29,180,500**	**$6,752,000**	**$6,852,000**	$13,604,000
						6,752,000	6,852,000	
Revenue from Use of Money and Property								
45100 - Interest	1,092,924	1,024,000	47,000	47,000	94,000	47,000	47,000	94,000
Total Revenue from Use of Money and Property	**$1,092,924**	**$1,024,000**	**$47,000**	**$47,000**	**$94,000**	**$47,000**	**$47,000**	**$94,000**
						47,000	47,000	
Farebox								
46800 - Farebox	953,358	982,600	1,017,700	1,032,000	2,049,700	1,060,800	1,088,800	2,149,600
46810 - Charges for Svcs - Am Canyon	72,934	97,200	107,700	112,100	219,800	117,300	122,200	239,500
46820 - Charges for Svcs - Yountville	42,240	57,800	45,970	47,610	93,580	49,630	51,640	101,270
46825 - Charges for Svcs - St. Helena	41,325	41,000	40,800	42,200	83,000	44,000	45,800	89,800
46830 - Charges for Svcs - Calistoga	65,000	55,000	55,000	55,000	110,000	55,000	55,000	110,000
46850 - Charges for Svcs - Napa County	-	-	-	-	-	-	-	-
Total Farebox	**$1,174,857**	**$1,233,600**	**$1,267,170**	**$1,288,910**	**$2,556,080**	**$1,326,730**	**$1,363,440**	**$2,690,170**
Other Financing Sources								
48100 - Sale of Capital Assets	4,363	25,000	-	-	-	-	-	-
49900 - Miscellaneous/Economic Adjustment	1,174,857	1,233,600	3,850,000	4,050,000	7,900,000	4,150,000	4,250,000	8,400,000
Total Other Financing Sources	**$1,179,220**	**$1,258,600**	**$3,850,000**	**$4,050,000**	**$7,900,000**	**$4,150,000**	**$4,250,000**	**$8,400,000**
TOTAL REVENUES	**$ 22,186,807**	**$ 19,772,200**	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	4,508	11,600	11,800	11,800	23,600	11,800	11,800	23,600
52130 - Information Technology Svcs	-	15,000	13,800	13,800	27,600	13,800	13,800	27,600
52310 - Consulting Services	34,702	40,000	8,000	8,000	16,000	8,000	8,000	16,000
52325 - Waste Disposal Services	20,188	24,000	24,000	26,000	50,000	28,000	30,000	58,000
52335 - Security Services	34,702	15,000	8,000	8,000	16,000	8,000	8,000	16,000
52340 - Landscaping Services	13,495	30,000	32,000	36,500	68,500	41,000	45,500	86,500
52490 - Purchased Transportation	12,413,226	13,405,200	13,264,700	14,034,400	27,299,100	14,691,300	15,360,500	30,051,800
52500 - Maint - Equipment	269,921	315,000	440,000	440,000	880,000	440,000	440,000	880,000
52505 - Maint - Bldg & Improvements	15,801	75,000	51,900	55,700	107,600	59,800	64,400	124,200
52515 - Maint - Software	199,292	271,403	359,600	361,600	721,200	442,100	449,100	891,200
52520 - Maint - Vehicles	28,195	60,000	335,000	335,000	670,000	340,000	340,000	680,000
52705 - Insurance - Premiums	367,977	386,000	411,000	412,000	823,000	413,000	414,000	827,000
52800 - Communications/Telephone	90,902	91,300	36,000	42,000	78,000	48,500	54,500	103,000
52810 - Advertising/Marketing	167,980	107,000	76,000	76,000	152,000	76,000	76,000	152,000
52820 - Printing and Binding	48,277	68,700	7,700	7,700	15,400	7,700	7,700	15,400
52825 - Bank Charges	12,379	2,000	2,000	2,000	4,000	2,000	2,000	4,000
52830 - Publications and Legal Notices	775	5,000	5,000	5,000	10,000	5,000	5,000	10,000
52840 - Permits/License Fees	1,524	-	-	-	-	-	-	-
53100 - Office Supplies	11,555	5,000	5,000	5,000	10,000	5,000	5,000	10,000
53205 - Utilities - Electric	184,478	20,000	167,000	186,000	353,000	201,000	215,000	416,000
53220 - Utilities - Water	19,874	20,000	34,500	29,500	64,000	32,000	34,500	66,500
53250 - Fuel	1,738,522	1,849,200	2,423,300	2,448,400	4,871,700	2,510,200	2,528,000	5,038,200
Total Services and Supplies	**15,678,273**	**16,816,403**	**17,716,300**	**18,544,400**	**36,260,700**	**19,384,200**	**20,112,800**	**39,497,000**
Other Charges								
54315 - Interest on Other Debt	176,983	183,059	184,000	184,000	368,000	184,000	184,000	368,000
54600 - Depreciation Expense	3,219,876	3,804,683	3,835,000	4,035,000	7,870,000	4,135,000	4,235,000	8,370,000
56600 - Loss on disposal of Assets	1,599,435	100,000	-	-	-	-	-	-
Total Other Charges	**4,996,294**	**4,087,742**	**4,019,000**	**4,219,000**	**8,238,000**	**4,319,000**	**4,419,000**	**8,738,000**
Capital Assets								
55400 - Equipment	15,816,968	3,100,000	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000
Total Other Charges	**15,816,968**	**3,100,000**	**10,318,500**	**10,137,000**	**20,455,500**	**600,000**	**600,000**	**1,200,000.00**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	620,622	620,000	622,000	622,000	1,244,000	622,000	622,000	1,244,000
Total Special Items	**620,622**	**620,000**	**622,000**	**622,000**	**1,244,000**	**622,000**	**622,000**	**1,244,000**
TOTAL EXPENDITURES	**$ 37,112,158**	**$ 24,624,145**	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
Operational Farebox	2.81%	4.72%	5.55%	5.38%		5.30%	5.25%	
Total Revenues	22,186,807	19,772,200	22,357,300	23,385,400	45,742,700	24,325,200	25,153,800	49,479,000
Total Expenditures	21,295,190	21,524,145	22,357,300	23,385,400	45,742,700	24,325,200	25,153,800	49,479,000
Net Surplus / (Deficit)	891,617	(1,751,945)	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
Capital Investments								
Total Revenues	-	-	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000
Total Expenditures	-	-	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
Total Operations + Capital								
Total Revenues	-	-	32,675,800	33,522,400	66,198,200	24,925,200	25,753,800	50,679,000
Total Expenditures	-	-	32,675,800	33,522,400	66,198,200	24,925,200	25,753,800	50,679,000
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Capital Fund

DRAFT BUDGET

NO INPUTS

This budget is for illustrative purposes only

	FY25	FY26	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	ACTUALS	Budget/ Forecast	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Budget
REVENUES								
Transportation Development Act								
41410 - Transportation Development Act- Capital	-	1,100,000	3,075,000	2,242,400	5,317,400	-	-	-
Total TDA	**$0**	**$1,100,000**	**$3,075,000**	**$2,242,400**	**$5,317,400**	**$0**	**$0**	**$0**
Intergovernmental Revenues								
43790 - ST - Other Funding	72,000	-	-	-	-	-	-	-
FTA Capital	14,546,120	600,000	3,589,000	5,373,700	8,962,700	-	-	-
43950 - Other - Governmental Agencies	108,000	1,400,000	-	-	-	-	-	-
Other GA- Capital	-		2,854,500	1,920,900	4,775,400	-	-	-
Total Intergovernmental Revenues	**$14,726,120**	**$2,000,000**	**$6,443,500**	**$7,294,600**	**$8,962,700**	**$0**	**$0**	**$0**
Revenue from Use of Money and Property								
45100 - Interest	1,110,807	-	800,000	600,000	**1,400,000**	600,000	600,000	1,200,000
Total Revenue from Use of Money and Property	**$1,110,807**	**$0**	**$800,000**	**$600,000**	**$1,400,000**	**$600,000**	**$600,000**	**$1,200,000**
TOTAL REVENUES	**$ 15,836,927**	**$ 3,100,000**	**$ 10,318,500**	**$ 10,137,000**	**$ 15,680,100**	**$ 600,000**	**$ 600,000**	**$ 1,200,000**
EXPENDITURES								
Other Charges								
54315 - Interest on Other Debt	19,959	-	-	-	-	-	-	-
Total Other Charges	**$19,959**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Capital Assets								
55200 - Construction in Progress	-	-	1,500,000	500,000	2,000,000	-	-	-
55400 - Equipment	-	3,100,000	8,818,500	9,637,000	18,455,500	600,000	600,000	1,200,000
55900 - Capital Outlay Offset	15,816,968	-	-	-	-	-	-	
Total Other Charges	**$15,816,968**	**$3,100,000**	**$10,318,500**	**$10,137,000**	**$20,455,500**	**$600,000**	**$600,000**	**$1,200,000**
TOTAL EXPENDITURES	**$ 15,836,927**	**$ 3,100,000**	**$ 10,318,500**	**$ 10,137,000**	**$ 20,455,500**	**$ 600,000**	**$ 600,000**	**$ 1,200,000**
AGENCY USE ONLY								
Total Revenues	$ 15,836,927	$ 3,100,000	$ 10,318,500	$ 10,137,000	$ 20,455,500	$ 600,000	$ 600,000	$ 1,200,000
Total Expenditures	$ 15,836,927	$ 3,100,000	$ 10,318,500	$ 10,137,000	$ 20,455,500	$ 600,000	$ 600,000	$ 1,200,000
Net Surplus / (Deficit)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	INFO ONLY	INFO ONLY	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Debt Service

DRAFT BUDGET

NO INPUTS

	FY25	FY26	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	ACTUALS	Budget/ Forecast	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Budget
REVENUES								
Transportation Development Act								
41400 - Transportation Development Act	246,000	200,000	184,000	184,000	**368,000**	184,000	184,000	368,000
Total TDA	**$246,000**	**$200,000**	**$184,000**	**$184,000**	**$368,000**	**$184,000**	**$184,000**	**$368,000**
Revenue from Use of Money and Property								
45100 - Interest	19	24	-	-	-	-	-	-
Total Revenue from Use of Money and Property	**$19**	**$24**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
TOTAL REVENUES	**$ 246,019**	**$200,024**	**$184,000**	**$184,000**	**$368,000**	**$184,000**	**$184,000**	**$368,000**
EXPENDITURES								
Other Charges								
54315 - Interest on Other Debt	176,983	183,059	184,000	184,000	368,000	184,000	184,000	368,000
Total Other Charges	**$176,983**	**$183,059**	**$184,000**	**$184,000**	**$368,000**	**$184,000**	**$184,000**	**$368,000**
TOTAL EXPENDITURES	**$ 176,983**	**$183,059**	**$184,000**	**$184,000**	**$368,000**	**$184,000**	**$184,000**	**$368,000**
AGENCY USE ONLY								
Total Revenues	246,019	200,024	184,000	184,000	368,000	184,000	184,000	368,000
Total Expenditures	176,983	183,059	184,000	184,000	368,000	184,000	184,000	368,000
Net Surplus / (Deficit)	$69,036	$16,965	$0	$0	$0	$0	$0	$0
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

Principal Payments begin in 2033

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Transportation for Clean Air

DRAFT BUDGET

NO INPUTS

	FY25	FY26	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
	ACTUALS	Budget/ Forecast	FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Budget
REVENUES								
Intergovernmental Revenues								
43950 - Other - Governmental Agencies	$ 177,295	$ 215,000	$ 485,000	$ 485,000	$ 970,000	$ 485,000	$ 485,000	$ 970,000
Total Intergovernmental Revenues	**$ 177,295**	**$ 215,000**	**$ 485,000**	**$ 485,000**	**$ 970,000**	**$ 485,000**	**$ 485,000**	**$ 970,000**
Revenue from Use of Money and Property								
45100 - Interest	$ 17,147	$ 15,000	$ 15,000	$ 15,000	$ 30,000	$ 15,000	$ 15,000	$ 30,000
Total Revenue from Use of Money and Property	**$ 17,147**	**$ 15,000**	**$ 15,000**	**$ 15,000**	**$ 30,000**	**$ 15,000**	**$ 15,000**	**$ 30,000**
TOTAL REVENUES	**$ 194,441**	**$ 230,000**	**$ 500,000**	**$ 500,000**	**$ 1,000,000**	**$ 500,000**	**$ 500,000**	**$ 1,000,000**
EXPENDITURES								
Services and Supplies								
52310 - Consulting Services	415,632	225,000	495,000	495,000	990,000	495,000	495,000	990,000
Total Services and Supplies	**$415,632**	**$225,000**	**$495,000**	**$495,000**	**$990,000**	**$495,000**	**$495,000**	**$990,000**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	-	5,000	5,000	5,000	10,000	5,000	5,000	10,000
Total Special Items	**$0**	**$5,000**	**$5,000**	**$5,000**	**$10,000**	**$5,000**	**$5,000**	**$10,000**
TOTAL EXPENDITURES	**$415,632**	**$230,000**	**$500,000**	**$500,000**	**$1,000,000**	**$500,000**	**$500,000**	**$1,000,000**
AGENCY USE ONLY								
Total Revenues	$ 194,441	$ 230,000	$ 500,000	$ 500,000	$ 1,000,000	$ 500,000	$ 500,000	$ 1,000,000
Total Expenditures	$ 415,632	$ 225,000	$ 500,000	$ 500,000	$ 1,000,000	$ 500,000	$ 500,000	$ 1,000,000
Net Surplus / (Deficit)	$ (221,190)	$ 5,000	$ -	$ -	$ -	$ -	$ -	$ -
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Congestion Management Agency

DRAFT BUDGET

NO INPUTS

	FY25 ACTUALS	FY26 Budget/Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
REVENUES								
Transportation Development Act								
41400 - Transportation Development Act	3,829,800	3,500,000	3,000,000	3,000,000	6,000,000	3,000,000	3,000,000	6,000,000
Total TDA	**$3,829,800**	**$3,500,000**	**$3,000,000**	**$3,000,000**	**$6,000,000**	**$3,000,000**	**$3,000,000**	**$6,000,000**
Intergovernmental Revenues								
43790 - ST - Other Funding	4,155,287	1,500,000	1,300,000	1,300,000	2,600,000	1,300,000	1,300,000	2,600,000
43890 - FED - Other Funding- OBAG Planning	1,596,869	2,500,000	3,434,000	1,553,000	4,987,000	972,000	991,000	1,963,000
43950 - Other - Governmental Agencies	478,255	1,500,000	15,795,200	7,086,300	22,881,500	7,928,100	6,186,700	14,114,800
Total Intergovernmental Revenues	**$6,230,411**	**$5,500,000**	**$20,529,200**	**$9,939,300**	**$30,468,500**	**$10,200,100**	**$8,477,700**	**$18,677,800**
Revenue from Use of Money and Property								
45100 - Interest	81,055	50,000	50,000	50,000	100,000	50,000	50,000	100,000
Total Revenue from Use of Money and Property	**$81,055**	**$50,000**	**$50,000**	**$50,000**	**$100,000**	**$50,000**	**$50,000**	**$100,000**
Charges for Services								
46800 - Charges for Services	49,195	2,023,155	100,000	100,000	200,000	100,000	100,000	200,000
46810 - Charges for Svcs - Am Canyon	31,365	31,800	33,500	33,500	67,000	36,000	36,000	72,000
46815 - Charges for Svcs - Napa	123,432	125,200	131,800	131,800	263,600	135,000	135,000	270,000
46820 - Charges for Svcs - Yountville	4,403	4,500	4,700	4,700	9,400	5,000	5,000	10,000
46825 - Charges for Svcs - St. Helena	10,898	11,100	11,700	11,700	23,400	12,000	12,000	24,000
46830 - Charges for Svcs - Calistoga	8,217	8,300	8,300	8,300	16,600	8,600	8,600	17,200
46850 - Charges for Svcs - Napa County	103,545	103,545	110,600	110,600	221,200	112,000	112,000	224,000
Total Charges for Services	**$331,055**	**$2,307,600**	**$400,600**	**$400,600**	**$801,200**	**$408,600**	**$408,600**	**$817,200**
Other Financing Sources								
49900 - Transit Chargebacks	-	-	622,000	622,000	1,244,000	622,000	622,000	1,244,000
Total Other Financing Sources	**$0**	**$0**	**$622,000**	**$622,000**	**$1,244,000**	**$622,000**	**$622,000**	**$1,244,000**
TOTAL REVENUES	**$ 10,472,321**	**$ 11,357,600**	**$ 24,601,800**	**$ 14,011,900**	**$ 38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**
EXPENDITURES								
Salaries and Employee Benefits								
51100 - Salaries and Wages	2,358,171	2,600,000	2,701,800	2,836,700	5,538,500	2,978,700	3,127,900	6,106,600
51110 - Extra Help	6,080	10,000	30,000	30,000	60,000	30,000	30,000	60,000
51130 - Vacation Payout	38,716	-	15,000	15,000	30,000	15,000	15,000	30,000
51200 - 401A Employer Contribution	50,490	50,000	24,500	24,500	49,000	24,500	24,500	49,000
51205 - Cell Phone Allowance	10,300	11,000	20,000	22,000	42,000	22,000	22,000	44,000
51300 - Medicare	32,793	38,000	38,000	38,000	76,000	38,000	38,000	76,000
51305 - Employer Payroll Taxes	-	-	90,000	90,000	180,000	90,000	90,000	180,000
51400 - Employee Insurance - Premiums	460,876	480,000	500,000	525,000	1,025,000	525,000	525,000	1,050,000
51405 - Workers Compensation	3,425	5,000	9,000	9,000	18,000	9,000	9,000	18,000
51410 - Unemployment Compensation	2,201	5,000	5,000	5,000	10,000	5,000	5,000	10,000
51600 - Retirement	363,249	375,000	400,000	425,000	825,000	450,000	475,000	925,000
51605 - Other Post Employment Benefits	64,411	48,000	68,000	70,000	138,000	72,000	73,000	145,000
51990 - Other Employee Benefits	-	53,700	71,300	71,000	142,300	71,000	71,000	142,000
49900 - Transit Chargebacks	(617,244)	(620,000)	-	-	-	-	-	-
Total Salaries and Employee Benefits	**$2,773,468**	**$3,055,700**	**$3,972,600**	**$4,161,200**	**$8,133,800**	**$4,330,200**	**$4,505,400**	**$8,835,600**
Services and Supplies								
52100 - Administration Services	5,191	5,000	1,000	1,000	2,000	1,000	1,000	2,000
52125 - Accounting/Auditing Services	36,193	70,000	78,000	83,000	161,000	88,000	93,000	181,000
52130 - Information Technology Svcs	181,844	200,000	238,000	245,000	483,000	252,000	260,000	512,000
52131 - ITS Communication Charges	16,974	25,000	12,000	12,000	24,000	12,000	12,000	24,000
52140 - Legal Services	93,231	350,000	75,000	75,000	150,000	75,000	75,000	150,000
52150 - Temporary/Contract Help	19,691	-	2,000	2,000	4,000	52,200	2,000	54,200
52160 - Lobbyist Services	67,000	50,000	100,000	109,000	209,000	118,000	127,000	245,000
52310 - Grant Funded Projects/Programs	7,560,100	6,000,000	19,010,000	8,145,000	27,155,000	7,682,000	6,065,000	13,747,000
52325 - Waste Disposal Services	5,517	33,900	36,000	40,000	76,000	44,000	48,000	92,000
52335 - Security Services	(269)	8,000	8,000	8,000	16,000	52,300	8,000	60,300
52340 - Landscaping Services	7,462	75,000	80,000	80,000	160,000	80,000	80,000	160,000
52500 - Maint - Equipment	1,093	25,000	74,500	75,500	150,000	129,000	84,500	213,500
52505 - Maint - Bldg & Improvements	110,041	100,000	165,500	174,300	339,800	180,100	185,900	366,000
52515 - Maint - Software	68,031	110,000	106,200	106,200	212,400	106,200	214,200	320,400
52520 - Maint - Vehicles	186	2,000	1,000	1,000	2,000	52,500	1,000	53,500
52600 - Rents/Leases - Equipment	11,266	10,500	10,000	12,000	22,000	14,000	16,000	30,000
52705 - Insurance - Premiums	63,577	85,000	95,000	100,000	195,000	105,000	110,000	215,000
52800 - Communications/Telephone	47,243	55,000	59,000	65,500	124,500	72,000	79,500	151,500
52810 - Advertising/Marketing	43,251	75,000	105,000	110,000	215,000	115,000	120,000	235,000
52820 - Printing and Binding	8,370	15,000	12,000	13,000	25,000	52,800	15,000	67,800
52825 - Bank Charges	2,689	15,000	3,000	3,200	6,200	3,500	3,800	7,300
52830 - Publications and Legal Notices	7,849	8,000	9,000	9,500	18,500	52,800	10,500	63,300
52840 - Permits/License Fees	4,350	4,000	3,500	3,500	7,000	3,500	3,500	7,000
52900 - Training/Conference Expenses	59,097	50,000	62,000	67,000	129,000	105,800	77,000	182,800
52905 - Business Travel/Mileage	13,206	15,000	15,000	16,000	31,000	52,900	18,000	70,900
53100 - Office Supplies	67,612	25,000	35,000	40,000	75,000	53,100	50,000	103,100
53110 - Freight/Postage	5,745	3,000	5,000	5,500	10,500	53,100	6,500	59,600
53115 - Books/Media/Subscriptions	17,816	6,000	22,000	25,000	47,000	53,100	31,000	84,100
53120 - Memberships/Certifications	116,188	80,000	75,500	82,500	158,000	138,600	94,500	233,100
53205 - Utilities - Electric	97,007	120,000	110,000	115,000	225,000	120,000	125,000	245,000
53220 - Utilities - Water	18,467	45,000	20,000	25,000	45,000	30,000	35,000	65,000
53250 - Fuel	750	1,000	1,000	1,000	2,000	1,000	1,000	2,000
Total Services and Supplies	**$8,756,768**	**$7,666,400**	**$20,629,200**	**$9,850,700**	**$30,479,900**	**$9,950,500**	**$8,052,900**	**$18,003,400**
Other Charges								
54315 - Interest on Other Debt	19,959	-	-	-	-	-	-	-
Total Other Charges	**$19,959**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
TOTAL EXPENDITURES	**$ 11,550,195**	**$ 10,722,100**	**$ 24,601,800**	**$ 14,011,900**	**$ 38,613,700**	**$ 14,280,700**	**$ 12,558,300**	**$ 26,839,000**
AGENCY USE ONLY								
Total Revenues	10,472,321	11,357,600	24,601,800	14,011,900	38,613,700	14,280,700	12,558,300	26,839,000
Total Expenditures	11,550,195	10,722,100	24,601,800	14,011,900	38,613,700	14,280,700	12,558,300	26,839,000
Net Surplus / (Deficit)	(1,077,874)	635,500	-	-	-	-	-	-

NAPA VALLEY TRANSPORTATION AUTHORITY

	CMA Grant Funded Projects/Programs Professional/Consulting Fees	FY27 Budget	FY28 Budget	Total	FY29 Budget	FY30 Budget	Total
1	Accessible Transportation Needs Assessment Implementation	100,000	-	**100,000**	-	-	-
2	Active Transportation Biennial Report	75,000	-	**75,000**	-	-	-
3	ADA Evaluation Management Services	60,000	60,000	**120,000**	60,000	60,000	120,000
4	AHSC vanpool program	40,000	40,000	**80,000**	40,000	40,000	80,000
5	Bike Ped Counter Program	25,000	25,000	**50,000**	62,000	70,000	132,000
6	Capital Projects - Project Management/Coordination/Oversight (various tasks)	300,000	300,000	**600,000**	300,000	300,000	600,000
7	Carneros Intersection Environmental/Engineering	350,000	-	**350,000**	1,000,000	-	1,000,000
8	Community Based Transportation Plan Implementation	300,000	200,000	**500,000**	250,000	500,000	750,000
9	Comprehensive Operational Analysis (COA) and Short Range Tranit Plan SRTP	250,000	50,000	**300,000**	-	-	-
10	Outreach Consultant-(for CTP, AT, CBTP Plans and transit survey)	-	-	**-**	50,000	50,000	100,000
11	Safe Routes to School/Transit-	75,000	75,000	**150,000**	75,000	75,000	150,000
12	Solano-Napa Rail Passenger Feasibility Study			**-**			-
13	Napa South County Station Area Plan	200,000	100,000	**300,000**			-
14	SR 29 American Canyon Corridor Improvements (South Valley)	6,000,000	4,000,000	**10,000,000**	5,500,000	4,500,000	10,000,000
15	SR29 Improvements/ Napa Forward (North Valley)	3,500,000	-	**3,500,000**			-
16	SR29/SR 12/Airport Environmental Document	7,000,000	3,000,000	**10,000,000**	-	-	-
17	V Commute/TDM/Ride Amigos (rideshare services)	40,000	40,000	**80,000**	40,000	40,000	80,000
18	Vision Zero Biennial Report	50,000	50,000	**100,000**			-
19	BMF Expansion Lot Preliminary Study	40,000	-	**40,000**	-	-	-
20	SR 29 AC CMCP Update	400,000	-	**400,000**	-	-	-
21	Vision Zero Implemenation Programs	75,000	75,000	**150,000**	-	-	-
22	Fed/State Grant Application/Technical Support	30,000	30,000	**60,000**	30,000	30,000	60,000
23	Taxi Scrip PEX Card system (Napa and Upvalley)	100,000	100,000	**200,000**	100,000	100,000	200,000
	TOTAL DISCRETIONARY PROJECTS	**$ 19,010,000**	**$ 8,145,000**	**$ 27,155,000**	**$ 7,682,000**	**$ 6,065,000**	**$ 13,747,000**

NAPA VALLEY TRANSPORTATION AUTHORITY

CMA Discretionary Projects- Planned Expenditures

Planned Expenditures

FY27 Budget	FY28 Budget	Total	FY29 Forecast	FY30 Forecast	Total
$ 19,010,000	$ 8,145,000	$ 27,155,000	$ 7,682,000	$ 6,065,000	$ 13,747,000
$ 19,010,000	**$ 8,145,000**	**$ 27,155,000**	**$ 7,682,000**	**$ 6,065,000**	**$ 13,747,000**

Tier 1- Funding Identified and Secured	
FY27 Budget	FY28 Budget
$ 18,060,000	$ 7,695,000

Tier 2- Funding Identified, but not secured	
FY27 Budget	FY28 Budget
$ 850,000	$ 350,000

Tier 3- Funding Not Identified	
FY27 Budget	FY28 Budget
$ 100,000	$ 100,000

Funding Sources

	PM	Total	TDA	Federal	RM3	OBAG Planning	Other or One-Time Grants	Unassigned	Total
Accessible Transportation Needs Assessment Implementation	**Diana**	**$ 100,000**	-	100,000	-	-	-	-	$ 100,000
Active Transportation Biennial Report	**Patrick**	**$ 75,000**	-	-	-	75,000	-	-	$ 75,000
ADA Evaluation Management Services	**Rebecca/Libby**	**$ 120,000**	120,000	-	-	-	-	-	$ 120,000
AHSC vanpool program	**Patrick/Rebecca**	**$ 80,000**	-	-	-	-	80,000	-	$ 80,000
Bike Ped Counter Program	**Patrick**	**$ 50,000**	-	-	-	-	50,000	-	$ 50,000
Capital Projects - Project Management/Coordination/Oversight (various	**Grant**	**$ 600,000**	600,000	-	-	-	-	-	$ 600,000
Carneros Intersection Environmental/Engineering	**Grant**	**$ 350,000**	-	-	-	-	350,000	-	$ 350,000
Community Based Transportation Plan Implementation	**Libby**	**$ 500,000**	-	-	-	-	500,000	-	$ 500,000
Comprehensive Operational Analysis (COA) and Short Range Tranit Plar	**Rebecca**	**$ 300,000**	250,000	-	-	-	50,000	-	$ 300,000
Safe Routes to School/Transit-	**Diana**	**$ 150,000**	150,000	-	-	-	-	-	$ 150,000
Napa South County Station Area Plan	**Diana**	**$ 300,000**	-			300,000		-	$ 300,000
SR 29 American Canyon Corridor Improvements (South Valley)	**Grant**	**$ 10,000,000**	-	-	2,700,000		7,300,000	-	$ 10,000,000
SR29 Improvements/ Napa Forward (North Valley)	**Grant**	**$ 3,500,000**	-	-	-	50,000	3,450,000	-	$ 3,500,000
SR29/SR 12/Airport Environmental Document	**Grant**	**$ 10,000,000**	-	2,000,000	-		8,000,000	-	$ 10,000,000
V Commute/TDM/Ride Amigos (rideshare services)	**Rebecca**	**$ 80,000**	80,000	-	-	-	-	-	$ 80,000
Vision Zero Biennial Report	**Patrick**	**$ 100,000**	-	-	-	100,000	-	-	$ 100,000
BMF Expansion Lot Preliminary Study	**Rebecca**	**$ 40,000**	40,000	-	-	-	-	-	$ 40,000
SR 29 AC CMCP Update	**Jonathan/Grant**	**$ 400,000**	-	-	-	300,000	100,000	-	$ 400,000
Vision Zero Implemenation Programs	**Patrick**	**$ 150,000**	-	-	-		150,000	-	$ 150,000
Fed/State Grant Application/Technical Support	**Various**	**$ 60,000**	60,000	-	-	-	-	-	$ 60,000
Taxi Scrip PEX Card system (Napa and Upvalley)	**Various**	**$ 200,000**	-					200,000	$ 200,000
Total		**$ 27,155,000**	**$ 1,300,000**	**$ 2,100,000**	**$ 2,700,000**	**$ 825,000**	**$ 20,030,000**	**$ 200,000**	**$ 27,155,000**

PERSONNEL COSTS

2027 Salary Projection

Account #	Account Name		July	August	September	Quarter End Q1 2016	October	November	December	Quarter End Q2 2016	January	February	March	Quarter End Q3 2017	April	May	June	Quarter End Q4 2017	Fiscal Year
51000	Salaries	$ 2,701,800	243,200	243,200	235,300	681,000	243,200	235,300	243,200	681,000	243,200	219,700	243,200	666,300	235,300	243,200	235,300	673,500	2,701,800
51110	Extra Help	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
	Vacation Payout	15,000	1,300	1,300	1,300	3,900	1,300	1,300	1,300	3,900	1,300	1,300	1,300	3,900	1,300	1,300	1,300	3,900	15,600
51200	457 Employer Contribution	24,500	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,500	6,500	24,500
	Medicare	38,000																-	-
51305	Employer Payroll Taxes	90,000	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	90,000
51600	Pension (retirement)	400,000	33,300	33,300	33,300	99,900	33,300	33,300	33,300	99,900	33,300	33,300	33,300	99,900	33,300	33,300	33,700	100,300	400,000
51990	Dental/Vision/Life/LTD	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
51400	Employer Insurance	500,000	41,700	41,700	41,700	125,100	41,700	41,700	41,700	125,100	41,700	41,700	41,700	125,100	41,700	41,700	41,300	124,700	500,000
51300	Other Employee Benefits and Bilingual Pay	35,800	3,000	3,000	3,000	9,000	3,000	3,000	3,000	9,000	3,000	3,000	3,000	9,000	3,000	3,000	2,800	8,800	35,800
51990	Employee Assistance Program (EAP)	5,500	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	500	500	-	1,000	5,500
51405	Workers Compensation	9,000	800	800	800	2,400	800	800	800	2,400	800	800	800	2,400	800	800	200	1,800	9,000
51410	Unemployment Compensation	5,000	400	400	400	1,200	400	400	400	1,200	400	400	400	1,200	400	400		800	4,400
51605	OPEB Contribution	68,000	-	-	-	-	-	-	-	-	-	-	-	-	-	68,000	-	68,000	68,000
51205	Cell Phone Allowance	20,000	1,700	1,700	1,700	5,100	1,700	1,700	1,700	5,100	1,700	1,700	1,700	5,100	1,700	1,700	1,300	4,700	20,000
	TOTAL PERSONNEL COSTS	$ 3,972,600	340,400	340,400	332,500	972,600	340,400	332,500	340,400	972,600	340,400	316,900	340,400	957,900	332,500	408,400	330,900	1,031,500	3,934,600

Salaries	$ 2,701,800	68%
Health Insurance and Pension	$ 900,000	23%
Other Benefits	370,800	9%
Total	$ 3,972,600	100%
Chargebacks	$ (622,000)	
Net Personnel Costs	**$ 3,350,600**	

2028 Salary Projection

Account #	Account Name		July	August	September	Quarter End Q1 2016	October	November	December	Quarter End Q2 2016	January	February	March	Quarter End Q3 2017	April	May	June	Quarter End Q4 2017	Fiscal Year
51000	Salaries	$ 2,836,700	255,400	255,400	247,200	715,000	255,400	247,200	255,400	715,000	255,400	230,700	255,400	699,400	247,200	255,400	247,200	707,300	2,836,700
51110	Extra Help	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
	Vacation Payout	15,000																	
51200	457 Employer Contribution	24,500	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,500	6,500	24,500
	Medicare	38,000																	
51305	Employer Payroll Taxes	90,000	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	90,000
51600	Pension (retirement)	425,000	35,400	35,400	35,400	106,200	35,400	35,400	35,400	106,200	35,400	35,400	35,400	106,200	35,400	35,400	35,600	106,400	425,000
51990	Dental/Vision/Life/LTD	35,000	2,900	2,900	2,900	8,700	2,900	2,900	2,900	8,700	2,900	2,900	2,900	8,700	2,900	2,900	3,100	8,900	35,000
51400	Employer Insurance	525,000	43,800	43,800	43,800	131,400	43,800	43,800	43,800	131,400	43,800	43,800	43,800	131,400	43,800	43,800	43,200	130,800	525,000
51300	Other Employee Benefits	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
51990	Employee Assistance Program (EAP)	6,000	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	6,000
51405	Workers Compensation	9,000	800	800	800	2,400	800	800	800	2,400	800	800	800	2,400	800	800	200	1,800	9,000
51410	Unemployment Compensation	5,000	400	400	400	1,200	400	400	400	1,200	400	400	400	1,200	400	400			
51605	OPEB Contribution	70,000	-	-	-	-	-	-	-	-	-	-	-	-	-	70,000	-	70,000	70,000
51205	Cell Phone Allowance	22,000	1,800	1,800	1,800	5,400	1,800	1,800	1,800	5,400	1,800	1,800	1,800	5,400	1,800	1,800	2,200	5,800	22,000
	TOTAL PERSONNEL COSTS	$ 4,161,200	355,500	355,500	347,300	1,015,300	355,500	347,300	355,500	1,015,300	355,500	330,800	355,500	999,700	347,300	425,500	347,000	1,076,500	4,103,200

Salaries	$ 2,836,700	68%
Health Insurance and Pension	$ 950,000	23%
Other Benefits	374,500	9%
Total	$ 4,161,200	100%
Chargebacks	$ (622,000)	
Net Personnel Costs	**$ 3,539,200**	

2029 Salary Projection

Account #	Account Name		July	August	September	Quarter End Q1 2016	October	November	December	Quarter End Q2 2016	January	February	March	Quarter End Q3 2017	April	May	June	Quarter End Q4 2017	Fiscal Year
51000	Salaries	$ 2,978,700	268,200	268,200	259,500	750,800	268,200	259,500	268,200	750,800	268,200	242,200	268,200	734,500	259,500	268,200	259,500	742,600	2,978,700
51110	Extra Help	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
	Vacation Payout	15,000																	
51200	457 Employer Contribution	24,500	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,500	6,500	24,500
	Medicare	38,000																	
51305	Employer Payroll Taxes	90,000	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	90,000
51600	Pension (retirement)	450,000	37,500	37,500	37,500	112,500	37,500	37,500	37,500	112,500	37,500	37,500	37,500	112,500	37,500	37,500	37,500	112,500	450,000
51990	Dental/Vision/Life/LTD	35,000	2,900	2,900	2,900	8,700	2,900	2,900	2,900	8,700	2,900	2,900	2,900	8,700	2,900	2,900	3,100	8,900	35,000
51400	Employer Insurance	525,000	43,800	43,800	43,800	131,400	43,800	43,800	43,800	131,400	43,800	43,800	43,800	131,400	43,800	43,800	43,200	130,800	525,000
51300	Other Employee Benefits	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
51990	Employee Assistance Program (EAP)	6,000	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	6,000
51405	Workers Compensation	9,000	800	800	800	2,400	800	800	800	2,400	800	800	800	2,400	800	800	200	1,800	9,000
51410	Unemployment Compensation	5,000	400	400	400	1,200	400	400	400	1,200	400	400	400	1,200	400	400			
51605	OPEB Contribution	72,000	-	-	-	-	-	-	-	-	-	-	-	-	-	72,000	-	72,000	72,000
51205	Cell Phone Allowance	22,000	1,800	1,800	1,800	5,400	1,800	1,800	1,800	5,400	1,800	1,800	1,800	5,400	1,800	1,800	2,200	5,800	22,000
	TOTAL PERSONNEL COSTS	$ 4,330,200	370,400	370,400	361,700	1,057,400	370,400	361,700	370,400	1,057,400	370,400	344,400	370,400	1,041,100	361,700	442,400	361,200	1,119,900	4,272,200

Salaries	$ 2,978,700	69%
Health Insurance and Pension	$ 975,000	23%
Other Benefits	376,500	9%
Total	$ 4,330,200	100%
Chargebacks	$ (622,000)	
Net Personnel Costs	**$ 3,708,200**	

2030 Salary Projection

Account #	Account Name	Full Year Salary	July	August	September	Quarter End Q1 2016	October	November	December	Quarter End Q2 2016	January	February	March	Quarter End Q3 2017	April	May	June	Quarter End Q4 2017	Fiscal Year
51000	Salaries	$ 3,127,900	281,600	281,600	272,500	788,400	281,600	272,500	281,600	788,400	281,600	254,300	281,600	771,400	272,500	281,600	272,500	779,700	3,127,900
51110	Extra Help	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
	Vacation Payout	15,000																	
51200	457 Employer Contribution	24,500	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,000	6,000	2,000	2,000	2,500	6,500	24,500
	Medicare	38,000																	
51305	Employer Payroll Taxes	90,000	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	7,500	7,500	7,500	22,500	90,000
51600	Pension (retirement)	475,000	39,600	39,600	39,600	118,800	39,600	39,600	39,600	118,800	39,600	39,600	39,600	118,800	39,600	39,600	39,400	118,600	475,000
51990	Dental/Vision/Life/LTD	35,000	2,900	2,900	2,900	8,700	2,900	2,900	2,900	8,700	2,900	2,900	2,900	8,700	2,900	2,900	3,100	8,900	35,000
51400	Employer Insurance	525,000	43,800	43,800	43,800	131,400	43,800	43,800	43,800	131,400	43,800	43,800	43,800	131,400	43,800	43,800	43,200	130,800	525,000
51300	Other Employee Benefits	30,000	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	2,500	2,500	2,500	7,500	30,000
51990	Employee Assistance Program (EAP)	6,000	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	500	500	500	1,500	6,000
51405	Workers Compensation	9,000	800	800	800	2,400	800	800	800	2,400	800	800	800	2,400	800	800	200	1,800	9,000
51410	Unemployment Compensation	5,000	400	400	400	1,200	400	400	400	1,200	400	400	400	1,200	400	400			
51605	OPEB Contribution	73,000	-	-	-	-	-	-	-	-	-	-	-	-	-	73,000	-	73,000	73,000
51205	Cell Phone Allowance	22,000	1,800	1,800	1,800	5,400	1,800	1,800	1,800	5,400	1,800	1,800	1,800	5,400	1,800	1,800	2,200	5,800	22,000
	TOTAL PERSONNEL COSTS	$ 4,505,400	385,900	385,900	376,800	1,101,300	385,900	376,800	385,900	1,101,300	385,900	358,600	385,900	1,084,300	376,800	458,900	376,100	1,164,100	4,447,400

Salaries	$ 3,127,900	69%
Other Benefits	377,500	8%
Total	$ 4,505,400	100%
Chargebacks	$ (622,000)	
Net Personnel Costs	**$ 3,883,400**	

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Vine Transit

CONSOLIDATED DRAFT BUDGETS SUMMARY

NO INPUTS

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	FY25 ACTUALS	FY26 Budget/Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	128,056	131,596	130,724	133,068		133,885	134,743	
Revenue Hours	95,813	99,887	98,091	99,532		100,086	100,667	
Service Miles	1,692,442	1,785,666	1,743,333	1,772,139		1,784,301	1,797,070	
Revenue Miles	1,449,864	1,548,427	1,409,477	1,435,122		1,443,496	1,452,289	
Ridership	543,032	553,962	591,622	630,500		673,156	721,279	
REVENUES								
Transportation Development Act	$8,273,686	$7,346,000	$13,677,730	$12,789,890	$26,467,620	$12,649,470	$13,241,360	$25,890,830
State Transit Assistance	2,720,099	2,560,000	1,896,300	2,112,000	4,008,300	2,212,000	2,312,000	4,524,000
Federal Transit Administration	5,407,472	5,550,000	7,026,600	8,913,700	15,940,300	3,540,000	3,540,000	7,080,000
Other Government Agencies	2,338,550	800,000	4,911,000	4,320,900	9,231,900	1,000,000	1,000,000	2,000,000
Interest	1,092,924	1,024,000	47,000	47,000	94,000	47,000	47,000	94,000
Farebox	$1,174,857	$1,233,600	$1,267,170	$1,288,910	$2,556,080	$1,326,730	$1,363,440	$2,690,170
Economic/Depreciation Adjustment	$1,179,220	$1,258,600	$3,850,000	$4,050,000	$7,900,000	$4,150,000	$4,250,000	$8,400,000
TOTAL REVENUES	**$ 22,186,807**	**$ 19,772,200**	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
EXPENDITURES								
Purchase Transportation	12,413,226	13,405,200	13,264,700	14,034,400	27,299,100	14,691,300	15,360,500	30,051,800
Maintenance	513,209	721,403	1,186,500	1,192,300	2,378,800	1,281,900	1,293,500	2,575,400
Fuel	1,738,522	1,853,200	2,423,300	2,448,400	4,871,700	2,510,200	2,528,000	5,038,200
Administration	1,013,316	840,600	841,800	869,300	1,711,100	900,800	930,800	1,831,600
Total Services and Supplies	**15,678,273**	**16,820,403**	**17,716,300**	**18,544,400**	**36,260,700**	**19,384,200**	**20,112,800**	**39,497,000**
Total Depreciation and Other Charges	4,996,294	4,087,742	4,019,000	4,219,000	8,238,000	4,319,000	4,419,000	8,738,000
Equipment Acquistions	15,816,968	3,100,000	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000.00
Chargebacks- Timesheets	620,622	620,000	622,000	622,000	1,244,000	622,000	622,000	1,244,000
TOTAL EXPENDITURES	**$ 37,112,158**	**$ 24,628,145**	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
Total Operations + Capital								
Total Revenues	-	-	32,675,800	33,522,400	66,198,200	24,925,200	25,753,800	50,679,000
Total Expenditures	-	-	32,675,800	33,522,400	66,198,200	24,925,200	25,753,800	50,679,000
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Vine Transit

CONSOLIDATED DRAFT BUDGETS

NO INPUTS

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	FY25 ACTUALS	FY26 Budget/Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	128,056	131,596	130,724	133,068		133,885	134,743	
Revenue Hours	95,813	99,887	98,091	99,532		100,086	100,667	
Service Miles	1,692,442	1,785,666	1,743,333	1,772,139		1,784,301	1,797,070	
Revenue Miles	1,449,864	1,548,427	1,409,477	1,435,122		1,443,496	1,452,289	
Ridership	543,032	553,962	591,622	630,500		673,156	721,279	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	8,273,686	7,346,000	10,602,730	10,547,490	**21,150,220**	12,049,470	12,641,360	24,690,830
41410 - Transportation Development Act- Capital	-	-	3,075,000	2,242,400	**5,317,400**	600,000	600,000	1,200,000
Total Taxes	**$8,273,686**	**$7,346,000**	**$13,677,730**	**$12,789,890**	**$26,467,620**	**$12,649,470**	**$13,241,360**	**$25,890,830**
Intergovernmental Revenues								
43790 - State Transit Assistance	2,720,099	2,560,000	1,896,300	2,112,000	**4,008,300**	2,212,000	2,312,000	4,524,000
43890 - FTA	5,407,472	5,300,000	3,437,600	3,540,000	**6,977,600**	3,540,000	3,540,000	7,080,000
FTA Capital	-	250,000	3,589,000	5,373,700	**8,962,700**	-	-	-
43950 - Other - Governmental Agencies	2,338,550	800,000	1,256,500	1,800,000	**3,056,500**	1,000,000	1,000,000	2,000,000
Other GA- Capital	-	-	3,654,500	2,520,900	**6,175,400**	-	-	-
Total Intergovernmental Revenues	**$10,466,121**	**$8,910,000**	**$13,833,900**	**$15,346,600**	**$29,180,500**	**$6,752,000**	**$6,852,000**	$13,604,000
Revenue from Use of Money and Property								
45100 - Interest	1,092,924	1,024,000	47,000	47,000	**94,000**	47,000	47,000	94,000
Total Revenue from Use of Money and Property	**$1,092,924**	**$1,024,000**	**$47,000**	**$47,000**	**$94,000**	**$47,000**	**$47,000**	**$94,000**
Farebox								
46800 - Farebox	953,358	982,600	1,017,700	1,032,000	**2,049,700**	1,060,800	1,088,800	2,149,600
46810 - Charges for Svcs - Am Canyon	72,934	97,200	107,700	112,100	**219,800**	117,300	122,200	239,500
46820 - Charges for Svcs - Yountville	42,240	57,800	45,970	47,610	**93,580**	49,630	51,640	101,270
46825 - Charges for Svcs - St. Helena	41,325	41,000	40,800	42,200	**83,000**	44,000	45,800	89,800
46830 - Charges for Svcs - Calistoga	65,000	55,000	55,000	55,000	**110,000**	55,000	55,000	110,000
Total Farebox	**$1,174,857**	**$1,233,600**	**$1,267,170**	**$1,288,910**	**$2,556,080**	**$1,326,730**	**$1,363,440**	**$2,690,170**
Other Financing Sources								
48100 - Sale of Capital Assets	4,363	25,000	-	-	-	-	-	-
49900 - Miscellaneous/Economic Adjustment	1,174,857	1,233,600	3,850,000	4,050,000	**7,900,000**	4,150,000	4,250,000	8,400,000
Total Other Financing Sources	**$1,179,220**	**$1,258,600**	**$3,850,000**	**$4,050,000**	**$7,900,000**	**$4,150,000**	**$4,250,000**	**$8,400,000**
TOTAL REVENUES	**$ 22,186,807**	**$ 19,772,200**	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	4,508	11,600	11,800	11,800	23,600	11,800	11,800	23,600
52130 - Information Technology Svcs	-	15,000	13,800	13,800	27,600	13,800	13,800	27,600
52310 - Consulting Services	34,702	40,000	8,000	8,000	16,000	8,000	8,000	16,000
52325 - Waste Disposal Services	20,188	24,000	24,000	26,000	50,000	28,000	30,000	58,000
52335 - Security Services	34,702	15,000	8,000	8,000	16,000	8,000	8,000	16,000
52340 - Landscaping Services	13,495	30,000	32,000	36,500	68,500	41,000	45,500	86,500
52490 - Other Professional Services	12,413,226	13,405,200	13,264,700	14,034,400	27,299,100	14,691,300	15,360,500	30,051,800
52500 - Maint - Equipment	269,921	315,000	440,000	440,000	880,000	440,000	440,000	880,000
52505 - Maint - Bldg & Improvements	15,801	75,000	51,900	55,700	107,600	59,800	64,400	124,200
52515 - Maint - Software	199,292	271,403	359,600	361,600	721,200	442,100	449,100	891,200
52520 - Maint - Vehicles	28,195	60,000	335,000	335,000	670,000	340,000	340,000	680,000
52705 - Insurance - Premiums	367,977	386,000	411,000	412,000	823,000	413,000	414,000	827,000
52800 - Communications/Telephone	90,902	91,300	36,000	42,000	78,000	48,500	54,500	103,000
52810 - Advertising/Marketing	167,980	107,000	76,000	76,000	152,000	76,000	76,000	152,000
52820 - Printing and Binding	48,277	68,700	7,700	7,700	15,400	7,700	7,700	15,400
52825 - Bank Charges	12,379	2,000	2,000	2,000	4,000	2,000	2,000	4,000
52830 - Publications and Legal Notices	775	5,000	5,000	5,000	10,000	5,000	5,000	10,000
52840 - Permits/License Fees	1,524	-	-	-	-	-	-	-
53100 - Office Supplies	11,555	5,000	5,000	5,000	10,000	5,000	5,000	10,000
53205 - Utilities - Electric	184,478	20,000	167,000	186,000	353,000	201,000	215,000	416,000
53220 - Utilities - Water	19,874	20,000	34,500	29,500	64,000	32,000	34,500	66,500
53250 - Fuel	1,738,522	1,853,200	2,423,300	2,448,400	4,871,700	2,510,200	2,528,000	5,038,200
Total Services and Supplies	**15,678,273**	**16,820,403**	**17,716,300**	**18,544,400**	**36,260,700**	**19,384,200**	**20,112,800**	**39,497,000**
		840,600	841,800	869,300		900,800	930,800	
Other Charges								
54315 - Interest on Other Debt	176,983	183,059	184,000	184,000	368,000	184,000	184,000	368,000
54600 - Depreciation Expense	3,219,876	3,804,683	3,835,000	4,035,000	7,870,000	4,135,000	4,235,000	8,370,000
56600 - Loss on disposal of Assets	1,599,435	100,000	-	-	-	-	-	-
Total Other Charges	**4,996,294**	**4,087,742**	**4,019,000**	**4,219,000**	**8,238,000**	**4,319,000**	**4,419,000**	**8,738,000**
Capital Assets								
55400 - Equipment	15,816,968	3,100,000	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000.00
Total Other Charges	**15,816,968**	**3,100,000**	**10,318,500**	**10,137,000**	**20,455,500**	**600,000**	**600,000**	**1,200,000.00**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	620,622	620,000	622,000	622,000	1,244,000	622,000	622,000	1,244,000
Total Special Items	**620,622**	**620,000**	**622,000**	**622,000**	**1,244,000**	**622,000**	**622,000**	**1,244,000**
TOTAL EXPENDITURES	**$ 37,112,158**	**$ 24,628,145**	**$ 32,675,800**	**$ 33,522,400**	**$ 66,198,200**	**$ 24,925,200**	**$ 25,753,800**	**$ 50,679,000**
Operations								
Total Revenues	22,186,807	19,772,200	22,357,300	23,385,400	45,742,700	24,325,200	25,153,800	49,479,000
Total Expenditures	21,295,190	21,528,145	22,357,300	23,385,400	45,742,700	24,325,200	25,153,800	49,479,000
Net Surplus / (Deficit)	891,617	(1,755,945)	-	-	-	-	-	-
Capital Investments								
Total Revenues	-	-	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000
Total Expenditures	-	-	10,318,500	10,137,000	20,455,500	600,000	600,000	1,200,000
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-
Total Operations + Capital								
Total Revenues	-	-	32,675,800	33,522,400	66,198,200	24,925,200	25,753,800	50,679,000
Total Expenditures	-	-	32,675,800	33,522,400	66,198,200	24,925,200	25,753,800	50,679,000
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-

NAPA VALLEY TRANSPORTATION AUTHORITY

REOCCURING ANNUAL COSTS- FACILITIES EXPENDITURES

INPUT YELLOW CELLS ONLY

Category

FIXED COSTS

Expense	Vendor	Function	FY27 Budget	FY28 Budget	FY29 Outlook	FY30 Outlook	Total
TOTAL FACILITIES			**$ 519,900**	**$ 557,700**	**$ 591,800**	**$ 625,400**	**$ 2,294,800**
Bus Maintenance Facility	**96 & 101 Sheehy Ct.**						
Utilities- Electricity	PGE	Utilities	$ 95,000	$ 110,000	$ 120,000	$ 130,000	$ 455,000
Ultilities- Water	City of AmCan and HOA	Utilities	$ 10,000	$ 12,000	$ 14,000	$ 16,000	$ 52,000
Waste Disposal	Napa Valley Recycling	Refuse	$ 24,000	$ 26,000	$ 28,000	$ 30,000	$ 108,000
Landscaping Services	Brightview	Landscaping	$ 20,000	$ 22,000	$ 24,000	$ 26,000	$ 92,000
Maint- Build & Improvements	Bay City Electric Works	Generator Annual Service	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 12,000
Maint- Build & Improvements	SecureCom	Fire Alarm monitoring	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 6,000
Maint- Build & Improvements	SecureCom	Fire alarm/sprinkler testing	$ 2,600	$ 2,700	$ 2,800	$ 2,900	$ 11,000
Maint- Build & Improvements	EYEP	Security Cameras	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 8,000
Maint- Build & Improvements	Old Castle	Storm Drain Cleaning	$ 12,300	$ 13,500	$ 15,000	$ 17,000	$ 57,800
Maint- Build & Improvements	TBD	HVAC Quarterly Maintenance	$ 24,000	$ 26,000	$ 28,000	$ 30,000	$ 108,000
Maint- Build & Improvements	Done Right Security	Access Card System	$ 2,500	$ 3,000	$ 3,500	$ 4,000	$ 13,000
Communications	AT&T	Wi-Fi/Internet	$ 10,000	$ 12,000	$ 14,000	$ 16,000	$ 52,000
Interest on Other Debt	Build America Bureau	Interest Expense on TIFIA Loan	$ 184,000	$ 184,000	$ 184,000	$ 184,000	$ 736,000
							$ -
		TOTAL	**$ 390,900**	**$ 417,700**	**$ 439,800**	**$ 462,400**	**$ 1,710,800**
Imola Park and Ride	**954 Golden Gate Dr. Napa**						
Utilities- Electricity	PGE	Utilities	$ 30,000	$ 32,000	$ 34,000	$ 36,000	$ 132,000
Ultilities- Water	City of Napa	Utilities	$ 2,000	$ 2,500	$ 3,000	$ 3,500	$ 11,000
Communications	AT&T	Wi-Fi/Internet	$ 12,000	$ 14,000	$ 16,000	$ 18,000	$ 60,000
Landscaping Services	Brightview	Landscaping	$ 7,000	$ 7,500	$ 8,000	$ 8,500	$ 31,000
Maint- Build & Improvements	RH & Sons	Backflow Testing	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 4,000
Maint- Build & Improvements	Elock Technologies	E-bike Lockers	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 4,000
							$ -
		TOTAL	**$ 53,000**	**$ 58,000**	**$ 63,000**	**$ 68,000**	**$ 242,000**
Redwood Park and Ride	**3416 Solano Ave. Napa**						
Utilities- Electricity	PGE	Utilities	40,000	42,000	45,000	47,000	174,000
Ultilities- Water/ Sewer	City of Napa Water	Utilities	15,000	15,000	15,000	15,000	60,000
Landscaping Services	Brightview	Landscaping	5,000	7,000	9,000	11,000	32,000
Maint- Building & Improvements	RH & Sons	Backflow Testing	1,000	1,000	1,000	1,000	4,000
Maint- Building & Improvements	Elock Technologies	E-bike Lockers	1,000	1,000	1,000	1,000	4,000
Communications	AT&T	Wi-Fi/Internet	12,000	14,000	16,000	18,000	60,000
							-
		TOTAL	**$ 74,000**	**$ 80,000**	**$ 87,000**	**$ 93,000**	**$ 334,000**
Yountville Park and Ride	**7900 Solano Ave. Yountville**						
Utilities- Electricity	PGE	Utilities	2,000	2,000	2,000	2,000	8,000
							-
		TOTAL	**$ 2,000**	**$ 2,000**	**$ 2,000**	**$ 2,000**	**$ 8,000**
TOTAL FACILITIES			**$ 519,900**	**$ 557,700**	**$ 591,800**	**$ 625,400**	**$ 2,294,800**

NVTA Budget Outlook- Vine Go Paratransit

DRAFT BUDGETS

NO INPUTS

TO SEE VINE GO INPUTS, CLICK HERE

	FY25 ACTUALS	FY26 Budget/Forecast	FY2027-FY2028 Budget			FY2029-FY2030 Outlook		
			FY2027	FY2028	2 Year Budget	FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	14,823	15,000	15,564	16,342		17,159	18,017	
Revenue Hours	10,045	9,425	10,547	11,074		11,628	12,209	
Service Miles	153,537	174,419	161,214	169,275		177,738	186,625	
Revenue Miles	101,478	124,054	106,552	111,879		117,473	123,347	
Ridership	17,583	18,000	18,900	19,845		20,837	21,879	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	535,706	500,000	1,160,300	1,336,700	2,497,000	1,556,500	1,754,900	3,311,400
41410 - Transportation Development Act- Capital	-	-	162,800	147,600	310,400	-	-	-
Total Taxes	**535,706**	**500,000**	**1,323,100**	**1,484,300**	**2,807,400**	**1,556,500**	**1,754,900**	**3,311,400**
Intergovernmental Revenues								
43790 - State Transit Assistance	-	100,000	100,000	100,000	200,000	100,000	100,000	200,000
43890 - FTA	558,145	600,000	600,000	600,000	1,200,000	600,000	600,000	1,200,000
FTA Capital	-	-	787,200	590,400	1,377,600	-	-	-
43950 - Other - Governmental Agencies	-	-	-	-		-	-	-
Other GA- Capital					-			
Total Intergovernmental Revenues	**558,145**	**700,000**	**1,487,200**	**1,290,400**	**2,777,600**	**700,000**	**700,000**	1,400,000
Revenue from Use of Money and Property								
45100 - Interest	20,098	10,000	10,000	10,000	20,000	10,000	10,000	20,000
Total Revenue from Use of Money and Property	**20,098**	**10,000**	**10,000**	**10,000**	**20,000**	**10,000**	**10,000**	**20,000**
Farebox								
46800 - Farebox	53,844	60,000	66,200	55,600	121,800	58,300	61,300	119,600
Total Farebox	**53,844**	**60,000**	**66,200**	**55,600**	**121,800**	**58,300**	**61,300**	**119,600**
Other Financing Sources								
48100 - Sale of Capital Assets	-	-	-	-	-	-	-	-
49900 - Miscellaneous/Economic Adjustment	282	15,000	115,000	115,000	230,000	115,000	115,000	230,000
Total Other Financing Sources	**282**	**15,000**	**115,000**	**115,000**	**230,000**	**115,000**	**115,000**	**230,000**
TOTAL REVENUES	**$ 1,168,075**	**$ 1,285,000**	**$ 3,001,500**	**$ 2,955,300**	**$ 5,956,800**	**$ 2,439,800**	**$ 2,641,200**	**$ 5,081,000**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	364	1,000	1,000	1,000	2,000	1,000	1,000	2,000
52130 - Information Technology Svcs	-	2,500	2,500	2,500	5,000	2,500	2,500	5,000
52310 - Consulting Services	-	25,000	-	-	-	-	-	-
52490 - Other Professional Services	1,356,550	1,400,000	1,556,400	1,699,600	3,256,000	1,870,400	2,054,000	3,924,400
52515 - Maint - Software	-	20,403	15,000	15,000	30,000	15,000	15,000	30,000
52520 - Maint - Vehicles	-	-	15,000	15,000	30,000	15,000	15,000	30,000
52705 - Insurance - Premiums	36,072	35,000	35,000	35,000	70,000	35,000	35,000	70,000
52800 - Communications/Telephone	2,251	-	-	-	-	-	-	-
52810 - Advertising/Marketing	-	-	2,500	2,500	5,000	2,500	2,500	5,000
52820 - Printing and Binding	348	-	2,000	2,000	4,000	2,000	2,000	4,000
53100 - Office Supplies	322	-	-	-	-	-	-	-
53250 - Fuel	235,267	244,200	282,100	304,700	586,800	356,400	374,200	730,600
Total Services and Supplies	**1,631,175**	**1,728,103**	**1,911,500**	**2,077,300**	3,988,800	**2,299,800**	**2,501,200**	**4,801,000**
Other Charges								
54600 - Depreciation Expense	123,148	120,000	100,000	100,000	200,000	100,000	100,000	200,000
Total Other Charges	**123,148**	**120,000**	**100,000**	**100,000**	200,000	**100,000**	**100,000**	**200,000**
Capital Assets								
55400 - Equipment	-	-	950,000	738,000	1,688,000	-	-	-
Total Other Charges	**-**	**-**	**950,000**	**738,000**	1,688,000	-	-	-
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	51,895	40,000	40,000	40,000	80,000	40,000	40,000	80,000
Total Special Items	**51,895**	**40,000**	**40,000**	**40,000**	**80,000**	**40,000**	**40,000**	**80,000**
TOTAL EXPENDITURES	**$ 1,806,218**	**$ 1,888,103**	**$ 3,001,500**	**$ 2,955,300**	**$ 5,956,800**	**$ 2,439,800**	**$ 2,641,200**	**$ 5,081,000**
Estimated Farebox Ratio		3.39%	3.39%	2.63%		2.49%	2.41%	
Total Revenues	1,168,075	1,285,000	2,051,500	2,217,300	4,268,800	2,439,800	2,641,200	5,081,000
Total Expenditures	1,806,218	1,888,103	2,051,500	2,217,300	4,268,800	2,439,800	2,641,200	5,081,000
Net Surplus / (Deficit)	(638,143)	(603,103)	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
Capital Investments								
Total Revenues	-	-	950,000	738,000	1,688,000	-	-	-
Total Expenditures	-	-	950,000	738,000	1,688,000	-	-	-
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
TOTAL- Operations + Capital								
Total Revenues	1,168,075	1,285,000	3,001,500	2,955,300	5,956,800	2,439,800	2,641,200	5,081,000
Total Expenditures	1,806,218	1,888,103	3,001,500	2,955,300	5,956,800	2,439,800	2,641,200	5,081,000
Net Surplus / (Deficit)	(638,143)	(603,103)	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Vine Transit

DRAFT BUDGETS

NO INPUTS

TO SEE VINE INPUTS, CLICK HERE

	FY25 ACTUALS	FY26 Budget/Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	95,071	97,896	96,153	97,718		97,718	97,718	
Revenue Hours	70,687	73,610	71,763	72,676		72,676	72,676	
Service Miles	1,424,688	1,492,398	1,461,477	1,479,651		1,479,651	1,479,651	
Revenue Miles	1,261,554	1,336,983	1,211,013	1,228,682		1,228,682	1,228,682	
Ridership	478,867	490,492	522,995	559,647		599,966	645,635	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	6,927,779	5,845,200	8,484,100	8,179,300	**16,663,400**	9,358,900	9,664,200	19,023,100
41410 - Transportation Development Act- Capital	-	-	2,912,200	2,094,800	**5,007,000**	600,000	600,000	1,200,000
Total Taxes	**$6,927,779**	**$5,845,200**	**$11,396,300**	**$10,274,100**	**$16,663,400**	**$9,958,900**	**$10,264,200**	**$19,023,100**
Intergovernmental Revenues								
43790 - State Transit Assistance	2,720,099	2,150,000	1,486,300	1,702,000	**3,188,300**	1,802,000	1,902,000	3,704,000
43890 - FTA	4,160,667	4,000,000	2,097,600	2,200,000	**4,297,600**	2,200,000	2,200,000	4,400,000
FTA Capital	-	250,000	2,801,800	4,483,300	**7,285,100**	-	-	-
43950 - Other - Governmental Agencies	2,338,550	800,000	1,256,500	1,800,000	**3,056,500**	1,000,000	1,000,000	2,000,000
Other GA- Capital			3,654,500	2,520,900	**6,175,400**			
Total Intergovernmental Revenues	**$9,219,316**	**$7,200,000**	**$11,296,700**	**$12,706,200**	**$24,002,900**	**$5,002,000**	**$5,102,000**	$10,104,000
Revenue from Use of Money and Property								
45100 - Interest	1,024,498	1,000,000	20,000	20,000	**40,000**	20,000	20,000	40,000
Total Revenue from Use of Money and Property	**$1,024,498**	**$1,000,000**	**$20,000**	**$20,000**	**$40,000**	**$20,000**	**$20,000**	**$40,000**
Farebox								
46800 - Farebox	872,141	900,000	925,000	950,000	**1,875,000**	975,000	1,000,000	1,975,000
Total Farebox	**$872,141**	**$900,000**	**$925,000**	**$950,000**	**$1,875,000**	**$975,000**	**$1,000,000**	**$1,975,000**
Other Financing Sources								
48100 - Sale of Capital Assets	4,363	25,000	-	-	-			-
49900 - Miscellaneous/Economic Adjustment	-	100,000	3,600,000	3,700,000	**7,300,000**	3,800,000	3,900,000	**7,700,000**
Total Other Financing Sources	**$4,363**	**$125,000**	**$3,600,000**	**$3,700,000**	**$7,300,000**	**$3,800,000**	**$3,900,000**	**$7,700,000**
TOTAL REVENUES	**$ 18,048,097**	**$ 15,070,200**	**$ 27,238,000**	**$ 27,650,300**	**$ 49,881,300**	**$ 19,755,900**	**$ 20,286,200**	**$ 38,842,100**
						19,155,900	**19,686,200**	
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	3,710	10,000	10,000	10,000	**20,000**	10,000	10,000	20,000
52130 - Information Technology Svcs	-	10,000	10,000	10,000	**20,000**	10,000	10,000	20,000
52310 - Consulting Services	34,702	15,000	8,000	8,000	**16,000**	8,000	8,000	16,000
52325 - Waste Disposal Services	20,188	24,000	24,000	26,000	**50,000**	28,000	30,000	58,000
52335 - Security Services	34,702	15,000	8,000	8,000	**16,000**	8,000	8,000	16,000
52340 - Landscaping Services	13,495	30,000	32,000	36,500	**68,500**	41,000	45,500	86,500
52490 - Other Professional Services	9,424,211	10,191,300	9,807,500	10,358,000	**20,165,500**	10,749,000	11,139,700	21,888,700
52500 - Maint - Equipment	269,921	300,000	400,000	400,000	**800,000**	400,000	400,000	800,000
52505 - Maint - Bldg & Improvements	15,801	75,000	51,900	55,700	**107,600**	59,800	64,400	124,200
52515 - Maint - Software	158,989	160,000	294,600	295,600	**590,200**	375,100	381,100	756,200
52520 - Maint - Vehicles	28,195	25,000	300,000	300,000	**600,000**	300,000	300,000	600,000
52705 - Insurance - Premiums	287,546	300,000	325,000	325,000	**650,000**	325,000	325,000	650,000
52800 - Communications/Telephone	82,376	90,000	34,000	40,000	**74,000**	46,000	52,000	98,000
52810 - Advertising/Marketing	148,355	90,000	65,000	65,000	**130,000**	65,000	65,000	130,000
52820 - Printing and Binding	39,980	65,000	2,000	2,000	**4,000**	2,000	2,000	4,000
52825 - Bank Charges	12,379	2,000	2,000	2,000	**4,000**	2,000	2,000	4,000
52830 - Publications and Legal Notices	775	5,000	5,000	5,000	**10,000**	5,000	5,000	10,000
52840 - Permits/License Fees	1,524	-	-	-	-	-	-	-
53100 - Office Supplies	11,233	5,000	5,000	5,000	**10,000**	5,000	5,000	10,000
53205 - Utilities - Electric	184,478	20,000	167,000	186,000	**353,000**	201,000	215,000	416,000
53220 - Utilities - Water	19,874	20,000	34,500	29,500	**64,000**	32,000	34,500	66,500
53250 - Fuel	1,439,311	1,500,000	2,000,000	2,000,000	**4,000,000**	2,000,000	2,000,000	4,000,000
Total Services and Supplies	**$12,231,745**	**$12,952,300**	**$13,585,500**	**$14,167,300**	**$27,752,800**	**$14,671,900**	**$15,102,200**	**$29,774,100**
Other Charges								
54315 - Interest on Other Debt	176,983	183,059	184,000	184,000	**368,000**	184,000	184,000	368,000
54600 - Depreciation Expense	2,947,679	3,500,000	3,600,000	3,700,000	**7,300,000**	3,800,000	3,900,000	7,700,000
56600 - Loss on disposal of Assets	1,599,435	100,000	-	-	-	-	-	-
Total Other Charges	**$4,724,097**	**$3,783,059**	**$3,784,000**	**$3,884,000**	**$7,668,000**	**$3,984,000**	**$4,084,000**	**$8,068,000**
Capital Assets								
55400 - Equipment	-	-	9,368,500	9,099,000	18,467,500	600,000	600,000	1,200,000
Total Other Charges	**$0**	**$0**	**$9,368,500**	**$9,099,000**	**$18,467,500**	**$600,000**	**$600,000**	**$1,200,000**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	521,861	500,000	500,000	500,000	**1,000,000**	500,000	500,000	1,000,000
Total Special Items	**$521,861**	**$500,000**	**$500,000**	**$500,000**	**$1,000,000**	**$500,000**	**$500,000**	**$1,000,000**
TOTAL EXPENDITURES	**$ 17,477,702**	**$ 17,235,359**	**$ 27,238,000**	**$ 27,650,300**	**$ 36,420,800**	**$ 19,755,900**	**$ 20,286,200**	**$ 38,842,100**
Operational Farebox	6.00%	6.55%	6.57%	6.48%		6.43%	6.41%	
Total Revenues	18,048,097	15,070,200	17,869,500	18,551,300	36,420,800	19,155,900	19,686,200	38,842,100
Total Expenditures	17,477,702	17,235,359	17,869,500	18,551,300	36,420,800	19,155,900	19,686,200	38,842,100
Net Surplus / (Deficit)	570,395	(2,165,159)	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
Capital Investments								
Total Revenues	-	-	9,368,500	9,099,000	18,467,500	600,000	600,000	1,200,000
Total Expenditures	-	-	9,368,500	9,099,000	18,467,500	600,000	600,000	1,200,000
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
TOTAL- Operations + Capital								
Total Revenues	18,048,097	15,070,200	27,238,000	27,650,300	54,888,300	19,755,900	20,286,200	40,042,100
Total Expenditures	17,477,702	17,235,359	27,238,000	27,650,300	54,888,300	19,755,900	20,286,200	40,042,100
Net Surplus / (Deficit)	570,395	(2,165,159)	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- American Canyon Shuttle

DRAFT BUDGETS

NO INPUTS

TO SEE AMCAN INPUTS, CLICK HERE

	FY25 ACTUALS	FY26 Budget/ Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	5,636	6,100	6,482	6,482		6,482	6,482	
Revenue Hours	4,671	6,500	5,372	5,372		5,372	5,372	
Service Miles	42,833	48,000	49,258	49,258		49,258	49,258	
Revenue Miles	33,872	36,000	38,952	38,952		38,952	38,952	
Ridership	20,967	20,300	24,112	24,112		24,112	24,112	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	-	163,500	204,784	228,911	**433,695**	265,120	292,629	557,750
Total Taxes	**$0**	**$163,500**	**$204,784**	**$228,911**	**$433,695**	**$265,120**	**$292,629**	**$557,750**
Intergovernmental Revenues								
43790 - State Transit Assistance	-	80,000	80,000	80,000	**160,000**	80,000	80,000	160,000
43890 - FTA	303,891	400,000	400,000	400,000	**800,000**	400,000	400,000	800,000
Total Intergovernmental Revenues	**$303,891**	**$480,000**	**$480,000**	**$480,000**	**$960,000**	**$480,000**	**$480,000**	$960,000
Revenue from Use of Money and Property								
45100 - Interest	8,875	10,000	2,000	2,000	**4,000**	2,000	2,000	4,000
Total Revenue from Use of Money and Property	**$8,875**	**$2,000**	**$2,000**	**$2,000**	**$4,000**	**$2,000**	**$2,000**	**$4,000**
Farebox								
46800 - Farebox	12,623	9,600	13,500	13,400	**26,900**	14,500	14,500	29,000
46810 - Charges for Svcs - Am Canyon	72,934	97,200	107,700	112,100	**219,800**	117,300	122,200	239,500
Total Farebox	**$85,556**	**$106,800**	**$121,200**	**$125,500**	**$246,700**	**$131,800**	**$136,700**	**$268,500**
Other Financing Sources								
49900 - Miscellaneous/Economic Adjustment	-	-	-	100,000	**100,000**	100,000	100,000	200,000
Total Other Financing Sources	**$0**	**$0**	**$0**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$200,000**
TOTAL REVENUES	**$ 398,323**	**$ 752,300**	**$ 807,984**	**$ 936,411**	**$ 1,744,395**	**$ 978,920**	**$ 1,011,329**	**$ 1,990,250**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	70	100	100	100	**200**	100	100	200
52130 - Information Technology Svcs	-	1,500	300	300	**600**	300	300	600
52490 - Other Professional Services	505,880	591,700	648,200	674,100	**1,322,300**	706,500	738,900	1,445,400
52500 - Maint - Equipment	-	10,000	10,000	10,000	**20,000**	10,000	10,000	20,000
52515 - Maint - Software	10,076	35,000	10,000	10,000	**20,000**	10,000	10,000	20,000
52520 - Maint - Vehicles	-	35,000	15,000	15,000	**30,000**	15,000	15,000	30,000
52705 - Insurance - Premiums	13,737	12,000	12,000	12,000	**24,000**	12,000	12,000	24,000
52800 - Communications/Telephone	1,044	1,000	1,000	1,000	**2,000**	1,000	1,000	2,000
52810 - Advertising/Marketing	12,563	5,000	-	-	**-**	-	-	-
52820 - Printing and Binding	1,936	200	200	200	**400**	200	200	400
53250 - Fuel	38,622	45,000	86,200	88,700	**174,900**	98,800	98,800	197,600
Total Services and Supplies	**$583,927**	**$736,500**	**$783,000**	**$811,400**	**$1,594,400**	**$853,900**	**$886,300**	**$1,740,200**
Other Charges								
54600 - Depreciation Expense	49,683	-	-	100,000	**100,000**	100,000	100,000	200,000
Total Other Charges	**$49,683**	**$0**	**$0**	**$100,000**	**$100,000**	**$100,000**	**$100,000**	**$200,000**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	9,141	25,000	25,000	25,000	**50,000**	25,000	25,000	50,000
Total Special Items	**$9,141**	**$25,000**	**$25,000**	**$25,000**	**$50,000**	**$25,000**	**$25,000**	**$50,000**
TOTAL EXPENDITURES	**$ 642,751**	**$ 761,500**	**$ 808,000**	**$ 936,400**	**$ 1,744,400**	**$ 978,900**	**$ 1,011,300**	**$ 1,990,200**
Estimated Farebox Ratio		14.02%	15.00%	15.00%		15.00%	15.00%	
Total Revenues	398,323	752,300	807,984	936,411	1,744,395	978,920	1,011,329	1,990,250
Total Expenditures	642,751	761,500	808,000	936,400	1,744,400	978,900	1,011,300	1,990,200
Net Surplus / (Deficit)	(244,429)	(9,200)	(16)	11	(5)	20	29	50
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
Capital Investments								
Total Revenues	-	-	-	-	-	-	-	-
Total Expenditures	-	-	-	-	-	-	-	-
Net Surplus / (Deficit)	-	-	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
TOTAL- Operations + Capital								
Total Revenues	398,323	752,300	807,984	936,411	1,744,395	978,920	1,011,329	1,990,250
Total Expenditures	642,751	761,500	808,000	936,400	1,744,400	978,900	1,011,300	1,990,200
Net Surplus / (Deficit)	(244,429)	(9,200)	(16)	11	(5)	20	29	50
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Yountville

DRAFT BUDGETS

NO INPUTS

TO SEE YOUNTVILLE INPUTS, CLICK HERE

	FY25 ACTUALS	FY26 Budget/ Forecast	FY2027-FY2028 Budget: FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook: FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	3,838	3,900	3,838	3,838		3,838	3,838	
Revenue Hours	3,291	3,329	3,291	3,291		3,291	3,291	
Service Miles	10,796	10,626	10,796	11,336		11,903	12,498	
Revenue Miles	8,135	8,083	8,135	8,542		8,969	9,417	
Ridership	4,596	4,611	4,596	4,826		5,067	5,320	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	265,000	243,900	223,730	238,490	462,220	256,670	274,760	531,430
Total Taxes	**$265,000**	**$243,900**	**$223,730**	**$238,490**	**$462,220**	**$256,670**	**$274,760**	**$531,430**
Intergovernmental Revenues								
43790 - State Transit Assistance	-	75,000	75,000	75,000	150,000	75,000	75,000	150,000
43890 - FTA	110,000	100,000	110,000	110,000	220,000	110,000	110,000	220,000
Total Intergovernmental Revenues	**$110,000**	**$175,000**	**$185,000**	**$185,000**	**$370,000**	**$185,000**	**$185,000**	**$370,000**
Revenue from Use of Money and Property								
45100 - Interest	12,791	1,000	5,000	5,000	10,000	5,000	5,000	10,000
Total Revenue from Use of Money and Property	**$12,791**	**$2,000**	**$5,000**	**$5,000**	**$10,000**	**$5,000**	**$5,000**	**$10,000**
Farebox								
46820 - Charges for Svcs - Yountville	42,240	57,800	45,970	47,610	93,580	49,630	51,640	101,270
Total Farebox	**$42,240**	**$57,800**	**$45,970**	**$47,610**	**$93,580**	**$49,630**	**$51,640**	**$101,270**
Other Financing Sources								
49900 - Miscellaneous/Economic Adjustment	-	-	50,000	50,000	100,000	50,000	50,000	100,000
Total Other Financing Sources	**$0**	**$0**	**$50,000**	**$50,000**	**$100,000**	**$50,000**	**$50,000**	**$100,000**
TOTAL REVENUES	**$ 430,031**	**$ 478,700**	**$ 509,700**	**$ 526,100**	**$ 1,035,800**	**$ 546,300**	**$ 566,400**	**$ 1,112,700**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	182	200	400	400	800	400	400	800
52490 - Other Professional Services	344,047	378,300	383,800	399,200	783,000	418,400	437,500	855,900
52500 - Maint - Equipment	-	-	15,000	15,000	30,000	15,000	15,000	30,000
52515 - Maint - Software	10,076	30,000	13,000	13,000	26,000	13,000	13,000	26,000
52705 - Insurance - Premiums	9,344	12,000	12,000	13,000	25,000	14,000	15,000	29,000
52800 - Communications/Telephone	2,246	-	-	-	-	-	-	-
52810 - Advertising/Marketing	-	4,000	500	500	1,000	500	500	1,000
52820 - Printing and Binding	437	-	-	-	-	-	-	-
53250 - Fuel	3,289	15,000	10,000	10,000	20,000	10,000	10,000	20,000
Total Services and Supplies	**$369,621**	**$439,500**	**$434,700**	**$451,100**	**$885,800**	**$471,300**	**$491,400**	**$962,700**
Other Charges								
54600 - Depreciation Expense	49,683	100,000	50,000	50,000	100,000	50,000	50,000	100,000
Total Other Charges	**$49,683**	**$100,000**	**$50,000**	**$50,000**	**$100,000**	**$50,000**	**$50,000**	**$100,000**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	9,141	25,000	25,000	25,000	50,000	25,000	25,000	50,000
Total Special Items	**$9,141**	**$25,000**	**$25,000**	**$25,000**	**$50,000**	**$25,000**	**$25,000**	**$50,000**
TOTAL EXPENDITURES	**$ 428,445**	**$ 564,500**	**$ 509,700**	**$ 526,100**	**$ 1,035,800**	**$ 546,300**	**$ 566,400**	**$ 1,112,700**
Estimated Farebox Ratio		12.44%	10.00%	10.00%		10.00%	10.00%	
Total Revenues	**430,031**	**478,700**	**509,700**	**526,100**	**1,035,800**	**546,300**	**566,400**	**1,112,700**
Total Expenditures	**428,445**	**564,500**	**509,700**	**526,100**	**1,035,800**	**546,300**	**566,400**	**1,112,700**
Net Surplus / (Deficit)	**1,586**	**(85,800)**	**-**	**-**	**-**	**-**	**-**	**-**

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- St. Helena Shuttle

DRAFT BUDGETS

NO INPUTS

TO SEE ST. HELENA INPUTS, CLICK HERE

	FY25 ACTUALS	FY26 Budget/ Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	3,589	3,700	3,589	3,589		3,589	3,589	
Revenue Hours	2,953	2,980	2,953	2,953		2,953	2,953	
Service Miles	19,960	20,519	19,960	19,960		20,958	22,006	
Revenue Miles	12,740	12,683	12,740	13,377		14,046	14,748	
Ridership	6,371	6,719	6,371	6,690		7,024	7,375	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	265,000	231,200	204,200	217,100	421,300	233,300	249,400	482,700
Total TDA	**$265,000**	**$231,200**	**$204,200**	**$217,100**	**$421,300**	**$233,300**	**$249,400**	**$482,700**
Intergovernmental Revenues								
43790 - State Transit Assistance	-	75,000	75,000	75,000	150,000	75,000	75,000	150,000
43890 - FTA	110,000	100,000	110,000	110,000	220,000	110,000	110,000	220,000
Total Intergovernmental Revenues	**$110,000**	**$175,000**	**$185,000**	**$185,000**	**$370,000**	**$185,000**	**$185,000**	**$370,000**
Revenue from Use of Money and Property								
45100 - Interest	13,241	2,000	5,000	5,000	10,000	5,000	5,000	10,000
Total Revenue from Use of Money and Property	**$13,241**	**$2,000**	**$5,000**	**$5,000**	**$10,000**	**$5,000**	**$5,000**	**$10,000**
Farebox								
46800 - Farebox	3,952	3,000	3,000	3,000	6,000	3,000	3,000	6,000
46825 - Charges for Svcs - St. Helena	41,325	41,000	40,800	42,200	83,000	44,000	45,800	89,800
Total Farebox	**$45,277**	**$44,000**	**$43,800**	**$45,200**	**$89,000**	**$47,000**	**$48,800**	**$95,800**
Other Financing Sources								
49900 - Miscellaneous/Economic Adjustment	-	-	50,000	50,000	100,000	50,000	50,000	100,000
Total Other Financing Sources	**$0**	**$0**	**$50,000**	**$50,000**	**$100,000**	**$50,000**	**$50,000**	**$100,000**
TOTAL REVENUES	**$ 433,517**	**$ 452,200**	**$ 488,000**	**$ 502,300**	**$ 990,300**	**$ 520,300**	**$ 538,200**	**$ 1,058,500**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	28	100	100	100	200	100	100	200
52490 - Other Professional Services	324,707	358,900	358,900	373,200	732,100	391,200	409,100	800,300
52500 - Maint - Equipment		5,000	15,000	15,000	30,000	15,000	15,000	30,000
52515 - Maint - Software	10,076	13,000	13,000	13,000	26,000	13,000	13,000	26,000
52520 - Maint - Vehicles	-	-	5,000	5,000	10,000	5,000	5,000	10,000
52705 - Insurance - Premiums	8,821	12,000	12,000	12,000	24,000	12,000	12,000	24,000
52800 - Communications/Telephone	1,641	-	-	-	-	-	-	-
52810 - Advertising/Marketing	-	3,000	3,000	3,000	6,000	3,000	3,000	6,000
52820 - Printing and Binding	1,477	1,000	1,000	1,000	2,000	1,000	1,000	2,000
53250 - Fuel	10,127	15,000	15,000	15,000	30,000	15,000	15,000	30,000
Total Services and Supplies	**$356,877**	**$408,000**	**$423,000**	**$437,300**	**$860,300**	**$455,300**	**$473,200**	**$928,500**
Other Charges								
54600 - Depreciation Expense	49,683	49,683	50,000	50,000	100,000	50,000	50,000	100,000
Total Other Charges	**$49,683**	**$49,683**	**$50,000**	**$50,000**	**$100,000**	**$50,000**	**$50,000**	**$100,000**
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	15,000	15,000	15,000	15,000	30,000	15,000	15,000	30,000
Total Special Items	**$15,000**	**$15,000**	**$15,000**	**$15,000**	**$30,000**	**$15,000**	**$15,000**	**$30,000**
TOTAL EXPENDITURES	**$ 421,560**	**$ 472,683**	**$ 488,000**	**$ 502,300**	**$ 990,300**	**$ 520,300**	**$ 538,200**	**$ 1,058,500**
Estimated Farebox Ratio		10%	10%	10%		10%	10%	
Total Revenues	**433,517**	**452,200**	**488,000**	**502,300**	**990,300**	**520,300**	**538,200**	**1,058,500**
Total Expenditures	**421,560**	**472,683**	**488,000**	**502,300**	**990,300**	**520,300**	**538,200**	**1,058,500**
Net Surplus / (Deficit)	**11,957**	**(20,483)**	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0
Capital Investments								

NAPA VALLEY TRANSPORTATION AUTHORITY

NVTA Budget Outlook- Calistoga

DRAFT BUDGETS

NO INPUTS

TO SEE CALISTOGA INPUTS, CLICK HERE

	FY25 ACTUALS	FY26 Budget/ Forecast	FY2027-FY2028 Budget FY2027	FY2028	2 Year Budget	FY2029-FY2030 Outlook FY2029	FY2030	2 Year Outlook
Public Transit Service Projections								
Service Hours	5,099	5,000	5,099	5,099		5,099	5,099	
Revenue Hours	4,166	4,044	4,166	4,166		4,166	4,166	
Service Miles	40,628	39,704	40,628	42,659		44,792	47,032	
Revenue Miles	32,085	30,624	32,085	33,689		35,374	37,142	
Ridership	14,648	13,840	14,648	15,380		16,149	16,957	
REVENUES								
Transportation Development Act								
41400 - Sales and Use Tax	280,200	362,200	325,600	347,000	672,600	379,000	405,500	784,500
Total Taxes	**$280,200**	**$362,200**	**$325,600**	**$347,000**	**$672,600**	**$379,000**	**$405,500**	**$784,500**
Intergovernmental Revenues								
43790 - State Transit Assistance	-	80,000	80,000	80,000	160,000	80,000	80,000	160,000
43890 - FTA	164,769	100,000	120,000	120,000	240,000	120,000	120,000	240,000
Total Intergovernmental Revenues	**$164,769**	**$180,000**	**$200,000**	**$500,000**	**$700,000**	**$200,000**	**$200,000**	**$400,000**
Revenue from Use of Money and Property								
45100 - Interest	13,421	1,000	5,000	5,000	10,000	5,000	5,000	10,000
Total Revenue from Use of Money and Property	**$13,421**	**$2,000**	**$5,000**	**$5,000**	**$10,000**	**$5,000**	**$5,000**	**$10,000**
Farebox								
46800 - Farebox	10,800	10,000	10,000	10,000	20,000	10,000	10,000	20,000
46830 - Charges for Svcs - Calistoga	65,000	55,000	55,000	55,000	110,000	55,000	55,000	110,000
Total Farebox	**$75,800**	**$65,000**	**$65,000**	**$65,000**	**$130,000**	**$65,000**	**$65,000**	**$130,000**
Other Financing Sources								
49900 - Miscellaneous/Economic Adjustment	-	-	35,000	35,000	70,000	35,000	35,000	70,000
Total Other Financing Sources	**$0**	**$0**	**$35,000**	**$35,000**	**$70,000**	**$35,000**	**$35,000**	**$70,000**
TOTAL REVENUES	**$ 534,190**	**$ 609,200**	**$ 630,600**	**$ 952,000**	**$ 1,582,600**	**$ 684,000**	**$ 710,500**	**$ 1,394,500**
EXPENDITURES								
Services and Supplies								
52125 - Accounting/Auditing Services	154	200	200	200	400	200	200	400
52130 - Information Technology Svcs	-	1,000	1,000	1,000	2,000	1,000	1,000	2,000
52490 - Other Professional Services	457,832	485,000	509,900	530,300	1,040,200	555,800	581,300	1,137,100
52515 - Maint - Software	10,076	13,000	14,000	15,000	29,000	16,000	17,000	33,000
52520 - Maint - Vehicles	-	-	-	-	-	5,000	5,000	10,000
52705 - Insurance - Premiums	12,457	15,000	15,000	15,000	30,000	15,000	15,000	30,000
52800 - Communications/Telephone	1,344	300	1,000	1,000	2,000	1,500	1,500	3,000
52810 - Advertising/Marketing	7,063	5,000	5,000	5,000	10,000	5,000	5,000	10,000
52820 - Printing and Binding	4,099	2,500	2,500	2,500	5,000	2,500	2,500	5,000
53250 - Fuel	11,905	34,000	30,000	30,000	60,000	30,000	30,000	60,000
Total Services and Supplies	**$504,929**	**$556,000**	**$578,600**	**$600,000**	**$1,178,600**	**$632,000**	**$658,500**	$1,290,500
Other Charges								
54600 - Depreciation Expense	-	35,000	35,000	35,000	70,000	35,000	35,000	70,000
Total Other Charges	**$0**	**$35,000**	**$35,000**	**$35,000**	**$70,000**	**$35,000**	**$35,000**	$70,000
Capital Assets								
55400 - Buses/Equipment	-	-	-	300,000	300,000	-	-	-
Total Other Charges	**$0**	**$0**	**$0**	**$300,000**	**$300,000**	**$0**	**$0**	$0
Salary/Overhead Chargebacks								
57900 - Chargebacks- Timesheets	13,584	15,000	17,000	17,000	34,000	17,000	17,000	34,000
Total Special Items	**$13,584**	**$15,000**	**$17,000**	**$17,000**	**$34,000**	**$17,000**	**$17,000**	$34,000
TOTAL EXPENDITURES	**$ 518,513**	**$ 606,000**	**$ 630,600**	**$ 952,000**	**$ 1,282,600**	**$ 684,000**	**$ 710,500**	**$ 1,394,500**
Estimated Farebox Ratio		11.38%	10.91%	10.53%		10.02%	9.62%	
Total Revenues	**534,190**	**609,200**	**630,600**	**652,000**	**1,282,600**	**684,000**	**710,500**	**1,394,500**
Total Expenditures	**518,513**	**606,000**	**630,600**	**652,000**	**1,282,600**	**684,000**	**710,500**	**1,394,500**
Net Surplus / (Deficit)	**15,676**	**3,200**	-	-	-	-	-	-
			SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0	SHOULD BE $0

NAPA VALLEY TRANSPORTATION AUTHORITY

Capital and Software Funding Request

This is an information summary page. Do not input. Provide data on other pages.

EXPENDITURE PLAN

Capital Request	FY27 Budget	FY28 Budget	FY29 Budget	FY30 Budget	Total
Rolling Stock	$ 5,282,100	$ 9,105,000	$ -	$ -	$ 14,387,100
Bus Shelters and Bus Stops	$ 1,475,000	$ -	$ 200,000	$ 200,000	$ 1,875,000
CAD AVL and DR Set up	$ 924,400	$ -	$ -	$ -	$ 924,400
Facilities Upgrades	$ 2,075,000	$ 550,000	$ -	$ -	$ 2,625,000
Engine Replacements	$ 394,000	$ 310,000	$ 400,000	$ 400,000	$ 1,504,000
Transit Equipment- Other	$ 168,000	$ 172,000	$ -	$ -	$ 340,000
Other 2	$ -	$ -	$ -	$ -	$ -
SUB-TOTAL FUNDING- CAPITAL	$ 10,318,500	$ 10,137,000	$ 600,000	$ 600,000	$ 21,655,500
SUB-TOTAL FUNDING- SOFTWARE	$ 361,600	$ 361,600	$ 442,100	$ 449,100	$ 1,614,400
Total Funding	$ 10,680,100	$ 10,498,600	$ 1,042,100	$ 1,049,100	$ 23,269,900

Total Transit Capital	$ 20,455,500	$ 1,200,000
Total Software	$ 723,200	$ 891,200
TOTAL BIENNIAL BUDGET	$ 21,178,700	$ 2,091,200

FINANCING PLAN

Capital Request	Federal	TDA/STA	Local/ Regional	Other Funds	Total
Rolling Stock	$ 10,212,499	$ 2,699,339	$ 826,156	$ 649,106	$ 14,387,100
Bus Shelters and Bus Stops	$ 1,300,000	$ 275,000	$ -	$ 300,000	$ 1,875,000
CAD AVL and DR Set up	$ -	$ 400,000	$ -	$ 524,400	$ 924,400
Facilities Upgrades	$ 718,000	$ 750,000	$ 500,000	$ 657,000	$ 2,625,000
Engine Replacements	$ 358,600	$ 1,145,400	$ -	$ -	$ 1,504,000
Transit Equipment- Other	$ -	$ 340,000	$ -	$ -	$ 340,000
Software Management	$ -	$ 1,614,400	$ -	$ -	$ 1,614,400
Other 2	$ -	$ -	$ -	$ -	$ -
Total Funding	$ 12,589,099	$ 7,224,139	$ 1,326,156	$ 2,130,506	$ 23,269,900

Difference (Total must be $0)	$ -

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NAPA VALLEY TRANSPORTATION AUTHORITY

Transit Capital Investment Program

EXPENDITURE PLAN

Capital Request	FY27 Budget	FY28 Budget	FY29 Budget	FY30 Budget	Total
Rolling Stock	$ 5,282,100	$ 9,105,000	$ -	$ -	$ 14,387,100
Bus Shelters and Bus Stops	$ 1,475,000	$ -	$ 200,000	$ 200,000	$ 1,875,000
CAD AVL and DR Set up	$ 924,400	$ -	$ -	$ -	$ 924,400
Facilities Upgrades	$ 2,075,000	$ 550,000	$ -	$ -	$ 2,625,000
Engine Replacements	$ 394,000	$ 310,000	$ 400,000	$ 400,000	$ 1,504,000
Transit Equipment- Other	$ 168,000	$ 172,000	$ -	$ -	$ 340,000
Total Funding	$ 10,318,500	$ 10,137,000	$ 600,000	$ 600,000	$ 21,655,500

TOTAL BIENNIAL BUDGET	$ 20,455,500	$ 1,200,000

FINANCING PLAN

Fund Sources	Federal	TDA/STA	Local/ Regional	Other Funds	Total
Rolling Stock	$ 10,212,499	$ 2,699,339	$ 826,156	$ 649,106	$ 14,387,100
Bus Shelters and Bus Stops	$ 1,300,000	$ 275,000	$ -	$ 300,000	$ 1,875,000
CAD AVL and DR Set up	$ -	$ 400,000	$ -	$ 524,400	$ 924,400
Facilities Upgrades	$ 718,000	$ 750,000	$ 500,000	$ 657,000	$ 2,625,000
Engine Replacements	$ 358,600	$ 1,145,400	$ -	$ -	$ 1,504,000
Transit Equipment- Other	$ -	$ 340,000	$ -	$ -	$ 340,000
Total Funding	$ 12,589,099	$ 5,609,739	$ 1,326,156	$ 2,130,506	$ 21,655,500

Difference (Total must be $0)		$ -

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NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category	**Software Management**

EXPENDITURE PLAN **(also input financing plan down below)**

Vendor	Function	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
Equans and Spare	CAD/AVL and DR SOFTWARE	155,000	157,000	157,500	159,500	$ 629,000
UTA	APC Data	15,000	15,000	15,000	15,000	$ 60,000
Genfare	SSA	55,000	55,000	55,000	55,000	$ 220,000
John Controls	Gentech Cameras Lic and Sftwr Support	30,000	30,000	30,000	30,000	$ 120,000
TSI	Bus Cameras License	7,000	7,000	7,000	7,000	$ 28,000
Chargepoint	EV Stations	50,000	50,000	50,000	50,000	$ 200,000
Konnected Concepts	DIGI Subscriptions and Cellular	2,000				$ 2,000
EYEP	Camera Monitoring	2,600	2,600	2,600	2,600	$ 10,400
Trapeze	EZ Wallet	-	-	5,000	5,000	$ 10,000
DIGI International	WiFI Usage	20,000	25,000	30,000	35,000	$ 110,000
Trillium	GTFS and Website	25,000	20,000	20,000	20,000	$ 85,000
Remix	Route Planning	-	-	70,000	70,000	$ 140,000
	TOTAL	$ 361,600	$ 361,600	$ 442,100	$ 449,100	$ 1,614,400

FINANCING PLAN

Model	Location	Federal	TDA/STA	Local/ Regional	Other Funds	Total
Equans and Spare	CAD/AVL and DR SOFTWARE	-	629,000	-	-	$ 629,000
UTA	APC Data	-	60,000	-	-	$ 60,000
Genfare	SSA	-	220,000	-	-	$ 220,000
John Controls	Gentech Cameras Lic and Sftwr Support	-	120,000	-	-	$ 120,000
TSI	Bus Cameras License	-	28,000	-	-	$ 28,000
Chargepoint	EV Stations	-	200,000	-	-	$ 200,000
Konnected Concepts	DIGI Subscriptions and Cellular	-	2,000	-	-	$ 2,000
EYEP	Camera Monitoring	-	10,400	-	-	$ 10,400
Trapeze	EZ Wallet	-	10,000	-	-	$ 10,000
DIGI International	WiFI Usage	-	110,000	-	-	$ 110,000
Trillium	GTFS and Website	-	85,000	-	-	$ 85,000
Remix	Route Planning	-	140,000	-	-	$ 140,000
	TOTAL	$ -	$ 1,614,400	$ -	$ -	$ 1,614,400

	$ -

This amount should be $0

NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category **Rolling Stock**

EXPENDITURE PLAN **(also input financing plan down below)**

Quantitity	Make	Model	Estimated Price (fully weighted, include tax, shipping, tarriffs)	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
2	BYD	30'	$ 2,118,080	2,118,100	-	-	-	$ 2,118,100
6	Gillig Hybrids	35'	$ 8,067,000	-	8,067,000	-	-	$ 8,067,000
4	Starcraft	Class B	$ 984,000	950,000	-	-	-	$ 950,000
3	Starcraft	Class B	$ 738,000	2,214,000	738,000	-	-	$ 2,952,000
1	Electric Bus		$ 300,000	-	300,000	-	-	$ 300,000
			$ -	-	-	-	-	$ -
16		TOTAL	$ 12,207,080	$ 5,282,100	$ 9,105,000	$ -	$ -	$ 14,387,100

FINANCING PLAN

	Model	Location		Federal	TDA/STA	Local/ Regional	Other Funds	Total
	BYD	30'		-	643,781	826,156	649,106	$ 2,119,043
	Gillig Hybrids	35'		6,823,699	1,242,358	-	-	$ 8,066,057
	Starcraft	Class B		787,200	162,800	-	-	$ 950,000
	Starcraft	Class B		2,361,600	590,400	-	-	$ 2,952,000
	Electric Bus			240,000	60,000	-	-	$ 300,000
		TOTAL		$ 10,212,499	$ 2,699,339	$ 826,156	$ 649,106	$ 14,387,100

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This amount should be $0

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NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category **Bus Shelters and Bus Stops**

EXPENDITURE PLAN **(also input financing plan down below)**

Quantitity	Model	Location	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
56	Stops, Annual Replacements	Napa County	1,175,000	-	-	-	$ 1,175,000
10	Shelters and Stop Improvements	Napa County	-	-	200,000	200,000	$ 400,000
1	Skyline Improvements	Napa County	300,000	-	-	-	$ 300,000
67		TOTAL	$ 1,475,000	$ -	$ 200,000	$ 200,000	$ 1,875,000

FINANCING PLAN

	Model	Location	Federal	TDA/STA	Local/ Regional	Other Funds	Total
	Stops, Annual Replacements	Napa County	1,300,000	55,000	-	-	$ 1,355,000
	Shelters and Stop Improvements	Napa County		220,000	-	-	$ 220,000
	Skyline Improvements	Napa County	-	-	-	300,000	$ 300,000
		TOTAL	$ 1,300,000	$ 275,000	$ -	$ 300,000	$ 1,875,000

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This amount should be $0

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NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category	CAD AVL and DR Set up

EXPENDITURE PLAN (also input financing plan down below)

Quantitity	Model	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
1	Equans and Spare	924,400	-	-	-	$ 924,400
1	TOTAL	$ 924,400	$ -	$ -	$ -	$ 924,400

FINANCING PLAN

	Model	Federal	TDA/STA	Local/ Regional	Other Funds	Total
	Equans and Spare	-	400,000	-	524,400	$ 924,400
	TOTAL	$ -	$ 400,000	$ -	$ 524,400	$ 924,400

$ -

This amount should be $0

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NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category **FACILITIES**

EXPENDITURE PLAN **(also input financing plan down below)**

Quantitity	Location	Estimated Price Per Unit (fully weighted, include tax, shipping, tarriffs)	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
1	SGTC	$ 200,000	200,000	-	-	-	$ 200,000
1	Imola PNR	$ -	-	-	-	-	$ -
1	Redwood Park and Ride	$ 1,250,000	1,250,000	-	-	-	$ 1,250,000
1	Yountville PNR	$ -	-	-	-	-	$ -
1	BMF Investigation and Repairs	$ 500,000	500,000	500,000	-	-	$ 1,000,000
1	Calistoga Charger Installation	$ 50,000	50,000	50,000	-	-	$ 100,000
1	SGTC Repaving/Striping	$ 75,000	75,000	-	-	-	$ 75,000
7	TOTAL		$ 2,075,000	$ 550,000	$ -	$ -	$ 2,625,000

FINANCING PLAN

Location	Federal	TDA/STA	Local/ Regional	Other Funds	Total
SGTC	-	200,000	-	-	$ 200,000
Imola PNR	-	-	-	-	$ -
Redwood Park and Ride	600,000	-	-	650,000	$ 1,250,000
Yountville PNR	-	-	-	-	$ -
BMF Investigation and Repairs	-	550,000	500,000	-	$ 1,050,000
Calistoga Charger Installation	43,000	-	-	7,000	$ 50,000
SGTC Repaving/Striping	75,000	-	-		$ 75,000
TOTAL	$ 718,000	$ 750,000	$ 500,000	$ 657,000	$ 2,625,000

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This amount should be $0

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NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category	Engine Replacements

EXPENDITURE PLAN

Quantitity	Type	Estimated Price Per Unit (fully weighted, include tax, shipping, tarriffs)	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
3	Engine Overhaul	$ 75,000	225,000	-	-	-	$ 225,000
3	Engine Overhaul	$ 25,000	75,000	-	-	-	$ 75,000
2	Transmission	$ 47,000	94,000	-	-	-	$ 94,000
3	Engine Overhaul	$ 35,000	-	105,000	-	-	$ 105,000
3	Transmission	$ 25,000	-	75,000	-	-	$ 75,000
2	Engine Overhaul	$ 65,000	-	130,000	-	-	$ 130,000
3	Transmission	$ 25,000	-	-	75,000	-	$ 75,000
3	Engine Overhaul	$ 45,000	-	-	135,000	-	$ 135,000
2	Rebuild	$ 75,000	-	-	190,000	-	$ 190,000
3	Transmission	$ 25,000	-	-	-	75,000	$ 75,000
3	Engine Overhaul	$ 45,000	-	-	-	135,000	$ 135,000
2	Rebuild	$ 65,000	-	-	-	190,000	$ 190,000
32		TOTAL	$ 394,000	$ 310,000	$ 400,000	$ 400,000	$ 1,504,000

FINANCING PLAN

	Type	Price Per Unit (fully weighted)	Federal	TDA/STA	Local/ Regional	Other Funds	Total
	Engine Overhaul		146,900	45,000	-	-	$ 191,900
	Engine Overhaul		211,700	108,000	-	-	$ 319,700
	Transmission		-	94,000	-	-	$ 94,000
	Engine Overhaul		-	105,000	-	-	$ 105,000
	Transmission		-	75,000	-	-	$ 75,000
	Engine Overhaul		-	130,000	-	-	$ 130,000
	Transmission		-	75,000	-	-	$ 75,000
	Engine Overhaul		-	135,000	-	-	$ 135,000
	Rebuild		-	190,000	-	-	$ 190,000
	Transmission		-	75,000	-	-	$ 75,000
	Engine Overhaul		-	53,200	-	-	$ 53,200
	Rebuild		-	60,200	-	-	$ 60,200
		TOTAL	$ 358,600	$ 1,145,400	$ -	$ -	$ 1,504,000

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This amount should be $0

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NAPA VALLEY TRANSPORTATION AUTHORITY

INPUT YELLOW CELLS ONLY

Category **Transit Equipment- Other**

EXPENDITURE PLAN

Quantitity	Model	Location	Estimated Price Per Unit (fully weighted, include tax, shipping, tarriffs)	FY27 Budget	FY28 Budget	FY29 Forecast	FY30 Forecast	Total
4	Fastfare Boxes and Clipper	Starcraft Class B + 1 EV vehicles	$ 42,000	168,000	-	-	-	$ 168,000
4	Fastfare Boxes and Clipper	Starcraft Class B vehicles	$ 43,000	-	172,000	-	-	$ 172,000
-			$ -	-	-	-	-	$ -
8			TOTAL	$ 168,000	$ 172,000	$ -	$ -	$ 340,000

FINANCING PLAN

	Model	Location	Price Per Unit (fully weighted)	Federal	TDA/STA	Local/ Regional	Other Funds	Total
	Fastfare Boxes and Clipper	Starcraft Class B + 1 EV vehicles		-	168,000	-	-	$ 168,000
	Fastfare Boxes and Clipper	Starcraft Class B vehicles		-	172,000	-	-	$ 172,000
			TOTAL	$ -	$ 340,000	$ -	$ -	$ 340,000

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This amount should be $0

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April 15, 2026
NVTA Agenda Item 8.2
Continued From: February 18, 2026
Action Requested: APPROVE

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Patrick Band, Senior Planner
(707) 259-8781 / Email: pband@nvta.ca.gov

SUBJECT: Napa Countywide Active Transportation Plan Adoption

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board:

1) Hold a public hearing to consider adoption of the Napa Countywide Active Transportation Plan (Attachment 1), inclusive of minor administrative edits as may be identified, and;

2) Determine that the Plan is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to Public Resources Code (PRC) §21080.20.

COMMITTEE RECOMMENDATION

At a Special Meeting on February 23rd, the NVTA Active Transportation Advisory Committee (ATAC) reviewed the Napa Countywide Active Transportation Plan (AT Plan). The ATAC voted unanimously to recommend the Board of Directors adopt the Plan, and request the addition of a buffered Class II proposed facility designation for Silverado Trail from Deer Park Road to the Napa City Limits. NVTA staff reviewed this recommendation and have made this modification to the Plan.

Additionally, informational presentations were made to the NVTA Community Advisory Committee (CAC) on March 4th, and NVTA Paratransit Coordinating Committee (PCC) on March 5th. Committee members were invited to provide comments, but no action was taken.

EXECUTIVE SUMMARY

The Napa Countywide Active Transportation Plan serves as a comprehensive update to the prior Countywide Bicycle Plan (2019) and Countywide Pedestrian Plan (2016). New and innovative approaches to active transportation policy and infrastructure, as well as changes in law necessitate periodic updates to ensure that planned improvements align with local and regional goals, and to better compete for limited funding to support the build-out of the active transportation network.

At the February 18, 2026 NVTA Board of Directors meeting, the draft Plan was released for a 28-day public review and comment period. Comments were received from members of the public, community organizations, and local jurisdictions, and are reflected in Attachment 2. Comments were evaluated by NVTA staff and, where appropriate, incorporated into the final plan.

FISCAL IMPACT

Is there a fiscal impact? No.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION: The proposed action is statutorily exempt from the CEQA pursuant to PRC §21080.20, as it is an active transportation plan "that promotes and encourages people to choose walking, bicycling, or rolling through the creation of safe, comfortable, connected, and accessible walking, bicycling, or rolling networks, and encourages alternatives to single-occupancy vehicle trips."

Following the public hearing and adoption, notice will be filed with the Office of Land Use and Climate Innovation and the County Clerk, as specified under PRC §21125.

BACKGROUND

With extensive input from the community and deep guidance from stakeholder agencies, the Napa Countywide Active Transportation Plan establishes a vision for walking, bicycling and other non-automotive transportation options such as e-bikes and e-scooters throughout the county. The Plan documents the existing environment, presents a thoughtful set of recommended projects and other strategies, and includes an achievable implementation plan to make active transportation safer, more accessible, and more convenient for residents and visitors to the region.

Organization

The Napa Countywide Active Transportation Plan is structured to include countywide guidance and policies to inform implementation of projects and programs throughout Napa County's communities, as well as individual chapters specific to each of the six

jurisdictions – the County of Napa, and Cities of Calistoga, St. Helena, Napa, American Canyon, and Town of Yountville. Jurisdiction-specific chapters have been crafted to support countywide goals and are to be adopted by each jurisdiction to guide local planning and investments in projects and programs.

The AT Plan also includes a detailed Treatment Toolkit that identifies nearly 50 project-based improvements to enhance safety, accessibility, and convenience of walking and biking infrastructure.

Public Engagement
Over the course of more than a year, NVTA and local jurisdiction staff have supported extensive community engagement to inform the projects, programs, and policies included in the draft Plan. Nearly 2,000 community members were engaged in the plan development process, with more than 700 comments received through online surveys, interactive maps, and more than 30 separate in-person and virtual events, presentations, and public meetings.

Plan Recommendations
As noted above, the Plan is structured into distinct chapters addressing the specific recommended infrastructure improvements for each of the six jurisdictions in Napa County. While this memo focuses on countywide totals, detailed maps and tables identifying jurisdiction-specific recommended improvements can be found within the Plan (Attachment 1).

Countywide Policies & Programs
The Plan includes countywide policies and programs, developed based on an extensive review of prior planning documents, and in close coordination with local jurisdictions. These policies are organized under the national Safe Routes “E’s” framework, addressing Engineering, Education & Engagement, Encouragement, and Evaluation topics. In addition to the countywide baseline policies, the Plan provides space for each jurisdiction to identify and adopt at the local level additional policies or similar language to guide priorities, planning and future investments in active transportation.

Bicycle Facility Recommendations
Building on the recommendations from the 2019 Countywide Bicycle Plan, roadways countywide were analyzed utilizing a range of criteria including existing vehicle speed & volume, existing bike facilities, proximity to key origins & destinations (eg: parks, schools, retail), and historical collision data from the countywide High Injury Network. With engagement and input from local jurisdiction staff, a revised network of proposed facilities was developed, totaling 436 miles of new or improved bike facilities.

Table 5.1: Napa Countywide Proposed Bicycle Network Mileage

Facility Type	2019 Existing Mileage	2025 Existing Mileage*	Change 2019 to 2025	2025 Proposed Mileage	Total Future Mileage
Shared Use Path (Class I)	40.9	47.0	+6.1	66.2	**113.3**
Bicycle Lanes (Class II)	87.8	87.1	-0.7	79.7	**166.8**
Buffered Bicycle Lanes (Class II)	-	3.7	+3.7	30.9	**34.6**
Bicycle Route (Class III)	13.5	6.8	-6.7	-	**6.8**
Bicycle Boulevard (Class III)	-	0.1	+0.1	52.4	**52.4**
Rural Bicycle Route (Class III)	-	9.1	+9.1	201.0	**210.1**
Separated Bikeway (Class IV)	-	1.9	+1.9	5.8	**7.7**
Unclassified Bike Route	-	17.9	+17.9	0.8	**18.7**
Total	**142.2**	**173.6**	**+31.4**	**436.9**	**610.4**

**2025 Existing mileage totals are derived from a comprehensive review of existing bicycle facilities, which in some cases resulted in removal or re-categorization of facilities.*

Pedestrian Facility Recommendations

Unlike the proposed bicycle network which establishes recommendations for roadways countywide, the pedestrian network focuses more narrowly on closing sidewalk gaps in existing developed areas or in proximity to key origins & destinations such as schools, parks, shopping, and transit stops. Additionally, due to limited roadway width in existing neighborhoods, if sidewalk gaps were found to be present on both sides of the street, the plan prioritizes sidewalk on the side of the street closest to key destinations. The pedestrian network also prioritizes improvements along neighborhood streets with existing or proposed bicycle facilities, reinforcing a preference for multimodal corridors where bicyclists and pedestrians can feel most comfortable.

Table 5.2: Napa Countywide Proposed Pedestrian Network Mileage

Facility Type	Existing Mileage	Proposed Mileage	Total
Shared Use Path (Class I)	47.0	66.2	**113.3**
Sidewalk	523.1	18.3	**541.4**
Total	**570.1**	**84.6**	**654.7**

ALTERNATIVES

None.

COUNTYWIDE PLAN GOALS MET BY THIS PROPOSAL

Goal 1 – Serve the transportation needs of the entire community regardless of age, income, or ability.

The project recommendations and policies in the Active Transportation Plan are based on an "All Ages and Abilities" framework.

Goal 2 – Improve system safety in order to support all mode and serve all users.

The Active Transportation Plan incorporates user safety as a key criteria for project recommendations, and includes policies to advance existing goals to reduce or eliminate serious injuries and fatalities on Napa County roadways.

Goal 5 – Minimize the energy and other resources required to move people and goods.

By establishing an aggressive yet achievable active transportation mode share target of 10% of all trips by 2050, implementation of the Active Transportation Plan will reduce energy use for shorter trips (generally 2-3 miles or less).

ATTACHMENTS

1 - Final Countywide Active Transportation Plan

2 - Public & Jurisdiction Comments

Napa County Public Works Dept.

Comments on the 2/13/26 Draft NVTA Active Transportation Plan

The following are comments on AT Plan Chapter 12 “Unincorporated Napa County”:

1. Add a paragraph about the list of projects in Table E-6: “Napa County will continue to evaluate active transportation projects and incorporate safety countermeasures into paving projects; however, due to right of way, utility, environmental, and financial constraints, in general Napa County will only stripe Class II bike lanes and buffered bike lanes when the existing County road is wide enough for the standard widths. When engineers prepare preliminary plans, they will include traffic calming and other design options in the “Toolkit” where appropriate. Napa County is also dedicating resources to construct Class 1 shared use paths to meet the seven percent funding requirement in the Measure U ordinance. For the “Near Term”, Napa County does not plan to apply for funding to widen County roads to construct bike lanes and buffered bike lanes unless such funding compliments an existing planned project and does not detract from other projects. Napa County also emphasizes that the cost estimates in Table E-6 are preliminary and the actual cost could be significantly higher to address environmental studies, right-of-way acquisition, drainage, steep adjacent slopes, etc. For example, a 2024 cost estimate for Project 815 to construct Class II bike lanes on Salvador Avenue was $1.5 million. Constructing a new bridge over the Napa River with Class II bike lanes could exceed $10 million.”
2. In Table 12-6, it appears that some of the projects on Caltrans highways are included in the Unincorporated Napa County numbers; however, Caltrans would probably expect Napa County to obtain the funding and apply for an encroachment permit to construct the projects. Napa County only plans to construct Class 1 shared use paths within Caltrans right-of-way; therefore, please create a separate list / table of projects on the State Highway System.
3. Napa County only plans to sign and stripe County roads for Class III bicycle routes when the speed limit is less than 30 MPH per the 9/27/2024 Senate Bill 1216 that changed Sections 891.9, 2382 and 2384 of the Streets and Highways Code.
4. In Table 12-4, I can only think of the three miles of Class 1 between Napa and Yountville and the 0.2-miles on Devlin Road between Airport Blvd and the former Bronco Road. Since 2019, Napa County added five miles of Vine Trail between St. Helena and Calistoga and 0.6 miles between Bronco Road and Tower Road. (3.2 + 5.6 = 8.8) Old Howell Mt. Road is 2.5 miles, Yountville to St. Helena is 7.7 miles, and Vista Carneros is 3.1 miles for a total of 13.3 miles of future Class 1 paths. Are there any more class 1 paths?
5. Table 12-5 is not correct.

6. The Bicycle May Use Full Lane (R4-11) was discontinued with the 11th edition MUTCD and replaced with the “Bicycles Allowed Use of Full Lane” (R9-20) the AT Plan should be updated accordingly.
7. Page 16, Rural Bicycle Routes (Class III) – 95% of County rural bicycle routes do not have shoulder as shown on the image, this image should be replaced with a bicycle sharing the lane with a car for accuracy.

The following are comments on AT Plan Table E-6:

1. Separate projects within the Caltrans State Highway System from projects within Napa County right-of-way, including 821, 826, 866, 885, 894, 935, 1017, 1032, 1058, 1084, 1089, 1090, 1092, 1096, 1220, 1221, and 1229.
2. Remove ID 806, remove the orange highlight for ID 1056, and change “Y” to “N” in the “Near Term Project” column.
3. For ID 807, add “Hillcrest Drive” in the “End” column.
4. For ID 815, remove orange highlight, change the cost to $1.5 million, and change “Y” to “N” in the “Near Term Project” column.
5. For 852, change beginning to Shady Brook Lane and end to Napa County line.
6. For ID 858, change First Ave. to Second Avenue.
7. Move ID 862 to the City of Am. Can. list.
8. For ID 884, change “Browns Valley” to “650 feet north of Wine Country Avenue”.
9. For ID 917, the applicant developing the property on the south side of Kelly Road is conditioned to construct a Class 1 path on the south side of Kelly Road; therefore, move to the City of Am. Can. list and remove from the Napa County list.
10. For ID 936, there are Class II bike lanes on Monticello Road and Napa County will not close the older Trancas Street Bridge over Milliken Creek that carries eastbound traffic; therefore, remove the Project.
11. For ID 1018, change to Finnell Road from Town Limit to Yountville Cross Road.
12. For ID 1026, change “Oakville Grade Rd” to “Dry Creek Road”.
13. For ID 1033, it appears that this path is complete or in Am. Can.
14. For ID 1036, change “Newell” to “American Canyon City Limit”.
15. For ID 1047, change “4th Avenue” to “Skyline Park”.
16. For ID 1054, change to Class III Bicycle Route.
17. For ID 1055 and 1056, change “Y” to “N” in the “Near Term Project” column.
18. For ID 1085, change “Silverado Trail” to St. Helena City Limit.
19. For ID 1120 and 1228, the speed limit on Petrified Forest Road exceeds 30 MPH. Confirm if Class III would be legal. Delete 1120 since 1228 includes 1120.
20. For ID 1128, 1129, and 1219, move to City of St. Helena list.
21. For ID 1132, 1132, and 1134, move to City of Napa List.
22. Remove ID 1135, which is complete.
23. Change ID 1157 to Class III Bike Route.
24. Add a name and limits to ID 1162 or remove.

25. For ID 1180, highlight with orange and add a “Y” in the “Near Term Project” column.
26. For ID 1186, change limits from Tower Road to South Kelly Road.
27. Remove ID 1211, which is complete.
28. For ID 1223, change “Soscol Ferry Road to “Existing Bay Trail”.

The following are comments on the bike network map and figures at https://ghdengagement.com/napa-atplan-proposed-bike-network . Some comments might be a repeat of comments provided on 7/16/25.

1. For the Vine Trail in St. Helena on Oak Avenue, Adams Street, and Fulton Lane, change green Class 1 Shared use path to proposed Bike Blvd. on the bike network map. Remove green dashed line along the railroad between Adams Street and Fulton Lane.
2. In Bothe State Park, remove the dashed green line on the bike network map.
3. For Silverado Trail between Dunaweal Lane and Larkmead Lane, remove the dashed blue line on the bike network map.
4. On Oakville Road, show segments with bike lanes as solid blue and segments without bike lanes and dashed lines on the bike network map.
5. On Atlas Peak Road, there are bike lanes between Hillcrest Drive and McKinley Road, so show as a solid blue line on the bike network map.
6. On Trancas Street between the Napa River and Silverado Trail, remove dashed light blue line and show solid dark blue line for buffered bike lanes.
7. On Monticello Road between Silverado Trail and Highway 121, change dashed light blue line to solid light blue line on the bike network map.
8. Check the appropriate line for the existing bikeway on Second Avenue between Coombsville Road and North Avenue on the bike network map.
9. Check the appropriate line for the existing bikeway on Vichy Avenue between Hagen Road and Monticello Road on the bike network map.
10. Show an existing Class III Bike Route on Old Sonoma Road between Buhman Avenue and Congress Valley Road on the bike network map; however, there are sections of OSR that are wide enough for Class II bike lanes.
11. Show an existing Class II bike lanes and Class III Bike Route on American Canyon Road between the City limits and the Solano County line.
12. Show existing Class II bike lanes on SR 12 between Solano County and SR 29.

Prepared by Graham Wadsworth on 2/17/26 and revised 2/26/26

G:\ENGINEER\DESIGN\2 Staff\Graham\Agencies\NVTA\Active Transportation Plan

March 9, 2026

Public Comment: NVTA Countywide Active Transportation Plan Draft

Dear Mr. Band,

The Napa County Bicycle Coalition (NCBC) represents over 2,000 members and supporters throughout Napa County, advocating to make cycling safe, convenient, and accessible for riders of all ages and abilities. For over 15 years, NCBC has collaborated with local organizations, businesses, elected officials, and the public to align our transportation infrastructure with the needs of cyclists and other active transportation users.

We welcome the release of the Active Transportation Plan Draft and are encouraged by the progress it represents. Prior to finalization, we respectfully request that the following changes be considered for incorporation into the plan.

Proposed Facilities

Proposed Bike Facilities Map

- **Berry Street** – The proposed bike boulevard removes existing separated bike lanes. We recommend retaining these facilities.
- **SR 29 South of Calistoga** – The plan proposes a Class III designation; however, this segment currently features Class II/IIb bike lanes with rumble strips. Given the speeds and volumes on this corridor, a Class III designation appears inconsistent with recommended facility standards.
- **Calistoga** – A bike facility gap remains on Lake Street and should be addressed.
- **Overlapping Facility Designations** – Conflicting designations throughout the plan should be reconciled. For example, Pratt Avenue in St. Helena shows both Class I and Class II proposals, with the Class I designation rendered nearly illegible.
- **St. Helena – Spring Street** – The City of St. Helena's Streets Master Plan differs in its recommendation from this plan. This discrepancy should be resolved prior to finalization.
- **St. Helena – Network Gaps** – Bike network gaps remain on Madrona/Fulton and Oak Avenue. Additionally, Oak Avenue is still designated for a Class I facility along the Vine Trail alignment, which does not reflect the Vine Trail Coalition's plans, as we understand them.
- **St. Helena – Pope Street** – No improvements are listed for Pope Street, which warrants attention.
- **Napa – Coombsville Road** – Where space exists for Class IIb lanes, we recommend considering Class IV facilities, given the absence of parking and the route's function as a route to school.

- **Napa – Freeway Drive (Laurel to 1st Street)** – We recommend upgrading existing buffered segments to Class IV facilities.
- **Trower Avenue Extension to Big Ranch Road** – As a newly constructed roadway, this corridor presents an opportunity to designate a facility type beyond Class II.
- **Solano Avenue (South of Vine Trail)** – No improvements are proposed for this segment, despite substandard bike lane conditions along much of the stretch between the Vine Trail and Lincoln Avenue. At minimum, we recommend updating these lanes to standard Class II bike lanes.
- **Silverado Trail (City of Napa to Deer Park Road)** – We recommend upgrading this segment to Class IIb.
- **American Canyon – West Donaldson Way** – A bike network gap exists on this corridor and should be addressed.
- **American Canyon Road** – Consider upgrading the segment that crosses Highway 29, and studying it so deep intersection improvements can be implemented.

Proposed Pedestrian Network

- **County Pocket Sidewalks** – While acknowledging these may fall outside the scope of this plan, NCBC intends to continue encouraging the Board of Supervisors to identify solutions for sidewalk gaps in county pocket areas.
- **Calistoga – Silverado Trail (Lincoln Avenue to Brannan Street)** – The sidewalk gap along this segment should be closed in its entirety.
- **El Centro Avenue & Jefferson Street near Willow** – Sidewalk gaps in this area remain unaddressed.
- **West Park Avenue (West of WPES)** – No sidewalk facilities are present.
- **Marin Street (Lincoln to Central)** – Sidewalk coverage is absent along this segment.
- **West Imola (SR 29 to Minahen)** – A sidewalk gap closure is needed on this segment.
- **American Canyon – SR 29 Class I to Paoli Loop Road** – No connection between these facilities appears to be planned.
- **East Napa Junction Road** – No sidewalk gap closure is shown for this area.
- **Howell Mountain Road** – The existing sidewalk should be extended to College Avenue to maximize network connectivity.

Priority Projects

Calistoga Priority Bike Projects

- **Stephenson Street** – This street is not listed for improvement. We recommend designating it as a Class III facility.

St. Helena Priority Bike Projects

- We question the prioritization of the Class I river trail along the Napa River above all in-town projects, and request that the rationale for this decision be clarified.

Napa Priority Bike Projects

- SR 221 South of Imola has both Class I and Class II facilities listed as priorities. Given the stated policy of excluding redundant facilities, we recommend prioritizing only the Class I designation and redirecting remaining prioritization resources elsewhere.
- Jefferson Street does not appear in the priority list, despite its inclusion in the City's Five-Year Measure T Plan. We recommend its prioritization be revisited.

County Priority Bike Projects

- If Class II facilities on North Kelly Road and SR 221 are to be prioritized, the Class IV facilities on SR 29 between them must also be prioritized to avoid cyclists being directed onto a high-risk stretch without adequate infrastructure. The intersection in this area warrants additional attention.

Partnership

NCBC respectfully requests acknowledgment of our organization and the volunteers who conducted the countywide bike parking audit, much of which was completed on a voluntary basis.

Additional Comments

- The plan does not appear to include language committing to "implement this plan or better." We request that this language be incorporated.

Possible Errors and Typographical Issues

- **Page 5, "Vehicle Miles Traveled Reduction," Third Bullet** – The current language reads "increase work trips made by bicycling or walking by 10%." We believe the intent is to increase mode share *to* 10%, rather than *by* 10% from an already small baseline. This should be updated to align with Objective 4.2.
- **American Canyon Existing Conditions Map** – The existing Class I facility in front of NJES on Eucalyptus Drive is not shown.
- **American Canyon Road (James to Silver Oak Trail)** – The Existing Conditions map lists this segment as buffered; please confirm whether this is accurate.
- **Donaldson Way East** – Existing Class II bike lanes on this segment are not reflected in the Existing Conditions map.
- **Grayson Avenue, St. Helena** – The existing Class II/Class III combination on this street is not shown in the Existing Conditions map.
- **Existing Pedestrian Network** – An error message appears in the first paragraph of this section.
- **Napa Junction** – The Class III connection between existing Class I facilities has not been updated.

- **County of Napa – Community Input Section** – This section does not appear to be included. A summary of community meeting discussions should be incorporated for completeness.

Should you have any questions about our comment, please do not hesitate to reach out to us at the phone number below, at kvernor@napabike.org, or at csianato@napabike.org.

Thank you for your time and consideration.

Sincerely,

Kara Vernor, Executive Director
Napa County Bicycle Coalition

Napa Valley Transportation Authority Board of Directors
625 Burnell Street
Napa, CA 94559

March 16, 2026

Subject: Comments on the Napa Countywide Active Transportation Plan

Dear NVTA Board of Directors,

Thank you for the opportunity to comment on the Napa Countywide Active Transportation Plan. I'm writing on behalf of Save The Bay. We're a regional organization whose mission is to protect the San Francisco Bay for people and wildlife, and this include advocating for shoreline access for all. Our vision for the Bay includes a complete, accessible, and climate-resilient Bay Trail around the entire Bay.

The San Francisco Bay Trail is a planned 500-mile pathway around the entire San Francisco Bay running through all nine Bay Area counties and 47 cities. Approximately 350 miles are complete and in use today. Save The Bay has recently taken on a regional advocacy role to improve and complete the Bay Trail. Connecting communities to the Bay will increase the number of people able to benefit from the beauty, open space, wildlife, active transportation, and recreational opportunities that the Bay has to offer, and will help develop the next generation of Bay stewards.

In Napa County, there are approximately 11 miles of incomplete Bay Trail. Approximately 1 mile of incomplete Bay Trail is in the City of American Canyon, approximately 2 miles in the City of Napa, and approximately 8 miles in unincorporated Napa County. Additionally, there are approximately 10 miles of incomplete Vine Trail running through American Canyon and Napa which, if completed, would serve as an important connector in the Bay Trail network.

We are pleased to see that the Bicycle and Pedestrian networks in the Active Transportation Plan include proposed shared-use paths along these incomplete Bay Trail and Vine Trail segments.

Completing these segments as dedicated paths for both pedestrians and cyclists is a priority for Save The Bay. We look forward to engaging with the County and cities as the bicycle and pedestrian networks are implemented.

Sincerely,

David Lewis
Executive Director
Save The Bay

Additional Public Comments Received

Via Project Website – www.NapaATplan.org

Comment #	Jurisdiction	Comment Text
1	City of Napa	I am supportive of this plan and endorse these investments in bicycle infrastructure for Napa County. I am very pleased to see more connectivity to and across downtown Napa, particularly on Third Street, as well as linking and extending the Vine Trail southwards to American Canyon. These will be important improvement. In the future, I hope to see improvements to the bicycle infrastructure on Route 29 near St. Helena (where there are wide grates in the bicycle lane) and on Silverado Trail where some parts of the bicycle lane are dangerously narrow.
2	City of American Canyon	As we develop our local active transportation network, providing a way for the majority of the population to access major transportation hubs is vital and should be top priority. Closing the gaps to bicycle from Napa to the Vallejo ferry and bus terminal is critical for those who commute and to offset the increasing traffic congestion. Therefore, I believe everything possible should be done to prioritize bicycle access along or around Devlin Rd between Soscol Ferry Rd. and Airport Blvd. I have had to make the hard choice to stop commuting by bike along this route because of two near-misses that could have easily ended me. However, I still see others to continue riding this route. I applaud their courage but fear for their safety. Could Devlin Rd be painted and/or signs be placed to make drivers more aware of bicycles until the safe access is addressed? Additionally, the County could do a better job at keeping the weeds down all the way to the curb on this narrow road. The more weeds that encroach the shoulder, the less room bicycles have to distance themselves from passing cars. Honestly, I fear that if something isn't done about this situation soon, someone is going to get hurt or worse. Lives are at stake.
3	City of Napa	I am supportive of this plan and endorse these investments in bicycle infrastructure for Napa County. I am very pleased to see more connectivity to and across downtown Napa, particularly on Third Street, as well as linking and extending the Vine Trail southwards to American Canyon. These will be important improvement. In the future, I hope to see improvements to the bicycle infrastructure on Route 29 near St. Helena (where there are wide grates in the bicycle lane) and on Silverado Trail where some parts of the bicycle lane are dangerously narrow.

Napa Valley Transportation Authority

625 Burnell Street
Napa, CA 94559

Meeting Minutes - Draft
NVTA Board of Directors

JoAnn Busenbark Board Room

Wednesday, March 18, 2026 **1:00 PM**

1. Call to Order

Chair Joseph called the meeting to order at 1:38pm.

2. Roll Call

Present: 11 - Scott Sedgley
Donald Williams
Pierre Washington
Michelle Deasy
Bernie Narvaez
Liz Alessio
Mark Joseph
Paul Dohring
Amber Manfree
Pam Reeves
Eric Knight

Non-Voting: 1 - Devereaux Smith

Excused: 1 - Kevin Eisenberg

3. Adoption of the Agenda

Motion MOVED by ALESSIO, SECONDED by WASHINGTON to APPROVE Item 3. Adoption of the Agenda. Motion passed unanimously.

Aye: 23 - Sedgley, Williams, Washington, Deasy, Narvaez, Alessio, Joseph, Dohring, Manfree, Reeves, and Knight

4. Public Comment

Public comment by Angwin resident Mike Hackett, Save Napa Valley Foundation regarding an opportunity for a project to remediate the part of Suscol Creek that runs under Highway 29 that has been eroded and prevents fish passage. It has been identified that Caltrans completed a design report for the remediation in 2021 as part of the Soscol Junction Project and Hackett requests the Board to place this topic on a future agenda for discussion.

Vice Chair Dohring, Director Williams and Director Manfree voiced support of agendizing the proposed topic with no objection from other Board members.

Public comment received in writing from David Lewis, Executive Director at Save the Bay in support of the Napa Countywide Active Transportation Plan which aligns directly with the agency efforts to complete the San Francisco Bay Trail. The full letter is attached.

5. Chairperson's, Board Members', Metropolitan Transportation Commissioner's, and Association of Bay Area Governments Update

Director Manfree reported recent MTC activities and recently proposed Measure U funded pavement repair project approved by the County of Napa Board of Supervisors.

6. Executive Director's Update

Executive Director Schmitz reported:
-Agency Spring Outreach events handout
-Agency participation at the recent Napa County Office of Education 8th Grade Career Day which had 1,200 students attend

7. Caltrans' Update

Amani Meligy, presented the Caltrans project update.

Note: Where times are indicated for the agenda items, they are approximate and intended as estimates only and may be shorter or longer as needed.

8. PRESENTATIONS

None

9. CONSENT AGENDA ITEMS

Motion MOVED by NARVAEZ, SECONDED by WASHINGTON to APPROVE Item 9. Consent 9.1-9.5. Motion passed unanimously.

Aye: 23 - Sedgley, Williams, Washington, Deasy, Narvaez, Alessio, Joseph, Dohring, Manfree, Reeves, and Knight

9.1 Meeting Minutes of February 18, 2026 (Laura Sanderlin) (Pages 7-11)

Attachments: Draft Minutes

9.2 Community Advisory Committee (CAC) Member Appointments (Arcie Alvarado) (Pages 12-13)

Attachments: Staff Report

9.3 Napa Valley Transportation Authority (NVTA) Measure T Equivalent Fund Certification for Fiscal Year 2024-25 (Addrell Coleman) (Pages 14-18)

Attachments: Staff Report

9.4 Napa Valley Transportation Authority (NVTA) Fiscal Year 2025-26, Quarter 2 Financial Review and Delegated Authority Matrix (Antonio Onorato) (Pages 19-37)

Attachments: Staff Report

9.5 Federal and State Legislative Update and Board Action on the State Bill Matrix (Danielle Schmitz) (Pages 38-51)

Attachments: Staff Report

10. REGULAR AGENDA ITEMS

10.1 Strategic Plan Development Consultant Contract Award (Danielle Schmitz) (Pages 52-67)

Attachments: Staff Report

Motion MOVED by ALESSIO, SECONDED by MANFREE to APPROVE Item 10.1 authorizing the Executive Director, or designee, to allow minor modifications and execute a professional services agreement with Innovate Mobility. Motion passed unanimously.

Aye: 23 - Sedgley, Williams, Washington, Deasy, Narvaez, Alessio, Joseph, Dohring, Manfree, Reeves, and Knight

11. FUTURE AGENDA ITEMS

-Fish Passage report from RCD and NVTA staff

12. CLOSED SESSION

Entered into closed session at 2:09pm.

12.1 CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION: Initiation of Litigation pursuant to Government Code Section 54956.9(d)(4) (2 potential cases)

Returned to open session at 2:42pm. Board direction was provided to staff on both items in Closed Session.

13. ADJOURNMENT

Chair Joseph adjourned the meeting at 2:43pm.

13.1 The next Regular Meeting is April 15, 2026.

_____

Laura Sanderlin, NVTA Board Secretary

April 15, 2026
NVTA Agenda Item 9.2
Continued from: New
Action Requested: APPROVE

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Patrick Band, Senior Planner
(707) 259-8781 / Email: pband@nvta.ca.gov

SUBJECT: Transportation Development Act Article 3 (TDA-3)
Call for Projects & Guidelines Approval

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) approve the Transportation Development Act Article 3 (TDA-3) Local Program Guidelines and open a Call for Projects.

COMMITTEE RECOMMENDATION

The NVTA Technical Advisory Committee (TAC) reviewed the proposed Local Guidelines at their April 2, 2026 meeting, and passed a motion to recommend that the NVTA Board approve the guidelines and open the TDA-3 call for projects.

EXECUTIVE SUMMARY

The TDA-3 program provides grants for local bicycle and pedestrian projects. The program is funded by approximately 2% of the ¼ cent statewide sales tax generated in Napa County. This generates approximately $220,000 per year in revenue for Napa jurisdictions. Unused funds are accumulated and rolled over to future programming cycles. The Call for Projects will be limited to approximately $250,000 for FY 2026-27 and $200,000 for FY 2027-28.

TDA-3 project applications will be due to NVTA by 5:00pm on Friday, May 1, 2026. Pursuant to MTC requirements, the NVTA ATAC will review and recommend approval of TDA-3 funding requests at its May 18th meeting. Following ATAC approval, the list of projects will go to the NVTA Board for approval on June 17, 2026.

FISCAL IMPACT

Is there a Fiscal Impact? No. TDA-3 funds are held by MTC and provided to program recipients on a reimbursement basis.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION*:* The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

BACKGROUND

TDA-3 funds may be used for capital infrastructure, maintenance, and/or Quick Build purposes, as well as limited safety education programs, as outlined in Attachment 1. In 2018, the NVTA Board requested a change to NVTA policy that prioritized infrastructure projects for TDA-3 funds.

As of February 2026, the MTC fund estimate for FY 2025-26 is $224,481.

Table 1. Napa CountyTDA-3 Fund Estimate (Simplified)

	As of 6/30/2025	Outstanding Commitments*	Annual Estimate	Anticipated for Programming**
FUND BALANCE	$776,642	($750,000)	$224,481	$450,000

*This amount includes $600,000 in project programming through FY 2025-26, as well as $150,000 in prior obligations paid out subsequent to the 6/30/25 fund balance date.
**Actual funding available is based upon statewide sales tax receipts through FY 2026-27. NVTA staff will work with applicants should revenue projections come in lower than anticipated.

Historically, smaller jurisdictions have applied for and been supported by the TAC and Board for funding, recognizing the limited competitiveness for alternative sources of bike/ped funding. Nevertheless, all public agencies are eligible to apply for funding, consistent with program guidelines.

For the prior two TDA-3 calls issued by NVTA, Quick Build projects have been prioritized for funding, recognizing the ability to significantly improve safety and accessibility at the neighborhood level in conjunction with larger or parallel paving or other roadway projects. Staff recommend continuing to prioritize TDA-3 funding for these efforts, consistent with objectives of the Napa Countywide Vision Zero Plan, Local Roadway Safety Plans, Safe Routes to School Plans, and related efforts. Quick Build projects are expected to be delivered on an expedited basis and will have a TDA-3 funding limit of $50,000 per project.

Jurisdictions are welcome to apply for multiple Quick Build projects but are required to submit a separate application for each project. Applicants considering Quick Build projects are advised to consult with NVTA staff to ensure alignment with Quick Build project best practices.

All TDA 3 funded projects are required to meet Caltrans safety design criteria and CEQA requirements; be completed within two years; be maintained; be consistent with adopted active transportation plans; and be authorized by a governing council or board. See Local Guidelines for additional criteria and project requirements.

To support programming and timely use of funds, NVTA staff propose the following timeline for the FY 2026-27 and 2027-28 TDA-3 Call for Projects:

Table 2. Timeline

ITEM	DATE
NVTA Board – Issue Call for Projects	April 15, 2026
Applications - Due to NVTA by 5:00 PM	May 1, 2026
Draft Program Review by ATAC	May 18, 2026
Draft Program Review by TAC	June 4, 2026
Board Approval – Program of Projects	June 17, 2026
MTC Project Approval & Obligation of Funds	Estimated August 2026

ALTERNATIVES

None.

COUNTYWIDE PLAN GOALS MET BY THIS PROPOSAL

Goal 1 – Serve the transportation needs of the entire community regardless of age, income, or ability.

Initiating the Call for Projects advances opportunities for funding bicycle and pedestrian projects in local jurisdictions, serving the needs of all community members.

Goal 2 – Improve system safety in order to support all mode and serve all users.

TDA-3 projects are evaluated for consistency with Complete Streets requirements, which support safety and access improvements for all modes.

Goal 5 – Minimize the energy and other resources required to move people and goods.

Active Transportation projects such as those funded through the TDA-3 program support NVTA's long-term mode share goals to increase walking and biking in our communities.

ATTACHMENTS

(1) Local Guidelines for TDA-3 Program
(2) TDA-3 Application Template

NAPA VALLEY TRANSPORTATION AUTHORITY

DRAFT

Guide and Application for

Transportation Development Act Article 3 (TDA-3)

Funds for Napa County

FY 2026-27 & 2027-28
Applications Due to NVTA:
Friday, May 1st by 5:00 p.m.

NVTA
625 Burnell Street
Napa, CA 94559
Phone: 707-259-8631
Fax: 707-259-8638
www.nvta.ca.gov

The Napa Valley Transportation Authority (NVTA) is pleased to announce a Call for Projects for Transportation Development Act, Article 3 (TDA-3) funds available to Napa County jurisdictions.

TDA-3 is a grant program under the Metropolitan Transportation Commission (MTC), funded by approximately 2% of the ¼ cent Statewide Sales Tax. This generates approximately $220,000 per year in revenues for jurisdictions in Napa County. The purpose of the TDA-3 program is to provide funding for local bicycle and pedestrian projects.

The TDA-3 program can fund a wide range of project types including:

- Construction and/or engineering of a bicycle or pedestrian capital project
- Capital purchases for maintenance of a Class I or Class IV facilities
- Enhancement of Class II bicycle lanes
- Bicycle safety education programs (no more than 5% of county total)
- Development of a comprehensive bicycle and/or pedestrian facilities plan (once every 5 years)
- Quick Build Projects

This packet has been created to help guide local jurisdictions in submitting a successful application for funding.

The available funding for Napa County TDA-3 projects for FY 2026-27 and FY 2027-28 will be approximately $450,000 dollars, with $250,000 available in FY 2026-27 and $200,000 in FY 2027-28, Applications are due to NVTA by 5:00 PM on Friday, May 1st 2025.

If you have any questions, you may contact Patrick Band, TDA-3 Program Manager at:

NVTA
625 Burnell Street
Napa, CA 94559
Phone: 707-259-8631

Sincerely,

//SIGNATURE//

Danielle Schmitz
Executive Director
Napa Valley Transportation Authority

DRAFT

The TDA-3 Program

The California State Legislature passed the Transportation Development Act (TDA) in 1971, which was subsequently signed into law by Governor Reagan. The TDA provides one of the major funding sources for public transportation in California. These funds are generated from a statewide ¼ cent sales tax. Article 3 of TDA is a set-aside of approximately 2% of those monies. Under Article 3 of the TDA, funds allocated to Napa County are available to local jurisdictions for bicycle and pedestrian projects.

The Metropolitan Transportation Commission (MTC) administers TDA 3, which is distributed based on population. Each year, an annual fund estimate or "entitlement" is developed for each County. A county's claim in any given year cannot exceed the sum of their accumulated funds plus their projected entitlement for the following two years.

Funds are obtained by local jurisdictions via a three-step process: (1) apportionment, (2) allocation, and (3) payment (reimbursement). Apportionment in the San Francisco Bay Area follows a Metropolitan Transportation Commission (MTC) formula based upon population. Allocation is the discretionary action by MTC that designates funds for a specific claimant for a specific purpose. NVTA submits TDA allocation requests to MTC on a regular basis, and unused TDA funds allocated to any project may be rolled over from one fiscal year to the next. No matching funds are required, but the project must meet the funding objectives and be developed in cooperation with the community. The basic objectives of the grant source are to fund projects that increase the safety, security, and efficiency of bicycle and pedestrian travel, and to provide for a coordinated system. MTC requires supporting resolutions from the sponsoring Council.

This "Call for Projects" will be issued on April 18, 2026 upon approval by the NVTA Board of Directors. In addition to the application, project sponsors must provide documentation of environmental clearance and maps/documents showing project locations and design parameters. Projects must be approved by MTC.

TDA 3 projects are required to meet Caltrans safety design criteria and CEQA requirements; be completed within two years; be maintained; be consistent with adopted active transportation plans; and authorized by a governing council or board. Local authorization is not required at time of application submission, but shall be due within 90 days of NVTA Board project approval and prior to annual submission of the Countywide TDA-3 claim to MTC.

As part of the grant process, MTC also requires the City Council to adopt a resolution making certain findings as follows:

(i) There are no legal impediments regarding the project.
(ii) Jurisdictional or agency staffing resources are adequate to complete the project.
(iii) There is no pending or threatened litigation that might adversely affect the project or the ability of the project sponsor to carry out the project.
(iv) Environmental and right-of-way issues have been reviewed and found to be in such a state that fund obligation deadlines will not be jeopardized.
(v) Adequate local funding is available to complete the project.
(vi) The project has been conceptually reviewed to the point that all contingent issues have been considered.

Basic Eligibility for TDA-3 Funding

TDA Article 3 funds may be used for the following activities relating to pedestrian and bicycle facilities, including):

- Engineering expenses leading to construction.
- Right-of-way acquisition.
- Construction and reconstruction.
- Retrofitting existing bicycle and pedestrian facilities, including installation of signage, to comply with the Americans with Disabilities Act (ADA).
- Route improvements such as signal controls for cyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates.
- Purchase and installation of bicycle amenities such as:
    - secure bicycle parking,
    - benches, drinking fountains, changing rooms, rest rooms and showers which are adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals and are accessible to the general public.
- Maintenance of Class I shared-use path or Class IV separated bikeways.
- Restriping of Class II bikeways. Countywide, the total funds allocated to Class II bikeway maintenance cannot exceed 20% of the total countywide TDA estimate
- Bicycle Safety Education Programs (and not more 5% of the countywide TDA Article 3 funds). Pursuant to NVTA Board policy, infrastructure projects are prioritized.
- Comprehensive Bicycle & Pedestrian Facilities Plans (not more than once per jurisdiction every 5 years)
- Projects identified in a recent (within 5 years) comprehensive local bicycle or pedestrian plan
- Quick-Build (also known as interim capital infrastructure) projects
- Capital purchases for maintenance of Class I or Class IV facilities (compact sweeping machine, blower, etc)
- Annual Audits in fiscal years funds are disbursed. Can be part of annual audit program, but must comply with additional TDA-3 requirements.

TDA Article 3 funds may not be used to fully fund the salary of any one person working on these programs.

Active Transportation Advisory Committee Requirement

Cities and counties may not receive TDA Article 3 funds for projects unless the jurisdiction has established an Active Transportation Advisory Committee (ATAC) and the project is included in an adopted plan as stipulated in the MTC TDA Article 3 Policies and Procedures, Resolution 4108. For Napa County, the NVTA Active Transportation Advisory Committee fulfills this requirement.

Note that for those jurisdictions with a local Active Transportation Advisory Committee, the approval of that committee is also required.

Project Selection Process

The project selection process is as follows:

- NVTA staff will review prospective projects for eligibility based on TDA-3 requirements, and conduct a preliminary evaluation of cost-effectiveness, project readiness, potential to reduce serious/fatal collisions, and increase active transportation use. Staff will present their findings to the NVTA Active Transportation Advisory Committee (ATAC) which will serve as the initial selection and prioritization committee.[1]
- The ATAC recommendations will be forwarded to the NVTA Technical Advisory Committee (TAC) for their review and recommendation.
- The recommendation from both Committees will be forwarded to the NVTA Board for their decision.

TDA-3 Project Selection Criteria for Napa County

For All Applications:

- The project provides a gap closure connecting two or more existing facilities
    - Note that this criteria does not apply to Quick Build safety projects
- The project is listed in the jurisdiction's adopted Bicycle or Pedestrian Plan, Local Roadway Safety Plan, the Countywide Vision Zero Plan, Safe Routes to School Plan, and/or related traffic safety or traffic calming program

Preference will be given to projects that meet the following criteria:

- Provides a safe route to school and/or transit are located at or along an identified High Injury Network intersection or corridor
- Provide additional local matching funds (not required)

NVTA intends to prioritize applications for Quick Build projects for funding. Applicants with eligible Quick Build projects are advised to consult Caltrans guidelines for such projects.[2] NVTA staff are available to provide additional resources and consultation regarding such projects.

Additional screening criteria for Quick Build projects include:

- Limit of $50,000 per project application
    - Multiple applications for Quick Build projects may be submitted by a single jurisdiction
- Jurisdiction commitment to complete the project within 12 months. Failure to complete project within this timeframe may result in recission of funds
- Jurisdiction commitment to maintain Quick Build improvements until permanent improvements are made (generally within 3 years). Removal of the project resulting in a return to prior conditions or functional equivalent require prior justification to MTC and NVTA.

[1] Pursuant to MTC Memorandum on TDA-3 Bicycle Pedestrian Advisory Committee (BPAC) review dated October 6, 2014, jurisdictions that have a local BPAC or similar advisory committee are generally required to have that body review and prioritization of projects. See https://mtc.ca.gov/sites/default/files/TDA3_BAC_Guidance.pdf

[2] https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/atp/cy6/cy-6-finalquickbuild-supplementalguidance-v2.pdf

Application Instructions:

TDA-3 project applications for FY 2026-27 through FY 2027-28 must be submitted to NVTA no later than 5:00 pm on Friday, May 1st, 2025. Applications may be emailed to Patick Band at pband@nvta.ca.gov

Applications must include:

- MTC TDA-3 project application
- An 8.5x11" map of the project area clearly showing location and extent of project improvements
    - Preliminary or conceptual design plans are recommended but not required.
- Minimum of 5 representative photographs of existing conditions

As noted elsewhere in this document, a Resolution of Local Support, identification of approved bicycle, pedestrian or other relevant supporting plan, and other materials will be required subsequent to application submittal for successful projects/programs.

What Happens After Submission of the TDA-3 application?

After applications are submitted to NVTA the evaluation process will begin. NVTA plans on the following action timeline:

ITEM	DATE
TAC Review & Recommend Call for Projects	April 2, 2026
NVTA Board – Issue Call for Projects	April 15, 2026
Applications - Due to NVTA by 5:00 PM	May 1, 2026
Draft Program Review by ATAC	May 18, 2026
Draft Program Review by TAC	June 4, 2026
Board Approval – Program of Projects	June 17, 2026
MTC Project Approval & Obligation of Funds	Estimated August 2026

Contact Information

Napa County TDA-3 Program Manager:
Patrick Band, Senior Planner
625 Burnell Street
Napa, CA 94559
Phone: (707) 259-8781
pband@nvta.ca.gov

MTC
Luis Garcia
Transit Operations Funding Coordinator
MTC, Funding Policy and Programs
375 Beale St., Suite 800
San Francisco, CA 94105
Phone: (415) 778-6616
lgarcia@bayareametro.gov

TDA Article 3 Project Application Form

1. **Agency**			
2. **Primary Contact**			
3. **Mailing Address**			
4. **Email Address**		5. **Phone Number**	
6. **Secondary Contact** (in the event primary is not available)			
7. **Mailing address** (if different) N/A☐			
8. **Email Address**		9. **Phone Number**	
10. **Send allocation instructions to** (if different from above):			
11. **Project Title**			
12. **Amount requested**		13. **Fiscal Year of Claim**	

14. **Description of Overall Project:**

15. **Project Scope Proposed for Funding:** (Project level environmental, preliminary planning, and ROW are ineligible uses of TDA funds.)

16. **Project Location:** A map of the project location is attached or a link to a online map of the project location is provided below:

Project Relation to Regional Policies (for information only)

17. Is the project in an MTC Identified Equity Priority Community? Yes☐ No☐

18. Is this project in a Priority Development Area or a Transit-Oriented Community? Yes☐ No☐

19. **Project Budget and Schedule**

Project Phase	TDA 3	Other Funds	Total Cost	Estimated Completion (month/year)
Bike/Ped Plan				
ENV				
PA&ED				
PS&E				
ROW				
CON				
Total Cost				

Project Eligibility

A. Has the project been reviewed by the Bicycle and Pedestrian Advisory Committee? Yes☐ No☐
If "YES," identify the date and provide a copy or link to the agenda.
If "NO," provide an explanation).

B. Has the project been approved by the claimant's governing body? Yes☐ No☐
If "NO," provide expected date:_____

C. Has this project previously received TDA Article 3 funding? Yes☐ No☐
(If "YES," provide an explanation on a separate page)

D. For "bikeways," does the project meet Caltrans minimum safety design criteria pursuant to Chapter 1000 of the California Highway Design Manual? Yes☐ No☐

E. **1.** Is the project categorically exempt from CEQA, pursuant to CCR Section 15301(c), Existing Facility? Yes☐ No☐

2. If "NO" above, is the project is exempt from CEQA for another reason? Yes☐ No☐
Cite the basis for the exemption. _____ N/A☐
If the project is not exempt, please check "NO," and provide environmental documentation, as appropriate.

F. Estimated Completion Date of project (month and year): _____

G. Have provisions been made by the claimant to maintain the project or facility, or has the claimant arranged for such maintenance by another agency? (If an agency other than the Claimant is to maintain the facility, please identify below and provide the agreement. Yes☐ No☐

H. Is a Complete Streets Checklist required for this project ? Yes☐ No☐
If the amount requested is over $250,000 or if the total project phase or construction phase is over $250,000, a Complete Streets checklist is likely required. Please attach the Complete Streets checklist or record of review, as applicable. More information and the form may be found here: https://mtc.ca.gov/planning/transportation/complete-streets

April 15, 2026
NVTA Agenda Item 9.3
Continued From: New
Action Requested: APPROVE

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Jonathan Stanton, Associate Planner
(707) 259-8634 / Email: jstanton@nvta.ca.gov

SUBJECT: Contract Award for State Route 29 (SR29) Comprehensive Multimodal Corridor Plan Update

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RECOMMENDATION

That the Napa Valley Transportation Authority Board authorize the Executive Director, or designee, to execute NVTA Agreement No. 26-C02 with GHD, Inc. for professional planning services associated with the SR29 Comprehensive Multimodal Corridor Plan update in an amount not to exceed $375,000.

COMMITTEE RECOMMENDATION

None

EXECUTIVE SUMMARY

The SR29 Comprehensive Multimodal Corridor Plan (CMCP) will perform a complete update to the original SR29 CMCP, adopted in 2020. The update is necessary due to the age of the current CMCP and evolving conditions along the SR29 corridor since the plan was originally adopted six years ago. Additionally, new state regulatory guidance reinforces the need for a comprehensive plan update to be consistent with recently updated Caltrans Climate Action Plan for Transportation Infrastructure (CAPTI 2.0) requirements, ensuring continued grant competitiveness and funding eligibility for SR29 corridor projects. The CMCP update will maintain the existing study limits from the southern Napa County border to SR29/Imola Avenue. Optional services would expand the study area north to SR29/1st Street interchange, including corridor-level analysis, model expansion, and evaluation of potential improvements on the west side of SR29/1st Street interchange. The City of Napa has committed $25,000 to support this optional work.

NVTA published RFP 26-R02 on February 26, 2026, notifying one hundred and sixteen (116) companies. Six companies expressed interest and attended the pre-proposal meeting, but ultimately one proposer – GHD, Inc. – submitted a proposal. GHD was evaluated by the Evaluation Selection Recommendation Committee (ERSC), comprised of staff from NVTA, Caltrans, County of Napa, and the Cities of Napa and American Canyon, and was determined to be qualified and to provide the best value to NVTA. Based on a historical review of similar procurements relative to the Engineer's estimate, GHD's proposal is considered fair and reasonable. Staff recommends the Board authorize the Executive Director to execute a contract with GHD, Inc. for $375,000, including the base scope, contingency, and optional services, with optional services to be utilized only upon authorization by the Executive Director.

FISCAL IMPACT

Yes, CMA Planning funds are programmed for this project. See the table below for the expenditure plan and funding plan.

Expenditure Plan	
Planning Services (Base Contract)	$251,458
Contingency	$25,057
Optional Services	$98,485
Total Expenditures	**$375,000**
Funding Plan	
CMA Planning Grant	$375,000

The contract commits NVTA to a base contract value of $251,458 with a contingency of $25,057, for a total of $277,515. Staff also recommends authorization for $98,485 in optional services to expand the study area north to the SR29/1st Street interchange. The contingency is intended to address potential changes and unknowns within the base scope of work. Funding for optional services is exclusively allocated for corridor-level analysis, model expansion, and evaluation of potential improvements at the west side of SR29/1st Street interchange, and will only be utilized upon authorization by the Executive Director. The City of Napa has committed $25,000 to support this optional work, offsetting a portion of the total project cost.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION*:* The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

BACKGROUND

The 2020 State Route 29 (SR29) Comprehensive Multimodal Corridor Plan (CMCP) studied SR29 improvements at a planning level from the southern Napa County border to Imola Avenue. The CMCP update will maintain the existing study limits to SR29/Imola Avenue, with optional services to expand the study area north to the SR29/1st Street interchange to address near-term priorities within the City of Napa. The SR29 corridor in this portion of Napa County is the primary north-south route for vehicle traffic and serves a wide range of functions from restricted-access freeway to downtown main street. The CMCP describes existing conditions, current issues, and anticipated growth or changes. The plan proposes a suite of projects designed to address each of the issues identified in a cost-effective manner. The Project proposes improvements to roadways and intersections, multi-modal and active transportation facilities, the transit system, and integrated corridor management strategies.

The current CMCP was adopted in 2020, and a plan update is necessary. Conditions along the corridor have changed within the last 6 years since the initial plan adoption and multiple projects initially identified in the plan have progressed beyond initial planning stages. Soscol Junction and the Bus Maintenance Facility have been constructed and are operational. Other projects such as improvements to the intersection of SR29/SR12/Airport Boulevard and SR29 American Canyon Corridor are now in the environmental phase of work. Finally, state-level guidance recommends update intervals for Comprehensive Multimodal Corridor Plans of 5 years or less. An updated CMCP will place NVTA in a strong position to pursue grant funding for critical infrastructure projects, including SR29 Corridor Improvements in American Canyon.

The CMCP update will focus on the following aspects:

- Conducting new public engagement and soliciting input following new California Transportation Commission (CTC) guidance
- Validating and updating the background data and model that informs the Plan
- Updating the planning horizons of the CMCP to reflect well defined short-, medium-, and long-term timelines
- Updating the list of projects to reflect current planning and engineering efforts, and potential grant funding opportunities for projects still in early planning
- Optional task to expand the geographic boundary of the study area north from SR29/Imola Avenue to the SR29/1st Street interchange, including corridor-level analysis, model expansion, and evaluation of potential improvements
- Updating the preferred and alternative corridor plan to reflect all other updates

The CMCP update would retain the Study Objectives of the original, which target addressing the following issues on the SR29 corridor:

- Traffic congestion and delay;
- Increased crash risks for all users;

- Lack of low-stress multimodal connectivity;
- Transit travel time and reliability.

ALTERNATIVES

1. The Board could direct staff to reissue the solicitation for additional bids. However, this approach would extend the schedule of an already time-sensitive plan update and risk being incomplete and unable to be leveraged in upcoming grant application cycles.

2. The Board could choose to forego this contract; however, doing so would limit NVTA's ability to pursue grant funding for construction of critical projects in planning and engineering stages, including the SR29 Corridor Improvements in American Canyon.

COUNTYWIDE PLAN GOALS MET BY THIS PROPOSAL

By authorizing this contract, NVTA advances the following agency goals:

Goal 1 – Serve the transportation needs of the entire community regardless of age, income or ability
The updated CMCP and adopted corridor plan centers accessibility for people of all ages, abilities, and incomes in the community along SR29.

- **Goal 2 – Improve system safety to support all modes and serve all users**
The CMCP and adopted corridor plan will improve safety for all users along the SR29 corridor.

- **Goal 4 – Support Napa County economic vitality**
The proposed suite of projects in the CMCP will improve travel reliability and access for residents and businesses throughout Napa County.

ATTACHMENT(S)

1) Contract No. 26-C02

NAPA VALLEY TRANSPORTATION AUTHORITY

NAPA VALLEY TRANSPORTATION AUTHORITY (NVTA)

AGREEMENT NO. 26-C02

THIS AGREEMENT is made and entered into as of this _____ day of April, 2026, by and between the Napa Valley Transportation Authority, a joint powers agency under the laws of the State of California, hereinafter referred to as "NVTA", and GHD Inc. whose mailing address is 2600 Capitol Avenue, Suite 100, Sacramento, CA 95816, hereinafter referred to as "CONSULTANT";

RECITALS

WHEREAS, NVTA wishes to obtain specialized services to develop and provide an update to the original SR 29 Comprehensive Multimodal Corridor Plan (CMCP); and

WHEREAS, NVTA has authorized the NVTA Executive Director to enter into a contract for services at its April 15, 2026 meeting; and

WHEREAS, CONSULTANT is willing and has been determined to be qualified to provide such specialized services to NVTA under the terms and conditions set forth herein;

TERMS

NOW, THEREFORE, NVTA hereby engages in the services of CONSULTANT, and CONSULTANT agrees to serve NVTA in accordance with the terms and conditions set forth herein:

1. **Term of the Agreement**. The term of this Agreement shall commence on the date first above written and shall expire on September 30, 2027 unless earlier terminated as provided herein, except that the obligations of the parties under "Insurance" and "Indemnification" shall continue in full force and effect after said expiration date or early termination in relation to acts or omissions occurring prior to such dates during the term of the Agreement, and the obligations of CONSULTANT to NVTA shall also continue after said expiration date or early termination in relation to the obligations prescribed by "Confidentiality," "Taxes," and "Access to Records/Retention)".

2. **Scope of Services**. CONSULTANT shall provide NVTA those services set forth in the Scope of Work (EXHIBIT A) and Consultant Proposal (EXHIBIT B), attached hereto and incorporated by reference herein. EXHIBIT A is provided solely to describe the services to be provided. Any terms contained in EXHIBIT B that add to, vary or conflict with the terms of this Agreement are null and void.

3. **Compensation**.

(a) Rates. In consideration of CONSULTANT's fulfillment of the promised work, NVTA shall pay CONSULTANT at the rate set forth in EXHIBIT B, attached hereto and incorporated by reference herein.

(b) Expenses. Unless explicitly agreed in writing, no direct expenses, including travel or other expenses, will be reimbursed by NVTA.

(c) Maximum Amount. Notwithstanding subparagraphs (a) and (b), the maximum payments under this Agreement shall be a total not-to-exceed amount of _____ for professional services and expenses; provided, however, that such amounts shall not be construed as guaranteed sums, and compensation shall be based upon services rendered.

4. **Method of Payment**.

(a) Invoices. All payments for compensation shall be made only upon presentation by CONSULTANT to NVTA of an itemized billing invoice in a form acceptable to the NVTA Director Administration, Finance and Policy which indicates, at a minimum:

i. CONSULTANT's name, address, Social Security or Taxpayer Identification Number
ii. Agreement number and any Task Orders associated
iii. Itemization of the hours worked or, where compensation is on a per-task basis, a description of the tasks completed during the billing period, the person(s) performing the services and the position(s) held by such person(s), and the approved hourly or task rate.
iv. CONSULTANT shall submit invoices not more often than every 30 days to NVTA Accounts Payable at 625 Burnell Street, Napa, CA 94559 or electronically to ap@nvta.ca.gov, who after review and approval as to form and content, shall submit the invoice to the NVTA Director Administration, Finance and Policy no later than fifteen (15) calendar days following receipt.

(b) Legal status. So that NVTA may properly comply with its reporting obligations under federal and state laws pertaining to taxation, if CONSULTANT is or becomes a corporation during the term of this Agreement, proof that such status is currently recognized by and complies with the laws of both the state of incorporation or organization and the State of California, if different, shall be maintained on file with the Secretary of NVTA's Board of Directors at all times during the term of this Agreement in a form satisfactory to the NVTA Director Administration, Finance and Policy. Such proof should include, but need not be limited to, a copy of any annual or other periodic filings or registrations required by the state of origin or California, the current address for service of process on the corporation or limited liability partnership, and the name of any agent designated for service of process by CONSULTANT within the State of California.

5. **Independent Consultant**. CONSULTANT shall perform this Agreement as an independent CONSULTANT. CONSULTANT and the officers, agents and employees of CONSULTANT are not, and shall not be deemed, NVTA employees for any purpose, including workers' compensation and employee benefits. CONSULTANT shall, at CONSULTANT's own risk and expense, determine the method and manner by which duties imposed on CONSULTANT by this Agreement shall be performed; provided, however, that NVTA may monitor the work performed by CONSULTANT. NVTA shall not deduct or withhold any amounts whatsoever from the compensation paid to CONSULTANT, including, but not limited to amounts required to be withheld for state and federal taxes. As between the parties to this Agreement, CONSULTANT shall be solely responsible for all such payments.

6. **Specific Performance**. It is agreed that CONSULTANT, including the agents or employees of CONSULTANT, shall be the sole providers of the services required by this Agreement. Because the services to be performed by CONSULTANT under the terms of this Agreement are of a special, unique, unusual, extraordinary, and intellectual or time-sensitive character which gives them a peculiar value, the loss of which cannot be reasonably or adequately compensated in damages in an action of law, NVTA, in addition to any other rights or remedies which NVTA may possess, shall be entitled to injunctive and other equitable relief to prevent a breach of this Agreement by CONSULTANT.

7. **Insurance**. CONSULTANT shall obtain and maintain in full force and effect throughout the term of this Agreement, and thereafter as to matters occurring during the term of this Agreement, the following insurance coverage:

(a) Workers' Compensation insurance. CONSULTANT will provide workers' compensation insurance as required by law during the term of this Agreement, CONSULTANT shall provide workers' compensation insurance for the performance of any of the CONSULTANT's duties under this Agreement; including but not limited to, coverage for workers' compensation and employer's liability and a waiver of subrogation, and shall provide NVTA with certification of all such coverage's upon request by NVTA's Risk Manager.

(b) Liability insurance. CONSULTANT shall obtain and maintain in full force and effect during the term of this Agreement the following liability insurance coverage's, issued by a company licensed (admitted) to transact business in the State of California and/or having a A.M. Best rating of A VII or better:

1. General Liability. Commercial general liability [CGL] insurance coverage (personal injury and property damage) of not less than ONE MILLION DOLLARS ($1,000,000) combined single limit per occurrence, covering liability or claims for any personal injury, including death, to any person and/or damage to the property of any person arising from the acts or omissions of CONSULTANT or any officer, agent, or employee of CONSULTANT under this Agreement.

2. Professional Liability/Errors and Omissions. Professional liability/errors and omissions insurance for all activities of CONSULTANT arising out of or in connection with this Agreement in an amount not less than ONE MILLION DOLLARS ($1,000,000) per claim.

3. Comprehensive Automobile Liability Insurance. Comprehensive automobile liability insurance (Bodily Injury and Property Damage) on owned, hired, leased and non-owned vehicles used in conjunction with CONSULTANT's business of not less than ONE MILLION DOLLARS ($1,000,000) combined single limit per occurrence.

(c) Certificates. All insurance coverage's referenced in 7(b), above, shall be evidenced by one or more certificates of coverage or, with the consent of NVTA's Risk Manager, demonstrated by other evidence of coverage acceptable to NVTA's Risk Manager, which shall be filed by CONSULTANT with NVTA's Deputy Executive Director prior to commencement of performance of any of CONSULTANT's duties; shall be kept current during the term of this Agreement; shall provide that NVTA shall be given no less than thirty (30) days prior written notice of any non-renewal, cancellation, other termination, or material change, except that only ten (10) days prior written notice shall be required where the cause of non-renewal or cancellation is non-payment of premium; and shall provide that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, the coverage afforded applying as though separate policies had been issued to each insured, but the inclusion of more than one insured shall not operate to increase the limits of the company's liability. For the commercial general liability insurance coverage referenced in 7(b)(1) and, where the vehicles are covered by a commercial policy rather than a personal policy, for the comprehensive automobile liability insurance coverage referenced in 7(b)(3) CONSULTANT shall also file with the evidence of coverage an endorsement from the insurance provider naming NVTA, its officers, employees, agents and volunteers as additional insureds and waiving subrogation, and the certificate or other evidence of coverage shall provide that if the same policy applies to activities of CONSULTANT not covered by this Agreement then the limits in the applicable certificate relating to the additional insured coverage of NVTA shall pertain only to liability for activities of CONSULTANT under this Agreement, and that the insurance provided is primary coverage to NVTA with respect to any insurance or self-insurance programs maintained by NVTA. The additional insured endorsements for the general liability coverage shall use Insurance Services Office (ISO) Form No. CG 20 09 11 85 or CG 20 10 11 85, or equivalent, including (if used together) CG 2010 10 01 and CG 2037 10 01; but shall not use the following forms: CG 20 10 10 93 or 03 94. Upon request by NVTA's Risk Manager, CONSULTANT shall provide or arrange for the insurer to provide within thirty (30) days of the request certified copies of the actual insurance policies or relevant portions thereof.

(d) Deductibles/Retentions. Any deductibles or self-insured retentions shall be declared to, and be subject to approval by, NVTA's Risk Manager, which approval shall not be denied unless the NVTA's Risk Manager determines that the deductibles or self-insured retentions are unreasonably large in relation to compensation payable under this Agreement and the risks of liability associated with the activities required of CONSULTANT by this Agreement. At the option of and upon request by NVTA's Risk Manager if it is determined that such deductibles or retentions are unreasonably high, either the insurer shall reduce or eliminate such deductibles or self-insurance retentions as respects NVTA, its officers, employees, agents and volunteers or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

8. **Hold Harmless/Defense/Indemnification**. To the fullest extent permitted by law, CONSULTANT shall hold harmless, defend at its own expense, and indemnify NVTA and the officers, agents, employees and volunteers of NVTA from and against any and all liability, claims, losses, damages or expenses, including reasonable attorney's fees, for personal injury (including death) or damage to property, arising from pertaining to, or relating to the negligence, recklessness, or willful misconduct of CONSULTANT or its officers, agents, employees, volunteers, consultants and subconsultants in rendering services under this Agreement, excluding, however, such liability, claims, losses, damages or expenses arising from the sole negligence or willful acts of NVTA or its officers, agents, employees, volunteers, or other consultants or their subconsultants. Each party shall notify the other party immediately in writing of any claim or damage related to activities performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of any claim arising out of the activities under this Agreement.

9. **Employee Character and Fitness**. CONSULTANT accepts responsibility for determining and approving the character and fitness of its employees (including volunteers, agents or representatives) to provide the services required of CONSULTANT under this Agreement, including completion of a satisfactory criminal/background check and period rechecks to the extent permitted by law. Notwithstanding anything to the contrary in this Paragraph, CONSULTANT, shall hold NVTA and its officers, agents and employees harmless from any liability for injuries or damages resulting from a breach of this provision or CONSULTANT's actions in this regard.

10. **Termination for Cause**. If either party shall fail to fulfill in a timely and proper manner that party's obligations under this Agreement or otherwise breach this Agreement and fail to cure such failure or breach within 20 days of receipt of written notice from the other party describing the nature of the breach, the non-defaulting party may, in addition to any other remedies it may have, terminate this Agreement by giving 10 days written notice to the defaulting party in the manner set forth in Paragraph 13 (Notices). NVTA hereby authorizes the NVTA Executive Director to make all decisions

and take all actions required under this Paragraph to terminate the Agreement on behalf of NVTA for cause.

11. **Termination for Convenience**. This Agreement may be terminated by NVTA for any reason and at any time by giving no less than 30 days written notice of such termination and specifying the effective date thereof. NVTA hereby authorizes the NVTA Executive Director to make all decisions and take all actions required under this Paragraph to terminate the Agreement on behalf of NVTA.

12. **Disposition of, Title to, and Payment for Work upon Expiration or Termination**.

(a) Upon expiration of this Agreement or earlier termination of Agreement, all finished or unfinished documents and other materials, if any, and all rights therein shall become, at the option of NVTA, the property of and shall be promptly returned to NVTA, although CONSULTANT may retain a copy of such work for its personal records only. Unless otherwise expressly provided in this Agreement, any copyrightable or patentable work created by CONSULTANT under this Agreement shall be deemed a "work made for hire" for purposes of copyright or patent law and only NVTA shall be entitled to claim or apply for the copyright or patent thereof.

(b) CONSULTANT shall be entitled to receive compensation for any satisfactory work completed prior to receipt of the notice of termination or commenced prior to receipt of the notice and completed satisfactorily prior to the effective date of the termination; except that CONSULTANT shall not be relieved of liability to NVTA for damages sustained by NVTA by virtue of any breach of the Agreement by CONSULTANT whether or not the Agreement expired or was otherwise terminated, and NVTA may withhold any payments not yet made to CONSULTANT for purpose of setoff until such time as the exact amount of damages due to NVTA from CONSULTANT is determined.

13. **No Waiver**. The waiver by either party of any breach or violation of any requirement of this Agreement shall not be deemed to be a waiver of any such breach in the future, or of the breach of any other requirement of this Agreement.

14. **Notices**. All notices required or authorized by this Agreement shall be in writing and shall be delivered in person or by deposit in the United States mail, by certified mail, postage prepaid, return receipt requested. Any mailed notice, demand, request, consent, approval or communication that either party desires to give the other party shall be addressed to the other party at the address set forth below. Either party may change its address by notifying the other party of the change of address. Any notice sent by mail in the manner prescribed by this paragraph shall be deemed to have been received on the date noted on the return receipt or five days following the date of deposit, whichever is earlier.

NVTA	CONSULTANT
Danielle Schmitz	Todd Tregenza
Executive Director	AICP, Project Manager
625 Burnell Street	2600 Capitol Avenue, Suite 100
Napa, CA. 94559	Sacramento, CA 95816

15. **Compliance with NVTA Policies on Waste, Harassment, Drug/Alcohol-Free Workplace, and Computer Use**. CONSULTANT hereby agrees to comply, and requires its employees and subconsultants to comply, with the following policies, copies of which are on file with the Board Secretary of NVTA and incorporated by reference herein. CONSULTANT also agrees that it shall not engage in any activities, or permit its officers, agents and employees to do so, during the performance of any of the services required under this Agreement, which would interfere with compliance or induce violation of these policies by NVTA employees or consultants.

(a) NVTA Policy for Maintaining a Harassment Free Work Environment effective November 18, 2015.

(b) NVTA Drug and Alcohol Policy adopted by resolution of the Board of Directors on November 18, 2015.

(c) Napa County Information Technology Use and Security Policy adopted by resolution of the Napa County Board of Supervisors on April 4, 2005. To this end, all employees and subconsultant's of CONSULTANT whose performance of services under this Agreement requires access to any portion of the NVTA computer network shall sign and have on file with NVTA prior to receiving such access the certification attached to said Policy.

(d) NVTA System Safety Program Plan adopted by resolution of the Board of Directors on November 18, 2015.

16. **Confidentiality**. Confidential information is defined as all information disclosed to CONSULTANT which relates to NVTA's past, present, and future activities, as well as activities under this Agreement. CONSULTANT shall hold all such information as CONSULTANT may receive, if any, in trust and confidence, except with the prior written approval of NVTA, expressed through its Executive Director. Upon cancellation or expiration of this Agreement, CONSULTANT shall return to NVTA all written and descriptive matter which contains any such confidential information, except that CONSULTANT may retain for its files a copy of CONSULTANT's work product if such product has been made available to the public by NVTA.

17. **No Assignments or Subcontracts**.

(a) A consideration of this Agreement is the personal reputation of CONSULTANT; therefore, CONSULTANT shall not assign any interest in this Agreement or subcontract any of the services CONSULTANT is to perform hereunder without the prior written consent of NVTA, which shall not be unreasonably withheld. The inability of

the assignee to provide personnel equivalent in experience, expertise, and numbers to those provided by CONSULTANT, or to perform any of the remaining services required under this Agreement within the same time frame required of CONSULTANT shall be deemed to be reasonable grounds for NVTA to withhold its consent to assignment. For purposes of this subparagraph, the consent of NVTA may be given by its Executive Director.

(b) Effect of Change in Status. If CONSULTANT changes its status during the term of this Agreement from or to that of a corporation, limited liability partnership, limited liability company, general partnership, or sole proprietorship, such change in organizational status shall be viewed as an attempted assignment of this Agreement by CONSULTANT. Failure of CONSULTANT to obtain approval of such assignment under this Paragraph shall be viewed as a material breach of this Agreement.

18. **Amendment/Modification**. Except as specifically provided herein, this Agreement may be modified or amended only in writing signed by both Parties. Only NVTA, through its Board of Directors in the form of an amendment of this Agreement, may authorize extra and/or changed work beyond the scope of services prescribed by EXHIBIT A. Failure of CONSULTANT to secure such authorization in writing in advance of performing any of the extra or changed work shall constitute a waiver of all rights to adjustment in the contract price or contract time and no compensation shall be paid for such extra work.

19. **Interpretation; Venue**.

(a) Interpretation. The headings used herein are for reference only. The terms of the Agreement are set out in the text under the headings. This Agreement shall be governed by the laws of the State of California without regard to the choice of law or conflicts.

(b) Venue. This Agreement is made in Napa County, California. The venue for any legal action in state court filed by either party to this Agreement for the purpose of interpreting or enforcing any provision of this Agreement shall be in the Superior Court of California, County of Napa, a unified court. The venue for any legal action in federal court filed by either party to this Agreement for the purpose of interpreting or enforcing any provision of this Agreement lying within the jurisdiction of the federal courts shall be the Northern District of California. The appropriate venue for arbitration, mediation or similar legal proceedings under this Agreement shall be Napa County, California; however, nothing in this sentence shall obligate either party to submit to mediation or arbitration any dispute arising under this Agreement.

20. **Compliance with Laws**. CONSULTANT shall observe and comply with all currently applicable Federal, State and local laws, ordinances, and codes, including but not limited to the Federal laws contained in Attachment 1, and as amended from time to time. Such laws shall include, but not be limited to, the following, except where prohibited by law:

(a) Non-Discrimination. During the performance of this Agreement, CONSULTANT and its subconsultant's shall not deny the benefits thereof to any person on the basis of sex, race, color, ancestry, religion or religious creed, national origin or ethnic group identification, sexual orientation, marital status, age (over 40), mental disability, physical disability or medical condition (including cancer, HIV and AIDS), nor shall they discriminate unlawfully against any employee or applicant for employment because of sex, race, color, ancestry, religion or religious creed, national origin or ethnic group identification, sexual orientation, marital status, age (over 40), mental disability, physical disability or medical condition (including cancer, HIV and AIDS), or use of family care leave. CONSULTANT shall ensure that the evaluation and treatment of employees and applicants for employment are free of such discrimination or harassment. In addition to the foregoing general obligations, CONSULTANT shall comply with the provisions of the Fair Employment and Housing Act (Government Code section 12900, et seq.), the regulations promulgated there under (Title 2, California Code of Regulations, section 7285.0, et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (sections 11135-11139.5) and any state or local regulations adopted to implement any of the foregoing, as such statutes and regulations may be amended from time to time. To the extent this Agreement subcontracts to CONSULTANT services or works required of NVTA by the State of California pursuant to Agreement between NVTA and the State, the applicable regulations of the Fair Employment and Housing Commission implementing Government Code section 12990 (a) through (f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are expressly incorporated into this Agreement by reference and made a part hereof as if set forth in full, and CONSULTANT and any of its subconsultant's shall give written notice of their obligations there under to labor organizations with which they have collective bargaining or other agreements.

(b) Documentation of Right to Work. CONSULTANT agrees to abide by the requirements of the Immigration and Control Reform Act pertaining to assuring that all newly-hired employees of CONSULTANT performing any services under this Agreement have a legal right to work in the United States of America, that all required documentation of such right to work is inspected, and that INS Form 1-9 (as it may be amended from time to time) is completed and on file for each employee. CONSULTANT shall make the required documentation available upon request to NVTA for inspection.

(c) Inclusion in Subcontracts. To the extent any of the services required of CONSULTANT under this Agreement are subcontracted to a third party; CONSULTANT shall include all of the provisions of this Section, and any applicable Federal provisions contained in Attachment 1 in all such subcontracts as obligations of the subconsultant.

21. **Taxes**. CONSULTANT agrees to file federal and state tax returns or applicable withholding documents and to pay all applicable taxes or make all required withholdings on amounts paid pursuant to this Agreement and shall be solely liable and responsible to make such withholdings and/or pay such taxes and other obligations including, without limitation, state and federal income and FICA taxes. CONSULTANT agrees to indemnify and hold NVTA harmless from any liability it may incur to the United States or the State

of California because of CONSULTANT's failure to pay or withhold, when due, all such taxes and obligations. If NVTA is audited for compliance regarding any withholding or other applicable taxes or amounts, CONSULTANT agrees to furnish NVTA with proof of payment of taxes or withholdings on those earnings.

22. **Access to Records/Retention**. NVTA, any federal or state grantor agency funding all or part of the compensation payable hereunder, the State Controller, the Comptroller General of the United States, or the duly authorized representatives of any of the above, shall have access to any books, documents, papers and records of CONSULTANT which are directly pertinent to the subject matter of this Agreement for the purpose of making audit, examination, excerpts and transcriptions. Except where longer retention is required by any federal or state law, CONSULTANT shall maintain all required records for at least seven (7) years after NVTA makes final payment for any other authorized work hereunder and all pending matters are closed, whichever is later.

23. **Authority to Contract**. CONSULTANT and NVTA each warrant hereby that they are legally permitted and otherwise have the authority to enter into and perform this Agreement.

24. **Conflict of Interest.**

(a) Covenant of No Undisclosed Conflict. The parties to the Agreement acknowledge that they are aware of the provisions of Government Code section 1090, et seq., and section 87100, et seq., relating to conflict of interest of public officers and employees. CONSULTANT hereby covenants that it presently has no interest not disclosed to NVTA and shall not acquire any interest, direct or indirect, which would conflict in any material manner or degree with the performance of its services or confidentiality obligation hereunder, except as such as NVTA may consent to in writing prior to the acquisition by CONSULTANT of such conflict. CONSULTANT further warrants that it is unaware of any financial or economic interest of any public officer or employee of NVTA relating to this Agreement. CONSULTANT agrees that if such financial interest does exist at the inception of this Agreement, NVTA may terminate this Agreement immediately upon giving written notice without further obligation by NVTA to CONSULTANT under this Agreement.

(b) Statements of Economic Interest. CONSULTANT acknowledges and understands that NVTA has developed and approved a Conflict of Interest Code as required by state law which requires CONSULTANT to file with the Elections Division of the Napa County Assessor-Clerk Recorder "assuming office", "annual", and "leaving office" Statements of Economic Interest as a "consultant", as defined in section 18701(a)(2) of Title 2 of the California Code of Regulations, unless the NVTA Executive Director has determined in writing that CONSULTANT, although holding a "designated" position as a consultant, has been hired to perform a range of duties so limited in scope as to not be required to fully comply with such disclosure obligation. CONSULTANT agrees to timely comply with all filing obligations for a consultant under NVTA's Conflict of Interest Code unless such a determination is on file on the filing dates for each of the required Statements of Economic Interest.

25. **Non-Solicitation of Employees**. Each party agrees not to solicit for employment the employees of the other party who were directly involved in the performance of the services hereunder for the term of this Agreement and a period of six (6) months after termination of this Agreement except with the written permission of the other party, except that nothing in this Paragraph shall preclude NVTA from publishing or otherwise distributing applications and information regarding NVTA job openings where such publication or distribution is directed to the general public.

26. **Third Party Beneficiaries**. Nothing contained in this Agreement shall be construed to create any rights in third parties and the parties do not intend to create such rights.

27. **Attorney's Fees**. If either party commences legal action of any kind or character to either enforce the provisions of this Agreement or to obtain damages for breach thereof, the prevailing party in such litigation shall be entitled to all costs and reasonable attorney's fees incurred in connection with such action.

28. **Severability**. If any provision of this Agreement, or any portion thereof, is found by any court of competent jurisdiction to be unenforceable or invalid for any reason, such provision shall be severable and shall not in any way impair the enforceability of any other provision of this Agreement.

29. **Entirety of Contract**. This Agreement constitutes the entire agreement between the parties regarding this Agreement and supersedes all previous agreements, promises, representations, understandings and negotiations, whether written or oral, among the parties with respect to the subject matter hereof.

30. **Extensions Authorized.** The Executive Director is delegated authority to execute amendments to extend the term of this Agreement, if needed from time to time.

IN WITNESS WHEREOF, this Agreement was executed by the parties hereto as of the date first above written.

"NVTA"	"CONSULTANT" GHD Inc.
By_____ DANIELLE SCHMITZ, Executive Director	By_____ KAMESH VEDULA, PE, TE, Principal
ATTEST:	
By_____ LAURA SANDERLIN, Board Secretary	By _____ NAME, Title, Signature
Approved as to Form:	
By_____ NVTA General Counsel	

EXHIBIT A

SCOPE OF WORK

CONSULTANT shall provide NVTA with the following services:

Comprehensive update to the original SR 29 CMCP, adopted in 2020. CONSULTANT shall refer to the scope of work (attached).

II. COMPLIANCE WITH GOVERNMENT CODE SECTION 7550. As required by Government Code section 7550, each document or report prepared by CONSULTANT for or under the direction of NVTA pursuant to this Agreement shall contain the numbers and dollar amounts of the Agreement and all subcontracts under the Agreement relating to the preparation of the document or written report. The Agreement and subcontract dollar amounts shall be contained in a separate section of the document or written report. If multiple documents or written reports are the subject of the Agreement or subcontracts, the disclosure section may also contain a statement indicating that the total contract amount represents compensation for multiple documents or written report.

State Route (SR) 29 Comprehensive Multimodal Corridor Plan Update
Scope of Work
February 2026

The SR 29 Comprehensive Multimodal Corridor Plan (CMCP) Update will be a comprehensive update to the original SR 29 CMCP, adopted in 2020. An update is necessary because the current plan is approaching 6 years old, conditions on the SR 29 corridor are rapidly evolving, and new state level regulatory guidance has been adopted. The CMCP update will maintain the existing geographic limits of the 2020 CMCP, include additional public engagement and outreach, update baseline data where available, and reflect updated state guidance. An optional task is included to evaluate an expanded northern study area with the City of Napa. As a result of updated input and guidance, this project will also produce an updated preferred and alternative corridor plan, suite of projects along the corridor, and implementation plan.

It is expected that the consultant team will consist of a transportation engineering and planning firm engaged in multi-modal planning, congestion management, transportation technology, and traffic modeling. The consultant team should also be able to demonstrate a significant understanding of state Climate Action Plan for Transportation Infrastructure (CAPTI 2.0) and SB1 transportation funding programs (Solutions for Congested Corridors) and have existing working relationships with Caltrans District 4 and CTC staff.

The final Comprehensive Multimodal Corridor Plan (CMCP) deliverables must be completed and submitted to NVTA no later than May 14, 2027 to allow sufficient time for review, revisions, and placement on the June 2027 NVTA Board of Directors agenda for formal adoption. The Consultant's scope, schedule, and staffing plan shall be structured to ensure this milestone is achieved without delay.

Specific elements of the 2020 CMCP which require updating include, but are not limited to:

1) Maintain existing 2020 CMCP study limits (see optional task 5 for potential northern expansion analysis).
2) Conducting new public engagement and soliciting input according to updated California Transportation Commission (CTC) CMCP and

Climate Action Plan for Transportation Infrastructure (CAPTI) 2.0 guidance.
3) Validating and updating a model of the SR 29 corridor, including updating baseline conditions and data informing the model, where available.
4) Capturing new and updated funding opportunities for corridor projects.
5) Updating planning horizons to short-, medium-, and long-term timelines.
6) Updating the preferred and alternative corridor plan.
7) Updating and prioritizing the list of corridor solutions.
8) Aligning corridor projects with CAPTI 2.0 guidelines.

The original Study Objectives of the CMCP will be maintained unless public and stakeholder input indicates substantial change is necessary. The Study Objectives are as follows:

Develop a comprehensive multimodal package of prioritized improvements that address the corridor's pre-eminent issues, including:
- Traffic congestion and delay;
- Increased crash risks for all users;
- Lack of low-stress multimodal connectivity;
- Improved transit travel time and reliability.

The 2020 CMCP includes multi-modal improvements and congestion management strategies along the corridor with near and midterm solutions that can be implemented in the next 2-5 years, in addition to longer-term improvements. Longterm strategies and solutions will require additional review and update due to project advancement and proposed changes to the corridor since the previous update, and to comply with changing guidance from state agencies.

The Plan Update will be continuously tracked and monitored by NVTA staff and the Project Management Team made up of an SR 29 Working Group comprised of staff from the following agencies NVTA, City and County of Napa, City of American Canyon and Caltrans Planning, Engineering and Environmental.

Expected products are listed as deliverables.

Task 1: Project Startup

Task 1.1:

Conduct a kick-off meeting with select project management team members to review the approved Scope of Work and discuss expectations**,** including elements of the plan requiring updates, proposed public involvement plan and project schedule with key milestones. Set-up a project team bi-weekly check-in.

Deliverable	**Documentation**
Signed contract between consultant and NVTA	Copy of signed contract
Conduct kick-off meeting	Meeting notes/summary of public involvement plan, project schedule
Bi-weekly check-ins	Calendar Project Team Check-in meetings

Task 2: Ongoing Stakeholder and Community Outreach and Project Oversight

Task 2.1:
Identify key stakeholder groups including affected tribes (if present), local neighborhood and community organizations, and business groups. Identify underserved communities and ensure public engagement plans appropriately include and engage underserved communities along the corridor.

Task 2.2:
NVTA Committee Meetings

Task 2.2.1:
Meet with NVTA Community Advisory Committee (CAC) four (4) times over the course of the project. The CAC includes members that represent a diverse make-up of community members, including underrepresented groups, environmental advocacy, merchant and business associations, seniors, hospitality, agriculture, education, health and individuals nominated by jurisdictions who have an interest in the transportation needs of Napa County. The Committee will review project progress and submit comments to the SR-29 Working Group and Project Management team.

Task 2.2.2:
Meet with the NVTA Technical Advisory Committee (TAC) four (4) times over the course of the project. The TAC is made up of technical staff (public works and planning) from each jurisdiction.

The Committee will review project progress and submit comments to the Staff Working Group and Project Management team.

In addition to public meetings discussed in Task 2.3, NVTA intends to utilize and advertise the CAC and TAC meetings as a forum for public input on the CMCP update.

Task 2.3:
Public Meetings

Consultant shall prepare all public meeting materials in formats consistent with Americans with Disabilities Act (ADA) requirements. Following all public meetings, consultant shall produce and distribute relevant summary reports.

Task 2.3.1:
Promote/Advertise/Conduct no more than two (2) public meetings over the course of the Project. One meeting will be a CMCP Update kickoff meeting to collect initial input from members of the public. One meeting will be to present the draft plan and solicit public input/comments.

NVTA intends to host two meetings at locations along the corridor: one at the south end, anticipated to be in the City of American Canyon, and one at the north end, anticipated to be in the City of Napa. Final meeting venues will be determined by NVTA.

Task 2.3.2:
Prepare presentation materials for NVTA Board, City Council and County Board of Supervisor meetings. Actual presentations will be conducted by NVTA staff or City/County staff. Consultant staff should plan to attend no more than two (2) NVTA Board meetings, and three (3) City Council or Board of Supervisor meetings to support agency staff.

Task 2.4:
Meet with Staff Working Group approximately six (6) times over the course of the study.

Prior to publication of milestone documents, draft documents and supporting data will be reviewed by the Staff Working Group. This group is expected to meet approximately 6 times at key points in the process; review and provide feedback on the plan elements which require

substantial update, review new data analysis and corridor study results, review updated corridor solutions, and review the draft updated CMCP.

Day-to-day work on project documents and meetings will be carried out by the selected consultant, with direct staff support from NVTA.

Deliverable	Documentation
Public Involvement Plan	Public Involvement Plan consistent with Caltrans requirements, contact lists and logs
Community Advisory Committee and Technical Advisory Committee meetings	Presentations/meeting materials
Public Meetings/charrettes	Presentation/meeting materials, attendance lists, agendas, meeting notes
Staff Working Group	Presentation/meeting materials, attendance lists, agendas, project schedule, meeting notes

Task 3: Develop Plan Components

Task 3.1: Evaluate 2020 CMCP and initial public input to develop a strategy to update plan chapters.

Working with Stakeholders (CAC, TAC, jurisdictional staff and others) and the Staff Working Group, the consultant team will review and develop a strategy to update major plan elements/chapters in alignment with current CMCP guidance.

Task 3.2: Validate and Update 2020 CMCP Model.

The consultant will validate and update a currently available model to support data analysis of proposed solutions and projects in the CMCP Update. The consultant, in coordination with NVTA may elect to update the model used in the 2020 CMCP or create a sub-area model from the Solano-Napa Activity-Based Model (SNABM), 2050 plan year.

NVTA and local jurisdictions will support the consultant with updated data and project-level model data, where available. When data is not available from NVTA or a local jurisdiction, consultant will collect updated data.

Task 3.3: Update Corridor Solutions and add, remove, or modify solutions as necessary.

The consultant will utilize updated data, projects, local jurisdiction plans, public and stakeholder input to deliver updated Corridor Solutions as a chapter of the updated CMCP. The consultant will work closely with NVTA and local jurisdictions to ensure that Corridor Solutions are consistent with current adopted local plans, NVTA planning efforts, Caltrans Intersection Safety and Operational Assessment Process (ISOAP) and reflect public input.

The Corridor Solutions chapter must include the following updated information, as found in the 2020 CMCP:

- A menu cataloguing existing projects or programs that have not been fully constructed or implemented and future short- mid- and long-term projects.
- A matrix to determine each project's ability to improve the corridor by advancing one or more of the 7 objectives listed below. The matrix must include ratings for each project based on how well the project accomplishes the objectives listed below.

CMCP objectives include:

a) Improve corridor safety for all travel modes.
b) Reduce traffic congestion and address local access needs.
c) Improve corridor circulation by evaluating pending connections/extension improvements of parallel roadways, improvements to existing mainline corridors, intersection improvements, capacity enhancements or other congestion management strategies.
d) Improve transit access, travel time, and reliability.
e) Increase bike and pedestrian use and safety, including addressing corridor access and crossings.
f) Build upon aesthetic improvements identified in the original CMCP to improve the appearance and cohesiveness of the corridor while ensuring that each jurisdiction remains visually distinct.
g) Upgrade technologies that will improve corridor operations and provide travel information.

The consultant will create or revise estimated costs for each project or program, including total project delivery costs, acquisition of program materials, annual operation and maintenance costs, and funding options.

Task 3.4: High-Level Benefit-Cost and Greenhouse Gas (GHG) Reduction Screening

The consultant shall prepare a high-level, planning-level benefit-cost (B/C) and greenhouse gas (GHG) reduction screening for a subset of proposed corridor projects identified through the CMCP Update. This analysis is intended to support future discretionary grant applications (including, but not limited to, SCCP, ATP, TCEP, LPP, and federal programs) and to provide comparative insight across proposed improvements.

The analysis shall be qualitative to semi-quantitative in nature and shall rely on readily available model outputs, sketch-level assumptions, and established state guidance. It is not intended to replace project-specific benefit-cost analyses required for individual grant applications or environmental documents.

At a minimum, the consultant shall:

- Identify a screened list of candidate projects (e.g., priority short- and mid-term projects) for inclusion in the analysis, in coordination with NVTA.
- Prepare order-of-magnitude benefit and cost inputs, including:
  - Capital and lifecycle cost estimates (consistent with Task 3.3),
  - Travel time savings,
  - Safety benefits (qualitative or quantitative, where feasible),
  - Transit travel time and reliability benefits,
  - Active transportation and accessibility benefits.
- Prepare planning-level GHG reduction estimates, consistent with:
  - CAPTI 2.0 principles,
  - State and regional VMT reduction methodologies,
  - Available outputs from the updated corridor model (Task 3.2), where applicable.
- Summarize results in a comparative matrix or dashboard format, suitable for inclusion in the CMCP and for use as a supporting appendix or reference in future grant applications.
- Clearly document assumptions, limitations, and appropriate use of the analysis to avoid misapplication beyond planning-level purposes.

Results of this task shall inform project prioritization discussions and may be referenced in the Preferred Corridor Plan and Implementation Plan.

Deliverable	Documentation
High-Level Benefit-Cost and GHG Screening	Copy of planning-level benefit-cost and greenhouse gas reduction screening

Memorandum	memorandum
Project Screening Inputs and Assumptions	Summary of cost assumptions, benefit categories, GHG methodologies, and limitations
Comparative B/C and GHG Summary Matrix	Comparative matrix of screened projects suitable for inclusion in the CMCP and future grant applications
CMCP Plan Integration Materials	Draft tables, figures, or appendix content for incorporation into the Preferred Corridor Plan and Implementation Plan

Task 3.5: Update the Preferred Corridor Plan

The consultant will update the Preferred Corridor Plan. The consultant will ensure the Preferred Corridor Plan aligns with other changes in the updated CMCP and meets compliance with all new CTC CMPC and CAPTI 2.0 guidelines.

The consultant will ensure that the Preferred Corridor Plan includes the following topics, as specified in the 2020 CMCP:

a. Recommended programs and projects
b. Funding options and strategy
c. Governance options for multi-jurisdictional programs or projects
d. Economic Impact Analysis of the proposed improvements. The economic impact analysis should include the following:
   i. Use of construction cost estimates and projected gains in worker productivity and reduced delays/congestion and possible net tourism gains (such as transient occupancy tax revenue)
   ii. Impacts to goods movement and freight
   iii. Direct Impacts and estimated employment changes from budget dollars to be spent
   iv. Induced and indirect impacts on business revenues and employment
   v. State and local tax gains

The Consultant will update the Implementation Plan and scoring matrix found in the 2020 CMCP, ensuring all new and updated projects are scored in the matrix. The matrix should continue to use SCCP grant application primary, secondary, and deliverability evaluation criteria.

Deliverable	**Documentation**

Update baseline data	Copy of data sources updated
Revise Summary of Existing Studies and Plans	Summary and Conflict policy Matrix
Economic Impact Analysis	Copy of Economic Analysis in the draft Plan
Update projects and project costs	Copy of project list with included cost estimates, B/C analysis, and GHG evaluation
Update the Preferred Corridor Plan and Implementation Plan	Copy of Draft Corridor Improvement Implementation Plan
Update ranked project list for corridor improvements	Copy of draft Plan
Updated Draft Plan	Modified Draft Plan before final approval based on stakeholder feedback

Task 4: Final Plan Preparation & Public Meeting

Task 4.1:
Prepare final plans based on CAC, TAC, and community input of draft plan.

Task 4.2:
Present final plans at a public meeting before the NVTA Board(s) for acceptance.

Deliverable	**Documentation**
Preparation of final plan(s) for hearing	ADA compliant Copy of final plan(s) and meeting presentation materials

Task 5: Optional Task – Northern Study Area Expansion (City of Napa)

Consultants shall provide a separately identified optional scope and fee to expand the northern study area limits of the CMCP.

This task is optional and may be authorized at NVTA's sole discretion through written authorization. Authorization, if issued, shall amend the contract scope and budget accordingly.

Task 5.1:

If authorized, the consultant shall expand the geographic boundary of the CMCP north to include SR 29 and the following locations within the City of Napa:

- First Street interchange area (west of SR 29); and
- A coordinated evaluation of the following three intersections, to be analyzed collectively as a single improvement program or strategy:
  - Trower Avenue
  - Wine Country Avenue
  - Salvador Avenue

The consultant shall evaluate operational performance, multimodal connectivity, safety considerations, and potential corridor-level improvements for these locations consistent with the methodology applied to the base CMCP study area.

Task 5.2: Data Collection and Model Updates
The consultant shall collect updated traffic, safety, multimodal, and operational data for the expanded northern study area and incorporate this area into the validated corridor model described in Task 3.2.

Task 5.3: Corridor Solutions – Northern Area
The consultant shall:

- Develop and evaluate potential multimodal and operational improvements within the expanded northern study area;
- Integrate those solutions into the Corridor Solutions chapter;
- Include applicable projects in the B/C and GHG screening (Task 3.4), if appropriate.

Task 5.4: Integration into Preferred Corridor Plan
If authorized, improvements within the northern expansion area shall be incorporated into:

- The Preferred Corridor Plan
- The Implementation Plan
- The Project Prioritization Matrix

Deliverable	**Documentation**
Northern Study Area Technical Memorandum	Copy of technical memorandum summarizing data collection, analysis methodology, findings, and recommended improvements for the expanded northern study area
Updated Corridor Model Outputs (if	Summary of model updates,

applicable)	assumptions, and outputs reflecting incorporation of the expanded northern study area consistent with Task 3.2
Revised Corridor Solutions Chapter	Draft updated Corridor Solutions chapter incorporating northern study area improvements, including cost estimates consistent with Task 3.3
Updated Project Screening Results (if applicable)	Revised B/C and GHG screening matrix and supporting assumptions incorporating northern study area projects, consistent with Task 3.4
Revised Preferred Corridor Plan and Implementation Plan (if applicable)	Draft plan sections and updated scoring matrix reflecting incorporation of authorized northern study area improvements

EXHIBIT B

CONSULTANT PROPOSAL

(ATTACHED)

NAPA VALLEY TRANSPORTATION AUTHORITY

RFP 26-R02 COST PROPOSAL

INSTRUCTIONS
1) The total cost of all items combined should be a not-to-exceed cost proposal.
2) Proposer can edit the spreadsheet and add additional detail as necessary.
3) Attach Rate Sheet

Tasks	Total Unit	Number of Units	TOTAL COSTS	Comments
Task 1 Project Startup	**$20,986**	**1**	**$20,986**	
Project Startup	$20,986	1	$20,986	
Task 2 Ongoing Stakeholder & Community Outreach & Project Oversight	**$52,230**	**4**	**$52,230**	
Identify Stakeholders	$5,432	1	$5,432	
NVTA Committee Meetings	$12,434	1	$12,434	
Public Meetings	$27,764	1	$27,764	
Staff Working Group Meetings	$6,600	1	$6,600	
Task 3 Develop Plan Concepts	**$152,232**	**5**	**$152,232**	
Plan Update Strategy	$9,559	1	$9,559	
Validate and Update 2020 CMCP Model	$34,976	1	$34,976	
Update Corridor Solutions	$24,481	1	$24,481	
High-Level Benefit-Cost and GHG Reduction Screening	$53,072	1	$53,072	
Update Preferred Corridor Plan	$30,145	1	$30,145	
Task 4 Final Plan Preparation & Public Meeting	**$26,010**	**2**	**$26,010**	
Prepare Final CMCP	$21,579	1	$21,579	
Present Final CMCP to NVTA Board	$4,431	1	$4,431	
Subtotal Tasks 1-4			**$251,458**	
Optional Task 5 Northern Study Area Expansion (City of Napa)	**$98,485**	**4**	**$98,485**	
Expand Corridor	$5,492	1	$5,492	
Data Collection and Model Updates	$31,054	1	$31,054	
Corridor Solutions - Northern Area	$12,928	1	$12,928	
Integration into Preferred Corridor Plan	$49,010	1	$49,010	
TOTAL COST			**$349,943**	

****** FIRM'S DETAILED COST PROPOSAL ATTACHED ******

April 15, 2026
NVTA Board Agenda Item 9.4
Continued From: New
Action Requested: APPROVE

NAPA VALLEY TRANSPORTATION AUTHORITY
Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Addrell Coleman, Associate Planner
(707) 259-8235 / Email: acoleman@nvta.ca.gov

SUBJECT: REVISED Resolution No. 26-01 Adopting the Transportation Fund for Clean Air (TFCA) Program Manager Expenditure Plan for Fiscal Year End (FYE) 2027

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board approve revised Resolution No. 26-01 (Attachment 1) adopting the Transportation Fund for Clean Air (TFCA) 40% Fund Draft Expenditure Plan for Fiscal Year Ending (FYE) 2027 (Attachment 1, Exhibit A) which includes the Napa County Bikeways program FYE 2027 allocation.

COMMITTEE RECOMMENDATION

On February 5, 2026, the Technical Advisory Committee reviewed the Transportation Fund for Clean Air (TFCA) 40% Fund Draft Expenditure Plan for Fiscal Year Ending (FYE) 2027 and recommended that NVTA Board of Directors approve adopting the FYE 27 Expenditure Plan.

EXECUITVE SUMMARY

Following NVTA's initial Board approval and submittal of the TFCA Expenditure Plan on February 18, 2026, the Bay Area Air Quality Management District (Air District) issued updated requirements and instructions for the Expenditure Plan worksheet. The Air District requested that NVTA revise and resubmit the worksheet to align with the updated requirements. These revisions are administrative in nature and do not change the overall funding amounts or program intent. Following Board approval and circulation of signatures, the revised Expenditure Plan will be resubmitted to the Air District.

FISCAL IMPACT

A total of $281,976 in TFCA Program Manager funds is available for program administration and projects, and $1,000,000 is available for Bikeways Program projects.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION*:* The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

BACKGROUND

NVTA programs TFCA funds over a three-year rolling period to improve project planning efficiency, particularly for larger projects. Funds programmed in the first year of the cycle have a firm commitment under the annually adopted expenditure plan. Funds for the subsequent years are updated and confirmed each February prior to the start of the applicable fiscal year, based on the fund estimate provided at that time. Funds for year three (FYE 2027) are now confirmed, with additional funding available for programming. This is the final year of this program cycle, and a Call for Projects for the next cycle of funding (FYE 2028-2030) will be held next year. Table 1 below provides an overview of all projects planned for fiscal years 2025–2027.

Table 1: Proposed FYE 2025-2027 TFCA 40% Program Project List

FYE 2025-2027 TFCA Revenues and Expenditures	Program Amount Year 1 (FYE 2025)	Program Amount Year 2 (FYE 2026)	Program Amount Year 3 (FYE 2027)
Administration Costs for FYE 2025-27	$10,166	$11,267	$12,959
40% Funds Available for Programming	$196,000	$209,299	$269,017
Total Revenue	**$206,166**	**$ 220,566**	**$ 281,976**

Specifically, any unprogrammed funds could be reallocated to another county if not programmed. As noted during the last call for projects, staff has encouraged jurisdictions to maintain a running list of cost-effective projects that can be quickly programmed should additional funds become available. This ensures readiness and avoids the risk of losing funds.

As shown in Table 2 below, the Bay Area Air District has provided a one-time allocation for bikeway and bike parking projects for FYE 2027. Each county received a base allocation of $1,000,000, with additional funding above the base amount distributed based on each county's proportionate share of fee-paid vehicle registrations. Bikeway and bike parking funds are subject to the same policies under the 40% program guidelines, cost-effectiveness limits, and expenditure timelines as other TFCA-funded projects. Action on this item is limited to approval of the FYE 2027 Expenditure Plan. NVTA staff will conduct a Call for Projects for bikeway and bike parking funding at a future date.

Table 2: Proposed FYE 2027 TFCA 40% Bikeways Program

FYE 2027 TFCA Revenues and Expenditures	Program Amount (FYE 2027)
Bikeway Funds Available for Programming	$1,000,000
Total Revenue	**$1,000,000**

TFCA Basic Eligibility

1. Reduction of emissions
2. TFCA cost-effectiveness
3. Eligible recipients (Public agencies or public agencies applying on behalf of non-public entities)
4. Consistent with existing plans and programs
5. Environmental clearance

TFCA Project Eligibility

1. Bicycle Facility Improvements
2. Arterial Management
3. Transit or Vanpool Incentive Programs
4. Shuttle/Vanpool Feeder Program
5. Clean Air Pilot or demonstration projects

ALTERNATIVES

The Board could choose not to approve the revised FYE 2027 Expenditure Plan, and program funds could be reallocated to projects in another county.

COUNTYWIDE PLAN GOALS MET BY THIS PROPOSAL

Goal 1: Serve the transportation needs of the entire community regardless of age, income or ability.
The TFCA Program Manager Funds provide an opportunity to fund sustainable transportation projects, such as bicycle and pedestrian projects, clean vehicles and vehicle charging infrastructure or shuttle projects to serve a wide variety of local transportation needs.

Goal 5: Minimize the energy and other resources required to move people and goods
The TFCA funded projects improve air quality and reduce traffic congestion by providing sustainable transportation options throughout the region.

ATTACHMENT

1) Revised Resolution No. 26-01

Revised 4/15/26
Adopted 2/18/26

REVISED

RESOLUTION No. 26-01

A RESOLUTION OF THE NAPA VALLEY TRANSPORTATION AUTHORITY (NVTA) ADOPTING THE TRANSPORTATION FUND FOR CLEAN AIR (TFCA) PROGRAM MANAGER EXPENDITURE PROGRAM FOR FISCAL YEAR END (FYE) 2027

WHEREAS, the Bay Area Air District (BAAD) has imposed a vehicle license fee as allowed under Assembly Bill 434 to implement actions that will help reduce harmful auto emissions; and

WHEREAS, that program is known as the Transportation Fund for Clean Air Program Manager funds; and

WHEREAS, Assembly Bill 434 calls for the designation of an overall program manager to receive forty percent of the fees generated in the county to be expended for the improvement of air quality; and

WHEREAS, the Napa Valley Transportation Authority (NVTA) has been designated the overall program manager for Napa County; and

WHEREAS, has been also awarded a one-time allocation for TFCA Bikeways Program as part of the FYE 27 Expenditure Plan; and

WHEREAS, the TFCA Program requires at least one public meeting each year for the purpose of adopting criteria for the expenditure of funds consistent with BAAD's Adopted TFCA County Program Manager Fund Policies; and

WHEREAS, the NVTA held a public meeting on February 18, 2026, to adopt the criteria for the expenditure of TFCA funds; and

WHEREAS, Subsequent to NVTA's approval and submittal, the BAAD issued updated guidance and instructions for completing the TFCA Expenditure Plan worksheet, requesting NVTA revise and resubmit; and

WHEREAS, the NVTA held a public meeting on April 15, 2026 to revise the criteria for the expenditure of TFCA funds.

NOW THEREFORE BE IT RESOLVED by the Board of Directors that

1. The foregoing recitals are true and correct.

2. Staff is directed to finalize and submit the revised FYE 2027 Expenditure Plan for Napa County, as shown in Exhibit "A".

3. The previously approved expenditure plan, adopted on February 18, 2026, is attached as Exhibit "B" for reference.

4. The Executive Director or her designee is authorized to submit to or request all necessary information from other agencies on behalf of the NVTA, and to execute any other documents or certifications to gain and expend these funds.

Passed and adopted this day of April 15, 2026.

_____ Ayes
Mark Joseph, NVTA Chair

Nays:

Absent:

ATTEST:

_____
Laura Sanderlin, NVTA Board Secretary

APPROVED:

_____
Osman Mufti, NVTA General Counsel

EXHIBIT "A"
REVISED EXPENDITURE PLAN

Summary Information

Agency Name:	**Napa Valley Transportation Authority**
Address:	**625 Burnell Street, Napa CA 94559**

	Total Amount of Passthrough Funds	Program Fund	Admin Funds	Provided by	Notes
Estimate for this coming fiscal year (2026-2027):	$205,390	$192,553	$12,837	Air District	
County Adjustment:	$76,587	$76,464	$123		
Reprogrammed	*$56,915*	*$52,862*	*$4,053*	NVTA	Reprogrammed Funds from 23NAP03 (Project cancelled) and 25NAP01 (Project closed under budget)
Carryover	*$4,902*	*$4,779*	*$123*	NVTA	
Interest	*$14,770*	*$14,770*	*$0*	NVTA	Total interest earned in CY 2025
Other County Adjustments	*$0*	*$4,053*	*($4,053)*	NVTA	Uxpended FYE 25 adminstraive funds for projects
Subtotal:	**$281,976**	**$269,017**	**$12,959**		
Additional Bikeway & Bike Parking Funding	$1,000,000	$1,000,000	$0	Air District	The counties may adjust this amount down if they would like to request a lower amount than the maximum
General	$1,000,000	$1,000,000	$0	Air District	Reprogrammed the 6.25% admin share so that the full $1M in Bikeways general funds is used for projects.
AB617	$0	$0	$0	Air District	
Total Available for Programming	**$1,281,976**	**$1,269,017**	**$12,959**		

Percentage of Estimated Revenue allocated to Administrative Costs (maximum of 6.25%):	6.25%

I certify that, to the best of my knowledge, the information contained in this application is complete and accurate.

Executive Director Signature Date

Provided for reference purposes					
Estimated from previous fiscal year (2024-2025):	*$200,700*	*$188,156*	*$12,544*	*Air District*	*This is the amount of TFCA 40% funds that was estimated to be available for the counties in Fiscal Year 2024-2025. It is from line 1 of the FYE 2025 expenditure plan*
Actual for previous fiscal year (2024-2025):	*$205,602*	*$192,752*	*$12,850*	*Air District*	*This is the actual TFCA 40% funds that was paid to the counties for Fiscal Year 2025. It is the sum of the checks sent in Dec and Jun*
Estimate for the current fiscal year (2025-2026):*	*$201,600*	*$189,000*	*$12,600*	*Air District*	** Not used in programming calculation.*

EXHIBIT "B"
ORIGINAL EXPENDITURE PLAN

Summary Information

Agency Name: **Napa Valley Transportation Authority**

Address: **625 Burnell Street, Napa CA 94559**

	Total Amount of Passthrough Funds	Program Fund	Admin Funds	Provided by	Notes
Estimate for this coming fiscal year (2026-2027):	$205,390	$192,553	$12,837	Air District	
County Adjustment:	$4,902	$76,587	$0		
Reprogrammed		*$52,862*		NVTA	Reprogrammed Funds from 23NAP03 (Project cancelled) and 25NAP01 (Project closed under budget)
Carryover	*$4,902*	*$4,902*		NVTA	
Interest		*14,770*		NVTA	Total interest earned in CY 2025
Other County Adjustments		*4,053*		NVTA	Uxpended FYE 25 adminstraive funds for projects
Subtotal:	**$210,291**	**$269,140**	**$12,837**		
Additional Bikeway & Bike Parking Funding	$1,000,000	$937,500	$62,500	Air District	The counties may adjust this amount down if they would like to request a lower amount than the maximum
General	$1,000,000	$937,500	$62,500	Air District	
AB617	$0	$0	$0	Air District	
Total Available for Programming	**$1,210,291**	**$1,206,640**	**$75,337**		

Percentage of Estimated Revenue allocated to Administrative Costs (maximum of 6.25%):	6.25%

I certify that, to the best of my knowledge, the information contained in this application is complete and accurate.

Executive Director Signature Date

Provided for reference purposes					
Estimated from previous fiscal year (2024-2025):	*$200,700*	*$188,156*	*$12,544*	*Air District*	*This is the amount of TFCA 40% funds that was estimated to be available for the counties in Fiscal Year 2024-2025. It is from line 1 of the FYE 2025 expenditure plan*
Actual for previous fiscal year (2024-2025):	*$205,602*	*$192,752*	*$12,850*	*Air District*	*This is the actual TFCA 40% funds that was paid to the counties for Fiscal Year 2025. It is the sum of the checks sent in Dec and Jun*
Estimate for the current fiscal year (2025-2026):*	*$201,600*	*$189,000*	*$12,600*	*Air District*	** Not used in programming calculation.*

April 15, 2026
NVTA Agenda Item 9.5
Continued From: New
Action Requested: APPROVE

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Arcie Alvarado, Administrative Assistant (707) 259-8780 / Email: aalvarado@nvta.ca.gov

SUBJECT: Active Transportation Advisory Committee (ATAC) Member Appointment

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RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board approve the City of Calistoga's appointment of Aaron Heth, to serve as a member on the NVTA Active Transportation Advisory Committee.

COMMITTEE RECOMMENDATION

None.

BACKGROUND

The NVTA Board will appoint and approve Committee members to serve and represent in the Active Transportation Advisory Committee. Per ATAC bylaws, the committee serves in an advisory capacity to advise the NVTA Board on the development of bicycle and pedestrian facilities. Members of the Committee will provide advice, comments, and suggestions for NVTA's projects and plans.

The member term of current representative for the City of Calistoga, Aaron Heth, is due to expire. Heth expressed interest in being appointed to serve on the ATAC for another term. Heth was approved to serve for another term at the regular City Council meeting held on March 31st for the City of Calistoga.

The ATAC consists of eleven (11) members from six (6) jurisdictions: City of Napa, County of Napa, City of American Canyon, Town of Yountville, City of St. Helena, and City of Calistoga.

ALTERNATIVES

Without the appointment, the City of Calistoga ATAC position would remain vacant.

STRATEGIC GOALS MET BY THIS PROPOSAL

Goal 1 – Serve the transportation needs of the entire community regardless of age, income, or ability.

The ATAC is comprised of members that represent the diverse make-up of Napa Valley to assist NVTA staff in developing active transportation plans and programs.

ATTACHMENT(S)

None.

April 15, 2026
NVTA Agenda Item 9.6
Continued From: New
Action Requested: APPROVE

NAPA VALLEY TRANSPORTATION AUTHORITY
Board Agenda Memo

TO: Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Joanne Au, Senior Accountant
(707) 259-8704 / Email: jau@nvta.ca.gov

SUBJECT: Resolution No. 26-03 Authorizing the execution of the Certifications and Assurances and Authorized Agent Forms for the Low Carbon Transit Operations Program (LCTOP) Cycles A and B

RECOMMENDATION

That the NVTA Board approve Resolution No. 26-03 (Attachment 1) for the FY 2025-26 Low Carbon Transit Operations Program (LCTOP Cycles A and B) Zero Emission Bus project.

COMMITTEE RECOMMENDATION

None

BACKGROUND

In 2018, the California Air Resources Board (CARB) approved the Innovative Clean Transit regulation, which requires small public transit providers, like NVTA, with fewer than 100 buses to transition to zero-emission buses (ZEBs) beginning in June of 2023 and reach a fully ZEB fleet by 2040. Early acquisition of zero emission buses prior to the regulation going into effect allows NVTA to use certain fund sources to replace its existing fleet with ZEBs that would otherwise be unavailable. Those funds sources include LCTOP and the Hybrid Voucher Incentive Program (HVIP) funds. This approach significantly reduces the cost of electrifying the Vine Transit fleet.

MTC allocated $248,461 (population-based allocation) to NVTA for Cycle A, and $20,079 was apportioned to NVTA on the revenue formula overseen by Caltrans. An estimated $124,000 will be provided by MTC for population-based allocation for Cycle B, which brings the estimated total to $392,540 for both Cycle A&B. Caltrans requires that recipients provide an approved resolution to receive these funds each cycle in the fiscal year.

Table 1 provides a summary of the funding plan with identified fund sources and Table 2 shows the expenditure plan to acquire two 30' battery electric buses.

Table 1: Funding Plan

Fund Source	Amount
LCTOP FY2025-26 Cycle A&B (estimated)	**$392,540**
ARB Hybrid Voucher Incentive Program	312,000
TFCA	872,600
State of Good Repair	20,632
TDA	540,228
Total Funding	**$2,138,000**

Table 2: Expenditure Plan

Capital Project	Amount
Two (2) BYD Electric Buses	$1,860,000
Upgrades, Taxes	278,000
Total Expenses	**$2,138,000**

ALTERNATIVES

Without a Resolution, NVTA will not receive its FY 2025-26 LCTOP funds hindering the agency's fleet electrification goals, and/or negatively impacting the agency's other fund sources.

COUNTYWIDE GOALS MET BY THIS PROPOSAL

Goal 3: Use taxpayer dollars efficiently.

LCTOP funding supplements the budget for ZEB purchases. Without this funding source, NVTA would need to use TDA funds as a local match - funding that could be used for operations or other transit projects.

Goal 5: Minimize the energy and other resources required to move people and goods.

The agency's Short Range Transit Plan and Countywide Transportation Plan accelerate the replacement of the diesel and gasoline vehicles with zero emission vehicles. The LCTOP funding will help the agency meet that goal.

ATTACHMENT

(1) Resolution No. 26-03

RESOLUTION No. 26-03

AUTHORIZATION FOR THE EXECUTION OF THE
CERTIFICATIONS AND ASSURANCES AND AUTHORIZED AGENT FORMS
FOR THE LOW CARBON TRANSIT OPERATIONS PROGRAM (LCTOP Cycle A & B)
FOR THE FOLLOWING PROJECT:
NVTA Zero Emission Bus Project estimated for $392,540

WHEREAS, the Napa Valley Transportation Authority is an eligible project sponsor and may receive state funding from the Low Carbon Transit Operations Program (LCTOP) for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, Senate Bill 862 (2014) named the Department of Transportation (Department) as the administrative agency for the LCTOP; and

WHEREAS, the Department has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors (local agencies); and

WHEREAS, the Napa Valley Transportation Authority wishes to delegate authorization to execute these documents and any amendments thereto to Danielle Schmitz, Executive Director; and

WHEREAS, the Napa Valley Transportation Authority wishes to implement the following LCTOP project(s) listed above.

NOW THEREFORE BE IT RESOLVED, by the Board of Directors of the Napa Valley Transportation Authority that the fund recipient agrees to comply with all conditions and requirements set forth in the Certification and Assurances and the Authorized Agent documents and applicable statutes, regulations and guidelines for all LCTOP funded transit projects.

NOW THEREFORE, BE IT FURTHER RESOLVED that Danielle Schmitz, Executive Director of the Napa Valley Transportation Authority, be authorized to execute all required documents of the LCTOP program and any Amendments thereto with the California Department of Transportation.

NOW, THEREFORE, BE IT FURTHER RESOLVED by the Board of Directors of the Napa Valley Transportation Authority that it hereby authorizes the submittal of the following project nomination(s) and allocation request(s) to the Department in FY2025-2026 LCTOP funds:

Project Name: NVTA Zero Emission Bus Project
Short description of project: NVTA will purchase two (2) 30' zero-emission battery electric buses manufactured by BYD for use on routes throughout Napa County.
Amount of LCTOP funds request estimated: $392,540.
Benefit to a Priority Populations: AB 1550 Census Tracts - 6055202000, 6055201601, 6055201200, 6055200704, 6055200501, 6055200505, 6055200503 & 6055200301.
Amount to benefit Priority Populations: $392,540.
Contributing Sponsors (if applicable): Metropolitan Transportation Commission (MTC)

Passed and adopted the 15th day of April 2026.

_____
Mark Joseph, NVTA Chair

Ayes:

Nays:

Absent:

ATTEST:

_____
Laura Sanderlin, NVTA Board Secretary

APPROVED:

_____
Osman Mufti, NVTA Legal Counsel

April 15, 2026
Agenda Item 9.7
Continued From: New
Action Requested: INFORMATION

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Danielle Schmitz, Executive Director
(707) 259-5968 / Email: dschmitz@nvta.ca.gov

SUBJECT: Federal and State Legislative Update

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board receive the Federal Legislative update, State Legislative Update, and the updated Bill Matrix for April 2026.

BACKGROUND

AB 1890 (Aguiar-Curry): County of Napa Farmworker Housing Funding:

NVTA Position: Support

Support for this bill will increase the amount of funding the Department of Housing and Community Development awards Napa County Housing Authorities farmworker centers to $500,000 annually. This bill is consistent with NVTA's legislative platform of supporting land use and housing policies that benefit Napa County.

SB 1087 (Cabaldon): Transportation planning: sustainable communities strategies: transportation funding programs.

NVTA Position: Watch

Since 2008, Senate Bill (SB) 375 (Steinberg) has required each of California's 18 metropolitan planning organizations (MPOs) to develop a strategy to reduce greenhouse gas emissions from passenger vehicles, including planning for adequate housing near jobs and transit.

Senator Cabaldon (D- Napa) is spearheading SB 1087 to move from planning to implementation. MTC-ABAG is co-sponsoring the bill with the other "Big 4" MPO partners:

Southern California Association of Governments (SCAG), the San Diego Association of Governments (SANDAG), and the Sacramento Area Council of Governments (SACOG).

SB 1087 includes several changes intended to "modernize" the SB 375 requirements regarding the development and implementation of Sustainable Communities Strategies (SCS). This measure is being co-sponsored by MTC in partnership with the other large metropolitan planning organizations.

While additional changes are being considered, as amended on March 25th, SB 1087 makes the following changes.

- Shift the SCS planning cycle from every four years to every eight years.
- Shifts oversight of the SCS plans from CARB to the CTC.
- Exempts the development of the SCS, Regional Transportation Plan, or an alternative SCS from CEQA if specified public outreach measures are met.
- Requires projects receiving either Trade Corridor Enhancement Program funds or Solutions for Congested Corridor Funds must be consistent with the SCS and RTP.
- Requires greater transparency in how CARB develops the GHG reduction targets for a region.

NVTA is taking a watch position until further negotiations between the big 4 MPOs are finalized about the distribution of Affordable Housing Sustainable Communities (AHSC) funds and SCCP funds in relation to eligibility of Napa County projects. NVTA staff is advocating for Napa projects to be eligible and prioritized for the Senate Bill 1 programs.

AB 2168 (Wicks) – Active Transportation Program Guidelines

NVTA Position: Watch

AB 2168 was recently amended to contain a proposal sponsored by the California Bicycle Coalition. Staff has some concerns with the amendments around developing guidelines to incentivize the use of the State Transportation Improvement Program (STIP) funds for large-scale ATP projects and penalties for applicants that receive ATP funds but have not used the funds in a timely manner. Staff have concerns with this stipulation because past Napa County projects needed time extensions and the STIP and ATP programs already have deadlines for timely use of funds – more deadlines and penalizations are unnecessary.

Federal Update:

CFM Advocates are actively pursuing federal earmark funding for two Napa County projects—$2 million for the American Canyon SR-29 corridor improvements and $1.3 million for Vine Transit bus shelter safety upgrades. Meetings with congressional offices

are ongoing to strengthen support, and decisions on whether these requests advance to the Appropriations Committee are expected soon.

At the national level, transportation advocates are pushing for strong funding of the federal Buses and Bus Facilities grant program, requesting $2.2 billion annually. This effort has broad bipartisan support, with over 50 members of Congress backing a letter to maintain funding. This is especially important as Congress prepares a long-term transportation reauthorization bill that will set funding levels for the next five years.

A partial Department of Homeland Security shutdown is causing operational disruptions, including airport staffing issues, though negotiations are underway to resolve it. Meanwhile, Congress is considering using budget reconciliation, a process requiring only a simple majority, to advance funding for defense, border security, and election-related policies, though internal political divisions remain.

Finally, a proposed rule from the General Services Administration could have major implications for federal grant recipients. The rule would require all entities to re-register in SAM.gov and agree to new federal compliance certifications under penalty of law. If implemented, this could create new nationwide conditions for accessing federal funding. The proposal is still under review, and organizations are encouraged to submit comments before the deadline.

State Update:

February revenues modestly exceeded projections, and year-to-date revenues are ahead by $7 billion. However, this positive trend is tempered by looming financial pressures, including the need to backfill significant federal funding losses tied to H.R. 1, particularly affecting county health systems. Additionally, economic uncertainty linked to geopolitical tensions could negatively impact future state revenues.

The Governor has reshaped the California Air Resources Board (CARB) board through several appointments and replacements, including removing one nominee late in the confirmation process and appointing new members. These changes may influence future climate and emissions policy decisions, though the exact motivations behind some shifts remain unclear.

Caltrans is forming a California Transit Advisory Committee (CTAC) to provide strategic and technical input on transit planning and implementation, with applications open through April. This effort stems from SB 960 (2024), which requires stronger integration of transit and “complete streets” into state planning. In parallel, Caltrans is creating a new Deputy Director of Transit position and reestablishing its Division of Mass Transportation, signaling a renewed emphasis on improving transit speed, reliability, and connectivity, particularly through priority infrastructure like dedicated bus lanes and signal prioritization.

ATTACHMENTS

1) April 2026 Federal Update (CFM Advocates)
2) April 2026 State Update (Platinum Advisors)
3) April 2026 State Bill Matrix (Platinum Advisors)

To: NVTA Board
From: Joel Rubin and Tara Kroft, CFM Advocates
Re: March 2026 Washington Update

Latest Washington Activity

Earmark Funding Progress

Working with members of the NVTA team, CFM has submitted requests for Congressionally Directed Spending (CDS)/Community Project Funding (CPF) for $2 million for the American Canyon State Route 29 Corridor Improvements project and $1.3 million for the Vine Transit Bus Shelter Safety Improvements project. We submitted requests to the office of Mike Thompson and the offices of Senators Alex Padilla and Adam Schiff.

Following our submission of these requests, Kate and Tara scheduled meetings with staff from Senator Schiff and Padilla's offices. During the meeting with Senator Schiff's office, they shared the importance of these projects for communities throughout Napa County, and they will do the same during their meeting with Senator Padilla's office next week. This continued engagement helps keep the projects top of mind for Congressional staff as they review applications and provides time to answer any questions from staff that arise.

We expect to hear whether the CDS/CPF applications are included on the members' requests to the Appropriations Committee in the next few weeks. If NVTA's representatives submit the requests, the Appropriations Committee will then decide whether to include the requests in the final bill.

Relevant Bus Coalition Work

In addition to opening application portals for earmark funding, members of Congress also accepted programmatic requests, or requests for funding specific accounts or programs. On behalf of the Bus Coalition, CFM submitted almost 150 programmatic requests for full funding, at the level of $2.2 billion/year for the Buses and Bus Facilities (5339) grant program, the most important competitive capital funding program for bus transit systems nationwide. This is a grant program that NVTA has benefitted from previously and will hopefully continue to benefit from.

The Bus Coalition also issued a call to action for members to reach out to their Congressional delegation about the importance of this funding. We worked with the offices of Representatives Rick Larsen (D-WA) and Darin LaHood (R-IL), co-chairs of the bipartisan Congressional Bus Caucus, to write a letter to the Appropriations Committee about maintaining this funding. The letter currently has over 50 co-signers, indicating broad support for this funding.

Advocating for full funding for the Buses and Bus Facilities Program is particularly important this year. As Congress drafts a transportation reauthorization bill that will set funding levels for the next five years, it is critical to show that $2.2 billion is a baseline level for bus funding that has broad, bipartisan support.

Washington Update: DHS Shutdown Causes Disruption with Uncertain Deal Future, Potential Updates to Award Management System May Have Large Consequences

Path Emerges to End DHS Shutdown As Disruptions Multiply

Senators from both parties expressed renewed confidence Monday evening that they are nearing an agreement to end the month-long partial shutdown of DHS. The urgency is heightened by Senate Majority Leader John Thune's (R-SD) warning that the upcoming spring recess could be canceled if a deal is not reached by the week's end.

Operational impacts are becoming increasingly visible. ICE agents have now been deployed to at least 14 airports nationwide to assist with security functions, despite not being formally trained for those roles. TSA staffing shortages—driven in part by unpaid workers staying home—have led to longer wait times, and Border Czar Tom Homan indicated that this presence is likely to expand. In testimony before the House Homeland Security Committee Acting TSA Administrator Ha Nguyen McNeill also said that the shutdown will damage training in preparation for the World Cup this summer.

Following a White House meeting with President Trump, Senate Republicans suggested that a framework is taking shape that would allow thousands of furloughed DHS employees to resume receiving paychecks. The leading proposal would include a several ICE reforms Democrats have negotiated with the administration while separating Immigration and Customs Enforcement (ICE) funding from the broader DHS appropriations bill (H.R. 7147), which previously stalled after controversy surrounding enforcement-related incidents. In turn, Republicans would plan to pursue additional funding for ICE in a broader reconciliation package (see below).

Senate Appropriations Chair Susan Collins (R-ME) noted she is "more optimistic" that DHS will be funded by the end of the week. However, Democrats remain cautious, emphasizing the need to review legislative text before committing to a deal. While there is some agreement that isolating ICE funding may provide a viable path forward, President Trump has publicly suggested that any deal could hinge on Democratic support for the SAVE America Act, an elections measure that has yet to secure bipartisan backing. Senate Minority Leader Chuck Schumer has said that Democrats have sent their latest counteroffer on March 25, but the counteroffer was heavily criticized by Thune, who said that Democrats were "going in circles."

Adding another dynamic to negotiations, the Senate confirmed Senator Markwayne Mullin (R-OK) as the next Secretary of Homeland Security in a 54–45 vote. While the vote was largely along party lines, two Democrats supported the nomination, and some opponents acknowledged Mullin may serve as a more predictable negotiating partner than his predecessor.

Reconciliation Reemerges as Legislative Vehicle

In a notable shift, Senate leadership is increasingly considering the use of budget reconciliation to advance key elements of the Republican agenda, including additional defense funding in part to support war efforts in Iran, ICE and border security funding, and election-related legislation such as voter ID requirements.

While reconciliation had previously been viewed as unlikely this year, it now presents an attractive option given the Senate's 60-vote threshold for most legislation. Through reconciliation, Republicans could advance certain measures with a simple majority. However, this path is not without challenges, as internal GOP divisions remain, particularly among members wary of the political and procedural implications of another reconciliation effort.

Additionally, any provisions included in a reconciliation bill must comply with the Byrd Rule, meaning they must have a direct impact on federal spending or revenue. This raises significant uncertainty about whether major components of the SAVE Act—or similar policy-driven measures—would survive parliamentary review.

GSA Proposal Could Reshape Federal Funding Requirements

Separately, the end of the public comment period is approaching for a General Services Administration (GSA) proposed rulemaking that would update requirements within SAM.gov, the federal system used for grant eligibility and registration. Under the proposed rule, all entities would be required to re-register and agree to a new set of government-wide certifications. These include compliance attestations related to federal anti-discrimination laws, as well as statements tied to immigration and other policy priorities. Notably, these certifications would be made under penalty of federal law and would apply broadly across federal funding programs.

It is important to note that proposals of this scope are likely to face significant legal and administrative scrutiny, and the ultimate outcome remains uncertain. The timing for implementation could be several months, if not a year or more.

Given that SAM registration is a prerequisite for federal funding, these changes could effectively establish new universal conditions for participation in federal programs. We are actively coordinating with national organizations—including the U.S. Conference of Mayors, National League of Cities, and National Association of Counties—which are

developing joint comments in response to the proposal. We will share those comments once they are finalized, and you may consider submitting a similar response.

The rule, which can be found by clicking this link, is currently open for public comment until March 30, 2026. While the decision to engage is entirely up to each organization, submitting comments can be an effective way to help inform the federal process. We would be happy to share additional materials or assist in preparing comments. We will continue to monitor this proposal closely and will keep you updated as the process moves forward.

Contact Information: Joel Rubin – 301.461.1532 (mobile)
Tara Kroft – 971.420.4184 (mobile)

PLATINUM | ADVISORS

March 30, 2026

TO: Danielle Schmitz, Executive Director
Napa Valley Transportation Authority

FR: Steve Wallauch
Platinum Advisors

RE: Legislative Update

Fiscal Outlook: February revenues continue the trend of exceeding the January forecast, but barely. Total revenues beat projections by only $154 million. While personal income tax receipts fell short of projections by $395 million, this was offset by overages of $362 million and $180 million in corporation and sales taxes, respectively. For the fiscal year to date revenues exceed projections by $7 billion.

The biting reality of these bright revenue numbers will be the need to backfill the impact of H.R. 1. The loss of federal funds will significantly impact county health systems. The California State Association of Counties (CSAC) is seeking $6.4 billion over the next two fiscal years to offset this loss. In addition, the current stock market correction in response to the war with Iran will directly impact the state's revenue outlook.

California Air Resources Board (CARB) Shuffle: With a major vote on revising the Cap & Invest regulations on the horizon, the Governor has made several new appointments to the California Air Resources Board. The Senate finally confirmed last month two appointees made last year, Sonoma County Supervisor Lynda Hopkins and Riverside Mayor Patricia Lock Dawson.

However, the Governor rescinded the appointment of San Luis Obispo County Supervisor Dawn Ortiz-Legg shortly before the confirmation process was completed. Supervisor Ortiz-Legg was replaced by Buellton Mayor David Silva. Mayor Silva is expected to be confirmed next month. The reason behind rescinding the appointment is unclear, but may be related to Supervisor Ortiz-Legg's support for Diablo Canyon Nuclear Power Plant, which is in her district. In addition, Governor Newsom recently appointed Paula Stigler Granados to the board, replacing San Diego Mayor Todd Gloria. When Mayor Gloria was appointed last year, he only committed to serving for one year.

Transit Advisory: Caltrans is creating the California Transit Advisory Committee (CTAC) and is currently requesting applications. The CTAC will consist of 20 members that will be selected for 2-year appointments. The CTAC would meet on a quarterly basis. The deadline to apply is April 30th.

The purpose of this committee is to provide Caltrans with strategic input and technical guidance on Caltrans' transit efforts. The applications are not limited to representatives from public transit operators, but may also include those with experience in planning, designing, maintaining, evaluating, and delivering public transit programs and facilities for transit users, and first and last-mile travelers.

The creation of this committee was instigated by SB 960 (Wiener) enacted in 2024, which requires Caltrans to incorporate complete street elements into its planning documents. SB 960 also requires Caltrans to develop a transit policy, transit performance measures for the state highway system, and identify specific responsibilities for district offices in supporting the reliable, predictable, and fast movement of transit vehicles on the state highway system.

In addition to the CTAC, Caltrans Director Dina El-Tawansy has created a new position within Caltrans. Applications are currently being accepted for the first Deputy Director of Transit & Mass Transportation. The creation of this position also includes restoring the Division of Mass Transportation. The goal is to create a team focused on providing faster, more reliable, and connected transit service statewide. These actions are outlined in a new report, The Director's Policy on Transit. This report outlines Caltrans' vision of delivering transit priority projects on state highways and enhancing its role in developing transit statewide. It focuses on transit priority facilities such as dedicated bus lanes, signal priority, and other infrastructure to make road-based transit service faster and more reliable on the State Highway System.

PLATINUM | ADVISORS

March 30, 2026

ATTACHMENT 3
NVTA Board Item 9.7
April 15, 2026

TABLE 1: BOARD ACTION ITEMS

	Subject	Status	Recommended Position
AB 1890 (Aguiar-Curry D) County of Napa: farmworker housing: funding.	AB 1890 was unanimously approved by the Assembly Committee on Housing & Community Development. If funds are appropriated in the budget, this bill would increase the amount of funding the Department of Housing and Community Development (HCD) awards to the Napa County Housing Authorities (NCHA) farmworker centers from $250,000 to $500,000, annually. AB 1890 builds upon AB 317 (Aguiar-Curry) that was enacted in 2016, which authorized $200,000 in state General Fund to support the Napa County farmworker centers. The AB 317 funding is set to expire in the 2028-29 fiscal year.	Assembly Approps	Support
AB 2168 (Wicks D) Active Transportation Program: guidelines	AB 2168 was recently amended to contain a proposal being sponsored by the California Bicycle Coalition (CalBike). This measure would amend the Active Transportation Program (ATP) to emphasize the need for ATP projects to increase access to public transit. AB 2168 also directs the California Transportation Commission (CTC) in developing the ATP guidelines to incentivize the use of state transportation improvement program funds for large scale ATP projects, particularly projects that advance safe routes to schools and public transit.	Assembly Transp	Watch

	Subject	Status	Recommended Position
AB 2168 ***(continued)***	In addition, AB 2168 includes language stating the ATP guidelines should include penalties for applicants that received ATP funds but have not used the funds in a timely manner.		
SB 1087 (Cabaldon D) Transportation planning: sustainable communities strategies: transportation funding programs.	SB 1087 was amended to include several changes intended to "modernize" the SB 375 requirements regarding the development and implementation of Sustainable Communities Strategies (SCS). This measure is being co-sponsored by Metropolitan Transportation Commission (MTC) in partnership with the other large metropolitan planning organizations. While additional changes are being considered, as amended on March 25th, SB 1087 makes the following changes. • Shift the SCS planning cycle from every four years to every eight years. • Shifts oversight of the SCS plans from California Air Resources Board (CARB) to the CTC. • Exempts the development of the SCS, Regional Transportation Plan (RTP), or an alternative SCS from CEQA if specified public outreach measures are met. • Requires projects receiving either Trade Corridor Enhancement Program funds or Solutions for Congested Corridor Funds must be consistent with the SCS and RTP. • Requires greater transparency in how CARB develops the greenhouse gas (GHG) reduction targets for a region.	Senate E.Q.	Watch

TABLE 2: BOARD ADOPTED POSITIONS

	Subject	Status	Position
AB 259 (Rubio, Blanca D) Open meetings: local agencies: teleconferences.	AB 259 was amended to extend the sunset date to January 1, 2030, rather than repealing the existing January 1, 2026, sunset. This bill would extend the existing authority allowing members of a legislative body to participate remotely if specific conditions are met.	Senate Judiciary Two-Year Bill	Watch
AB 954 (Bennett D) State transportation improvement program: bicycle highway pilot program.	This bill would require Caltrans to prepare a proposal for the development, including the selection of sites for a pilot program establishing branded networks of bicycle highways that are numbered and signed within 2 of California's major metropolitan areas. The bill would require the department, on or before January 1, 2030, to include the proposal in the draft State Interregional Transportation Improvement Program (ITIP) and would require the department to perform all other actions necessary for the pilot program to be programmed in the State Transportation Improvement Program (STIP).	Senate Floor Inactive File	Watch
AB 1837 (González, Mark D) Video imaging of parking violations.	Existing law authorizes transit operators, until January 1, 2027, to use forward facing video cameras to issue tickets based on video images for illegally parking in bus only lanes and at bus stops. The California Transit Association is sponsoring AB 1837 to repeal the sunset date on this authority. At the Assembly Transportation hearing members did ask if any tickets using this technology were sent to the wrong vehicle owner. This is based on reports that some Automated License Plate Recognition (ALPR) systems have erroneously sent citations. Even with these questions AB 1837 was approved on a vote of 14-1.	Assembly Privacy	SUPPORT

	Subject	Status	Position
AB 1944 (Lee D) Zero-emission transit buses: axle weight.	Assembly Transportation Committee approved AB 1944 on a vote of 15-1. Since zero emission bus technology has not advanced as expected, zero emission transit buses continue to exceed the 22,000-pound axle weight limit. AB 1944, also sponsored by CTA, would create a new standard that allows for an axle weight limit for zero emission buses to be up to 25,000 pounds for zero emission buses purchased by specified dates. Specifically, AB 1944 would create the following limits for buses purchased by specified dates, which is similar to prior existing law: • Purchases made from January 1, 2027 to December 31, 2027, the limit would be 25,000 pounds. • Purchases made from January 1, 2028 to December 31, 2029, the limit would be 24,000 pounds. • Purchases made from January 1, 2030 to December 31, 2031, the limit would be 23,000 pounds. • Purchases made after January 1, 2031 the limit would be 22,000 pounds.	Assembly Approps	SUPPORT
SB 239 (Arreguín D) Open meetings: teleconferencing: subsidiary body.	Although the provisions in SB 239 were added to SB 707 last year, SB 239 was moved to the Assembly last week. Senator Arreguin plans to use the bill for another purpose. SB 239 proposed to allow certain types of advisory or subsidiary bodies to meet using remote/teleconference participation if specified conditions are met. SB 239 would not apply to a subsidiary body that has subject matter jurisdiction over police oversight, elections, or budgets.	Assembly Desk	Watch

	Subject	Status	Position
SB 445 (Wiener D) Sustainable Transportation Project Permits and Cooperative Agreements.	SB 445 was gutted and amended to apply only to the California High Speed Rail Authority (CHSRA). Similar to prior versions of the bill, SB 445 would authorize the CHSRA to develop and adopt regulations governing third-party permits and approvals that are necessary to deliver the project.	Assembly Approps Held on Suspense	Watch
SB 569 (Blakespear D) Department of Transportation: homeless encampments.	The bill would allow Caltrans to establish a dedicated liaison to facilitate the removal of homeless encampments on Caltrans' right-of-way and authorizes Caltrans to negotiate specified terms for Delegated Maintenance Agreements (DMA) with local jurisdictions. The DMA is a contract entered into by Caltrans and a local government, in which both work together to reduce and remove homeless encampments within Caltrans' jurisdiction. This would allow local governments, under an executed DMA, to utilize local policies and procedures to streamline encampment abatement, as well as streamlining the permit process.	Assembly Transp. Two-Year Bill	Support

April 15, 2026
NVTA Agenda Item 10.1
Continued From: New
Action Requested: INFORMATION

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Grant Bailey, Program Manager - Engineer
(707) 259-5951 / Email: gbailey@nvta.ca.gov

SUBJECT: Soscol Junction Project – Suscol Creek Fish Passage Technical Memorandum Overview

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RECOMMENDATION

Information only

COMMITTEE RECOMMENDATION

None

EXECUTIVE SUMMARY

At the request of the Board, this item provides an overview of a 2021 technical memorandum evaluating potential fish passage improvements at Suscol Creek as part of the State Route 29/ State Route 221 Soscol Junction Improvement Project, and an explanation of why those improvements were not ultimately included in the constructed project.

During early project development, a conceptual fish passage design was evaluated in connection with potential widening of the Suscol Creek crossing structure. As the design advanced, the project was revised to eliminate the need to widen the bridge, thereby avoiding in-channel work and associated environmental permitting. Because the final project limits avoided impacts to Suscol Creek, fish passage improvements were no longer required and were removed from the scope.

FISCAL IMPACT

Not Applicable.

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION: CEQA is not applicable.

BACKGROUND

The Soscol Junction Improvement Project reconfigured the intersection of State Route 29 and State Route 221 to improve traffic operations, safety, and multimodal connectivity in southern Napa County. Through the 65% design phase, the project extended beyond Suscol Creek, which required bridge widening and improvements within the creek, including measures intended to facilitate fish passage through the existing culvert and channel system.

A technical memorandum prepared in 2021 evaluated a conceptual fish passage design that included channel grading, installation of rock weirs, and construction of baffles within the existing concrete-lined channel to improve hydraulic conditions for fish movement. These improvements were developed in coordination with resource agencies, including the National Marine Fisheries Service (NMFS), California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board.

As the project advanced into final design, agency coordination identified differing perspectives on in-channel work within Suscol Creek, which would have been required as part of the bridge widening. Due to permitting complexity and potential creek impacts, the project was revised at the 95% design stage to eliminate the structure widening scope. This revision avoided direct impacts to the creek and did not require modification of the channel or crossing structures. As a result, fish passage improvements were no longer required and were removed from the project scope.

NVTA worked with resource and regulatory agencies on mitigation for project impacts to both the Swainson Hawk and the Reg Legged Frog, totaling over $1.13 million in mitigation costs.

Mitigation	Organization/Provider	Description	Cost
Red Legged Frog Habitat	Napa Land Trust	Step-pool habitat creation, design and management	$416,500
Swainson Hawk Nesting Tree Credit	Bullock Bend Mitigation Bank	1 nesting tree credit	$175,000
Swainson Hawk Habitat	Cannon Station LLC (Muzzy Ranch)	17.32 habitat credits	$433,500
Swainson Hawk Habitat	Cannon Station LLC (Muzzy Ranch)	3.1 habitat credits	$108,500
		Total	**$1,133,500**

NVTA understands there is ongoing interest in fish passage conditions at this location. Separate from the Soscol Junction project, other agencies and partners, including the Napa County Resource Conservation District, are actively evaluating opportunities for creek restoration and fish passage improvements in the Suscol Creek corridor. Staff is coordinating with these partners to provide additional information to the Board as part of this informational item.

ALTERNATIVES

This is an informational item; no alternatives are presented.

COUNTYWIDE PLAN GOALS MET BY THIS PROPOSAL

Goal 2 – Improve system safety
The Soscol Junction Project improved safety for all users by reducing conflict points and modernizing the intersection.

Goal 3 – Use taxpayer dollars efficiently
Revising the project to avoid in-channel work reduced permitting complexity, minimized risk, and supported timely and cost-effective project delivery.

ATTACHMENT(S)

1. Suscol Creek Fish Passage Improvement Memorandum (2021)
2. Napa Resource Conservation District Fish Barrier Removal Factsheet

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Memorandum

Date: June 18, 2021

To: Trenton Hoffman and Heather Anderson – GHD

From: Chris Sewell, Jennifer Abrams, and Zhiqing Kou – WRECO

Project: State Route 29 & State Route 221 Soscol Junction Improvement Project

Subject: Suscol Creek Fish Passage Improvement Memorandum

1. INTRODUCTION

The California Department of Transportation (Caltrans), in partnership with the Napa Valley Transportation Authority, proposes to reconfigure the existing intersection (Soscol Junction) of State Route (SR) 29 and SR 221/Soscol Ferry Road in Napa County from a signalized intersection to a full-diamond interchange, with two roundabout intersections on either side of SR 29. This proposed project is to improve traffic operations to alleviate congestion between Napa Valley and towards Interstate (I-) 80 and SR 37. Bicycle and pedestrian access is proposed to improve connectivity between existing bicycle and pedestrian access on SR 29 and SR 221. The proposed SR 29/SR 221 Soscol Junction Improvement Project is located in Napa County at post mile (PM) R5.6/R6.7 at SR 29 and PM 0.0/0.4 at SR 221. See Figure 1 for the Project location map, Figure 2 for the Project vicinity map, and Figure 3 for the Project aerial map.

The existing SR 29 Bridge crossing at Suscol Creek consists of three structures: two arch box culverts built in 1915 and 1944, and a southbound (SB) slab on pile structure built in 1980. Based on current Caltrans bridge inspection reports, Caltrans has determined the remaining life span of these structures is 50 years and thus, a bridge replacement is not required as a part of this congestion relief project. The Project would require widening the SB Suscol Creek crossing by approximately 15 feet (ft) to provide room for SR 221 northbound (NB) to SR 29 ramp. The new structure would consist of two cast-in-steel-shell columns driven to a depth of approximately 30 to 40 ft, two abutments, and a box girder deck. The two piles are spaced approximately 30 ft from the center of the creek, one on each side of the existing concrete-lined channel.

Soscol Creek Bridge Left (21-0071L) was constructed as part of project 04-381134 (April 1980). It consists of a reinforced concrete slab supported by reinforced concrete abutments and bents. By contract change order, rock slope protection (RSP) was placed in the creek channel under the new bridge and approximately 25 ft downstream of the dripline and then covered in concrete, forming a flat smooth apron. Additional RSP is present downstream of the concrete apron and was also included in this change order. These measures were added to correct significant erosion that occurred during the winter of 1980/1981. Soscol Creek Bridge Right (21-

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0071R), the bridge for SR 29 NB and the SR 29 NB to SR 221 NB connector ramp, consists of two arch culverts. The arch culvert built prior to 1915 by Napa County is an approximately 10-ft-wide by 8-ft-high by 24-ft-long structure constructed from rubble masonry. There are no as-built plans available for this structure. The crossing was then widened with another arch culvert on the upstream side, while a wingwall/headwall extension was constructed on the downstream side (project 10ATC2, August 1943). The arch culvert extension is approximately 10-ft-wide by 8-ft-high by 77-ft-long, consisting of reinforced concrete. The downstream headwall structure is approximately 14 ft in length and consists of reinforced concrete.

The proposed fish passage improvements include channel grading, construction of a series of rock weirs, and concrete berm-type baffles (See Appendix A) for the updated fish passage plan. The approach was developed in discussions with California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and the Regional Water Quality Control Board (RWQCB) and based on site design limitations. The concrete apron and culverts are to remain in place. The baffles are proposed within the concrete apron to provide passage within the apron and cause backwater within the culverts. The backwater within the culverts is anticipated to assist in fish passage through the culverts. The channel grading with rock weirs and pools, downstream of the bridge and apron, are proposed to address the existing fish passage barrier just downstream of the bridge. The quantity of rock weirs and pools was based on discussions with the agencies and their requirements for maintaining a 6-inch drop within the graded channel segment of the Project.

Purpose of Memorandum

The preliminary fish passage improvement design was evaluated at the Project's Approval & Environmental Document (PA&ED) stage and the analysis results were included in the *Draft Fish Passage Design Report* (WRECO, 2020). The purpose of this memorandum is to present hydraulic characteristics and additional calculations for the updated fish passage design following guidance from Part IX Fish Passage Evaluation at Stream Crossing including in the *California Salmonid Stream Habitat Restoration Manual* (CSSHRM) (CDFW, 2004).

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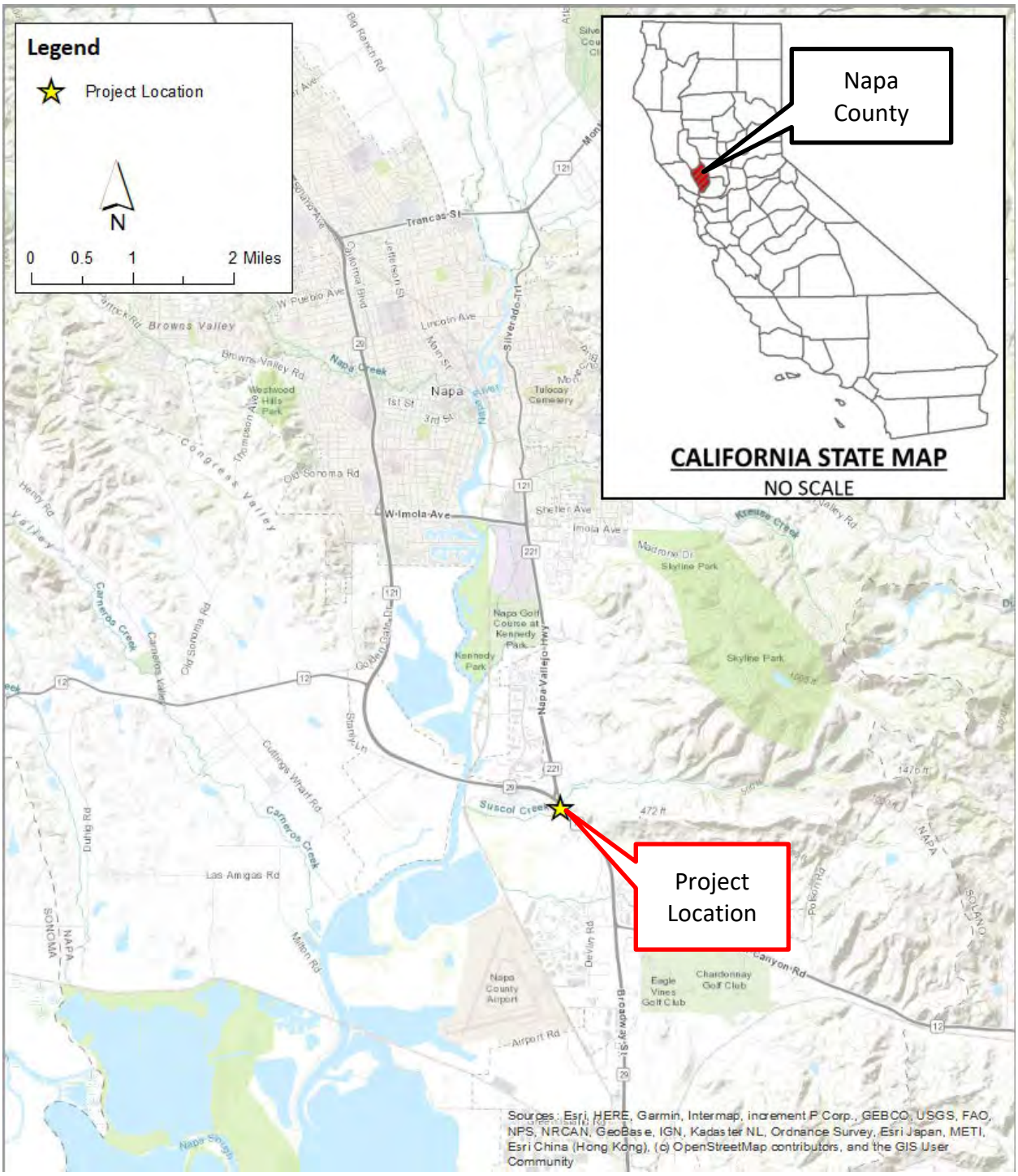


Figure 1. Project Location Map

Source: ESRI

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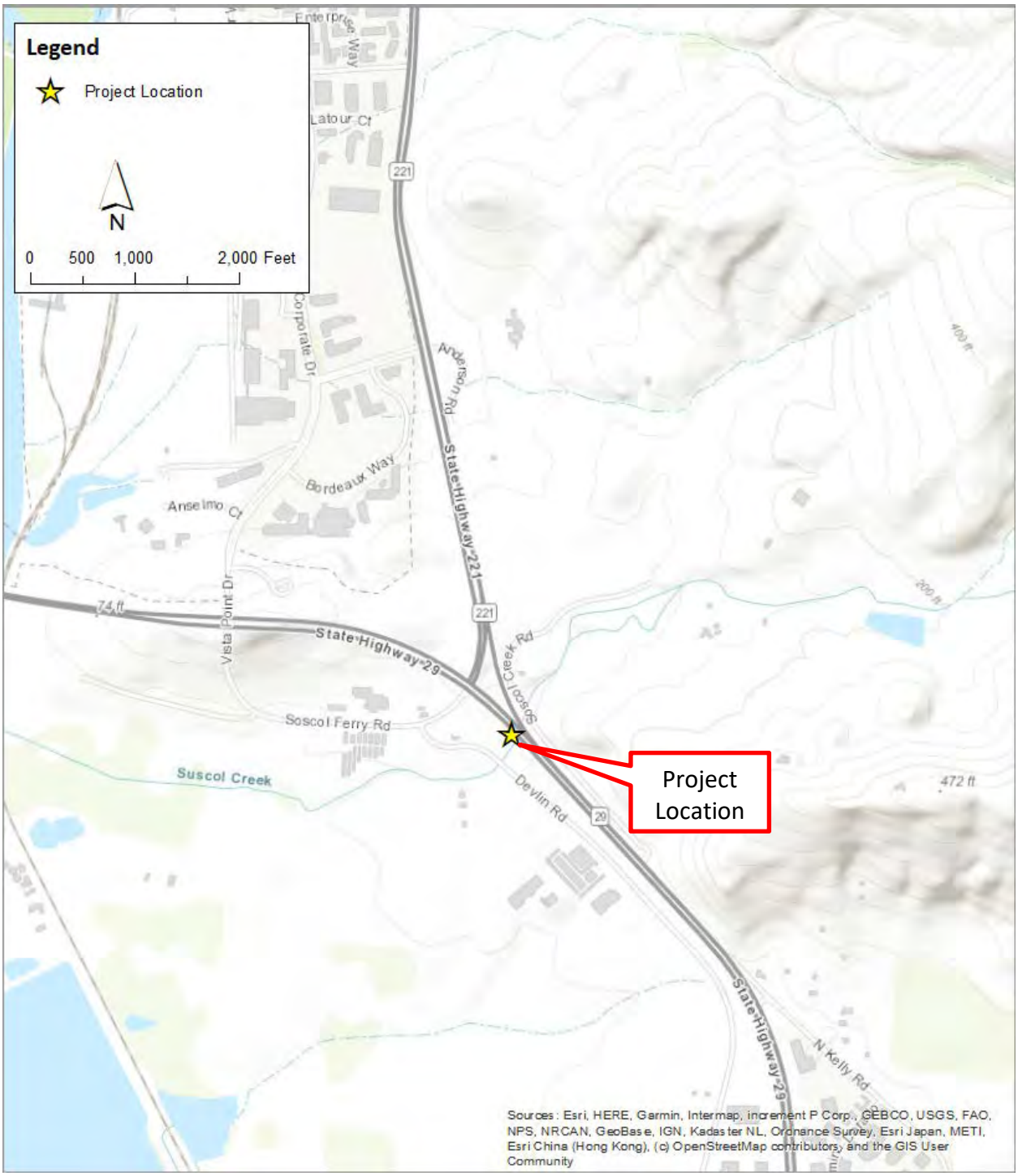


Figure 2. Project Vicinity Map

Source: ESRI

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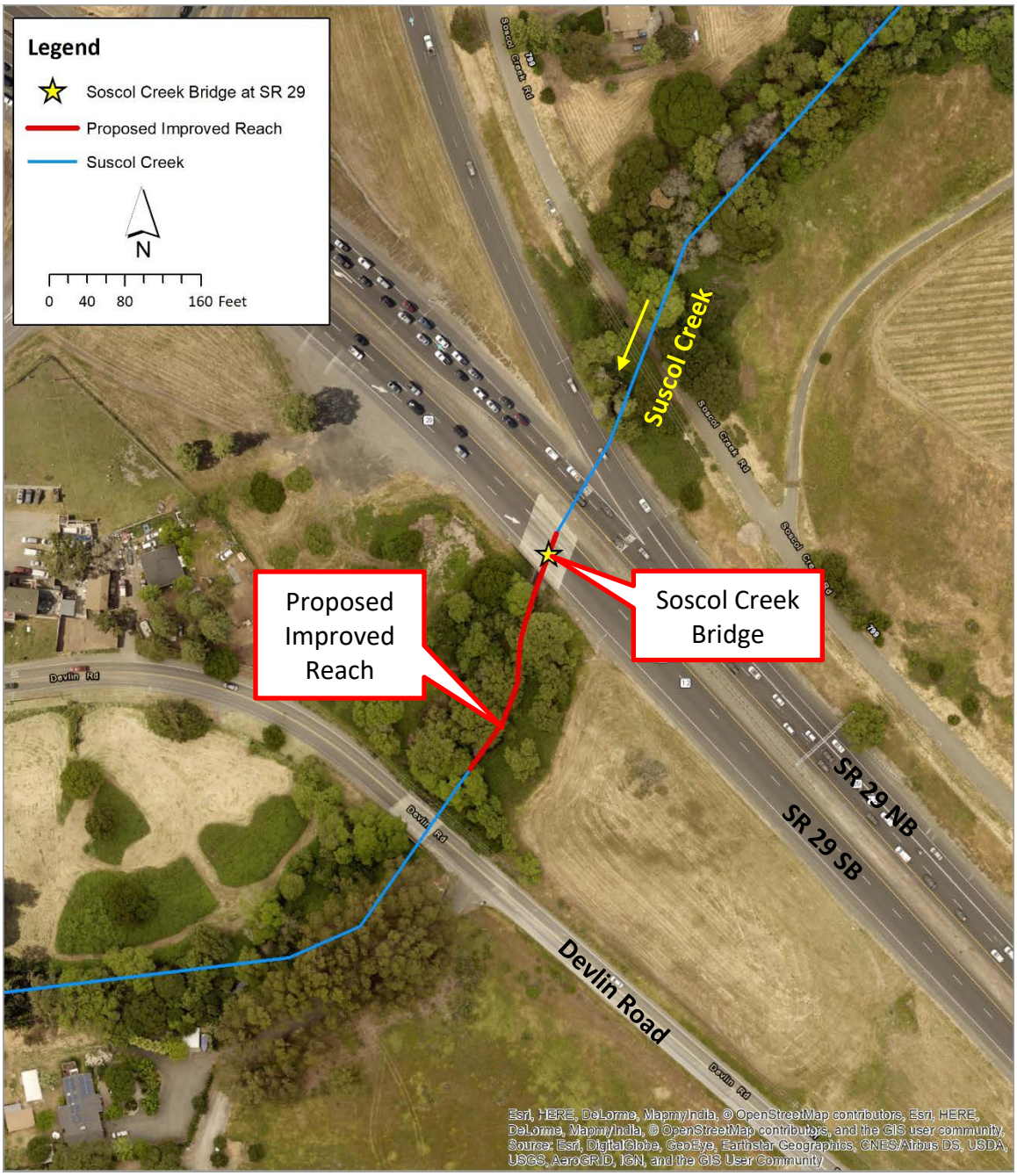


Figure 3. Project Aerial Map

Source: ESRI (2020)

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Fish Passage Design Criteria

The Part IX Fish Passage Evaluation at Stream Crossing included in the CSSHRM was published in 2004 by CDFW including approaches and technical methods for anadromous salmonid habitat restoration. The engineering document - *Fish Passage Design for Road Crossings Guidance* (FPDRCG) prepared by Caltrans (2014) was written to be in conformance with both CDFW and National Oceanic Atmospheric Administration (NOAA) Fisheries Service, and Southwest Region fish passage criteria. Both documents provide detailed instructions to assist designers in generating projects to achieve resource agency goals for fish passage within a state highway project context. Both Caltrans' and CDFW's standards were used in the design of the proposed fish passage improvement for the Project.

Vertical Datum

The Project references the North American Vertical Datum of 1988 (NAVD 88).

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2. MODEL SETUP

Design Event Peak Flow

According to the *Draft Fish Passage Report* (WRECO, 2020), the Suscol Creek drains a watershed with an area of approximately 2.8 square miles at the existing bridge on SR 29 SB (USGS StreamStats, 2020). The peak discharges of Susocol Creek at the Project site was estimated using the following hydrologic design methods (WRECO, 2020):

1. USGS Regional Flood-Frequency Equations;
2. The *Highway 29 Culvert at Suscol Creek Fish Passage Assessment* Report prepared by Napa County Resource Conservation District (NCRCD) (2011);
3. Unit Hydrograph Method.

The peak discharges estimated using the Unit Hydrograph method were selected for use in the hydraulic analysis, because the Unit Hydrograph method provided a more detailed analysis of the watershed characteristics (WRECO, 2020). Another reason is that the peak discharges using this method are more conservative than those calculated using the USGS regional regression method and NCRCD. The selected peak discharges are summarized in Table 1.

Table 1. Estimated Peak Discharges Using Unit Hydrograph Method

Recurrence Interval (year)	Peak Discharge (cubic feet per second [cfs])
100	1,520
50	1,310
25	1,095
10	812
5	603
2	353
1.5	263

Migration Season Flows

The typical migration season for Salmonid located in the Project's geographical area range from November to April of each year. In order to understand typical flows present at the Project site during the migration season, a hydrologic model was developed based on long-term rainfall data and watershed characteristics using the United States Environmental Protection Agency (US EPA) Stormwater Management Model (SWMM). Long-term rainfall data for the Project watershed was obtained from National Oceanic and Atmospheric Administration (NOAA) Land Based Station Database Fairfield Station from the years 1972 to 2014. The watershed characteristics was collected from the United States Geological Survey (USGS) Streamstats application and the United States Department of Agriculture (USDA) Web Soil Survey.

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The flow analysis was performed per methodology in the Caltrans District 4 Guideline and adapted to conditions specific to the Project site. Calculations for the full year's return period flows were performed using the USGS Regional Flood Frequency regression equations. The full year's flows were then calculated using the US EPA SWMM model, using the USGS regression equation flows as a form of calibration.

Using the SWMM model, a time-series of flow data was developed for the Project site. The time-series output results were filtered down to only include the migration season for salmonid at the project site. The time-series flow data was then use to evaluate the occurrence of specified flows during the migration seasons.

Fish Passage Design Flow

According to Caltrans' FPDRCG (2014), the criteria used to determine the high and low fish passage design flow rates for adult and juvenile steelheads are presented in Table 2. The high passage flow rates for adult and juvenile salmonids were 50% and 10% of the 2-year peak discharge, respectively. There is no stream gage data available to develop a more site-specific set of low passage flows. Therefore, the default minimum low passage flow rates for adult and juvenile salmonids recommended in Caltrans' FPDRCG (2014) were used at the Project location.

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Table 2. Adult Anadromous and Juvenile Salmonids Design Flow Criteria

	Species/Life Stage	Percentage of 2-Year Recurrence Interval Flow
High Passage Flow	Adult Anadromous Salmonids	50%
	Juvenile Salmonids	10%
	Species/Life Stage	**Default Minimum Flow (cfs)**
Low Passage Flow	Adult Anadromous Salmonids	3
	Juvenile Salmonids	1

The estimated fish passage design flow rates at the Project location are presented in Table 3.

Table 3. Calculated Adult and Juvenile Salmonids Design Flow

	Species/Life Stage	Design Fish Passage Flow (cfs)
High Passage Flow	Adult Anadromous Salmonids	177
	Juvenile Salmonids	36
Low Passage Flow	Adult Anadromous Salmonids	3
	Juvenile Salmonids	1

Hydraulic Model

The steady-state hydraulic model developed using the United States Army Corp Engineer Hydrologic Engineering Center's River Analysis System (HEC-RAS) modeling software (Version 5.0.7) at the Project's PA/ED stage was updated to assess the hydraulic characteristics of the existing condition and to assess the changes to the hydraulic characteristics based on the proposed Project improvements. For fish passage flows (high and low design flow for adult and juvenile steelhead), the arch culvert and box culvert were modeled as open-channel to provide more detailed hydraulic output parameters for the in-channel improvements (CDFW, 2020). For peak flows such as 100- and 50-year peak flows, the arch culvert and box culvert were modeled as culvert objects to represent the pressure flow during the 100- and 50-year storms, because no features are proposed within the culverts. The baffles were modeled using a sharp-crested weir coefficient.

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3. MODEL RESULTS AND FISH PASSAGE ANALYSIS

The following sections discuss the evaluation of the hydraulic model results with respect to fish passage design criteria, fish passage channel stability design criteria, and hydraulic design events. The hydraulic model and associative design calculations were performed based on the assumption the system will be maintained and not contain an excess of sedimentation.

Fish passage results for depth and velocity are shown in the following figures. Water surface elevation (WSE) profiles during adult and juvenile fish passage flows are shown in Figure 4 and Figure 5, respectively. Velocity profiles during adult and juvenile fish passage flows are shown in Figure 6 and Figure 7, respectively.

Additional WSE and velocity profiles for 1.5-year, 2-year, 5-year, and 10-year comparing existing and proposed conditions are provided in Appendix B.

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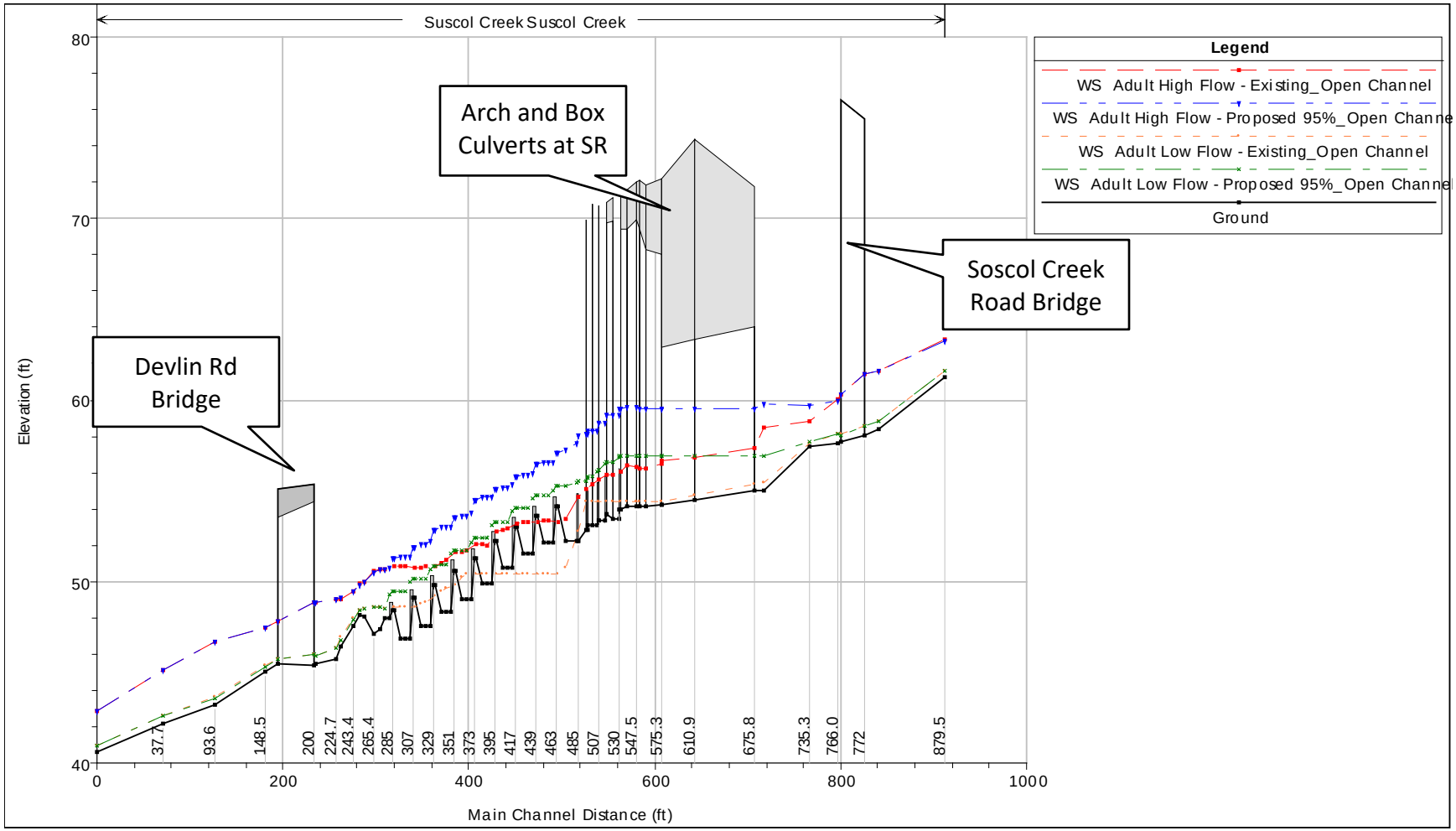


Figure 4. WSE Profile During Adult Fish Passage Flows

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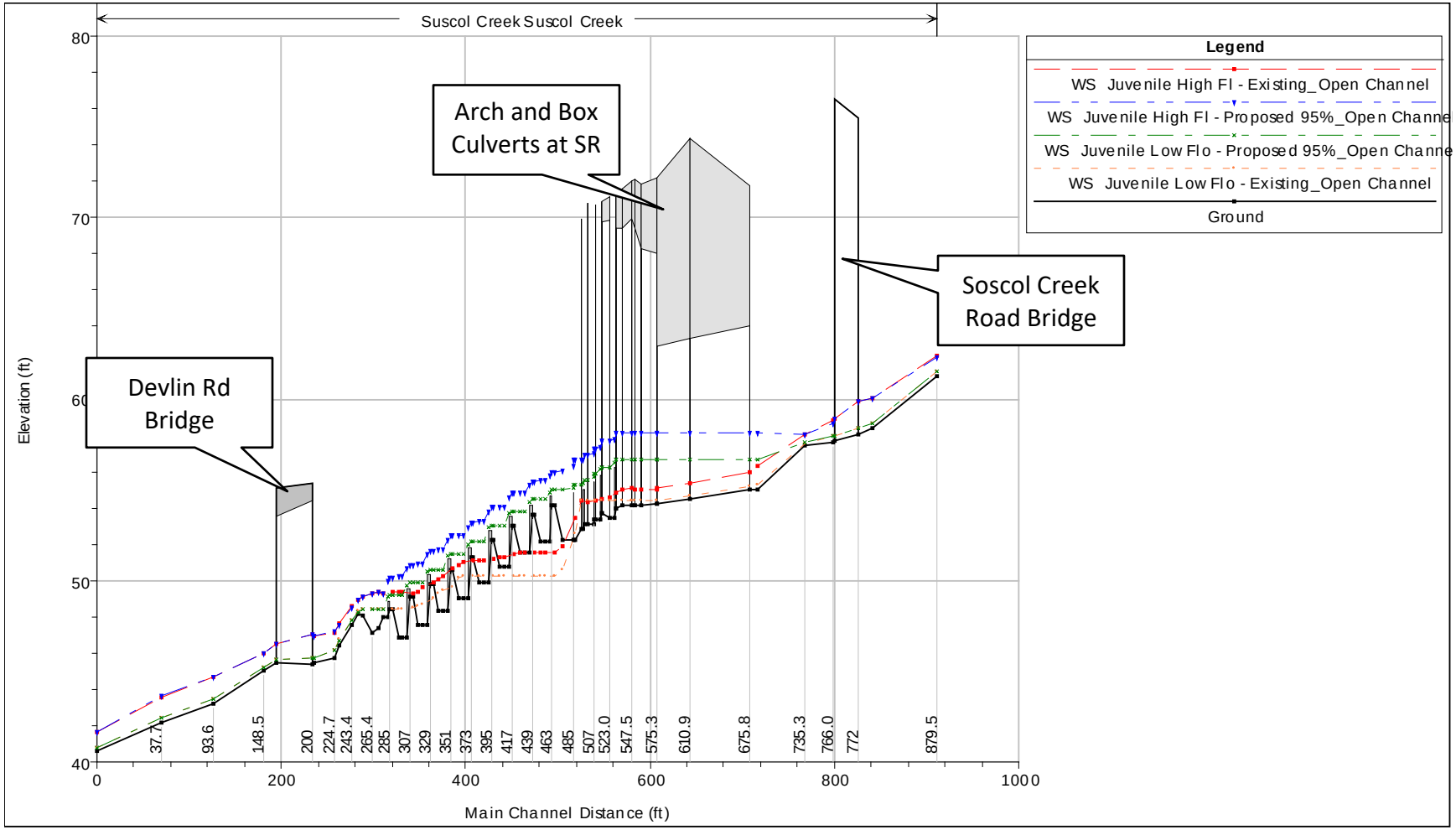


Figure 5. WSE Profile During Juvenile Fish Passage Flows

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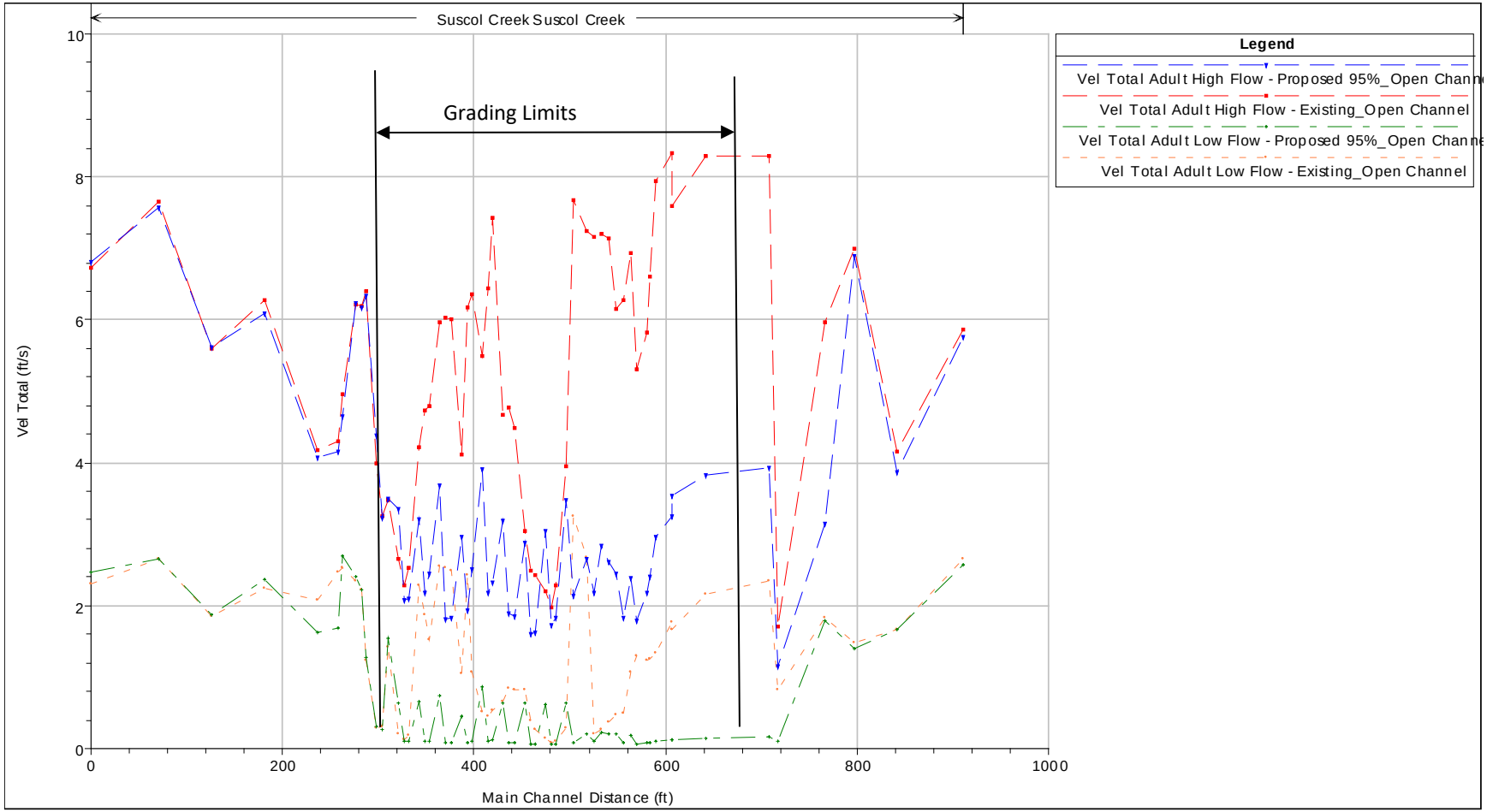


Figure 6. Velocity Profile During Adult Fish Passage Flows

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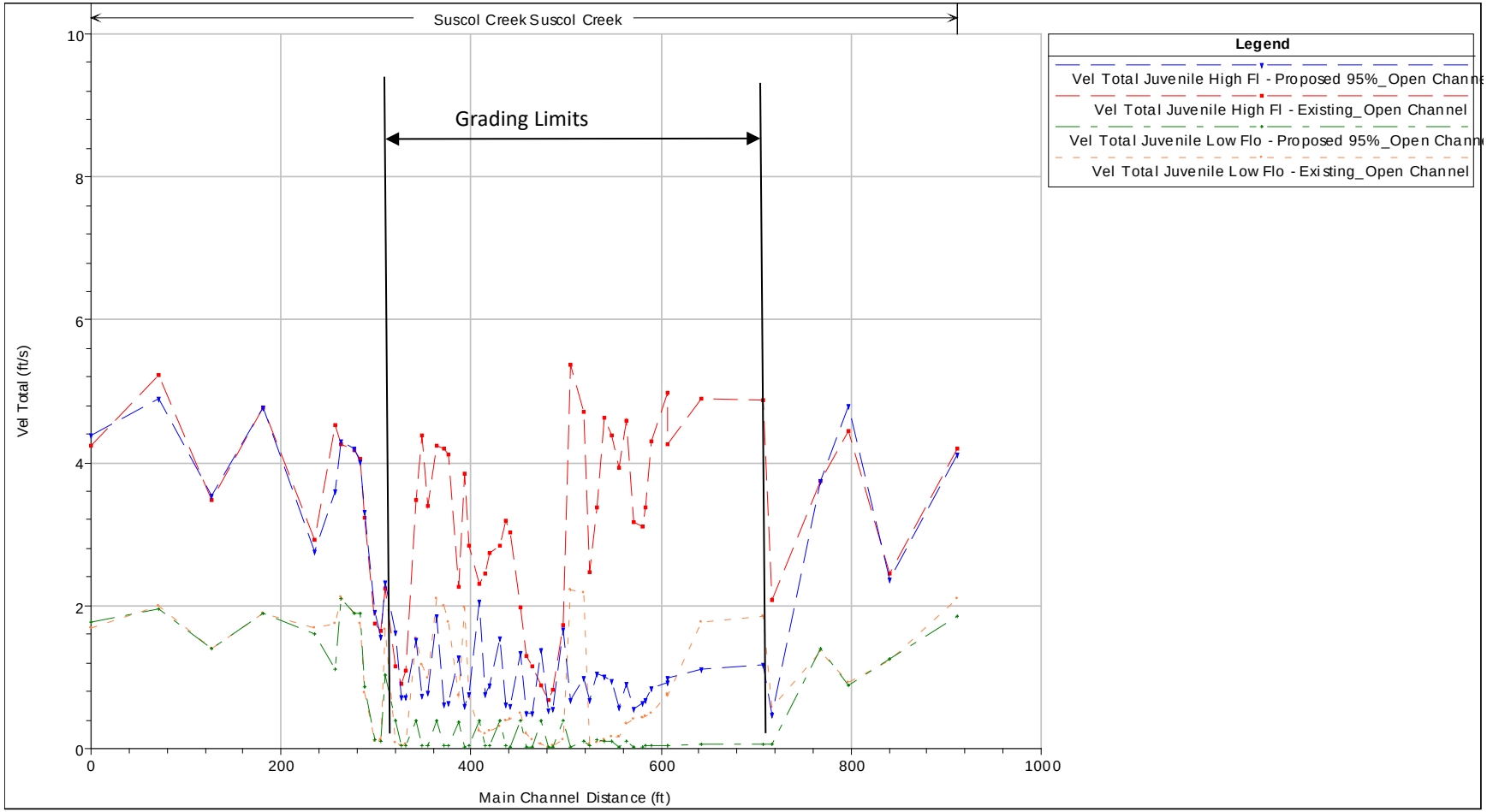


Figure 7. Velocity Profile During Juvenile Fish Passage Flows

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Arch and Box Culvert

According to the FPDRCG (Caltrans, 2014), the hydraulics of the proposed fish passage within the culvert should be evaluated for the maximum allowable velocity during the high passage design flow for adult and juvenile steelheads, and should be evaluated for the minimum allowable water depth during the low passage design flow as shown in Table 4.

Table 4. Maximum Allowable Velocity and Minimum Water Depth Criteria for Adult and Juvenile Steelheads in a Culvert

Species/ Life stage	Flow Type	Flow Rate (cfs)	Maximum Velocity (feet/second [ft/s])	Minimum Water Depth (ft)
Adult Steelhead	High Design Flow	177	3*	N/A
	Low Design Flow	3	N/A	1
Juvenile Steelhead	High Design Flow	36	1	N/A
	Low Design Flow	1	N/A	0.5

Note: * Maximum average water velocity for a culvert length of 245 ft per Table 6.3 in the FPDRCG.

With the proposed fish passage improvements, the maximum velocities and minimum water depths are summarized in Table 5 for adult and juvenile steelheads during the high and low passage design flows in the arch and box culverts (see Appendix B for the detailed analysis of the existing condition and Appendix D for the detailed hydraulic analysis results of the proposed condition).

Table 5. Maximum Velocity and Minimum Water Depth for Adult and Juvenile Steelheads in Arch and Box Culverts

Species/ Life stage	Flow Type	Maximum Velocity* (ft/s)	Minimum Water Depth** (ft)
Adult Steelhead	High Design Flow	3.8	N/A
	Low Design Flow	N/A	1.9
	Criteria Boundary 125 cfs	2.9	N/A
Juvenile Steelhead	High Design Flow	1.1	N/A
	Low Design Flow	N/A	1.6
	Criteria Boundary 30 cfs	1.0	N/A

Note: *Maximum velocity was rounded to nearest 0.1 ft/s.
** Minimum water depth was rounded to nearest 0.1 ft.

The hydraulic analysis results indicated the proposed fish passage improvements would satisfy the minimum water depth requirements for adult and juvenile steelhead in the arch and box culverts.

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The maximum velocity requirements for adult and juvenile steelhead are not met under the proposed conditions. Due to the limitations in site conditions, the design could not accommodate concrete baffles high enough to reduce the flow velocity to below adult or juvenile criteria without further increasing the 100-year and 50-year design water surface elevations upstream of the crossing. Since the creek is generally dry and does not experience sufficient flow during summer months for steelhead to be migrating upstream, the proposed velocity conditions are not anticipated to further obstruct the passage of adult or juvenile steelhead, and they are an improvement over the existing conditions.

Additional flows were evaluated to understand the threshold under which velocity criteria could be met for adult and juvenile fish passage. Results showed adult fish passage criteria could be met for flows up to 125 cfs, and juvenile fish passage criteria could be met for flows up to 30 cfs.

Concrete Baffles

Energy Dissipation Factor Analysis

According to the Part IX Fish Passage Evaluation at Stream Crossing including in the CSSHRM, a fishway is a structure for passing fish over vertical impediment. The concrete-lined channel under the SR 29 SB bridge was evaluated as a fishway. Per the "Part IX Fish Passage Evaluation at Stream Crossing" in the CSSHRM (CDFW, 2004), "the volume in a fishway pool must be adequate to dissipate energy without too turbulent for fish to hold and move through it." The following equation should be used to evaluate the energy dissipation factor (EDF) in a fishway step-pool.

$$EDF = \frac{\gamma Q h}{V}$$

Where:

EDF = Energy Dissipation Factor (ft-lb/s/ft^3)
γ = Unit weight of water (62.4 lb/ft^3)
Q = Flow entering the pool (ft^3/s)
h = Head of the drop flow entering the pool (ft)
V = Effective volume of the pool for dissipating energy (ft^3)

The head of flow is the sum of the static head (drop in water surface) and kinetic head entering the step-pool, which was negligible (CDFW, 2004). The effective volume of the pool for dissipating energy was calculated based on a pool length of 8 feet (ft) for energy dissipation in each step-pool. The EDF calculation is included in Appendix E for the adult high fish passage flow. A maximum EDF of 4.0 ft-lb/s/ft^3 is recommended for adult salmon and steelhead (Bell,

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1991). However, the calculated EDF for the proposed baffle pools for the Project ranged between 5.6 and 8.1 ft-lb/s/ft^3, as shown in Table 6. Due to the physical constraints of the existing apron geometry, the only way to make the EDF meet the 4.0 ft-lb/ft^3 criterion would be to reduce the drop heights. The design cannot accommodate the reduced drop heights while still providing comparable drop heights in the rock weirs and pools segment. The design is an improvement over the existing conditions for fish passage and the EDF was minimized to the extent possible while balancing the other design criteria.

Various flows were analyzed to understand the threshold under which EDF at each pool is below the criterion of 4-ft-lb/s/ft^3. Results showed the proposed fish passage design passed the EDF criteria up to 75 cfs (Table 6).

Table 6. Energy Dissipation Factors at Baffle Pools

Baffle Pool No.	EDF (ft-lb/s/ft^3)	
	Adult High Fish Passage Design Flow (177 cfs)	Threshold Boundary (75 cfs)
1	5.6	3.0
2	6.8	3.4
3	7.1	4.0
4	6.1	2.0
5	8.1	4.0

Plunging and Streaming Flow Evaluation

The normal flow circulation pattern preferred for fish passage in a pool and weir fishway is a plunging flow regime. At higher flows the hydraulics transition into a streaming flow regime. The CSSHRM reports the following equation to solve for the transition flow between plunging and streaming flows based on pool geometry.

$$Q = Q_{t*}\sqrt{g}b_0S_0L^{2/3}$$

Where:

Q = Transition flow (cfs)
Q_{t*} = Dimensionless transition flow (from Figure XII-45 in Part XII CSSHRM)
g = Gravitational acceleration (32.2 ft/s^2)
b_0 = Width of fishway weir (ft^3/s)
S_0 = Slope of fishway (ft)
L = Length of pool (ft)

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Results showed the transition flow ranged between 11 and 26 cfs between Baffles No. 1 through No. 4. The transition flow at Baffle No. 5 is higher at 96 cfs. For detailed calculations, see Appendix F. Low fish passage flows for both juvenile and adult steelhead are both within the plunging flow regime; however, the high fish passage flows for both juvenile and adults are above the transition flow and therefore may be within the streaming flow regime. Due to the lateral limitations for the baffle pool geometry, creating a plunging flow for high fish passage flows was not obtainable.

The baffles have been designed with a notch configuration to create a nappe that during low flows allows water to plunge over a small portion of the weir shoulders into the downstream pool. Water levels during fish passage flows over Baffle No. 3 are shown Figure 8 to demonstrate a typical baffle cross section. Flow rates up to 168 cfs are within the weir shoulders, allowing fish passage at the margins of flow.

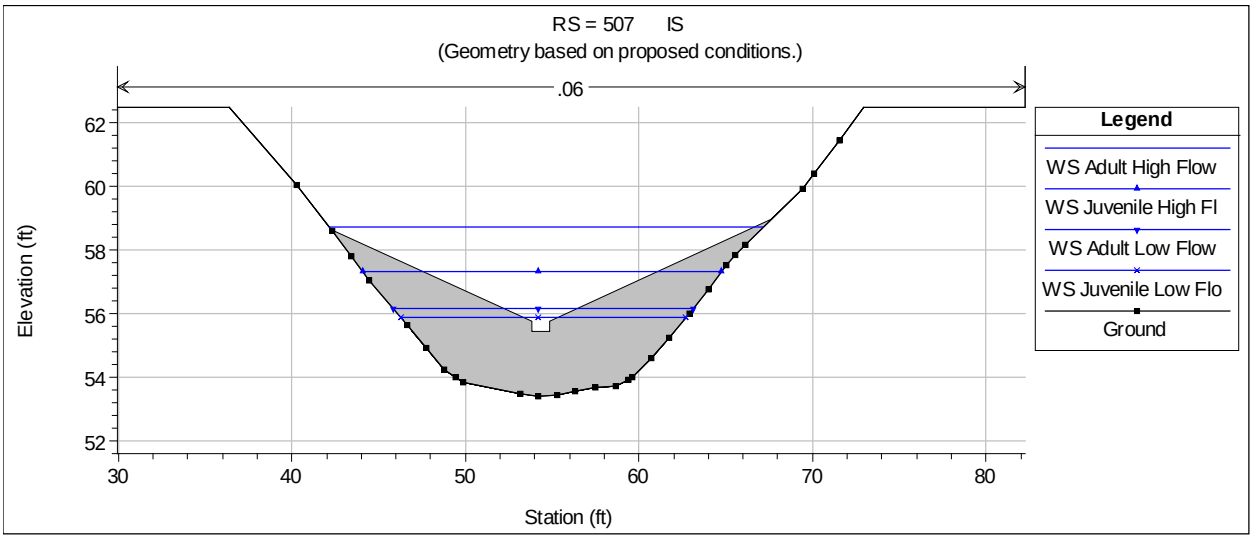


Figure 8. Soscol Creek Low Fish Passage Flows at Baffle No. 3

Rock Weirs and Pools

According to the FPDRCG (Caltrans, 2014), the hydraulics of the proposed fish passage within the creek should be evaluated for the maximum allowable velocity during the high passage design flow for adult and juvenile steelheads, and should be evaluated for the minimum allowable water depth during the low passage design flow as shown in Table 7.

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Table 7. Maximum Allowable Velocity and Minimum Water Depth Criteria for Adult and Juvenile Steelheads in a Channel

Species/ Life stage	Flow Type	Flow Rate (cfs)	Maximum Velocity (ft/s)	Minimum Water Depth (ft)
Adult Steelhead	High Design Flow	177	5*	N/A
	Low Design Flow	3	N/A	0.5
Juvenile Steelhead	High Design Flow	36	1	N/A
	Low Design Flow	1	N/A	0.5

Note: * Maximum average water velocity in a channel.

With the proposed fish passage improvements, the maximum velocities and minimum water depths are summarized in Table 8 for adult and juvenile steelheads during the high and low passage design flows in the channel (see Appendix A for the detailed analysis of the existing condition and Appendix B for the detailed hydraulic analysis results of the proposed condition).

Table 8. Maximum Velocity and Minimum Water Depth for Adult and Juvenile Steelheads in the Channel Downstream of the Bridge at SR 29 SB

Species/ Life stage	Flow Type	Location	Maximum Velocity* (ft/s)	Minimum Water Depth** (ft)
Adult Steelhead	High Design Flow	In the Channel	3.9	N/A
	Low Design Flow	In the Channel	N/A	1.1
		At Rock Weir Crest		0.5
Juvenile Steelhead	High Design Flow	In the Channel	2.0	N/A
	Low Design Flow	In the Channel	N/A	0.8
		At Rock Weir Crest		0.3

Note: *Maximum velocity was rounded to nearest 0.1 ft/s.
** Minimum water depth was rounded to nearest 0.1 ft.

Adult Steelhead Hydraulic Drop, Velocity, and Depth Criteria

According to the hydraulic analysis results, the maximum hydraulic drop during the adult steelhead high fish passage flow within the improved channel reach range from 0.38 ft to 0.66 ft. This meets the criterion requiring drops to be less than 1.0 ft. Although the hydraulic drops at some of the rock weirs were slightly greater than 6 inches, they were the minimum achievable based on the site-specific geometry. The 6-inch drop heights were still targeted per comments provided to the Project design team from CDFW and NMFS. CDFW and NMFS stated the requirement is still applicable for stability.

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The hydraulic analysis results indicated the minimum water depth requirements for the adult steelheads during the low fish passage flow were satisfied within the improved creek reach except at the rock weir crests. According to the prolonged and burst swimming characteristics of salmonids from the CSSHRM, adult steelhead are expected to be able to pass over the relatively short length of the rock weirs.

The average cross-sectional velocity at each channel section within the improved channel grading reach are below the 5.0 ft/s maximum velocity threshold during the adult steelhead high design flows.

Juvenile Steelhead Velocity and Depth Criteria

Due to the lack of summer flows at the site, juvenile steelhead are not anticipated to require jumping upstream. However, the criteria are evaluated below for reference.

The hydraulic analysis results indicated the minimum water depth requirements for the juvenile steelheads during the low fish passage flow were satisfied within the improved creek reach except at the rock weir crests. According to the prolonged and burst swimming characteristics of salmonids from the CSSHRM, juvenile steelhead less than 6-inch-long are expected to be able to pass over the relatively short length of the rock weirs.

The average cross-sectional velocity for a large portion of the channel cross sections within the improved channel segment of the project during the juvenile high fish passage flows are more than the 1 ft/s maximum criterion. As mentioned, the improved channel is expected to have high velocities through the deepest part of the channel and lower velocities along the shallower margins of the flow. The velocities at the margins of flow are less than the 1.0 ft/s maximum criterion, as shown in Figure 7. Velocity Profile During Juvenile Fish Passage Flow. Therefore, the proposed fish passage improvements would meet the maximum velocity requirement for juvenile steelhead during the high fish passage flow within the improved channel portion of the Project.

Step-pool Energy Dissipation Factor Analysis

As mentioned previously the volume of a fish passage pool must be adequate to dissipate energy without being too turbulent for fish passage. The EDF was evaluated at each step-pool can be evaluated by the EDF (CDFW, 2004). The EDF was calculated at the high passage flow using the following equation:

$$EDF = \frac{\gamma Q h}{V}$$

Where:

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EDF = Energy Dissipation Factor (ft-lb/s/ft^3)
γ = Unit weight of water (62.4 lb/ft^3)
Q = Flow entering the pool (ft^3/s)
h = Head of the drop flow entering the pool (ft)
V = Effective volume of the pool for dissipating energy (ft^3)

According to the criteria, the EDF should not exceed 4 ft-lb/s/ft^3 for adult salmon and steelhead (Bates et al., 2003). The EDF calculation is presented in Appendix E and was performed using a pool length limitation of 8 ft and depth limitation of 4 ft, per comments from CDFW. The calculated EDF for the proposed step-pools for the Project ranged between 5.5 and 10.2 ft-lb/s/ft^3, as shown in Table 9. Due to the limitation in effective pool length and depth, the remaining variables that could be changes to reduce the EDF are the head drop and channel width. The channel width is limited by cultural resources along the north and south banks of the channel and existing trees to the north, so it cannot be significantly expanded beyond the current design. To sufficiently reduce the drop height, approximately double the rock weirs would be required in the same length of creek. The resulting pools would be too small to be constructable. Therefore, due to the channel geometry, the EDF criteria was not able to be met during high adult fish passage flows. The drops were reduced to the extent feasible to minimize the EDF.

Various flows were analyzed to understand the threshold under which EDF at each pool is below the criterion of 4-ft-lb/s/ft^3. Results showed the proposed fish passage design passed the EDF criteria for flows up to 26 cfs (Table 9).

Table 9. Energy Dissipation Factors at Rock Weir Step Pools

Rock Weir Pool No.	EDF (ft-lb/s/ft^3)	
	Adult High Fish Passage Flow (177 cfs)	Passing Threshold (26 cfs)
1	5.5	1.5
2	5.8	1.9
3	8.4	2.7
4	6.9	3.9
5	10.2	2.4
6	7.0	2.5
7	7.9	3.1
8	7.5	2.9

Engineered Streambed Material Analysis

According to the Part IX Fish Passage Evaluation at Stream Crossing in the CSSHRM (CDFW, 2004), the engineered streambed material (ESM) that forms the bed of a roughened channel consists of two components: large rock that forms a framework and smaller material that fills

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the interstitial voids in that framework. The framework of larger rocks should be sized using the following equation (ACOE, 1994) to be immobile during the stable bed design flow, or 100-year flow, for rock chutes with slopes greater than 2%.

$$D_{30-ACOE} = \frac{1.95S^{0.555}(1.25q)^{\frac{2}{3}}}{g^{\frac{1}{3}}}$$

Where:

$D_{30-ACOE}$ = D_{30} Stable particle size based on rock gradation provided in ACOE 1994 (ft)
S = Hydraulic slope (ft/ft)
q = Unit discharge within the active channel at the stable bed design flow (ft^3/s)
g = Gravitational acceleration (32.2 ft/s^2)

The estimated $D_{30-ACOE}$ for the site is around 1.7 ft or 20 inches.

Bates et al. (2003) recommends the following three equations to obtain a uniform rock slope protection gradation in order to achieve a stable bedform while filling the interstitial voids.

$$D_{84-ESM} = 1.5D_{30-ACOE}$$
$$D_{50-ESM} = 0.4D_{84-ESM}$$
$$D_{100-ESM} = 2.5D_{84-ESM}$$

Where:

D_{84-ESM} = D_{84} Suitable particle size (ft)
D_{50-ESM} = D_{50} Suitable particle size (ft)
$D_{100-ESM}$ = D_{100} Suitable particle size (ft)

The above equations were applied at each step pool location along the proposed channel. The estimated D_{84-ESM} ranged from 22 inches to 33 inches and the estimated D_{50-ESM} ranged from 9 inches to 13 inches (see Appendix G). The estimated $D_{100-ESM}$ particle size ranged from 55 inches to 81 inches. The $D_{100-ESM}$ is reviewed as guidance per the CSSHRM and can be decreased (CDFW, 2004). In the case of this project, the $D_{100-ESM}$ was decreased to 30 inches to better suit the site conditions.

The following equations included in USFS (2008) can be used to size the material smaller than D_{50-ESM} that serves to fill the interstitial voids between the large rocks.

$$D_{16-ESM} = 0.32^{\frac{1}{n}}D_{50-ESM}$$
$$D_{8-ESM} = 0.16^{\frac{1}{n}}D_{50-ESM}$$

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It is recommended that *n* value between 0.45 and 0.70 be used to develop the design particle-size distribution. The *n* values should be selected to result in the D_{8-ESM} to be approximately 2 millimeters (mm). The estimated D_{16-ESM} has a particle size ranging from 0.70 inches (18 mm) to 1 inch (26 mm). The estimated D_{8-ESM} has a particle size ranging from 0.15 inches (4 mm) to 0.22 inches (6 mm). Because D_{8-ESM} is greater than 2 mm, additional fines should be added to the mix to achieve the recommend 5 to 10% fines in the ESM mix (CDFW, 2004).

According to the "Part IX Fish Passage Evaluation at Stream Crossing" in the CSSHRM (CDFW, 2004), the D_{84-ESM} to $D_{100-ESM}$ are separated from the gradation and be used to construct steps and other stable large rock features.

The remainder of the material (≤D_{84-ESM}) is used to form the bed between the rock weirs. Therefore, the ESM mixture used to form the channel bed is proposed to range up to approximately 24 inch diameter rocks, with a D_{50} of 12 inches. The thickness of the ESM between large rock weirs should at least equal to the largest rock used in the channel bed. The ESM layer thickness for this Project will be 2.5 ft.

Rock Weir Sizing Analysis

According to the "Part IX Fish Passage Evaluation at Stream Crossing" in the CSSHRM (CDFW, 2004), the following equation is recommended to estimate the stable median rock size based on the Far West States Lane Method riprap sizing method (Natural Resources Conservation Service [NRCS], 1996).

$$D_{75-riprap} = \frac{3.5wDS}{CK}$$

Where:

$D_{75-riprap}$ = D_{75} riprap size (inches)
w = Channel top width at the design flow (ft)
D = Maximum depth of flow in channel (ft)
S = Channel slope (ft/ft)
C = Coefficient for channel curvature. Ranges from 0.6 to 1 with a value of 1 for straight channels
K = Side slope coefficient. Typically ranges from 0.53 to 0.87 for installed rock slope revetments of 1.5H:1V to 3H:1V, respectively.

The value of *K* has a significant impact on the computed rock size. A value of 1 was used by Fripp et al. because the rock was placed flat on the streambed.

The following equation was recommended to obtain $D_{50-riprap}$ (NRCS, 1996):

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$$D_{75-riprap}=1.2D_{50-riprap}$$

The rock gradation for rock weirs can be determined using the following equations:

$$D_{50-weir}= 1.2D_{50-riprap}$$
$$D_{100-weir}= 4D_{50-riprap}$$
$$D_{min-weir}= 0.75D_{50-riprap}$$

NRCS recommends lager rocks be forming the surface of the weir and the smaller rock filling the voids between the larger rock. By applying the above calculations, the estimated $D_{100-weir}$ ranged from 7 inches to 25 inches throughout the proposed channel. For detailed calculations see Appendix H.

These results produce recommended rock sizes that will be more prone to failure due to scour. The CSSHRM recommends a minimum rock size between 2 and 3 ft. Therefore, the rocks proposed to construct the rock weirs will range from 24 to 36 inches, or 2 to 3 ft.

The rock weirs will be keyed into the channel side slopes by approximately two times the D_{100}, or 6 feet.

Summary of Grain Size Distributions

The grain size distribution utilized for this project consists of ESM and structural rock used to construct rock weirs. The final distribution is shown in Table 10. The ESM material will consist primarily of rocks sized between D_{50} and D_{84} with rocks sized D_{16} and below used to fill interstitial voids throughout the streambed and rock weirs. The structural rocks present in the rock weirs will be made up of predominantly rocks sized at D_{100} with no structural rocks smaller than D_{84}.

Table 10. Grain Size Distribution

Percent (%)	Grain Size (in)
8	0.2
16	0.8
50	12
84	24
100	36

Rock Weir Scour Depth analysis

The scour depth at the rock weirs is calculated following Federal Highway Administration's (FHWA) Hydraulic Engineering Circular No. 23 – Bridge Scour and Stream Instability

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Countermeasures, vol. 2 (FHWA, 2009). The equation of estimating local scour depth of a vertical structure is:

$$d_s = K_u H_t^{0.225} q^{0.54} - d_m$$

Where:

- d_s = Local scour depth for a free overfall, measured from the streambed downstream of the drop (ft)
- K_u = 1.32 for English units
- H_t = Total drop in head, measured from the upstream to downstream energy grade line (ft)
- q = Discharge per unit width (cfs/ft)
- H_d = Tailwater depth (ft)

Due to back water caused by the Devlin Rd Bridge located downstream of the Project site, there is no head drop for Rock Weirs No. 7 through No. 9. The maximum scour depth of the proposed rock weirs was estimated to be 6.3 ft downstream of the Rock Weir No. 1. Scour was also calculated between the final baffle and the first rock weir, and yielded a scour depth of 5.7 ft. The remaining rock weirs were calculated to have scour depths below 2.3 ft. Due to the increased scour potential at Rock Weir No. 1, an additional rock layer will be included for added ballast to prevent scour. See Appendix I for the rock weir scour calculation.

Design Event Evaluation

The water surface elevations at the upstream and downstream of the SR 29 crossing are compared between the existing and proposed conditions in Table 11 for the 100-year storm and Table 12 for the 50-year storm. The hydraulic model results indicated that the proposed improvement would result in an increase in the water surface elevations for the studied reach, a maximum increase of 0.6 ft for the 100-year storm and 0.5 ft for the 50-year storm upstream of the arch culvert at SR 29 NB (RS 684.8).

Table 11. 100-Year Water Surface Elevation Comparison

RS	Location	WSE* (ft NAVD 88)		WSE Difference (ft)
		Existing Condition	Proposed Condition	
684.8	Upstream of Arch Culvert	72.1	72.7	0.6
485.5	Downstream of SR 29 SB Bridge	59.4	61.6	2.2

Note: * Water surface elevations were rounded to nearest 0.1 ft.

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Table 12. 50-Year Water Surface Elevation Comparison

RS	Location	WSE* (ft NAVD 88)		WSE Difference (ft)
		Existing Condition	Proposed Condition	
684.8	Upstream of Arch Culvert	70.7	71.2	0.5
485.5	Downstream of SR 29 SB Bridge	58.9	61.3	2.4

Note: * Water surface elevations were rounded to nearest 0.1 ft.

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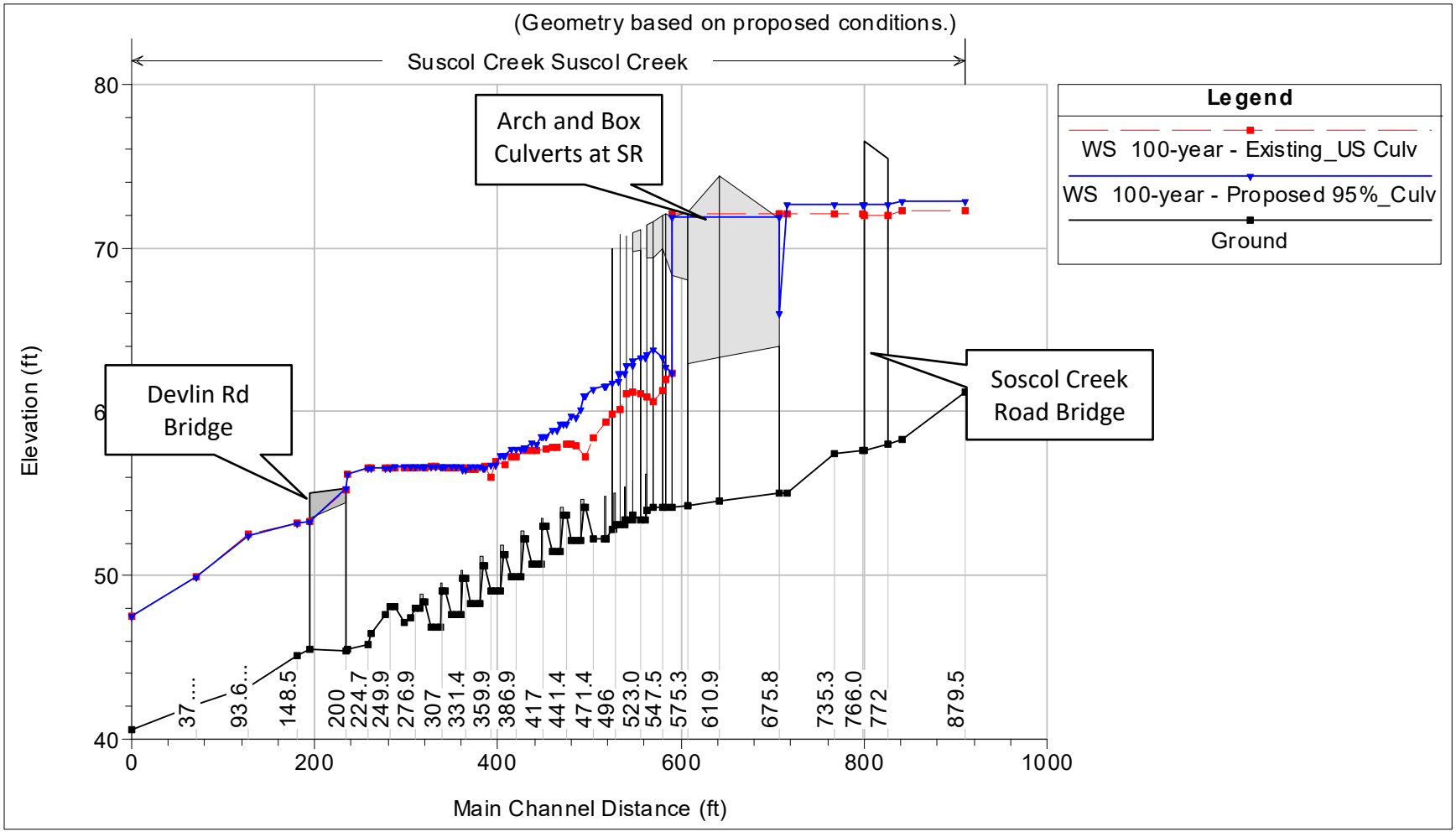


Figure 9. Suscol Creek 100-year Existing and Proposed Water Surface Profiles at SR 29 Crossing

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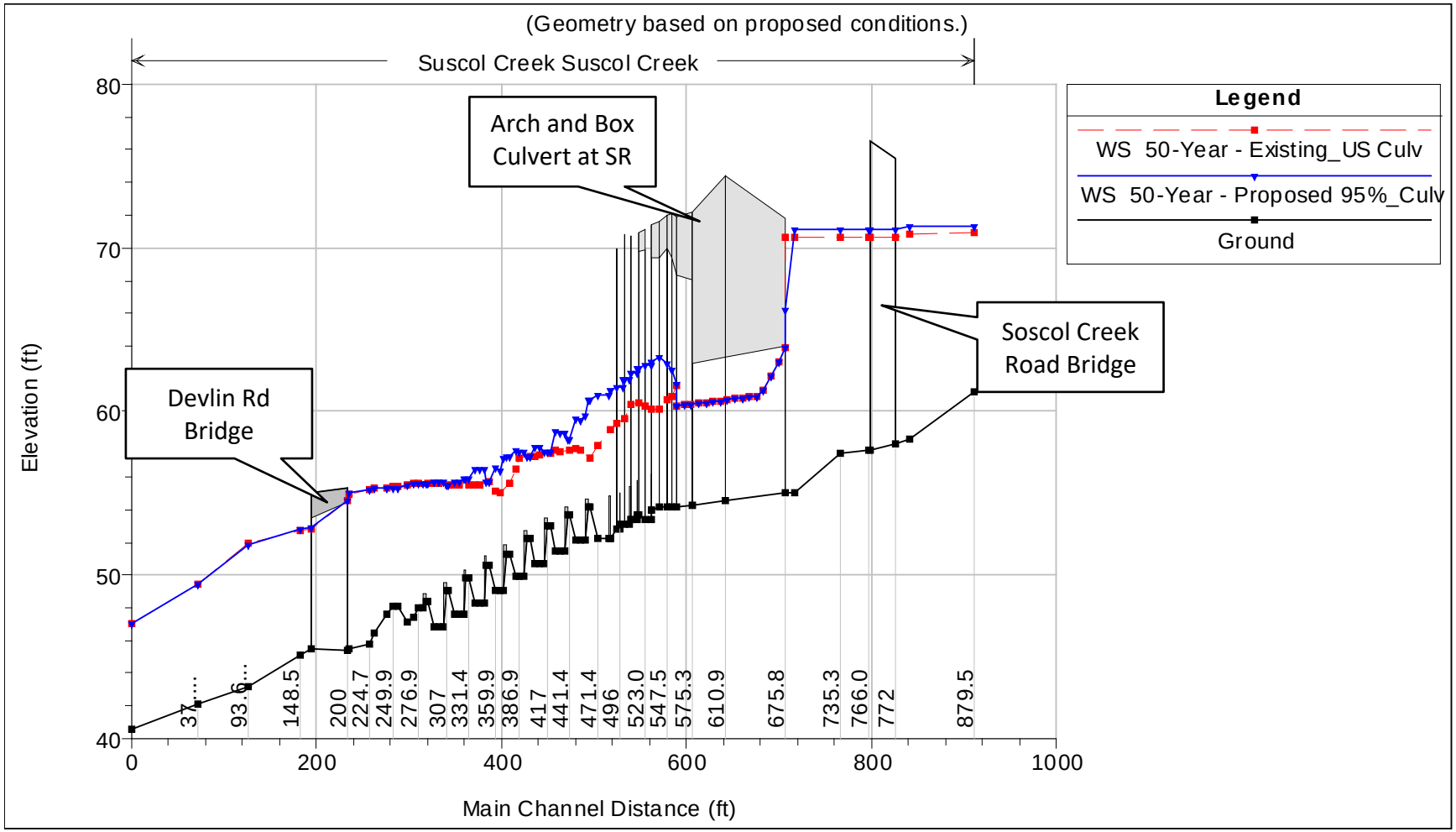


Figure 10. Suscol Creek 50-year Existing and Proposed Water Surface Profiles at SR 29 Crossing

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Rock Slope Protection for Channel Banks

Portions of the channel bank of Soscol Creek that contain natural slopes steeper than 2:1 (Horizontal: Vertical) require regrading following the installation of the buried weir ends. To minimize the slope disturbance due to archeological concerns in the Project vicinity, the eastern portion of the channel that requires regrading is proposed at a 1.5:1 side slope. In order to reduce the risk of slope erosion along this channel section, RSP will be placed as an erosion countermeasure.

The *Caltrans Highway Design Manual* (HDM) (2020) was used to calculate the RSP size for the proposed 100-year flow condition. However, the HDM rock sizing calculation is limited to channels with longitudinal slopes no steeper than 2%. Soscol Creek contains a longitudinal slope of 3%, and therefore, an alternative method for calculating rock size was evaluated. The *Hydraulic Engineering Circular No. 23 Bridge Scour and Stream Instability Countermeasures: Experience, Selection, and Design Guidance, Third Edition, Volume 2* (HEC-23) was used as an alternative method to calculate rock sizing. The HDM rock sizing calculations produced the most conservative results and ultimately were used in for the design of this Project.

RSP class calculated for all areas of the regraded streambank was Class V or smaller. Therefore, Class V is the recommended RSP size to be placed along the regraded channel side slope at the Project location. Class V has a median particle diameter of 18 inches and a median particle weight of 1/4 ton.

According to the HDM (2020), the minimum layer thickness of the RSP layer needs to be 1.5 times the median particle diameter or the maximum diameter, whichever is greater. The minimum layer thickness for Class V RSP is 2.3 ft. A gravel (granular) filter is recommended as a separator between the RSP layer and the channel streambed. The gravel layer will consist of Class II permeable material. See Rock Slope Protection Calculation Appendix J for RSP sizing calculations.

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Fish Passage Conclusion

Fish passage criteria for drop heights, velocities, and depths were evaluated at various segments within the proposed channel which include the box/arch culvert, the concrete baffles, and the weirs and pools for both juvenile and adult salmonid. The EDF was evaluated for the concrete baffles and the weirs and pools of the proposed channel for adult salmonid.

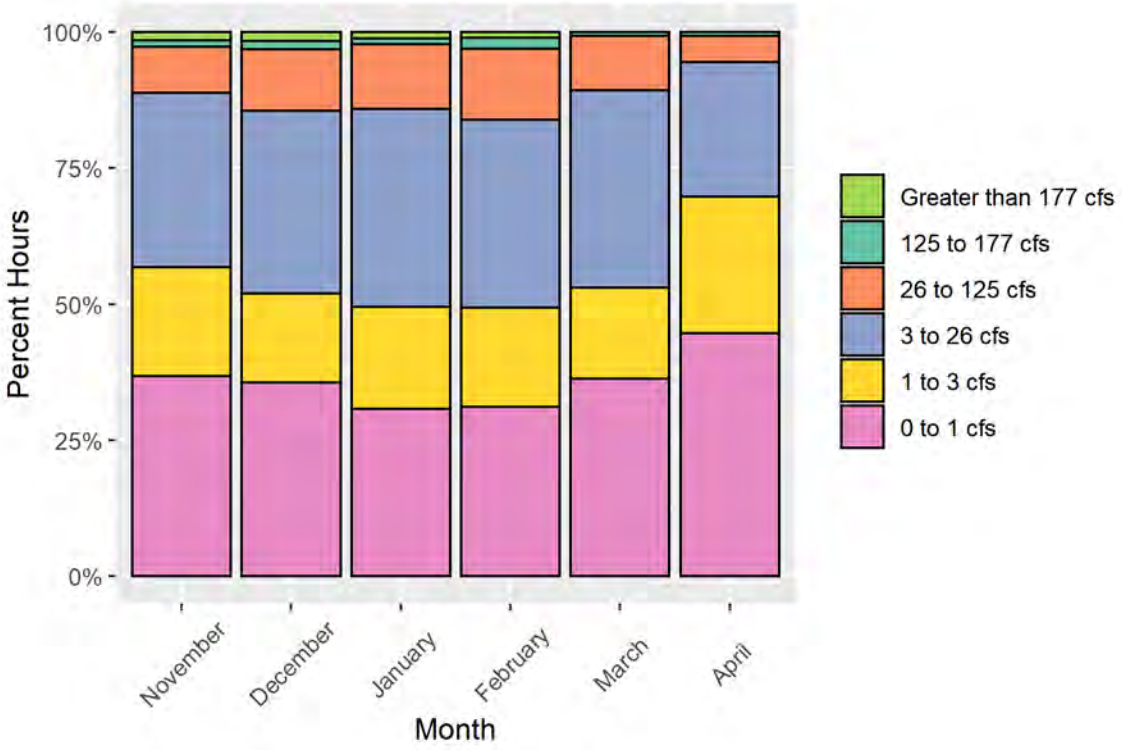
During high adult fish passage flows, criteria for drop heights were met in all segments of the channel while the velocity criteria was met in all segments of the channel with the exception of the box and arch culvert. During low adult fish passage flows, the depth criteria was met for all segments of the proposed channel. The adult fish passage criteria for drop height, velocity, and depth are all met up to 125 cfs. Based on the time series hydrologic model discussed in Section 2, flows at the Project site during the migration period (from November through April) have historically been less than 125 cfs 98% of the time. As demonstrated based on historical rainfall, the design is expected to meet design criteria 97% of the time that there is at least 1 cfs flow at the site from November through April.

During juvenile fish passage flows, criteria for drop heights were met in all segments of the channel while the velocity criteria was met in all segments of the channel with the exception of the box and arch culvert. During low juvenile fish passage flows, the depth criteria was met for all segments of the proposed channel. The Juvenile fish passage criteria for drop height, velocity, and depth are all met up to 30 cfs. Based on the hydrologic model, flows at the Project site from November through April have historically been less than 30 cfs 90% of the time. As demonstrated based on historical rainfall, the design is expected to meet design criteria 84% of the time that there is at least 1 cfs flow at the site from November through April.

EDF criteria was not met at the concrete baffles or the rock weir and pools under adult high fish passage flows. The EDF factors throughout the constructed reach meet the criteria at flows up to 26 cfs. Based on the hydrologic model, flows at the Project site from November through April have historically been less than 26 cfs 87% of the time. As demonstrated based on historical rainfall, the design is expected to meet design criteria 80% of the time that there is at least 1 cfs flow at the site from November through April.

These flow occurrences are shown in further detail in Figure 11.

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Notes:

1. 177 cfs is the high adult fish passage design flow rate.
2. 125 cfs is the flow rate at which adult passage depth and velocity criteria are met.
3. 26 cfs is the flow rate at which EDF criteria are met.
4. 3 cfs is the low adult fish passage design flow rate.
5. 1 cfs is the low juvenile fish passage design flow rate. The design also meets depth and velocity criteria for adults at 1 cfs.

Figure 11. Historical Occurrence of Flow Rates at Site from November through April

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Appendix A. Fish Passage Plan

Attachment 1

NOTE:

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	5.5/6.7, 0.0/0.2	--	--

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CURVE DATA

No.	R	Δ	T	L	N	E
①	20.00′	58°08′41"	10.95′	20.13′	6484683.14	1849167.98
②	50.00′	58°42′51"	28.20′	51.24′	6484692.45	1849245.93
③	20.00′	12°05′22"	2.12′	4.22′	6484727.24	1849267.24
④	50.00′	05°34′48"	2.44′	4.87′	6484797.06	1849279.25
⑤	100.00′	12°19′03"	10.79′	21.50′	6484849.05	1849301.51
⑥	100.00′	03°13′42"	2.82′	5.63′	6484859.79	1849336.65
⑦	100.00′	10°47′38"	9.45′	18.84′	6484883.94	1849402.22

CONSTRUCTION DETAILS

FISH PASSAGE PLAN

SCALE: 1" = 20′

C-75

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CHECKED BY JENNIFER ABRAMS
REVISED BY
DATE REVISED
CONSULTANT FUNCTIONAL SUPERVISOR HAN-BIN LIANG
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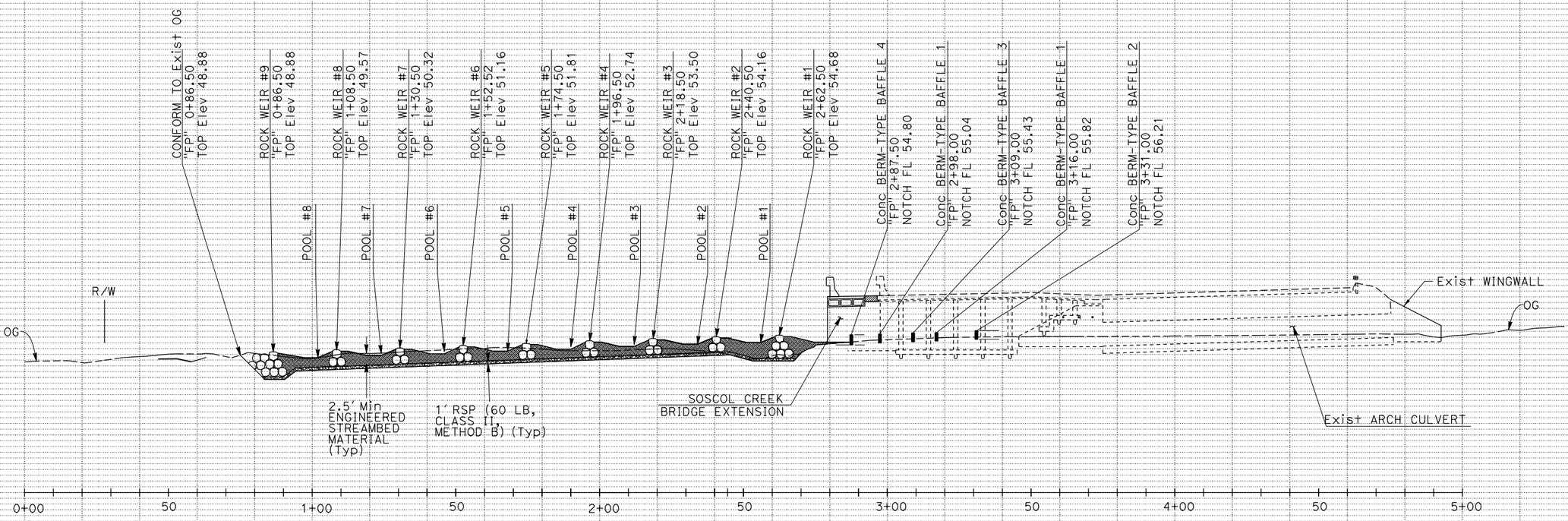
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LEGEND:
- ROCK WEIR
- VOID FILLER
- ENGINEERED STREAMBED MATERIAL
- CLASS II PERMEABLE MATERIAL
- CLASS V RSP, METHOD B



CONSTRUCTION DETAILS

FISH PASSAGE PROFILE

SCALE: 1" = 20'

C-76

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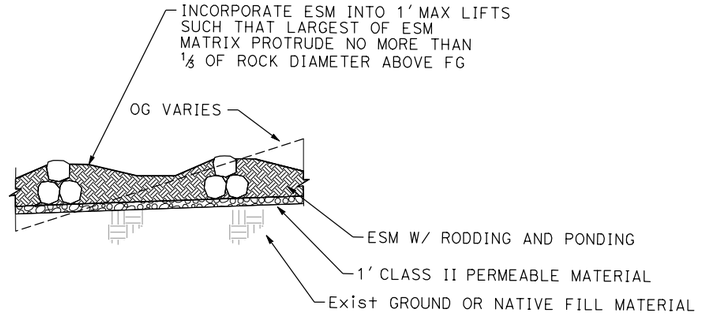
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- VOID FILLER
- ESM
- CLASS II PERMEABLE MATERIAL
- CLASS V RSP, METHOD B

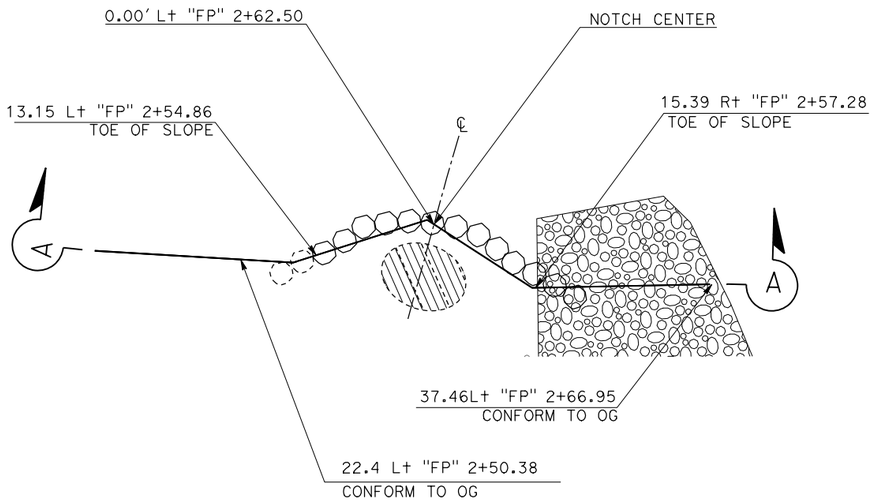
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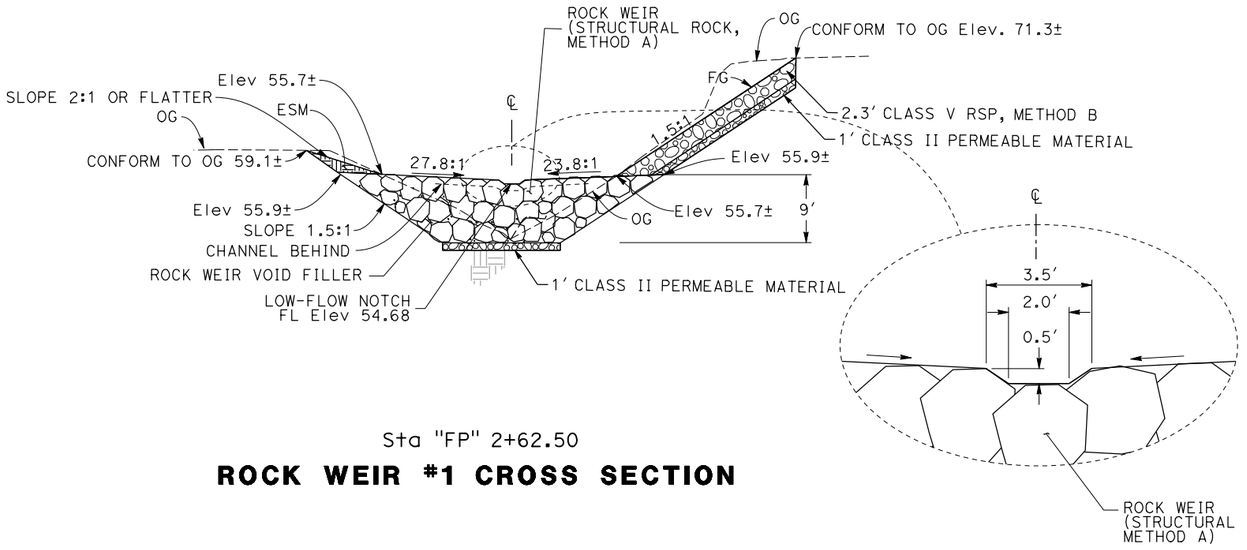


TYPICAL DETAIL

ESM LIFT PLACEMENT



ROCK WEIR #1 PLAN VIEW



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ROCK WEIR #1 CROSS SECTION

CONSTRUCTION DETAILS

NO SCALE

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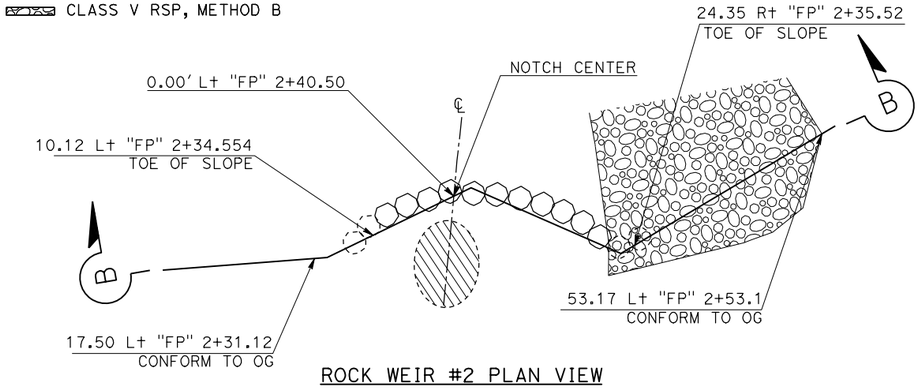
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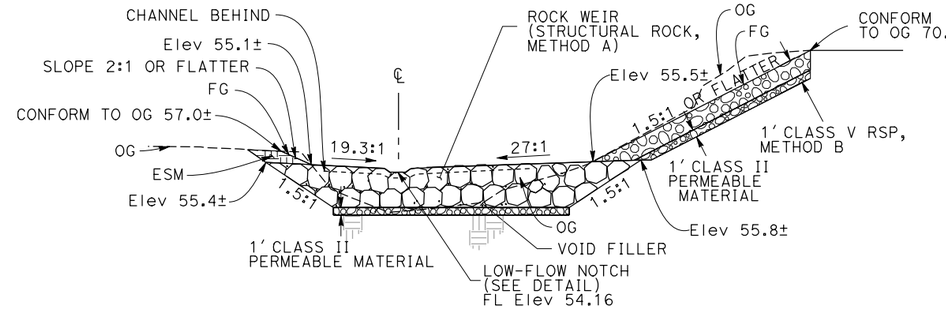
- ROCK WEIR
- VOID FILLER
- ESM
- CLASS II PERMEABLE MATERIAL
- CLASS V RSP, METHOD B

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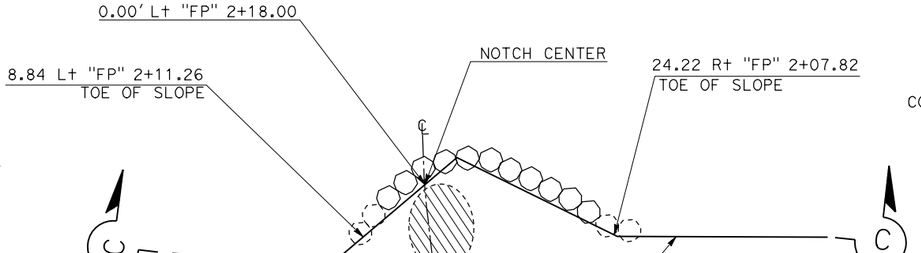


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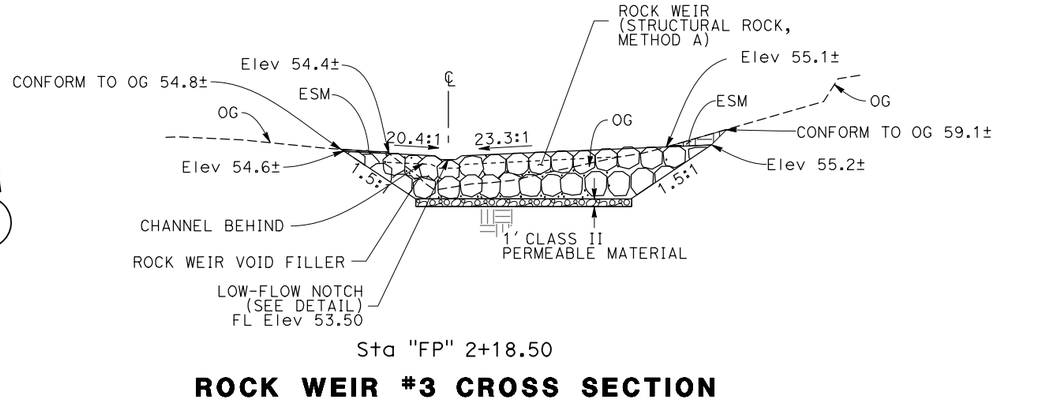


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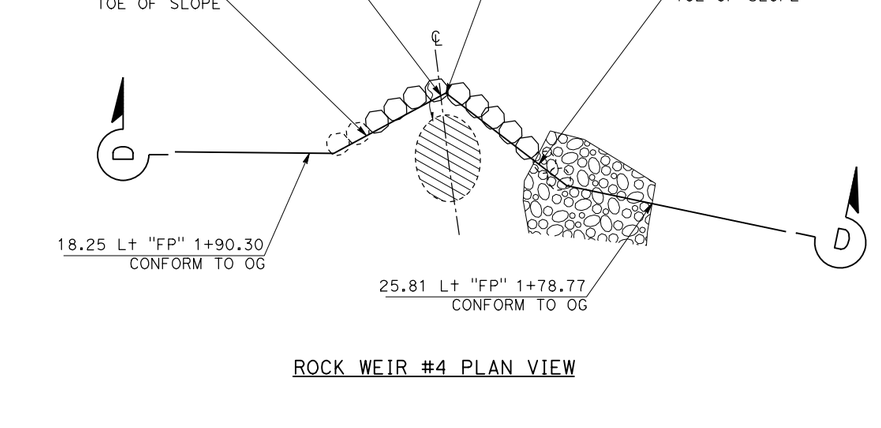


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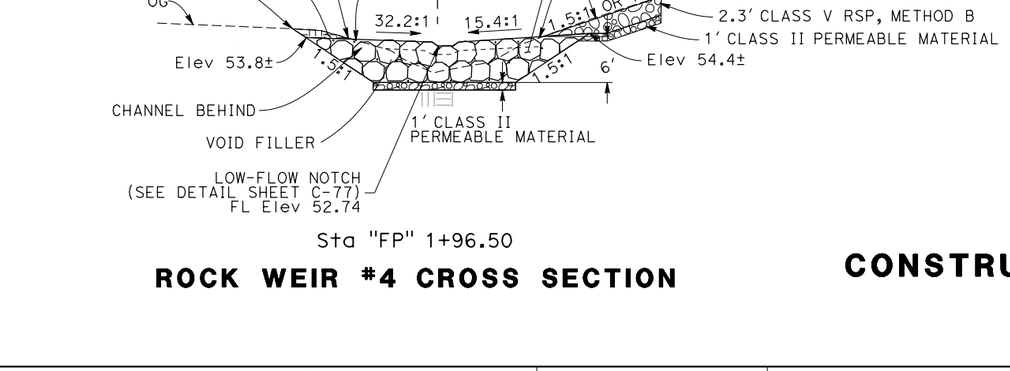


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ROCK WEIR #3 CROSS SECTION



ROCK WEIR #4 PLAN VIEW



Sta "FP" 1+96.50

ROCK WEIR #4 CROSS SECTION

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NO SCALE

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00-00-00 | TIME PLOTTED => 16:34

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

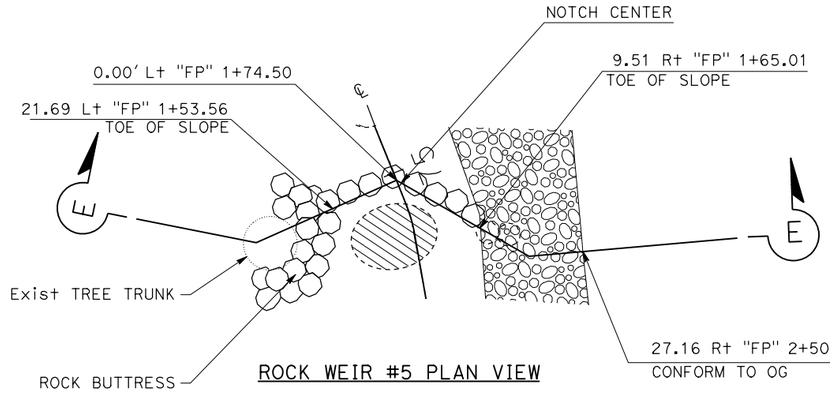
NVTA
625 BURNELL STREET
NAPA, CA 94559

LEGEND:

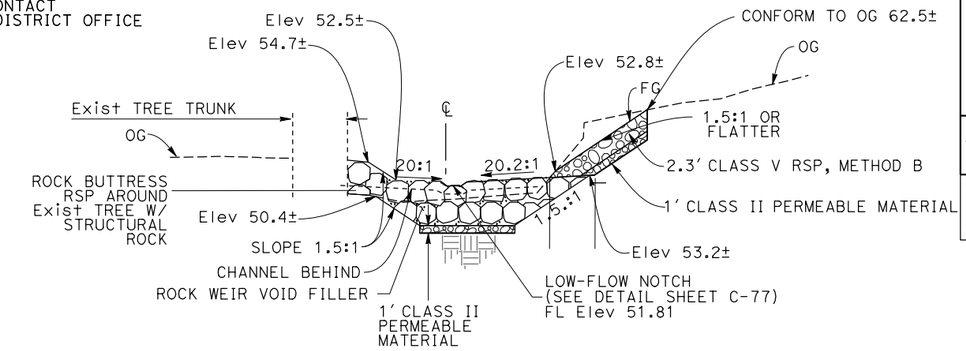
- ROCK WEIR
- VOID FILLER
- ESM
- CLASS II PERMEABLE MATERIAL
- CLASS V RSP, METHOD B

NOTE:

FOR ACCURATE RIGHTOF WAY DATA, CONTACT RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

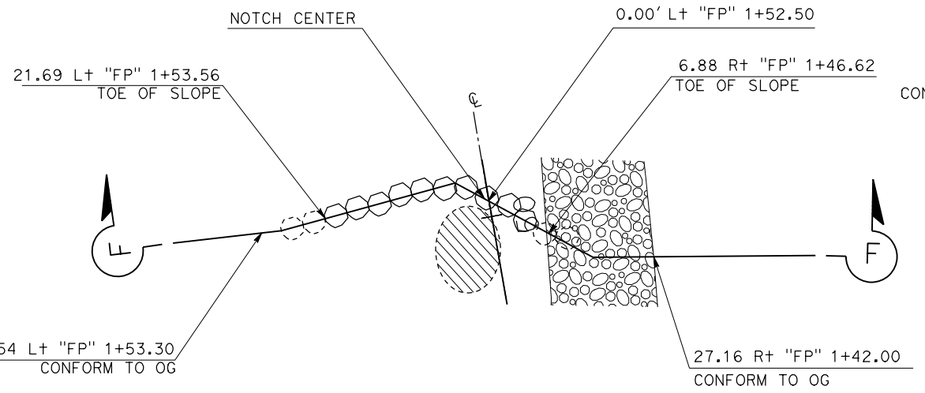


ROCK WEIR #5 PLAN VIEW

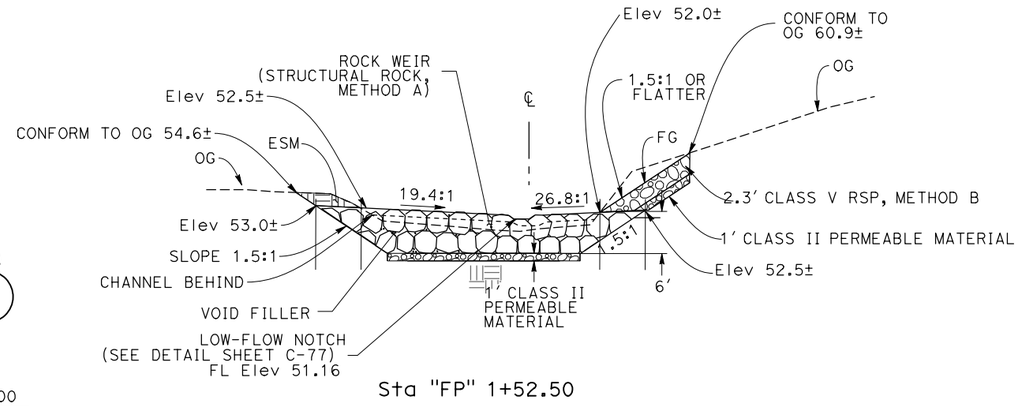


Sta "FP" 1+74.50

ROCK WEIR #5 CROSS SECTION

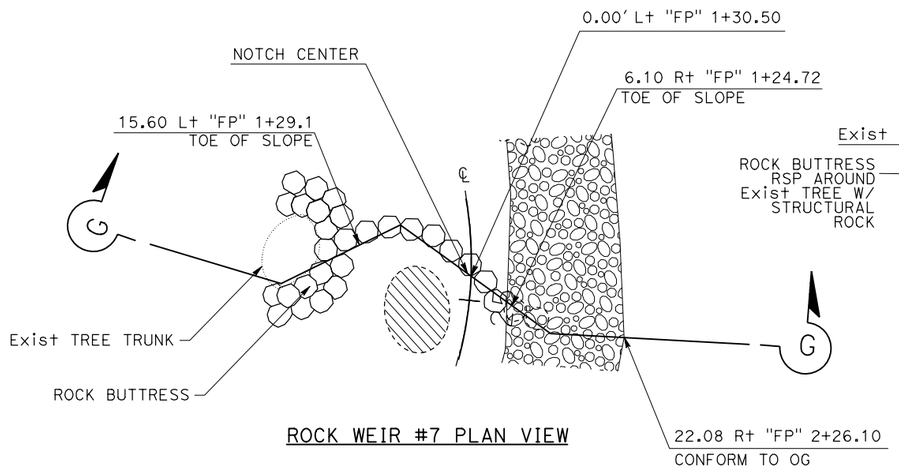


ROCK WEIR #6 PLAN VIEW

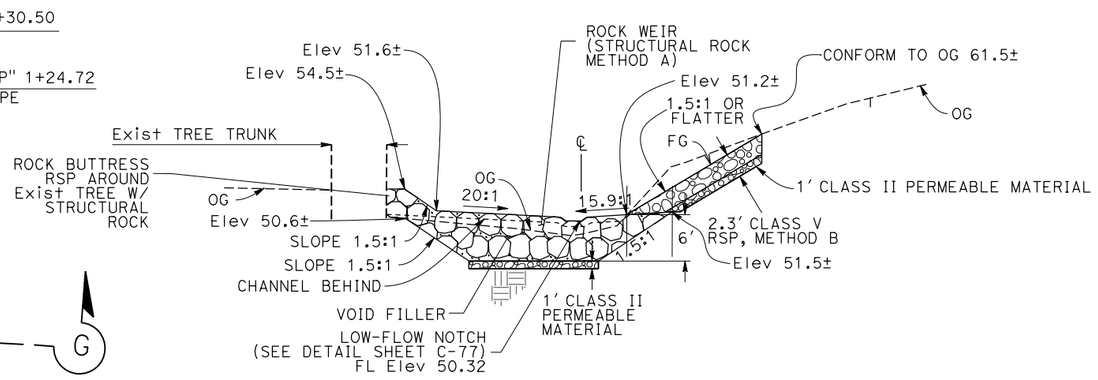


Sta "FP" 1+52.50

ROCK WEIR #6 CROSS SECTION



ROCK WEIR #7 PLAN VIEW



Sta "FP" 1+30.50

ROCK WEIR #7 CROSS SECTION

CONSTRUCTION DETAILS

NO SCALE

C-79

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: SHANNON MCCARTY
CHECKED BY: JENNIFER ABRAMS
SUPERVISOR: HAN-BIN LIANG
CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

180

LAST REVISION 00-00-00
DATE PLOTTED => 30-MAR-2021
TIME PLOTTED => 16:42

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga079.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Attachment 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

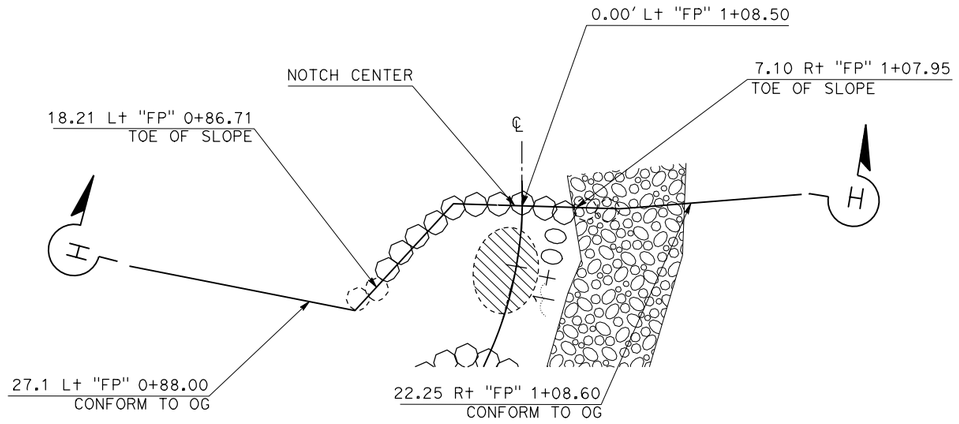
NVTA
625 BURNELL STREET
NAPA, CA 94559

LEGEND:

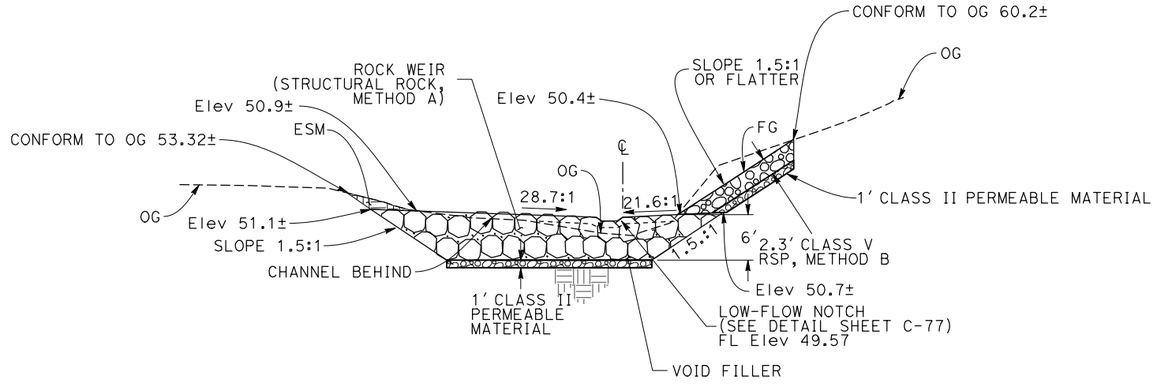
- ROCK WEIR
- VOID FILLER
- ESM
- CLASS II PERMEABLE MATERIAL
- CLASS V RSP, METHOD B

NOTE:

FOR ACCURATE RIGHTOF WAY DATA, CONTACT RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

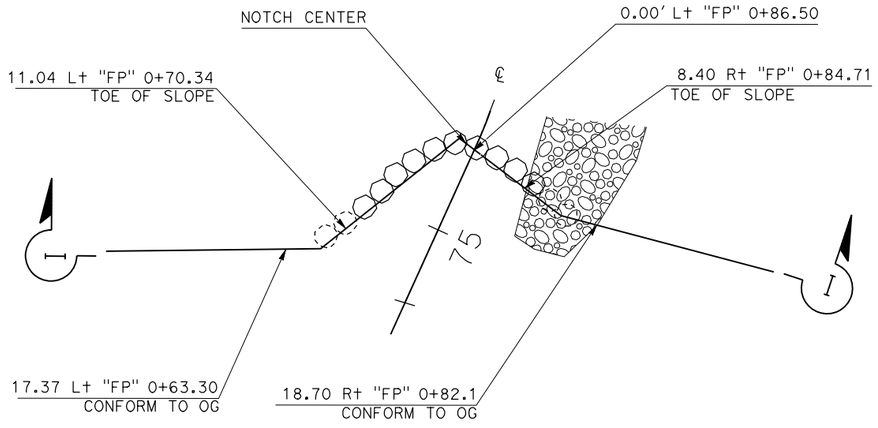


ROCK WEIR #8 PLAN VIEW

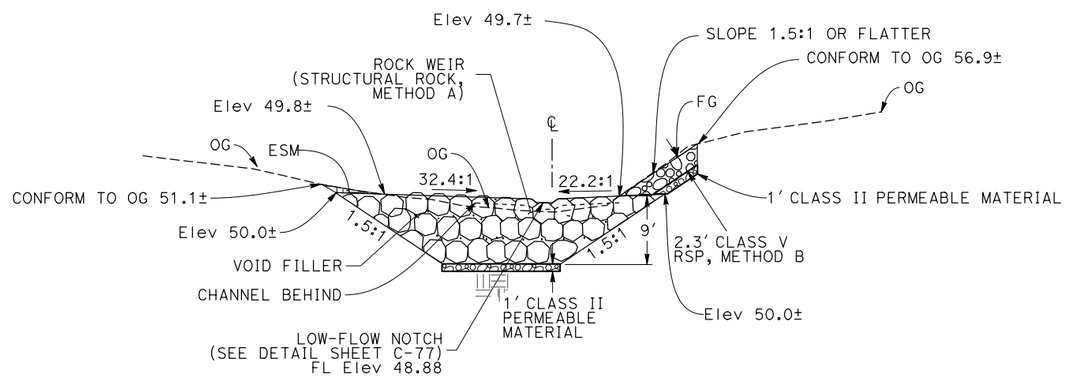


Sta "FP" 1+08.50

ROCK WEIR #8 CROSS SECTION



ROCK WEIR #9 PLAN VIEW



Sta "FP" 0+86.50

ROCK WEIR #9 CROSS SECTION

CONSTRUCTION DETAILS

NO SCALE

C-80

REVISED BY | DATE REVISED
SHANNON MCCARTY | JENNIFER ABRAMS
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 16:47

181

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga080.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/8.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

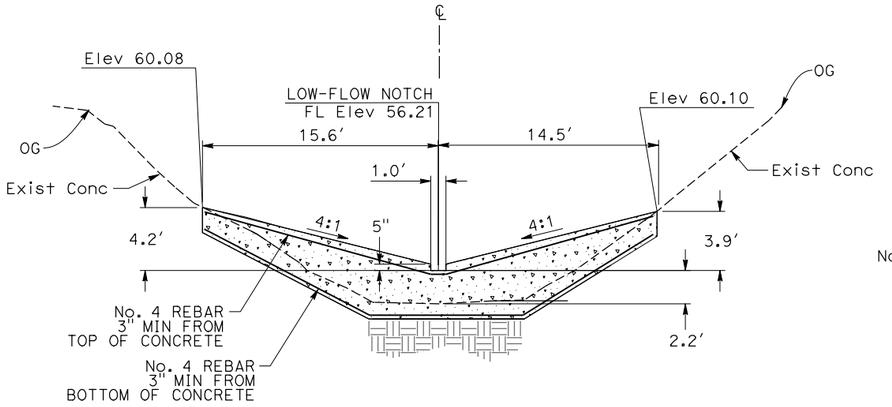
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1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

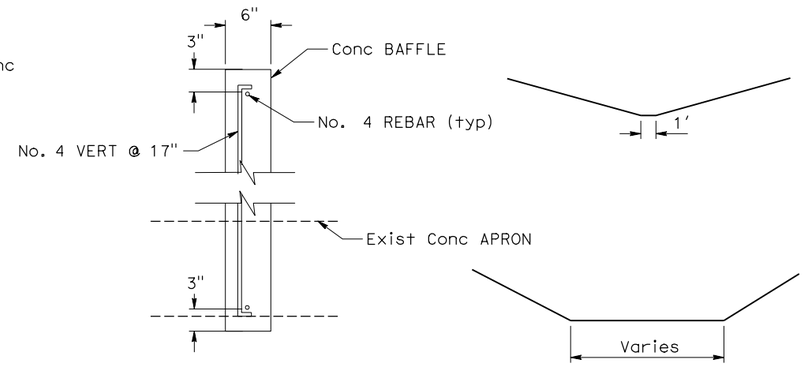
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FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

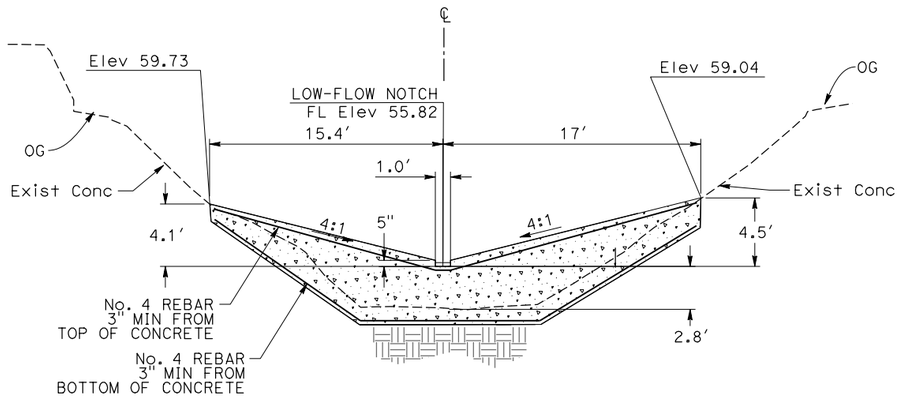


Sta "FP" 3+31.00

Conc BERM-TYPE BAFFLE #1

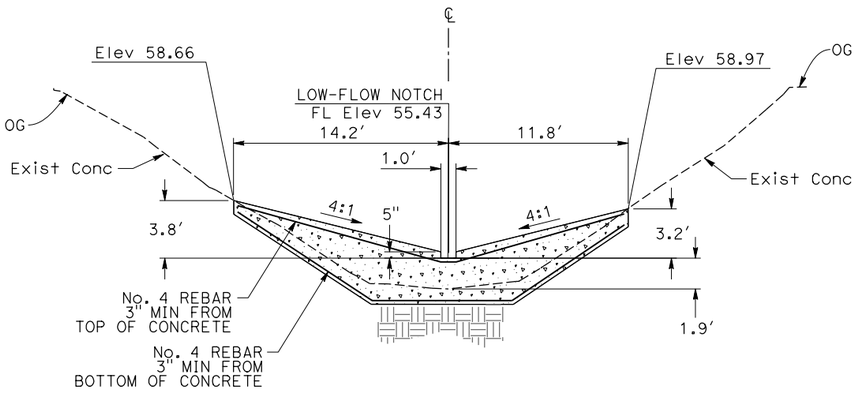


BAFFLE TYPICAL SECTION
NO SCALE



Sta "FP" 3+16.00

Conc BERM-TYPE BAFFLE #2



Sta "FP" 3+09.00

Conc BERM-TYPE BAFFLE #3

CONSTRUCTION DETAILS

SCALE" 1"= 5′ E

C-81

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

182

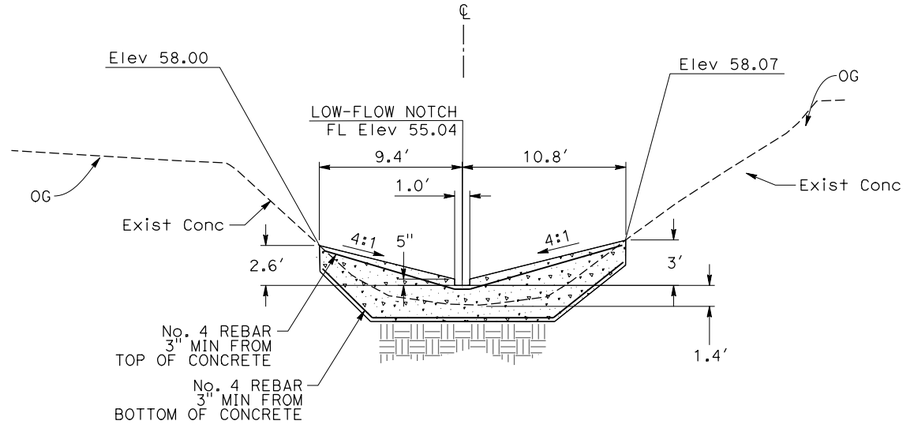
LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 16:50

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga081.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

NOTE:

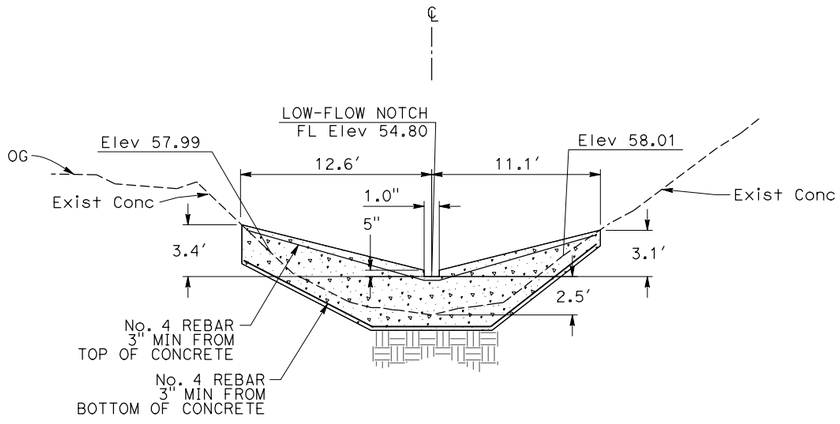
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

2. SEE SHEET C-81 FOR WEIR TYPICAL SECTION AND REBAR DETAILS



Sta "FP" 2+98.00

Conc BERM-TYPE BAFFLE #4



Sta "FP" 2+87.50

Conc BERM-TYPE BAFFLE #5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/8.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

CALCULATED-DESIGNED BY: SHANNON MCCARTY
CHECKED BY: JENNIFER ABRAMS
CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
REVISED BY
DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

SCALE" 1"= 5′ ∃

C-82

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 16:53

183

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga082.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/8.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

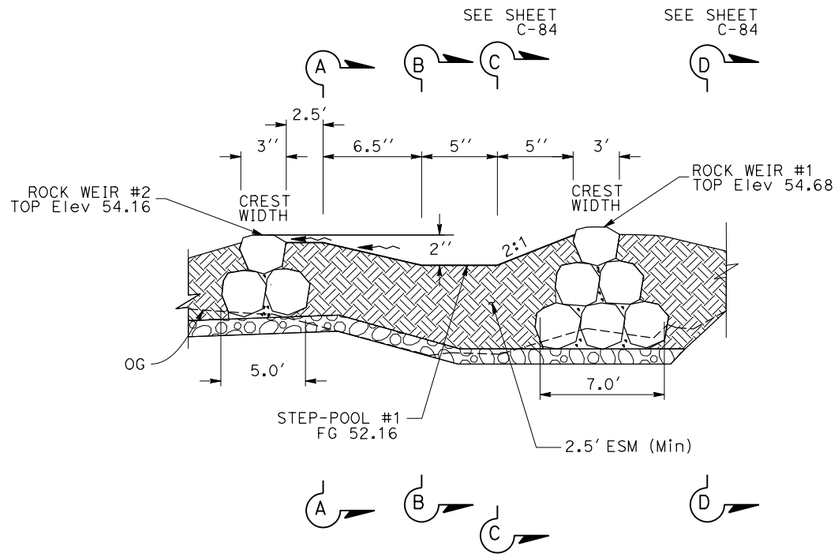
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NOTE:

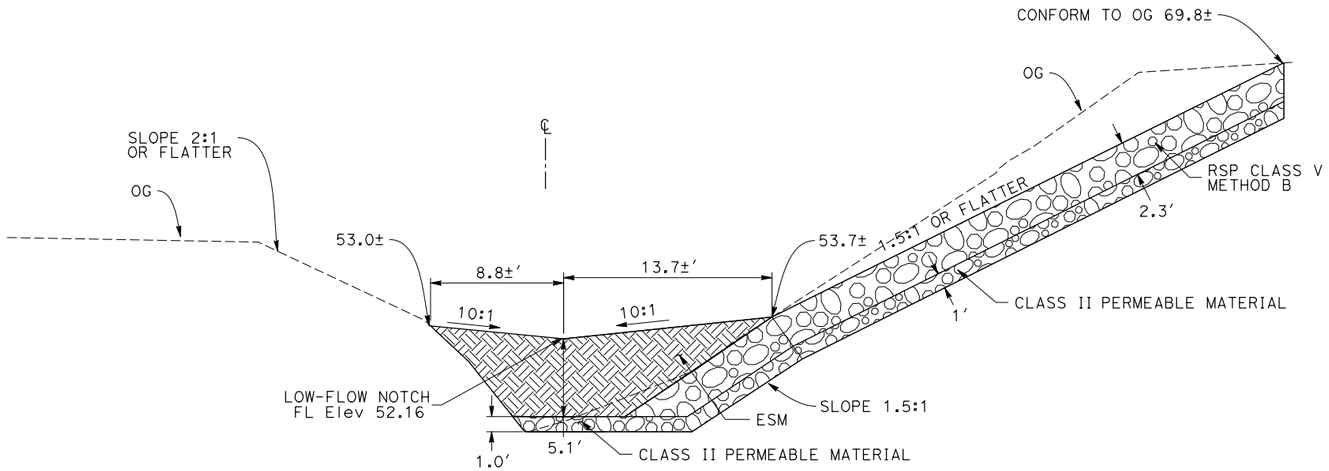
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE



Sta "FP" 2+40.50 TO 2+62.50

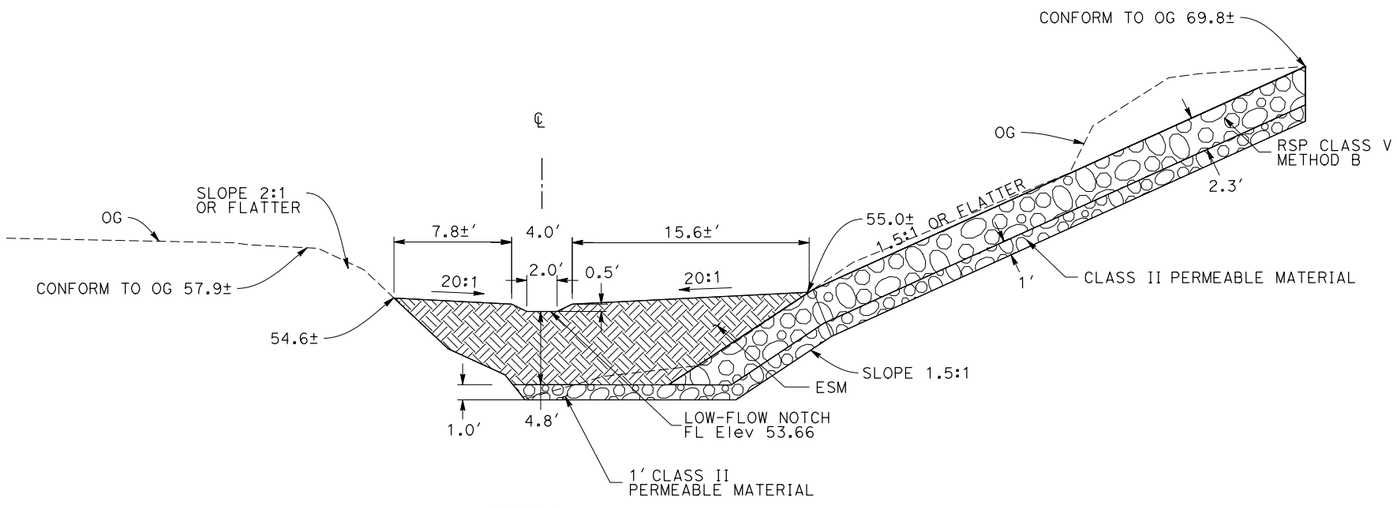
STEP-POOL #1 SECTION VIEW

NO SCALE



SECTION B-B

Sta "FP" 2+51.00



SECTION A-A

Sta "FP" 2+44.50

STEP-POOL #1 DETAILS

CONSTRUCTION DETAILS

SCALE: 1"= 5'

C-83

REVISED BY | DATE REVISED
SHANNON MCCARTY | JENNIFER ABRAMS
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 31-MAR-2021 | TIME PLOTTED => 10:01

184

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 04000007769ga083b.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

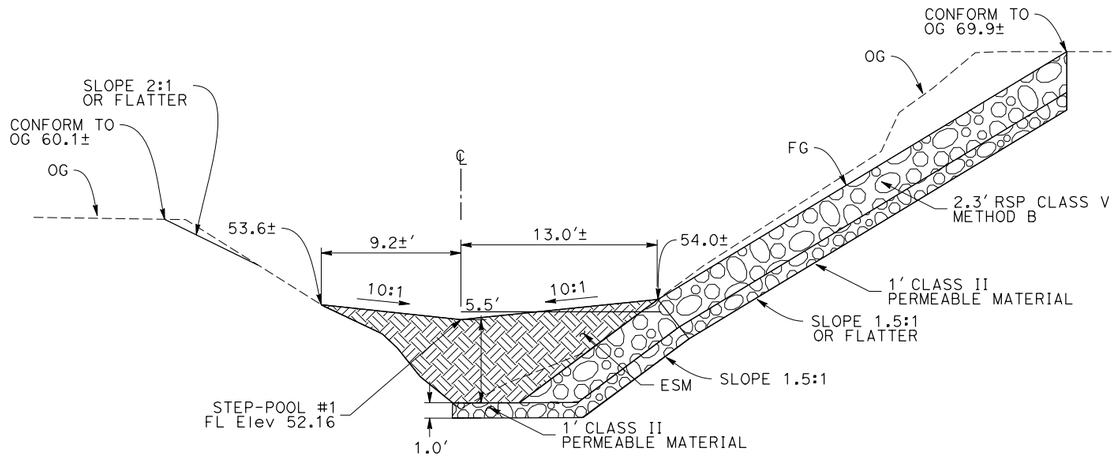
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WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

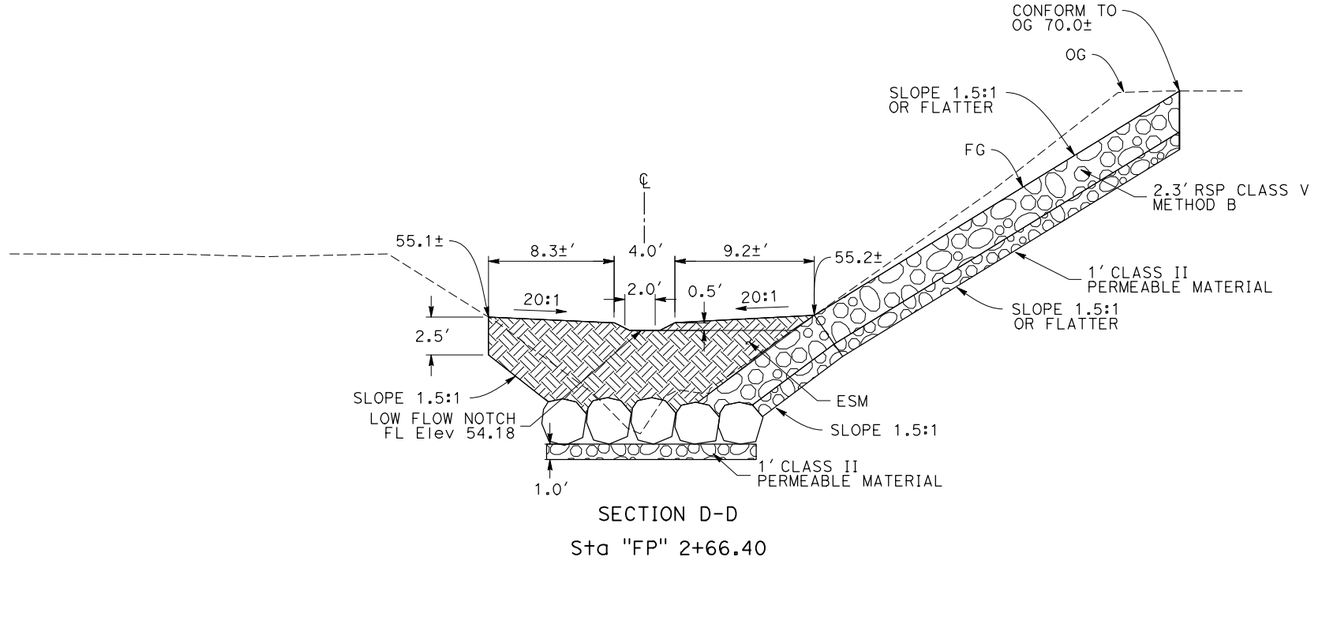
NVTA
625 BURNELL STREET
NAPA, CA 94559

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE



SECTION C-C
Sta "FP" 2+56.00



SECTION D-D
Sta "FP" 2+66.40

STEP-POOL #1 DETAILS

CONSTRUCTION DETAILS

SCALE: 1"= 5'

C-84

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

185

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 16:55

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga083.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

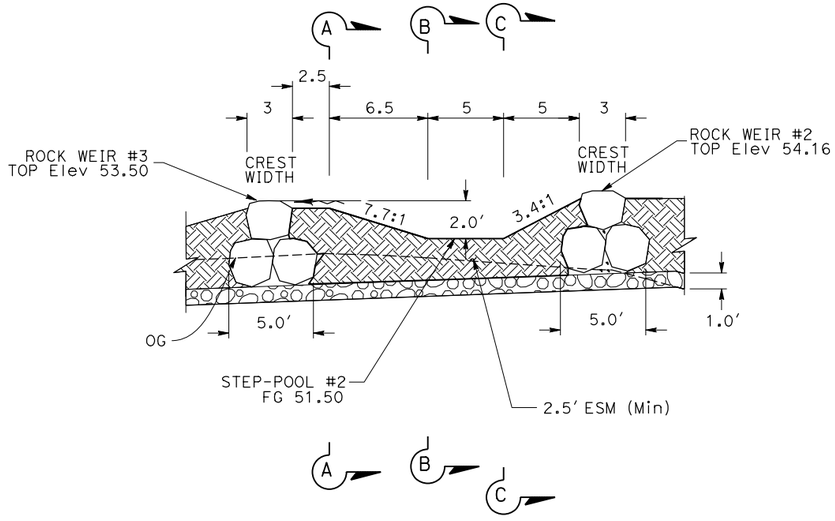
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WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

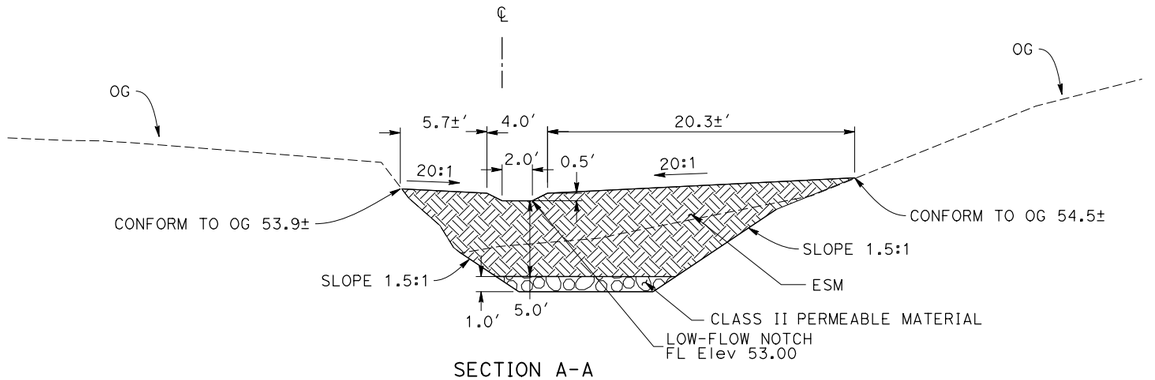
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

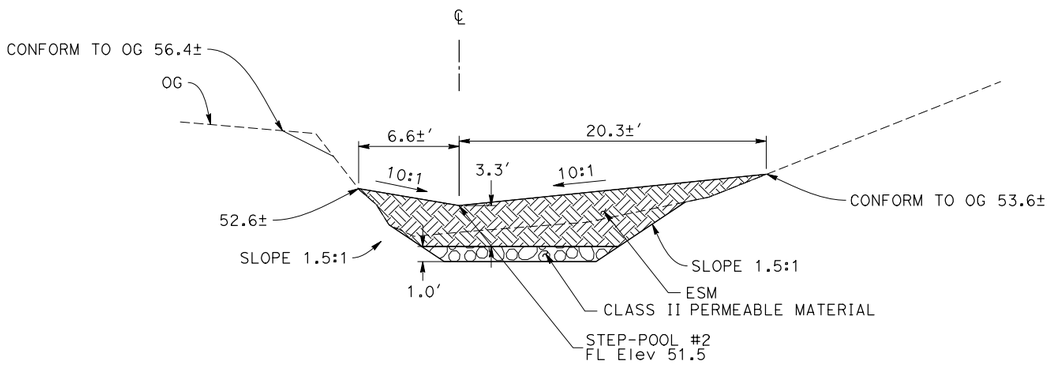


Sta "FP" 2+18.50 TO 2+40.50

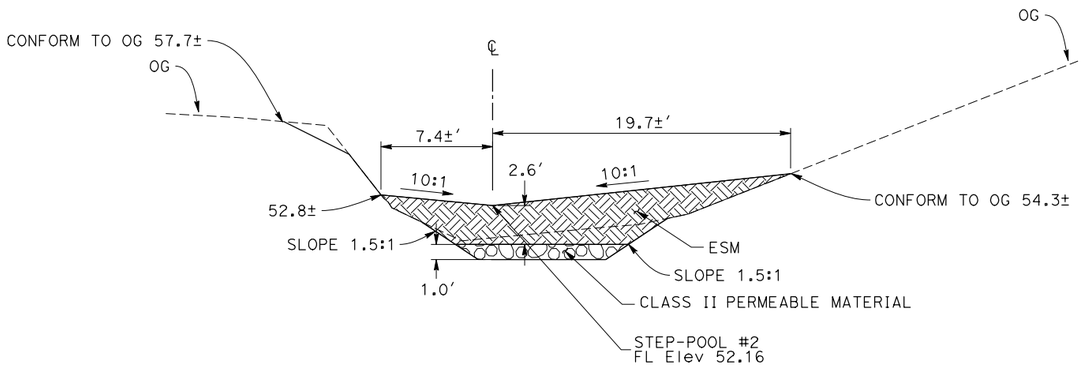
STEP-POOL #2 SECTION VIEW
NO SCALE



SECTION A-A
Sta "FP" 2+22.50



SECTION B-B
Sta "FP" 2+29.00



SECTION C-C
Sta "FP" 2+34.00

STEP-POOL #2 DETAILS

CONSTRUCTION DETAILS

SCALE: 1" = 5'

C-85

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS

CALCULATED-DESIGNED BY

CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

186

LAST REVISION 00-00-00

DATE PLOTTED => 30-MAR-2021
TIME PLOTTED => 17:01

BORDER LAST REVISED 7/2/2010

USERNAME => Shannon_McCarty
DGN FILE => 0400000769ga084.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 04000007691

Attachment 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

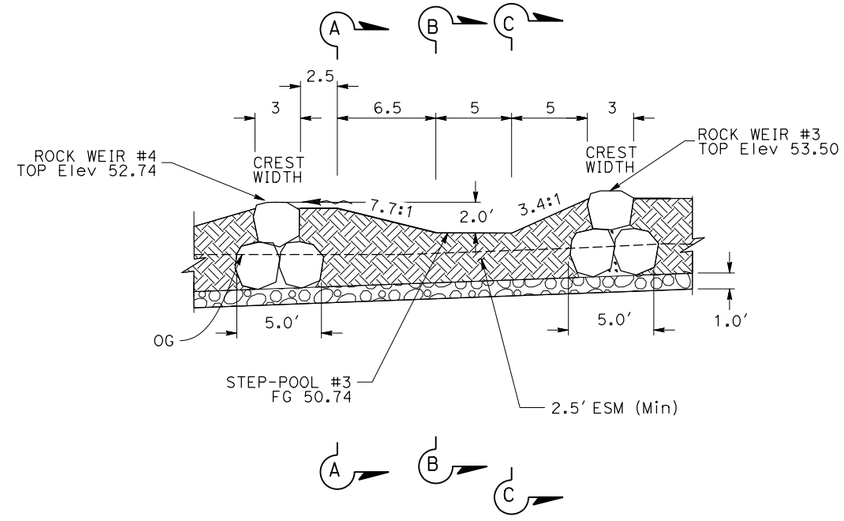
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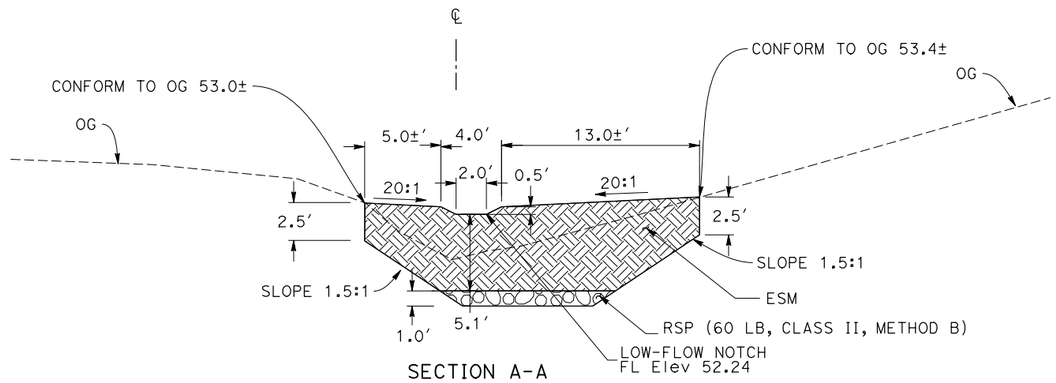
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FOR ACCURATE RIGHT OF WAY DATA, CONTACT
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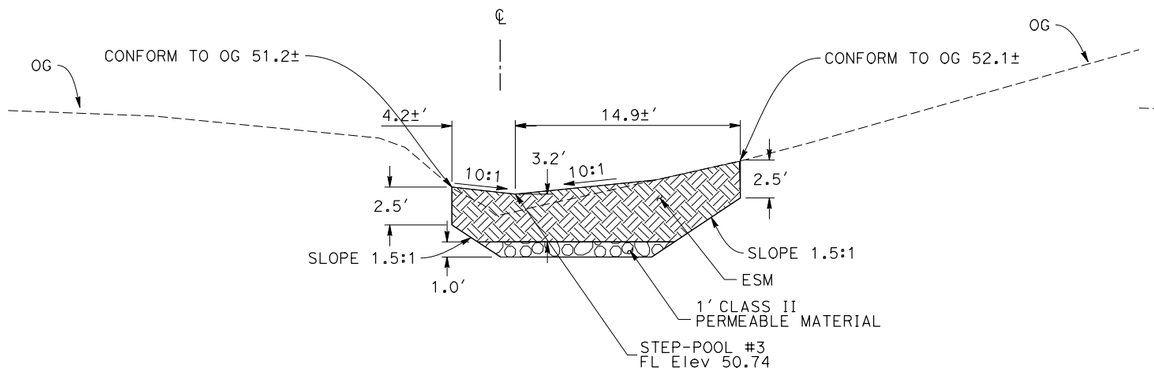


Sta "FP" 1+96.50 TO 2+18.50

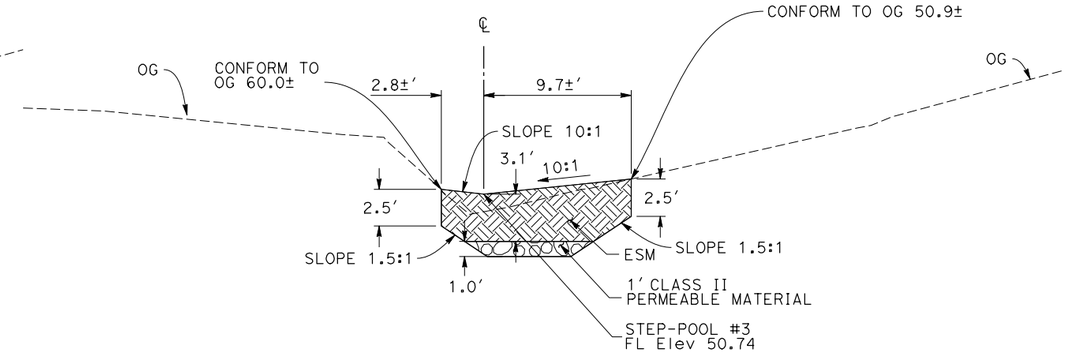
STEP-POOL #3 SECTION VIEW
NO SCALE



SECTION A-A
Sta "FP" 2+00.50



SECTION B-B
Sta "FP" 2+07.00



SECTION C-C
Sta "FP" 2+12.00

STEP-POOL #3 DETAILS

CONSTRUCTION DETAILS

SCALE: 1" = 5′

C-86

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY: SHANNON MCCARTY
DATE REVISED: JENNIFER ABRAMS
CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

187

LAST REVISION 00-00-00
DATE PLOTTED => 30-MAR-2021
TIME PLOTTED => 17:02

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga085.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

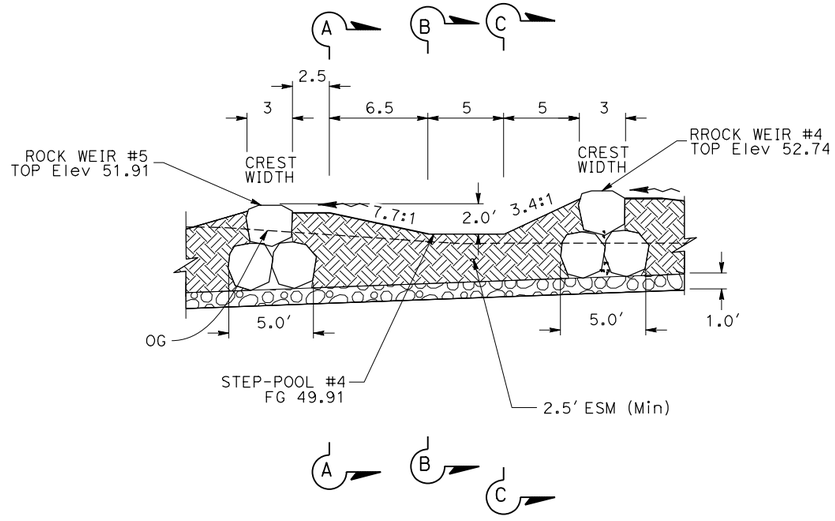
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

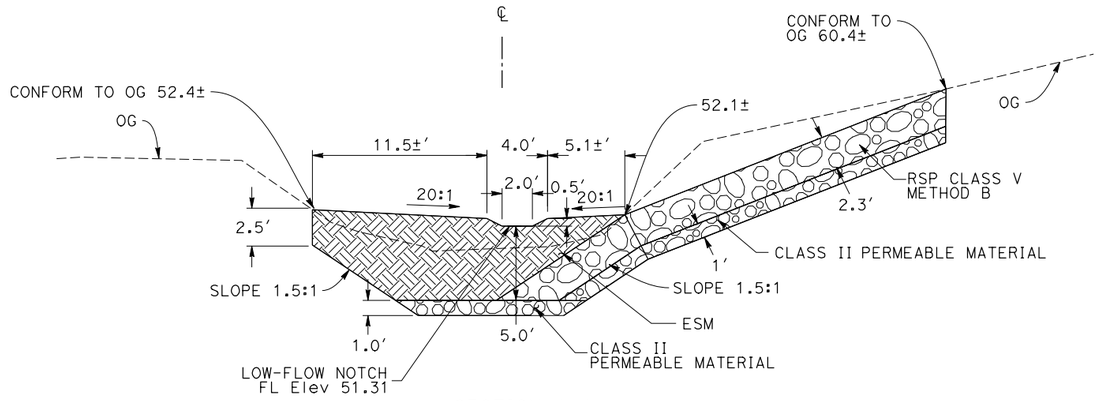
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

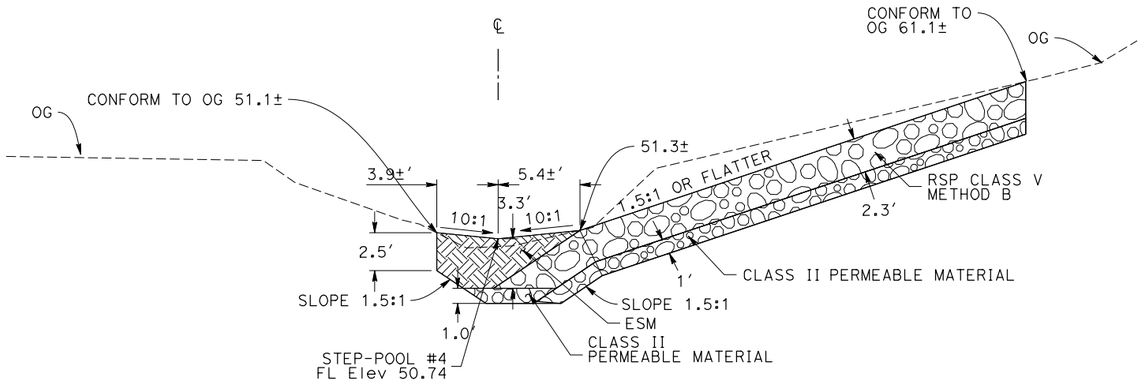


Sta "FP" 1+74.50 TO 1+96.50

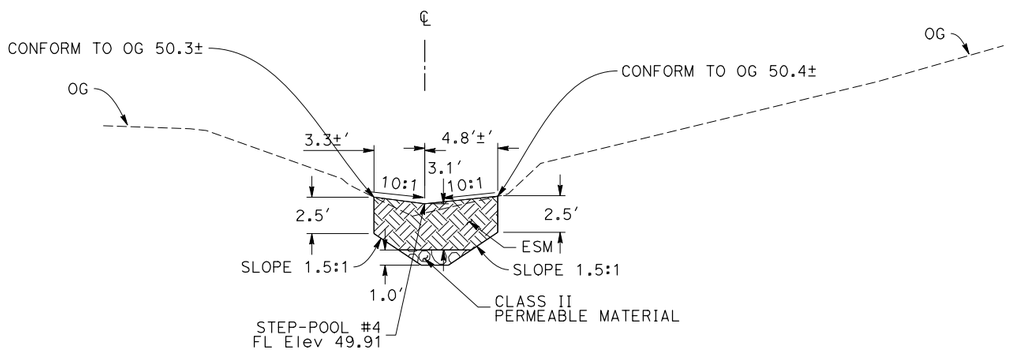
STEP-POOL #4 SECTION VIEW
NO SCALE



SECTION A-A
Sta "FP" 1+78.50



SECTION B-B
Sta "FP" 1+85.00



SECTION C-C
Sta "FP" 1+90.00

STEP-POOL #4 DETAILS

CONSTRUCTION DETAILS

SCALE: 1" = 5'

C-87

REVISED BY | DATE REVISED
SHANNON MCCARTY | JENNIFER ABRAMS
CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00
DATE PLOTTED => 30-MAR-2021
TIME PLOTTED => 17:04

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga086.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

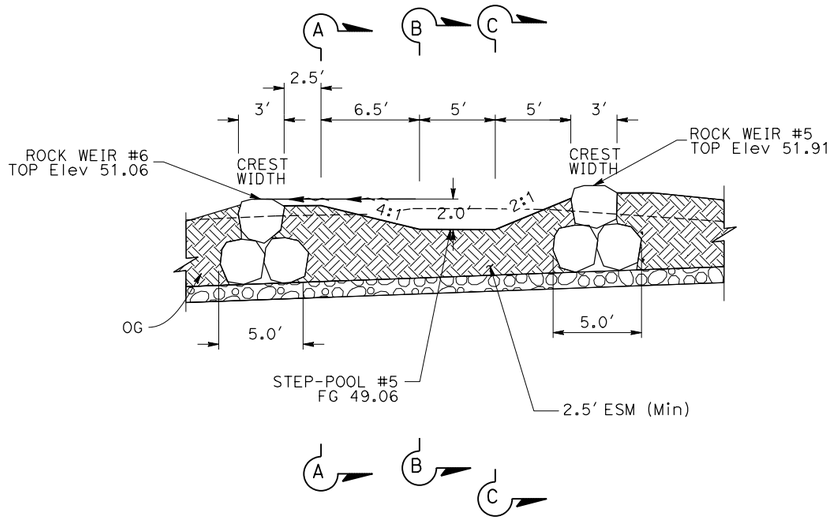
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

NOTE:

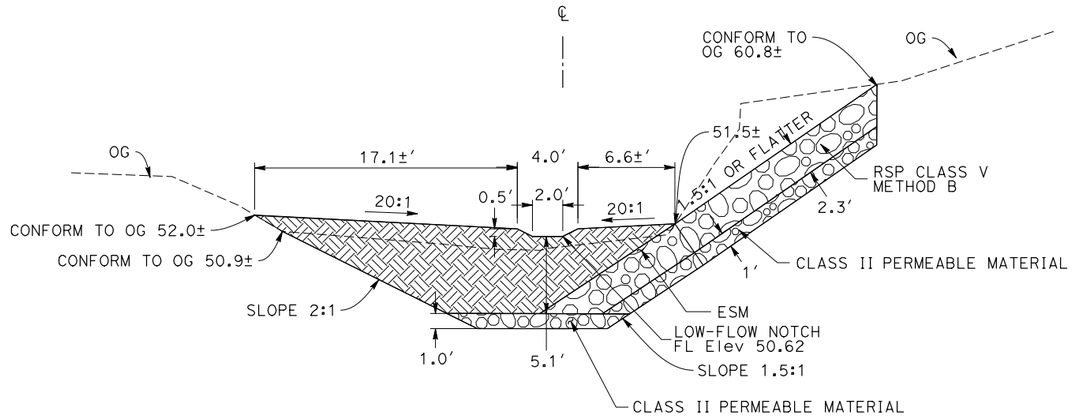
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE



Sta "FP" 1+52.50 TO 1+74.50

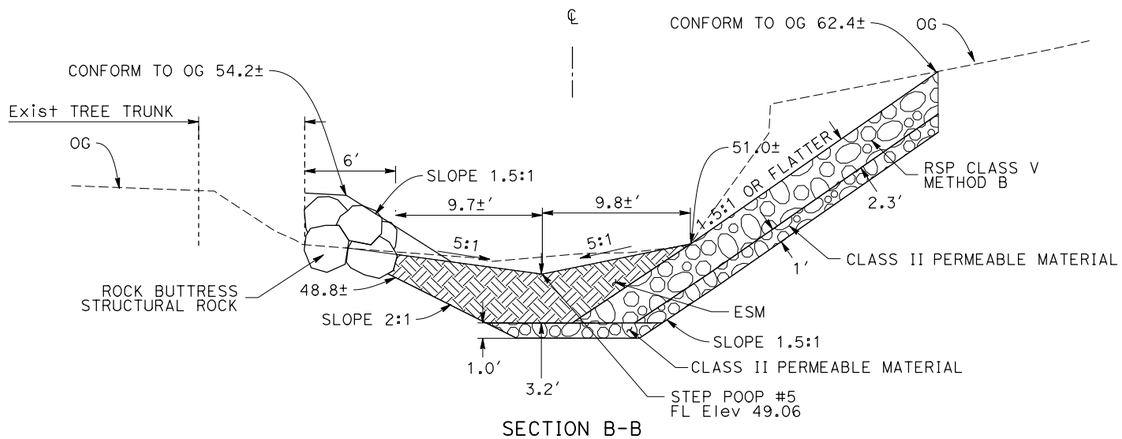
STEP-POOL #5 SECTION VIEW

NO SCALE



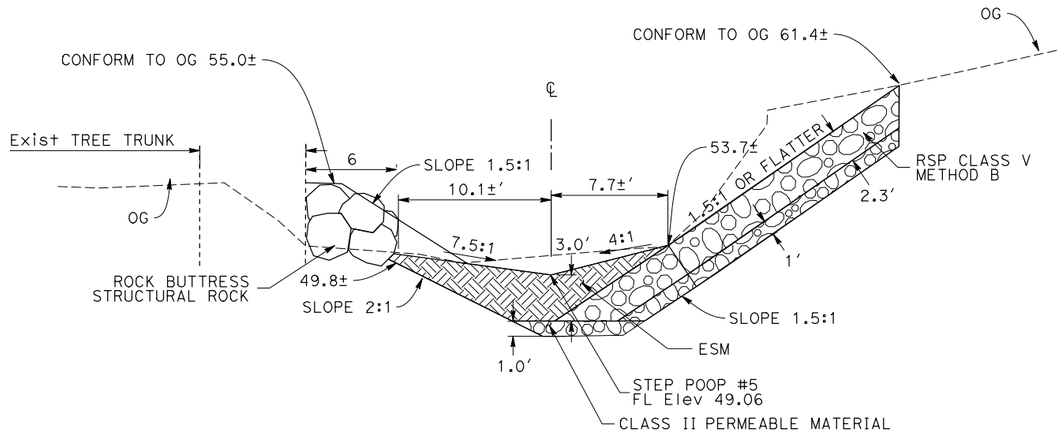
SECTION A-A

Sta "FP" 1+56.50



SECTION B-B

Sta "FP" 1+63.00



SECTION C-C

Sta "FP" 1+68.00

STEP-POOL #5 DETAILS

CONSTRUCTION DETAILS

SCALE: 1"= 5′

C-88

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED | SHANNON MCCARTY | JENNIFER ABRAMS

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 17:08

189

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga087.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Attachment 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

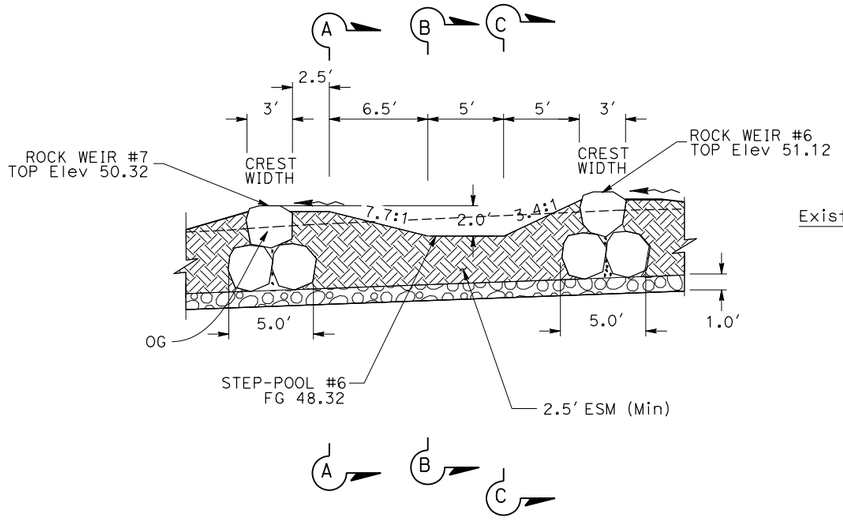
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WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

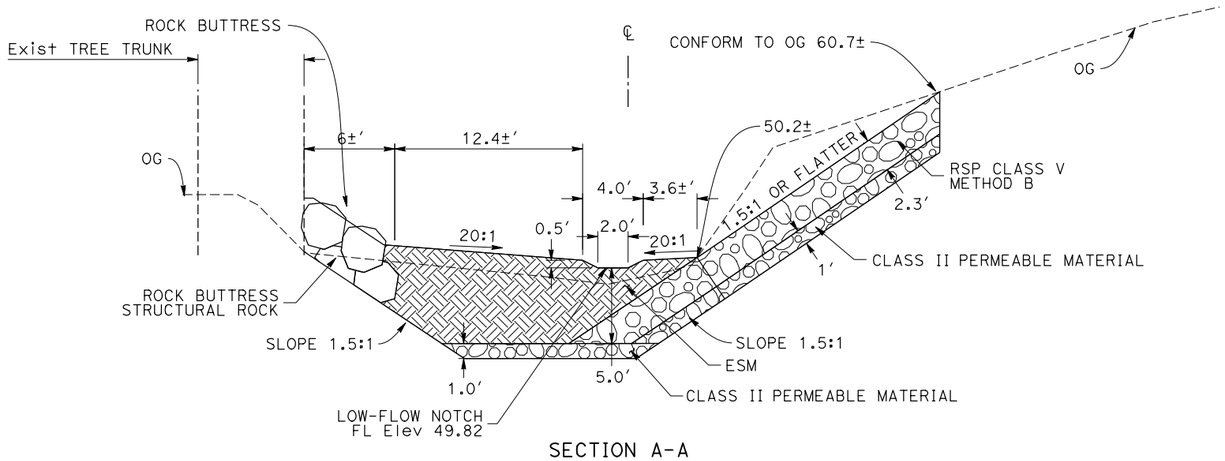
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

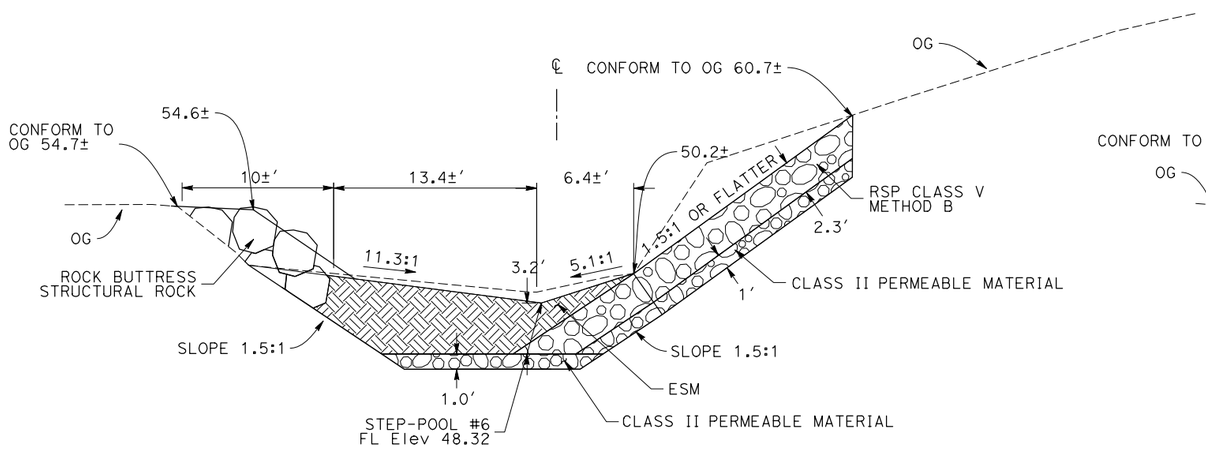


Sta "FP" 1+30.50 TO 1+52.50

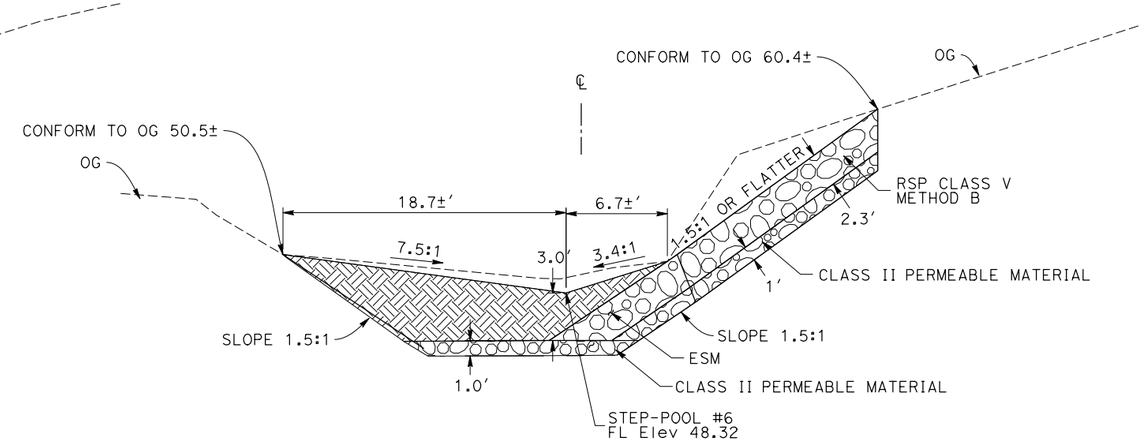
STEP-POOL #6 SECTION VIEW
NO SCALE



SECTION A-A
Sta "FP" 1+34.50



SECTION B-B
Sta "FP" 1+41.00



SECTION C-C
Sta "FP" 1+46.00

STEP-POOL #6 DETAILS

CONSTRUCTION DETAILS

SCALE: 1" = 5′

C-89

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 17:12

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 04000007691ga088.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

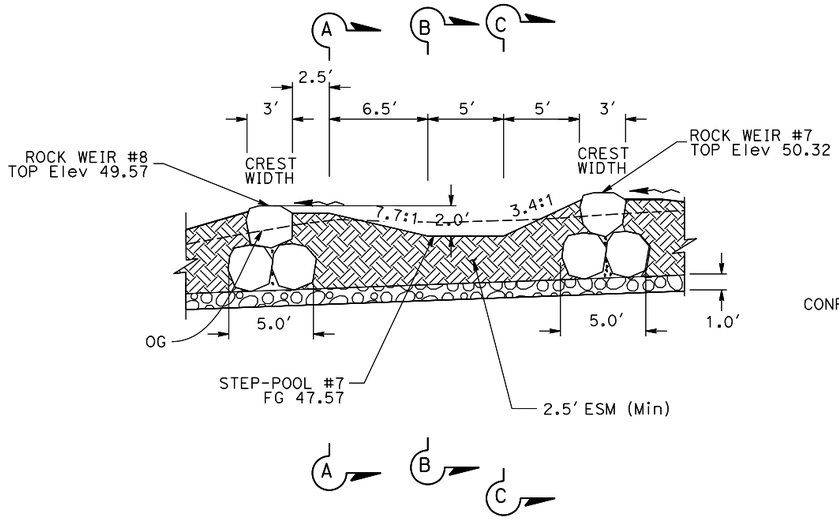
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

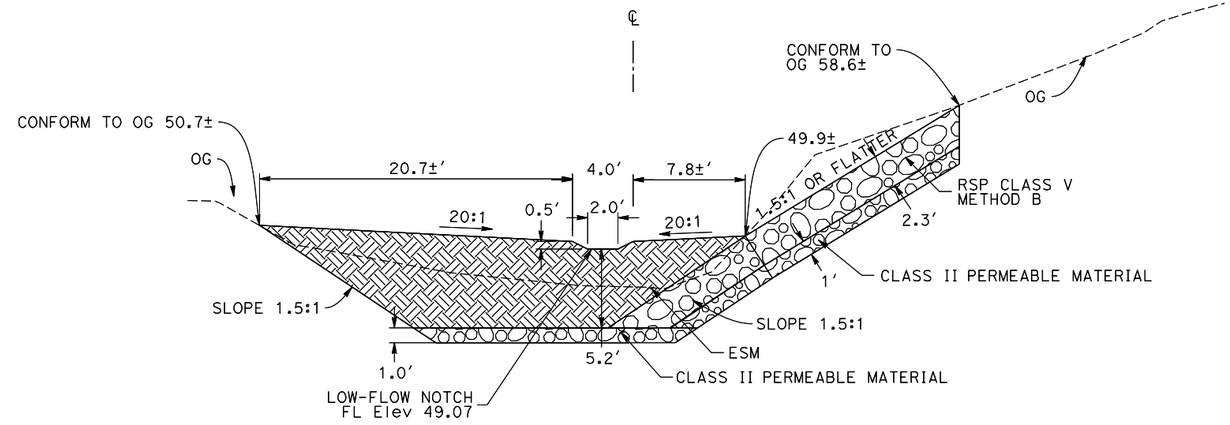
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

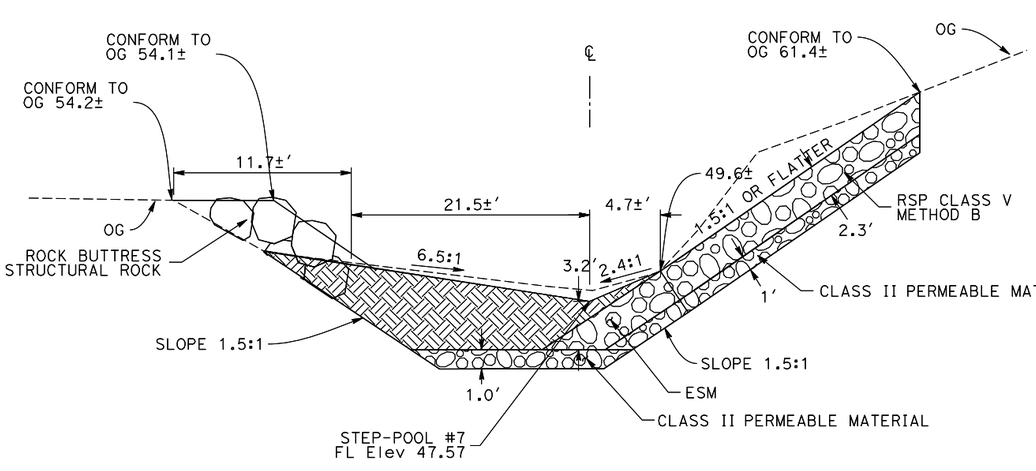


Sta "FP" 1+08.50 TO 1+30.50

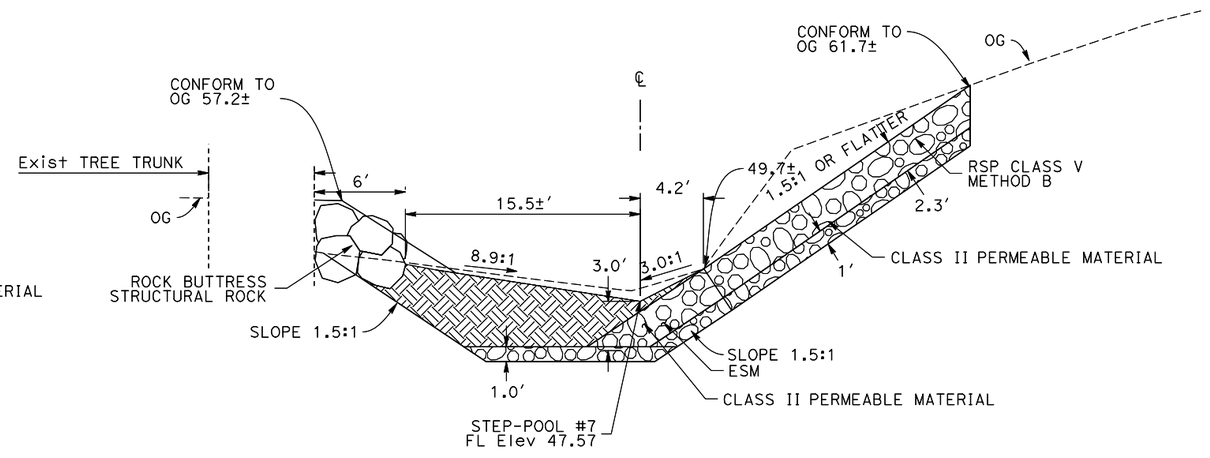
STEP-POOL #7 SECTION VIEW
NO SCALE



SECTION A-A
Sta "FP" 1+12.50



SECTION B-B
Sta "FP" 1+19.00



SECTION C-C
Sta "FP" 1+24.00

STEP-POOL #7 DETAILS

CONSTRUCTION DETAILS

SCALE: 1" = 5′

C-90

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 17:16

191

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga089.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/8.7, 0.0/0.2	--	--

Attachment 1

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

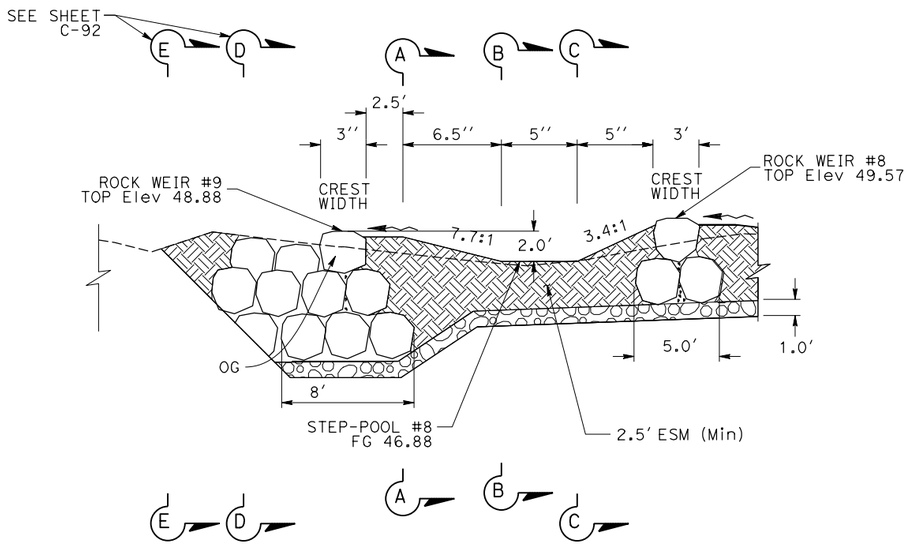
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WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

NVTA
625 BURNELL STREET
NAPA, CA 94559

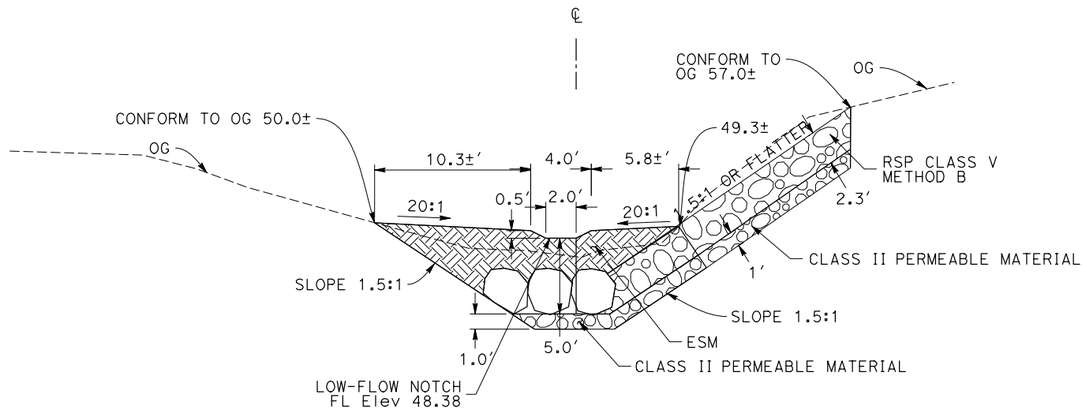
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE

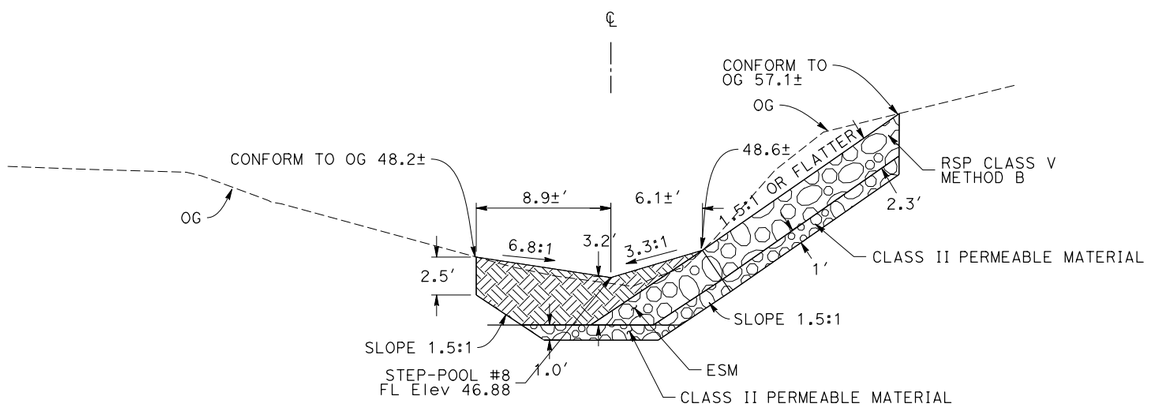


Sta "FP" 0+75.00 TO 1+08.50

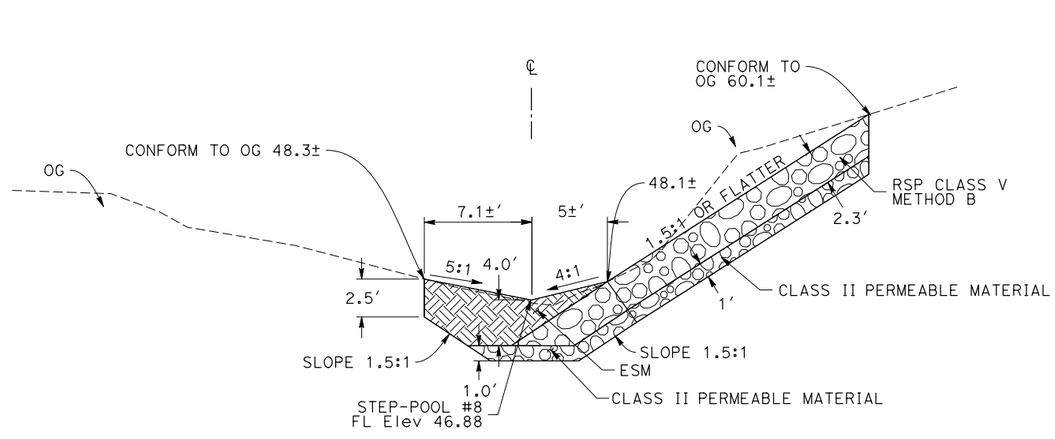
STEP-POOL #8 SECTION VIEW
NO SCALE



SECTION A-A
Sta "FP" 0+90.50



SECTION B-B
Sta "FP" 0+97.00



SECTION C-C
Sta "FP" 1+02.00

STEP-POOL #8 DETAILS

CONSTRUCTION DETAILS

SCALE: 1" = 5′

C-91

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 00-00-00 | DATE PLOTTED => 30-MAR-2021 | TIME PLOTTED => 17:27

192

BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 04000007769ga090.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

Attachment 1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29,221	3.5/6.7, 0.0/0.2	--	--

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

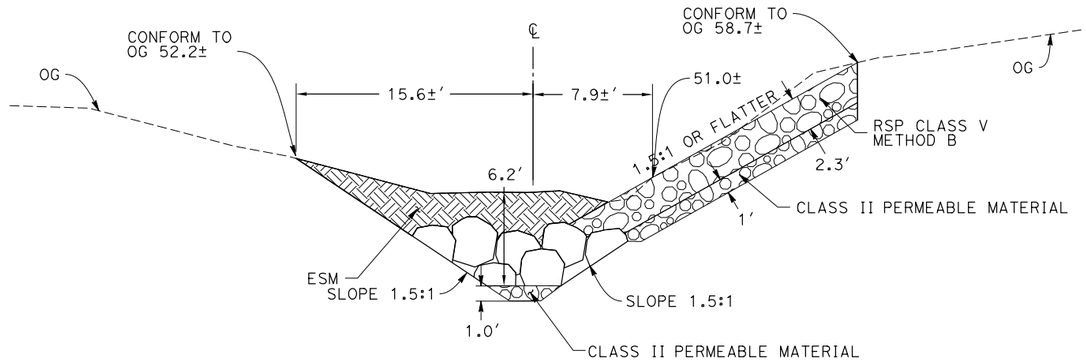
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WRECO
1243 ALPINE ROAD
SUITE 108
WALNUT CREEK, CA 94596

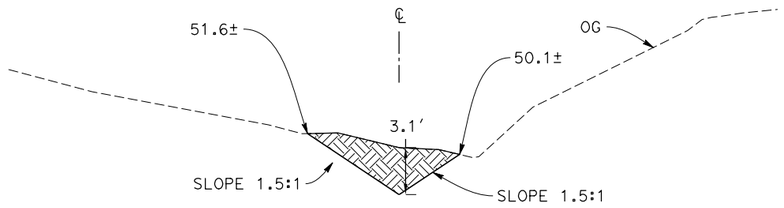
NVTA
625 BURNELL STREET
NAPA, CA 94559

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGIENERING AT THE DISTRICT OFFICE



SECTION D-D
Sta "FP" 0+80.00



SECTION E-E
Sta "FP" 0+75.00

CONSTRUCTION DETAILS

SCALE: 1" = 5'

C-92

REVISED BY	DATE REVISED
SHANNON MCCARTY	JENNIFER ABRAMS

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: HAN-BIN LIANG

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

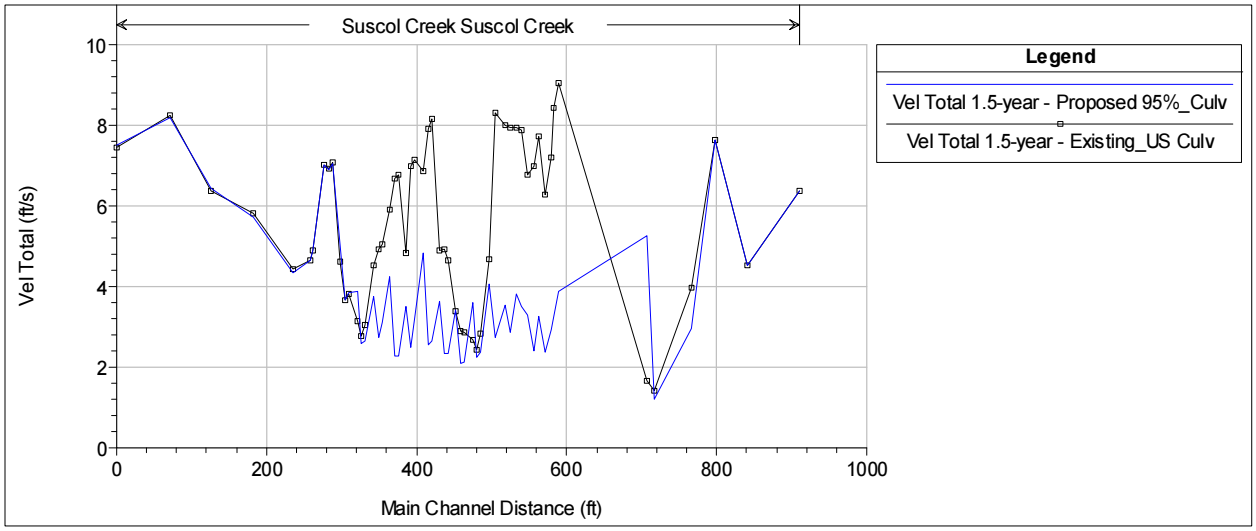
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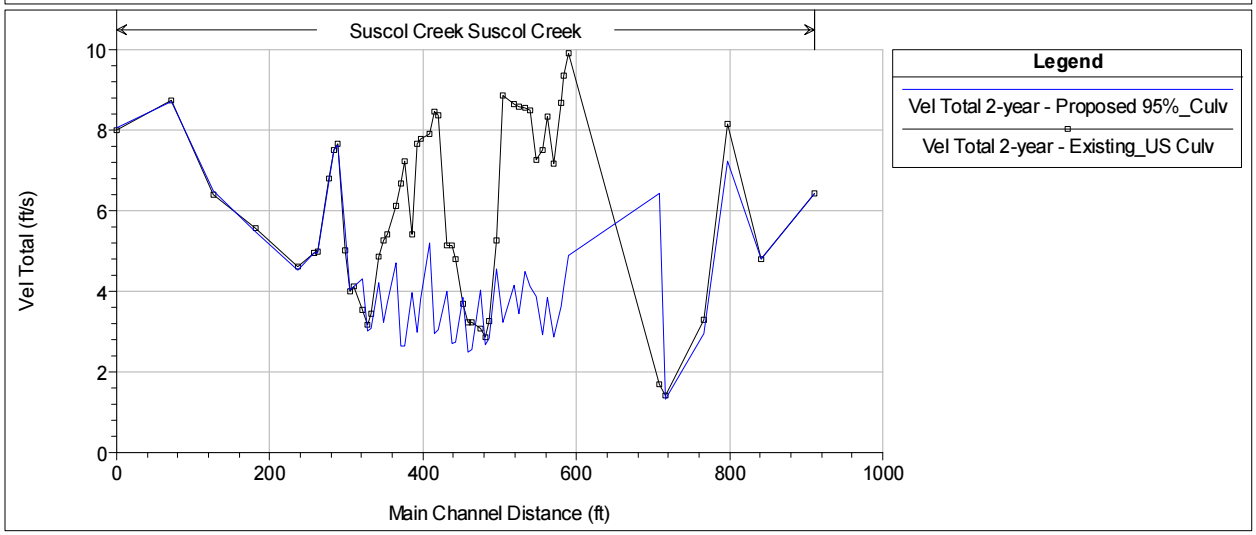
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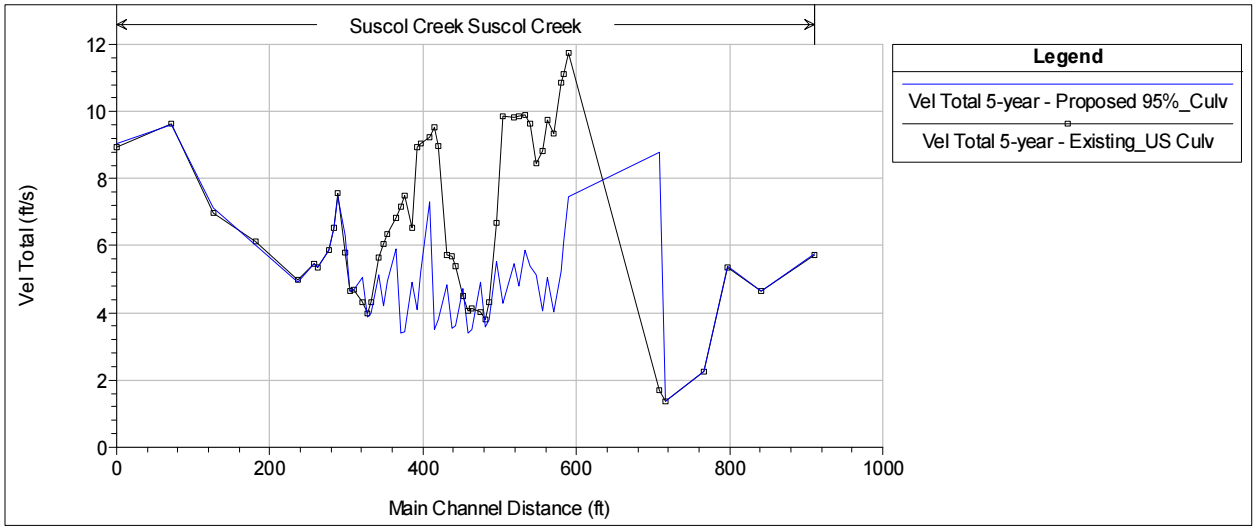
BORDER LAST REVISED 7/2/2010 | USERNAME => Shannon_McCarty | DGN FILE => 0400000769ga091.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 04000007691

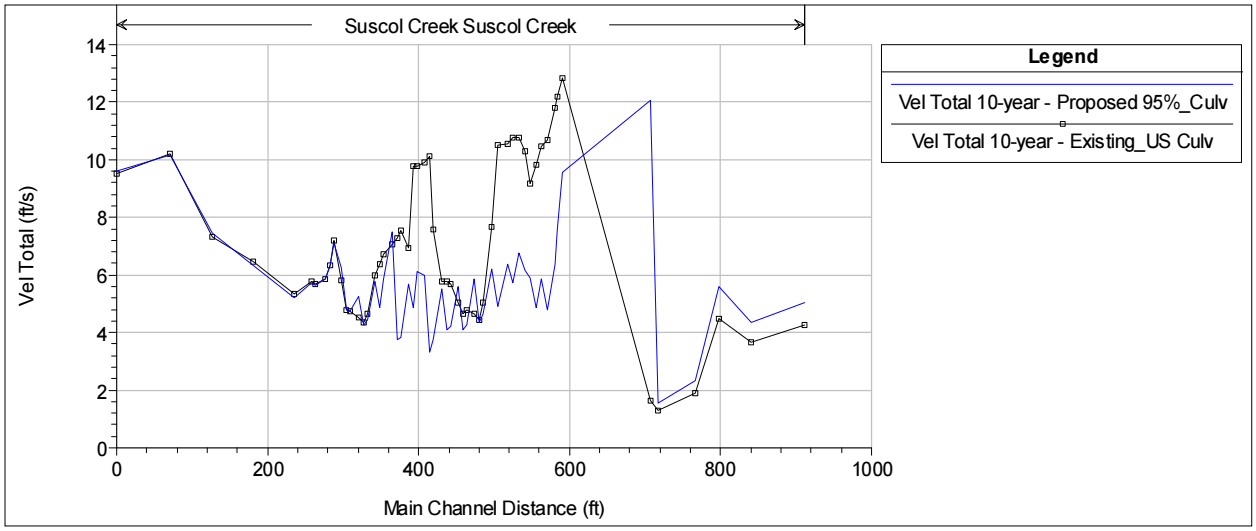
1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

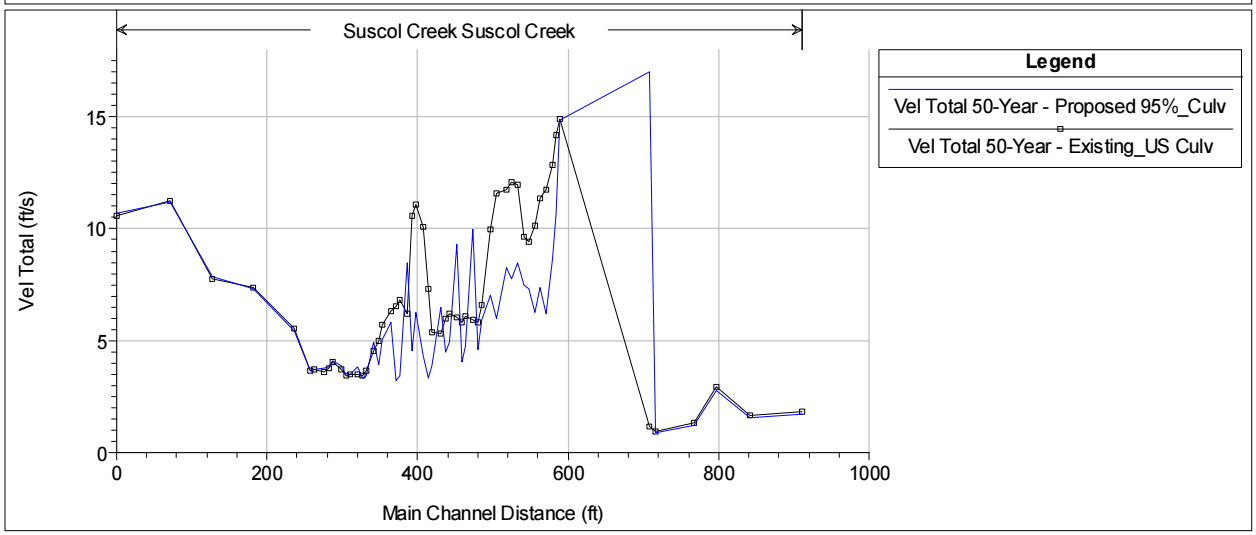
Appendix B. WSE and Velocity Profiles

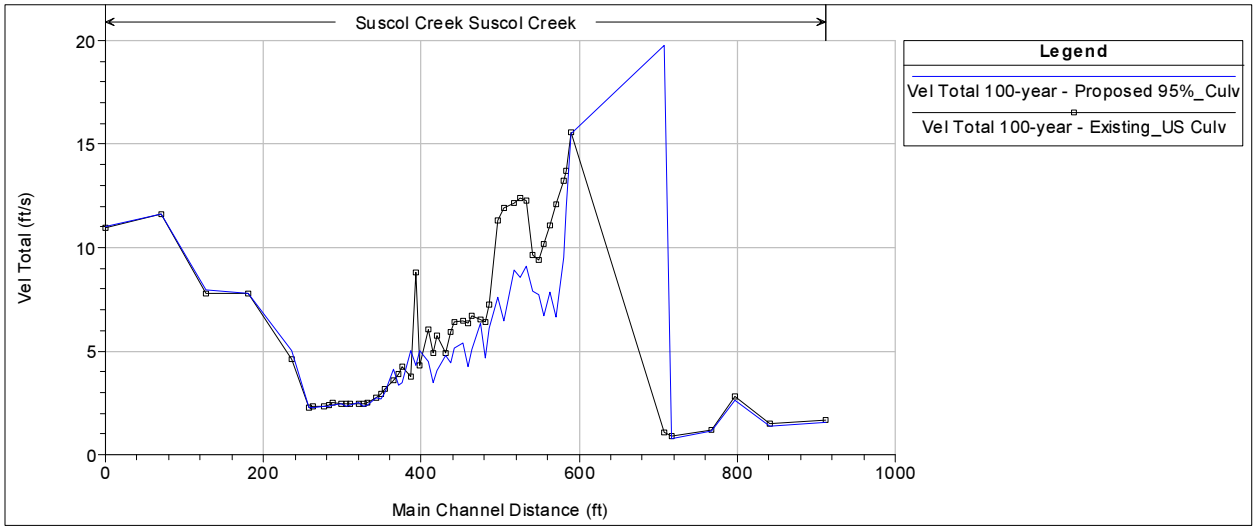

Suscol Creek Suscol Creek
Vel Total (ft/s)
Main Channel Distance (ft)
0
2
4
6
8
10
0
200
400
600
800
1000
Legend
Vel Total 1.5-year - Proposed 95%_Culv
Vel Total 1.5-year - Existing_US Culv

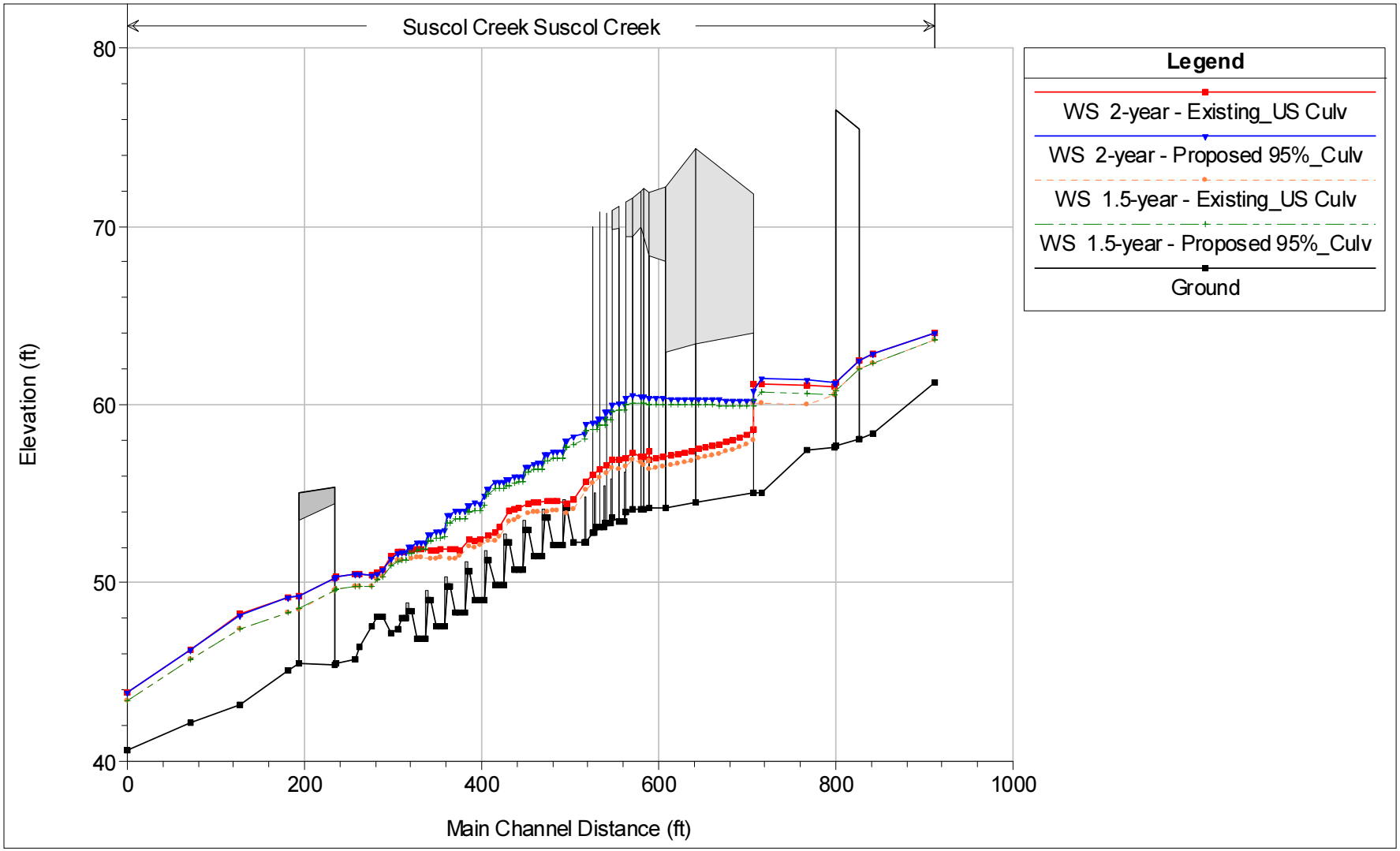

Suscol Creek Suscol Creek
Vel Total (ft/s)
Main Channel Distance (ft)
0
2
4
6
8
10
0
200
400
600
800
1000
Legend
Vel Total 2-year - Proposed 95%_Culv
Vel Total 2-year - Existing_US Culv

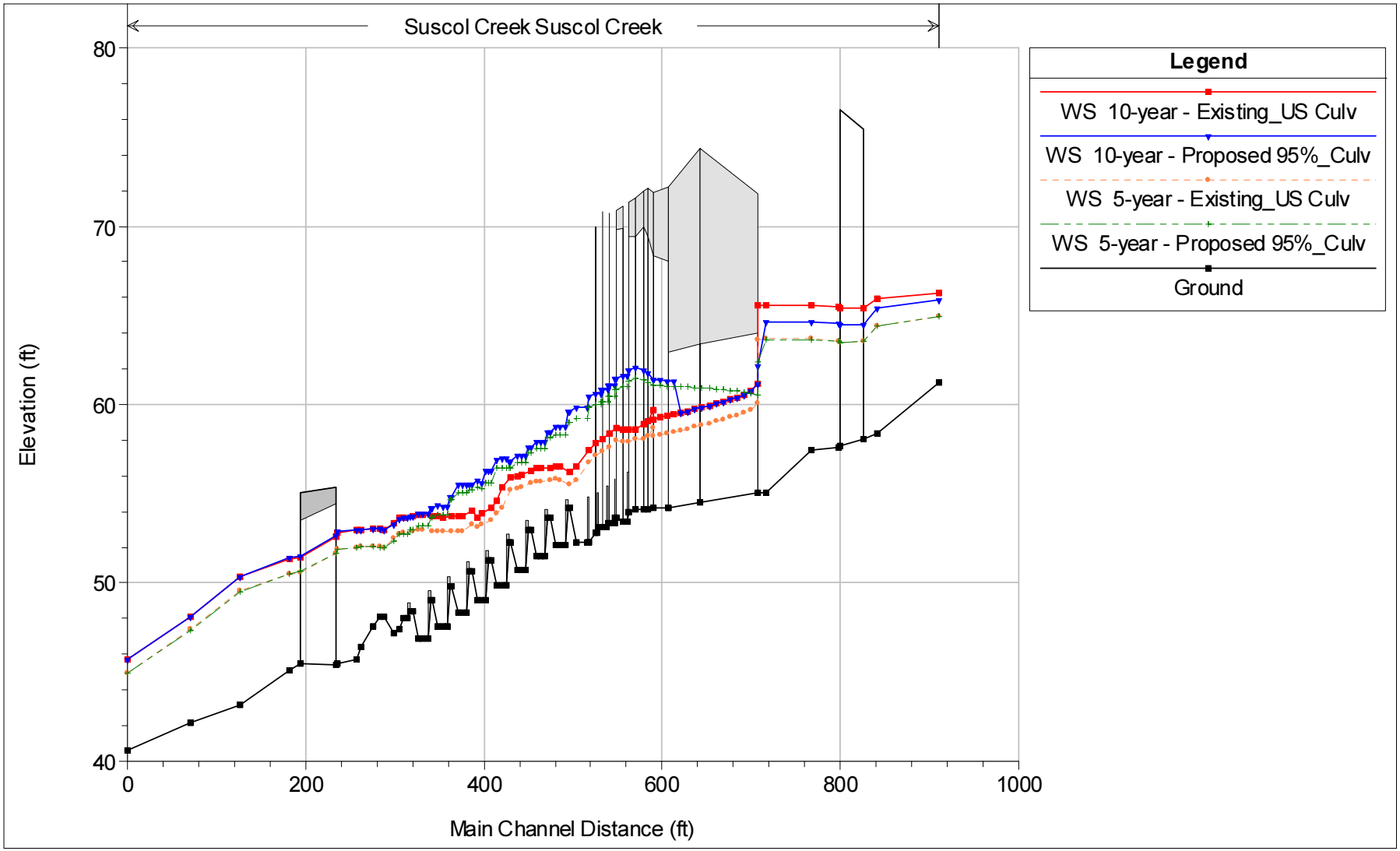

Suscol Creek Suscol Creek
Vel Total (ft/s)
Main Channel Distance (ft)
0
2
4
6
8
10
12
0
200
400
600
800
1000
Legend
Vel Total 5-year - Proposed 95%_Culv
Vel Total 5-year - Existing_US Culv


Suscol Creek Suscol Creek
Vel Total (ft/s)
Main Channel Distance (ft)
Legend
Vel Total 10-year - Proposed 95%_Culv
Vel Total 10-year - Existing_US Culv


Suscol Creek Suscol Creek
Vel Total (ft/s)
Main Channel Distance (ft)
Legend
Vel Total 50-Year - Proposed 95%_Culv
Vel Total 50-Year - Existing_US Culv

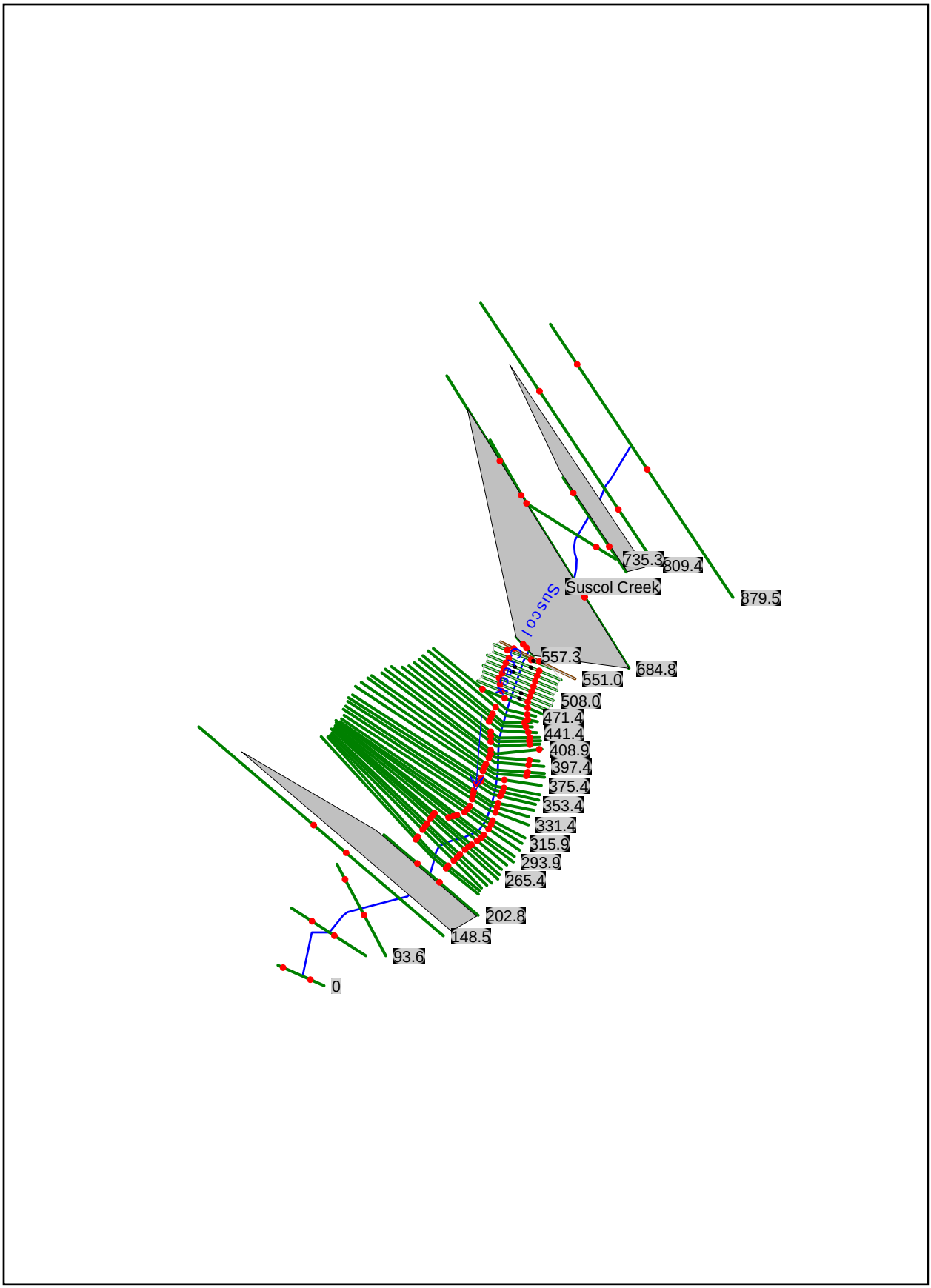

Suscol Creek Suscol Creek
Vel Total (ft/s)
Main Channel Distance (ft)
Legend
Vel Total 100-year - Proposed 95%_Culv
Vel Total 100-year - Existing_US Culv


Suscol Creek Suscol Creek
Legend
WS 2-year - Existing_US Culv
WS 2-year - Proposed 95%_Culv
WS 1.5-year - Existing_US Culv
WS 1.5-year - Proposed 95%_Culv
Ground
Elevation (ft)
80
70
60
50
40
0
200
400
600
800
1000
Main Channel Distance (ft)


Suscol Creek Suscol Creek
Legend
WS 10-year - Existing_US Culv
WS 10-year - Proposed 95%_Culv
WS 5-year - Existing_US Culv
WS 5-year - Proposed 95%_Culv
Ground
Elevation (ft)
80
70
60
50
40
0
200
400
600
800
1000
Main Channel Distance (ft)

1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: 925.941.0017
Fax: 925.941.0018
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Appendix C. Hydraulic Analysis Results: Existing Condition


735.3
809.4
Suscol Creek
879.5
Suscol Creek
557.3
684.8
551.0
508.0
471.4
441.4
408.9
397.4
375.4
353.4
331.4
315.9
293.9
265.4
202.8
148.5
93.6
0

HEC-RAS Plan: Existing_Open Channel River: Suscol Creek Reach: Suscol Creek

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	879.5	Adult High Flow	177.00	61.21	63.30	63.30	63.84	0.018556	5.87	30.13	28.99	1.02
Suscol Creek	879.5	Juvenile High Fl	36.00	61.21	62.35	62.35	62.63	0.023243	4.21	8.56	16.12	1.02
Suscol Creek	879.5	Adult Low Flow	3.00	61.21	61.64	61.64	61.75	0.031213	2.66	1.13	5.25	1.01
Suscol Creek	879.5	Juvenile Low Flo	1.00	61.21	61.49	61.49	61.56	0.034872	2.11	0.47	3.41	1.00
Suscol Creek	809.4	Adult High Flow	177.00	58.30	61.63	60.73	61.89	0.007055	4.15	42.63	21.48	0.52
Suscol Creek	809.4	Juvenile High Fl	36.00	58.30	60.05	59.47	60.14	0.005056	2.44	14.76	13.85	0.42
Suscol Creek	809.4	Adult Low Flow	3.00	58.30	58.85	58.73	58.89	0.012410	1.67	1.79	6.54	0.56
Suscol Creek	809.4	Juvenile Low Flo	1.00	58.30	58.67	58.58	58.69	0.011619	1.24	0.81	4.39	0.51
Suscol Creek	772		Bridge									
Suscol Creek	766.0	Adult High Flow	177.00	57.61	60.07	60.07	60.83	0.035195	7.01	25.27	16.91	1.01
Suscol Creek	766.0	Juvenile High Fl	36.00	57.61	58.81	58.74	59.12	0.025370	4.45	8.08	10.48	0.89
Suscol Creek	766.0	Adult Low Flow	3.00	57.61	58.10	57.97	58.14	0.008154	1.49	2.01	6.68	0.48
Suscol Creek	766.0	Juvenile Low Flo	1.00	57.61	57.96	57.85	57.97	0.005631	0.92	1.09	5.87	0.38
Suscol Creek	735.3	Adult High Flow	177.00	57.36	58.81	58.81	59.37	0.028482	5.96	29.69	27.30	1.01
Suscol Creek	735.3	Juvenile High Fl	36.00	57.36	58.00	58.00	58.22	0.030461	3.74	9.64	22.14	1.00
Suscol Creek	735.3	Adult Low Flow	3.00	57.36	57.61	57.61	57.66	0.037670	1.83	1.64	14.09	0.94
Suscol Creek	735.3	Juvenile Low Flo	1.00	57.36	57.54	57.54	57.57	0.051724	1.36	0.74	12.88	1.00
Suscol Creek	684.8	Adult High Flow	177.00	54.93	58.50		58.55	0.001341	1.71	103.63	49.58	0.21
Suscol Creek	684.8	Juvenile High Fl	36.00	54.93	56.32		56.39	0.003052	2.08	17.27	18.57	0.38
Suscol Creek	684.8	Adult Low Flow	3.00	54.93	55.45		55.46	0.002305	0.83	3.61	13.62	0.29
Suscol Creek	684.8	Juvenile Low Flo	1.00	54.93	55.31		55.31	0.002036	0.58	1.74	10.53	0.25
Suscol Creek	675.8	Adult High Flow	177.00	55.00	57.36	57.36	58.42	0.003844	8.29	21.36	10.00	0.95
Suscol Creek	675.8	Juvenile High Fl	36.00	55.00	55.96	55.96	56.33	0.004277	4.89	7.37	10.00	0.88
Suscol Creek	675.8	Adult Low Flow	3.00	55.00	55.34	55.34	55.42	0.006348	2.35	1.27	7.79	1.03
Suscol Creek	675.8	Juvenile Low Flo	1.00	55.00	55.22	55.22	55.28	0.006762	1.85	0.54	4.94	0.99
Suscol Creek	610.9	Adult High Flow	177.00	54.51	56.81	56.81	57.88	0.003167	8.30	21.33	9.93	1.00
Suscol Creek	610.9	Juvenile High Fl	36.00	54.51	55.39	55.39	55.76	0.003834	4.90	7.35	9.78	1.00
Suscol Creek	610.9	Adult Low Flow	3.00	54.51	54.78	54.78	54.85	0.005849	2.17	1.38	9.01	0.98
Suscol Creek	610.9	Juvenile Low Flo	1.00	54.51	54.68	54.68	54.72	0.008593	1.77	0.57	6.68	1.07
Suscol Creek	575.4	Adult High Flow	177.00	54.22	56.67	56.44	57.56	0.003066	7.59	23.32	9.69	0.86
Suscol Creek	575.4	Juvenile High Fl	36.00	54.22	55.14	55.02	55.42	0.002695	4.25	8.47	9.69	0.78
Suscol Creek	575.4	Adult Low Flow	3.00	54.22	54.45	54.40	54.49	0.002623	1.66	1.81	9.61	0.67
Suscol Creek	575.4	Juvenile Low Flo	1.00	54.22	54.40	54.32	54.41	0.000774	0.74	1.35	9.60	0.35
Suscol Creek	575.3	Adult High Flow	177.00	54.22	56.47	56.47	57.55	0.003939	8.34	21.23	9.85	1.00
Suscol Creek	575.3	Juvenile High Fl	36.00	54.22	55.03	55.03	55.41	0.004297	4.98	7.23	9.50	1.01
Suscol Creek	575.3	Adult Low Flow	3.00	54.22	54.44	54.40	54.49	0.003195	1.77	1.70	9.34	0.73
Suscol Creek	575.3	Juvenile Low Flo	1.00	54.22	54.40	54.33	54.41	0.000852	0.77	1.30	9.33	0.36
Suscol Creek	557.3	Adult High Flow	177.00	54.17	56.23	56.23	57.21	0.003708	7.94	22.28	11.39	1.00
Suscol Creek	557.3	Juvenile High Fl	36.00	54.17	54.98	54.91	55.27	0.003100	4.29	8.39	10.95	0.86
Suscol Creek	557.3	Adult Low Flow	3.00	54.17	54.42	54.33	54.44	0.001505	1.33	2.25	10.76	0.51
Suscol Creek	557.3	Juvenile Low Flo	1.00	54.17	54.39	54.27	54.40	0.000246	0.50	2.00	10.75	0.20
Suscol Creek	551.0	Adult High Flow	177.00	54.16	56.25	56.01	56.93	0.002399	6.59	26.84	13.61	0.83
Suscol Creek	551.0	Juvenile High Fl	36.00	54.16	55.04	54.85	55.22	0.001734	3.37	10.69	13.19	0.66
Suscol Creek	551.0	Adult Low Flow	3.00	54.16	54.41	54.34	54.43	0.001592	1.26	2.38	12.99	0.52
Suscol Creek	551.0	Juvenile Low Flo	1.00	54.16	54.39	54.28	54.40	0.000242	0.46	2.16	12.98	0.20
Suscol Creek	547.5	Adult High Flow	177.00	54.16	56.35	55.93	56.87	0.001738	5.83	30.36	14.74	0.72
Suscol Creek	547.5	Juvenile High Fl	36.00	54.16	55.05	54.82	55.20	0.001436	3.10	11.61	14.21	0.61
Suscol Creek	547.5	Adult Low Flow	3.00	54.16	54.40	54.34	54.43	0.001620	1.23	2.43	13.98	0.52
Suscol Creek	547.5	Juvenile Low Flo	1.00	54.16	54.39	54.28	54.39	0.000229	0.44	2.26	13.98	0.19
Suscol Creek	538.0	Adult High Flow	177.00	54.11	56.39	55.91	56.83	0.001373	5.31	33.31	17.30	0.68
Suscol Creek	538.0	Juvenile High Fl	36.00	54.11	55.03	54.82	55.19	0.001510	3.16	11.40	14.82	0.63
Suscol Creek	538.0	Adult Low Flow	3.00	54.11	54.38	54.32	54.41	0.001774	1.30	2.30	13.15	0.55
Suscol Creek	538.0	Juvenile Low Flo	1.00	54.11	54.39	54.24	54.39	0.000175	0.42	2.39	13.17	0.17
Suscol Creek	530.5	Adult High Flow	177.00	54.00	56.04	56.04	56.79	0.003058	6.93	25.53	16.98	1.00
Suscol Creek	530.5	Juvenile High Fl	36.00	54.00	54.82	54.82	55.15	0.003970	4.58	7.86	12.16	1.00
Suscol Creek	530.5	Adult Low Flow	3.00	54.00	54.38	54.24	54.40	0.000689	1.06	2.82	10.67	0.36
Suscol Creek	530.5	Juvenile Low Flo	1.00	54.00	54.39	54.15	54.39	0.000069	0.34	2.91	10.70	0.12
Suscol Creek	523.0	Adult High Flow	177.00	53.15	55.86	55.68	56.48	0.002389	6.28	28.18	16.73	0.85
Suscol Creek	523.0	Juvenile High Fl	36.00	53.15	54.62	54.55	54.86	0.003082	3.94	9.14	13.77	0.85
Suscol Creek	523.0	Adult Low Flow	3.00	53.15	54.39	53.99	54.39	0.000080	0.50	6.04	13.23	0.13
Suscol Creek	523.0	Juvenile Low Flo	1.00	53.15	54.39	53.63	54.39	0.000009	0.17	6.06	13.24	0.04
Suscol Creek	515.5	Adult High Flow	177.00	53.68	55.86	55.66	56.45	0.002194	6.14	28.82	17.20	0.84
Suscol Creek	515.5	Juvenile High Fl	36.00	53.68	54.53	54.53	54.83	0.004117	4.37	8.23	13.61	0.99
Suscol Creek	515.5	Adult Low Flow	3.00	53.68	54.39	53.97	54.39	0.000065	0.47	6.33	13.18	0.12
Suscol Creek	515.5	Juvenile Low Flo	1.00	53.68	54.39	53.88	54.39	0.000007	0.16	6.35	13.19	0.04
Suscol Creek	508.0	Adult High Flow	177.00	53.41	55.61	55.61	56.40	0.003049	7.14	24.80	15.59	1.00
Suscol Creek	508.0	Juvenile High Fl	36.00	53.41	54.37	54.37	54.70	0.003881	4.62	7.79	11.69	1.00

HEC-RAS Plan: Existing_Open Channel River: Suscol Creek Reach: Suscol Creek (Continued)

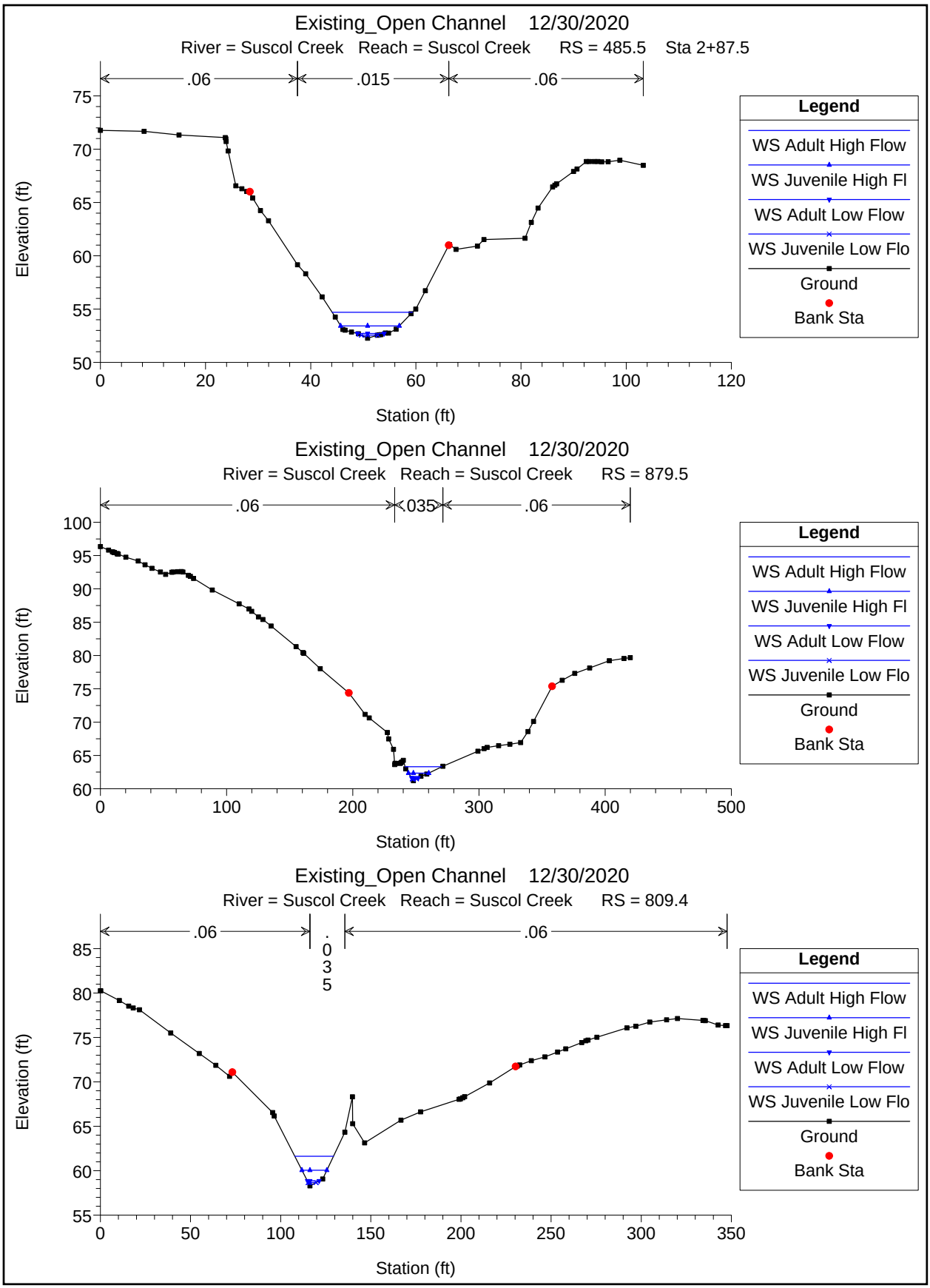
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	508.0	Adult Low Flow	3.00	53.41	54.39	53.74	54.39	0.000024	0.37	8.08	11.78	0.08
Suscol Creek	508.0	Juvenile Low Flo	1.00	53.41	54.39	53.61	54.39	0.000003	0.12	8.09	11.78	0.03
Suscol Creek	500.5	Adult High Flow	177.00	53.14	55.34	55.34	56.15	0.003074	7.20	24.58	15.31	1.00
Suscol Creek	500.5	Juvenile High Fl	36.00	53.14	54.34	54.09	54.52	0.001470	3.37	10.69	12.35	0.64
Suscol Creek	500.5	Adult Low Flow	3.00	53.14	54.39	53.46	54.39	0.000009	0.27	11.31	12.50	0.05
Suscol Creek	500.5	Juvenile Low Flo	1.00	53.14	54.39	53.34	54.39	0.000001	0.09	11.31	12.50	0.02
Suscol Creek	493.0	Adult High Flow	177.00	54.37	55.09	55.09	55.88	0.003433	7.17	24.70	15.54	1.49
Suscol Creek	493.0	Juvenile High Fl	36.00	54.37	54.39	54.39	54.49	0.000597	2.47	14.58	13.51	2.93
Suscol Creek	493.0	Adult Low Flow	3.00	54.37	54.39	54.39	54.39	0.000004	0.21	14.58	13.51	0.24
Suscol Creek	493.0	Juvenile Low Flo	1.00	54.37	54.39	54.39	54.39	0.000000	0.07	14.58	13.51	0.08
Suscol Creek	485.5	Adult High Flow	177.00	52.26	54.69	54.69	55.51	0.003136	7.25	24.42	15.25	1.01
Suscol Creek	485.5	Juvenile High Fl	36.00	52.26	53.42	53.42	53.77	0.003936	4.72	7.62	11.16	1.01
Suscol Creek	485.5	Adult Low Flow	3.00	52.26	52.71	52.71	52.82	0.005626	2.68	1.12	5.09	1.01
Suscol Creek	485.5	Juvenile Low Flo	1.00	52.26	52.55	52.55	52.63	0.006524	2.18	0.46	3.16	1.01
Suscol Creek	471.4	Adult High Flow	177.00	50.16	53.49	53.49	54.40	0.031494	7.67	23.09	12.67	1.00
Suscol Creek	471.4	Juvenile High Fl	36.00	50.16	51.85	51.85	52.30	0.025610	5.36	6.71	7.78	1.02
Suscol Creek	471.4	Adult Low Flow	3.00	50.16	50.73	50.73	50.89	0.030946	3.25	0.92	2.89	1.01
Suscol Creek	471.4	Juvenile Low Flo	1.00	50.16	50.55	50.55	50.63	0.028792	2.23	0.45	2.40	0.91
Suscol Creek	463.4	Adult High Flow	177.00	47.37	53.23		53.48	0.006155	3.95	44.77	16.35	0.42
Suscol Creek	463.4	Juvenile High Fl	36.00	47.37	51.51		51.56	0.001707	1.73	20.82	11.51	0.23
Suscol Creek	463.4	Adult Low Flow	3.00	47.37	50.44		50.44	0.000069	0.30	10.10	8.53	0.05
Suscol Creek	463.4	Juvenile Low Flo	1.00	47.37	50.23		50.23	0.000011	0.12	8.40	7.48	0.02
Suscol Creek	452.9	Adult High Flow	177.00	46.28	53.32		53.40	0.001314	2.28	77.51	21.65	0.21
Suscol Creek	452.9	Juvenile High Fl	36.00	46.28	51.53		51.54	0.000220	0.83	43.43	16.50	0.09
Suscol Creek	452.9	Adult Low Flow	3.00	46.28	50.44		50.44	0.000004	0.11	27.20	13.01	0.01
Suscol Creek	452.9	Juvenile Low Flo	1.00	46.28	50.23		50.23	0.000001	0.04	24.56	12.51	0.01
Suscol Creek	447.9	Adult High Flow	177.00	45.92	53.33		53.39	0.001179	1.97	89.97	23.60	0.18
Suscol Creek	447.9	Juvenile High Fl	36.00	45.92	51.53		51.54	0.000177	0.67	53.68	17.56	0.07
Suscol Creek	447.9	Adult Low Flow	3.00	45.92	50.44		50.44	0.000004	0.08	35.90	14.94	0.01
Suscol Creek	447.9	Juvenile Low Flo	1.00	45.92	50.23		50.23	0.000001	0.03	32.86	14.50	0.00
Suscol Creek	441.4	Adult High Flow	177.00	47.65	53.30		53.38	0.001180	2.20	80.41	24.58	0.21
Suscol Creek	441.4	Juvenile High Fl	36.00	47.65	51.53		51.54	0.000285	0.88	40.92	19.89	0.11
Suscol Creek	441.4	Adult Low Flow	3.00	47.65	50.44		50.44	0.000011	0.14	21.02	16.38	0.02
Suscol Creek	441.4	Juvenile Low Flo	1.00	47.65	50.23		50.23	0.000002	0.06	17.73	15.58	0.01
Suscol Creek	430.9	Adult High Flow	177.00	49.13	53.27		53.36	0.001427	2.43	72.72	26.32	0.26
Suscol Creek	430.9	Juvenile High Fl	36.00	49.13	51.51		51.53	0.000509	1.15	31.29	20.63	0.16
Suscol Creek	430.9	Adult Low Flow	3.00	49.13	50.44		50.44	0.000061	0.26	11.53	16.24	0.05
Suscol Creek	430.9	Juvenile Low Flo	1.00	49.13	50.23		50.23	0.000019	0.12	8.27	15.45	0.03
Suscol Creek	425.9	Adult High Flow	177.00	49.38	53.26		53.36	0.001971	2.49	71.06	27.72	0.27
Suscol Creek	425.9	Juvenile High Fl	36.00	49.38	51.50		51.53	0.001054	1.30	27.77	21.50	0.20
Suscol Creek	425.9	Adult Low Flow	3.00	49.38	50.44		50.44	0.000237	0.40	7.58	15.29	0.10
Suscol Creek	425.9	Juvenile Low Flo	1.00	49.38	50.23		50.23	0.000094	0.21	4.70	12.45	0.06
Suscol Creek	419.4	Adult High Flow	177.00	49.57	53.19		53.33	0.004044	3.04	58.32	27.26	0.37
Suscol Creek	419.4	Juvenile High Fl	36.00	49.57	51.46		51.52	0.003372	1.98	18.16	17.52	0.34
Suscol Creek	419.4	Adult Low Flow	3.00	49.57	50.43		50.44	0.001467	0.83	3.63	9.62	0.24
Suscol Creek	419.4	Juvenile Low Flo	1.00	49.57	50.23		50.23	0.000734	0.49	2.02	6.85	0.16
Suscol Creek	408.9	Adult High Flow	177.00	49.40	52.94		53.25	0.011534	4.48	39.51	21.89	0.59
Suscol Creek	408.9	Juvenile High Fl	36.00	49.40	51.31		51.46	0.008164	3.02	11.90	12.09	0.54
Suscol Creek	408.9	Adult Low Flow	3.00	49.40	50.41		50.42	0.000902	0.83	3.63	6.58	0.20
Suscol Creek	408.9	Juvenile Low Flo	1.00	49.40	50.22		50.23	0.000279	0.40	2.49	5.54	0.11
Suscol Creek	403.9	Adult High Flow	177.00	49.32	52.82		53.18	0.015873	4.78	37.04	20.80	0.63
Suscol Creek	403.9	Juvenile High Fl	36.00	49.32	51.24		51.40	0.013765	3.19	11.28	11.77	0.57
Suscol Creek	403.9	Adult Low Flow	3.00	49.32	50.41		50.42	0.001414	0.83	3.60	6.52	0.20
Suscol Creek	403.9	Juvenile Low Flo	1.00	49.32	50.22		50.23	0.000365	0.40	2.50	5.39	0.10
Suscol Creek	397.4	Adult High Flow	177.00	49.23	52.74		53.08	0.013458	4.67	37.93	20.05	0.60
Suscol Creek	397.4	Juvenile High Fl	36.00	49.23	51.19		51.32	0.009498	2.84	12.69	12.44	0.49
Suscol Creek	397.4	Adult Low Flow	3.00	49.23	50.40		50.41	0.000807	0.65	4.63	7.99	0.15
Suscol Creek	397.4	Juvenile Low Flo	1.00	49.23	50.22		50.22	0.000207	0.31	3.27	6.95	0.08
Suscol Creek	386.9	Adult High Flow	177.00	49.10	51.98	51.95	52.84	0.025167	7.43	23.81	13.56	0.99
Suscol Creek	386.9	Juvenile High Fl	36.00	49.10	51.13		51.24	0.004777	2.74	13.13	11.50	0.45
Suscol Creek	386.9	Adult Low Flow	3.00	49.10	50.40		50.40	0.000293	0.53	5.64	8.60	0.12
Suscol Creek	386.9	Juvenile Low Flo	1.00	49.10	50.22		50.22	0.000071	0.24	4.21	7.43	0.06
Suscol Creek	381.9	Adult High Flow	177.00	49.24	52.02	51.83	52.67	0.017695	6.44	27.46	15.94	0.87
Suscol Creek	381.9	Juvenile High Fl	36.00	49.24	51.12		51.22	0.003186	2.45	14.69	12.65	0.40
Suscol Creek	381.9	Adult Low Flow	3.00	49.24	50.40		50.40	0.000207	0.46	6.48	9.46	0.10
Suscol Creek	381.9	Juvenile Low Flo	1.00	49.24	50.22		50.22	0.000050	0.20	4.89	8.33	0.05
Suscol Creek	375.4	Adult High Flow	177.00	49.52	52.05		52.52	0.012684	5.50	32.19	19.45	0.75

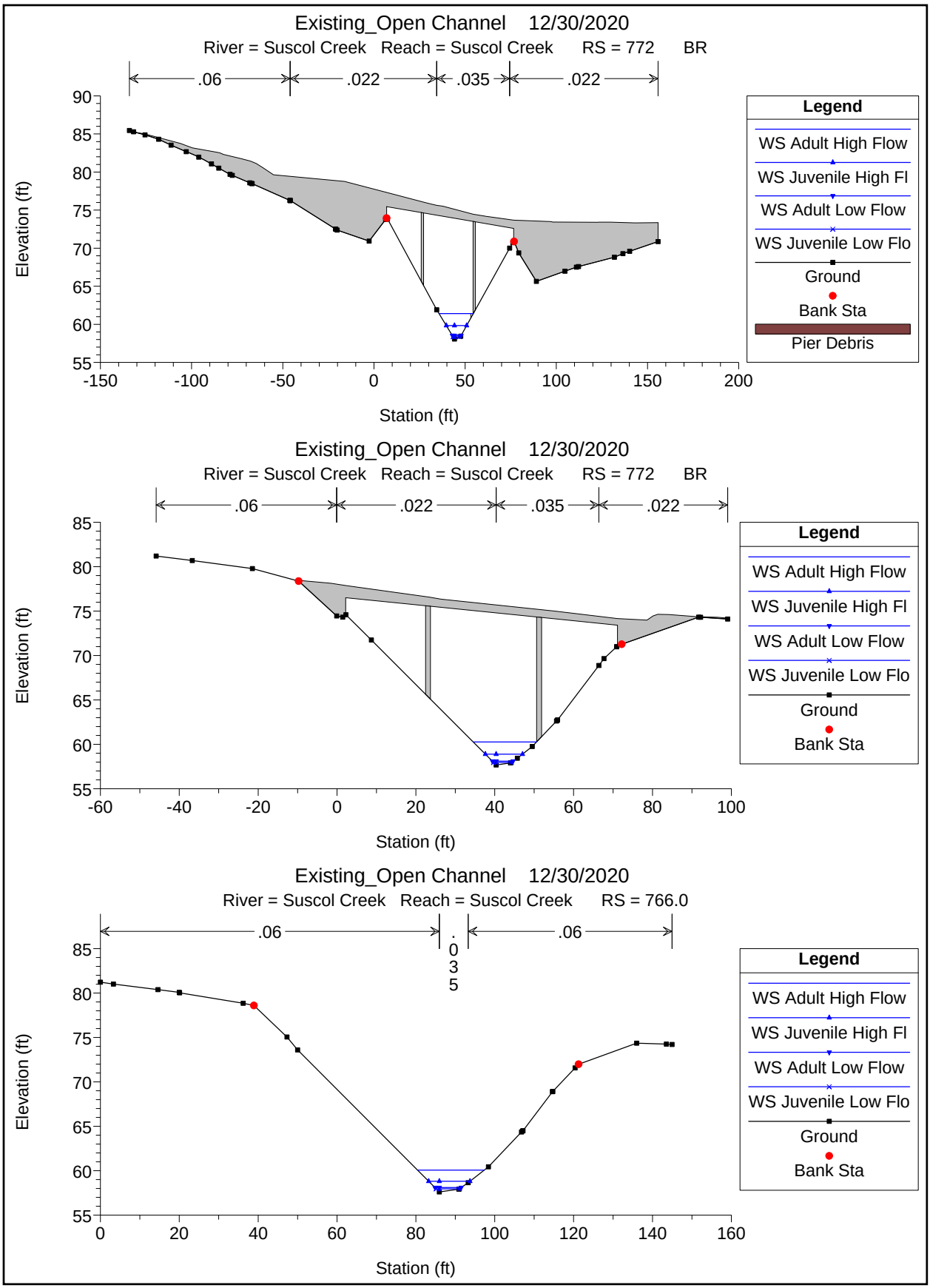
HEC-RAS Plan: Existing_Open Channel River: Suscol Creek Reach: Suscol Creek (Continued)

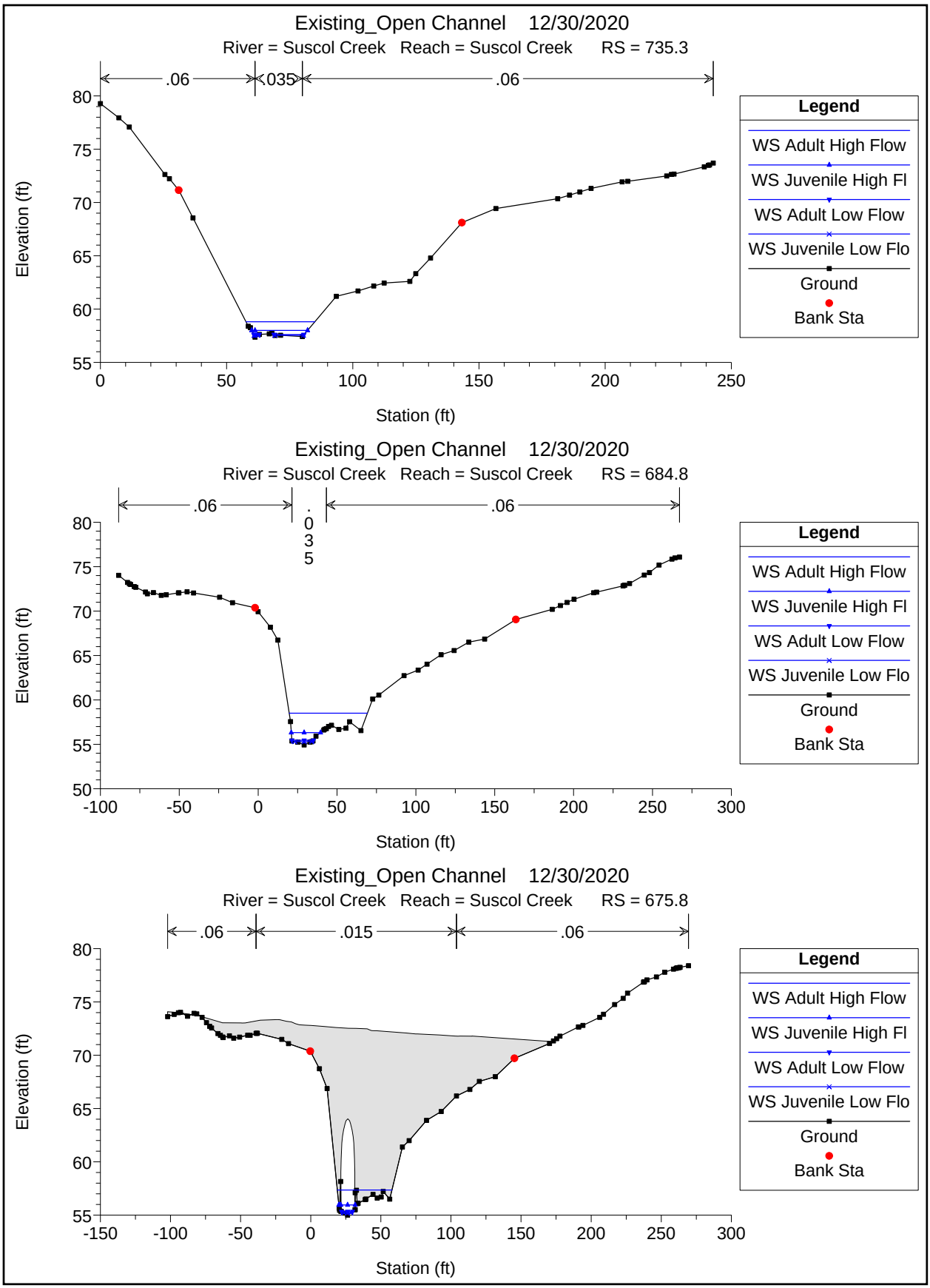
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	375.4	Juvenile High Fl	36.00	49.52	51.11		51.19	0.003319	2.30	15.62	15.96	0.41
Suscol Creek	375.4	Adult Low Flow	3.00	49.52	50.40		50.40	0.000369	0.52	5.78	11.14	0.13
Suscol Creek	375.4	Juvenile Low Flo	1.00	49.52	50.22		50.22	0.000131	0.26	3.91	10.02	0.07
Suscol Creek	364.9	Adult High Flow	177.00	49.81	51.71	51.71	52.33	0.019295	6.35	27.87	22.58	1.01
Suscol Creek	364.9	Juvenile High Fl	36.00	49.81	51.01		51.13	0.008805	2.84	12.68	20.86	0.64
Suscol Creek	364.9	Adult Low Flow	3.00	49.81	50.37		50.39	0.003486	1.07	2.80	9.94	0.36
Suscol Creek	364.9	Juvenile Low Flo	1.00	49.81	50.21		50.22	0.002438	0.71	1.40	7.04	0.28
Suscol Creek	359.9	Adult High Flow	177.00	49.88	51.63	51.63	52.22	0.020253	6.18	28.65	24.76	1.01
Suscol Creek	359.9	Juvenile High Fl	36.00	49.88	50.83	50.83	51.06	0.024455	3.84	9.38	21.22	1.02
Suscol Creek	359.9	Adult Low Flow	3.00	49.88	50.25	50.25	50.34	0.031225	2.43	1.23	6.62	0.99
Suscol Creek	359.9	Juvenile Low Flo	1.00	49.88	50.12	50.12	50.18	0.036936	1.97	0.51	4.25	1.00
Suscol Creek	351.9	Adult High Flow	177.00	49.28	51.65		51.91	0.012337	4.12	42.95	28.16	0.59
Suscol Creek	351.9	Juvenile High Fl	36.00	49.28	50.63		50.71	0.009896	2.26	15.96	23.05	0.48
Suscol Creek	351.9	Adult Low Flow	3.00	49.28	49.82		49.84	0.006063	1.06	2.83	9.36	0.34
Suscol Creek	351.9	Juvenile Low Flo	1.00	49.28	49.64		49.65	0.004670	0.74	1.35	6.60	0.29
Suscol Creek	342.9	Adult High Flow	177.00	49.28	51.16	51.16	51.72	0.020008	6.01	29.44	26.99	1.01
Suscol Creek	342.9	Juvenile High Fl	36.00	49.28	50.28	50.28	50.54	0.023165	4.11	8.76	17.12	1.01
Suscol Creek	342.9	Adult Low Flow	3.00	49.28	49.62	49.62	49.71	0.030967	2.48	1.21	6.28	1.00
Suscol Creek	342.9	Juvenile Low Flo	1.00	49.28	49.50	49.50	49.54	0.027610	1.77	0.56	4.46	0.88
Suscol Creek	337.9	Adult High Flow	177.00	49.06	51.01	51.01	51.57	0.019941	6.04	29.31	26.77	1.02
Suscol Creek	337.9	Juvenile High Fl	36.00	49.06	50.09	50.09	50.36	0.022844	4.19	8.58	16.09	1.01
Suscol Creek	337.9	Adult Low Flow	3.00	49.06	49.42	49.42	49.52	0.031718	2.53	1.19	6.09	1.01
Suscol Creek	337.9	Juvenile Low Flo	1.00	49.06	49.28	49.28	49.35	0.035839	1.99	0.50	4.03	1.00
Suscol Creek	331.4	Adult High Flow	177.00	48.76	50.84	50.82	51.39	0.018574	5.97	29.63	26.37	0.99
Suscol Creek	331.4	Juvenile High Fl	36.00	48.76	49.86	49.86	50.13	0.022890	4.24	8.49	15.64	1.01
Suscol Creek	331.4	Adult Low Flow	3.00	48.76	49.18	49.18	49.28	0.030491	2.55	1.18	5.79	0.99
Suscol Creek	331.4	Juvenile Low Flo	1.00	48.76	49.03	49.03	49.10	0.036335	2.11	0.47	3.52	1.01
Suscol Creek	320.9	Adult High Flow	177.00	48.27	50.84		51.20	0.009464	4.79	36.95	26.91	0.72
Suscol Creek	320.9	Juvenile High Fl	36.00	48.27	49.61		49.79	0.010683	3.39	10.62	15.34	0.72
Suscol Creek	320.9	Adult Low Flow	3.00	48.27	48.83		48.86	0.006955	1.53	1.96	6.81	0.50
Suscol Creek	320.9	Juvenile Low Flo	1.00	48.27	48.67		48.68	0.004642	0.99	1.01	4.93	0.39
Suscol Creek	315.9	Adult High Flow	177.00	48.29	50.80		51.15	0.009981	4.74	37.36	26.98	0.71
Suscol Creek	315.9	Juvenile High Fl	36.00	48.29	49.40	49.40	49.70	0.022432	4.38	8.21	14.12	1.01
Suscol Creek	315.9	Adult Low Flow	3.00	48.29	48.76	48.69	48.82	0.012493	1.86	1.61	6.46	0.66
Suscol Creek	315.9	Juvenile Low Flo	1.00	48.29	48.63	48.55	48.65	0.007733	1.16	0.86	4.86	0.49
Suscol Creek	309.4	Adult High Flow	177.00	48.32	50.78		51.06	0.009867	4.21	42.02	26.22	0.59
Suscol Creek	309.4	Juvenile High Fl	36.00	48.32	49.31		49.49	0.015041	3.47	10.37	16.46	0.77
Suscol Creek	309.4	Adult Low Flow	3.00	48.32	48.61	48.61	48.69	0.034017	2.29	1.31	8.25	1.01
Suscol Creek	309.4	Juvenile Low Flo	1.00	48.32	48.52	48.52	48.56	0.031804	1.55	0.65	6.94	0.90
Suscol Creek	298.9	Adult High Flow	177.00	46.62	50.87		50.97	0.001844	2.54	69.65	28.84	0.29
Suscol Creek	298.9	Juvenile High Fl	36.00	46.62	49.41		49.43	0.000496	1.10	32.74	21.56	0.16
Suscol Creek	298.9	Adult Low Flow	3.00	46.62	48.57		48.57	0.000019	0.18	16.97	15.95	0.03
Suscol Creek	298.9	Juvenile Low Flo	1.00	46.62	48.43		48.43	0.000003	0.07	14.88	15.05	0.01
Suscol Creek	293.9	Adult High Flow	177.00	46.24	50.87		50.95	0.001723	2.27	77.82	29.54	0.25
Suscol Creek	293.9	Juvenile High Fl	36.00	46.24	49.41		49.42	0.000382	0.90	39.86	22.34	0.12
Suscol Creek	293.9	Adult Low Flow	3.00	46.24	48.57		48.57	0.000009	0.13	23.16	17.38	0.02
Suscol Creek	293.9	Juvenile Low Flo	1.00	46.24	48.43		48.43	0.000001	0.05	20.86	16.70	0.01
Suscol Creek	287.4	Adult High Flow	177.00	47.10	50.83		50.94	0.002185	2.65	66.89	28.35	0.30
Suscol Creek	287.4	Juvenile High Fl	36.00	47.10	49.40		49.42	0.000599	1.15	31.17	21.65	0.17
Suscol Creek	287.4	Adult Low Flow	3.00	47.10	48.57		48.57	0.000032	0.20	14.85	17.53	0.04
Suscol Creek	287.4	Juvenile Low Flo	1.00	47.10	48.43		48.43	0.000006	0.08	12.54	16.85	0.02
Suscol Creek	276.9	Adult High Flow	177.00	48.12	50.70		50.89	0.006184	3.47	50.97	30.70	0.48
Suscol Creek	276.9	Juvenile High Fl	36.00	48.12	49.32		49.40	0.004352	2.25	16.02	19.80	0.44
Suscol Creek	276.9	Adult Low Flow	3.00	48.12	48.53		48.56	0.015620	1.41	2.13	15.45	0.67
Suscol Creek	276.9	Juvenile Low Flo	1.00	48.12	48.38	48.38	48.43	0.047336	1.67	0.60	7.76	1.06
Suscol Creek	271.9	Adult High Flow	177.00	47.44	50.69		50.85	0.005296	3.24	54.58	29.63	0.42
Suscol Creek	271.9	Juvenile High Fl	36.00	47.44	49.33		49.38	0.001779	1.64	21.99	18.63	0.27
Suscol Creek	271.9	Adult Low Flow	3.00	47.44	48.55		48.55	0.000108	0.31	9.55	13.60	0.07
Suscol Creek	271.9	Juvenile Low Flo	1.00	47.44	48.40		48.40	0.000024	0.13	7.60	13.06	0.03
Suscol Creek	265.4	Adult High Flow	177.00	47.02	50.55		50.80	0.009610	3.99	44.31	23.69	0.52
Suscol Creek	265.4	Juvenile High Fl	36.00	47.02	49.31		49.36	0.002427	1.75	20.57	15.20	0.27
Suscol Creek	265.4	Adult Low Flow	3.00	47.02	48.55		48.55	0.000071	0.28	10.73	10.50	0.05
Suscol Creek	265.4	Juvenile Low Flo	1.00	47.02	48.40		48.40	0.000011	0.11	9.27	9.61	0.02
Suscol Creek	254.9	Adult High Flow	177.00	48.08	49.97	49.97	50.61	0.024284	6.39	27.69	22.16	1.01
Suscol Creek	254.9	Juvenile High Fl	36.00	48.08	49.14		49.30	0.010972	3.23	11.16	17.27	0.71
Suscol Creek	254.9	Adult Low Flow	3.00	48.08	48.52		48.55	0.005465	1.22	2.45	10.00	0.44
Suscol Creek	254.9	Juvenile Low Flo	1.00	48.08	48.39		48.40	0.004096	0.79	1.27	8.10	0.35

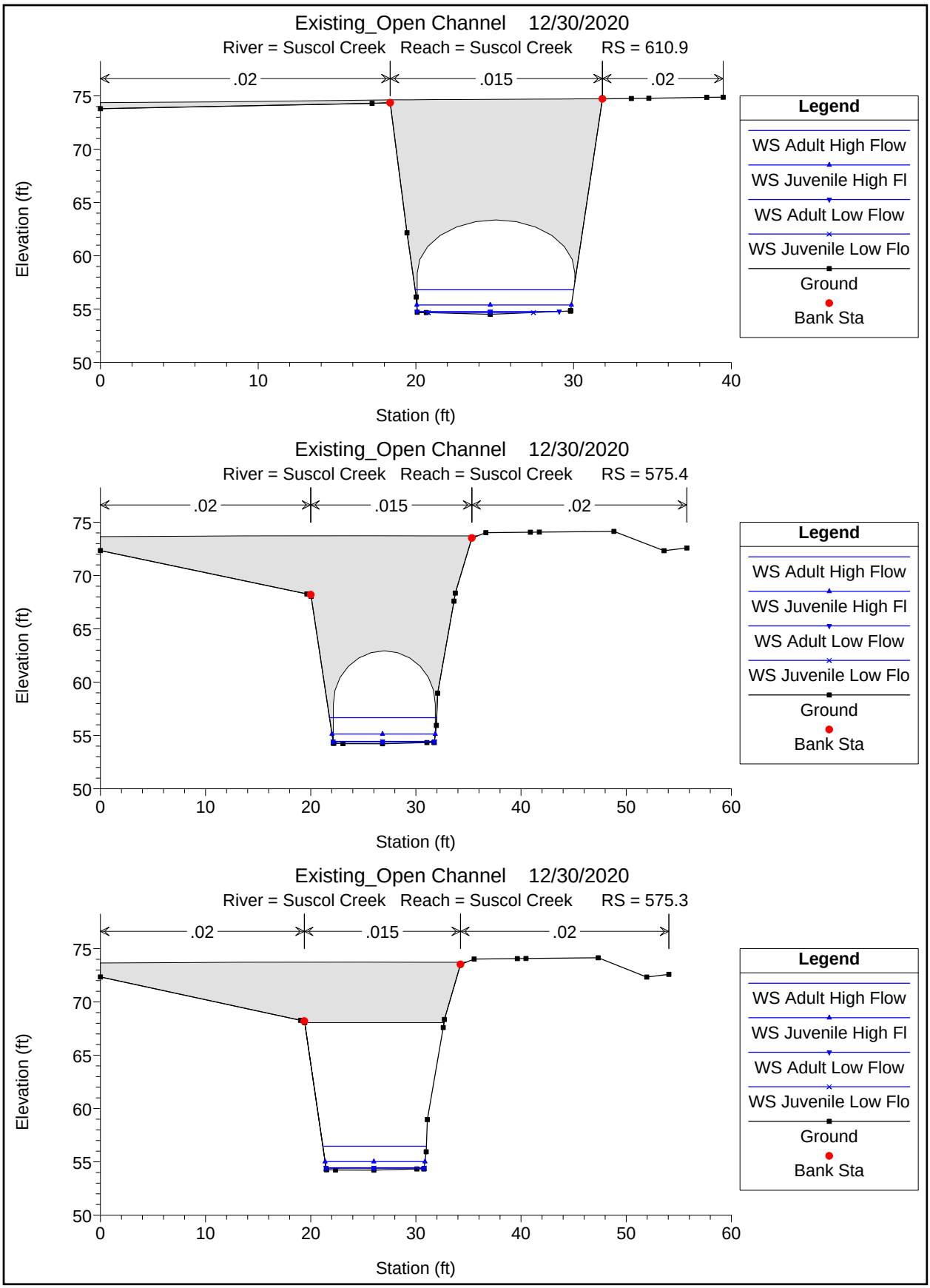
HEC-RAS Plan: Existing_Open Channel River: Suscol Creek Reach: Suscol Creek (Continued)

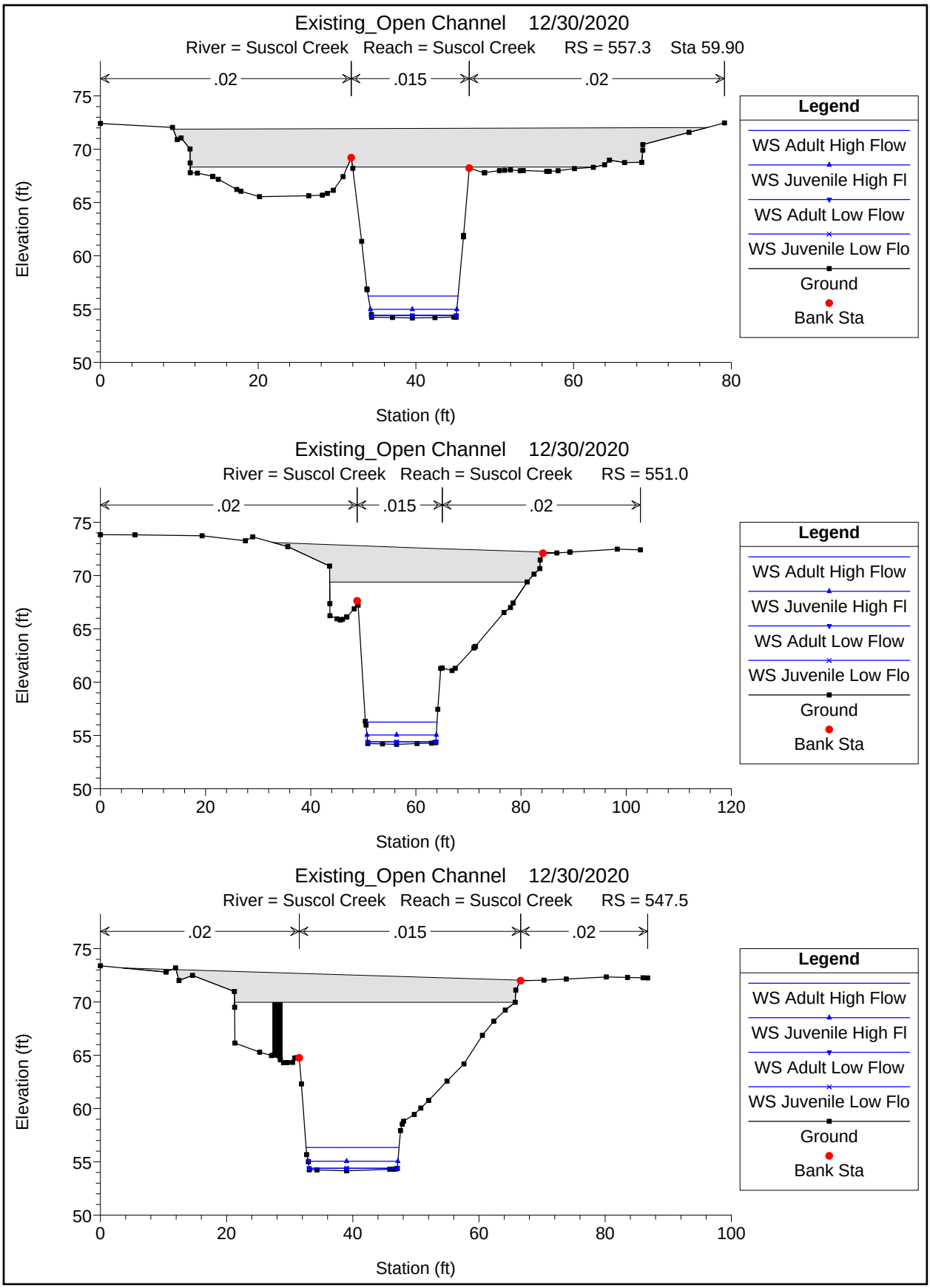
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	249.9	Adult High Flow	177.00	48.11	49.85	49.85	50.45	0.020554	6.20	28.56	24.46	1.01
Suscol Creek	249.9	Juvenile High Fl	36.00	48.11	48.96	48.96	49.22	0.023188	4.05	8.89	17.79	1.01
Suscol Creek	249.9	Adult Low Flow	3.00	48.11	48.41	48.41	48.49	0.033069	2.22	1.35	8.75	1.00
Suscol Creek	249.9	Juvenile Low Flo	1.00	48.11	48.31	48.31	48.35	0.039065	1.74	0.57	6.05	1.00
Suscol Creek	243.4	Adult High Flow	177.00	47.62	49.48	49.48	50.08	0.021083	6.21	28.50	24.42	1.01
Suscol Creek	243.4	Juvenile High Fl	36.00	47.62	48.55	48.55	48.82	0.024025	4.17	8.63	16.40	1.01
Suscol Creek	243.4	Adult Low Flow	3.00	47.62	47.96	47.96	48.04	0.031935	2.35	1.28	7.36	1.00
Suscol Creek	243.4	Juvenile Low Flo	1.00	47.62	47.84	47.84	47.89	0.036950	1.89	0.53	4.75	1.00
Suscol Creek	229.4	Adult High Flow	177.00	46.54	49.01		49.39	0.011008	4.95	35.76	21.77	0.68
Suscol Creek	229.4	Juvenile High Fl	36.00	46.54	47.59	47.59	47.88	0.023387	4.26	8.45	15.49	1.02
Suscol Creek	229.4	Adult Low Flow	3.00	46.54	46.92	46.92	47.02	0.030711	2.53	1.18	5.89	1.00
Suscol Creek	229.4	Juvenile Low Flo	1.00	46.54	46.76	46.76	46.83	0.038899	2.12	0.47	3.66	1.04
Suscol Creek	224.7	Adult High Flow	177.00	45.80	49.03		49.32	0.008078	4.29	41.25	19.76	0.52
Suscol Creek	224.7	Juvenile High Fl	36.00	45.80	47.11	47.10	47.43	0.026165	4.54	7.94	12.52	1.00
Suscol Creek	224.7	Adult Low Flow	3.00	45.80	46.29		46.39	0.022100	2.46	1.22	4.90	0.87
Suscol Creek	224.7	Juvenile Low Flo	1.00	45.80	46.14	46.10	46.18	0.018473	1.75	0.57	3.37	0.75
Suscol Creek	202.8	Adult High Flow	177.00	45.44	48.87	47.87	49.14	0.007829	4.18	42.33	20.00	0.51
Suscol Creek	202.8	Juvenile High Fl	36.00	45.44	46.98	46.55	47.11	0.006818	2.93	12.30	12.00	0.51
Suscol Creek	202.8	Adult Low Flow	3.00	45.44	45.93	45.86	45.99	0.015000	2.08	1.44	5.62	0.72
Suscol Creek	202.8	Juvenile Low Flo	1.00	45.44	45.74	45.71	45.79	0.018474	1.69	0.59	3.64	0.74
Suscol Creek	200		Bridge									
Suscol Creek	148.5	Adult High Flow	177.00	45.09	47.46	47.31	48.07	0.022091	6.27	28.24	18.12	0.89
Suscol Creek	148.5	Juvenile High Fl	36.00	45.09	46.00	46.00	46.35	0.025603	4.77	7.54	10.83	1.01
Suscol Creek	148.5	Adult Low Flow	3.00	45.09	45.36	45.36	45.43	0.033588	2.25	1.33	8.44	1.00
Suscol Creek	148.5	Juvenile Low Flo	1.00	45.09	45.24	45.24	45.29	0.038394	1.89	0.53	4.87	1.01
Suscol Creek	93.6	Adult High Flow	177.00	43.18	46.65		47.13	0.011973	5.59	31.66	11.88	0.60
Suscol Creek	93.6	Juvenile High Fl	36.00	43.18	44.65		44.83	0.009275	3.47	10.37	9.41	0.58
Suscol Creek	93.6	Adult Low Flow	3.00	43.18	43.61		43.66	0.012160	1.85	1.62	6.24	0.64
Suscol Creek	93.6	Juvenile Low Flo	1.00	43.18	43.45		43.48	0.014222	1.41	0.71	4.81	0.65
Suscol Creek	37.7	Adult High Flow	177.00	42.08	45.10	45.10	46.01	0.036542	7.65	23.13	12.96	1.01
Suscol Creek	37.7	Juvenile High Fl	36.00	42.08	43.54	43.53	43.97	0.029595	5.22	6.90	8.01	0.99
Suscol Creek	37.7	Adult Low Flow	3.00	42.08	42.64	42.62	42.75	0.022604	2.65	1.13	4.06	0.89
Suscol Creek	37.7	Juvenile Low Flo	1.00	42.08	42.45	42.42	42.52	0.021393	1.99	0.50	2.66	0.81
Suscol Creek	0	Adult High Flow	177.00	40.62	42.87	42.80	43.58	0.026016	6.73	26.30	16.56	0.94
Suscol Creek	0	Juvenile High Fl	36.00	40.62	41.68	41.65	41.96	0.026007	4.24	8.49	13.37	0.94
Suscol Creek	0	Adult Low Flow	3.00	40.62	40.95	40.92	41.03	0.026047	2.31	1.30	5.61	0.85
Suscol Creek	0	Juvenile Low Flo	1.00	40.62	40.80	40.78	40.85	0.026019	1.70	0.59	4.24	0.80

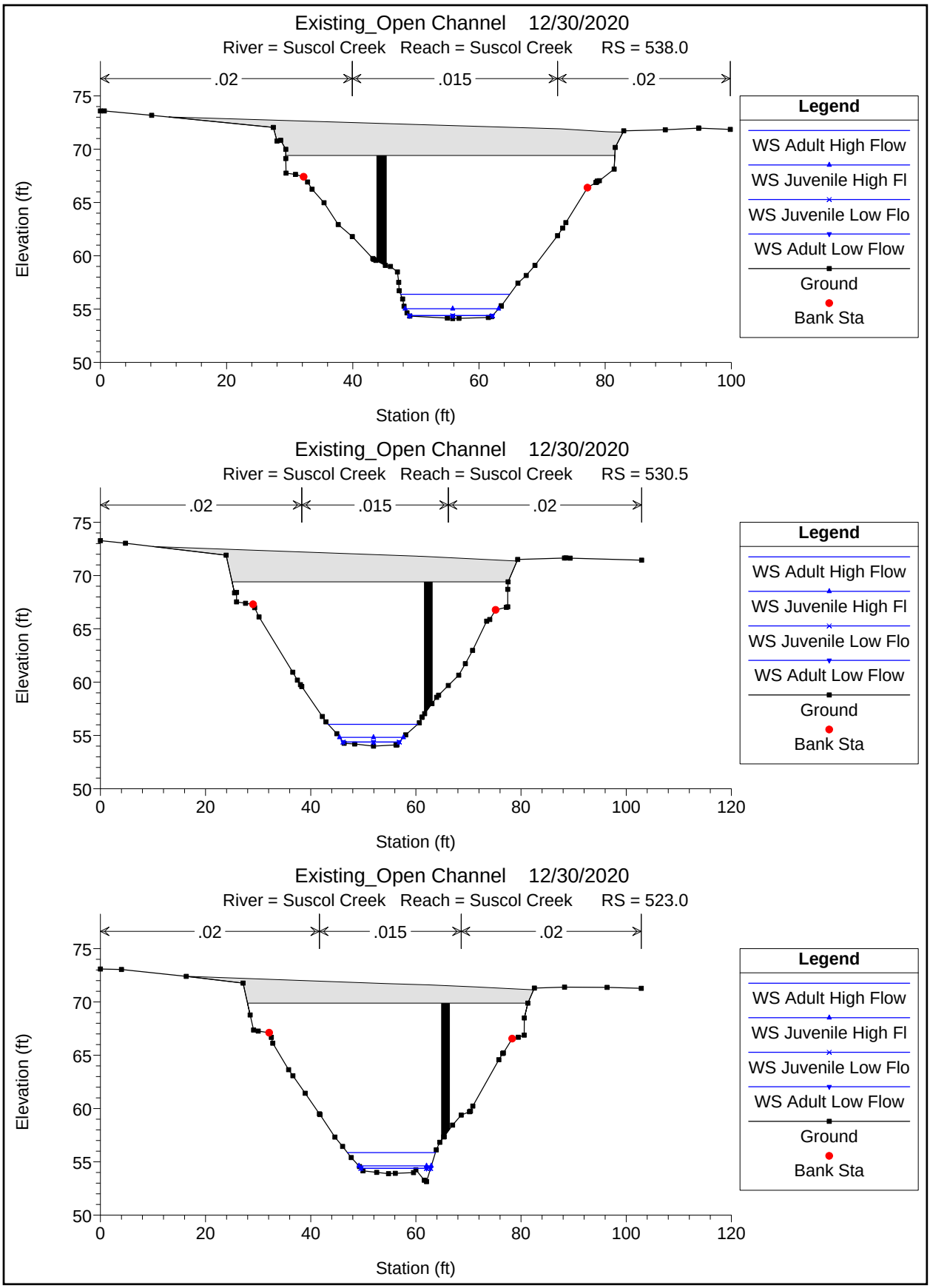

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 485.5 Sta 2+87.5
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 879.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 809.4
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

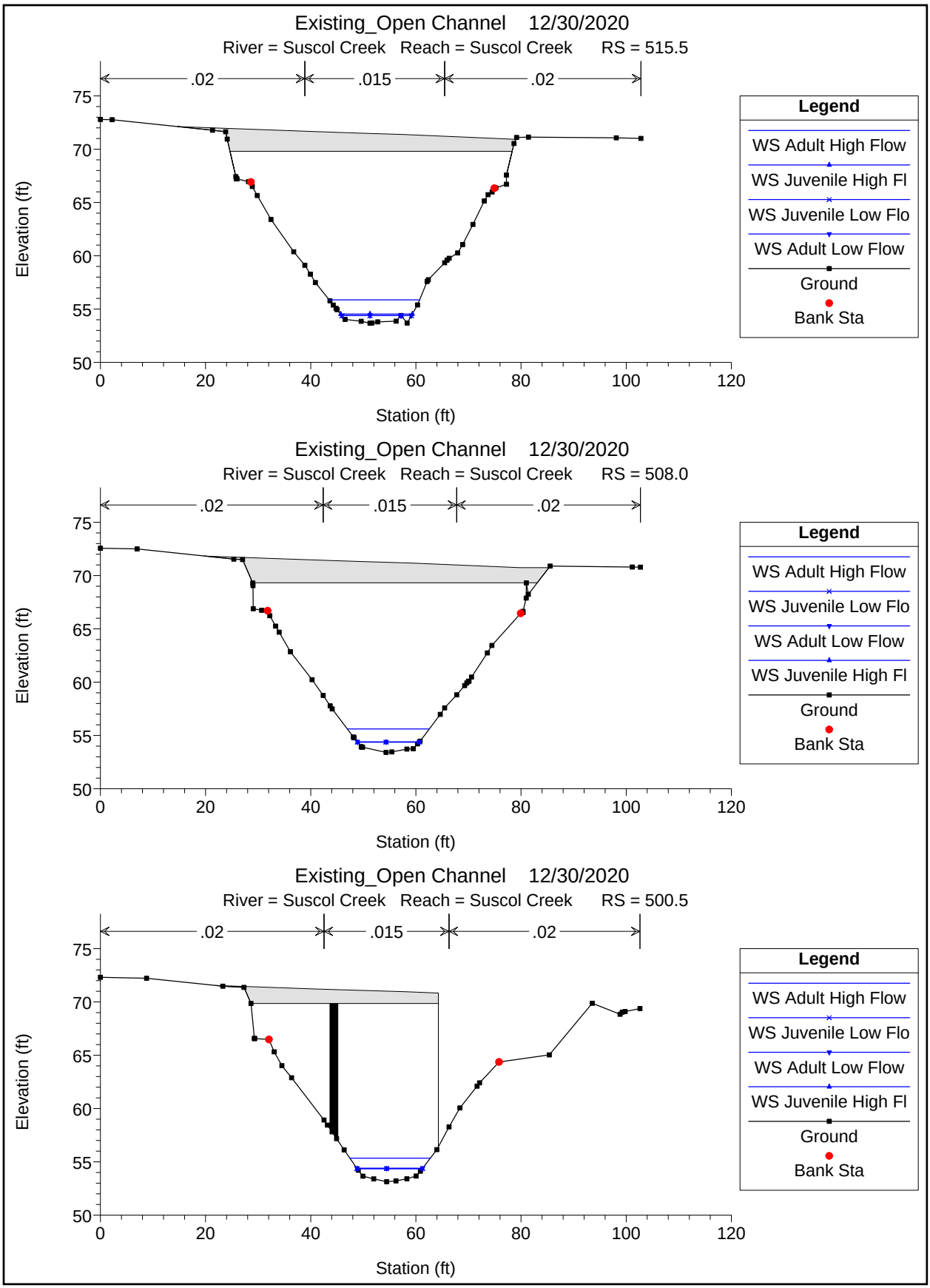

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 772 BR
.06
.022
.035
.022
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Pier Debris
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 772 BR
.06
.022
.035
.022
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 766.0
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

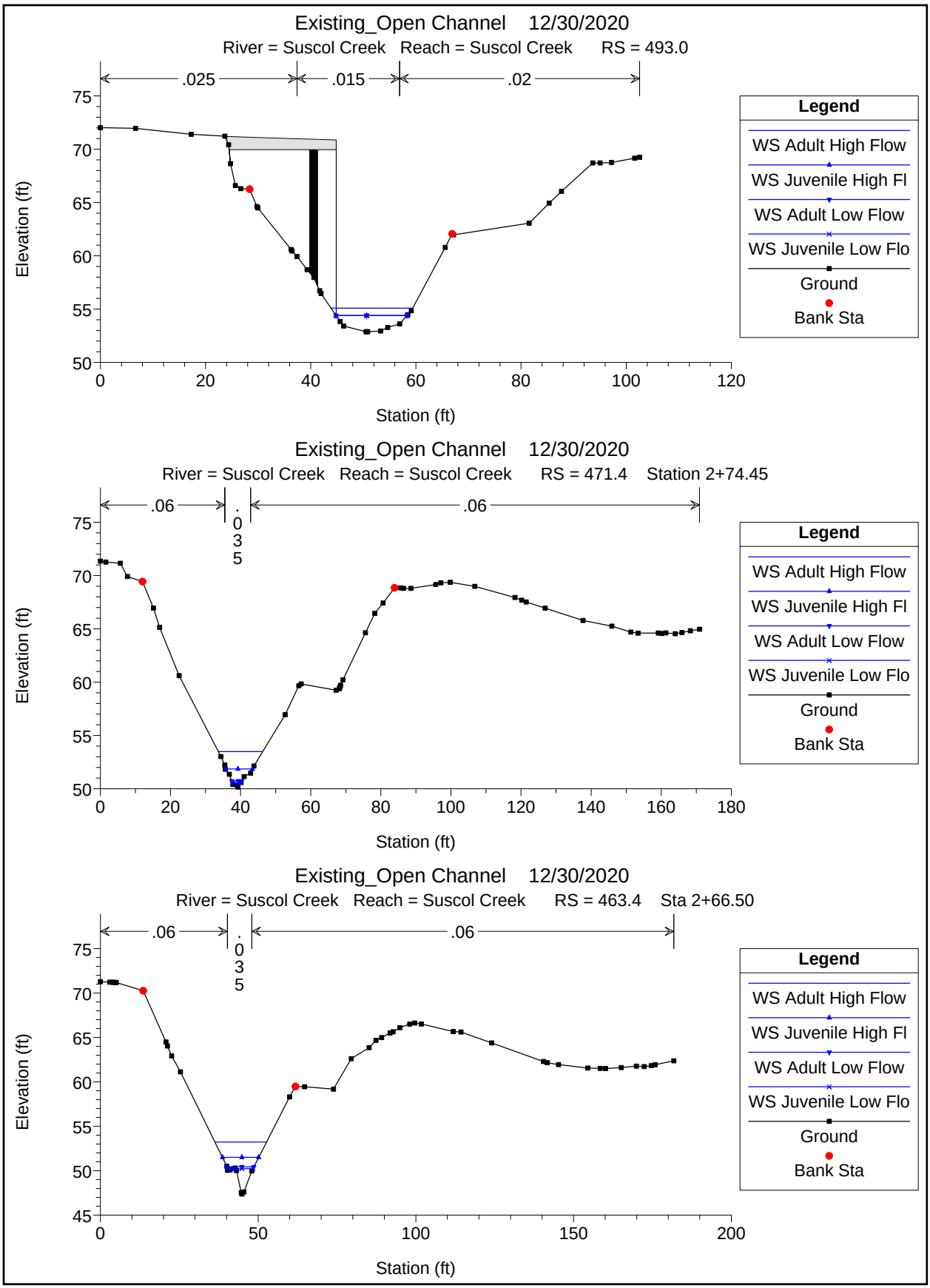

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 735.3
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 684.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 675.8
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

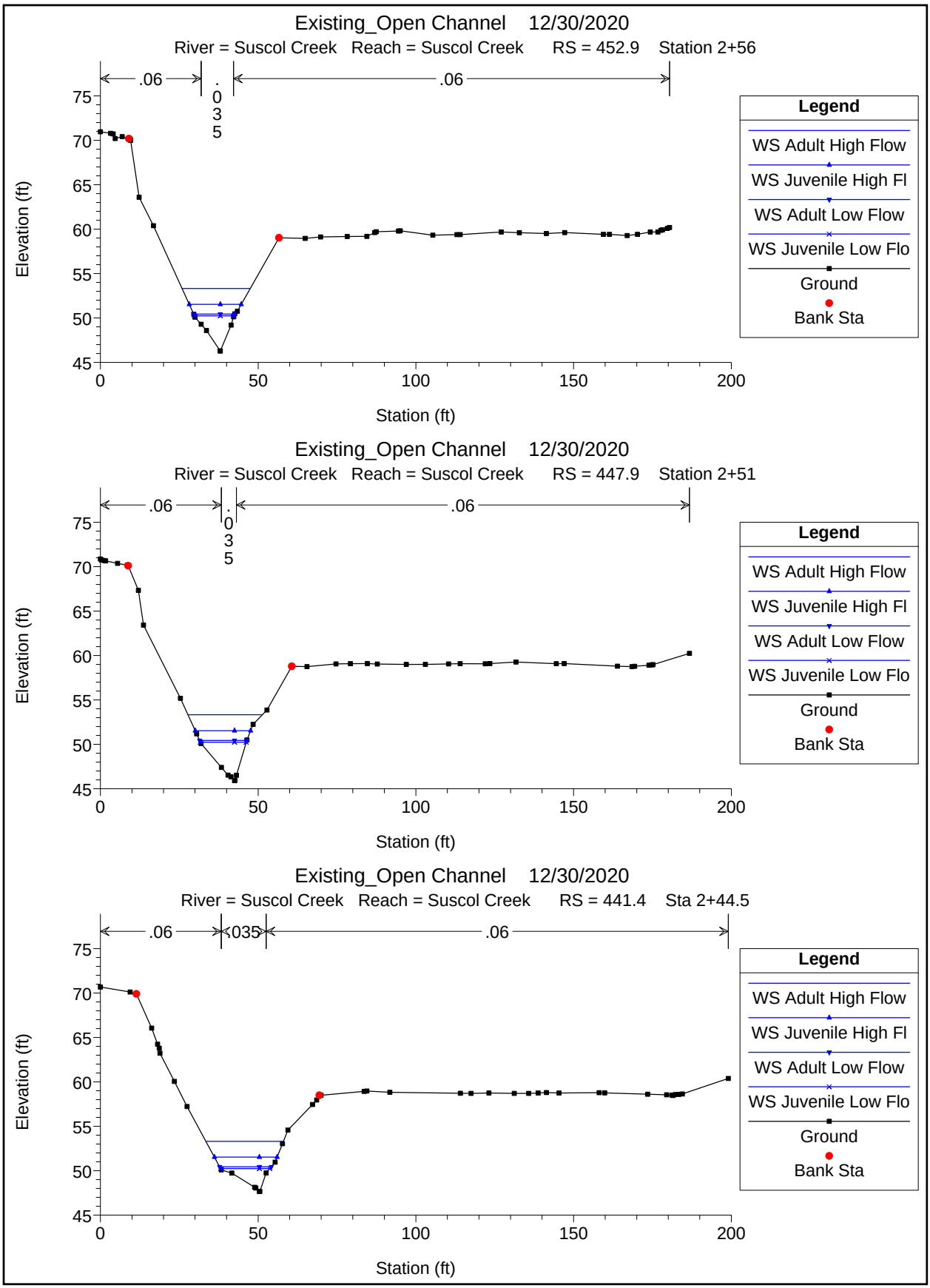

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 610.9
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 575.4
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 575.3
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

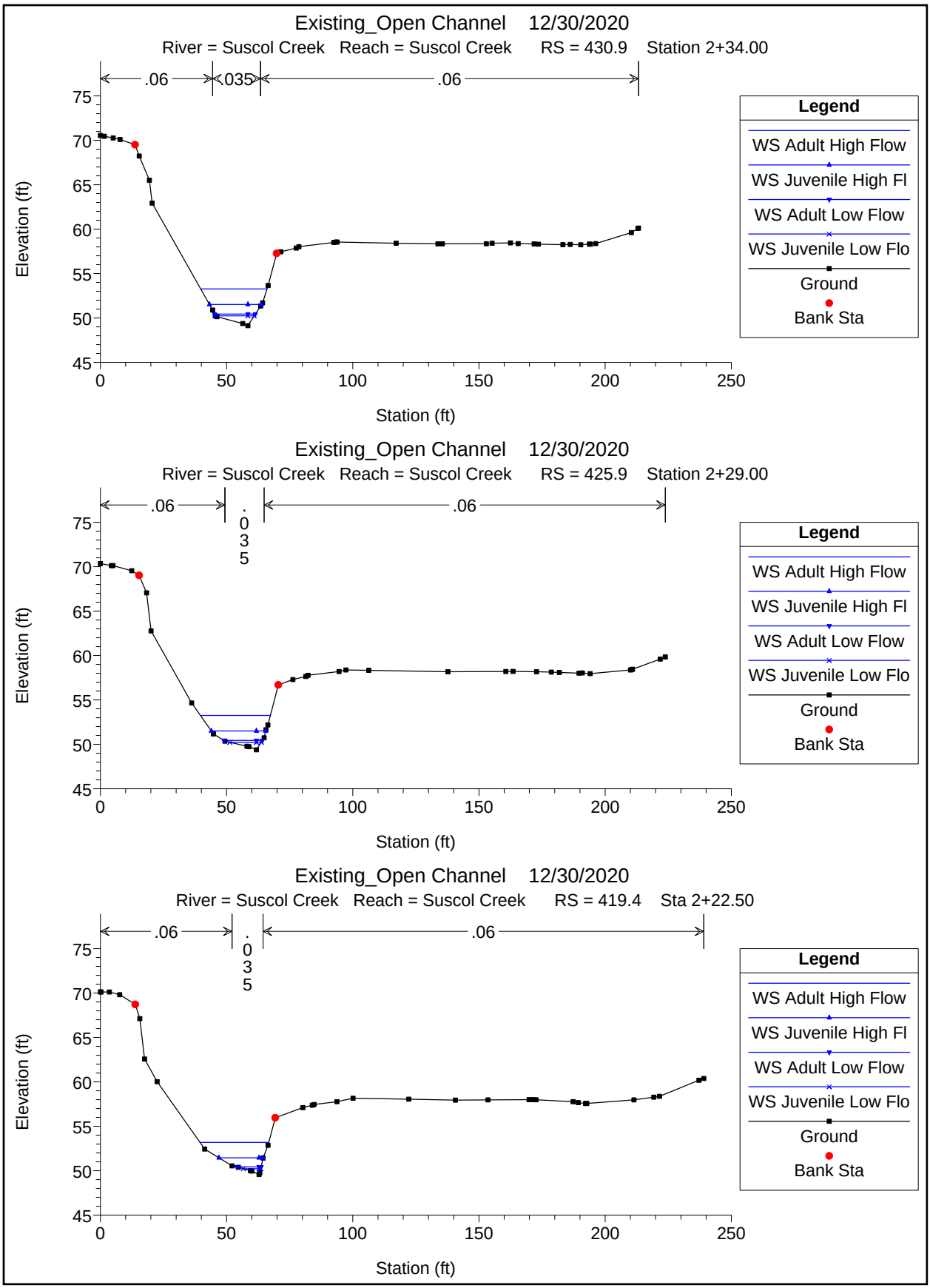

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 557.3 Sta 59.90
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 551.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 547.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

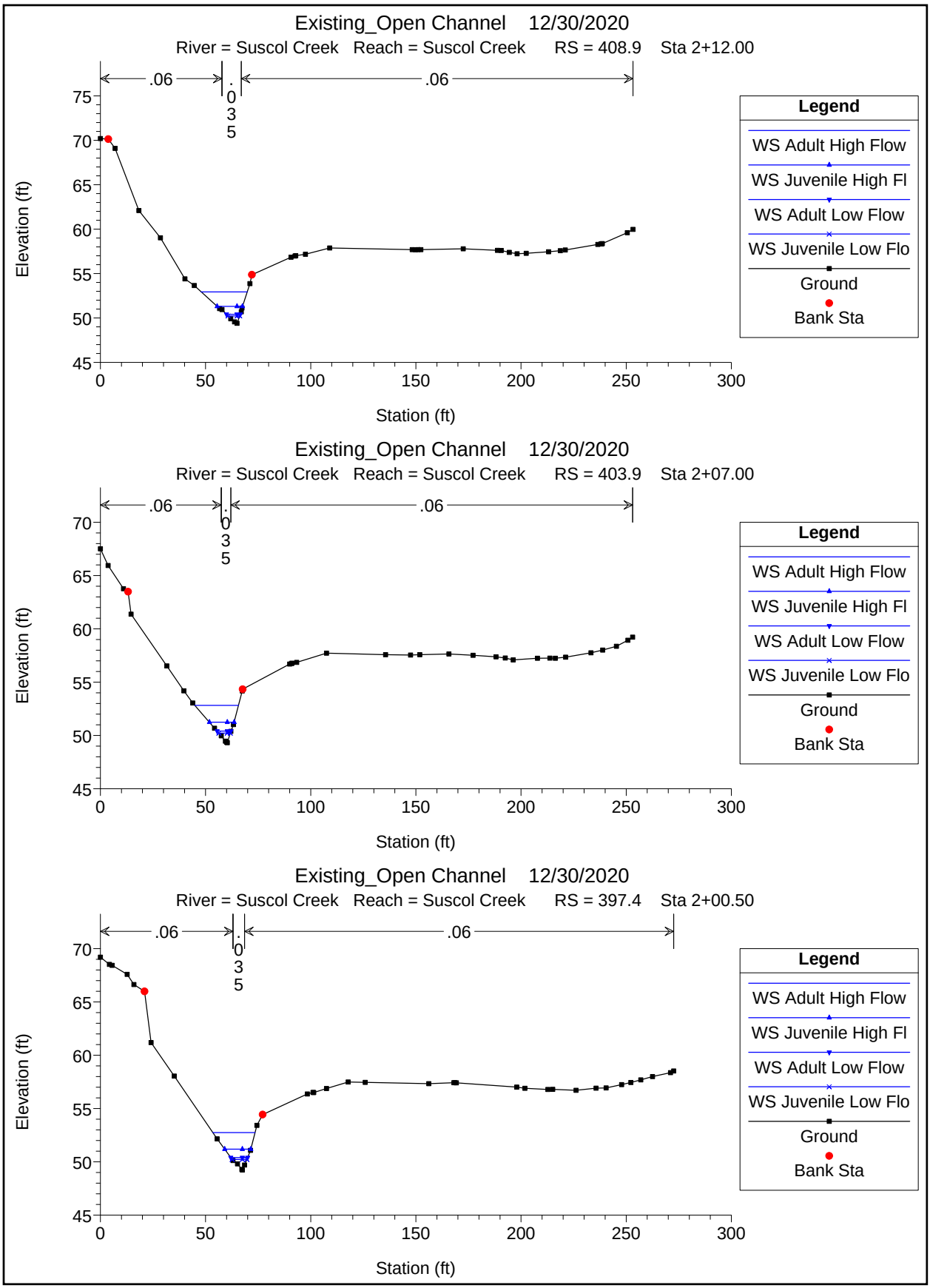

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 538.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Juvenile Low Flo
WS Adult Low Flow
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 530.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Juvenile Low Flo
WS Adult Low Flow
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 523.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Juvenile Low Flo
WS Adult Low Flow
Ground
Bank Sta

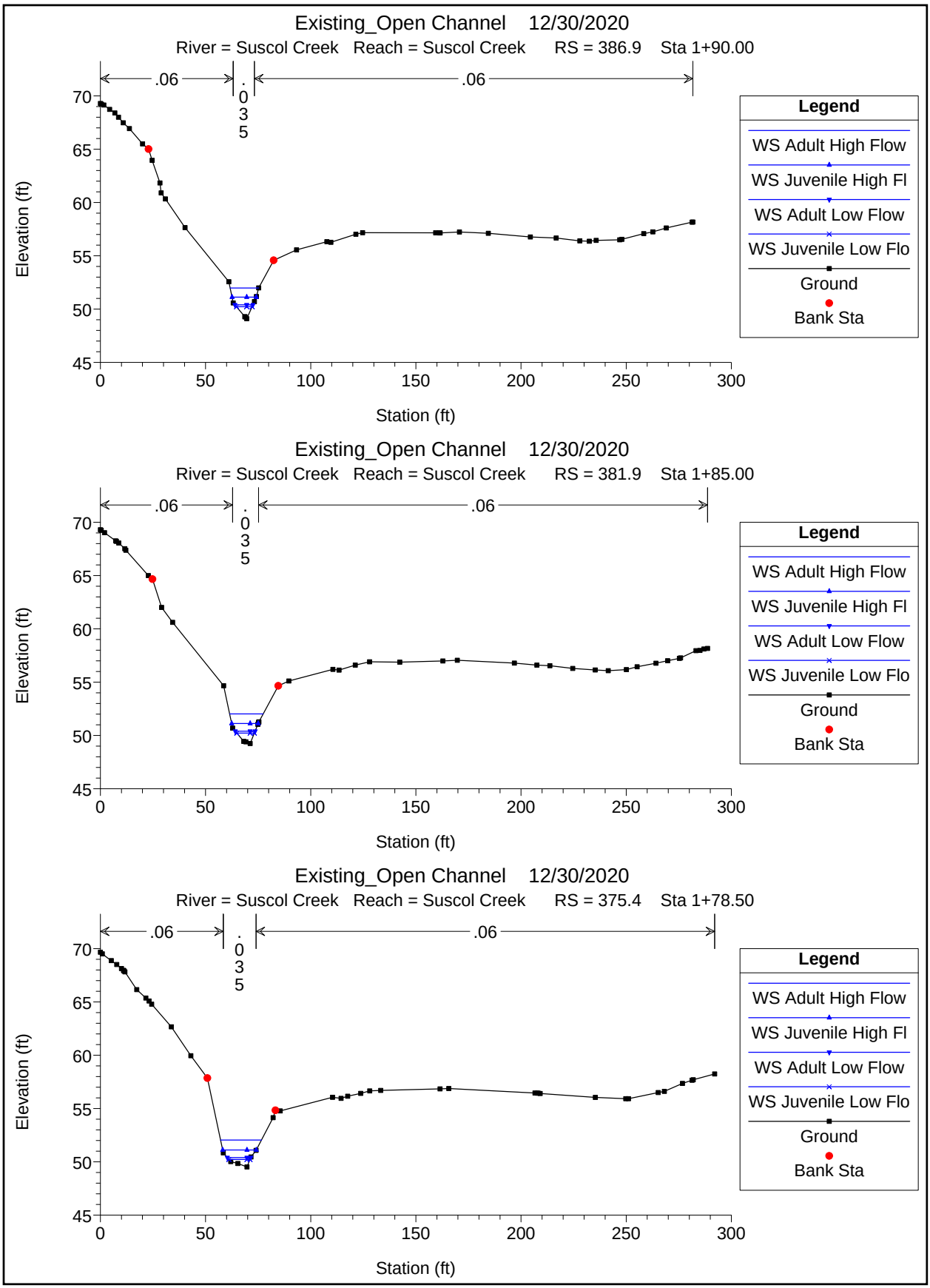

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 515.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Juvenile Low Flo
WS Adult Low Flow
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 508.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile Low Flo
WS Adult Low Flow
WS Juvenile High Fl
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 500.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile Low Flo
WS Adult Low Flow
WS Juvenile High Fl
Ground
Bank Sta

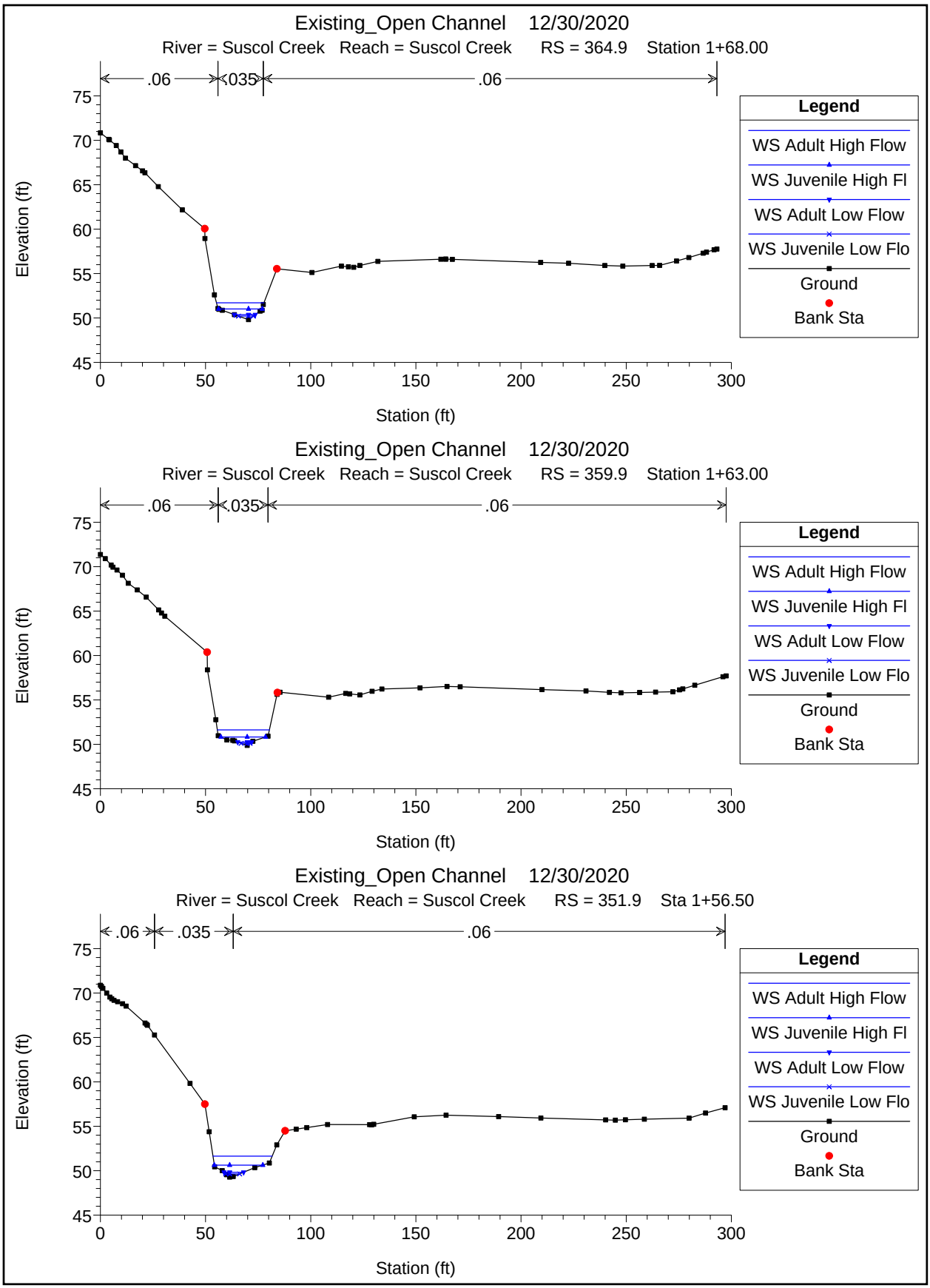

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 493.0
.025
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 471.4 Station 2+74.45
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 463.4 Sta 2+66.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

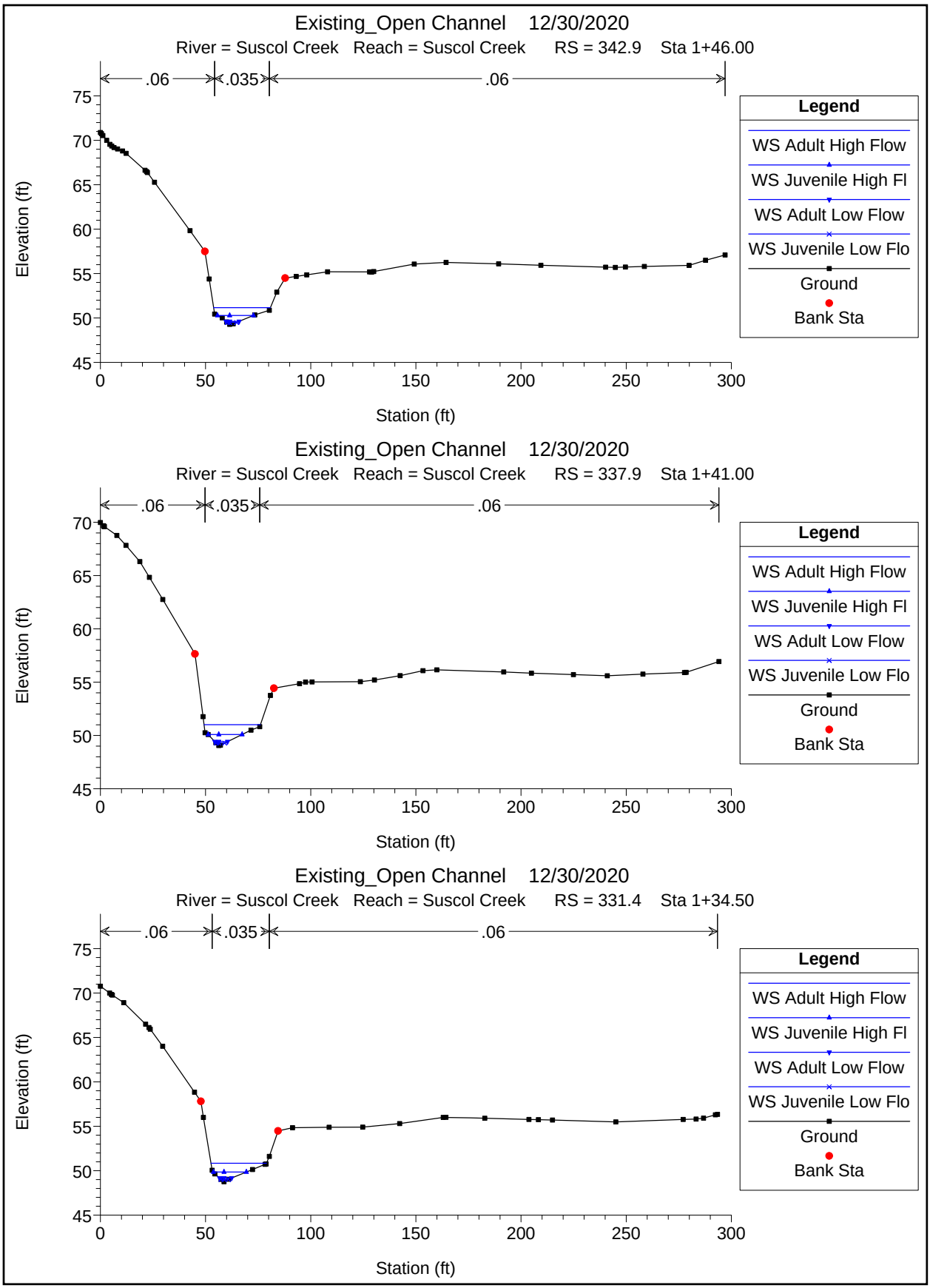

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 452.9 Station 2+56
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 447.9 Station 2+51
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 441.4 Sta 2+44.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

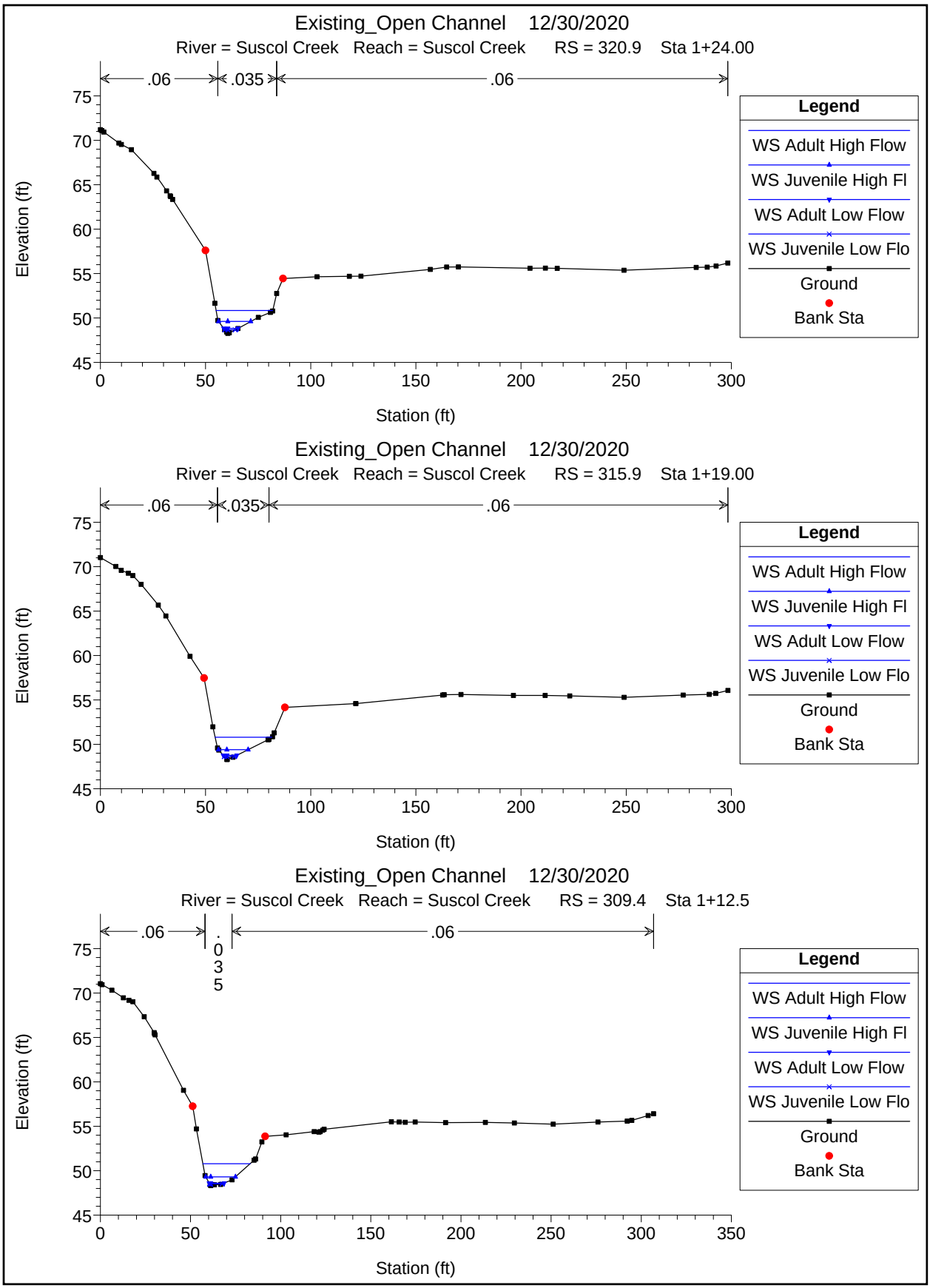

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 430.9 Station 2+34.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 425.9 Station 2+29.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 419.4 Sta 2+22.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

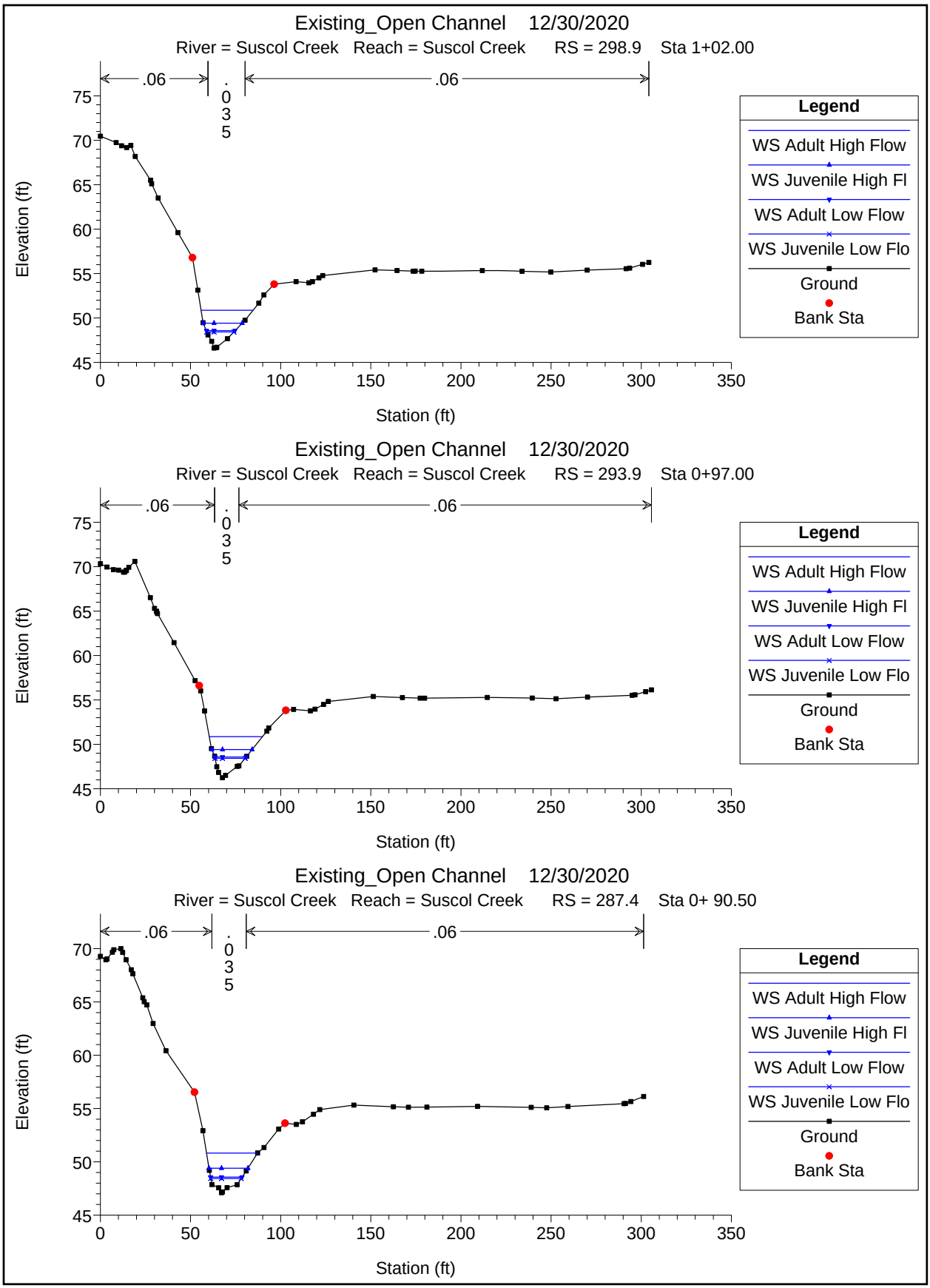

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 408.9 Sta 2+12.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 403.9 Sta 2+07.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 397.4 Sta 2+00.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

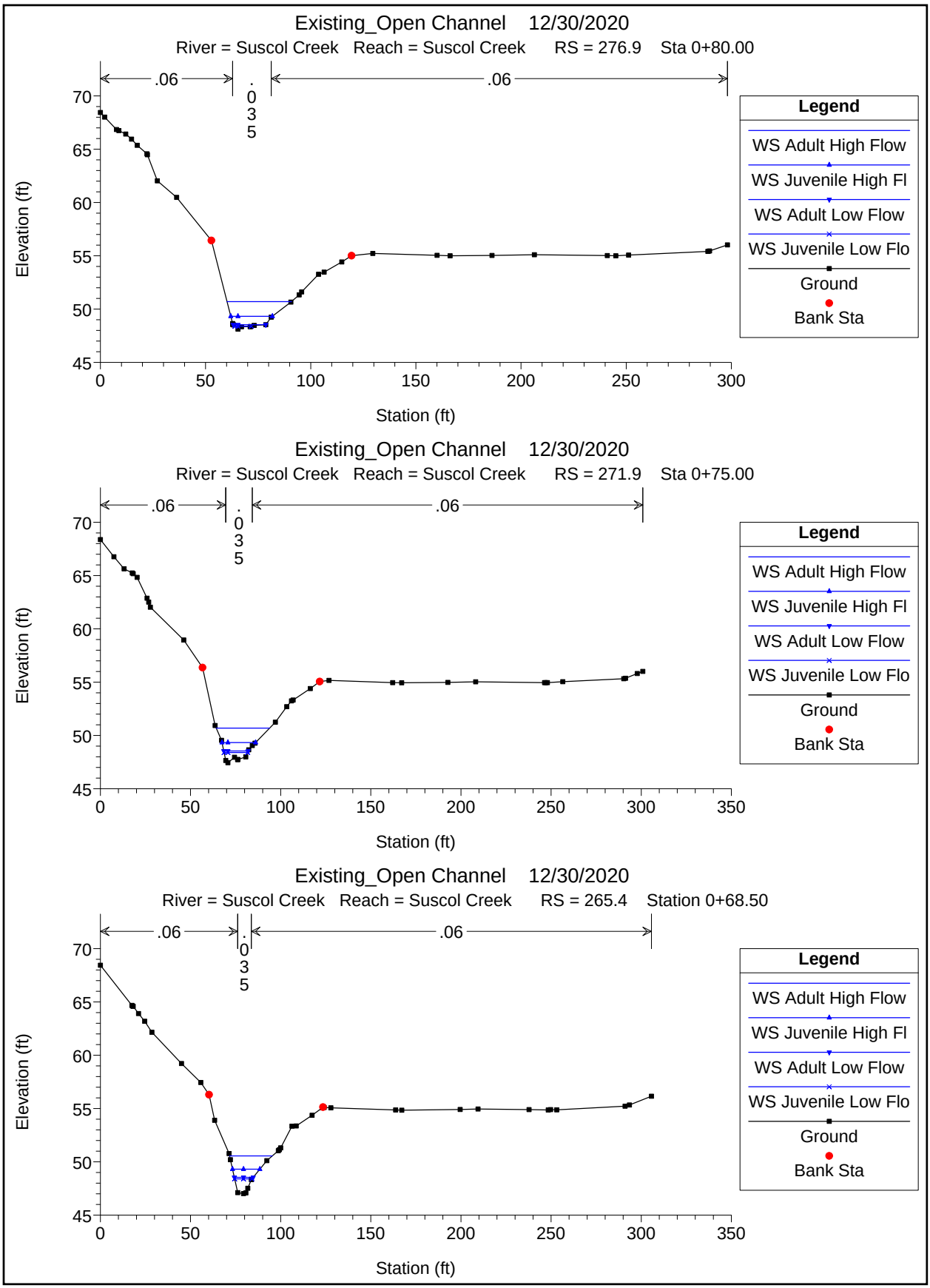

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 386.9 Sta 1+90.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 381.9 Sta 1+85.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 375.4 Sta 1+78.50
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

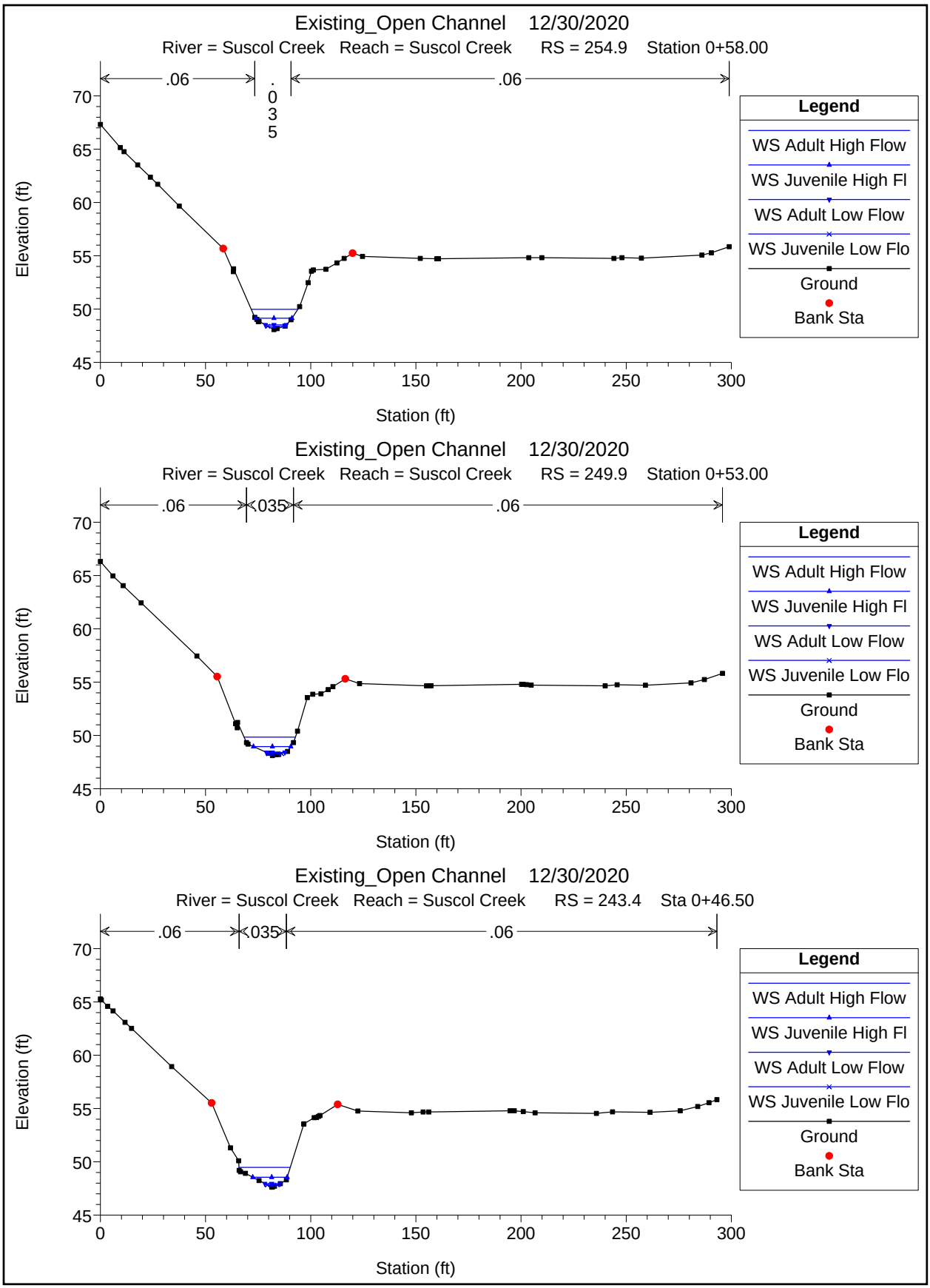

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 364.9 Station 1+68.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 359.9 Station 1+63.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 351.9 Sta 1+56.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

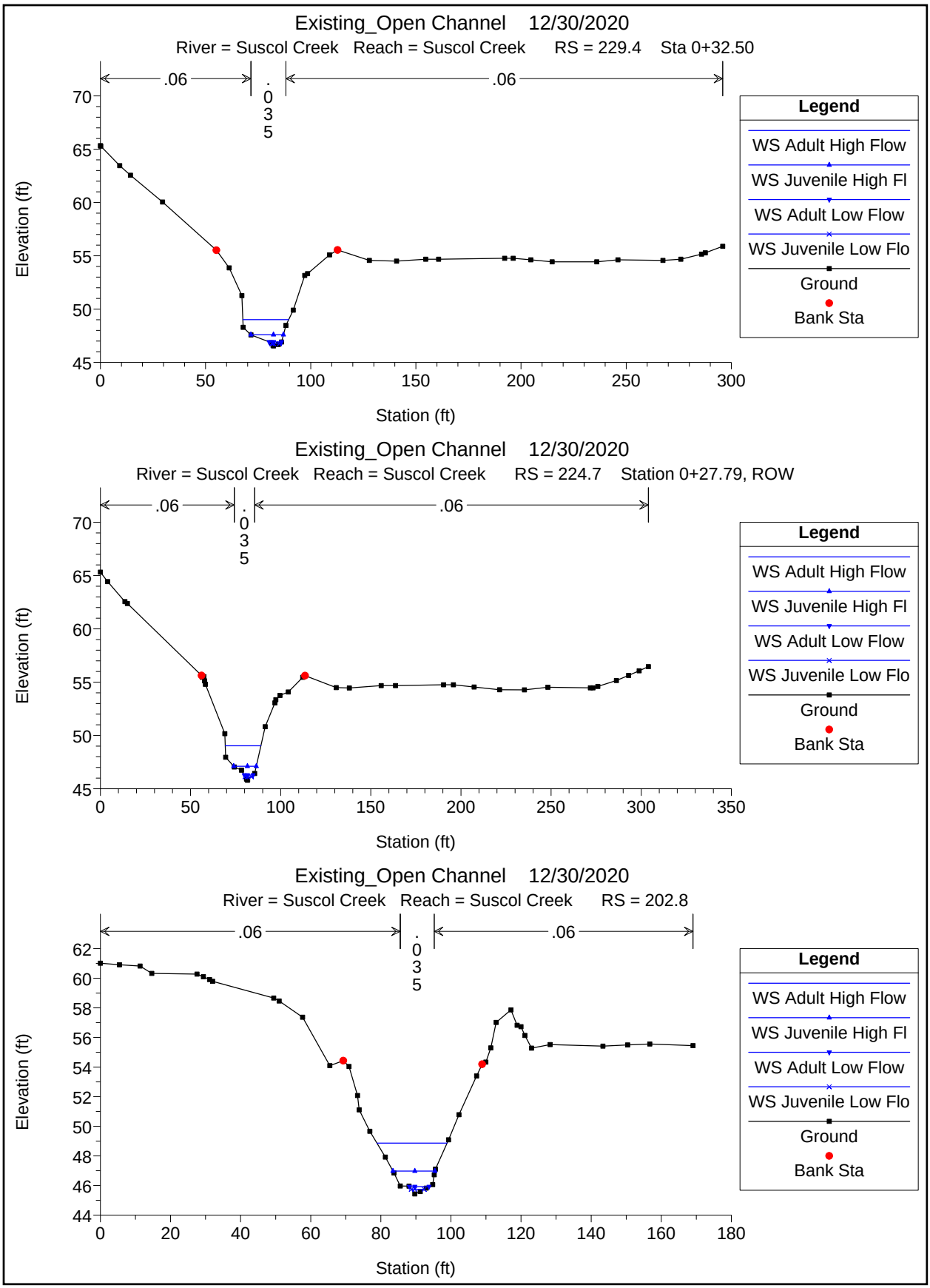

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 342.9 Sta 1+46.00
.06
.035
.06
Elevation (ft)
75
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 337.9 Sta 1+41.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 331.4 Sta 1+34.50
.06
.035
.06
Elevation (ft)
75
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

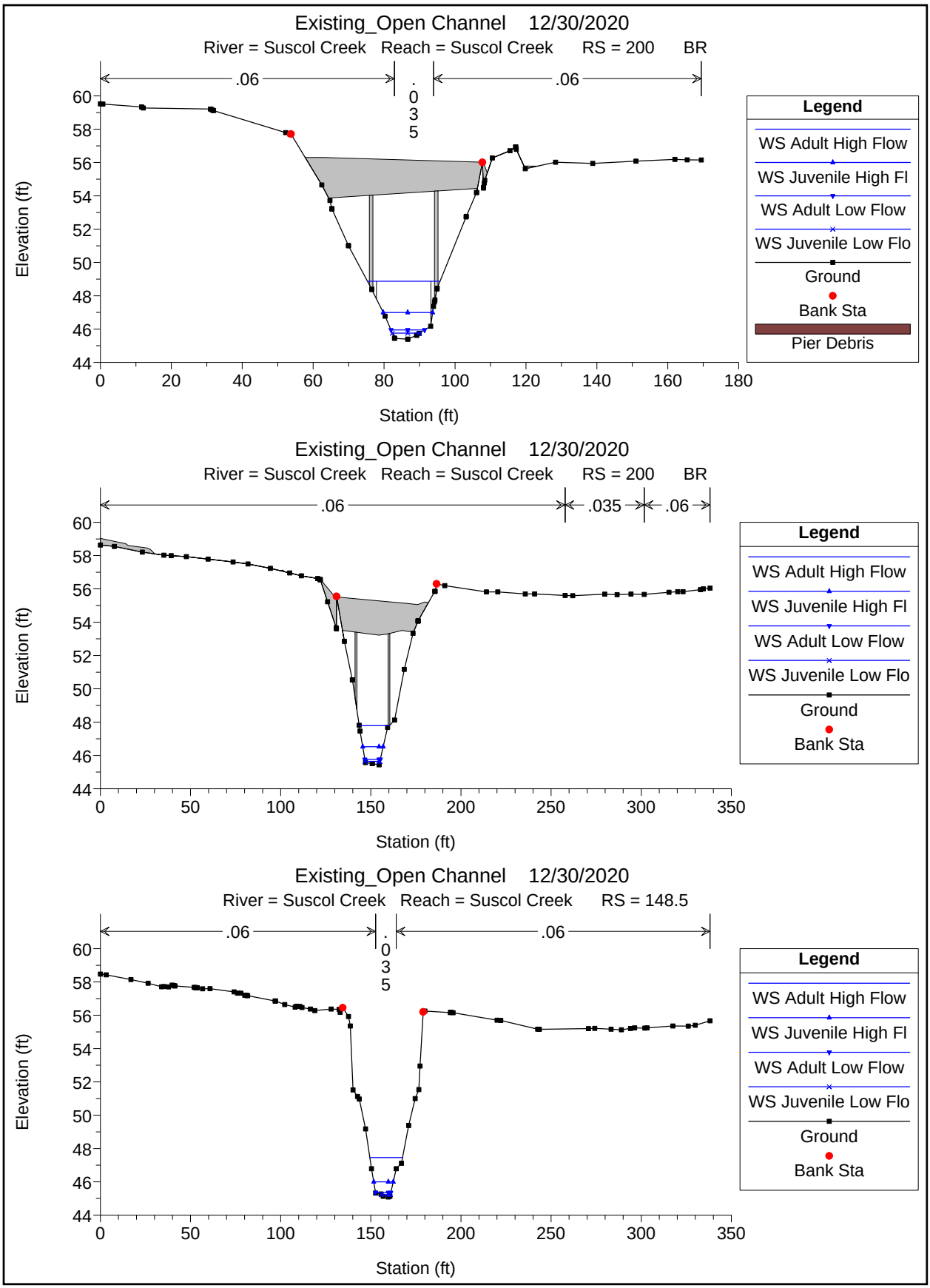

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 320.9 Sta 1+24.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 315.9 Sta 1+19.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 309.4 Sta 1+12.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

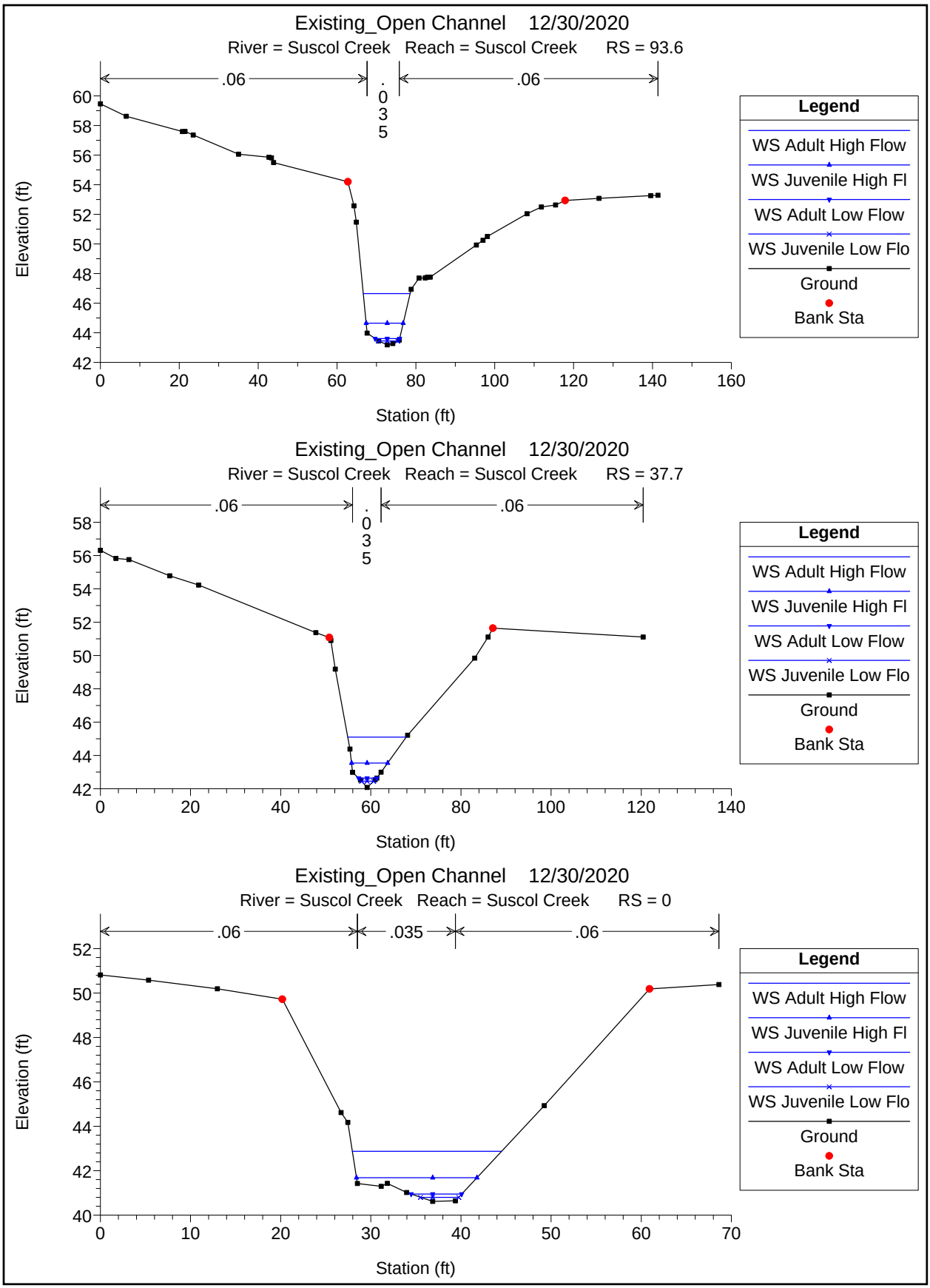

Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 298.9 Sta 1+02.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 293.9 Sta 0+97.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 287.4 Sta 0+ 90.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 276.9 Sta 0+80.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 271.9 Sta 0+75.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 265.4 Station 0+68.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 254.9 Station 0+58.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 249.9 Station 0+53.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 243.4 Sta 0+46.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 229.4 Sta 0+32.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 224.7 Station 0+27.79, ROW
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 202.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Pier Debris
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 148.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 93.6
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 37.7
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Existing_Open Channel 12/30/2020
River = Suscol Creek Reach = Suscol Creek RS = 0
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

HEC-RAS Plan: Existing_US Culv River: Suscol Creek Reach: Suscol Creek

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	879.5	100-year	1520.00	61.21	72.27		72.31	0.000333	1.68	906.39	144.01	0.12
Suscol Creek	879.5	50-Year	1310.00	61.21	70.90		70.95	0.000487	1.83	714.84	134.08	0.14
Suscol Creek	879.5	10-year	812.00	61.21	66.25		66.53	0.005995	4.27	190.22	76.34	0.48
Suscol Creek	879.5	5-year	603.00	61.21	64.97		65.48	0.014092	5.74	105.04	58.31	0.75
Suscol Creek	879.5	2-year	353.00	61.21	64.01	64.01	64.65	0.023101	6.42	55.02	44.32	1.02
Suscol Creek	879.5	1.5-year	263.00	61.21	63.65	63.65	64.29	0.020677	6.37	41.27	33.84	1.02
Suscol Creek	809.4	100-year	1520.00	58.30	72.25	64.97	72.29	0.000318	1.53	1004.61	175.90	0.11
Suscol Creek	809.4	50-Year	1310.00	58.30	70.87	64.59	70.91	0.000499	1.68	777.78	151.66	0.13
Suscol Creek	809.4	10-year	812.00	58.30	65.96	63.34	66.16	0.004057	3.65	222.61	70.29	0.36
Suscol Creek	809.4	5-year	603.00	58.30	64.40	62.62	64.73	0.007353	4.66	129.47	48.64	0.50
Suscol Creek	809.4	2-year	353.00	58.30	62.89	61.69	63.25	0.006556	4.79	73.71	27.61	0.52
Suscol Creek	809.4	1.5-year	263.00	58.30	62.29	61.24	62.61	0.006843	4.53	58.09	24.72	0.52
Suscol Creek	772		Bridge									
Suscol Creek	766.0	100-year	1520.00	57.61	72.06		72.18	0.000863	2.83	536.86	68.26	0.18
Suscol Creek	766.0	50-Year	1310.00	57.61	70.65		70.79	0.001045	2.94	445.61	61.78	0.19
Suscol Creek	766.0	10-year	812.00	57.61	65.46		65.77	0.004292	4.48	181.39	40.47	0.37
Suscol Creek	766.0	5-year	603.00	57.61	63.58		64.03	0.008279	5.35	112.76	32.59	0.51
Suscol Creek	766.0	2-year	353.00	57.61	61.00	61.00	62.04	0.034868	8.17	43.22	21.29	1.01
Suscol Creek	766.0	1.5-year	263.00	57.61	60.57	60.57	61.48	0.035200	7.64	34.43	19.39	1.01
Suscol Creek	735.3	100-year	1520.00	57.36	72.10		72.12	0.000123	1.32	1239.41	184.42	0.07
Suscol Creek	735.3	50-Year	1310.00	57.36	70.69		70.72	0.000156	1.35	1005.07	153.88	0.08
Suscol Creek	735.3	10-year	812.00	57.36	65.54		65.60	0.000664	1.90	426.78	90.50	0.15
Suscol Creek	735.3	5-year	603.00	57.36	63.68		63.76	0.001392	2.24	268.65	79.21	0.21
Suscol Creek	735.3	2-year	353.00	57.36	61.09		61.26	0.003467	3.31	106.77	40.33	0.36
Suscol Creek	735.3	1.5-year	263.00	57.36	60.00		60.25	0.006921	3.98	66.11	34.08	0.50
Suscol Creek	684.8	100-year	1520.00	54.93	72.10		72.12	0.000067	0.93	1712.91	279.45	0.05
Suscol Creek	684.8	50-Year	1310.00	54.93	70.70		70.71	0.000086	0.96	1391.51	202.60	0.06
Suscol Creek	684.8	10-year	812.00	54.93	65.54		65.57	0.000260	1.31	621.34	110.40	0.10
Suscol Creek	684.8	5-year	603.00	54.93	63.68		63.71	0.000331	1.37	438.96	88.96	0.11
Suscol Creek	684.8	2-year	353.00	54.93	61.14		61.17	0.000449	1.42	248.28	63.53	0.13
Suscol Creek	684.8	1.5-year	263.00	54.93	60.09		60.12	0.000504	1.41	186.02	54.23	0.13
Suscol Creek	675.8	100-year	1520.00	55.00	72.10	59.88	72.12	0.000008	1.14	1408.31	249.20	0.07
Suscol Creek	675.8	50-Year	1310.00	55.00	70.69	59.56	70.71	0.000010	1.17	1126.43	170.06	0.07
Suscol Creek	675.8	10-year	812.00	55.00	65.53	58.68	65.57	0.000032	1.63	496.86	86.37	0.12
Suscol Creek	675.8	5-year	603.00	55.00	63.67	58.25	63.71	0.000041	1.71	353.13	67.00	0.13
Suscol Creek	675.8	2-year	353.00	55.00	61.13	57.66	61.17	0.000057	1.71	206.86	48.79	0.15
Suscol Creek	675.8	1.5-year	263.00	55.00	60.07	57.41	60.12	0.000073	1.68	156.92	46.04	0.16
Suscol Creek	675		Culvert									
Suscol Creek	557.3	100-year	1520.00	54.17	62.37	62.37	66.13	0.004468	15.55	97.75	13.14	1.01
Suscol Creek	557.3	50-Year	1310.00	54.17	61.62	61.62	65.06	0.004355	14.87	88.07	12.93	1.00
Suscol Creek	557.3	10-year	812.00	54.17	59.67	59.67	62.23	0.004022	12.82	63.32	12.39	1.00
Suscol Creek	557.3	5-year	603.00	54.17	58.70	58.70	60.84	0.003919	11.73	51.39	12.13	1.00
Suscol Creek	557.3	2-year	353.00	54.17	57.37	57.37	58.90	0.003767	9.92	35.59	11.77	1.01
Suscol Creek	557.3	1.5-year	263.00	54.17	56.82	56.82	58.09	0.003728	9.03	29.12	11.60	1.00
Suscol Creek	551.0	100-year	1520.00	54.16	61.94	61.94	64.86	0.003962	13.71	110.84	18.97	1.00
Suscol Creek	551.0	50-Year	1310.00	54.16	60.87	60.87	63.98	0.003807	14.16	92.54	14.85	1.00
Suscol Creek	551.0	10-year	812.00	54.16	59.09	59.09	61.40	0.003614	12.21	66.51	14.36	1.00
Suscol Creek	551.0	5-year	603.00	54.16	58.22	58.22	60.15	0.003542	11.12	54.21	14.13	1.00
Suscol Creek	551.0	2-year	353.00	54.16	57.04	57.04	58.40	0.003457	9.35	37.73	13.82	1.00
Suscol Creek	551.0	1.5-year	263.00	54.16	56.57	56.55	57.67	0.003377	8.43	31.18	13.71	0.99
Suscol Creek	547.5	100-year	1520.00	54.16	61.34	61.34	64.07	0.003164	13.25	114.71	20.98	1.00
Suscol Creek	547.5	50-Year	1310.00	54.16	60.72	60.72	63.28	0.003208	12.84	102.05	19.91	1.00
Suscol Creek	547.5	10-year	812.00	54.16	58.89	58.89	61.05	0.003379	11.79	68.86	15.98	1.00
Suscol Creek	547.5	5-year	603.00	54.16	58.03	58.03	59.86	0.003376	10.84	55.62	15.22	1.00
Suscol Creek	547.5	2-year	353.00	54.16	57.04	56.91	58.21	0.002884	8.68	40.66	14.92	0.93
Suscol Creek	547.5	1.5-year	263.00	54.16	56.76	56.43	57.57	0.002201	7.20	36.53	14.85	0.81
Suscol Creek	538.0	100-year	1520.00	54.11	60.64	60.63	62.91	0.002757	12.08	125.85	27.58	1.00
Suscol Creek	538.0	50-Year	1310.00	54.11	60.11	60.11	62.25	0.002722	11.73	111.68	26.08	1.00
Suscol Creek	538.0	10-year	812.00	54.11	58.62	58.62	60.39	0.002729	10.68	76.00	21.39	1.00
Suscol Creek	538.0	5-year	603.00	54.11	58.06	57.87	59.42	0.002371	9.36	64.44	20.16	0.92
Suscol Creek	538.0	2-year	353.00	54.11	57.28	56.84	58.08	0.001723	7.15	49.34	18.68	0.78
Suscol Creek	538.0	1.5-year	263.00	54.11	56.88	56.40	57.49	0.001539	6.27	41.94	18.14	0.73
Suscol Creek	530.5	100-year	1520.00	54.00	60.88	60.58	62.78	0.002651	11.05	137.50	30.26	0.91
Suscol Creek	530.5	50-Year	1310.00	54.00	60.13	60.08	62.12	0.002911	11.34	115.57	28.03	0.98
Suscol Creek	530.5	10-year	812.00	54.00	58.64	58.64	60.34	0.002788	10.45	77.69	22.95	1.00
Suscol Creek	530.5	5-year	603.00	54.00	57.92	57.92	59.40	0.002697	9.74	61.93	21.00	1.00
Suscol Creek	530.5	2-year	353.00	54.00	56.96	56.96	58.04	0.002802	8.33	42.35	19.59	1.00
Suscol Creek	530.5	1.5-year	263.00	54.00	56.52	56.52	57.45	0.002930	7.73	34.03	18.41	1.00

HEC-RAS Plan: Existing_US Culv River: Suscol Creek Reach: Suscol Creek (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	523.0	100-year	1520.00	53.15	61.06	60.33	62.67	0.002243	10.18	149.30	30.82	0.82
Suscol Creek	523.0	50-Year	1310.00	53.15	60.38	59.86	61.99	0.002354	10.16	128.93	29.09	0.85
Suscol Creek	523.0	10-year	812.00	53.15	58.61	58.35	60.11	0.002412	9.81	82.74	22.91	0.91
Suscol Creek	523.0	5-year	603.00	53.15	57.95	57.64	59.17	0.002142	8.84	68.25	21.15	0.87
Suscol Creek	523.0	2-year	353.00	53.15	56.91	56.63	57.79	0.002143	7.50	47.07	19.39	0.85
Suscol Creek	523.0	1.5-year	263.00	53.15	56.41	56.17	57.17	0.002259	6.99	37.61	18.01	0.85
Suscol Creek	515.5	100-year	1520.00	53.68	61.21	60.25	62.59	0.001545	9.41	161.48	33.48	0.76
Suscol Creek	515.5	50-Year	1310.00	53.68	60.52	59.72	61.90	0.001687	9.42	139.09	31.70	0.79
Suscol Creek	515.5	10-year	812.00	53.68	58.72	58.31	60.04	0.001916	9.19	88.31	24.88	0.86
Suscol Creek	515.5	5-year	603.00	53.68	58.01	57.59	59.12	0.001881	8.45	71.38	22.59	0.84
Suscol Creek	515.5	2-year	353.00	53.68	56.93	56.58	57.75	0.001901	7.26	48.65	19.81	0.82
Suscol Creek	515.5	1.5-year	263.00	53.68	56.42	56.14	57.13	0.002027	6.78	38.79	18.56	0.83
Suscol Creek	508.0	100-year	1520.00	53.41	61.12	60.21	62.57	0.001607	9.65	157.46	32.56	0.77
Suscol Creek	508.0	50-Year	1310.00	53.41	60.44	59.72	61.88	0.001720	9.64	135.95	30.58	0.81
Suscol Creek	508.0	10-year	812.00	53.41	58.35	58.35	59.99	0.002540	10.29	78.90	23.96	1.00
Suscol Creek	508.0	5-year	603.00	53.41	57.63	57.63	59.08	0.002628	9.63	62.60	21.67	1.00
Suscol Creek	508.0	2-year	353.00	53.41	56.59	56.59	57.71	0.002815	8.49	41.56	18.58	1.00
Suscol Creek	508.0	1.5-year	263.00	53.41	56.13	56.13	57.10	0.002893	7.88	33.37	17.19	1.00
Suscol Creek	500.5	100-year	1520.00	53.14	60.12	60.12	62.46	0.003937	12.29	123.69	26.29	0.82
Suscol Creek	500.5	50-Year	1310.00	53.14	59.57	59.57	61.79	0.003735	11.94	109.73	24.78	0.83
Suscol Creek	500.5	10-year	812.00	53.14	58.06	58.06	59.87	0.003132	10.77	75.41	20.91	0.86
Suscol Creek	500.5	5-year	603.00	53.14	57.36	57.36	58.88	0.002982	9.88	61.02	20.15	0.85
Suscol Creek	500.5	2-year	353.00	53.14	56.34	56.34	57.48	0.002817	8.56	41.22	18.14	1.00
Suscol Creek	500.5	1.5-year	263.00	53.14	55.88	55.88	56.86	0.002894	7.93	33.16	16.88	1.00
Suscol Creek	493.0	100-year	1520.00	54.37	59.85	59.85	62.24	0.004098	12.42	122.43	25.54	0.93
Suscol Creek	493.0	50-Year	1310.00	54.37	59.29	59.29	61.55	0.003991	12.06	108.66	24.08	0.96
Suscol Creek	493.0	10-year	812.00	54.37	57.81	57.81	59.60	0.003659	10.75	75.51	21.04	1.02
Suscol Creek	493.0	5-year	603.00	54.37	57.11	57.11	58.62	0.003557	9.87	61.06	20.23	1.05
Suscol Creek	493.0	2-year	353.00	54.37	56.06	56.06	57.21	0.003488	8.59	41.08	17.95	1.16
Suscol Creek	493.0	1.5-year	263.00	54.37	55.60	55.60	56.59	0.003440	7.95	33.10	16.82	1.26
Suscol Creek	485.5	100-year	1520.00	52.26	59.42	59.42	61.71	0.002744	12.13	125.29	27.49	1.00
Suscol Creek	485.5	50-Year	1310.00	52.26	58.92	58.92	61.05	0.002450	11.72	111.75	26.17	1.00
Suscol Creek	485.5	10-year	812.00	52.26	57.48	57.48	59.21	0.002578	10.54	77.06	22.34	1.00
Suscol Creek	485.5	5-year	603.00	52.26	56.75	56.75	58.25	0.002661	9.82	61.43	20.52	1.00
Suscol Creek	485.5	2-year	353.00	52.26	55.68	55.68	56.84	0.002871	8.64	40.86	17.90	1.01
Suscol Creek	485.5	1.5-year	263.00	52.26	55.22	55.22	56.21	0.002987	8.01	32.83	16.80	1.01
Suscol Creek	471.4	100-year	1520.00	50.16	58.45	58.45	60.66	0.032377	11.92	127.52	29.00	1.00
Suscol Creek	471.4	50-Year	1310.00	50.16	57.93	57.93	60.03	0.033022	11.60	112.91	27.44	1.01
Suscol Creek	471.4	10-year	812.00	50.16	56.53	56.53	58.24	0.033664	10.49	77.39	23.04	1.01
Suscol Creek	471.4	5-year	603.00	50.16	55.78	55.78	57.30	0.033687	9.87	61.09	20.48	1.01
Suscol Creek	471.4	2-year	353.00	50.16	54.64	54.64	55.85	0.033365	8.85	39.87	16.58	1.01
Suscol Creek	471.4	1.5-year	263.00	50.16	54.11	54.11	55.19	0.032522	8.30	31.68	14.80	1.00
Suscol Creek	463.4	100-year	1520.00	47.37	57.28	56.90	59.28	0.027778	11.34	133.98	27.75	0.91
Suscol Creek	463.4	50-Year	1310.00	47.37	57.18		58.73	0.021766	9.98	131.23	27.47	0.81
Suscol Creek	463.4	10-year	812.00	47.37	56.21		57.12	0.014521	7.67	105.88	24.74	0.65
Suscol Creek	463.4	5-year	603.00	47.37	55.55		56.24	0.012060	6.68	90.24	22.88	0.59
Suscol Creek	463.4	2-year	353.00	47.37	54.47		54.90	0.008787	5.26	67.13	19.83	0.50
Suscol Creek	463.4	1.5-year	263.00	47.37	53.90		54.24	0.007589	4.66	56.40	18.25	0.47
Suscol Creek	452.9	100-year	1520.00	46.28	57.96		58.78	0.008092	7.28	208.92	35.01	0.53
Suscol Creek	452.9	50-Year	1310.00	46.28	57.67		58.34	0.006808	6.59	198.93	34.18	0.48
Suscol Creek	452.9	10-year	812.00	46.28	56.49		56.89	0.004496	5.06	160.63	30.78	0.39
Suscol Creek	452.9	5-year	603.00	46.28	55.77		56.06	0.003559	4.33	139.17	28.70	0.35
Suscol Creek	452.9	2-year	353.00	46.28	54.61		54.78	0.002309	3.27	107.84	25.37	0.28
Suscol Creek	452.9	1.5-year	263.00	46.28	54.02		54.14	0.001833	2.82	93.38	23.66	0.25
Suscol Creek	447.9	100-year	1520.00	45.92	58.05		58.69	0.006922	6.42	236.63	38.17	0.45
Suscol Creek	447.9	50-Year	1310.00	45.92	57.74		58.27	0.005868	5.82	225.06	37.25	0.42
Suscol Creek	447.9	10-year	812.00	45.92	56.53		56.84	0.003934	4.46	182.22	33.60	0.34
Suscol Creek	447.9	5-year	603.00	45.92	55.80		56.02	0.003138	3.81	158.41	31.39	0.30
Suscol Creek	447.9	2-year	353.00	45.92	54.63		54.75	0.002070	2.85	123.68	27.94	0.24
Suscol Creek	447.9	1.5-year	263.00	45.92	54.03		54.13	0.001665	2.44	107.57	26.23	0.21
Suscol Creek	441.4	100-year	1520.00	47.65	57.99		58.65	0.006438	6.50	233.74	42.23	0.49
Suscol Creek	441.4	50-Year	1310.00	47.65	57.68		58.23	0.005492	5.93	221.09	41.02	0.45
Suscol Creek	441.4	10-year	812.00	47.65	56.48		56.81	0.003749	4.65	174.55	35.97	0.37
Suscol Creek	441.4	5-year	603.00	47.65	55.75		56.00	0.002988	4.03	149.49	32.90	0.33
Suscol Creek	441.4	2-year	353.00	47.65	54.59		54.74	0.001905	3.09	114.23	28.02	0.27
Suscol Creek	441.4	1.5-year	263.00	47.65	54.00		54.11	0.001556	2.68	98.22	26.43	0.24
Suscol Creek	430.9	100-year	1520.00	49.13	57.87		58.58	0.005790	6.76	226.76	46.96	0.50
Suscol Creek	430.9	50-Year	1310.00	49.13	57.59		58.17	0.004956	6.13	214.32	42.35	0.46
Suscol Creek	430.9	10-year	812.00	49.13	56.42		56.77	0.003452	4.77	170.28	35.60	0.38
Suscol Creek	430.9	5-year	603.00	49.13	55.70		55.97	0.002837	4.14	145.49	33.50	0.35

HEC-RAS Plan: Existing_US Culv River: Suscol Creek Reach: Suscol Creek (Continued)

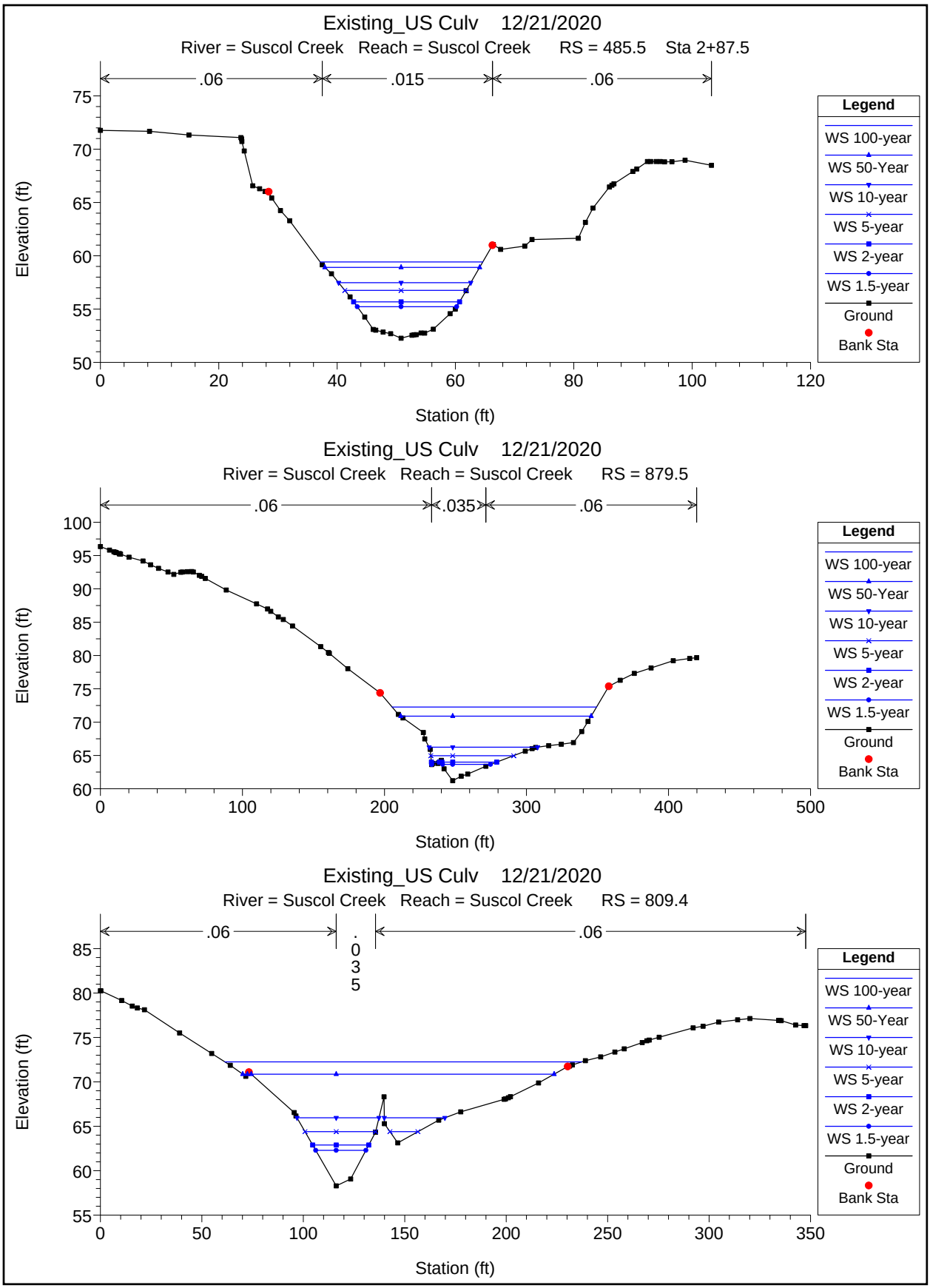
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	430.9	2-year	353.00	49.13	54.55		54.72	0.002027	3.24	108.94	30.14	0.30
Suscol Creek	430.9	1.5-year	263.00	49.13	53.97		54.09	0.001743	2.87	91.75	28.42	0.28
Suscol Creek	425.9	100-year	1520.00	49.38	57.88		58.53	0.005844	6.51	239.53	55.49	0.48
Suscol Creek	425.9	50-Year	1310.00	49.38	57.59		58.13	0.005053	5.92	224.65	50.28	0.45
Suscol Creek	425.9	10-year	812.00	49.38	56.41		56.75	0.003783	4.65	174.69	37.59	0.38
Suscol Creek	425.9	5-year	603.00	49.38	55.69		55.95	0.003221	4.06	148.41	35.50	0.35
Suscol Creek	425.9	2-year	353.00	49.38	54.54		54.71	0.002495	3.22	109.49	32.10	0.31
Suscol Creek	425.9	1.5-year	263.00	49.38	53.96		54.08	0.002243	2.88	91.19	30.09	0.29
Suscol Creek	419.4	100-year	1520.00	49.57	57.76		58.48	0.007485	6.87	235.38	79.17	0.53
Suscol Creek	419.4	50-Year	1310.00	49.57	57.49		58.09	0.006537	6.28	217.20	56.64	0.49
Suscol Creek	419.4	10-year	812.00	49.57	56.32		56.71	0.005299	5.07	160.68	40.95	0.43
Suscol Creek	419.4	5-year	603.00	49.57	55.61		55.92	0.004788	4.50	134.11	35.50	0.41
Suscol Creek	419.4	2-year	353.00	49.57	54.47		54.68	0.004057	3.68	95.98	31.62	0.37
Suscol Creek	419.4	1.5-year	263.00	49.57	53.88		54.06	0.003970	3.37	78.05	29.63	0.37
Suscol Creek	408.9	100-year	1520.00	49.40	57.61		58.38	0.009791	7.30	237.69	102.34	0.58
Suscol Creek	408.9	50-Year	1310.00	49.40	57.32		58.00	0.009015	6.82	211.39	75.60	0.56
Suscol Creek	408.9	10-year	812.00	49.40	56.10		56.63	0.008730	5.89	143.09	47.75	0.53
Suscol Creek	408.9	5-year	603.00	49.40	55.38		55.84	0.009095	5.45	111.73	39.11	0.54
Suscol Creek	408.9	2-year	353.00	49.40	54.24		54.60	0.010005	4.81	73.37	30.34	0.55
Suscol Creek	408.9	1.5-year	263.00	49.40	53.64		53.98	0.010454	4.66	56.47	26.15	0.56
Suscol Creek	403.9	100-year	1520.00	49.32	57.60	56.40	58.31	0.010673	7.16	255.77	162.91	0.58
Suscol Creek	403.9	50-Year	1310.00	49.32	57.28		57.95	0.010218	6.82	218.04	97.44	0.57
Suscol Creek	403.9	10-year	812.00	49.32	56.01		56.58	0.010666	6.16	140.18	50.11	0.56
Suscol Creek	403.9	5-year	603.00	49.32	55.25		55.78	0.011522	5.85	105.95	40.28	0.57
Suscol Creek	403.9	2-year	353.00	49.32	54.13		54.54	0.012309	5.14	68.69	27.50	0.57
Suscol Creek	403.9	1.5-year	263.00	49.32	53.54		53.92	0.013322	4.92	53.42	24.56	0.59
Suscol Creek	397.4	100-year	1520.00	49.23	57.59	56.34	58.23	0.009536	6.85	308.21	218.43	0.56
Suscol Creek	397.4	50-Year	1310.00	49.23	57.27		57.86	0.009063	6.50	247.39	145.80	0.54
Suscol Creek	397.4	10-year	812.00	49.23	55.94		56.51	0.010475	6.14	140.44	51.30	0.56
Suscol Creek	397.4	5-year	603.00	49.23	55.18		55.71	0.011408	5.84	105.51	40.34	0.58
Suscol Creek	397.4	2-year	353.00	49.23	54.05		54.46	0.011856	5.15	68.59	27.21	0.57
Suscol Creek	397.4	1.5-year	263.00	49.23	53.47		53.84	0.012014	4.90	53.72	23.57	0.57
Suscol Creek	386.9	100-year	1520.00	49.10	57.22	56.88	58.08	0.013291	7.87	264.46	218.25	0.68
Suscol Creek	386.9	50-Year	1310.00	49.10	57.11	56.15	57.76	0.010271	6.86	244.03	156.34	0.59
Suscol Creek	386.9	10-year	812.00	49.10	55.40	54.84	56.33	0.018463	7.76	107.40	42.03	0.77
Suscol Creek	386.9	5-year	603.00	49.10	54.19	54.18	55.45	0.032229	8.99	67.07	26.92	1.00
Suscol Creek	386.9	2-year	353.00	49.10	53.12	53.12	54.21	0.030484	8.37	42.17	19.56	1.01
Suscol Creek	386.9	1.5-year	263.00	49.10	52.55	52.55	53.59	0.027988	8.16	32.23	15.74	1.01
Suscol Creek	381.9	100-year	1520.00	49.24	57.27	57.27	57.97	0.010267	7.39	309.80	227.83	0.61
Suscol Creek	381.9	50-Year	1310.00	49.24	56.52	56.52	57.65	0.016012	8.80	178.60	111.47	0.76
Suscol Creek	381.9	10-year	812.00	49.24	54.56	54.56	56.15	0.028190	10.11	80.34	25.65	1.01
Suscol Creek	381.9	5-year	603.00	49.24	53.87	53.87	55.27	0.027795	9.51	63.42	22.99	1.01
Suscol Creek	381.9	2-year	353.00	49.24	52.83	52.83	53.95	0.026302	8.47	41.67	19.04	1.01
Suscol Creek	381.9	1.5-year	263.00	49.24	52.37	52.37	53.34	0.024945	7.91	33.26	17.27	1.00
Suscol Creek	375.4	100-year	1520.00	49.52	56.79	56.50	57.79	0.010409	8.50	251.34	193.82	0.66
Suscol Creek	375.4	50-Year	1310.00	49.52	55.57	55.57	57.29	0.020876	10.58	130.02	47.46	0.92
Suscol Creek	375.4	10-year	812.00	49.52	54.17	54.17	55.70	0.025634	9.91	81.94	27.32	1.01
Suscol Creek	375.4	5-year	603.00	49.52	53.53	53.53	54.86	0.025070	9.24	65.23	24.98	1.01
Suscol Creek	375.4	2-year	353.00	49.52	52.65	52.59	53.62	0.022192	7.91	44.65	21.70	0.97
Suscol Creek	375.4	1.5-year	263.00	49.52	52.35		53.08	0.018074	6.86	38.32	20.59	0.89
Suscol Creek	364.9	100-year	1520.00	49.81	57.00	56.18	57.59	0.005529	6.84	352.66	231.37	0.52
Suscol Creek	364.9	50-Year	1310.00	49.81	55.08	55.07	56.99	0.021089	11.08	118.22	30.74	1.00
Suscol Creek	364.9	10-year	812.00	49.81	53.88	53.88	55.37	0.020504	9.78	83.00	27.96	1.00
Suscol Creek	364.9	5-year	603.00	49.81	53.28	53.28	54.55	0.020376	9.06	66.57	26.56	1.01
Suscol Creek	364.9	2-year	353.00	49.81	52.45	52.45	53.39	0.019772	7.77	45.41	24.58	1.01
Suscol Creek	364.9	1.5-year	263.00	49.81	52.09	52.09	52.89	0.019538	7.14	36.81	23.62	1.01
Suscol Creek	359.9	100-year	1520.00	49.88	55.99	55.24	57.47	0.013046	9.84	173.17	117.63	0.79
Suscol Creek	359.9	50-Year	1310.00	49.88	55.10	54.84	56.83	0.017315	10.56	124.01	30.31	0.92
Suscol Creek	359.9	10-year	812.00	49.88	53.69	53.69	55.18	0.019836	9.80	82.89	28.02	1.00
Suscol Creek	359.9	5-year	603.00	49.88	53.13	53.13	54.37	0.019434	8.95	67.41	27.11	1.00
Suscol Creek	359.9	2-year	353.00	49.88	52.32	52.32	53.23	0.019621	7.65	46.16	25.84	1.01
Suscol Creek	359.9	1.5-year	263.00	49.88	51.99	51.99	52.75	0.019796	6.99	37.64	25.32	1.01
Suscol Creek	351.9	100-year	1520.00	49.28	56.68		57.10	0.004389	5.72	402.37	240.29	0.42
Suscol Creek	351.9	50-Year	1310.00	49.28	55.72		56.46	0.008316	7.05	210.72	98.31	0.57
Suscol Creek	351.9	10-year	812.00	49.28	54.03		54.77	0.012807	6.92	117.35	34.72	0.66
Suscol Creek	351.9	5-year	603.00	49.28	53.28		53.94	0.014105	6.54	92.23	32.35	0.68
Suscol Creek	351.9	2-year	353.00	49.28	52.40		52.86	0.013677	5.43	65.03	29.97	0.65
Suscol Creek	351.9	1.5-year	263.00	49.28	52.05		52.41	0.013005	4.82	54.54	29.12	0.62
Suscol Creek	342.9	100-year	1520.00	49.28	56.48		57.03	0.004430	6.37	355.67	237.12	0.48

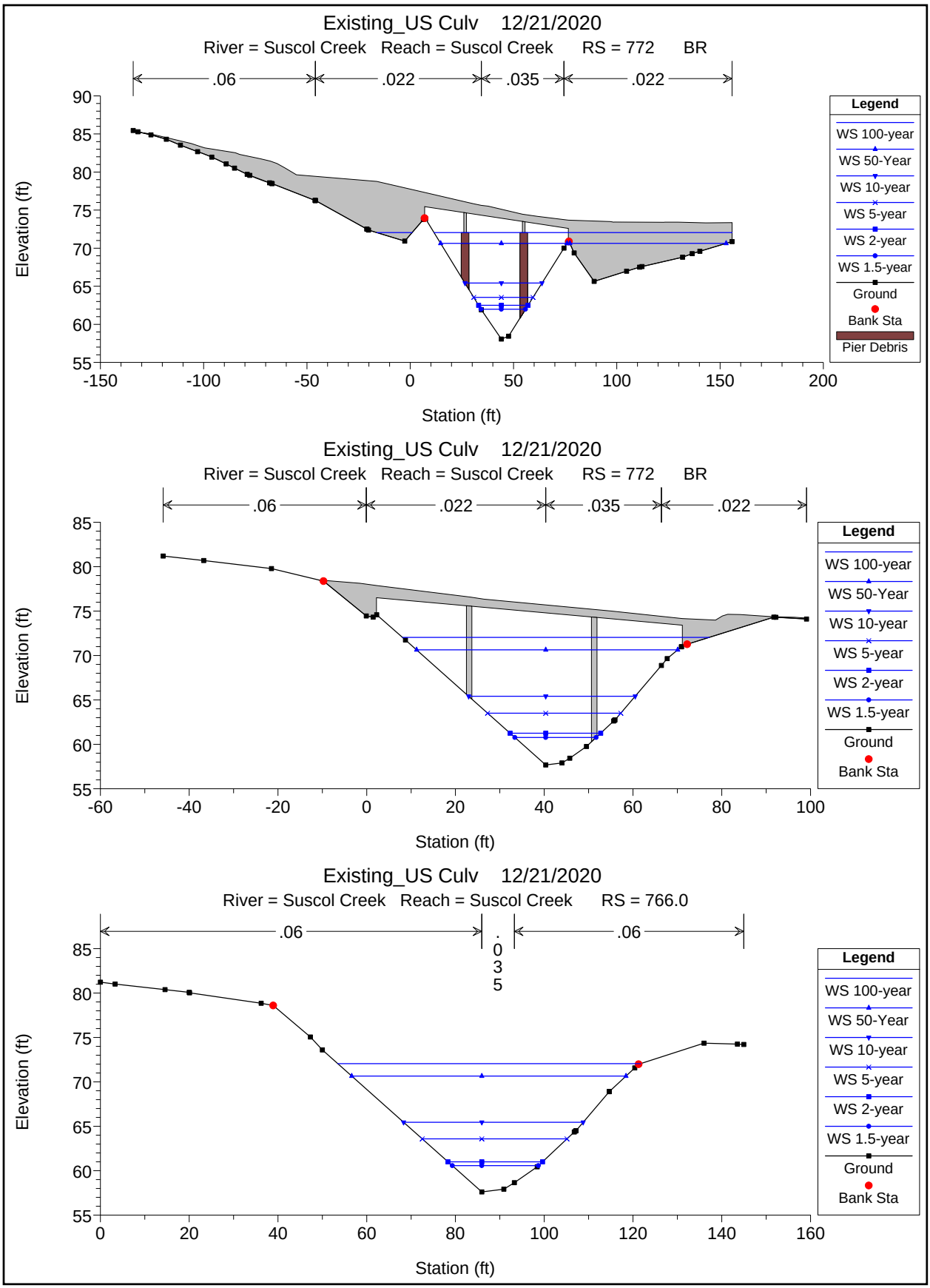
HEC-RAS Plan: Existing_US Culv River: Suscol Creek Reach: Suscol Creek (Continued)

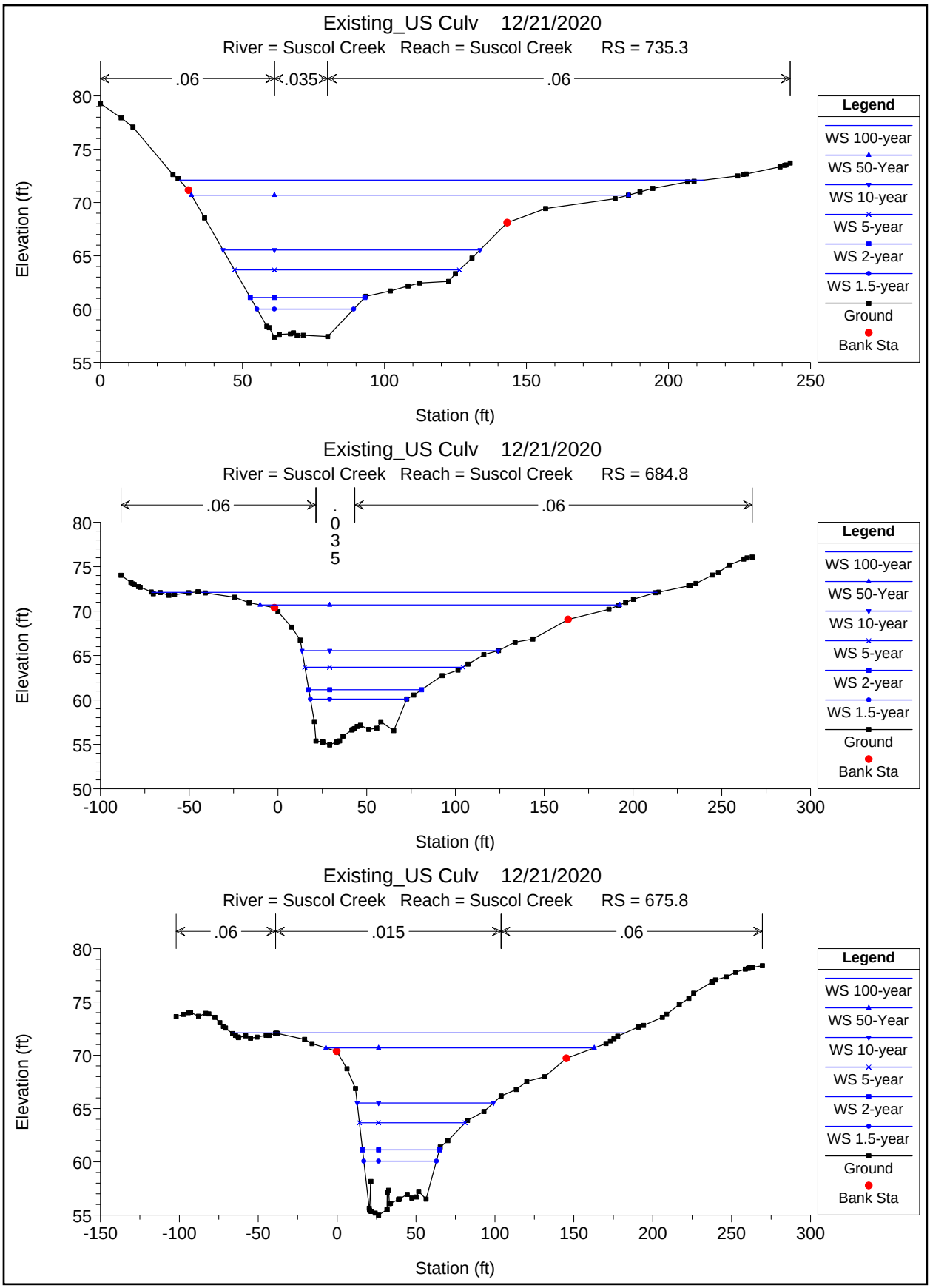
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	342.9	50-Year	1310.00	49.28	55.50	54.20	56.37	0.007552	7.53	191.56	85.28	0.62
Suscol Creek	342.9	10-year	812.00	49.28	53.75		54.63	0.011090	7.53	107.85	33.84	0.74
Suscol Creek	342.9	5-year	603.00	49.28	52.90		53.78	0.013173	7.51	80.27	31.16	0.83
Suscol Creek	342.9	2-year	353.00	49.28	51.85	51.81	52.66	0.018249	7.24	48.76	28.65	0.98
Suscol Creek	342.9	1.5-year	263.00	49.28	51.50	51.50	52.21	0.019609	6.78	38.79	27.80	1.01
Suscol Creek	337.9	100-year	1520.00	49.06	56.52		56.99	0.003785	6.02	391.38	242.00	0.44
Suscol Creek	337.9	50-Year	1310.00	49.06	55.50	54.06	56.31	0.006878	7.35	201.26	92.77	0.59
Suscol Creek	337.9	10-year	812.00	49.06	53.74		54.56	0.009779	7.29	111.33	33.30	0.70
Suscol Creek	337.9	5-year	603.00	49.06	52.90		53.70	0.011451	7.16	84.24	31.30	0.77
Suscol Creek	337.9	2-year	353.00	49.06	51.86		52.55	0.014297	6.67	52.90	28.80	0.87
Suscol Creek	337.9	1.5-year	263.00	49.06	51.38	51.36	52.07	0.018532	6.68	39.35	27.65	0.99
Suscol Creek	331.4	100-year	1520.00	48.76	56.54		56.95	0.003134	5.74	425.72	244.81	0.42
Suscol Creek	331.4	50-Year	1310.00	48.76	55.48	53.90	56.27	0.006040	7.25	207.58	97.95	0.57
Suscol Creek	331.4	10-year	812.00	48.76	53.71		54.49	0.008176	7.07	114.89	32.78	0.67
Suscol Creek	331.4	5-year	603.00	48.76	52.88		53.61	0.009095	6.82	88.40	30.99	0.71
Suscol Creek	331.4	2-year	353.00	48.76	51.86		52.44	0.010079	6.12	57.69	28.78	0.76
Suscol Creek	331.4	1.5-year	263.00	48.76	51.39		51.93	0.011970	5.92	44.41	27.70	0.82
Suscol Creek	320.9	100-year	1520.00	48.27	56.56		56.90	0.002460	5.26	477.63	247.55	0.37
Suscol Creek	320.9	50-Year	1310.00	48.27	55.48	53.66	56.18	0.005011	6.85	229.42	135.02	0.53
Suscol Creek	320.9	10-year	812.00	48.27	53.69		54.39	0.006596	6.71	120.95	32.58	0.61
Suscol Creek	320.9	5-year	603.00	48.27	52.87		53.50	0.006667	6.34	95.11	30.50	0.63
Suscol Creek	320.9	2-year	353.00	48.27	51.86		52.31	0.006779	5.41	65.21	28.65	0.63
Suscol Creek	320.9	1.5-year	263.00	48.27	51.40		51.79	0.007320	5.04	52.17	27.86	0.65
Suscol Creek	315.9	100-year	1520.00	48.29	56.60		56.87	0.002223	4.74	521.11	248.39	0.34
Suscol Creek	315.9	50-Year	1310.00	48.29	55.55	53.55	56.12	0.004691	6.28	263.11	202.83	0.48
Suscol Creek	315.9	10-year	812.00	48.29	53.71		54.34	0.007104	6.35	127.78	34.81	0.58
Suscol Creek	315.9	5-year	603.00	48.29	52.88		53.44	0.007626	6.05	99.69	32.69	0.61
Suscol Creek	315.9	2-year	353.00	48.29	51.84		52.27	0.007706	5.25	67.19	30.04	0.62
Suscol Creek	315.9	1.5-year	263.00	48.29	51.37		51.75	0.008131	4.93	53.37	28.77	0.64
Suscol Creek	309.4	100-year	1520.00	48.32	56.62		56.84	0.002250	4.29	554.33	255.12	0.30
Suscol Creek	309.4	50-Year	1310.00	48.32	55.55	53.35	56.07	0.005268	5.96	287.36	234.10	0.46
Suscol Creek	309.4	10-year	812.00	48.32	53.71		54.26	0.008151	5.97	136.09	36.77	0.55
Suscol Creek	309.4	5-year	603.00	48.32	52.87		53.37	0.008749	5.66	106.53	33.98	0.56
Suscol Creek	309.4	2-year	353.00	48.32	51.83		52.19	0.009016	4.87	72.48	31.14	0.56
Suscol Creek	309.4	1.5-year	263.00	48.32	51.35		51.67	0.009603	4.54	57.98	29.85	0.57
Suscol Creek	298.9	100-year	1520.00	46.62	56.63		56.81	0.001533	3.81	604.22	253.00	0.26
Suscol Creek	298.9	50-Year	1310.00	46.62	55.64		55.97	0.002892	4.81	356.86	242.06	0.35
Suscol Creek	298.9	10-year	812.00	46.62	53.80		54.14	0.004141	4.67	174.01	43.02	0.41
Suscol Creek	298.9	5-year	603.00	46.62	52.96		53.25	0.003813	4.31	139.82	38.21	0.40
Suscol Creek	298.9	2-year	353.00	46.62	51.90		52.09	0.002855	3.45	102.18	33.57	0.35
Suscol Creek	298.9	1.5-year	263.00	46.62	51.43		51.57	0.002398	3.03	86.66	31.53	0.32
Suscol Creek	293.9	100-year	1520.00	46.24	56.64		56.79	0.001526	3.57	622.85	250.98	0.24
Suscol Creek	293.9	50-Year	1310.00	46.24	55.66		55.95	0.002838	4.47	379.14	242.02	0.33
Suscol Creek	293.9	10-year	812.00	46.24	53.81		54.11	0.004073	4.35	186.61	48.14	0.38
Suscol Creek	293.9	5-year	603.00	46.24	52.97		53.22	0.003823	4.01	150.53	40.28	0.37
Suscol Creek	293.9	2-year	353.00	46.24	51.91		52.07	0.002747	3.18	111.08	34.29	0.31
Suscol Creek	293.9	1.5-year	263.00	46.24	51.43		51.55	0.002280	2.76	95.24	32.26	0.28
Suscol Creek	287.4	100-year	1520.00	47.10	56.63		56.78	0.001491	3.59	620.44	249.56	0.25
Suscol Creek	287.4	50-Year	1310.00	47.10	55.63		55.93	0.002861	4.54	374.88	240.39	0.34
Suscol Creek	287.4	10-year	812.00	47.10	53.75		54.08	0.004536	4.57	179.03	56.18	0.41
Suscol Creek	287.4	5-year	603.00	47.10	52.90		53.19	0.004486	4.32	139.68	41.17	0.41
Suscol Creek	287.4	2-year	353.00	47.10	51.85		52.04	0.003547	3.54	99.61	35.21	0.37
Suscol Creek	287.4	1.5-year	263.00	47.10	51.38		51.53	0.003013	3.14	83.73	32.55	0.35
Suscol Creek	276.9	100-year	1520.00	48.12	56.62		56.76	0.001650	3.30	620.45	246.17	0.25
Suscol Creek	276.9	50-Year	1310.00	48.12	55.62		55.88	0.003502	4.26	375.74	238.32	0.36
Suscol Creek	276.9	10-year	812.00	48.12	53.67		54.02	0.006008	4.76	170.77	51.80	0.46
Suscol Creek	276.9	5-year	603.00	48.12	52.79		53.13	0.006383	4.67	128.99	43.90	0.48
Suscol Creek	276.9	2-year	353.00	48.12	51.73		51.99	0.006337	4.11	85.87	37.37	0.48
Suscol Creek	276.9	1.5-year	263.00	48.12	51.26		51.48	0.006303	3.81	68.95	34.58	0.48
Suscol Creek	271.9	100-year	1520.00	47.44	56.62		56.75	0.001678	3.28	625.97	245.26	0.25
Suscol Creek	271.9	50-Year	1310.00	47.44	55.60		55.87	0.003640	4.26	379.79	237.09	0.36
Suscol Creek	271.9	10-year	812.00	47.44	53.64		53.99	0.006128	4.79	169.70	49.51	0.46
Suscol Creek	271.9	5-year	603.00	47.44	52.76		53.09	0.006419	4.65	129.80	42.36	0.47
Suscol Creek	271.9	2-year	353.00	47.44	51.70		51.95	0.006117	4.00	88.33	36.41	0.45
Suscol Creek	271.9	1.5-year	263.00	47.44	51.24		51.44	0.005894	3.66	71.90	33.76	0.44
Suscol Creek	265.4	100-year	1520.00	47.02	56.60		56.74	0.002012	3.33	614.99	246.64	0.26
Suscol Creek	265.4	50-Year	1310.00	47.02	55.52		55.83	0.005227	4.65	352.76	235.01	0.40
Suscol Creek	265.4	10-year	812.00	47.02	53.40		53.92	0.011286	5.82	139.60	44.21	0.58
Suscol Creek	265.4	5-year	603.00	47.02	52.50		53.02	0.012524	5.78	104.35	36.71	0.60
Suscol Creek	265.4	2-year	353.00	47.02	51.49		51.88	0.012466	5.03	70.18	31.00	0.59

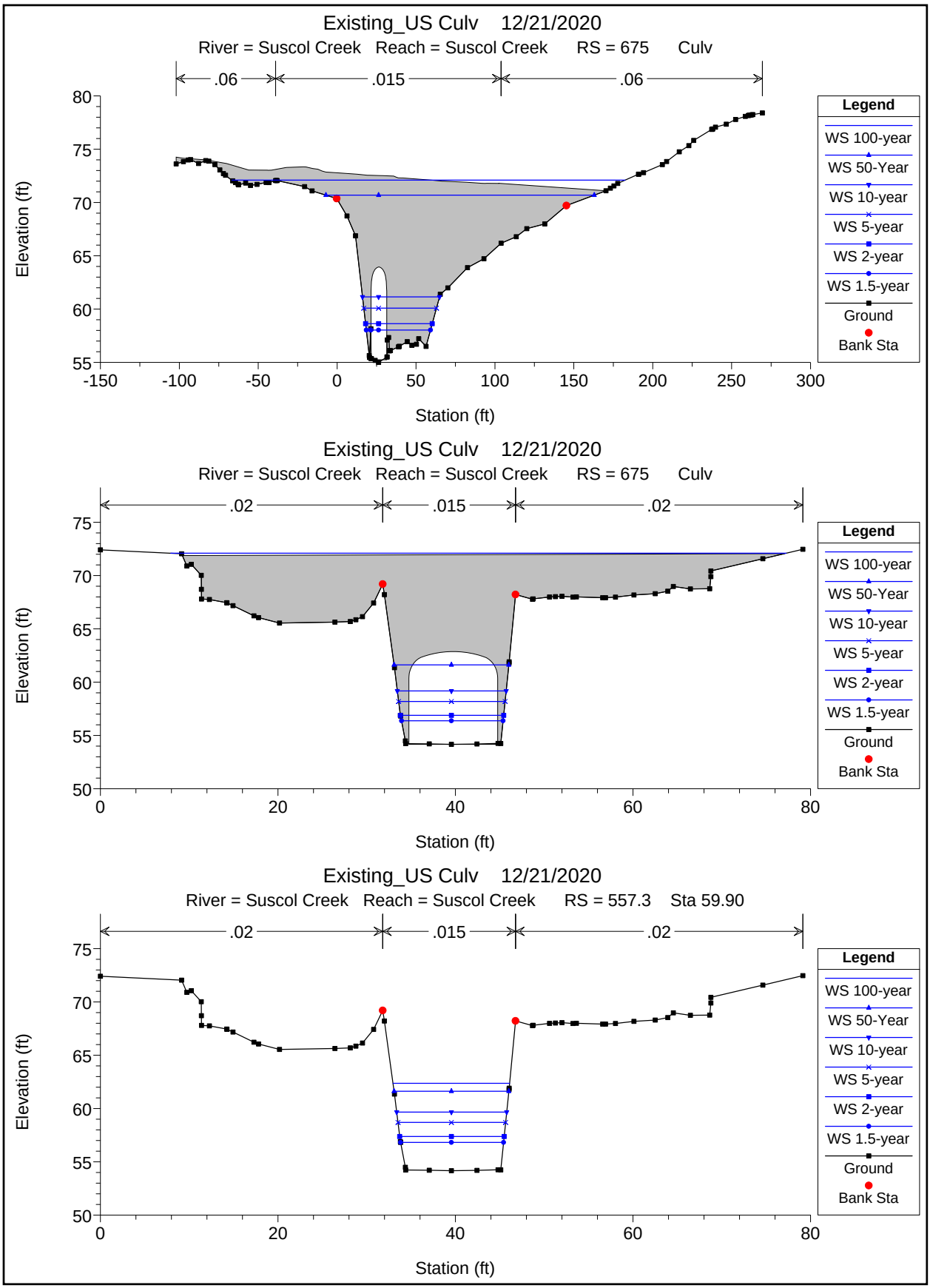
HEC-RAS Plan: Existing_US Culv River: Suscol Creek Reach: Suscol Creek (Continued)

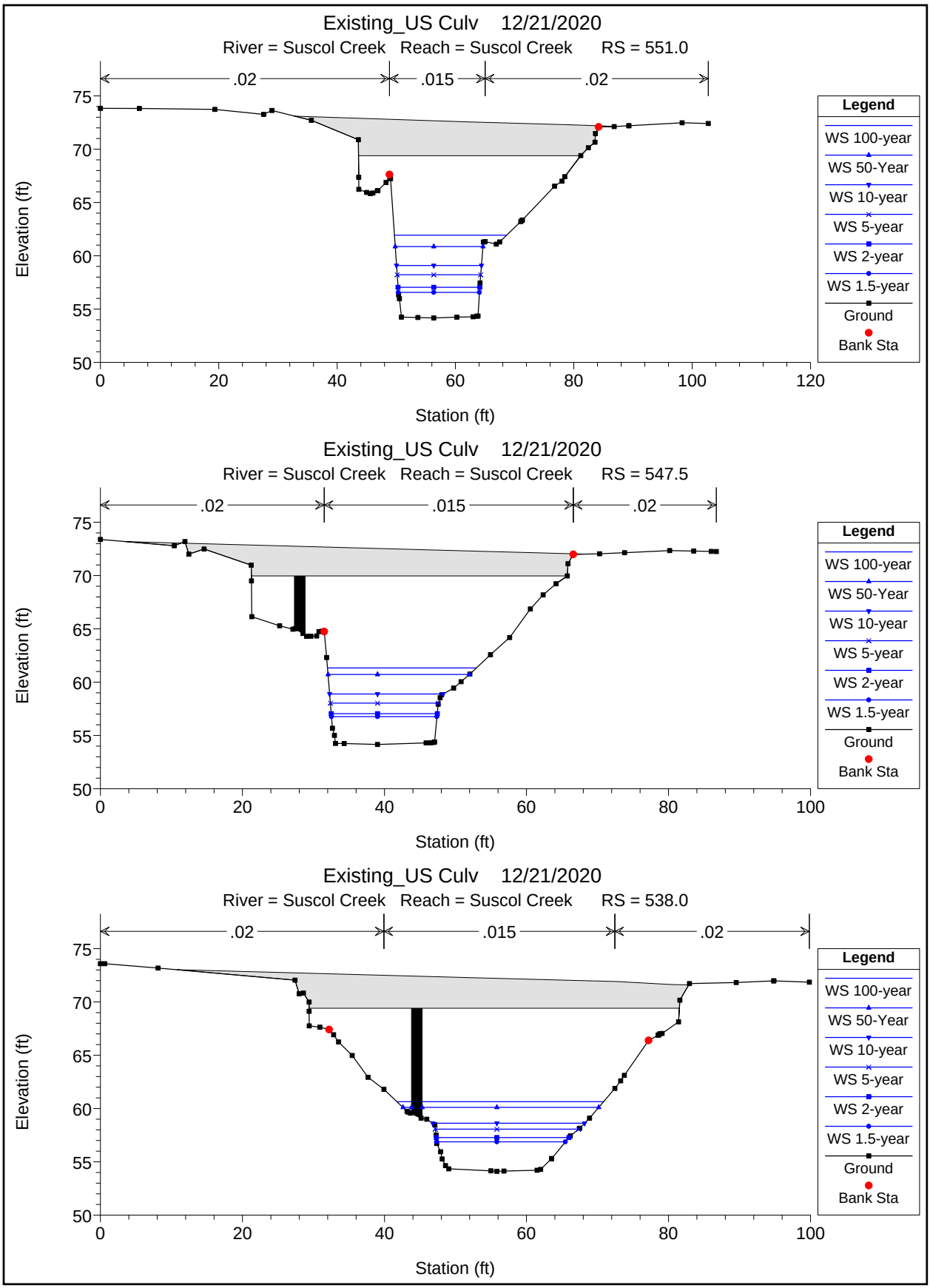
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	265.4	1.5-year	263.00	47.02	51.05		51.38	0.011803	4.60	57.14	28.07	0.57
Suscol Creek	254.9	100-year	1520.00	48.08	56.58		56.72	0.001976	3.43	610.68	245.30	0.27
Suscol Creek	254.9	50-Year	1310.00	48.08	55.38		55.76	0.006434	5.19	322.11	232.90	0.47
Suscol Creek	254.9	10-year	812.00	48.08	52.97		53.77	0.012259	7.19	112.97	34.37	0.70
Suscol Creek	254.9	5-year	603.00	48.08	51.94		52.83	0.016965	7.57	79.65	30.41	0.82
Suscol Creek	254.9	2-year	353.00	48.08	50.74	50.74	51.65	0.024952	7.67	46.04	25.61	1.01
Suscol Creek	254.9	1.5-year	263.00	48.08	50.38	50.38	51.16	0.024845	7.09	37.11	24.18	1.01
Suscol Creek	249.9	100-year	1520.00	48.11	56.57		56.71	0.001657	3.35	634.17	245.52	0.26
Suscol Creek	249.9	50-Year	1310.00	48.11	55.38		55.72	0.004952	4.88	346.83	233.50	0.43
Suscol Creek	249.9	10-year	812.00	48.11	53.04		53.67	0.008343	6.34	127.98	37.17	0.60
Suscol Creek	249.9	5-year	603.00	48.11	52.03		52.69	0.011120	6.55	92.10	33.68	0.70
Suscol Creek	249.9	2-year	353.00	48.11	50.56	50.56	51.44	0.021094	7.52	46.95	27.26	1.01
Suscol Creek	249.9	1.5-year	263.00	48.11	50.22	50.22	50.97	0.020794	6.93	37.98	25.96	1.01
Suscol Creek	243.4	100-year	1520.00	47.62	56.57		56.69	0.001514	3.28	650.66	246.07	0.25
Suscol Creek	243.4	50-Year	1310.00	47.62	55.37		55.68	0.004332	4.72	361.48	233.04	0.41
Suscol Creek	243.4	10-year	812.00	47.62	53.06		53.59	0.006627	5.85	138.78	37.82	0.54
Suscol Creek	243.4	5-year	603.00	47.62	52.06		52.59	0.007981	5.86	102.87	34.12	0.60
Suscol Creek	243.4	2-year	353.00	47.62	50.40	50.19	51.12	0.015660	6.81	51.85	26.97	0.87
Suscol Creek	243.4	1.5-year	263.00	47.62	49.84	49.84	50.61	0.020789	7.02	37.48	25.07	1.01
Suscol Creek	229.4	100-year	1520.00	46.54	56.55		56.67	0.001592	3.23	655.77	246.54	0.24
Suscol Creek	229.4	50-Year	1310.00	46.54	55.29		55.62	0.004650	4.83	352.81	225.57	0.40
Suscol Creek	229.4	10-year	812.00	46.54	52.99		53.49	0.006163	5.68	142.98	33.60	0.49
Suscol Creek	229.4	5-year	603.00	46.54	52.02		52.47	0.006104	5.37	112.33	29.74	0.49
Suscol Creek	229.4	2-year	353.00	46.54	50.49		50.88	0.006797	4.98	70.92	25.27	0.52
Suscol Creek	229.4	1.5-year	263.00	46.54	49.80		50.17	0.008044	4.89	53.82	23.87	0.57
Suscol Creek	224.7	100-year	1520.00	45.80	56.55		56.66	0.001657	3.17	664.59	253.42	0.24
Suscol Creek	224.7	50-Year	1310.00	45.80	55.28		55.59	0.004817	4.77	358.20	222.86	0.39
Suscol Creek	224.7	10-year	812.00	45.80	52.94		53.45	0.007562	5.77	140.78	33.96	0.50
Suscol Creek	224.7	5-year	603.00	45.80	51.97		52.44	0.007540	5.47	110.16	29.35	0.50
Suscol Creek	224.7	2-year	353.00	45.80	50.46		50.84	0.007203	4.95	71.26	22.58	0.49
Suscol Creek	224.7	1.5-year	263.00	45.80	49.79		50.12	0.007287	4.64	56.70	20.92	0.50
Suscol Creek	202.8	100-year	1520.00	45.44	56.18	52.23	56.58	0.003208	5.22	328.72	99.66	0.35
Suscol Creek	202.8	50-Year	1310.00	45.44	54.98	51.79	55.47	0.004794	5.64	236.09	47.54	0.41
Suscol Creek	202.8	10-year	812.00	45.44	52.84	50.55	53.29	0.005906	5.35	151.84	33.84	0.45
Suscol Creek	202.8	5-year	603.00	45.44	51.88	49.89	52.27	0.006006	5.00	120.64	30.94	0.45
Suscol Creek	202.8	2-year	353.00	45.44	50.34	48.88	50.68	0.006904	4.61	76.54	26.07	0.47
Suscol Creek	202.8	1.5-year	263.00	45.44	49.65	48.41	49.95	0.007414	4.43	59.32	23.38	0.49
Suscol Creek	200		Bridge									
Suscol Creek	148.5	100-year	1520.00	45.09	53.22		54.17	0.010750	7.80	194.84	37.98	0.61
Suscol Creek	148.5	50-Year	1310.00	45.09	52.76		53.61	0.010539	7.39	177.27	37.57	0.60
Suscol Creek	148.5	10-year	812.00	45.09	51.35		52.00	0.010775	6.48	125.27	34.78	0.60
Suscol Creek	148.5	5-year	603.00	45.09	50.49		51.07	0.009896	6.12	98.49	28.93	0.58
Suscol Creek	148.5	2-year	353.00	45.09	49.15		49.63	0.010111	5.56	63.51	23.46	0.60
Suscol Creek	148.5	1.5-year	263.00	45.09	48.32		48.85	0.013821	5.83	45.14	20.85	0.70
Suscol Creek	93.6	100-year	1520.00	43.18	52.50		53.44	0.016513	7.78	195.37	47.64	0.68
Suscol Creek	93.6	50-Year	1310.00	43.18	51.93		52.86	0.017045	7.73	169.53	42.79	0.68
Suscol Creek	93.6	10-year	812.00	43.18	50.36		51.19	0.018095	7.31	111.02	32.21	0.69
Suscol Creek	93.6	5-year	603.00	43.18	49.54		50.30	0.018440	6.98	86.39	27.63	0.70
Suscol Creek	93.6	2-year	353.00	43.18	48.23		48.87	0.017630	6.40	55.14	20.07	0.68
Suscol Creek	93.6	1.5-year	263.00	43.18	47.42		48.04	0.014451	6.36	41.37	13.69	0.64
Suscol Creek	37.7	100-year	1520.00	42.08	49.94	49.94	52.03	0.035116	11.59	131.15	31.59	1.00
Suscol Creek	37.7	50-Year	1310.00	42.08	49.47	49.47	51.43	0.035326	11.22	116.76	29.90	1.00
Suscol Creek	37.7	10-year	812.00	42.08	48.11	48.11	49.73	0.036195	10.20	79.59	24.62	1.00
Suscol Creek	37.7	5-year	603.00	42.08	47.37	47.37	48.82	0.036680	9.63	62.59	21.76	1.00
Suscol Creek	37.7	2-year	353.00	42.08	46.24	46.24	47.43	0.037368	8.73	40.45	17.35	1.01
Suscol Creek	37.7	1.5-year	263.00	42.08	45.72	45.72	46.78	0.037183	8.25	31.87	15.31	1.01
Suscol Creek	0	100-year	1520.00	40.62	47.56	47.31	49.42	0.026006	10.94	138.92	32.15	0.93
Suscol Creek	0	50-Year	1310.00	40.62	47.08	46.83	48.82	0.026052	10.59	123.65	30.44	0.93
Suscol Creek	0	10-year	812.00	40.62	45.70	45.49	47.12	0.026006	9.53	85.16	25.64	0.92
Suscol Creek	0	5-year	603.00	40.62	44.98	44.80	46.22	0.026020	8.94	67.43	23.10	0.92
Suscol Creek	0	2-year	353.00	40.62	43.87	43.74	44.87	0.026015	7.99	44.15	19.24	0.93
Suscol Creek	0	1.5-year	263.00	40.62	43.40	43.29	44.26	0.026010	7.44	35.34	17.97	0.94

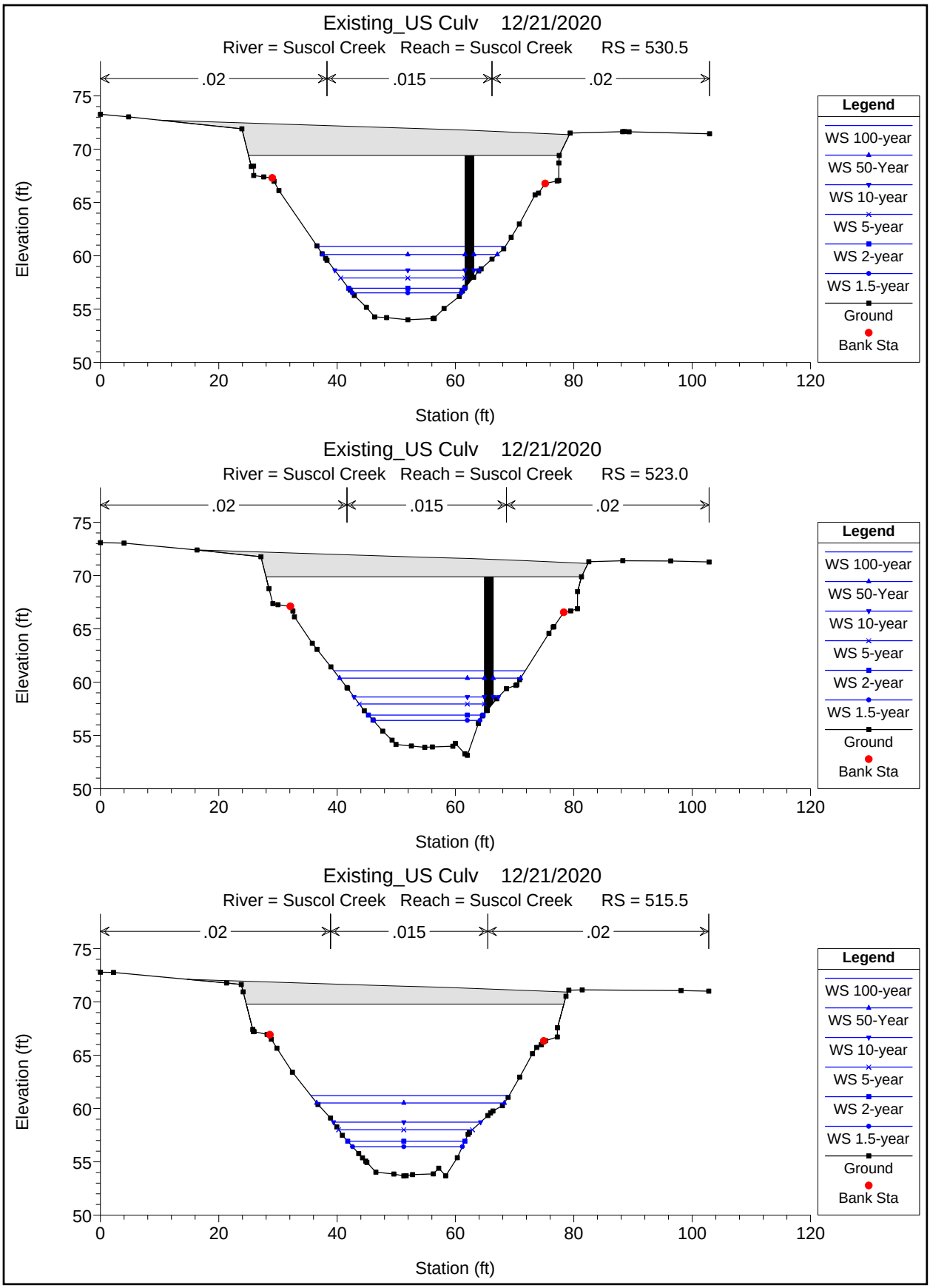

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 485.5 Sta 2+87.5
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 879.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 809.4
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

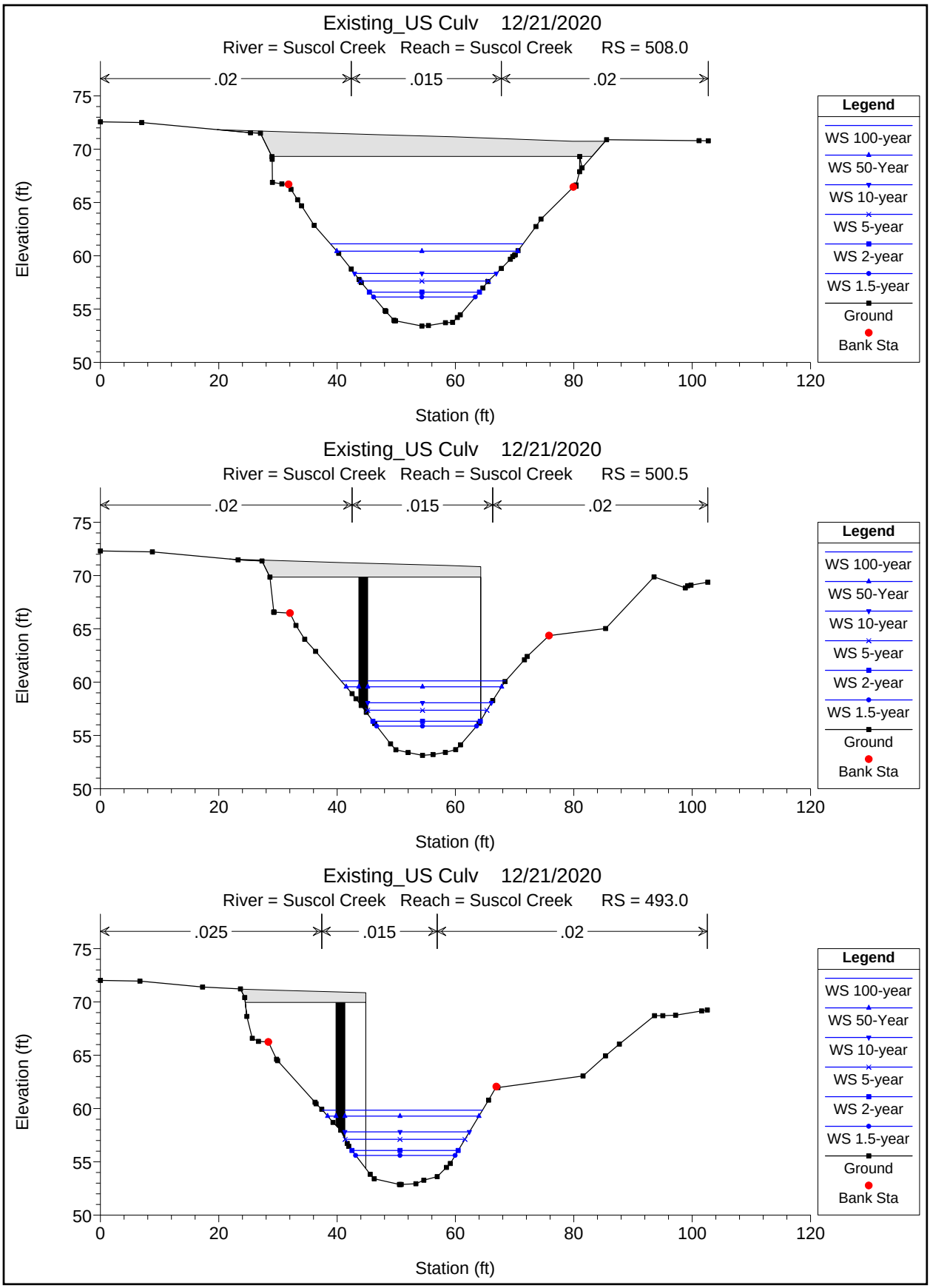

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 772 BR
.06
.022
.035
.022
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Pier Debris
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 772 BR
.06
.022
.035
.022
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 766.0
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

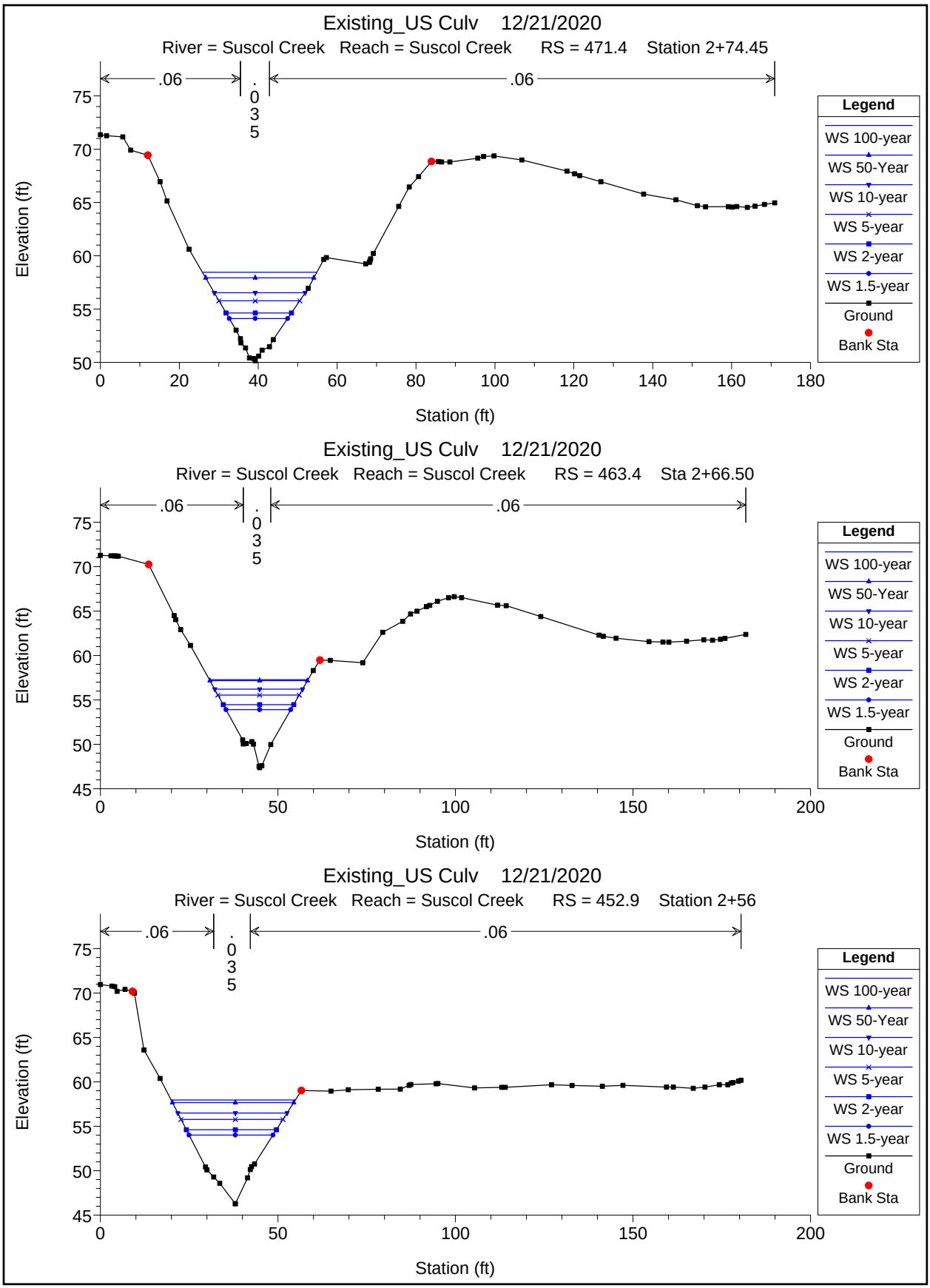

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 735.3
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 684.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 675.8
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

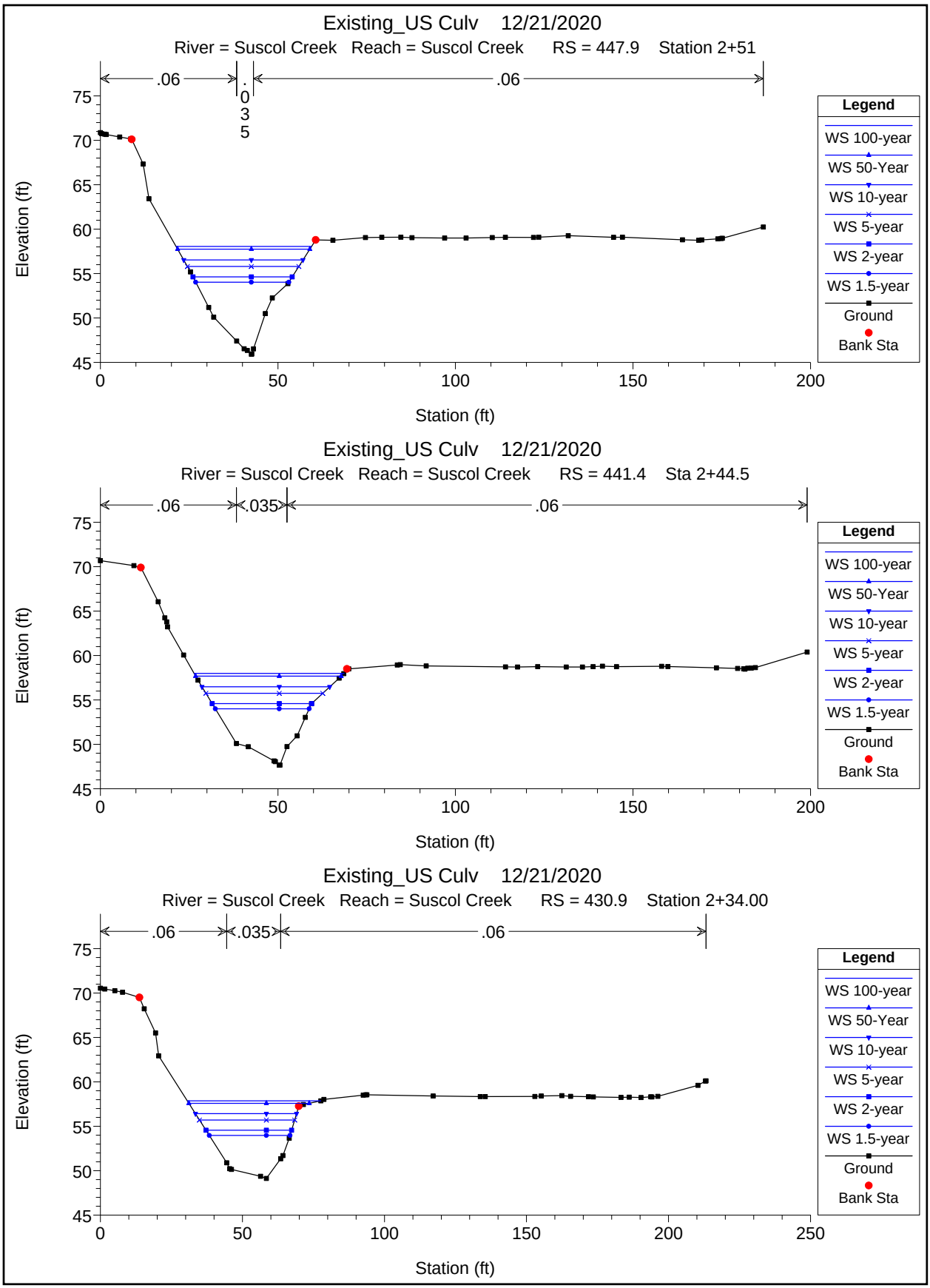

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 675 Culv
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 675 Culv
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 557.3 Sta 59.90
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

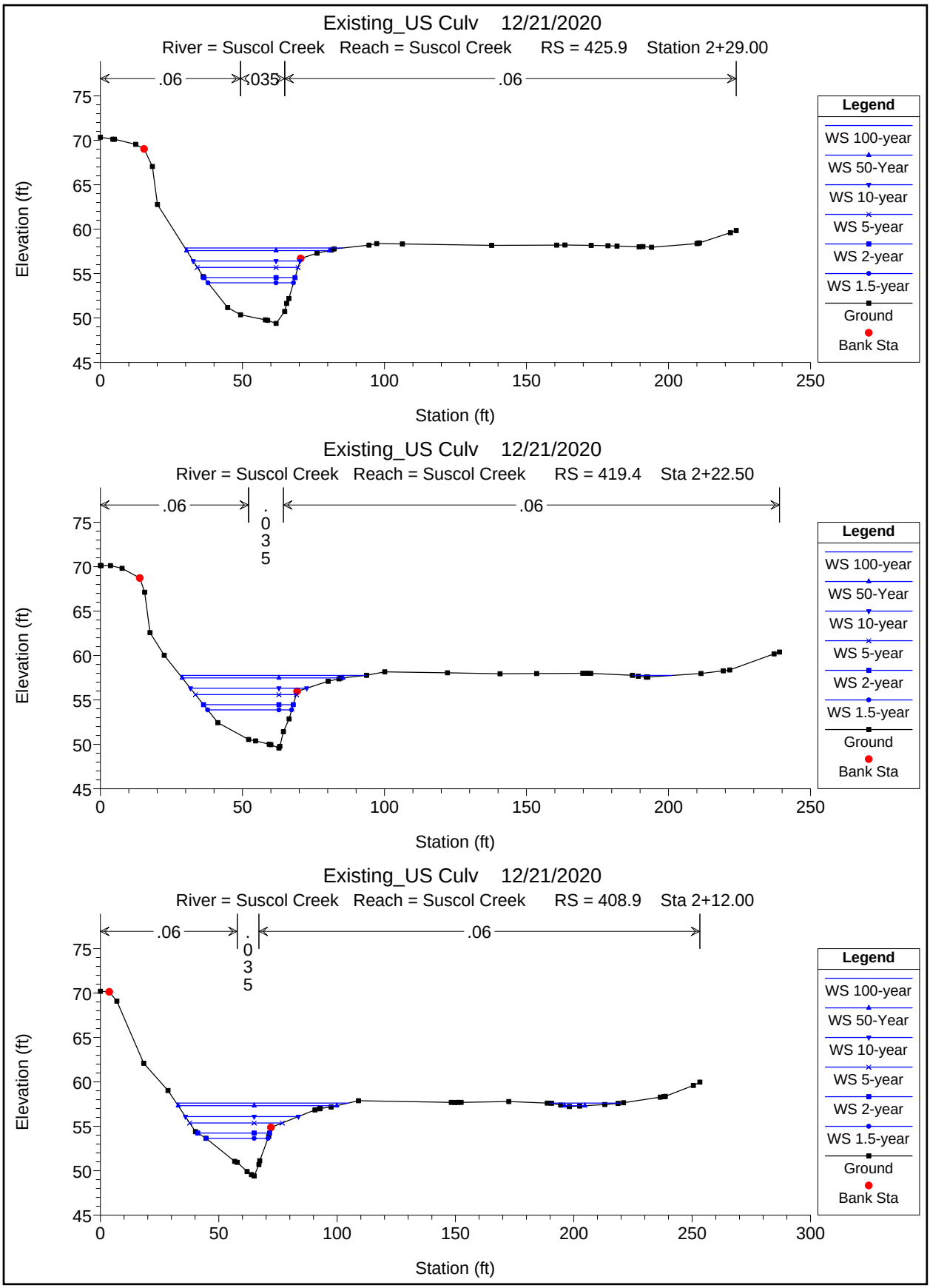

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 551.0
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
100
120
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 547.5
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
100
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 538.0
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
100
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

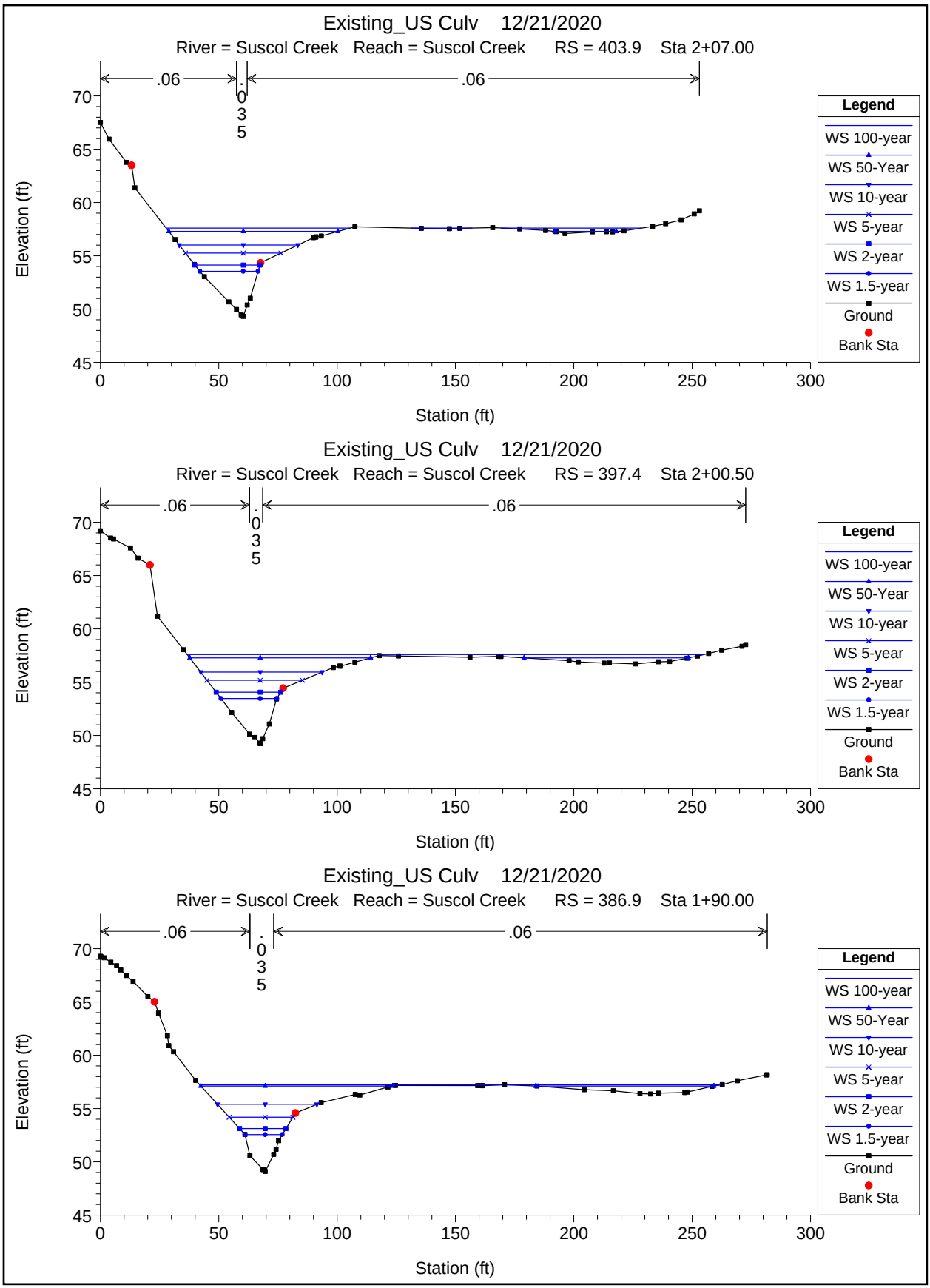

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 530.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 523.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 515.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

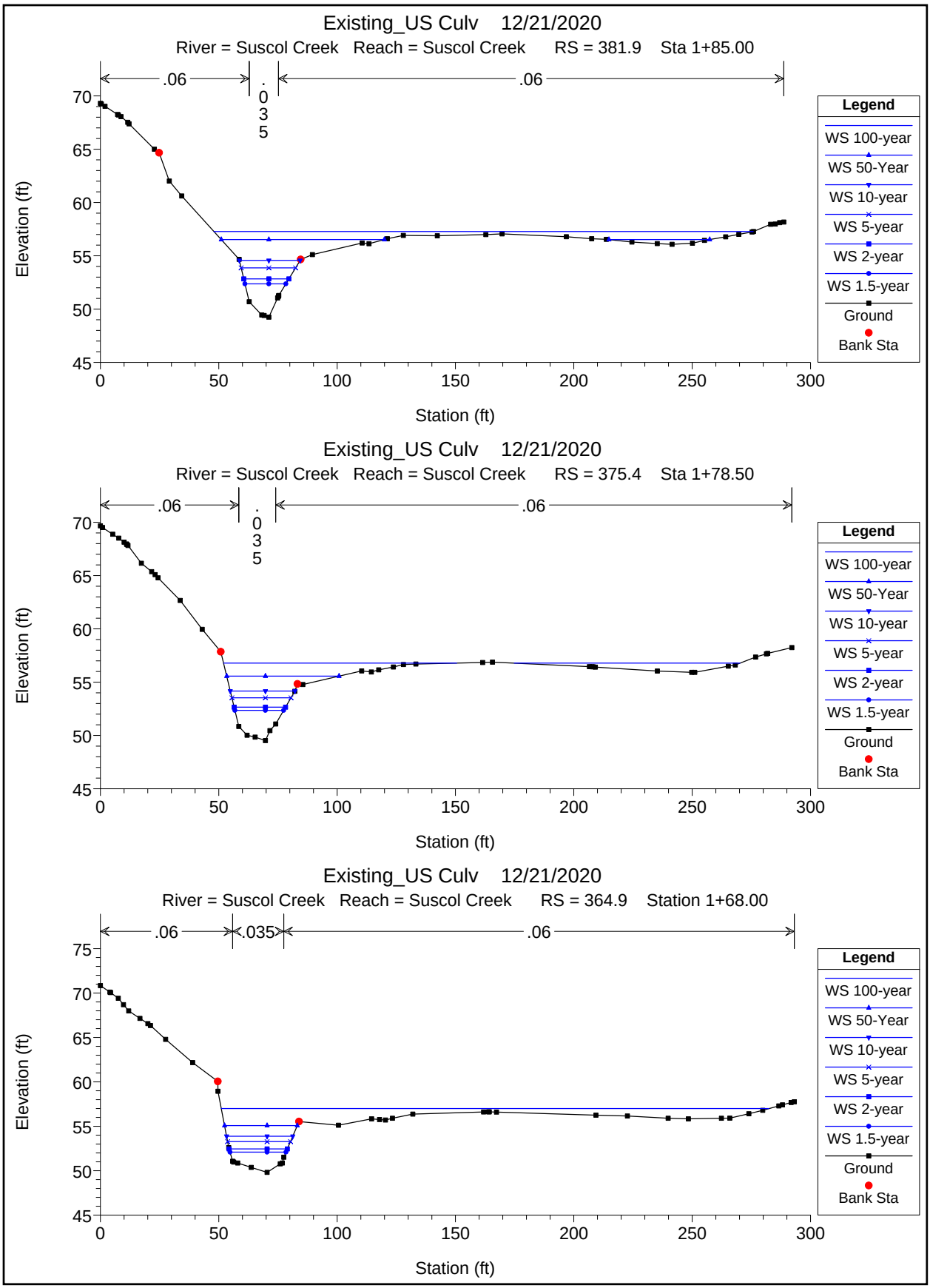

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 508.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 500.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 493.0
.025
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

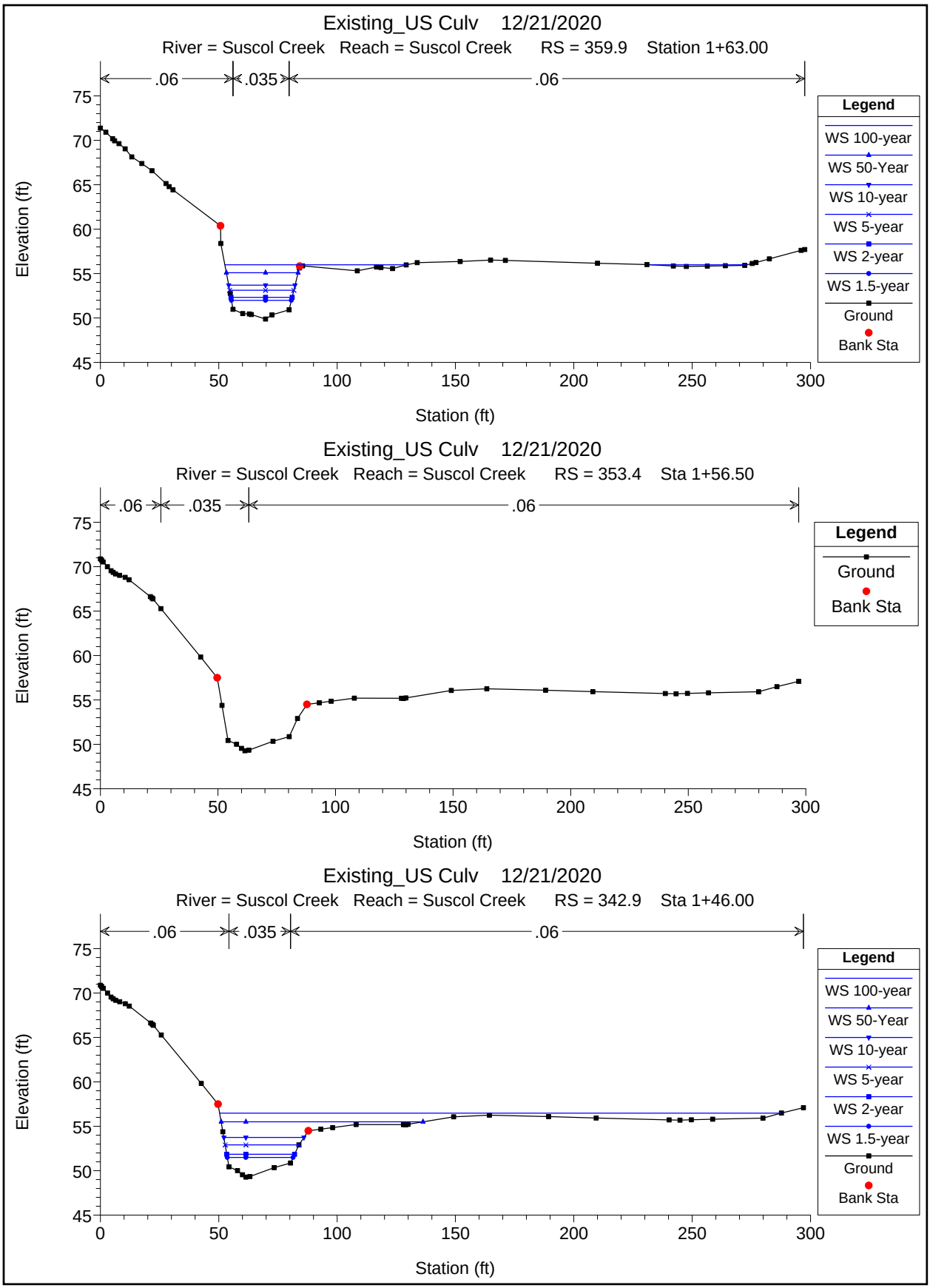

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 471.4 Station 2+74.45
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 463.4 Sta 2+66.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 452.9 Station 2+56
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

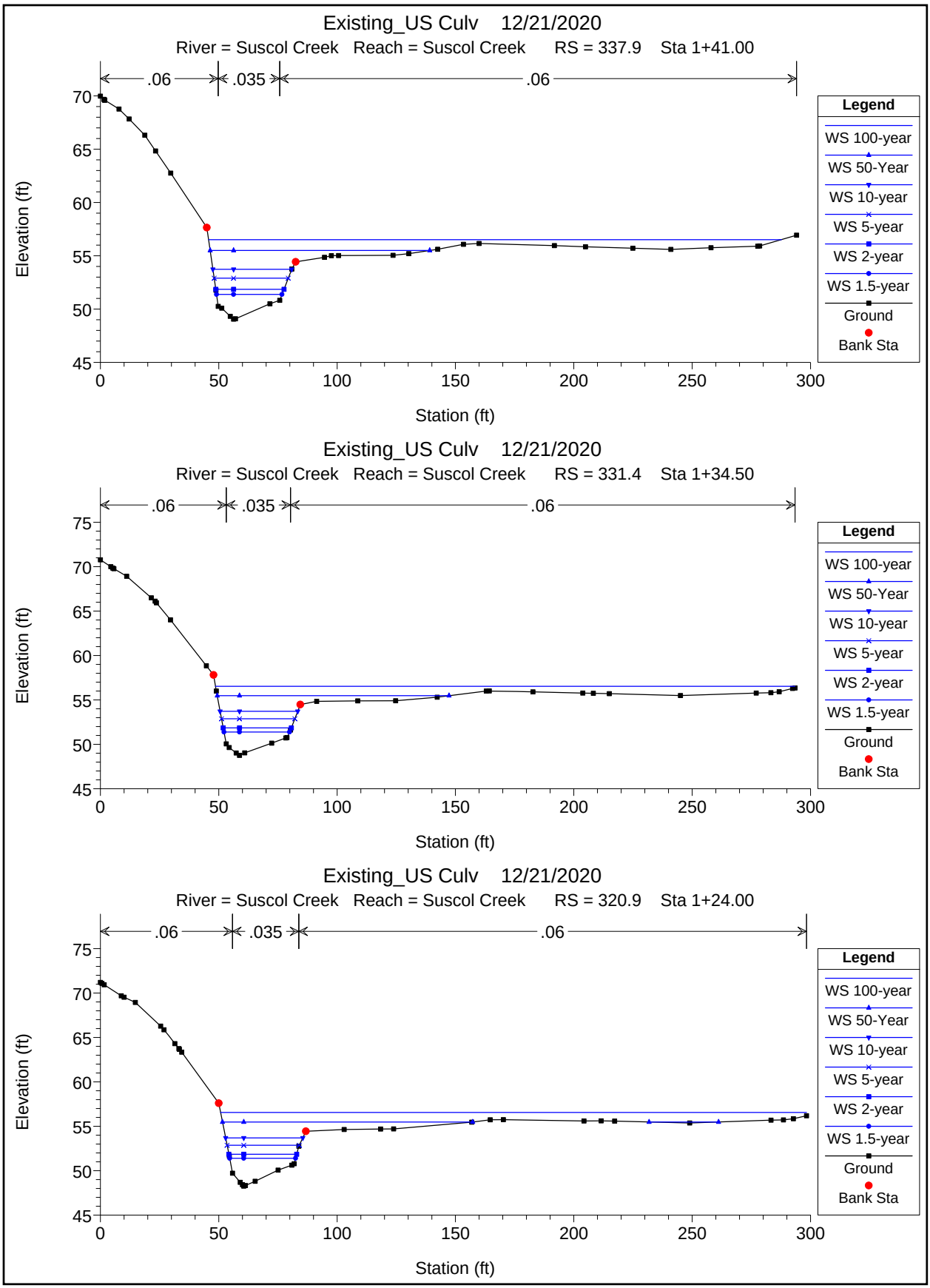

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 447.9 Station 2+51
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 441.4 Sta 2+44.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 430.9 Station 2+34.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

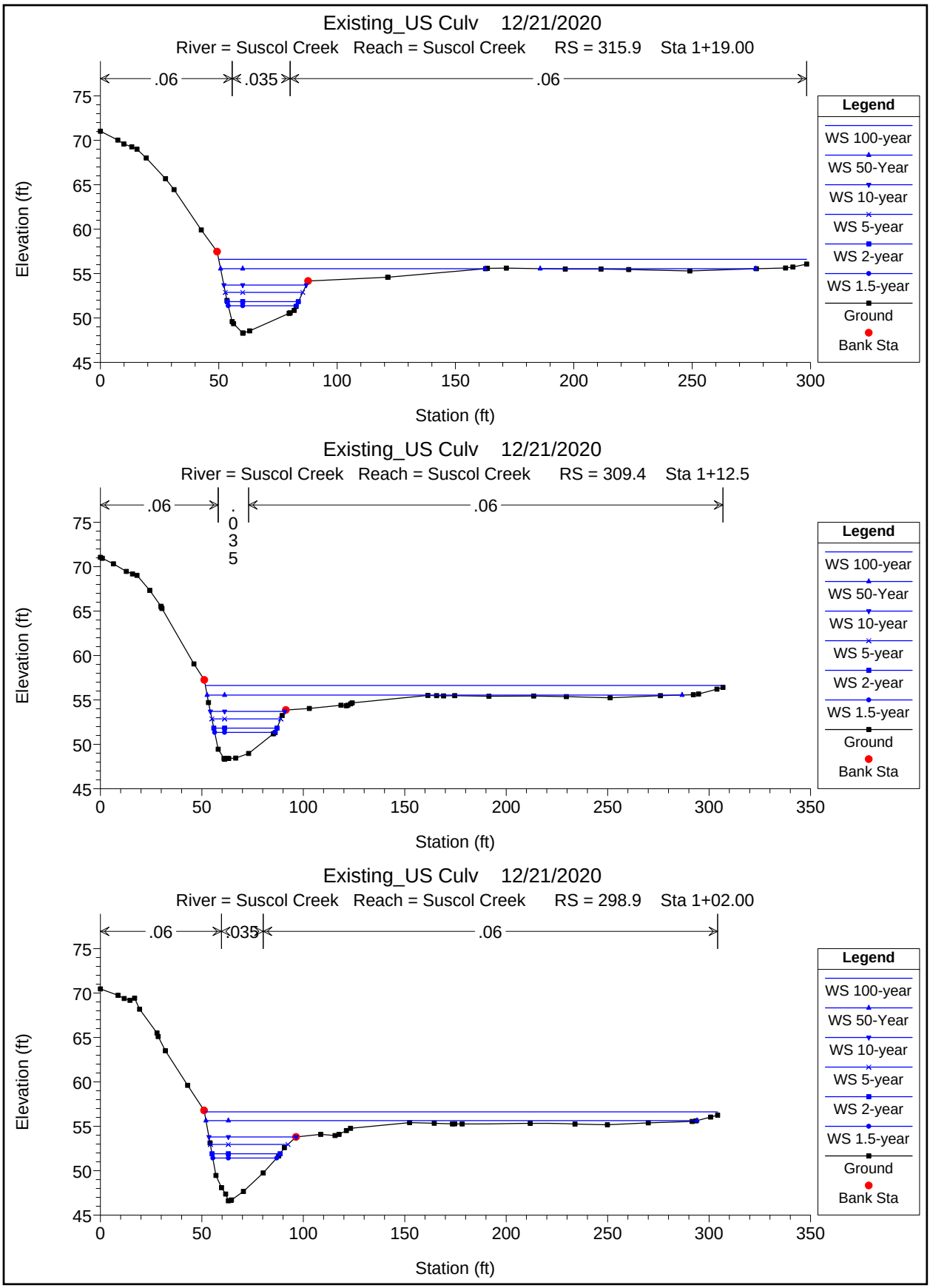

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 425.9 Station 2+29.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 419.4 Sta 2+22.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 408.9 Sta 2+12.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

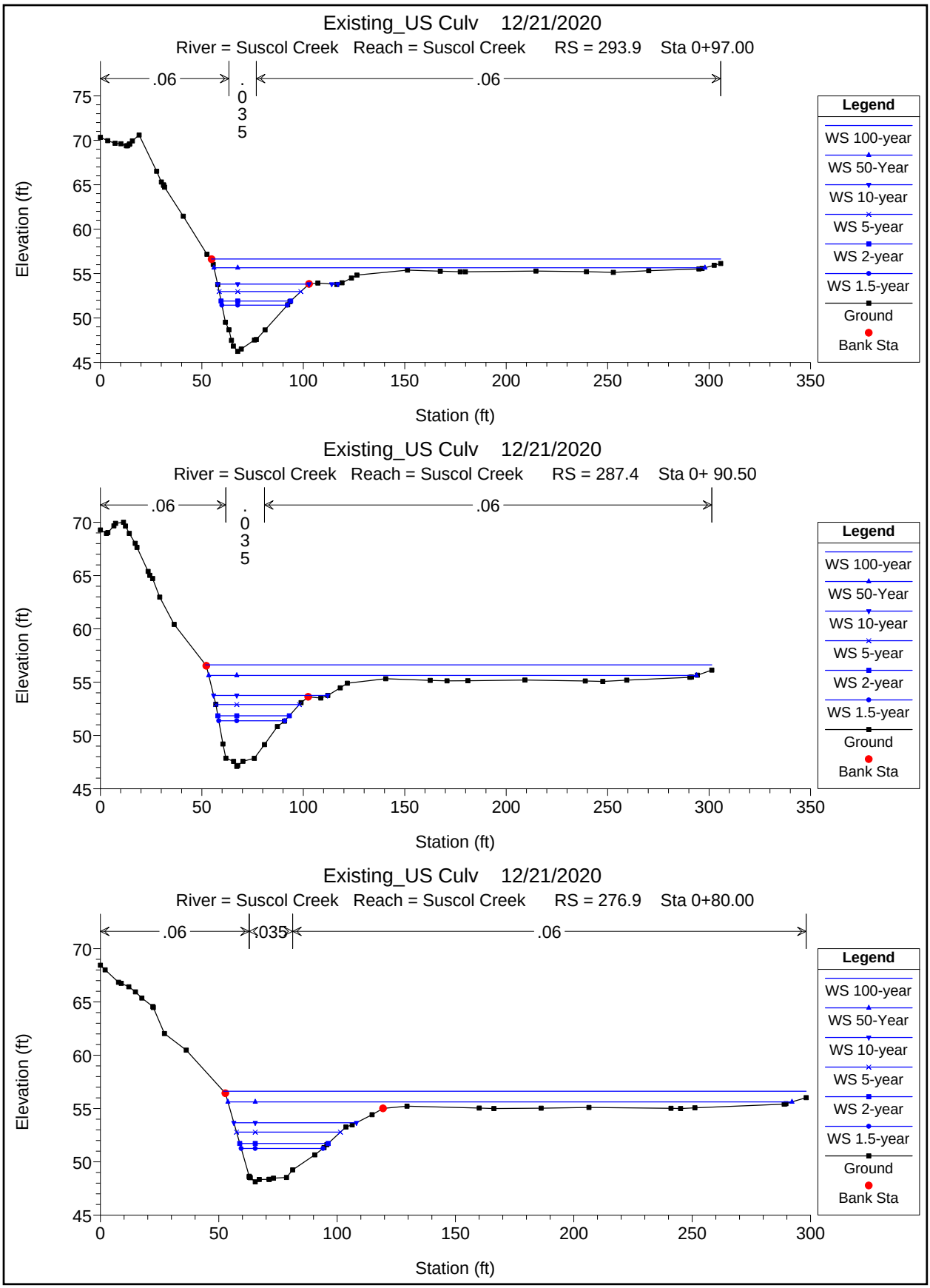

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 403.9 Sta 2+07.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 397.4 Sta 2+00.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 386.9 Sta 1+90.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

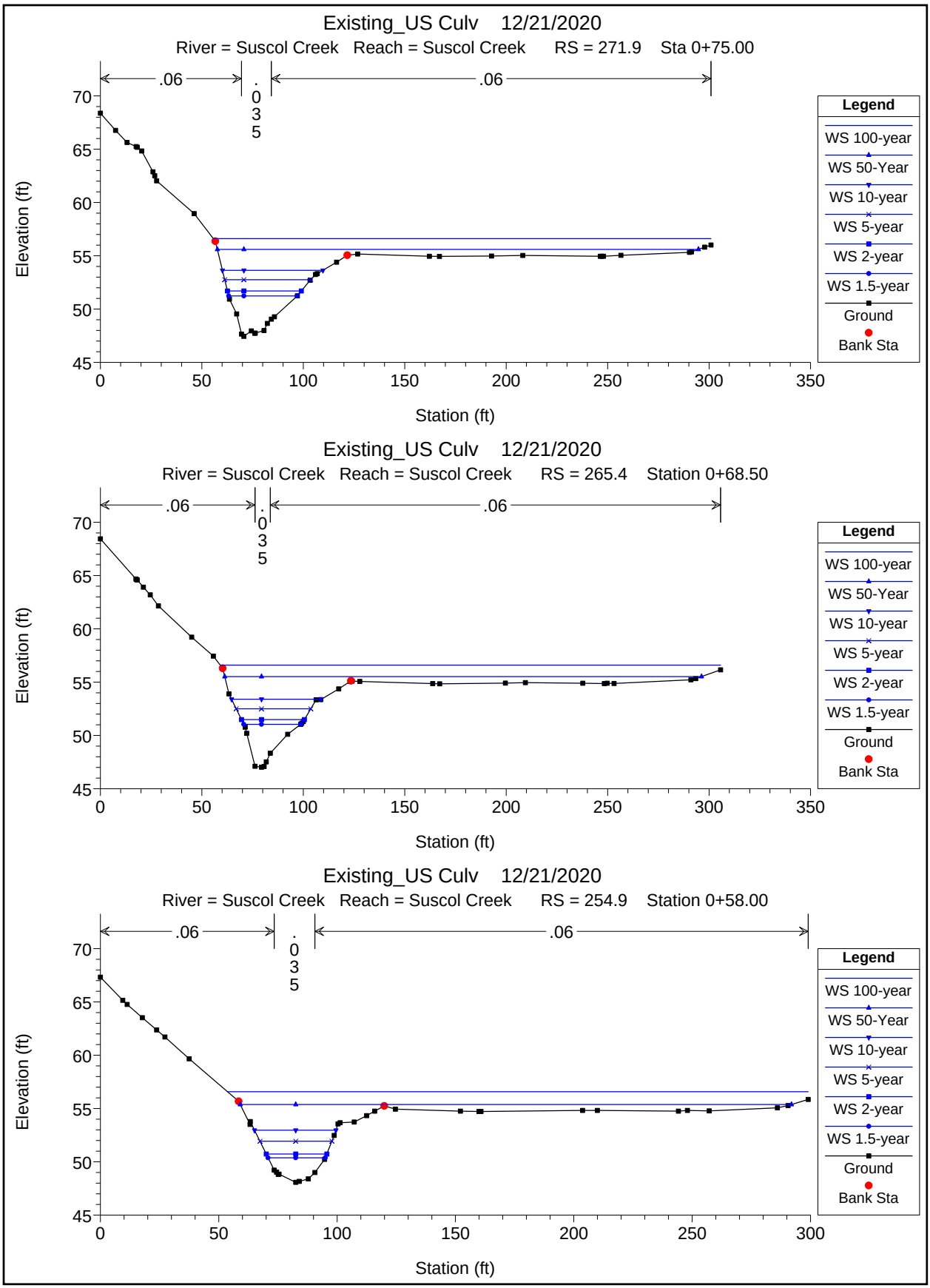

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 381.9 Sta 1+85.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 375.4 Sta 1+78.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 364.9 Station 1+68.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

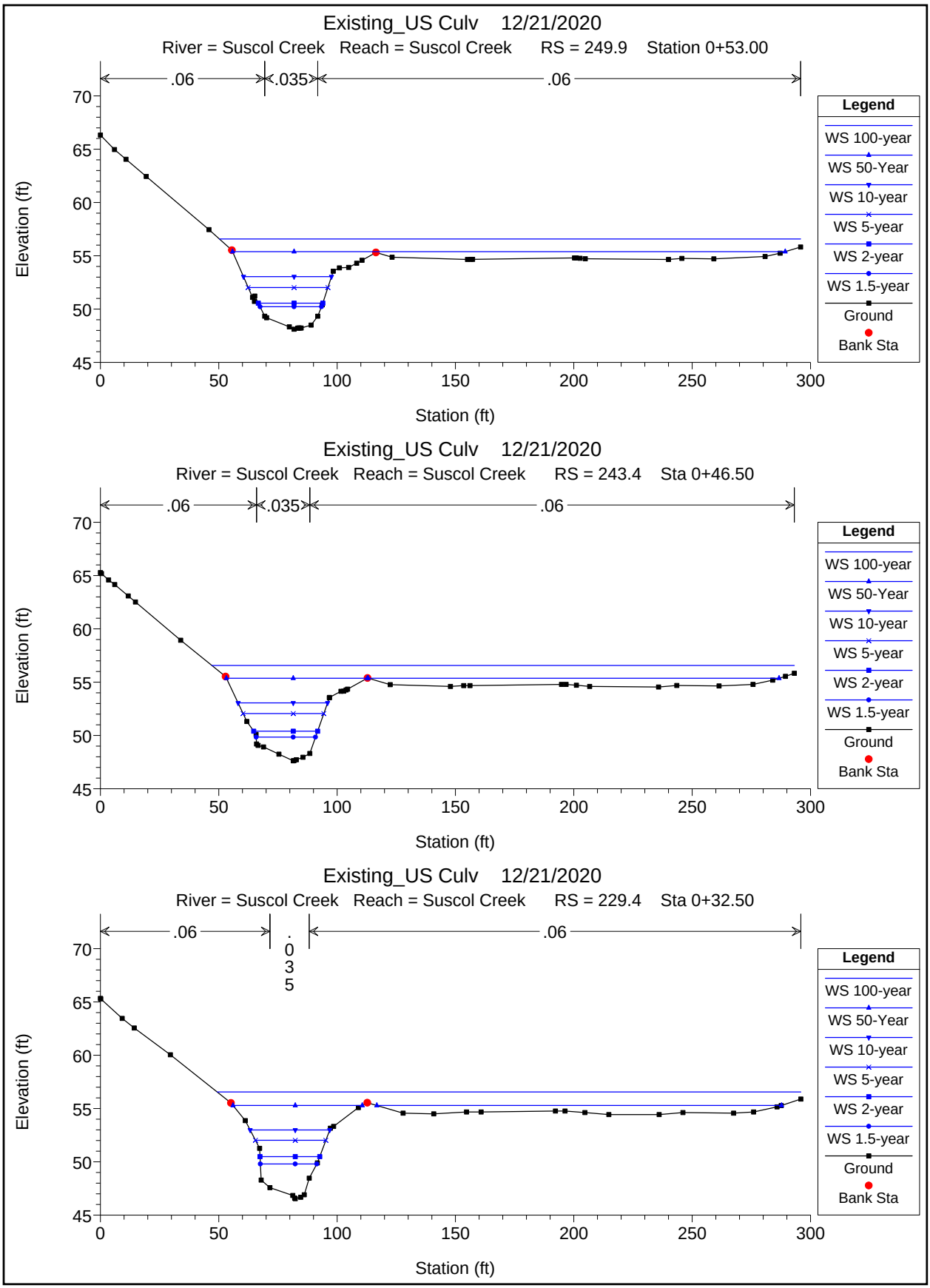

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 359.9 Station 1+63.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 353.4 Sta 1+56.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 342.9 Sta 1+46.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

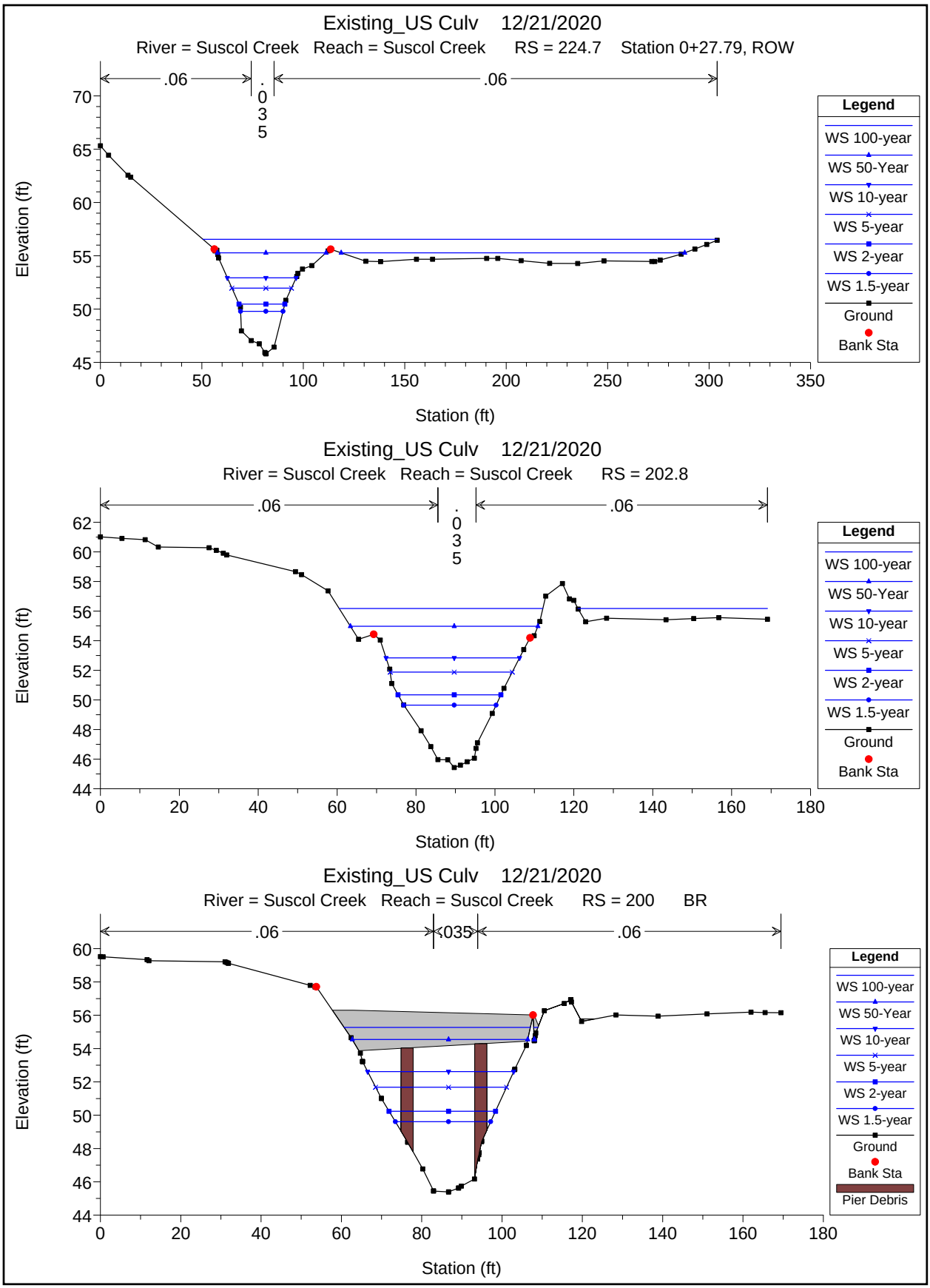

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 337.9 Sta 1+41.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 331.4 Sta 1+34.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 320.9 Sta 1+24.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

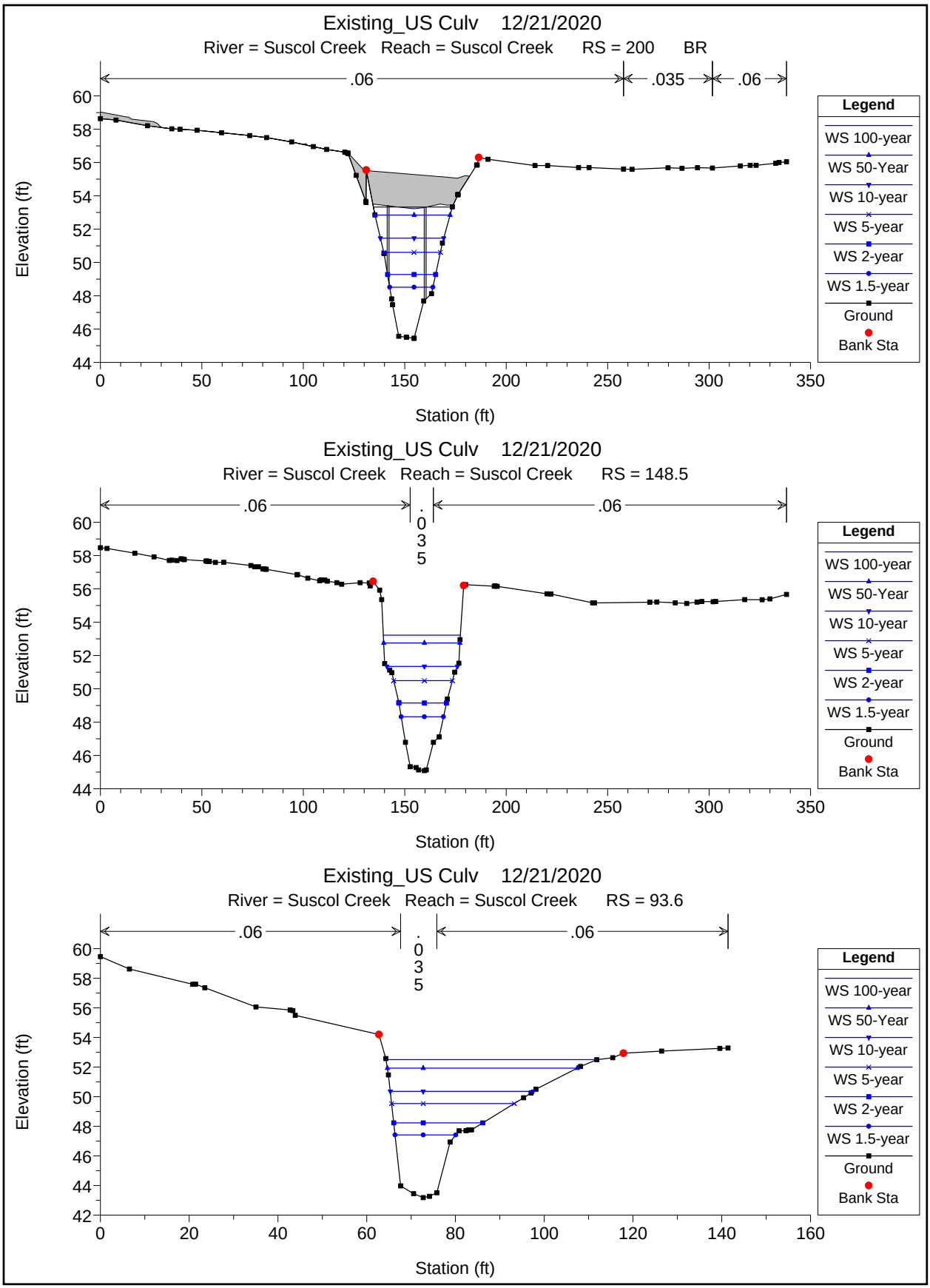

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 315.9 Sta 1+19.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 309.4 Sta 1+12.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 298.9 Sta 1+02.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

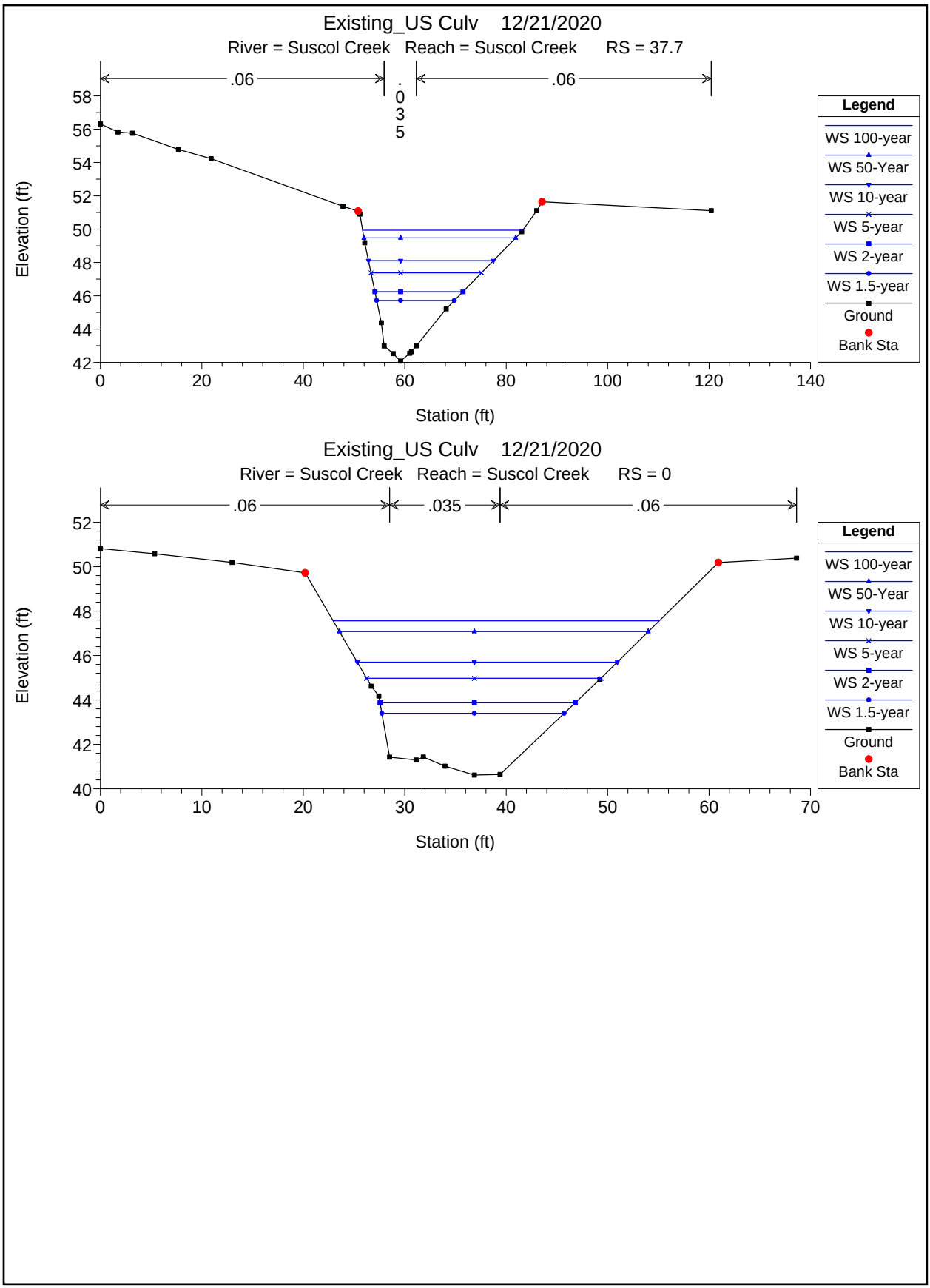

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 293.9 Sta 0+97.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 287.4 Sta 0+ 90.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 276.9 Sta 0+80.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 271.9 Sta 0+75.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 265.4 Station 0+68.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 254.9 Station 0+58.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 249.9 Station 0+53.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 243.4 Sta 0+46.50
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 229.4 Sta 0+32.50
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

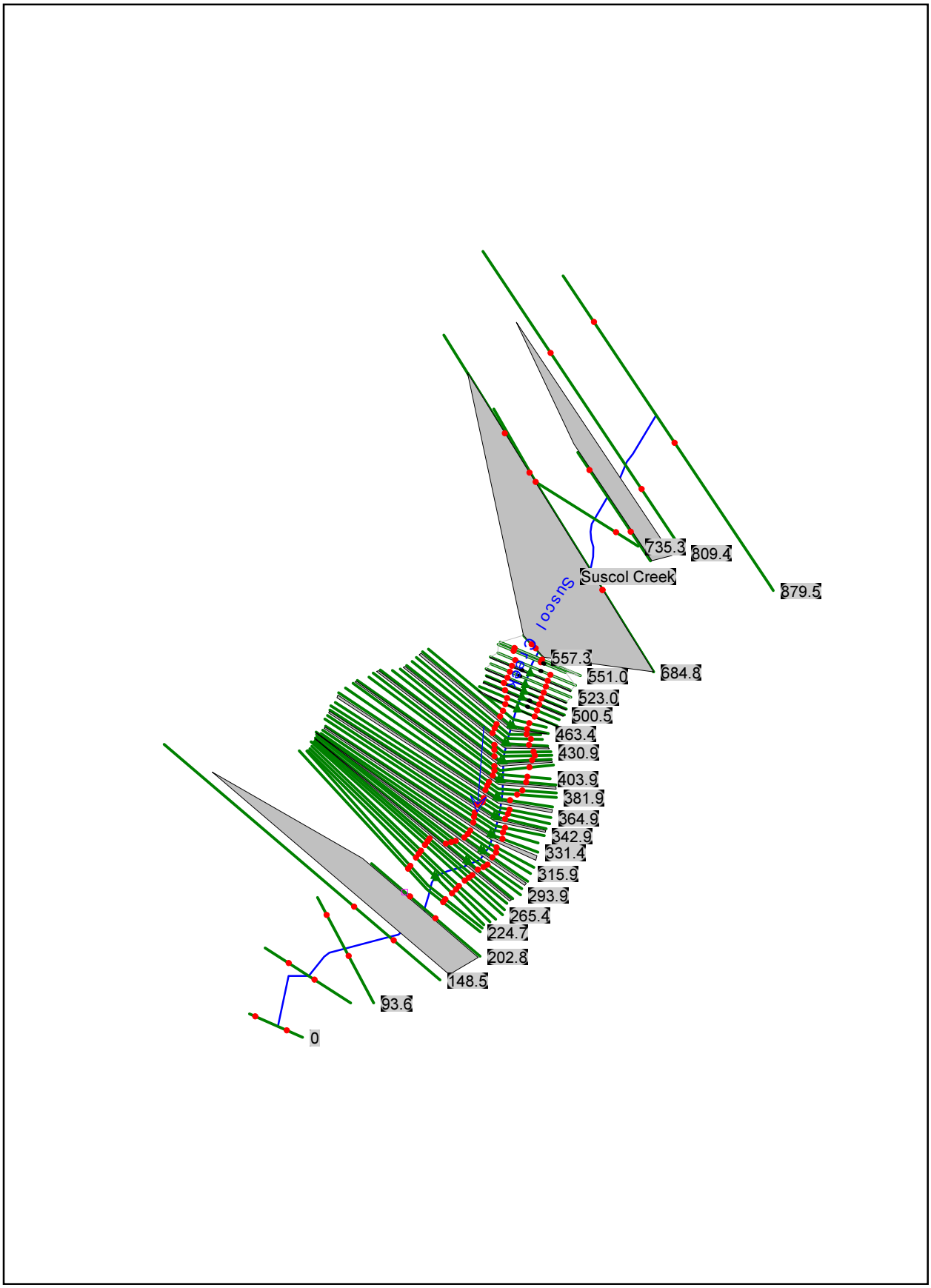

Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 224.7 Station 0+27.79, ROW
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 202.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Pier Debris


Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 148.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 93.6
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 37.7
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
Existing_US Culv 12/21/2020
River = Suscol Creek Reach = Suscol Creek RS = 0
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

1243 Alpine Road, Suite 108
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Phone: 925.941.0017
Fax: 925.941.0018
www.wreco.com

Appendix D. Hydraulic Analysis Results: Proposed Condition


735.3
809.4
Suscol Creek
879.5
Suscol Creek
557.3
551.0
684.8
523.0
500.5
463.4
430.9
403.9
381.9
364.9
342.9
331.4
315.9
293.9
265.4
224.7
202.8
148.5
93.6
0

HEC-RAS Plan: Proposed 95%_Culv_test River: Suscol Creek Reach: Suscol Creek

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	879.5	100-year	1520.00	61.21	72.85		72.89	0.000258	1.53	991.12	147.95	0.10
Suscol Creek	879.5	50-Year	1310.00	61.21	71.32		71.36	0.000392	1.70	772.44	137.55	0.13
Suscol Creek	879.5	10-year	812.00	61.21	65.85		66.25	0.008700	5.02	161.72	69.66	0.58
Suscol Creek	879.5	5-year	603.00	61.21	64.97		65.48	0.014160	5.75	104.84	58.27	0.76
Suscol Creek	879.5	2-year	353.00	61.21	64.01	64.01	64.65	0.023107	6.42	55.01	44.32	1.02
Suscol Creek	879.5	1.5-year	263.00	61.21	63.65	63.65	64.29	0.020677	6.37	41.27	33.84	1.02
Suscol Creek	809.4	100-year	1520.00	58.30	72.84	64.97	72.87	0.000235	1.39	1111.50	189.63	0.09
Suscol Creek	809.4	50-Year	1310.00	58.30	71.30	64.61	71.33	0.000397	1.55	844.89	159.50	0.12
Suscol Creek	809.4	10-year	812.00	58.30	65.42	63.34	65.71	0.006078	4.35	186.69	63.06	0.45
Suscol Creek	809.4	5-year	603.00	58.30	64.39	62.62	64.73	0.007390	4.67	129.15	48.55	0.50
Suscol Creek	809.4	2-year	353.00	58.30	62.89	61.67	63.25	0.006556	4.79	73.71	27.61	0.52
Suscol Creek	809.4	1.5-year	263.00	58.30	62.29	61.24	62.61	0.006843	4.53	58.09	24.72	0.52
Suscol Creek	772		Bridge									
Suscol Creek	766.0	100-year	1520.00	57.61	72.67		72.78	0.000690	2.62	580.36	73.43	0.16
Suscol Creek	766.0	50-Year	1310.00	57.61	71.11		71.23	0.000888	2.76	474.31	63.79	0.18
Suscol Creek	766.0	10-year	812.00	57.61	64.53		65.01	0.007728	5.58	145.51	36.80	0.49
Suscol Creek	766.0	5-year	603.00	57.61	63.56		64.01	0.008416	5.38	112.05	32.50	0.51
Suscol Creek	766.0	2-year	353.00	57.61	61.25	61.02	62.07	0.025440	7.24	48.74	22.39	0.87
Suscol Creek	766.0	1.5-year	263.00	57.61	60.57	60.57	61.48	0.035196	7.64	34.43	19.40	1.01
Suscol Creek	735.3	100-year	1520.00	57.36	72.71		72.73	0.000098	1.23	1357.80	202.82	0.07
Suscol Creek	735.3	50-Year	1310.00	57.36	71.15		71.17	0.000131	1.27	1076.29	160.93	0.07
Suscol Creek	735.3	10-year	812.00	57.36	64.65		64.74	0.001187	2.33	348.57	85.22	0.20
Suscol Creek	735.3	5-year	603.00	57.36	63.66		63.74	0.001417	2.26	266.99	79.09	0.22
Suscol Creek	735.3	2-year	353.00	57.36	61.40		61.53	0.002842	2.95	119.56	44.72	0.32
Suscol Creek	735.3	1.5-year	263.00	57.36	60.64		60.78	0.003107	2.95	89.14	37.75	0.34
Suscol Creek	684.8	100-year	1520.00	54.93	72.71		72.72	0.000053	0.87	1892.44	306.24	0.05
Suscol Creek	684.8	50-Year	1310.00	54.93	71.15		71.16	0.000072	0.90	1486.67	216.92	0.05
Suscol Creek	684.8	10-year	812.00	54.93	64.65		64.69	0.000371	1.53	529.69	97.97	0.12
Suscol Creek	684.8	5-year	603.00	54.93	63.66		63.69	0.000334	1.38	437.11	88.77	0.11
Suscol Creek	684.8	2-year	353.00	54.93	61.43		61.46	0.000373	1.32	267.14	65.91	0.12
Suscol Creek	684.8	1.5-year	263.00	54.93	60.68		60.71	0.000338	1.20	219.98	59.78	0.11
Suscol Creek	675.8	100-year	1520.00	55.00	66.05	63.14	72.12	0.011822	19.76	76.93		1.05
Suscol Creek	675.8	50-Year	1310.00	55.00	66.20	62.71	70.71	0.008781	17.03	76.93		0.90
Suscol Creek	675.8	10-year	812.00	55.00	62.20	61.00	64.46	0.003378	12.06	67.32	7.64	0.79
Suscol Creek	675.8	5-year	603.00	55.00	62.37	60.03	63.57	0.001795	8.79	68.58	7.39	0.57
Suscol Creek	675.8	2-year	353.00	55.00	60.75	58.60	61.39	0.001014	6.44	54.85	9.30	0.47
Suscol Creek	675.8	1.5-year	263.00	55.00	60.23	58.00	60.66	0.000712	5.27	49.88	9.68	0.41
Suscol Creek	675		Culvert									
Suscol Creek	557.3	100-year	1520.00	54.17	62.39	62.39	66.13	0.004433	15.50	98.05	13.14	1.00
Suscol Creek	557.3	50-Year	1310.00	54.17	61.65	61.65	65.06	0.004316	14.82	88.38	12.93	1.00
Suscol Creek	557.3	10-year	812.00	54.17	61.39	59.67	62.81	0.001836	9.55	85.01	12.86	0.65
Suscol Creek	557.3	5-year	603.00	54.17	61.06	58.71	61.92	0.001158	7.46	80.79	12.77	0.52
Suscol Creek	557.3	2-year	353.00	54.17	60.36	57.38	60.74	0.000539	4.90	71.97	12.58	0.36
Suscol Creek	557.3	1.5-year	263.00	54.17	60.01	56.83	60.25	0.000354	3.89	67.57	12.48	0.29
Suscol Creek	551.0	100-year	1520.00	54.16	62.76	61.94	64.98	0.002864	11.96	127.05	20.60	0.85
Suscol Creek	551.0	50-Year	1310.00	54.16	62.56	60.87	64.32	0.002295	10.64	123.08	20.22	0.76
Suscol Creek	551.0	10-year	812.00	54.16	61.75	59.09	62.64	0.001221	7.57	107.29	18.60	0.56
Suscol Creek	551.0	5-year	603.00	54.16	61.25	58.22	61.83	0.000775	6.13	98.32	16.60	0.44
Suscol Creek	551.0	2-year	353.00	54.16	60.44	57.04	60.70	0.000335	4.10	86.17	14.73	0.30
Suscol Creek	551.0	1.5-year	263.00	54.16	60.06	56.55	60.22	0.000223	3.26	80.58	14.63	0.25
Suscol Creek	547.5	100-year	1520.00	54.16	63.32	61.34	64.73	0.001317	9.52	159.69	24.46	0.66
Suscol Creek	547.5	50-Year	1310.00	54.16	62.97	60.72	64.13	0.001129	8.66	151.21	23.82	0.61
Suscol Creek	547.5	10-year	812.00	54.16	61.92	58.89	62.56	0.000684	6.38	127.31	21.99	0.47
Suscol Creek	547.5	5-year	603.00	54.16	61.36	58.03	61.78	0.000493	5.24	115.12	21.01	0.39
Suscol Creek	547.5	2-year	353.00	54.16	60.48	56.91	60.68	0.000264	3.63	97.30	19.47	0.29
Suscol Creek	547.5	1.5-year	263.00	54.16	60.08	56.43	60.21	0.000182	2.93	89.70	18.73	0.24
Suscol Creek	538.0	100-year	1520.00	54.11	63.81	60.63	64.50	0.000705	6.68	227.71	36.28	0.47
Suscol Creek	538.0	50-Year	1310.00	54.11	63.36	60.11	63.95	0.000623	6.19	211.59	35.32	0.45
Suscol Creek	538.0	10-year	812.00	54.11	62.11	58.62	62.47	0.000391	4.79	169.51	31.89	0.37
Suscol Creek	538.0	5-year	603.00	54.11	61.48	57.87	61.73	0.000285	4.02	149.86	29.97	0.32
Suscol Creek	538.0	2-year	353.00	54.11	60.53	56.84	60.66	0.000158	2.88	122.74	27.26	0.24
Suscol Creek	538.0	1.5-year	263.00	54.11	60.11	56.40	60.20	0.000110	2.36	111.61	26.07	0.20
Suscol Creek	530.5	100-year	1520.00	54.00	63.51	61.73	64.47	0.001147	7.86	193.43	36.40	0.60
Suscol Creek	530.5	50-Year	1310.00	54.00	63.08	61.30	63.92	0.001062	7.35	178.18	35.46	0.58

HEC-RAS Plan: Proposed 95%_Culv_test River: Suscol Creek Reach: Suscol Creek (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	530.5	10-year	812.00	54.00	61.91	60.10	62.45	0.000810	5.88	138.12	32.73	0.50
Suscol Creek	530.5	5-year	603.00	54.00	61.31	59.48	61.71	0.000671	5.07	118.94	31.30	0.46
Suscol Creek	530.5	2-year	353.00	54.00	60.42	58.58	60.65	0.000464	3.84	91.92	28.97	0.38
Suscol Creek	530.5	1.5-year	263.00	54.00	60.02	58.20	60.19	0.000364	3.25	80.80	27.67	0.34
Suscol Creek	530		Inl Struct									
Suscol Creek	523.0	100-year	1520.00	53.15	63.35	60.33	64.05	0.000830	6.71	226.37	36.66	0.48
Suscol Creek	523.0	50-Year	1310.00	53.15	62.88	59.86	63.49	0.000743	6.25	209.47	35.47	0.45
Suscol Creek	523.0	10-year	812.00	53.15	61.64	58.35	62.00	0.000487	4.85	167.52	32.29	0.38
Suscol Creek	523.0	5-year	603.00	53.15	61.02	57.64	61.28	0.000360	4.07	147.99	30.71	0.33
Suscol Creek	523.0	2-year	353.00	53.15	60.11	56.63	60.24	0.000198	2.92	121.09	28.41	0.25
Suscol Creek	523.0	1.5-year	263.00	53.15	59.70	56.17	59.79	0.000139	2.40	109.59	27.32	0.21
Suscol Creek	515.5	100-year	1520.00	53.69	63.09	61.35	64.02	0.000823	7.71	197.16	38.11	0.60
Suscol Creek	515.5	50-Year	1310.00	53.69	62.63	60.93	63.46	0.000795	7.29	179.81	37.02	0.58
Suscol Creek	515.5	10-year	812.00	53.69	61.44	59.73	61.98	0.000662	5.91	137.39	34.08	0.52
Suscol Creek	515.5	5-year	603.00	53.69	60.85	59.11	61.26	0.000569	5.12	117.81	32.52	0.47
Suscol Creek	515.5	2-year	353.00	53.69	60.00	58.23	60.23	0.000404	3.87	91.12	29.60	0.39
Suscol Creek	515.5	1.5-year	263.00	53.69	59.61	57.85	59.78	0.000319	3.29	80.04	27.85	0.34
Suscol Creek	515		Inl Struct									
Suscol Creek	508.0	100-year	1520.00	53.39	62.84	61.14	63.81	0.000857	7.89	192.61	37.54	0.61
Suscol Creek	508.0	50-Year	1310.00	53.39	62.38	60.69	63.24	0.000825	7.47	175.48	36.20	0.60
Suscol Creek	508.0	10-year	812.00	53.39	61.11	59.46	61.70	0.000705	6.16	131.82	32.48	0.54
Suscol Creek	508.0	5-year	603.00	53.39	60.47	58.84	60.92	0.000620	5.40	111.72	30.59	0.50
Suscol Creek	508.0	2-year	353.00	53.39	59.58	57.93	59.84	0.000450	4.12	85.69	27.82	0.41
Suscol Creek	508.0	1.5-year	263.00	53.39	59.18	57.54	59.37	0.000366	3.51	74.88	26.52	0.37
Suscol Creek	507		Inl Struct									
Suscol Creek	500.5	100-year	1520.00	53.14	62.36	61.10	63.64	0.001620	9.09	167.27	33.25	0.71
Suscol Creek	500.5	50-Year	1310.00	53.14	61.96	60.60	63.08	0.001474	8.49	154.32	31.95	0.68
Suscol Creek	500.5	10-year	812.00	53.14	60.82	59.24	61.53	0.001071	6.77	120.00	28.40	0.58
Suscol Creek	500.5	5-year	603.00	53.14	60.19	58.56	60.73	0.000875	5.87	102.76	26.50	0.53
Suscol Creek	500.5	2-year	353.00	53.14	59.24	57.58	59.55	0.000593	4.48	78.74	23.87	0.44
Suscol Creek	500.5	1.5-year	263.00	53.14	58.81	57.19	59.04	0.000469	3.83	68.73	22.77	0.39
Suscol Creek	496		Inl Struct									
Suscol Creek	493.0	100-year	1520.00	52.85	61.80	59.87	62.94	0.001562	8.56	177.60	31.09	0.63
Suscol Creek	493.0	50-Year	1310.00	52.85	61.53	59.31	62.46	0.001283	7.74	169.33	30.27	0.58
Suscol Creek	493.0	10-year	812.00	52.85	60.59	57.80	61.10	0.000714	5.72	142.05	27.72	0.45
Suscol Creek	493.0	5-year	603.00	52.85	59.97	57.09	60.33	0.000516	4.81	125.41	26.05	0.39
Suscol Creek	493.0	2-year	353.00	52.85	59.03	56.04	59.21	0.000284	3.46	102.09	23.37	0.29
Suscol Creek	493.0	1.5-year	263.00	52.85	58.60	55.59	58.73	0.000197	2.85	92.36	22.15	0.25
Suscol Creek	485.5	100-year	1520.00	52.27	61.58	60.51	62.90	0.011148	9.22	170.71	46.13	0.72
Suscol Creek	485.5	50-Year	1310.00	52.27	61.33	60.02	62.42	0.009802	8.42	158.96	44.97	0.67
Suscol Creek	485.5	10-year	812.00	52.27	60.44	58.77	61.07	0.006674	6.36	127.60	30.14	0.55
Suscol Creek	485.5	5-year	603.00	52.27	59.84	58.13	60.31	0.005596	5.48	109.99	28.60	0.49
Suscol Creek	485.5	2-year	353.00	52.27	58.93	57.21	59.20	0.004011	4.16	84.94	26.30	0.41
Suscol Creek	485.5	1.5-year	263.00	52.27	58.52	56.83	58.72	0.003254	3.54	74.39	25.18	0.36
Suscol Creek	485		Inl Struct									
Suscol Creek	471.4	100-year	1520.00	52.26	61.36		62.06	0.007211	6.88	235.50	49.44	0.49
Suscol Creek	471.4	50-Year	1310.00	52.26	61.03		61.63	0.006448	6.33	219.36	48.54	0.46
Suscol Creek	471.4	10-year	812.00	52.26	59.88		60.27	0.005040	5.03	165.31	45.32	0.40
Suscol Creek	471.4	5-year	603.00	52.26	59.26		59.54	0.004120	4.29	140.59	32.31	0.36
Suscol Creek	471.4	2-year	353.00	52.26	58.22		58.38	0.002788	3.23	109.40	28.73	0.29
Suscol Creek	471.4	1.5-year	263.00	52.26	57.76		57.88	0.002186	2.73	96.41	27.47	0.26
Suscol Creek	463.4	100-year	1520.00	54.18	60.97	59.96	61.97	0.008342	8.19	199.71	51.64	0.65
Suscol Creek	463.4	50-Year	1310.00	54.18	60.69	59.51	61.55	0.007630	7.54	185.72	50.79	0.62
Suscol Creek	463.4	10-year	812.00	54.18	59.58	58.29	60.20	0.007148	6.31	131.24	47.30	0.58
Suscol Creek	463.4	5-year	603.00	54.18	59.00	57.72	59.48	0.006416	5.55	108.73	33.11	0.54
Suscol Creek	463.4	2-year	353.00	54.18	58.01	56.94	58.34	0.005914	4.56	77.43	30.09	0.50
Suscol Creek	463.4	1.5-year	263.00	54.18	57.58	56.62	57.83	0.005644	4.07	64.56	28.86	0.48
Suscol Creek	463		Inl Struct									
Suscol Creek	452.9	100-year	1520.00	52.16	59.65	57.75	60.41	0.007173	7.05	248.34	158.20	0.54
Suscol Creek	452.9	50-Year	1310.00	52.16	59.47	57.33	60.10	0.006178	6.39	221.37	126.14	0.50
Suscol Creek	452.9	10-year	812.00	52.16	58.76		59.10	0.003836	4.64	175.01	39.58	0.39

HEC-RAS Plan: Proposed 95%_Culv_test River: Suscol Creek Reach: Suscol Creek (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	452.9	5-year	603.00	52.16	58.32		58.55	0.002803	3.82	157.93	37.95	0.33
Suscol Creek	452.9	2-year	353.00	52.16	57.41		57.54	0.001769	2.82	124.96	34.63	0.26
Suscol Creek	452.9	1.5-year	263.00	52.16	57.02		57.10	0.001321	2.36	111.56	33.18	0.23
Suscol Creek	447.9	100-year	1520.00	52.16	59.79	57.63	60.30	0.005054	6.03	323.65	164.74	0.46
Suscol Creek	447.9	50-Year	1310.00	52.16	59.55		60.02	0.004630	5.64	285.19	162.13	0.44
Suscol Creek	447.9	10-year	812.00	52.16	58.77		59.07	0.003259	4.36	186.60	48.64	0.36
Suscol Creek	447.9	5-year	603.00	52.16	58.33		58.53	0.002461	3.59	167.78	40.96	0.31
Suscol Creek	447.9	2-year	353.00	52.16	57.41		57.52	0.001610	2.68	131.92	37.46	0.25
Suscol Creek	447.9	1.5-year	263.00	52.16	57.02		57.09	0.001204	2.24	117.44	35.71	0.22
Suscol Creek	441.4	100-year	1520.00	53.66	59.28	59.28	60.22	0.010725	8.08	240.22	165.87	0.73
Suscol Creek	441.4	50-Year	1310.00	53.66	58.32	58.32	59.86	0.021815	9.95	131.71	43.03	1.00
Suscol Creek	441.4	10-year	812.00	53.66	58.48	57.38	59.01	0.007244	5.87	138.47	45.61	0.58
Suscol Creek	441.4	5-year	603.00	53.66	58.11	56.90	58.49	0.005700	4.92	122.64	42.18	0.51
Suscol Creek	441.4	2-year	353.00	53.66	57.24	56.24	57.49	0.005340	4.04	87.41	38.72	0.47
Suscol Creek	441.4	1.5-year	263.00	53.66	56.87	55.95	57.07	0.005030	3.59	73.35	37.25	0.45
Suscol Creek	439		Inl Struct									
Suscol Creek	430.9	100-year	1520.00	51.50	58.87		59.46	0.005732	6.33	300.24	175.49	0.49
Suscol Creek	430.9	50-Year	1310.00	51.50	58.72		59.22	0.004841	5.75	274.37	173.46	0.45
Suscol Creek	430.9	10-year	812.00	51.50	57.92		58.21	0.003228	4.36	189.67	48.22	0.36
Suscol Creek	430.9	5-year	603.00	51.50	57.52		57.71	0.002328	3.56	171.29	43.05	0.30
Suscol Creek	430.9	2-year	353.00	51.50	56.72		56.82	0.001453	2.55	138.64	39.24	0.24
Suscol Creek	430.9	1.5-year	263.00	51.50	56.35		56.42	0.001113	2.12	124.19	37.62	0.20
Suscol Creek	425.9	100-year	1520.00	51.50	58.94		59.39	0.004526	5.73	356.30	189.52	0.44
Suscol Creek	425.9	50-Year	1310.00	51.50	58.77		59.17	0.003943	5.27	324.52	187.72	0.41
Suscol Creek	425.9	10-year	812.00	51.50	57.92		58.19	0.002977	4.23	198.74	54.09	0.35
Suscol Creek	425.9	5-year	603.00	51.50	57.51		57.70	0.002182	3.47	177.69	50.19	0.30
Suscol Creek	425.9	2-year	353.00	51.50	56.72		56.81	0.001384	2.50	141.84	41.46	0.23
Suscol Creek	425.9	1.5-year	263.00	51.50	56.34		56.41	0.001067	2.08	126.59	39.80	0.20
Suscol Creek	419.4	100-year	1520.00	53.00	58.52	58.52	59.32	0.009237	7.68	281.33	197.76	0.68
Suscol Creek	419.4	50-Year	1310.00	53.00	57.51	57.51	59.01	0.020953	9.94	140.54	56.40	0.99
Suscol Creek	419.4	10-year	812.00	53.00	57.59	56.65	58.14	0.007411	5.99	145.35	63.16	0.59
Suscol Creek	419.4	5-year	603.00	53.00	57.28	56.18	57.66	0.005721	4.98	127.70	54.22	0.51
Suscol Creek	419.4	2-year	353.00	53.00	56.55	55.55	56.79	0.004856	3.93	91.66	44.51	0.46
Suscol Creek	419.4	1.5-year	263.00	53.00	56.20	55.28	56.39	0.004487	3.45	76.98	40.40	0.43
Suscol Creek	417		Inl Struct									
Suscol Creek	408.9	100-year	1520.00	50.74	58.02	56.57	58.67	0.008375	6.83	295.72	198.92	0.54
Suscol Creek	408.9	50-Year	1310.00	50.74	57.87	56.15	58.39	0.006792	6.07	266.59	193.08	0.49
Suscol Creek	408.9	10-year	812.00	50.74	57.18		57.49	0.004508	4.62	192.43	64.41	0.39
Suscol Creek	408.9	5-year	603.00	50.74	56.75		56.98	0.003442	3.85	167.40	55.56	0.34
Suscol Creek	408.9	2-year	353.00	50.74	56.01		56.13	0.002239	2.83	129.30	46.65	0.27
Suscol Creek	408.9	1.5-year	263.00	50.74	55.64		55.73	0.001751	2.37	113.10	42.30	0.24
Suscol Creek	403.9	100-year	1520.00	50.74	58.07	56.56	58.59	0.007305	6.34	342.57	213.84	0.51
Suscol Creek	403.9	50-Year	1310.00	50.74	57.84	56.27	58.36	0.007280	6.13	293.76	208.16	0.50
Suscol Creek	403.9	10-year	812.00	50.74	57.16		57.47	0.004675	4.62	197.94	75.80	0.40
Suscol Creek	403.9	5-year	603.00	50.74	56.74		56.96	0.003596	3.90	170.37	59.75	0.35
Suscol Creek	403.9	2-year	353.00	50.74	55.99		56.12	0.002352	2.91	129.65	49.86	0.28
Suscol Creek	403.9	1.5-year	263.00	50.74	55.63		55.72	0.001834	2.45	112.45	45.17	0.24
Suscol Creek	397.4	100-year	1520.00	52.24	57.83	57.83	58.53	0.009404	7.58	315.84	223.64	0.69
Suscol Creek	397.4	50-Year	1310.00	52.24	57.27	57.27	58.25	0.013775	8.53	201.38	145.11	0.82
Suscol Creek	397.4	10-year	812.00	52.24	56.81	56.16	57.40	0.009061	6.46	146.72	86.47	0.65
Suscol Creek	397.4	5-year	603.00	52.24	56.47	55.67	56.90	0.007343	5.50	124.43	59.78	0.58
Suscol Creek	397.4	2-year	353.00	52.24	55.80	54.95	56.08	0.006060	4.37	87.97	49.31	0.51
Suscol Creek	397.4	1.5-year	263.00	52.24	55.46	54.63	55.69	0.005595	3.88	72.32	44.52	0.48
Suscol Creek	395		Inl Struct									
Suscol Creek	386.9	100-year	1520.00	49.91	57.73		58.16	0.007502	5.99	374.42	231.79	0.50
Suscol Creek	386.9	50-Year	1310.00	49.91	57.56		57.96	0.007021	5.68	335.67	227.58	0.48
Suscol Creek	386.9	10-year	812.00	49.91	56.96		57.26	0.005141	4.61	217.45	140.51	0.41
Suscol Creek	386.9	5-year	603.00	49.91	56.44		56.70	0.004714	4.20	159.09	76.59	0.39
Suscol Creek	386.9	2-year	353.00	49.91	55.68		55.84	0.003203	3.18	115.86	47.31	0.31
Suscol Creek	386.9	1.5-year	263.00	49.91	55.30		55.41	0.002562	2.71	99.22	40.55	0.28
Suscol Creek	381.9	100-year	1520.00	49.91	57.78		58.09	0.005264	5.33	435.74	237.12	0.42
Suscol Creek	381.9	50-Year	1310.00	49.91	57.61		57.90	0.004912	5.03	395.93	234.65	0.41
Suscol Creek	381.9	10-year	812.00	49.91	56.95		57.23	0.004718	4.51	245.81	200.72	0.39

HEC-RAS Plan: Proposed 95%_Culv_test River: Suscol Creek Reach: Suscol Creek (Continued)

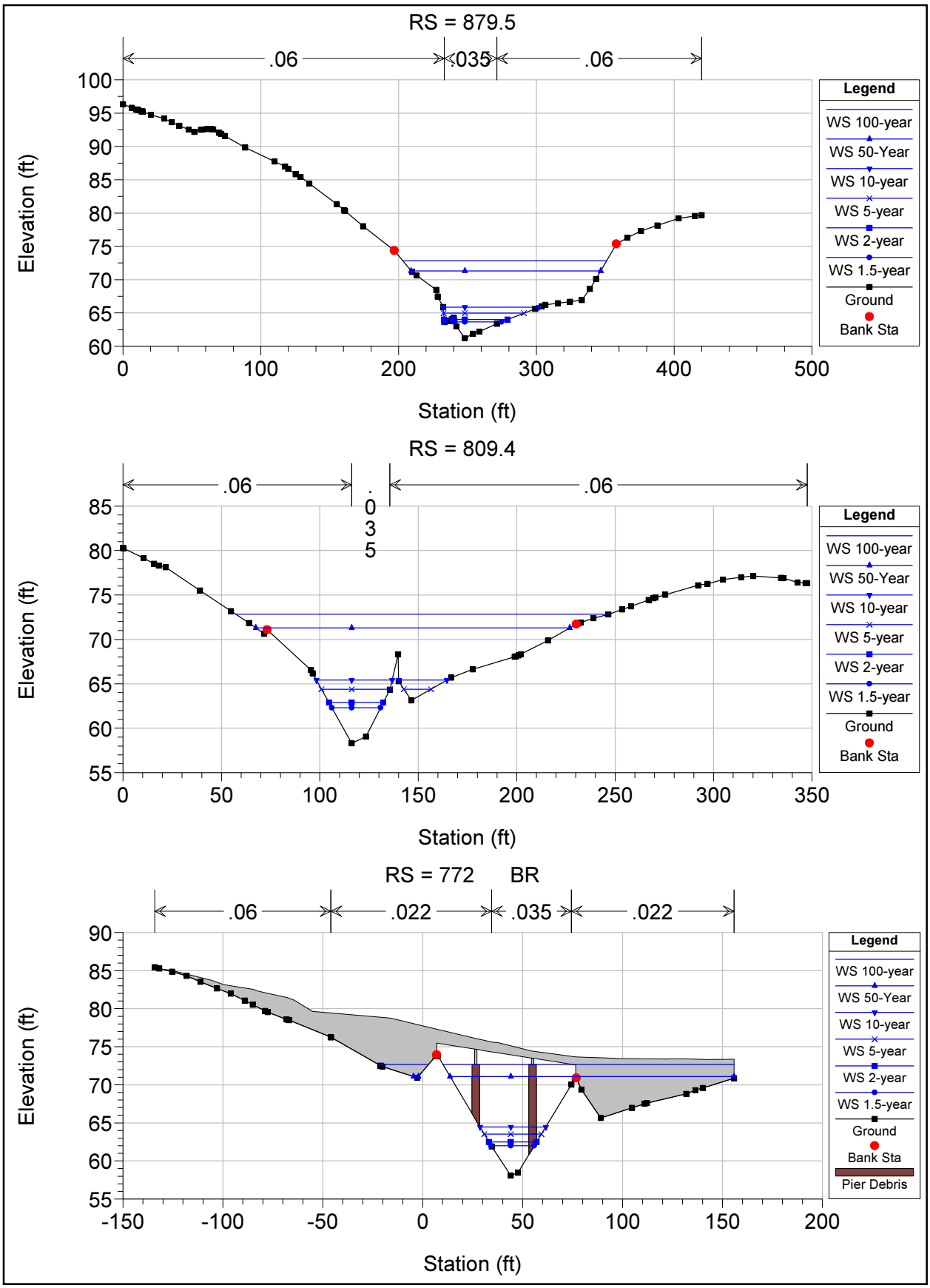
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	381.9	5-year	603.00	49.91	56.43		56.67	0.004220	4.08	172.63	107.48	0.36
Suscol Creek	381.9	2-year	353.00	49.91	55.67		55.82	0.002838	3.10	119.38	48.88	0.29
Suscol Creek	381.9	1.5-year	263.00	49.91	55.29		55.40	0.002207	2.61	102.56	40.16	0.26
Suscol Creek	375.4	100-year	1520.00	51.31	57.36	57.36	58.01	0.009274	7.74	337.44	230.16	0.68
Suscol Creek	375.4	50-Year	1310.00	51.31	57.21	57.21	57.82	0.008779	7.34	303.04	227.63	0.66
Suscol Creek	375.4	10-year	812.00	51.31	56.31	56.31	57.13	0.013355	7.59	135.74	117.77	0.78
Suscol Creek	375.4	5-year	603.00	51.31	55.61	55.61	56.55	0.020544	7.89	82.68	51.19	0.92
Suscol Creek	375.4	2-year	353.00	51.31	55.30	54.54	55.76	0.011644	5.43	67.88	44.67	0.68
Suscol Creek	375.4	1.5-year	263.00	51.31	54.98	54.18	55.35	0.011547	4.88	54.46	37.59	0.66
Suscol Creek	373		Inl Struct									
Suscol Creek	364.9	100-year	1520.00	49.06	56.79	56.79	57.56	0.009266	7.65	301.48	232.08	0.61
Suscol Creek	364.9	50-Year	1310.00	49.06	56.35	56.04	57.27	0.011498	7.99	209.36	161.11	0.67
Suscol Creek	364.9	10-year	812.00	49.06	55.62		56.25	0.009347	6.39	132.73	61.25	0.59
Suscol Creek	364.9	5-year	603.00	49.06	55.29		55.71	0.005288	5.21	116.15	37.38	0.46
Suscol Creek	364.9	2-year	353.00	49.06	54.45		54.68	0.003293	3.82	92.38	26.33	0.36
Suscol Creek	364.9	1.5-year	263.00	49.06	54.04		54.20	0.002530	3.22	81.80	25.08	0.31
Suscol Creek	359.9	100-year	1520.00	49.06	56.81	54.92	57.39	0.004968	6.61	352.24	237.27	0.48
Suscol Creek	359.9	50-Year	1310.00	49.06	56.55	54.50	57.13	0.004964	6.41	289.87	233.09	0.48
Suscol Creek	359.9	10-year	812.00	49.06	55.76		56.15	0.003793	5.06	167.10	71.55	0.41
Suscol Creek	359.9	5-year	603.00	49.06	55.39		55.65	0.002708	4.09	147.69	36.34	0.34
Suscol Creek	359.9	2-year	353.00	49.06	54.50		54.64	0.001749	2.98	118.64	31.62	0.27
Suscol Creek	359.9	1.5-year	263.00	49.06	54.07		54.17	0.001355	2.50	105.36	30.58	0.24
Suscol Creek	353.4	100-year	1520.00	50.62	56.57	56.57	57.34	0.007687	7.60	303.25	237.41	0.63
Suscol Creek	353.4	50-Year	1310.00	50.62	55.68	55.68	57.01	0.015504	9.32	154.12	80.91	0.87
Suscol Creek	353.4	10-year	812.00	50.62	55.54	54.37	56.10	0.006918	6.06	142.84	74.51	0.57
Suscol Creek	353.4	5-year	603.00	50.62	55.22	53.87	55.61	0.005371	5.01	123.23	52.91	0.50
Suscol Creek	353.4	2-year	353.00	50.62	54.36	53.18	54.61	0.004400	3.97	88.94	34.93	0.44
Suscol Creek	353.4	1.5-year	263.00	50.62	53.95	52.89	54.15	0.004220	3.51	74.83	33.84	0.42
Suscol Creek	351		Inl Struct									
Suscol Creek	342.9	100-year	1520.00	48.32	56.71		57.06	0.003424	5.21	435.67	245.82	0.38
Suscol Creek	342.9	50-Year	1310.00	48.32	56.50		56.82	0.003205	4.92	383.92	241.99	0.37
Suscol Creek	342.9	10-year	812.00	48.32	55.52		55.79	0.002938	4.19	212.36	89.95	0.34
Suscol Creek	342.9	5-year	603.00	48.32	55.07		55.26	0.002274	3.50	176.18	55.91	0.30
Suscol Creek	342.9	2-year	353.00	48.32	54.08		54.19	0.001580	2.65	133.41	36.70	0.24
Suscol Creek	342.9	1.5-year	263.00	48.32	53.58		53.66	0.001275	2.28	115.53	34.64	0.22
Suscol Creek	337.9	100-year	1520.00	48.32	56.71		57.04	0.003020	5.13	456.98	249.41	0.37
Suscol Creek	337.9	50-Year	1310.00	48.32	56.49		56.80	0.002820	4.84	404.46	245.81	0.35
Suscol Creek	337.9	10-year	812.00	48.32	55.51		55.77	0.002689	4.18	217.38	96.48	0.34
Suscol Creek	337.9	5-year	603.00	48.32	55.06		55.25	0.002139	3.51	177.08	80.24	0.30
Suscol Creek	337.9	2-year	353.00	48.32	54.07		54.18	0.001484	2.64	133.76	36.39	0.24
Suscol Creek	337.9	1.5-year	263.00	48.32	53.57		53.65	0.001191	2.27	116.07	34.47	0.22
Suscol Creek	331.4	100-year	1520.00	49.82	56.45	56.01	56.99	0.006342	6.67	368.19	249.64	0.57
Suscol Creek	331.4	50-Year	1310.00	49.82	55.86	55.86	56.72	0.010528	7.82	226.25	208.99	0.71
Suscol Creek	331.4	10-year	812.00	49.82	54.80	54.14	55.68	0.014191	7.53	108.63	44.20	0.79
Suscol Creek	331.4	5-year	603.00	49.82	54.64	53.57	55.19	0.009355	5.92	102.07	41.02	0.64
Suscol Creek	331.4	2-year	353.00	49.82	53.80	52.77	54.14	0.006330	4.71	74.94	29.22	0.52
Suscol Creek	331.4	1.5-year	263.00	49.82	53.34	52.43	53.62	0.006181	4.25	61.88	27.82	0.50
Suscol Creek	329		Inl Struct									
Suscol Creek	320.9	100-year	1520.00	47.57	56.67		56.93	0.002824	4.75	510.96	252.82	0.34
Suscol Creek	320.9	50-Year	1310.00	47.57	55.66	53.64	56.25	0.006547	6.41	260.32	206.26	0.50
Suscol Creek	320.9	10-year	812.00	47.57	54.31		54.85	0.006561	5.88	138.21	32.36	0.50
Suscol Creek	320.9	5-year	603.00	47.57	53.79		54.17	0.005202	4.95	121.90	30.76	0.44
Suscol Creek	320.9	2-year	353.00	47.57	52.88		53.10	0.003394	3.71	95.20	27.96	0.35
Suscol Creek	320.9	1.5-year	263.00	47.57	52.48		52.63	0.002594	3.12	84.24	26.72	0.31
Suscol Creek	315.9	100-year	1520.00	47.57	56.70		56.90	0.001940	4.21	568.72	253.07	0.29
Suscol Creek	315.9	50-Year	1310.00	47.57	55.76		56.18	0.004020	5.45	331.25	246.24	0.41
Suscol Creek	315.9	10-year	812.00	47.57	54.40		54.77	0.004506	4.92	167.50	59.34	0.42
Suscol Creek	315.9	5-year	603.00	47.57	53.85		54.12	0.003683	4.20	143.52	37.53	0.38
Suscol Creek	315.9	2-year	353.00	47.57	52.91		53.07	0.002606	3.22	109.75	34.39	0.32
Suscol Creek	315.9	1.5-year	263.00	47.57	52.49		52.61	0.002092	2.74	95.89	33.02	0.28
Suscol Creek	309.4	100-year	1520.00	49.07	56.65	54.55	56.89	0.001939	4.54	553.47	259.25	0.33
Suscol Creek	309.4	50-Year	1310.00	49.07	55.51	53.95	56.13	0.005241	6.46	266.08	231.57	0.52
Suscol Creek	309.4	10-year	812.00	49.07	54.19	52.94	54.72	0.006578	5.87	141.02	58.03	0.56

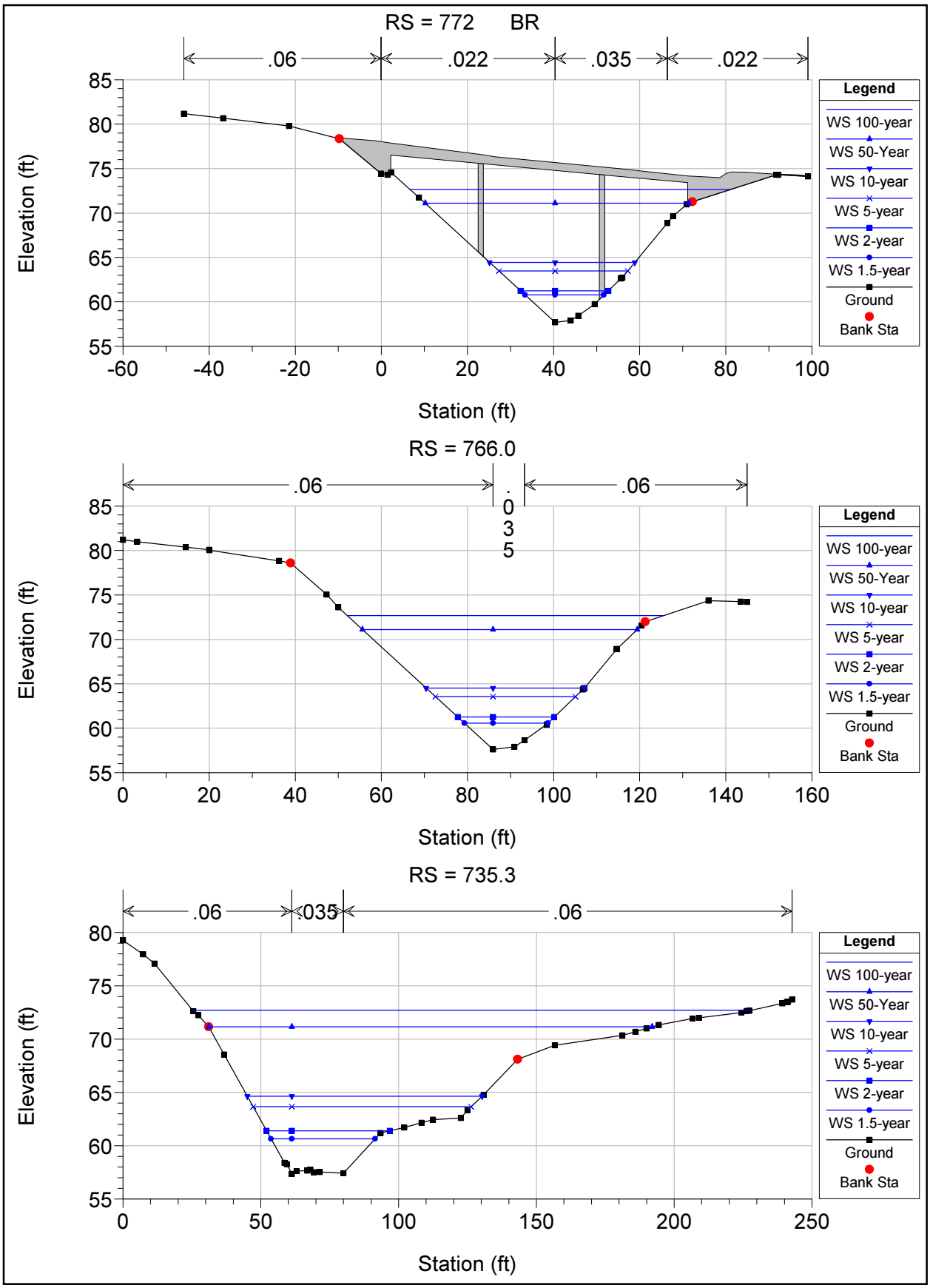
HEC-RAS Plan: Proposed 95%_Culv_test River: Suscol Creek Reach: Suscol Creek (Continued)

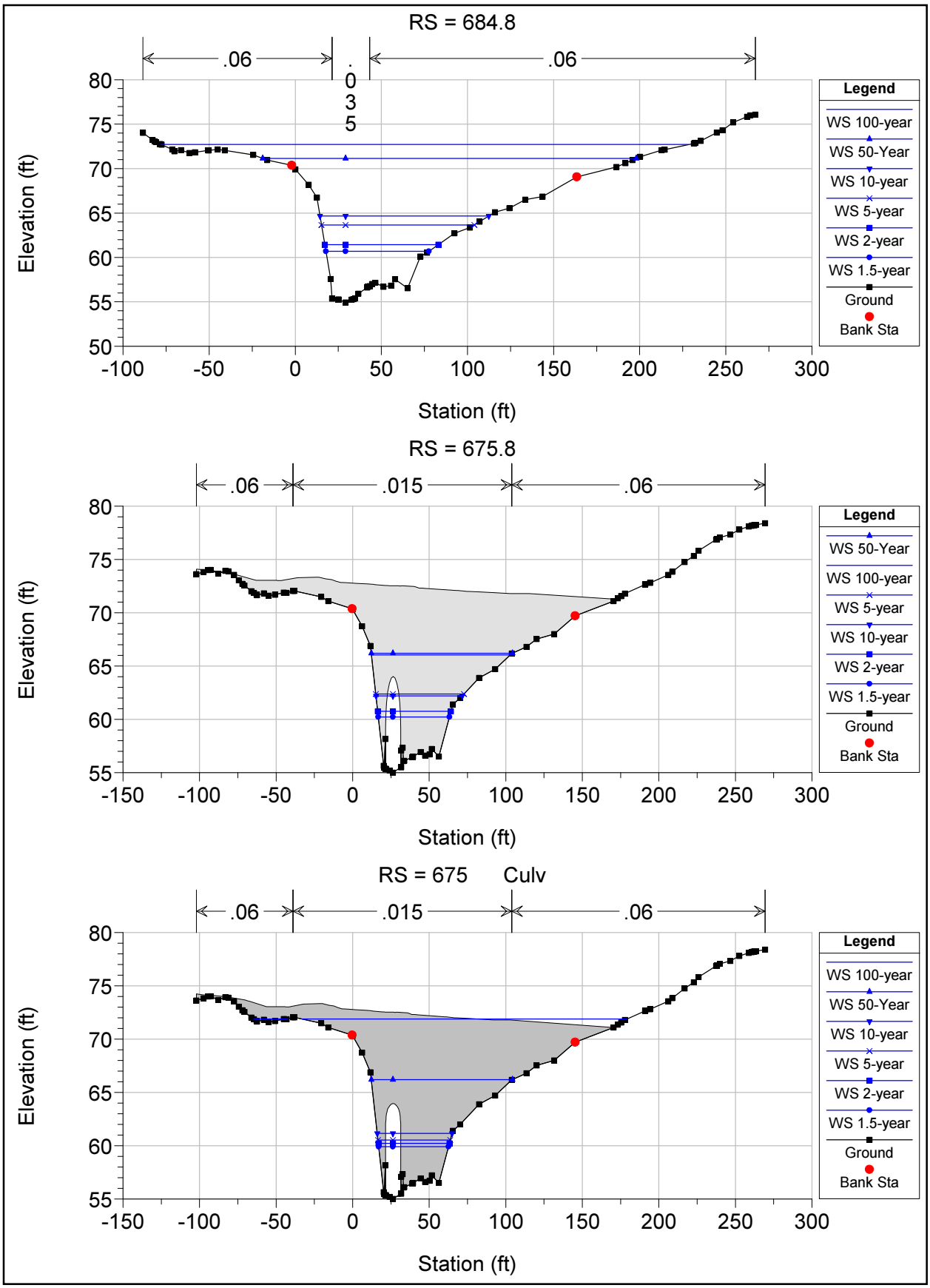
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	309.4	5-year	603.00	49.07	53.67	52.45	54.08	0.005959	5.14	117.24	38.78	0.52
Suscol Creek	309.4	2-year	353.00	49.07	52.75	51.74	53.03	0.005520	4.22	83.59	35.36	0.48
Suscol Creek	309.4	1.5-year	263.00	49.07	52.36	51.45	52.58	0.005253	3.76	69.94	34.09	0.46
Suscol Creek	307		Inl Struct									
Suscol Creek	298.9	100-year	1520.00	46.88	56.70		56.85	0.001543	3.52	636.35	257.76	0.24
Suscol Creek	298.9	50-Year	1310.00	46.88	55.70		55.99	0.003146	4.51	381.60	247.17	0.33
Suscol Creek	298.9	10-year	812.00	46.88	53.94		54.24	0.004751	4.43	183.77	51.61	0.39
Suscol Creek	298.9	5-year	603.00	46.88	53.21		53.45	0.004367	3.99	151.10	41.91	0.37
Suscol Creek	298.9	2-year	353.00	46.88	52.27		52.42	0.003055	3.08	114.60	36.57	0.31
Suscol Creek	298.9	1.5-year	263.00	46.88	51.86		51.96	0.002470	2.63	99.83	34.69	0.27
Suscol Creek	293.9	100-year	1520.00	46.88	56.70		56.84	0.001350	3.47	648.60	255.70	0.24
Suscol Creek	293.9	50-Year	1310.00	46.88	55.70		55.97	0.002647	4.37	395.31	247.10	0.32
Suscol Creek	293.9	10-year	812.00	46.88	53.93		54.21	0.004158	4.28	191.21	63.97	0.38
Suscol Creek	293.9	5-year	603.00	46.88	53.19		53.43	0.003932	3.88	155.40	44.36	0.37
Suscol Creek	293.9	2-year	353.00	46.88	52.26		52.40	0.002756	3.02	116.74	38.28	0.31
Suscol Creek	293.9	1.5-year	263.00	46.88	51.85		51.95	0.002170	2.59	101.49	35.66	0.27
Suscol Creek	287.4	100-year	1520.00	48.38	56.65	53.72	56.83	0.001313	3.86	610.41	252.28	0.28
Suscol Creek	287.4	50-Year	1310.00	48.38	55.57	53.34	55.94	0.002891	5.03	342.47	241.99	0.40
Suscol Creek	287.4	10-year	812.00	48.38	53.73	52.36	54.17	0.005824	5.28	155.13	57.90	0.52
Suscol Creek	287.4	5-year	603.00	48.38	52.98	51.87	53.38	0.006519	5.07	118.82	43.41	0.54
Suscol Creek	287.4	2-year	353.00	48.38	52.07	51.15	52.36	0.006352	4.30	82.07	37.82	0.51
Suscol Creek	287.4	1.5-year	263.00	48.38	51.68	50.80	51.92	0.006112	3.88	67.72	35.40	0.50
Suscol Creek	285		Inl Struct									
Suscol Creek	276.9	100-year	1520.00	48.02	56.67		56.80	0.001526	3.22	639.02	247.32	0.24
Suscol Creek	276.9	50-Year	1310.00	48.02	55.60		55.86	0.003541	4.23	376.87	239.38	0.36
Suscol Creek	276.9	10-year	812.00	48.02	53.65		54.00	0.006187	4.76	170.67	52.26	0.46
Suscol Creek	276.9	5-year	603.00	48.02	52.77		53.11	0.006630	4.68	128.73	44.23	0.48
Suscol Creek	276.9	2-year	353.00	48.02	51.71		51.97	0.006659	4.13	85.45	37.53	0.48
Suscol Creek	276.9	1.5-year	263.00	48.02	51.24		51.47	0.006684	3.84	68.48	34.69	0.48
Suscol Creek	271.9	100-year	1520.00	47.38	56.67		56.79	0.001587	3.18	644.41	246.16	0.24
Suscol Creek	271.9	50-Year	1310.00	47.38	55.59		55.85	0.003791	4.24	380.54	238.09	0.36
Suscol Creek	271.9	10-year	812.00	47.38	53.61		53.96	0.006576	4.81	168.90	49.71	0.46
Suscol Creek	271.9	5-year	603.00	47.38	52.74		53.07	0.006967	4.67	129.23	42.54	0.47
Suscol Creek	271.9	2-year	353.00	47.38	51.68		51.94	0.006704	4.02	87.80	36.30	0.46
Suscol Creek	271.9	1.5-year	263.00	47.38	51.22		51.43	0.006406	3.67	71.57	33.38	0.44
Suscol Creek	265.4	100-year	1520.00	47.16	56.65		56.78	0.001953	3.28	624.97	247.51	0.26
Suscol Creek	265.4	50-Year	1310.00	47.16	55.48		55.81	0.005950	4.82	338.75	235.08	0.43
Suscol Creek	265.4	10-year	812.00	47.16	53.27		53.88	0.012555	6.26	129.71	40.02	0.61
Suscol Creek	265.4	5-year	603.00	47.16	52.36		52.98	0.015585	6.30	95.64	34.89	0.67
Suscol Creek	265.4	2-year	353.00	47.16	51.38		51.85	0.015763	5.52	63.96	29.45	0.66
Suscol Creek	265.4	1.5-year	263.00	47.16	50.95		51.35	0.014856	5.05	52.06	26.60	0.64
Suscol Creek	254.9	100-year	1520.00	48.10	56.63		56.76	0.001767	3.36	628.33	246.11	0.27
Suscol Creek	254.9	50-Year	1310.00	48.10	55.35		55.74	0.006198	5.21	320.23	232.67	0.47
Suscol Creek	254.9	10-year	812.00	48.10	52.95		53.74	0.011018	7.11	114.25	34.59	0.69
Suscol Creek	254.9	5-year	603.00	48.10	51.93		52.80	0.014903	7.45	80.90	30.74	0.81
Suscol Creek	254.9	2-year	353.00	48.10	50.71	50.71	51.62	0.022083	7.64	46.21	25.88	1.01
Suscol Creek	254.9	1.5-year	263.00	48.10	50.35	50.35	51.13	0.021724	7.06	37.27	24.47	1.01
Suscol Creek	249.9	100-year	1520.00	48.14	56.63		56.75	0.001589	3.25	649.65	245.76	0.25
Suscol Creek	249.9	50-Year	1310.00	48.14	55.35		55.69	0.005231	4.92	342.32	233.15	0.44
Suscol Creek	249.9	10-year	812.00	48.14	53.02		53.64	0.008890	6.34	128.10	37.19	0.60
Suscol Creek	249.9	5-year	603.00	48.14	52.01		52.67	0.011933	6.53	92.28	33.68	0.70
Suscol Creek	249.9	2-year	353.00	48.14	50.54	50.54	51.41	0.024612	7.50	47.09	27.42	1.01
Suscol Creek	249.9	1.5-year	263.00	48.14	50.20	50.20	50.94	0.024798	6.91	38.07	26.18	1.01
Suscol Creek	243.4	100-year	1520.00	47.59	56.58		56.74	0.000840	3.63	654.49	246.19	0.28
Suscol Creek	243.4	50-Year	1310.00	47.59	55.31		55.67	0.002224	5.00	348.27	230.28	0.43
Suscol Creek	243.4	10-year	812.00	47.59	53.04		53.58	0.003693	5.87	138.31	37.71	0.54
Suscol Creek	243.4	5-year	603.00	47.59	52.05		52.59	0.004736	5.87	102.68	33.95	0.60
Suscol Creek	243.4	2-year	353.00	47.59	50.40		51.10	0.010559	6.70	52.71	26.39	0.84
Suscol Creek	243.4	1.5-year	263.00	47.59	49.81	49.81	50.57	0.016681	7.02	37.45	24.97	1.01
Suscol Creek	229.4	100-year	1520.00	46.54	56.59		56.71	0.001526	3.18	666.19	246.78	0.24
Suscol Creek	229.4	50-Year	1310.00	46.54	55.29		55.62	0.004654	4.83	352.58	225.52	0.40
Suscol Creek	229.4	10-year	812.00	46.54	53.00		53.50	0.006108	5.66	143.50	33.67	0.48
Suscol Creek	229.4	5-year	603.00	46.54	52.04		52.48	0.006043	5.35	112.80	29.80	0.48
Suscol Creek	229.4	2-year	353.00	46.54	50.50		50.88	0.006742	4.96	71.13	25.28	0.52

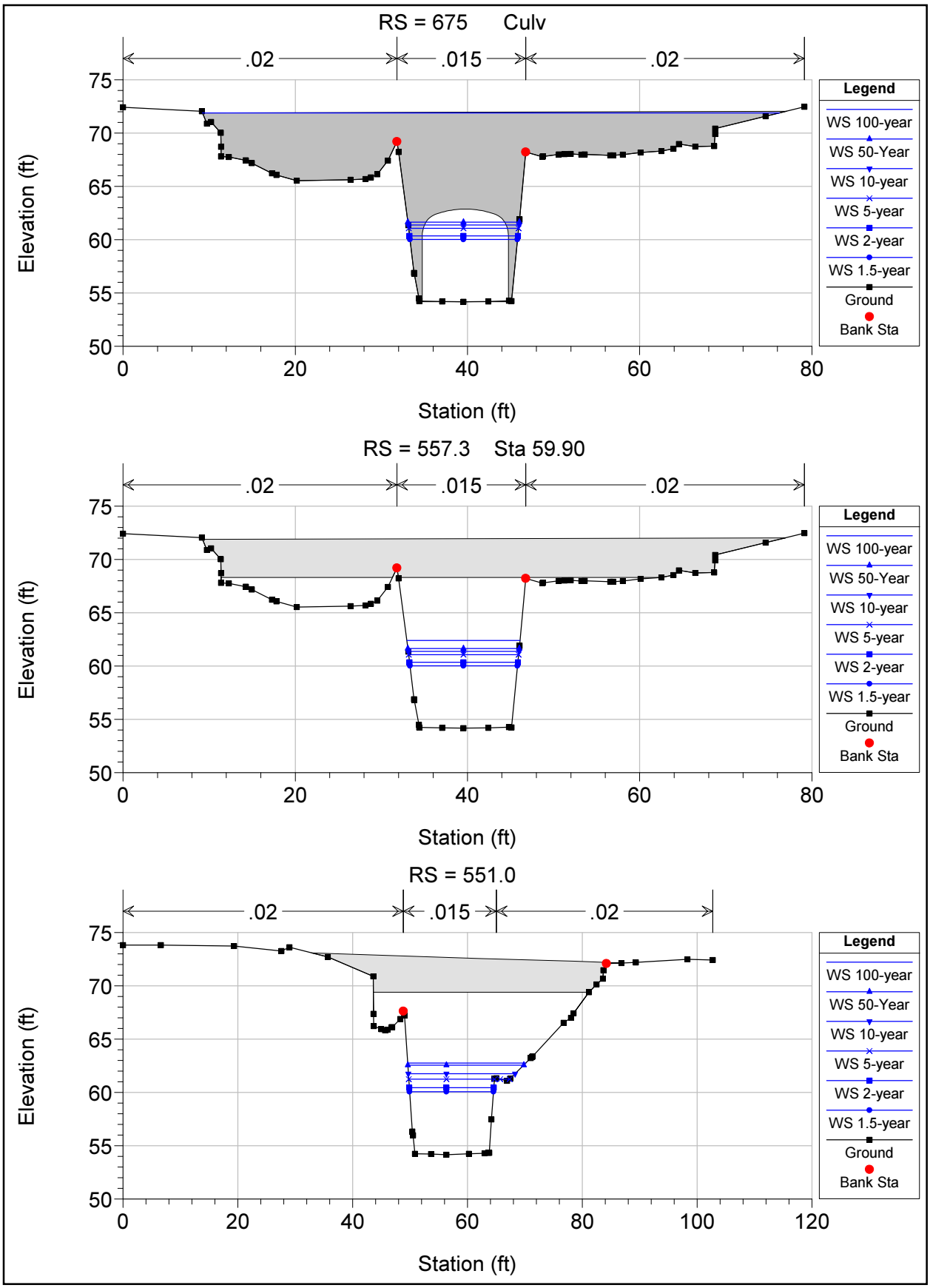
HEC-RAS Plan: Proposed 95%_Culv_test River: Suscol Creek Reach: Suscol Creek (Continued)

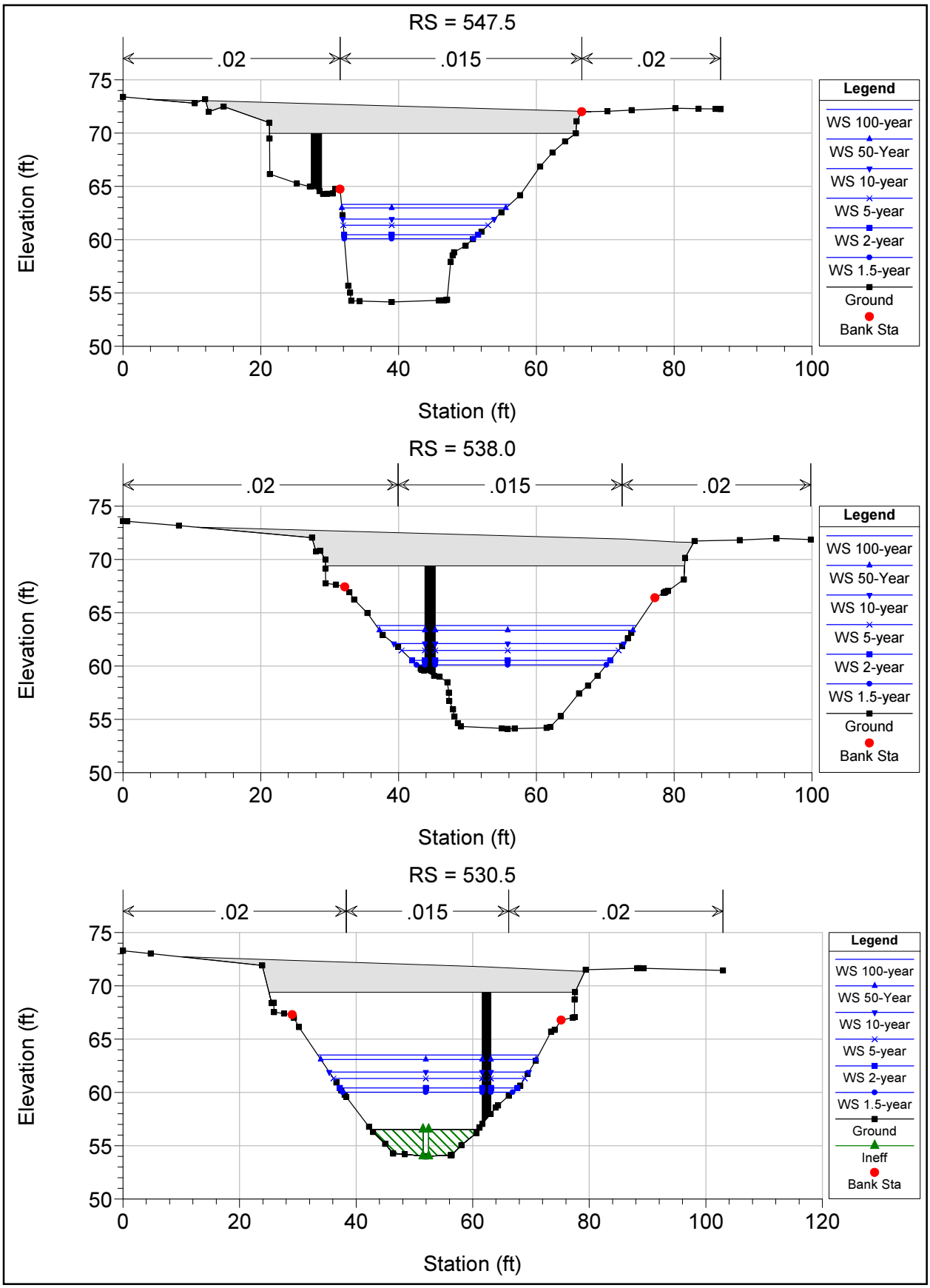
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	229.4	1.5-year	263.00	46.54	49.80		50.17	0.008008	4.88	53.92	23.88	0.57
Suscol Creek	224.7	100-year	1520.00	45.80	56.59		56.70	0.001586	3.11	675.39	253.68	0.23
Suscol Creek	224.7	50-Year	1310.00	45.80	55.28		55.59	0.004822	4.77	357.96	222.82	0.40
Suscol Creek	224.7	10-year	812.00	45.80	52.95		53.47	0.007489	5.75	141.34	34.03	0.50
Suscol Creek	224.7	5-year	603.00	45.80	51.99		52.45	0.007462	5.45	110.65	29.43	0.50
Suscol Creek	224.7	2-year	353.00	45.80	50.47		50.85	0.007157	4.94	71.45	22.61	0.49
Suscol Creek	224.7	1.5-year	263.00	45.80	49.79		50.13	0.007259	4.63	56.78	20.93	0.50
Suscol Creek	202.8	100-year	1520.00	45.45	56.20	52.21	56.62	0.003198	5.25	301.17	52.09	0.35
Suscol Creek	202.8	50-Year	1310.00	45.45	55.00	51.75	55.47	0.004503	5.52	241.39	47.77	0.40
Suscol Creek	202.8	10-year	812.00	45.45	52.87	50.50	53.30	0.005727	5.23	155.38	34.65	0.44
Suscol Creek	202.8	5-year	603.00	45.45	51.90	49.84	52.28	0.005929	4.90	123.10	31.83	0.44
Suscol Creek	202.8	2-year	353.00	45.45	50.37	48.82	50.68	0.006692	4.51	78.31	26.39	0.46
Suscol Creek	202.8	1.5-year	263.00	45.45	49.66	48.36	49.96	0.007152	4.33	60.79	23.61	0.48
Suscol Creek	200		Bridge									
Suscol Creek	148.5	100-year	1520.00	45.06	53.24		54.18	0.010806	7.77	195.67	37.55	0.60
Suscol Creek	148.5	50-Year	1310.00	45.06	52.79		53.62	0.010467	7.33	178.71	37.10	0.59
Suscol Creek	148.5	10-year	812.00	45.06	51.39		52.02	0.010598	6.34	128.15	35.03	0.58
Suscol Creek	148.5	5-year	603.00	45.06	50.53		51.09	0.010052	6.00	100.50	29.39	0.57
Suscol Creek	148.5	2-year	353.00	45.06	49.17		49.64	0.010590	5.48	64.46	23.73	0.59
Suscol Creek	148.5	1.5-year	263.00	45.06	48.34		48.85	0.014385	5.72	45.97	20.92	0.68
Suscol Creek	93.6	100-year	1520.00	43.17	52.45		53.43	0.017091	7.94	191.48	46.87	0.69
Suscol Creek	93.6	50-Year	1310.00	43.17	51.89		52.85	0.017623	7.87	166.42	42.27	0.70
Suscol Creek	93.6	10-year	812.00	43.17	50.33		51.19	0.018577	7.46	108.90	31.68	0.71
Suscol Creek	93.6	5-year	603.00	43.17	49.50		50.29	0.018654	7.11	84.76	26.95	0.71
Suscol Creek	93.6	2-year	353.00	43.17	48.20		48.85	0.017225	6.48	54.50	19.57	0.68
Suscol Creek	93.6	1.5-year	263.00	43.17	47.39		48.03	0.014032	6.42	40.98	13.52	0.65
Suscol Creek	37.7	100-year	1520.00	42.14	49.89	49.89	51.98	0.036129	11.59	131.13	31.64	1.00
Suscol Creek	37.7	50-Year	1310.00	42.14	49.43	49.43	51.38	0.036447	11.21	116.88	30.07	1.00
Suscol Creek	37.7	10-year	812.00	42.14	48.07	48.07	49.68	0.037545	10.18	79.76	24.78	1.00
Suscol Creek	37.7	5-year	603.00	42.14	47.35	47.35	48.78	0.038210	9.60	62.84	21.99	1.00
Suscol Creek	37.7	2-year	353.00	42.14	46.22	46.22	47.40	0.039698	8.70	40.59	17.58	1.01
Suscol Creek	37.7	1.5-year	263.00	42.14	45.71	45.71	46.75	0.039845	8.20	32.08	15.61	1.01
Suscol Creek	0	100-year	1520.00	40.63	47.54	47.30	49.42	0.026007	11.02	137.99	32.11	0.94
Suscol Creek	0	50-Year	1310.00	40.63	47.05	46.84	48.82	0.026045	10.67	122.78	30.40	0.94
Suscol Creek	0	10-year	812.00	40.63	45.68	45.50	47.12	0.026010	9.62	84.38	25.58	0.93
Suscol Creek	0	5-year	603.00	40.63	44.95	44.80	46.22	0.026018	9.03	66.75	23.05	0.94
Suscol Creek	0	2-year	353.00	40.63	43.86	43.77	44.88	0.026021	8.07	43.76	19.34	0.95
Suscol Creek	0	1.5-year	263.00	40.63	43.39	43.31	44.27	0.026009	7.52	34.98	18.01	0.95

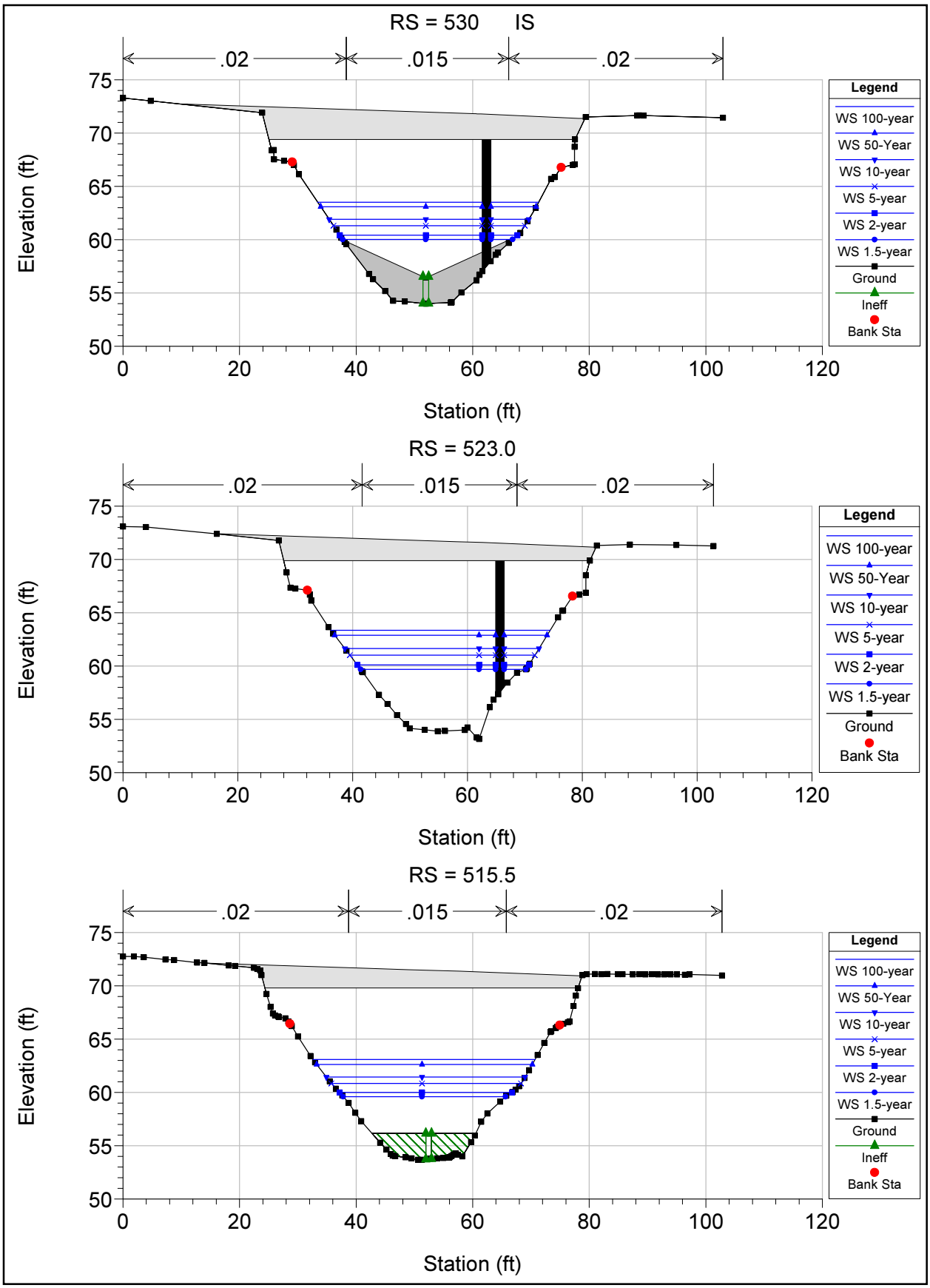

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WS 50-Year
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WS 5-year
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WS 1.5-year
Ground
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Station (ft)
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WS 50-Year
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WS 5-year
WS 2-year
WS 1.5-year
Ground
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Ground
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Pier Debris

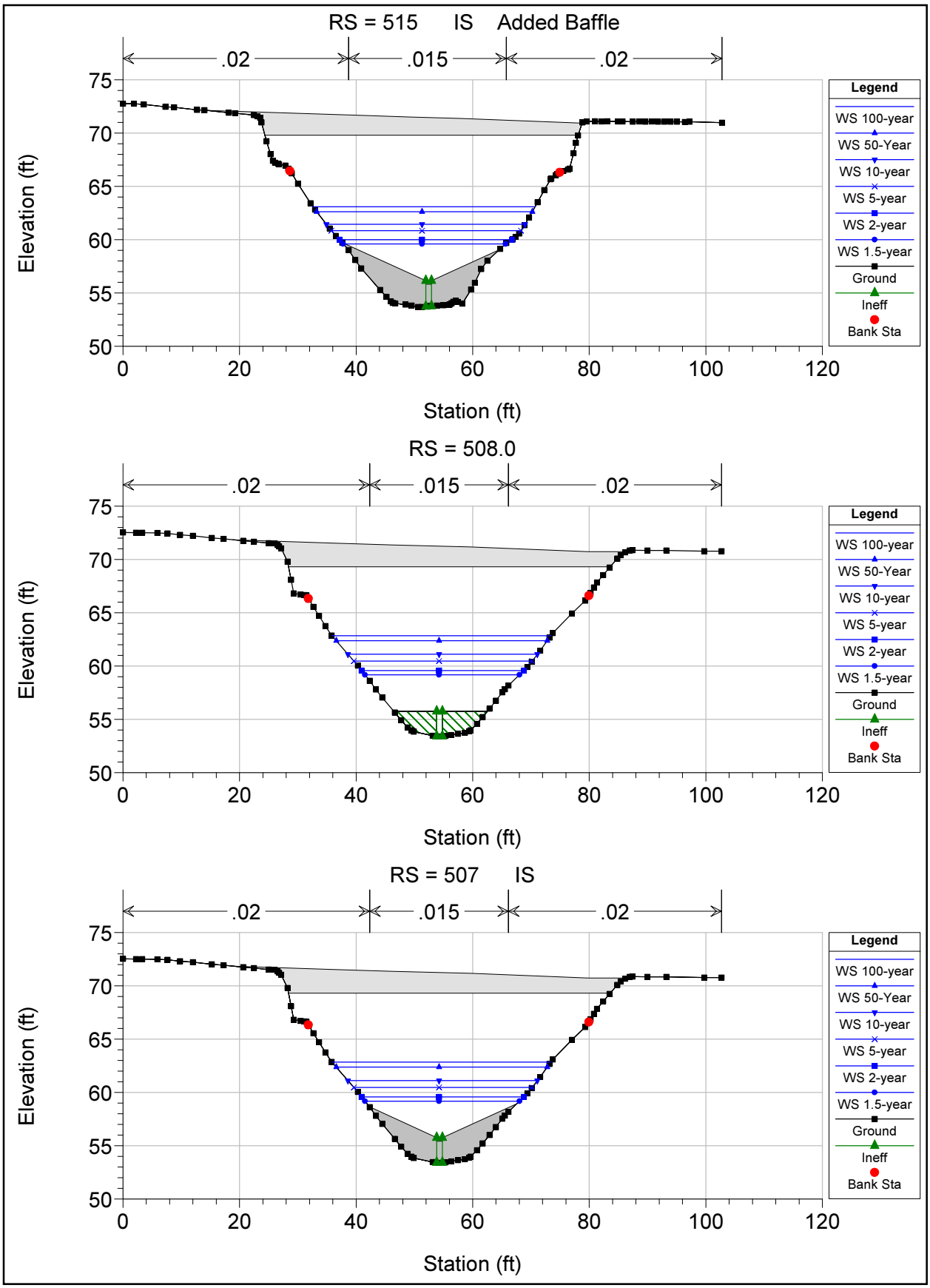

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Ground
Bank Sta
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Station (ft)
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WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
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Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

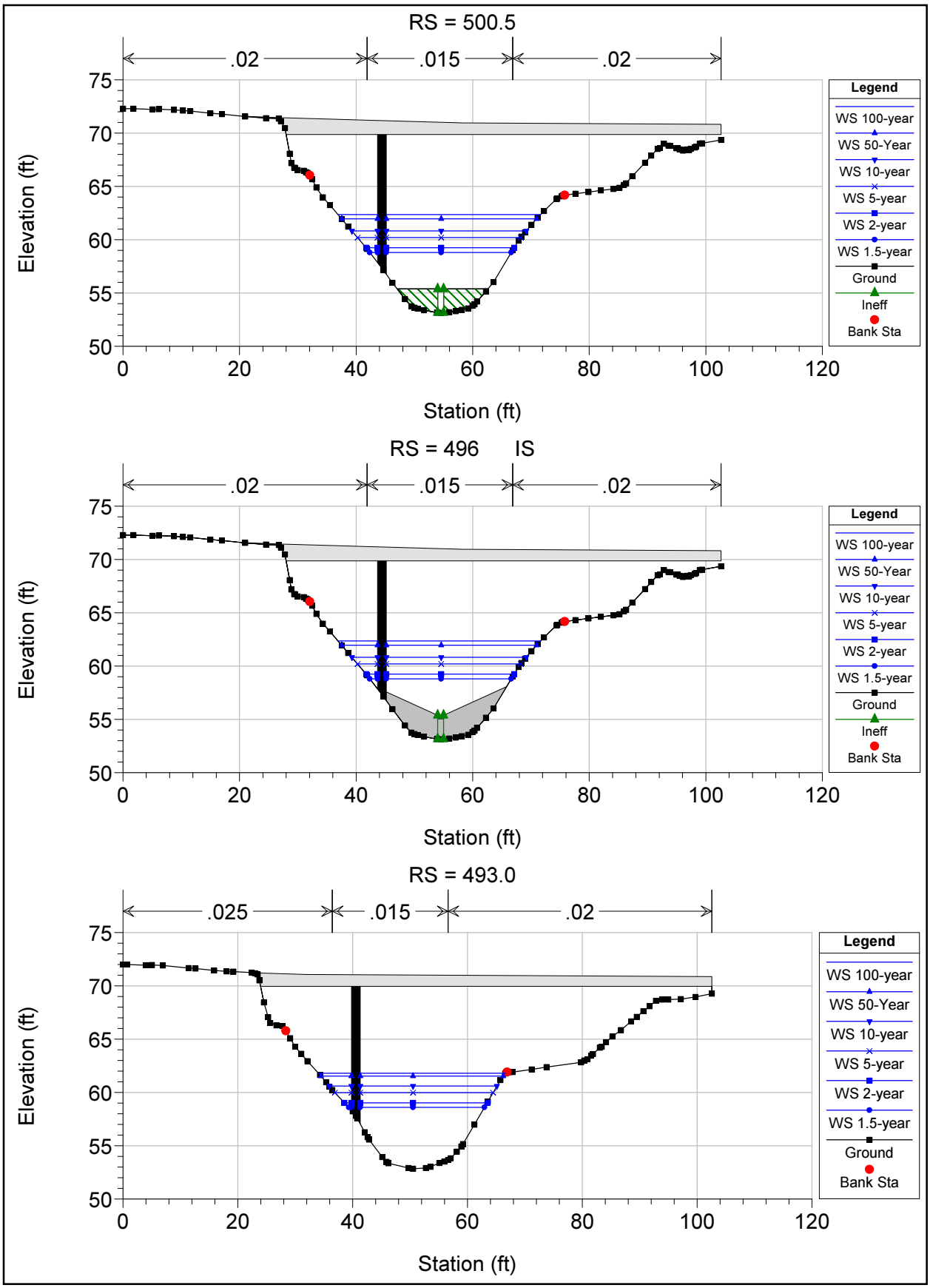

RS = 684.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 675.8
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS 50-Year
WS 100-year
WS 5-year
WS 10-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 675 Culv
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

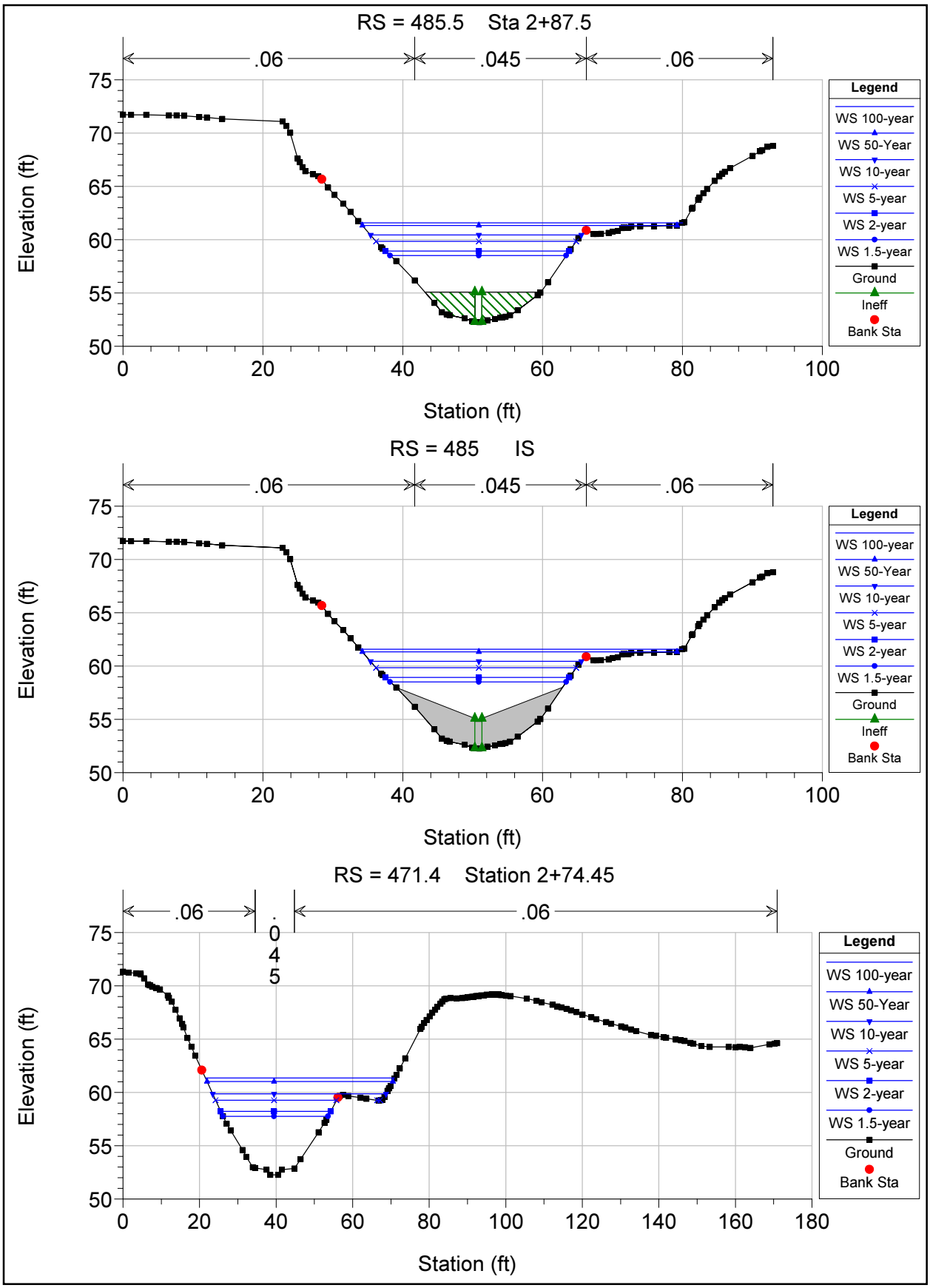

RS = 675 Culv
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 557.3 Sta 59.90
RS = 551.0

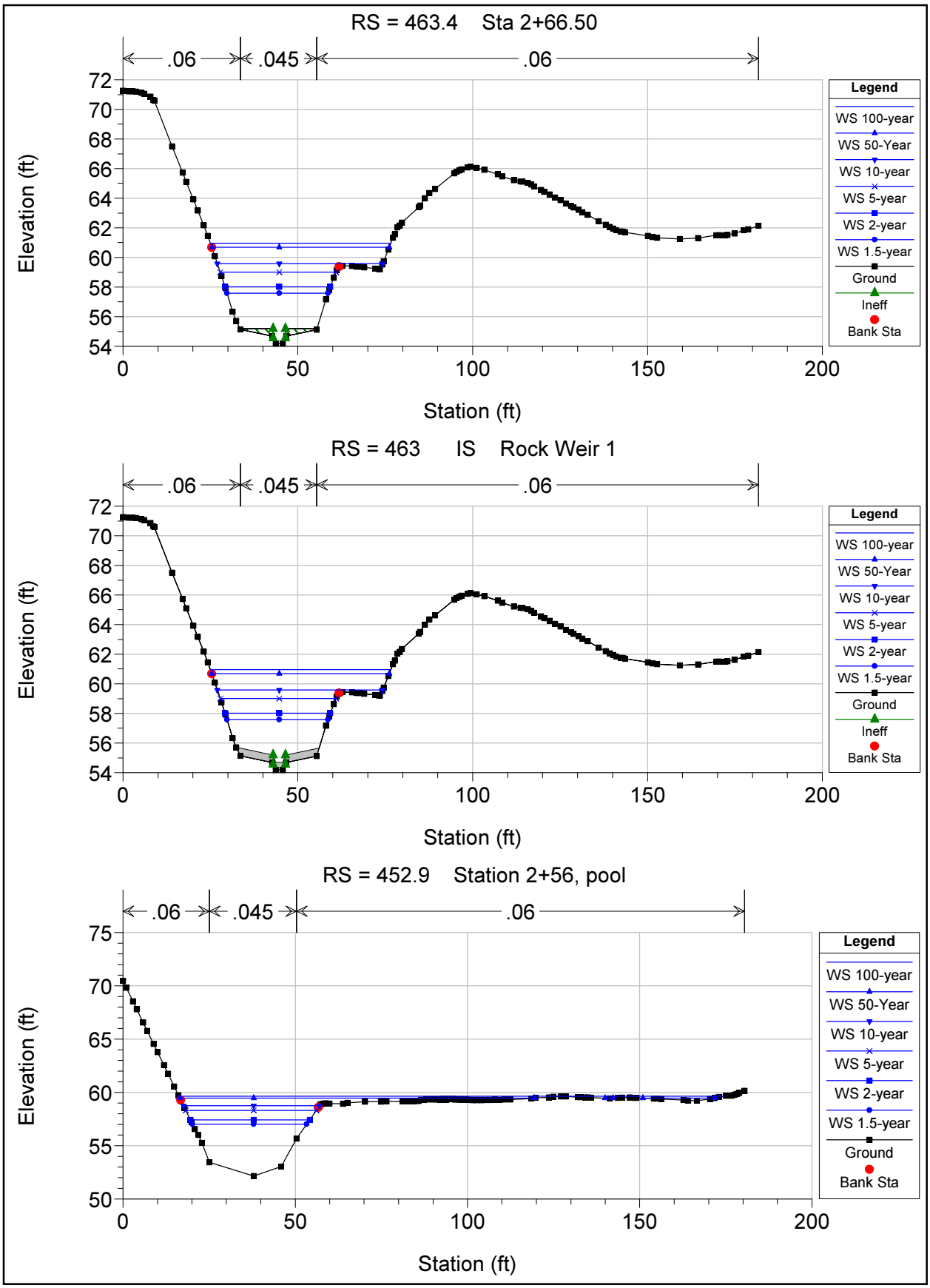

RS = 547.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 538.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 530.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta

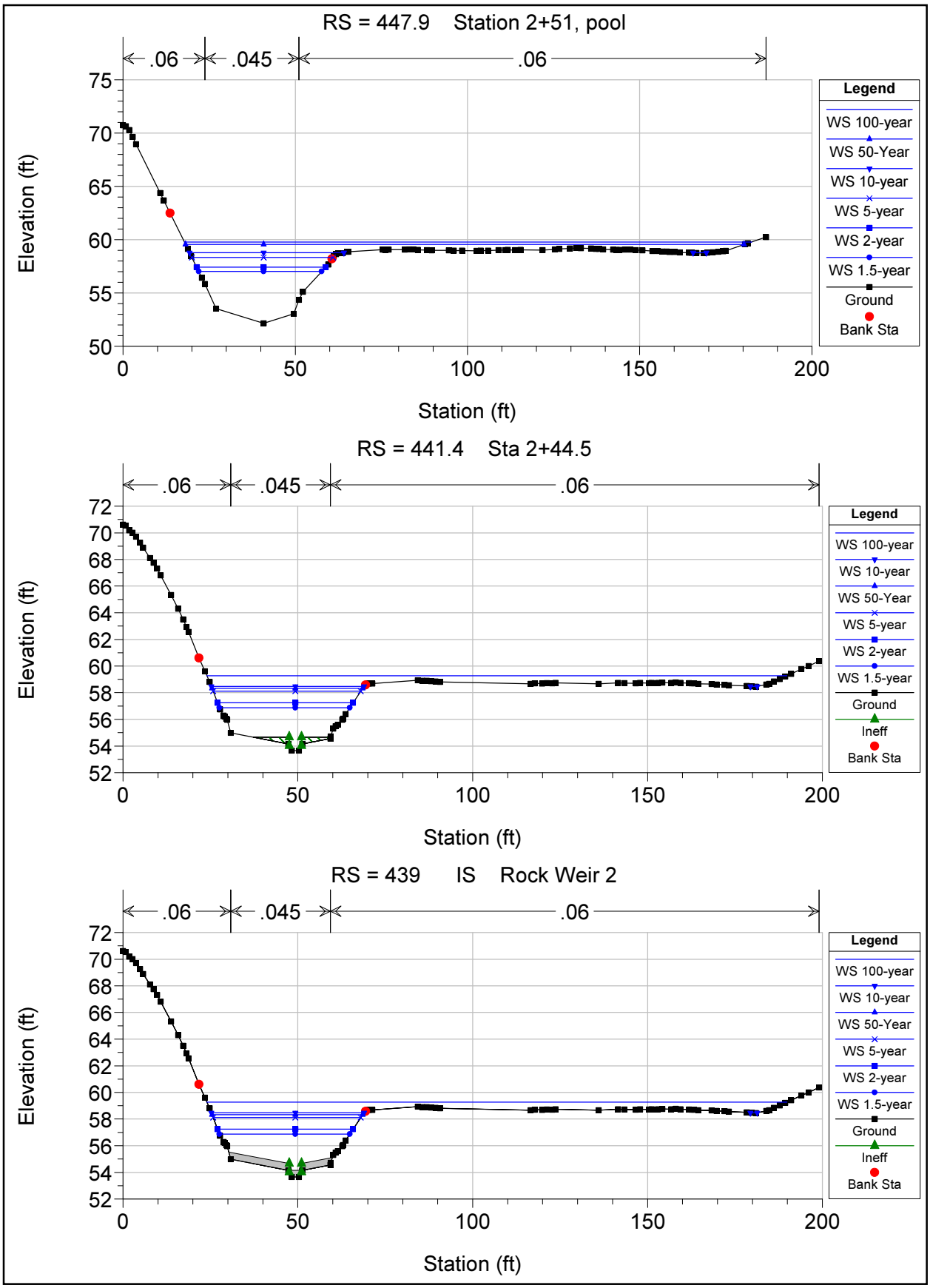

RS = 530 IS
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 523.0
RS = 515.5

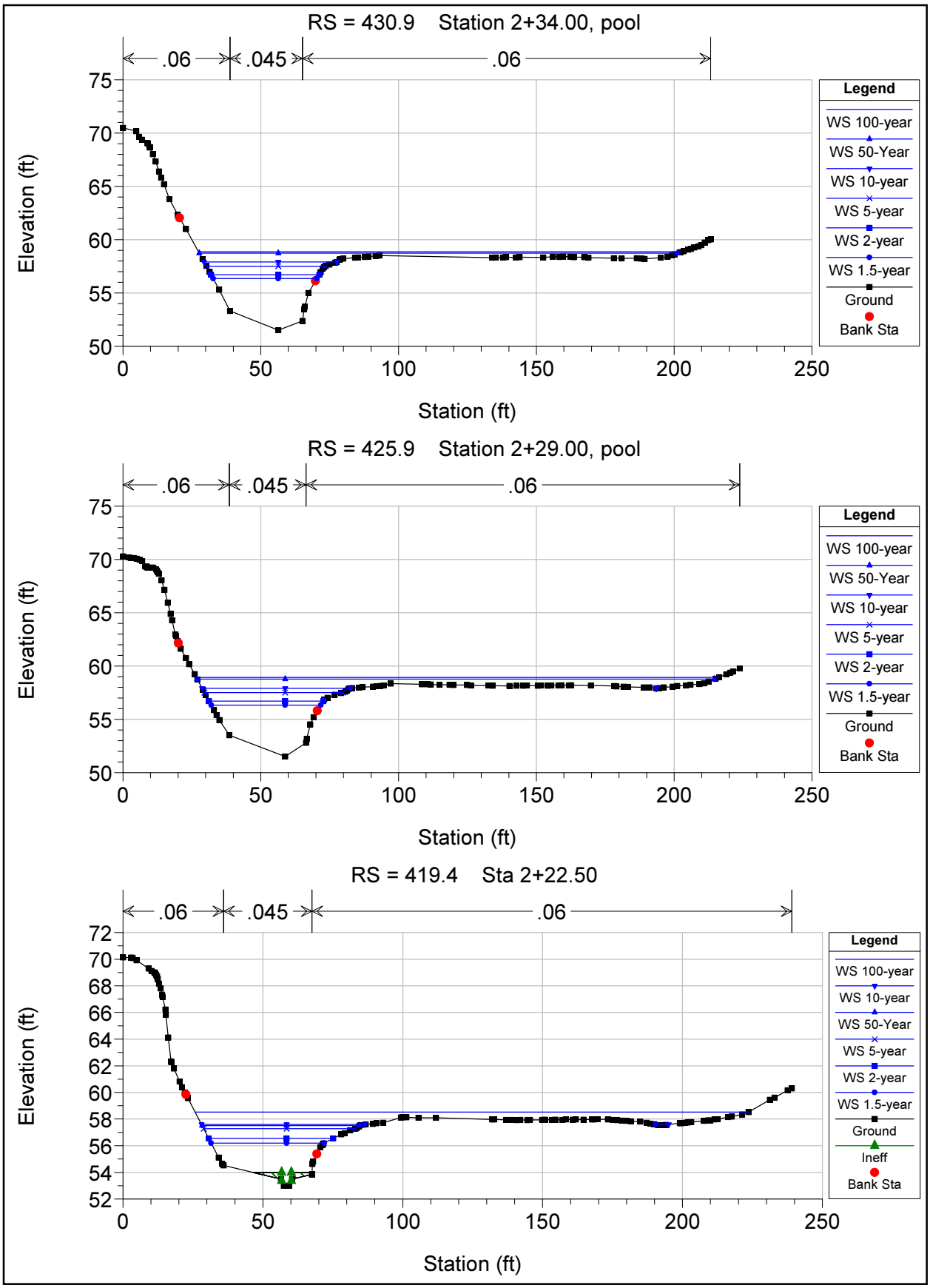

RS = 515 IS Added Baffle
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 508.0
RS = 507 IS

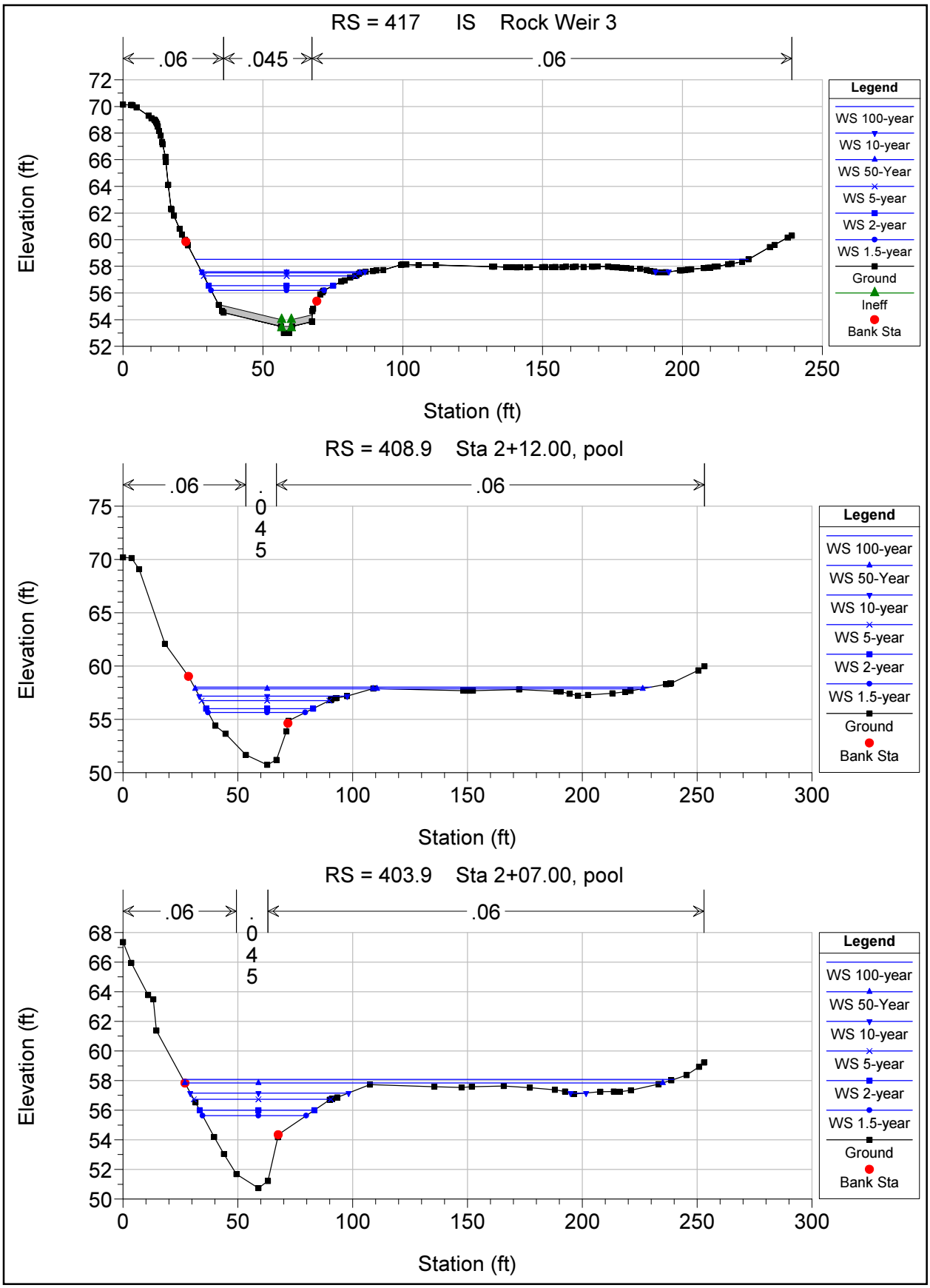

RS = 500.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 496 IS
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 493.0
.025
.015
.02
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

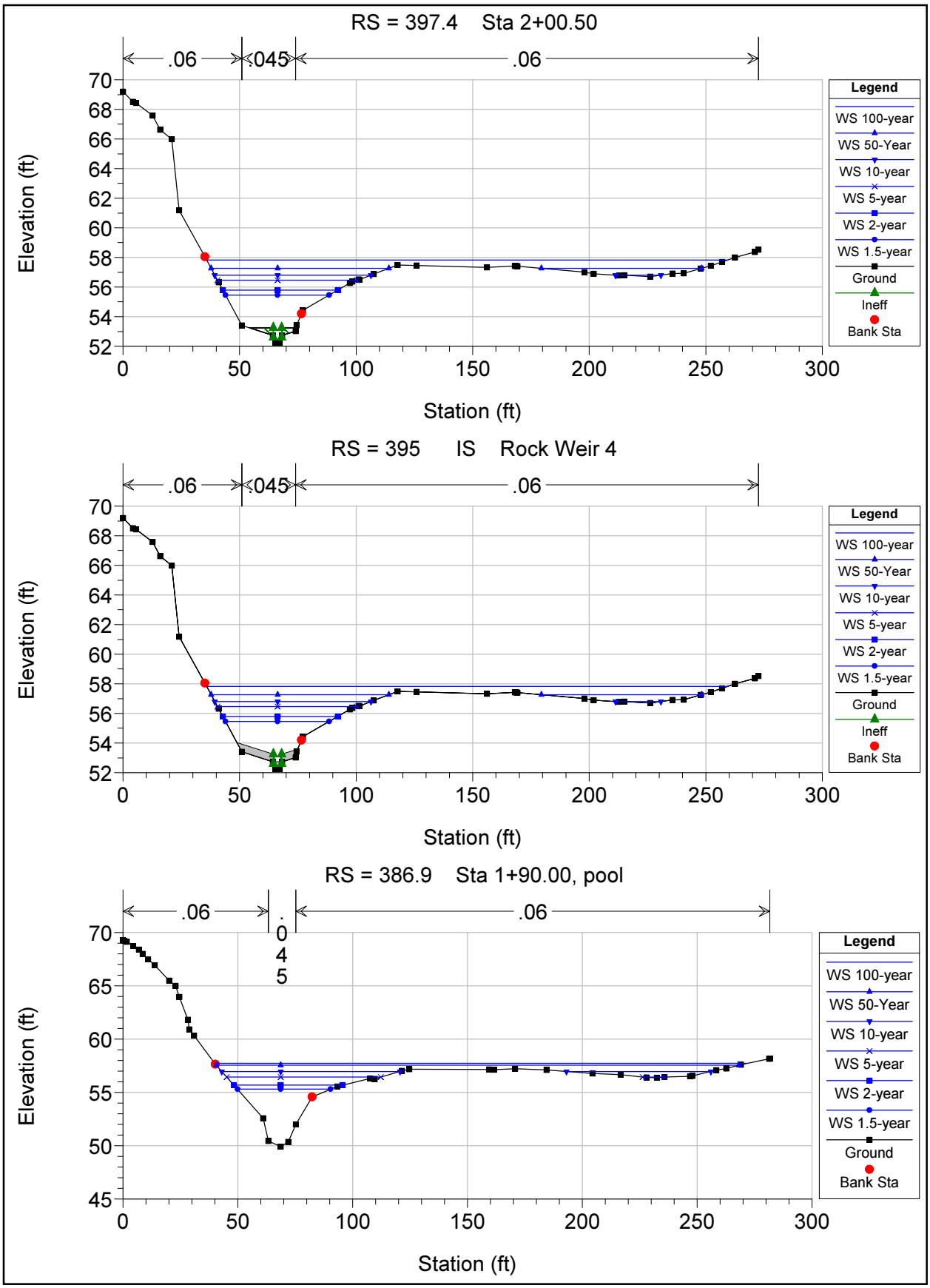

RS = 485.5 Sta 2+87.5
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 485 IS
RS = 471.4 Station 2+74.45
.045

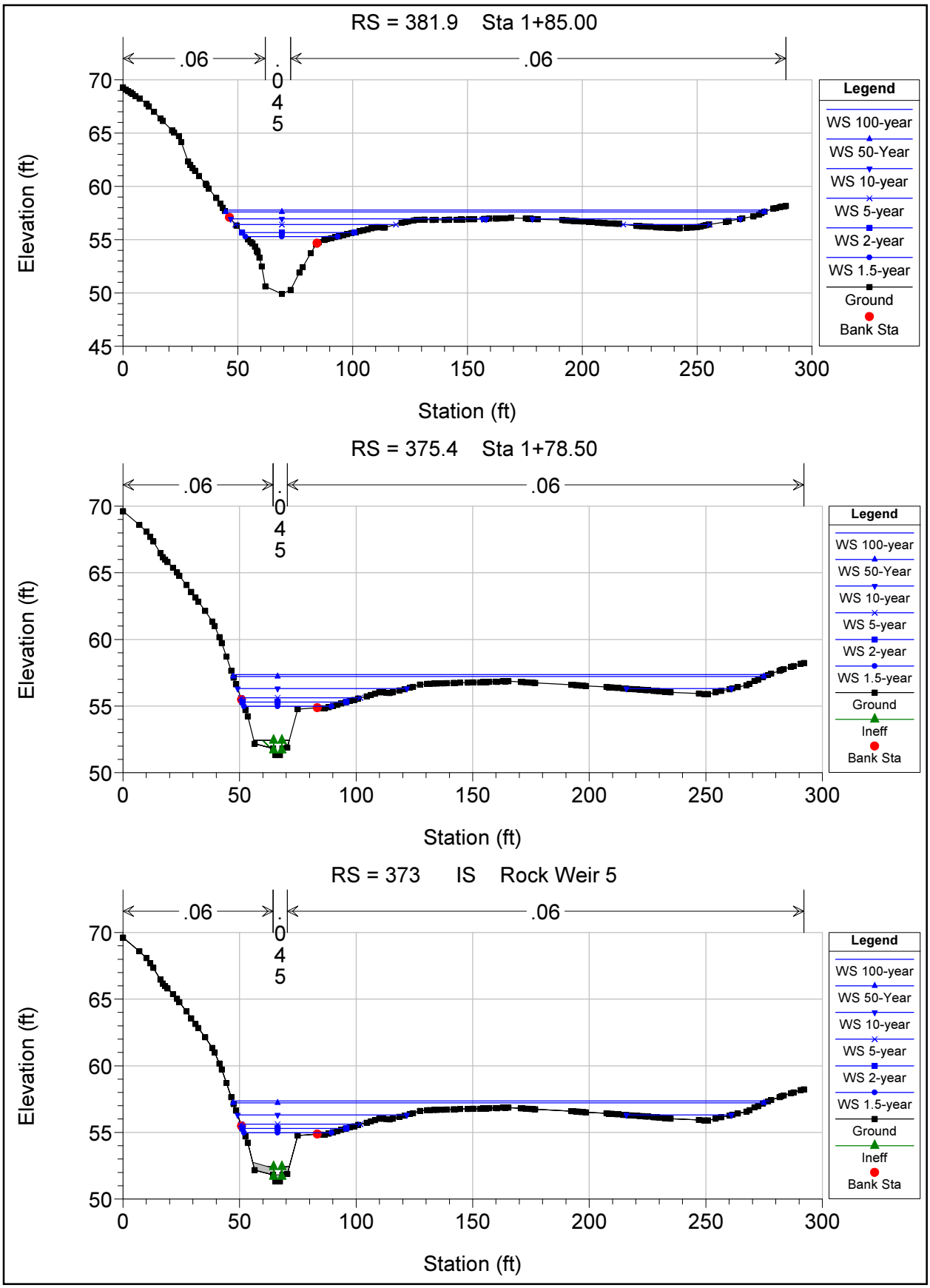

RS = 463.4 Sta 2+66.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 463 IS Rock Weir 1
RS = 452.9 Station 2+56, pool

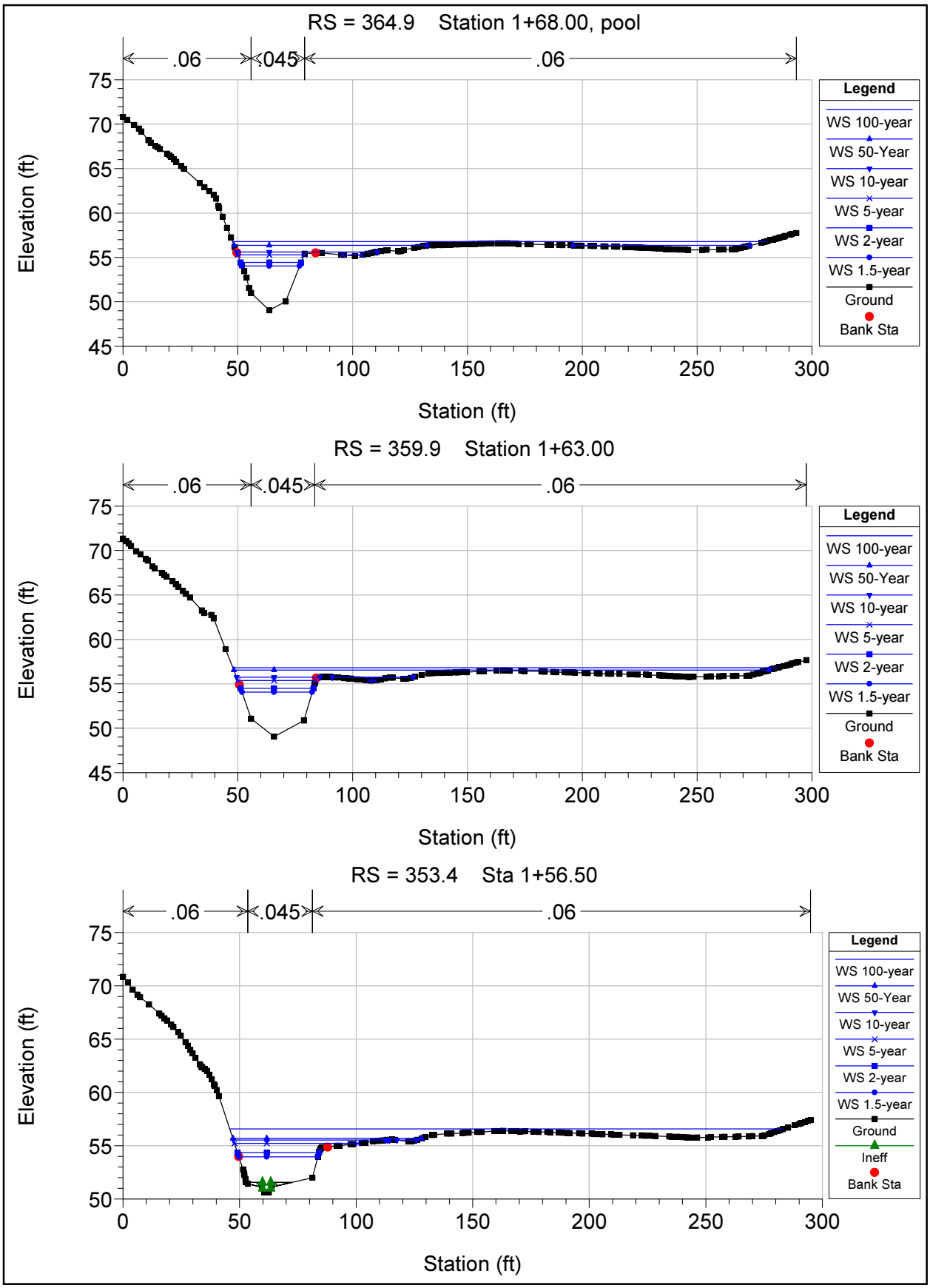

RS = 447.9 Station 2+51, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 441.4 Sta 2+44.5
Ineff
RS = 439 IS Rock Weir 2

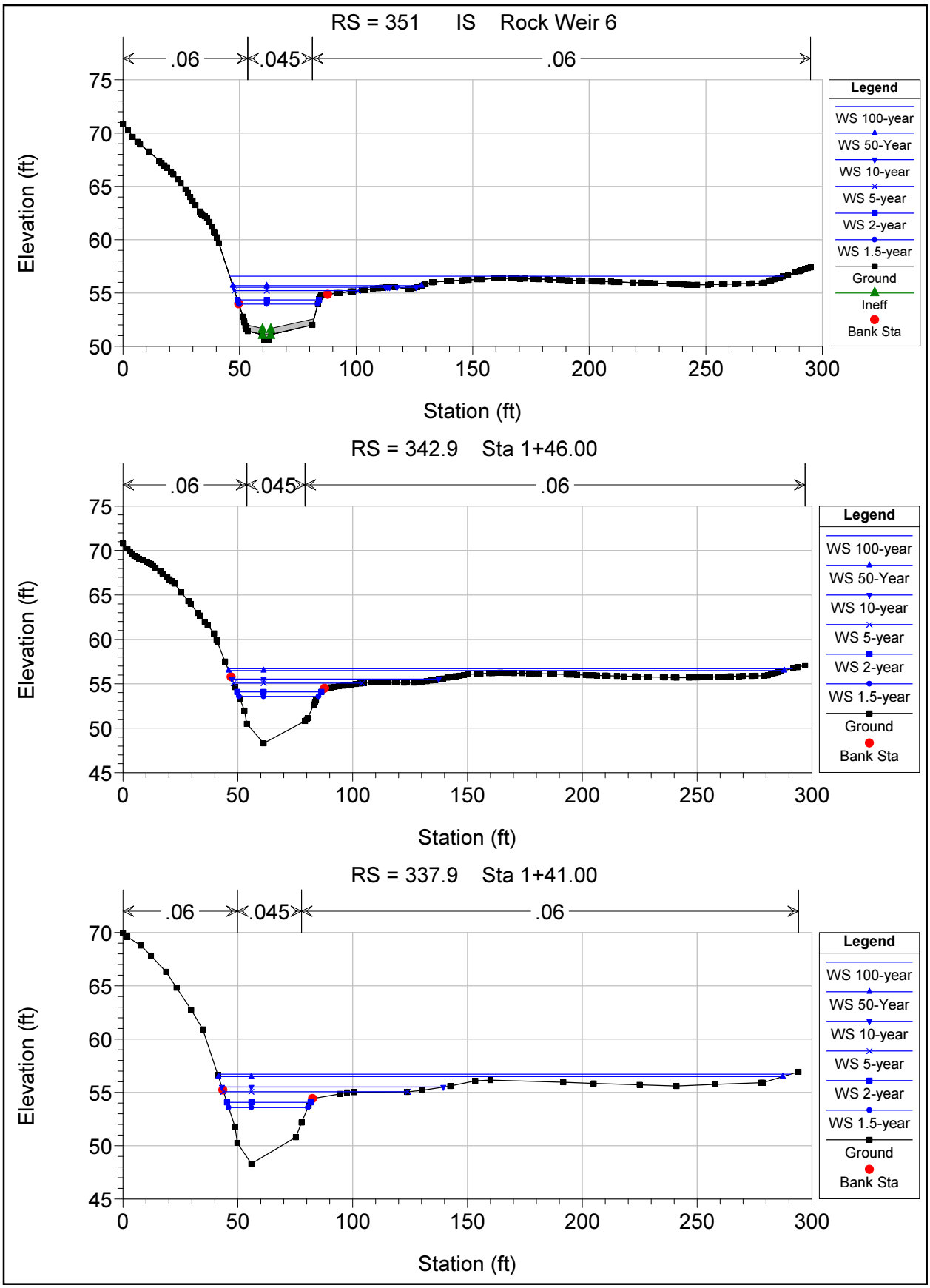

RS = 430.9 Station 2+34.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 425.9 Station 2+29.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 419.4 Sta 2+22.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 10-year
WS 50-Year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta

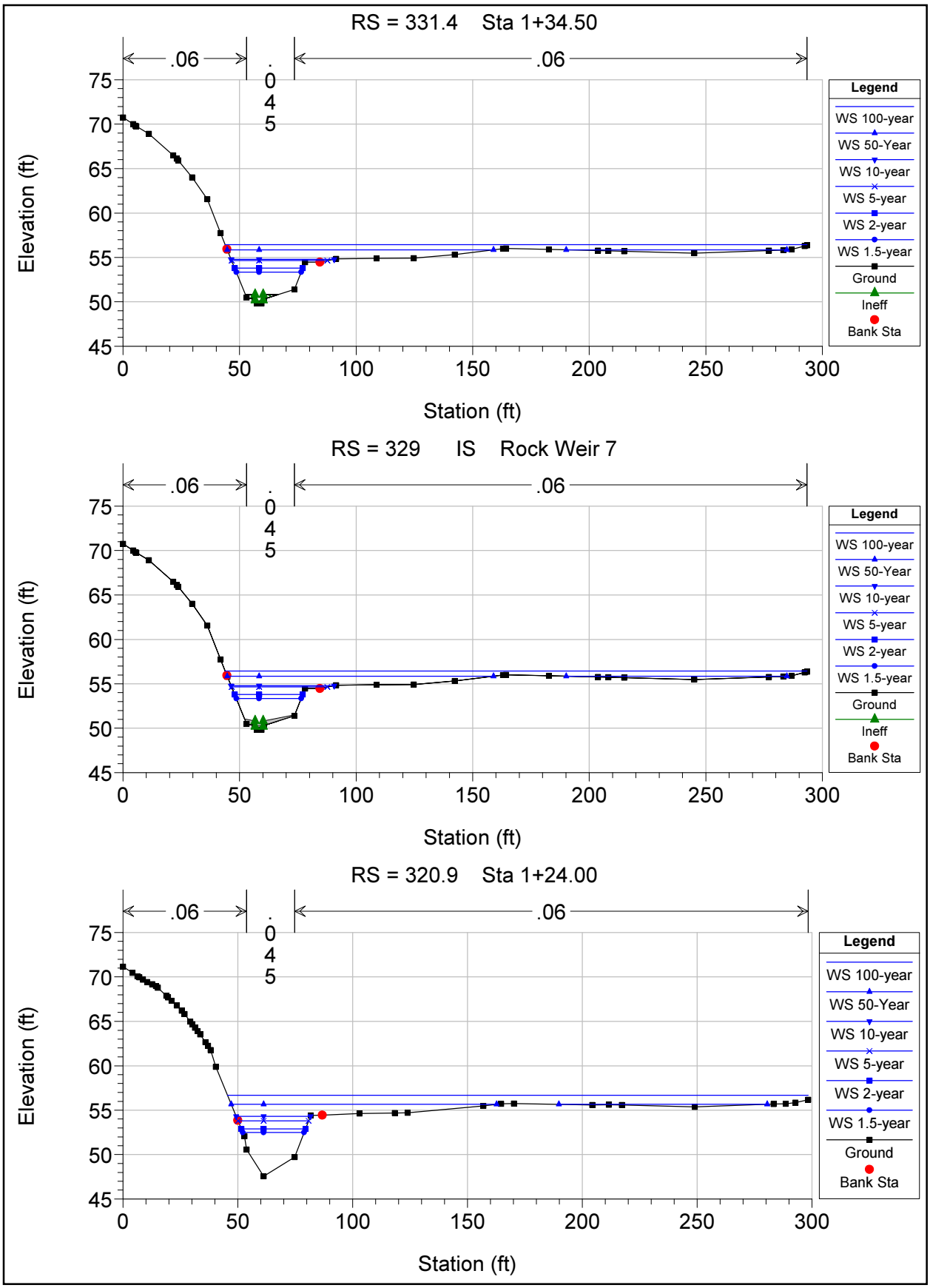

RS = 417 IS Rock Weir 3
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 10-year
WS 50-Year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 408.9 Sta 2+12.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 403.9 Sta 2+07.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

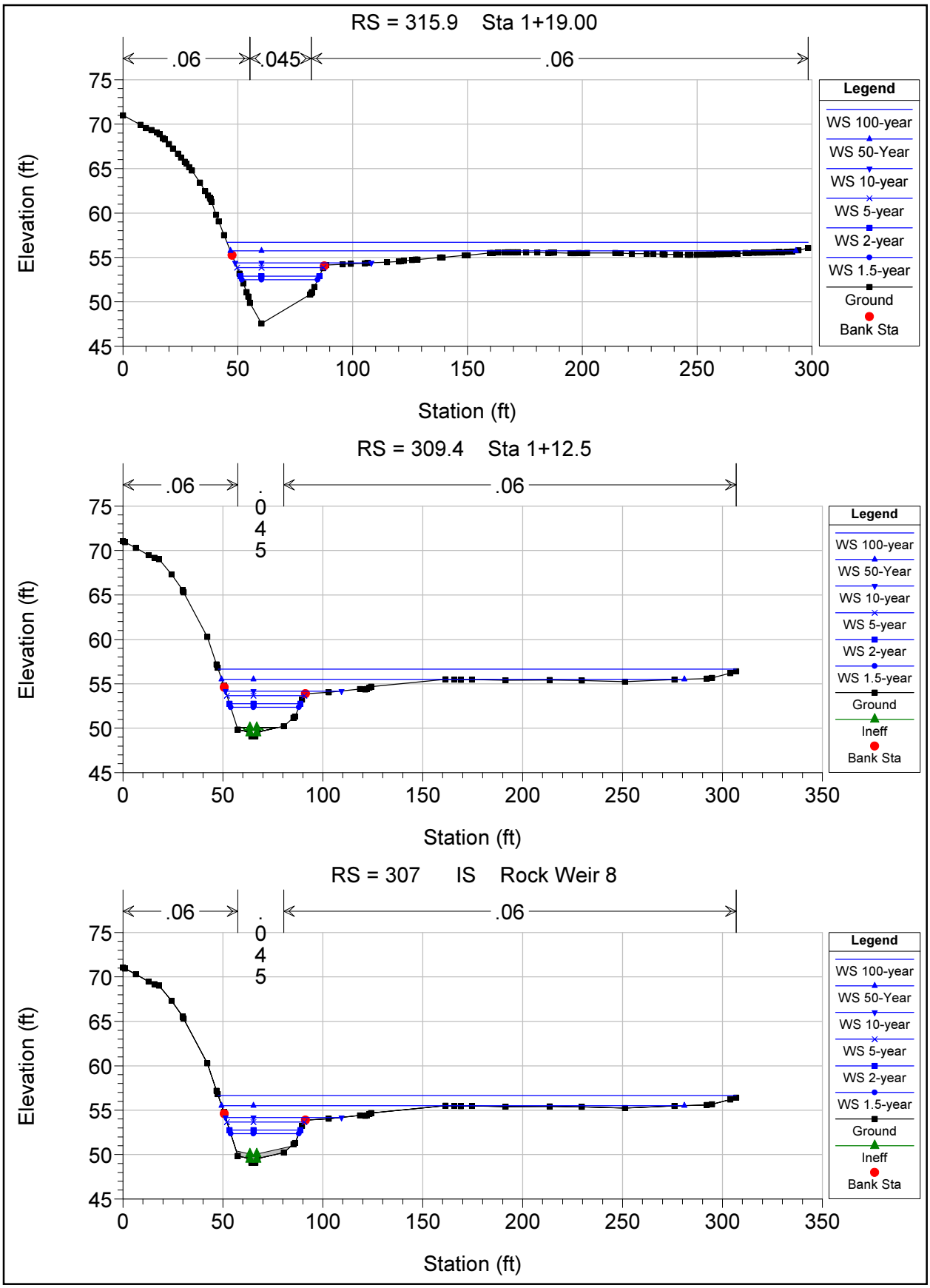

RS = 397.4 Sta 2+00.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 395 IS Rock Weir 4
RS = 386.9 Sta 1+90.00, pool

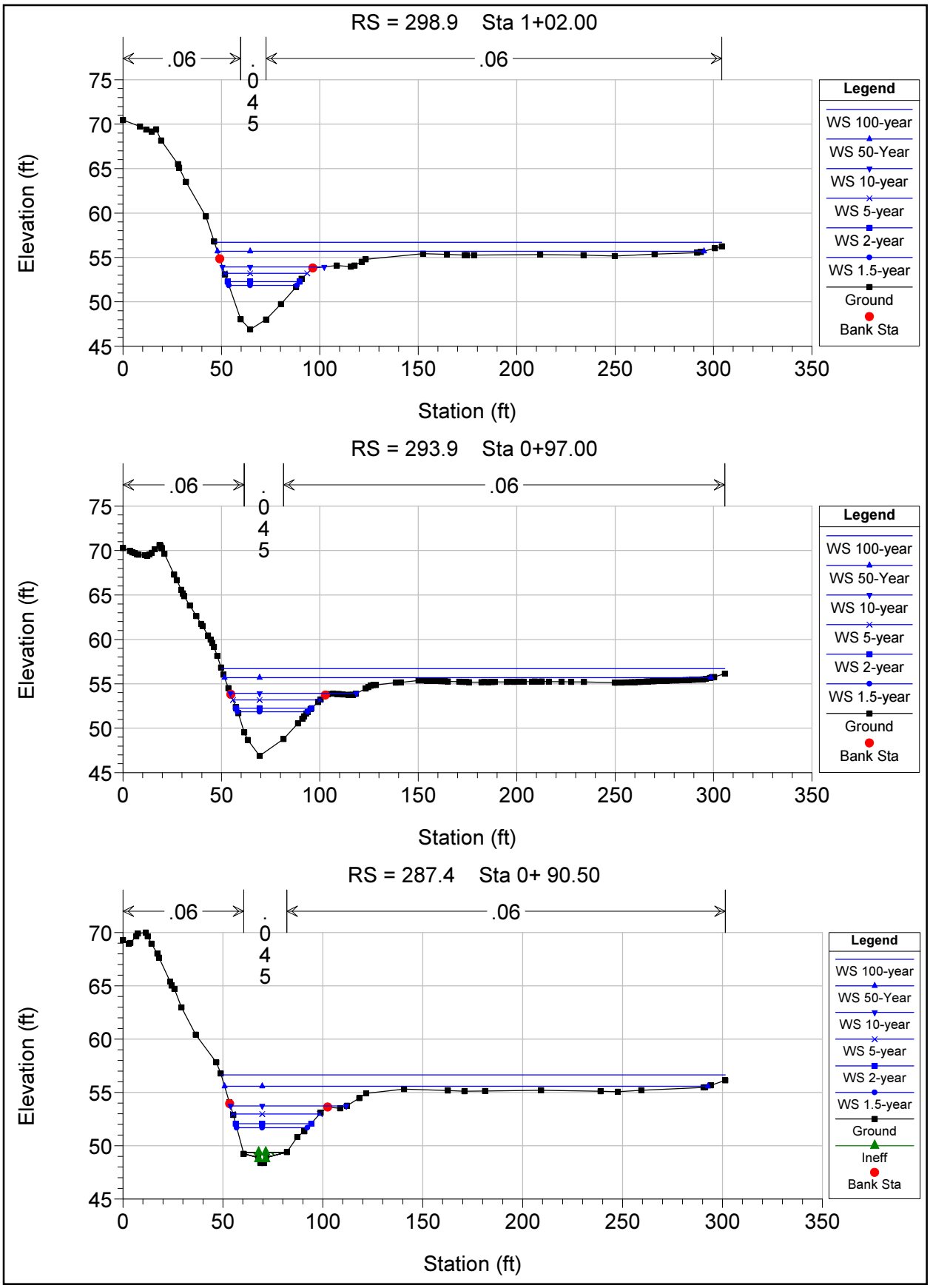

RS = 381.9 Sta 1+85.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 375.4 Sta 1+78.50
Ineff
RS = 373 IS Rock Weir 5

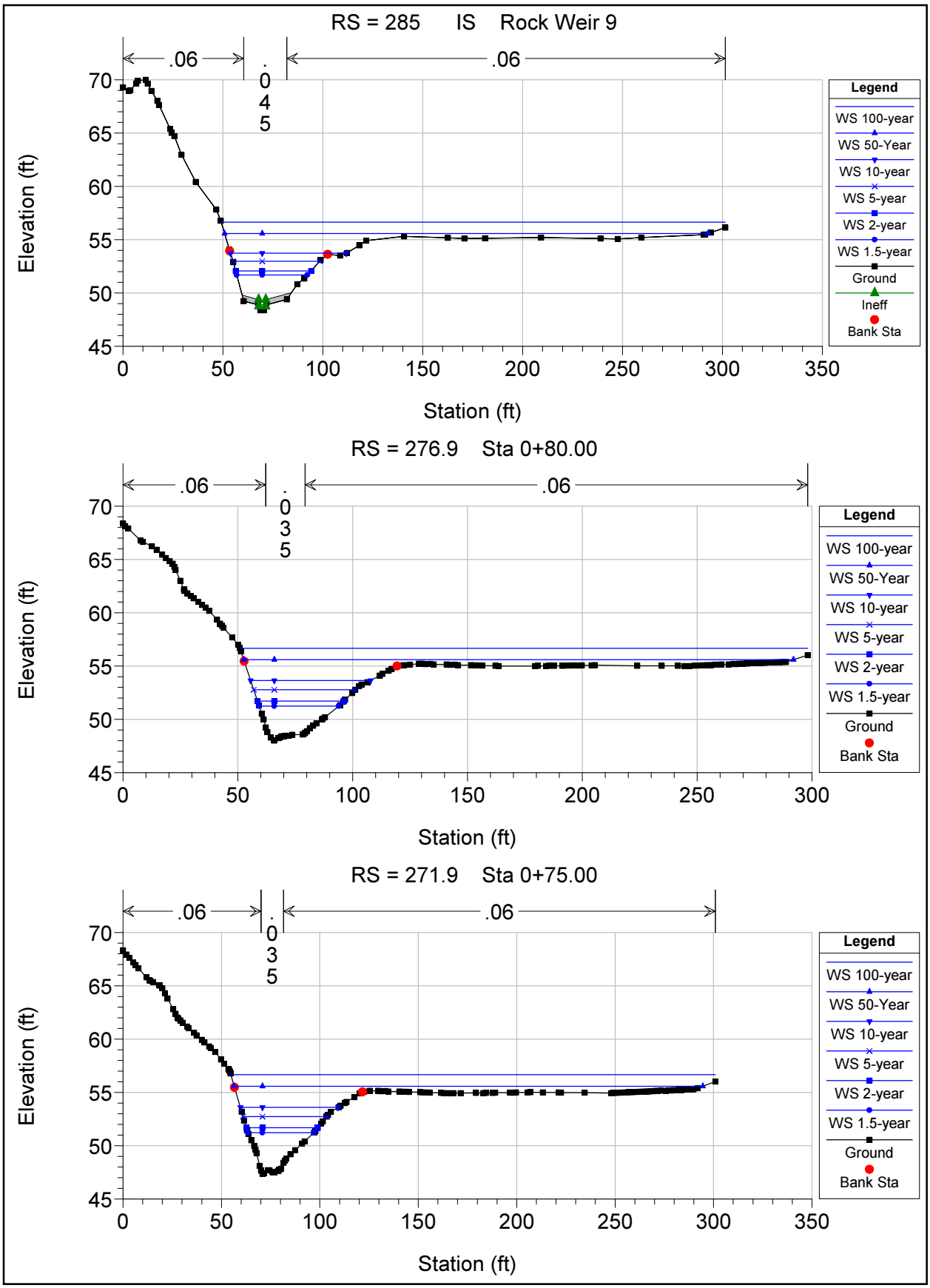

RS = 364.9 Station 1+68.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 359.9 Station 1+63.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 353.4 Sta 1+56.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta

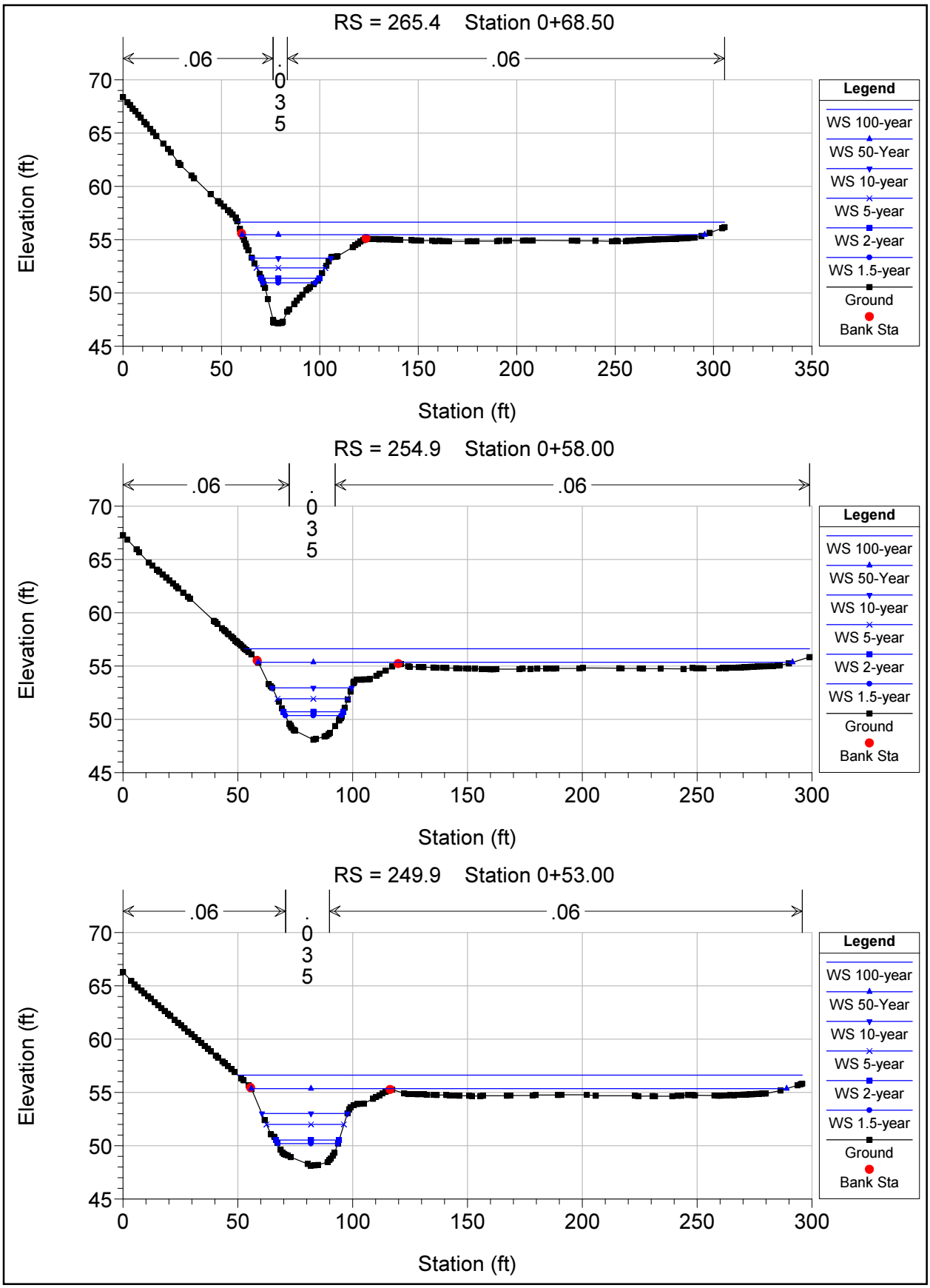

RS = 351 IS Rock Weir 6
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 342.9 Sta 1+46.00
RS = 337.9 Sta 1+41.00

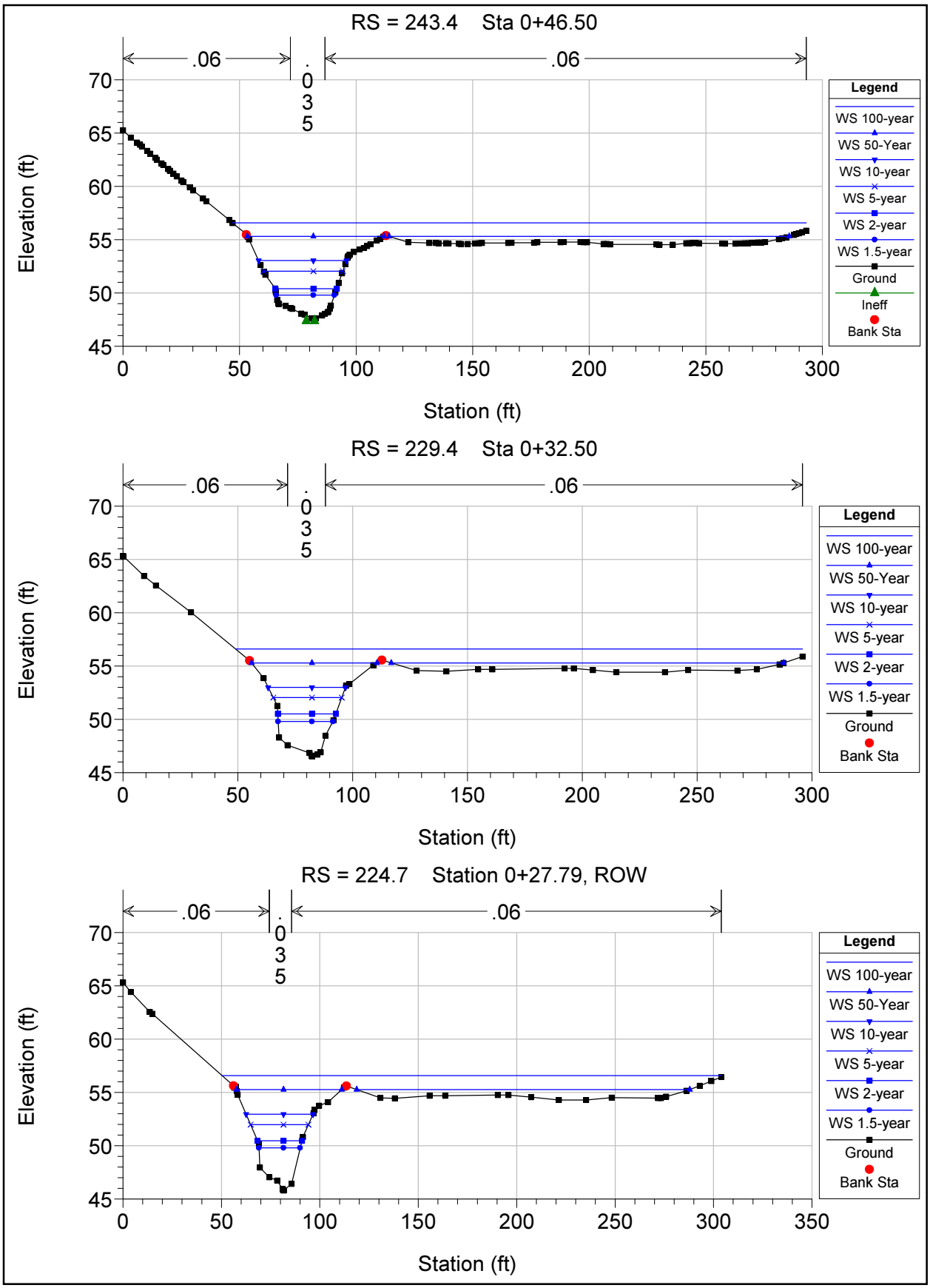

RS = 331.4 Sta 1+34.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 329 IS Rock Weir 7
RS = 320.9 Sta 1+24.00

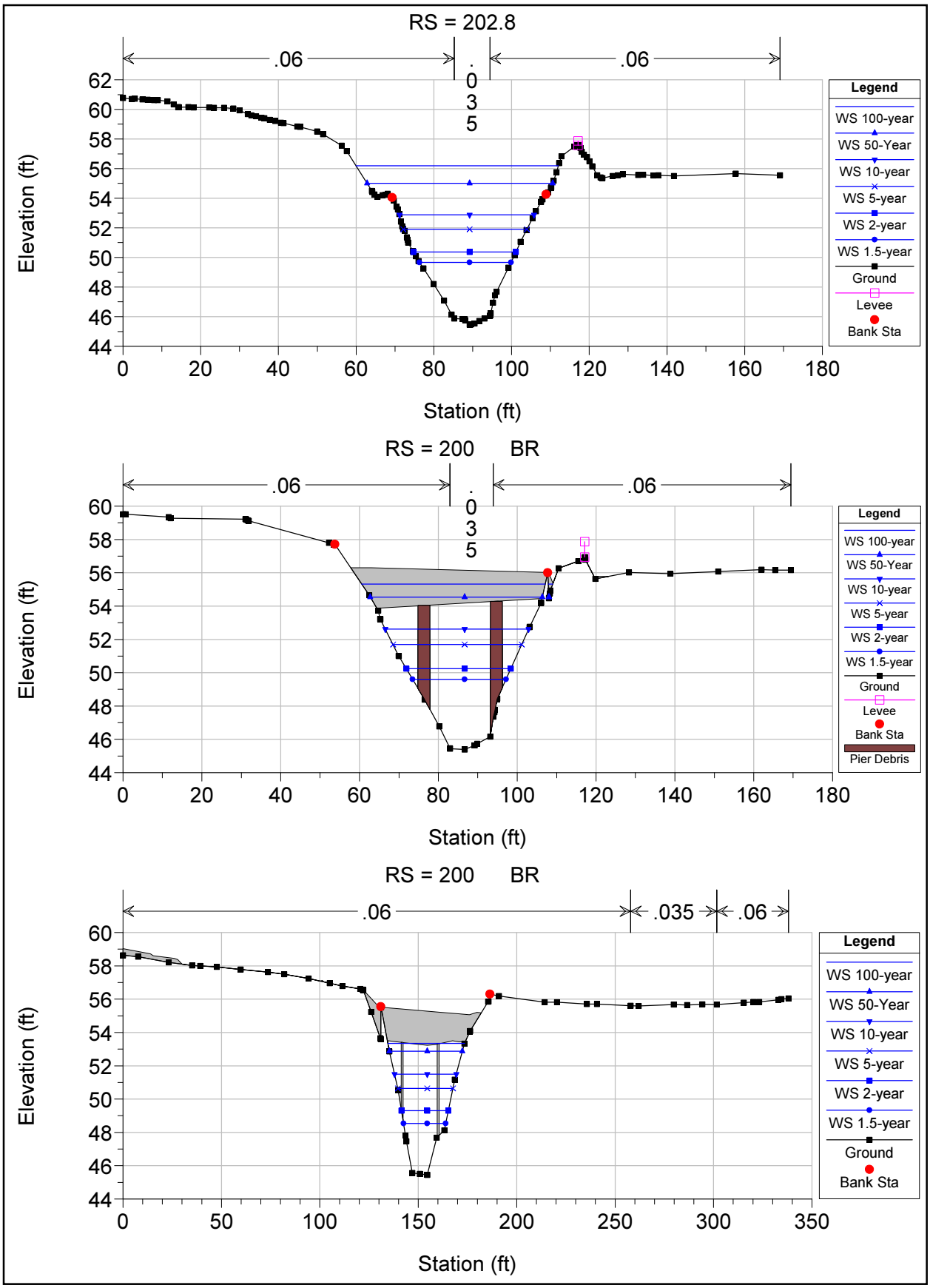

RS = 315.9 Sta 1+19.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 309.4 Sta 1+12.5
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 307 IS Rock Weir 8
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta

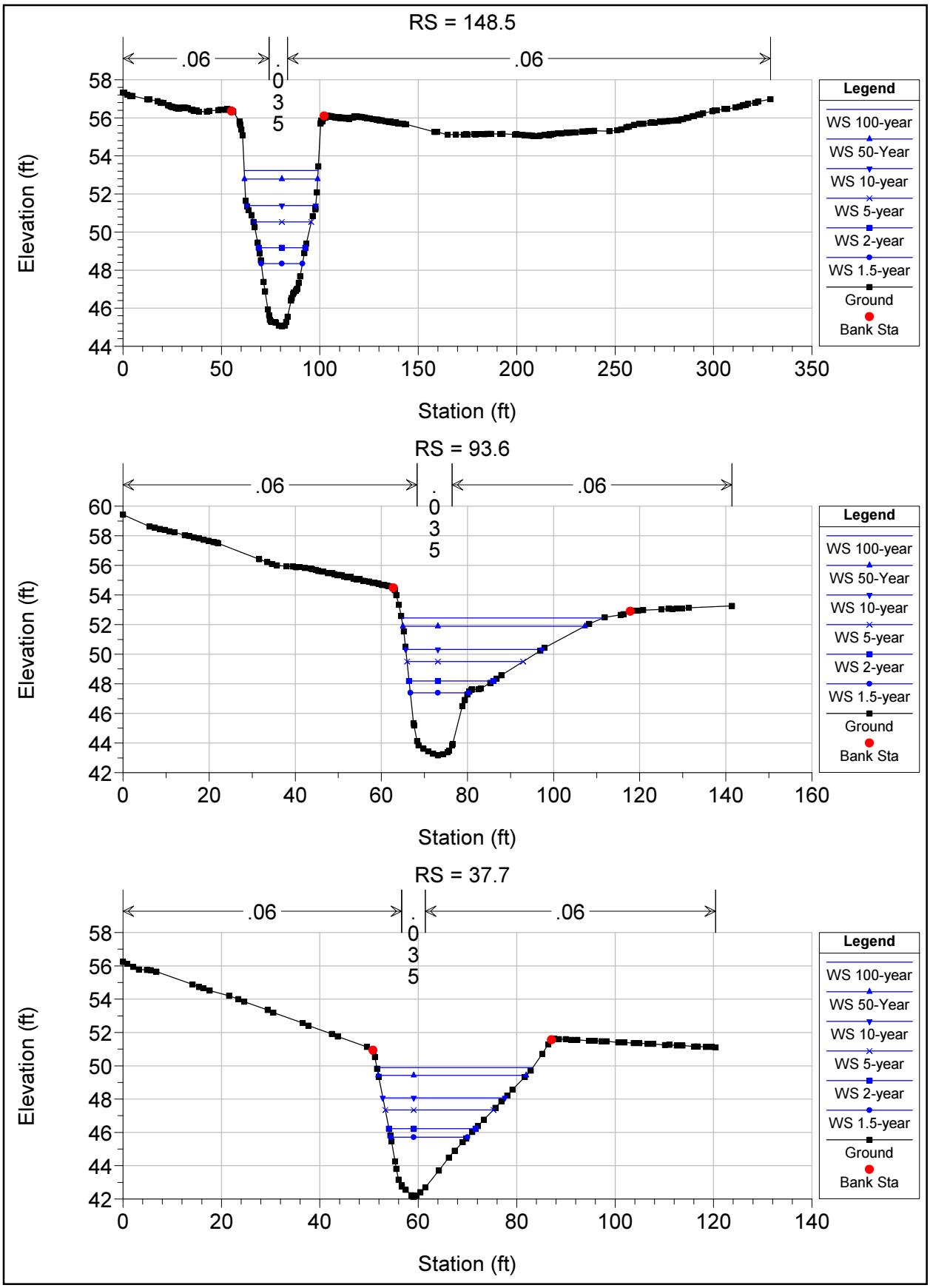

RS = 298.9 Sta 1+02.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 293.9 Sta 0+97.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 287.4 Sta 0+ 90.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta

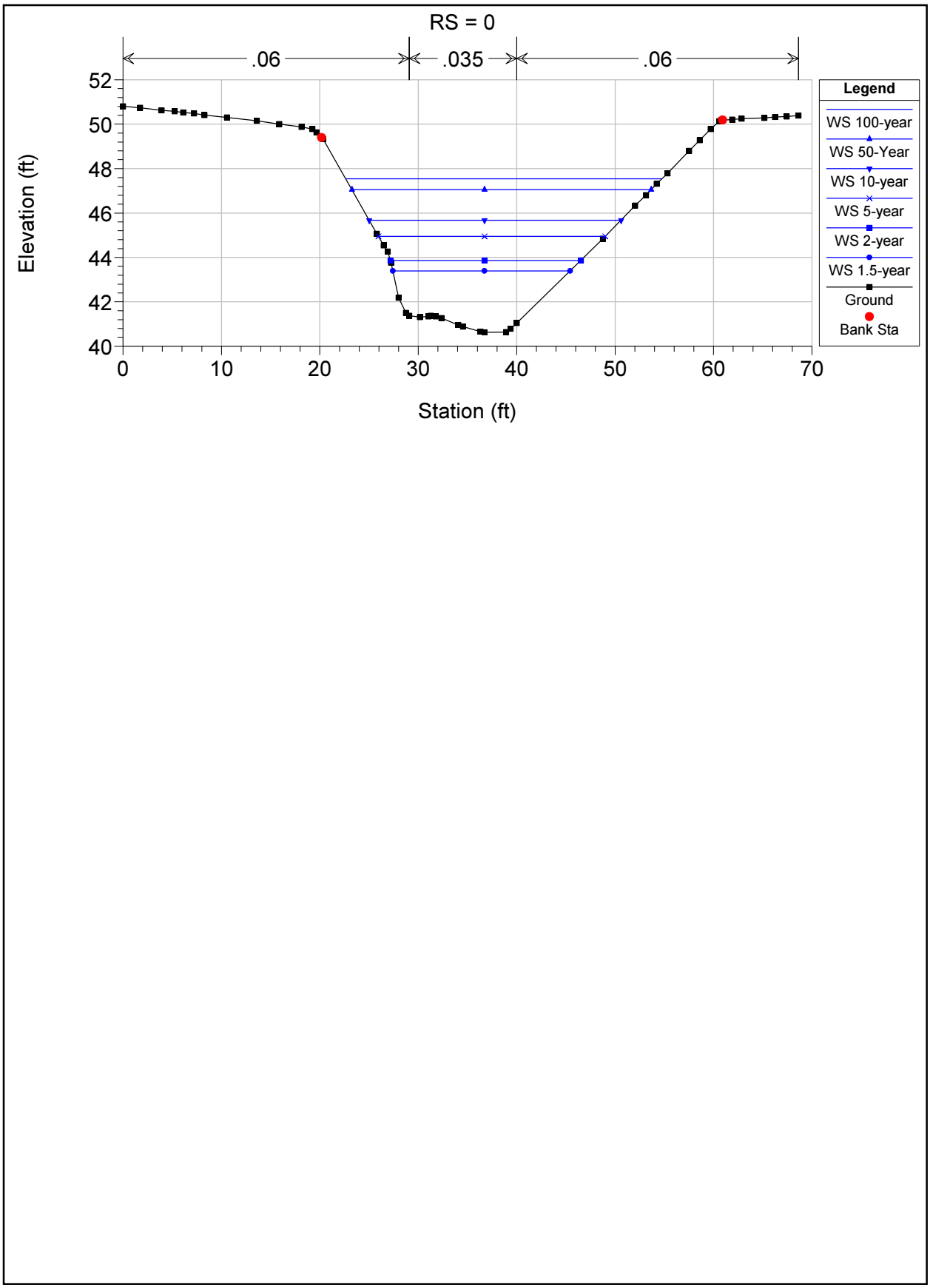

RS = 285 IS Rock Weir 9
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 276.9 Sta 0+80.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 271.9 Sta 0+75.00
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta

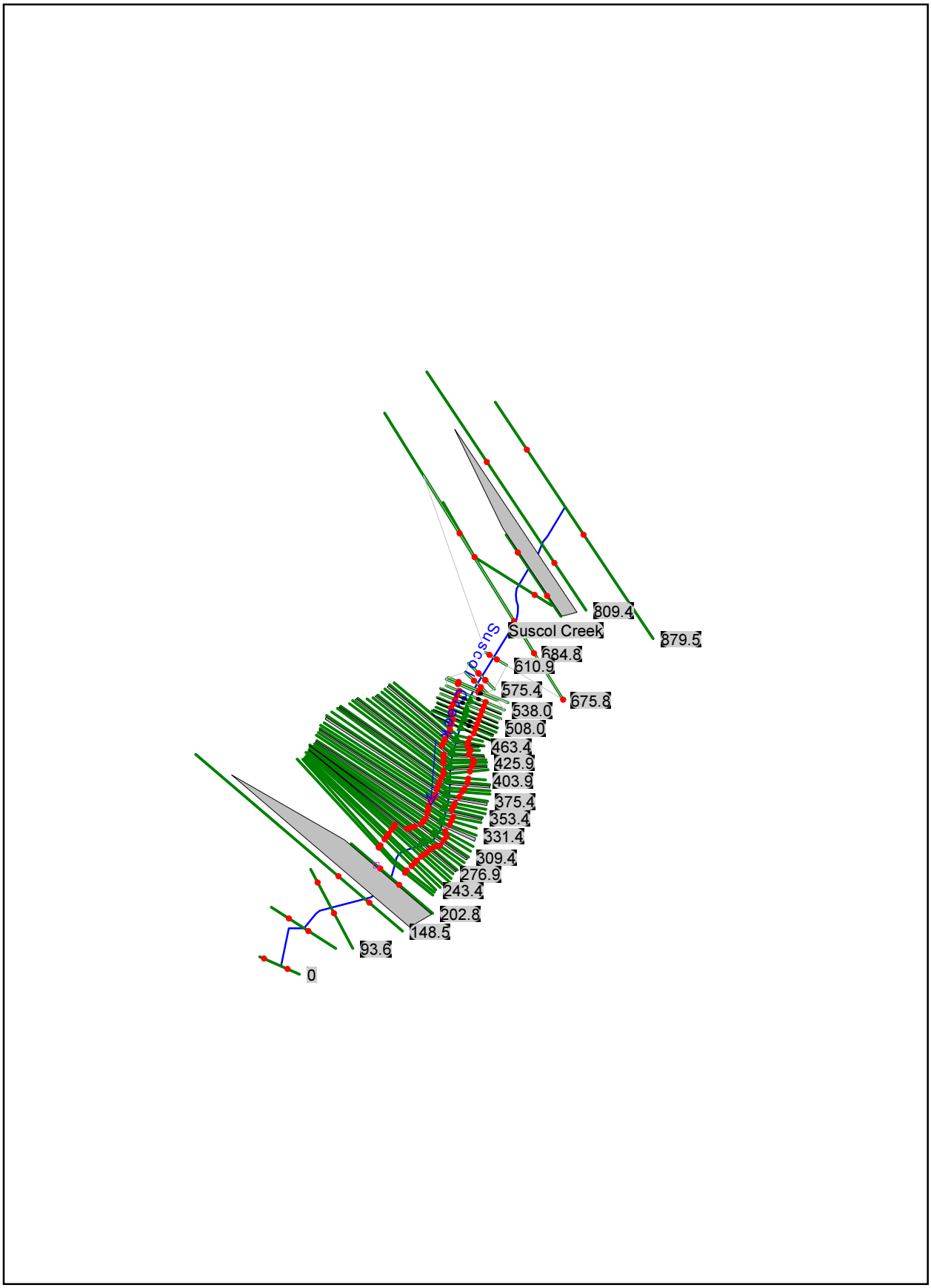

RS = 265.4 Station 0+68.50
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
350
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 254.9 Station 0+58.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 249.9 Station 0+53.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


RS = 243.4 Sta 0+46.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Ineff
Bank Sta
RS = 229.4 Sta 0+32.50
RS = 224.7 Station 0+27.79, ROW


RS = 202.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Levee
Bank Sta
RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Levee
Bank Sta
Pier Debris
RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


RS = 148.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 93.6
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta
RS = 37.7
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


RS = 0
.06
.035
.06
Elevation (ft)
Station (ft)
52
50
48
46
44
42
40
0
10
20
30
40
50
60
70
Legend
WS 100-year
WS 50-Year
WS 10-year
WS 5-year
WS 2-year
WS 1.5-year
Ground
Bank Sta


809.4
Suscol Creek
879.5
684.8
610.9
575.4
675.8
538.0
508.0
463.4
425.9
403.9
375.4
353.4
331.4
309.4
276.9
243.4
202.8
148.5
93.6
0

HEC-RAS Plan: Proposed 95%_2' pool_test River: Suscol Creek Reach: Suscol Creek

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	879.5	Adult High Flow	177.00	61.23	63.24	63.24	63.75	0.029473	5.76	30.72	30.71	1.02
Suscol Creek	879.5	Juvenile High Fl	36.00	61.23	62.32	62.32	62.59	0.023291	4.12	8.73	17.00	1.01
Suscol Creek	879.5	Adult Low Flow	3.00	61.23	61.62	61.62	61.72	0.030399	2.57	1.17	5.64	1.00
Suscol Creek	879.5	Juvenile Low Flo	1.00	61.23	61.49	61.49	61.54	0.026814	1.85	0.54	3.92	0.88
Suscol Creek	809.4	Adult High Flow	177.00	58.36	61.64	60.67	61.88	0.006017	3.87	45.72	22.96	0.48
Suscol Creek	809.4	Juvenile High Fl	36.00	58.36	60.01	59.44	60.10	0.004851	2.38	15.15	14.53	0.41
Suscol Creek	809.4	Adult Low Flow	3.00	58.36	58.83	58.72	58.87	0.012773	1.67	1.79	6.87	0.58
Suscol Creek	809.4	Juvenile Low Flo	1.00	58.36	58.65	58.59	58.68	0.012854	1.26	0.79	4.69	0.54
Suscol Creek	772		Bridge									
Suscol Creek	766.0	Adult High Flow	177.00	57.64	59.96	59.96	60.70	0.017034	6.89	25.71	17.80	1.01
Suscol Creek	766.0	Juvenile High Fl	36.00	57.64	58.69	58.69	59.04	0.021415	4.80	7.51	10.77	1.01
Suscol Creek	766.0	Adult Low Flow	3.00	57.64	58.09	57.96	58.12	0.005797	1.41	2.13	7.35	0.46
Suscol Creek	766.0	Juvenile Low Flo	1.00	57.64	57.95	57.86	57.96	0.004258	0.88	1.14	6.29	0.37
Suscol Creek	735.3	Adult High Flow	177.00	57.47	59.70		59.85	0.003477	3.15	56.26	32.89	0.42
Suscol Creek	735.3	Juvenile High Fl	36.00	57.47	58.04	58.04	58.26	0.024427	3.74	9.64	22.61	1.01
Suscol Creek	735.3	Adult Low Flow	3.00	57.47	57.67	57.67	57.72	0.046139	1.80	1.67	19.02	1.07
Suscol Creek	735.3	Juvenile Low Flo	1.00	57.47	57.61	57.61	57.64	0.045568	1.41	0.71	11.55	1.00
Suscol Creek	684.8	Adult High Flow	177.00	55.04	59.76		59.78	0.000250	1.16	153.01	49.90	0.12
Suscol Creek	684.8	Juvenile High Fl	36.00	55.04	58.12		58.12	0.000083	0.48	75.52	43.69	0.06
Suscol Creek	684.8	Adult Low Flow	3.00	55.04	56.95		56.95	0.000012	0.11	27.59	36.76	0.02
Suscol Creek	684.8	Juvenile Low Flo	1.00	55.04	56.66		56.66	0.000003	0.06	18.05	26.75	0.01
Suscol Creek	675.8	Adult High Flow	177.00	55.04	59.51	57.34	59.76	0.000714	3.77	44.96	9.64	0.33
Suscol Creek	675.8	Juvenile High Fl	36.00	55.04	58.10	55.98	58.12	0.000083	1.13	30.63	10.64	0.12
Suscol Creek	675.8	Adult Low Flow	3.00	55.04	56.95	55.35	56.95	0.000002	0.17	17.80	11.50	0.02
Suscol Creek	675.8	Juvenile Low Flo	1.00	55.04	56.66	55.23	56.66	0.000000	0.07	14.51	11.03	0.01
Suscol Creek	610.9	Adult High Flow	177.00	54.53	59.49	56.95	59.72	0.000426	3.82	46.30	9.70	0.30
Suscol Creek	610.9	Juvenile High Fl	36.00	54.53	58.09	55.45	58.11	0.000046	1.11	32.50	10.00	0.10
Suscol Creek	610.9	Adult Low Flow	3.00	54.53	56.95	54.78	56.95	0.000001	0.14	21.16	9.76	0.02
Suscol Creek	610.9	Juvenile Low Flo	1.00	54.53	56.66	54.68	56.66	0.000000	0.05	18.33	9.62	0.01
Suscol Creek	575.4	Adult High Flow	177.00	54.22	59.50	56.49	59.69	0.000363	3.54	49.97	9.16	0.27
Suscol Creek	575.4	Juvenile High Fl	36.00	54.22	58.09	55.04	58.11	0.000034	0.98	36.69	9.65	0.09
Suscol Creek	575.4	Adult Low Flow	3.00	54.22	56.95	54.41	56.95	0.000001	0.12	25.56	9.69	0.01
Suscol Creek	575.4	Juvenile Low Flo	1.00	54.22	56.66	54.32	56.66	0.000000	0.04	22.73	9.69	0.00
Suscol Creek	575.3	Adult High Flow	177.00	54.22	59.52	56.50	59.68	0.000275	3.25	54.50	11.35	0.26
Suscol Creek	575.3	Juvenile High Fl	36.00	54.22	58.10	55.05	58.11	0.000029	0.93	38.65	10.92	0.09
Suscol Creek	575.3	Adult Low Flow	3.00	54.22	56.95	54.41	56.95	0.000001	0.11	26.34	10.52	0.01
Suscol Creek	575.3	Juvenile Low Flo	1.00	54.22	56.66	54.33	56.66	0.000000	0.04	23.28	10.42	0.01
Suscol Creek	557.3	Adult High Flow	177.00	54.18	59.53	56.32	59.67	0.000214	2.96	59.87	12.31	0.24
Suscol Creek	557.3	Juvenile High Fl	36.00	54.18	58.10	54.95	58.11	0.000023	0.85	42.51	11.82	0.08
Suscol Creek	557.3	Adult Low Flow	3.00	54.18	56.95	54.35	56.95	0.000000	0.10	29.15	11.41	0.01
Suscol Creek	557.3	Juvenile Low Flo	1.00	54.18	56.66	54.27	56.66	0.000000	0.04	25.84	11.28	0.00
Suscol Creek	551.0	Adult High Flow	177.00	54.16	59.57	56.04	59.66	0.000126	2.41	73.55	14.74	0.19
Suscol Creek	551.0	Juvenile High Fl	36.00	54.16	58.10	54.88	58.11	0.000014	0.69	52.29	14.27	0.06
Suscol Creek	551.0	Adult Low Flow	3.00	54.16	56.95	54.35	56.95	0.000000	0.08	36.06	13.90	0.01
Suscol Creek	551.0	Juvenile Low Flo	1.00	54.16	56.66	54.28	56.66	0.000000	0.03	32.01	13.81	0.00
Suscol Creek	547.5	Adult High Flow	177.00	54.16	59.58	55.97	59.65	0.000103	2.18	81.16	18.18	0.18
Suscol Creek	547.5	Juvenile High Fl	36.00	54.16	58.10	54.85	58.11	0.000011	0.64	56.51	15.61	0.06
Suscol Creek	547.5	Adult Low Flow	3.00	54.16	56.95	54.34	56.95	0.000000	0.08	38.83	15.07	0.01
Suscol Creek	547.5	Juvenile Low Flo	1.00	54.16	56.66	54.27	56.66	0.000000	0.03	34.45	14.93	0.00
Suscol Creek	538.0	Adult High Flow	177.00	54.13	59.59	55.93	59.64	0.000069	1.79	98.71	25.13	0.16
Suscol Creek	538.0	Juvenile High Fl	36.00	54.13	58.10	54.83	58.11	0.000008	0.55	64.92	20.35	0.05
Suscol Creek	538.0	Adult Low Flow	3.00	54.13	56.95	54.32	56.95	0.000000	0.07	42.81	18.13	0.01
Suscol Creek	538.0	Juvenile Low Flo	1.00	54.13	56.66	54.24	56.66	0.000000	0.03	37.59	17.65	0.00
Suscol Creek	530.5	Adult High Flow	177.00	54.00	59.55	57.51	59.64	0.000195	2.39	74.09	26.02	0.25
Suscol Creek	530.5	Juvenile High Fl	36.00	54.00	58.09	56.59	58.10	0.000044	0.91	39.66	21.58	0.12
Suscol Creek	530.5	Adult Low Flow	3.00	54.00	56.95	54.66	56.95	0.000005	0.19	15.90	19.63	0.04
Suscol Creek	530.5	Juvenile Low Flo	1.00	54.00	56.66	54.32	56.66	0.000002	0.10	10.30	18.79	0.02
Suscol Creek	530		Inl Struct									
Suscol Creek	523.0	Adult High Flow	177.00	53.41	59.18	55.68	59.23	0.000082	1.83	96.62	24.72	0.16
Suscol Creek	523.0	Juvenile High Fl	36.00	53.41	57.71	54.55	57.72	0.000009	0.57	63.46	21.09	0.06
Suscol Creek	523.0	Adult Low Flow	3.00	53.41	56.56	54.02	56.56	0.000000	0.07	40.55	18.50	0.01
Suscol Creek	523.0	Juvenile Low Flo	1.00	53.41	56.27	53.76	56.27	0.000000	0.03	35.17	17.78	0.00
Suscol Creek	515.5	Adult High Flow	177.00	53.69	59.13	57.16	59.23	0.000184	2.44	72.56	26.15	0.26
Suscol Creek	515.5	Juvenile High Fl	36.00	53.69	57.70	56.22	57.71	0.000049	0.94	38.37	21.73	0.12
Suscol Creek	515.5	Adult Low Flow	3.00	53.69	56.56	54.41	56.56	0.000006	0.20	15.32	18.80	0.04
Suscol Creek	515.5	Juvenile Low Flo	1.00	53.69	56.27	54.07	56.27	0.000003	0.10	9.86	18.08	0.02

HEC-RAS Plan: Proposed 95%_2' pool_test River: Suscol Creek Reach: Suscol Creek (Continued)

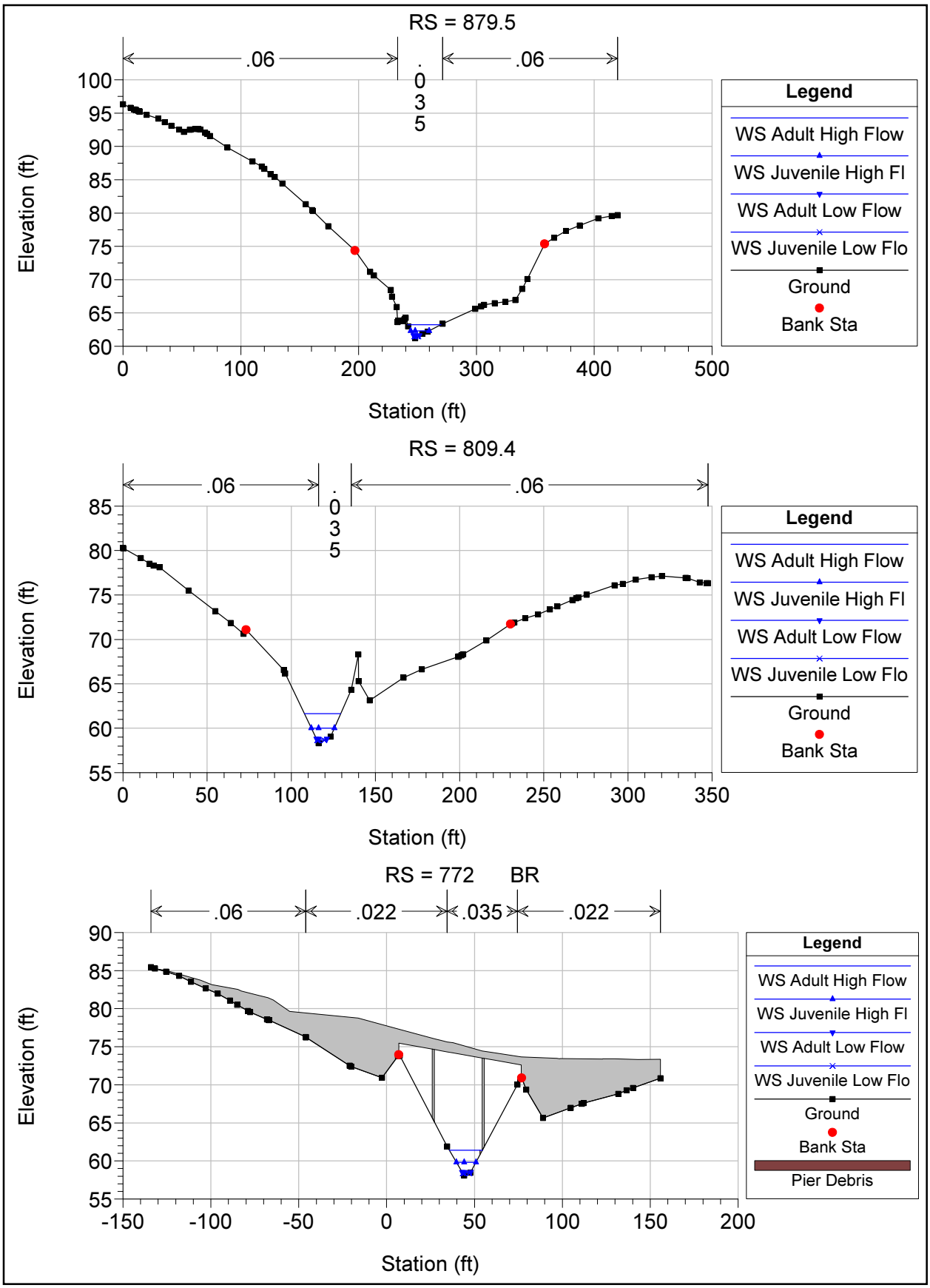
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	515		Inl Struct									
Suscol Creek	508.0	Adult High Flow	177.00	53.39	58.72	56.85	58.82	0.003402	2.61	67.79	25.01	0.28
Suscol Creek	508.0	Juvenile High Fl	36.00	53.39	57.31	55.85	57.32	0.000910	1.01	35.67	20.67	0.14
Suscol Creek	508.0	Adult Low Flow	3.00	53.39	56.17	54.06	56.17	0.000110	0.21	13.99	17.31	0.04
Suscol Creek	508.0	Juvenile Low Flo	1.00	53.39	55.87	53.72	55.88	0.000049	0.11	9.03	16.42	0.03
Suscol Creek	507		Inl Struct									
Suscol Creek	500.5	Adult High Flow	177.00	53.14	58.32	56.50	58.44	0.000258	2.83	62.47	21.55	0.29
Suscol Creek	500.5	Juvenile High Fl	36.00	53.14	56.92	55.48	56.94	0.000061	1.05	34.23	19.38	0.14
Suscol Creek	500.5	Adult Low Flow	3.00	53.14	55.78	53.80	55.78	0.000008	0.22	13.43	16.69	0.04
Suscol Creek	500.5	Juvenile Low Flo	1.00	53.14	55.49	53.46	55.49	0.000003	0.11	8.72	15.85	0.03
Suscol Creek	496		Inl Struct									
Suscol Creek	493.0	Adult High Flow	177.00	52.85	58.10	55.08	58.17	0.001597	2.17	81.51	21.12	0.19
Suscol Creek	493.0	Juvenile High Fl	36.00	52.85	56.67	53.84	56.68	0.000229	0.68	52.67	19.18	0.07
Suscol Creek	493.0	Adult Low Flow	3.00	52.85	55.53	53.15	55.53	0.000007	0.09	32.07	16.70	0.01
Suscol Creek	493.0	Juvenile Low Flo	1.00	52.85	55.24	53.02	55.24	0.000001	0.04	27.29	15.97	0.00
Suscol Creek	485.5	Adult High Flow	177.00	52.27	58.04	56.15	58.15	0.001942	2.64	66.92	23.89	0.28
Suscol Creek	485.5	Juvenile High Fl	36.00	52.27	56.66	55.17	56.68	0.000486	0.99	36.33	20.44	0.13
Suscol Creek	485.5	Adult Low Flow	3.00	52.27	55.53	52.94	55.53	0.000055	0.20	14.70	17.66	0.04
Suscol Creek	485.5	Juvenile Low Flo	1.00	52.27	55.24	52.60	55.24	0.000023	0.10	9.64	16.96	0.02
Suscol Creek	485		Inl Struct									
Suscol Creek	471.4	Adult High Flow	177.00	52.26	57.24		57.31	0.001511	2.15	82.50	25.93	0.21
Suscol Creek	471.4	Juvenile High Fl	36.00	52.26	56.01		56.02	0.000201	0.68	53.25	21.76	0.08
Suscol Creek	471.4	Adult Low Flow	3.00	52.26	55.25		55.25	0.000004	0.08	37.70	19.07	0.01
Suscol Creek	471.4	Juvenile Low Flo	1.00	52.26	54.98		54.98	0.000001	0.03	32.67	18.11	0.00
Suscol Creek	463.4	Adult High Flow	177.00	54.18	57.09	56.26	57.28	0.005270	3.48	50.84	27.55	0.45
Suscol Creek	463.4	Juvenile High Fl	36.00	54.18	55.97	55.47	56.01	0.003124	1.66	21.64	24.53	0.31
Suscol Creek	463.4	Adult Low Flow	3.00	54.18	55.25	54.54	55.25	0.003079	0.64	4.67	22.20	0.25
Suscol Creek	463.4	Juvenile Low Flo	1.00	54.18	54.98	54.37	54.98	0.000240	0.40	2.52	15.96	0.08
Suscol Creek	463		Inl Struct									
Suscol Creek	452.9	Adult High Flow	177.00	52.16	56.57		56.62	0.000860	1.82	97.13	31.53	0.18
Suscol Creek	452.9	Juvenile High Fl	36.00	52.16	55.51		55.51	0.000100	0.55	65.80	27.60	0.06
Suscol Creek	452.9	Adult Low Flow	3.00	52.16	54.74		54.74	0.000002	0.07	45.42	25.31	0.01
Suscol Creek	452.9	Juvenile Low Flo	1.00	52.16	54.46		54.46	0.000000	0.03	38.57	24.51	0.00
Suscol Creek	447.9	Adult High Flow	177.00	52.16	56.57		56.62	0.000785	1.74	101.94	33.74	0.18
Suscol Creek	447.9	Juvenile High Fl	36.00	52.16	55.51		55.51	0.000091	0.52	68.59	29.05	0.06
Suscol Creek	447.9	Adult Low Flow	3.00	52.16	54.74		54.74	0.000002	0.06	47.38	26.29	0.01
Suscol Creek	447.9	Juvenile Low Flo	1.00	52.16	54.46		54.46	0.000000	0.02	40.27	25.49	0.00
Suscol Creek	441.4	Adult High Flow	177.00	53.66	56.45	55.63	56.60	0.004561	3.04	58.29	35.40	0.42
Suscol Creek	441.4	Juvenile High Fl	36.00	53.66	55.48	54.93	55.51	0.002224	1.38	26.09	30.44	0.26
Suscol Creek	441.4	Adult Low Flow	3.00	53.66	54.73	54.02	54.74	0.002988	0.62	4.83	23.56	0.24
Suscol Creek	441.4	Juvenile Low Flo	1.00	53.66	54.46	53.85	54.46	0.000240	0.40	2.52	16.06	0.08
Suscol Creek	439		Inl Struct									
Suscol Creek	430.9	Adult High Flow	177.00	51.50	55.91		55.95	0.000743	1.64	108.23	35.72	0.17
Suscol Creek	430.9	Juvenile High Fl	36.00	51.50	54.86		54.86	0.000089	0.49	73.00	31.34	0.06
Suscol Creek	430.9	Adult Low Flow	3.00	51.50	54.07		54.07	0.000002	0.06	49.34	28.99	0.01
Suscol Creek	430.9	Juvenile Low Flo	1.00	51.50	53.80		53.80	0.000000	0.02	41.59	28.18	0.00
Suscol Creek	425.9	Adult High Flow	177.00	51.50	55.91		55.95	0.000738	1.61	109.73	37.87	0.17
Suscol Creek	425.9	Juvenile High Fl	36.00	51.50	54.86		54.86	0.000097	0.50	72.32	33.31	0.06
Suscol Creek	425.9	Adult Low Flow	3.00	51.50	54.07		54.07	0.000002	0.06	47.45	30.34	0.01
Suscol Creek	425.9	Juvenile Low Flo	1.00	51.50	53.80		53.80	0.000000	0.03	39.34	29.42	0.00
Suscol Creek	419.4	Adult High Flow	177.00	53.00	55.80	54.97	55.93	0.004076	2.89	61.36	37.74	0.40
Suscol Creek	419.4	Juvenile High Fl	36.00	53.00	54.83	54.28	54.86	0.002233	1.34	26.96	33.07	0.26
Suscol Creek	419.4	Adult Low Flow	3.00	53.00	54.07	53.36	54.07	0.003192	0.64	4.65	22.46	0.25
Suscol Creek	419.4	Juvenile Low Flo	1.00	53.00	53.80	53.19	53.80	0.000241	0.40	2.51	16.02	0.08
Suscol Creek	417		Inl Struct									
Suscol Creek	408.9	Adult High Flow	177.00	50.74	55.20		55.26	0.001261	1.86	95.58	37.01	0.20
Suscol Creek	408.9	Juvenile High Fl	36.00	50.74	54.09		54.10	0.000196	0.61	59.46	29.32	0.07
Suscol Creek	408.9	Adult Low Flow	3.00	50.74	53.32		53.32	0.000004	0.08	38.81	24.12	0.01
Suscol Creek	408.9	Juvenile Low Flo	1.00	50.74	53.04		53.04	0.000001	0.03	32.41	22.44	0.00
Suscol Creek	403.9	Adult High Flow	177.00	50.74	55.19		55.25	0.001288	1.94	93.89	39.48	0.20
Suscol Creek	403.9	Juvenile High Fl	36.00	50.74	54.09		54.10	0.000190	0.62	58.04	27.28	0.07
Suscol Creek	403.9	Adult Low Flow	3.00	50.74	53.32		53.32	0.000004	0.08	38.47	23.28	0.01

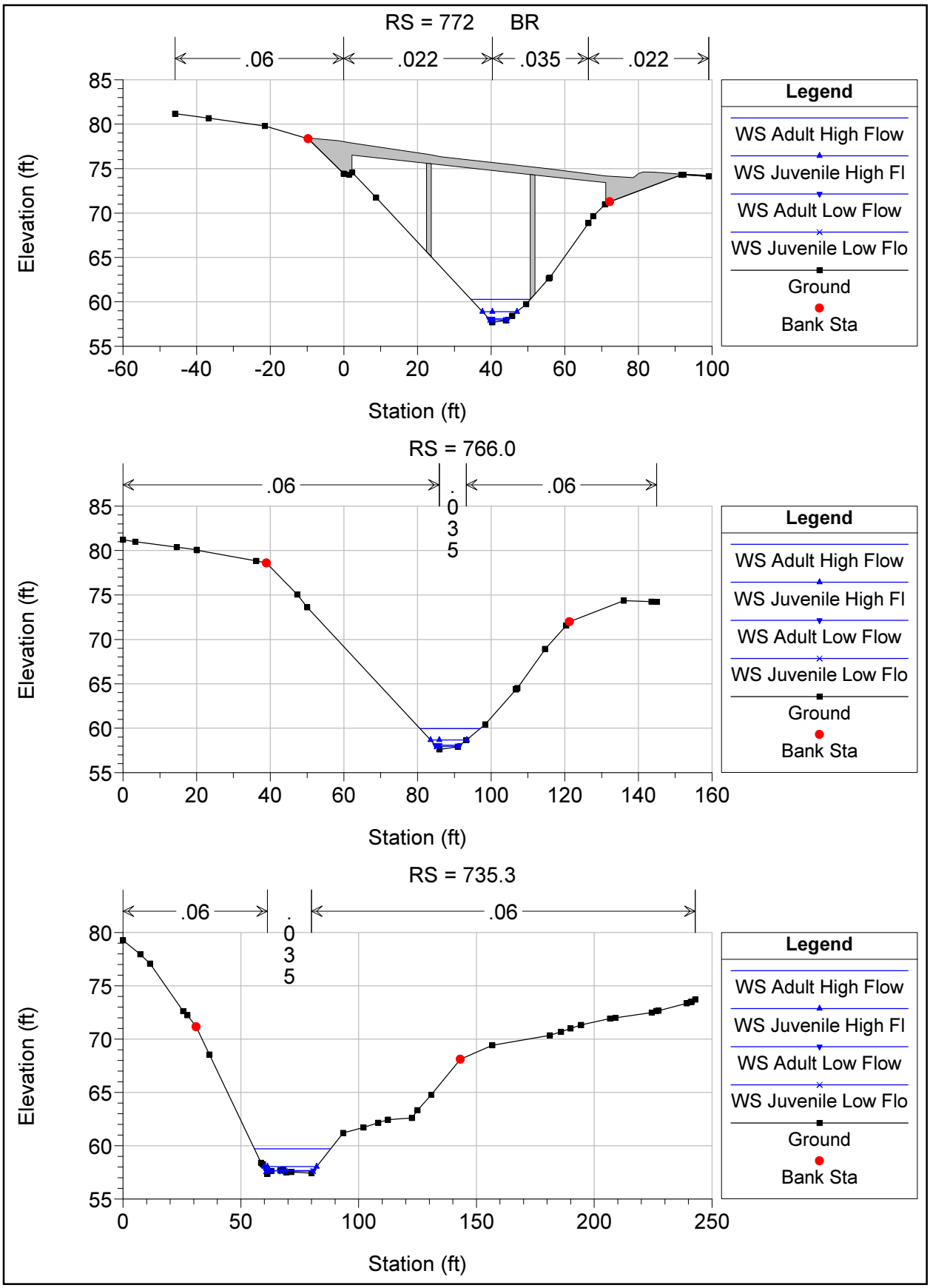
HEC-RAS Plan: Proposed 95%_2' pool_test River: Suscol Creek Reach: Suscol Creek (Continued)

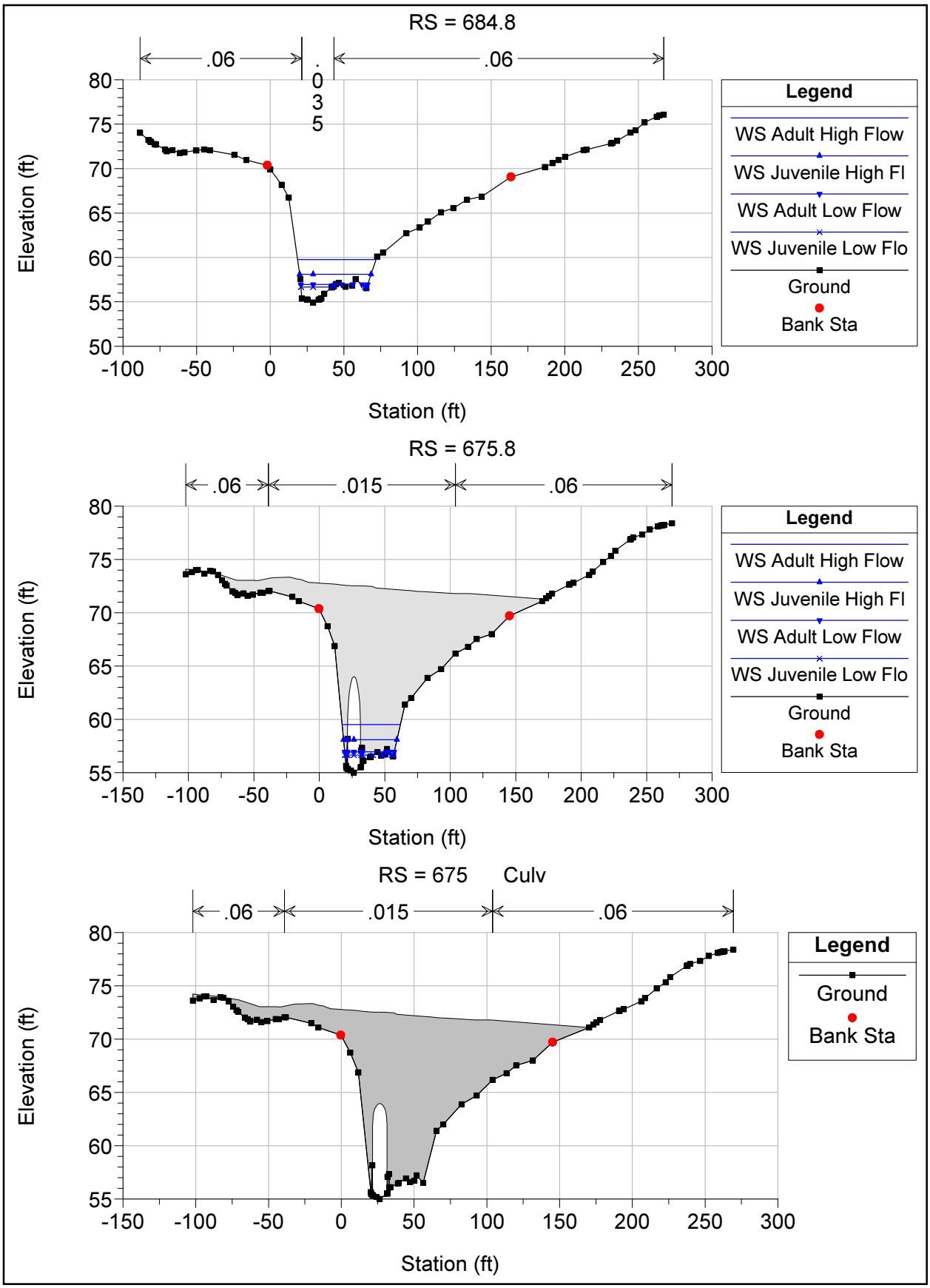
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	403.9	Juvenile Low Flo	1.00	50.74	53.04		53.04	0.000001	0.03	32.26	21.86	0.00
Suscol Creek	397.4	Adult High Flow	177.00	52.24	55.06	54.29	55.22	0.005158	3.29	55.48	38.72	0.45
Suscol Creek	397.4	Juvenile High Fl	36.00	52.24	54.05	53.52	54.09	0.002807	1.55	23.28	27.39	0.30
Suscol Creek	397.4	Adult Low Flow	3.00	52.24	53.31	52.60	53.32	0.002943	0.64	4.68	21.49	0.24
Suscol Creek	397.4	Juvenile Low Flo	1.00	52.24	53.04	52.43	53.04	0.000240	0.40	2.52	15.76	0.08
Suscol Creek	395		Inl Struct									
Suscol Creek	386.9	Adult High Flow	177.00	49.91	54.66		54.74	0.002266	2.32	76.25	30.76	0.26
Suscol Creek	386.9	Juvenile High Fl	36.00	49.91	53.24		53.25	0.000427	0.89	40.45	20.40	0.11
Suscol Creek	386.9	Adult Low Flow	3.00	49.91	52.38		52.38	0.000008	0.12	25.45	15.09	0.02
Suscol Creek	386.9	Juvenile Low Flo	1.00	49.91	52.11		52.11	0.000001	0.05	21.50	14.05	0.01
Suscol Creek	381.9	Adult High Flow	177.00	49.91	54.65		54.73	0.001758	2.18	81.08	28.13	0.23
Suscol Creek	381.9	Juvenile High Fl	36.00	49.91	53.24		53.25	0.000284	0.77	46.95	20.96	0.09
Suscol Creek	381.9	Adult Low Flow	3.00	49.91	52.38		52.38	0.000006	0.10	30.42	17.66	0.01
Suscol Creek	381.9	Juvenile Low Flo	1.00	49.91	52.11		52.11	0.000001	0.04	25.78	16.65	0.01
Suscol Creek	375.4	Adult High Flow	177.00	51.31	54.45	53.65	54.69	0.006594	3.91	45.21	24.05	0.50
Suscol Creek	375.4	Juvenile High Fl	36.00	51.31	53.17	52.70	53.24	0.004730	2.06	17.52	19.44	0.38
Suscol Creek	375.4	Adult Low Flow	3.00	51.31	52.37	51.67	52.38	0.000768	0.87	3.43	17.09	0.16
Suscol Creek	375.4	Juvenile Low Flo	1.00	51.31	52.11	51.50	52.11	0.000238	0.40	2.52	12.26	0.08
Suscol Creek	373		Inl Struct									
Suscol Creek	364.9	Adult High Flow	177.00	49.06	53.58		53.68	0.001694	2.51	70.66	23.67	0.26
Suscol Creek	364.9	Juvenile High Fl	36.00	49.06	52.52		52.53	0.000213	0.76	47.12	20.67	0.09
Suscol Creek	364.9	Adult Low Flow	3.00	49.06	51.73		51.73	0.000005	0.09	31.62	18.78	0.01
Suscol Creek	364.9	Juvenile Low Flo	1.00	49.06	51.46		51.46	0.000001	0.04	26.69	18.04	0.01
Suscol Creek	359.9	Adult High Flow	177.00	49.06	53.60		53.66	0.000923	1.94	91.21	29.43	0.19
Suscol Creek	359.9	Juvenile High Fl	36.00	49.06	52.52		52.52	0.000123	0.59	60.77	26.79	0.07
Suscol Creek	359.9	Adult Low Flow	3.00	49.06	51.73		51.73	0.000003	0.07	40.41	24.87	0.01
Suscol Creek	359.9	Juvenile Low Flo	1.00	49.06	51.46		51.46	0.000001	0.03	33.86	24.22	0.00
Suscol Creek	353.4	Adult High Flow	177.00	50.62	53.51	52.57	53.64	0.003786	2.95	59.93	32.65	0.38
Suscol Creek	353.4	Juvenile High Fl	36.00	50.62	52.49	51.86	52.52	0.001674	1.27	28.26	30.03	0.23
Suscol Creek	353.4	Adult Low Flow	3.00	50.62	51.73	50.98	51.73	0.001042	0.46	6.58	23.16	0.15
Suscol Creek	353.4	Juvenile Low Flo	1.00	50.62	51.46	50.80	51.46	0.000199	0.38	2.66	17.10	0.08
Suscol Creek	351		Inl Struct									
Suscol Creek	342.9	Adult High Flow	177.00	48.32	53.02		53.07	0.000921	1.83	96.73	32.40	0.19
Suscol Creek	342.9	Juvenile High Fl	36.00	48.32	51.71		51.72	0.000166	0.63	57.17	28.34	0.08
Suscol Creek	342.9	Adult Low Flow	3.00	48.32	50.89		50.89	0.000005	0.09	34.73	25.93	0.01
Suscol Creek	342.9	Juvenile Low Flo	1.00	48.32	50.62		50.62	0.000001	0.04	27.98	24.01	0.01
Suscol Creek	337.9	Adult High Flow	177.00	48.32	53.01		53.07	0.000863	1.82	97.34	32.51	0.19
Suscol Creek	337.9	Juvenile High Fl	36.00	48.32	51.71		51.72	0.000151	0.62	57.91	28.07	0.08
Suscol Creek	337.9	Adult Low Flow	3.00	48.32	50.89		50.89	0.000005	0.08	35.68	26.07	0.01
Suscol Creek	337.9	Juvenile Low Flo	1.00	48.32	50.62		50.62	0.000001	0.03	28.84	24.32	0.01
Suscol Creek	331.4	Adult High Flow	177.00	49.82	52.83	52.05	53.04	0.005955	3.68	48.07	26.27	0.48
Suscol Creek	331.4	Juvenile High Fl	36.00	49.82	51.66	51.17	51.71	0.004072	1.86	19.38	22.70	0.35
Suscol Creek	331.4	Adult Low Flow	3.00	49.82	50.88	50.18	50.89	0.002852	0.73	4.09	14.85	0.25
Suscol Creek	331.4	Juvenile Low Flo	1.00	49.82	50.62	50.01	50.62	0.000243	0.40	2.51	11.22	0.08
Suscol Creek	329		Inl Struct									
Suscol Creek	320.9	Adult High Flow	177.00	47.57	52.02		52.12	0.001757	2.45	72.12	25.18	0.26
Suscol Creek	320.9	Juvenile High Fl	36.00	47.57	50.92		50.93	0.000263	0.79	45.66	22.88	0.10
Suscol Creek	320.9	Adult Low Flow	3.00	47.57	50.14		50.14	0.000007	0.10	28.60	20.47	0.02
Suscol Creek	320.9	Juvenile Low Flo	1.00	47.57	49.87		49.87	0.000001	0.04	23.22	19.42	0.01
Suscol Creek	315.9	Adult High Flow	177.00	47.57	52.03		52.10	0.001515	2.19	80.88	31.48	0.24
Suscol Creek	315.9	Juvenile High Fl	36.00	47.57	50.92		50.93	0.000271	0.75	48.07	27.71	0.10
Suscol Creek	315.9	Adult Low Flow	3.00	47.57	50.14		50.14	0.000008	0.10	28.64	21.97	0.02
Suscol Creek	315.9	Juvenile Low Flo	1.00	47.57	49.87		49.87	0.000002	0.04	22.98	19.96	0.01
Suscol Creek	309.4	Adult High Flow	177.00	49.07	51.92	51.13	52.08	0.004910	3.21	55.19	32.66	0.43
Suscol Creek	309.4	Juvenile High Fl	36.00	49.07	50.89	50.35	50.92	0.002733	1.53	23.61	27.78	0.29
Suscol Creek	309.4	Adult Low Flow	3.00	49.07	50.14	49.43	50.14	0.003156	0.65	4.58	21.50	0.25
Suscol Creek	309.4	Juvenile Low Flo	1.00	49.07	49.87	49.26	49.87	0.000239	0.40	2.52	15.79	0.08
Suscol Creek	307		Inl Struct									
Suscol Creek	298.9	Adult High Flow	177.00	46.88	51.39		51.45	0.001772	2.11	84.01	32.26	0.23
Suscol Creek	298.9	Juvenile High Fl	36.00	46.88	50.22		50.23	0.000284	0.72	50.22	25.81	0.09
Suscol Creek	298.9	Adult Low Flow	3.00	46.88	49.46		49.46	0.000006	0.09	32.09	21.45	0.01
Suscol Creek	298.9	Juvenile Low Flo	1.00	46.88	49.18		49.18	0.000001	0.04	26.42	19.83	0.01
Suscol Creek	293.9	Adult High Flow	177.00	46.88	51.38		51.45	0.001547	2.07	85.37	33.20	0.23

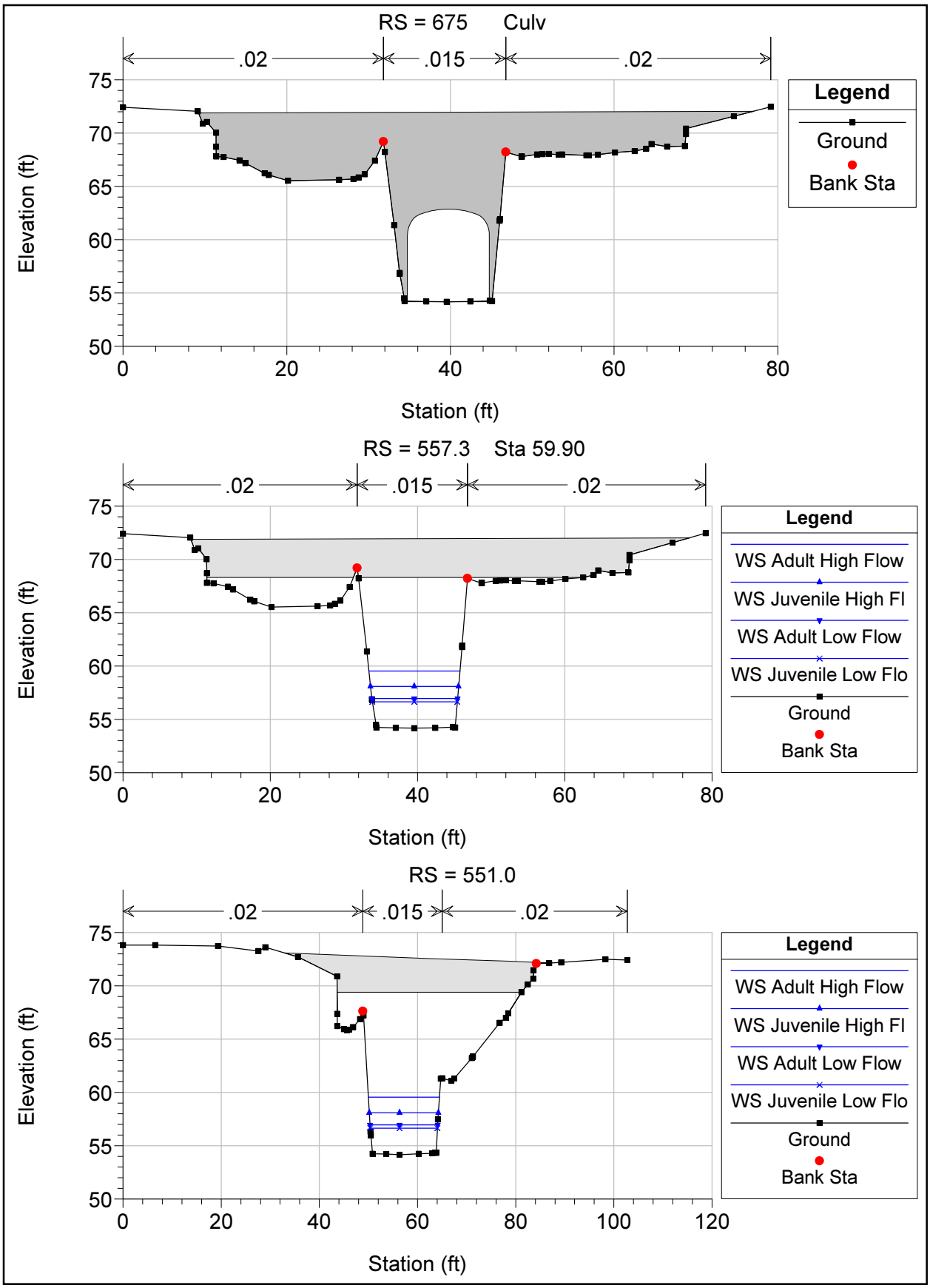
HEC-RAS Plan: Proposed 95%_2' pool_test River: Suscol Creek Reach: Suscol Creek (Continued)

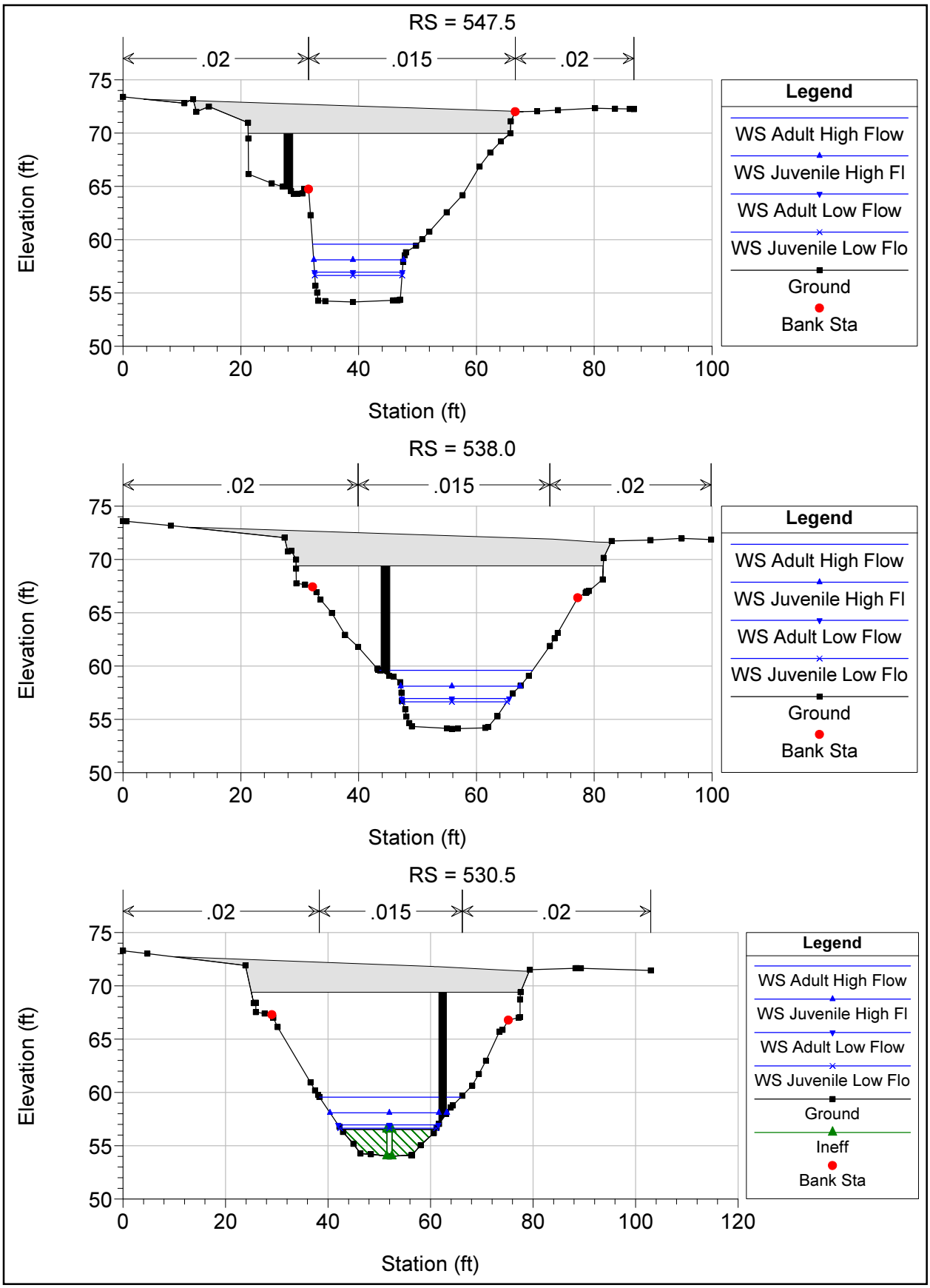
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Suscol Creek	293.9	Juvenile High Fl	36.00	46.88	50.22		50.23	0.000252	0.71	50.51	26.95	0.09
Suscol Creek	293.9	Adult Low Flow	3.00	46.88	49.46		49.46	0.000006	0.10	31.53	22.66	0.01
Suscol Creek	293.9	Juvenile Low Flo	1.00	46.88	49.18		49.18	0.000001	0.04	25.54	20.95	0.01
Suscol Creek	287.4	Adult High Flow	177.00	48.38	51.24	50.46	51.42	0.005662	3.36	52.73	32.47	0.46
Suscol Creek	287.4	Juvenile High Fl	36.00	48.38	50.18	49.66	50.22	0.003036	1.62	22.22	25.79	0.31
Suscol Creek	287.4	Adult Low Flow	3.00	48.38	49.45	48.74	49.45	0.002976	0.64	4.71	22.07	0.24
Suscol Creek	287.4	Juvenile Low Flo	1.00	48.38	49.18	48.57	49.18	0.000242	0.40	2.51	15.93	0.08
Suscol Creek	285		Inl Struct									
Suscol Creek	276.9	Adult High Flow	177.00	48.02	50.69		50.88	0.006557	3.50	50.61	30.66	0.48
Suscol Creek	276.9	Juvenile High Fl	36.00	48.02	49.32		49.40	0.005461	2.32	15.54	20.15	0.46
Suscol Creek	276.9	Adult Low Flow	3.00	48.02	48.52		48.56	0.011352	1.55	1.94	9.61	0.61
Suscol Creek	276.9	Juvenile Low Flo	1.00	48.02	48.39		48.41	0.005325	1.04	0.96	4.90	0.41
Suscol Creek	271.9	Adult High Flow	177.00	47.38	50.68		50.84	0.005629	3.23	54.76	29.05	0.42
Suscol Creek	271.9	Juvenile High Fl	36.00	47.38	49.33		49.37	0.001738	1.56	23.14	18.11	0.24
Suscol Creek	271.9	Adult Low Flow	3.00	47.38	48.55		48.55	0.000071	0.27	10.97	13.25	0.05
Suscol Creek	271.9	Juvenile Low Flo	1.00	47.38	48.40		48.40	0.000013	0.11	9.08	12.61	0.02
Suscol Creek	265.4	Adult High Flow	177.00	47.16	50.48		50.78	0.011998	4.38	40.43	22.42	0.57
Suscol Creek	265.4	Juvenile High Fl	36.00	47.16	49.30		49.36	0.003126	1.92	18.73	14.66	0.30
Suscol Creek	265.4	Adult Low Flow	3.00	47.16	48.55		48.55	0.000100	0.32	9.44	10.02	0.06
Suscol Creek	265.4	Juvenile Low Flo	1.00	47.16	48.40		48.40	0.000015	0.12	8.05	9.16	0.02
Suscol Creek	254.9	Adult High Flow	177.00	48.10	49.96	49.96	50.58	0.021009	6.34	27.91	22.65	1.01
Suscol Creek	254.9	Juvenile High Fl	36.00	48.10	49.12		49.29	0.011608	3.31	10.89	17.55	0.74
Suscol Creek	254.9	Adult Low Flow	3.00	48.10	48.52		48.54	0.006588	1.28	2.34	10.25	0.47
Suscol Creek	254.9	Juvenile Low Flo	1.00	48.10	48.39		48.40	0.005105	0.86	1.16	7.63	0.39
Suscol Creek	249.9	Adult High Flow	177.00	48.14	49.83	49.83	50.43	0.025069	6.17	28.69	24.74	1.01
Suscol Creek	249.9	Juvenile High Fl	36.00	48.14	48.95	48.95	49.20	0.025223	4.02	8.96	18.06	1.00
Suscol Creek	249.9	Adult Low Flow	3.00	48.14	48.40	48.40	48.48	0.033123	2.22	1.35	8.75	1.00
Suscol Creek	249.9	Juvenile Low Flo	1.00	48.14	48.28	48.28	48.34	0.048018	1.89	0.53	5.75	1.10
Suscol Creek	243.4	Adult High Flow	177.00	47.59	49.44	49.44	50.04	0.030491	6.23	28.40	24.12	1.01
Suscol Creek	243.4	Juvenile High Fl	36.00	47.59	48.50	48.50	48.78	0.027617	4.19	8.58	15.99	1.01
Suscol Creek	243.4	Adult Low Flow	3.00	47.59	47.89	47.89	47.98	0.032616	2.40	1.25	7.08	1.01
Suscol Creek	243.4	Juvenile Low Flo	1.00	47.59	47.77	47.77	47.83	0.037212	1.89	0.53	4.73	1.00
Suscol Creek	229.4	Adult High Flow	177.00	46.43	49.08		49.42	0.017865	4.66	38.00	21.33	0.62
Suscol Creek	229.4	Juvenile High Fl	36.00	46.43	47.53	47.53	47.82	0.067570	4.30	8.37	15.05	1.02
Suscol Creek	229.4	Adult Low Flow	3.00	46.43	46.81	46.81	46.92	0.087257	2.70	1.11	4.90	1.00
Suscol Creek	229.4	Juvenile Low Flo	1.00	46.43	46.66	46.66	46.72	0.102772	2.09	0.48	3.49	1.00
Suscol Creek	224.7	Adult High Flow	177.00	45.75	49.06		49.33	0.011386	4.16	42.56	19.75	0.50
Suscol Creek	224.7	Juvenile High Fl	36.00	45.75	47.19		47.39	0.031841	3.60	9.99	13.10	0.73
Suscol Creek	224.7	Adult Low Flow	3.00	45.75	46.30		46.34	0.023816	1.68	1.78	5.98	0.54
Suscol Creek	224.7	Juvenile Low Flo	1.00	45.75	46.13		46.15	0.016794	1.12	0.90	4.29	0.43
Suscol Creek	202.8	Adult High Flow	177.00	45.45	48.87	47.82	49.13	0.007522	4.08	43.42	20.09	0.49
Suscol Creek	202.8	Juvenile High Fl	36.00	45.45	46.98	46.51	47.10	0.006415	2.75	13.10	12.44	0.47
Suscol Creek	202.8	Adult Low Flow	3.00	45.45	45.94	45.87	45.98	0.012044	1.63	1.84	8.53	0.62
Suscol Creek	202.8	Juvenile Low Flo	1.00	45.45	45.74	45.70	45.78	0.016112	1.60	0.62	3.79	0.70
Suscol Creek	200		Bridge									
Suscol Creek	148.5	Adult High Flow	177.00	45.06	47.48		48.05	0.022707	6.09	29.08	18.18	0.85
Suscol Creek	148.5	Juvenile High Fl	36.00	45.06	45.98	45.98	46.34	0.026810	4.77	7.55	10.88	1.01
Suscol Creek	148.5	Adult Low Flow	3.00	45.06	45.33	45.33	45.42	0.037220	2.37	1.26	8.07	1.06
Suscol Creek	148.5	Juvenile Low Flo	1.00	45.06	45.22	45.22	45.27	0.037257	1.88	0.53	4.80	1.00
Suscol Creek	93.6	Adult High Flow	177.00	43.17	46.65		47.14	0.011728	5.61	31.55	12.02	0.61
Suscol Creek	93.6	Juvenile High Fl	36.00	43.17	44.64		44.84	0.008919	3.54	10.18	9.24	0.59
Suscol Creek	93.6	Adult Low Flow	3.00	43.17	43.60		43.65	0.011759	1.88	1.59	6.01	0.64
Suscol Creek	93.6	Juvenile Low Flo	1.00	43.17	43.43		43.46	0.013346	1.40	0.72	4.68	0.63
Suscol Creek	37.7	Adult High Flow	177.00	42.14	45.11	45.11	46.00	0.039548	7.57	23.38	13.29	1.01
Suscol Creek	37.7	Juvenile High Fl	36.00	42.14	43.61	43.54	43.98	0.030604	4.90	7.35	8.24	0.91
Suscol Creek	37.7	Adult Low Flow	3.00	42.14	42.64	42.61	42.75	0.022695	2.65	1.13	4.10	0.89
Suscol Creek	37.7	Juvenile Low Flo	1.00	42.14	42.46	42.43	42.52	0.021396	1.95	0.51	2.85	0.81
Suscol Creek	0	Adult High Flow	177.00	40.63	42.87	42.82	43.59	0.026012	6.81	25.98	16.56	0.96
Suscol Creek	0	Juvenile High Fl	36.00	40.63	41.67	41.66	41.97	0.026005	4.39	8.21	12.91	0.97
Suscol Creek	0	Adult Low Flow	3.00	40.63	40.94	40.92	41.03	0.026051	2.47	1.21	5.52	0.93
Suscol Creek	0	Juvenile Low Flo	1.00	40.63	40.80	40.80	40.85	0.026029	1.78	0.56	4.21	0.86

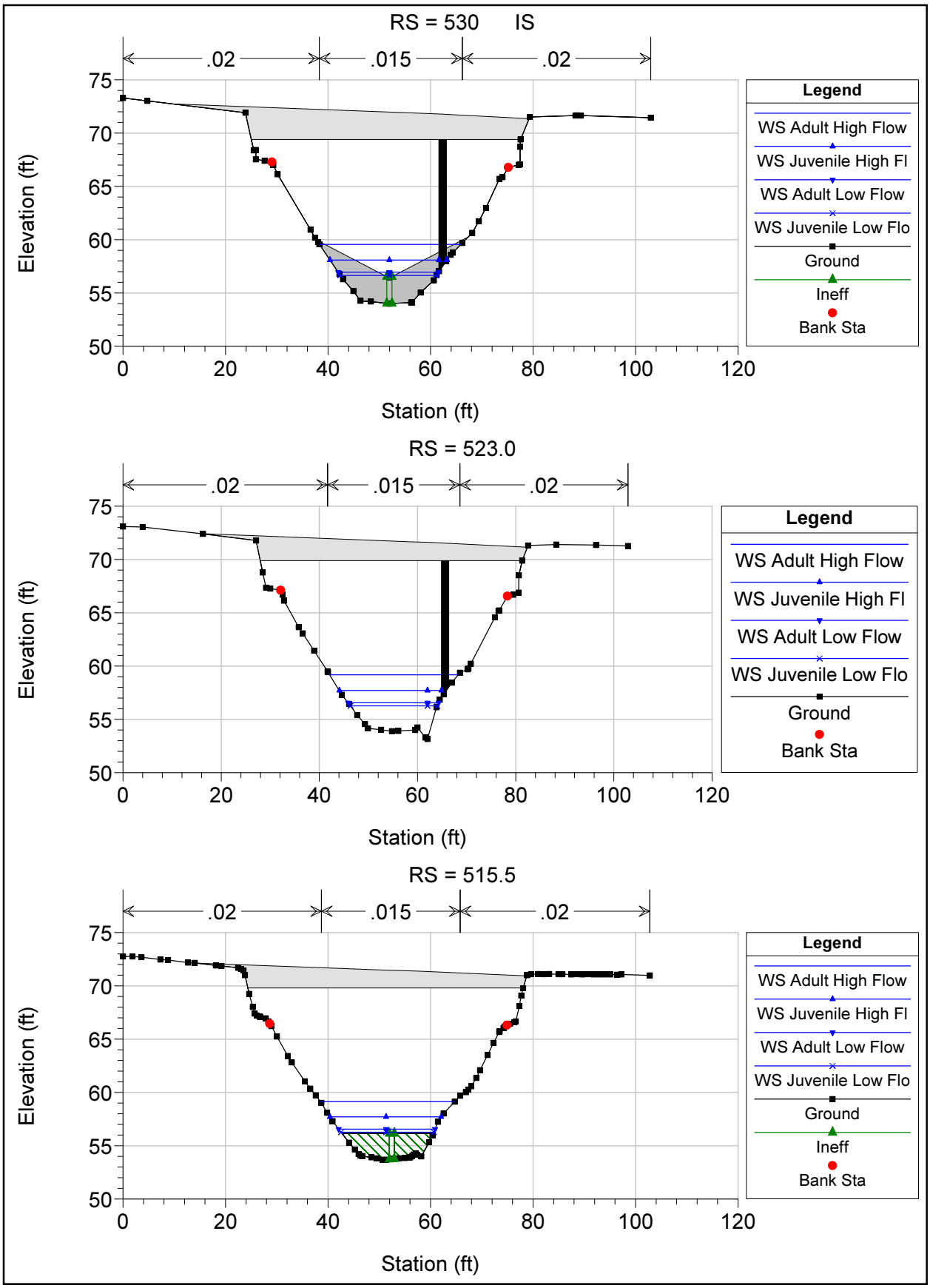

RS = 879.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 809.4
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 772
BR
.06
.022
.035
.022
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
Pier Debris

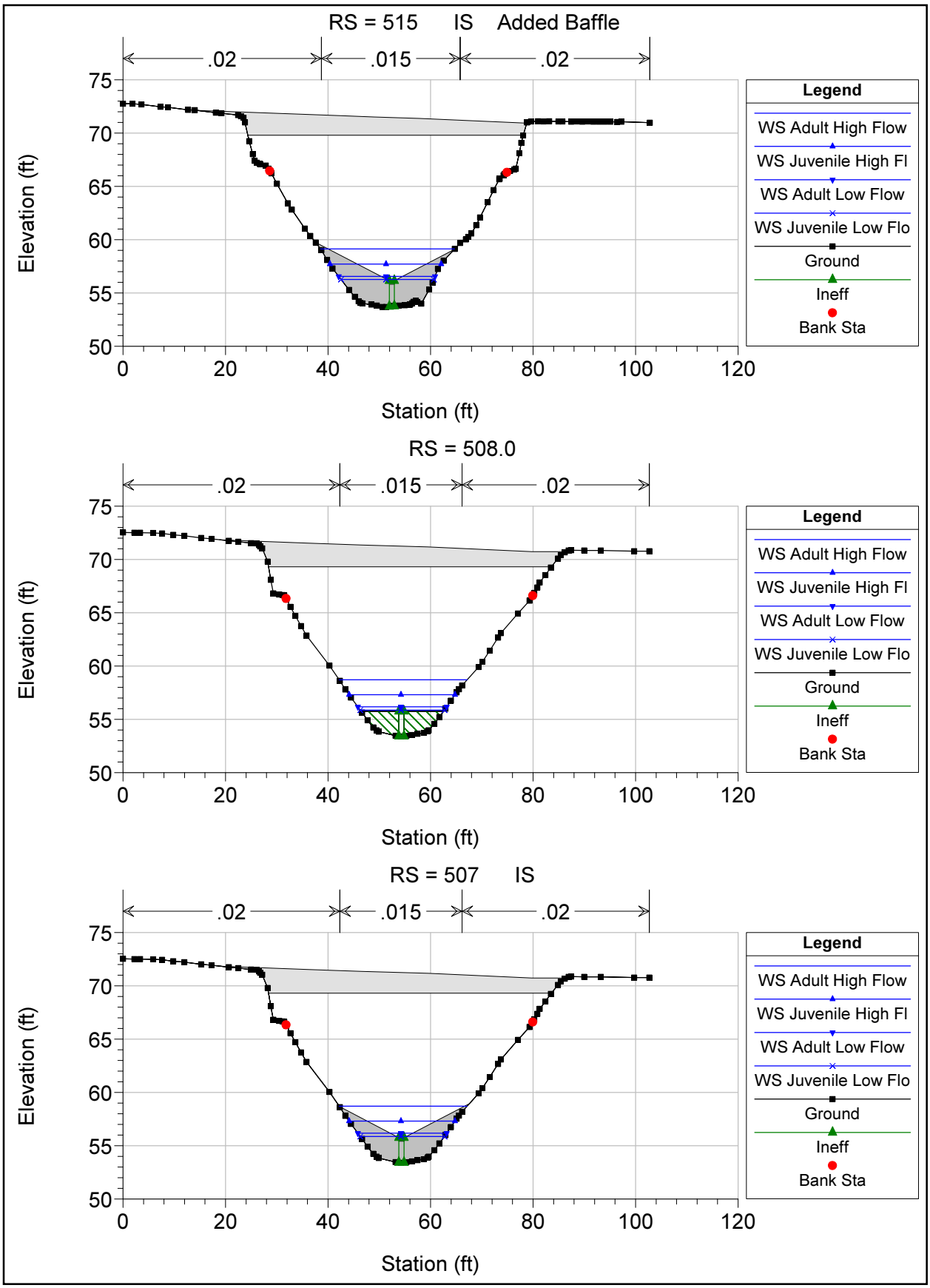

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Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 766.0
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 735.3
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Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

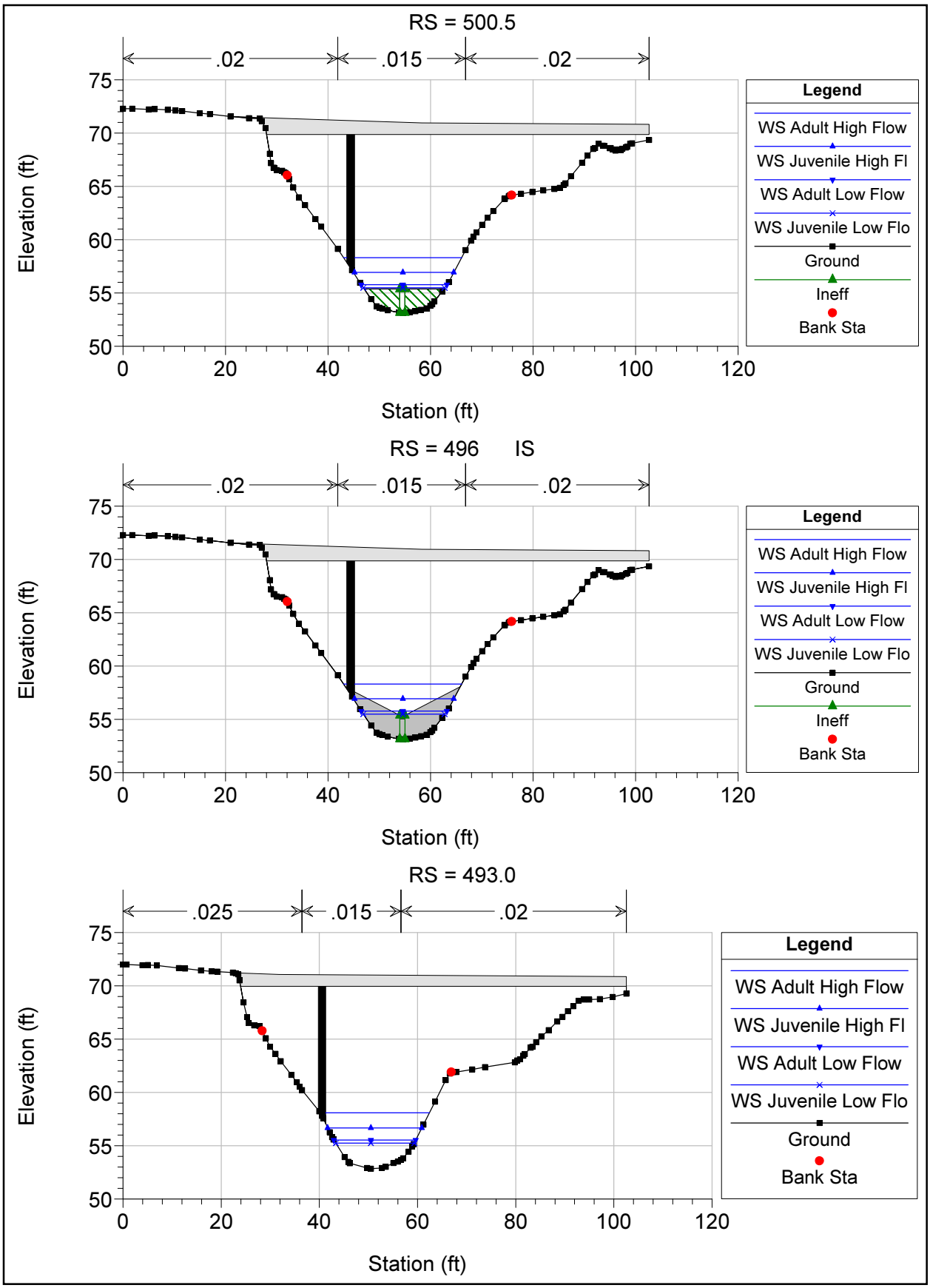

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.035
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Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 675.8
.06
.015
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 675 Culv
.06
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.06
Elevation (ft)
Station (ft)
Legend
Ground
Bank Sta

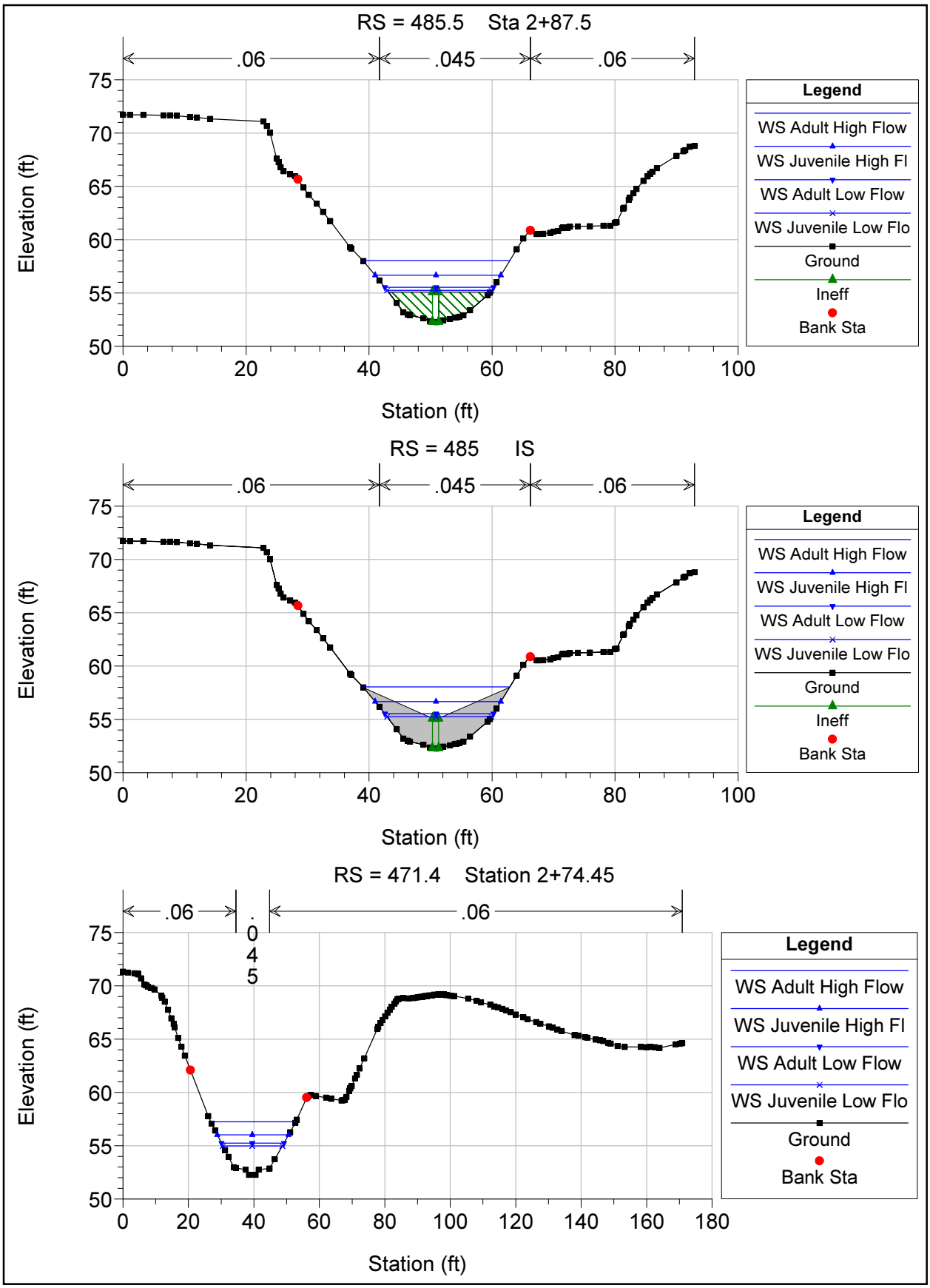

RS = 675 Culv
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
Station (ft)
Legend
Ground
Bank Sta
RS = 557.3 Sta 59.90
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 551.0
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
100
120
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

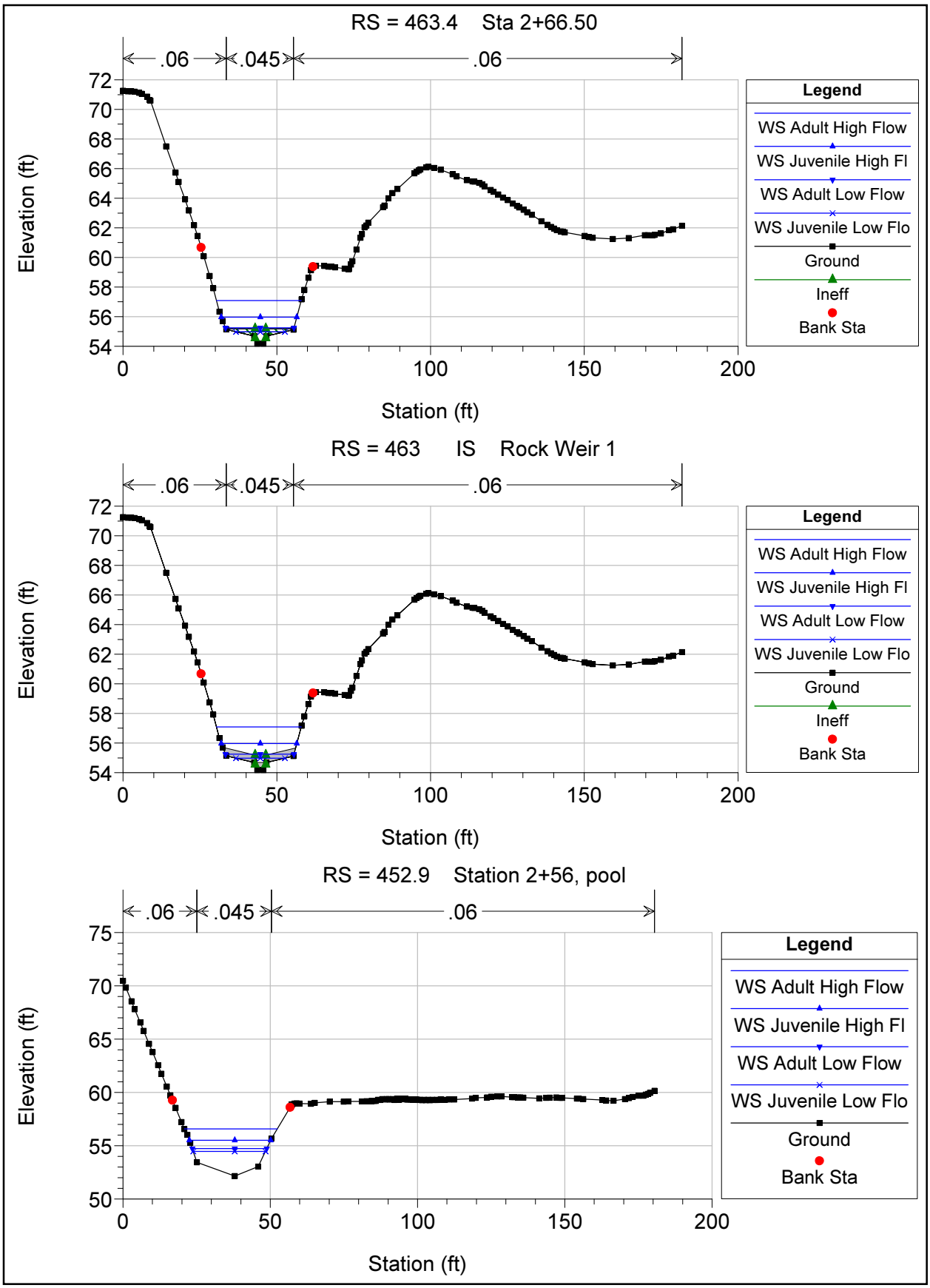

RS = 547.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 538.0
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 530.5
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta

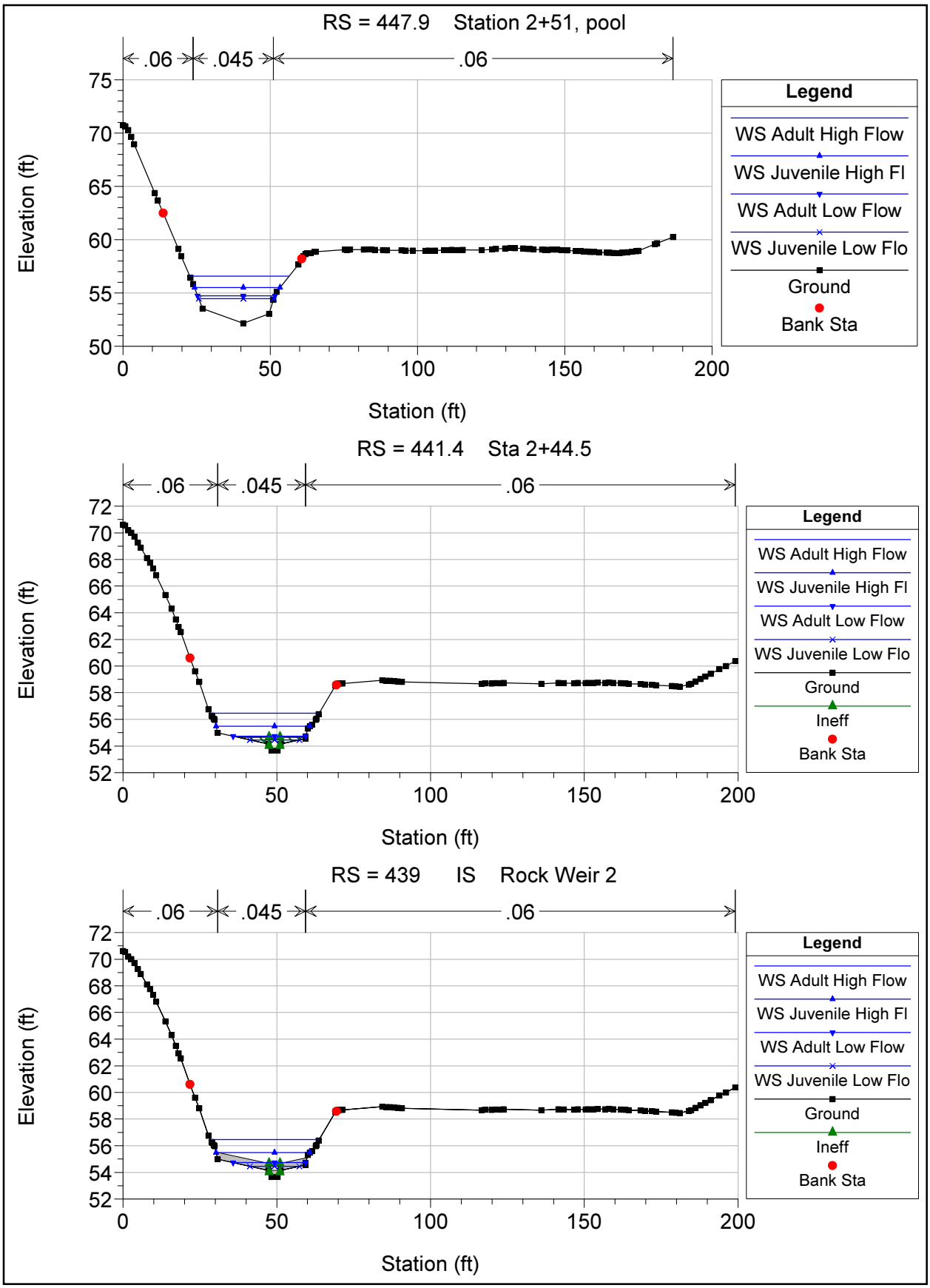

RS = 530 IS
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 523.0
RS = 515.5

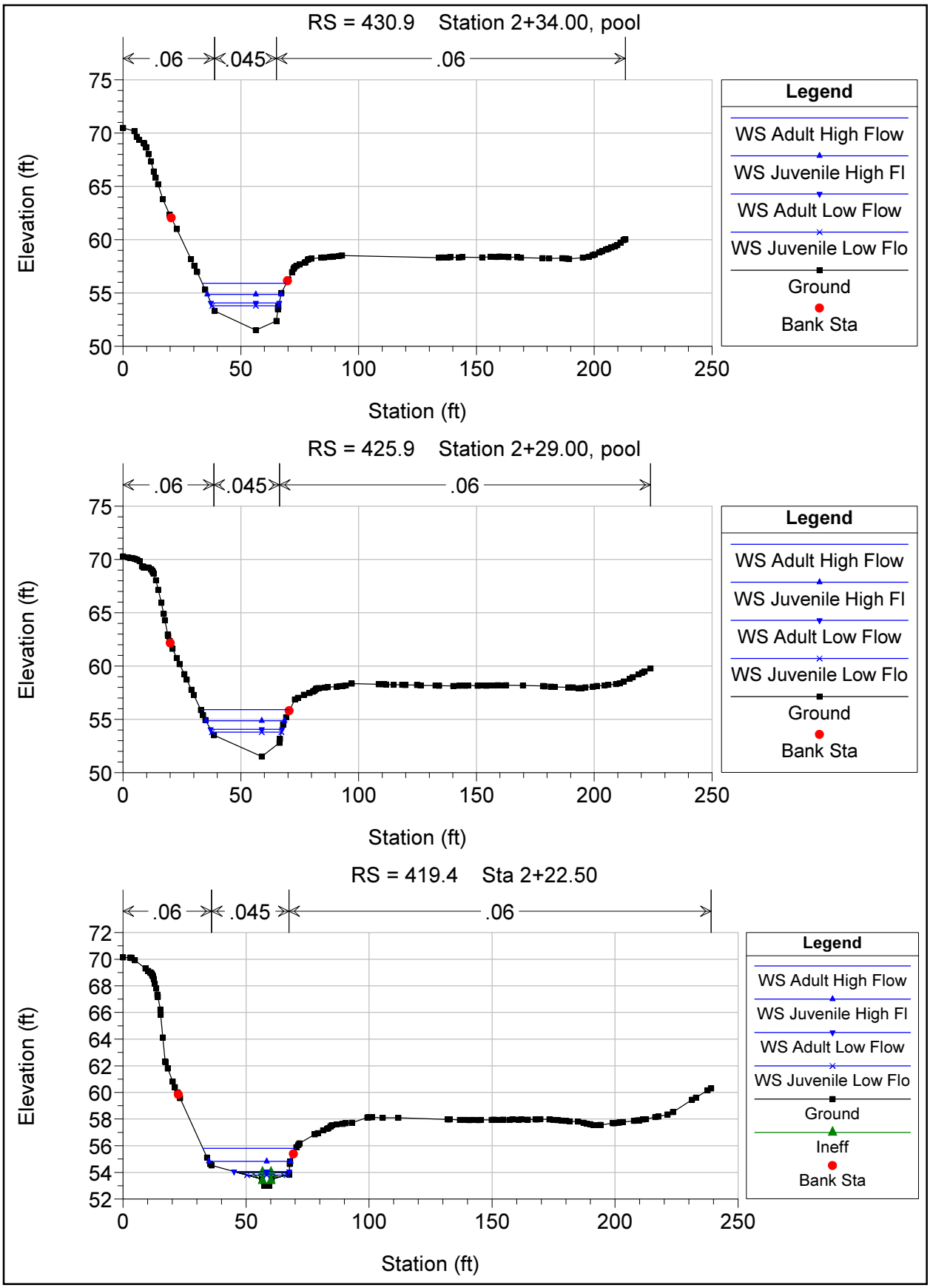

RS = 515 IS Added Baffle
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 508.0
RS = 507 IS

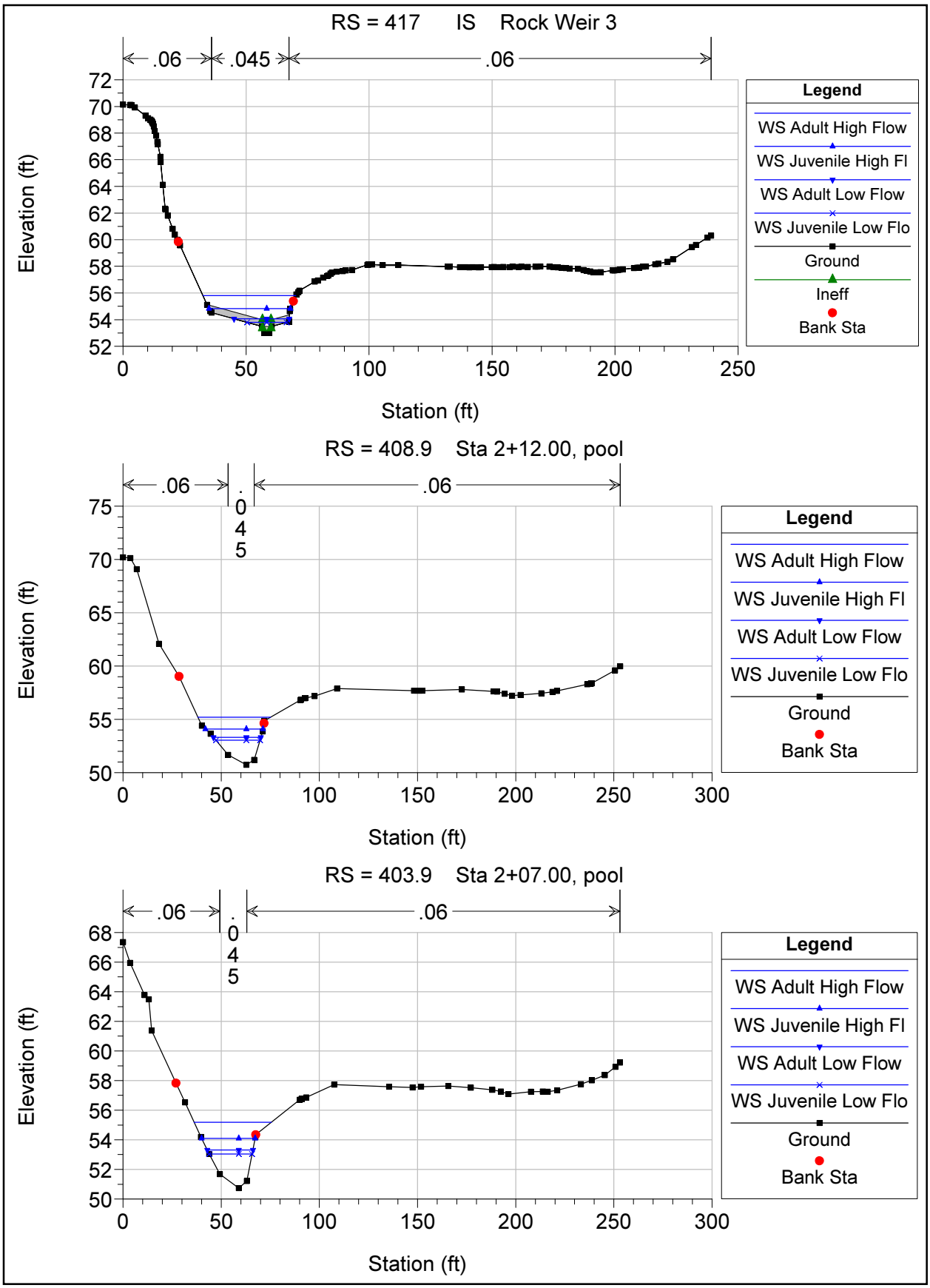

RS = 500.5
.02
.015
.02
Elevation (ft)
75
70
65
60
55
50
0
20
40
60
80
100
120
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 496 IS
.02
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 493.0
.025
.015
.02
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

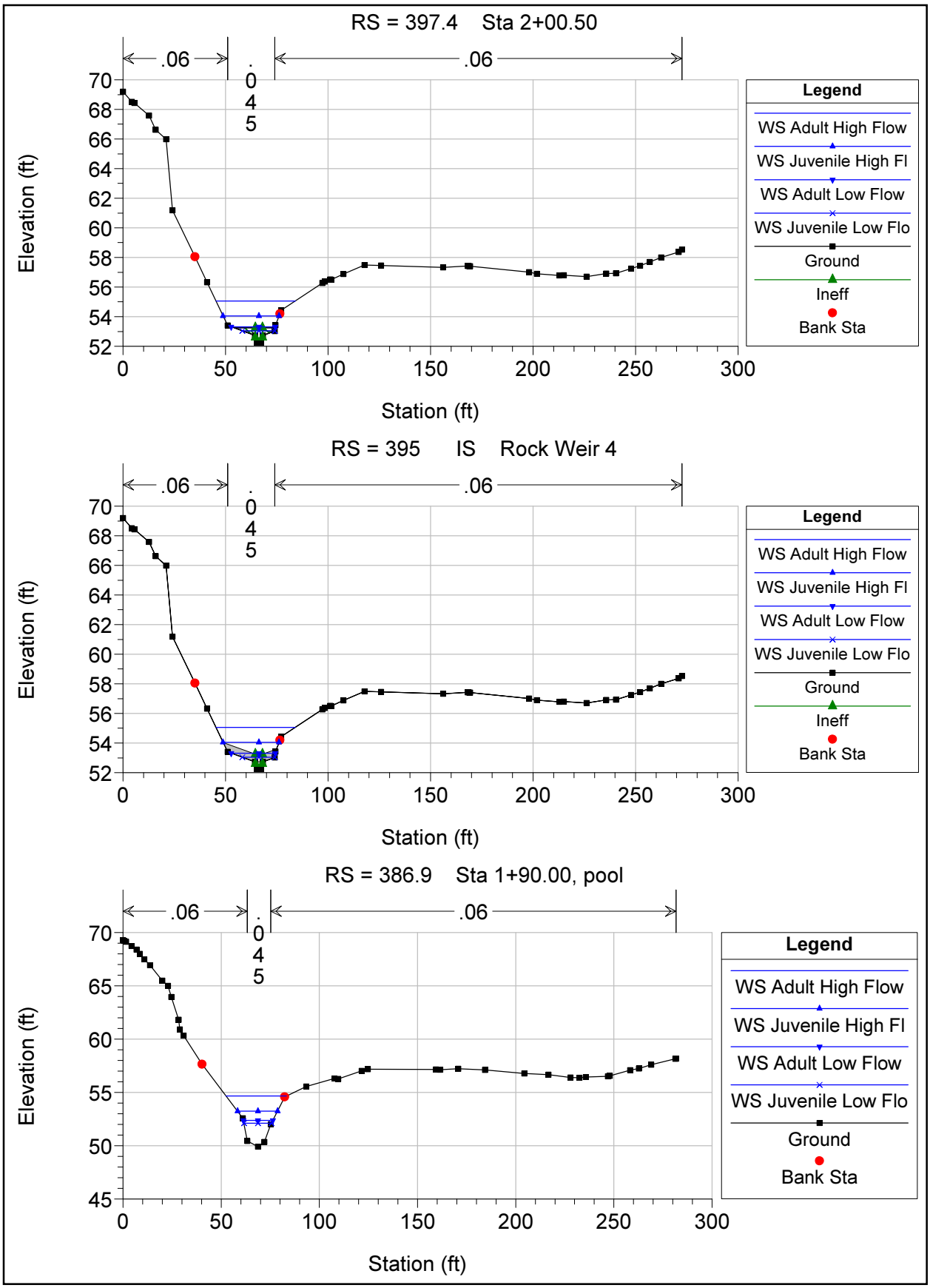

RS = 485.5 Sta 2+87.5
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 485 IS
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 471.4 Station 2+74.45
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

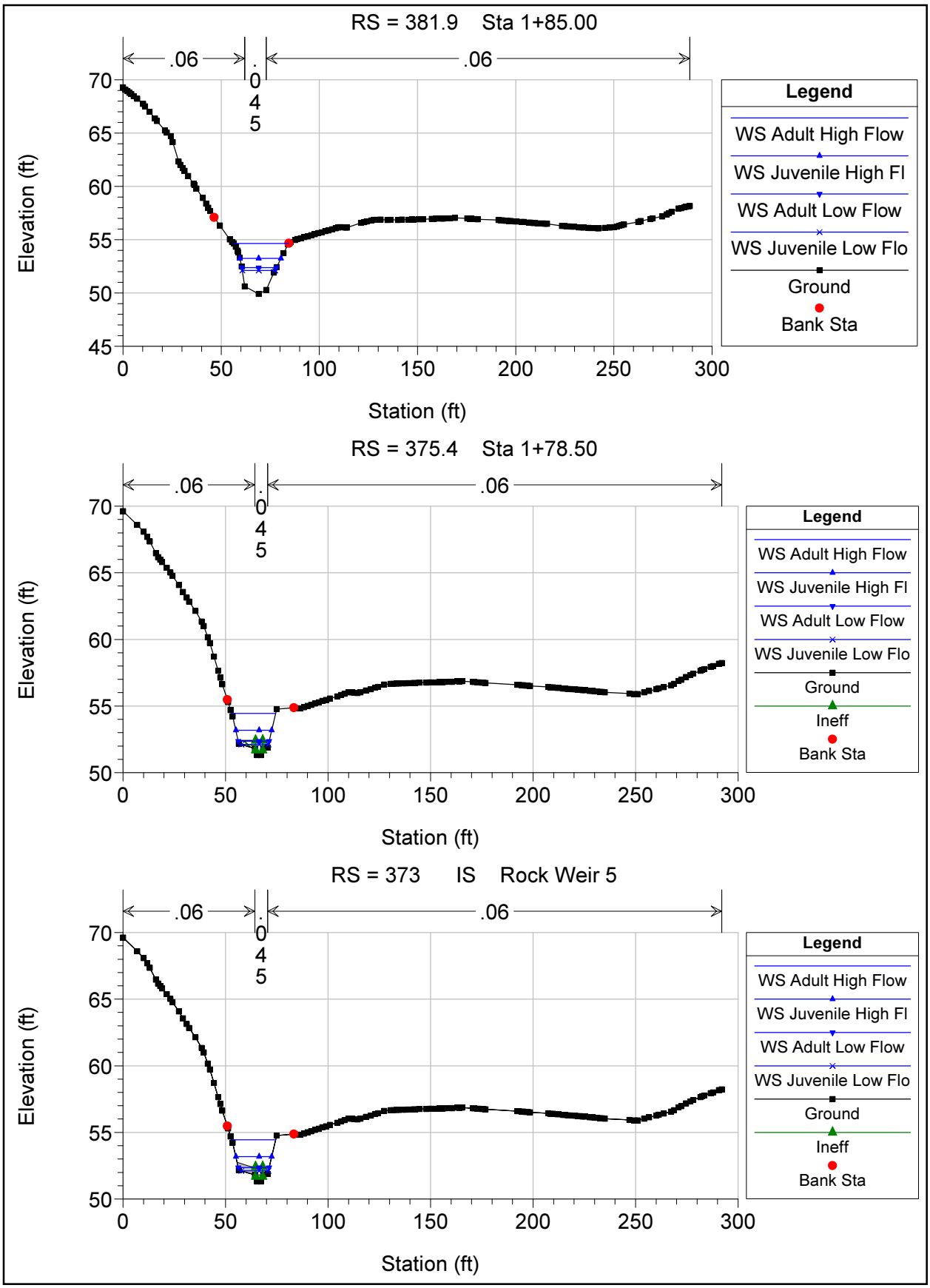

RS = 463.4 Sta 2+66.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 463 IS Rock Weir 1
RS = 452.9 Station 2+56, pool

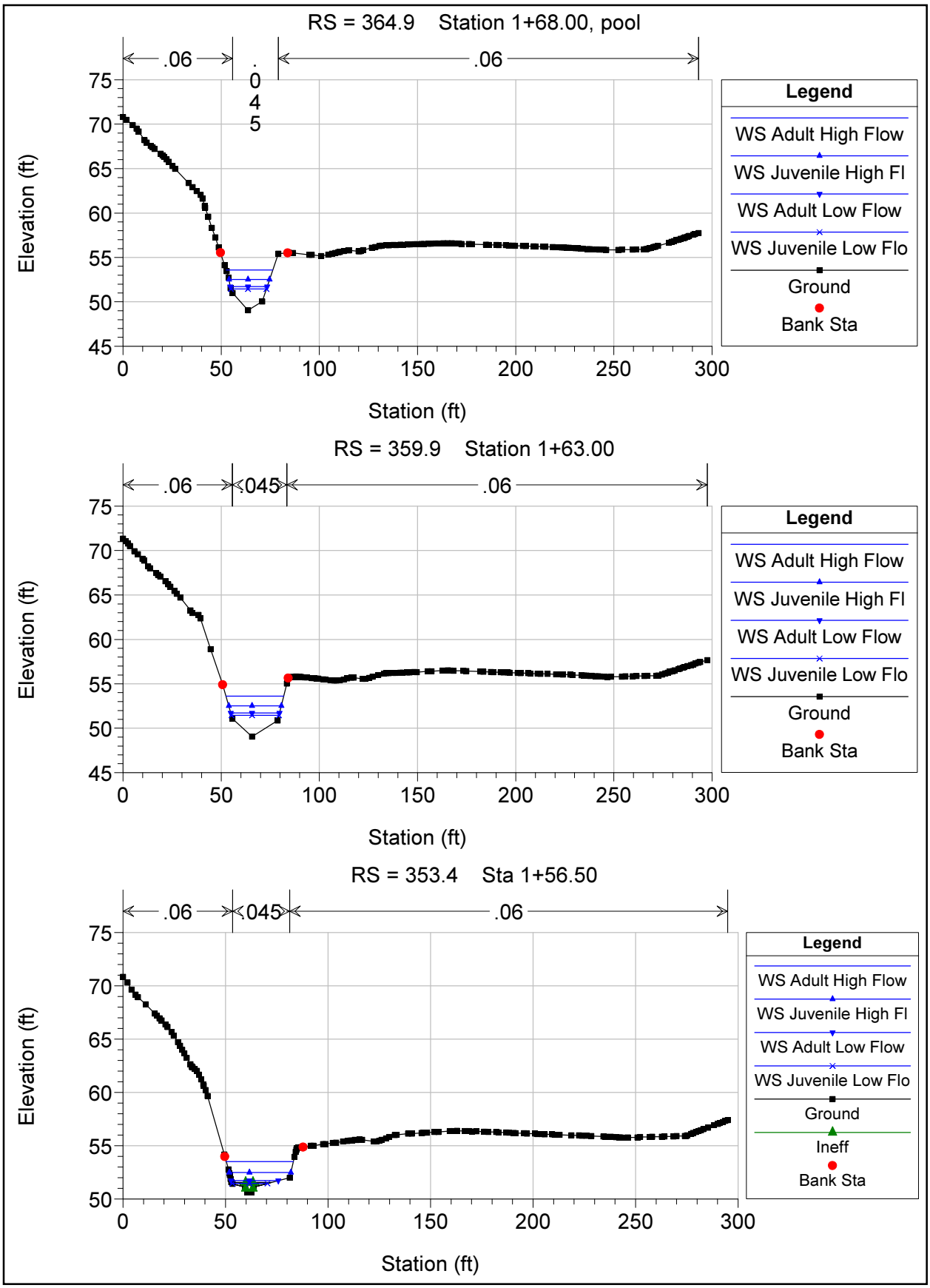

RS = 447.9 Station 2+51, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 441.4 Sta 2+44.5
Ineff
RS = 439 IS Rock Weir 2

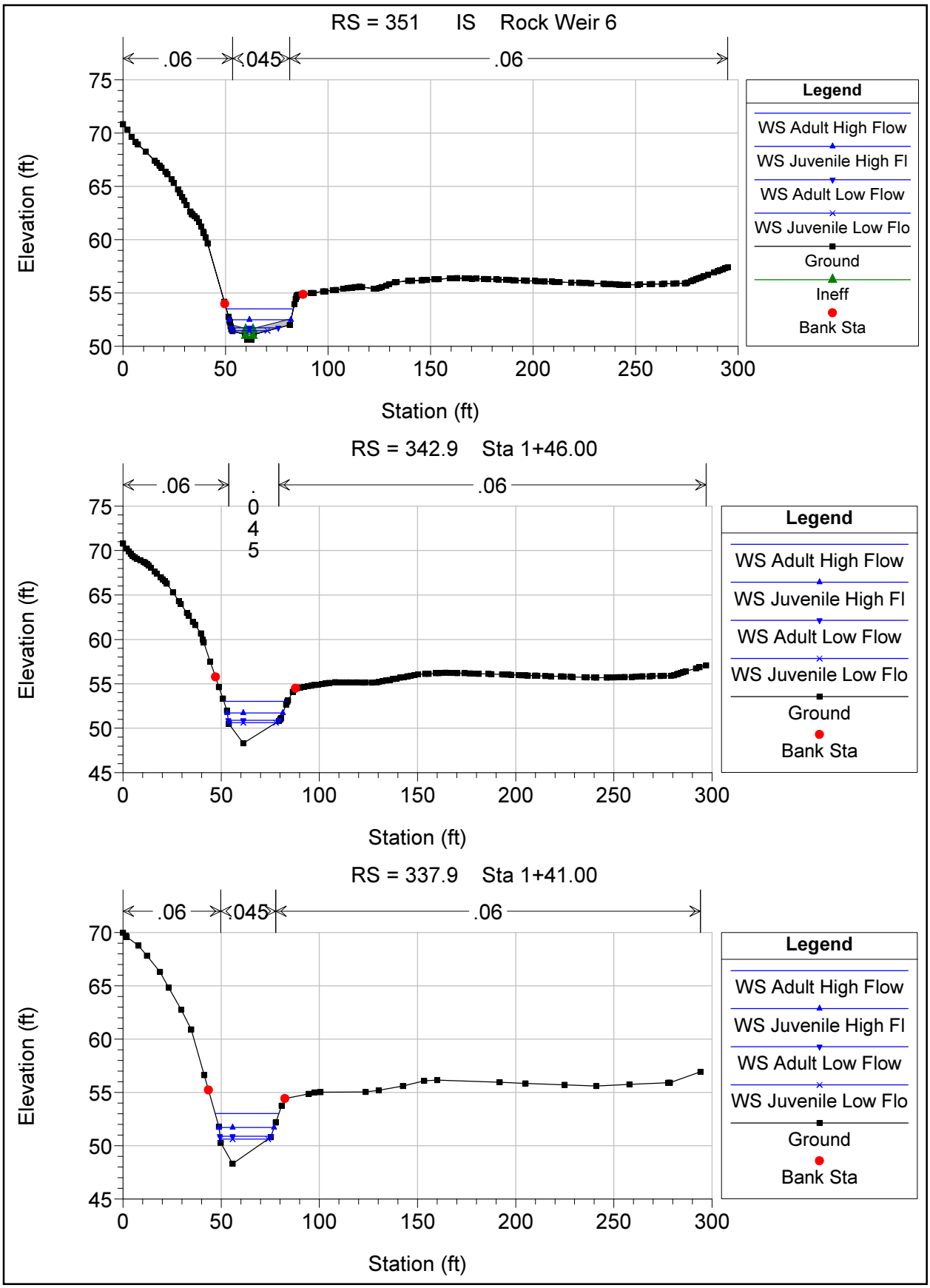

RS = 430.9 Station 2+34.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 425.9 Station 2+29.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 419.4 Sta 2+22.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta

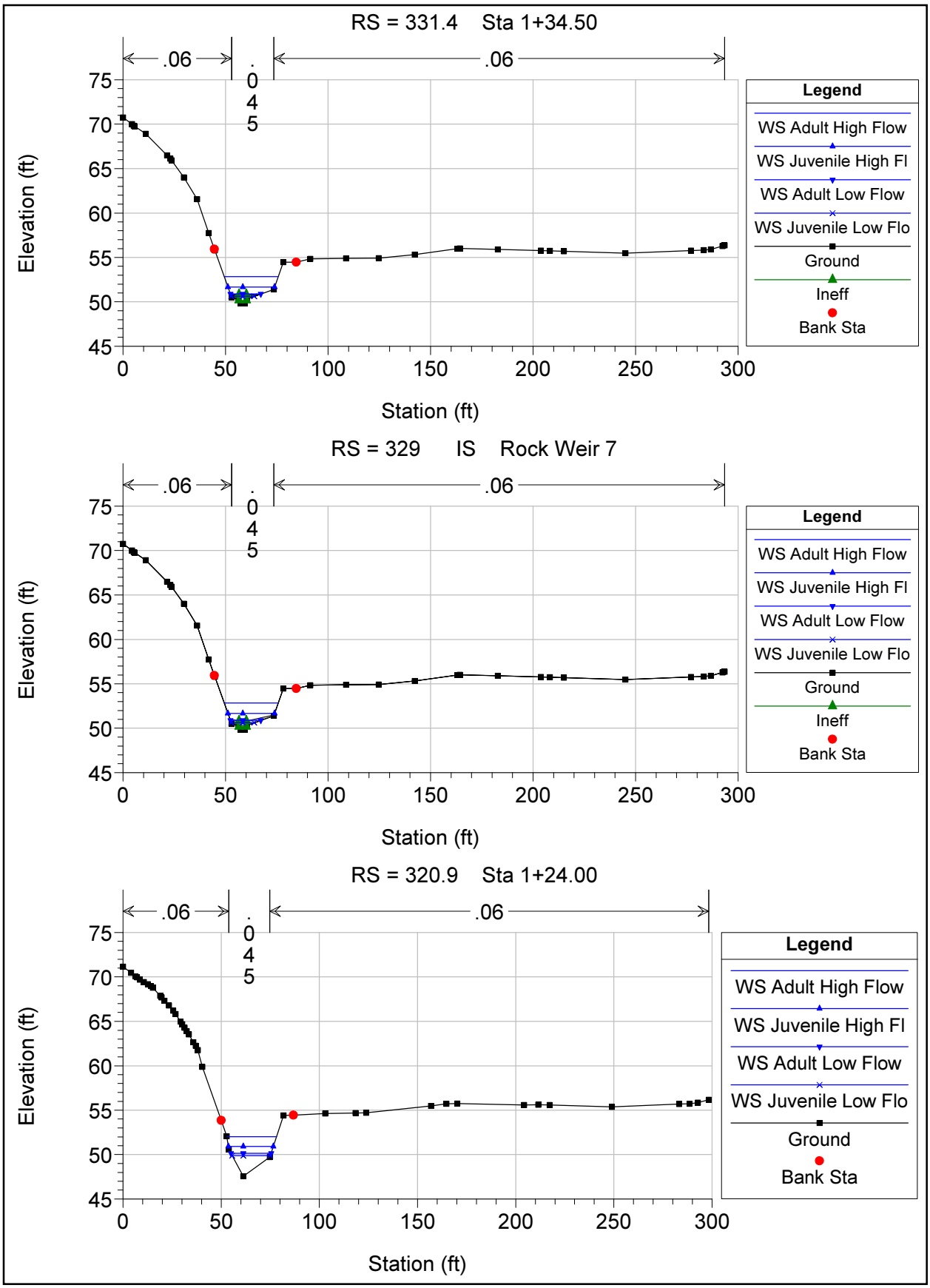

RS = 417 IS Rock Weir 3
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 408.9 Sta 2+12.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 403.9 Sta 2+07.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

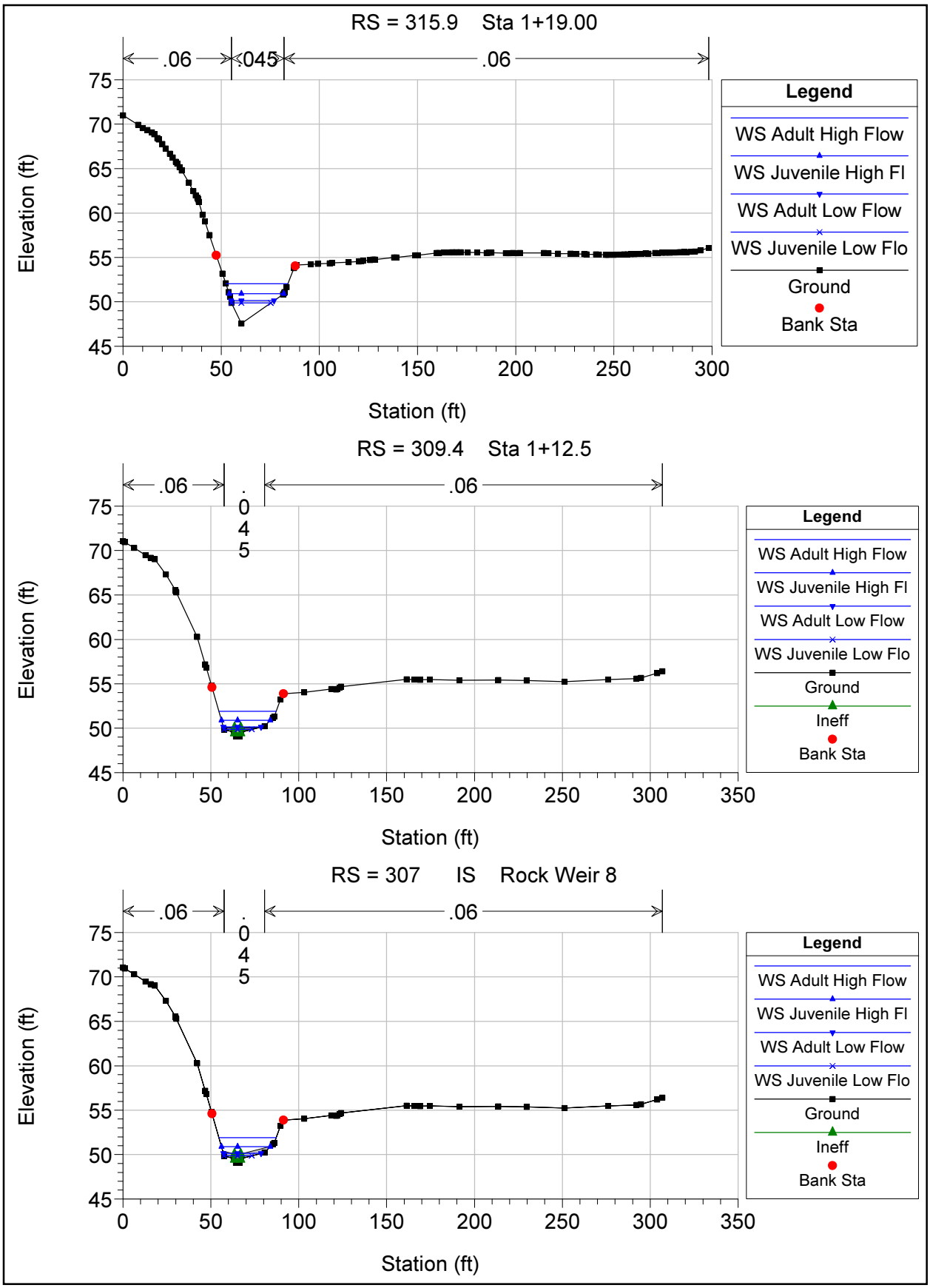

RS = 397.4 Sta 2+00.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 395 IS Rock Weir 4
RS = 386.9 Sta 1+90.00, pool

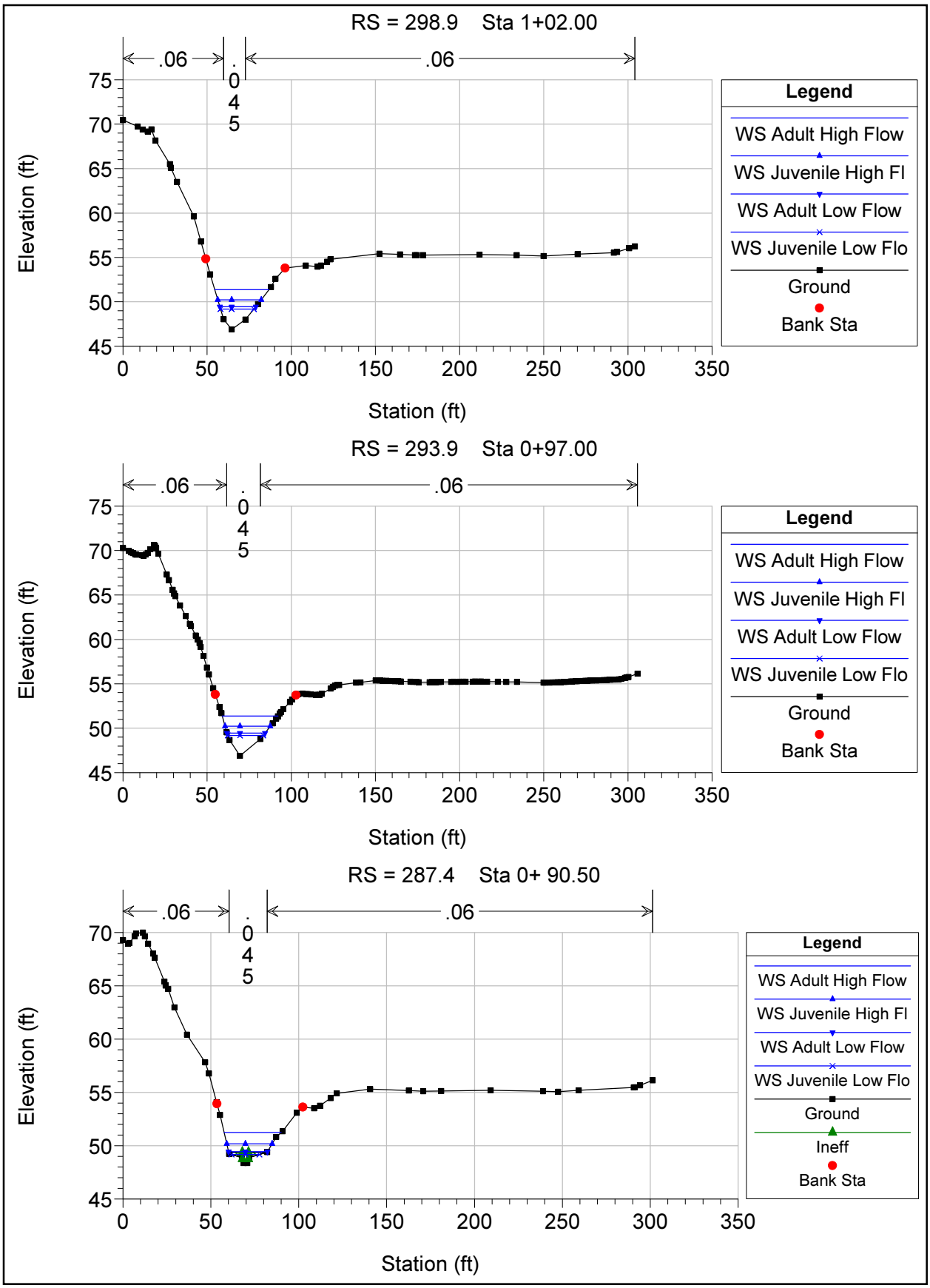

RS = 381.9 Sta 1+85.00
.06
.045
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 375.4 Sta 1+78.50
.06
.045
.06
Elevation (ft)
70
65
60
55
50
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 373 IS Rock Weir 5
.06
.045
.06
Elevation (ft)
70
65
60
55
50
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta

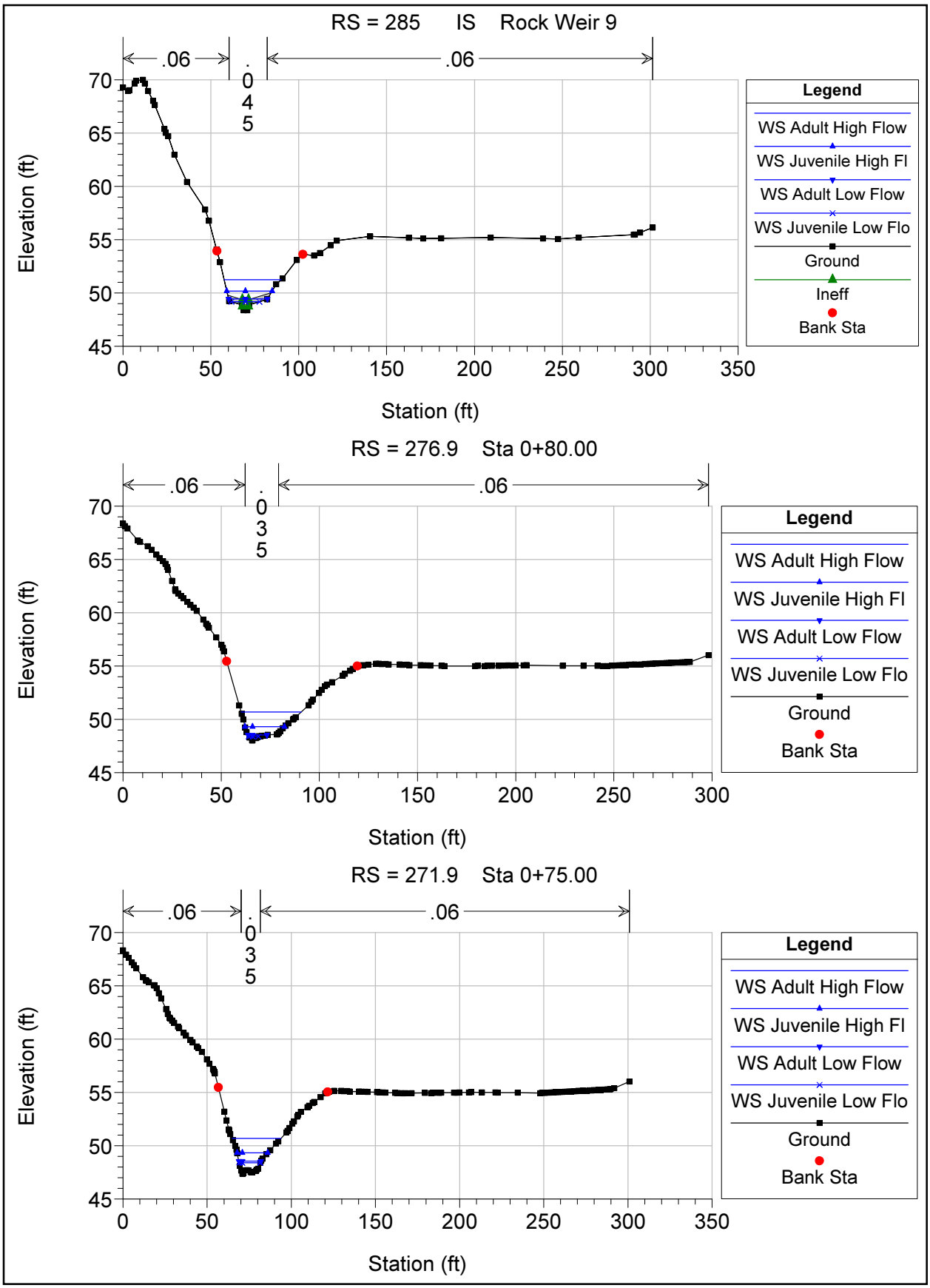

RS = 364.9 Station 1+68.00, pool
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 359.9 Station 1+63.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 353.4 Sta 1+56.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta

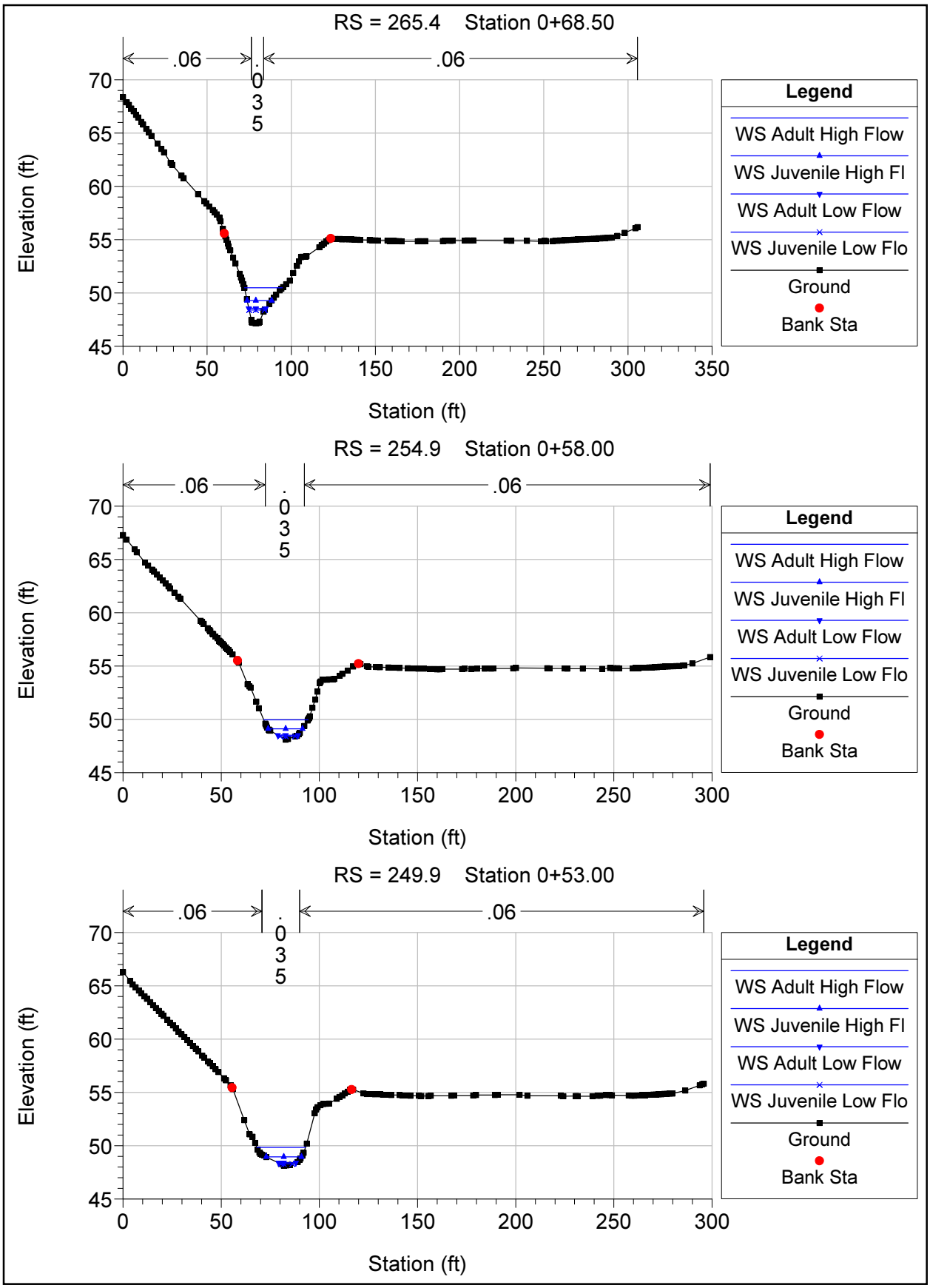

RS = 351 IS Rock Weir 6
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 342.9 Sta 1+46.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 337.9 Sta 1+41.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

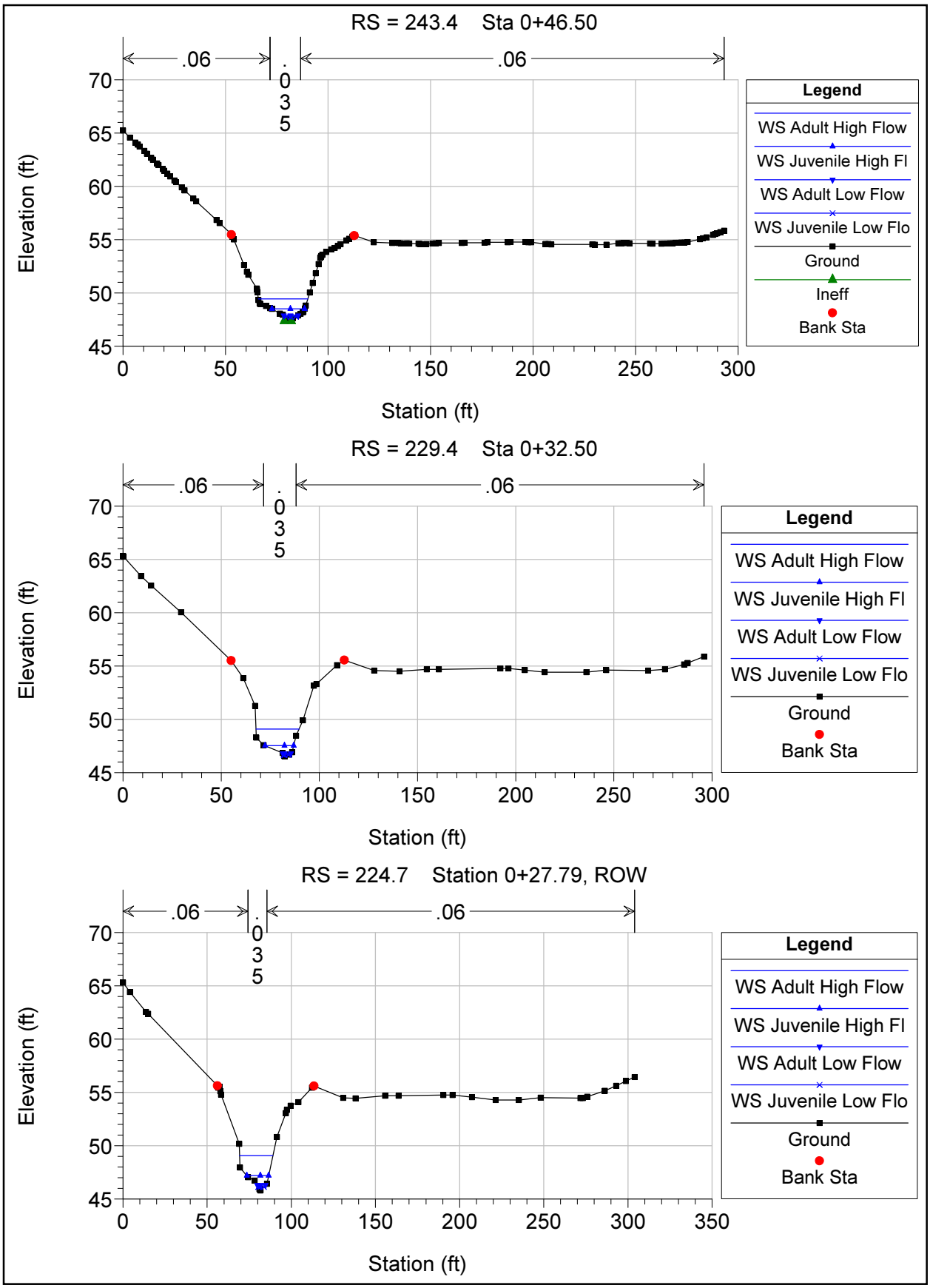

RS = 331.4 Sta 1+34.50
.06
.045
.06
Elevation (ft)
75
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 329 IS Rock Weir 7
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 320.9 Sta 1+24.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

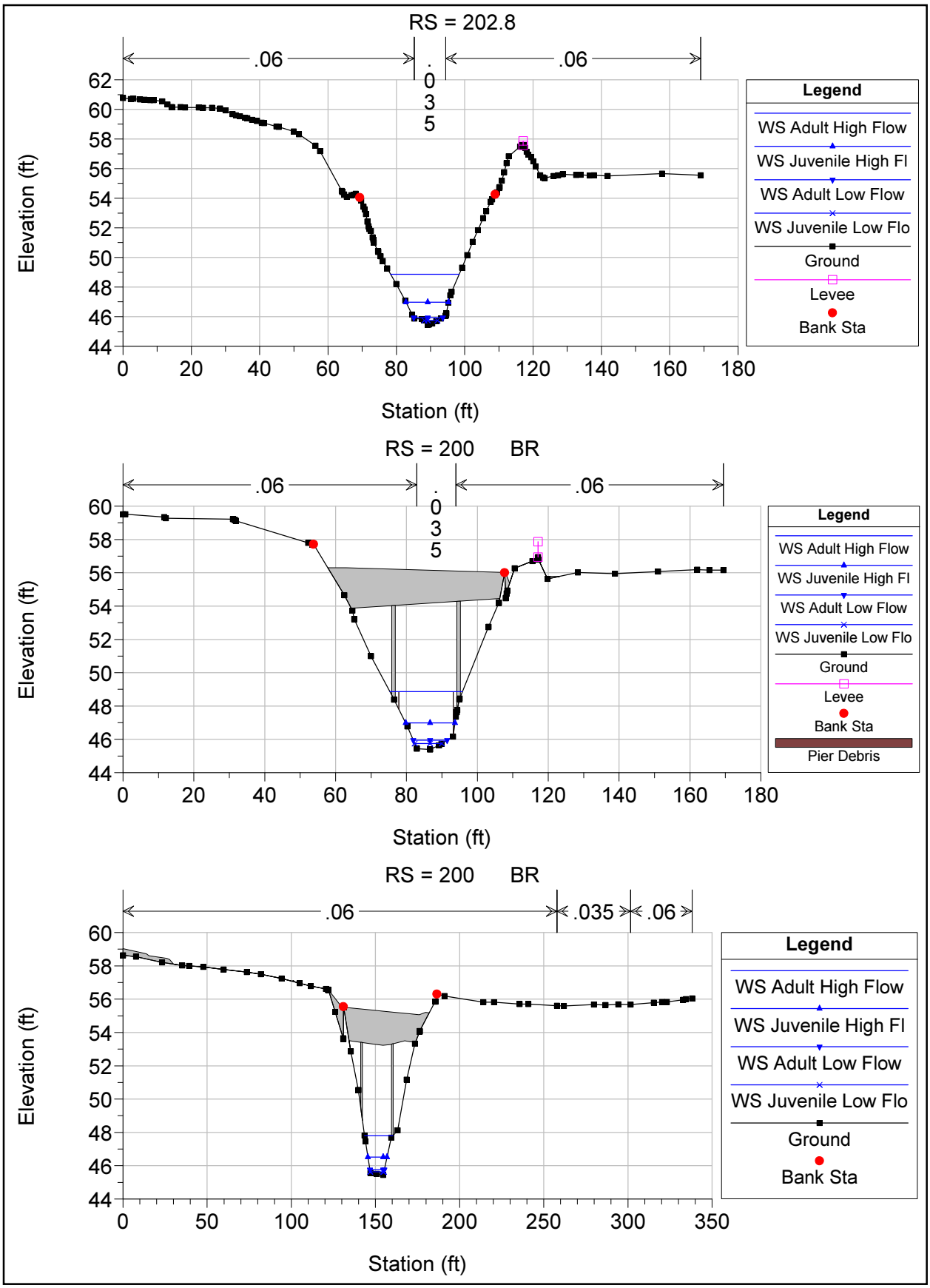

RS = 315.9 Sta 1+19.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 309.4 Sta 1+12.5
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 307 IS Rock Weir 8
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta

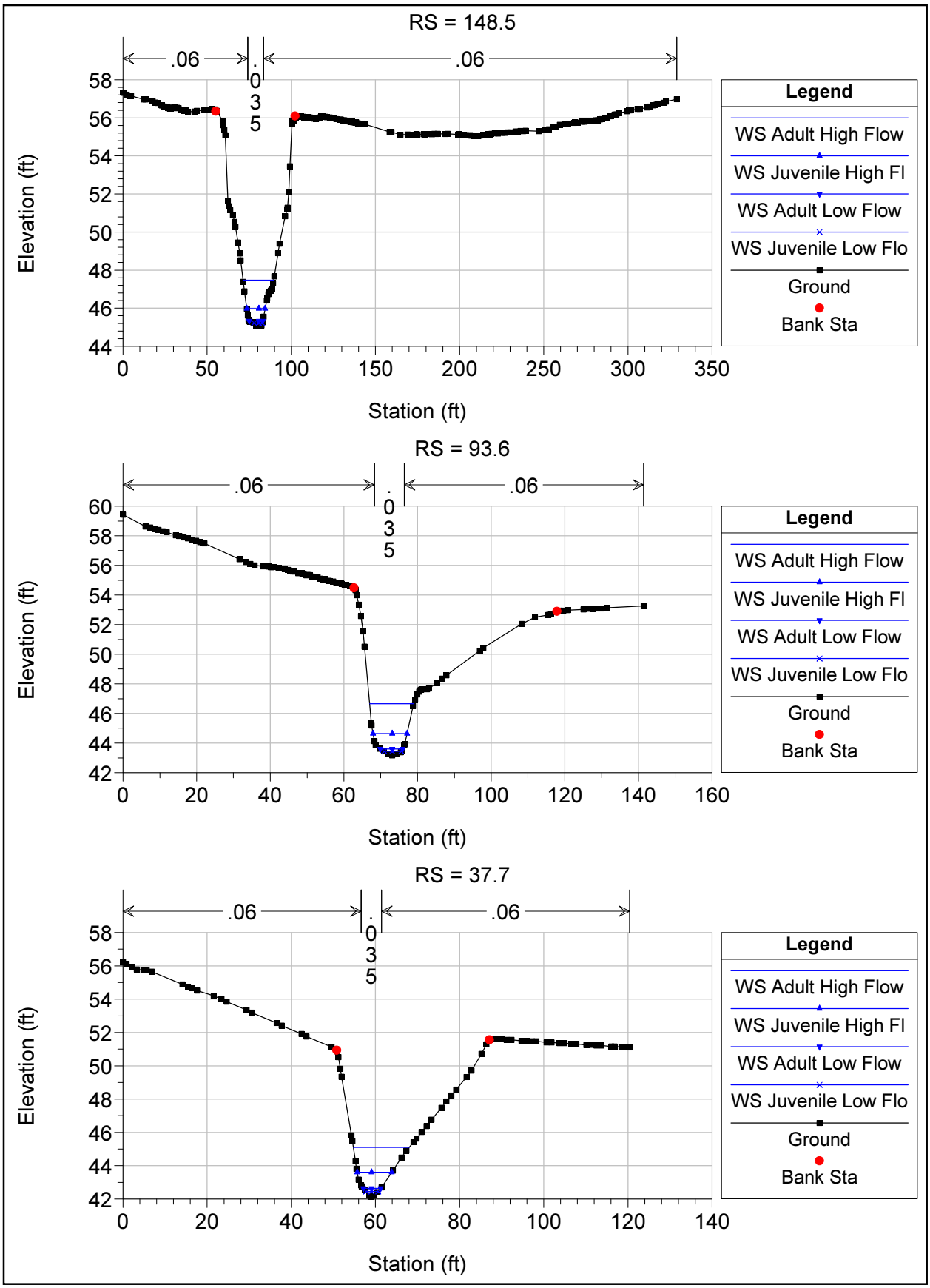

RS = 298.9 Sta 1+02.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 293.9 Sta 0+97.00
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 287.4 Sta 0+ 90.50
.06
.045
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta

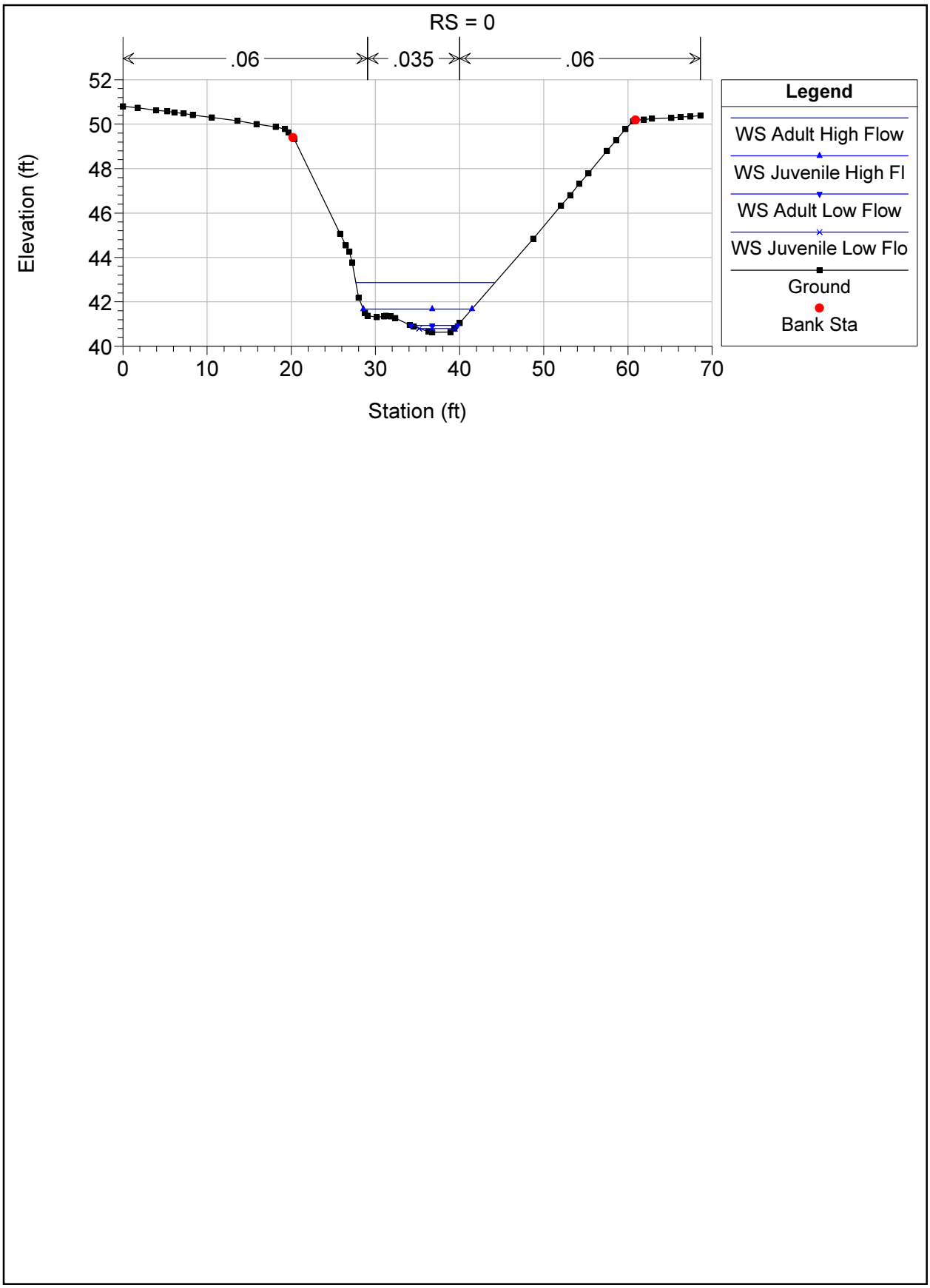

RS = 285 IS Rock Weir 9
.06
.045
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
350
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 276.9 Sta 0+80.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 271.9 Sta 0+75.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
350
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


RS = 265.4 Station 0+68.50
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
350
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 254.9 Station 0+58.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 249.9 Station 0+53.00
.06
.035
.06
Elevation (ft)
70
65
60
55
50
45
0
50
100
150
200
250
300
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


RS = 243.4 Sta 0+46.50
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Ineff
Bank Sta
RS = 229.4 Sta 0+32.50
RS = 224.7 Station 0+27.79, ROW


RS = 202.8
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Levee
Bank Sta
RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Levee
Bank Sta
Pier Debris
RS = 200 BR
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


RS = 148.5
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 93.6
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta
RS = 37.7
.06
.035
.06
Elevation (ft)
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta


RS = 0
.06
.035
.06
Elevation (ft)
52
50
48
46
44
42
40
0
10
20
30
40
50
60
70
Station (ft)
Legend
WS Adult High Flow
WS Juvenile High Fl
WS Adult Low Flow
WS Juvenile Low Flo
Ground
Bank Sta

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Appendix E. Energy Dissipation Factor Calculation

P20032 TO 01 Soscol Junction PS&E
04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2
Energy Dissipation Factor
Calculation guideline from CSSHRM Manual (Page XII-115)

$$EDF = \frac{\gamma Q h}{V}$$

Baffle No. 1 Pool RS: 530

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.37	Head of Drop Flow Entering the Pool
V (ft3)	730.9	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	5.59	Energy Dissipation Factor

Baffle No. 2 Pool RS: 515

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.42	Head of Drop Flow Entering the Pool
V (ft3)	683.6	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	6.79	Energy Dissipation Factor

Baffle No. 3 Pool RS: 507

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.40	Head of Drop Flow Entering the Pool
V (ft3)	626.4	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	7.05	Energy Dissipation Factor

Baffle No. 4 Pool RS: 496

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.22	Head of Drop Flow Entering the Pool
V (ft3)	399.9	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	6.08	Energy Dissipation Factor

Baffle No. 5 Pool RS: 485

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.45	Head of Drop Flow Entering the Pool
V (ft3)	612.8	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	8.11	Energy Dissipation Factor

P20032 TO 01 Soscol Junction PS&E
04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2
Energy Dissipation Factor
Calculation guideline from CSSHRM (Page XII-115)

$$EDF = \frac{\gamma Q h}{V}$$

Pool No. 1

RS: 452

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.4	Head of Drop Flow Entering the Pool
V (ft3)	803.8	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	5.50	Energy Dissipation Factor

Pool No. 2

RS: 430.9

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.46	Head of Drop Flow Entering the Pool
V (ft3)	877.4	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	5.79	Energy Dissipation Factor

Pool No. 3

RS: 408.9

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.56	Head of Drop Flow Entering the Pool
V (ft3)	737.0	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	8.39	Energy Dissipation Factor

Pool No. 4

RS: 386.9

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.38	Head of Drop Flow Entering the Pool
V (ft3)	613.0	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	6.85	Energy Dissipation Factor

Pool No. 5

RS: 364

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.66	Head of Drop Flow Entering the Pool
V (ft3)	717.4	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	10.16	Energy Dissipation Factor

Pool No. 6

RS: 342.9

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.48	Head of Drop Flow Entering the Pool
V (ft3)	763.2	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	6.95	Energy Dissipation Factor

Pool No. 7

RS: 320.9

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.66	Head of Drop Flow Entering the Pool
V (ft3)	646.3	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	7.86	Energy Dissipation Factor

Pool No. 8

RS: 298.9

r (lb/ft3)	62.4	Unit Weigth of Water
Q (ft3/s)	177.0	Flow Enterining the Pool
h(ft)	0.46	Head of Drop Flow Entering the Pool
V (ft3)	674.3	Effective Volume of the Pool for dissipating Energy
EDF (lb*ft/ft^3/s)	7.53	Energy Dissipation Factor

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Appendix F. Plunging and Streaming Flow Evaluation

P20032 TO 01 Soscol Junction PS&E
04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2
Energy Dissipation Factor
Calculation guideline from CSSHRM Manual (Page XII-115)

$$Q = Q_t \cdot \sqrt{g} b_o S_o L^{3/2}$$

Baffle No. 1 Pool

RS: 530

Qt	0.9	Unit Weigth of Water
g	32.2	Gravitational acceleration
b	30.1	Width of fishway weir
S	0.0	Slope of fishway
L	14.0	Length of pool
p	3.1	Height of pool
Q	26.79	Transition Flow

Baffle No. 2 Pool

RS: 515

Qt	0.6	Unit Weigth of Water
g	32.2	Gravitational acceleration
b	33.4	Width of fishway weir
S	0.0	Slope of fishway
L	6.5	Length of pool
p	2.4	Height of pool
Q	11.88	Transition Flow

Baffle No. 3 Pool

RS: 507

Qt	0.7	Unit Weigth of Water
g	32.2	Gravitational acceleration
b	26	Width of fishway weir
S	0.0	Slope of fishway
L	7.0	Length of pool
p	2.3	Height of pool
Q	11.34	Transition Flow

Baffle No. 4 Pool

RS: 496

Qt	1.5	Unit Weigth of Water
g	32.2	Gravitational acceleration
b	20.2	Width of fishway weir
S	0.0	Slope of fishway
L	13.5	Length of pool
p	2.2	Height of pool
Q	29.24	Transition Flow

Baffle No. 5 Pool

RS: 485

Qt	3.0	Unit Weigth of Water
g	32.2	Gravitational acceleration
b	23.7	Width of fishway weir
S	0.0	Slope of fishway
L	22.6	Length of pool
p	2.5	Height of pool
Q	96.75	Transition Flow

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Appendix G. Engineered Streambed Material Calculation

P20032 TO 01 Soscol Junction PS&E

04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2

Rock Sizing and Gradation

Calculation guideline from CSSHRM (Page XII-67-71)

$$D_{30\text{-}ACOE} = \frac{1.95S^{0.555}(1.25q)^{\frac{2}{3}}}{g^{\frac{1}{3}}}$$

Step Pool No. 1

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	50.66	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.02	Hydarulic Slope
$D_{30\text{-}ACOE}$ (ft)	1.22	D_{30} stable particle size based on rock gradation
$D_{84\text{-}ESM}$ (ft)	1.83	D_{84} stable particle size for ESM
$D_{50\text{-}ESM}$ (ft)	0.73	D_{50}stable particle size for ESM
$D_{100\text{-}ESM}$ (ft)	4.57	D_{100} stable particle size for ESM

$$D_{16-ESM} = 0.32^{\frac{1}{n}} D_{50-ESM}$$

$$D_{8-ESM} = 0.16^{\frac{1}{n}} D_{50-ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-}ESM}$ (ft)	0.06	D_{16} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (ft)	0.01	D_8 particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (mm)	3.80	

Step Pool No. 2

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	51.74	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.03	Hydarulic Slope
$D_{30\text{-}ACOE}$ (ft)	1.41	D_{30} stable particle size based on rock gradation
$D_{84\text{-}ESM}$ (ft)	2.12	D_{84} stable particle size for ESM
$D_{50\text{-}ESM}$ (ft)	0.85	D_{50}stable particle size for ESM
$D_{100\text{-}ESM}$ (ft)	5.29	D_{100} stable particle size for ESM

$$D_{16-ESM} = 0.32^{\frac{1}{n}} D_{50-ESM}$$

$$D_{8-ESM} = 0.16^{\frac{1}{n}} D_{50-ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-}ESM}$ (ft)	0.07	D_{16} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (ft)	0.01	D_8 particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (mm)	4.39	

Step Pool No. 3

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	61.26	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.03	Hydarulic Slope
$D_{30\text{-}ACOE}$ (ft)	1.71	D_{30} stable particle size based on rock gradation
$D_{84\text{-}ESM}$ (ft)	2.56	D_{84} stable particle size for ESM
$D_{50\text{-}ESM}$ (ft)	1.02	D_{50}stable particle size for ESM
$D_{100\text{-}ESM}$ (ft)	6.40	D_{100} stable particle size for ESM

$$D_{16\text{-}ESM} = 0.32^{\frac{1}{n}} D_{50\text{-}ESM}$$

$$D_{8\text{-}ESM} = 0.16^{\frac{1}{n}} D_{50\text{-}ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-}ESM}$ (ft)	0.08	D_{16} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (ft)	0.02	D_8 particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (mm)	5.32	

Step Pool No. 4

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	61.93	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.04	Hydarulic Slope
$D_{30\text{-}ACOE}$ (ft)	1.81	D_{30} stable particle size based on rock gradation
$D_{84\text{-}ESM}$ (ft)	2.71	D_{84} stable particle size for ESM
$D_{50\text{-}ESM}$ (ft)	1.08	D_{50}stable particle size for ESM
$D_{100\text{-}ESM}$ (ft)	6.77	D_{100} stable particle size for ESM

$$D_{16\text{-}ESM} = 0.32^{\frac{1}{n}} D_{50\text{-}ESM}$$

$$D_{8\text{-}ESM} = 0.16^{\frac{1}{n}} D_{50\text{-}ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-}ESM}$ (ft)	0.09	D_{16} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (ft)	0.02	D_8 particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (mm)	5.63	

Step Pool No. 5

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	58.29	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.04	Hydarulic Slope
$D_{30\text{-ACOE}}$ (ft)	1.76	D_{30} stable particle size based on rock gradation
$D_{84\text{-ESM}}$ (ft)	2.64	D_{84} stable particle size for ESM
$D_{50\text{-ESM}}$ (ft)	1.05	D_{50}stable particle size for ESM
$D_{100\text{-ESM}}$ (ft)	6.59	D_{100} stable particle size for ESM

$$D_{16-ESM} - 0.32^{\frac{1}{n}} D_{50-ESM}$$

$$D_{8-ESM} - 0.16^{\frac{1}{n}} D_{50-ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-ESM}}$ (ft)	0.08	D_{16} particle size to fill the interstital voids
$D_{8\text{-ESM}}$ (ft)	0.02	D_8 particle size to fill the interstital voids
$D_{8\text{-ESM}}$ (mm)	5.48	

Step Pool No. 6

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	46.19	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.03	Hydarulic Slope
$D_{30\text{-ACOE}}$ (ft)	1.39	D_{30} stable particle size based on rock gradation
$D_{84\text{-ESM}}$ (ft)	2.09	D_{84} stable particle size for ESM
$D_{50\text{-ESM}}$ (ft)	0.84	D_{50}stable particle size for ESM
$D_{100\text{-ESM}}$ (ft)	5.23	D_{100} stable particle size for ESM

$$D_{16-ESM} = 0.32^{\frac{1}{n}} D_{50-ESM}$$

$$D_{8-ESM} = 0.16^{\frac{1}{n}} D_{50-ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-ESM}}$ (ft)	0.07	D_{16} particle size to fill the interstital voids
$D_{8\text{-ESM}}$ (ft)	0.01	D_8 particle size to fill the interstital voids
$D_{8\text{-ESM}}$ (mm)	4.34	

Step Pool No. 7

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	40.56	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.03	Hydarulic Slope
$D_{30\text{-}ACOE}$ (ft)	1.29	D_{30} stable particle size based on rock gradation
$D_{84\text{-}ESM}$ (ft)	1.93	D_{84} stable particle size for ESM
$D_{50\text{-}ESM}$ (ft)	0.77	D_{50}stable particle size for ESM
$D_{100\text{-}ESM}$ (ft)	4.83	D_{100} stable particle size for ESM

$$D_{16-ESM} = 0.32^{\frac{1}{n}} D_{50-ESM}$$

$$D_{8-ESM} = 0.16^{\frac{1}{n}} D_{50-ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-}ESM}$ (ft)	0.06	D_{16} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (ft)	0.01	D_{8} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (mm)	4.01	

Step Pool No. 8

g (ft/s^2)	32.2	Gravitational acceleration
q (ft^3/ft)	45.72	Unit discharge within the active channel at the stable bed design flow (100-Year)
S (ft/ft)	0.03	Hydarulic Slope
$D_{30\text{-}ACOE}$ (ft)	1.33	D_{30} stable particle size based on rock gradation
$D_{84\text{-}ESM}$ (ft)	2.00	D_{84} stable particle size for ESM
$D_{50\text{-}ESM}$ (ft)	0.80	D_{50}stable particle size for ESM
$D_{100\text{-}ESM}$ (ft)	4.99	D_{100} stable particle size for ESM

$$D_{16-ESM} = 0.32^{\frac{1}{n}} D_{50-ESM}$$

$$D_{8-ESM} = 0.16^{\frac{1}{n}} D_{50-ESM}$$

n	0.45	Between 0.45 and 0.70.
$D_{16\text{-}ESM}$ (ft)	0.06	D_{16} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (ft)	0.01	D_{8} particle size to fill the interstital voids
$D_{8\text{-}ESM}$ (mm)	4.15	

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Appendix H. Weir Rock Size Calculation

P20032 TO 01 Soscol Junction PS&E
04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2
Rock Sizing and Gradation
Calculation guideline from CSSHRM (Page XII-89-91)

$$D_{75-riprap} = \frac{3.5wDS}{CK}$$

Step Pool No. 1

w (ft)	40.6	Channel top width at the design flow
D (ft)	7.49	Maximum depth of flow in channel
S (ft/ft)	0.02	Channel Slope
C	1.00	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	2.10	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	1.75	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	3.49	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	6.98	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	1.31	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 2

w (ft)	49.7	Channel top width at the design flow
D (ft)	7.37	Maximum depth of flow in channel
S (ft/ft)	0.03	Channel Slope
C	1.00	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	3.21	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	2.67	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	5.34	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	10.69	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	2.00	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 3

w (ft)	76.9	Channel top width at the design flow
D (ft)	7.28	Maximum depth of flow in channel
S (ft/ft)	0.03	Channel Slope
C	1.00	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	5.64	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	4.70	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	9.40	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	18.81	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	3.53	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 4

w (ft)	81.8	Channel top width at the design flow
D (ft)	7.82	Maximum depth of flow in channel
S (ft/ft)	0.04	Channel Slope
C	1.00	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	7.04	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	5.87	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	11.74	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	23.47	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	4.40	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 5

w (ft)	27.1	Channel top width at the design flow
D (ft)	7.73	Maximum depth of flow in channel
S (ft/ft)	0.04	Channel Slope
C	0.60	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	3.93	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	3.28	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	6.56	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	13.11	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	2.46	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 6

w (ft)	41.9	Channel top width at the design flow
D (ft)	8.34	Maximum depth of flow in channel
S (ft/ft)	0.03	Channel Slope
C	0.60	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	5.71	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	4.76	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	9.51	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	19.02	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	3.57	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 7

w (ft)	36.8	Channel top width at the design flow
D (ft)	9.10	Maximum depth of flow in channel
S (ft/ft)	0.03	Channel Slope
C	0.60	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	5.55	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	4.63	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	9.26	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	18.51	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	3.47	$D_{min\text{-Weir}}$ riprap size in inches

Step Pool No. 8

w (ft)	49.6	Channel top width at the design flow
D (ft)	9.82	Maximum depth of flow in channel
S (ft/ft)	0.03	Channel Slope
C	0.60	Coefficient for channel curvature
K	1.00	Side slope coefficient
$D_{75\text{-riprap}}$ (inch)	7.43	$D_{75\text{-riprap}}$ riprap size in inches
$D_{50\text{-riprap}}$ (inch)	6.19	$D_{50\text{-riprap}}$ riprap size in inches
$D_{50\text{-Weir}}$ (inch)	12.38	$D_{50\text{-Weir}}$ riprap size in inches
$D_{100\text{-Weir}}$ (inch)	24.76	$D_{100\text{-Weir}}$ riprap size in inches
$D_{min\text{-Weir}}$ (inch)	4.64	$D_{min\text{-Weir}}$ riprap size in inches

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Appendix I. Rock Weir Scour Analysis

P20032 TO 01 Soscol Junction PS&E
04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2
Rock Weir Scour Depth
Calculation guideline from FHWA, HEC-23

$$d_s = K_u H_t^{0.225} q^{0.54} - d_m$$

Rock Weir l No. 1

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	40.0	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	1.7	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	4.6	Tailwater Depth		
ds (ft)	6.3			

Rock Weir No. 2

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
W (ft)	39.2	Weir Width		
q(cfs/ft)	26.7	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.35	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	5.5	Tailwater Depth		
ds (ft)	0.6			

Rock Weir No. 3

Q (cfs)	1520.0	100-year design flow	pool Depth	2
q(cfs/ft)	28.0	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.9	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	5.6	Tailwater Depth		
ds (ft)	2.2			

Rock Weir No. 4

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	27.9	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.9	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	5.4	Tailwater Depth		
ds (ft)	2.3			

Rock Weir No. 5

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	31.2	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.2	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	6.0	Tailwater Depth		
ds (ft)	0.0			

Rock Weir No. 6

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	34.1	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.4	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	6.6	Tailwater Depth		
ds (ft)	0.6			

Rock Weir No. 7

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	28.9	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.0	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	6.3	Tailwater Depth		
ds (ft)	-2.6			

Rock Weir No. 8

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	26.6	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.0	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	8.1	Tailwater Depth		
ds (ft)	-4.9			

Rock Weir No. 9

Q (cfs)	1520.0	100-year design flow	Pool Depth	2
q(cfs/ft)	23.4	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	0.0	Total drop in head, measured from the upstream to downstream energy grade line		
dm (ft)	9.0	Tailwater Depth		
ds (ft)	-5.4			

P20032 TO 01 Soscol Junction PS&E
04 Nap SR 29 PM 5.5, SR 221 PM 0.0/0.2
Rock Weir Scour Depth
Calculation guideline from FHWA, HEC-23

$$d_s = K_u H_t^{0.225} q^{0.54} - d_m$$

Concrete Baffle No. 5

Q (cfs)	1520.0	100-year design flow	Pool Depth	2.42
q(cfs/ft)	45.1	Discharge per unit width		
Ku	1.32	1.32 for English Unit		
Ht (ft)	1.60	to downstream energy grade line		
dm (ft)	5.8	Tailwater Depth		
ds (ft)	5.7			

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Appendix J. Rock Slope Protection Calculation

Soscol Creek Fish Passage

Napa County

Streambank Rock Slope Protection

Calculation guideline from Caltrans Highway Design Manual

Input from HEC-RAS for Proposed single span
100-year Bulked Flow

Location along stream:	Upstream	Upstream Face	Downstream Face	Downstream	Downstream 2	
V_{avg}	8.1	5.7	6.7	4.5	7.7	ft/s
g	32.2	32.2	32.2	32.2	32.2	ft/s^2
Depth based on	Average	Average	Average	Average	Average	
y	3.8	5.3	4.3	5.9	4.8	ft
S_f	1.1	1.1	1.1	1.1	1.1	
C_s	0.3	0.3	0.3	0.3	0.3	
Cross section location:	Straight channel	Straight channel	Outside of bend	Outside of bend	Outside of bend	
C_v	1.00	1.00	1.18	1.18	1.18	

For outside of bends, need R_c and W:

Note: these parameters also affect the V_{des}; for natural channels, $V_{des}=V_{avg}$ for $R_c/W>26$

Note: these parameters also affect the V_{des}; for trapezoidal channels, $V_{des}=V_{avg}$ for $R_c/W>8$

R_c	26	26	135	135	135	ft
W	1.0	1.0	40.3	40.3	40.3	ft
C_t	1.0	1.0	1.0	1.0	1.0	
S_g	2.65	2.65	2.65	2.65	2.65	
Type of channel:	Natural	Natural	Natural	Natural	Natural	
V_{des}	8.1	5.8	9.8	6.7	11.2	ft/s
K_1	0.72	0.72	0.72	0.72	0.72	
θ	33.7	33.7	33.7	33.7	33.7	degrees
SS	1.5	1.5	1.5	1.5	1.5	
D_{30}	0.5	0.2	0.9	0.3	1.2	ft
D_{50}	0.6	0.2	1.0	0.4	1.4	ft
D_{50}	6.7	2.6	12.3	4.3	16.8	inches
	II	I	IV	I	V	RSP Class
	60 lb	**20 lb**	**300 lb**	**20 lb**	**1/4 ton**	Median particle weight
	9	**6**	**15**	**6**	**18**	Median particle diameter (inches)

Soscol Creek Fish Passage

Napa County

Rock Slope Protection Calculations for Abutments

Calculation guideline from HEC-23 3rd Edition

Input from HEC-RAS for Proposed single span

100-year Bulked Flow

Location	Upstream	Upstream Face	Downstream Face	Downstream	
V	8.1	5.7	6.7	4.5	ft/s
g	32.2	32.2	32.2	32.2	ft/s^2
y	3.8	5.3	4.3	5.9	ft
Fr	0.73	0.44	0.56	0.33	
Equation	**Isbash**	**Isbash**	**Isbash**	**Isbash**	

For Froude Numbers $(V/(gy)^{1/2})<=0.80$, Isbash relationship (Equation 14.1)

$$D_{50} = \frac{yK}{(S_s - 1)}\left[\frac{V^2}{gy}\right]$$

y	3.8	5.3	4.3	5.9	depth of flow in the contracted bridge opening, ft
K	1.00	1.00	1.00	1.00	1.02 for vertical wall abutment, 0.89 or for spill-through abutment
S_s	2.65	2.65	2.65	2.65	specific gravity of rock
V	8.1	5.7	6.7	4.5	average velocity in contracted section, ft/s
g	32.2	32.2	32.2	32.2	gravitational acceleration, ft/s^2
D_{50}	1.2	0.6	0.8	0.4	median stone diameter, ft
D_{50}	14.7	7.4	10.0	4.7	median stone diameter, inches

IV	II	III	I	RSP Class
300 lb	60 lb	150 lb	20 lb	Median particle weight
15	9	12	6	Median particle diameter (inches)

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Appendix K. Cost Estimate

ESTIMATE OF COST
04-281201_Soscol Creek Fish Passage Improvement
95% PS&E Submittal

3/31/2021

No.		BID ITEM No.	BID ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE	AMOUNT
1		153247	REMOVE CONCRETE (MISCELLANEOUS)	CY	7	$ 583	$ 4,081
2		190151	CHANNEL EXCAVATION	CY	1,248	$ 85	$ 106,080
3		731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	9	$ 2,560	$ 23,040
4			ROCK WEIR (STRUCTURAL ROCK, METHOD A)	CY	374	$ 500	$ 187,000
5		721401A	VOID FILLER	CY	412	$ 75	$ 30,900
6		723080	CLASS II PERMEABLE MATERIAL	CY	253	$ 517	$ 130,801
7			ESM (12" D50, METHOD B)	CY	388	$ 250	$ 97,000
8		723050	CLASS V RSP (1/4 TON, METHOD B)	CY	336	$ 365	$ 122,640
					SUBTOTAL		$ 701,542
					CONTINGENCY (20%)		$ 140,308
					TOTAL		**$ 841,850**

NAPA RCD

FISH BARRIER REMOVALS

OVERVIEW

The Napa River watershed includes 171 miles of spawning and rearing habitat, but many of Napa's native fish are struggling to survive due to barriers that limit access to these critical areas. Historically, the watershed supported the largest steelhead run of any San Francisco Bay tributary outside the Sacramento–San Joaquin system.

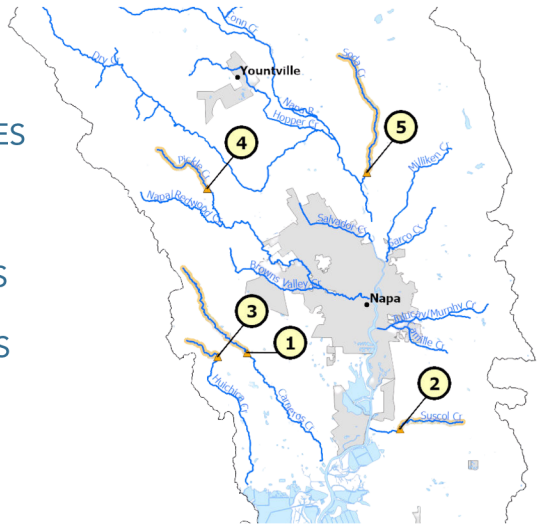
Since 1945, Napa RCD has been a leader in environmental stewardship across Napa County's forests, farms, and watersheds. In 2024, we launched a major initiative to improve miles of creek habitat for salmon and trout, supported by over $7.6 million from NOAA and the California Wildlife Conservation Board. Addressing these barriers will give native fish a fighting chance at recovery and long-term survival.

SULPHUR CREEK: 3.2 MILES OF PRIME WILDLIFE HABITAT REOPENED.

Sulphur Creek stands as one of Napa Valley's highlights for wildlife, thanks to its cool, year-round waters and rich, diverse plant life. Napa RCD's removal of the old bridge that once stood here has created a pivotal moment for the creek—improving access for fish that have had limited access to this vital stretch of stream for decades. This game-changer offers new opportunities for restoration and a healthier ecosystem for the creatures that call Sulphur Creek home.

UPCOMING PROJECTS

1. **CARNEROS CREEK** - 4.7 MILES
2. **SUSCOL CREEK** - 2.4 MILES
3. **HUICHICA CREEK** - 1.5 MILES
4. **PICKLE CANYON** - 2.6 MILES
5. **SODA CANYON** - 4 MILES

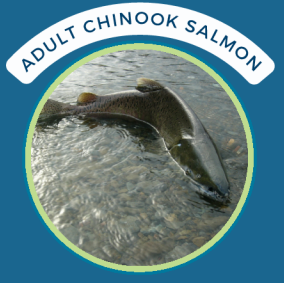


WHAT SPECIES BENEFIT?













CREATING A ROADMAP FOR FISH PASSAGE IMPROVEMENTS

Alongside a **technical and cultural working group,** we're developing a comprehensive, science-based process to identify and prioritize the barriers that prevent fish from moving freely through the Napa River watershed. This effort will produce a living Barrier Assessment — a flexible, evolving roadmap that guides future action to remove or improve human-made barriers and support the recovery of migratory fish like steelhead trout and salmon.



As part of this initiative, Napa RCD is:

- Removing four key barriers
- Designing and permitting five high-priority projects at sites identified through the assessment process
- Expanding our fish monitoring program to improve how we prioritize projects and evaluate the effectiveness of restoration
- Engaging the community through education, events, school trips, and volunteer opportunities that connect people to local habitat restoration
- Building a project pipeline to secure future funding for design, permitting, implementation, and long-term monitoring

Together, these efforts are laying the groundwork for a future where Napa's creeks run clear and cold, and salmon and steelhead trout can return, year after year.

Partner: CALIFORNIA TROUT

Construction and Engineering: HANFORD A DUTRA COMPANY; wra; ANCHOR

Funded by: NOAA National Oceanic and Atmospheric Administration U.S. Department of Commerce; California Wildlife Conservation Board

April 15, 2026
NVTA Agenda Item 10.2
Continued From: New
Action Requested: INFORMATION

NAPA VALLEY TRANSPORTATION AUTHORITY

Board Agenda Memo

TO: NVTA Board of Directors

FROM: Danielle Schmitz, Executive Director

REPORT BY: Rebecca Schenck, Director of Transit
(707) 259-8636 / Email: rschenck@nvta.ca.gov

SUBJECT: Vine Transit Update

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board receives the third quarter of Fiscal Year 2025-2026 Vine Transit update.

EXECUTIVE SUMMARY

This report summarizes and the Vine's operational performance during the third quarter of the current Federal Fiscal Year (FY) 2025-26, covering the period January 1 to March 31, 2026. The board memo compares the third quarter of FY 2025-26 to the same period of FY 2024-25 to provide context on year-over-year ridership levels and compares missed trips over the same two time periods. It also includes a discussion of recent schedule changes, marketing efforts and trip completeness.

FISCAL IMPACT

None

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

BACKGROUND

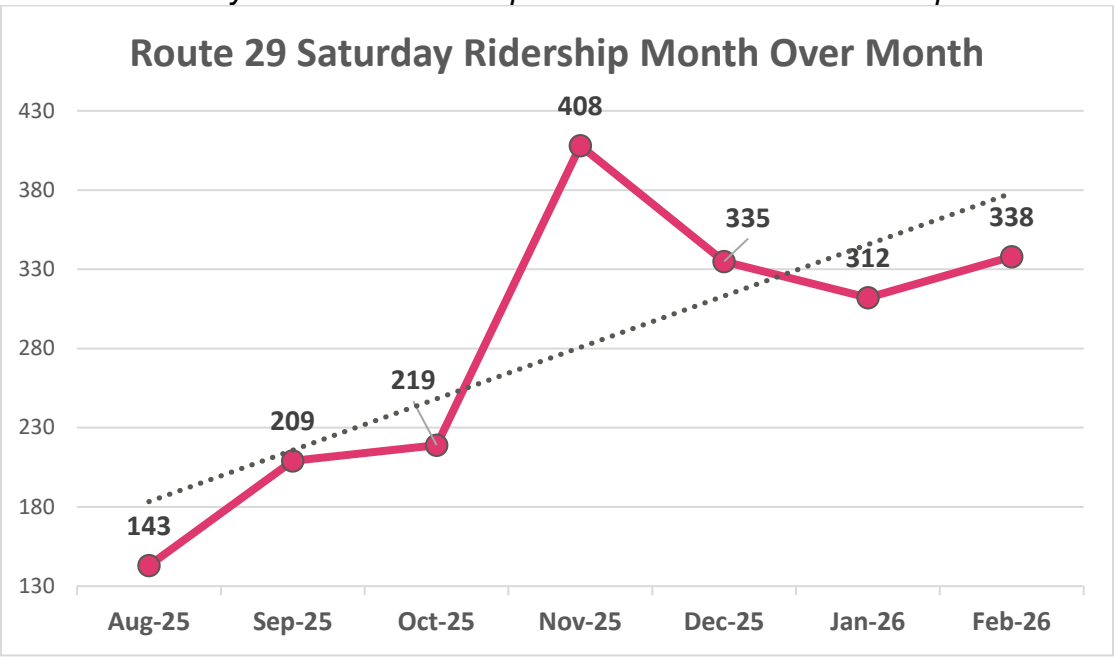
Upcoming Schedule Changes
The next schedule change will occur on Sunday, June 7th to align the end of the 2025-2026 school year. Changes currently under consideration include:

- Pausing the American Canyon and St Helena School trippers while school is not in session
- Timepoint adjustments on Route 21 to enhance the connection to the Amtrak Capital Corridor Train
- Adding one later Route C and Route 29 trip
- Adjust Route D schedule to accommodate Camille Creek's Summer School Program
- Exploring options for other schools operating summer programs
- Minor timepoint tweaks

Additionally, there will also be some schedule changes during BottleRock weekend to accommodate festival attendees such as rerouting Route 29 to serve the transit center, operating weekend service on Route 21, and operating local service on Sunday, May 24.

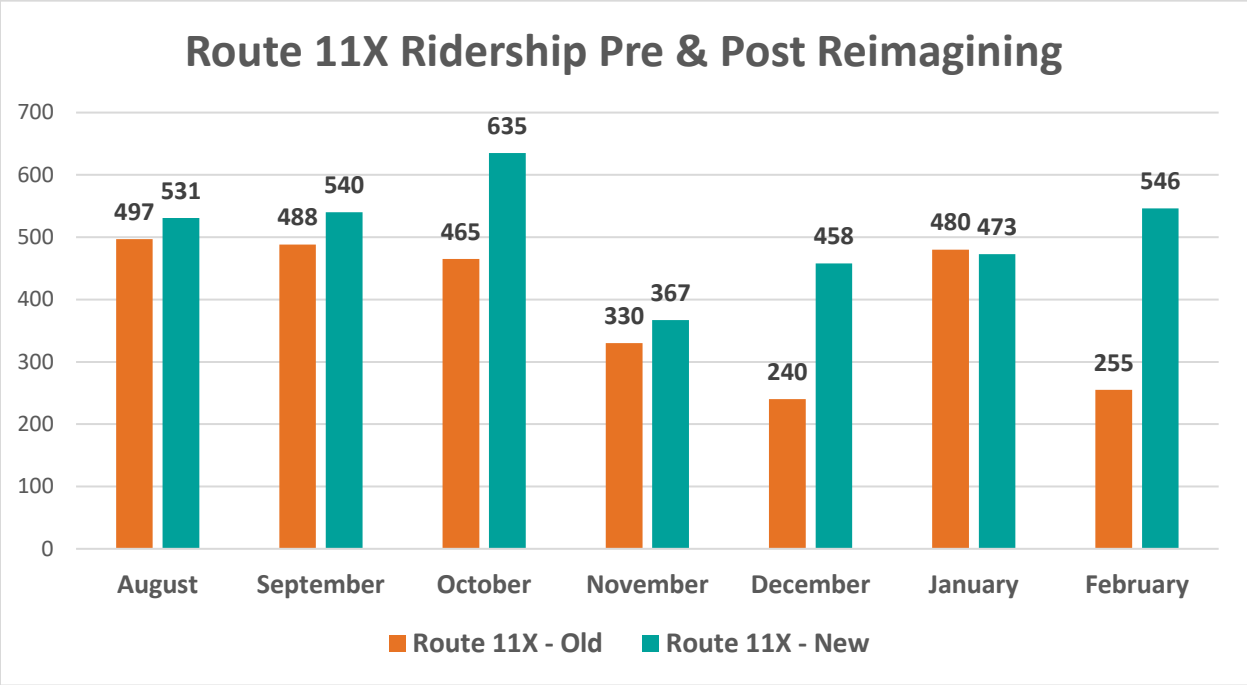
Results From Recent Service Changes
On August 10, 2025, Vine Transit implemented Saturday service on Route 29 that travels from the City of Napa to the El Cerrito Del Norte BART station. Previously, the route exclusively operated on weekdays as the target ridership was for individuals that commute to the greater Bay Area for work. Over the years, staff received feedback from the community expressing interest in utilizing Route 29 for more leisure-based trips. This feedback became particularly prominent when the privately owned company, Evans Transportation that operated shuttle service to the San Francisco Airport announced its closure a few years ago. Feedback received from the public indicated an interest in utilizing Route 29 and BART on weekends to travel to and from SFO. Given that six months have passed since Saturday service was implemented, staff wanted to provide a ridership update. Chart 1 on the next page highlights the month-to-month ridership in the 6 full months since inception. Thus far, ridership is trending in a positive upward manner with about 84 riders per Saturday in February. Ridership was highest in November, but that was mainly because there were five Saturdays in November and most months only have four Saturdays. Staff will continue to monitor this ridership and will share an analysis after one year.

Chart 1: Saturday Route 29 Ridership Month Over Month Since Implementation



On August 10, 2025, Vine Transit implemented a reimagined Route 11X that serves the most popular Route 11 stops including the Soscol Gateway Transit Center, Napa Valley College, American Canyon Park & Ride, the Sereno Transit Center in Vallejo and the Vallejo Ferry Terminal in a timelier manner. Previously, Route 11X focused on transporting riders to and from the Vallejo Ferry Terminal in an expedited manor by serving a limited number of stops. Since the Route was reinstated after COVID, it consistently underperformed and operated at unsustainable levels, despite making changes such as lowering the fare or changing the stops served. Given that six months have passed since the implementation of the reimagined Route, staff wanted to highlight the ridership increases when compared to the same months one year prior as demonstrated in Chart 2 below. The new Route 11X experienced improved ridership in nearly every month when compared to the same time period one year prior. Staff will continue to monitor this ridership and will share an analysis once a full year is completed.

Chart 2: Route 11X Ridership Before & After Revamping the Route



NVTA applied for the TNC Access for All Program in November 2025 for operational funding to extend the hours of service on American Canyon Transit (ACT). The TNC Access For All Program is funded by a ten-cent tax that is levied on all Lyft, Uber, and other Transportation Network Companies (TNC) trips. The goal of the program is to expand on-demand transportation options for individuals that use wheelchairs since their TNC options are limited when compared to an able-bodied individuals. In January 2026, NVTA received notice that the agency was recommended for award to expand the weekday ACT hours from 5:30pm to 7:00pm and starting Saturday service for the first time from 8:30AM – 5:30PM (with one vehicle). These extended hours went into effect on Monday February 9. In order to promote the program staff took the following actions:

- Sent a postcard in English & Spanish to every household in American Canyon announcing the extended hours
- Updated the American Canyon Transit brochures that are distributed at various events and locations throughout American Canyon
- Executed a bilingual marketing campaign leveraging sponsored ads on social media sites (Nextdoor, Meta, Spotify) and messaging on PeachJar and the American Canyon Chamber Newsletter

Staff will provide a more comprehensive ridership update on these extended hours once they have been in effect for at least six months.

Ridership

Table 1 below compares the annual difference between third quarter of FY 2024-2025 (January, February, March) to third quarter of FY 2025-2026 to show the year-over-year ridership differences. Overall, City of Napa ridership increased by nearly 10%. Route A continues to experience an increase in ridership as the route transitioned from an on-demand service to a fixed route service in January 2025. The data from FY25 includes about two weeks of on-demand service. The next Vine Transit update will contain more of an apples-to-apples comparison as it will be the first time staff can analyze the year-over-year difference of Route A operating exclusively as a predictable fixed route service. Route F experienced the most notable decrease in ridership of approximately 25%. This drop in ridership was unexpected; therefore, staff will closely monitor Route F ridership and analyze stop-by-stop data to gain an understanding of why the ridership declined.

Table 1: City of Napa Ridership - Comparing Q3 of FY25 & Q3 of FY26

	Q3 FY25	Q3 FY26	% Difference	Numerical Difference
Napa Local On-Demand*/Route A	1,580	2,649	**67.66%**	1,069
Route B	5,296	5,095	**-3.80%**	-201
Route C	13,164	15,052	**14.34%**	1,888
Route D	2,200	2,676	**21.64%**	476
Route E	2,511	3,198	**27.36%**	687
Route F	4,514	3,399	**-24.70%**	-1,115
Route G	3,198	3,527	**10.29%**	329
Total	**32,463**	**35,596**	**9.65%**	**3,133**

*In Q3 of FY25, Route A operated as an on-demand service for 2 weeks. In Q3 of FY26, Route A operated as a full-time fixed route service

While ridership is an important key performance indicator (KPI), it is also important to track other KPIs. Passengers per revenue hour is a measure of the number of people on the bus for every hour that the bus is in service. It does not include the deadhead, which is the time leading to and from the maintenance yard. In Chart 3 on the next page, data shows passengers per revenue hour on weekdays (the grey bars) on local City of Napa routes increased when compared to one year prior and when compared to the previous quarter (Oct – Dec) of the current fiscal year.

Chart 3: Passengers per Revenue Hour on City of Napa Routes (Weekdays)

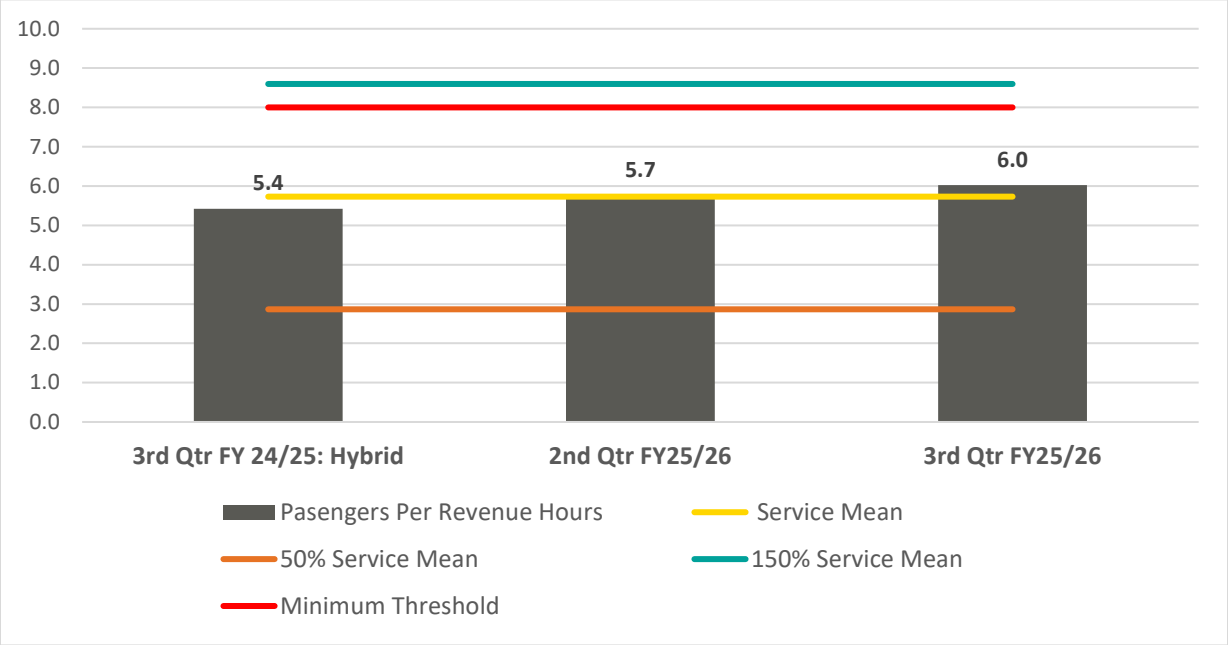


Chart 4 below shows that the passengers per revenue hour varies by each individual local City of Napa route. The Route C passengers per revenue hour continues to operate above the pre-COVID 8.0 minimum threshold measuring at 11.0. All other fixed routes were in the 3.6 to 6.7 range.

Chart 4: Local Service Passengers per Revenue Hour (Weekdays)

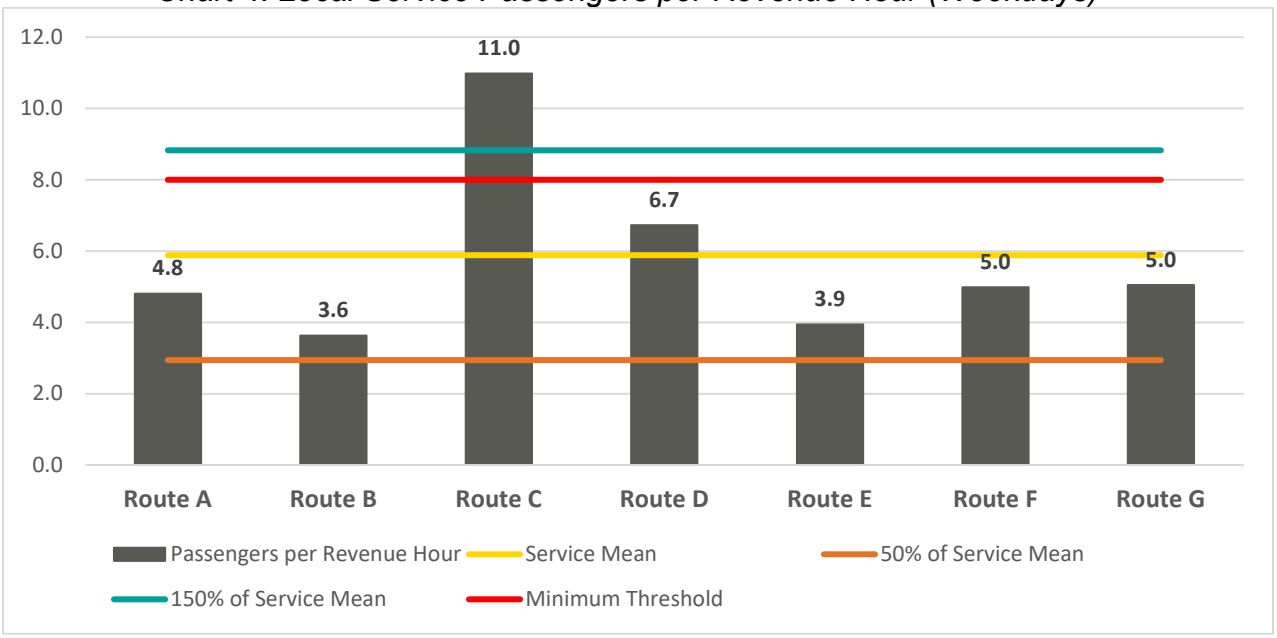


Table 2 below shows an overall minor ridership decrease of 3% for the quarter on regional routes. The most prominent ridership difference is on Route 11X, which experienced an 81% increase in ridership when compared to the same time period one year ago. As explained earlier in this memo, Vine Transit implemented a reimagined Route 11X in August 2025 that serves the most popular Route 11 stops including the Soscol Gateway Transit Center, Napa Valley College, American Canyon Park & Ride, the Sereno Transit Center in Vallejo and the Vallejo Ferry Terminal in a timelier manner. Previously, Route 11X focused on transporting riders to and from the Vallejo Ferry Terminal by serving a limited number of stops but was operating at unsustainable ridership levels. It is believed that many of the new Route 11X riders were previously riders of Route 11 shifting to using a faster version of the route, which led to the 6% decrease in ridership on the regular Route 11.

Table 2: Routes 10, 11,11X, 21 & 29 Ridership – Comparing Q3 of FY25 & Q3 of FY26

	Q3 FY25	Q3 FY26	% Difference	Numerical Difference
Route 10	33,536	31,581	**-5.83%**	-1,955
Route 11	29,528	27,751	**-6.02%**	-1,777
Route 11X	984	1,785	**81.40%**	801
Route 21	2,299	2,734	**18.92%**	435
Route 29*	8,410	8,585	**2.08%**	175
Total	**74,757**	**72,436**	**-3.10%**	**-2,321**

*Route 29 began operating Saturday service as of August 10, 2025, which is reflected in the Q3 FY26 ridership figure and not the Q3 FY25 ridership figure

Passengers per revenue hour data on regional services continues to fall below the pre-COVID 12.0 minimum threshold as shown on Chart 5 on the next page. Routes 10 and 11 continue to be the most efficient regional routes at 7.8 and 7.4 Route 21 continues to experience the lowest passengers per revenue miles at 2.4. Staff is drafting some changes to the Route 21 timetable for the June schedule change to improve the transfer times between Route 21 and the Amtrak Capitol Corridor Train at the Suisun Train Depot. This could lead to some ridership increases for passengers looking to travel east towards Sacramento without having to wait an excessive amount of time for the train.

Chart 5: Regional Service Passengers per Revenue Hour

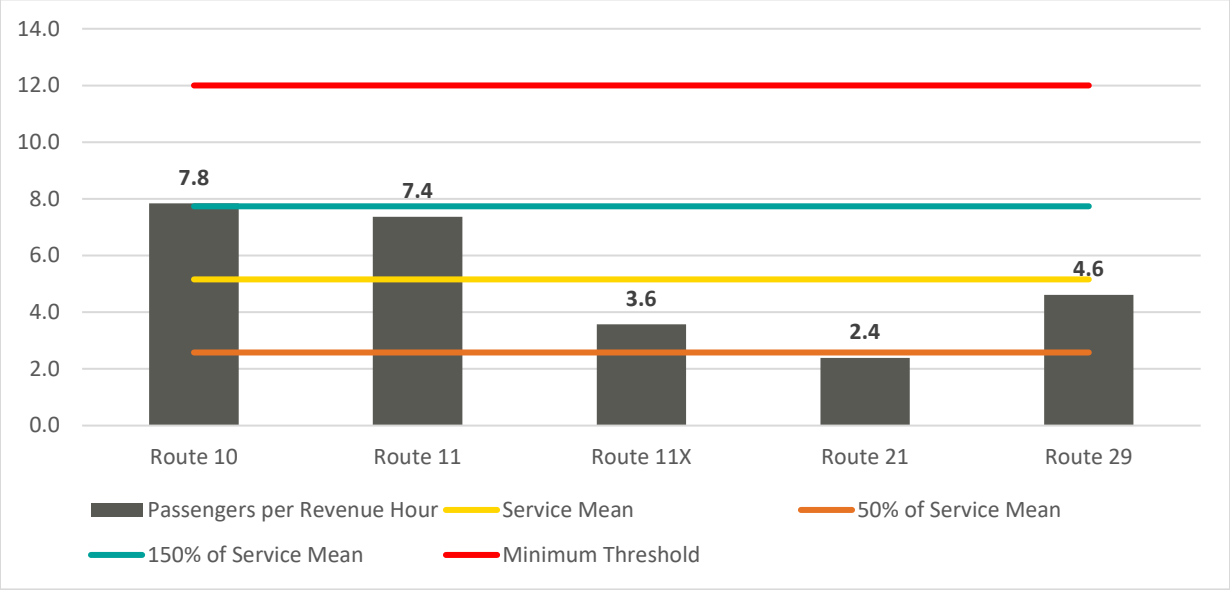


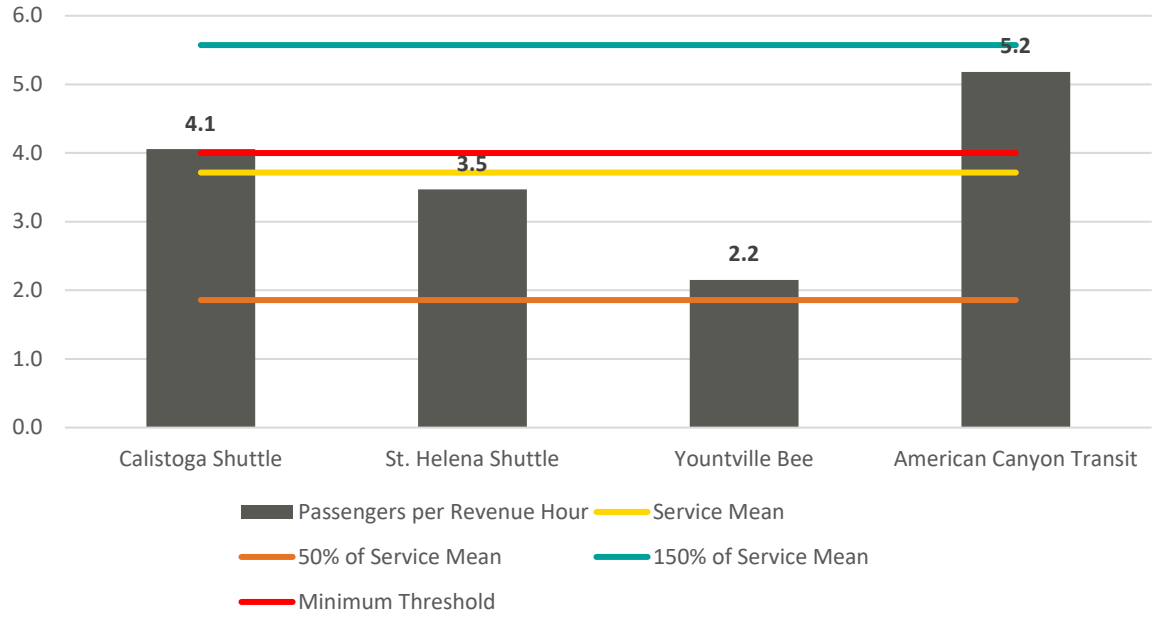
Table 3 below shows ridership experienced a noteworthy increase of 29.14% on the community shuttles when compared to the same quarter last year. By far, the most notable increase is in the ridership on Yountville Bee. This increase is primarily due to rising demand from Veteran's Home residents.

Table 3: Community Shuttles– Comparing Q3 of FY25 & Q3 of FY26

	Q3 FY25	Q3 FY26	% Difference	Numerical Difference
Calistoga Shuttle	3,130	3,450	**10.22%**	320
St. Helena Shuttle	1,743	2,141	**22.83%**	398
Yountville Bee	1,030	2,141	**107.86%**	1,111
American Canyon Transit	4,932	6,260	**26.93%**	1,328
Total	**10,835**	**13,992**	**29.14%**	**3,157**

Chart 6 on the next page shows the passengers per revenue hour on the local community shuttles. American Canyon Transit (ACT) continues to experience the highest ridership out of the four shuttles. As explained earlier in this memo, due to its popularity staff successfully applied for a grant to cover the operational cost of extending service an additional 90 minutes on weekdays and adding Saturday service from 8:30AM – 5:30PM (there has historically never been weekend service on ACT). Calistoga met the minimum service threshold of 4.0 passengers per hour.

Chart 6: Community Shuttle Service Passengers per Revenue Hour



VineGo ridership continues to rise in the post-pandemic era as every quarter since 2020 has experienced an increase of riders utilizing the service. During Q3 of FY26, it increased by about 15% as seen in Table 4. The increase in ridership can be attributed to multiple factors, including partnerships with Molly's Angels and increased marketing and outreach efforts. NVTA is rebidding the work for the VineGo drivers in April to add additional driver hours to try and keep up with demand.

Table 4: VineGo Ridership – Comparing Q3 of FY25 & Q3 of FY26

	Q3 FY25	Q3 FY26	% Difference	Numerical Difference
VineGo	4,330	4,991	15.27%	661

Finally, Tables 5 & 6 on the next page show the missed trips during the third quarter of the current fiscal year compared to the third quarter of last Fiscal Year. Beginning in January 2025, NVTA reinstated a liquidated damage against its contracted service operator, Transdev, which enforces a $500 penalty for each missed trip. This requirement was initially waived during the COVID pandemic given the uncertainties of the transit landscape and employment market. Given that much time has passed and Vine Transit's schedules are more consistent, staff began enforcement and noticed a significant decline when compared to the same period last year.

Table 5: Missed trips Q3 of FY 2024-2025

	Regular Missed Trips	On-Demand Missed Trips
January	8	0
February	6	0
March	4	0
Total	**18**	**0**

Table 6: Missed trips Q3 of FY 2025-2026

	Regular Missed Trips	On-Demand Missed Trips
January	7	6
February	0	1
March	1	1
Total	**8**	**8**

Summer Youth Pass 2026

The Summer Youth Pass will return for the third consecutive summer. The pass is designed for riders between the ages of 6-18 that allows them to take an unlimited number of rides on all Vine Transit Routes between June 1, 2026 – August 31, 2026. The pass costs $20 and riders can either order it online, buy it at the transit center, or use the Token Transit app to purchase a virtual ticket. Sales on the Summer Youth Pass will commence in May.



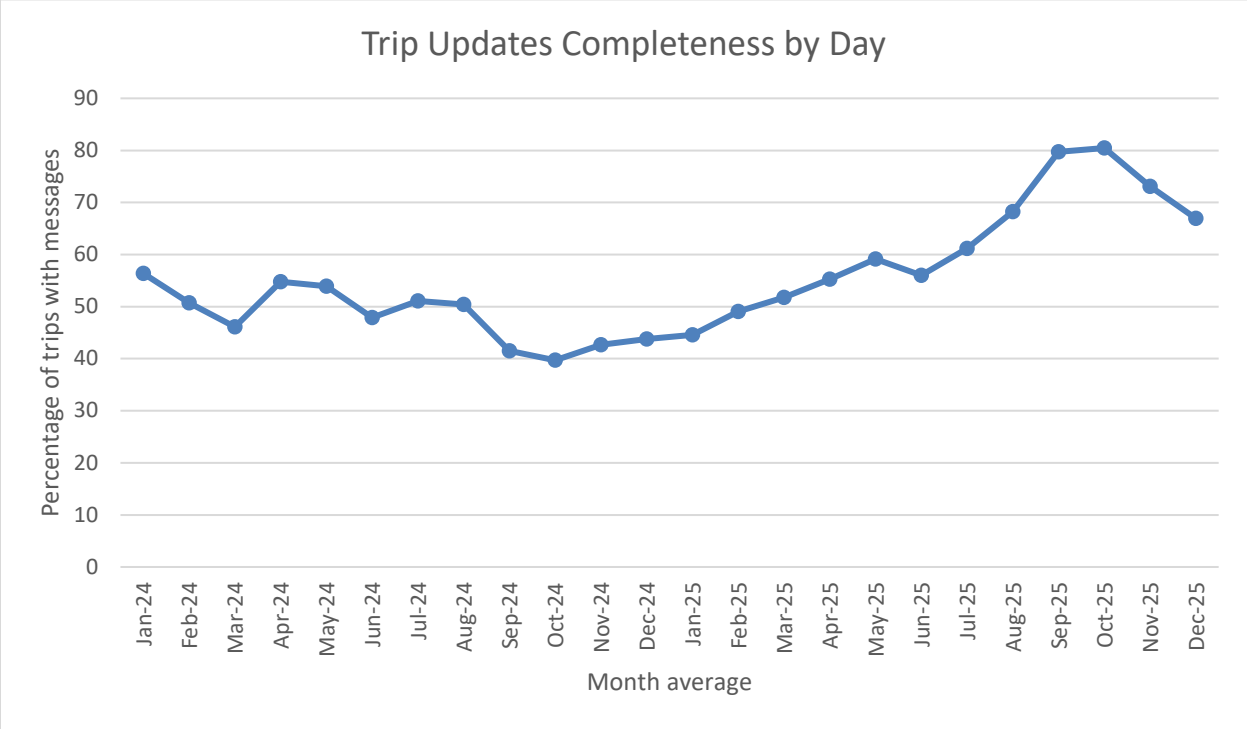
Marketing Efforts
Staff continue to make a concerted effort to increase their outreach to the community to ensure diverse populations can be reached and awareness of all of NVTA's programs and transit services are shared with attendees. During Spring and Summer, the number of events will increase, and staff will strive to attend as many as possible. Some events attended since the last Vine Transit Update include:

- The North Bay Workforce Alliance Hiring Event (January 29, 2026)
- Best of Napa Valley (January 30, 2026)
- English & Spanish Presentations at Napa Creek Manor (February 3, 2026)
- Napa County Career Technical Education (February 5, 2026)
- CIA Greystone Health & Resource Fair (February 11, 2026)
- Bus Stop Pop-Up Events
- Valley Oak Resource Fair (February 27, 2026)
- 8th Grade Career Expo (March 12, 2026)
- Napa Climate Summit (March 26, 2026)

Marketing and transit staff are planning for BottleRock 2026. Vine transit offers free rides to all bus riders, regardless of their destination, during those weekends and offers special late-night service after the concert. Brochures highlighting all of Vine Transit's scheduled trips and BottleRock information were recently printed and are being distributed throughout the Bay Area.

Trip Completeness
NVTA continues to track the percentage of trips sending real-time messages. Chart 7 below shows monthly averages of trip completeness across all routes through the end of December 2025, the last full quarter data was available. NVTA would like to get to a level of 85% on-par with its neighbors which should be achievable with a new CAD/AVL system that will be fully implemented by the end of September 2026.

Chart 7: Trip Update Completeness



ATTACHMENTS

None