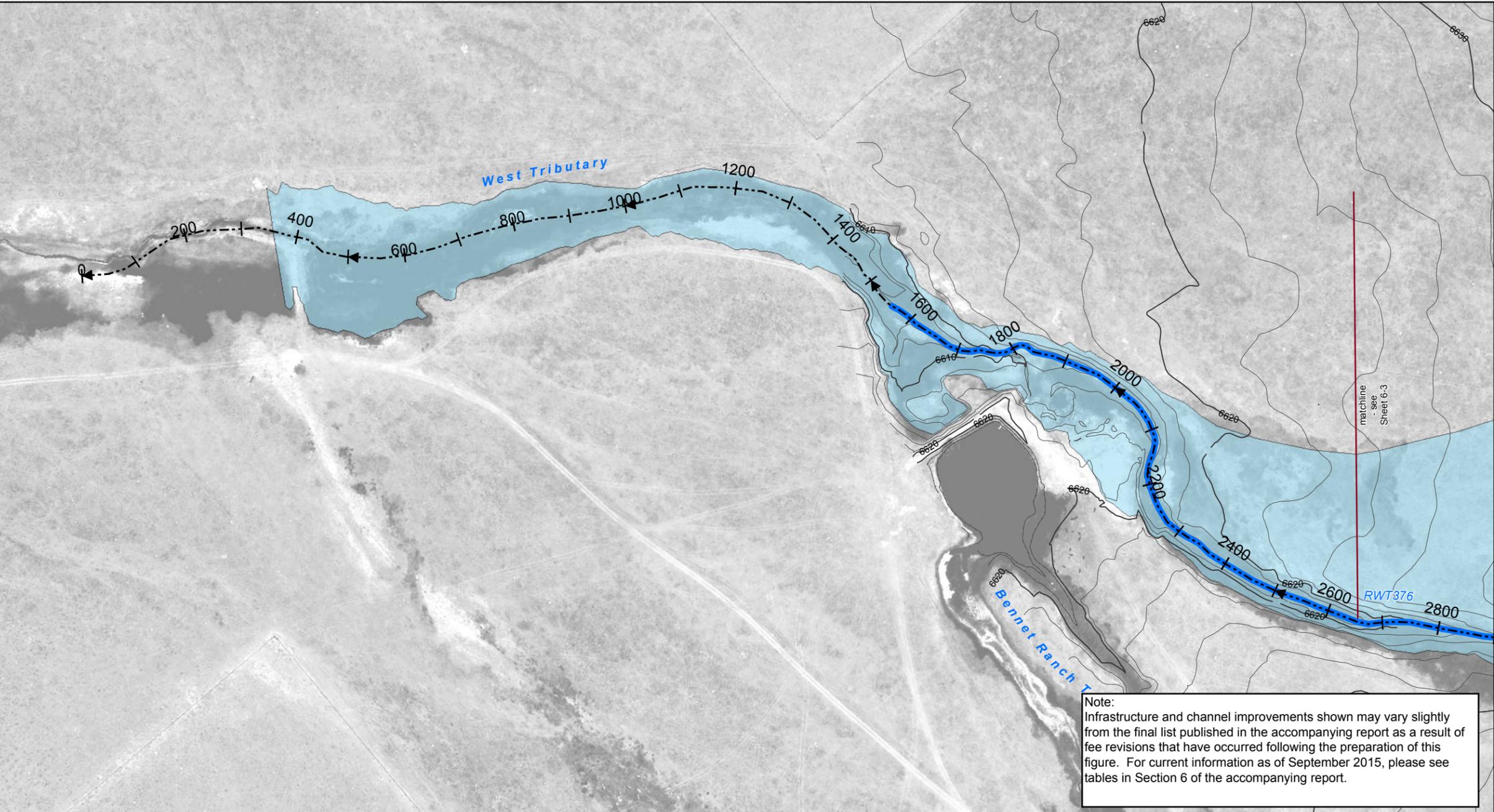


FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\Set\_Alt\_West\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis

# Sheet 6-2 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO



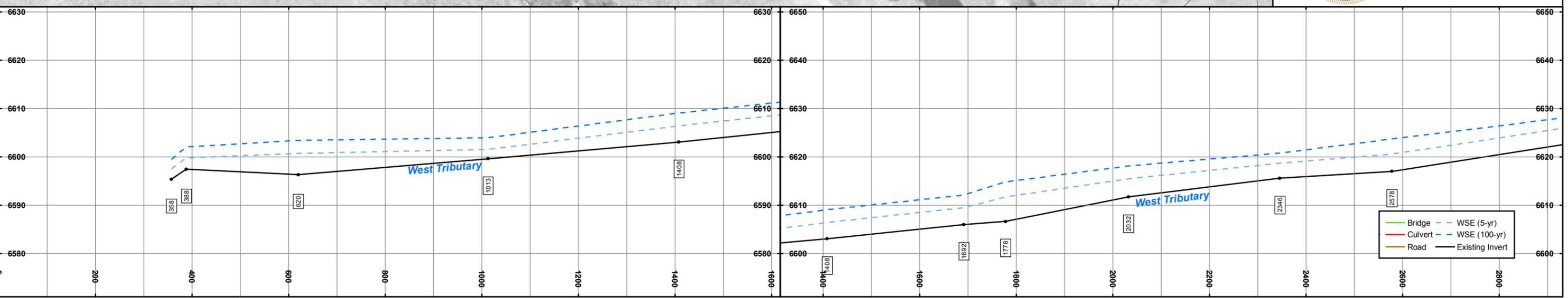
Drainageway Crossing	Reach Improvements Natural Channel Design
Stream Centerline	Protect In Place
Existing Approximate 100-yr Floodplain*	Roadside Ditch Improvement
Floodplain Study Limit	Small Drop Structures w/ Toe Protection
<b>Storm Sewer</b>	Existing Detention
Inlet	Proposed Detention
Manhole	Proposed Detention Grading
Pipe	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

\* These approximate 100-yr floodplain boundaries are for planning purposes only. This information is not intended to replace the information provided on the FEMA Flood Insurance Rate Maps for this area.  
 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

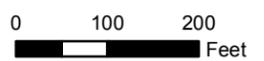


Note:  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

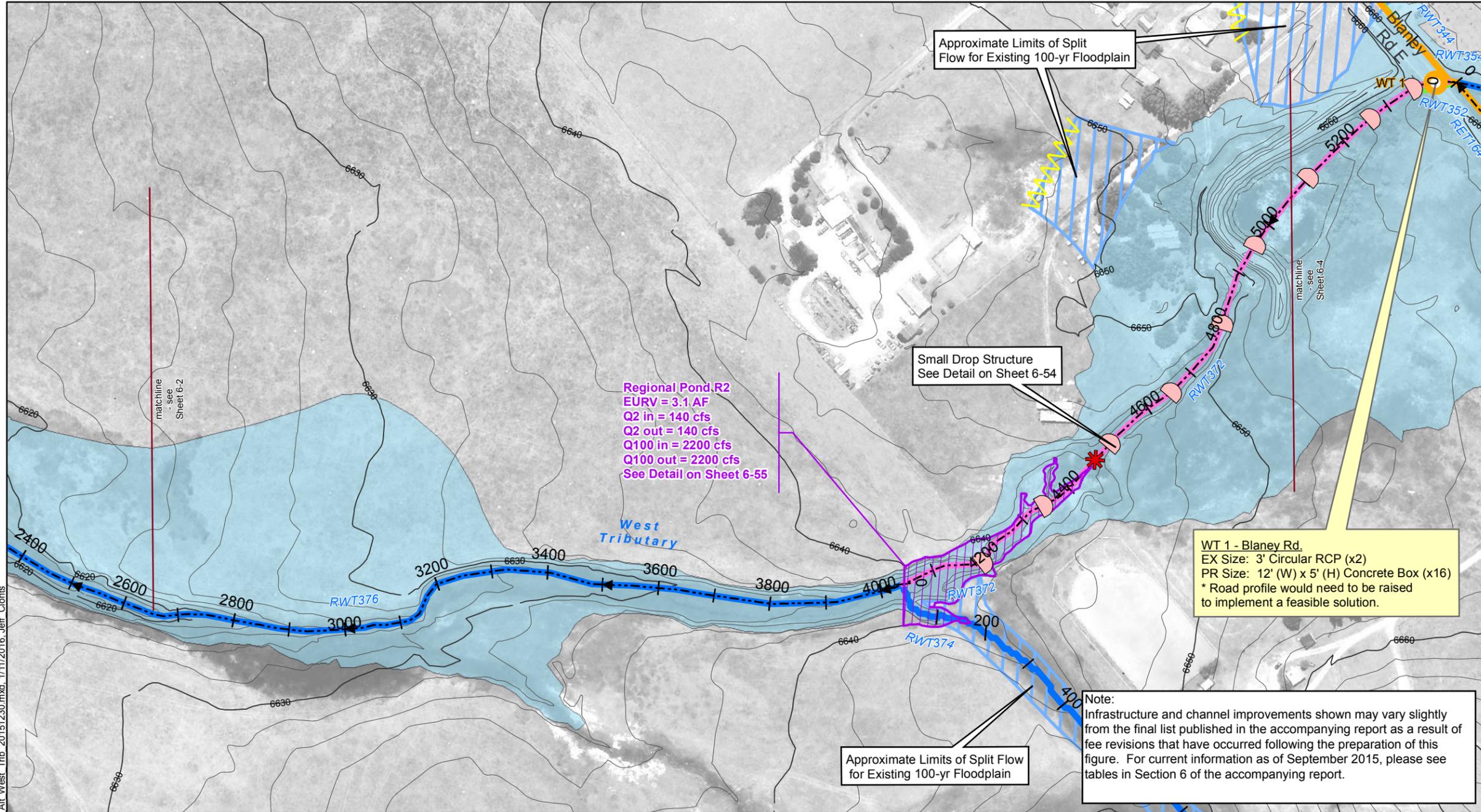


# Sheet 6-3 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

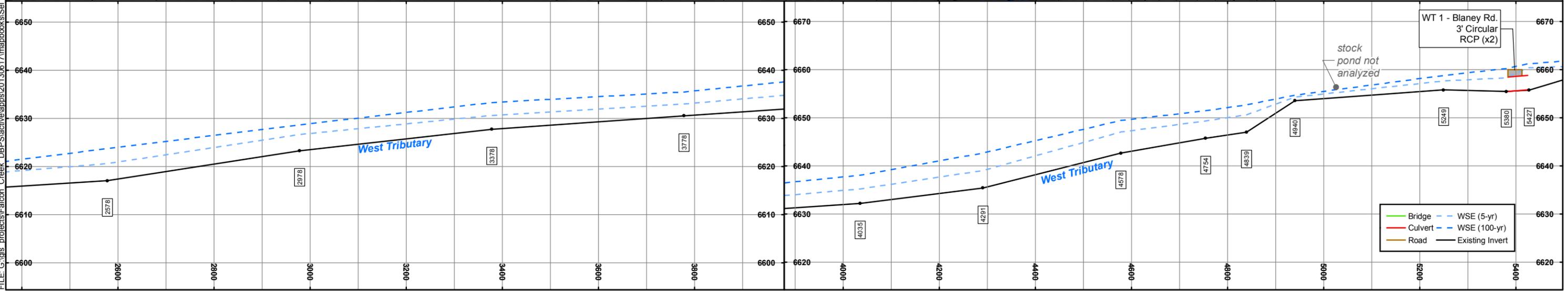
- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

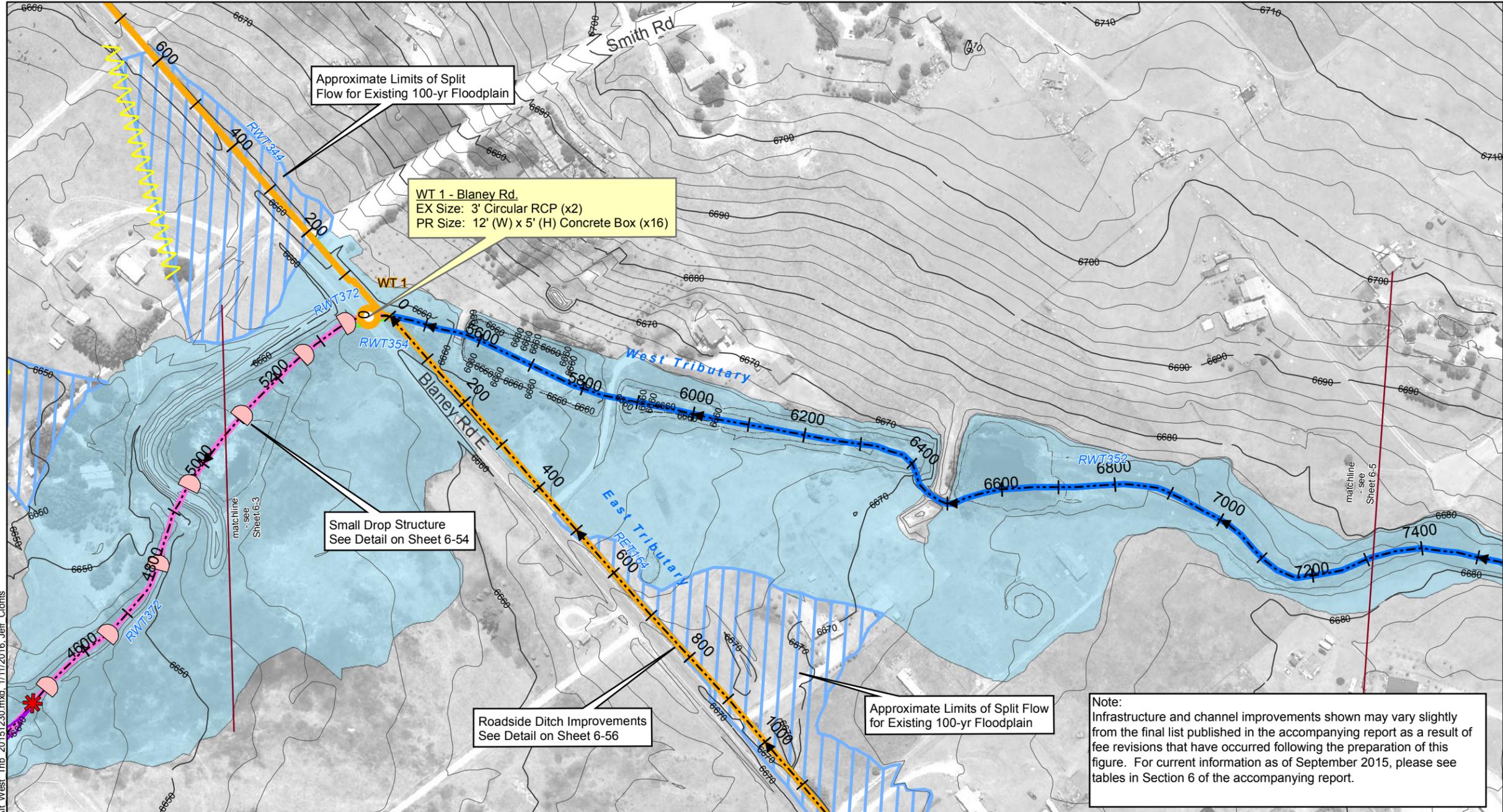


Note:  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.



FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130817\mapbook\sel\_Alt\_West\_Trib\_20151230.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-4 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO



**Drainageway Crossing**  
 Drainageway Crossing

**Stream Centerline**  
 Stream Centerline

**Existing Approximate 100-yr Floodplain\***  
 Existing Approximate 100-yr Floodplain\*

**Floodplain Study Limit**  
 Floodplain Study Limit

**Storm Sewer**  
 Inlet  
 Manhole  
 Pipe

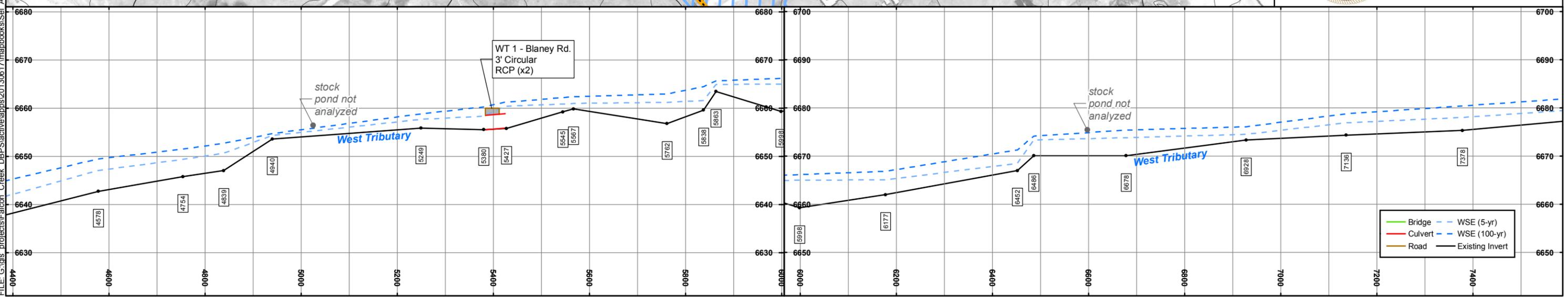
**Reach Improvements**  
 Natural Channel Design  
 Protect In Place  
 Roadside Ditch Improvement  
 Small Drop Structures w/ Toe Protection  
 Existing Detention  
 Proposed Detention  
 Proposed Detention Grading  
 Small Drop Structure  
 Cross Vane  
 Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

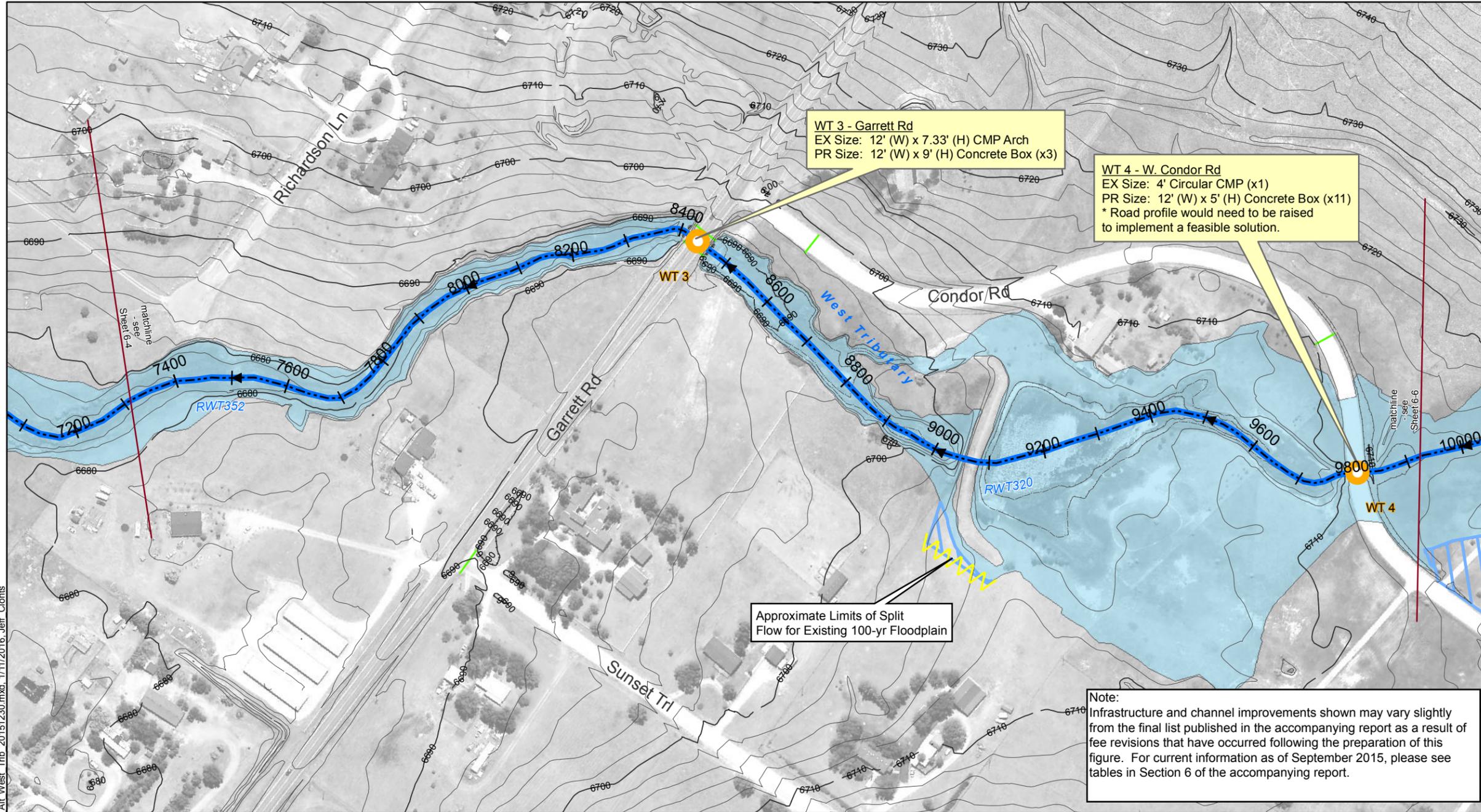


Note:  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.



FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\Set\_Alt\_West\_Trib\_20151230.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-5 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO



**WT 3 - Garrett Rd**  
EX Size: 12' (W) x 7.33' (H) CMP Arch  
PR Size: 12' (W) x 9' (H) Concrete Box (x3)

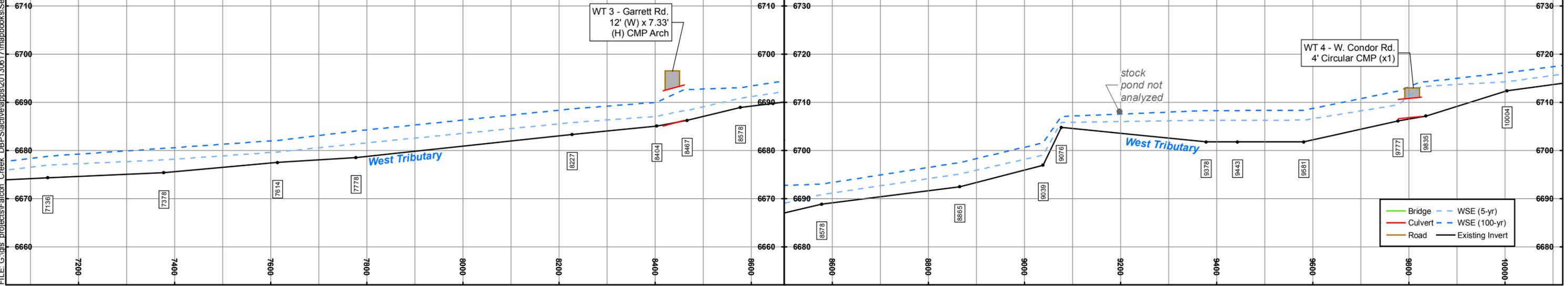
**WT 4 - W. Condor Rd**  
EX Size: 4' Circular CMP (x1)  
PR Size: 12' (W) x 5' (H) Concrete Box (x11)  
\* Road profile would need to be raised to implement a feasible solution.

Approximate Limits of Split Flow for Existing 100-yr Floodplain

**Note:**  
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

Drainageway Crossing	Reach Improvements
Stream Centerline	Natural Channel Design
Existing Approximate 100-yr Floodplain*	Protect In Place
Floodplain Study Limit	Roadside Ditch Improvement
Storm Sewer Inlet	Small Drop Structures w/ Toe Protection
Storm Sewer Manhole	Existing Detention
Storm Sewer Pipe	Proposed Detention
	Proposed Detention Grading
	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet



FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130817\mapbooks\sel\Alt West Trib 20151230.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-6 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Detention Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet

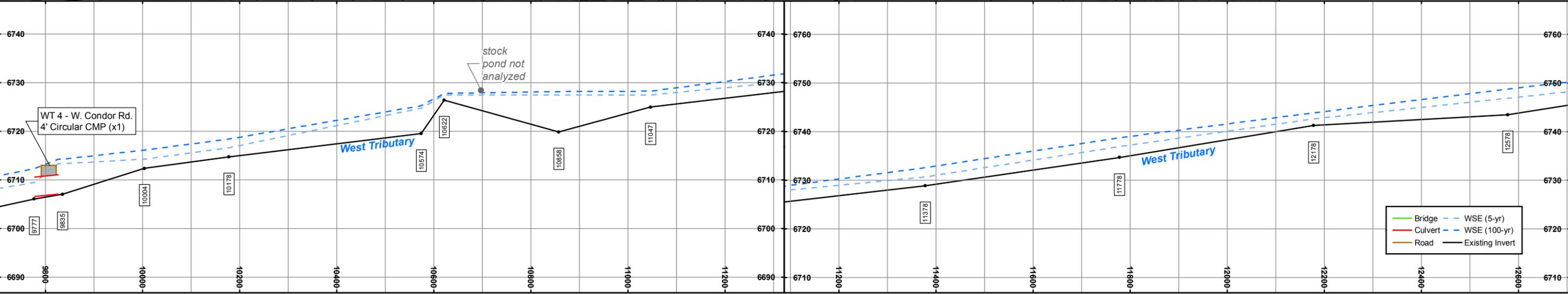
WT 4 - W. Condor Rd  
EX Size: 4' Circular CMP (x1)  
PR Size: 12' (W) x 5' (H) Concrete Box (x11)

Approximate Limits of Undefined Flow for Existing 100-yr Floodplain

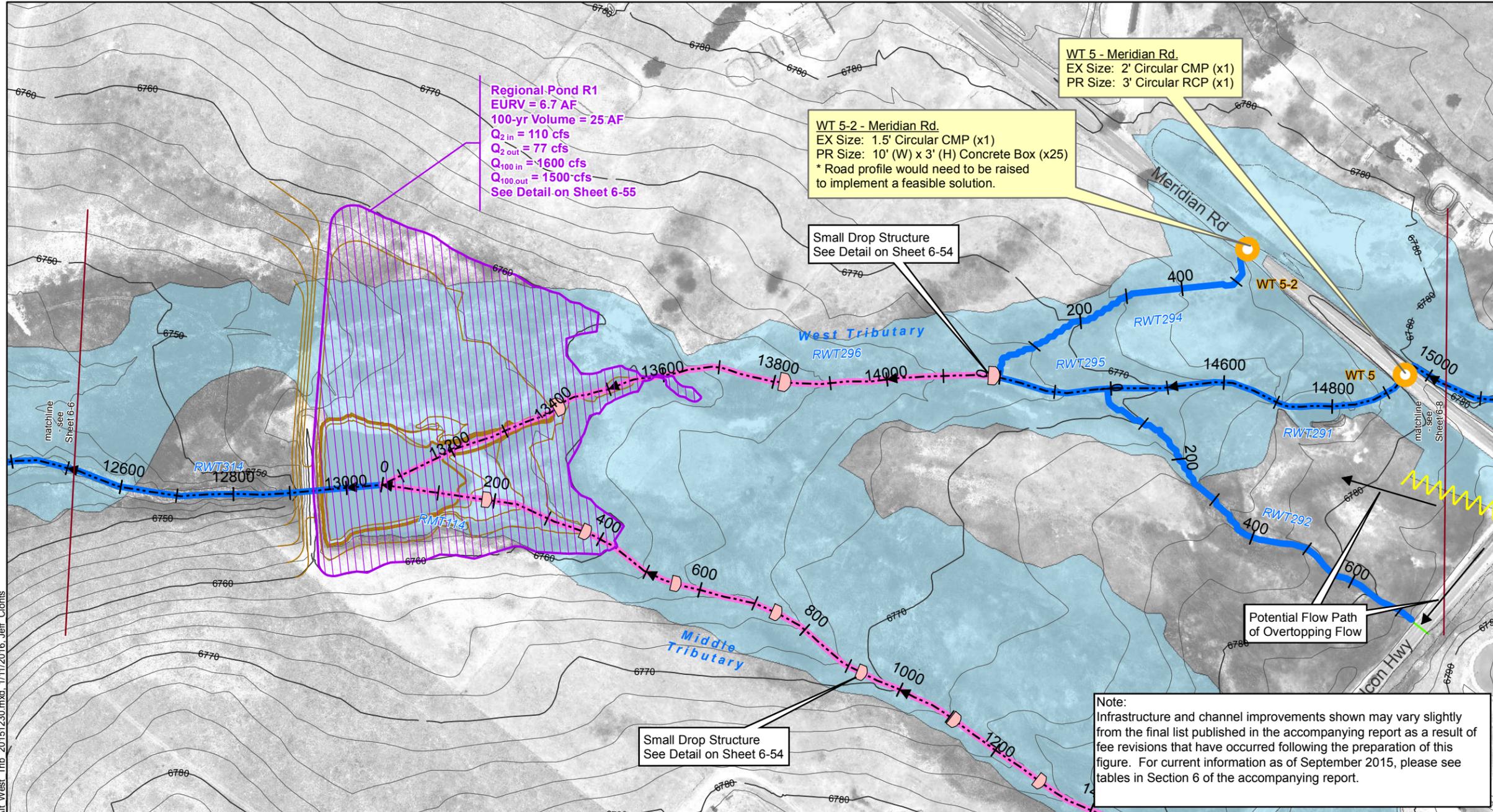
Note:  
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.



FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel Alt West Trib 20151230.mxd, 1/11/2016, Jeff Clonis



# Sheet 6-7 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO



**Regional Pond R1**  
EURV = 6.7 AF  
100-yr Volume = 25 AF  
Q<sub>2 in</sub> = 110 cfs  
Q<sub>2 out</sub> = 77 cfs  
Q<sub>100 in</sub> = 1600 cfs  
Q<sub>100 out</sub> = 1500 cfs  
See Detail on Sheet 6-55

**WT 5-2 - Meridian Rd.**  
EX Size: 1.5' Circular CMP (x1)  
PR Size: 10' (W) x 3' (H) Concrete Box (x25)  
\* Road profile would need to be raised to implement a feasible solution.

**WT 5 - Meridian Rd.**  
EX Size: 2' Circular CMP (x1)  
PR Size: 3' Circular RCP (x1)

**Small Drop Structure**  
See Detail on Sheet 6-54

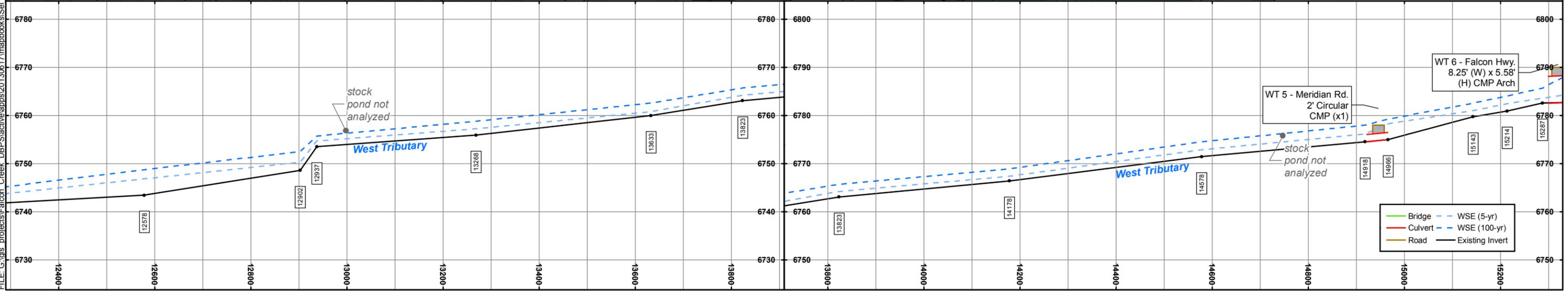
**Small Drop Structure**  
See Detail on Sheet 6-54

**Potential Flow Path of Overtopping Flow**

**Note:**  
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Detention Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet

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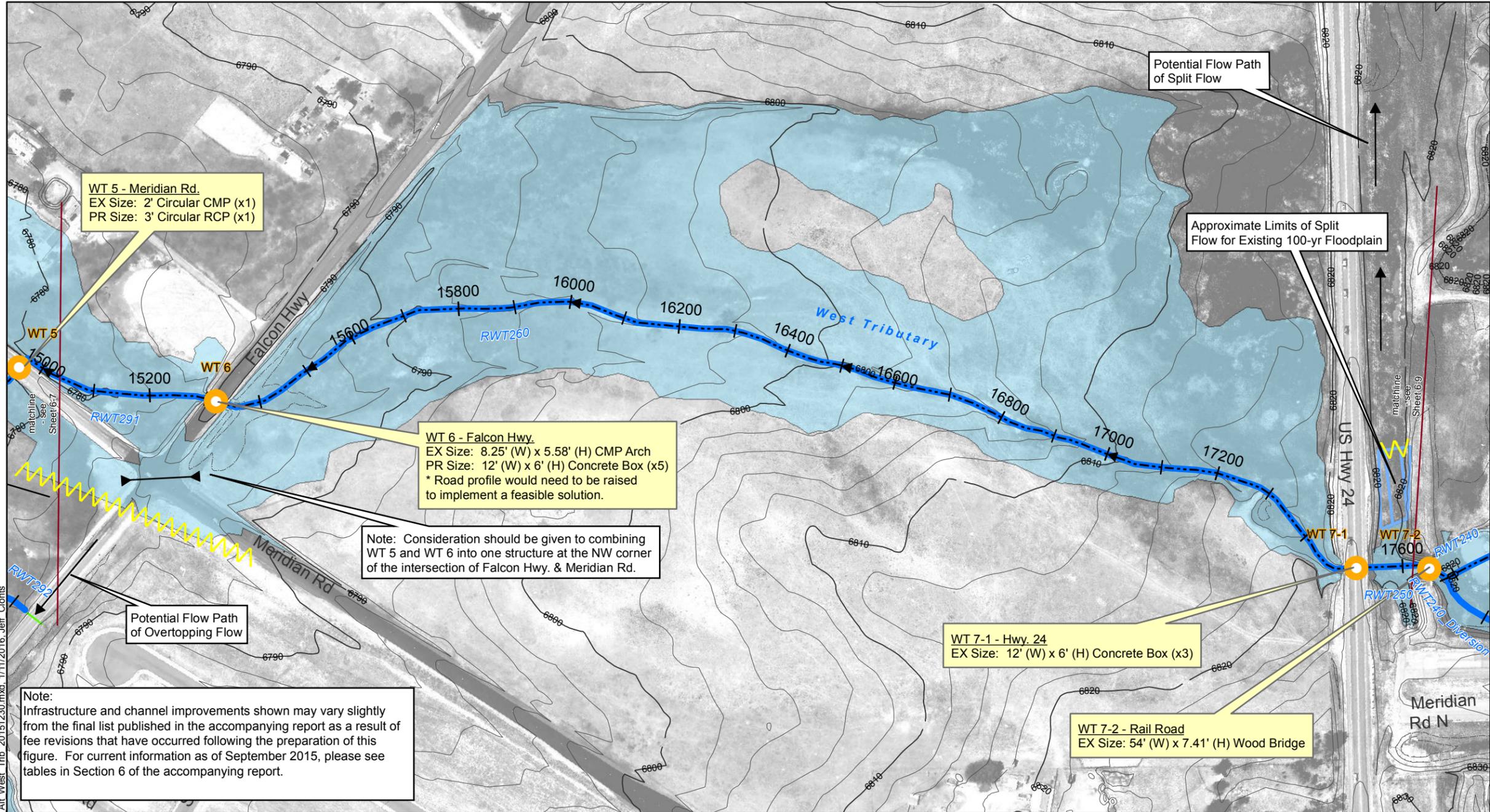
FILE: G:\dis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbook\sel\_Alt\_West\_Trib\_20151230.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-8 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

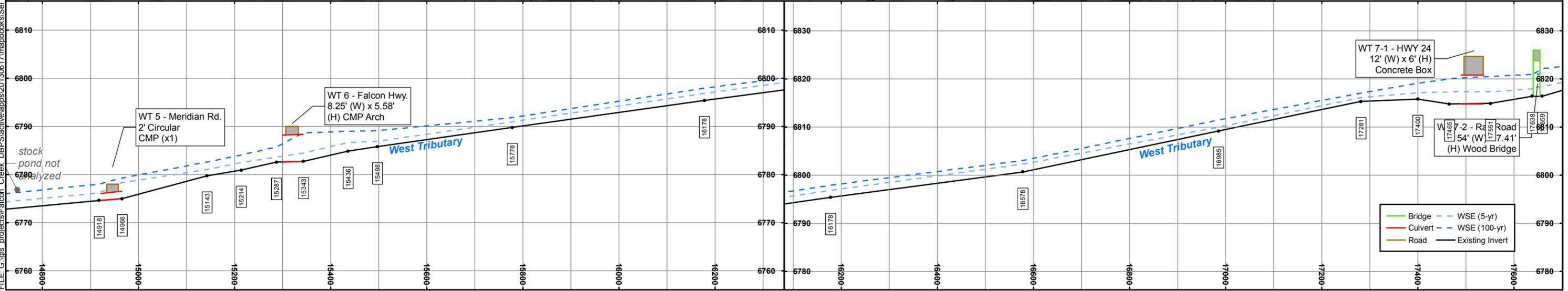
- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer Inlet
- Storm Sewer Manhole
- Storm Sewer Pipe
- Reach Improvements Natural Channel Design
- Reach Improvements Protect In Place
- Reach Improvements Roadside Ditch Improvement
- Reach Improvements Small Drop Structures w/ Toe Protection
- Reach Improvements Existing Detention
- Reach Improvements Proposed Detention
- Reach Improvements Proposed Detention Grading
- Reach Improvements Small Drop Structure
- Reach Improvements Cross Vane
- Immediate Action Required to Preserve Existing Condition



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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.



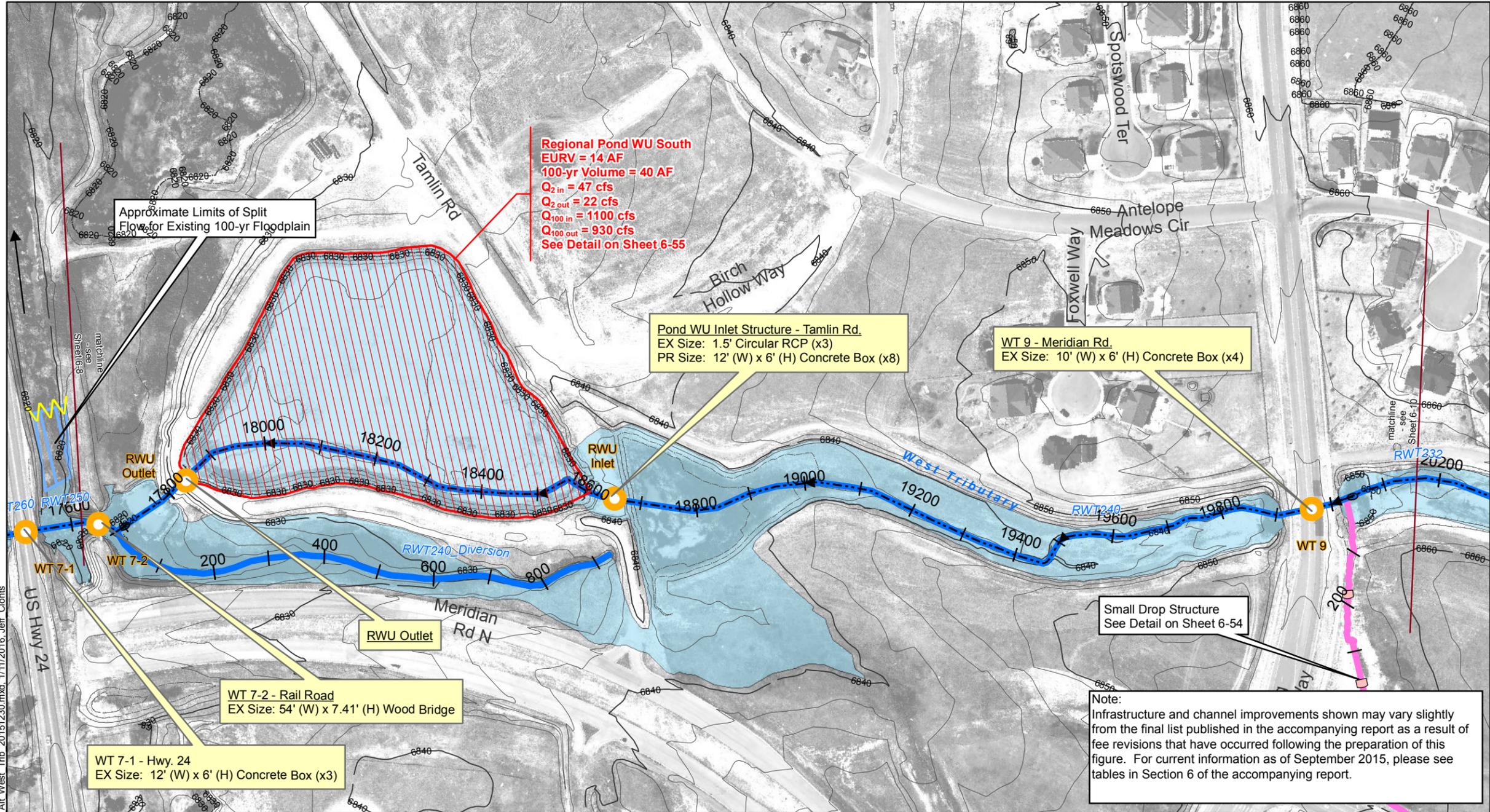
Note: Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.



FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel\Alt West Trib\_20151230.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-9 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

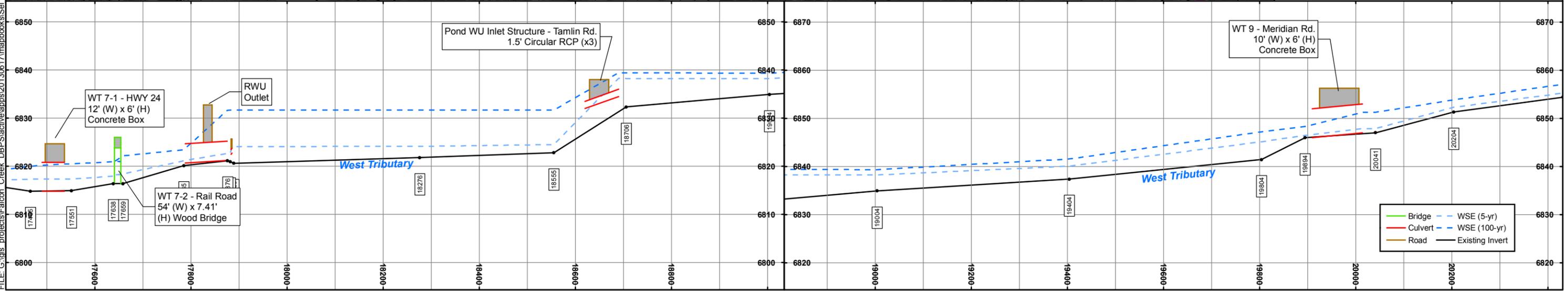
- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Detention Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet



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\*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

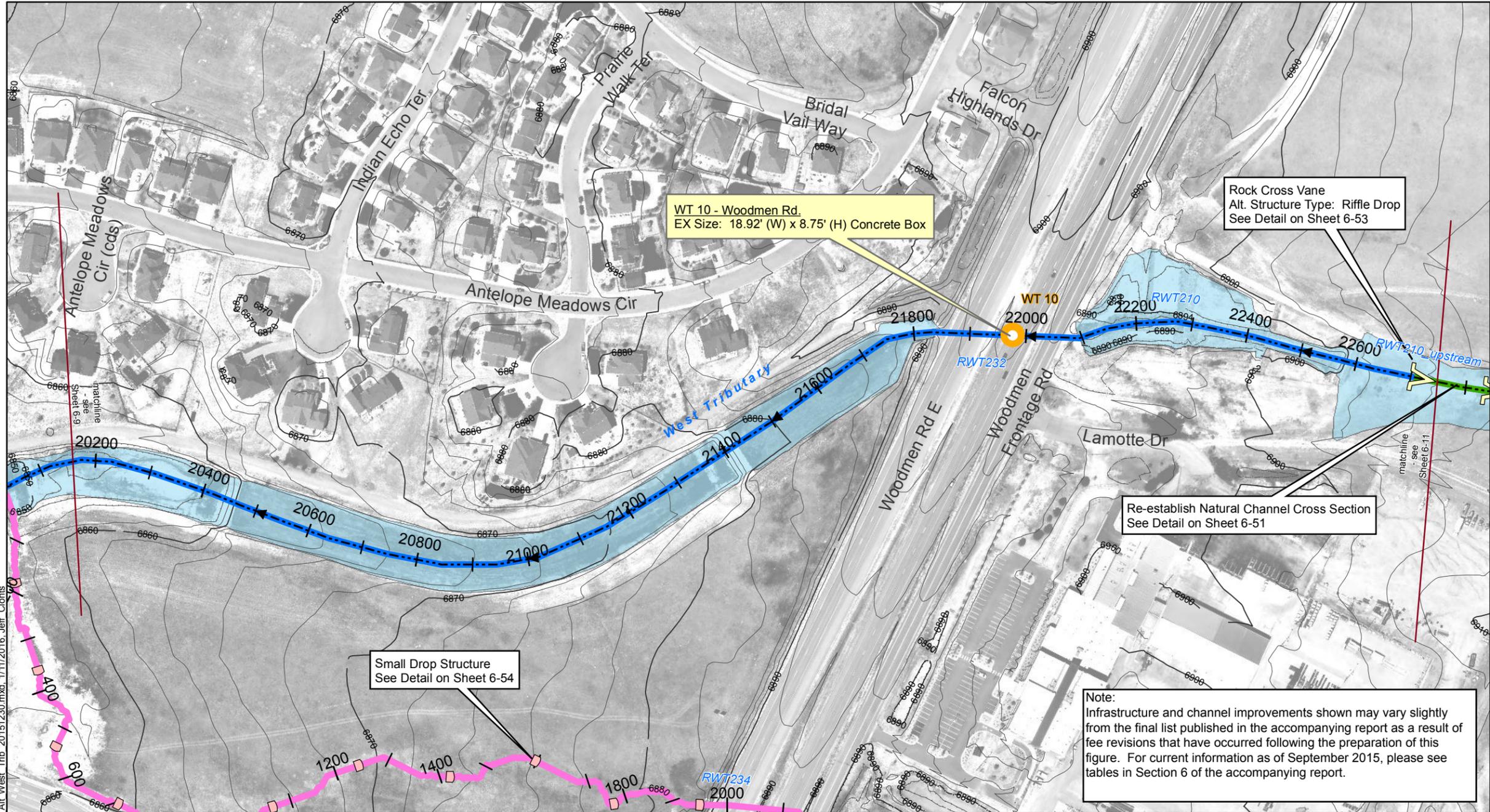


Note:  
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.



FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130817\mapbook\sel\Alt West Trib. 20151230.mxd, 1/11/2016, Jeff Clonts

**Sheet 6-10**  
**Falcon DBPS**  
**Conceptual Plan**  
**West Tributary**  
**El Paso County, CO**



**Legend**

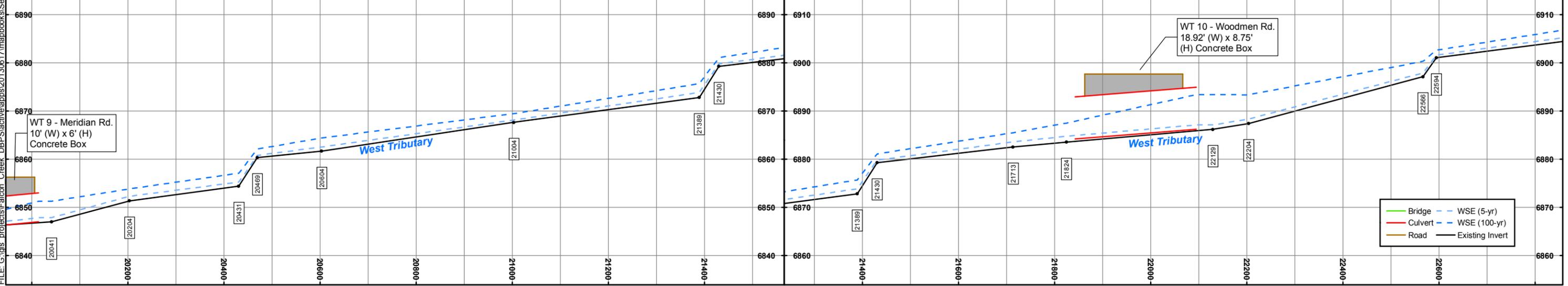
- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer: Inlet, Manhole, Pipe
- Reach Improvements: Natural Channel Design, Protect In Place, Roadside Ditch Improvement, Small Drop Structures w/ Toe Protection, Existing Detention, Proposed Detention, Proposed Detention Grading, Small Drop Structure, Cross Vane, Immediate Action Required to Preserve Existing Condition

Scale: 0 100 200 Feet

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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.



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# Sheet 6-11

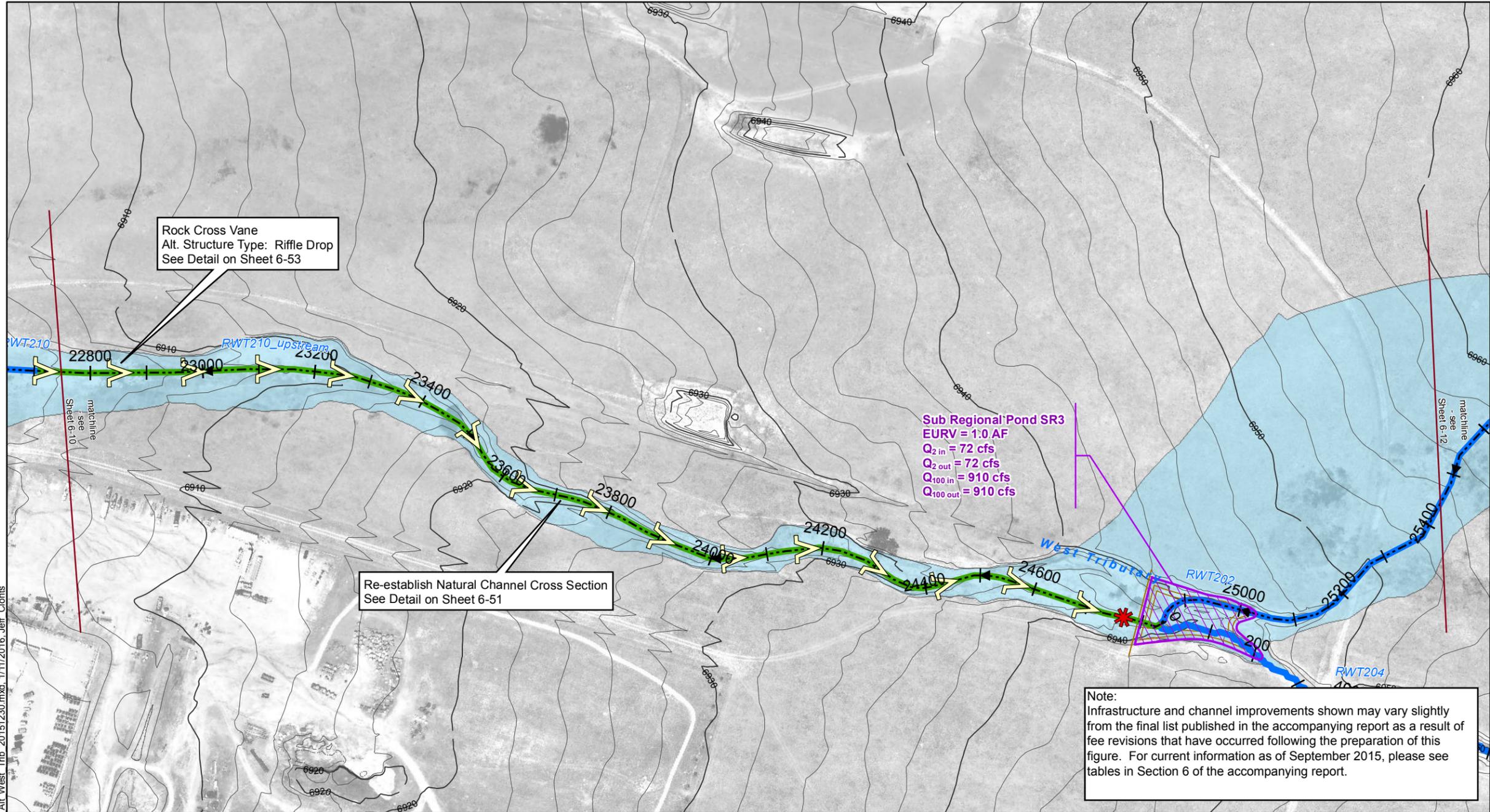
## Falcon DBPS

### Conceptual Plan

#### West Tributary

#### El Paso County, CO

- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Detention Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet



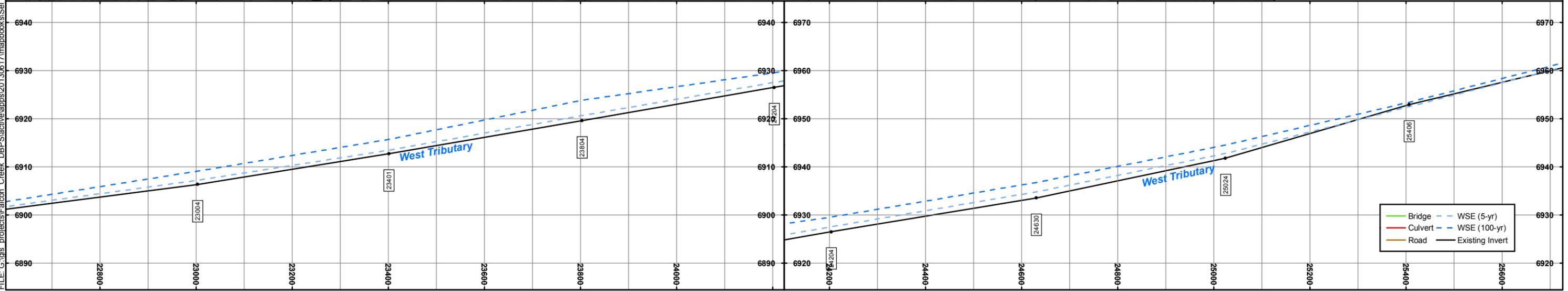
**Sub Regional Pond SR3**  
 EURV = 1:0 AF  
 Q<sub>2 in</sub> = 72 cfs  
 Q<sub>2 out</sub> = 72 cfs  
 Q<sub>100 in</sub> = 910 cfs  
 Q<sub>100 out</sub> = 910 cfs

**Rock Cross Vane**  
 Alt. Structure Type: Riffle Drop  
 See Detail on Sheet 6-53

**Re-establish Natural Channel Cross Section**  
 See Detail on Sheet 6-51

**Note:**  
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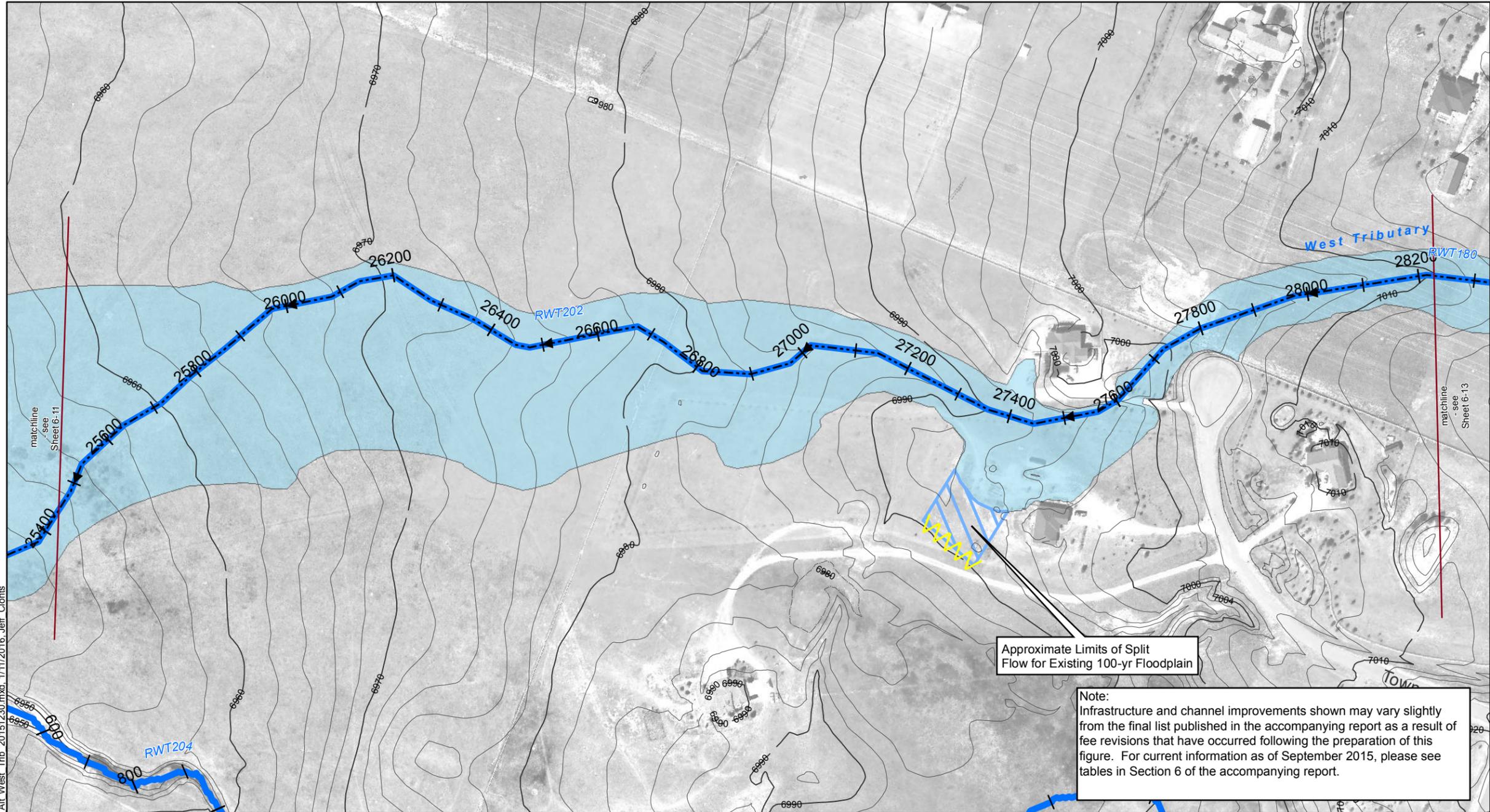
\* These approximate 100-yr floodplain boundaries are for planning purposes only. This information is not intended to replace the information provided on the FEMA Flood Insurance Rate Maps for this area.  
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FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130817\mapbooks\sel Alt West Trib 20151230.mxd, 1/11/2016, Jeff Clonis

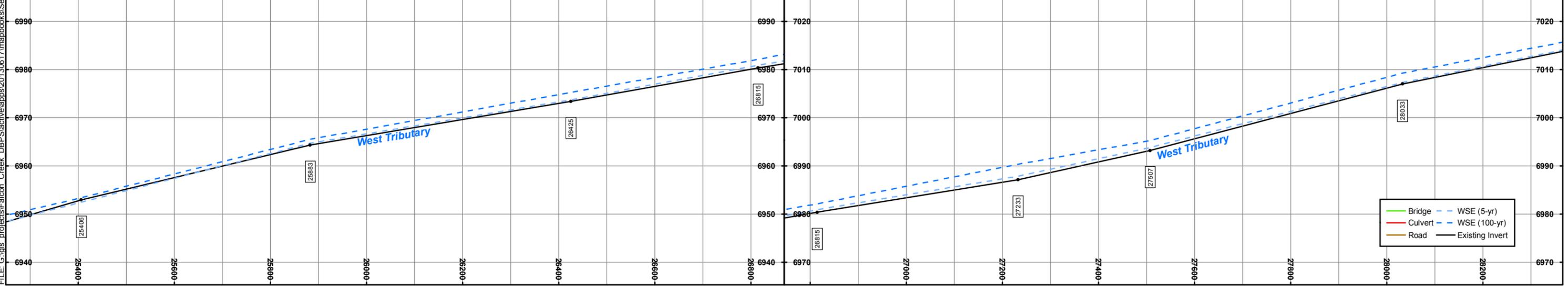
# Sheet 6-12 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Detention Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet



Approximate Limits of Split Flow for Existing 100-yr Floodplain

Note:  
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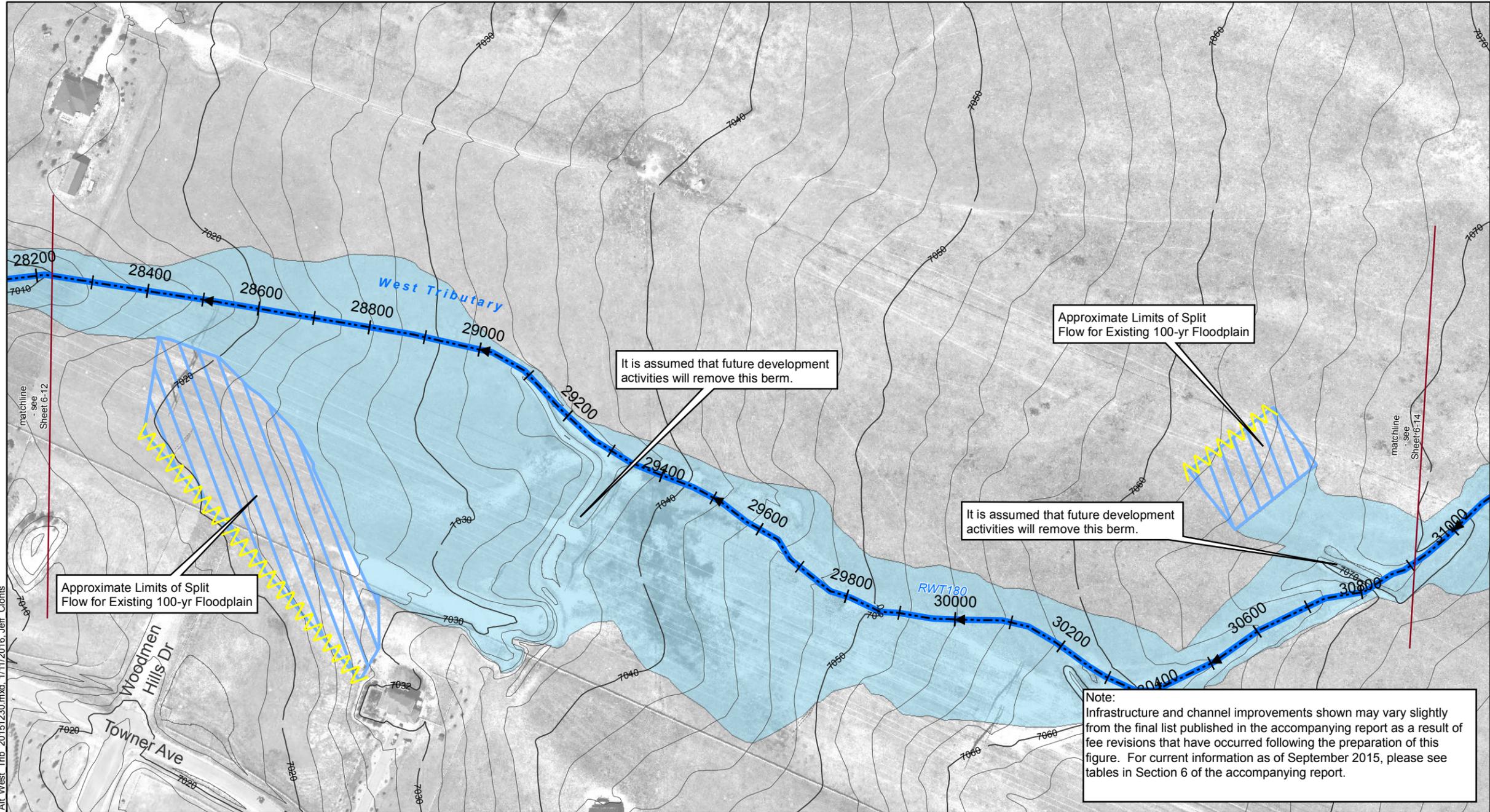
FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\Set Alt West Trib 20151230.mxd, 1/11/2016, Jeff Clontis

# Sheet 6-13 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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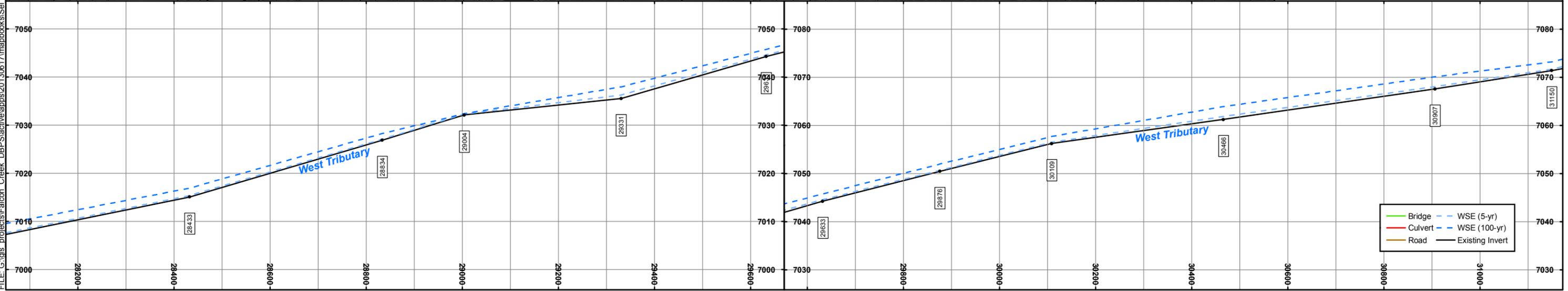


It is assumed that future development activities will remove this berm.

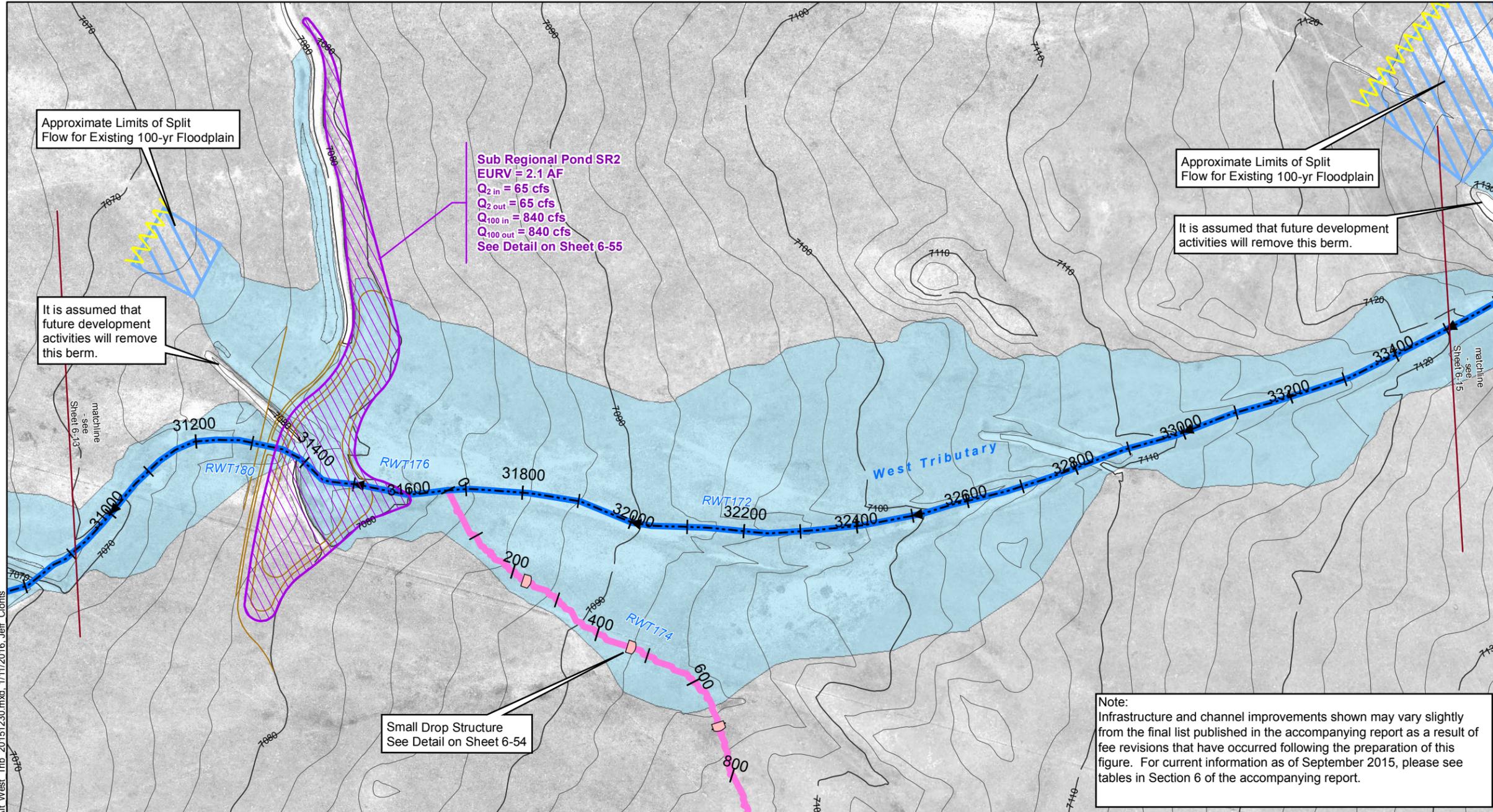
It is assumed that future development activities will remove this berm.

Note:  
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FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel Alt West Trib 20151230.mxd, 1/11/2016, Jeff Clonis



# Sheet 6-14 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

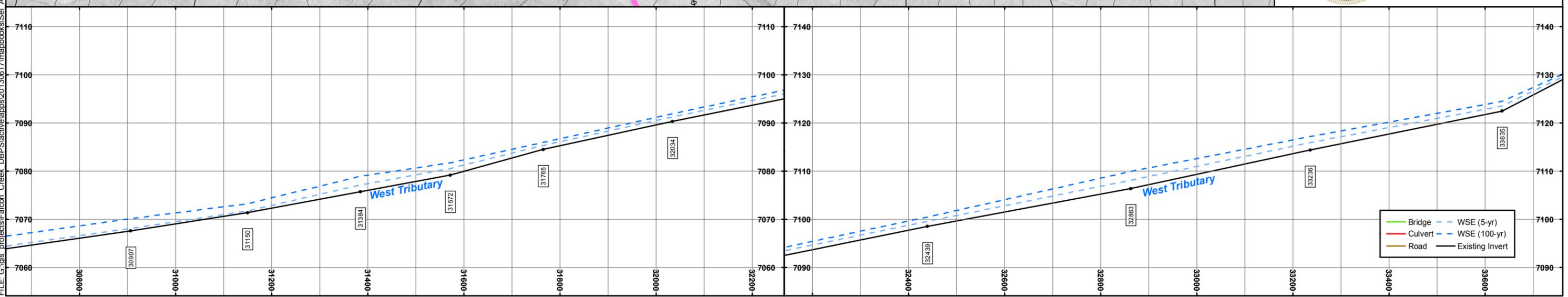


**Legend**

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer: Inlet, Manhole, Pipe
- Reach Improvements: Natural Channel Design, Protect In Place, Roadside Ditch Improvement, Small Drop Structures w/ Toe Protection, Existing Detention, Proposed Detention, Proposed Detention Grading, Small Drop Structure, Cross Vane, Immediate Action Required to Preserve Existing Condition

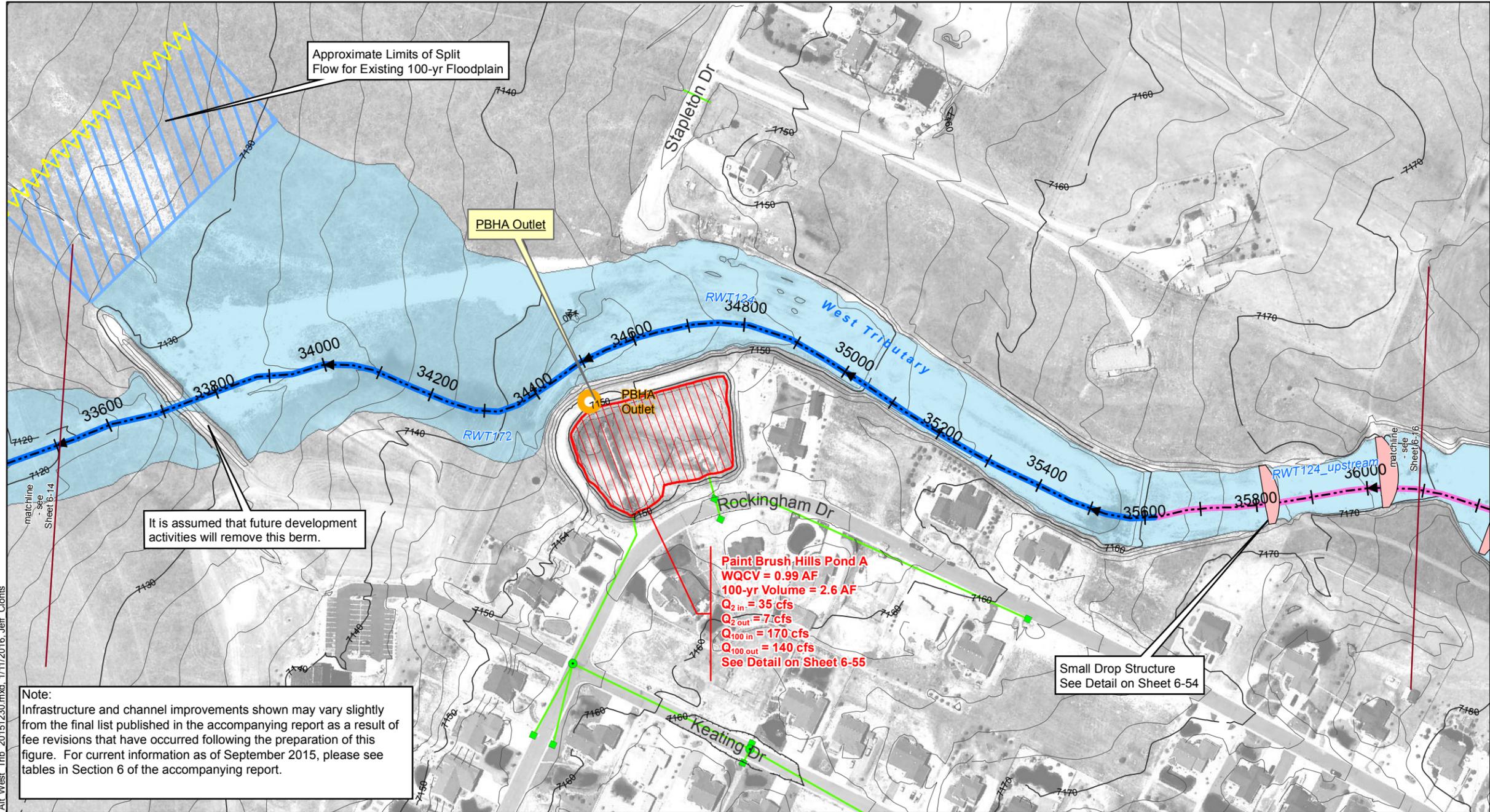
Scale: 0 100 200 Feet

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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

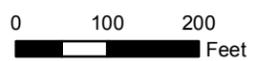


FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbook\sel\_Alt\_West\_Trib\_20151230.mxd, 1/11/2016, Jeff Clonits

# Sheet 6-15 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO



- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.



Approximate Limits of Split Flow for Existing 100-yr Floodplain

PBHA Outlet

PBHA Outlet

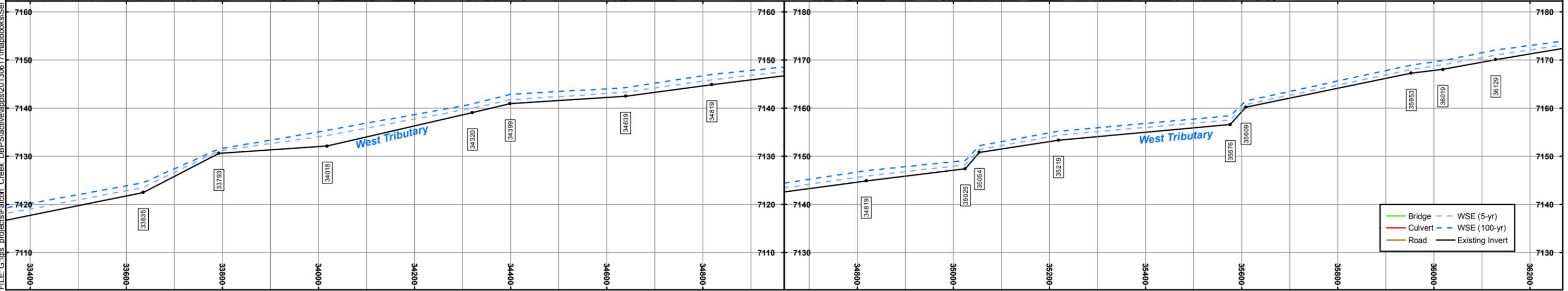
Rockingham Dr

**Paint Brush Hills Pond A**  
 WQCV = 0.99 AF  
 100-yr Volume = 2.6 AF  
 Q<sub>2 in</sub> = 35 cfs  
 Q<sub>2 out</sub> = 7 cfs  
 Q<sub>100 in</sub> = 170 cfs  
 Q<sub>100 out</sub> = 140 cfs  
 See Detail on Sheet 6-55

Small Drop Structure  
 See Detail on Sheet 6-54

It is assumed that future development activities will remove this berm.

**Note:**  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

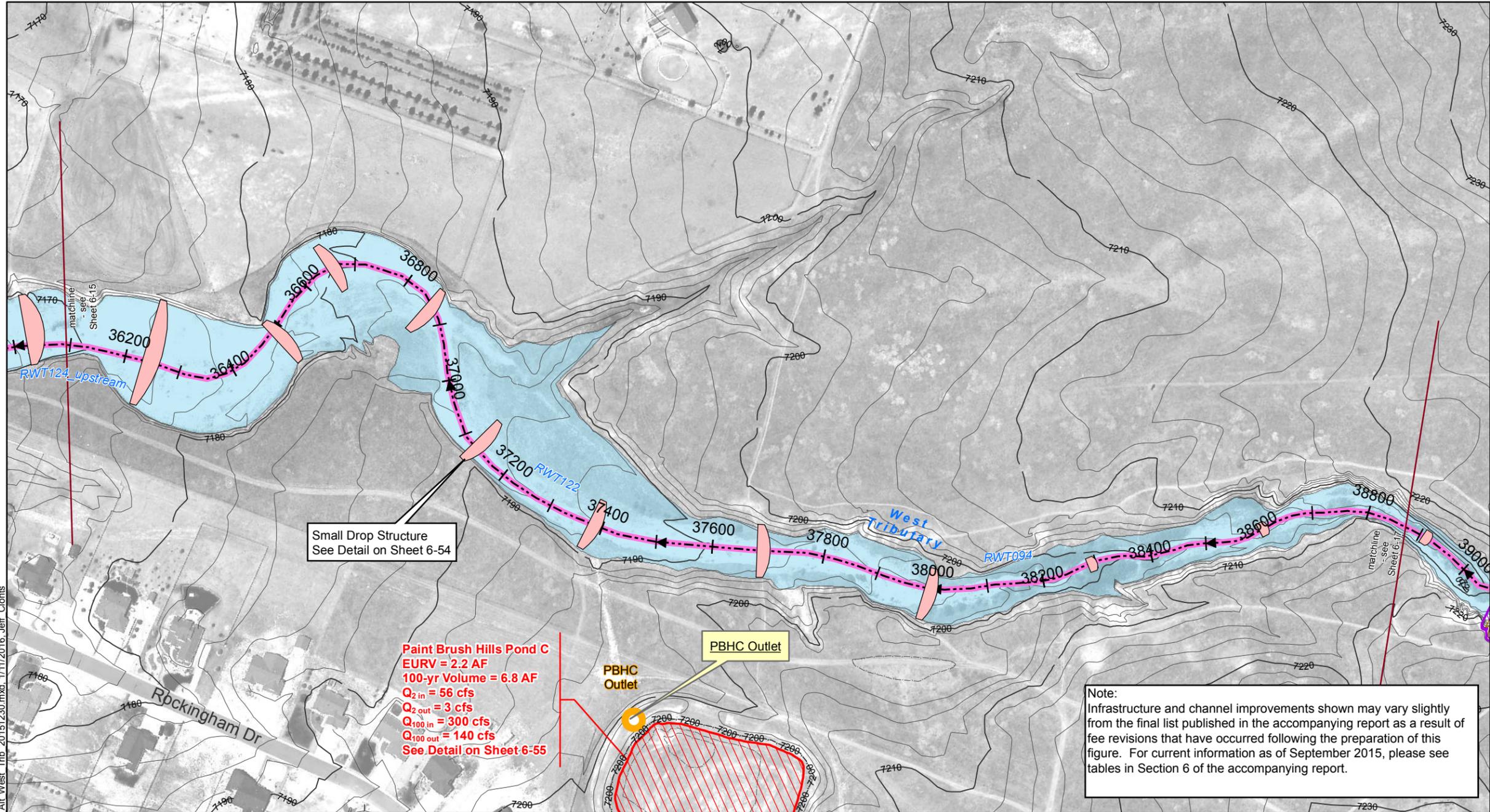


- Bridge
- WSE (5-yr)
- Culvert
- WSE (100-yr)
- Road
- Existing Invert

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# Sheet 6-16 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO

- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Detention Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet



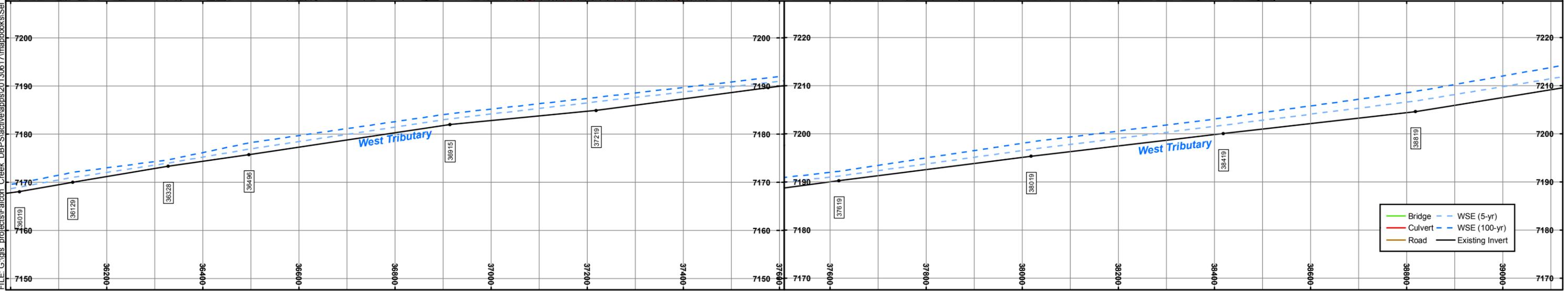
Small Drop Structure  
See Detail on Sheet 6-54

**Paint Brush Hills Pond C**  
 EURV = 2.2 AF  
 100-yr Volume = 6.8 AF  
 Q<sub>2 in</sub> = 56 cfs  
 Q<sub>2 out</sub> = 3 cfs  
 Q<sub>100 in</sub> = 300 cfs  
 Q<sub>100 out</sub> = 140 cfs  
 See Detail on Sheet 6-55

PBHC Outlet

Note:  
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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.



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# Sheet 6-17

## Falcon DBPS

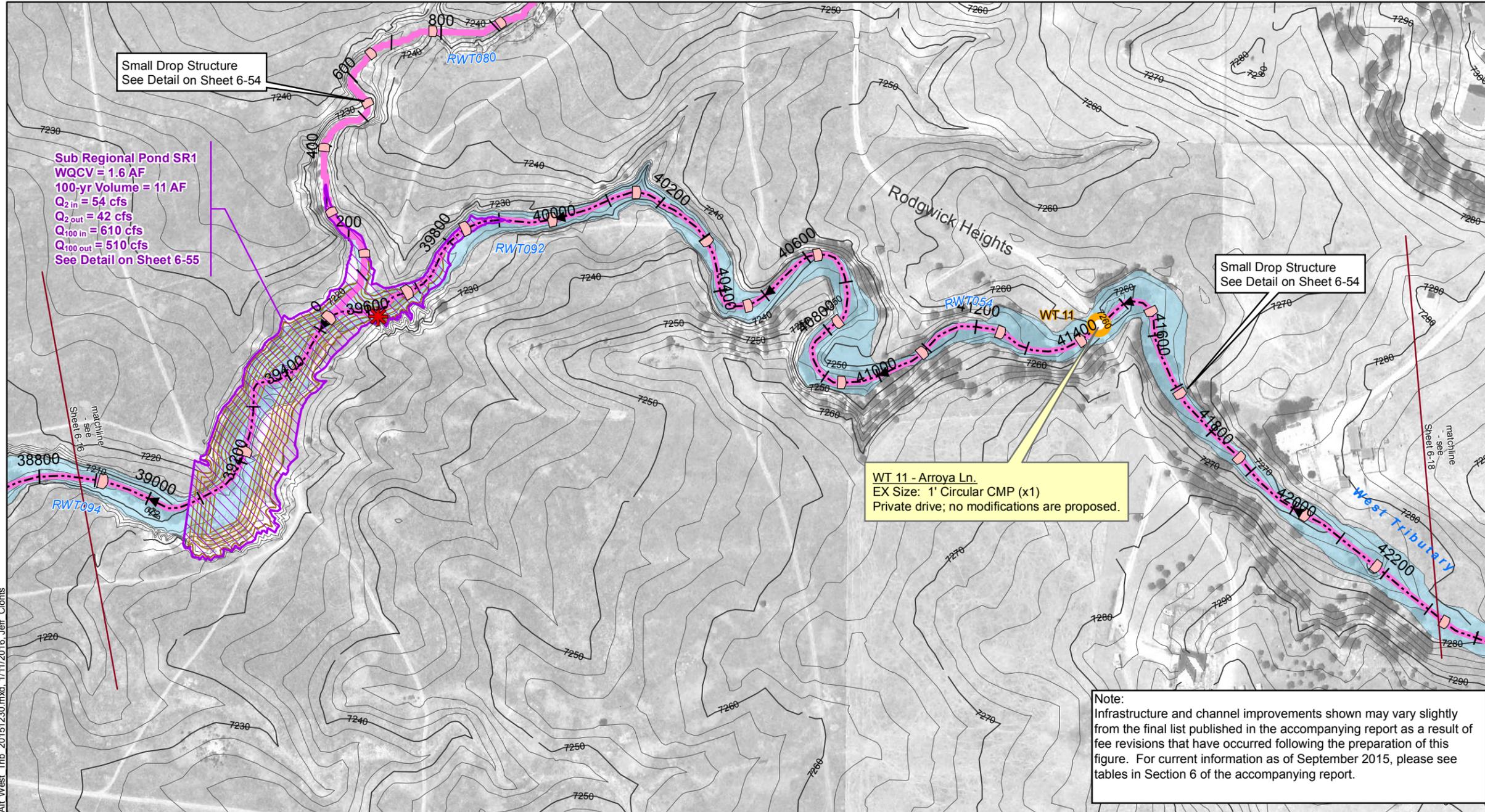
### Conceptual Plan

#### West Tributary

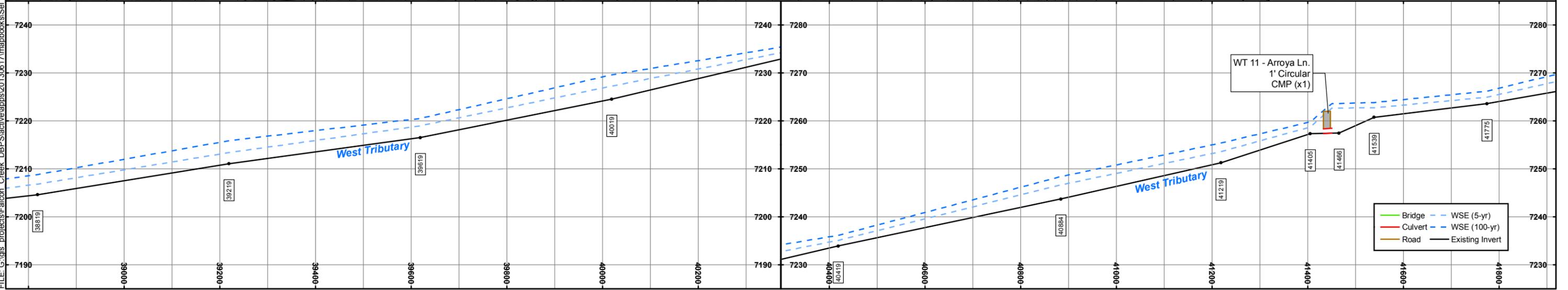
#### El Paso County, CO

- |   |  |
|---|--|
|  Drainageway Crossing                    |  Reach Improvements                                       |
|  Stream Centerline                       |  Natural Channel Design                                   |
|  Existing Approximate 100-yr Floodplain* |  Protect In Place   |
|  Floodplain Study Limit                  |  Roadside Ditch Improvement                               |
| <b>Storm Sewer</b>  |  Small Drop Structures w/ Toe Protection                  |
|  Inlet                                   |  Existing Detention                                       |
|  Manhole                                 |  Proposed Detention                                       |
|  Pipe                                    |  Proposed Detention Grading                               |
|   |  Small Drop Structure                                     |
|   |  Cross Vane   |
|   |  Immediate Action Required to Preserve Existing Condition |
- 0 100 200 Feet

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 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.

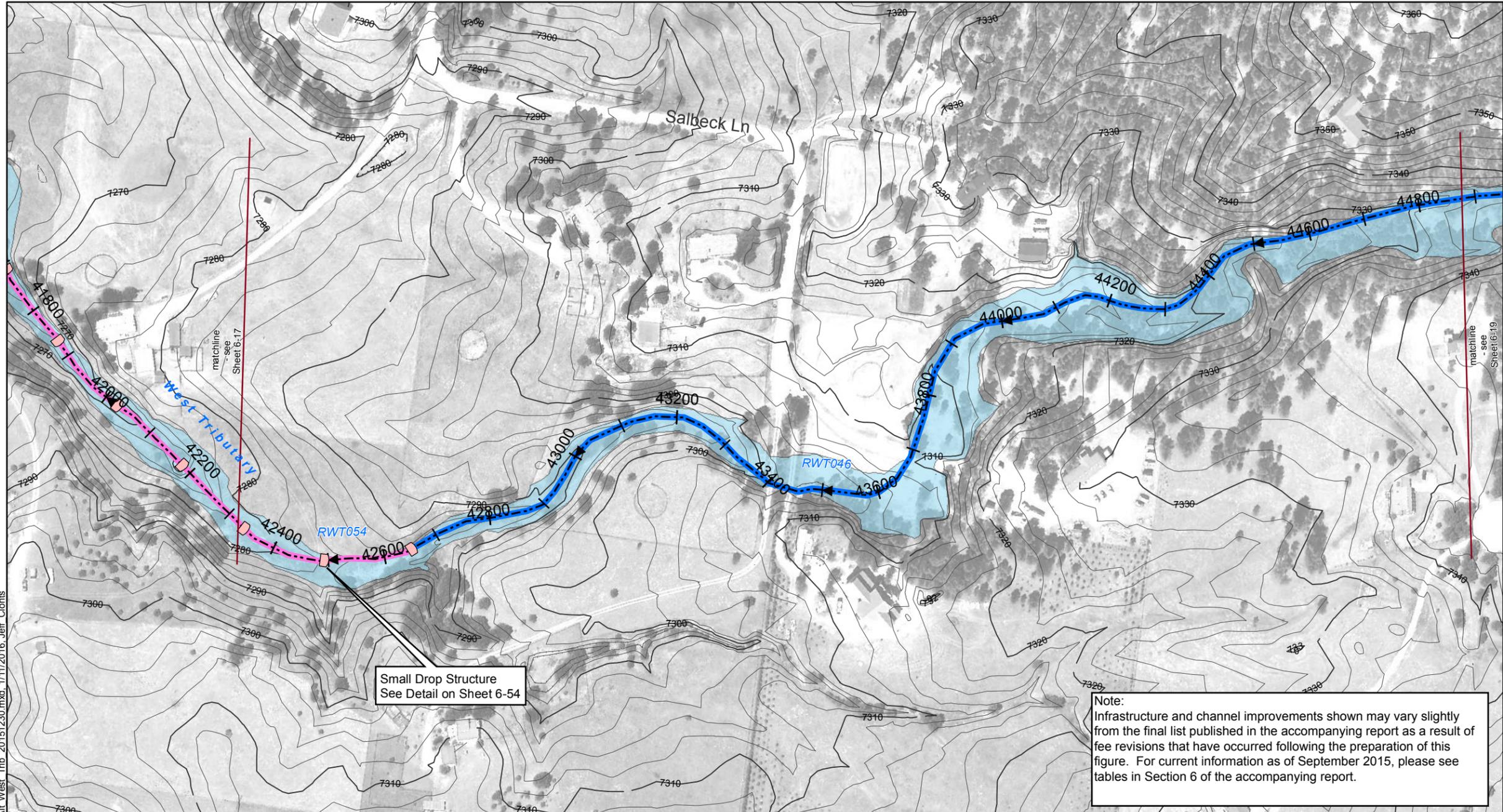


Note:  
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# Sheet 6-18 Falcon DBPS Conceptual Plan West Tributary El Paso County, CO



**Drainageway Crossing**

- Orange circle: Drainageway Crossing
- Black dashed line with arrow: Stream Centerline
- Light blue shaded area: Existing Approximate 100-yr Floodplain\*
- Yellow wavy line: Floodplain Study Limit

**Storm Sewer**

- Green square: Inlet
- Green circle: Manhole
- Green line: Pipe

**Reach Improvements**

- Green line: Natural Channel Design
- Blue line: Protect In Place
- Orange line: Roadside Ditch Improvement
- Pink line: Small Drop Structures w/ Toe Protection
- Red hatched box: Existing Detention
- Purple hatched box: Proposed Detention
- Yellow line: Proposed Detention Grading
- Red box: Small Drop Structure
- Yellow box: Cross Vane
- Red star: Immediate Action Required to Preserve Existing Condition

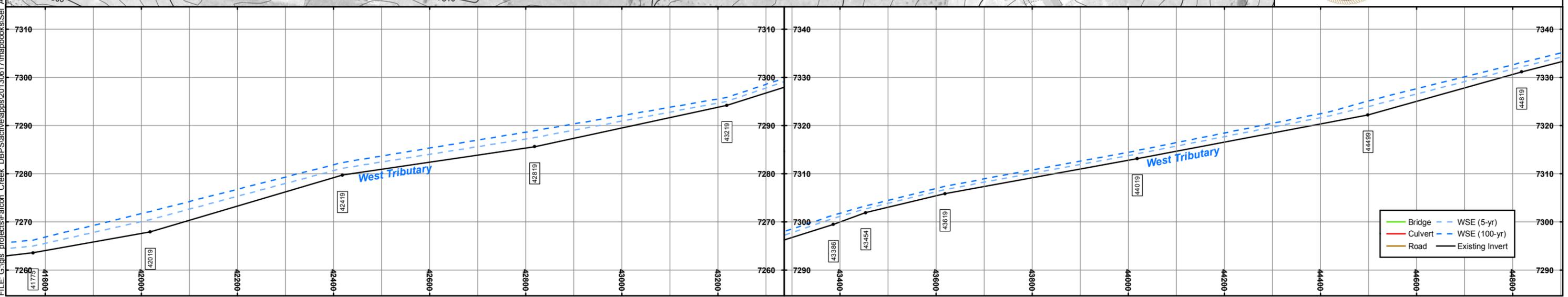
0 100 200 Feet

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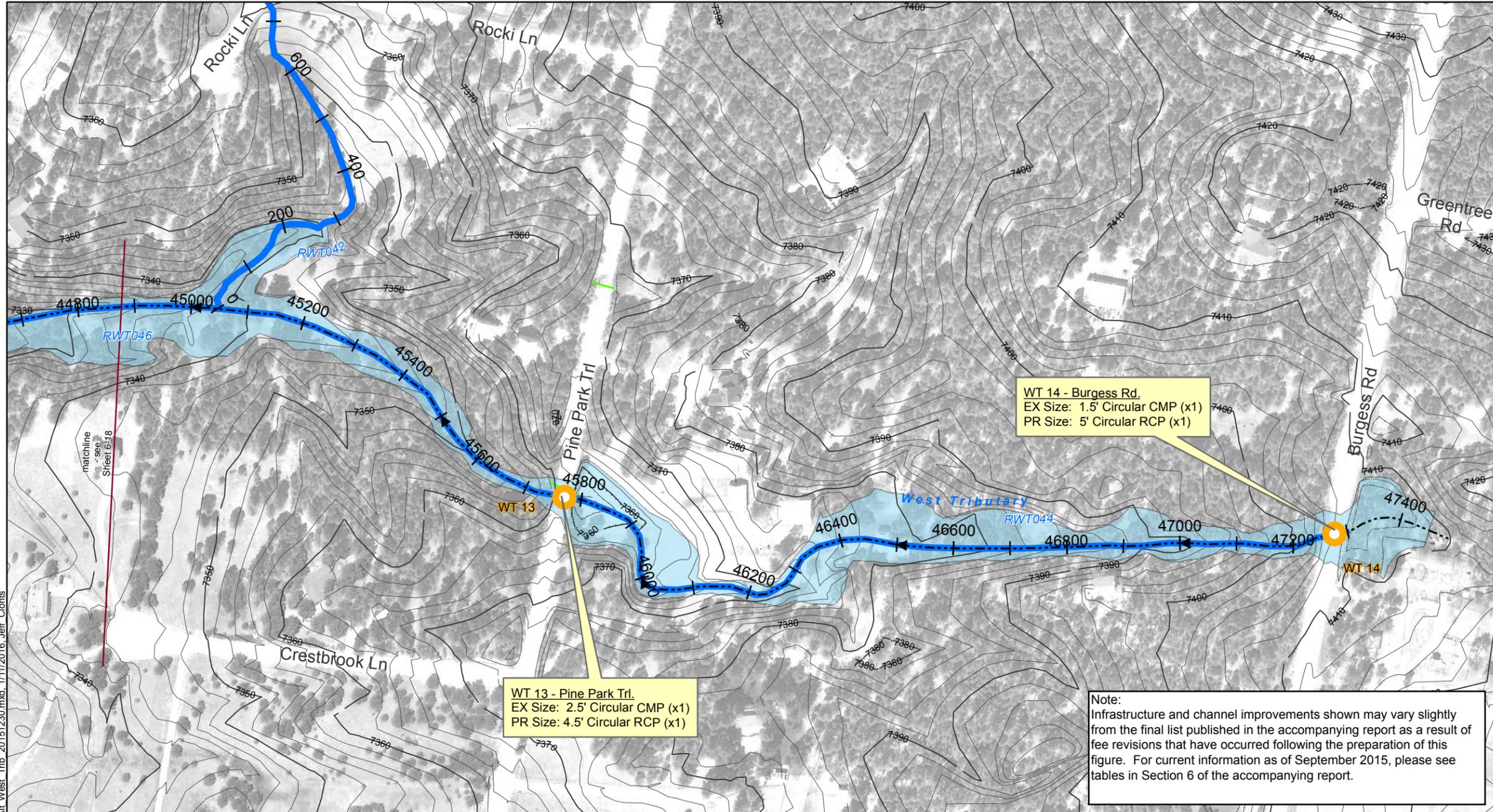
Small Drop Structure  
See Detail on Sheet 6-54

Note:  
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**Sheet 6-19**  
**Falcon DBPS**  
**Conceptual Plan**  
**West Tributary**  
**El Paso County, CO**



**Drainageway Crossing**

- Orange circle: Drainageway Crossing
- Black dashed line with arrow: Stream Centerline
- Light blue shaded area: Existing Approximate 100-yr Floodplain\*
- Yellow wavy line: Floodplain Study Limit

**Storm Sewer**

- Green square: Inlet
- Green circle: Manhole
- Green line: Pipe

**Reach Improvements**

- Green line: Natural Channel Design
- Blue line: Protect In Place
- Orange line: Roadside Ditch Improvement
- Pink line: Small Drop Structures w/ Toe Protection
- Red hatched box: Existing Detention
- Purple hatched box: Proposed Detention
- Yellow hatched box: Proposed Detention Grading
- Pink box: Small Drop Structure
- Yellow box: Cross Vane
- Red star: Immediate Action Required to Preserve Existing Condition

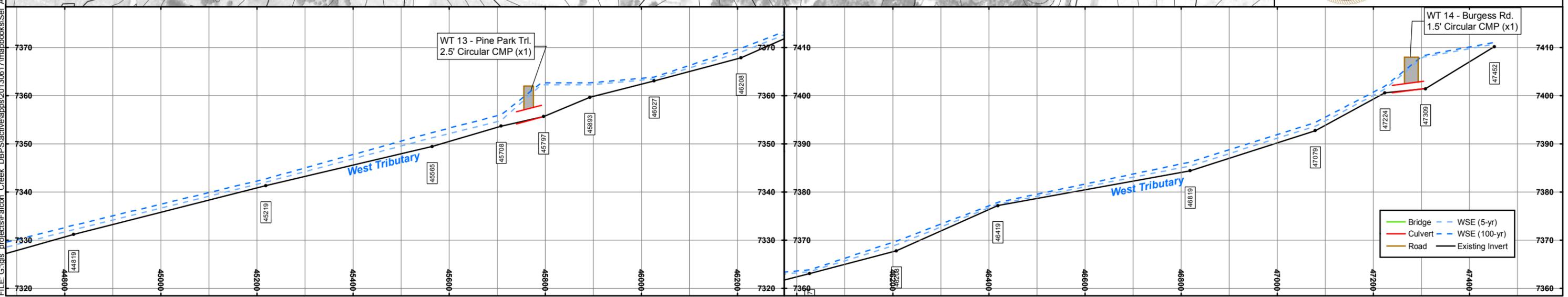
0 100 200 Feet

**WT 14 - Burgess Rd.**  
 EX Size: 1.5' Circular CMP (x1)  
 PR Size: 5' Circular RCP (x1)

**WT 13 - Pine Park Trl.**  
 EX Size: 2.5' Circular CMP (x1)  
 PR Size: 4.5' Circular RCP (x1)

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FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel\_Alt\_West\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis

**Sheet 6-20**  
**Falcon DBPS**  
**Conceptual Plan**  
**Middle Tributary**  
**El Paso County, CO**

**Regional Pond R1**  
 EURV = 6.7 AF  
 100-yr Volume = 25 AF  
 Q<sub>2 in</sub> = 110 cfs  
 Q<sub>2 out</sub> = 77 cfs  
 Q<sub>100 in</sub> = 1600 cfs  
 Q<sub>100 out</sub> = 1500 cfs  
 See Detail on Sheet 6-55

**MT 1 - Falcon Hwy.**  
 EX Size: 2' Circular CMP (x1)  
 PR Size: 12' (W) x 4' (H) Concrete Box (x11)  
 \* Road profile would need to be raised to implement a feasible solution.

Small Drop Structure  
 See Detail on Sheet 6-54

Small Drop Structure  
 See Detail on Sheet 6-54

Potential Flow Path of Overtopping Flow

See Notes on Cut Sheets

- |   |  |
|---|--|
| Drainageway Crossing                    | <b>Reach Improvements</b>                                |
| Stream Centerline                       | Natural Channel Design                                   |
| Existing Approximate 100-yr Floodplain* | Protect In Place   |
| Floodplain Study Limit                  | Roadside Ditch Improvement                               |
| <b>Storm Sewer</b>                      | Small Drop Structures w/ Toe Protection                  |
| Inlet                                   | Existing Detention                                       |
| Manhole                                 | Proposed Detention                                       |
| Pipe                                    | Proposed Detention Grading                               |
|   | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |

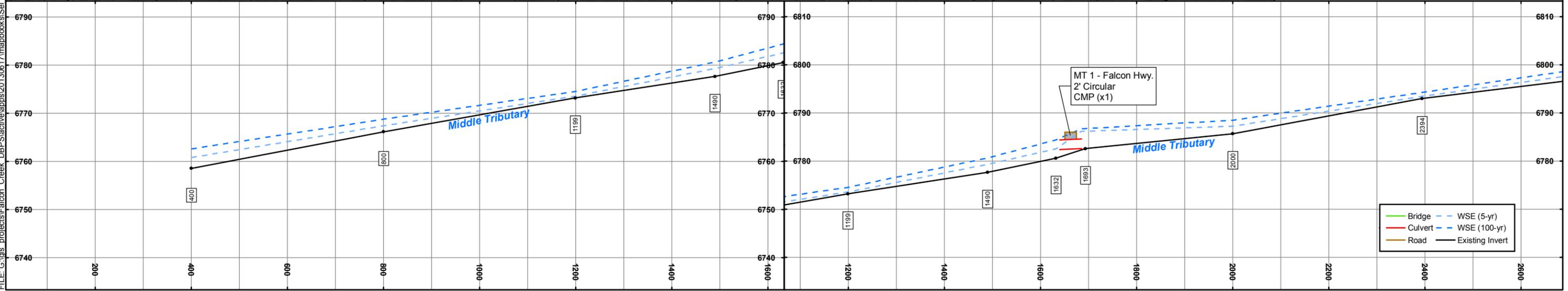
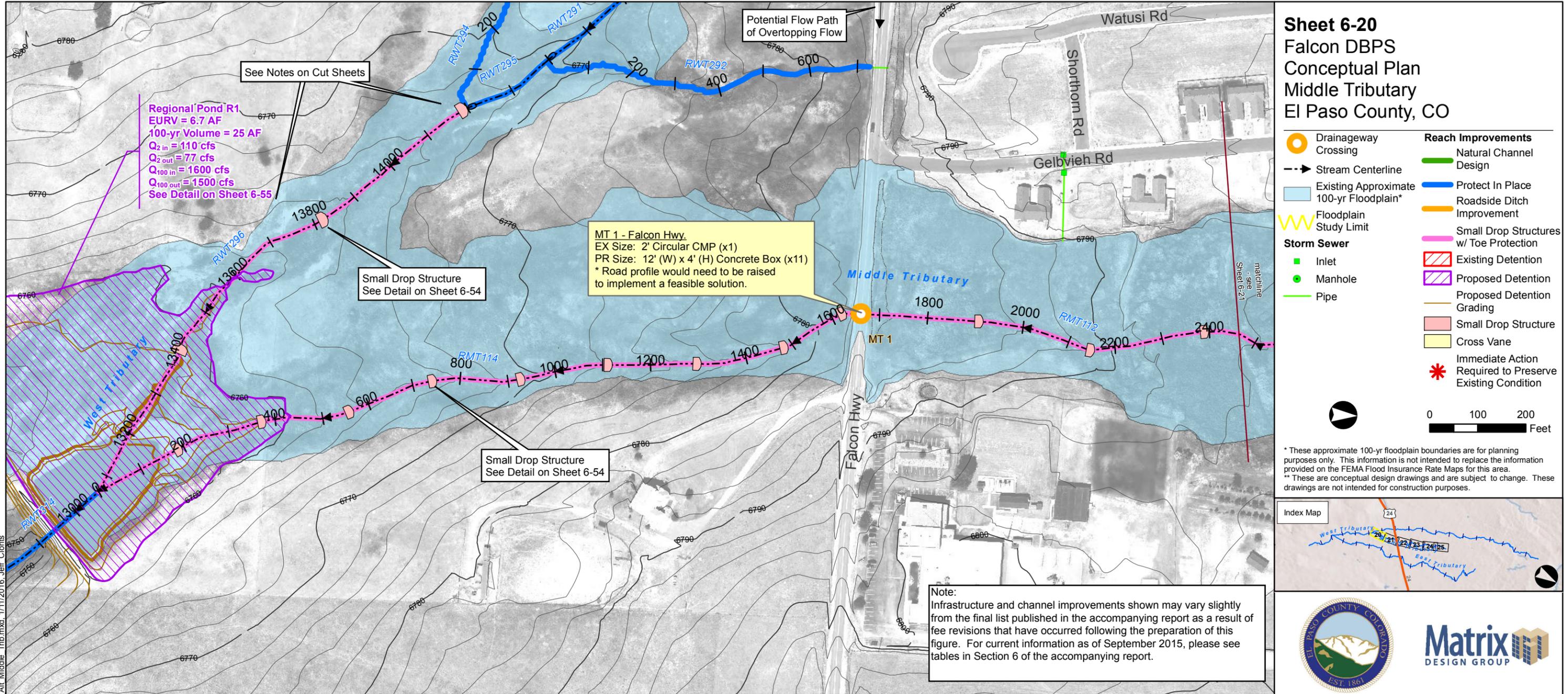


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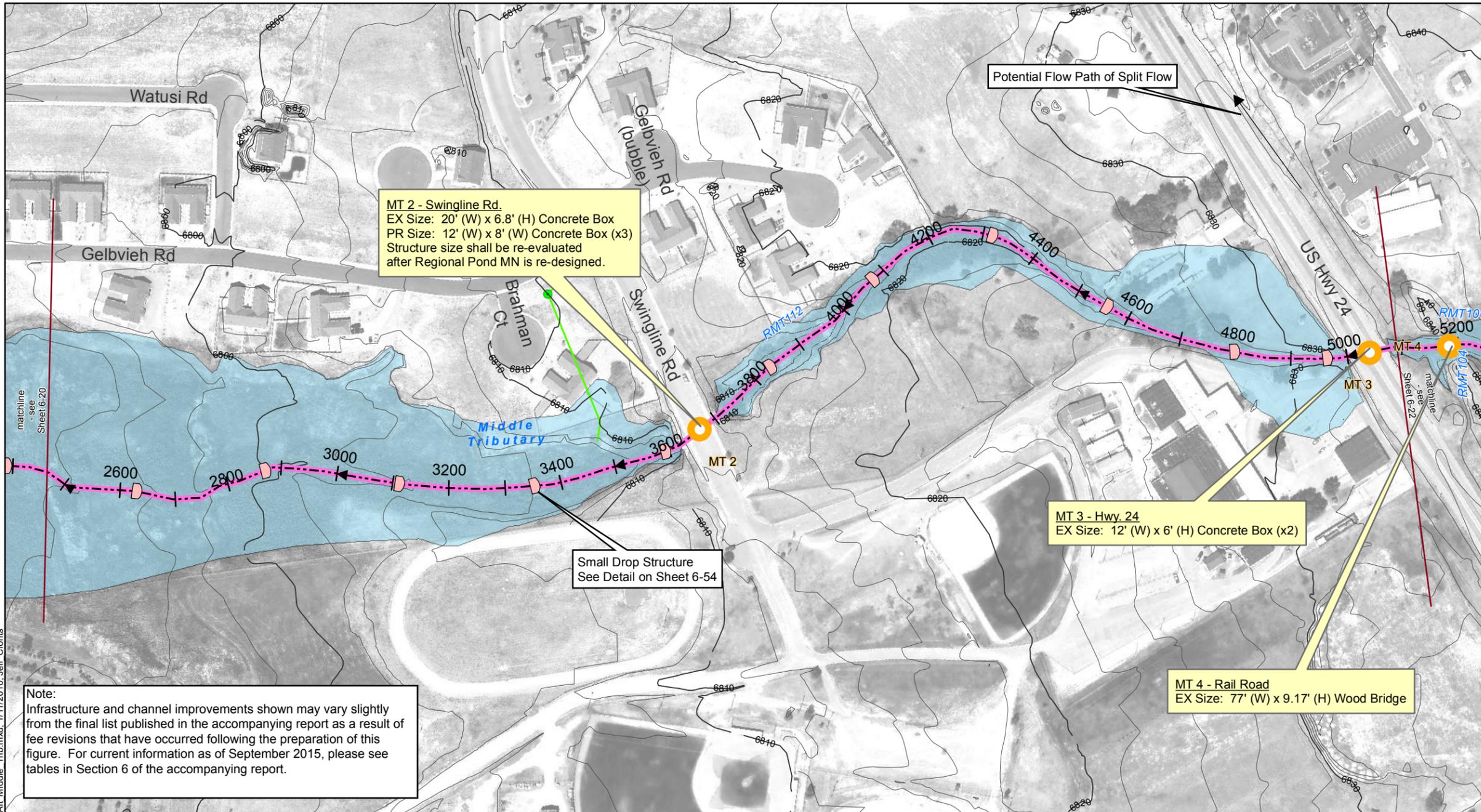


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FILE: G:\dis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\Sel\_Alt\_Middle\_Trib.mxd, 1/11/2016, Jeff Clonts



# Sheet 6-21 Falcon DBPS Conceptual Plan Middle Tributary El Paso County, CO



**MT 2 - Swingline Rd.**  
EX Size: 20' (W) x 6.8' (H) Concrete Box  
PR Size: 12' (W) x 8' (W) Concrete Box (x3)  
Structure size shall be re-evaluated after Regional Pond MN is re-designed.

Potential Flow Path of Split Flow

Small Drop Structure  
See Detail on Sheet 6-54

**MT 3 - Hwy 24**  
EX Size: 12' (W) x 6' (H) Concrete Box (x2)

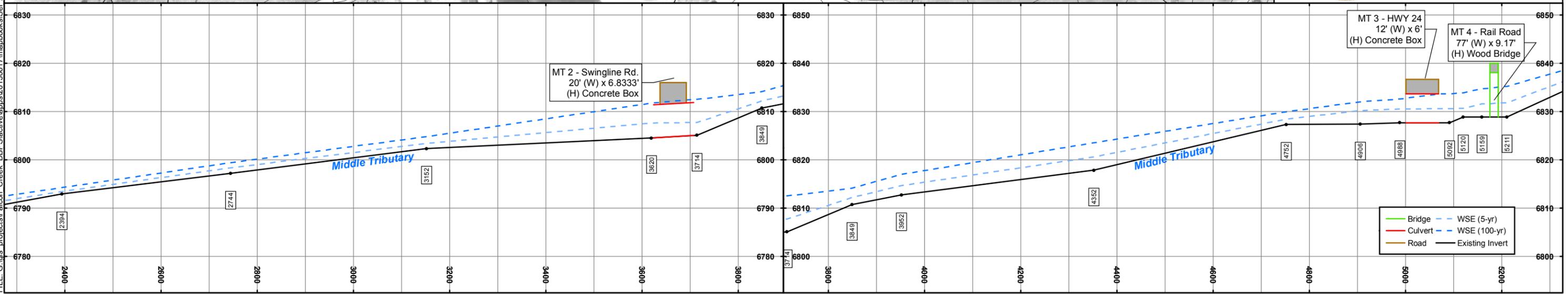
**MT 4 - Rail Road**  
EX Size: 77' (W) x 9.17' (H) Wood Bridge

**Note:**  
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

Drainageway Crossing	<b>Reach Improvements</b>
Stream Centerline	Natural Channel Design
Existing Approximate 100-yr Floodplain*	Protect In Place
Floodplain Study Limit	Roadside Ditch Improvement
Inlet	Small Drop Structures w/ Toe Protection
Manhole	Existing Detention
Pipe	Proposed Detention
	Proposed Detention Grading
	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\ppps20130617\mapbooks\sel\_Alt\_Middle\_Trib.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-22 Falcon DBPS Conceptual Plan Middle Tributary El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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**MT 5-1 - McLaughlin Rd.**  
EX Size: 27' (W) x 5.22' (H) Concrete Bridge  
PR Size: 12' (W) x 7' (H) Concrete Box (x3)  
Structure size shall be re-evaluated after Regional Pond MN is re-designed.

**Regional Pond MN**  
WQCV = 2.5 AF  
100-yr Volume = 7.5 AF  
Q2 in = 65 cfs  
Q2 out = 32 cfs  
Q100 in = 850 cfs  
Q100 out = 820 cfs  
See Detail on Sheet 6-55  
\* Redesign and reconstruction is being evaluated by the developer / Falcon Highlands Metro District. Revisions will work in combination with Sub-Regional Pond SR4 to mitigate capacity issues of the downstream drainage infrastructure.

**MT 6 - Woodmen Rd.**  
EX Size: 4' Circular RCP (x3)  
PR Size: 5' Circular RCP (x3)  
\* Sub-Regional Pond SR4 will be designed to mitigate capacity issues.

**MT 6-2 - Woodmen Rd.**  
EX Size: 4' Circular RCP (x3)  
PR Size: 5' Circular RCP (x3)  
\* Sub-Regional Pond SR4 will be designed to mitigate capacity issues.

**Woodmen Hills Pond #5**  
EURV = 2.0 AF  
100-yr Volume = 4.1 AF  
Q2 in = 40 cfs  
Q2 out = 1 cfs  
Q100 in = 130 cfs  
Q100 out = 20 cfs  
See Detail on Sheet 6-55

Note:  
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Approximate Limits of Undefined Flow for 100-yr Floodplain

**MT 3 - Hwy. 24**  
EX Size: 12' (W) x 6' (H) Concrete Box

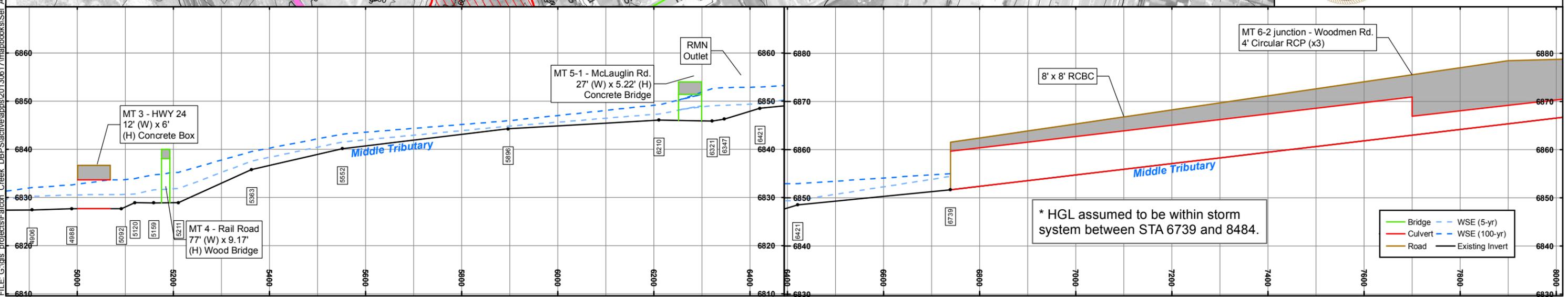
**MT 4 - Rail Road**  
EX Size: 77' (W) x 9.17' (H) Wood Bridge

Small Drop Structure  
See Detail on Sheet 6-54

Floodplain Enters Underground Storm System

Floodplain Enters Underground Storm System

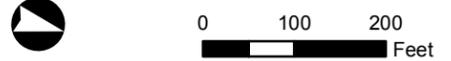
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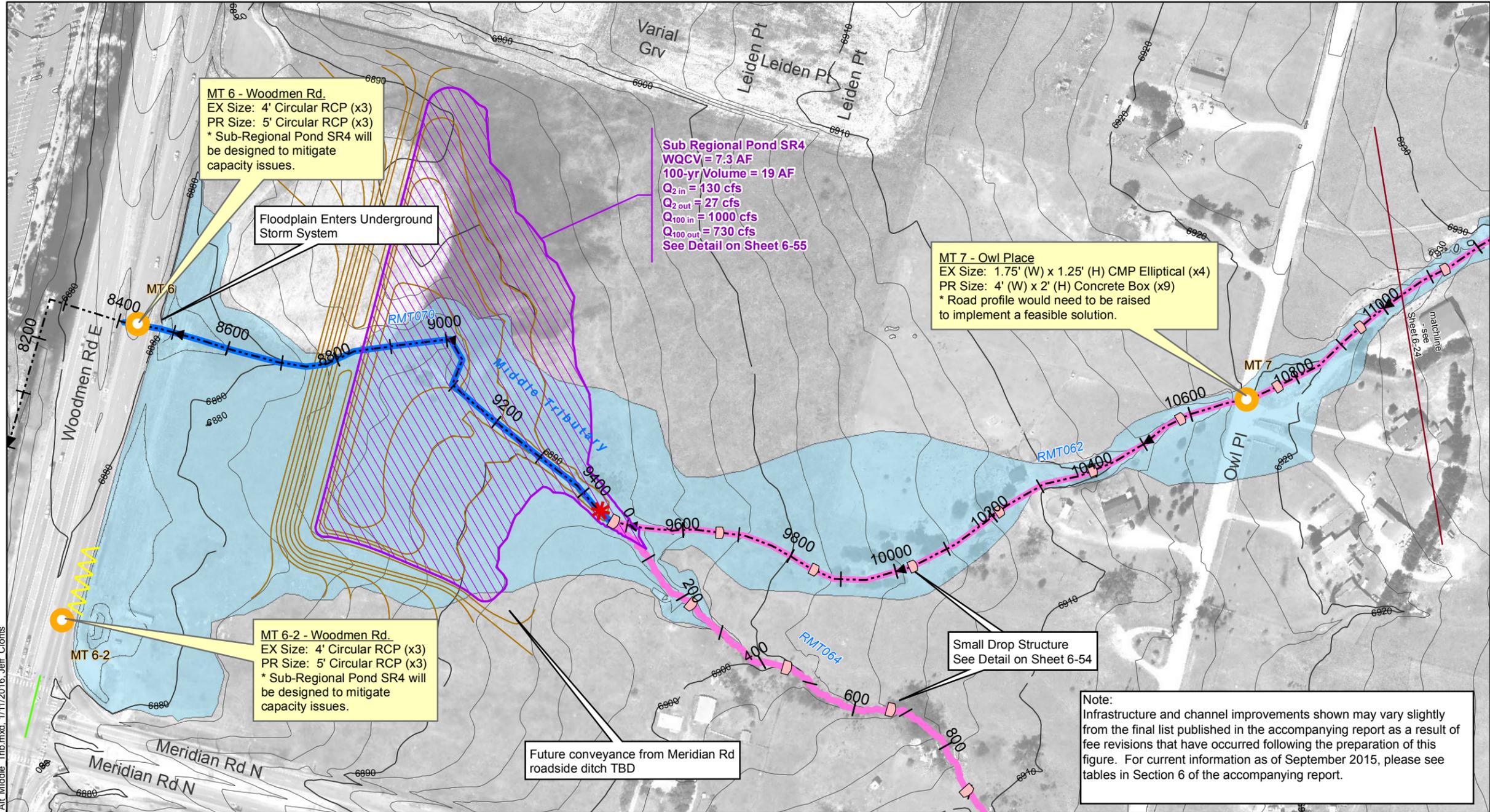
\* HGL assumed to be within storm system between STA 6739 and 8484.

# Sheet 6-23 Falcon DBPS Conceptual Plan Middle Tributary El Paso County, CO

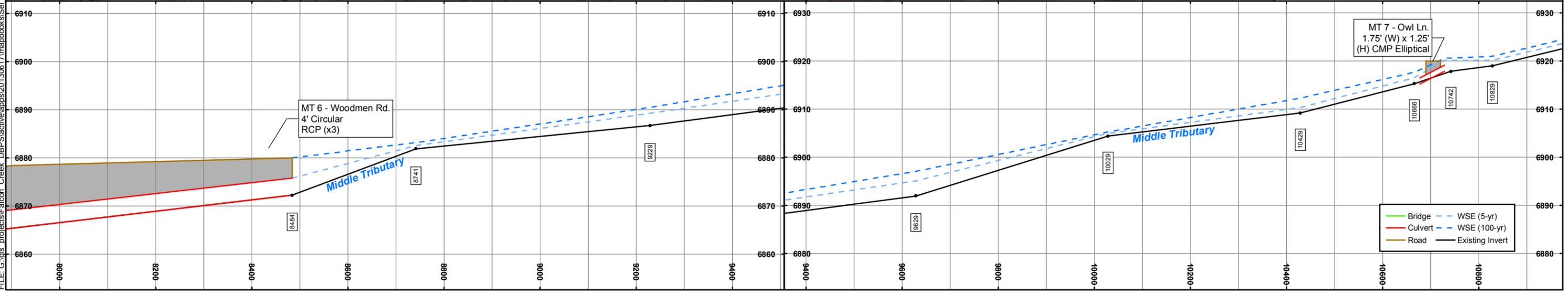
- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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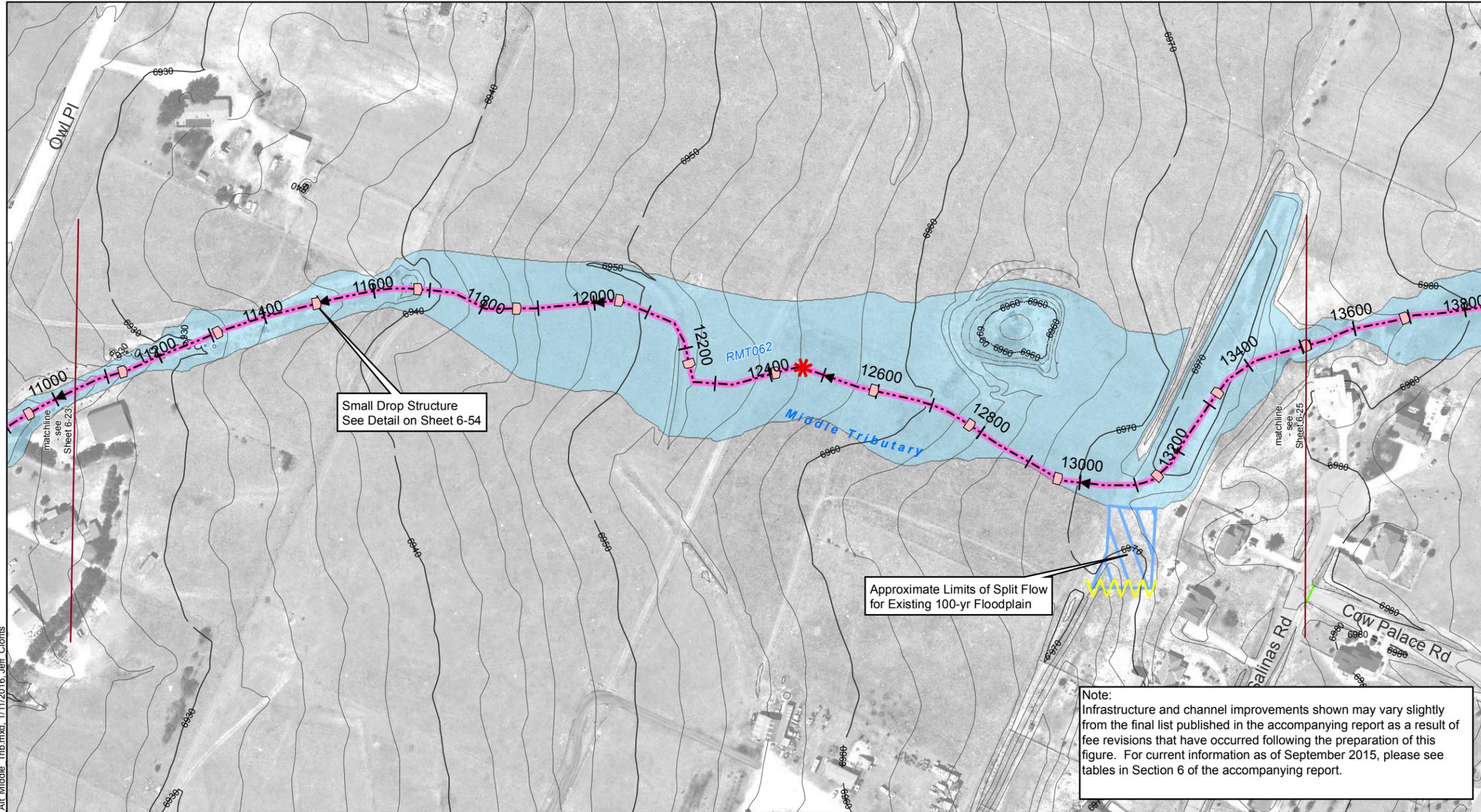


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FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\ppps20130617\mapbooks\sel Alt Middle Trib.mxd, 1/11/2016, Jeff Clonis

# Sheet 6-24 Falcon DBPS Conceptual Plan Middle Tributary El Paso County, CO



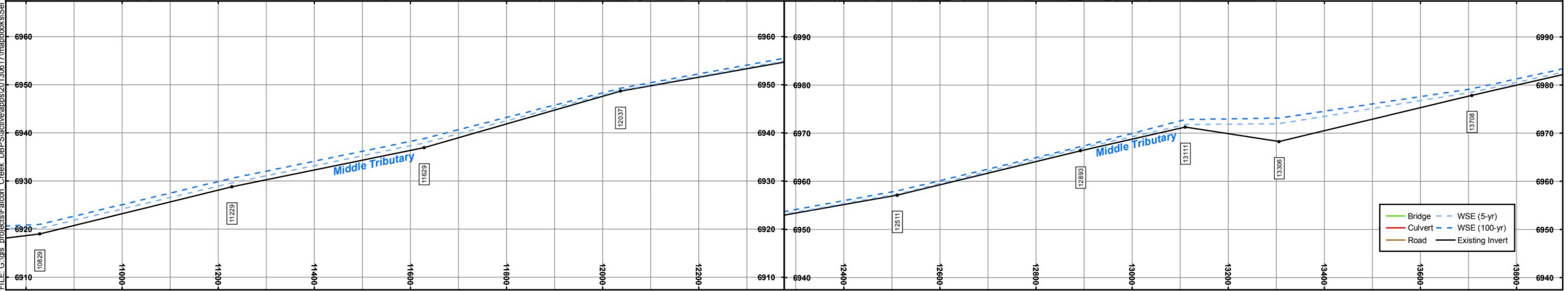
Drainageway Crossing	<b>Reach Improvements</b>
Stream Centerline	Natural Channel Design
Existing Approximate 100-yr Floodplain*	Protect In Place
Floodplain Study Limit	Roadside Ditch Improvement
<b>Storm Sewer</b>	Small Drop Structures w/ Toe Protection
Inlet	Existing Detention
Manhole	Proposed Detention
Pipe	Proposed Detention Grading
	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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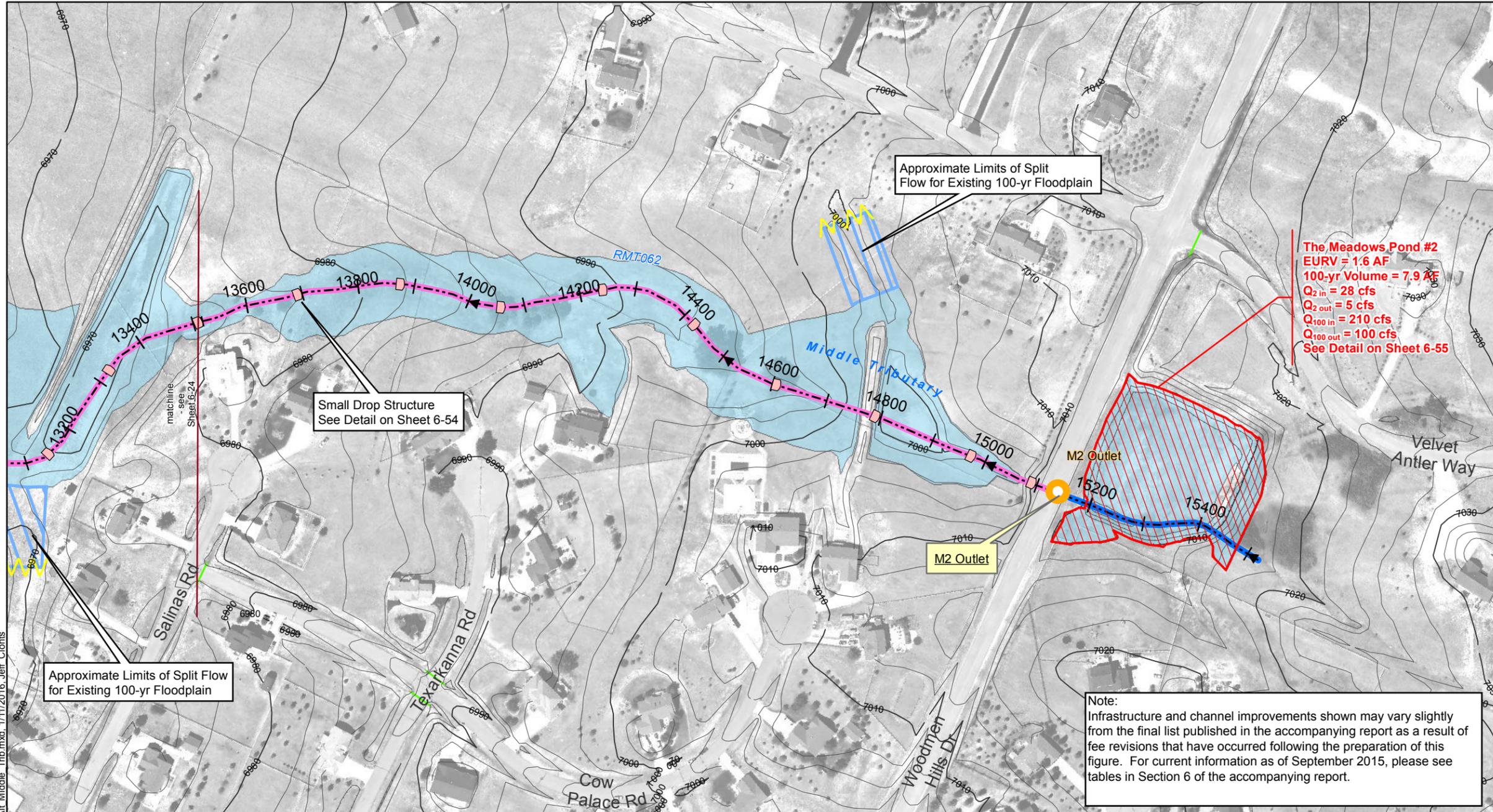


Note:  
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**Sheet 6-25**  
**Falcon DBPS**  
**Conceptual Plan**  
**Middle Tributary**  
**El Paso County, CO**



**The Meadows Pond #2**  
 EURV = 1.6 AF  
 100-yr Volume = 7.9 AF  
 Q<sub>2 in</sub> = 28 cfs  
 Q<sub>2 out</sub> = 5 cfs  
 Q<sub>100 in</sub> = 210 cfs  
 Q<sub>100 out</sub> = 100 cfs  
 See Detail on Sheet 6-55

Small Drop Structure  
 See Detail on Sheet 6-54

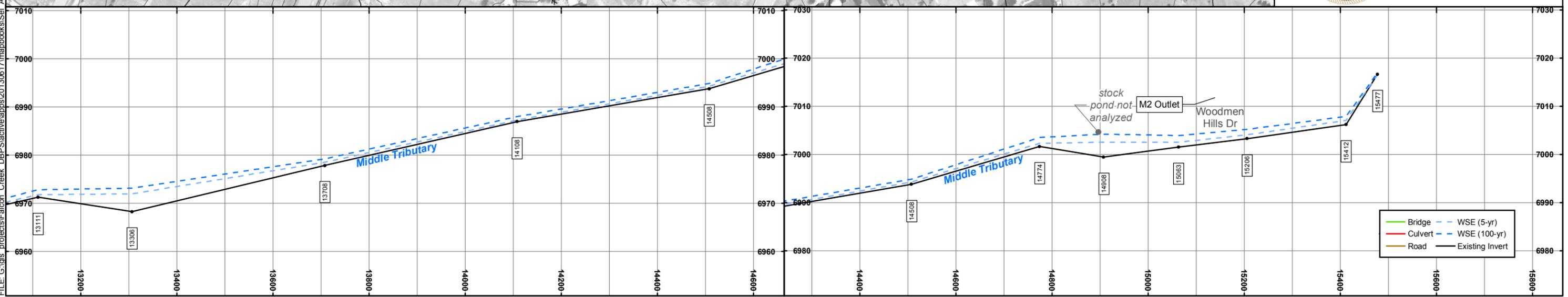
Approximate Limits of Split  
 Flow for Existing 100-yr Floodplain

Approximate Limits of Split Flow  
 for Existing 100-yr Floodplain

**Note:**  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

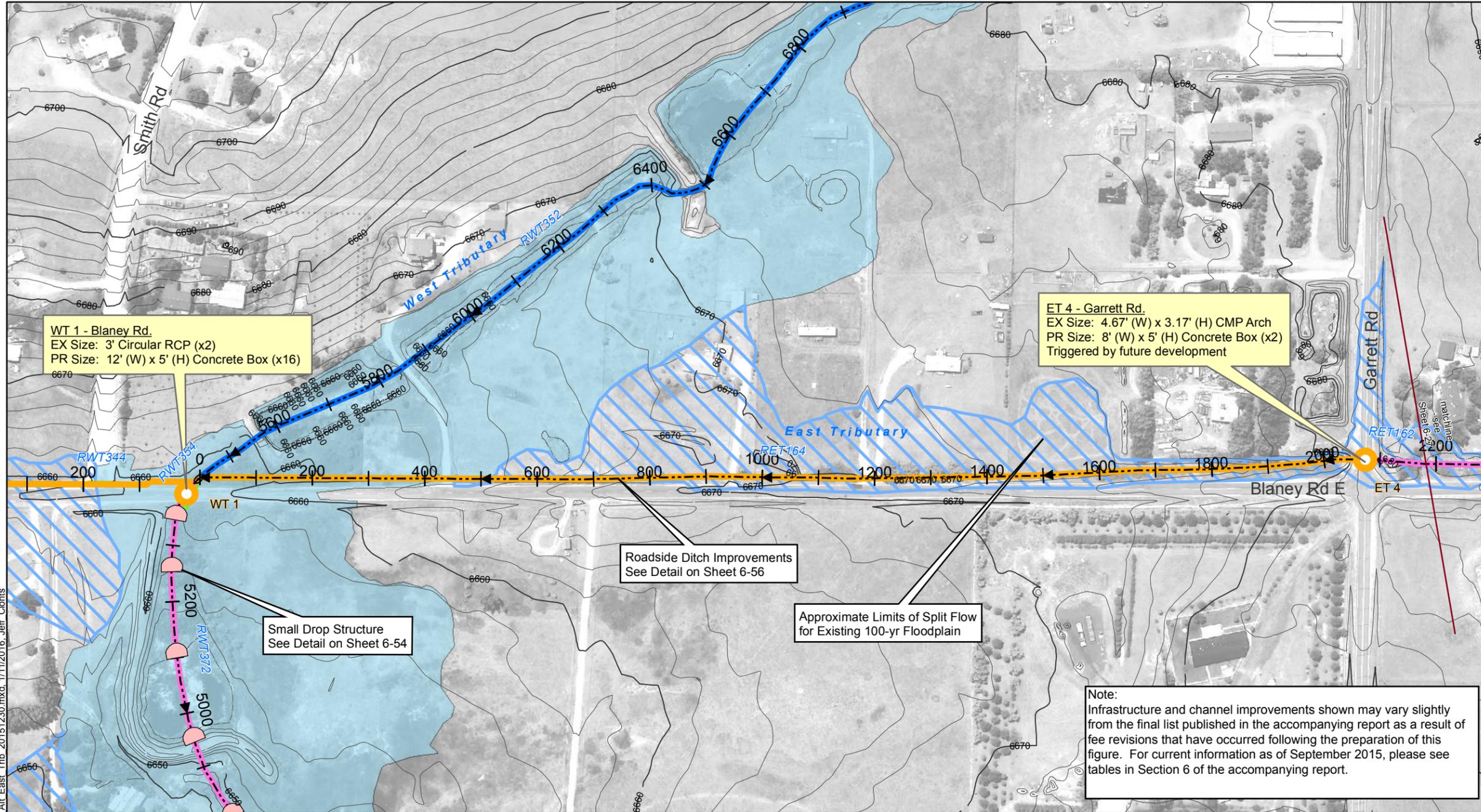
Drainageway Crossing	<b>Reach Improvements</b>
Stream Centerline	Natural Channel Design
Existing Approximate 100-yr Floodplain*	Protect In Place
Floodplain Study Limit	Roadside Ditch Improvement
<b>Storm Sewer</b>	Small Drop Structures w/ Toe Protection
Inlet	Existing Detention
Manhole	Proposed Detention
Pipe	Proposed Detention Grading
	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet



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# Sheet 6-26 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO



**Drainage Crossing**  
 Drainageway Crossing

**Stream Centerline**  
 Stream Centerline

**Existing Approximate 100-yr Floodplain\***  
 Existing Approximate 100-yr Floodplain\*

**Floodplain Study Limit**  
 Floodplain Study Limit

**Storm Sewer**  
 Inlet  
 Manhole  
 Pipe

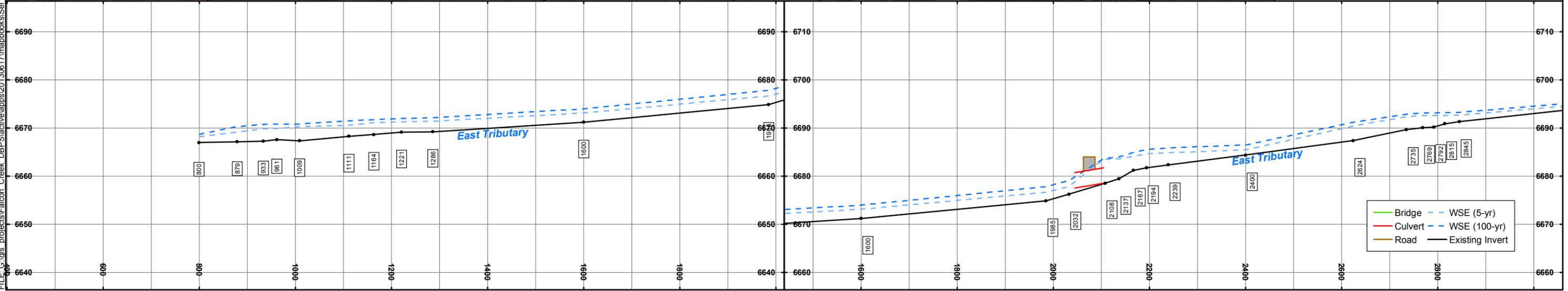
**Reach Improvements**  
 Natural Channel Design  
 Protect In Place  
 Roadside Ditch Improvement  
 Small Drop Structures w/ Toe Protection  
 Existing Detention  
 Proposed Detention  
 Proposed Pond Grading  
 Small Drop Structure  
 Cross Vane  
 Immediate Action Required to Preserve Existing Condition

**Scale:** 0 100 200 Feet

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# Sheet 6-27

## Falcon DBPS

### Conceptual Plan

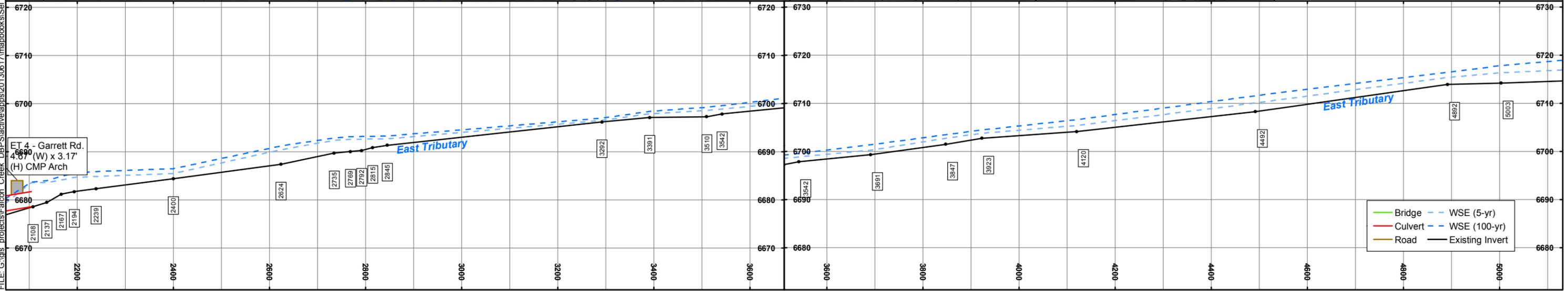
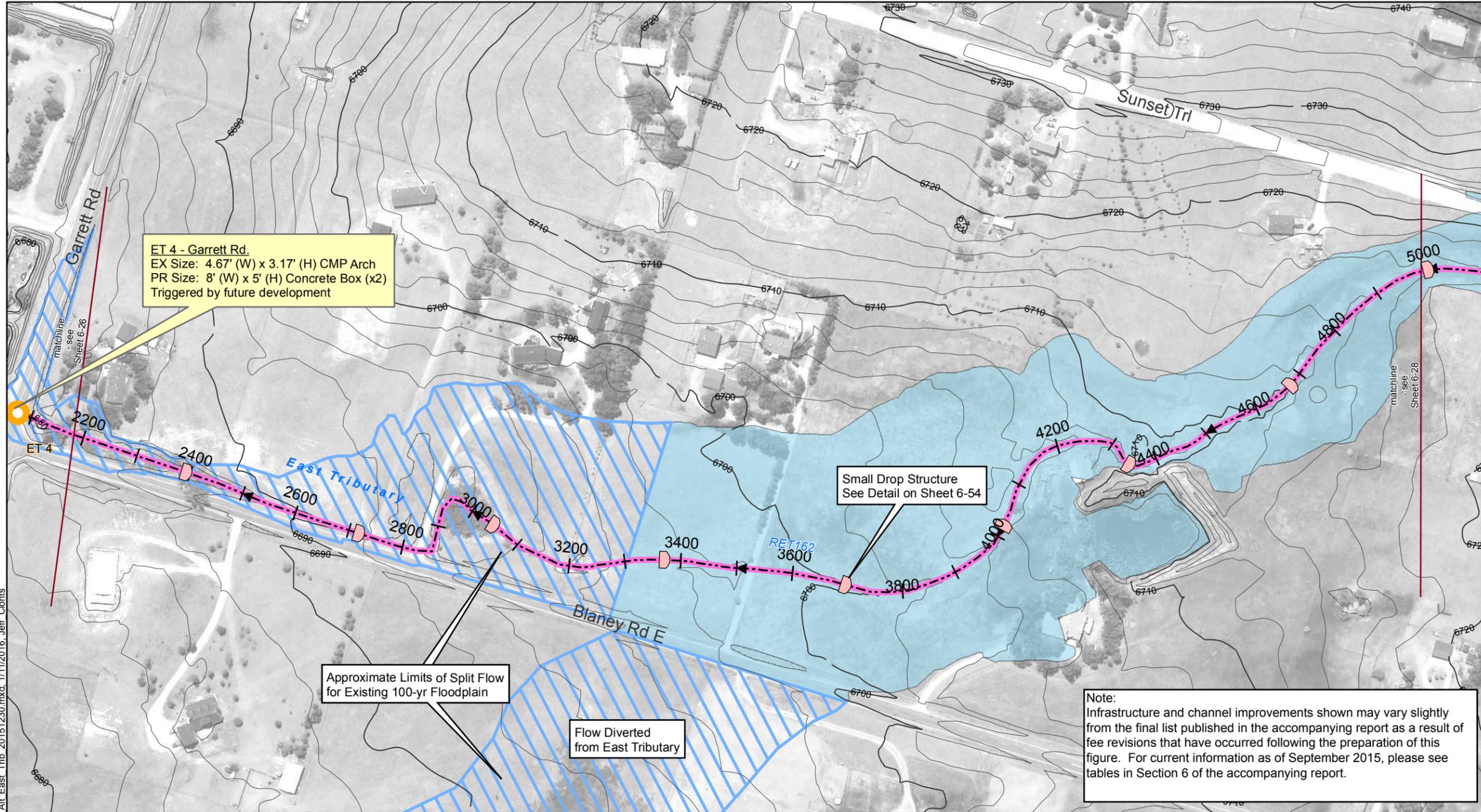
#### East Tributary

#### El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Pond Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition

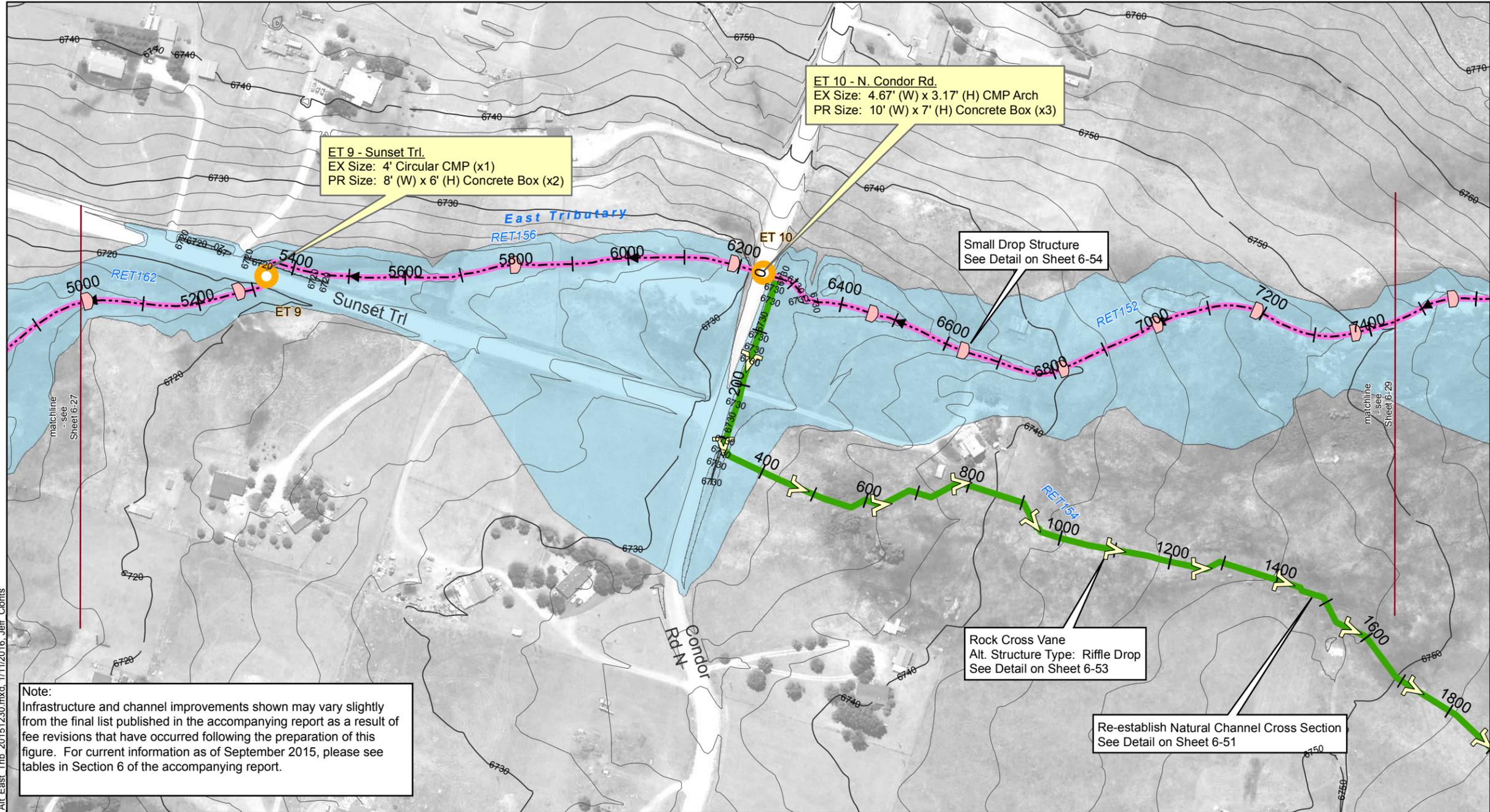


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# Sheet 6-28 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO



**Drainageway Crossing**  
 Drainageway Crossing

**Stream Centerline**  
 Stream Centerline

**Existing Approximate 100-yr Floodplain\***  
 Existing Approximate 100-yr Floodplain\*

**Floodplain Study Limit**  
 Floodplain Study Limit

**Storm Sewer**  
 Inlet  
 Manhole  
 Pipe

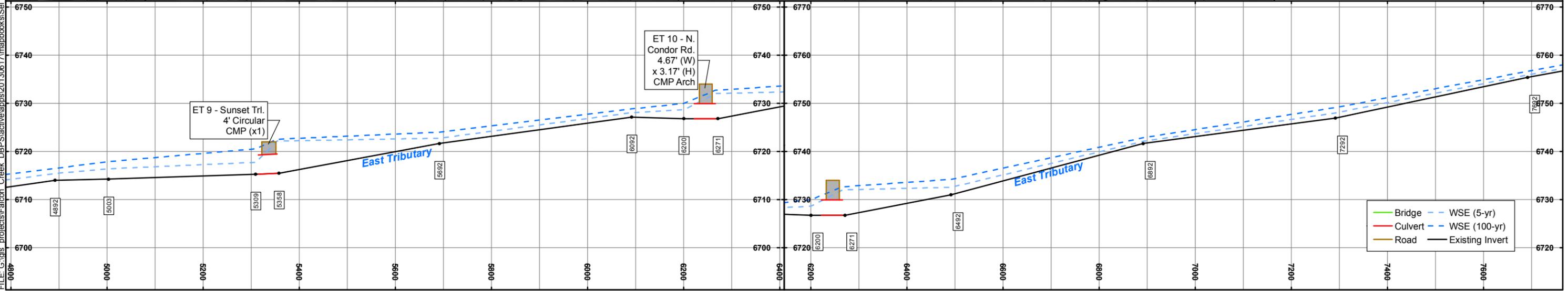
**Reach Improvements**  
 Natural Channel Design  
 Protect In Place  
 Roadside Ditch Improvement  
 Small Drop Structures w/ Toe Protection  
 Existing Detention  
 Proposed Detention  
 Proposed Pond Grading  
 Small Drop Structure  
 Cross Vane  
 Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\ps20130617\mapbooks\sel\_Alt\_East\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis

# Sheet 6-29 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO

- Drainageway Crossing
  - Stream Centerline
  - Existing Approximate 100-yr Floodplain\*
  - Floodplain Study Limit
  - Storm Sewer**
    - Inlet
    - Manhole
    - Pipe
  - Reach Improvements**
    - Natural Channel Design
    - Protect In Place
    - Roadside Ditch Improvement
    - Small Drop Structures w/ Toe Protection
    - Existing Detention
    - Proposed Detention
    - Proposed Pond Grading
    - Small Drop Structure
    - Cross Vane
    - Immediate Action Required to Preserve Existing Condition
- 0 100 200 Feet

ET 11 - Falcon Hwy.  
EX Size: 5' Circular RCP (x2)  
PR Size: 8' (W) x 6' (H) Concrete Box (x5)  
\* Road profile may need to be raised to implement a feasible solution.

Small Drop Structure  
See Detail on Sheet 6-54

Re-establish Natural Channel Cross Section  
See Detail on Sheet 6-51

Rock Cross Vane  
Alt. Structure Type: Riffle Drop  
See Detail on Sheet 6-53

Small Drop Structure  
See Detail on Sheet 6-54

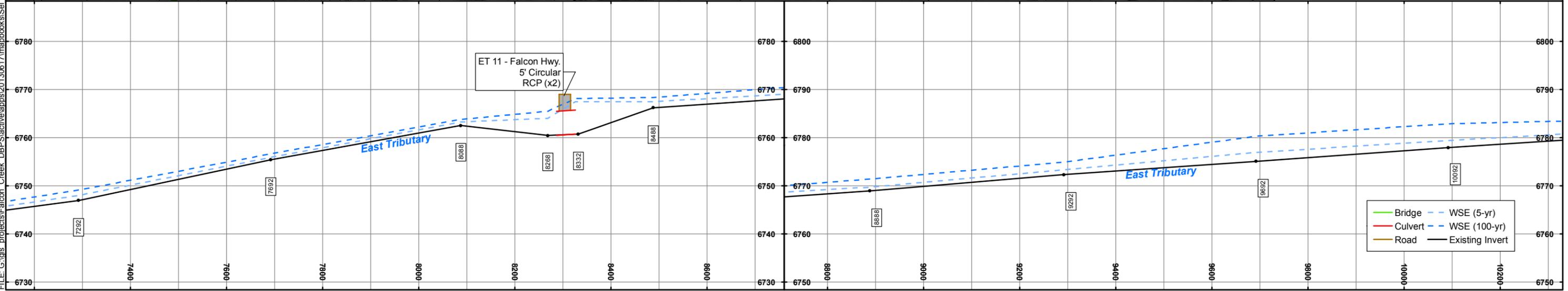
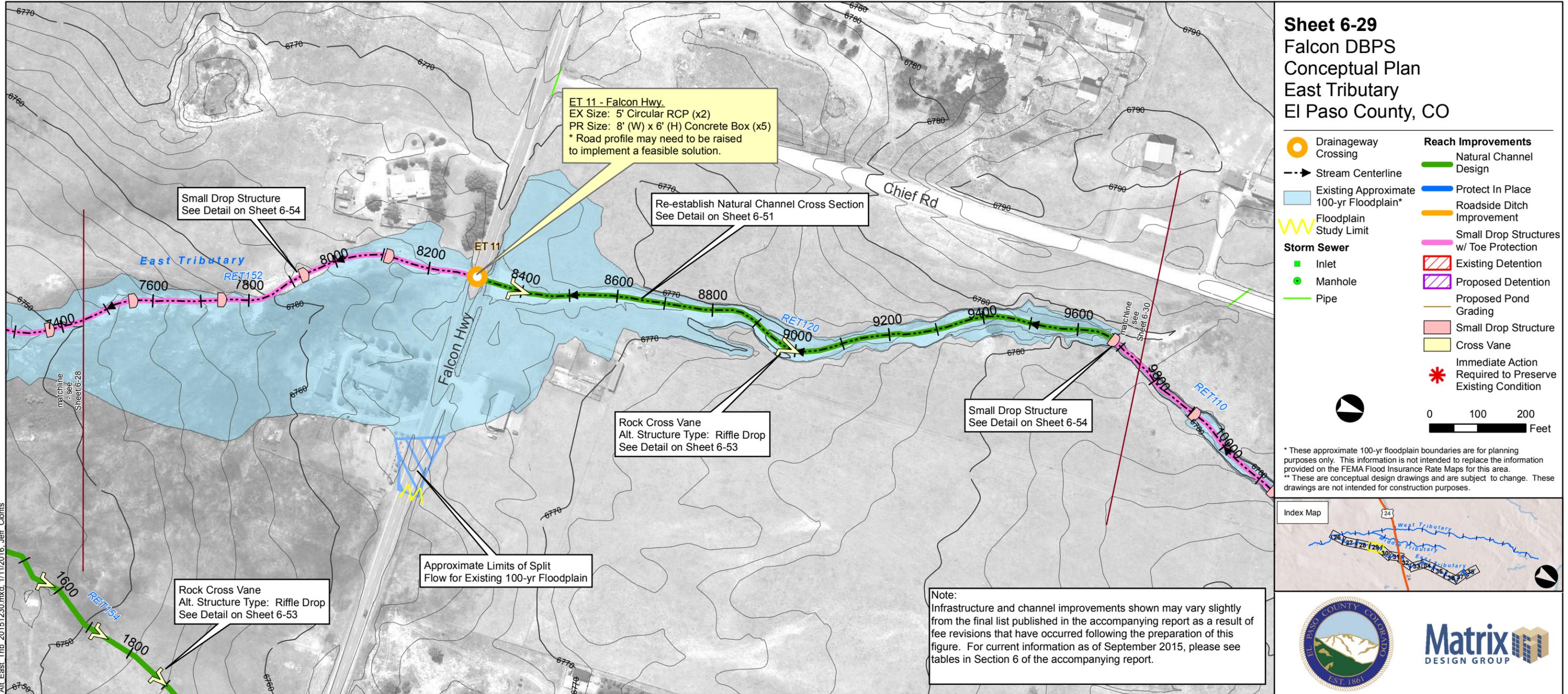
Rock Cross Vane  
Alt. Structure Type: Riffle Drop  
See Detail on Sheet 6-53

Approximate Limits of Split Flow for Existing 100-yr Floodplain

Note:  
Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

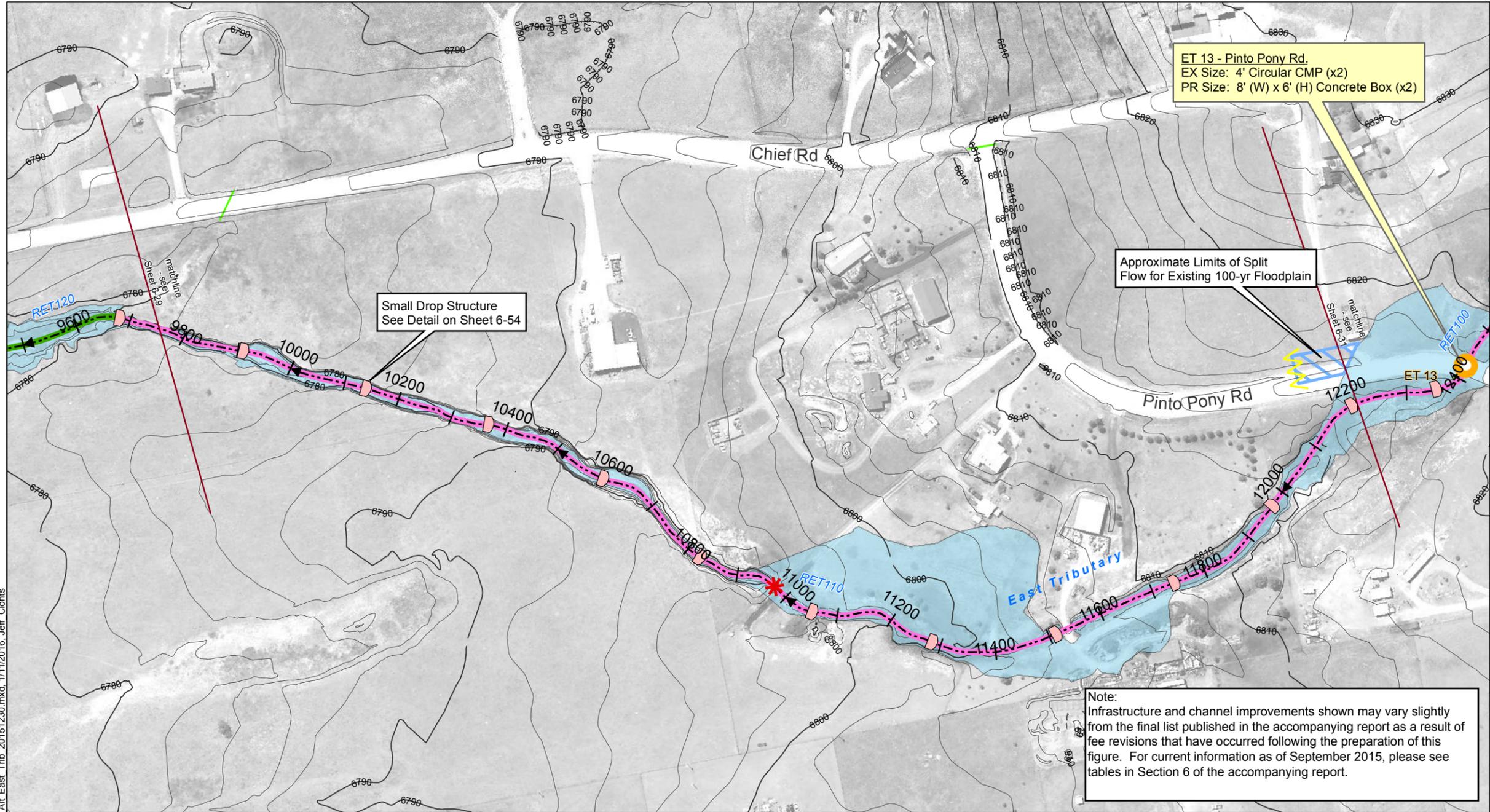


FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\Sel\_Alt\_East\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis



FILE: G:\dis\_projects\Falcon\_Creek\_DBPS\active\apps\20130817\mapbooks\sel\Alt East Trib\_20151230.mxd, 1/11/2016, Jeff Clontz

# Sheet 6-30 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO



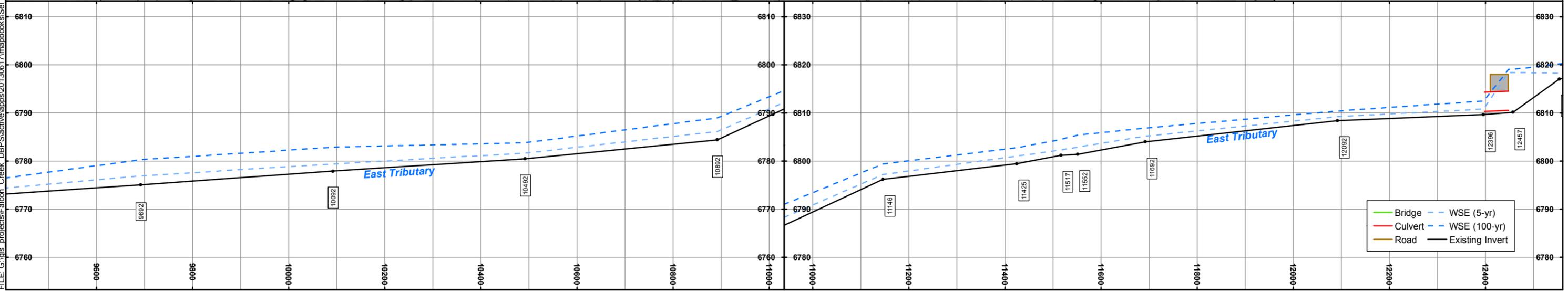
Drainageway Crossing	Reach Improvements Natural Channel Design
Stream Centerline	Protect In Place
Existing Approximate 100-yr Floodplain*	Roadside Ditch Improvement
Floodplain Study Limit	Small Drop Structures w/ Toe Protection
<b>Storm Sewer</b>	Existing Detention
Inlet	Proposed Detention
Manhole	Proposed Pond Grading
Pipe	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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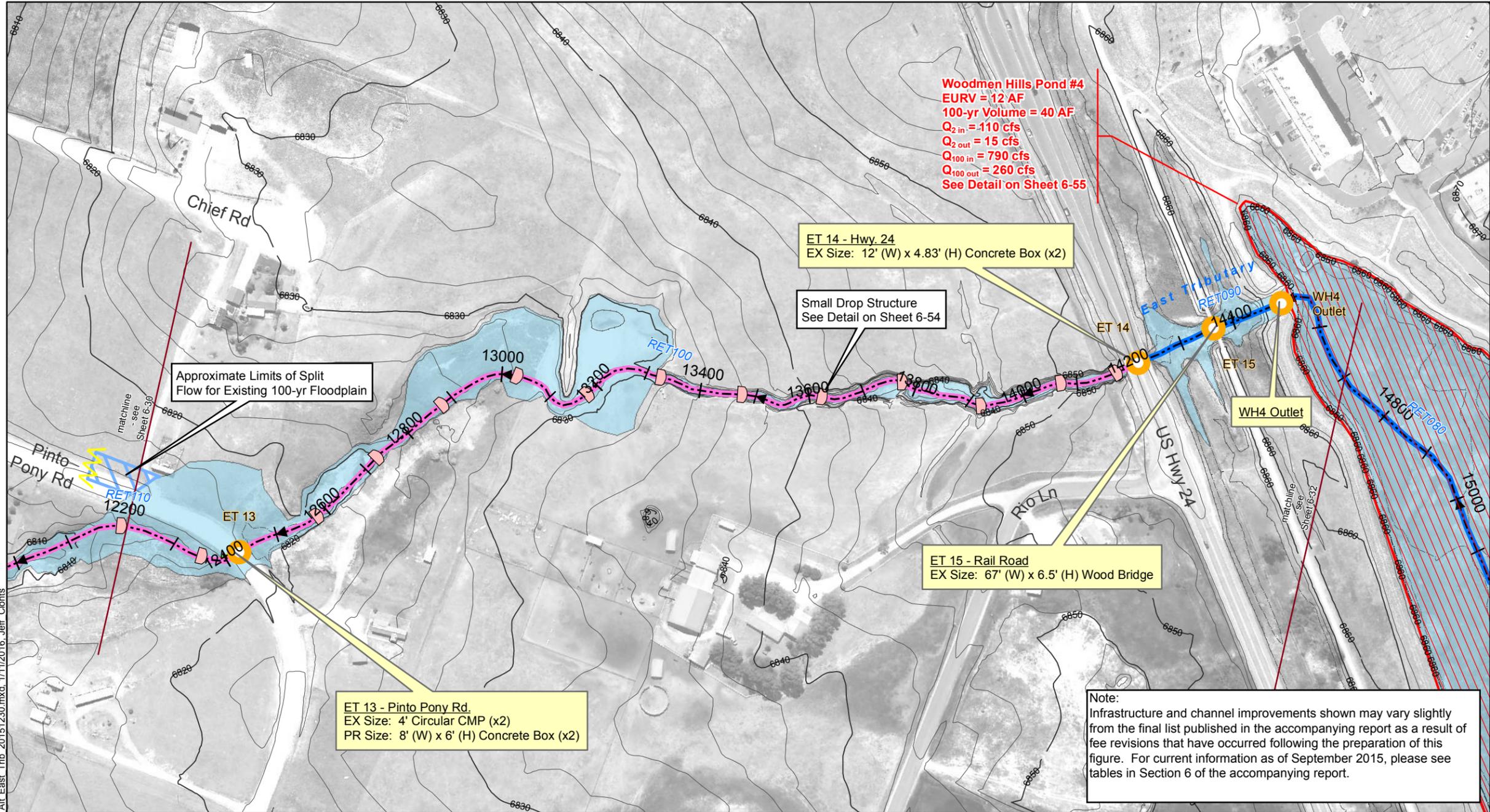


# Sheet 6-31 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO

Drainageway Crossing	Reach Improvements Natural Channel Design
Stream Centerline	Protect In Place
Existing Approximate 100-yr Floodplain*	Roadside Ditch Improvement
Floodplain Study Limit	Small Drop Structures w/ Toe Protection
<b>Storm Sewer</b>	Existing Detention
Inlet	Proposed Detention
Manhole	Proposed Pond Grading
Pipe	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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**Woodmen Hills Pond #4**  
EURV = 12 AF  
100-yr Volume = 40 AF  
Q<sub>2 in</sub> = 110 cfs  
Q<sub>2 out</sub> = 15 cfs  
Q<sub>100 in</sub> = 790 cfs  
Q<sub>100 out</sub> = 260 cfs  
See Detail on Sheet 6-55

ET 14 - Hwy 24  
EX Size: 12' (W) x 4.83' (H) Concrete Box (x2)

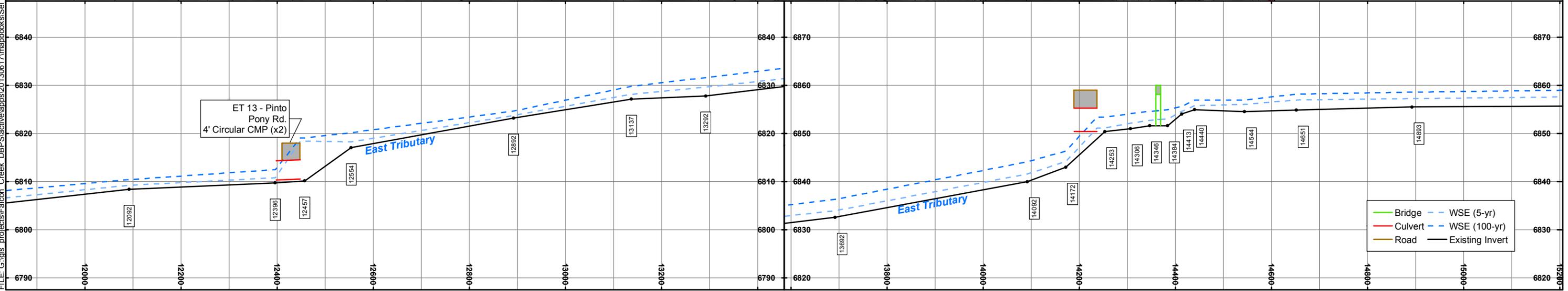
Small Drop Structure  
See Detail on Sheet 6-54

ET 15 - Rail Road  
EX Size: 67' (W) x 6.5' (H) Wood Bridge

Approximate Limits of Split Flow for Existing 100-yr Floodplain

ET 13 - Pinto Pony Rd.  
EX Size: 4' Circular CMP (x2)  
PR Size: 8' (W) x 6' (H) Concrete Box (x2)

FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel\_Alt\_East\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis



**Sheet 6-32**  
**Falcon DBPS**  
**Conceptual Plan**  
**East Tributary**  
**El Paso County, CO**

**Woodmen Hills Pond #4**  
 EURV = 12 AF  
 100-yr Volume = 40 AF  
 Q<sub>2</sub> in = 110 cfs  
 Q<sub>2</sub> out = 15 cfs  
 Q<sub>100</sub> in = 790 cfs  
 Q<sub>100</sub> out = 260 cfs  
 See Detail on Sheet 6-55

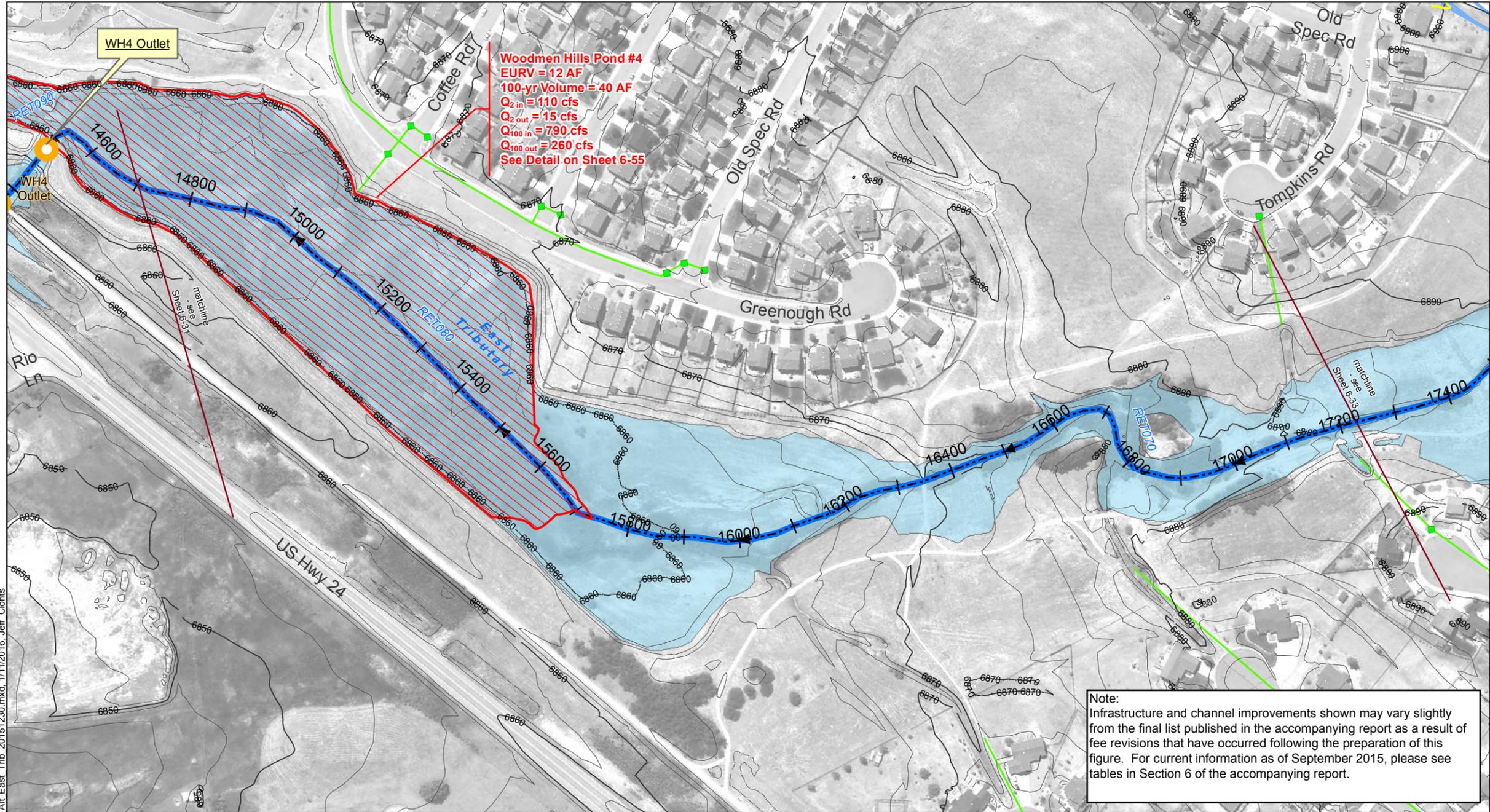
- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements                                       |
| Stream Centerline                       | Natural Channel Design                                   |
| Existing Approximate 100-yr Floodplain* | Protect In Place   |
| Floodplain Study Limit                  | Roadside Ditch Improvement                               |
| Storm Sewer Inlet                       | Small Drop Structures w/ Toe Protection                  |
| Storm Sewer Manhole                     | Existing Detention                                       |
| Storm Sewer Pipe                        | Proposed Detention                                       |
|   | Proposed Pond Grading                                    |
|   | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |



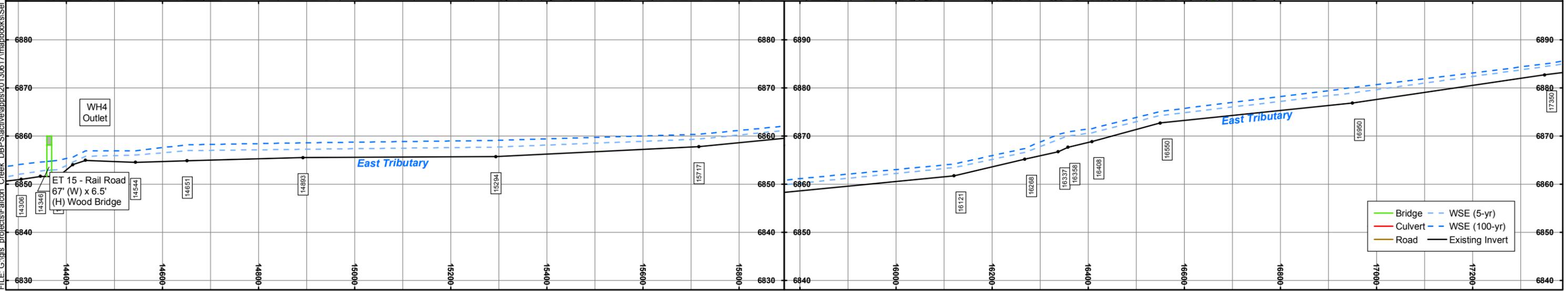
\* These approximate 100-yr floodplain boundaries are for planning purposes only. This information is not intended to replace the information provided on the FEMA Flood Insurance Rate Maps for this area.  
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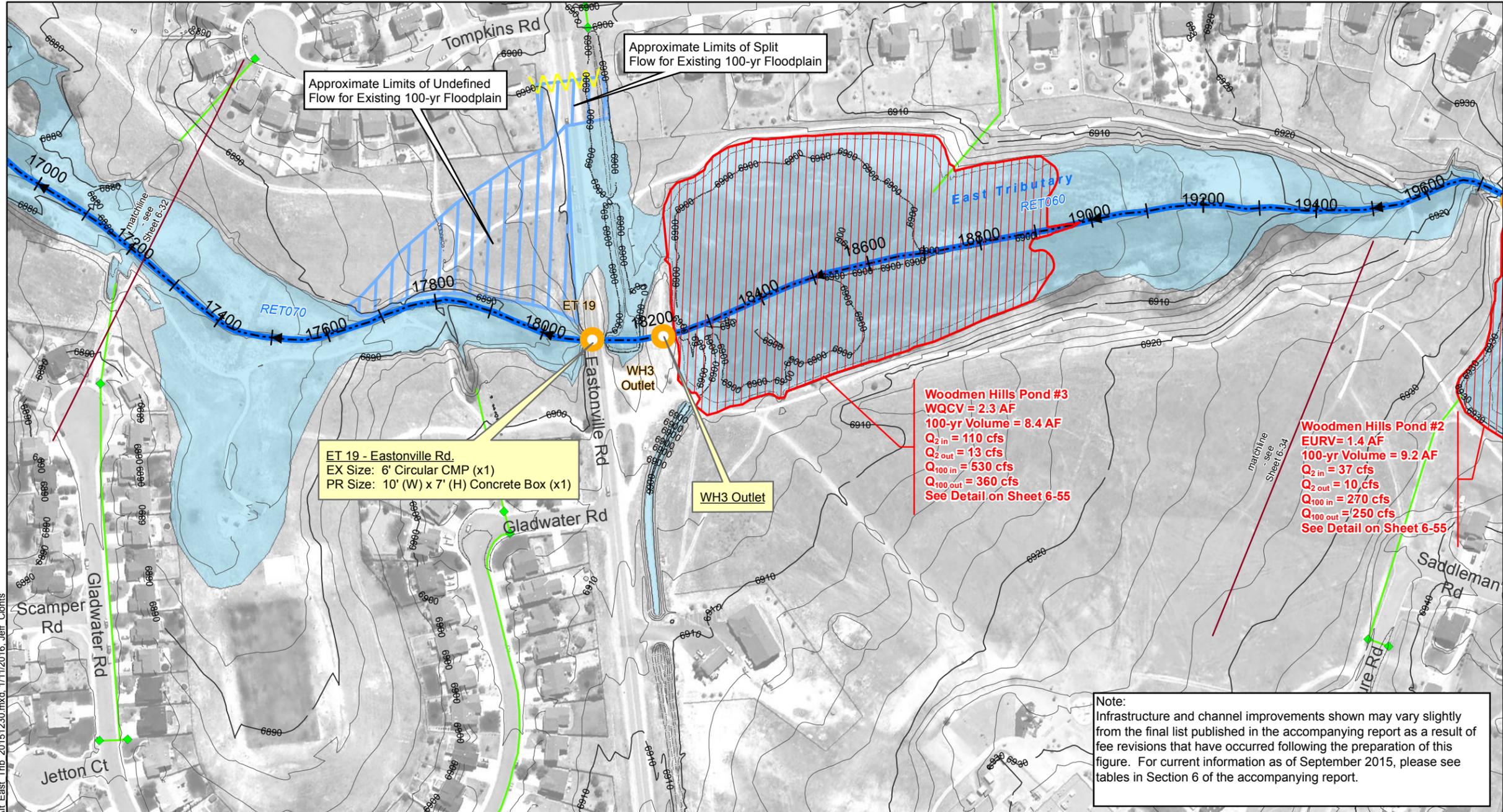
Note:  
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FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel\Alt\_East\_Trib\_20151230.mxd, 1/11/2016, Jeff Clonts



# Sheet 6-33 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO



**Legend**

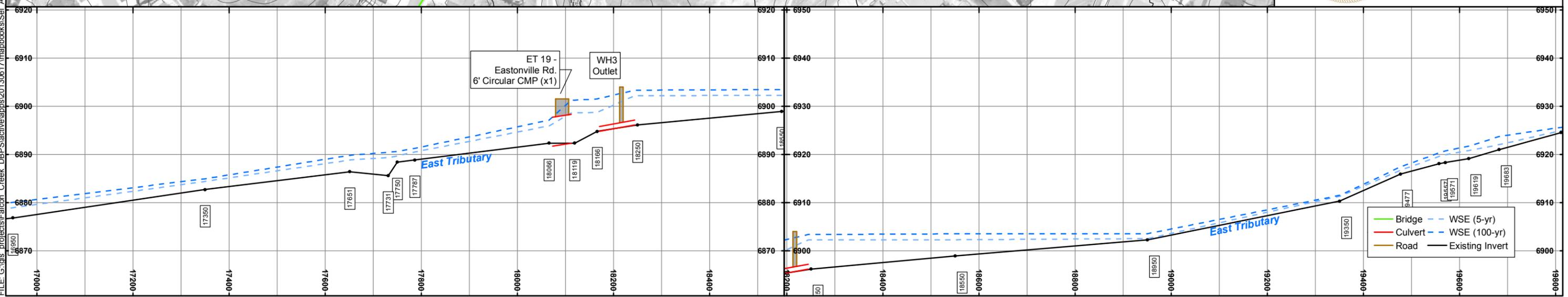
- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer: Inlet, Manhole, Pipe
- Reach Improvements: Natural Channel Design, Protect In Place, Roadside Ditch Improvement, Small Drop Structures w/ Toe Protection, Existing Detention, Proposed Detention, Proposed Pond Grading, Small Drop Structure, Cross Vane
- Immediate Action Required to Preserve Existing Condition

Scale: 0 100 200 Feet

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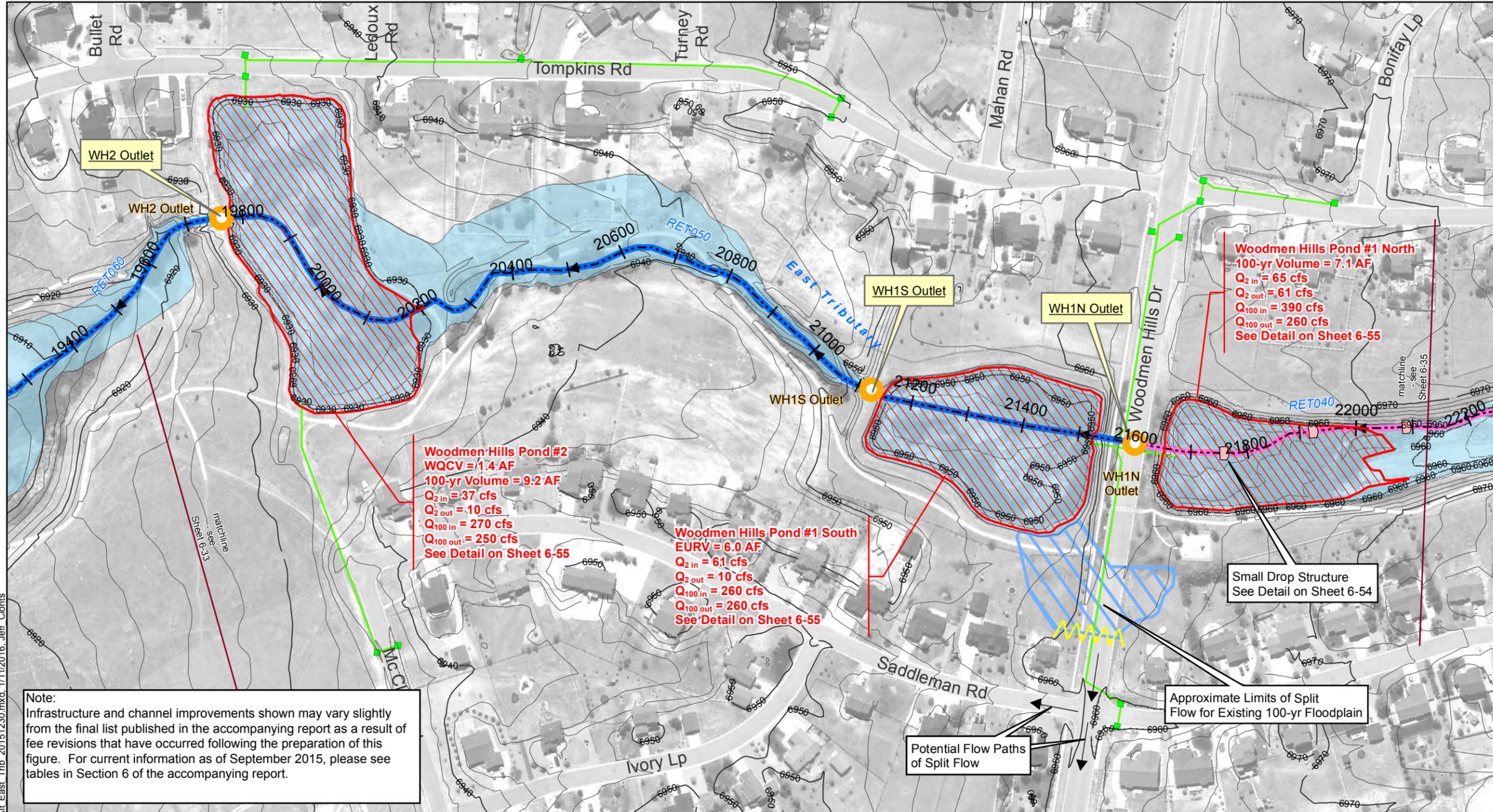


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# Sheet 6-34 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO



Drainageway Crossing	Reach Improvements
Stream Centerline	Natural Channel Design
Existing Approximate 100-yr Floodplain*	Protect In Place
Floodplain Study Limit	Roadside Ditch Improvement
Storm Sewer Inlet	Small Drop Structures w/ Toe Protection
Storm Sewer Manhole	Existing Detention
Storm Sewer Pipe	Proposed Detention
	Proposed Pond Grading
	Small Drop Structure
	Cross Vane
	Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

**Woodmen Hills Pond #2**  
WQCV = 1.4 AF  
100-yr Volume = 9.2 AF  
Q<sub>2 in</sub> = 37 cfs  
Q<sub>2 out</sub> = 10 cfs  
Q<sub>100 in</sub> = 270 cfs  
Q<sub>100 out</sub> = 250 cfs  
See Detail on Sheet 6-55

**Woodmen Hills Pond #1 South**  
EURV = 6.0 AF  
Q<sub>2 in</sub> = 61 cfs  
Q<sub>2 out</sub> = 10 cfs  
Q<sub>100 in</sub> = 260 cfs  
Q<sub>100 out</sub> = 260 cfs  
See Detail on Sheet 6-55

**Woodmen Hills Pond #1 North**  
100-yr Volume = 7.1 AF  
Q<sub>2 in</sub> = 65 cfs  
Q<sub>2 out</sub> = 61 cfs  
Q<sub>100 in</sub> = 390 cfs  
Q<sub>100 out</sub> = 260 cfs  
See Detail on Sheet 6-55

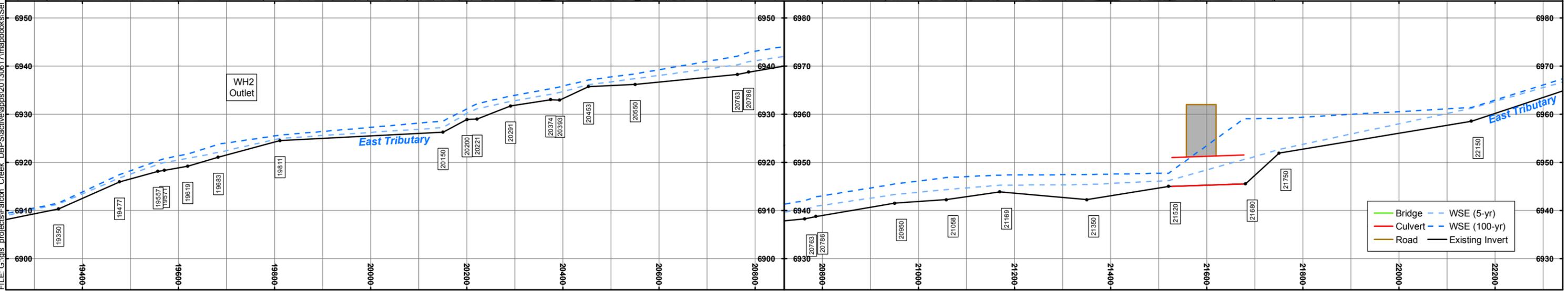
Small Drop Structure  
See Detail on Sheet 6-54

Approximate Limits of Split Flow for Existing 100-yr Floodplain

Potential Flow Paths of Split Flow

Note:  
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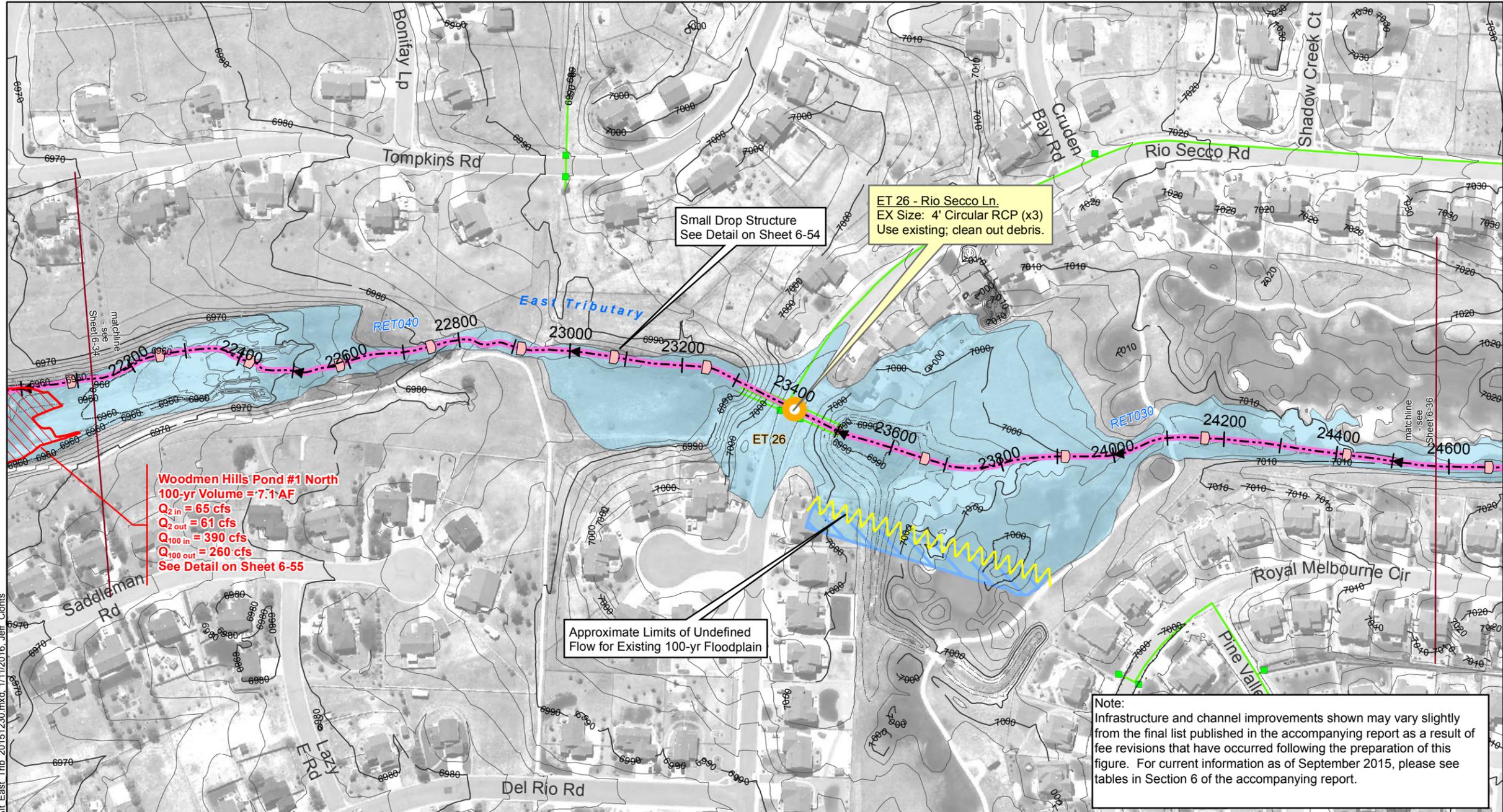
FILE: G:\dis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbook\sel\Alt East Trib. 20151230.mxd, 1/11/2016, Jeff Clontis

# Sheet 6-35 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Pond Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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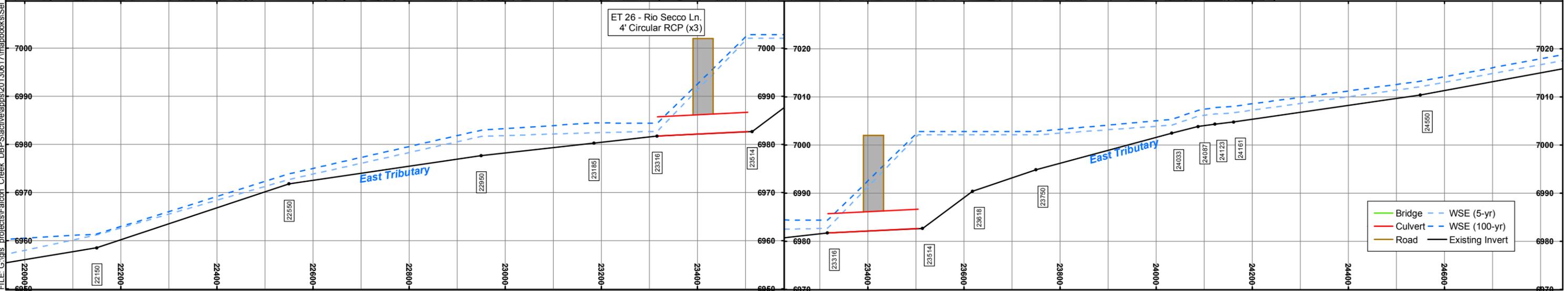
Small Drop Structure  
See Detail on Sheet 6-54

ET 26 - Rio Secco Ln.  
EX Size: 4' Circular RCP (x3)  
Use existing; clean out debris.

**Woodmen Hills Pond #1 North**  
100-yr Volume = 7.1 AF  
Q<sub>2 in</sub> = 65 cfs  
Q<sub>2 out</sub> = 61 cfs  
Q<sub>100 in</sub> = 390 cfs  
Q<sub>100 out</sub> = 260 cfs  
See Detail on Sheet 6-55

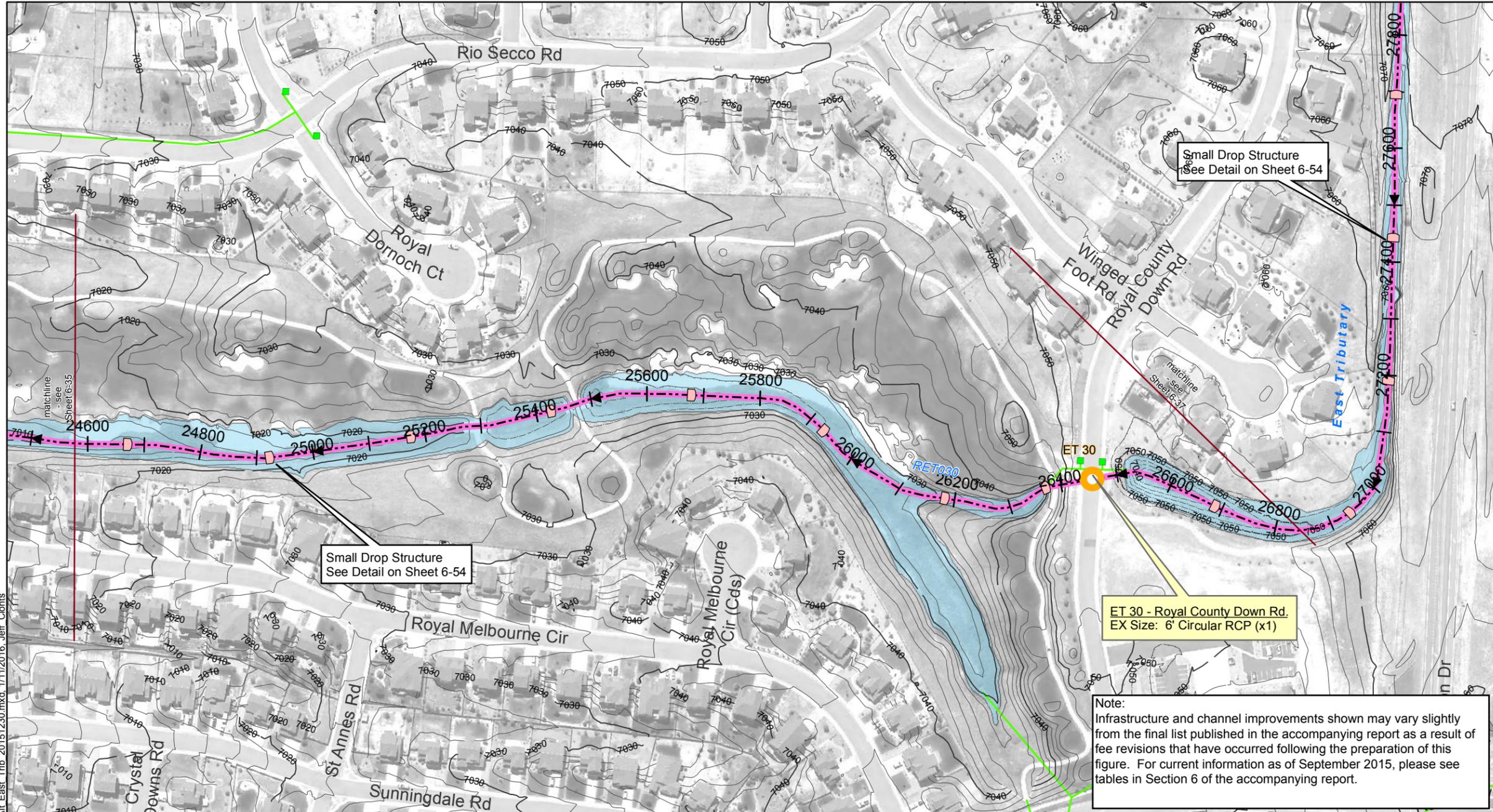
Approximate Limits of Undefined  
Flow for Existing 100-yr Floodplain

Note:  
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# Sheet 6-36 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO



**Legend**

- Orange circle: Drainageway Crossing
- Black dashed line with arrow: Stream Centerline
- Light blue shaded area: Existing Approximate 100-yr Floodplain\*
- Yellow wavy line: Floodplain Study Limit
- Green square: Storm Sewer Inlet
- Green circle: Storm Sewer Manhole
- Green line: Storm Sewer Pipe
- Green line: Reach Improvements - Natural Channel Design
- Blue line: Reach Improvements - Protect In Place
- Orange line: Reach Improvements - Roadside Ditch Improvement
- Pink line: Reach Improvements - Small Drop Structures w/ Toe Protection
- Red hatched box: Reach Improvements - Existing Detention
- Purple hatched box: Reach Improvements - Proposed Detention
- Yellow line: Reach Improvements - Proposed Pond Grading
- Pink box: Reach Improvements - Small Drop Structure
- Yellow box: Reach Improvements - Cross Vane
- Red asterisk: Immediate Action Required to Preserve Existing Condition

Scale: 0 100 200 Feet

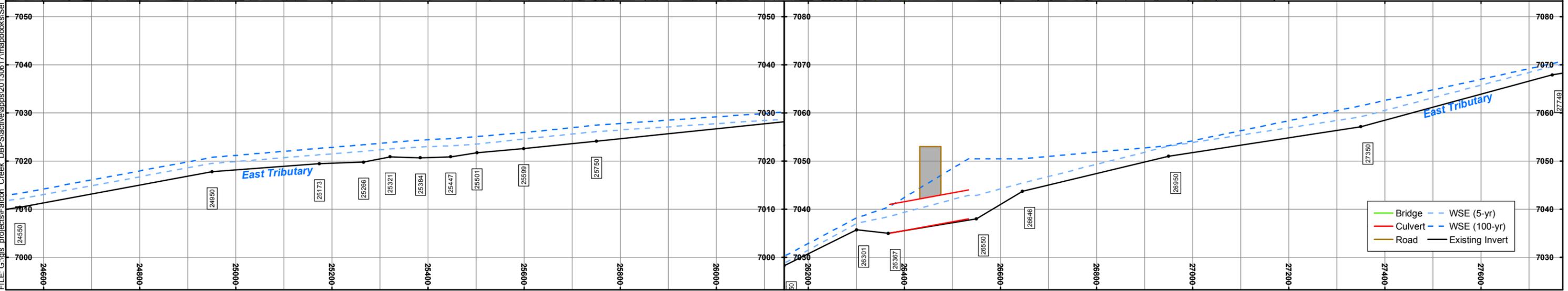
Small Drop Structure  
See Detail on Sheet 6-54

Small Drop Structure  
See Detail on Sheet 6-54

ET 30 - Royal County Down Rd.  
EX Size: 6' Circular RCP (x1)

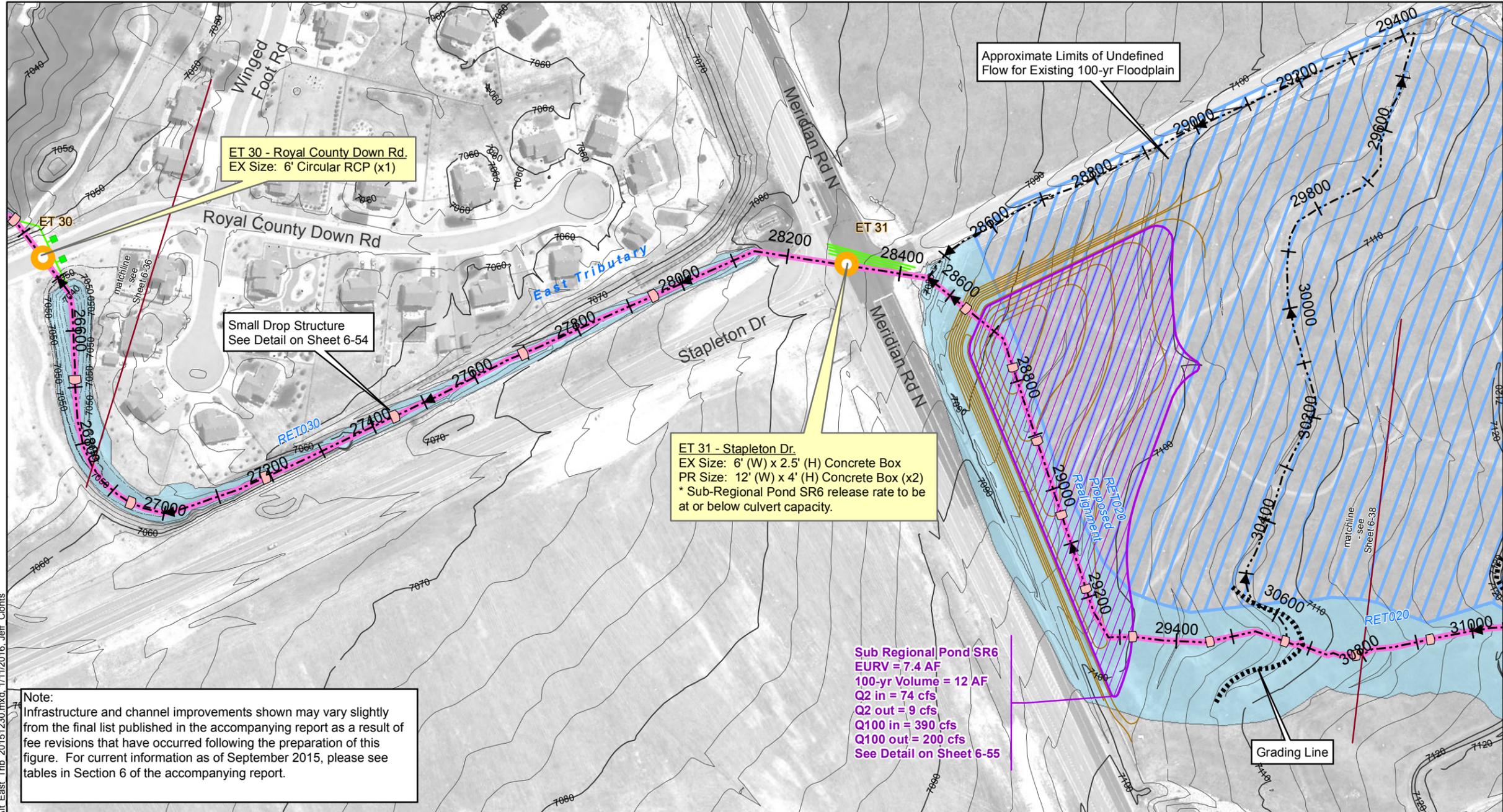
Note:  
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FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130817\mapbooks\sel\_Alt\_East\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis

# Sheet 6-37 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO

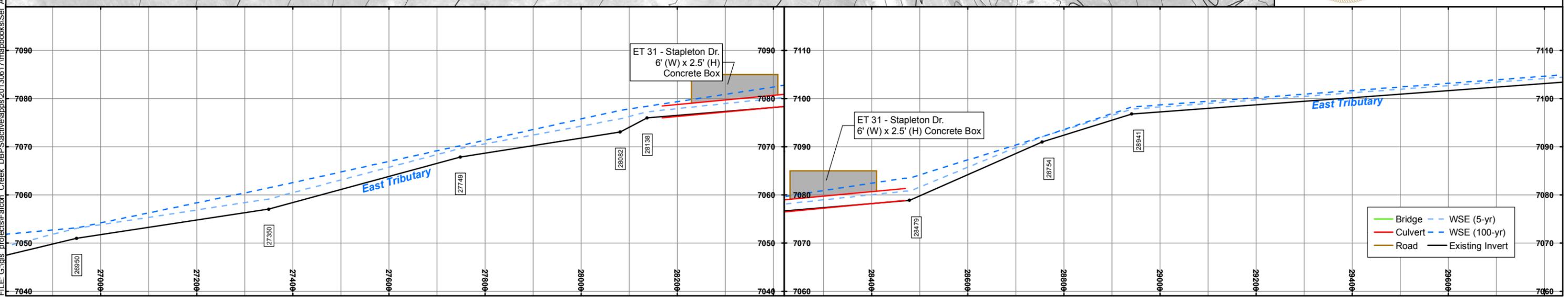


**Legend**

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Pond Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition

0 100 200 Feet

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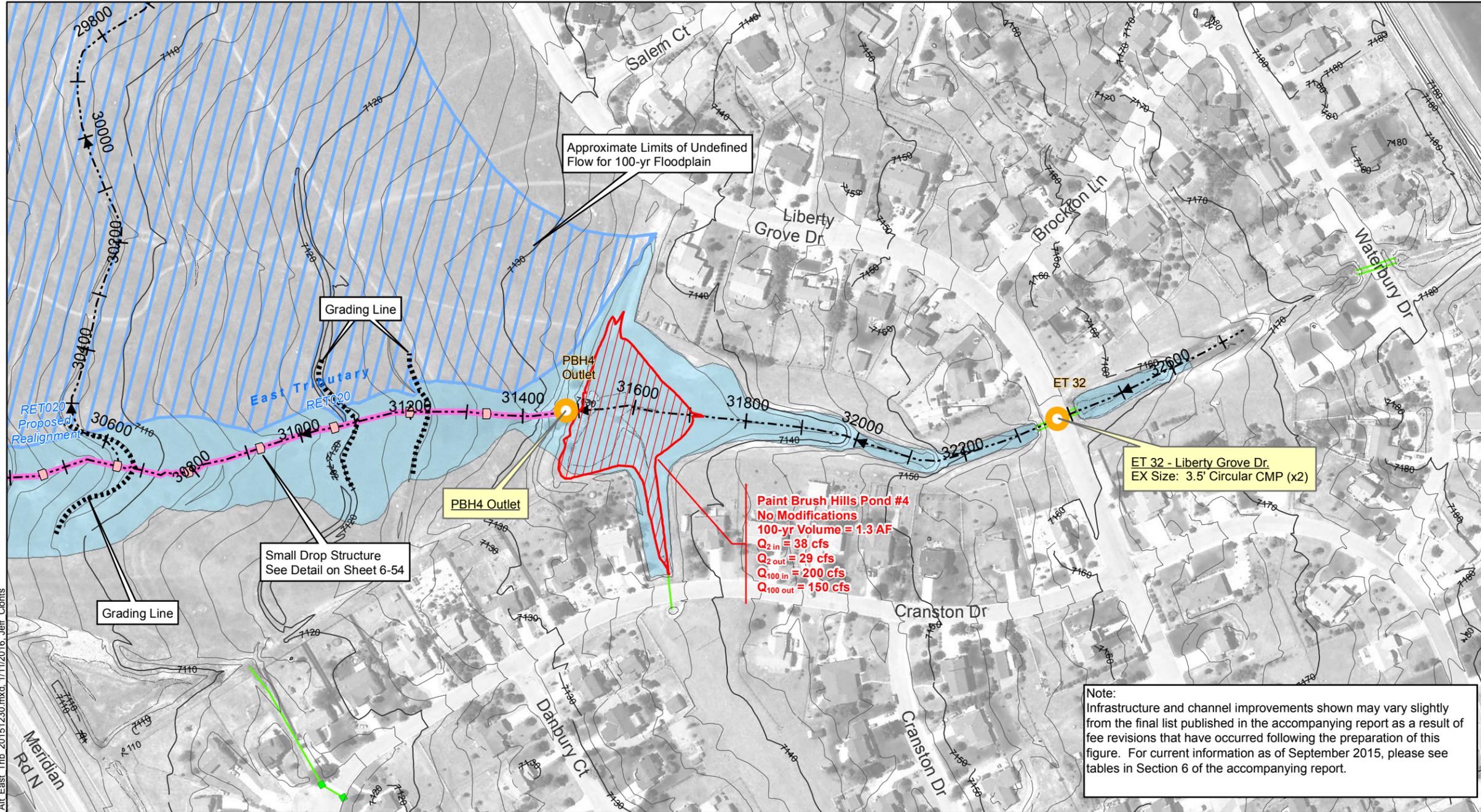
FILE: G:\gis\projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel\Alt\_East\_Trib\_20151230.mxd, 1/11/2016, Jeff Clontis

# Sheet 6-38 Falcon DBPS Conceptual Plan East Tributary El Paso County, CO

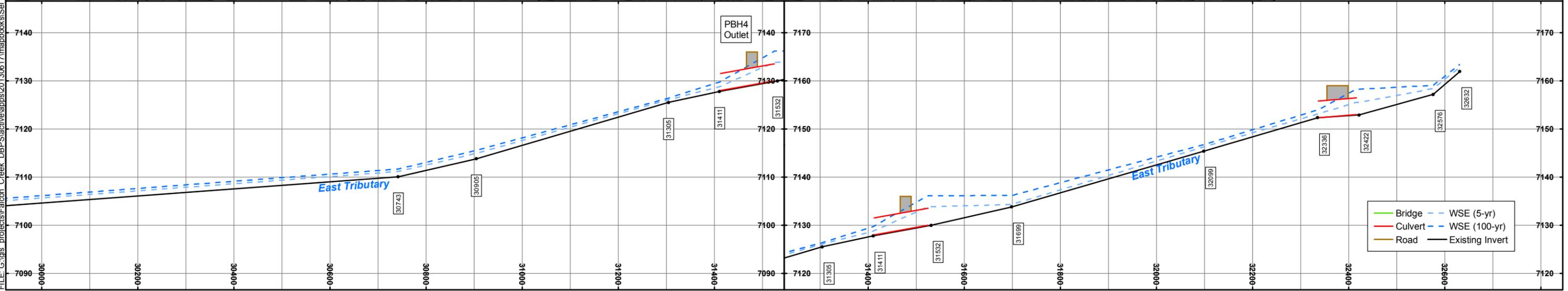
- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements<br>Natural Channel Design             |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| <b>Storm Sewer</b>                      | Existing Detention                                       |
| Inlet                                   | Proposed Detention                                       |
| Manhole                                 | Proposed Pond Grading                                    |
| Pipe                                    | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |



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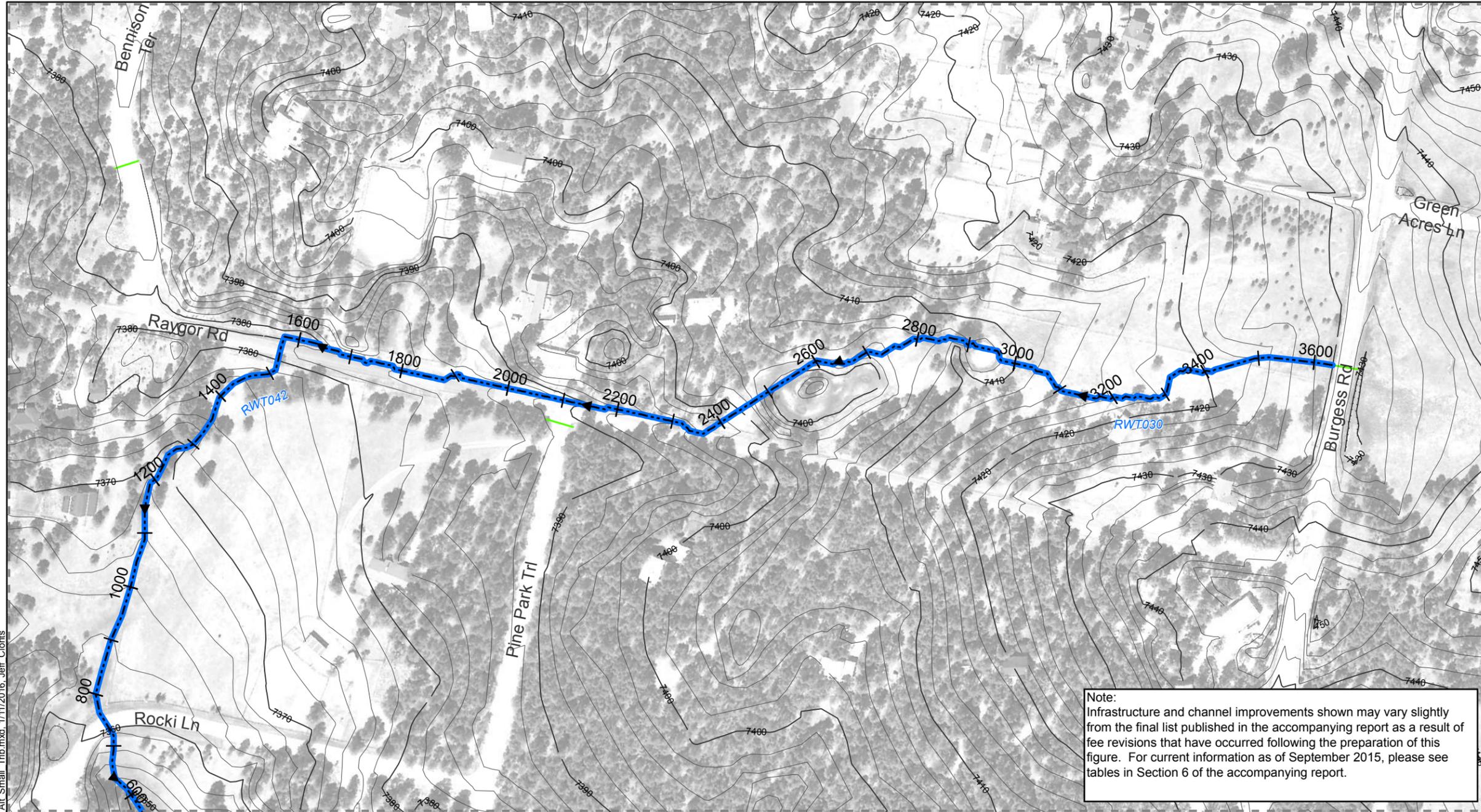


Note:  
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FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps\20130617\mapbooks\sel Alt East Trib 20151230.mxd, 1/11/2016, Jeff Clontis

**Sheet 6-39**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements<br>Natural Channel Design             |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| <b>Storm Sewer</b>                      | Existing Detention                                       |
| Inlet                                   | Proposed Detention                                       |
| Manhole                                 | Proposed Detention Grading                               |
| Pipe                                    | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |



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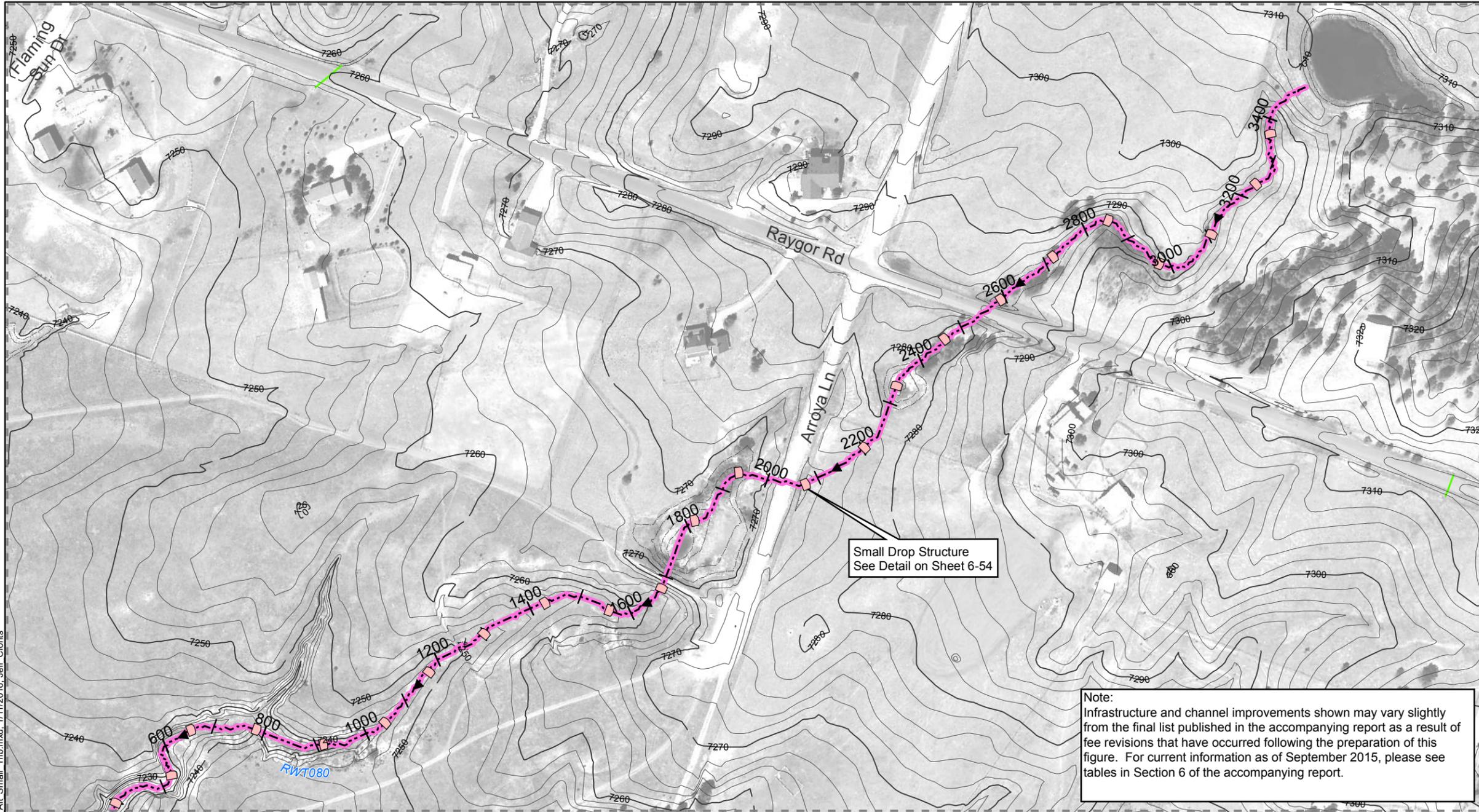


Note:  
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**NO PROFILES FOR SMALL TRIBUTARIES**

FILE: G:\gis\_projects\Falcon\_Creek\_DBPS\active\apps20130617\mapbooks\sel Alt Small Trib.mxd, 1/11/2016, Jeff Clonts



### Sheet 6-40 Falcon DBPS Conceptual Plan Small Tributaries El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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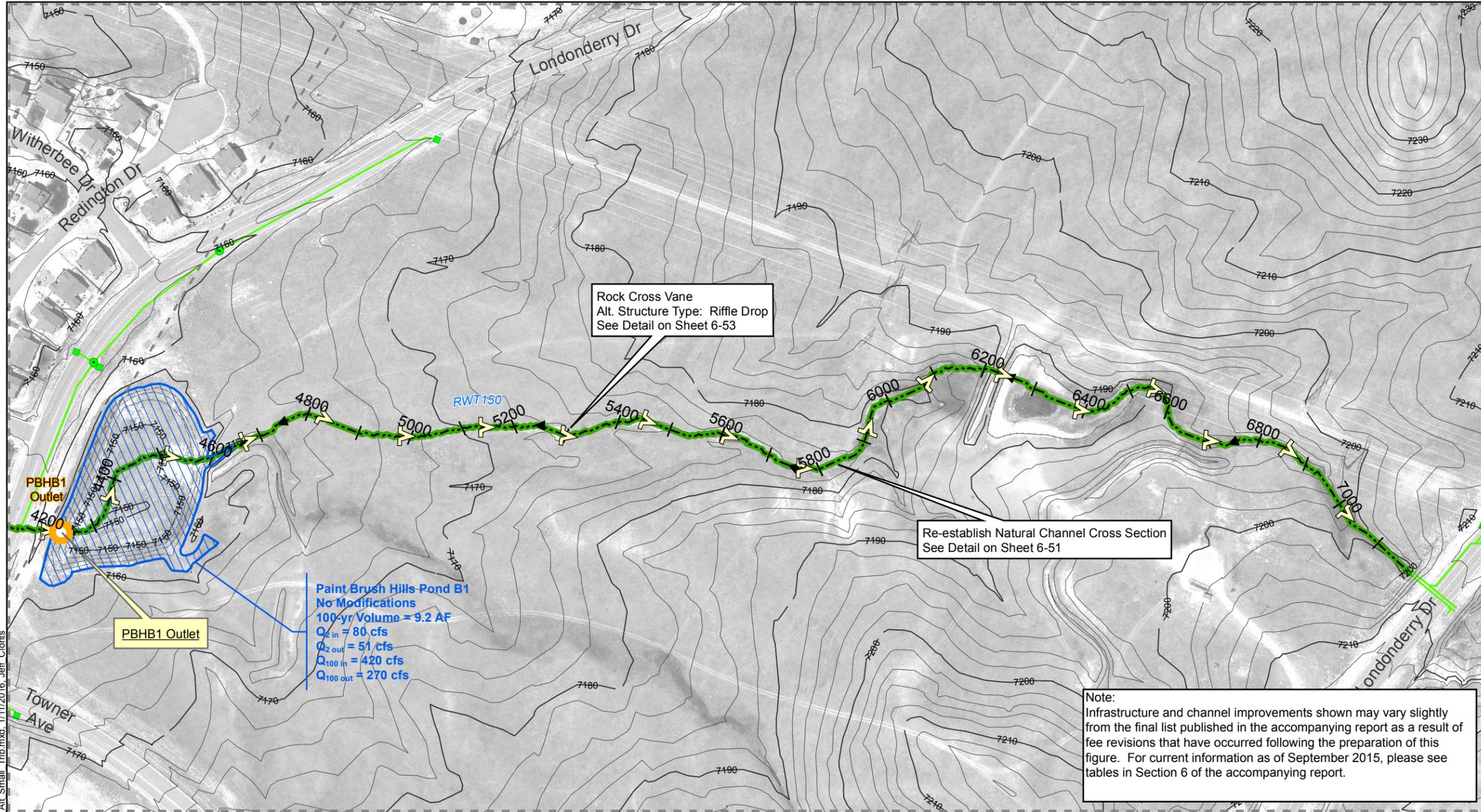


Note:  
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**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-41**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements<br>Natural Channel Design             |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| <b>Storm Sewer</b>                      | Existing Detention                                       |
| Inlet                                   | Proposed Detention                                       |
| Manhole                                 | Proposed Detention Grading                               |
| Pipe                                    | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |

0 100 200 Feet

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**Paint Brush Hills Pond B1**  
 No Modifications  
 100-yr Volume ≈ 9.2 AF  
 $Q_{2 \text{ in}} = 80 \text{ cfs}$   
 $Q_{2 \text{ out}} = 51 \text{ cfs}$   
 $Q_{100 \text{ in}} = 420 \text{ cfs}$   
 $Q_{100 \text{ out}} = 270 \text{ cfs}$

Rock Cross Vane  
 Alt. Structure Type: Riffle Drop  
 See Detail on Sheet 6-53

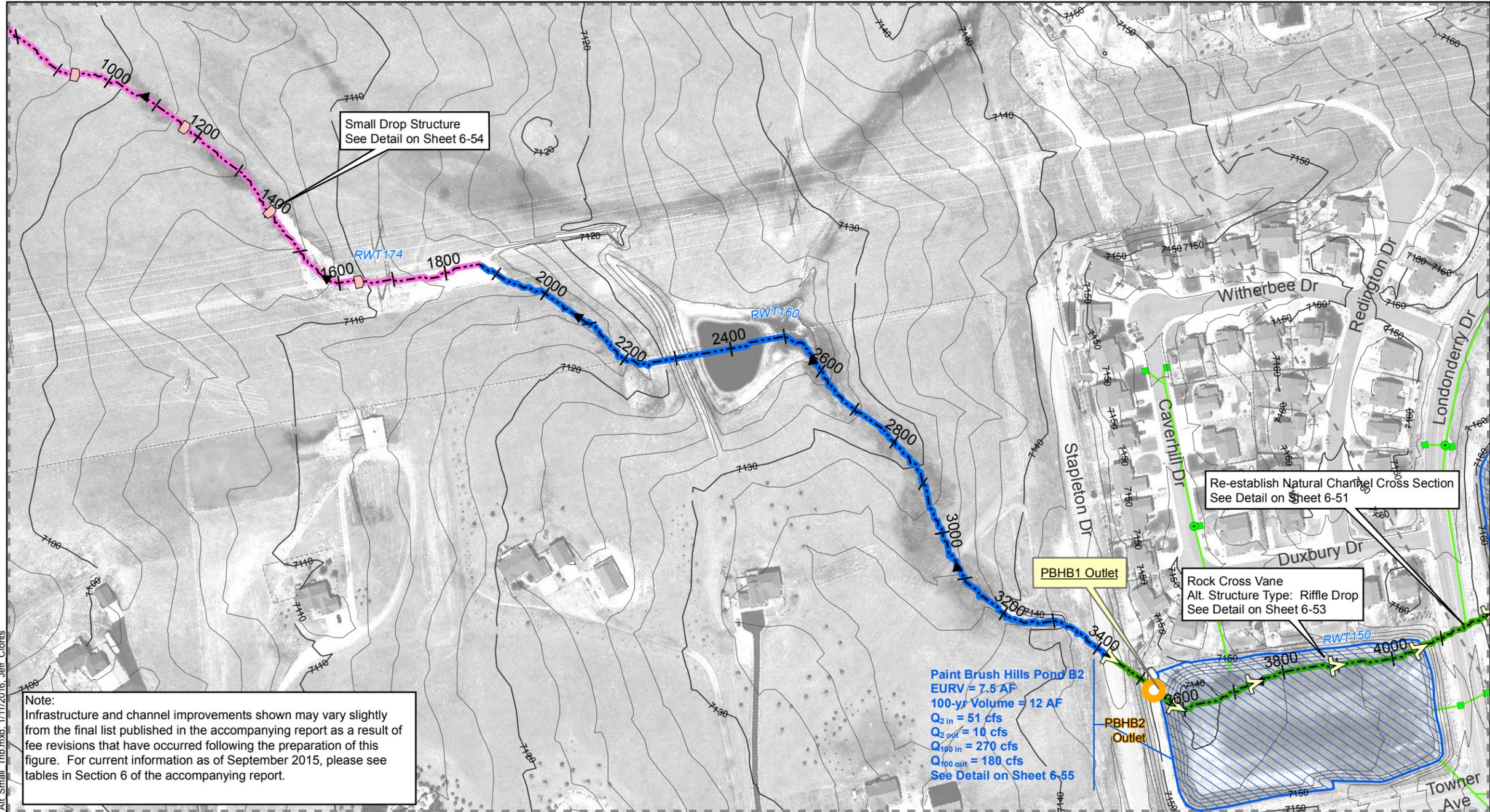
Re-establish Natural Channel Cross Section  
 See Detail on Sheet 6-51

Note:  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.



**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-42**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements                                       |
| Stream Centerline                       | Natural Channel Design                                   |
| Existing Approximate 100-yr Floodplain* | Protect In Place   |
| Floodplain Study Limit                  | Roadside Ditch Improvement                               |
| <b>Storm Sewer</b>                      | Small Drop Structures w/ Toe Protection                  |
| Inlet                                   | Existing Detention                                       |
| Manhole                                 | Proposed Detention                                       |
| Pipe                                    | Proposed Detention Grading                               |
|   | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |



\* These approximate 100-yr floodplain boundaries are for planning purposes only. This information is not intended to replace the information provided on the FEMA Flood Insurance Rate Maps for this area.  
 \*\* These are conceptual design drawings and are subject to change. These drawings are not intended for construction purposes.



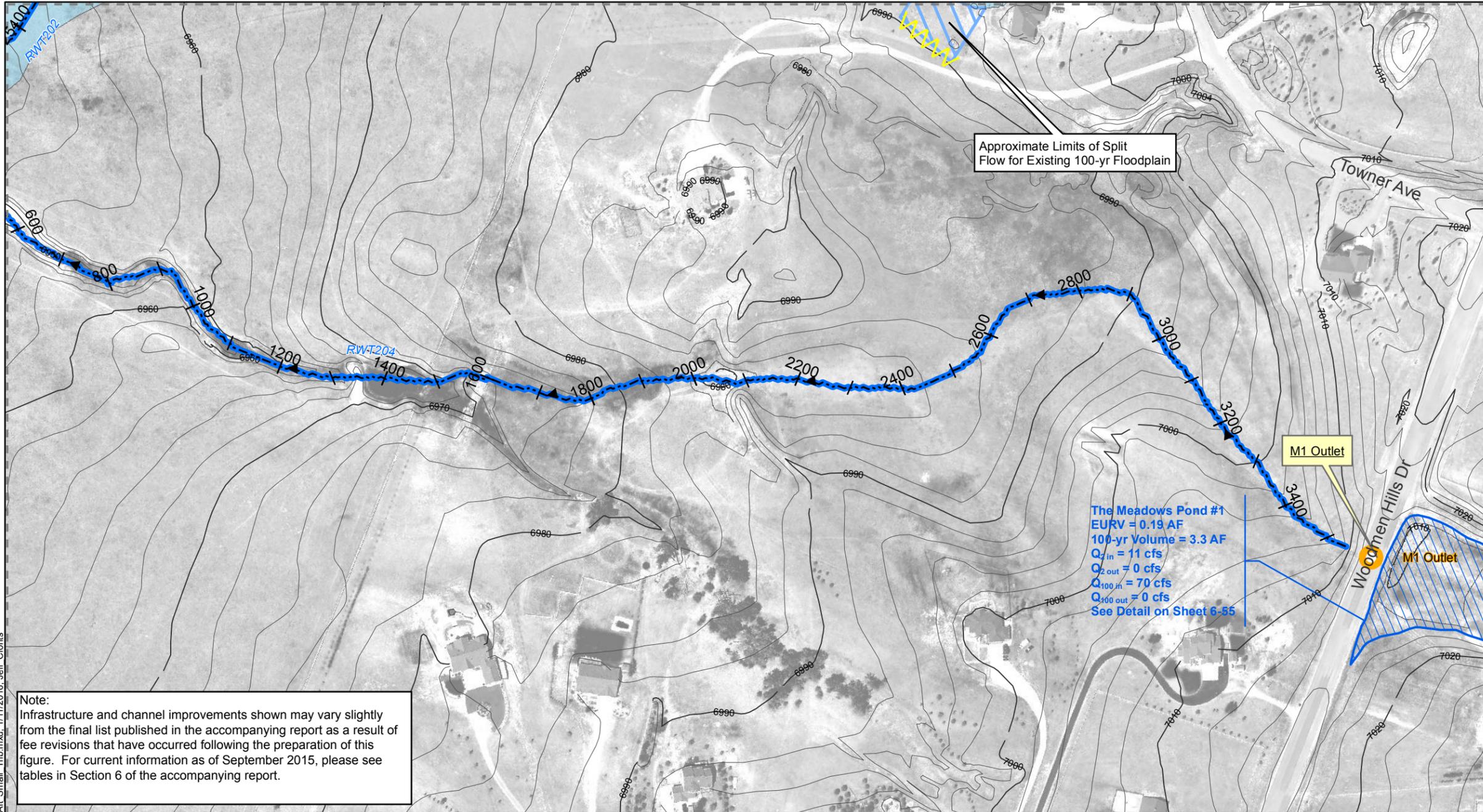
Note:  
 Infrastructure and channel improvements shown may vary slightly from the final list published in the accompanying report as a result of fee revisions that have occurred following the preparation of this figure. For current information as of September 2015, please see tables in Section 6 of the accompanying report.

Paint Brush Hills Pond B2  
 EURV = 7.5 AF  
 100-yr Volume = 12 AF  
 $Q_{2in} = 51$  cfs  
 $Q_{2out} = 10$  cfs  
 $Q_{100in} = 270$  cfs  
 $Q_{100out} = 180$  cfs  
 See Detail on Sheet 6-55

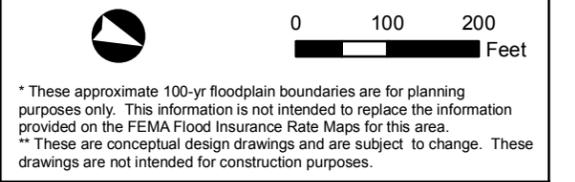


**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-43**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements<br>Natural Channel Design             |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| <b>Storm Sewer</b>                      | Existing Detention                                       |
| Inlet                                   | Proposed Detention                                       |
| Manhole                                 | Proposed Detention Grading                               |
| Pipe                                    | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |

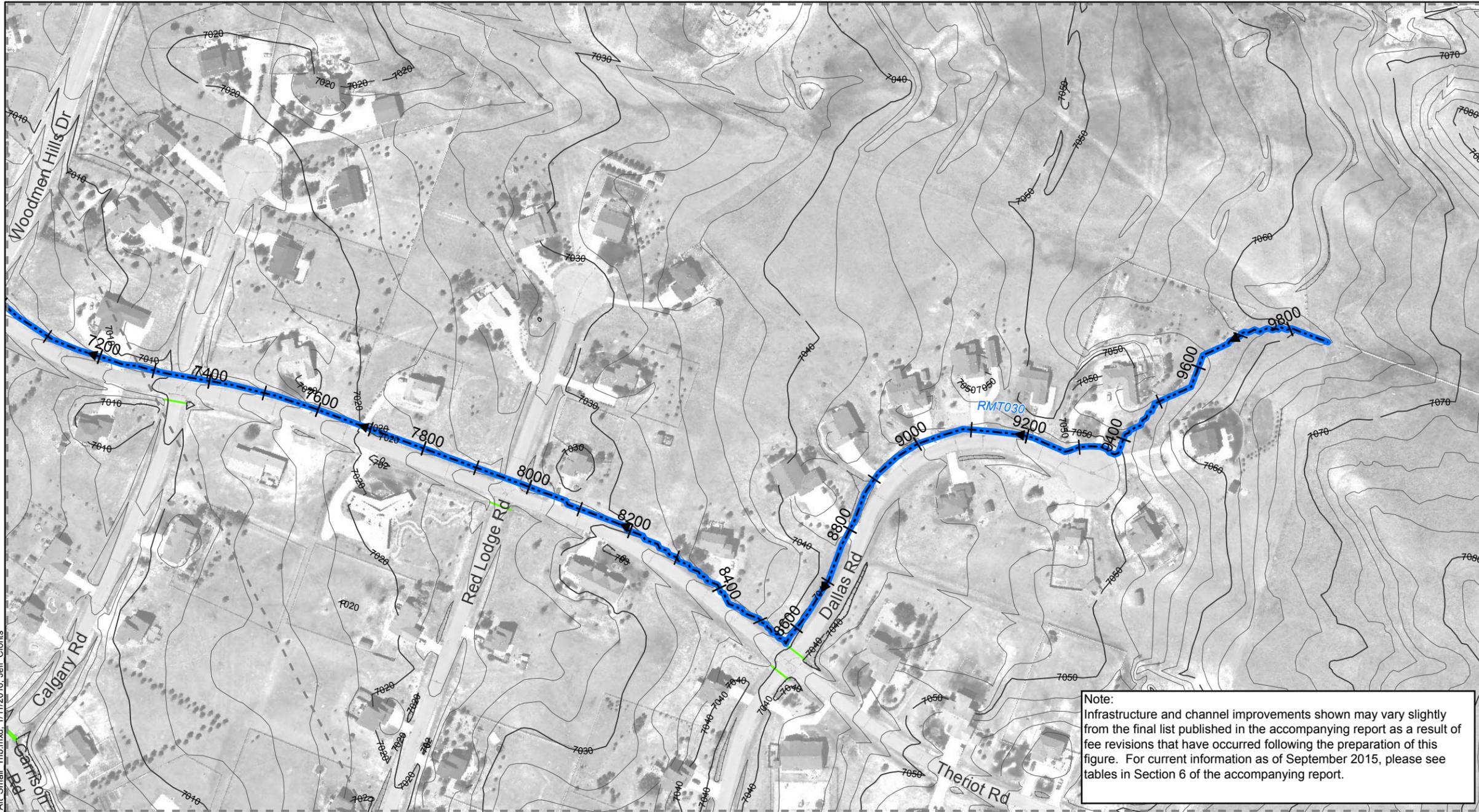


Note:  
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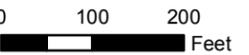
**NO PROFILES FOR SMALL TRIBUTARIES**

FILE: G:\gis\_projects\Falcon\_Creek\_DBP\active\apps20130617\mapbooks\Sel\_Alt\_Small\_Trib.mxd, 1/11/2016, Jeff Clonts



# Sheet 6-44 Falcon DBPS Conceptual Plan Small Tributaries El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



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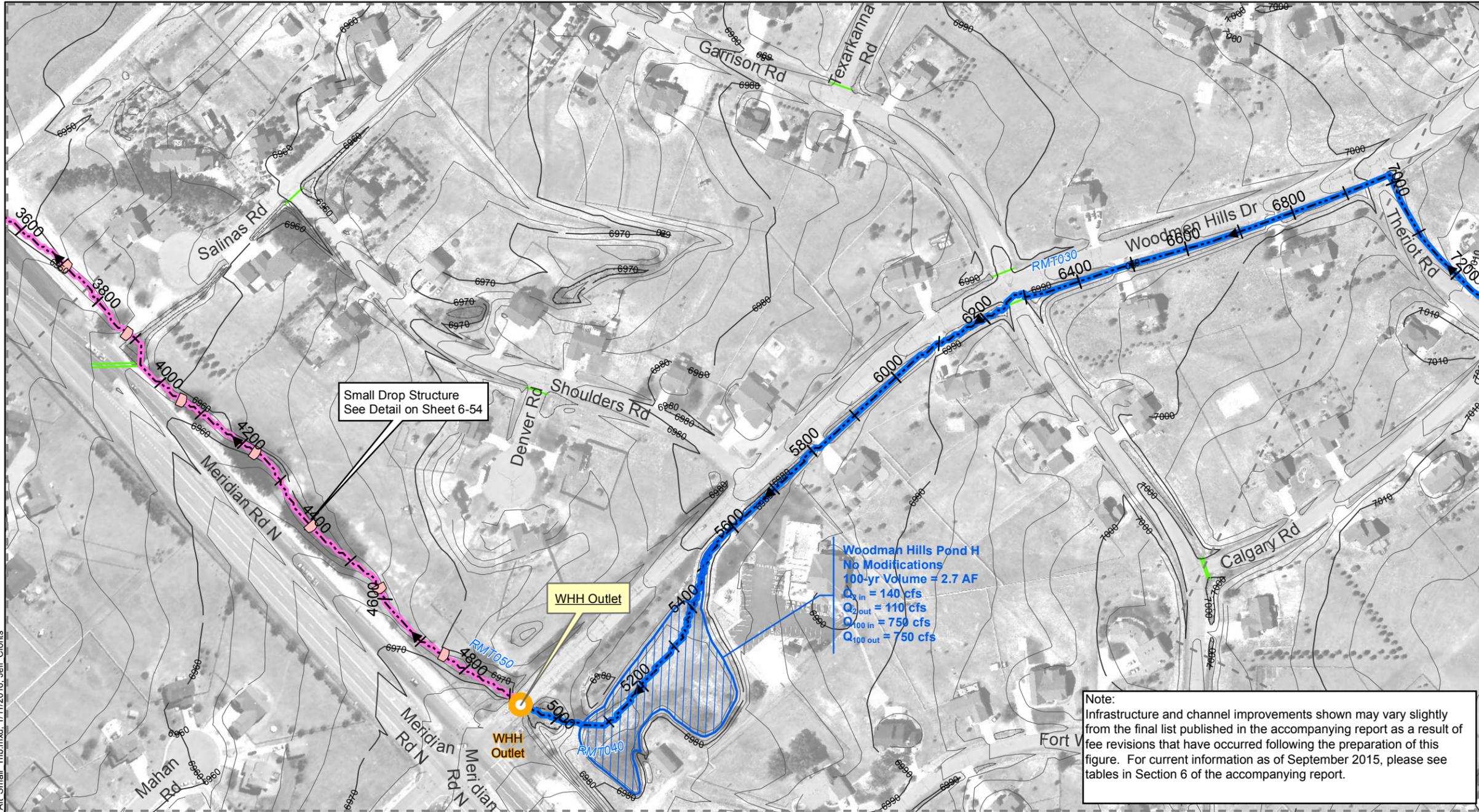


Note:  
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**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-45**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



Small Drop Structure  
 See Detail on Sheet 6-54

WHH Outlet

**Woodman Hills Pond H**  
 No Modifications  
 100-yr Volume = 2.7 AF  
 $Q_{2\text{ in}} = 140\text{ cfs}$   
 $Q_{2\text{ out}} = 110\text{ cfs}$   
 $Q_{100\text{ in}} = 750\text{ cfs}$   
 $Q_{100\text{ out}} = 750\text{ cfs}$

Note:  
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- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements<br>Natural Channel Design             |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| Storm Sewer Inlet                       | Existing Detention                                       |
| Storm Sewer Manhole                     | Proposed Detention                                       |
| Storm Sewer Pipe                        | Proposed Detention Grading                               |
|   | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |

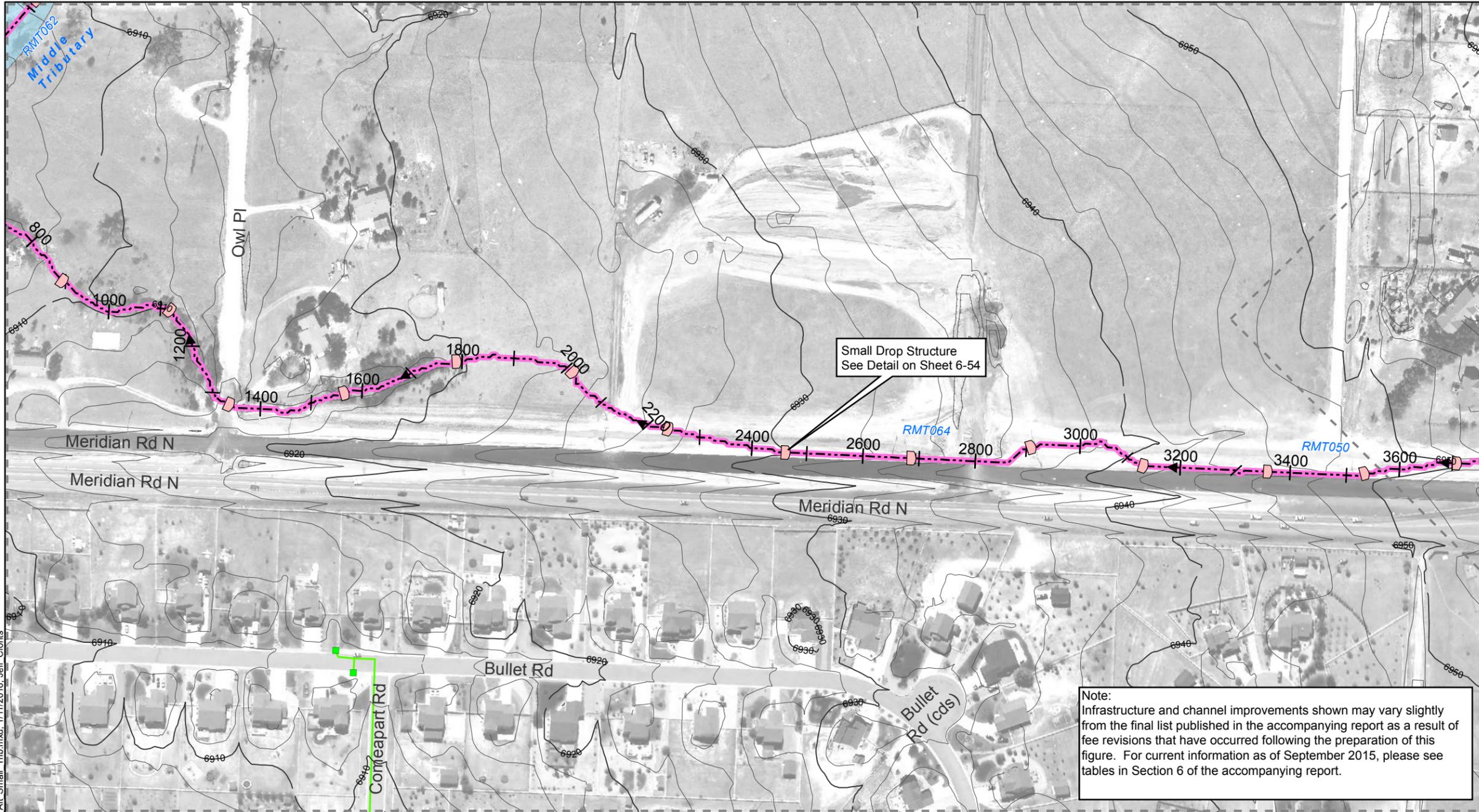


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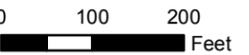


**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-46**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements Natural Channel Design                |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| <b>Storm Sewer</b>                      | Existing Detention                                       |
| Inlet                                   | Proposed Detention                                       |
| Manhole                                 | Proposed Detention Grading                               |
| Pipe                                    | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |



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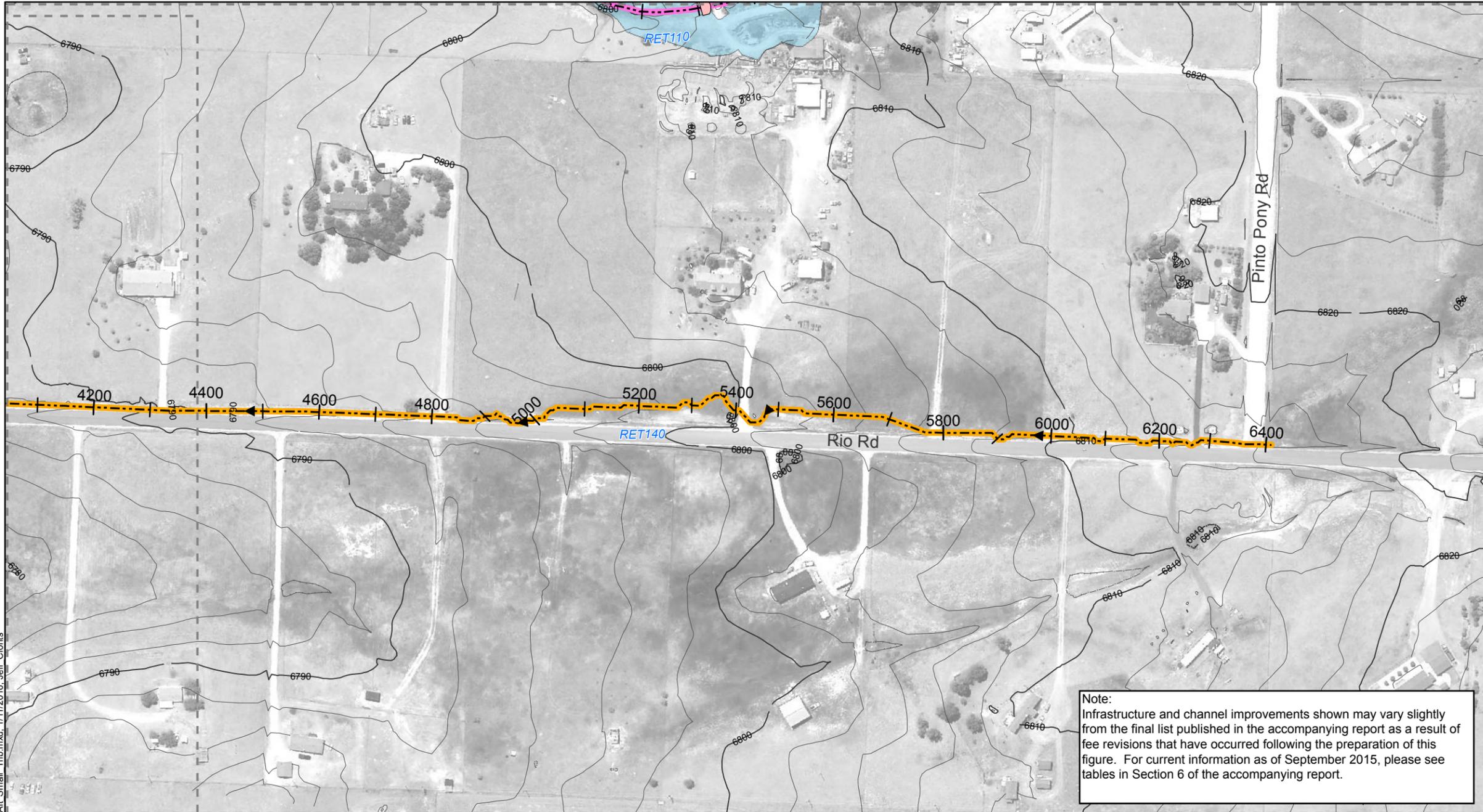


Note:  
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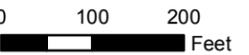
**NO PROFILES FOR SMALL TRIBUTARIES**

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# Sheet 6-47 Falcon DBPS Conceptual Plan Small Tributaries El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



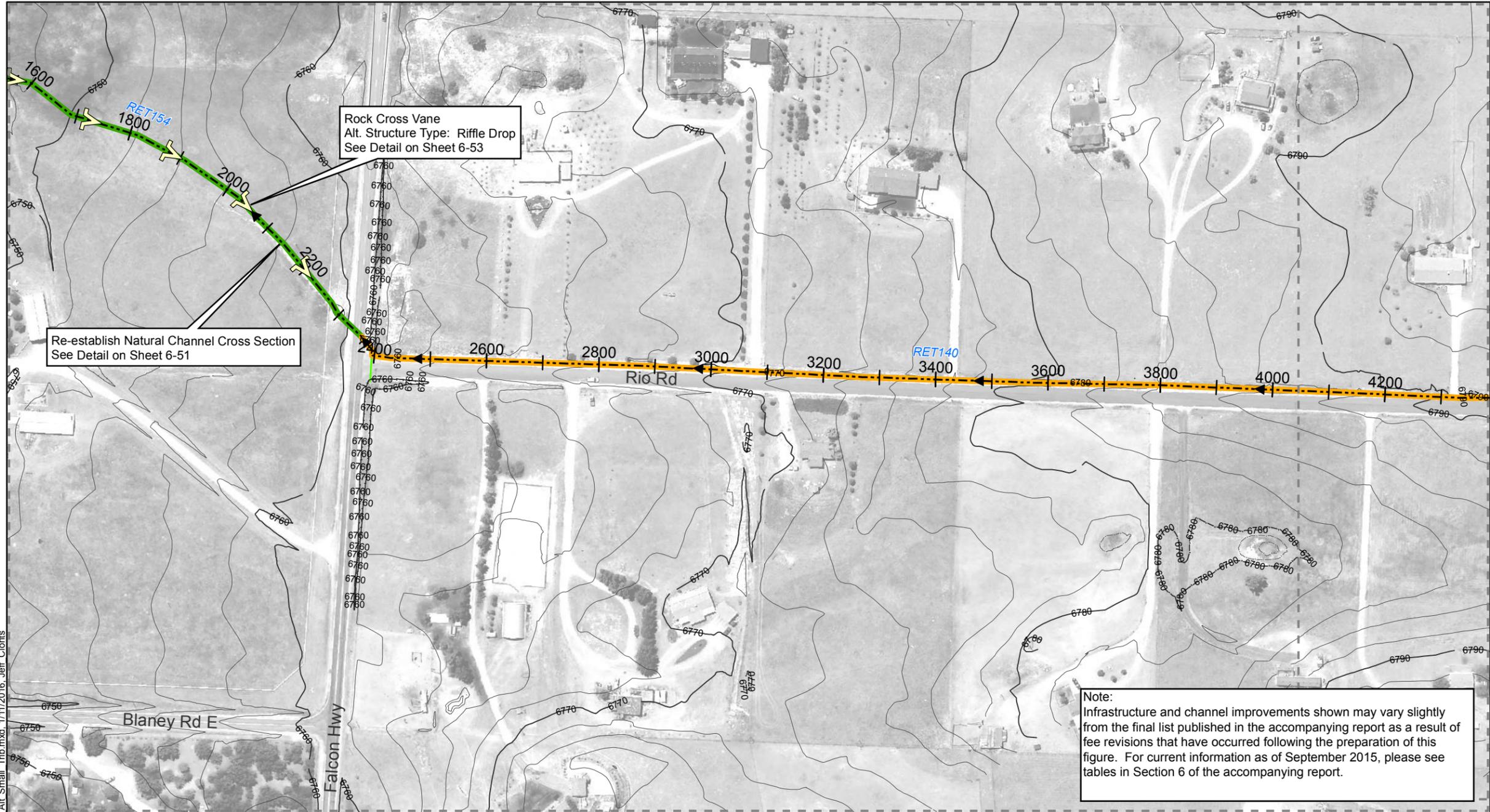
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**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-48**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



Rock Cross Vane  
 Alt. Structure Type: Riffle Drop  
 See Detail on Sheet 6-53

Re-establish Natural Channel Cross Section  
 See Detail on Sheet 6-51

Note:  
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- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements<br>Natural Channel Design             |
| Stream Centerline                       | Protect In Place   |
| Existing Approximate 100-yr Floodplain* | Roadside Ditch Improvement                               |
| Floodplain Study Limit                  | Small Drop Structures w/ Toe Protection                  |
| <b>Storm Sewer</b>                      | Existing Detention                                       |
| Inlet                                   | Proposed Detention                                       |
| Manhole                                 | Proposed Detention Grading                               |
| Pipe                                    | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |

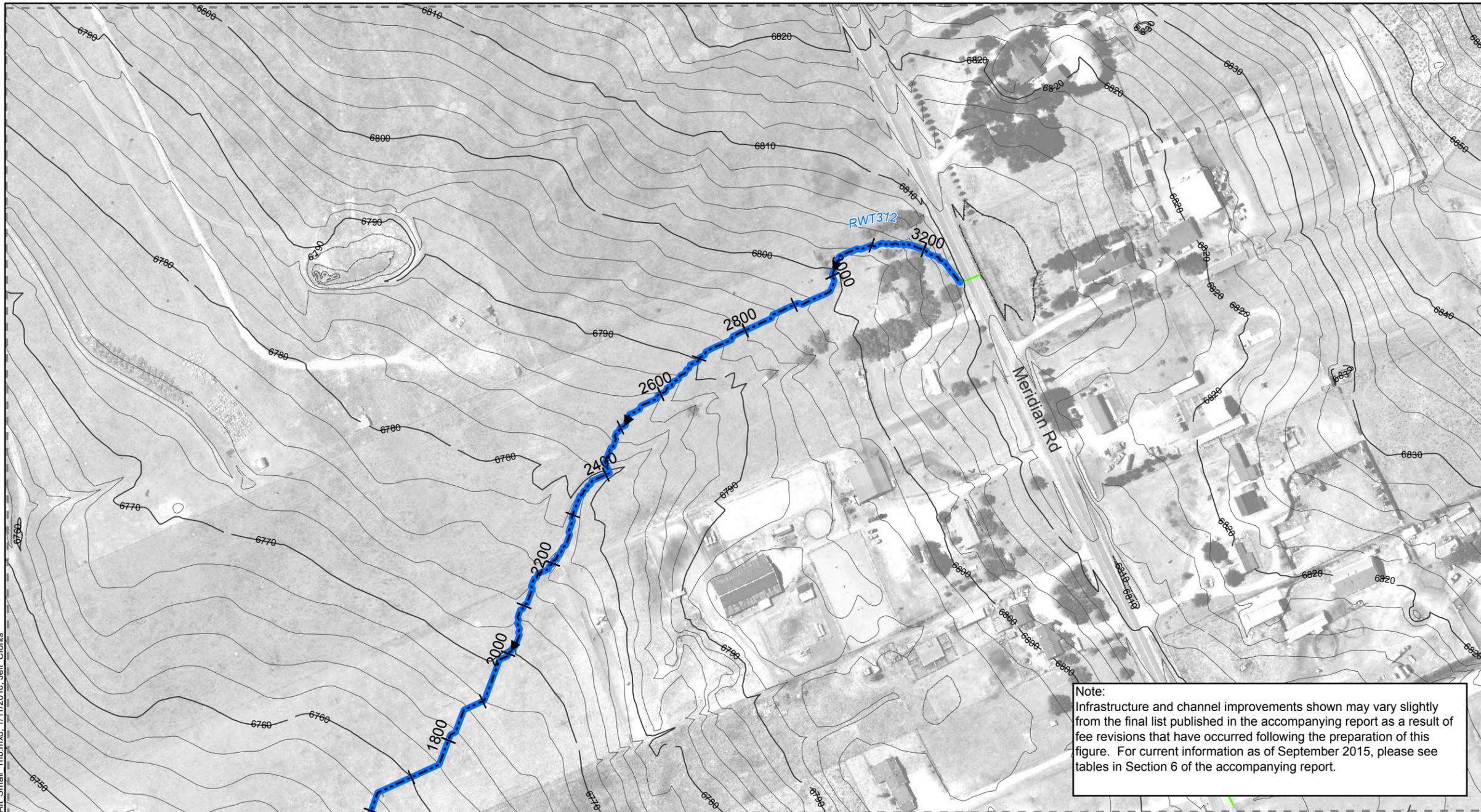


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**NO PROFILES FOR SMALL TRIBUTARIES**

FILE: G:\gis\_projects\Falcon\_Creek\_DBP\active\apps20130617\mapbooks\sel Alt Small Trib.mxd, 1/11/2016, Jeff Clonts



# Sheet 6-49 Falcon DBPS Conceptual Plan Small Tributaries El Paso County, CO

- Drainageway Crossing
- Stream Centerline
- Existing Approximate 100-yr Floodplain\*
- Floodplain Study Limit
- Storm Sewer**
  - Inlet
  - Manhole
  - Pipe
- Reach Improvements**
  - Natural Channel Design
  - Protect In Place
  - Roadside Ditch Improvement
  - Small Drop Structures w/ Toe Protection
  - Existing Detention
  - Proposed Detention
  - Proposed Detention Grading
  - Small Drop Structure
  - Cross Vane
  - Immediate Action Required to Preserve Existing Condition



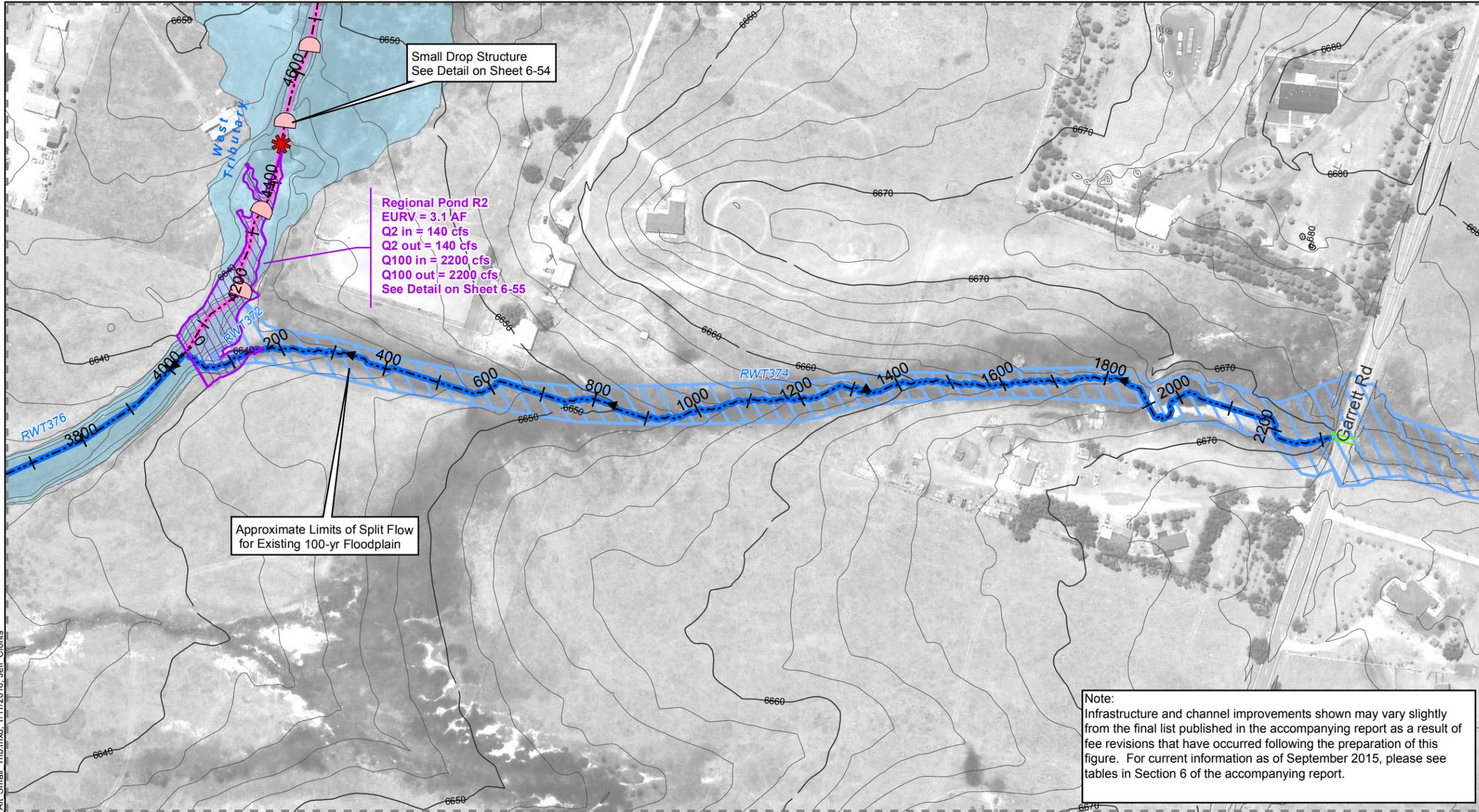
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**NO PROFILES FOR SMALL TRIBUTARIES**

**Sheet 6-50**  
**Falcon DBPS**  
**Conceptual Plan**  
**Small Tributaries**  
**El Paso County, CO**



Regional Pond R2  
 EURV = 3.1 AF  
 Q2 in = 140 cfs  
 Q2 out = 140 cfs  
 Q100 in = 2200 cfs  
 Q100 out = 2200 cfs  
 See Detail on Sheet 6-55

Small Drop Structure  
 See Detail on Sheet 6-54

Approximate Limits of Split Flow  
 for Existing 100-yr Floodplain

- |   |  |
|---|--|
| Drainageway Crossing                    | Reach Improvements                                       |
| Stream Centerline                       | Natural Channel Design                                   |
| Existing Approximate 100-yr Floodplain* | Protect In Place   |
| Floodplain Study Limit                  | Roadside Ditch Improvement                               |
| Storm Sewer Inlet                       | Small Drop Structures w/ Toe Protection                  |
| Storm Sewer Manhole                     | Existing Detention                                       |
| Storm Sewer Pipe                        | Proposed Detention                                       |
|   | Proposed Detention Grading                               |
|   | Small Drop Structure                                     |
|   | Cross Vane   |
|   | Immediate Action Required to Preserve Existing Condition |



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**NO PROFILES FOR SMALL TRIBUTARIES**