

**COMMUNITY SERVICES DEPARTMENT**

PARK OPERATIONS ~ JUSTICE SERVICES  
ENVIRONMENTAL SERVICES ~ VETERANS SERVICES ~ RECREATION/CULTURAL SERVICES

November 23, 2021

Kari Parsons  
Project Manager  
El Paso County Development Services Department  
2880 International Circle  
Colorado Springs, CO 80910

**Subject: Sand Creek Channel Design and Construction Documents, Review #3 (CDR-20-004)**

Hello Kari,

The Park Operations Division of the Community Services Department has performed a 3<sup>rd</sup> review of the Sand Creek Channel Design and Construction Documents and has the following additional comments of behalf of El Paso County Parks. Staff is concerned that previously submitted comments (see below, Page 2) were not integrated into the latest iteration of the Sand Creek Channel Design documents.

**The current Construction Documents show a much higher level of detail in regard to slopes, profiles, and details of the actual stream channel and drop structures. Included in the plans are two "Maintenance Access Trails," located on both the east and west side of Sand Creek. While the maintenance access trail on the east side of the creek has been engineered into the side slopes of the creek, the access trail on the west side is only partially engineered, and at times seems to disappear.**

**Moreover, I have highlighted the proposed Sand Creek Primary Regional Trail corridor on the attached plans. This trail corridor has not been engineered into the plans, as recommended in previous comments below. Furthermore, the west-side maintenance access/trail corridor is not depicted in locations north of Briargate Boulevard. El Paso County Parks staff is agreeable to the colocation of the maintenance access trail and the regional trail corridor, but this modification would necessitate a redesign of the western slopes of Sand Creek, as well as redesignation and dedication of the regional trail corridor easement to El Paso County. The maintenance access/trail corridor should be designed similarly to that of the maintenance access trail on the east side of Sand Creek. If this is to be the acceptable solution, the west-side maintenance access/trail corridor must be engineered into these Construction Documents, as is the case with the east-side access trail.**

**EPC Parks staff reminds the applicant that the Sand Creek Primary Regional Trail is a part of the 2013 El Paso County Parks Master Plan and is thus an integral feature of the overall El Paso County Strategic Plan. The applicant has made good effort to show the proposed trail corridor on previous Sterling Ranch sketch plans, preliminary plans, and final plats, and has designated the regional trail easements through separate BoCC-approved documents, as noted in previous comments below. This effort to design a stable and sustainable Sand Creek channel should not jeopardize previous efforts to solidify the Sand Creek Primary Regional Trail alignment through Sterling Ranch.**



The following comments were originally submitted in July 2020 as part of the agency review process:

*“County staff reviewed the Sand Creek Bank Stabilization plans in January 2020 and was concerned that the necessary creek bank mitigation efforts would negatively affect the dedicated 25-foot trail easement (Record #218054786), and the County’s ability to construct the trail in the future. At that time, staff concerns were as follows:*

- 1. The Sand Creek Bank Stabilization Plans show the 25-foot trail easement throughout the length of the bank improvements. Along much of the trail’s length, the designed side slope is set at a 3:1, or 33.3%, side slope. A trail could not be constructed along this embankment without the necessity of cut-fill grading and/or the addition of retaining walls on the uphill side of the trail. These types of grading requirements will need to be integrated into the Stabilization Plans.*
- 2. The Stabilization Plans also show a riprap outlet works located in the middle of the trail easement, between Stations 109 and 110. The trail would not be able to span this obstacle, so it is requested that the outlet works be located outside of the trail easement.*
- 3. The Stabilization Plans must integrate the trail bench into the proposed improvements, accounting for the fact that the trail will be 8 feet wide with 2-foot shoulders on either side. A 12-foot wide shelf would be the minimum requirement for proper trail construction, however a wider shelf at 14’-16’ would allow for additional shoulder, especially in locations where the trail is bordered by 3:1 armored slopes, thus presenting a potential safety hazard to trail users.*
- 4. The Stabilization Plans include language along the trail easement corridor that states, “Trail to be constructed with channel plans.” EPC Parks requests clarification in regard to this statement, specifically regarding the timeliness of the trail bench construction as an integral feature of the overall project. In short, will the developer construct the trail bench based upon these current Stabilization Plans? Furthermore, are the aforementioned “Channel Plans” a separate document from these Stabilization Plans?*
- 5. Page GR02 of the Stabilization Plans shows a length of crusher fines trail with one section that reflects a 15% longitudinal grade, between Stations 98 and 99. The 15% grade is far too steep for a regional trail, as trails of this type should remain at less than 10% average. Furthermore, is the developer going to construct this length of trail, or is the crusher fine trail being shown for general reference?*

*Upon review of the current Sand Creek Channel Design and Construction Plans, staff has noted significant changes to the overall plan, many of which have relegated the dedicated Sand Creek Regional Trail easement to locations outside of the areas of major channel modifications. The designers have addressed safety concerns in those places where the trail is located within the channel, either through the use of guardrails and/or retaining walls, as noted in Sheet Detail GEC4 (Station 30+20). In most areas along the channel, the trail corridor is located above the channel, along slopes that are far more conducive to future trail construction.*

*The 2015 El Paso County Planning Commission and Board of County Commissioner summaries for the approval of the Sterling Ranch Phase I Preliminary Plan and Filing No. 1 Final Plat added requirements for the dedication to El Paso County of 25-foot wide regional trail easements along Sand Creek and Briargate Parkway for the construction, maintenance, and public access of the Sand Creek Primary Regional Trail and the Briargate*

*Parkway extension. These trail easements, Instruments #218054786 and #218714151, were dedicated to El Paso County in May 2018, the latter of which will be directly impacted by the construction of the Briargate Boulevard bridge at Sand Creek. Please see the attached Homestead at Sterling Ranch Filing No. 2 Final Plat for highlighted sections of these trail easements.*

*Pages C202 and C204 of the Construction Documents show the Briargate Boulevard Bridge design, including the locations of the proposed 6-foot wide sidewalk and guardrails, while a detail on C222 provides the general cross-section for the guardrail and sidewalk on either side of the bridge. Staff understands the constraints of routing the previously recommended 10' concrete sidewalk and 5' gravel trail across the bridge, between the wingwalls and guardrails for Briargate Boulevard, and further recognizes that certain aspects of the sidewalk and adjacent gravel trail may need to be modified and possibly narrowed within the bounds of the bridge structure. Staff recommends the applicant and designers show the approaches of the sidewalk and adjacent trail on the C202 or C204 layouts."*

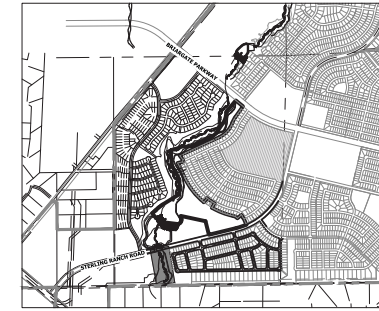
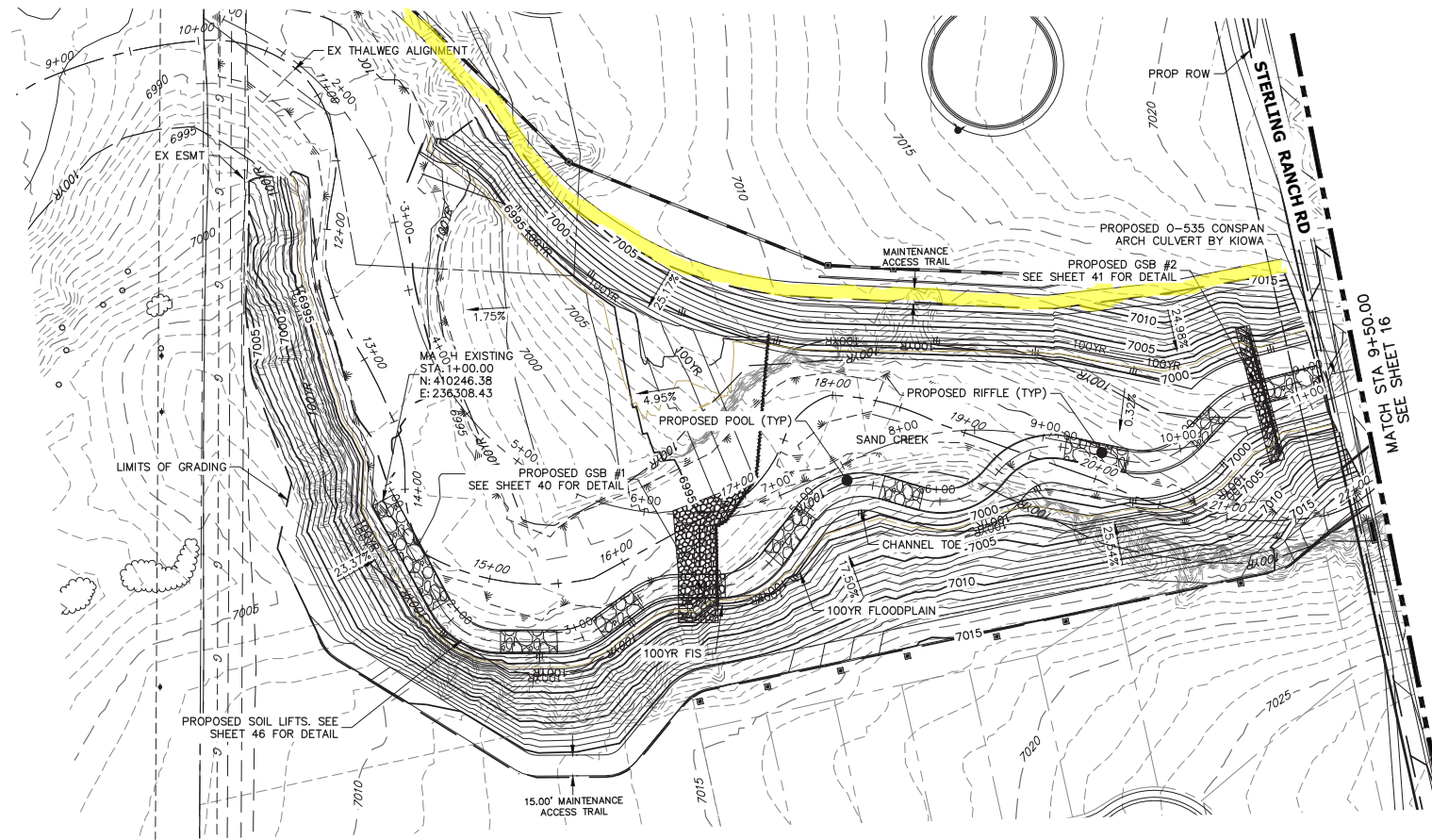
These comments are being provided administratively and do not require Park Advisory Board endorsement.

Please let me know if you have any questions or concerns.

Sincerely,



Ross A. Williams  
Park Planner  
Park Operations Division  
Community Services Department  
[rosswilliams@elpasoco.com](mailto:rosswilliams@elpasoco.com)

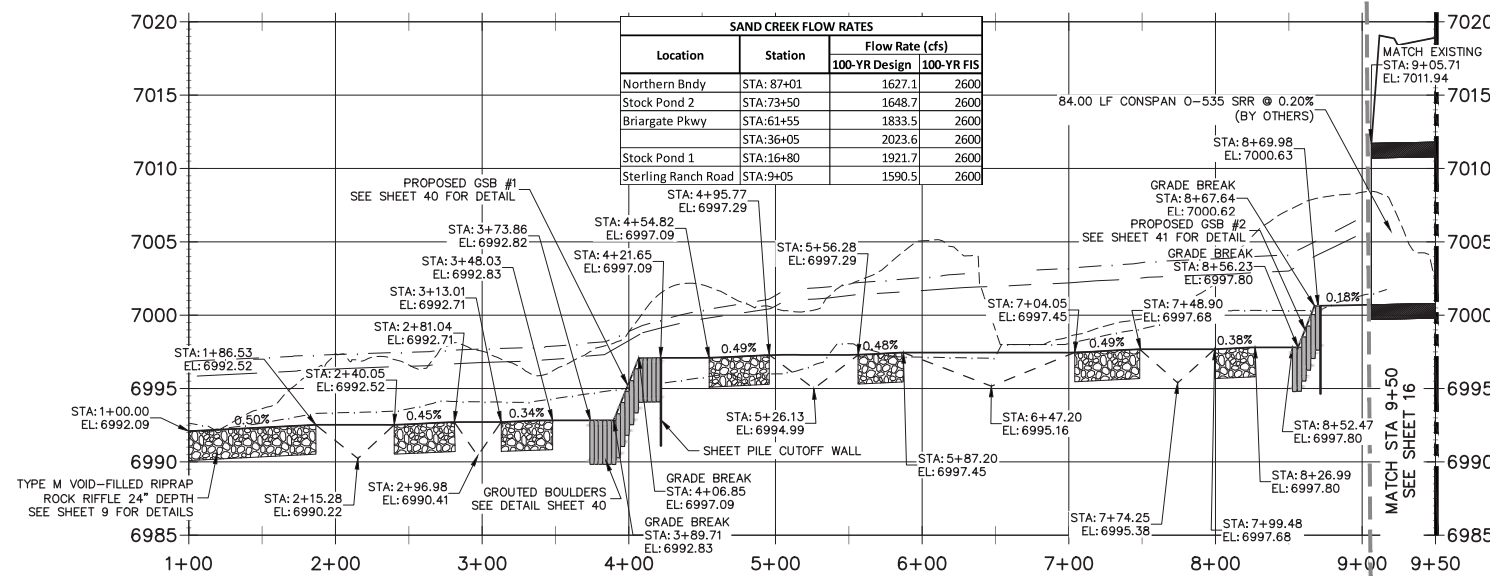


KEY MAP  
SCALE: 1"=2000'

**LEGEND**

- FINISHED GRADE @ CHANNEL
- - - THALWEG
- - - EXISTING GRADE @ CHANNEL
- - - EXISTING THALWEG
- - - 100-YR HGL
- - - 100-YR FIS
- - - 100-YR DESIGN WSEL

**SAND CREEK - BANKFULL PROFILE 1  
STA 1+00.00 TO 9+50.00**



**BENCHMARK**

- THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION  
NORTHING = 411416.273  
EASTING = 235167.071  
ELEVATION = 7023.42
- THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PANWEE RANCHEROS SUBDIVISION  
NORTHING = 410095.404  
EASTING = 235052.131  
ELEVATION = 7000.40
- THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDIVISION  
NORTHING = 411399.962  
EASTING = 233849.817  
ELEVATION = 7030.82

**BASIS OF BEARINGS**

THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M. AS MONUMENTED AT THE SOUTHWEST CORNER OF SAID BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624" AND AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624". SAID LINE BEARS N89°14'14"E, A DISTANCE OF 2,722.69 FEET.

**NOTE**

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CONSTRUCTION**

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COLORADO P.E. 30112  
FOR AND ON BEHALF OF J-R ENGINEERING, LLC

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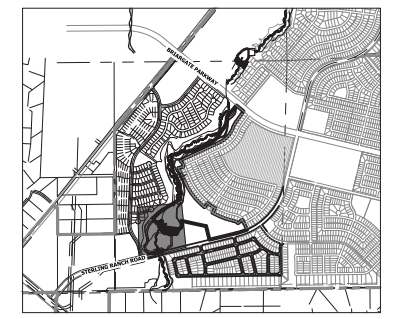
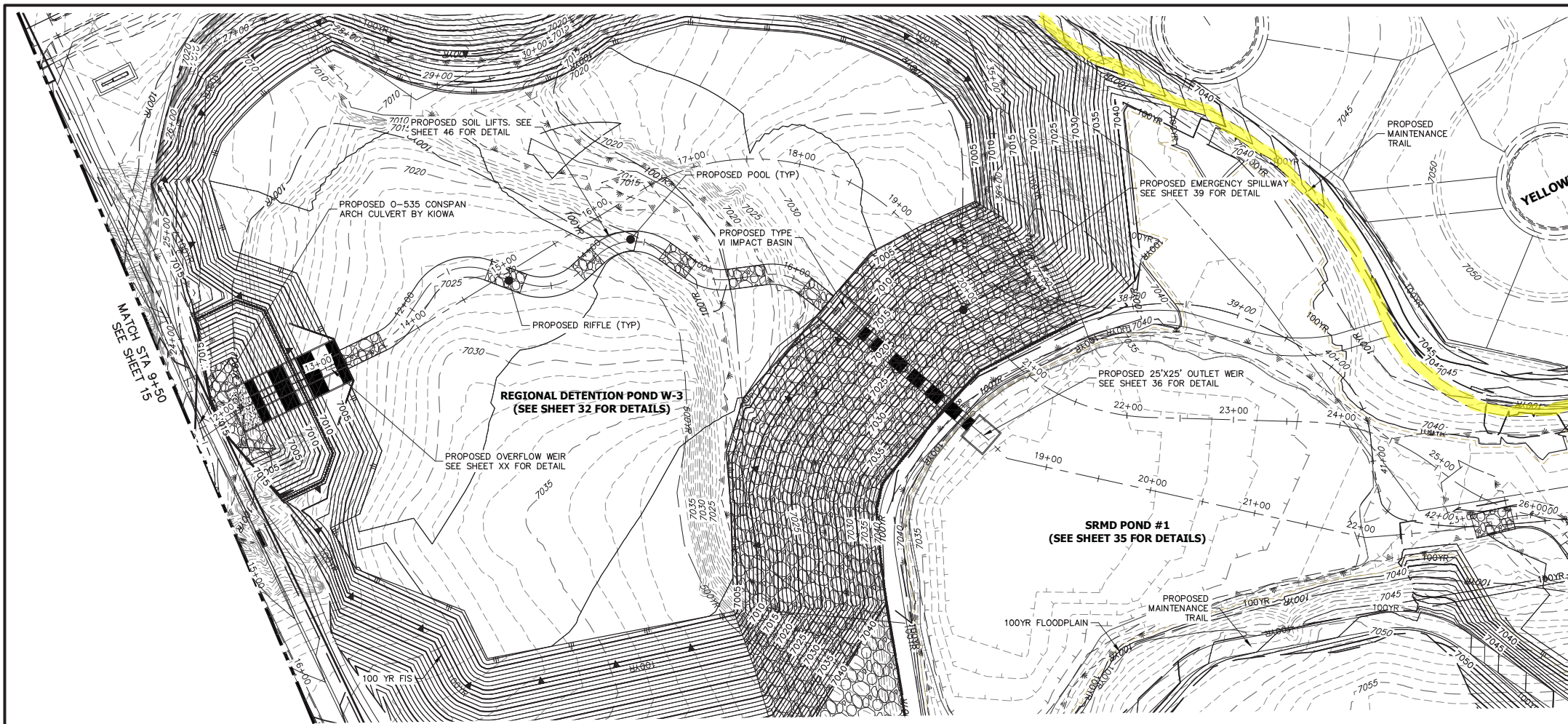
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SAND CREEK RESTORATION  
CHANNEL PLAN & PROFILE

SHEET 15 OF 52

JOB NO. 25188.04

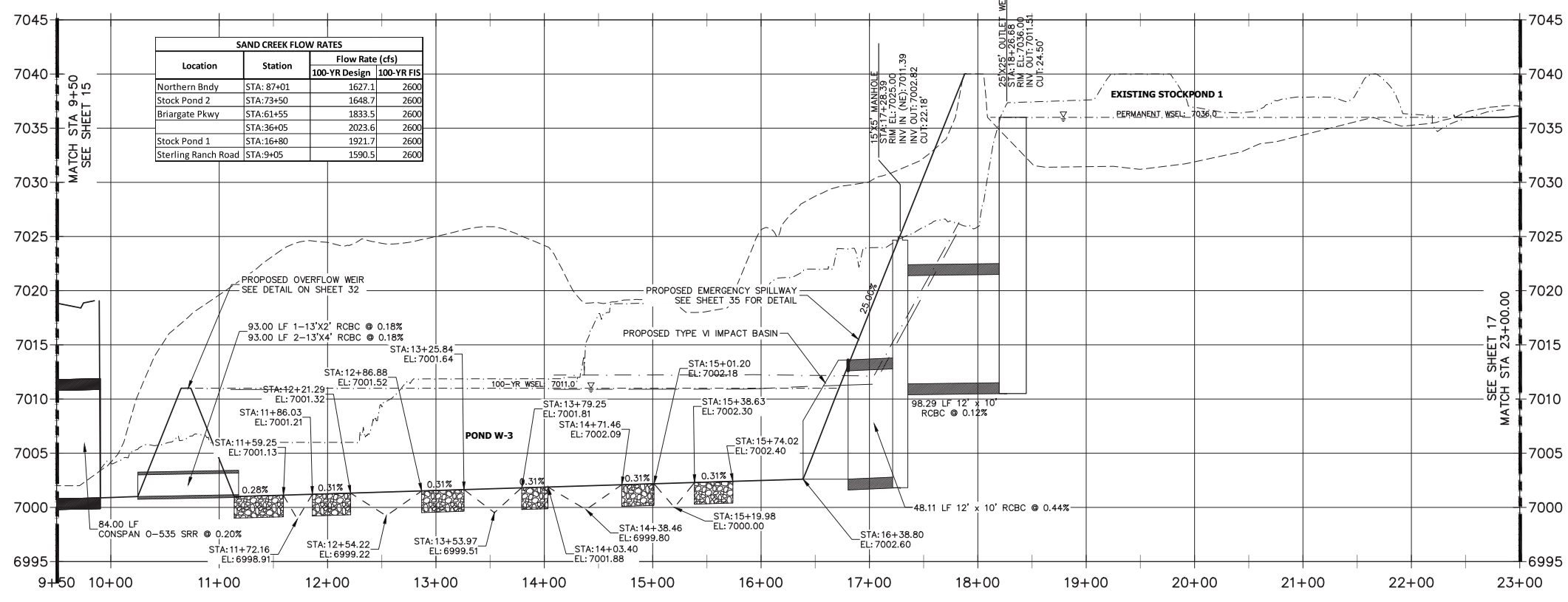


KEY MAP  
SCALE: 1"=2000'

**LEGEND**

- FINISHED GRADE @ CHANNEL
- THALWEG
- EXISTING GRADE @ CHANNEL
- EXISTING THALWEG
- 100-YR HGL
- 100-YR FIS
- 100-YR DESIGN WSEL

**SAND CREEK - BANKFULL PROFILE 2  
STA 9+50.00 TO 23+00.00**



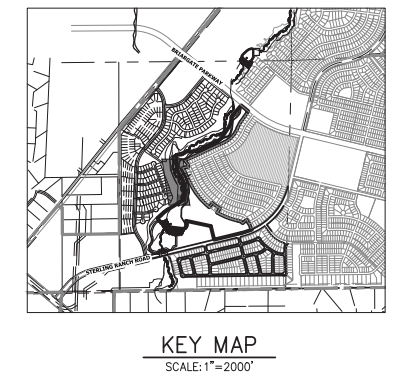
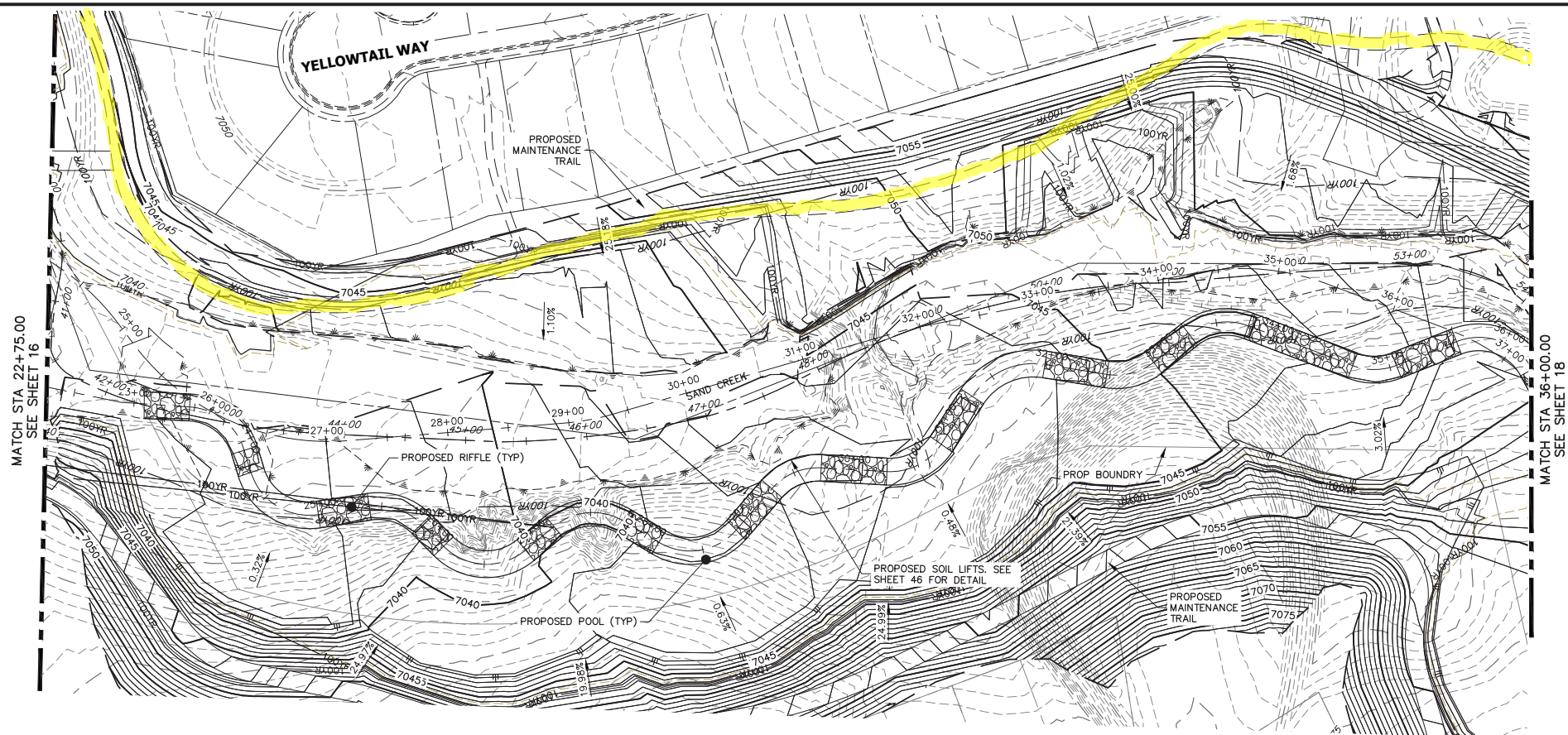
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HORIZONTAL ORIGINAL SCALE: 1" = 60'  
VERTICAL ORIGINAL SCALE: 1" = 6'

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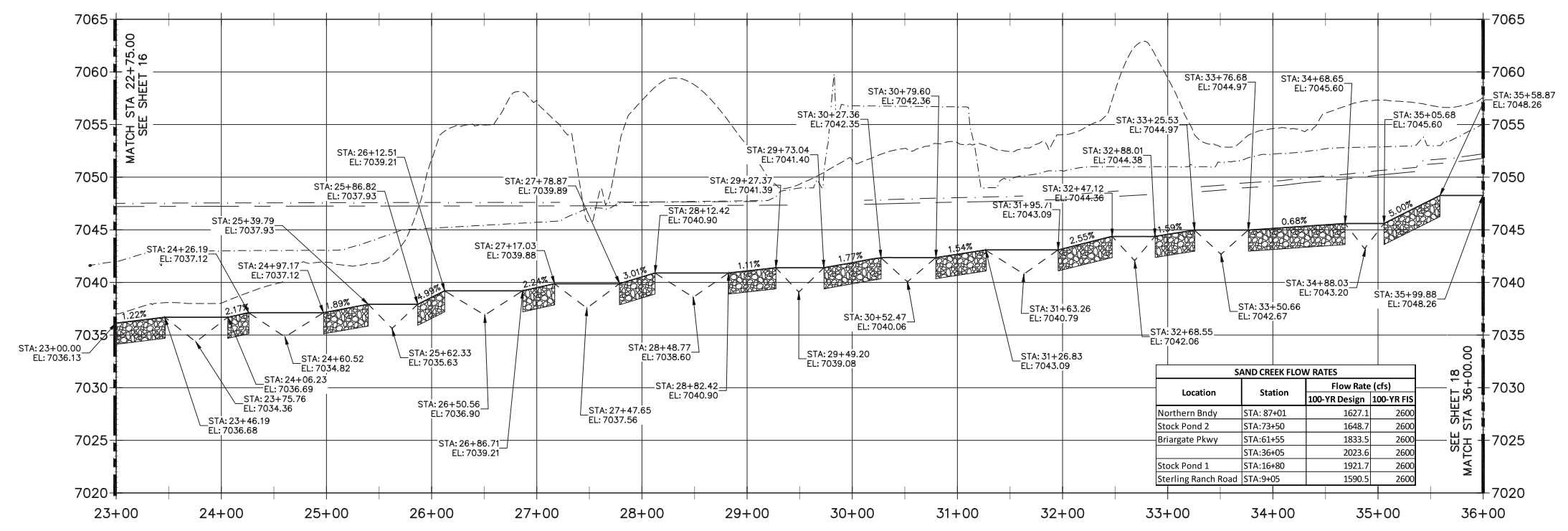
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V-SCALE	1"=6'	10/21/21	DJV	SCH
DATE	DESIGNED BY	DRAWN BY	CHECKED BY	
SAND CREEK RESTORATION				
CHANNEL PLAN & PROFILE				
SHEET 16 OF 52				
JOB NO. 25188.04				

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- LEGEND**
- FINISHED GRADE @ CHANNEL @
  - - - THALWEG
  - - - EXISTING @ CHANNEL @
  - - - EXISTING THALWEG
  - - - 100-YR HGL
  - - - 100-YR FIS
  - - - 100-YR DESIGN WSEL

**SAND CREEK - BANKFULL PROFILE 3  
STA 23+00.00 TO 36+00.00**



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VERTICAL ORIGINAL SCALE: 1" = 6'

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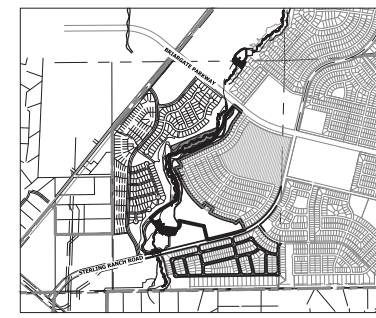
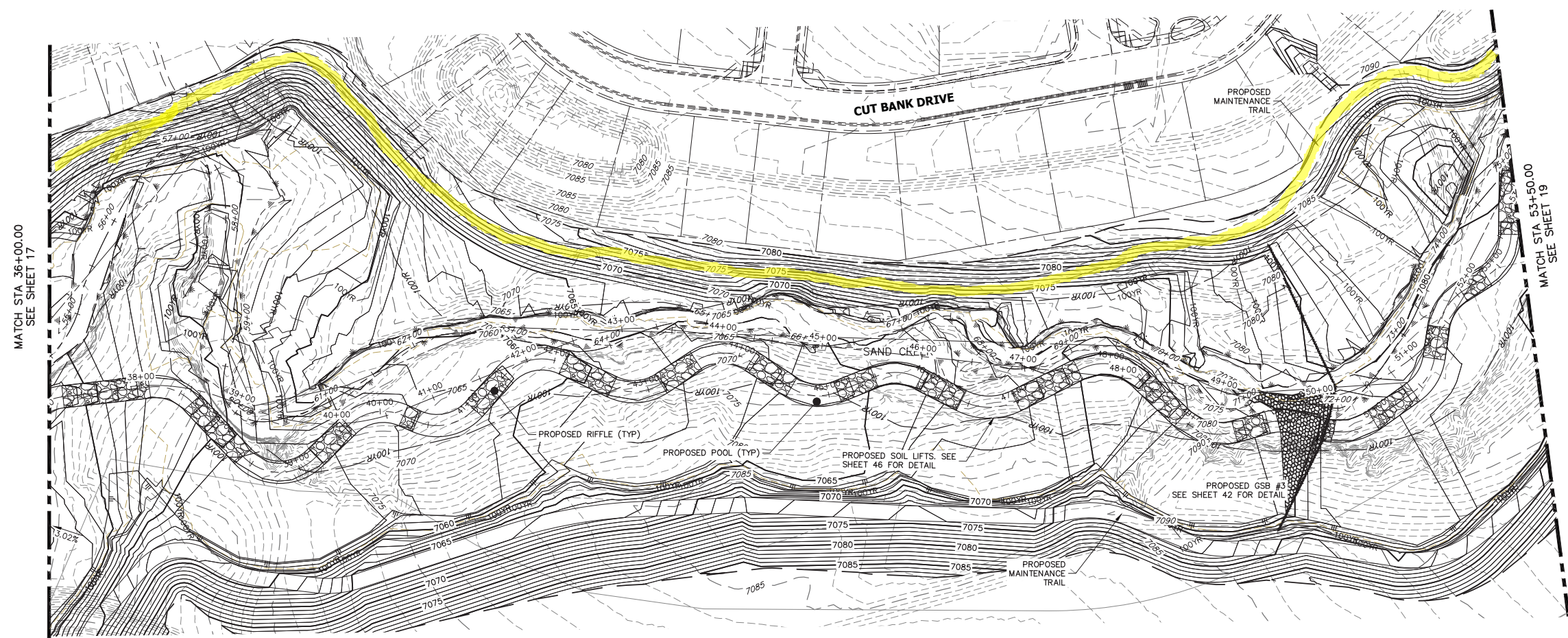
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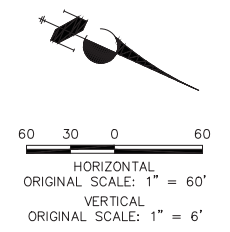
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**SAND CREEK RESTORATION**  
**CHANNEL PLAN & PROFILE**  
SHEET 17 OF 52  
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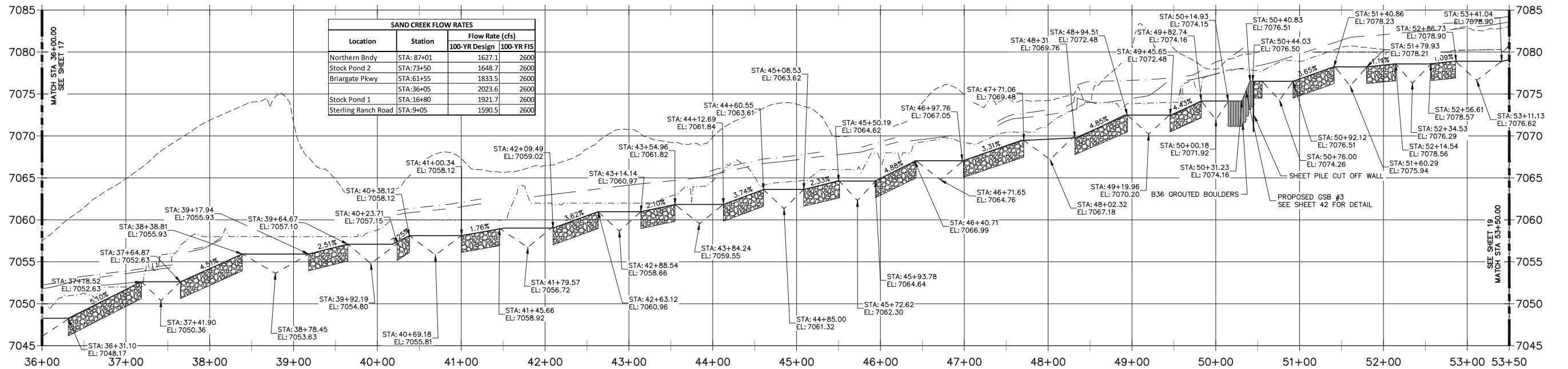
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- LEGEND**
- FINISHED GRADE @ CHANNEL
  - - - THALWEG
  - - - EXISTING GRADE @ CHANNEL
  - - - EXISTING THALWEG
  - - - 100-YR HGL
  - - - 100-YR FIS
  - - - 100-YR DESIGN WSEL



**SAND CREEK - BANKFULL PROFILE 4  
STA 36+00.00 TO 53+50.00**



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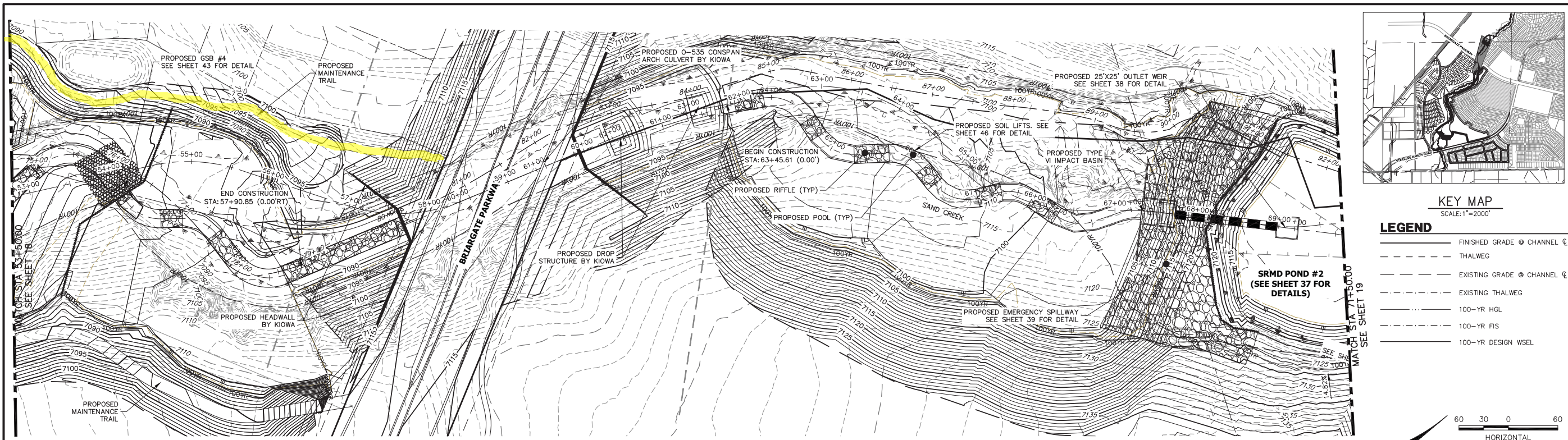
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	V-SCALE	1"=6'
CHANNEL PLAN & PROFILE	DATE	10/21/21
	DESIGNED BY	DJV
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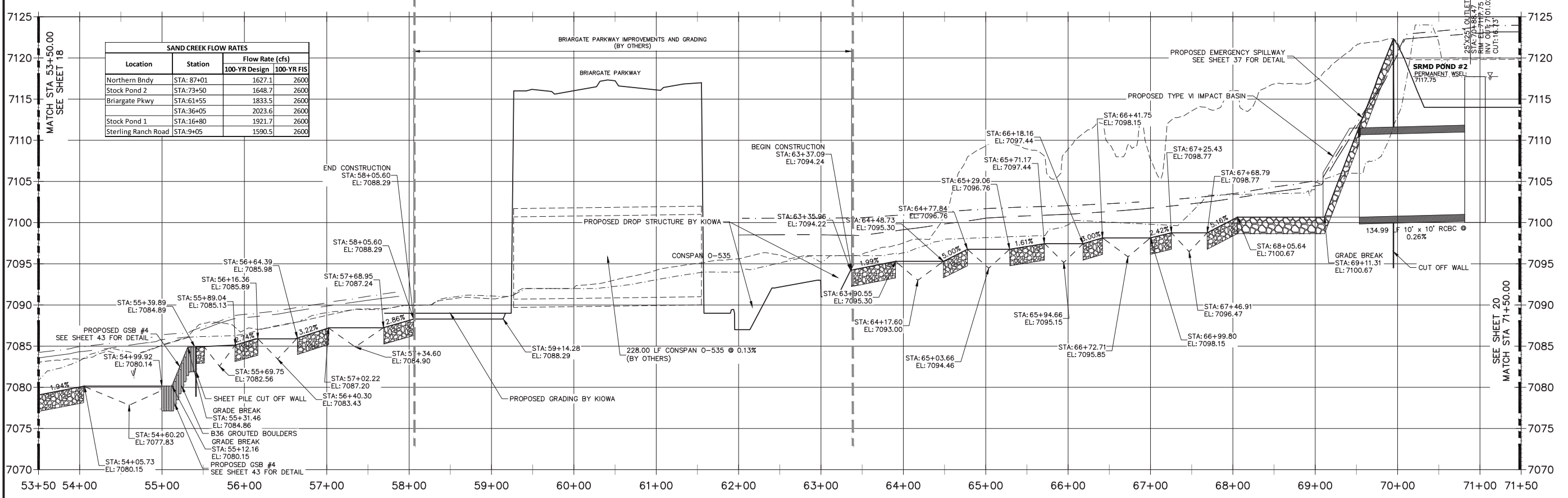


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**SAND CREEK - BANKFULL PROFILE 5  
STA 53+50.00 TO 71+50.00**



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**SAND CREEK RESTORATION**

**CHANNEL PLAN & PROFILE**

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DRAWN BY SCH  
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JOB NO. 25188.04

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