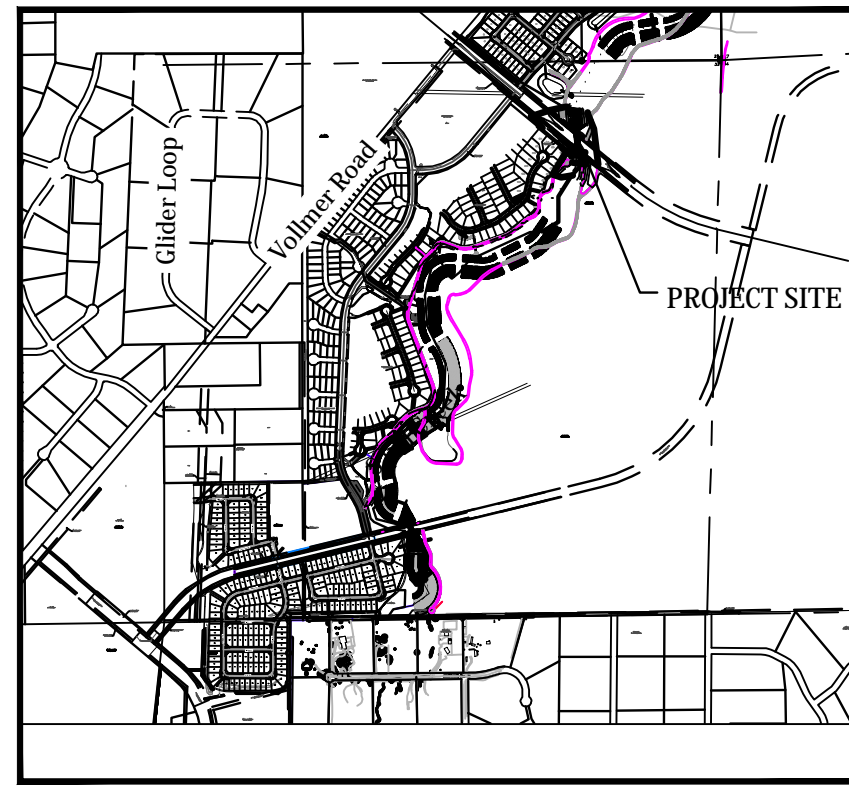


# STERLING RANCH DEVELOPMENT BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS

## EL PASO COUNTY, COLORADO

Kiowa Project No. 19032  
1/3/2022



VICINITY MAP  
SCALE: N.T.S.



### GENERAL NOTES

- Profile design lines are based on centerline, as shown, unless otherwise noted.
- All new construction to conform to the specifications of El Paso County Department of Public Works. Any asphalt removed is to be replaced to meet the specifications of the El Paso County Public Works Department.
- For pavement design, curb and gutter, and sidewalks see individual plan and profile sheets. Pavement design to be based on Resistance Value 'R' derived from Hveem tests and are to be approved by the Engineering Division of the El Paso County Planning and Community Development prior to work above subgrade.
- At intersections, all curb returns will have 20-foot radius unless otherwise noted.
- All existing utilities have been shown according to the best available information. The contractor is responsible for field location and verification prior to beginning work. If it appears that there could be a conflict with any utilities, whether indicated on the plans or not, the contractor is to notify the engineer and owner immediately. The contractor is responsible for the protection and repair (if necessary) of all utilities.
- A Pre-Construction meeting shall be held with the El Paso County Planning and Community Development prior to any construction.
- Approved plans, Engineering Criteria Manual, etc. is required to be on-site at all times during construction.
- All necessary permits, such as SWMP, ESQCP, Fugitive Dust, Access, C.O.E. 404, etc. shall be obtained prior to construction.
- All handicap ramps to be per El Paso County Standard SD 2-40.
- The contractor shall coordinate locations and layout with the El Paso County Planning and Community Development on the placement of any pedestrian ramps prior to construction of the curb.
- Where appropriate, neatly saw cut all existing concrete and asphalt. Repair/replace all disturbed existing items with like materials and thicknesses.
- All disturbed areas shall be revegetated with native grasses within 21 days of excavation per Erosion Control Plan.
- The prepared Erosion/Sediment Control Plan is to be considered a part of these plans and its requirements adhered to during the construction of this project.
- All storm and sanitary sewer pipe lengths and slopes are figured from center of manhole or bend. Pipe lengths are given as a horizontal length.
- All storm sewer bedding to be per CDoT Standards.
- All storm sewer pipe shall be Class III B Wall unless otherwise shown on the storm sewer plan and profile sheets.
- All wyes and bends used in construction of storm sewer facilities shall be factory fabricated, unless approved by the El Paso County Planning and Community Development.
- Construction and materials used in all storm and sanitary sewer manholes shall be per specifications. Storm sewer radial deflections to be grouted or installed per manufacturer's recommendations.
- Storm sewer manholes sizes as follows unless otherwise shown:
  - 18" thru 36" use 48" I.D. manhole
  - 42" thru 48" use 60" I.D. manhole
  - 54" thru 60" use 72" I.D. manhole
 NOTE: Manhole sizes tabulated here shall be increased, if necessary, to accommodate incoming laterals.
- All horizontal stationing is based on the 'Face of Curb', unless otherwise shown.
- All vertical design and top of curb are based on the design point shown in the typical cross section.
- The curb line design point is located at the intersection of the face and top of curb for the Type III Standard 6-inch vertical curb. See typical street section for design point locations.
- Vertical curb to be used between curb returns (CR) and at curb inlets. Transitions from ramp to vertical curb shall be 10-foot unless otherwise approved by the El Paso County Public Services Department. All other curb & gutter to be ramp curb & gutter.
- Cross pans to be per El Paso County Standard Detail SD 2-26.
- Curb returns shall be straight graded from CR to CR unless otherwise noted.
- Inlets are Type 'R' inlets (CDOT STD M-604-12) unless otherwise noted.

**BENCHMARK:**  
THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "8953"  
NORTHING = 411416.273  
EASTING = 235167.071  
ELEVATION = 7023.42

THE TOP OF RED PLASTIC SURVEYORS CAP, ILLEGIBLE  
NORTHING = 410095.404  
EASTING = 235052.131  
ELEVATION = 7000.40

THE TOP OF RED PLASTIC SURVEYORS CAP, STAMPED "38141"  
NORTHING = 411399.962  
EASTING = 233849.817  
ELEVATION = 7030.82

**BASIS OF BEARING**  
THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW $\frac{1}{4}$ ) OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M. AS MONUMENTED AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER (SW $\frac{1}{4}$ ) BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624" AND AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER (SW $\frac{1}{4}$ ) BY A 2-1/2" ALUMINUM CAP STAMPED "LS11624", SAID LINE BEARS N 89°14'14" E, A DISTANCE OF 2,722.56 FEET.



### STATEMENTS

**Design Engineer's Statement:**

These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications.

\_\_\_\_\_  
Todd Cartwright, P.E. #33365 Date \_\_\_\_\_  
For and on behalf of Kiowa Engineering Corp.

**Owner/Developer's Statement:**

I, the owner/developer have read and will comply with of the requirements of the Grading and Erosion Control Plans and all of the requirements specified in these detailed plans and specifications.

\_\_\_\_\_  
James Morley Date \_\_\_\_\_  
Sterling Ranch Metropolitan District

**El Paso County:**

County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

\_\_\_\_\_  
Jennifer Irvine, P.E. Date \_\_\_\_\_  
County Engineer / ECM Administrator

### EL PASO COUNTY STANDARD NOTES

- All drainage and roadway construction shall meet the standards and specifications of the City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2, and the El Paso County Engineering Criteria Manual.
- Contractor shall be responsible for the notification and field notification of all existing utilities, whether shown on the plans or not, before beginning construction. Location of existing utilities shall be verified by the contractor prior to construction. Call 811 to contact the Utility Notification Center of Colorado (UNCC).
- Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical report, and the appropriate design and construction standards and specifications at the job site at all times, including the following:
  - El Paso County Engineering Criteria Manual (ECM)
  - City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
  - Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction State which year is applicable.
  - CDOT M & S Standards
- Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.
- It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to conflicts, omissions, or changed conditions will be entirely the developer's responsibility to rectify.
- Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development (PCD) - Inspections, prior to starting construction.
- It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits, including but not limited to El Paso County Erosion and Stormwater Quality Control Permit (ESQCP), Regional Building Floodplain Development Permit, U.S. Army Corps of Engineers-issued 401 and/or 404 permits, and county and state fugitive dust permits.
- Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and PCD. Contractor shall notify the design engineer immediately upon discovery of any errors or inconsistencies.
- All storm drain pipe shall be Class III RCP unless otherwise noted and approved by PCD.
- Contractor shall coordinate geotechnical testing per ECM standards. Pavement design shall be approved by El Paso County PCD prior to placement of curb and gutter and pavement.
- All construction traffic must enter/exit the site at approved construction access points.
- Sight visibility triangles as identified in the plans shall be provided at all intersections. Obstructions greater than 18 inches above flowline are not allowed within sight triangles.
- Signing and striping shall comply with El Paso County Department of Public Works and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
- Contractor shall obtain any permits required by El Paso County Department of Public Works, including Work Within the Right-of-Way and Special Transport permits.
- The limits of construction shall remain within the property line unless otherwise noted. The owner/developer shall obtain written permission and easements, where required, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.

### INDEX OF SHEETS

C001	COVER SHEET
C101	SITE PLAN
C201	BRIARGATE BOULEVARD BRIDGE PLAN & PROFILE
C202	BRIARGATE BOULEVARD BRIDGE STRUCTURE LAYOUT
C203	BRIARGATE BOULEVARD BRIDGE FOOTER DETAILS
C204	BRIARGATE BOULEVARD BRIDGE GUARDRAIL PLAN
C211	BRIARGATE BOULEVARD BRIDGE DETAILS
C212	BRIARGATE BOULEVARD BRIDGE GUARDRAIL DETAILS
C213	BRIARGATE BOULEVARD BRIDGE HANDRAIL DETAILS
C301	4' DROP STRUCTURE A DETAILS
C302	3' DROP STRUCTURE B DETAILS
C303	DROP STRUCTURE DETAILS

### ABBREVIATIONS

ASSY = ASSEMBLY	MIN. = MINIMUM
BNDY = BOUNDARY	NTS = NOT TO SCALE
BOA = BOTTOM OF ARCH	OD = OUTSIDE DIAMETER
BOF = BOTTOM OF FOOTER	PC = POINT OF HORIZONTAL CURVATURE
BOP = BOTTOM OF PIPE	PP = PROPOSED
CL = CENTERLINE	PT = POINT OF HORIZONTAL TANGENCY
CRA = CONCRETE REVERSE ANCHOR	PVC = POLY VINYL CHLORIDE PIPE
CTRB = CONCRETE THRUST BLOCK	PVC = POINT OF VERTICAL CURVATURE
CR = POINT OF CURB RETURN	PVI = POINT OF VERTICAL INTERSECTION
DIP = DUCTILE IRON PIPE	PVT = POINT OF VERTICAL TANGENCY
EL = ELEVATION	RCB = REINFORCED CONCRETE BOX
ESMT = EASEMENT	RCP = REINFORCED CONCRETE PIPE
EX = EXISTING	ROW = RIGHT OF WAY
FC = FACE OF CURB	RT = RIGHT
FES = FLARED END SECTION	SHT = SHEET
FLG = FLANGE	SS = SANITARY SEWER
FL = FLOWLINE	STA = STATION
GB = GRADE BREAK	STD = STANDARD
HP = HIGH POINT	TA = TOP OF ASPHALT
HORIZ = HORIZONTAL	TC = TOP OF CURB
HYD = HYDRANT	TOF = TOP OF FOOTER
I.D. = INSIDE DIAMETER	TOP = TOP OF PIPE
LT = LEFT	TOR = TOP OF ROCK
LF = LINEAR FEET	TYP = TYPICAL
LP = LOW POINT	VC = VERTICAL CURVE
MAX = MAXIMUM	VERT = VERTICAL
MH = MANHOLE	



STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS  
COVER SHEET  
EL PASO COUNTY, COLORADO

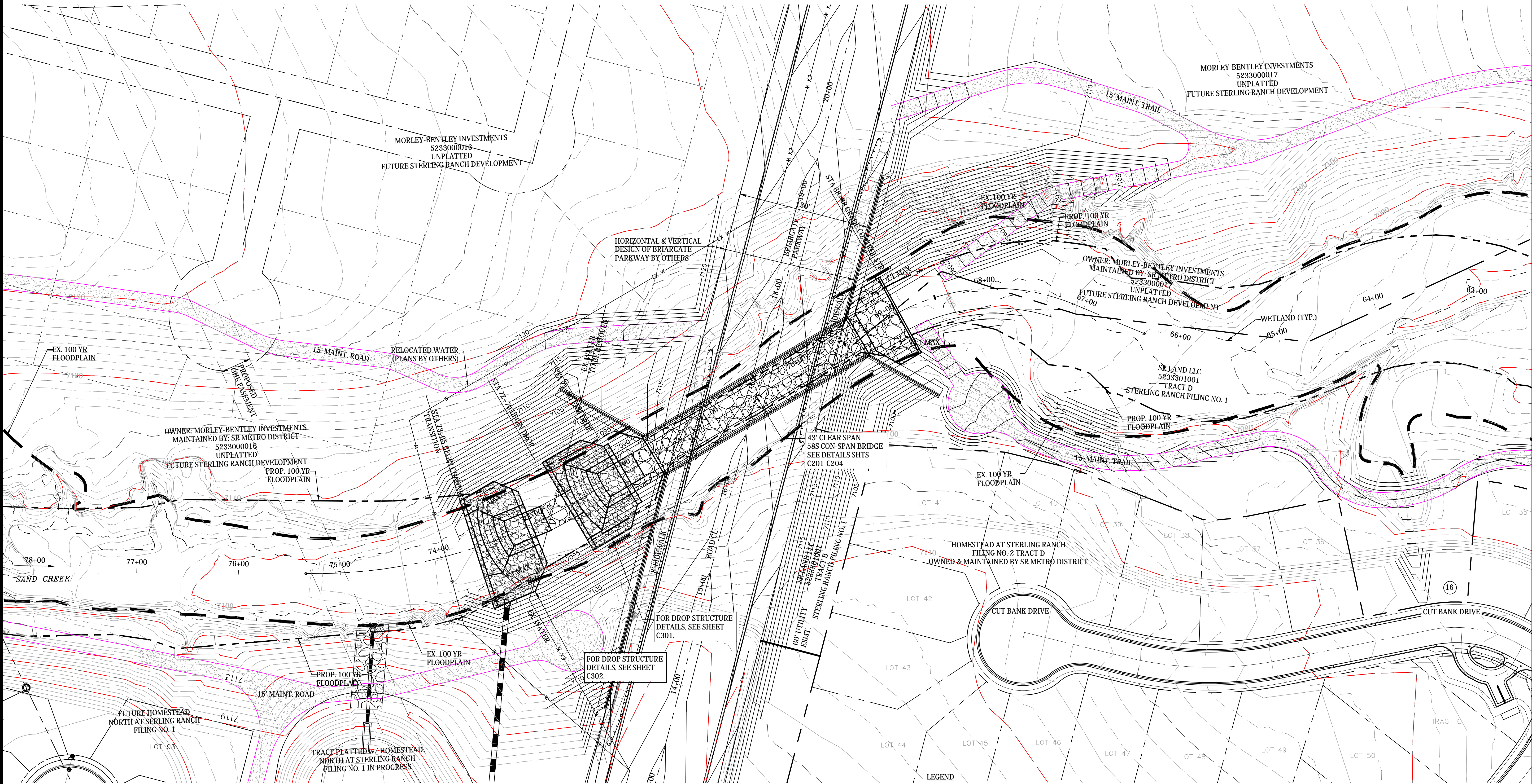
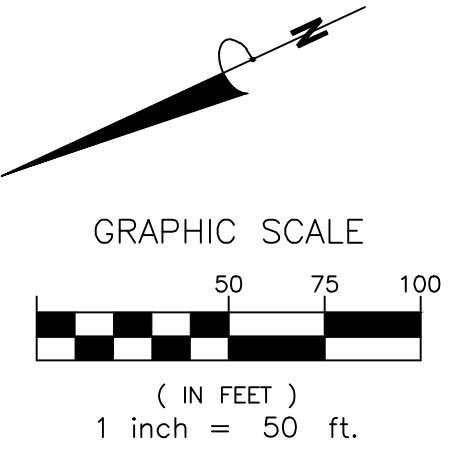
Project No.: 19032  
Date: 1/3/2022  
Design: TAC  
Drawn: PAV  
Check:  
Revisions:

C001



WETLAND DISTURBANCE AREA: 0.74 AC. (0.74 AC. MAX.)  
 LENGTH CHANNEL DISTURBANCE: 630 LF. (635 LF MAX.)

CAUTION!!!  
 EXISTING UTILITIES TO BE  
 PROTECTED FROM DISTURBANCE  
 WHEN INSTALLING ALL DRAINAGE  
 INFRASTRUCTURE.



<b>LEGEND</b>		<b>HATCH LEGEND</b>	
	EXISTING FEMA 100 YEAR FLOODPLAIN		GRAUTED BOULDER 36"-48"
	PROPOSED FEMA 100 YEAR FLOODPLAIN		TYPE L SOIL RIPRAP D50-9"
	10+00 PROFILE CENTERLINE		TYPE M SOIL RIPRAP D50=12"
	PROPERTY LINE		TURF REINFORCED MAT
	PROPOSED CONTOUR		WETLAND MITIGATION VEGETATION
	EXISTING CONTOUR		
	FENCE		

**STERLING RANCH DEVELOPMENT**  
**BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS**  
**SITE PLAN**  
 EL PASO COUNTY, COLORADO

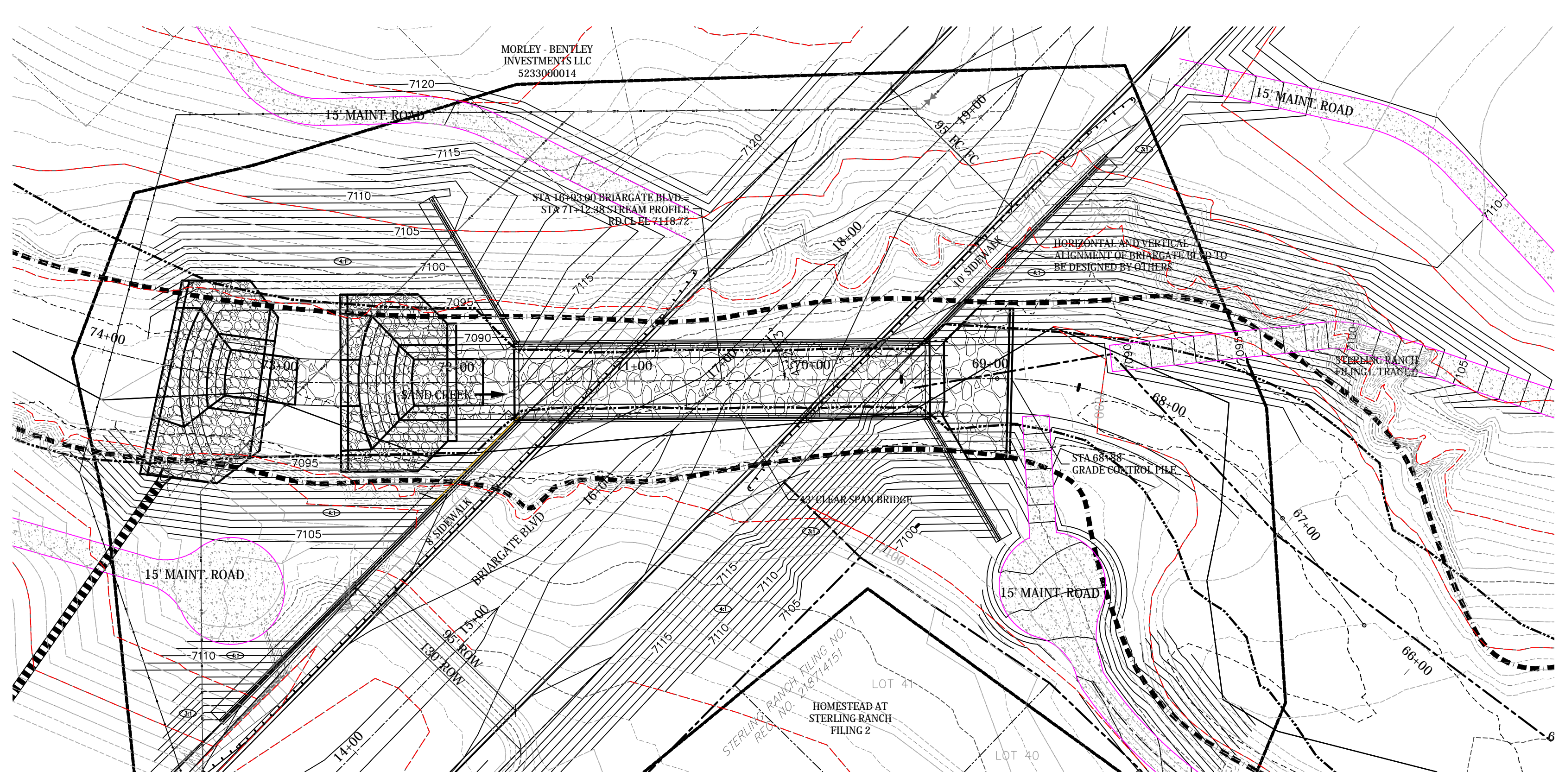
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Date:	1/3/2022
Design:	TAC
Drawn:	PAV
Check:	
Revisions:	

**C101**

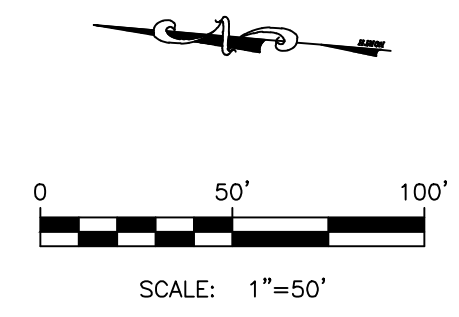


TEST BORING NO. 1					TEST BORING NO. 2				
DATE DRILLED 7/13/2021					DATE DRILLED 7/13/2021				
JOB # 211647					CLIENT C&C LAND				
LOCATION BRIARGATE BRIDGE					LOCATION BRIARGATE BRIDGE				
REMARKS					REMARKS				
Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type	Depth (ft)	Symbol	Blows per foot	Watercontent %	Soil Type
1.5'		47	16.5	1 SANDSTONE, SLIGHTLY SILTY, FINE TO COARSE GRAINED, GRAY BROWN, DENSE, VERY MOIST	3.5'		50	13.2	2 SAND, SILTY, BROWN
5'		50	11.5	2 SILTSTONE, SANDY, GRAY BROWN, HARD, MOIST	5'		50	14.3	3 SANDSTONE, SLIGHTLY SILTY, FINE TO COARSE GRAINED, GRAY BROWN, VERY DENSE, MOIST
15'		50	16.0	3 SILTSTONE, SANDY, GRAY BROWN, HARD, MOIST	10'		50	16.6	3 SANDSTONE, SLIGHTLY SILTY, FINE TO COARSE GRAINED, GRAY BROWN, VERY DENSE, MOIST
20'		50	15.5	2 SANDSTONE, SLIGHTLY SILTY, FINE TO COARSE GRAINED, GRAY BROWN, VERY DENSE, VERY MOIST	15'		50	10.8	2 SANDSTONE, SLIGHTLY SILTY, FINE TO COARSE GRAINED, GRAY BROWN, VERY DENSE, MOIST

SUGGEST SHOWING BORING LOCATION IN PLAN VIEW FOR REFERENCE.



CAUTION!!!  
EXISTING UTILITIES TO BE PROTECTED FROM DISTURBANCE WHEN INSTALLING BRIDGE AND INFRASTRUCTURE.



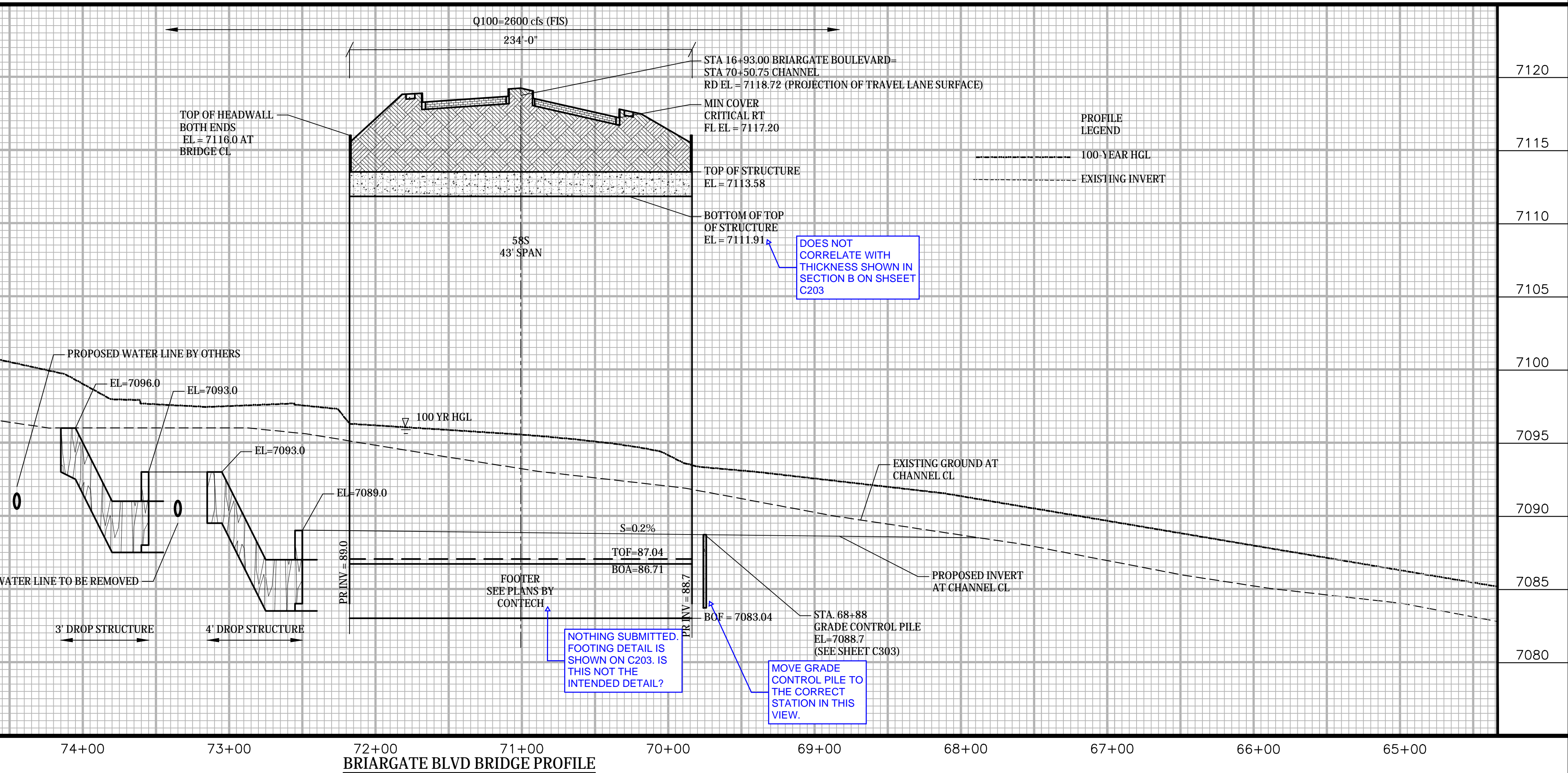
SITE PLAN BRIARGATE BLVD BRIDGE  
1" = 50'

**ENTECH ENGINEERING, INC.**  
505 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907

**TEST BORING LOG**

DRAWN: DATE: CHECKED: R DATE: 7/23/21

JOB NO: 211647  
FIG NO: A-1



**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 630-7342

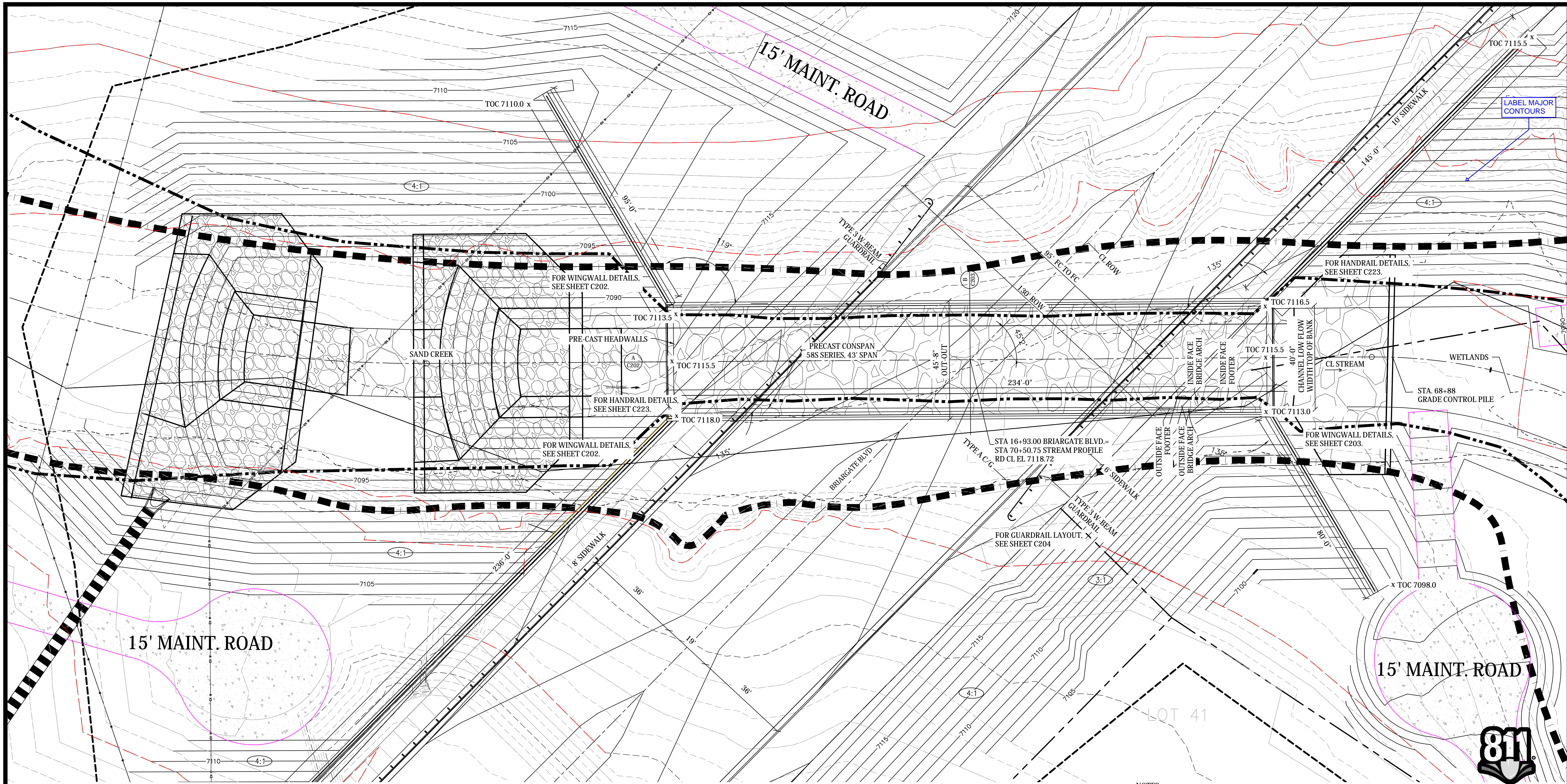
STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS  
PLAN AND PROFILE  
EL PASO COUNTY, COLORADO

Project No:	19032
Date:	1/3/22
Design:	TAC
Drawn:	PAV
Check:	
Revisions:	

**C201**

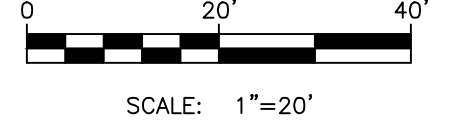


STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS  
STRUCTURE LAYOUT  
EL PASO COUNTY, COLORADO



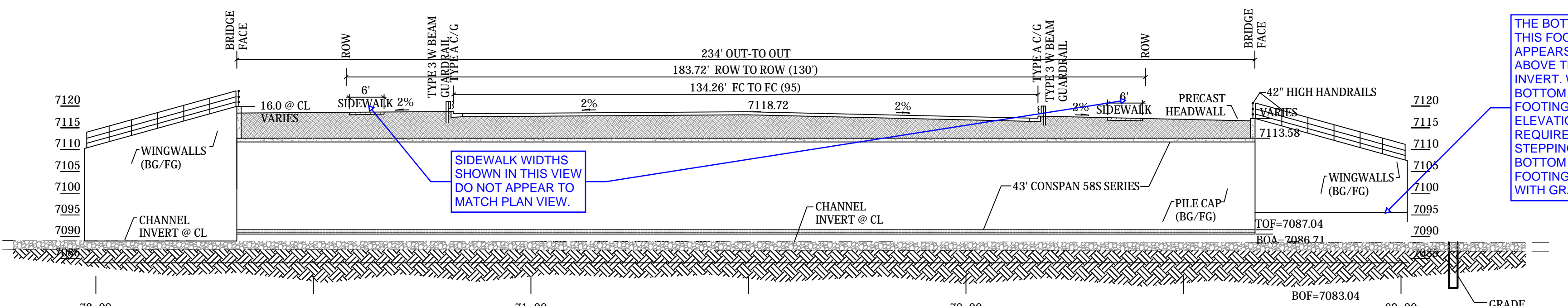
EXPAND VIEWPORT TO CAPTURE THE END OF THIS WINGWALL AND TOC.

STRUCTURE LAYOUT  
1" = 20'



NOTES:  
1. PRECAST BRIDGE SECTIONS SHALL BE DESIGNED TO MEET HL-93 HIGHWAY LOADING AND MANUFACTURED IN CONFORMANCE WITH CDOT STANDARD SPECIFICATIONS.

Know what's below.  
Call before you dig.



SIDEWALK WIDTHS SHOWN IN THIS VIEW DO NOT APPEAR TO MATCH PLAN VIEW.

THE BOTTOM OF THIS FOOTING APPEARS TO BE ABOVE THE INVERT. WHAT ARE BOTTOM OF FOOTING ELEVATIONS? ANY REQUIRED STEPPING FOR BOTTOM OF FOOTING TO ALIGN WITH GRADING?

STRUCTURE SECTION A  
1" = 20'  
C202

Project No.:	19032
Date:	1/3/22
Design:	TAC
Drawn:	PAV
Check:	
Revisions:	

**C202**



**STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS  
FOOTER DETAILS  
EL PASO COUNTY, COLORADO**

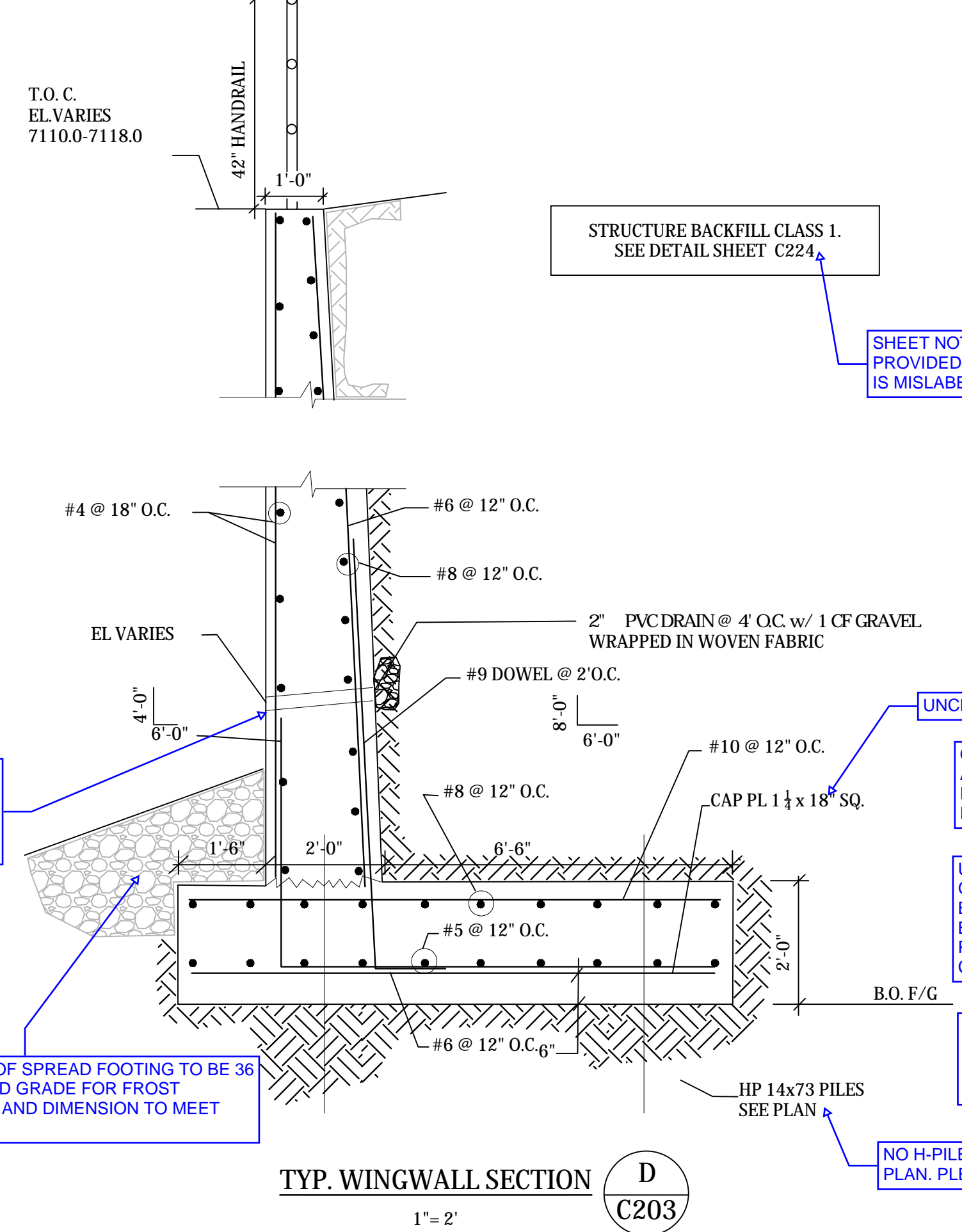
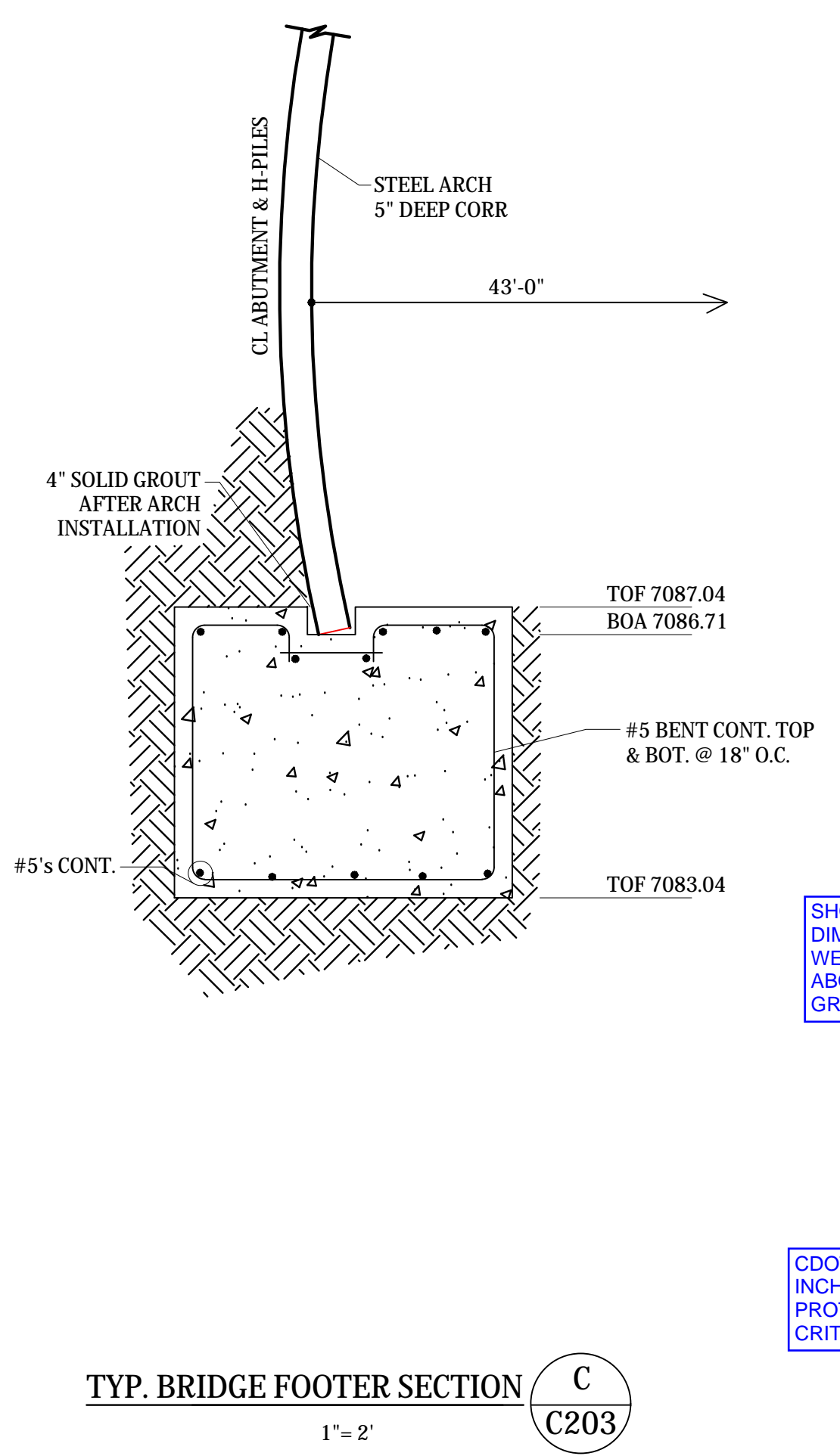
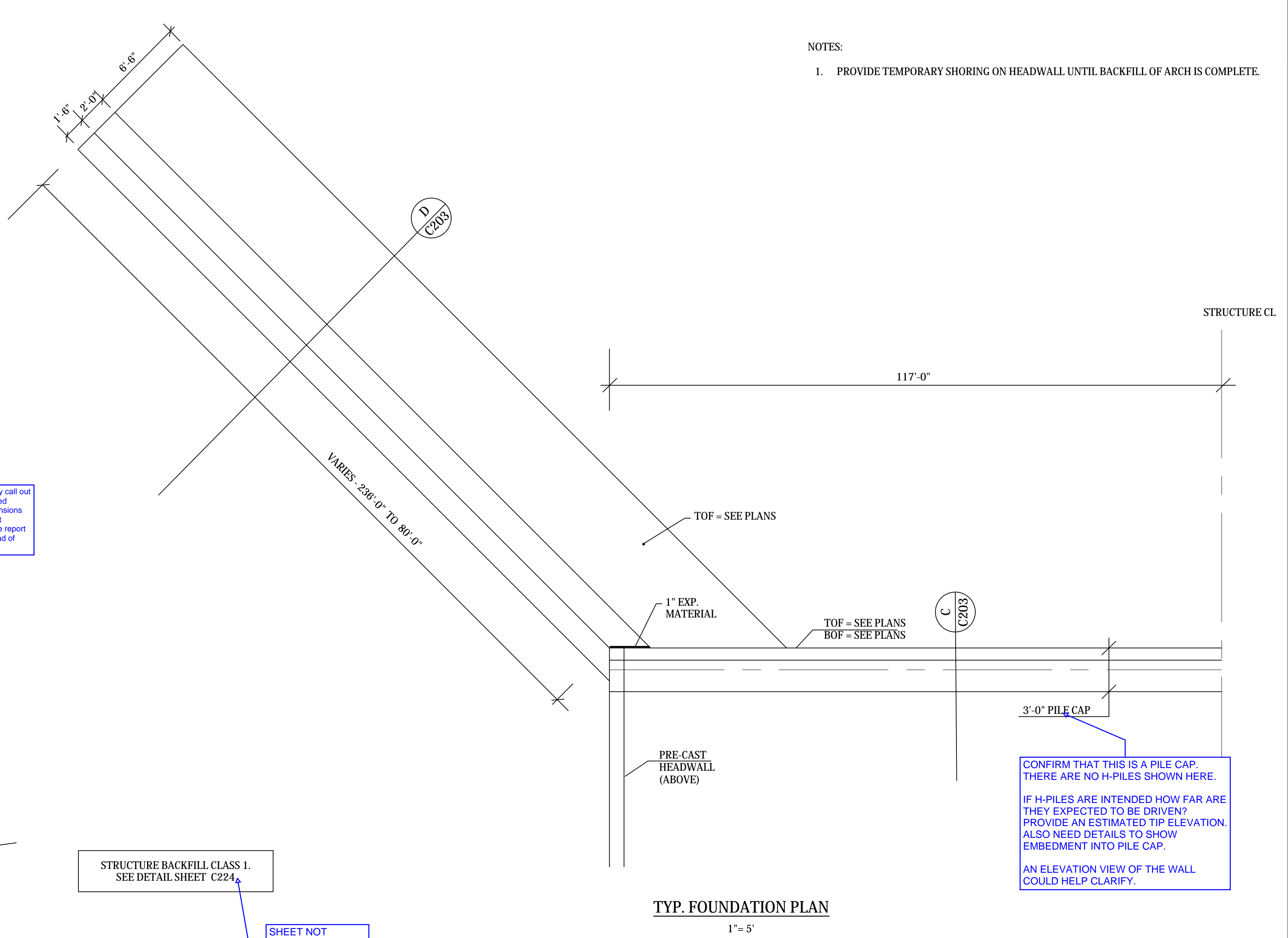
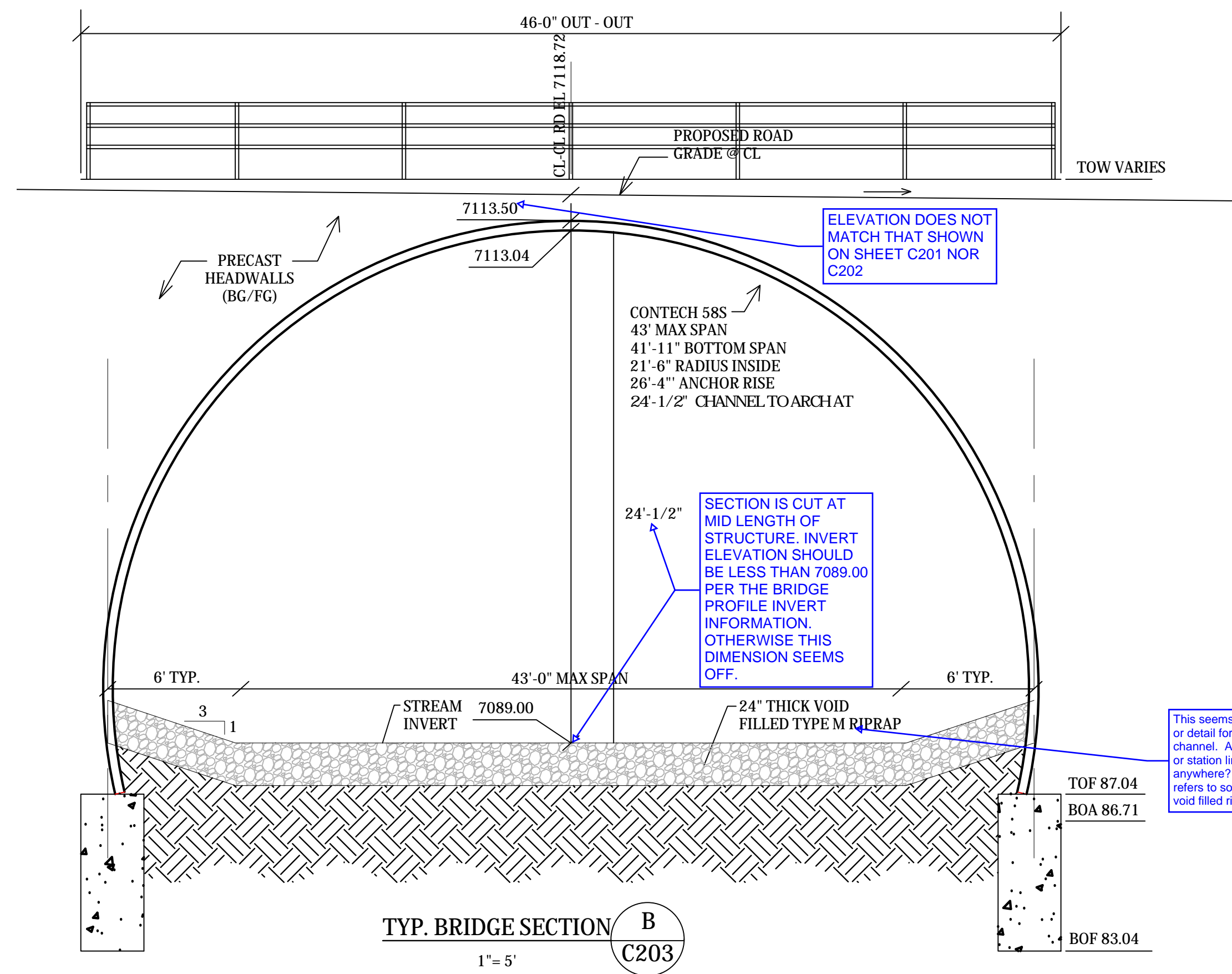
Project No.:	19032
Date:	1/3/22
Design:	TAC
Drawn:	PAV
Check:	
Revisions:	

**C203**



**NOTES:**

1. PROVIDE TEMPORARY SHORING ON HEADWALL UNTIL BACKFILL OF ARCH IS COMPLETE.



STRUCTURE BACKFILL CLASS 1. SEE DETAIL SHEET C224.

SHEET NOT PROVIDED OR THIS IS MISLABELED.

GEOTECHNICAL REPORT STATES THAT EXPANSIVE SOIL COULD BE ENCOUNTERED IN SOME AREAS. HOW IS THIS BEING HANDLED FOR THE CONSPAN STRUCTURE FOUNDATIONS AND WINGWALLS?

SUGGEST PROVIDING DETAILS SHOWING THE EXCAVATION RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT FOR THE STRUCTURES AND FOUNDATIONS.

UNCLEAR WHAT THIS IS POINTING TO.

CIP CONCRETE WALLS SHOULD HAVE EXPANSION JOINTS AND CONTROL JOINTS PER CDOT AND GENERAL ENGINEERING PRACTICE FOR LONG RETAINING WALLS. PROVIDE DETAILS AND NOTES.

UNCLEAR WHICH SOIL WAS ASSUMED FOR DESIGN. GEOTECH REPORT GIVES THREE DIFFERENT ALLOWABLE BEARING PRESSURES FOR THREE DIFFERENT TYPES OF BEARING SOIL. INCLUDE DESIGN ALLOWABLE BEARING PRESSURE IN PLANS. HOWEVER, IT SHOULD BE NOTED THAT CDOT REQUIRES LRFD DESIGN AND NOT ASD.

DESIGN SEEMS INCOMPLETE. IS THIS A SPREAD FOOTING OR A RETAINING WALL ON H-PILE WITH PILE CAP? IF THE LATTER, ADDITIONAL DETAILS ARE NEEDED. WHAT IS BOTTOM OF FOOTING ELEVATION AT EACH WALL?

NO H-PILES ARE SHOWN HERE NOR IN FOUNDATION PLAN. PLEASE CLARIFY THE DESIGN OF THIS WALL.

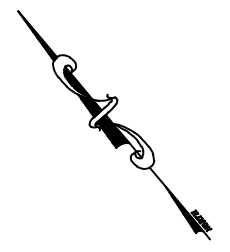
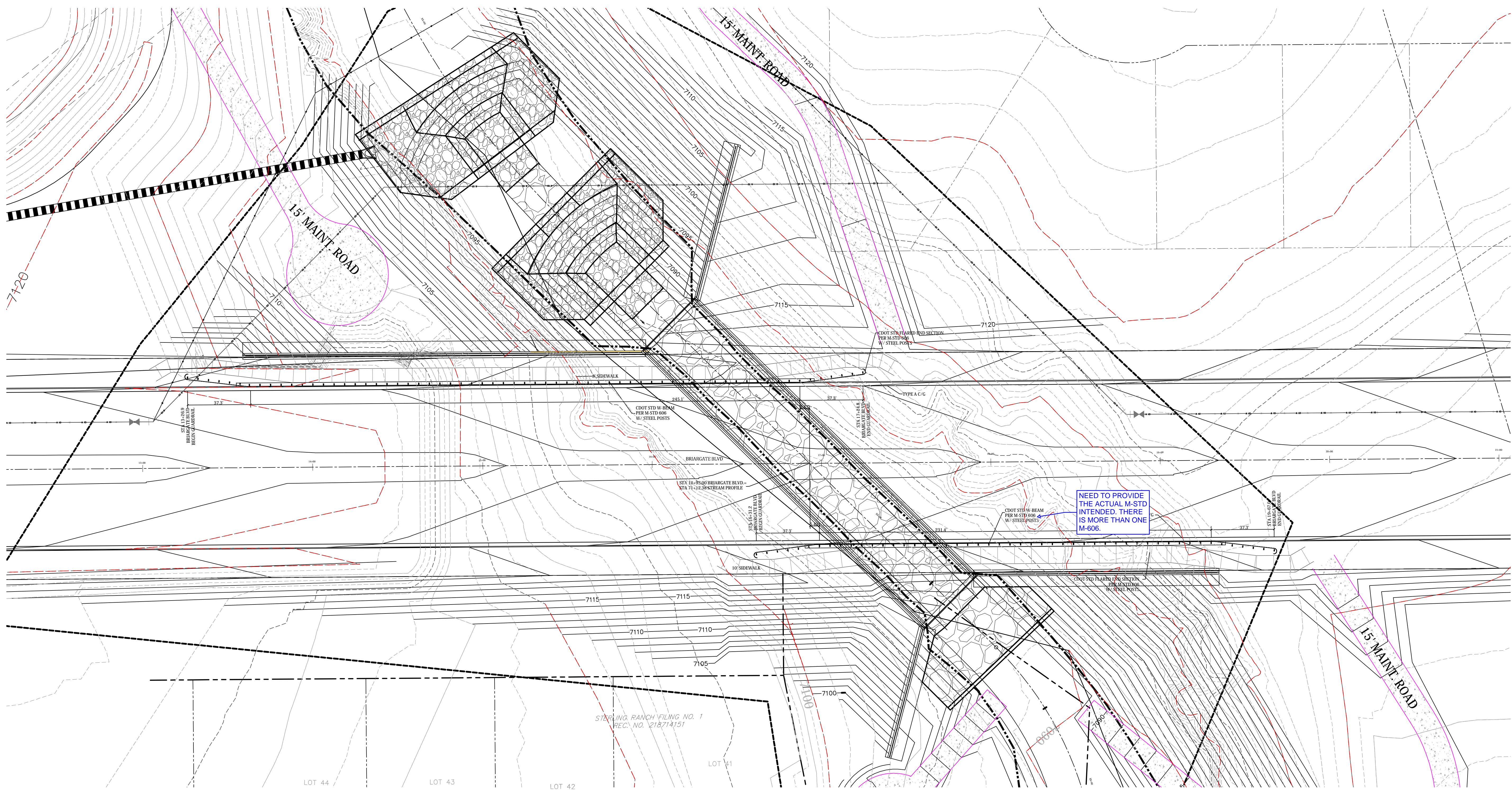


STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS  
GUARDRAIL PLAN  
EL PASO COUNTY, COLORADO

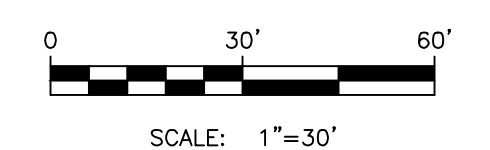
Project No.:	19032
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Drawn:	PAV
Check:	
Revisions:	

**C204**

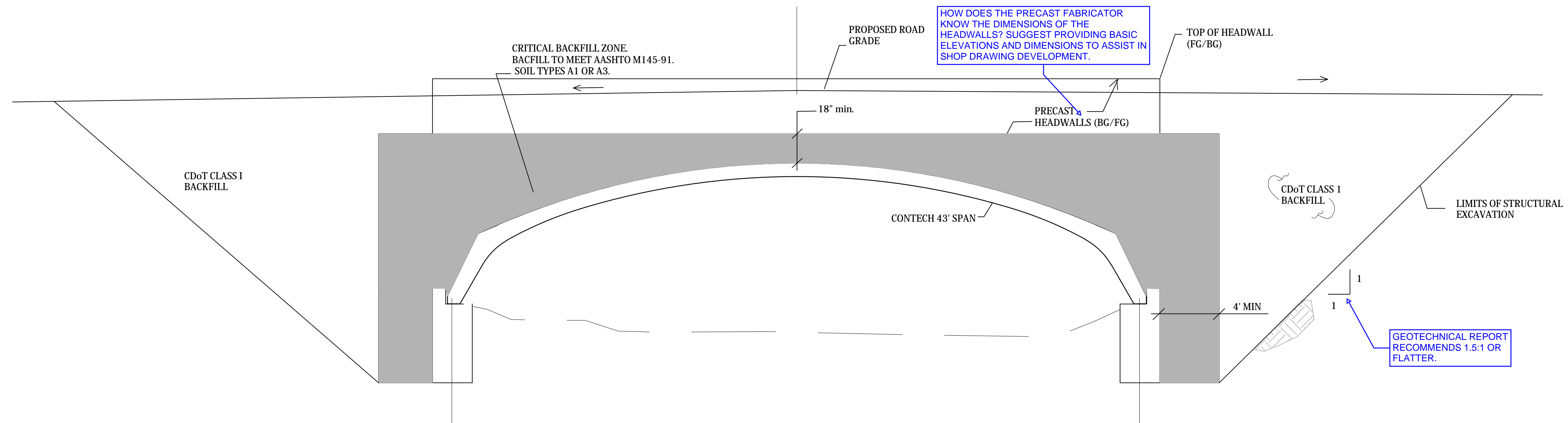
NOTES:  
1. FOR GUARDRAIL DETAILS SEE SHEET C223



**GUARDRAIL LAYOUT**  
1" = 20'







**BRIDGE BACKFILL SECTION**

NTS

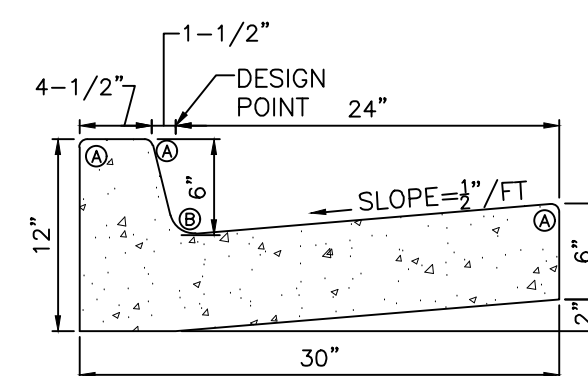
IS THIS EQUIVALENT TO CDOT CLASS 1 BACKFILL OR THE GEOTECHNICAL RECOMMENDATION?

BACKFILL DESCRIPTION (AASHTO M 145-91)								
GROUP CLASSIFICATION	A-1		A-3	A-2				A-4
	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7	
SIEVE ANALYSIS (100% PASSING 3" SIEVE)								
NO. 10	50 max		51 max	35 max	35 max	35 max	35 max	35 min
NO. 40	30 max	50 max	10 max	35 max	35 max	35 max	35 max	
NO. 200	15max	25 max						
CHARACTERISTICS OF FRACTION PASSING NO. 40								
LIQUID LIMIT				40 max	41 max	11 min	11 min	10 max
USUAL TYPES OF SIGNIFICANT CONSTITUENT MATERIALS								
GRAVEL & SAND			SAND					
GENERAL RATING AS SUB-GRADE			EXCELLENT TO GOOD			FAIR TO POOR		

NOTES:

1. PROVIDE TEMPORARY SHORING ON HEADWALL UNTIL BACKFILL OF ARCH IS COMPLETE.

LENGTH FOR RADII  
A=1-1/2" B=1-1/2"

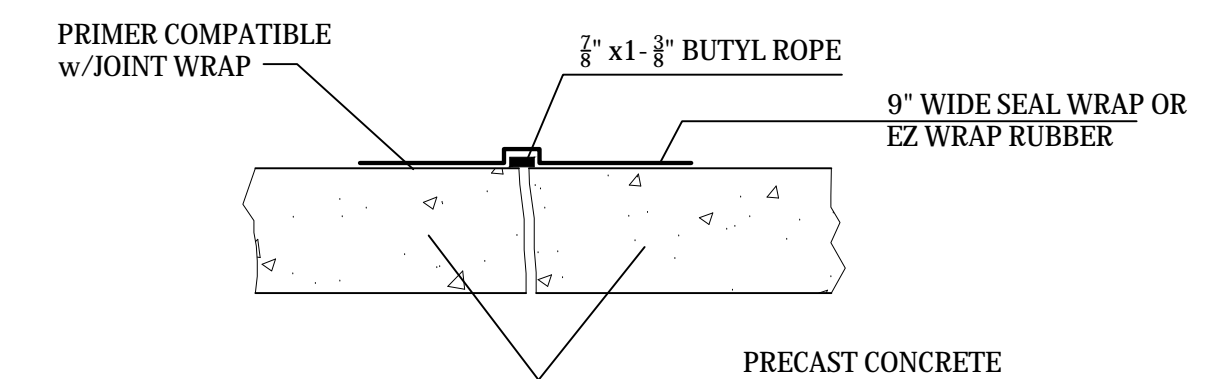


**EPC TYPE A VERTICAL CURB AND GUTTER**

NTS

EPC STD. SD\_2-20

WHERE DOES THIS APPLY?



**TYPICAL JOINT SEAL**

NTS

WHERE DOES THIS APPLY?



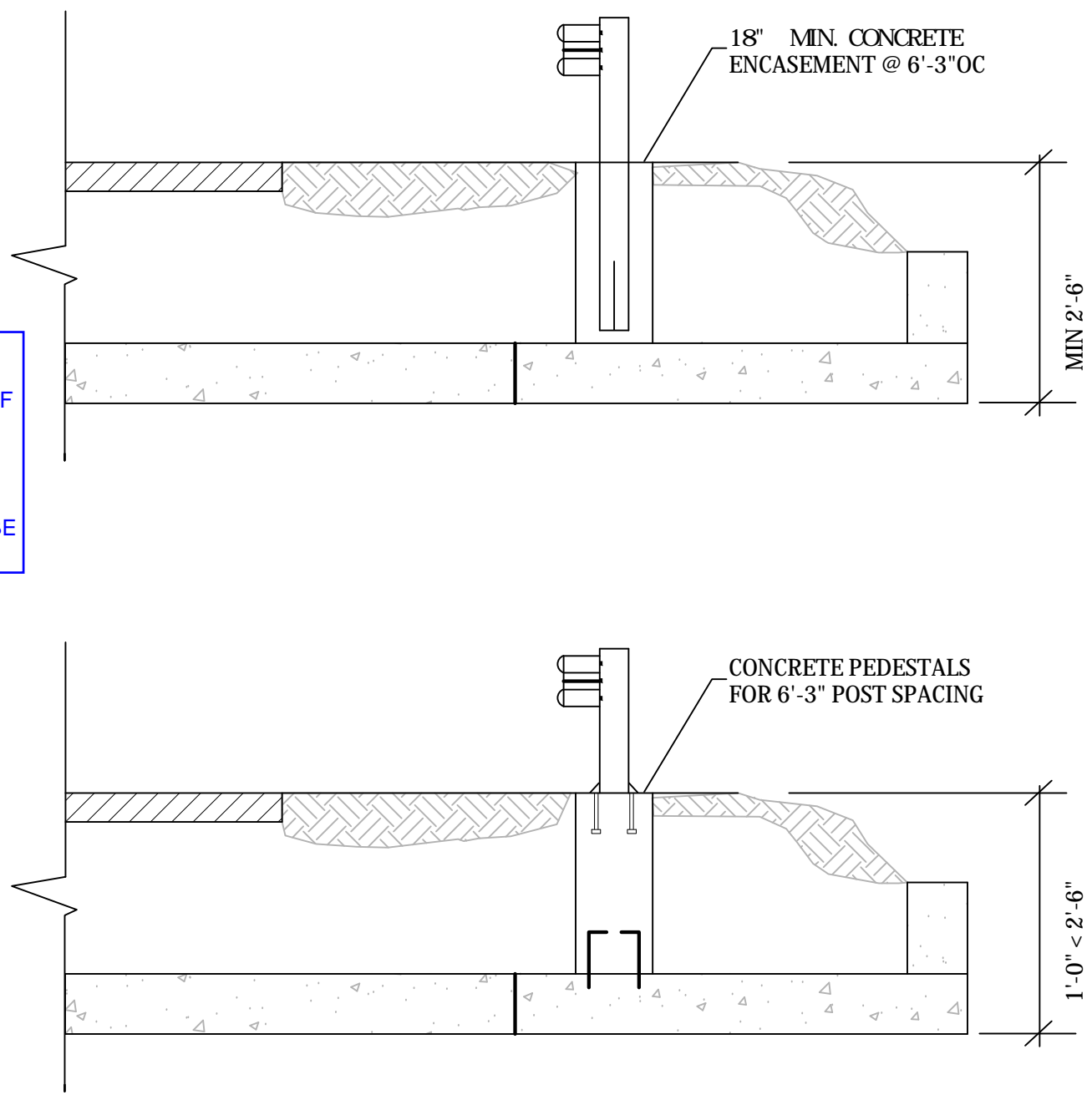
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Call before you dig.

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Revisions:	

STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION DRAWINGS  
GUARDRAIL DETAILS  
EL PASO COUNTY, COLORADO

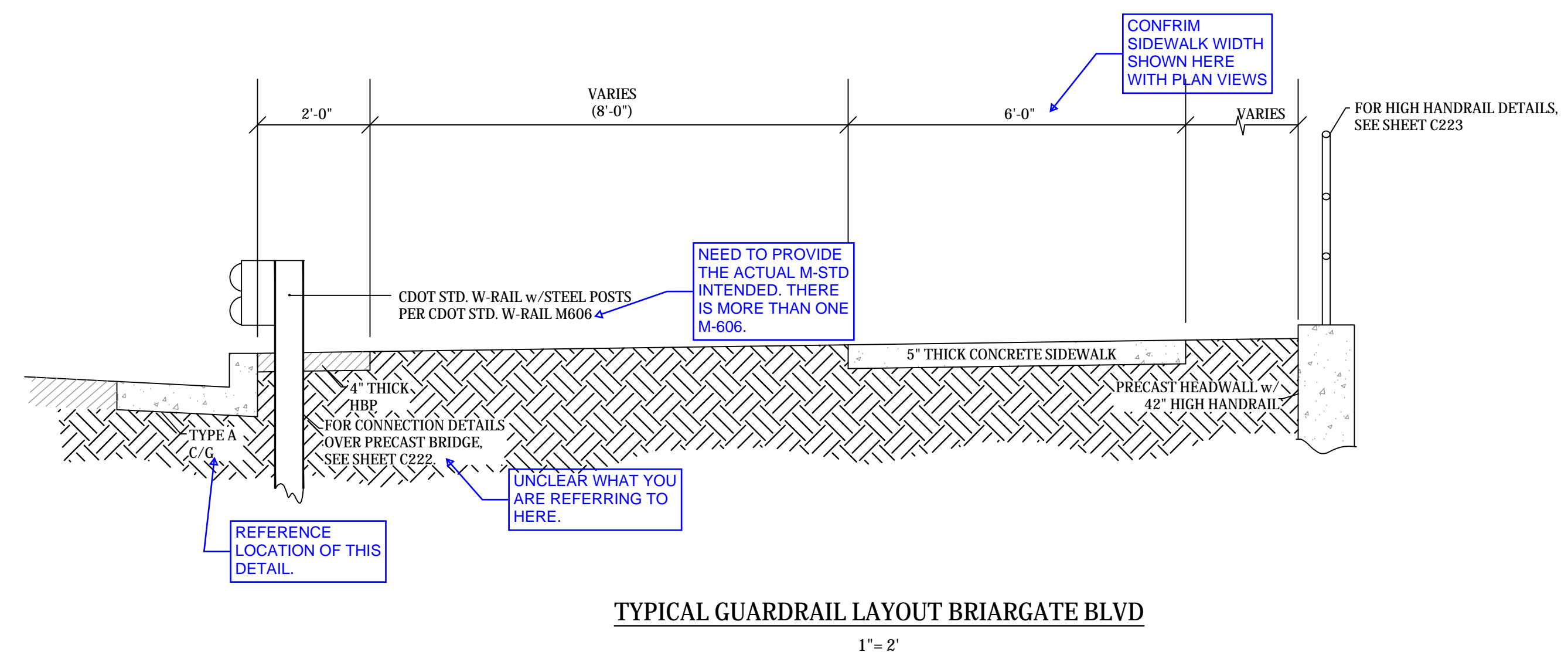
Project No.:	19032
Date:	1/3/22
Design:	TAC
Drawn:	PAV
Check:	
Revisions:	

C212



GUARDRAIL MOUNTING DETAILS  
NTS

DETAILS SEEM INCOMPLETE. WHAT IS THE HEIGHT OF THE CONCRETE ENCASEMENT? WHAT ARE THE DIMENSIONS AND HEIGHT OF THE OF THE CONCRETE PEDESTALS?  
IS REINFORCEMENT NEEDED?  
WHERE ARE THESE MOUNTING DETILS TO BE USED?



TYPICAL GUARDRAIL LAYOUT BRIARGATE BLVD  
1" = 2'

CONFIRM SIDEWALK WIDTH SHOWN HERE WITH PLAN VIEWS

NEED TO PROVIDE THE ACTUAL M-STD INTENDED. THERE IS MORE THAN ONE M-606.

UNCLEAR WHAT YOU ARE REFERRING TO HERE.

REFERENCE LOCATION OF THIS DETAIL.

CDOT STD. W-RAIL w/ STEEL POSTS PER CDOT STD. W-RAIL M606

4" THICK JRP FOR CONNECTION DETAILS OVER PRECAST BRIDGE. SEE SHEET C222

5" THICK CONCRETE SIDEWALK

PRECAST HEADWALL w/ 42" HIGH HANDRAIL

FOR HIGH HANDRAIL DETAILS. SEE SHEET C223

VARIES (8'-0")

VARIES

2'-0"

6'-0"

18" MIN. CONCRETE ENCASEMENT @ 6'-3" OC

MIN 2'-6"

CONCRETE PEDESTALS FOR 6'-3" POST SPACING

1'-0" < 2'-6"

NOTES:

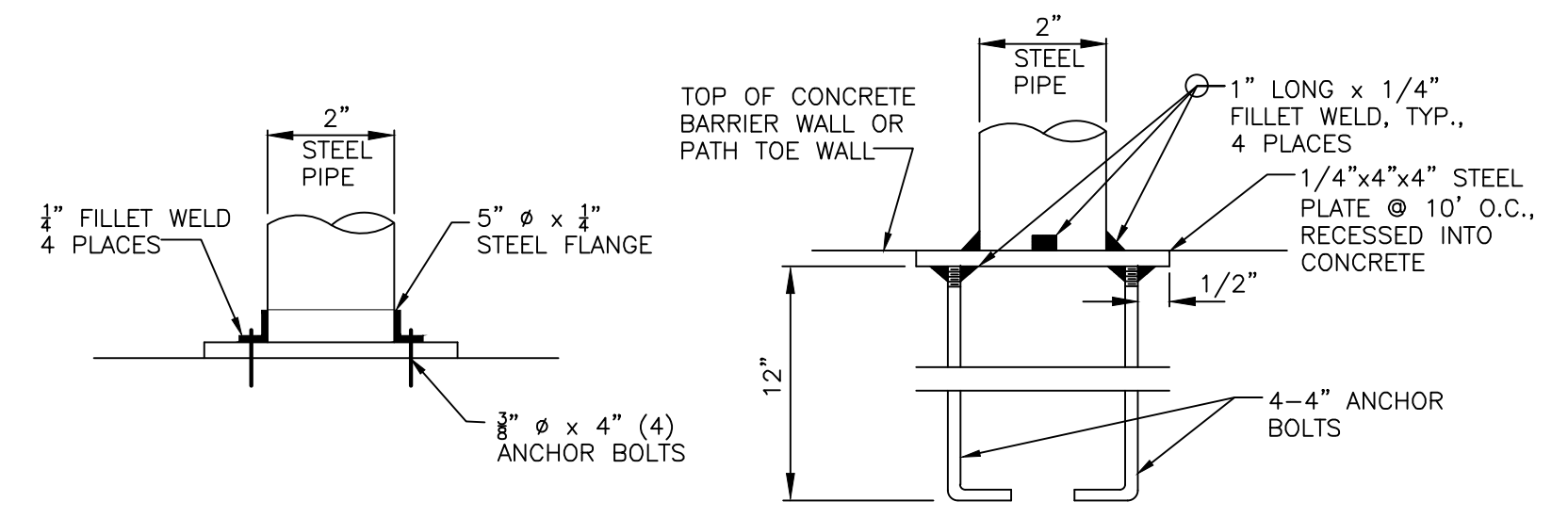
- GUARDRAIL POST SPACING OVER THE PRECAST SECTIONS SHALL BE IN CONFORMANCE WITH CDOT M-606.

NEED TO PROVIDE THE ACTUAL M-STD INTENDED. THERE IS MORE THAN ONE M-606.

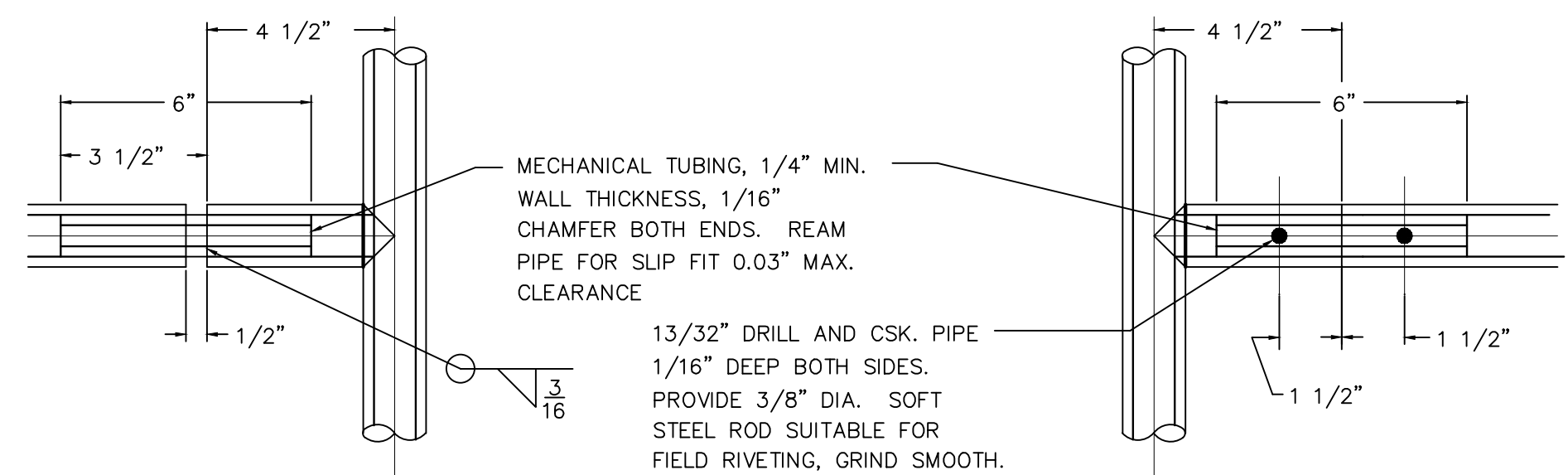




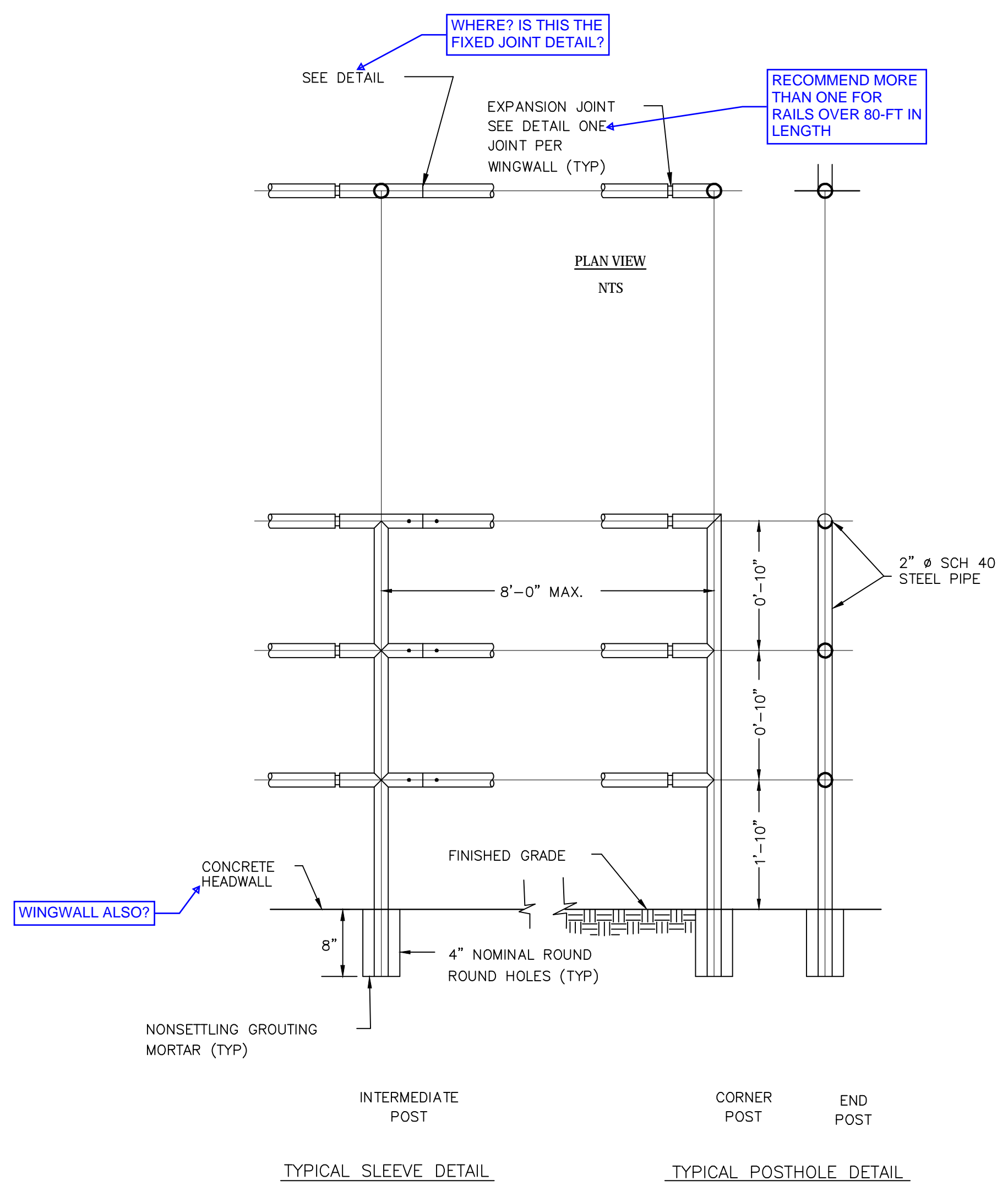
EPC ENGINEERING CRITERIA MANUAL SECTIN 2.5 STATES THAT RAILINGS SHALL NOT HAVE OPENINGS LARGE ENOUGH TO PASS A 4-INCH SPHERE. THIS IS CONSISTENT WITH AAHSTO AND CDOT CRITERIA FOR PEDESTRIAN RAILINGS. IT SHOULD BE DISCUSSED WITH THE COUNTY IF THE RAILINGS ON THE WINGWALLS AND HEADWALLS ARE CONSIDERED PEDESTRIAN RAILINGS. SIDEWALKS ARE PARALLEL TO SOME WINGWALLS AND THE WALLS ARE WITHIN APPROX. 10' FT. OR LESS IN SOME LOCATIONS.



**ALTERNATE HANDRAIL POST CONNECTION DETAIL**  
NTS



**HANDRAIL DETAIL**  
NTS



**ELEVATION**  
NTS

**HANDRAIL PAINT NOTE:**

HANDRAIL FINISH SHALL BE ONE COAT METAL PRIMER AND TWO COATS SHERWIN WILLIAMS "BRIDGE GREEN" COLOR, ACROLON 218 HS ACRYLIC POLYURETHANE, SEMI-GLOSS. COLOR SHALL BE VERIFIED BY THE ENGINEER.

BRIDGE GREEN CUSTOM MANUAL MATCH	OZ	32	64	128
844-COLORANT				
LB-LAMP BLACK	2	16	-	-
PG-PHTH GREEN	10	-	-	-
TW-WHITE	2	46	-	-
YO-YELLOW OX	-	50	-	-
PB-PHTH	-	50	-	-
4 GALLON KIT B65T00654		ULTRADEEP	640335618	

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Check:	
Revisions:	

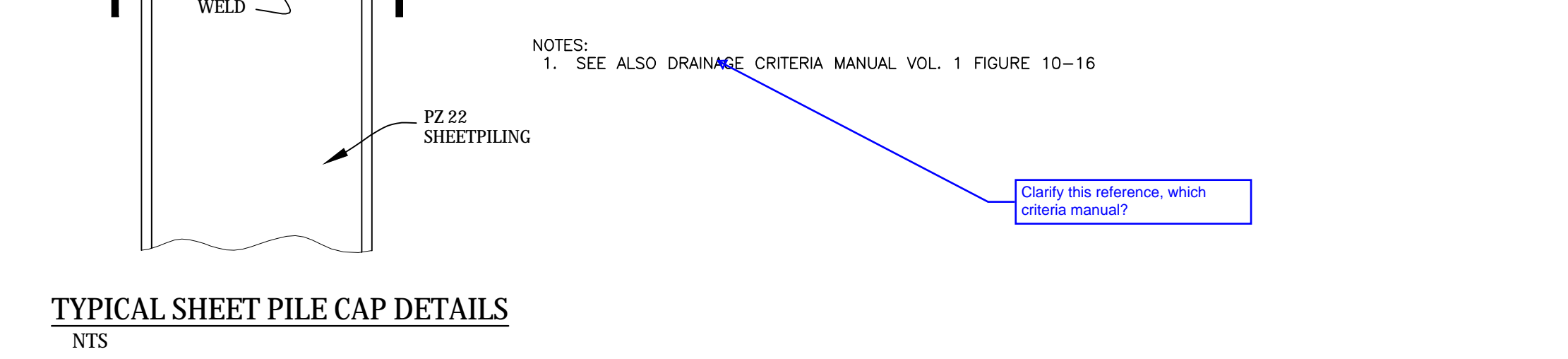
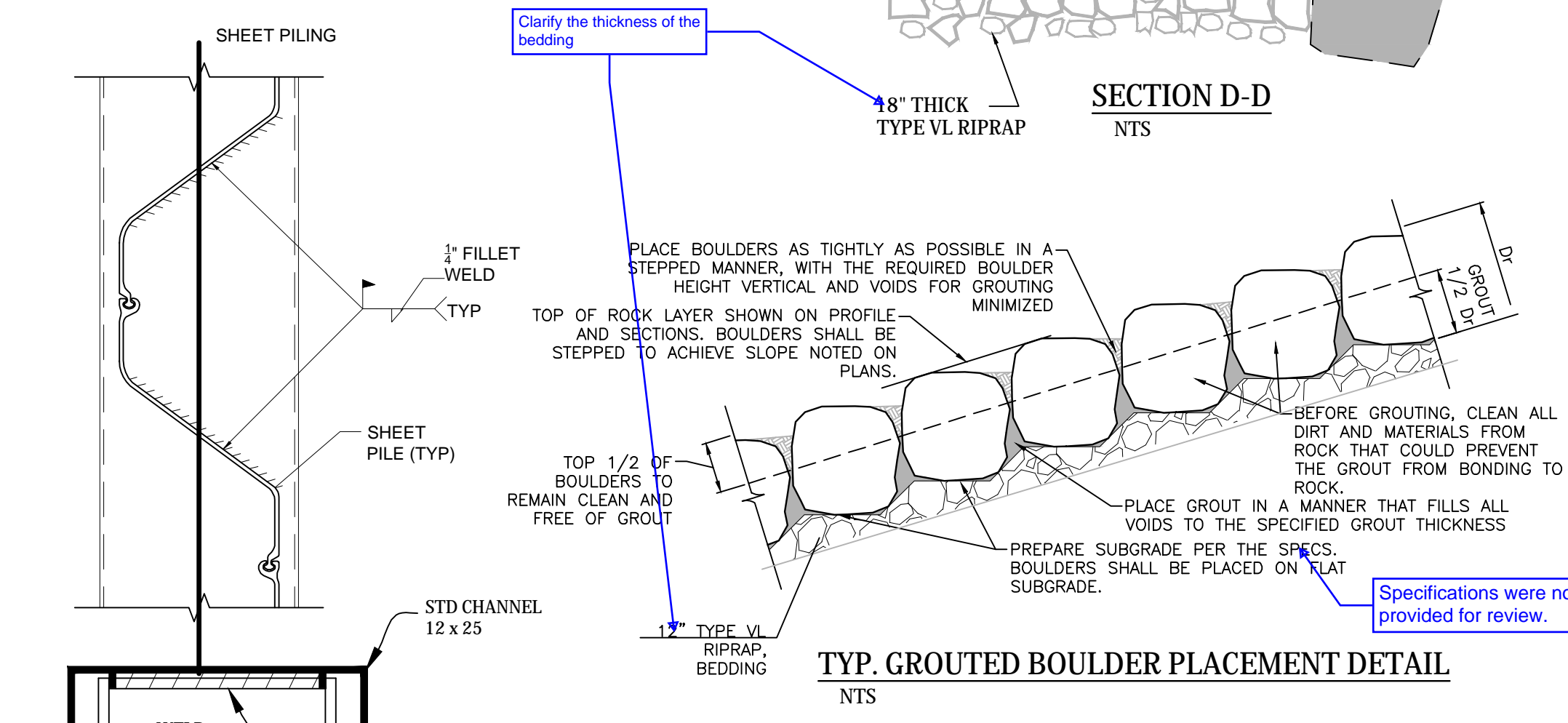
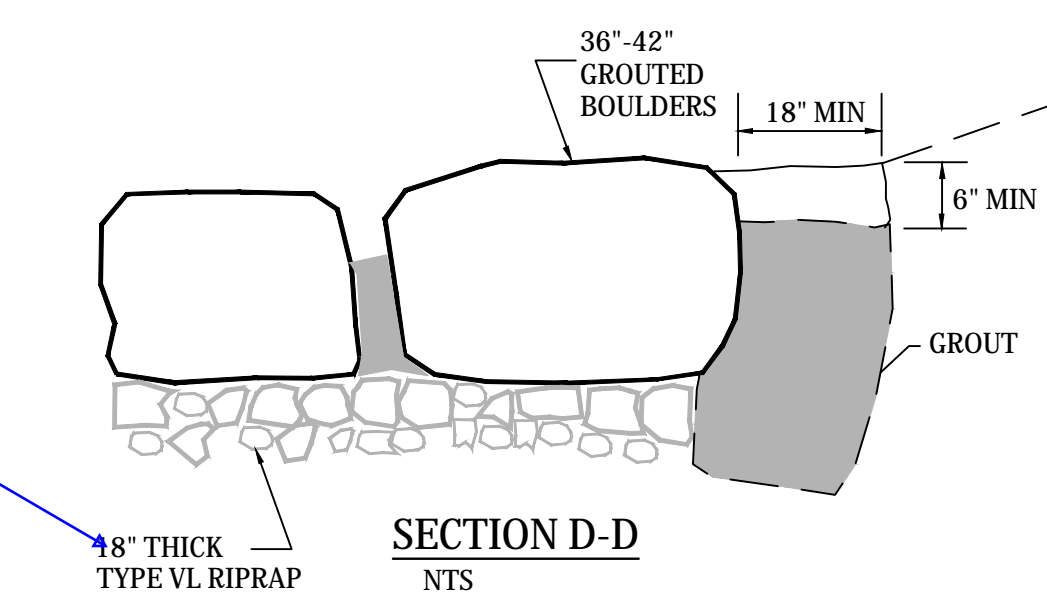
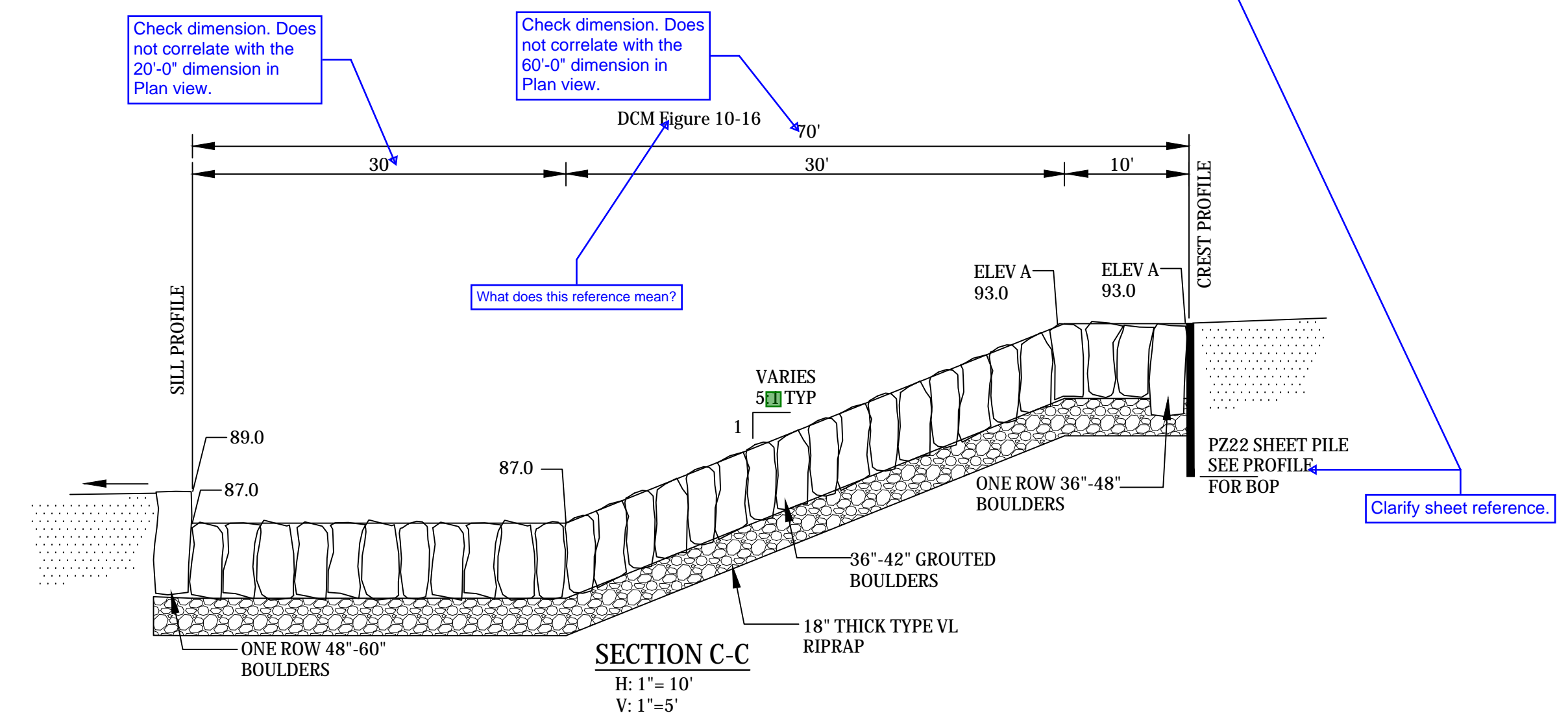
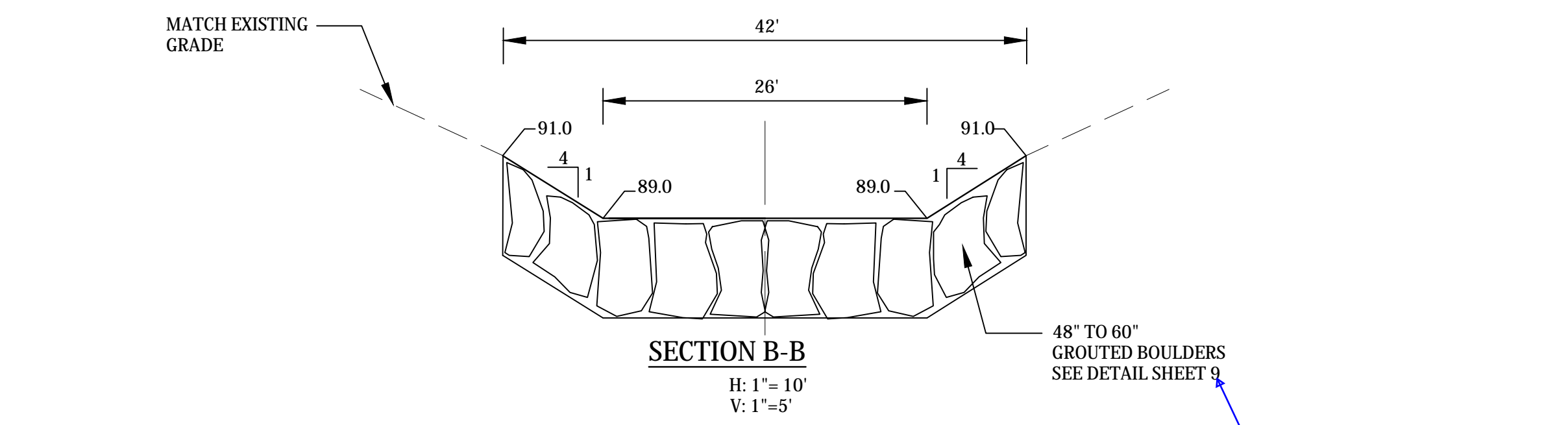
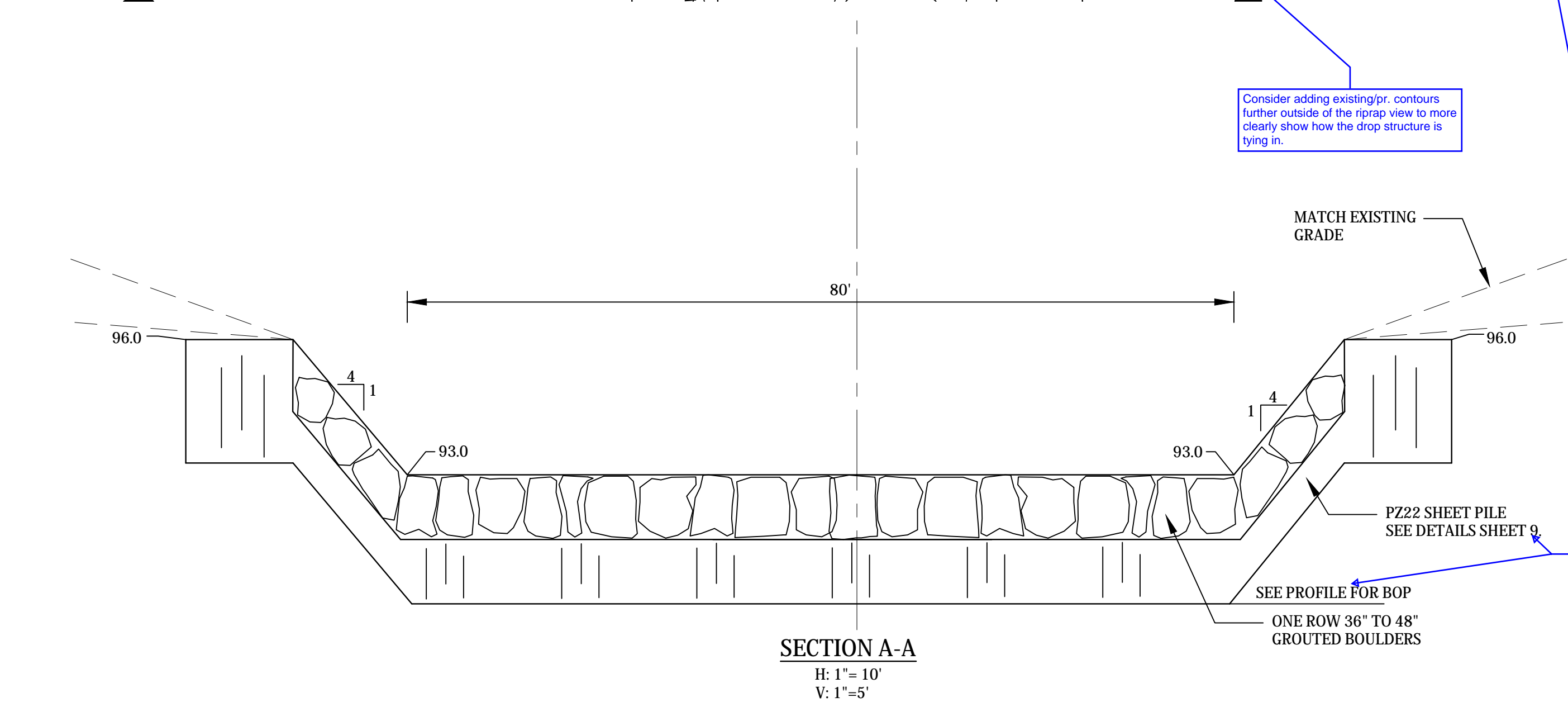
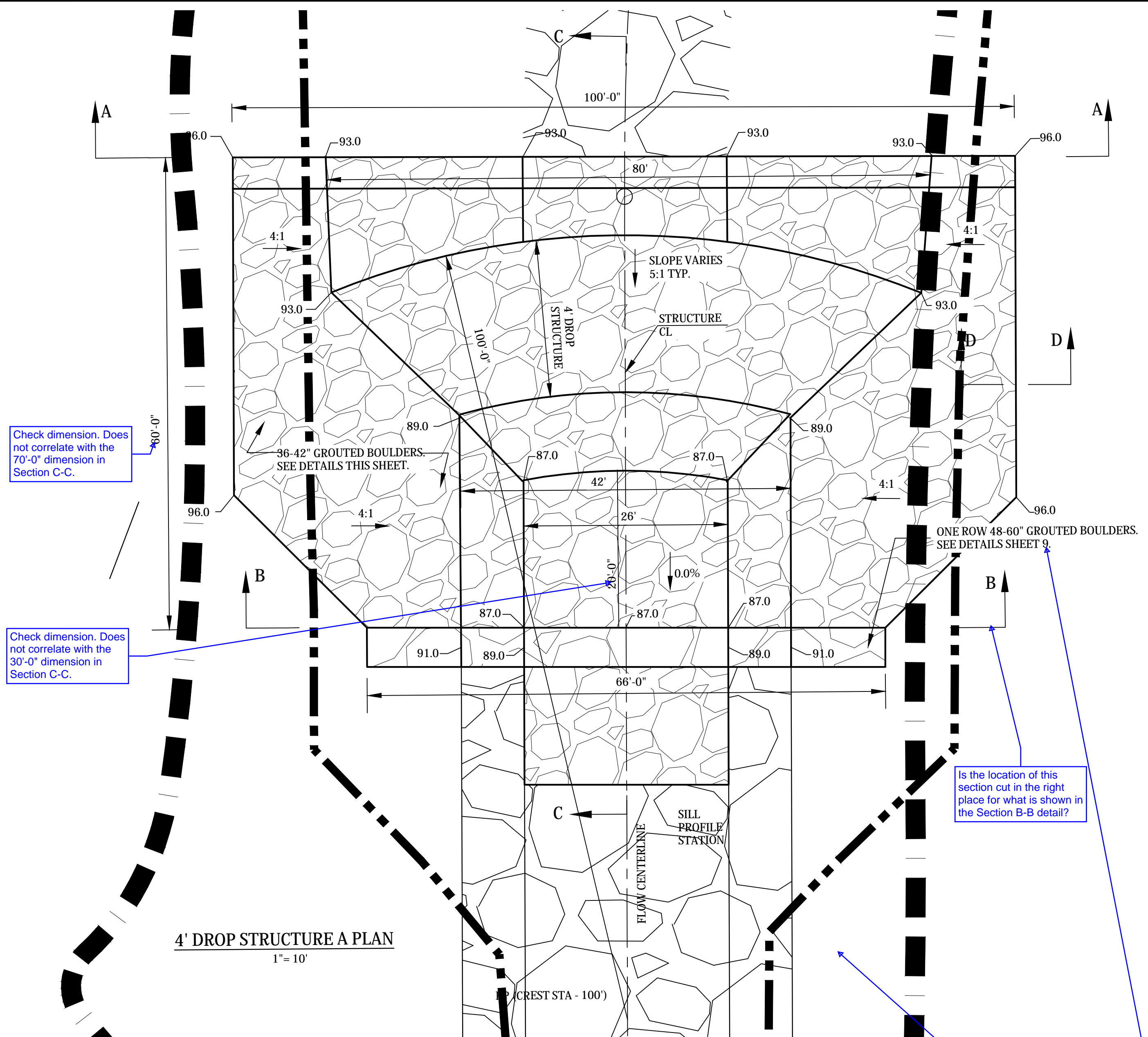




**STERLING RANCH DEVELOPMENT  
BRIARGATE BOULEVARD BRIDGE CONSTRUCTION PLANS  
4' DROP STRUCTURE A DETAILS  
EL PASO COUNTY, COLORADO**

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**C301**



Check dimension. Does not correlate with the 70'-0" dimension in Section C-C.

Check dimension. Does not correlate with the 30'-0" dimension in Section C-C.

Check dimension. Does not correlate with the 20'-0" dimension in Plan view.

Check dimension. Does not correlate with the 60'-0" dimension in Plan view.

Is the location of this section cut in the right place for what is shown in the Section B-B detail?

Consider adding existing/prop. contours further outside of the riprap view to more clearly show how the drop structure is tying in.

Clarify sheet reference.

Clarify the thickness of the bedding.

Specifications were not provided for review.

Clarify sheet reference.

Clarify this reference, which criteria manual?

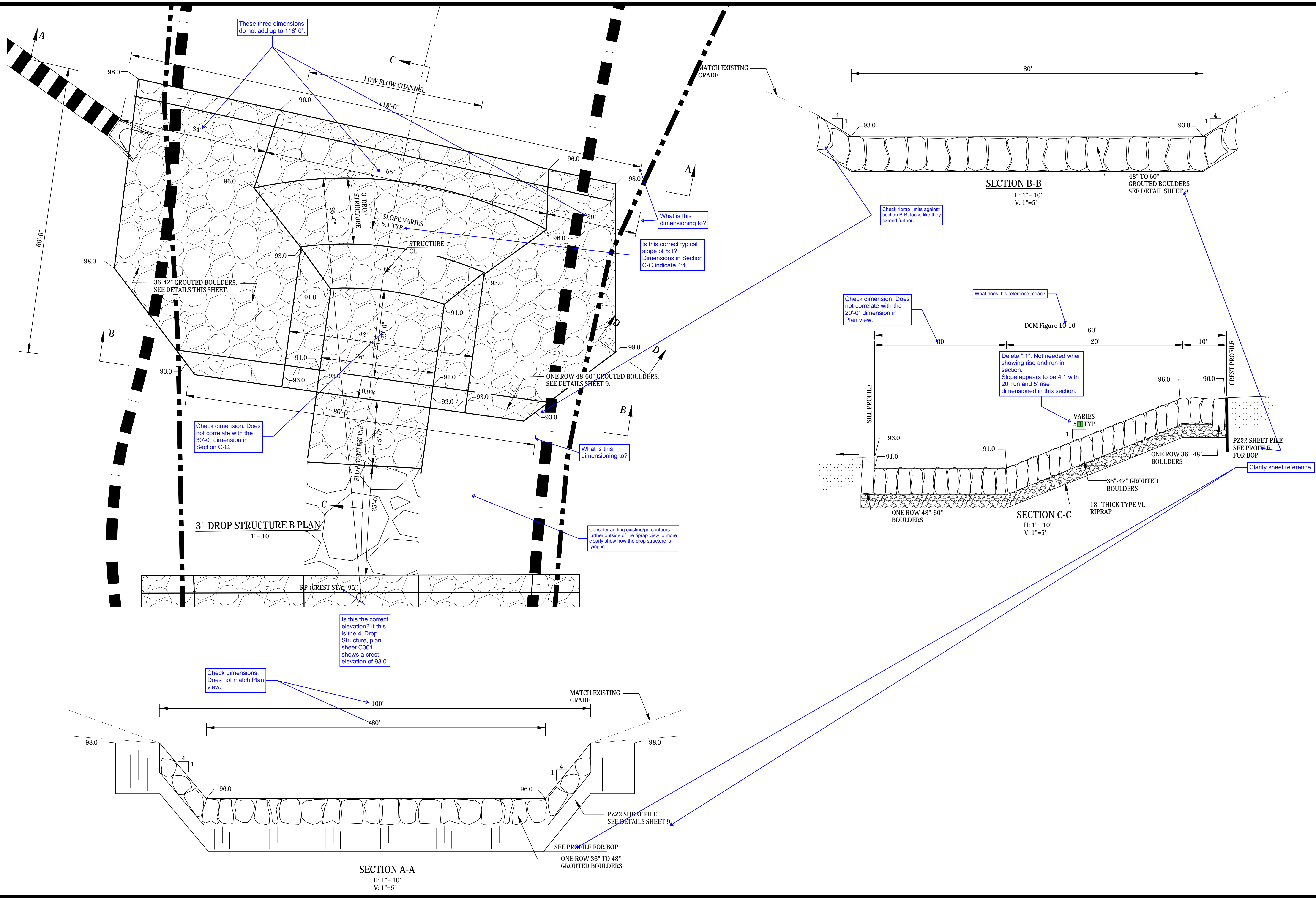
NOTES:  
1. SEE ALSO DRAINAGE CRITERIA MANUAL VOL. 1 FIGURE 10-16



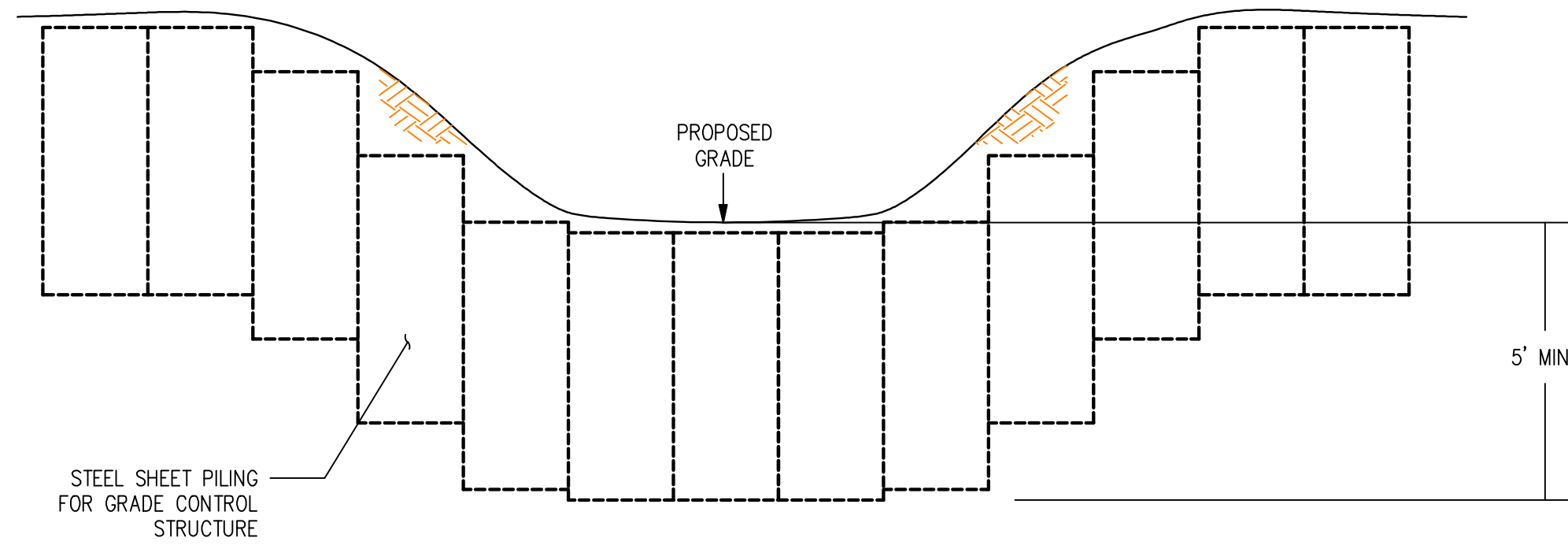
**STERLING RANCH DEVELOPMENT**  
**BRIARGATE BOULEVARD BRIDGE CONSTRUCTION PLANS**  
**3' DROP STRUCTURE B DETAILS**  
EL PASO COUNTY, COLORADO

Project No.:	19032
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Revisions:	

**C302**

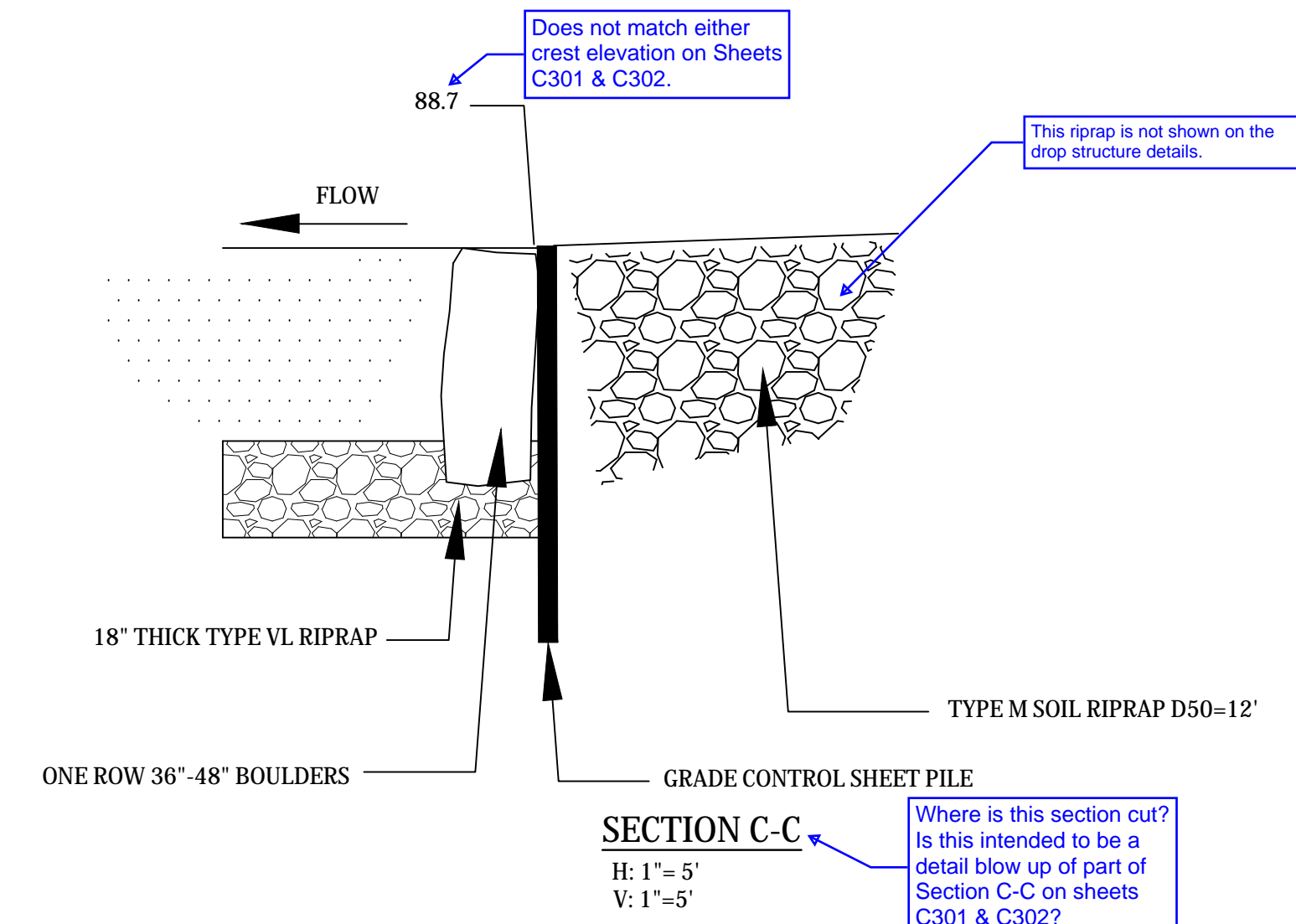






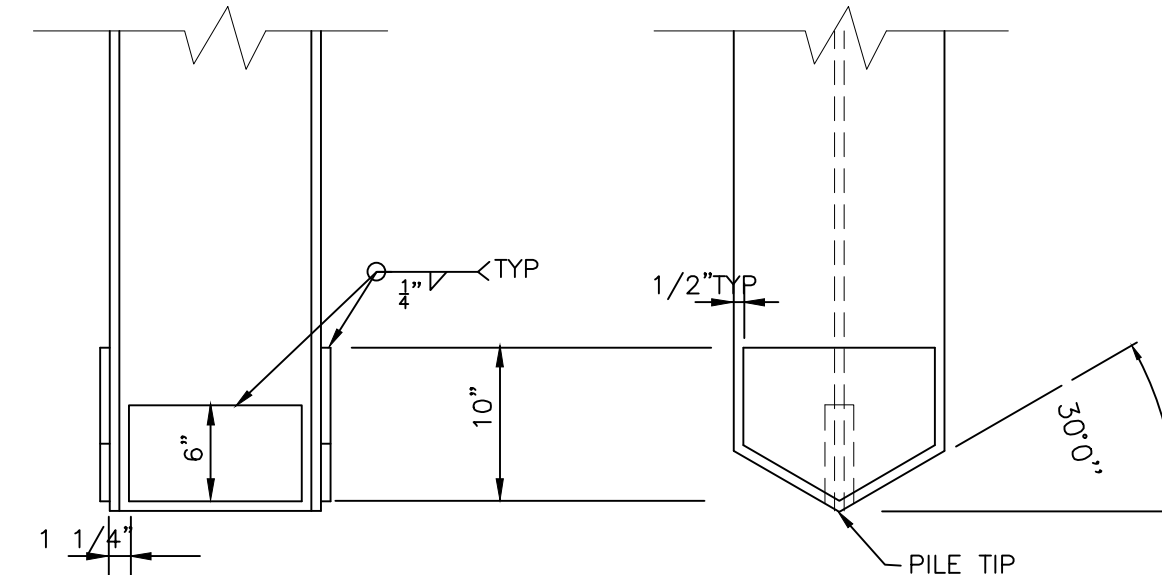
**GRADE CONTROL PILE DETAIL**

Sheet Pile Size?  
What is total length needed?



**SECTION C-C**

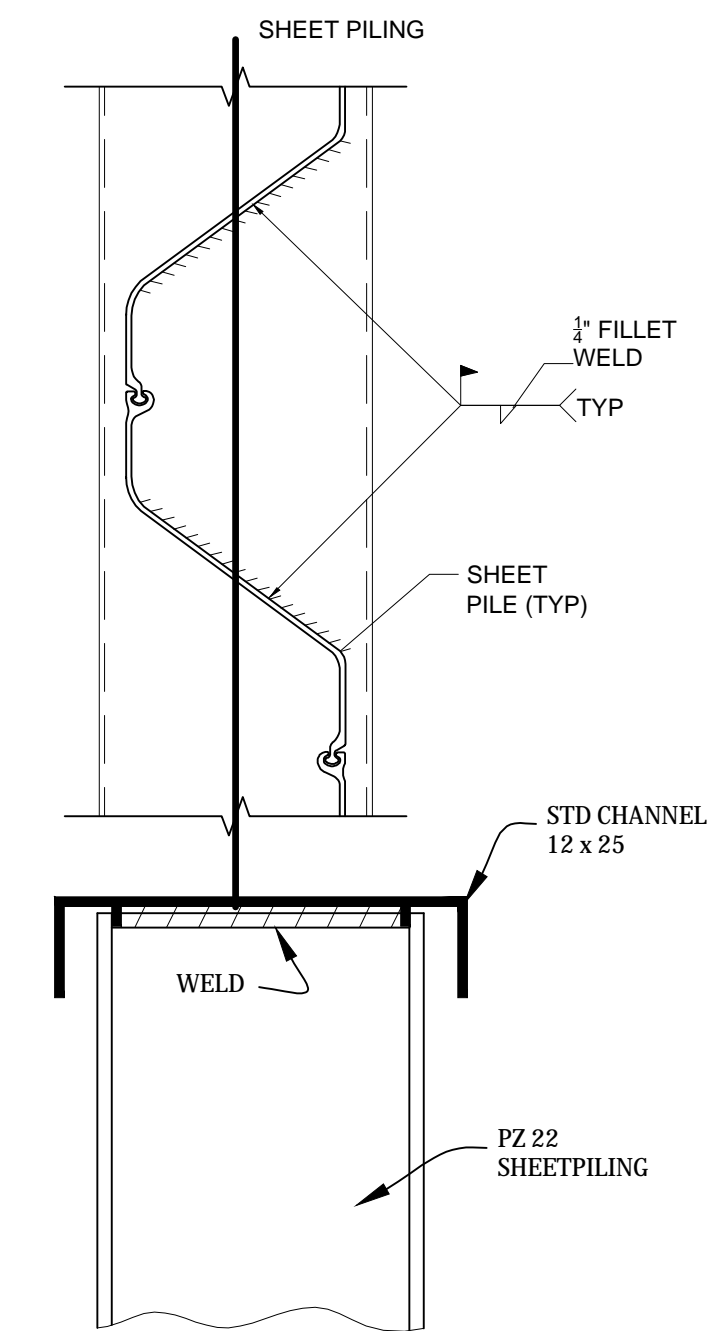
H: 1"=5'  
V: 1"=5'



**PILE TIP DETAIL**

NTS

AN APPROVED COMMERCIAL PILE MAY BE USED



**SHEET PILE CAP DETAIL**

NTS

This is shown on Sheet C301. Why repeat here?

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Revisions:	