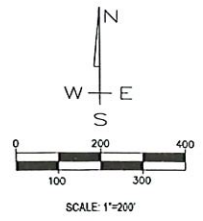


Mirasol Springs

2022



MIRASOL
CAPITAL



PRELIMINARY - FOR REVIEW PURPOSES ONLY

NO.	DESCRIPTION	BY	DATE	APPROVED	APP DATE

MIRASOL INTAKE STRUCTURE
OVERALL AND ACCESS

EXHIBIT OVERALL

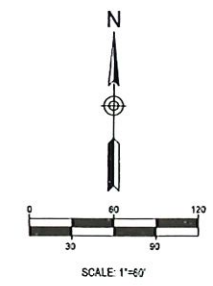
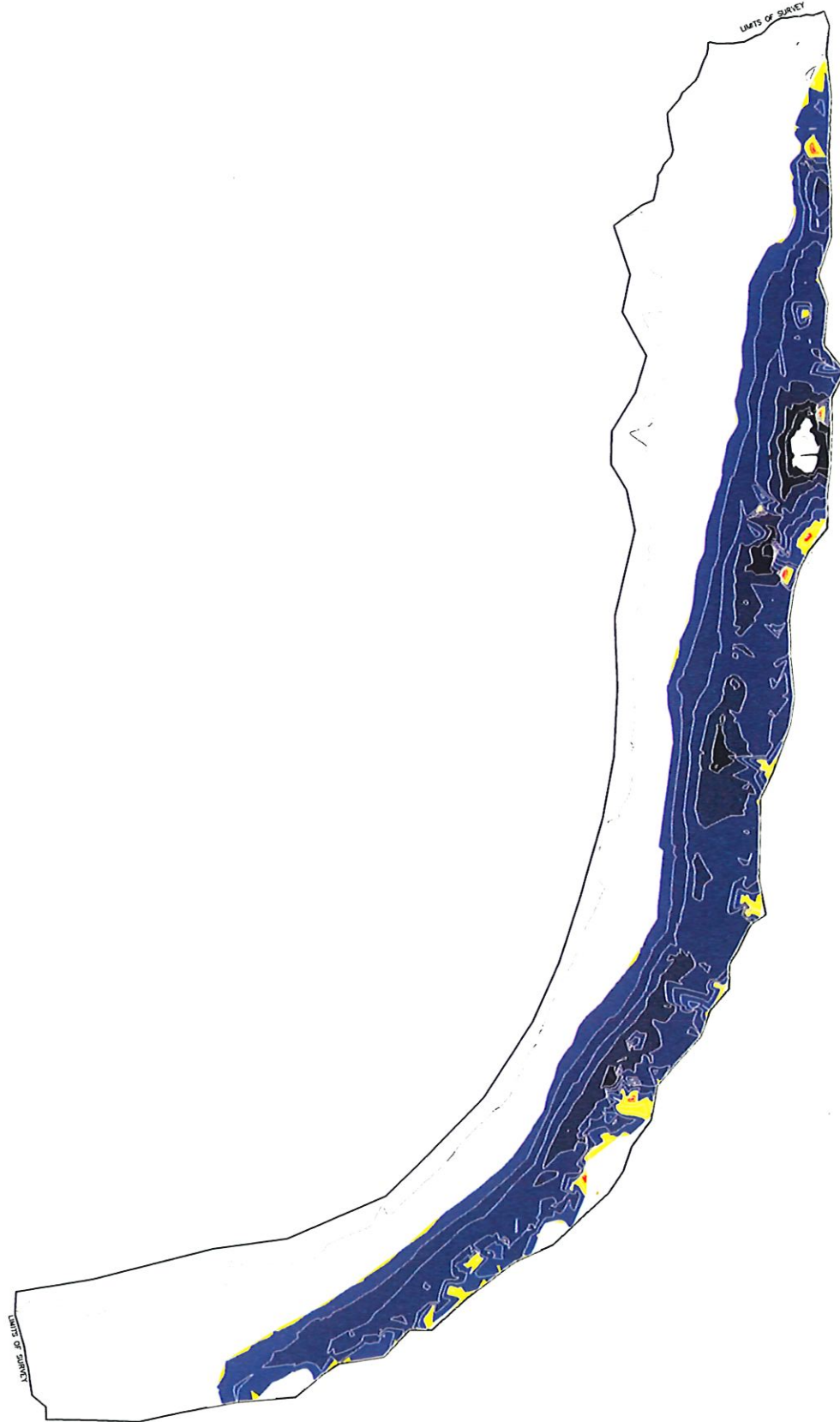
1101 CAPITAL OF TEXAS HIGHWAY SOUTH
BUILDING D, SUITE 110
AUSTIN, TEXAS 78746
(512) 327-9204
Texas Registered Engineering Firm F-353



DESIGNED BY:	MJK
DRAWN BY:	MJK
CHECKED BY:	BC
APPROVED BY:	BC
DATE:	11/02/22
FILE NO:	110312 - River Sections and Div. Deg
LAYOUT:	OVERALL
JOB NO.:	
SHEET NO.:	

1 OF 1

PLOT DATE: 2022-11-18
 FILE PATH: I:\msc\DWG\Water\Millen\Water\River\Survey\Surface Volume 221117.dwg [LAYOUT: 24X36 P1 (A1)]



Elevations Table				
Number	Minimum Elevation	Maximum Elevation	Area	Color
1	-3.00	-1.50	162.16	Red
2	-1.50	0.00	3187.91	Yellow
3	0.00	1.00	19952.72	Light Blue
4	1.00	2.00	21405.86	Blue
5	2.00	3.00	27925.38	Dark Blue
6	3.00	4.00	10785.23	Very Dark Blue
7	4.00	5.00	2015.34	Black
8	5.00	6.00	876.27	Black

CONSERVATIVE RIVER VOLUME ANALYSIS:

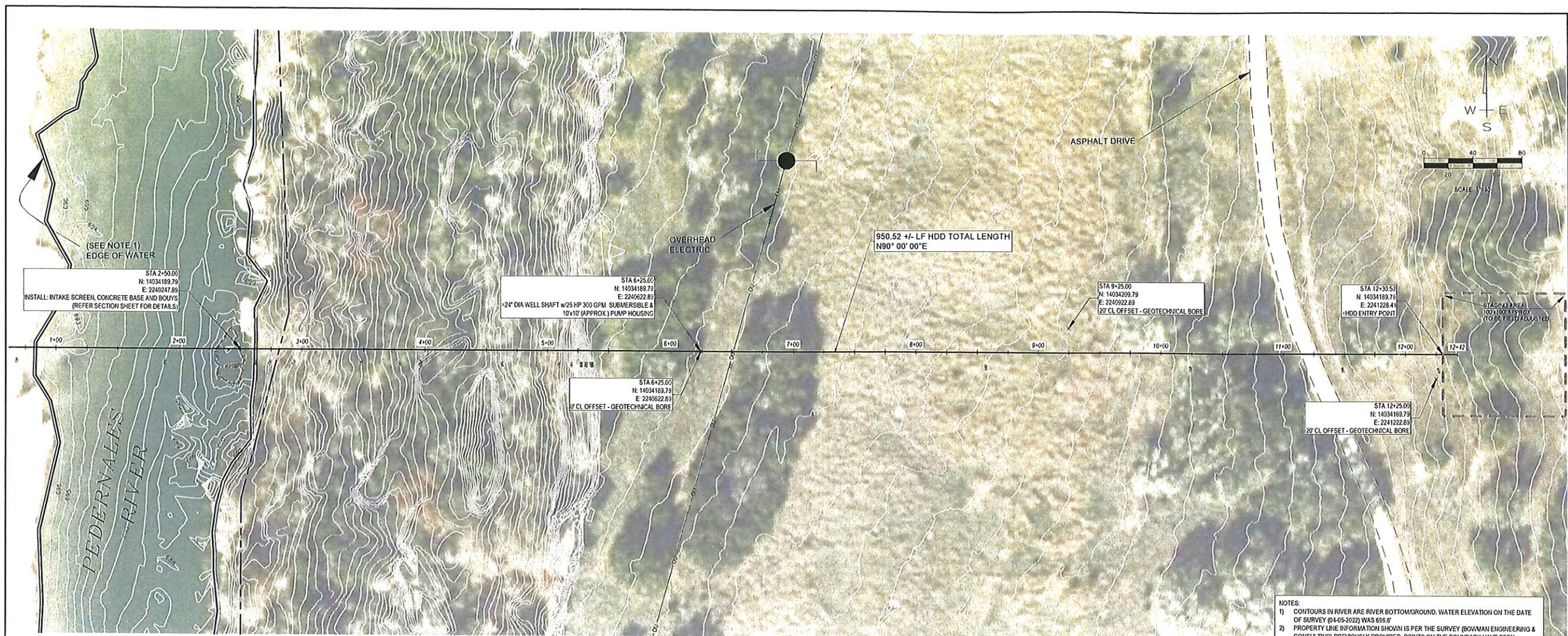
691.00 (PUMP LOCK OUT) ELEVATION TO RIVER BOTTOM ANALYSIS. CONSERVATIVE VOLUME ESTIMATE RESULTED IN 1,212,625.80 GALLONS.
 PUMP CAPACITY 100,000 GPD.
 THEREFORE: 1,212,625.80/100,000 = 12.13 DAYS DRAW-DOWN @ PUMP ON 24 HRS/DAY.

LOWEST MEASURED RIVER ELEVATION = 694.75 TO 691.00 (PUMP LOCK OUT) = 3.75'
 CONSERVATIVE VOLUME ESTIMATE RESULTED IN 2,443,974.58 GALLONS.
 PUMP CAPACITY 100,000 GPD
 THEREFORE: 2,443,974.58/100,000 = 24.44 DAYS DRAW-DOWN @ PUMP ON 24 HRS/DAY

CONCLUSION: LOWEST MEASURED RIVER ELEVATION (694.75) TO RIVER BOTTOM ANALYSIS = 1,212,625.80 + 2,442,974.58 = 3,668,144.58 / 100,000 = 36.68 DAYS DRAW-DOWN @ PUMPS ON 24 HRS/DAY

MIRASOL	RIVER VOLUME ANALYSIS
<p>1101 CAPITAL OF TEXAS HIGHWAY SOUTH BUILDING D, SUITE 110 AUSTIN, TEXAS 78746 (512) 327-9204 Texas Registered Engineering Firm F-353</p> <p>MURFEE ENGINEERING COMPANY</p>	
DESIGNED BY: MK	DRAWN BY: MLH
CHECKED BY: MK	APPROVED BY: DM
DATE: 11/18/2022	FILE NO: I:\msc\DWG\Water\Millen\Water\River\Survey\Surface Volume 221117.dwg [LAYOUT: 24X36 P1 (A1)]
JOB NO.	SHEET NO.
1 OF 1	

FOR REVIEW ONLY



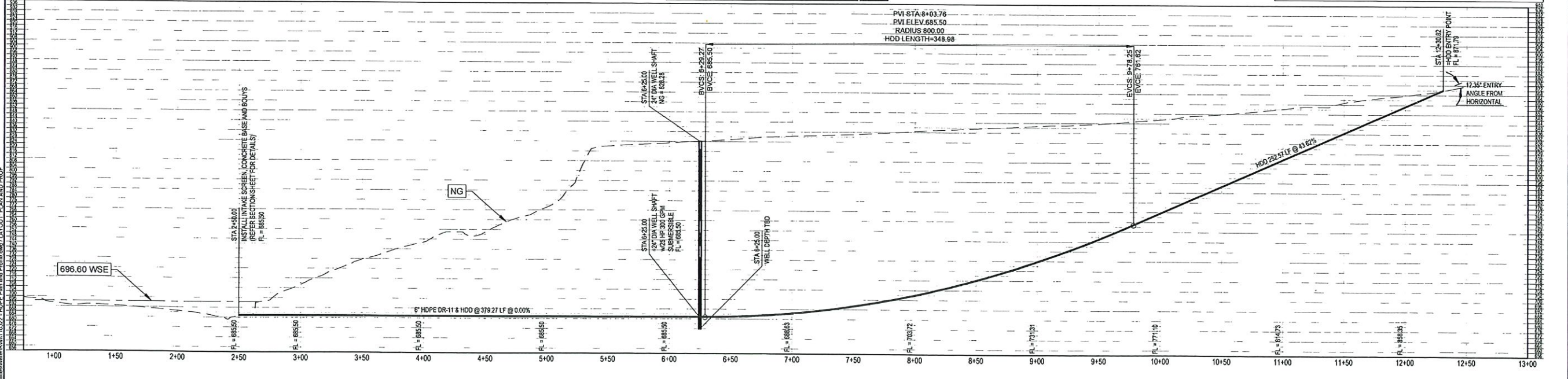
NO.	DESCRIPTION	DATE	APPROVED	APP'D DATE

MIRASOL INTAKE STRUCTURE
PRELIMINARY HDD PLAN & PROFILE

EXHIBIT HDD-1

- NOTES:
- 1) CONTOURS IN RIVER ARE RIVER BOTTOMGROUND. WATER ELEVATION ON THE DATE OF SURVEY (04-05-2022) WAS 696.6'
 - 2) PROPERTY LINE INFORMATION SHOWN IS PER THE SURVEY (BOWMAN ENGINEERING & CONSULTING) PREVIOUSLY PROVIDED. POINTS ON THE BOUNDARY HAVE BEEN VERIFIED BY CSCI.
 - 3) ELEVATION DATA USED IS THE SAME AS THE AERIAL LIDAR PROVIDED BY CSCI IN MARCH, 2021
 - 4) HDD VOID FROM ENTRY TO PUMP WELL SHAFT SHALL BE FILLED WITH CLSM OR APPROVED EQUAL

Alignment HDD & 6in DR-11 HDPE



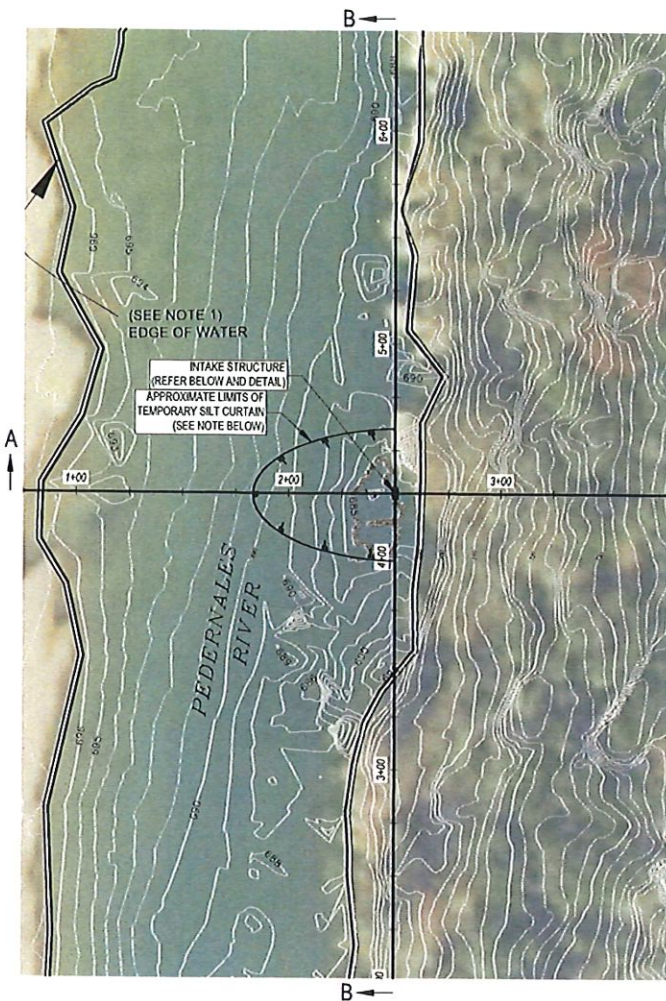
1101 CAPITAL OF TEXAS HIGHWAY SOUTH
BUILDING D, SUITE 110
AUSTIN, TEXAS 78746
(512) 327-5904
Texas Registered Engineering Firm F-353



DESIGNED BY:	MJK
DRAWN BY:	MJK
CHECKED BY:	BC
APPROVED BY:	BC
DATE:	11/9/2022
FILE NO:	110322 - HDPE Plan and Profile.dwg
LAYOUT:	PLAN AND PROF
JOB NO.	
SHEET NO.	1 OF 1

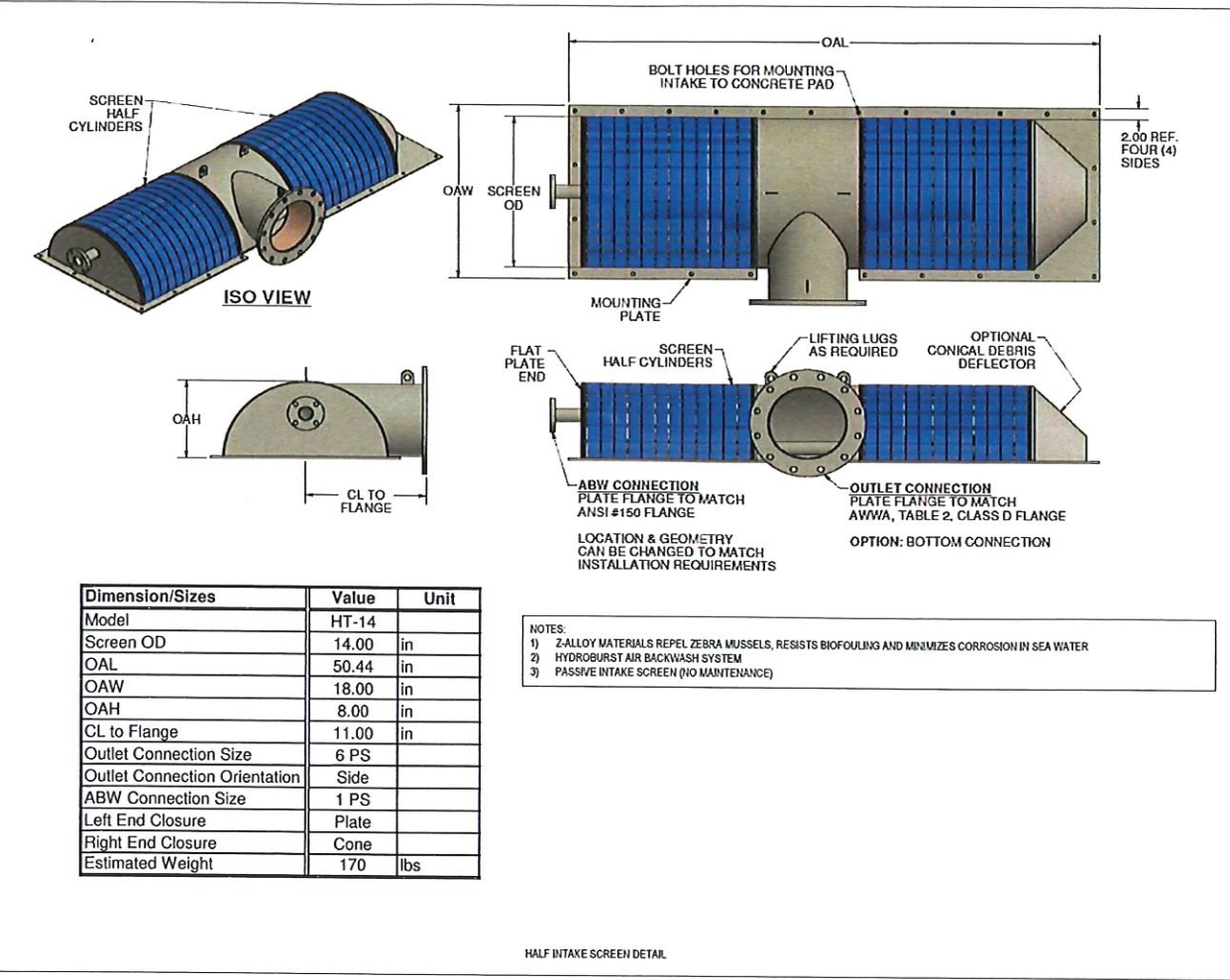
PRELIMINARY - FOR REVIEW PURPOSES ONLY

PLOT DATE: 2022-11-3
FILE PATH: W:\mjk\110322 - HDPE Plan and Profile.dwg\110322 - HDPE Plan and Profile.dwg



NOTES:

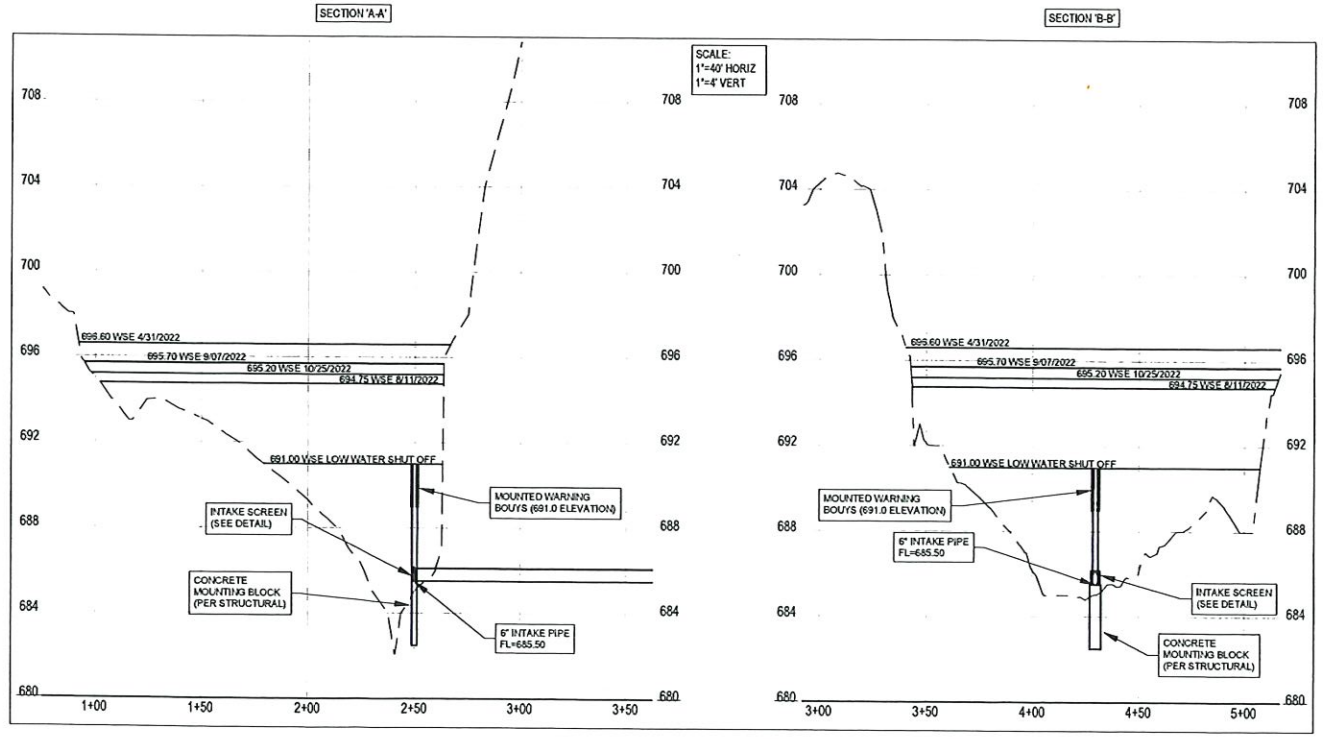
- 1) CONTOURS IN RIVER ARE RIVER BOTTOMGROUND. WATER ELEVATION ON THE DATE OF SURVEY(S) AS SHOWN.
- 2) PROPERTY LINE INFORMATION SHOWN IS PER THE SURVEY (BOYMAN ENGINEERING & CONSULTING) PREVIOUSLY PROVIDED. POINTS ON THE BOUNDARY HAVE BEEN VERIFIED BY CSCI.
- 3) ELEVATION DATA USED IS THE SAME AS THE AERIAL LIDAR PROVIDED BY CSCI IN MARCH, 2021.
- 4) SILT CURTAIN IS NOT A PERMANENT FIXTURE AND WILL BE USED ONLY WHEN DRILLING ACTIVITIES ARE ACTIVE.



Dimension/Sizes	Value	Unit
Model	HT-14	
Screen OD	14.00	in
OAL	50.44	in
OAW	18.00	in
OAH	8.00	in
CL to Flange	11.00	in
Outlet Connection Size	6 PS	
Outlet Connection Orientation	Side	
ABW Connection Size	1 PS	
Left End Closure	Plate	
Right End Closure	Cone	
Estimated Weight	170	lbs

NOTES:

- 1) Z-ALLOY MATERIALS REPEL ZEBRA MUSSELS, RESISTS BIOFOULING AND MINIMIZES CORROSION IN SEA WATER
- 2) HYDROBURST AIR BACKWASH SYSTEM
- 3) PASSIVE INTAKE SCREEN (NO MAINTENANCE)



F 650 FLATBED - TYPICAL 6" HDPE PRODUCT DELIVERY AND STAGING

PRELIMINARY - FOR REVIEW PURPOSES ONLY

NO.		DESCRIPTION	BY	DATE	APPROVED	APPROX. DATE
NO.		DESCRIPTION	BY	DATE	APPROVED	APPROX. DATE
NO.		DESCRIPTION	BY	DATE	APPROVED	APPROX. DATE

MIRASOL INTAKE STRUCTURE
PRELIMINARY RIVER BATHYMETRIC SECTIONS

EXHIBIT SECTIONS

DESIGNED BY: MAX
DRAWN BY: MAX
CHECKED BY: BC
APPROVED BY: BC
DATE: 11/17/2022

FILE NO.: 110322 - River Sections and O&L.dwg
LAYOUT: SECTIONS

JOB NO.:
SHEET NO.: 1 OF 1

1101 CAPITAL OF TEXAS HIGHWAY SOUTH
BUILDING D, SUITE 110
AUSTIN, TEXAS 78746
(512) 327-8204
Texas Registered Engineering Firm F-353

MURFEE ENGINEERING COMPANY