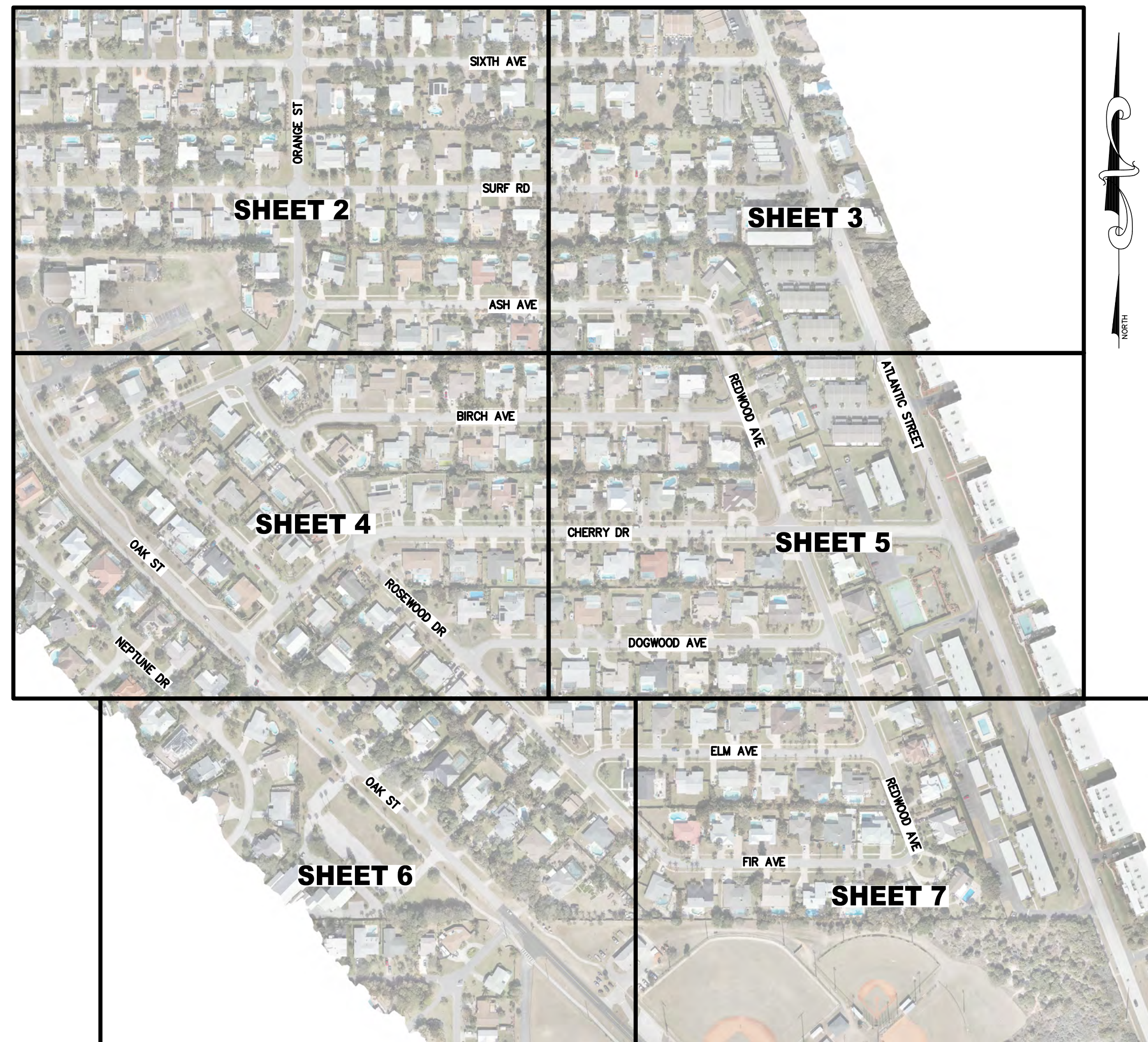


SPECIFIC PURPOSE SURVEY

MELBOURNE BEACH BASIN 10 BREVARD COUNTY, FLORIDA

SITE MAP



SCALE: 1"=250'

LIDAR FLIGHT NOTES & ACCURACY REPORT:

- THIS SITE WAS FLOWN DURING FEBRUARY 9, 2026 UTILIZING A DJI MATRICE 300 UAV.
- FLIGHT PLANNING WAS PERFORMED WITH PHOENIX FLIGHT PLANNER AND POST-PROCESSED USING PHOENIX LIDARMILL AND TRIMBLE BUSINESS CENTER.
- THE FLIGHT WAS OBSERVED BY CERTIFIED REMOTE PILOT NUMBER 4545445.
- GROUND ELEVATIONS WERE SPOT CHECKED WITH GLOBAL POSITIONING SYSTEM (GPS) REAL TIME KINEMATIC (RTK) OBSERVATION.
- FEATURES ARE LIMITED TO THOSE VISIBLE AT TIME OF THE FLIGHT AND ARE SUBJECT TO FIELD VERIFICATION BY THE END USER. AREAS DESIGNATED AS "OBSCURED" INDICATE THE GROUND IS OBSCURED BY VEGETATION AND/OR SHADOWS. MAPPING WITHIN THESE AREAS MAY NOT MEET STANDARD ACCURACY.
- RELATIVE ACCURACY:
 - VERTICAL ACCURACY IS ± 0.25' FOR OPEN AREAS
 - VERTICAL ACCURACY IS ± 0.50' AREAS OF DENSE VEGETATION.

PHOTGRAMMETRIC FLIGHT NOTES & ACCURACY REPORT:

- THIS SITE WAS FLOWN ON FEBRUARY 9, 2026 UTILIZING A DJI MATRICE 300 UAV.
- DATA POST PROCESSING WAS PERFORMED UTILIZING PIX4D MATIC, VERSION 2.0.1, ON FEBRUARY 12, 2026.
- SENSOR(S) USED: ZENMUSE P1 45MP
- THE FLIGHT WAS CONDUCTED BY CERTIFIED REMOTE PILOT NUMBER 4545445
- HORIZONTAL CONTROL STATEMENT: MAP BASED UPON NORTH AMERICAN DATUM OF 1983 (NAD83), FLORIDA STATE PLANE PROJECTION, EAST ZONE, US SURVEY FEET, FL83-EP UTILIZING EUROPEAN PETROLEUM SURVEY GROUP (EPSG) CODE 6438. USE OF FOUND PLAT CONTROL, STATE RIGHT OF WAY POINTS, NATIONAL GEODETIC SURVEY (NOS) MONUMENTATION AND/OR SECTIONAL BREAKDOWN WERE USED AS PART OF THE MAPPING PROCESS. DISTANCES SHOWN ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
- MEASUREMENTS OF DISTANCE, AREA AND VOLUME WITHIN THE MAP ARE ACCURATE TO WITHIN 3 TIMES THE GROUND SAMPLING DISTANCE. MAP MEASUREMENTS ARE WITHIN 2%± OF GROUND-BASED MEASUREMENTS.
- FEATURES ARE LIMITED TO THOSE VISIBLE AT TIME OF THE PHOTOGRAPHY AND ARE SUBJECT TO FIELD VERIFICATION BY THE END USER. AREAS DESIGNATED AS "OBSCURED" INDICATE THE GROUND IS OBSCURED BY VEGETATION AND/OR SHADOWS. MAPPING WITHIN THESE AREAS MAY NOT MEET STANDARD ACCURACY.
- RELATIVE ACCURACY:
 - GROUND SAMPLING DISTANCE (GSD) RANGE= 0024 FT/PIXEL
 - TOTAL ROOT MEAN SQUARE DEVIATION (RMSE): X:0.020 FT - Y:0.030 FT - Z:0.012 FT
 - TOTAL GROUND CONTROL POINTS (GCP) UTILIZED: 8 WITH A MEAN ROOT MEAN SQUARE ERROR: 0.021 FT
 - CAMERA CALIBRATION/OPTIMIZATION:0.35% VARIATION FROM REFERENCE DATA.
- DENSIFICATION:
 - TOTAL POINTS COLLECTED:1.02 BILLION
 - EXTRACTED TOPOGRAPHY SHOWN BASED ON A POINT CLOUD DENSITY OF:148.63 POINTS/FT³
- THIS MAP MEETS OR EXCEEDS THE AMERICAN SOCIETY FOR PHOTGRAMMETRY AND REMOTE SENSING (ASPRS) ACCURACY STANDARDS FOR DIGITAL GEOSPATIAL DATA.

SURVEYORS NOTES AND REPORT:

- THIS SPECIFIC PURPOSE SURVEY WAS PERFORMED FOR THE PURPOSE OF SUPPORTING A DRAINAGE ANALYSIS WITHIN THE AREA'S ROAD INTERSECTIONS AND ASSOCIATED DRAINAGE STRUCTURES. THE SURVEY MAPS EXISTING FEATURES AND CONDITIONS AS SHOWN AND DEPICTED HEREON. I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS IS A TRUE AND ACCURATE DEPICTION OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON MARCH 26, 2026. I FURTHER CERTIFY THAT SAID DRAWING IS IN COMPLIANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
- THIS SURVEY MAP, AND REPRODUCTIONS THEREOF, ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER OR ORIGINAL ELECTRONIC SIGNATURE. THIS SURVEY CANNOT BE TRANSFERRED OR ASSIGNED WITHOUT THE SPECIFIC WRITTEN PERMISSION OF HALEY WARD, INC. IT IS A VIOLATION OF CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE TO ALTER THIS SURVEY WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
- THE LAST DATE OF FIELD WORK (AND DATA ACQUISITION) WAS MARCH 5, 2026.
- THIS SPECIFIC PURPOSE SURVEY HAS BEEN REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM-EAST ZONE, NAD 83 (2011 ADJUSTMENT).
- REVISIONS SHOWN HEREON DO NOT REPRESENT A "FIELD SURVEY UPDATE" UNLESS OTHERWISE NOTED.
- ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE FOLLOWING BREVARD COUNTY BENCHMARK:
 - BC PID: K8A06 ELEVATION: 9.83'
- THIS SITE WAS SURVEYED UTILIZING TRIMBLE/SPECTRA HARDWARE TOGETHER WITH TRIMBLE ACCESS AND WAS BASED ON TRIMBLE'S "VRS NOW" NETWORK AND/OR THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN). THE PROCEDURES AND NETWORK DESIGN MEETS THE GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATED POSITIONING AS SET FORTH BY THE FEDERAL GEODETIC CONTROL COMMITTEE IN THE MOST CURRENT PUBLICATION FOR 3RD ORDER CLASS ONE FOR HORIZONTAL CONTROL SURVEYS, WITH A PRECISION OF ±0.05 FEET.
- THE SURVEY MAP SHOWN HEREON DOES NOT NECESSARILY CONTAIN ALL OF THE INFORMATION OBTAINED OR DEVELOPED BY THE UNDERSIGNED SURVEYOR IN HIS FIELD WORK, OFFICE WORK, OR RESEARCH.
- ELEVATIONS AND CONTOURS SHOWN HEREON ARE BASED ON LIDAR AND PHOTOGRAMMETRY DATA. PLEASE REFER TO THE FLIGHT NOTES AND ACCURACY REPORTS ON THIS PAGE FOR ADDITIONAL INFORMATION REGARDING DATA SOURCES AND ACCURACY.
- ROADWAY INTERSECTION DETAILS SHOWN HEREON IS LIMITED TO THE EDGE OF PAVEMENT, APPLICABLE ROADWAY CURBING, AND ASSOCIATED DRAINAGE STRUCTURES ONLY, AND DOES NOT DEPICT SIDEWALKS OR OTHER SITE FEATURES.
- DRAINAGE STRUCTURE DATA SHOWN HEREON IS BASED ON VISIBLE FIELD OBSERVATIONS AT THE TIME OF SURVEY. IN SOME INSTANCES, STANDING WATER, SEDIMENT, DEBRIS, AND RECESSED PIPE CONNECTIONS LIMITED THE ABILITY TO ACCURATELY DETERMINE PIPE SIZES, MATERIALS, AND INVERT ELEVATIONS. ACCORDINGLY, PIPE INFORMATION SHOWN IS APPROXIMATE AND SOME DATA DEPICTED MAY BE INACCURATE. CLEANING OF STRUCTURES AND ADDITIONAL INVESTIGATION MAY BE REQUIRED TO VERIFY PIPE CHARACTERISTICS AND INVERTS.
- THE INTRACOASTAL MEAN HIGH WATER (MHW) ELEVATION AT THIS LOCATION IS APPROXIMATELY 0.70 FEET (NAVD 88). THIS VALUE IS DERIVED FROM TIDE INTERPOLATION POINTS 2746 LOCATED 14± MILES SOUTH OF THE OUTFALL IN BREVARD COUNTY WITH A PUBLISHED MHW ELEVATION OF 0.71 FEET AND TIDE INTERPOLATION POINTS 4048 LOCATED 96± MILES NORTH IN VOLUSIA COUNTY WITH A PUBLISHED MHW ELEVATION OF 0.60 FEET.

SYMBOL & ABBREVIATION LEGEND:

ELEV	ELEVATION
INV	INVERT
UNK	UNKNOWN
RCP	REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE
CMP	CORRUGATED METAL PIPE
	DRAINAGE PIPE
	DRAINAGE MANHOLE
	CATCH BASIN
	BENCHMARK

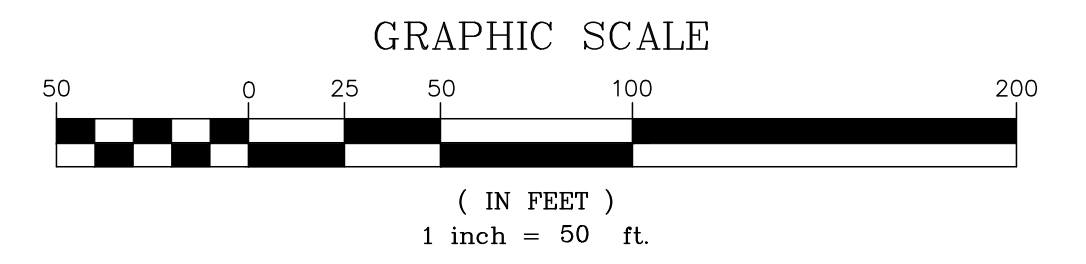
REV.	DATE	DESCRIPTION	BY	CHK.
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING LAND PLANNING INTERIOR DESIGN F.B.E. AUTHORIZATION NO. 32664 L.B. AUTHORIZATION NO. 8267 930 S. Harbor City Blvd, Suite 506 Melbourne, FL 32901 321.280.9969 www.haleyward.com				
PROJECT BASIN 10 MELBOURNE BEACH, FLORIDA				
TITLE SPECIFIC PURPOSE SURVEY				
DATE		SCALE		
02.27.2026		AS SHOWN		
DRAWN BY	FIELD CREW	CHECKED BY		
ABB	JR	MTO		
PROJECT No. 25-790				
SHEET No. 1 OF 11				

MICHAEL T. OWEN PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION #5556

SIGNATURE DATE:


SPECIFIC PURPOSE SURVEY

MELBOURNE BEACH BASIN 10 BREVARD COUNTY, FLORIDA



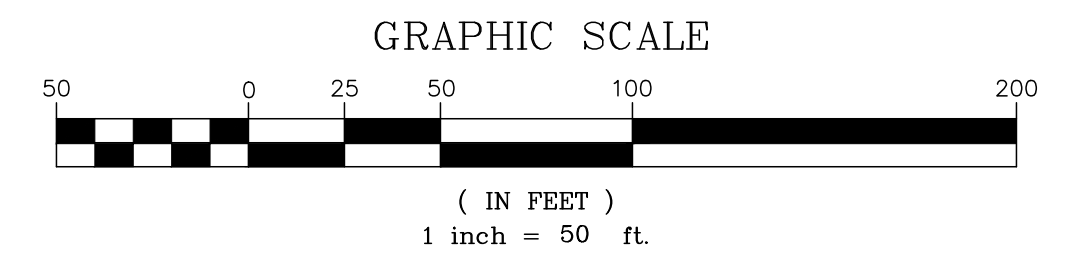
MATCHLINE SHEET 3

MATCHLINE SHEET 4


REV.	DATE	DESCRIPTION	BY	CHK.
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING LAND PLANNING INTERIOR DESIGN F.B.E. AUTHORIZATION NO. 32664 L.B. AUTHORIZATION NO. 8267 930 S. Harbor City Blvd, Suite 506 Melbourne, FL 32901 321.280.9969 WWW.HALEYWARD.COM				
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				MTO
PROJECT No.				
25-790				
SHEET No.				
2 OF 11				

SPECIFIC PURPOSE SURVEY

MELBOURNE BEACH BASIN 10 BREVARD COUNTY, FLORIDA

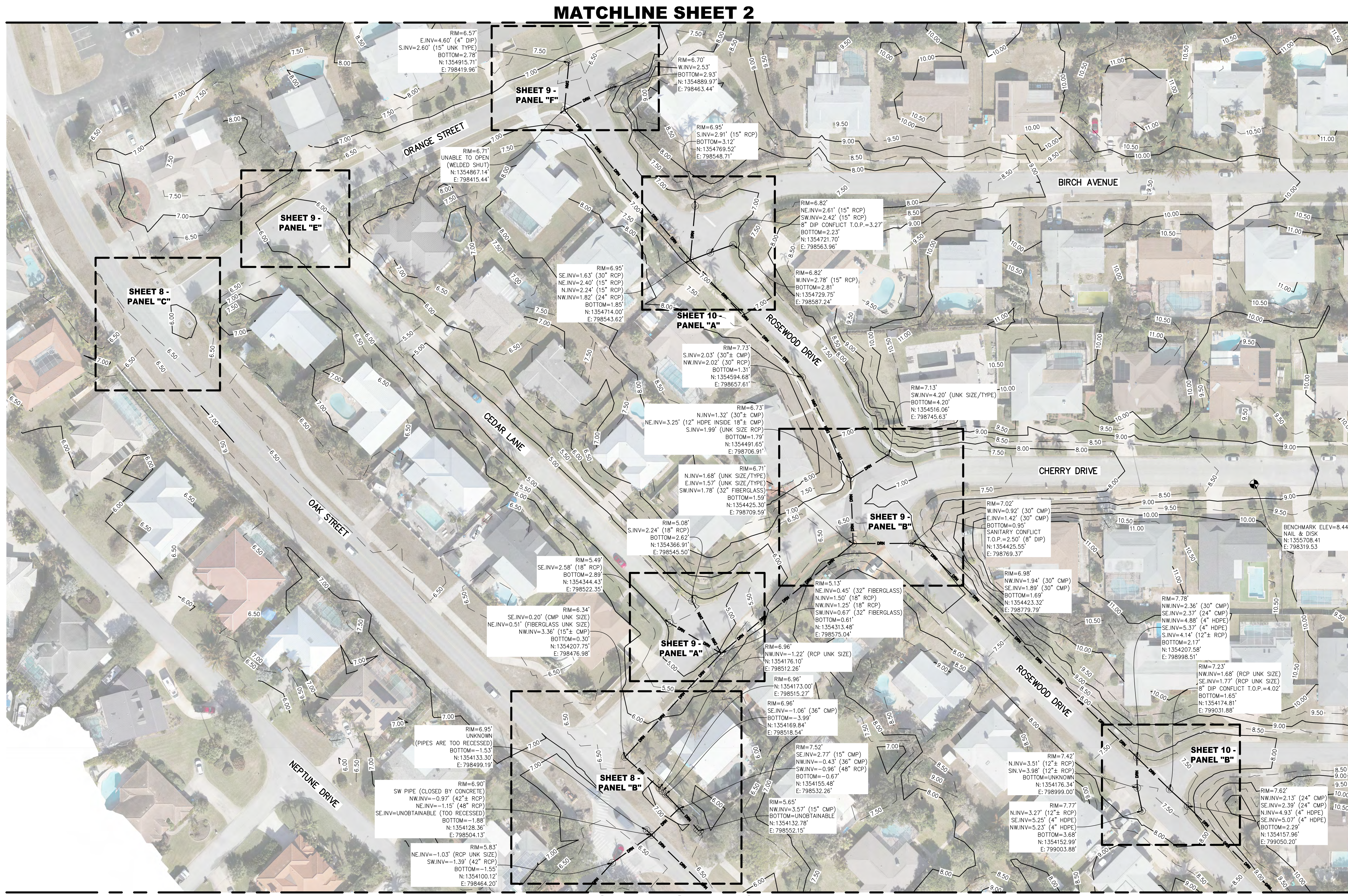
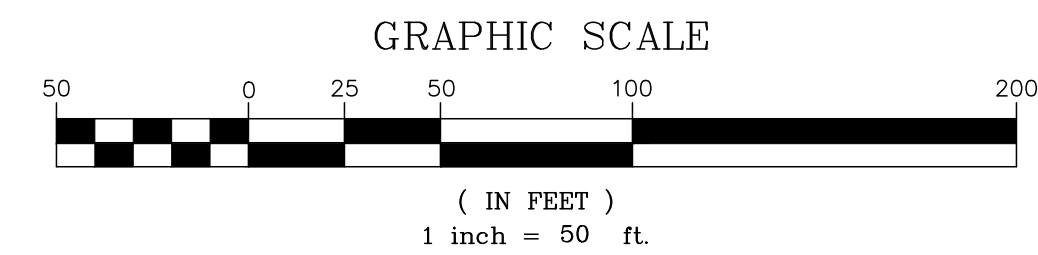


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 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING LAND PLANNING INTERIOR DESIGN F.B.P.E. AUTHORIZATION NO. 32664 L.B. AUTHORIZATION NO. 8267 930 S. Harbor City Blvd, Suite 506 Melbourne, FL 32901 321.280.9969 WWW.HALEYWARD.COM				
PROJECT BASIN 10 MELBOURNE BEACH, FLORIDA				
TITLE SPECIFIC PURPOSE SURVEY				
DATE		SCALE		
02.27.2026		AS SHOWN		
DRAWN BY	FIELD CREW	CHECKED BY		
ABB	JR	MTO		
PROJECT No. 25-790				
SHEET No. 3 OF 11				

SPECIFIC PURPOSE SURVEY

MELBOURNE BEACH BASIN 10 BREVARD COUNTY, FLORIDA




MATCHLINE SHEET 2

MATCHLINE SHEET 5

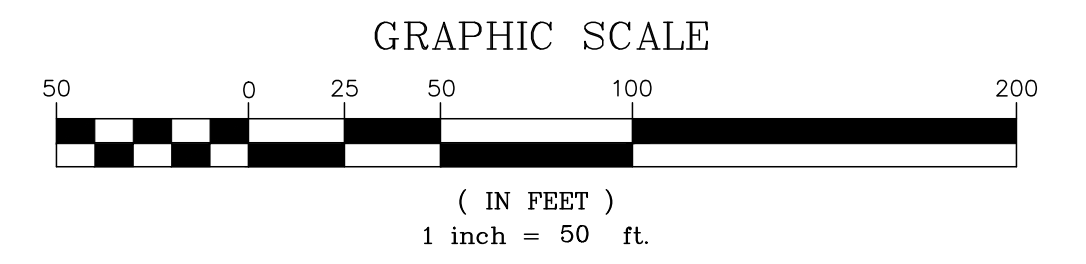
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PROJECT				
BASIN 10 MELBOURNE BEACH, FLORIDA				
TITLE				
SPECIFIC PURPOSE SURVEY				
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ABB	JR	MTO		
PROJECT No.				
25-790				
SHEET No.				
4 OF 11				

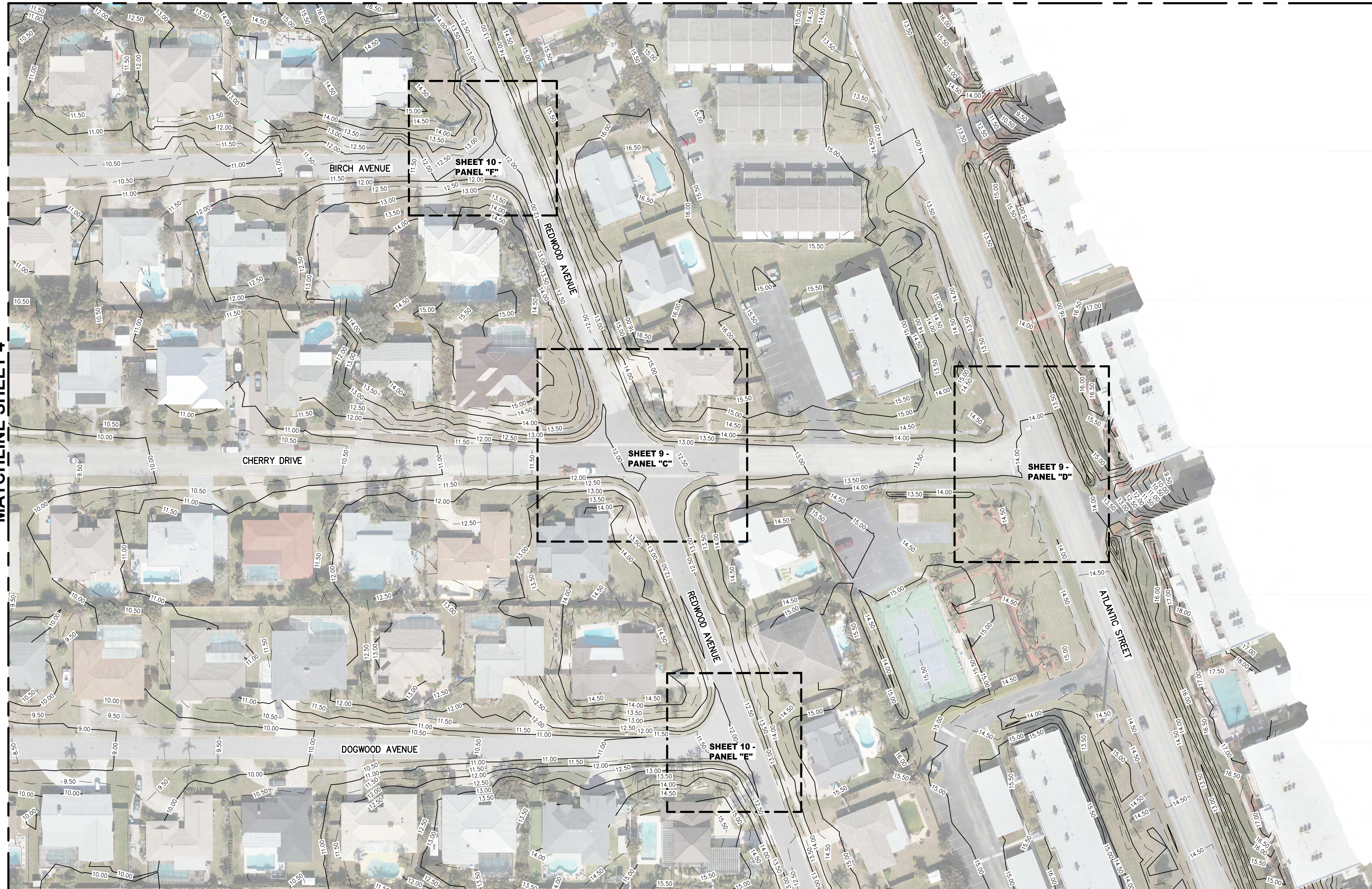
SPECIFIC PURPOSE SURVEY

MELBOURNE BEACH
 BASIN 10
 BREVARD COUNTY, FLORIDA




MATCHLINE SHEET 3

MATCHLINE SHEET 4



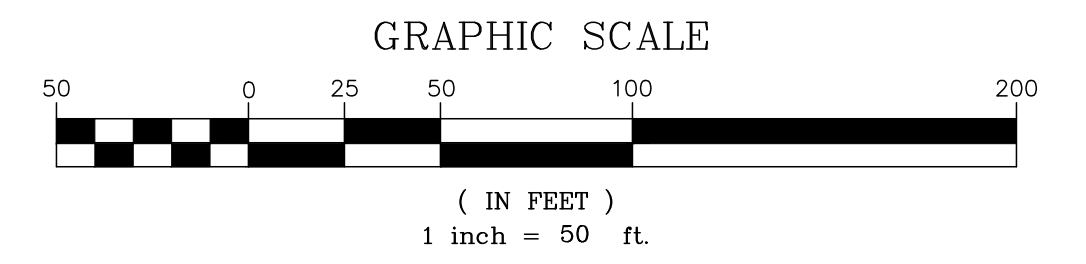
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PROJECT BASIN 10 MELBOURNE BEACH, FLORIDA				
TITLE SPECIFIC PURPOSE SURVEY				
DATE		SCALE		
02.27.2026		AS SHOWN		
DRAWN BY	FIELD CREW	CHECKED BY		
ABB	JR	MTO		
PROJECT No. 25-790				
SHEET No. 5 OF 11				

SPECIFIC PURPOSE SURVEY

MELBOURNE BEACH
BASIN 10
BREVARD COUNTY, FLORIDA



MATCHLINE SHEET 5



MATCHLINE SHEET 6

FILE LOCATION: Z:\EDC\2025\25-790 - MELBOURNE BEACH - BASIN 10 DRAINAGE ANALYSIS\SURVEY\DWG - 25-790-01.DWG, 2025.03.28, 4:58 PM

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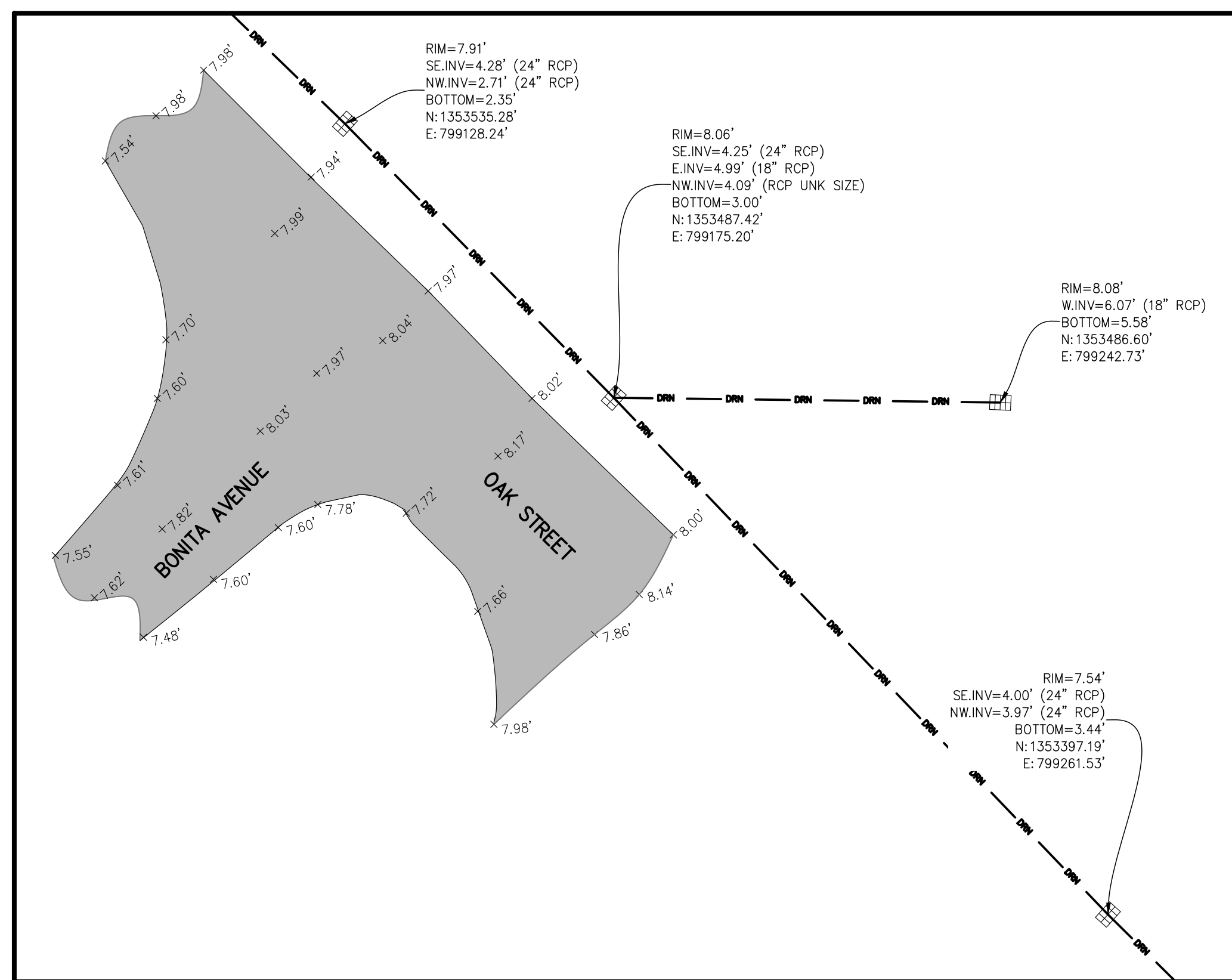
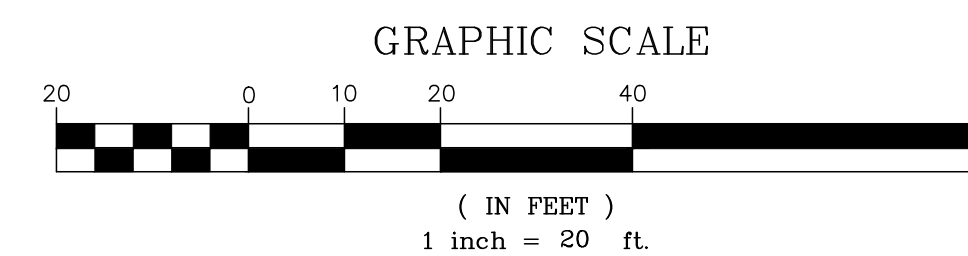
PROJECT
BASIN 10
MELBOURNE BEACH, FLORIDA

TITLE
SPECIFIC PURPOSE SURVEY

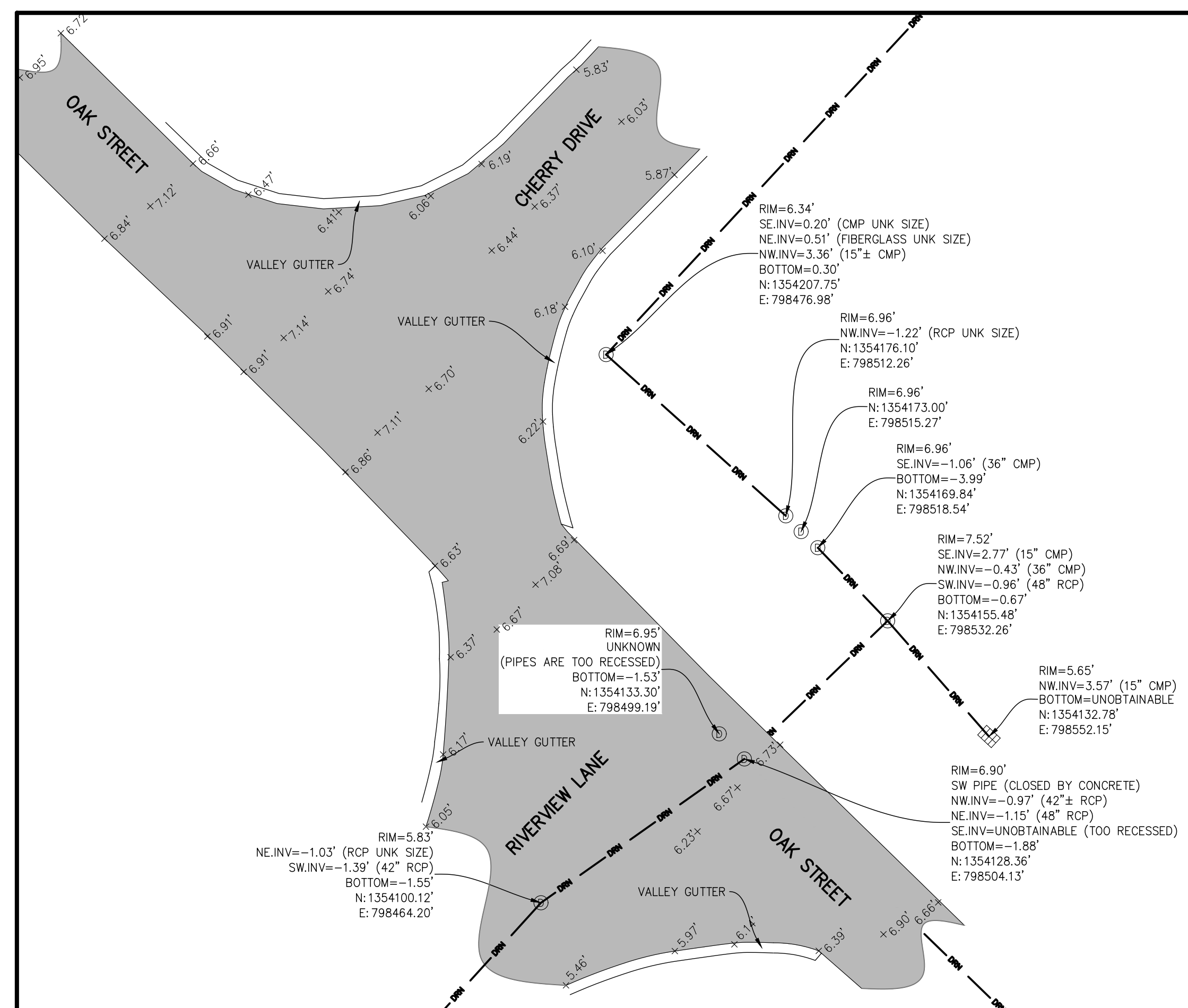
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CHECKED BY	MTO	PROJECT NO.	25-790
SHEET NO.	7 OF 11		

SPECIFIC PURPOSE SURVEY

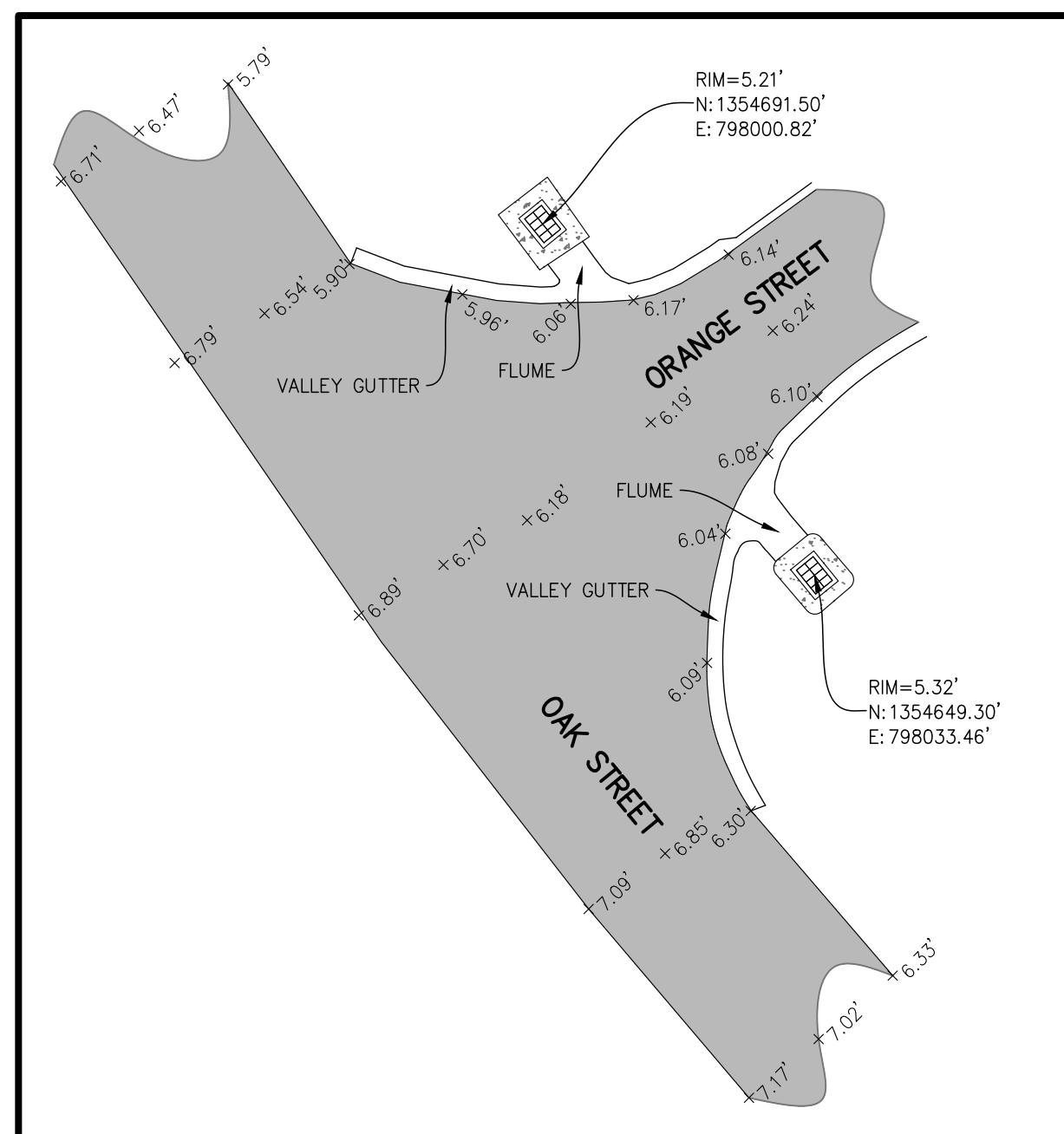
MELBOURNE BEACH BASIN 10 BREVARD COUNTY, FLORIDA



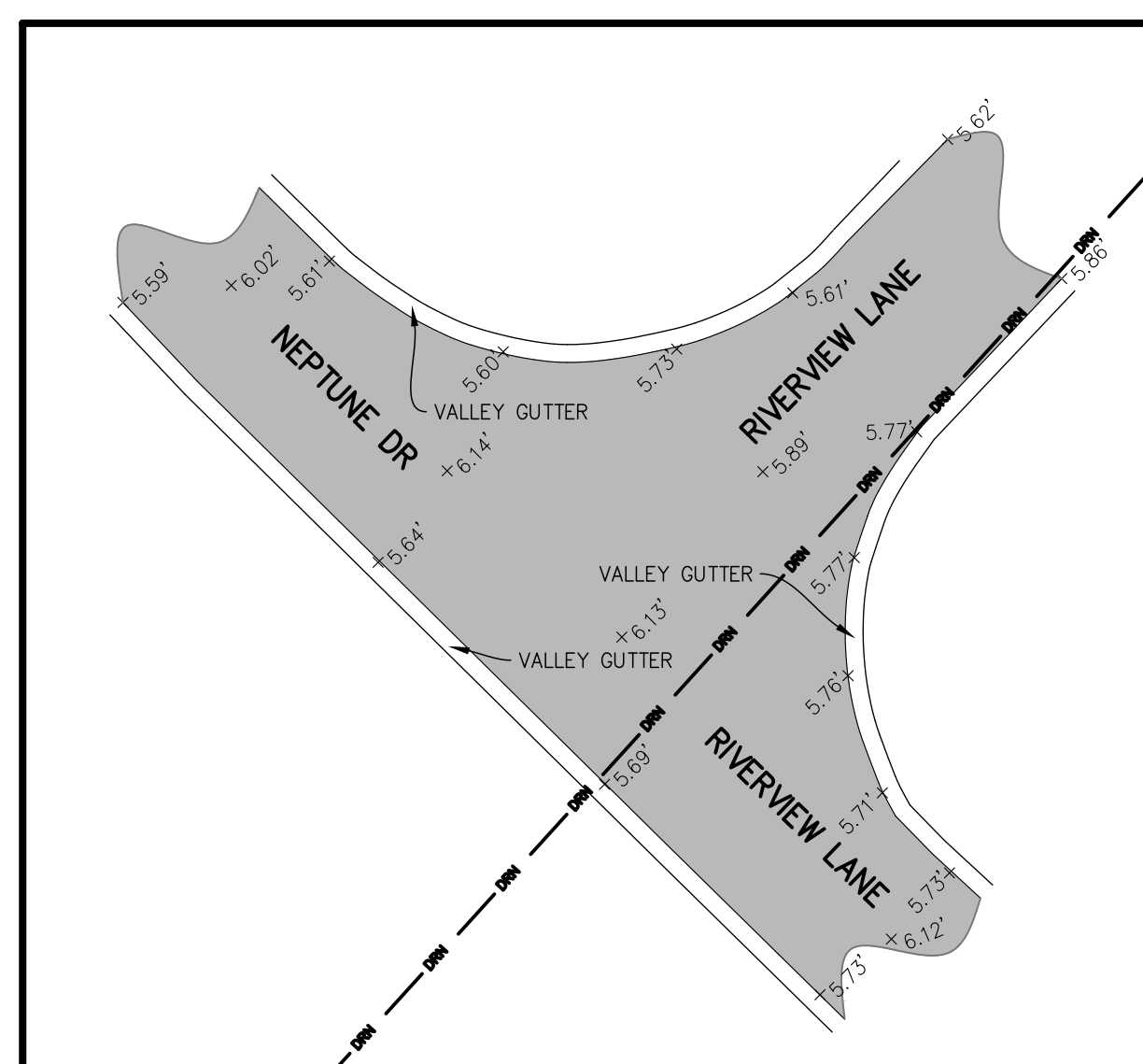
SHEET 8 - PANEL "A"



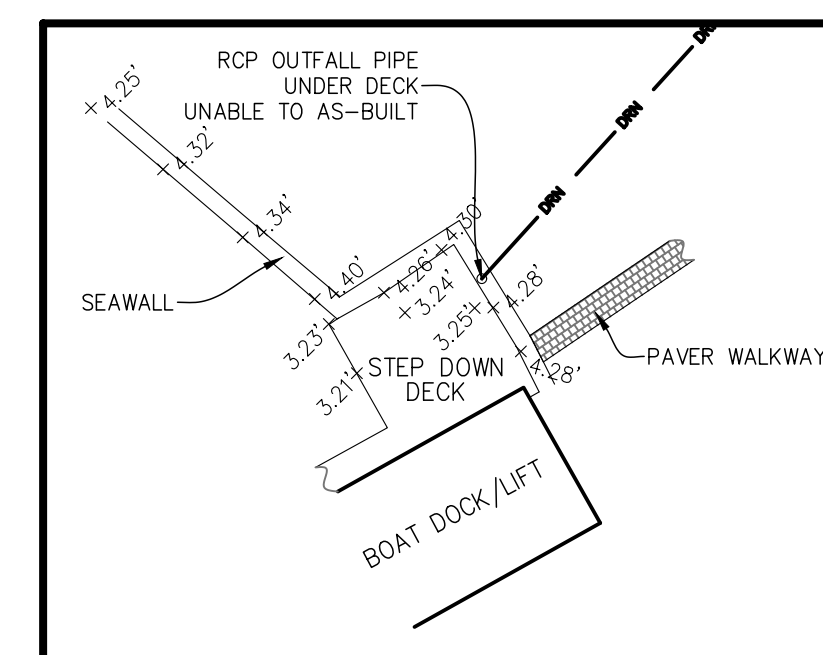
SHEET 8 - PANEL "B"



SHEET 8 - PANEL "C"



SHEET 8 - PANEL "D"



SHEET 8 - PANEL "E"

REV.	DATE	DESCRIPTION	BY	CHK.
<p>HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING LAND PLANNING INTERIOR DESIGN F.B.E. AUTHORIZATION NO. 32664 L.B. AUTHORIZATION NO. 8267 930 S. Harbor City Blvd, Suite 506 Melbourne, FL 32901 321.280.9969</p>				

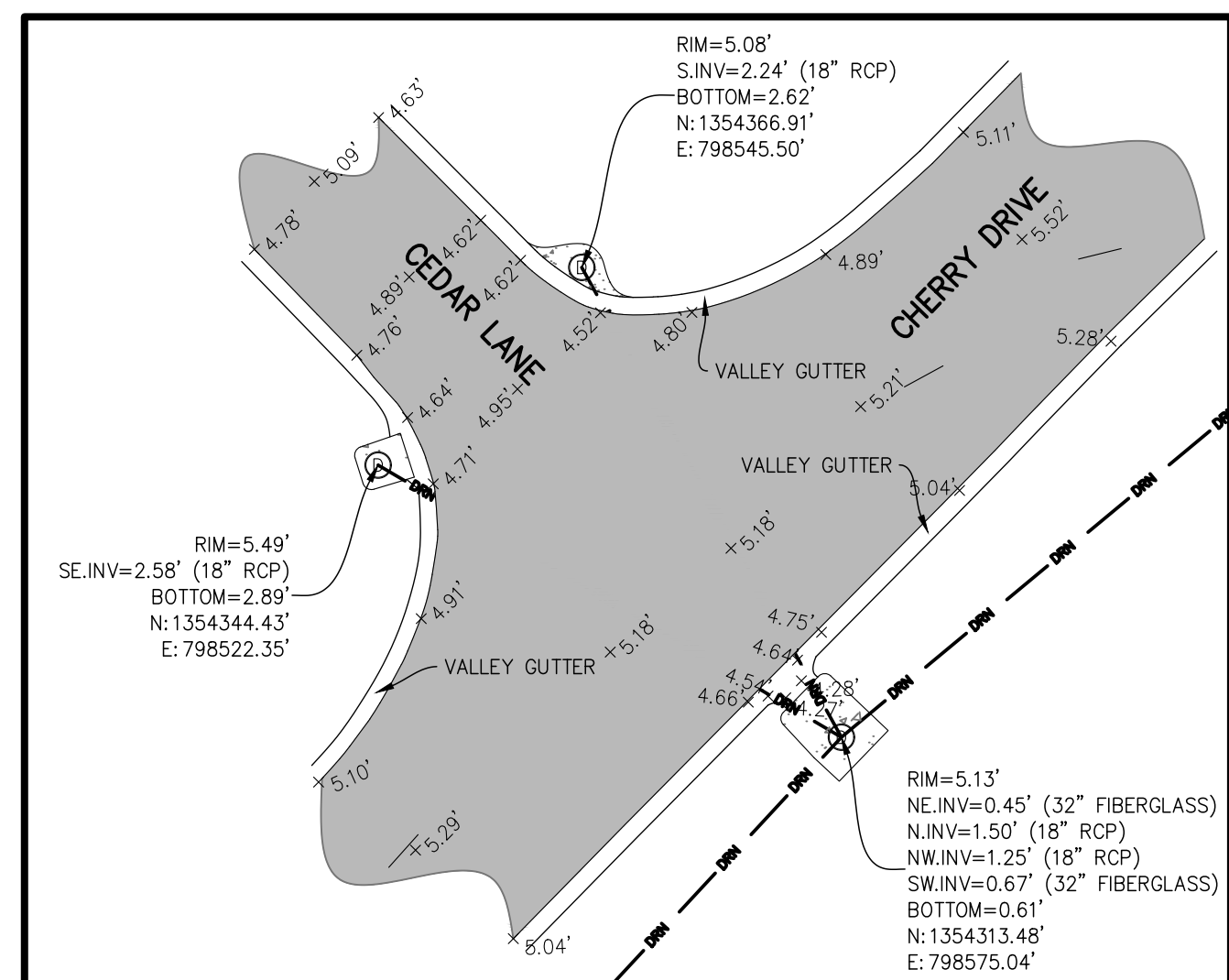
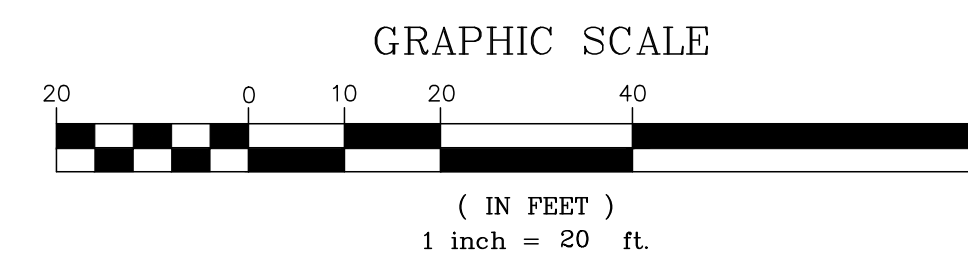
PROJECT
BASIN 10
MELBOURNE BEACH, FLORIDA

TITLE
SPECIFIC PURPOSE SURVEY

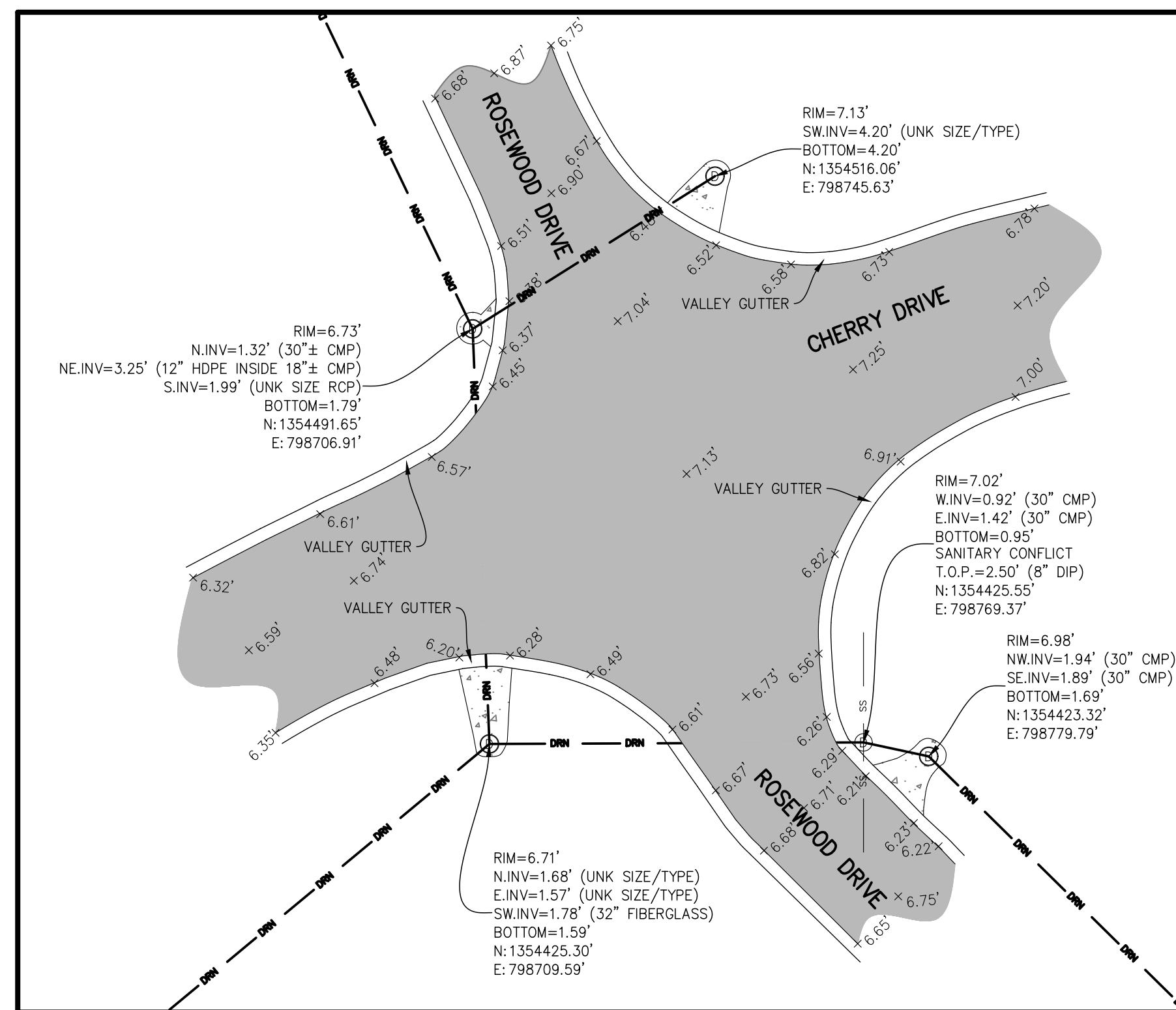
DATE	SCALE	
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DRAWN BY ABB	FIELD CREW JR	CHECKED BY MTO
PROJECT No. 25-790		
8 OF 11		

SPECIFIC PURPOSE SURVEY

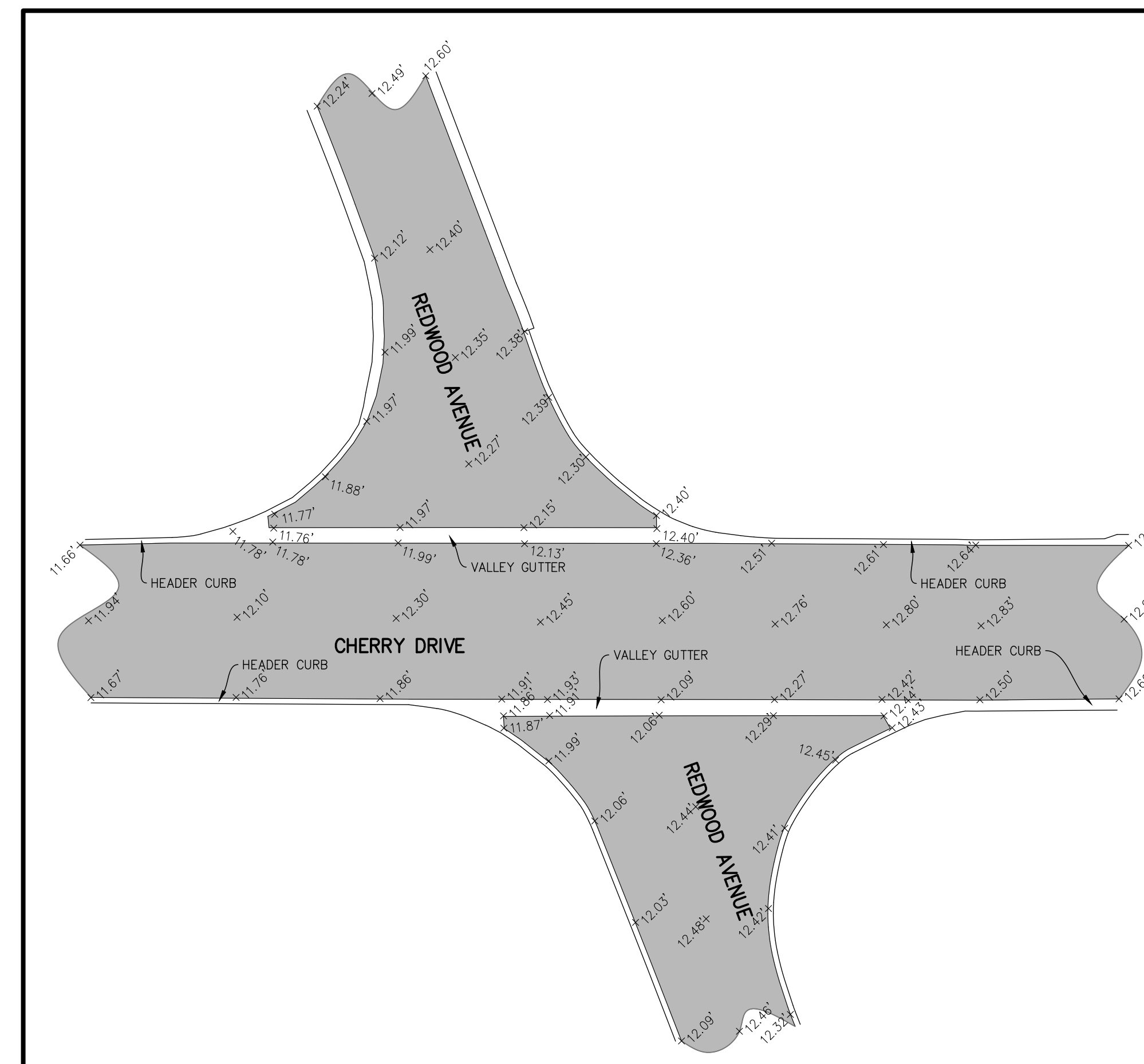
MELBOURNE BEACH BASIN 10 BREVARD COUNTY, FLORIDA



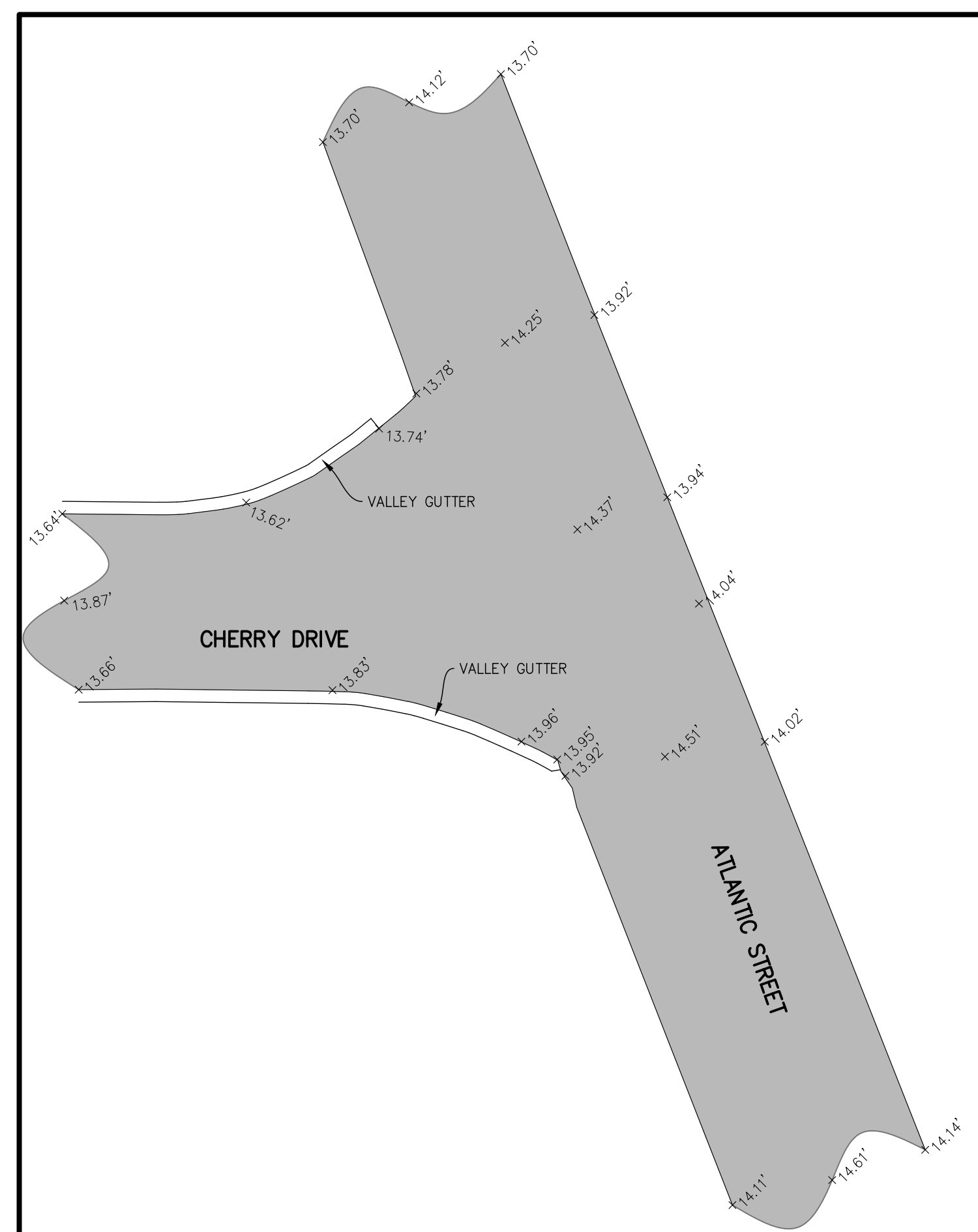
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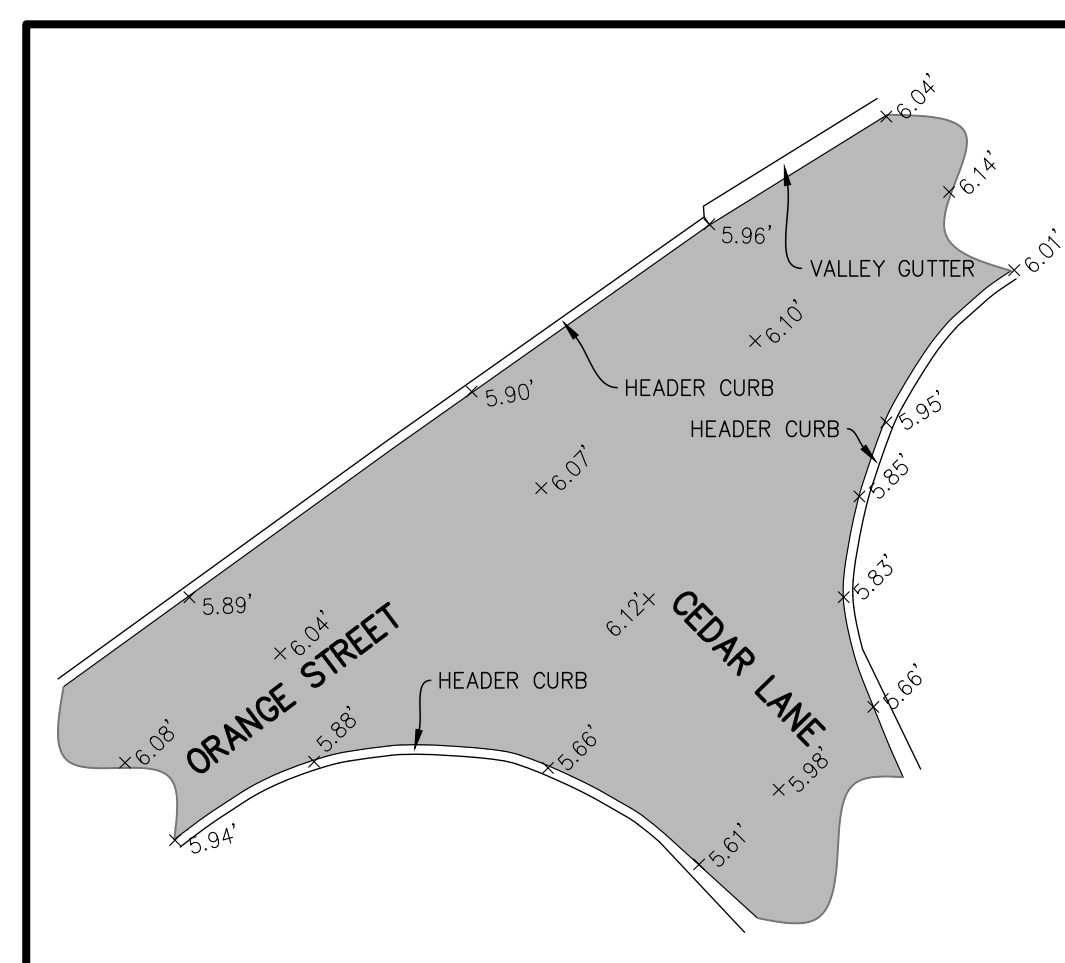
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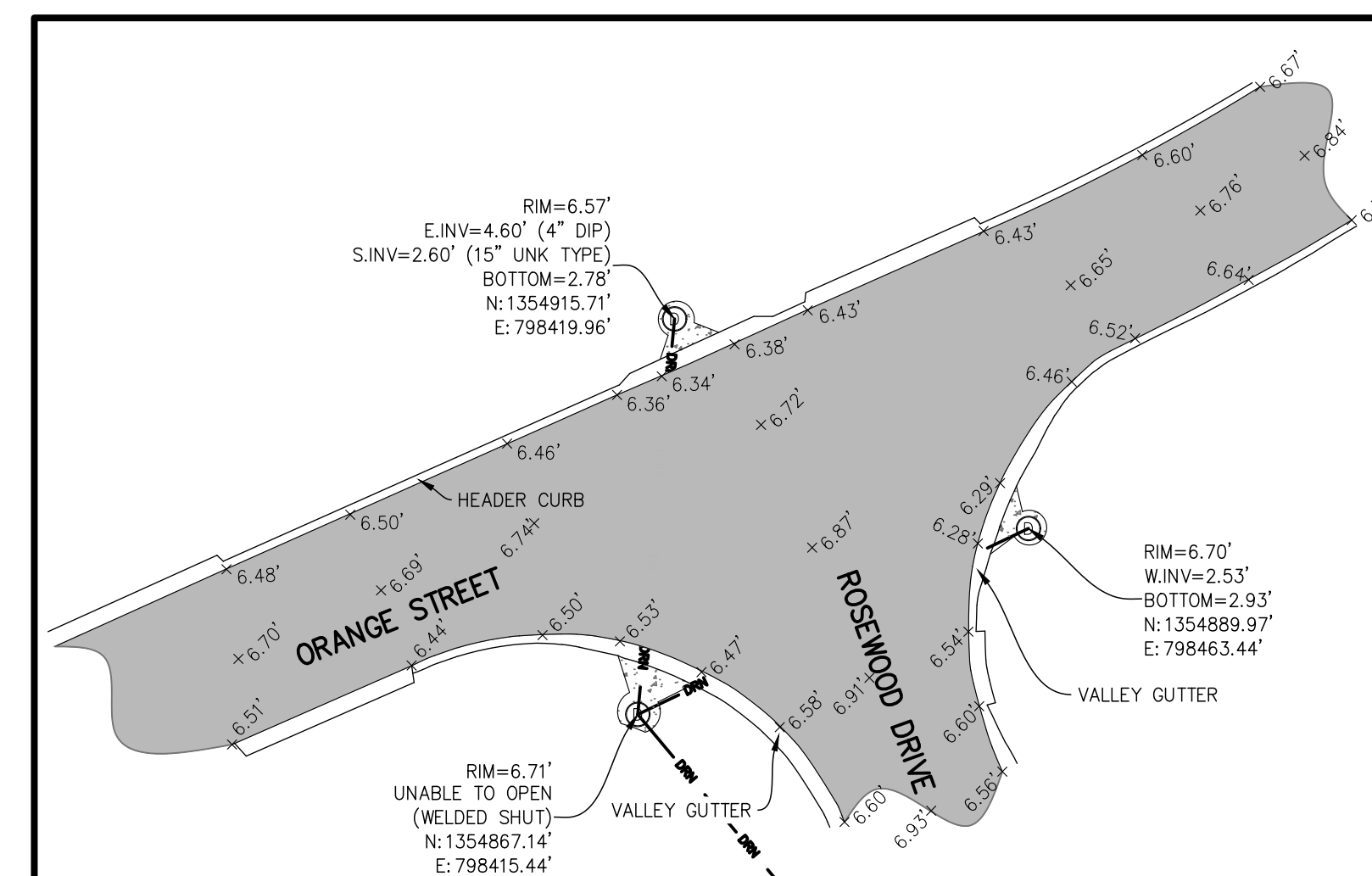
SHEET 9 - PANEL "C"



SHEET 9 - PANEL "D"



SHEET 9 - PANEL "E"



SHEET 9 - PANEL "F"

REV	DATE	DESCRIPTION	BY	CHK
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PROJECT
BASIN 10
MELBOURNE BEACH, FLORIDA

TITLE
SPECIFIC PURPOSE SURVEY

DATE	SCALE	
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SHEET No. 9 OF 11		

