

SANDPIPER GOLF CLUB

HARVEY
 ENGINEERING
 2314 MONTELEONE COURT
 RAYMOND, CALIFORNIA 92676
 TELEPHONE: 714.881.5643
 BRENT HARVEY, PRINCIPAL



**SANDPIPER GOLF CLUB
 SANTA BARBARA, CALIFORNIA
 PRELIMINARY DESIGN**

Drawn: T.J.H.
 Checked: BAH
 Project #: 560
 Date: 7/25/23
 Scale: N.T.S.

Revisions



TITLE

SHEET

1-1



INDEX OF SHEETS

I-1	Title Sheet
I-2	Preliminary Golf Course Irrigation
I-3	Preliminary Landscape Irrigation
I-4	Irrigation Details
I-5	Irrigation Details

CITY OF GOLETA WELO

PROJECT INFORMATION	
Project Applicant:	
Name of Project Applicant: Sandpiper Golf Trust, LLC c/o Cathy Hwang	Phone No: 805-389-8100
Title: wemedalco@riveron.net	County: Wameda
Address (must include City, State and Zip Code): 280 Chestnut Ave., Westmont, IL 60559	Far No:

Project:	
Name: Sandpiper Golf Course Renovation	
Assessor's Parcel No: 079-210-059	County Landscape Plan No:
Address (must include City, State and Zip Code): 7925 Hollister Ave., Goleta, CA 93117	

Use the information and formulas below to fill out the worksheet and calculations on page 2.

Hydrozone Category (A)	PF: Plant Factor	Irrigation Method (B)	IE: Irrigation Efficiency (C)
Very Low Water Use	0.0 - 0.1	Filter Pipe for Pools/Spas	1.00
Low Water Use*	0.2 - 0.3	Drip/Subsurface	0.90
Medium Water Use	0.4 - 0.6	Bushings	0.85
High Water Use	0.7 - 1.0	Rotors	0.75
		Rotators	0.70
		Overhead Spray	0.60

*At Risk turf and temporarily irrigated areas are considered Low Water Use.

ETWU^(A) (Annual Gallons Required) = Eto x 0.62 x ETAF x Area
 MAWA^(B) (Annual Gallons Allowed) = (ETWU/0.62)/(ETAF x LA) = ((1- ETAF) x SLA)
 Eto: see Appendix A = Water Efficient Landscape Design Manual
 0.62 = the conversion factor to gallons per sq. ft.
 ETAF = Field Application Efficiency
 Area: the Landscaped Area for each hydrozone.

REFERENCE EVAPOTRANSPIRATION (Eto) 42.8 (Goleta)						
Hydrozone # / Planting Description (A)	Plant Factor (PF)	Irrigation Method (B)	Irrigation Efficiency (C)	ETAF (PF/IE)	Landscape Area in Square Feet	Estimated Total Water Use (ETWU) (A)
Regular Landscape Areas						
# Sprinkler/Overhead	0.20	Drip/Rotor	0.75	0.37	1,286,100	611,562
# Shade	0.30	Drip	0.90	0.22	272,250	69,896
# Sparian Areas	0.50	Drip/Rotor	0.85	0.625	236,300	147,688
# Sand/Water Areas	0				505,700	0
#						
#						
#						
#						
#						
#						
#						
Totals	(A)	1,286,100	(B)	0.37	2,863,100	(C) 1,019,146
Special Landscape Areas						
# Recreational Turf					1.0	2,863,100
#					1.0	75,711,984
#					1.0	
#					1.0	
Totals	(C)	2,863,100	(D)	2,863,100		
Estimated Total Water Use (ETWU) Total 197,449,346						
Maximum Water Allowance (MAWA) (B) 112,012,711						
Irrigation Efficiency (IE) Average** 0.83						

**Average Irrigation Efficiency for overall irrigation system shall meet or exceed 0.75 (total of all efficiency ratings divided by number of hydrozones).

ETAF CALCULATIONS	
Average ETAF for Regular Landscape Areas must be 0.42 or below for residential and non-residential areas. Provide Totals based on information calculated in Worksheet above.	
Regular Landscape Areas	Totals
Total ETAF x Area (A)	919,952
Total Area (B)	3,259,300
Average ETAF (B) = (A) ÷	0.28
All Landscape Areas	Totals
Total ETAF x Area (C)	6,722,346
Total Area (D)	6,112,000
Site wide ETAF (B+D) ÷ (A+C)	0.60

IRRIGATION SYSTEM IMPROVEMENTS

DRB Recommended Approval 1-27-26

PRELIMINARY GOLF COURSE IRRIGATION

HARVEY
 CONSTRUCTION
 2315 MADONNOLLO COURT
 RANCHO, CALIFORNIA 92683
 TELEPHONE 909.851.0842
 BRENT HARVEY, PRINCIPAL



LEGEND

SYMBOL	EQUIPMENT
	RAIN BIRD 702 W/#36 NOZZLE FULL CIRCLE V.I.H.
	RAIN BIRD 752 W/#36 NOZZLE PART CIRCLE V.I.H.
	RAIN BIRD 702 W/#28 NOZZLE FULL CIRCLE V.I.H.
	RAIN BIRD 752 W/#28 NOZZLE PART CIRCLE V.I.H.
	RAIN BIRD 752 W/#22 NOZZLE FULL CIRCLE V.I.H.
	RAIN BIRD 752 W/#22 NOZZLE PART CIRCLE V.I.H.
	RAIN BIRD 752 W/#20 NOZZLE FULL CIRCLE V.I.H.
	RAIN BIRD 752 W/#20 PART CIRCLE V.I.H.
	RAIN BIRD 5006 W/#4 NOZZLE GEAR DRIVEN ROTOR
	RAIN BIRD 1806 W/15 NOZZLE SPRAY HEAD
	RAIN BIRD 1" REMOTE CONTROL VALVE
	RAIN BIRD 1.5" REMOTE CONTROL VALVE
	RAIN BIRD 5RC 1" QUICK COUPLER
	AQUAFUSE 2" LATERAL ISOLATION VALVE W/PRV
	AQUAFUSE 2" LATERAL ISOLATION VALVE
	AMERICAN FLOW CONTROL MAINLINE GATE VALVE
	CRISPIN 2" AIR RELEASE VALVE
	AMERICAN FLOW CONTROL MAINLINE BLOW-OFF VALVE
	LANDSCAPE STUB W/COMM WIRE
	2" HDPE LATERALS
	HDPE MAINLINE



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PRELIMINARY DESIGN

SHEET 1-2

DRB Recommended
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PRELIMINARY LANDSCAPE IRRIGATION

HARVEY
BRENT
CORPORATION
2315 MADONNOLLO COURT
RANCHO, CALIFORNIA 92685
TELEPHONE 909.881.0842
BRENT HARVEY, PRINCIPAL



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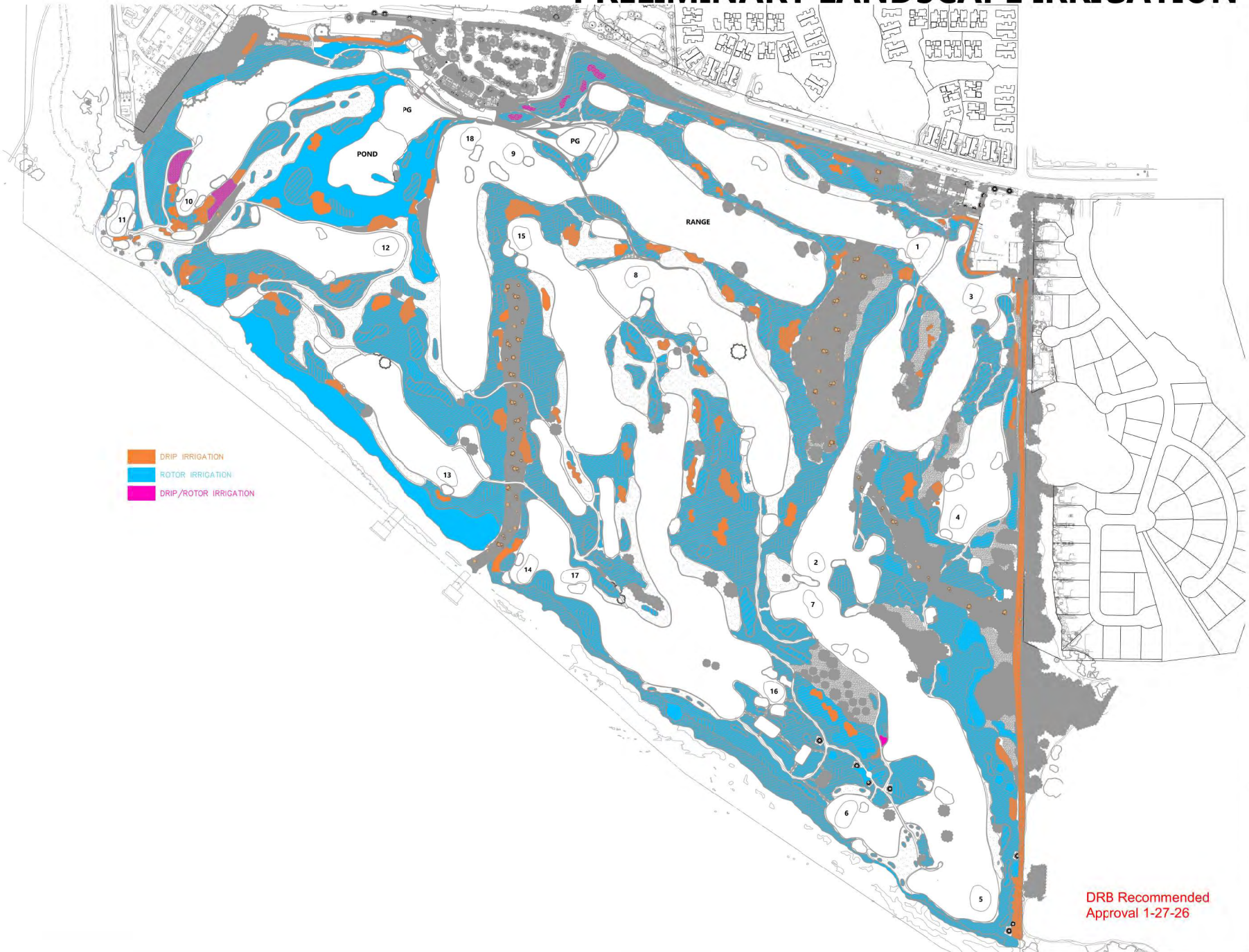
Revisions



**PRELIMINARY
DESIGN**

SHEET

1-3



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IRRIGATION DETAILS



**SANDPIPER GOLF CLUB
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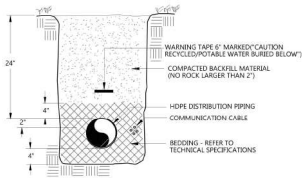
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**IRRIGATION
DETAILS**

**SHEET
I-5**

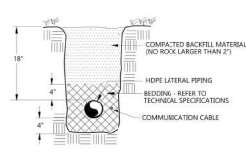


NOTE: REFER TO TECHNICAL SPECIFICATIONS FOR MINIMUM TRENCH WIDTHS AND BRIGATION PROCEDURES.

DISTRIBUTION PIPING TRENCH

NTS

13

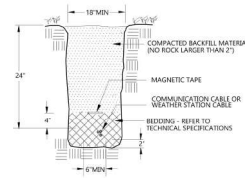


NOTE: REFER TO TECHNICAL SPECIFICATIONS FOR MINIMUM TRENCH WIDTHS AND BRIGATION PROCEDURES.

LATERAL PIPING TRENCH

NTS

14

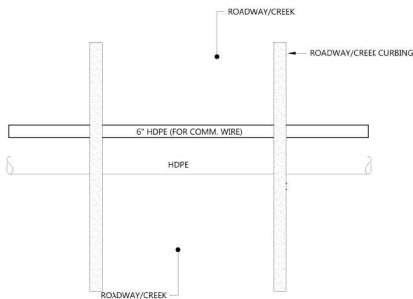


NOTE: REFER TO TECHNICAL SPECIFICATIONS FOR MINIMUM TRENCH WIDTHS AND BRIGATION PROCEDURES.

COMMUNICATION AND WEATHER STATION TRENCH

NTS

15



NOTE: ALL SLEEVES AND PIPING TO BE PLACED AT A MINIMUM DEPTH OF 10' OR AS DIRECTED BY OWNER. ALL SLEEVES AND PIPING TO BE PLACED AT A MINIMUM 10' BACK OF PAVEMENT EDGE.

ROAD CROSSING (BORE)

NTS

16

LEGEND				
SYMBOL	MANUFACTURER	MODEL NUMBER	DESCRIPTION	DETAIL NUMBER
▼	RAIN BRD	A-950-IC-80-22	VLLH GEAR DRIVEN ROTOR, PART CIRCLE W/42\"/>	
○	RAIN BRD	A-702-IC-70-36	VLLH GEAR DRIVEN ROTOR, FULL CIRCLE W/42\"/>	
▼	RAIN BRD	A-752-IC-70-36	VLLH GEAR DRIVEN ROTOR, PART CIRCLE W/42\"/>	
○	RAIN BRD	A-752-IC-70-28	VLLH GEAR DRIVEN ROTOR, PART CIRCLE W/42\"/>	
○	RAIN BRD	A-702-IC-70-28	VLLH GEAR DRIVEN ROTOR, FULL CIRCLE W/42\"/>	
○	RAIN BRD	A-752-IC-70-22	VLLH GEAR DRIVEN ROTOR, FULL CIRCLE W/42\"/>	
○	RAIN BRD	A-752-IC-70-22	VLLH GEAR DRIVEN ROTOR, PART CIRCLE W/42\"/>	
○	RAIN BRD	A-752-IC-50-20	VLLH GEAR DRIVEN ROTOR, PART CIRCLE W/40\"/>	
○	RAIN BRD	A-752-IC-50-20	VLLH GEAR DRIVEN ROTOR, FULL CIRCLE W/40\"/>	
▼	RAIN BRD	5006 - PC-SAM-55	GEAR DRIVEN ROTOR #35 NOZZLE @ 35 PSI	2
●	RAIN BRD	1806-SAMP-15VAN-MPR	6\"/>	
▼	RAIN BRD	#5RC	1\"/>	
▼	RAIN BRD	100-PE58-#-IC-PRSD	1\"/>	
▼	RAIN BRD	150-PE58-#-IC-PRSD	1-1/2\"/>	
●	AQUAFUSE OR APPROVED EQUAL	#AIBV-200Y-MNFO-360	2\"/>	
⊕	AMERICAN FLOW CONTROL	SERIES #2500	BLOWOFF ASSEMBLY	8
⊕	CRESPIN	PL16A	AIR RELEASE VALVE - 2\"/>	
⊕	AMERICAN FLOW CONTROL	SERIES #2500	GATE VALVE (LINE SIZE)	9
C	RAIN BRD I.C. SYSTEM	CIRBUS 1500 W/1 IC2	CENTRAL CONTROL COMPUTER INCLUDING FREEDOM SYSTEM AND 8 PWD PIPES WITH ENVIRONMENTAL CASES	13,14,15
W/S	RAIN BRD	H59915	WEATHER STATION (SOLAR/RADIO)	12
⊕	RAIN BRD	ISCD	GROUND ROD WITH ISCD	7
---	APPROVED	SDR 11	HDPE DISTRIBUTION PIPING	13
---	APPROVED	SDR 11	2\"/>	
---	RAIN BRD	12-2	COMMUNICATION WIRE	13,14,15
---	PAGE	7171D	PUMP STATION COMMUNICATION	13,14,15

GENERAL NOTES

- ALL BASE INFORMATION HAS BEEN MADE AVAILABLE BY OWNER.
- REFER TO PROJECT MANUAL AND CONSTRUCTION DETAILS FOR INSTALLATION PROCEDURES.
- CONSULTANT TO FIELD SURVEY ALL IRRIGATION HEADS AND FIELD SATELLITE UNIT LOCATIONS. CONTRACTOR TO MAINTAIN STAKING ACCORDING WITH SECTION 11.0 OF TECHNICAL SPECIFICATIONS. STAKE AND INSTALL EQUIPMENT WITHIN +/- FOLLOWING COMPLETION OF ALL STAKING.
- ALL VALVE IN-HEAD SPRINKLERS TO BE FACTORY SET PER PRESSURE SPECIFIED ON THE IRRIGATION LEGEND.
- QUICK COUPLERS TO BE INSTALLED WITH A MAXIMUM DISTANCE OF 10' FROM VALVE IN-HEAD SPRINKLER OR REMOTE CONTROL VALVE.
- COMMUNICATION CABLE TO BE INSTALLED IN CONDUIT ACROSS ALL BRIDGES, ROADWAYS AND PARKING LOTS.
- ALL ELECTRICAL VALVE BOXES TO BE SET ON 3/4\"/>

DRB Recommended
Approval 1-27-26