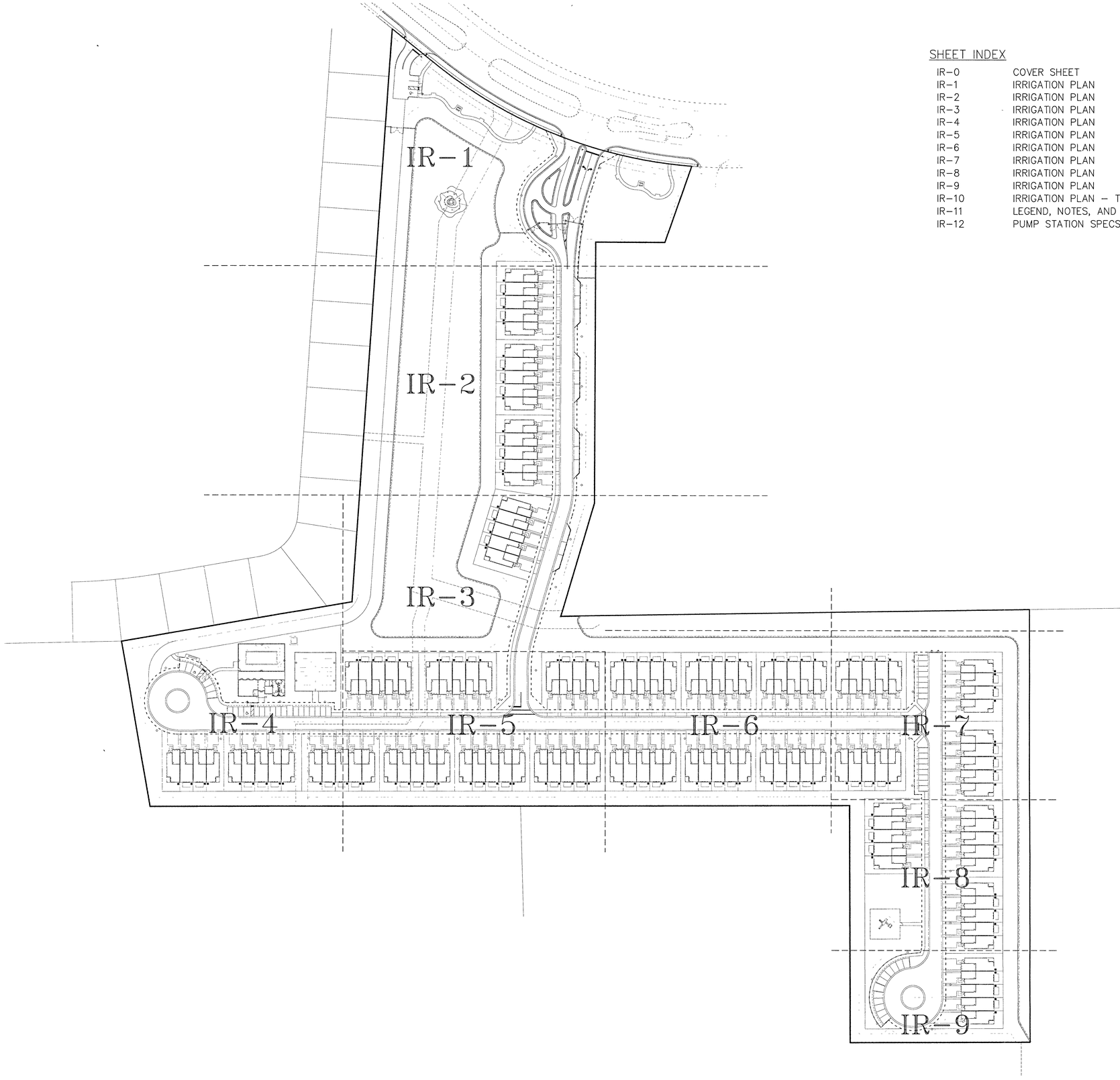


SHEET INDEX

Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE : NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION COVER SHEET

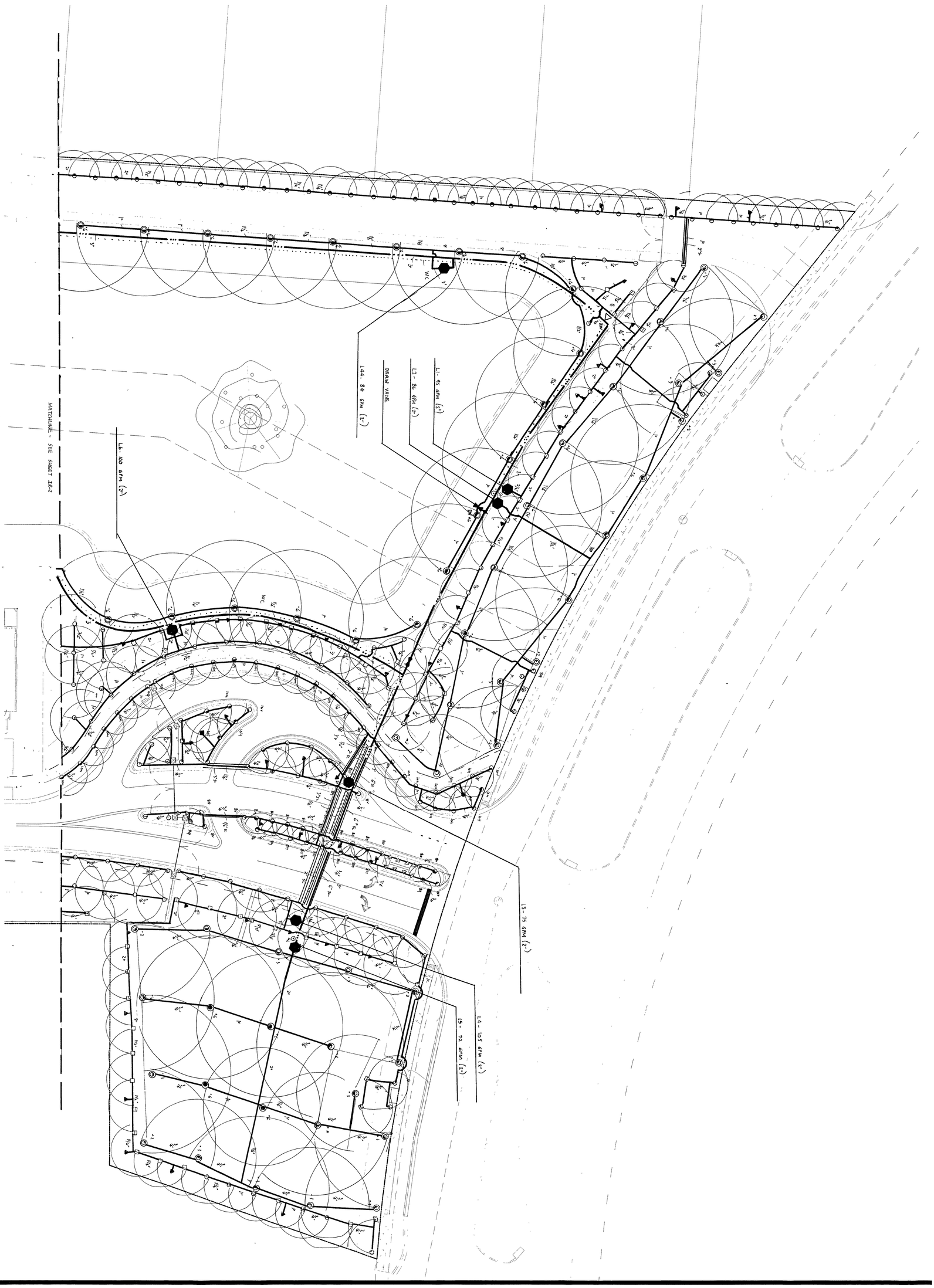
SEAL

Ken DiDonato

Kenneth DiDonato
P.E. Lic. #20692

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=80'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-0
SHT. NO. ___ of ___
REVISIONS :

CFILE:



PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE: NOVEMBER 2022
DWG. NO. IR-1
SHT. NO. ___ of ___
REVISIONS .

SEAL

Kenneth DiDonato
P.E. Lic. #20892

PROJECT TITLE : NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

Kenneth DiDonato, P.E.
KD
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

MATCH LINE - SEE SHEET IR-1

L7- 115 GPM (2")

L8- 90 GPM (2")

L43- 80 GPM (2")

L9- 115 GPM (2")

L42 - 84 GPM (2")

'TYPICAL LAYOUT'

L10- 118 GPM (2")

MATCH LINE - SEE SHEE IR-3

Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE

NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

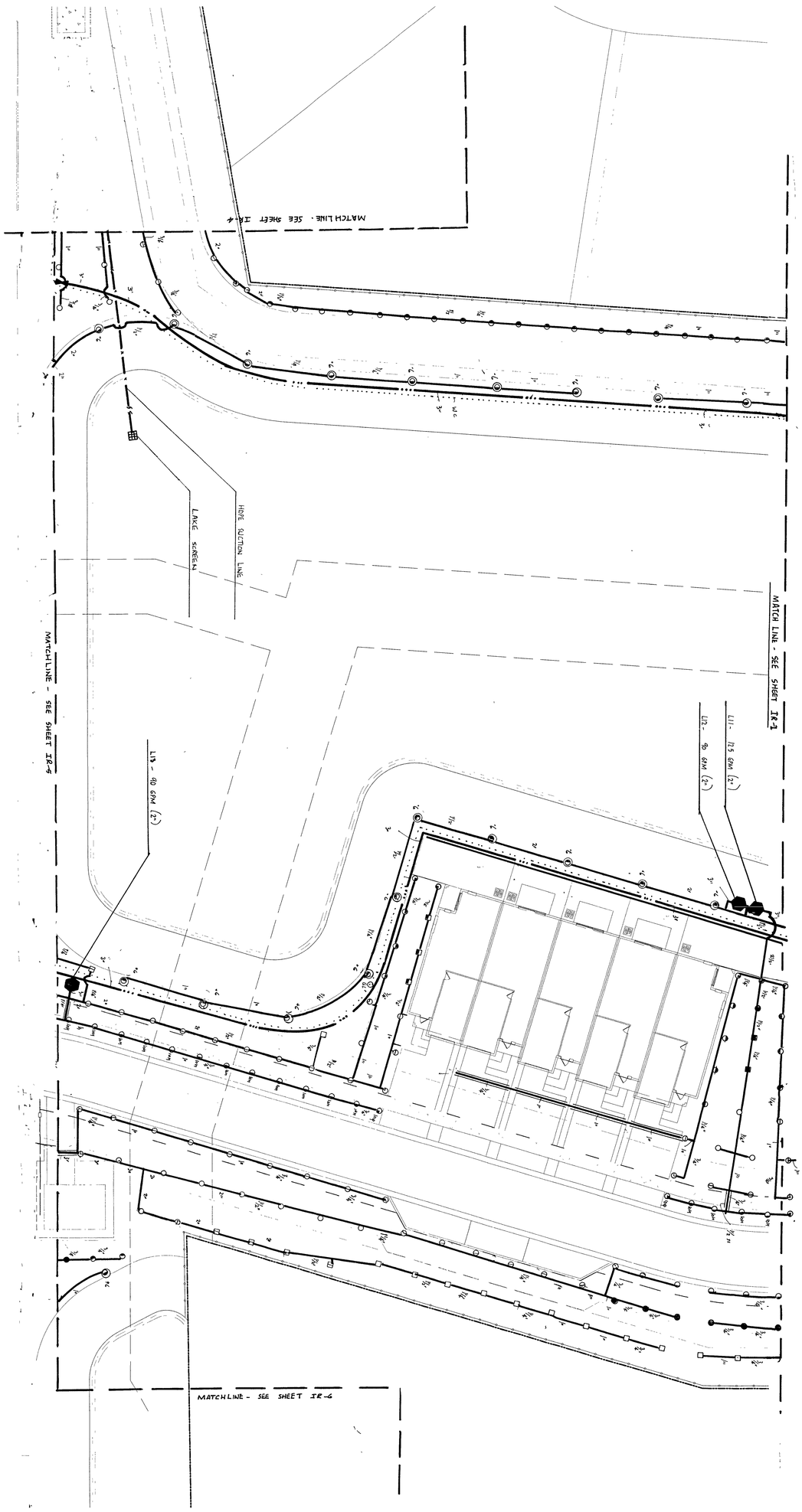
SEAL

Ken DiDonato

Kenneth DiDonato
P.E. Lic. #20892

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-2
SHT. NO. ___ of ___
REVISIONS :

CFILE-



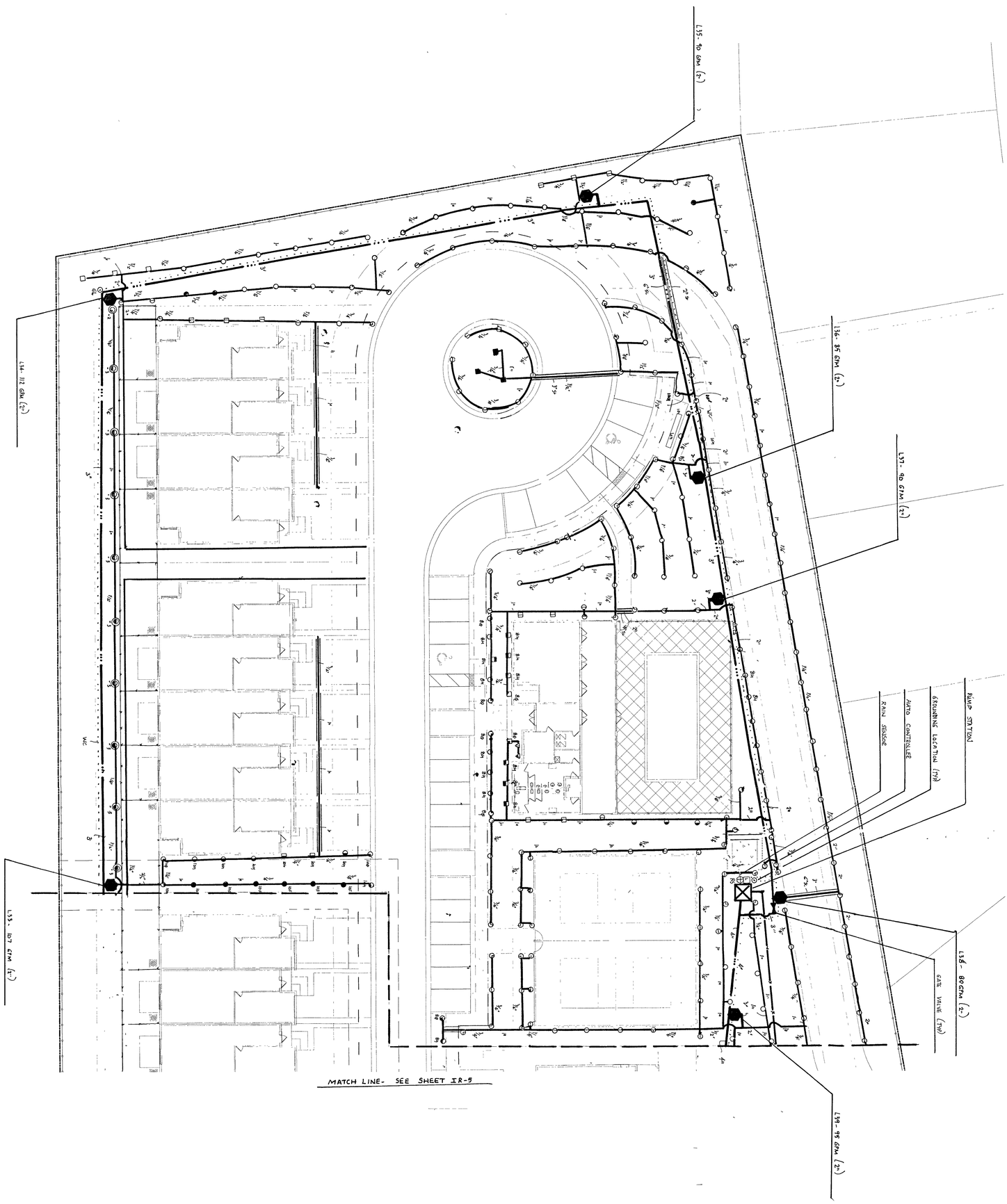
PROJECT NO. 2022-55
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE: NOVEMBER 2022
DWG. NO. IR-3
SHT. NO. ___ of ___
REVISIONS :
CYLE:

SEAL
Kenneth DiDonato
P.E. Lic. #20892

PROJECT TITLE : NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

Kenneth DiDonato, P.E.
KD
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555



PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE NOVEMBER 2022
DWG. NO. IR-4
SHT. NO. ___ of ___
REVISIONS :
CYCLE

SEAL
Kenneth DiDonato
P.E. Lic. #20892

PROJECT TITLE :
NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

Kenneth DiDonato, P.E.
KD
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE : NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

SEAL

Ken DiDonato

Kenneth DiDonato
P.E. Lic. #20692

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-5
SHT. NO. ___ of ___
REVISIONS .

CFILE:

Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE : NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

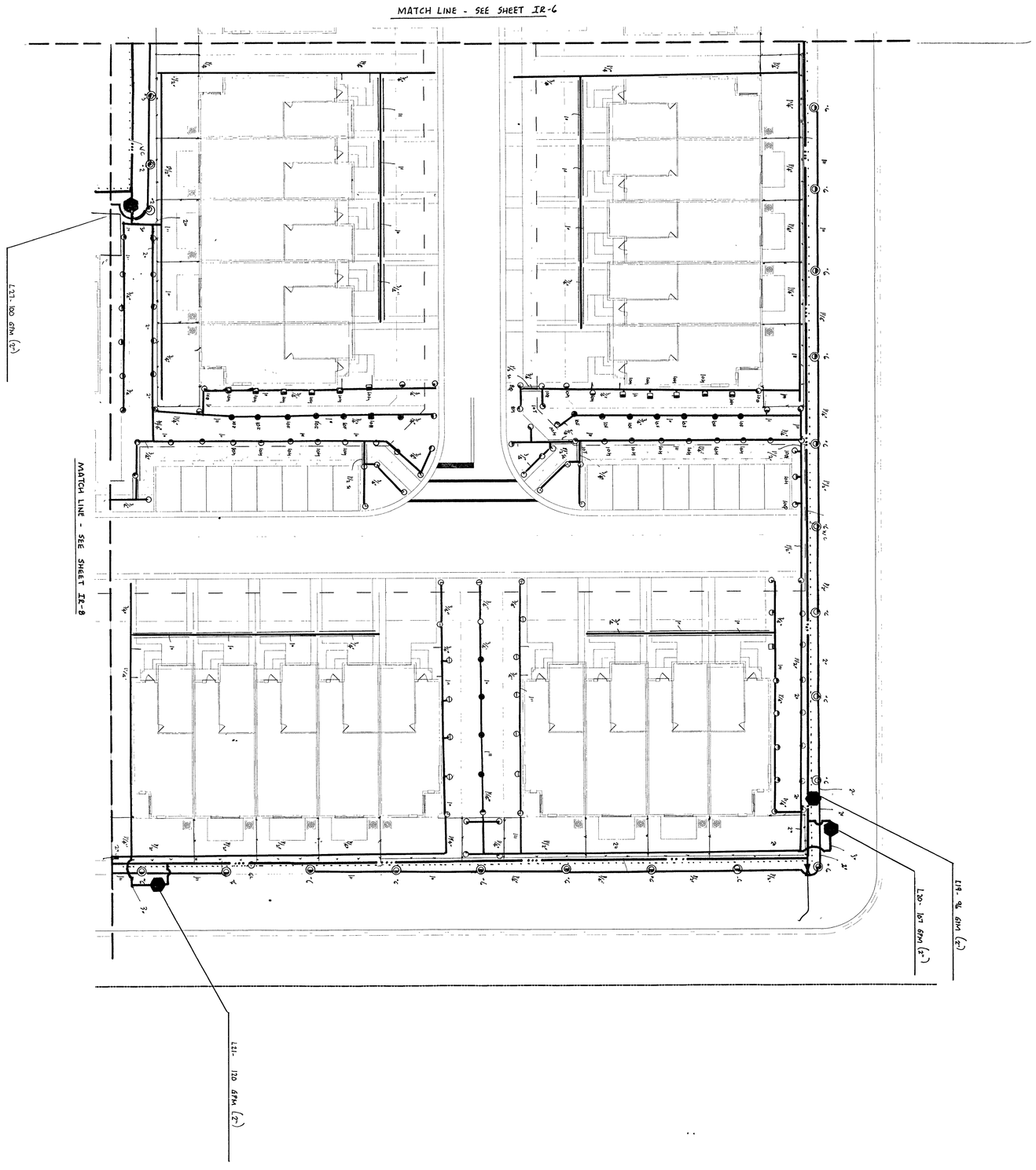
SEAL

Ken DiDonato

Kenneth DiDonato
P.E. Lic. #20892

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-6
SHT. NO. ___ of ___
REVISIONS :

CFILE



CFLE

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-7
SHT. NO. ____ of ____
REVISIONS :

SEAL

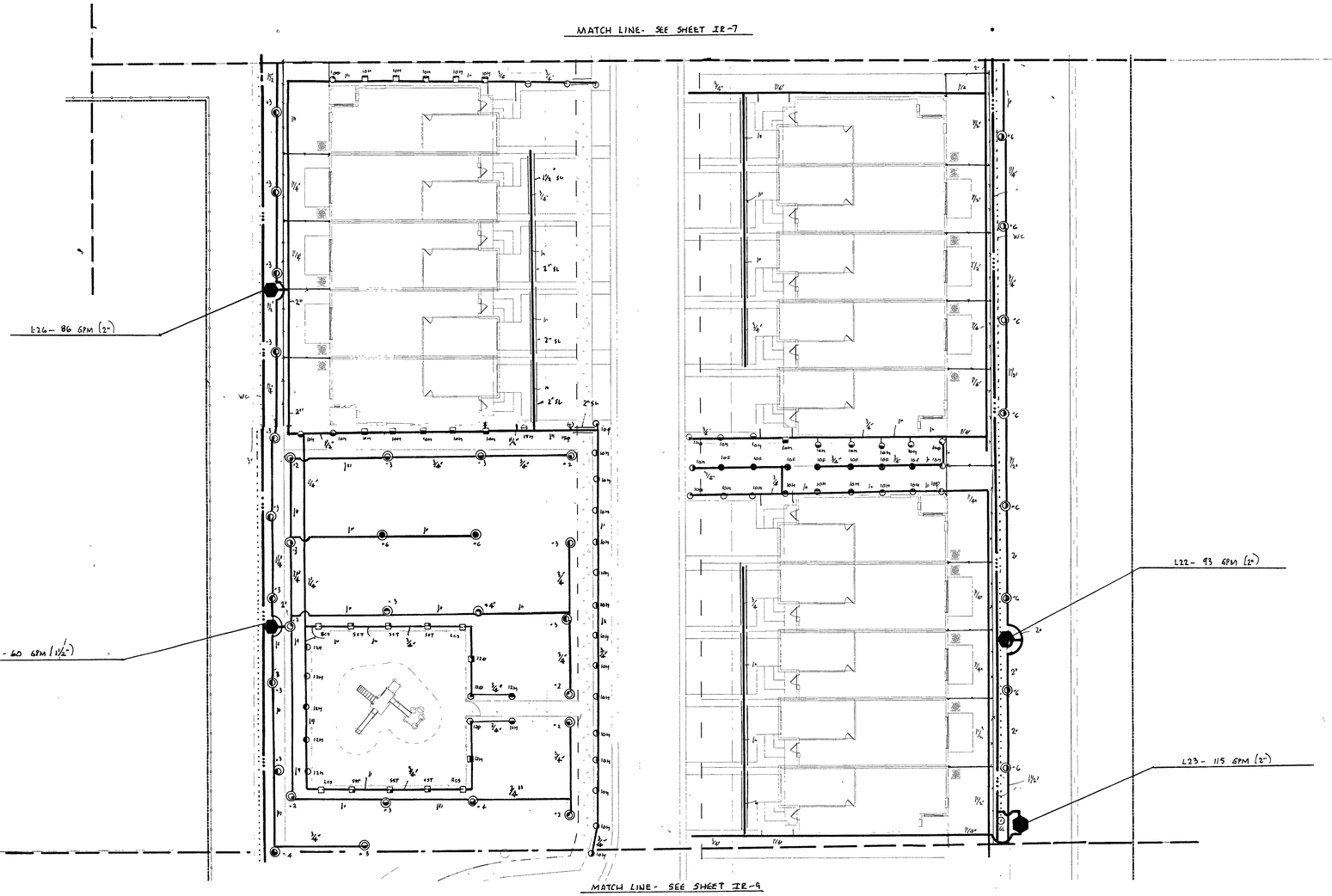
Kenneth DiDonato
P.E. Lic. #20892

PROJECT TITLE : NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

Kenneth DiDonato, P.E.
KD
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

MATCH LINE- SEE SHEET IR-7



MATCH LINE- SEE SHEET IR-9

Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE :
NOVE OF MARGATE
MARGATE, FLORIDA

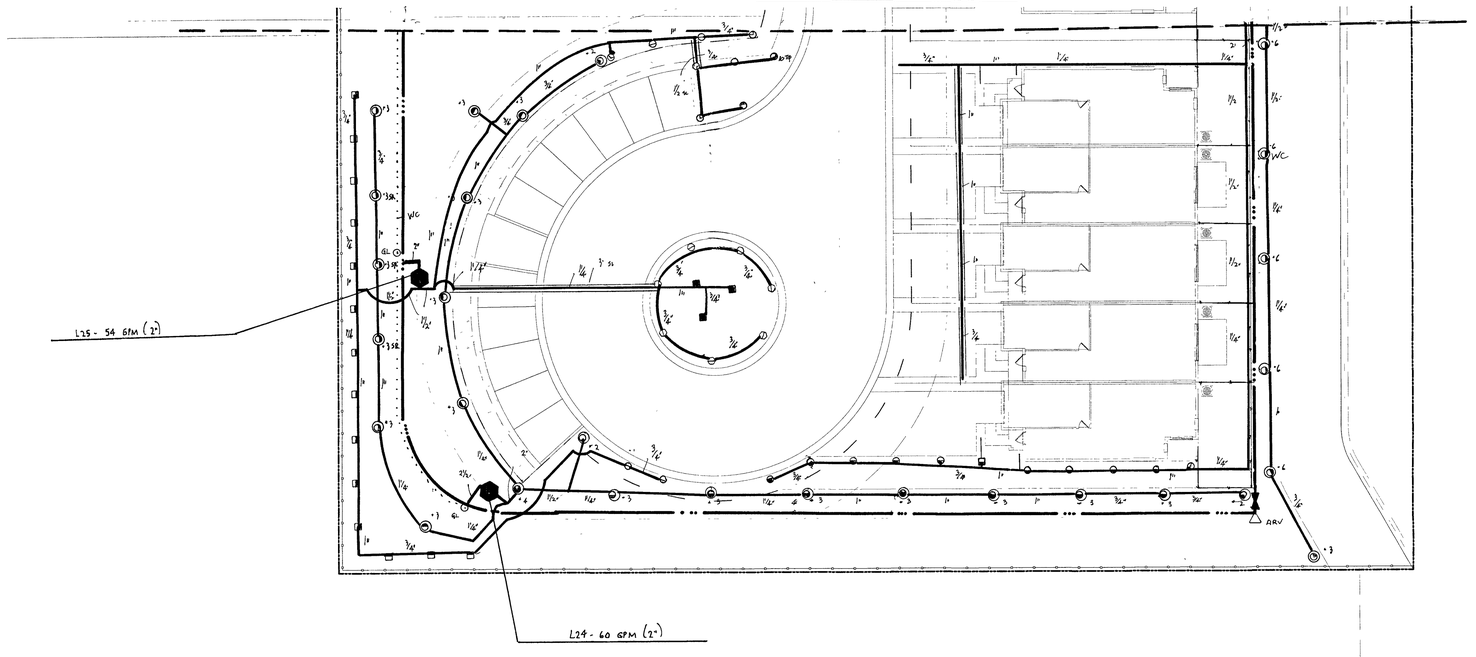
IRRIGATION PLAN

SEAL
Ken DiDonato
Kenneth DiDonato
P.E. Lic. #20892

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-8
SHT. NO. ___ of ___
REVISIONS :

CFILE:

MATCH LINE- SEE SHEET IR-8



Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE :
NOVE OF MARGATE
MARGATE, FLORIDA

IRRIGATION PLAN

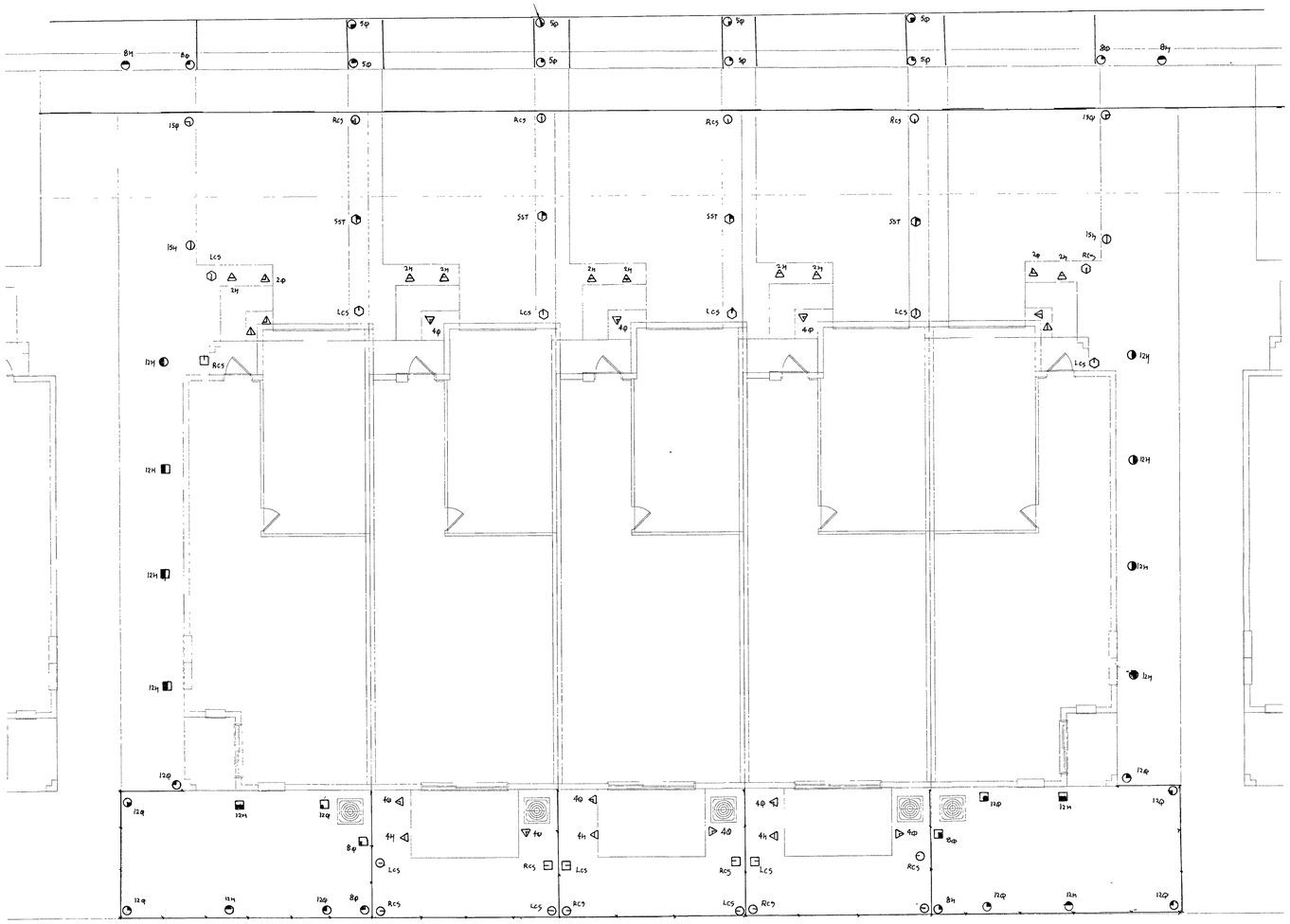
SEAL
Ken DiDonato
Kenneth DiDonato
P.E. Lic. #20892

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE . NOVEMBER 2022
DWG. NO. IR-9
SHT. NO. ___ of ___
REVISIONS .

CFILE:

LEGEND

SYMBOL	MODEL NO.	DESCRIPTION	* EST. QUANTITY
2Q	PRDS-00-PRS30-5CST-B	HUNTER STREAM BUBBLER	03
2Q	PRDS-00-PRS30-2Q	HUNTER SPRAY BUBBLER	03
2H	PRDS-00-PRS30-2H	HUNTER SPRAY BUBBLER	07
4Q	PRDS-00-PRS30-4Q	HUNTER SPRAY BUBBLER	09
4H	PRDS-00-PRS30-4H	HUNTER SPRAY BUBBLER	03
8Q	PRDS-00-PRS30-8Q	HUNTER SHRUB SPRAY	02
12Q	PRDS-00-PRS30-12Q	HUNTER SHRUB SPRAY	02
12H	PRDS-00-PRS30-12H	HUNTER SHRUB SPRAY	05
RCS	PRDS-00-PRS30-RCS515	HUNTER SHRUB SPRAY	03
LCS	PRDS-00-PRS30-LCS515	HUNTER SHRUB SPRAY	02
5Q	PRDS-06-PRS30-5Q	HUNTER 6' POP-UP SPRAY	08
8Q	PRDS-06-PRS30-8Q	HUNTER 6' POP-UP SPRAY	04
8H	PRDS-06-PRS30-8H	HUNTER 6' POP-UP SPRAY	02
12Q	PRDS-06-PRS30-12Q	HUNTER 6' POP-UP SPRAY	08
12H	PRDS-06-PRS30-12H	HUNTER 6' POP-UP SPRAY	07
RCS	PRDS-06-PRS30-RCS515	HUNTER 6' POP-UP SPRAY	08
LCS	PRDS-06-PRS30-LCS515	HUNTER 6' POP-UP SPRAY	04
15Q	PRDS-06-PRS30-15Q	HUNTER 6' POP-UP SPRAY	02
15H	PRDS-06-PRS30-15H	HUNTER 6' POP-UP SPRAY	02
RCS	PRDS-012-PRS30-RCS515	HUNTER 12' POP-UP SPRAY	01
LCS	PRDS-012-PRS30-LCS515	HUNTER 12' POP-UP SPRAY	06
SST	PRDS-012-PRS30-SSS30	HUNTER 12' POP-UP SPRAY	04



Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE :
NOVE OF MARGATE
MARGATE, FLORIDA
IRRIGATION PLAN
TYPICAL BUILDING

SEAL
Ken DiDonato
Kenneth DiDonato
P.E. Lic. #20892

PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: 1"=20'-0"
DATE : NOVEMBER 2022
DWG. NO. IR-10
SHT. NO. ___ of ___
REVISIONS .

CFILE-

LEGEND

SYMBOL	MODEL NO.	DESCRIPTION	* EST. QUANTITY
	PCN10	HUNTER FLOOD BUBBLER	37
	PROS-00-PRS30-5CST-B	HUNTER STREAM BUBBLER	87
2Q	PROS-00-PRS30-2Q	HUNTER SPRAY BUBBLER	86
2H	PROS-00-PRS30-2H	HUNTER SPRAY BUBBLER	206
4Q	PROS-00-PRS30-4Q	HUNTER SPRAY BUBBLER	229
4H	PROS-00-PRS30-4H	HUNTER SPRAY BUBBLER	65
8Q	PROS-00-PRS30-8Q	HUNTER SHRUB SPRAY	51
8H	PROS-00-PRS30-8H	HUNTER SHRUB SPRAY	08
10H	PROS-00-PRS30-10H	HUNTER SHRUB SPRAY	16
10F	PROS-00-PRS30-10F	HUNTER SHRUB SPRAY	01
	PROS-00-PRS30-12Q	HUNTER SHRUB SPRAY	53
	PROS-00-PRS30-12H	HUNTER SHRUB SPRAY	126
	PROS-00-PRS30-12F	HUNTER SHRUB SPRAY	13
	PROS-00-PRS30-RCS515	HUNTER SHRUB SPRAY	76
	PROS-00-PRS30-LCS515	HUNTER SHRUB SPRAY	53
	PROS-00-PRS30-15H	HUNTER SHRUB SPRAY	56
	PROS-00-PRS30-15TQ	HUNTER SHRUB SPRAY	01
	PROS-00-PRS30-15F	HUNTER SHRUB SPRAY	62
5Q	PROS-06-PRS30-5Q	HUNTER 6" POP-UP SPRAY	104
8V	PROS-06-PRS30-8V	HUNTER 6" POP-UP SPRAY	03
8Q	PROS-06-PRS30-8Q	HUNTER 6" POP-UP SPRAY	93
8H	PROS-06-PRS30-8H	HUNTER 6" POP-UP SPRAY	62
8F	PROS-06-PRS30-8F	HUNTER 6" POP-UP SPRAY	01
10V	PROS-06-PRS30-10V	HUNTER 6" POP-UP SPRAY	04
10Q	PROS-06-PRS30-10Q	HUNTER 6" POP-UP SPRAY	25
10T	PROS-06-PRS30-10T	HUNTER 6" POP-UP SPRAY	04
10H	PROS-06-PRS30-10H	HUNTER 6" POP-UP SPRAY	111
10TT	PROS-06-PRS30-10TT	HUNTER 6" POP-UP SPRAY	02
10TQ	PROS-06-PRS30-10TQ	HUNTER 6" POP-UP SPRAY	01
10F	PROS-06-PRS30-10F	HUNTER 6" POP-UP SPRAY	35
	PROS-06-PRS30-12V	HUNTER 6" POP-UP SPRAY	02
	PROS-06-PRS30-12Q	HUNTER 6" POP-UP SPRAY	221
	PROS-06-PRS30-12T	HUNTER 6" POP-UP SPRAY	02
	PROS-06-PRS30-12H	HUNTER 6" POP-UP SPRAY	306
	PROS-06-PRS30-12TQ	HUNTER 6" POP-UP SPRAY	04
	PROS-06-PRS30-12F	HUNTER 6" POP-UP SPRAY	28
	PROS-06-PRS30-RCS515	HUNTER 6" POP-UP SPRAY	215
	PROS-06-PRS30-LCS515	HUNTER 6" POP-UP SPRAY	113
	PROS-06-PRS30-SS530	HUNTER 6" POP-UP SPRAY	09
	PROS-06-PRS30-15V	HUNTER 6" POP-UP SPRAY	04
	PROS-06-PRS30-15Q	HUNTER 6" POP-UP SPRAY	78
	PROS-06-PRS30-15T	HUNTER 6" POP-UP SPRAY	05
	PROS-06-PRS30-15H	HUNTER 6" POP-UP SPRAY	255
	PROS-06-PRS30-15TT	HUNTER 6" POP-UP SPRAY	03
	PROS-06-PRS30-15TQ	HUNTER 6" POP-UP SPRAY	09
	PROS-06-PRS30-15F	HUNTER 6" POP-UP SPRAY	73
8V	PROS-012-PRS30-8V	HUNTER 12" POP-UP SPRAY	01
8Q	PROS-012-PRS30-8Q	HUNTER 12" POP-UP SPRAY	10
8T	PROS-012-PRS30-8T	HUNTER 12" POP-UP SPRAY	01
8H	PROS-012-PRS30-8H	HUNTER 12" POP-UP SPRAY	18
10V	PROS-012-PRS30-10V	HUNTER 12" POP-UP SPRAY	01
10H	PROS-012-PRS30-10H	HUNTER 12" POP-UP SPRAY	02
	PROS-012-PRS30-12Q	HUNTER 12" POP-UP SPRAY	03
	PROS-012-PRS30-12T	HUNTER 12" POP-UP SPRAY	06
	PROS-012-PRS30-12H	HUNTER 12" POP-UP SPRAY	02
	PROS-012-PRS30-RCS515	HUNTER 12" POP-UP SPRAY	26
	PROS-012-PRS30-LCS515	HUNTER 12" POP-UP SPRAY	141
	PROS-012-PRS30-SS530	HUNTER 12" POP-UP SPRAY	97
	PROS-012-PRS30-15V	HUNTER 12" POP-UP SPRAY	01
	PROS-012-PRS30-15Q	HUNTER 12" POP-UP SPRAY	08
	PROS-012-PRS30-15T	HUNTER 12" POP-UP SPRAY	04
	PROS-012-PRS30-15H	HUNTER 12" POP-UP SPRAY	08
	PROS-012-PRS30-15V	HUNTER 12" POP-UP SPRAY	08
	PROS-012-PRS30-15TT	HUNTER 12" POP-UP SPRAY	06
2	PGP-04-2	HUNTER 4" POP-UP ROTOR	08
3 3	PGP-04-3	HUNTER 4" POP-UP ROTOR	74
4	PGP-04-4	HUNTER 4" POP-UP ROTOR	04
6	PGP-04-6	HUNTER 4" POP-UP ROTOR	101
6	PGP-04-6	HUNTER 4" POP-UP ROTOR	04
	ICV-201G-FS	HUNTER 2" SOLENOID VALVE	44
L	A2C-75D-M	HUNTER AUTO. CONTROLLER	01
RS	MINI-CLIK	HUNTER RAIN SENSOR	01
NOT SHOWN	ROAMXL-KIT	HUNTER ROAM XL REMOTE	01
NOT SHOWN		HUNTER ICD DECODER	
		1 STATION	27
		2 STATION	08
NOT SHOWN	ICD-HP	HUNTER PROGRAMMER	01
• • • • •	IDIGRY	HUNTER DECODER CABLE	6300 LF
SD	270DCFD	PAIGE DECODER SWITCHING DEVICE	03
GL		GROUNDING LOCATION	17
NOT SHOWN		DUCTILE IRON	AS REQUIRED
		MAIN LINE FITTINGS	
		SCH 40 PVC	
		SLEEVES	AS REQUIRED
NOT SHOWN		PVC FITTINGS	AS REQUIRED
NOT SHOWN		SPRINKLER RISERS	AS REQUIRED
• • • • •		WIRE CONDUIT	6300 LF
		HDPE	AS REQUIRED
— x —		SUCTION LINE	
		TYPE 1120 PVC	
		4" MAIN LINE	640 LF
		3" MAIN LINE	6200 LF
		3/4" LATERALS	AS REQUIRED
		SDR 26, CLASS 160 PVC	AS REQUIRED
		LATERALS (1"+LARGER)	
		GATE VALVE (TO LINE SIZE)	
		4"	01
		3"	10
ARV		AIR RELIEF VALVE	02
ARV		VALVE BOX	57
		LAKE SCREEN	01
		PUMP STATION	01

NOTE: ABOVE QUANTITIES ARE FOR COMPARISON ONLY.
CONTRACTOR SHALL VERIFY PRIOR TO SUBMITTING BID.

ZONE SUMMARY CHART

VALVE NUMBER	LOCATION	SPRINKLER TYPE	VALVE SIZE	WATER DEMAND*	RUN TIME*	WEEKLY USAGE
L1	PARK	SPRAY	2"	75 GPM	40 MIN/WK	3,000 GAL/WK
L2	PARK	ROTOR	2"	86 GPM	120 MIN/WK	10,320 GAL/WK
L3	ENTRANCE	SPRAY	2"	75 GPM	40 MIN/WK	3,000 GAL/WK
L4	PARK	SPRAY	2"	105 GPM	40 MIN/WK	4,200 GAL/WK
L5	PARK	ROTOR	2"	72 GPM	120 MIN/WK	8,640 GAL/WK
L6	ENTRANCE	SPRAY	2"	100 GPM	40 MIN/WK	4,000 GAL/WK
L7	EAST BUFFER	SPRAY	2"	105 GPM	40 MIN/WK	4,200 GAL/WK
L8	LAKE BANK	ROTOR	2"	90 GPM	120 MIN/WK	10,800 GAL/WK
L9	TOWNHOMES	SPRAY	2"	115 GPM	40 MIN/WK	4,600 GAL/WK
L10	EAST BUFFER	SPRAY	2"	118 GPM	40 MIN/WK	4,720 GAL/WK
L11	TOWNHOMES	SPRAY	2"	125 GPM	40 MIN/WK	5,000 GAL/WK
L12	LAKE BANK	ROTOR	2"	96 GPM	120 MIN/WK	11,520 GAL/WK
L13	COMMON AREA	SPRAY	2"	90 GPM	40 MIN/WK	3,600 GAL/WK
L14	TOWNHOMES	SPRAY	2"	120 GPM	40 MIN/WK	4,800 GAL/WK
L15	EAST BUFFER	SPRAY	2"	90 GPM	40 MIN/WK	3,600 GAL/WK
L16	TOWNHOMES	SPRAY	2"	115 GPM	40 MIN/WK	4,600 GAL/WK
L17	LAKE BANK	ROTOR	2"	96 GPM	120 MIN/WK	11,520 GAL/WK
L18	TOWNHOMES	SPRAY	2"	103 GPM	40 MIN/WK	4,120 GAL/WK
L19	LAKE BANK	ROTOR	2"	96 GPM	120 MIN/WK	11,520 GAL/WK
L20	TOWNHOMES	SPRAY	2"	107 GPM	40 MIN/WK	4,280 GAL/WK
L21	TOWNHOMES	SPRAY	2"	120 GPM	40 MIN/WK	4,800 GAL/WK
L22	LAKE BANK	ROTOR	2"	93 GPM	120 MIN/WK	11,160 GAL/WK
L23	TOWNHOMES	SPRAY	2"	115 GPM	40 MIN/WK	4,600 GAL/WK
L24	COMMON AREA	ROTOR	2"	60 GPM	120 MIN/WK	7,200 GAL/WK
L25	COMMON AREA	SPRAY	2"	54 GPM	40 MIN/WK	2,160 GAL/WK
L26	TOWNHOMES	SPRAY	2"	105 GPM	40 MIN/WK	4,200 GAL/WK
L27	TOWNHOMES	SPRAY	2"	100 GPM	40 MIN/WK	4,000 GAL/WK
L28	SOUTH BUFFER	ROTOR	2"	90 GPM	120 MIN/WK	10,800 GAL/WK
L29	TOWNHOMES	SPRAY	2"	95 GPM	40 MIN/WK	3,800 GAL/WK
L30	TOWNHOMES	SPRAY	2"	95 GPM	40 MIN/WK	3,800 GAL/WK
L31	TOWNHOMES	SPRAY	2"	95 GPM	40 MIN/WK	3,800 GAL/WK
L32	SOUTH BUFFER	ROTOR	2"	84 GPM	120 MIN/WK	10,080 GAL/WK
L33	TOWNHOMES	SPRAY	2"	107 GPM	40 MIN/WK	4,280 GAL/WK
L34	TOWNHOMES	SPRAY	2"	112 GPM	40 MIN/WK	4,480 GAL/WK
L35	COMMON AREA	SPRAY	2"	90 GPM	40 MIN/WK	3,600 GAL/WK
L36	COMMON AREA	SPRAY	2"	85 GPM	40 MIN/WK	3,400 GAL/WK
L37	COMMON AREA	SPRAY	2"	90 GPM	40 MIN/WK	3,600 GAL/WK
L38	ROADWAY BUFFER	SPRAY	2"	80 GPM	40 MIN/WK	3,200 GAL/WK
L39	COMMON AREA	SPRAY	2"	95 GPM	40 MIN/WK	3,800 GAL/WK
L40	LAKE BANK	ROTOR	2"	90 GPM	120 MIN/WK	10,800 GAL/WK
L41	TOWNHOMES	SPRAY	2"	113 GPM	40 MIN/WK	4,520 GAL/WK
L42	LAKE BANK	ROTOR	2"	84 GPM	120 MIN/WK	10,080 GAL/WK
L43	WEST BUFFER	SPRAY	2"	80 GPM	40 MIN/WK	3,200 GAL/WK
L44	LAKE BANK	ROTOR	2"	84 GPM	120 MIN/WK	10,080 GAL/WK
L45-75	SPARE					
						257,480 GAL/WK

*APPROXIMATELY RUN TIME TO APPLY 1 0 IN/WK
SITE SHALL BE MONITOR AND RUN TIMES ADJUSTED TO ENSURE PROPER IRRIGATION

IRRIGATION NOTES & SPECIFICATIONS

AUTOMATIC IRRIGATION SYSTEM	
WATER DEMAND / ZONE	REFER TO PLAN
WATER SOURCE	LAKE
PRESSURE REQUIRED	60 PSI
PUMPING CAPACITY	250 GPM @ 162 FT.HD.

GENERAL

IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES, CONTRACT DRAWINGS, CONTRACT SPECIFICATIONS, AND APPENDIX "F" OF THE FLORIDA BUILDING CODE.

IRRIGATION DESIGN BASED ON PETERSON DESIGN 'LANDSCAPE PLANS' DATED NOVEMBER 2022. CONTRACTOR SHALL REFER TO THESE PLANS TO COORDINATE SPRINKLER LOCATIONS AND PIPE ROUTING WITH NEW AND EXISTING PLANT LOCATIONS.

THIS IRRIGATION PLAN SHALL BE USED AS A GUIDE ONLY. CONTRACTOR SHALL INSTALL IRRIGATION TO MATCH ON SITE CONDITIONS AND TO OVERCOME THE INHERENT INACCURACIES THAT RESULT WHEN DESIGNING FROM BASE PLANS SCALED AT 1" = 20'-0".

THE SOURCE FOR IRRIGATION SHALL BE A PRE-FABRICATED PUMP STATION DRAWING WATER FROM LAKE.

THIS IRRIGATION HAS BEEN DESIGNED AS A TYPICAL BLOCK VALVE TYPE USING HUNTER BUBBLER, SPRAY AND ROTOR SPRINKLERS, IN-LINE VALVES, AND DECODER CONTROL SYSTEM. WATER CONSERVATION EQUIPMENT SHALL BE INSTALLED.

IRRIGATION SHALL BE INSTALLED AND MAINTAINED TO MINIMIZE UNDESIRABLE OVERTHROW ONTO PAVEMENT, SIDEWALKS, AND BUILDINGS.

CONTRACTOR IS ADVISED TO STUDY THE PLANS FOR ADDITIONAL INFORMATION AND TO VISIT THE SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS.

TO ENSURE PROPER OPERATION, PUMP STATION CAPACITY, PROGRAMMING, VALVE SIZES, ZONE CAPACITIES, SPRINKLER SPACING, PIPE AND WIRE SIZES, AND INSTALLATION NOTES AND DETAILS SHALL BE FOLLOWED AS SHOWN.

PIPING

PIPE ROUTING IS SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS.

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND PIPE MANUFACTURER'S INSTRUCTIONS.

PIPE ROUTED UNDER HARDSCAPED AREAS SHALL BE SLEEVED IN SCH 40 PVC. EACH SLEEVE SHALL BE: (1) BURIED TO A MINIMUM DEPTH OF 24", (2) TWO PIPE SIZES LARGER THAN CARRIER PIPE, AND (3) EXTENDED 3' BEYOND HARDSCAPED AREA ON EACH END. CONTRACTOR SHALL VERIFY THE SIZE, DEPTH, AND LOCATION OF ALL EXISTING SLEEVES.

PIPE INSTALLED ABOVE GRADE AT THE PUMP STATION SHALL BE SCH 40 GALVANIZED STEEL. SUCTION LINE SHALL BE HDPE. ALL OTHER PIPING SHALL BE TYPE 1120 PVC. MAIN LINE AND LATERALS SIZED 3/4" SHALL BE SDR 21, CLASS 200. LATERALS SIZED 1" AND LARGER BE SDR 26, CLASS 160. MAIN LINE SHALL BE GASKET TYPE AND LATERALS SHALL BE SOLVENT WELD TYPE.

MAIN LINE DIRECTIONAL FITTINGS SHALL BE DUCTILE IRON MANUFACTURED BY HARCO OR APPROVED EQUAL. LATERAL PIPE FITTINGS SHALL BE SCH 40 PVC.

ALL MAIN DIRECTIONAL FITTINGS SHALL BE RESTRAINED WITH MEG-A-LUG JOINT RESTRAINTS.

PIPE SIZED TO LIMIT FLOW VELOCITIES TO 5 FEET/SECOND AND TO LIMIT FRICTION LOSS IN THE PIPING NETWORK.

PIPE SHALL BE INSTALLED AT SUFFICIENT DEPTH BELOW GROUND TO PROTECT IT FROM HAZARD SUCH AS VEHICULAR TRAFFIC OR ROUTINE OCCURRENCES WHICH OCCUR IN THE NORMAL USE AND MAINTENANCE OF THE PROPERTY. DEPTHS OF COVER SHALL MEET OR EXCEED SCS CODE 430-DD. REFER TO THE APPLICABLE DETAIL FOR ADDITIONAL INFORMATION.

BACKFILL SHALL BE OF SUITABLE MATERIAL, FREE OF ROCKS, STONES, AND OTHER DEBRIS THAT WOULD DAMAGE IRRIGATION SYSTEM COMPONENTS.

GATE VALVES SHALL BE INSTALLED FOR ISOLATION. EACH GATE VALVE SHALL BE TO LINE SIZE AND INSTALLED IN A COLOR CODED VALVE BOX. POROUS MATERIAL SHALL BE INSTALLED PER BOX TO PROMOTE DRAINAGE.

AIR RELIEF VALVES SHALL BE INSTALLED IN THE SYSTEM TO PROTECT THE PIPING NETWORK FROM EXCESSIVE PRESSURES THAT DEVELOP WHEN COMPRESSING ENTRAPPED AIR. EACH UNIT SHALL BE INSTALLED IN A VALVE BOX.

SPRINKLERS

SPRINKLER LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR LANDSCAPING, SITE LIGHTING, PREVAILING WIND, MOUNDING, ETC., TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. A PRIME OBJECTIVE SHALL BE TO ELIMINATE OVERTHROW ONTO PAVEMENT, SIDEWALKS, AND BUILDINGS.

SPRAY HEADS SHALL BE HUNTER PRO SERIES. SIX INCH POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH SOD AND MULCH, TWELVE INCH POP-UP TYPE SHALL BE INSTALLED IN AREAS LANDSCAPED WITH GROUND COVER AND LOW SHRUBS, SHRUB HEADS SHALL BE INSTALLED IN AREAS LANDSCAPED WITH TALL SHRUBS, AND BUBBLERS SHALL BE INSTALLED AT SELECTED PALMS AND TREES AND IN NARROW LANDSCAPED AREAS.

POP-UP TYPE LOCATED IN SOD, MULCH, AND GROUND COVERS SHALL BE INSTALLED ON FLEXIBLE SWING JOINTS CONSISTING OF THICKWALLED POLY PIPE AND INSERT ELBOWS.

POP-UP TYPE LOCATED IN SHRUBS SHALL BE INSTALLED ON 1/2" SCH 40 PVC RISERS TO A HEIGHT SO SPRINKLERS ARE CONCEALED FROM VIEW EXCEPT DURING USE.

SHRUB TYPE AND BUBBLERS SHALL BE INSTALLED ON 1/2" SCH 40 PVC RISERS. SHRUB HEADS SHALL BE INSTALLED A STANDARD HEIGHT OF 6" ABOVE PLANTS AND SHALL BE INSTALLED WITHIN PLANTS TO BE CONCEALED FROM VIEW. BUBBLERS SHALL BE INSTALLED AT THE BASE OF STREET TREES AND ROYAL PALMS FOR LOW LEVEL WATERING. RISERS SHALL BE PAINTED FLAT BLACK TO BE LESS VISIBLE.

EACH SPRAY HEAD SHALL BE EQUIPPED WITH THE APPROPRIATE MPR SPRAY NOZZLE AND SHALL BE PRESSURE REGULATED TO 30 PSI.

POP-UP ROTARY HEADS SHALL BE HUNTER PGP SERIES WHICH SHALL BE INSTALLED ON PVC SWING JOINTS CONSISTING OF SCH 80 NIPPLES AND MARLEX STREET ELBOWS. POP-UP ROTORS INSTALLED IN SHRUB MASSES SHALL BE INSTALLED ON PVC SCH 40 RISERS WHICH SHALL BE STAKED TO STABILIZE.

ADJUSTMENT FEATURES OF SPRINKLERS SPECIFIED SHALL BE UTILIZED TO ENSURE PROPER COVERAGE WITH MINIMAL UNDESIRABLE OVERTHROW. LOW ANGLE, FLAT SPRAY, AND ADJUSTABLE ARC NOZZLES SHALL BE USED TO MINIMIZE OVERTHROW.

SPRINKLERS LOCATED ADJACENT TO HARDSCAPED AREAS SHALL BE INSTALLED AWAY FROM HARDSCAPED AREAS TO MINIMIZE OVERTHROW AND THE CHANCE OF DAMAGE BY VEHICLES, PEDESTRIANS, AND LAWN MAINTENANCE PRESONNEL. AS A GENERAL RULE, 6" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 4", SHRUB HEADS AND 12" POP-UP SPRAY HEADS SHALL BE INSTALLED IN 12", AND ROTOR HEADS SHALL BE INSTALLED IN 6".

CONTROL SYSTEM

CONTROL SYSTEM SHALL BE A HUNTER ACC2 TWO WIRE DECODER TYPE. ONE 75 STATION CONTROLLER SHALL ACTIVATE 44 IN-LINE VALVES. A RAIN SENSOR SHALL BE INSTALLED TO CONSERVE WATER.

CONTROLLER LOCATION SHALL BE APPROVED BY THE PROJECT SUPERVISOR. A 117 VAC POWER SOURCE IS REQUIRED. CONTROLLERS SHALL BE LOCATED ADJACENT TO THE PUMP STATION.

CONTROLLER AND DECODERS SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND MANUFACTURER'S INSTRUCTIONS. PROPER GROUNDING SHALL BE ESTABLISHED.

THE TWO WIRE PATH FROM CONTROLLER TO VALVES/DECODERS SHALL BE HUNTER STANDARD DECODER CABLE.

IN-LINE AND END-LINE SURGE PROTECTORS AND GROUND RODS AND PLATES SHALL BE INSTALLED AS INSTRUCTED BY HUNTER AND PAIGE ELECTRIC TO ENSURE PROPER GROUNDING.

PAIGE SWITCHES DEVICES SHALL BE INSTALLED ON EACH 2-WIRE PATH AT LOCATIONS WHERE WIRE CHANGES DIRECTION AND IS SPLICED.

THE INTEGRITY OF ALL WIRE SPLICES IS CRITICAL TO THE OPERATION OF THE SYSTEM. ALL SPLICES SHALL BE MADE WATERPROOF USING APPROVED METHODS.

AUTOMATIC VALVE LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS. EACH VALVE SHALL BE INSTALLED IN A VALVE BOX. A MINIMUM OF ONE CUBIC FOOT OF GRAVEL SHALL BE PROVIDED PER BOX TO PROMOTE DRAINAGE.

PUMP STATION

LOCATION OF PUMP STATION SHALL BE VERIFIED ON SITE.

PUMP STATION SHALL BE A PRE-FABRICATED TYPE WITH A CAPACITY OF 250 GPM @ 162 FT.HD. BASIC COMPONENTS SHALL INCLUDE:

(1) AN END SUCTION CENTRIFUGAL PUMP WITH THE CAPACITY NOTED
(2) A 15 HP MOTOR SELECTED TO MATCH ON SITE ELECTRIC
(4) VARIABLE FREQUENCY DRIVE WITH INDUSTRIAL AIR CONDITIONER FOR A NEMA 4 CONTROL PANEL.
(5) FLOW METER
(6) PRESSURE TANK
(7) WELDED ALUMINUM SKID
(8) FIBERGLASS ENCLOSURE
(9) GATE AND CHECK VALVES
(10) 120 VOLT INDEPENDENT POWER SUPPLY FOR THE CONTROLLER

STATION SHALL BE MANUFACTURED BY SULLIVAN ELECTRIC OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.

STATION SHALL BE MOUNTED ON A 6" THICK CONCETE SLAB SIZED TO ACCOMMODATE STATION AND ASSOCIATE EQUIPMENT.

SUCTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH PUMP STATION MANUFACTURER'S INSTRUCTIONS, AND SHALL BE PROPERLY SCREENED TO PREVENT THE INTAKE OF HARMFUL MATERIAL INTO THE SYSTEM.

PROGRAMMING

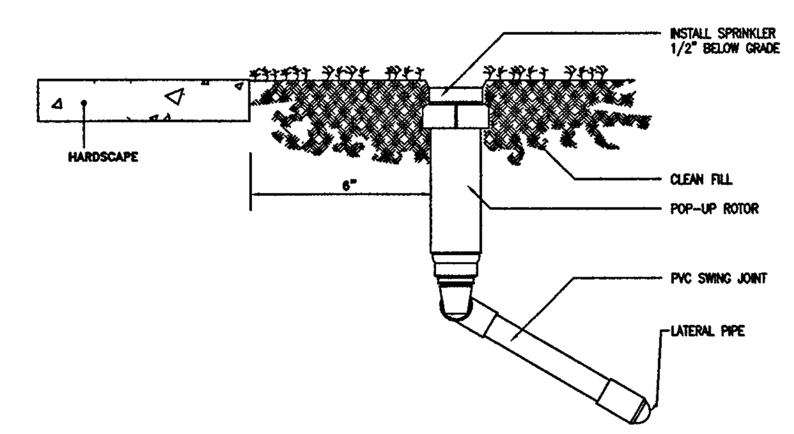
SYSTEM SHALL BE PROGRAMMED TO ENSURE THE CAPACITIES OF THE PIPING NETWORK AND PUMP STATION ARE NOT EXCEEDED. THE MAXIMUM TOTAL WATER USAGE SHALL NOT EXCEED 250 GPM.

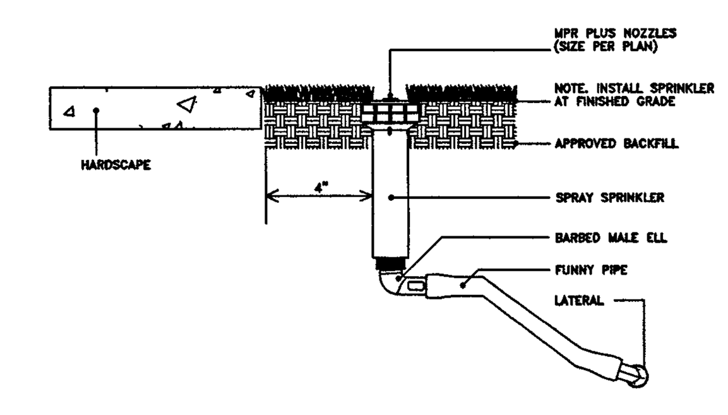
VALVES SHALL BE PROGRAMMED SO WATER IS EVENLY DISTRIBUTED THROUGHOUT THE SITE.

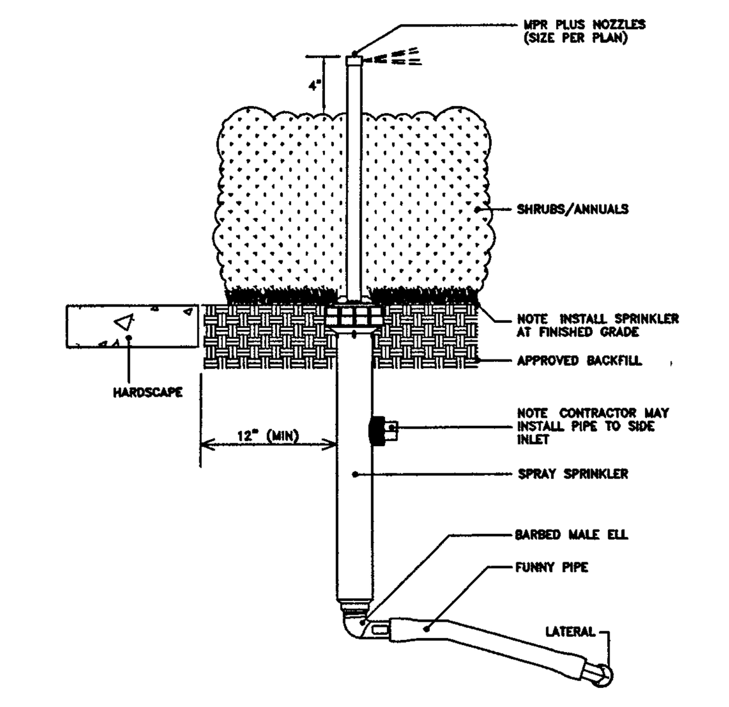
IRRIGATION SHALL ALSO BE PROGRAMMED TO OPERATE UNDER THE WATER RESTRICTION GUIDELINES ESTABLISHED BY LOCAL AUTHORITIES.

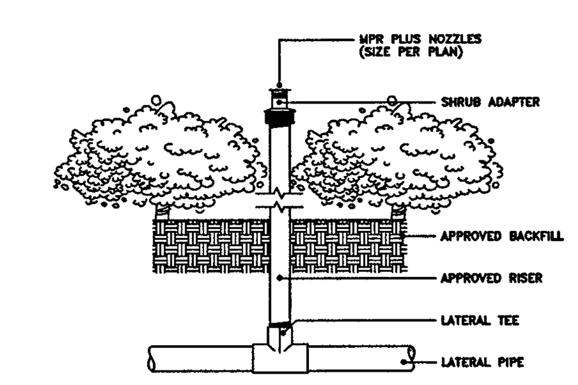
TIMING AND PRECIPITATION

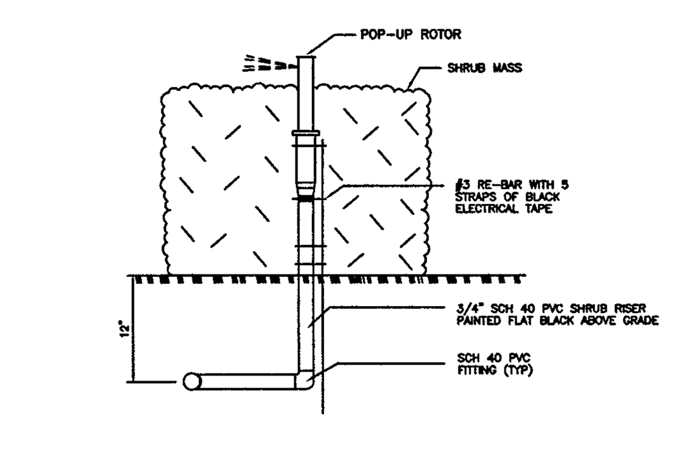
TIMING OF EACH STATION SHALL BE SET IN THE FIELD TO MATCH LOCAL REQUIREMENTS. REFER TO ZONE SUMMARY CHART FOR RECOMMENDED RUN TIMES TO APPLY 1.0 INCHES/WEEK.

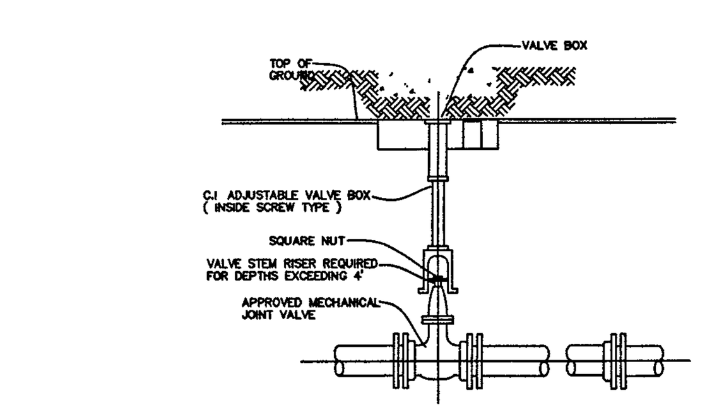

SPRINKLER DETAIL (NTS)
POP-UP ROTOR ON PVC SWING JOINT LOCATED IN SOD OR MULCH

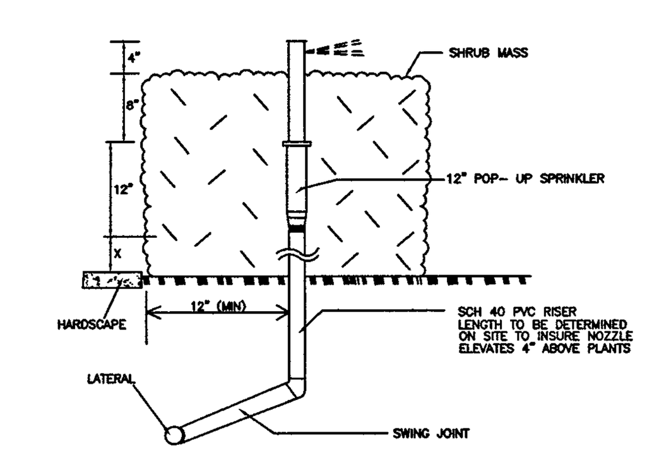

SPRINKLER DETAIL (NTS)
POP-UP SPRAY ON POLY PIPE SWING JOINT LOCATED IN SOD OR MULCH

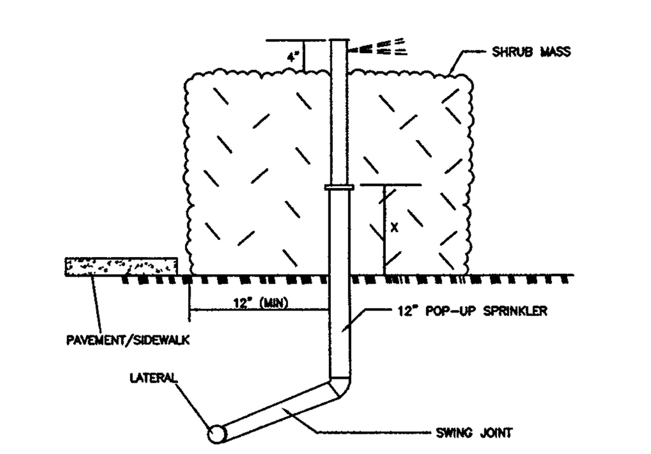

SPRINKLER DETAIL (NTS)
12" POP-UP SPRAY ON POLY PIPE SWING JOINT LOCATED IN PLANTS MAINTAINED TO A MAXIMUM HEIGHT OF 8".

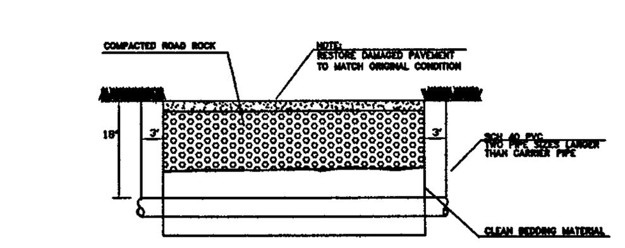

SHRUB/BUBBLER SPRINKLER
NOT TO SCALE


POP-UP ROTOR INSTALLATION
NOT TO SCALE


GATE VALVE DETAIL
NOT TO SCALE


SPRINKLER DETAIL (NTS)
12" POP-UP ON PVC SWING JOINT WITH RISER LOCATED IN PLANT MASS MAINTAINED TO A MINIMUM HEIGHT OF 24".


SPRINKLER DETAIL (NTS)
12" POP-UP INSTALLED ON PVC SWING JOINT LOCATED IN PLANT MASS MAINTAINED TO A MAXIMUM HEIGHT OF 18".


PIPE SLEEVE DETAIL
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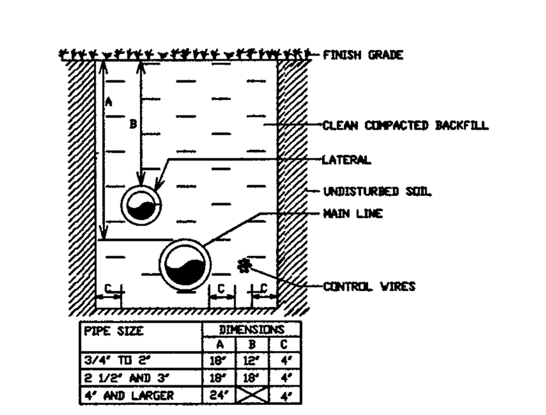
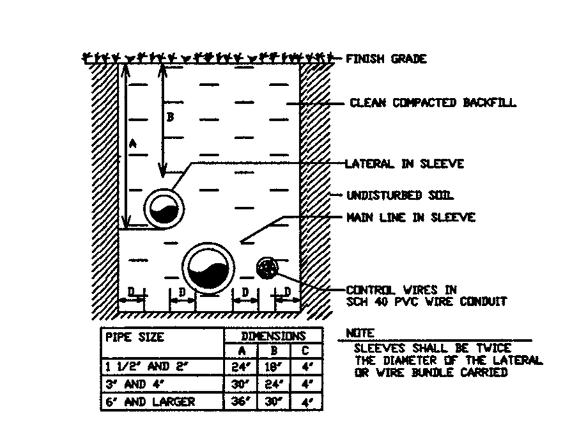
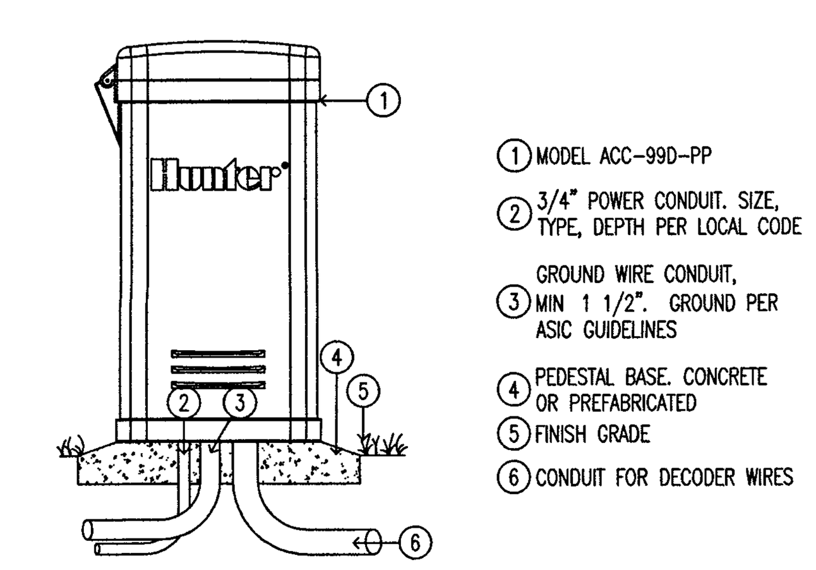
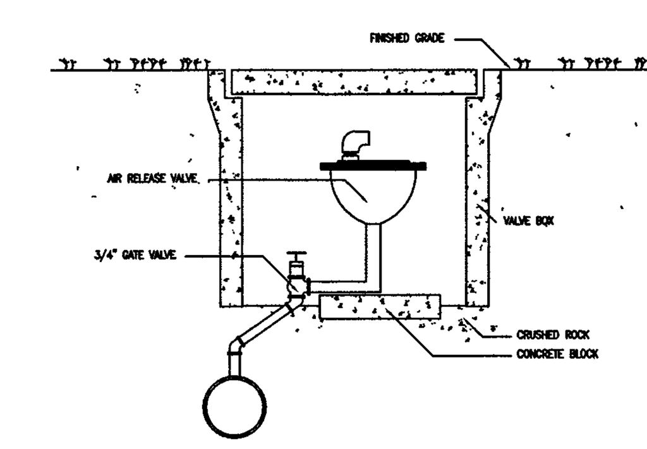
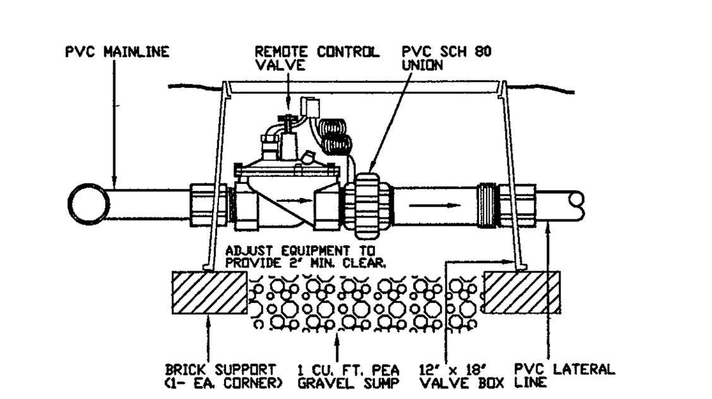

TRENCHING DETAIL (NTS)
NON-TRAFFIC AREAS

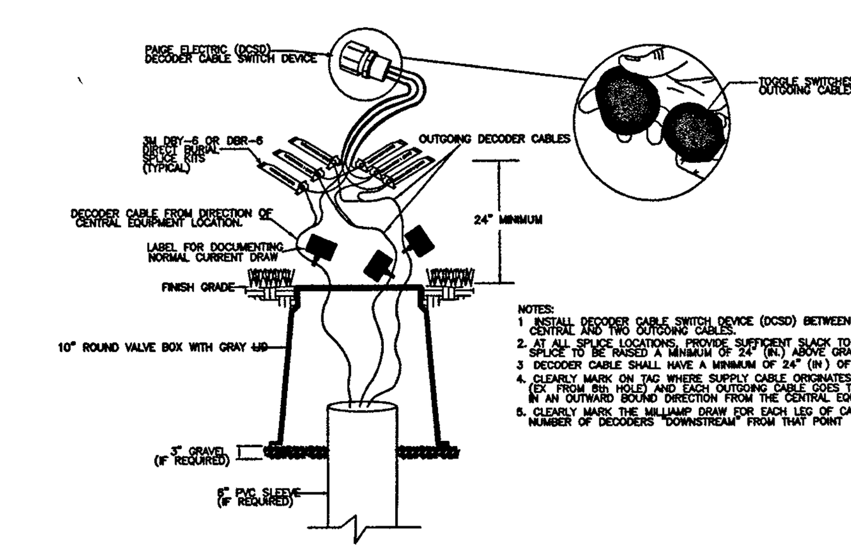

TRENCHING DETAIL (NTS)
VEHICLAR TRAFFIC AREAS



ACC-99D CONTROLLER
NOT TO SCALE


AIR RELIEF VALVE
NOT TO SCALE


REMOTE CONTROL VALVE DETAIL
NOT TO SCALE


PAIGE ELECTRIC (DCSD)
NOT TO SCALE

Kenneth DiDonato, P.E.
CONSULTING ENGINEER
GOLF COURSE & COMMERCIAL IRRIGATION DESIGN
2210 HOLLYWOOD BLVD., HOLLYWOOD, FLORIDA 33020
(954) 923-2555

PROJECT TITLE: NOVE OF MARGATE
MARGATE, FLORIDA

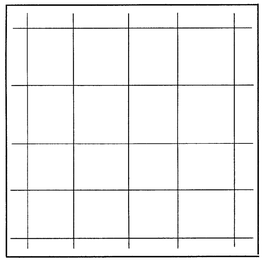
IRRIGATION LEGEND, NOTES, AND INSTALLATION DETAILS

SEAL
Ken DiDonato
Kenneth DiDonato
P.E. Lic. #20892

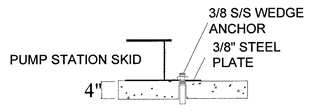
PROJECT NO.	2022-65
DRAWN BY	KMD
DESIGNED BY	KMD
SCALE:	N.T.S
DATE :	NOVEMBER 2022
DWG. NO.	IR-11
SHT. NO.	____ of ____
REVISIONS :	

CFILE:

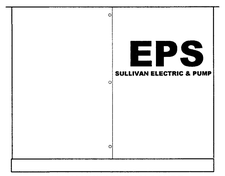
CONCRETE SLAB SIZE
TYPICAL SLAB IS 5' X 5'



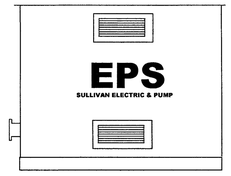
3000 PSI CONCETE
TROWEL FINNISH LEVEL
IN BOTH DIRECTIONS
1 - #5 BAR @ 12" O.C.
BOTH DIRECTIONS CENTERD IN SLAB



PUMP STATION CONCRETE PAD DETAIL

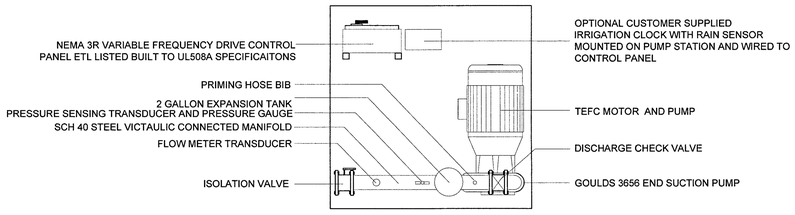


4' X 4' ALUMINUM ENCLOSURE



4' X 4' ALUMINUM ENCLOSURE

4' X 4' 1/4" DIAMOND PLATE ALUMINUM SKID
W/ ALUMINUM ENCLOSURE



EFFICIENT PUMP SYSTEM AS MANUFACTURED
BY SULLIVAN ELECTRIC AND PUMP , INC.
PHONE (800) 991-2770

MODEL # EPS-IC-15-230-3-VFDP-250-165
GPM. 250
TDH 165
APPROXIMATE OPERATING PRESSURE · 60
HP 15
VOLTAGE· 230/120 30 AMP NEUTRAL MUST BE PULL TO CONTROL PANEL
PHASE 3 PHASE OPEN DELTA.
MINIMUM CIRCUIT AMPERAGE 90 AMP
WATER SOURCE. SURFACE WATER LAKE
SUCTION PIPE 6" STEEL ABOVE GRADE TO DR17 HDPE BELOW GRADE
SUCTION CHECK VALVE 6" VIC SWING TYPE AT LAKE BANK
SUCTION SCREEN STAINLESS STEEL SCREENED SULLIVAN EPS SS
PUMP 4 BF GOULDS END SUCTION 6 7/8" IMPELLER
MOTOR 15HP TEFC HIGH EFFICIENCY.
DISCHARGE CHECK VALVE 3" FLG TO FLG SILENT TYPE
STATION DISCHARGE MANIFOLD. 3" SCH 40 STEEL W/ PRESSURE TRANSDUCER,
LIQUID FILLED PRESSURE GAUGE AND HOSE BIB.
DISCHARGE PNEUMATIC TANK· 2 GALLON EXPANSION TANK
DISCHARGE FLOW METER 220B TRANSDUCER INTO VFD WITH OPTICAL ISOLATOR FOR
CONNECT TO BASELINE CONTROLLER
DISCHARGE ISOLATION VALVE 3" VICTUALIC
DISCHARGE· 3" STEEL TO BELOW GRADE CONNECTION BY OTHERS
PUMP STATION SKID 4" X 4" X 4" TREAD PLATE ALUMINUM.
PUMP STATION ENCLOSURE· 4' X 4' X 5' ALUMINUM HINGED DOOR ACCESS
CONCRETE PAD 5' X 5' X 4" STEEL REENFORCED CONCRETE PAD
CONTROL PANEL· POLLY NEMA 3R ENCLOSURE WITH MAIN DISCONNECT,
SURGE PROTECTIVE DEVICE, CLASS J FUSE PROTECTION, IQ PUMP VFD,
FLOW, PRESSURE AND VOLUTE TEMP SENSOR PROTECTION ETL LISTED
BUILT TO UL 508A SPECIFICATIONS.

Intertek 73378

Industrial Control Panel

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PROJECT TITLE :
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MARGATE, FLORIDA

IRRIGATION PUMP STATION

SEAL
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PROJECT NO. 2022-65
DRAWN BY KMD
DESIGNED BY KMD
SCALE: N.T.S
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DWG. NO. IR-12
SHT. NO. ___ of ___
REVISIONS :

CFILE: