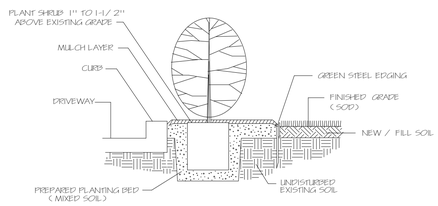
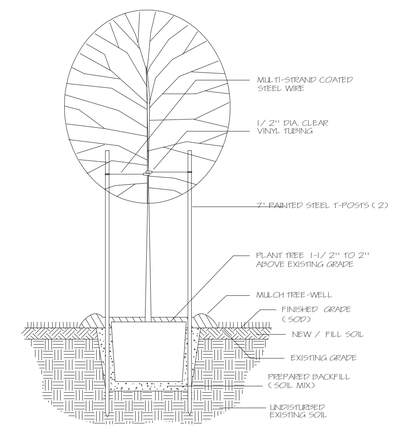
LANDSCAPE CONSTRUCTION SPECIFICATIONS :

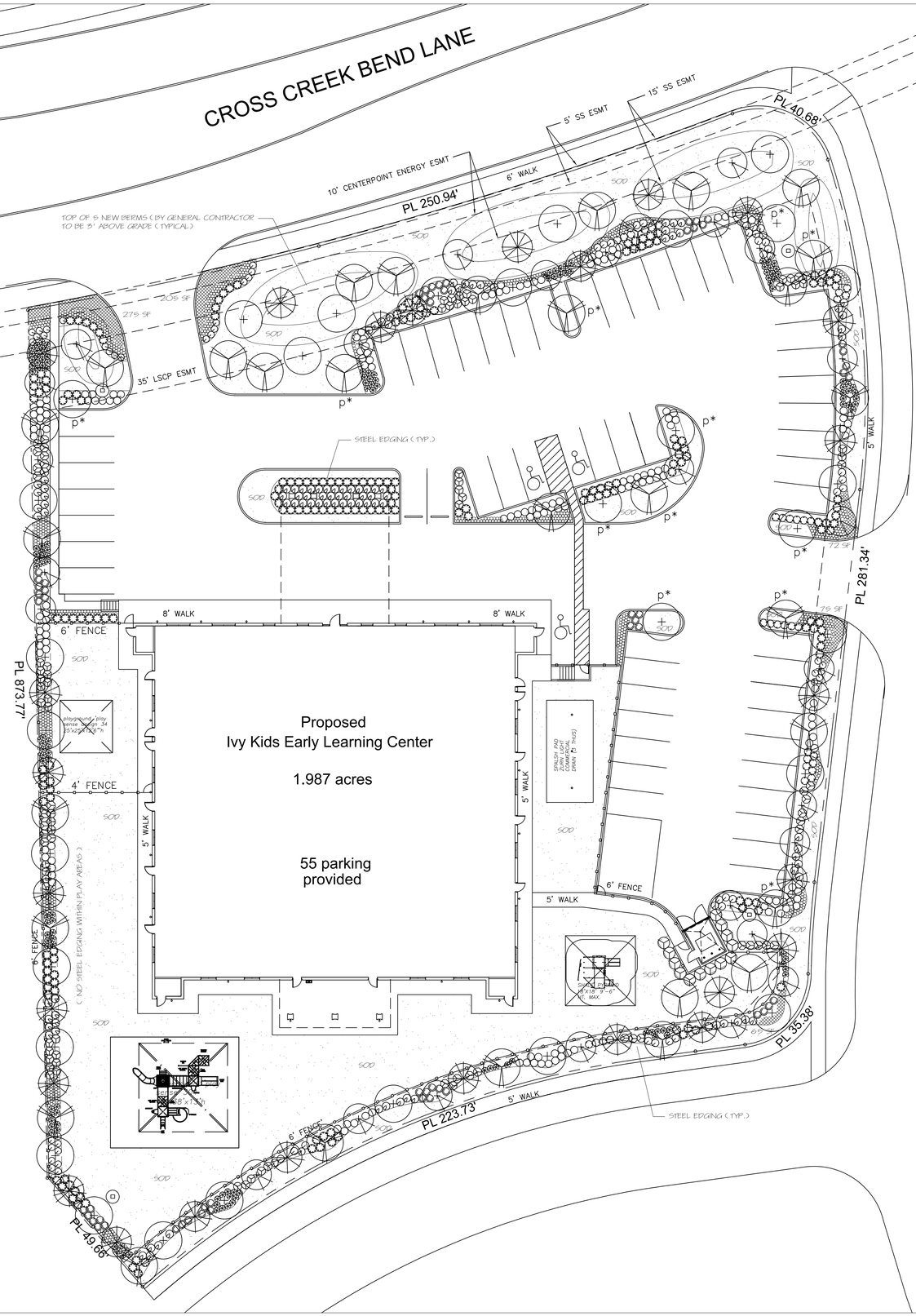
1.) General Contractor to bring all areas to final grade with a boxblade using a good quality, gradable topsoil.
2.) Prepare all new planting beds by removing all rocks, concrete and construction debris and till in 3'' to 4'' of new Soil Mix and pre-emergent herbicide (such as Pennant or Eptam) at the recommended rates, then rake all bed areas smooth prior to planting.
3.) Grade all planting beds to edges of beds and away from buildings prior to planting for positive drainage away from foundation(s). Install green Ryerson Steel landscape edging (1/ 8'' thick x 4'' tall) between turf and planting beds. Cut exposed corners at 45 degrees when steel butts up against curbs or walkways for pedestrian safety. Do not install steel edging in play areas. Use shovel cut edge only.
4.) Fertilize all new trees, shrubs and groundcovers with Osmocote (or equal) time-release fertilizer.
5.) Mulch all new planting beds and trees with a 2'' (avg.) layer of shredded hardwood bapdress mulch as from Letco or CJM Soil Supermarket.
6.) Double-Stake all specified trees (see plant list) with 2 (7' tall painted metal T-Posts, multi-strand coated steel wire and clear vinyl tubing.
7.) Root-Stimulate all new trees with Superthrive brand root-stimulator (or equal) as per manufacturers recommendations .
8.) Plant sizes shown are the minimum acceptable. Plants will be inspected and measured for conformance. Plants specified with container size only shall be of or better than locally accepted nursery standards. Obviously undersized, misshapen, weak or inadequately rooted plants will be rejected. The Owner's decision will be final in matters concerning plant size, condition and health. Plants larger in size than specified may be used if approved by the Landscape Architect or the Owner, but the use of larger plants will not automatically increase the contract amount.
9.) Thoroughly hand water all new plantings immediately after planting.
10.) Fine grade all new turf areas (by hand if necessary) prior to installation of grass. This is for a nice smooth turf-bed as well as for normal drainage purposes.
11.) Solid sod to be 99 percent pure Common Bermudagrass. Sod to be rolled immediately after wetting and installation.
12.) Landscape contractor is responsible for keeping jobsite neat, clean and safe at all times in reference to their landscape work. Excess excavated soil, accumulations of landscape related trash, plant containers etc. to be removed from jobsite by Landscape Contractor daily and at the end of the project.
13.) The Owner, Landscape Architect and general Contractor reserve the right to inspect the progress of the project and any or all of the materials and procedures used at any time. Such materials and procedures will be subject to approval or rejection at that time and promptly followed up in writing to all concerned parties.



A SHRUB PLANTING DETAIL
(NO SCALE)



B CONTAINER TREE PLANTING DETAIL
(NO SCALE)



LEGEND				
31	LO	+	LIVE OAK	65 GAL / 3'' CAL. MIN.
31	BC		BALD CYPRESS	65 GAL / 3'' CAL. MIN.
26	NO		NUTTALL OAK	30 GAL / 2'' CAL. MIN.
26	PI		LOBLOLLY PINE	30 GAL / 2'' CAL. MIN.
13	WM		WAX MYRTLE	30 GAL / 4' OC
163	DW		DWARF WAX MYRTLE	5 GAL / 2.5' OC
185	PL		BLUE PLUMBAGO	3 GAL / 2.75' OC
98	VP		VARIEGATED PITTOSPORUM	3 GAL / 2.75' OC
47	LP		LOROPETALUM	3 GAL / 2.75' OC
35	KO		KNOCK-OUT ROSE	3 GAL / 2.5' OC
38	AB		PINK ABELLIA	3 GAL / 2.75' OC
142	AM		ADAGIO MISCANTHUS	1 GAL / 2' OC
58	DO		DWARF PINK OLEANDER	3 GAL / 2.5' OC
70	IH		CLARA INDIAN HAWTHORN	5 GAL / 2.5' OC
906	LR		BIG BLUE LIRIOPE	1 GAL / 13'' OC
692	SF		SEASONAL FLOWERS	4'' POT / 9'' OC
			COMMON BERMUDAGRASS SOD	

p* DENOTES DESIGNATED "PARKING TREE" (12)

CROSS CREEK RANCH LANDSCAPE ANALYSIS FORM	
A.) SHADE TREES TOTAL IMPERVIOUS AREA 50,946 SF / 1000 = 50.9 x 2 =	102 SHADE TREES REQUIRED 102 SHADE TREES PROVIDED
B.) PARKING LOT TREES	12 PARKING LOT SHADE TREES PROVIDED

NOTES :

1.) No green steel landscape edging is allowed in children's play areas. ''Cut'' bed edge only.
2.) All new landscape areas and plantings to be irrigated with a professionally designed and installed automatic landscape irrigation system. See Irrigation Plan (L2.0) to be provided after site approval.

PLANT LIST

QUANT.	SYMBOL	PLANT TYPE	SIZE	NOTES
38	A B	ABELIA , PINK Abelia grandiflora 'Edward Goucher'	3 GAL.	2 - 9'' O.C. , FULL , HEALTHY 24'' - 30'' HT. X 24'' - 30'' SPR.
142	A M	ADAGIO MISCANTHUS Miscanthus sinensis 'Adagio'	1 GAL.	2' O.C. , FULL , HEALTHY 14'' - 18'' HT. X 8'' - 10'' SPR.
31	B C	BALD CYPRESS Taxodium distichum	65 GAL. 3'' CAL. MIN.	SINGLE-TRUNK , DOUBLE-STAKED 10' - 13' HT. X 6' - 7' SPR. , MATCHING
58	D O	DWARF PINK OLEANDER Nerium oleander 'Petite Pink'	3 GAL.	2 - 6'' O.C. , FULL , HEALTHY 22'' - 26'' HT. X 16'' - 24'' SPR.
163	D W	DWARF WAX MYRTLE Myrica cerifera / Dwarf	5 GAL.	2' - 6'' O.C. , FULL, HEALTHY, MATCHING 20'' - 24'' HT. X 20''- 24'' SPR.
70	I H	INDIAN HAWTHORN , CLARA Raphiolepis indica 'Clara'	5 GAL.	2' - 6'' O.C. , FULL, HEALTHY, MATCHING 14'' - 18'' HT. X 14'' - 18'' SPR.
35	K O	KNOCK OUT SHRUB ROSE Rosa compacta 'Double Knock-Out'	3 GAL.	2' - 6'' O.C. , FULL, HEALTHY, MATCHING 12'' - 16'' HT. X 14'' - 18'' SPR.
31	L O	LIVE OAK Quercus virginiana	65 GAL. 3'' CAL. MIN.	SINGLE-TRUNK , DOUBLE-STAKED 11' - 13' HT. X 6' - 7' SPR. , MATCHING
47	L P	LOROPETALUM , RAZZLEBERRY Loropetalum chinense 'Razzleberry'	3 GAL.	2' - 9'' O. C. , FULL, HEALTHY, MATCHING 16'' - 20'' HT. X 18'' - 22'' SPR.
906	L R	LIRIOPE , BIG BLUE Liriope spicata 'Big Blue'	1 GAL.	13'' O.C. , FULL, HEALTHY, MATCHING 6'' - 8'' HT. X 6'' - 8'' SPR.
26	N O	NUTTALL OAK Quercus nuttallii	30 GAL. 2'' CAL. MIN.	SINGLE-TRUNK , DOUBLE-STAKED 9' - 11' HT. X 4' - 5' SPR. , MATCHING
26	P I	LOBLOLLY PINE Pinus taeda	30 GAL. 2'' CAL. MIN.	SINGLE-TRUNK , DOUBLE-STAKED 7' - 9' HT. X 3.5' - 4' SPR. , MATCHING
183	P L	BLUE PLUMBAGO Plumbago auriculata	3 GAL.	2 - 9'' O.C. , FULL , HEALTHY, MATCHING 22'' - 28'' HT. X 18'' - 22'' SPR.
692	S F	SEASONAL FLOWERS	4'' POTS	9'' O.C. , FULL , BLOOMING
98	V P	VARIEGATED PITTOSPORUM Pittosporum tobira 'variegata'	3 GAL.	2' - 9'' O.C. , FULL, HEALTHY, MATCHING 24'' - 28'' HT. X 22'' - 26'' SPR.
13	W M	WAX MYRTLE Myrica cerifera	30 GAL.	4' O.C. , FOLIAGE FULL TO GROUND 6' HT. X 4' SPR. MINIMUM
	SOD	COMMON BERMUDAGRASS Cynodon dactylon	SQ. YD.	SOLID SOD , ROLLED INSTALL WHERE INDICATED

SCALE : 1''= 20'
0 10' 20' 40'

INTEGRATED LANDSCAPE ARCHITECTURE, LLC
765 ROLLING OAKS DRIVE
DRIFTWOOD, TEXAS 78619
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6/03/19
STATE OF TEXAS
DUANE BUNGO
1375
REGISTERED LANDSCAPE ARCHITECT

ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
	6/03/19	ISSUE FOR PERMIT

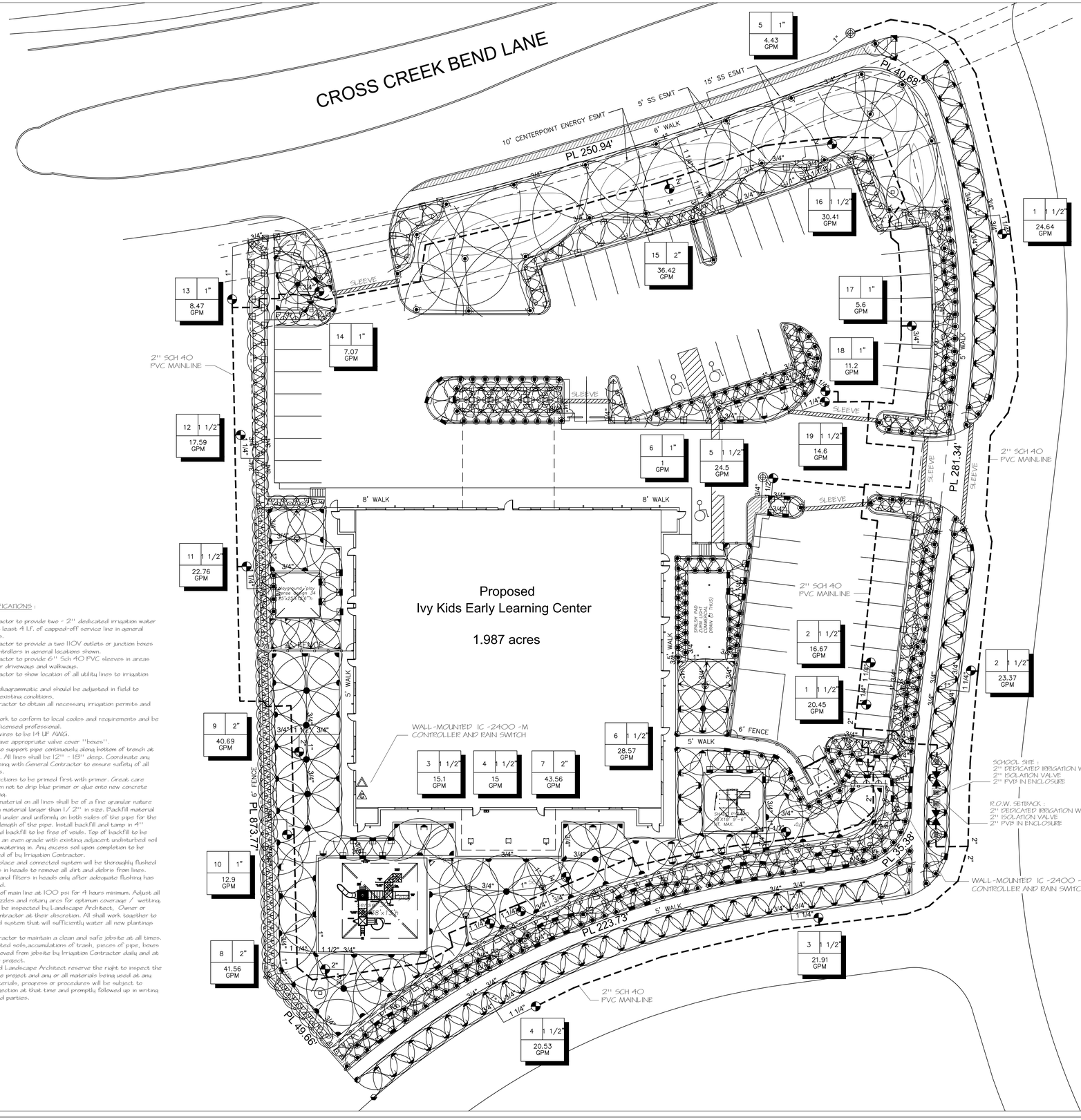
IVY KIDS EARLY LEARNING CENTER

CROSS CREEK RANCH - LOT COM21
6407 CROSS CREEK BEND LANE
FULSHEAR, TEXAS 77441

Landscape Plan

L1.0

LANDSCAPE PLAN | SCALE : 1'' = 20' | 1



IRRIGATION LEGEND

Symbol	Description	Part #	Pressure	Flow	Radius
	Rain Bird 5F - 1812	5F	30	0.41	5
	Rain Bird 5H - 1804	5H	30	0.2	5
	Rain Bird 5H - 1812	5H	30	0.2	5
	Rain Bird 5Q - 1804	5Q	30	0.1	5
	Rain Bird 5Q - 1812	5Q	30	0.1	5
	Rain Bird 5T - 1804	5T	30	0.13	5
	Rain Bird 5T - 1812	5T	30	0.13	5
	Rain Bird 8F - 1804	8F	30	1.05	8
	Rain Bird 8H - 1804	8H	30	0.52	8
	Rain Bird 8H - 1812	8H	30	0.52	8
	Rain Bird 8Q - 1804	8Q	30	0.26	8
	Rain Bird 8Q - 1812	8Q	30	0.26	8
	Rain Bird 8T - 1804	8T	30	0.35	8
	Rain Bird 8T - 1812	8T	30	0.35	8
	Rain Bird 10F - 1804	10F	30	1.58	10
	Rain Bird 10H - 1804	10H	30	0.79	10
	Rain Bird 10H - 1812	10H	30	0.79	10
	Rain Bird 10Q - 1804	10Q	30	0.39	10
	Rain Bird 10Q - 1812	10Q	30	0.39	10
	Rain Bird 10T - 1804	10T	30	0.53	10
	Rain Bird 10T - 1812	10T	30	0.53	10
	Rain Bird 12F - 1804	12F	30	2.6	12
	Rain Bird 12H - 1804	12H	30	1.3	12
	Rain Bird 12Q - 1804	12Q	30	0.65	12
	Rain Bird 12T - 1804	12T	30	0.87	12
	Rain Bird 12T - 1812	12T	30	0.87	12
	Rain Bird 12TQ - 1804	12TQ	30	1.95	12
	Rain Bird 15F - 1804	15F	30	3.7	15
	Rain Bird 15H - 1804	15H	30	1.85	15
	Rain Bird 15Q - 1804	15Q	30	0.92	15
	Rain Bird 15T - 1804	15T	30	1.23	15
	Rain Bird 15TQ - 1804	15TQ	30	2.78	15
	Hunter MP1000 90° - MPR40-04	MP1000 90-210°	40	0.37	13.5
	Hunter MP Left Strip - MPR40-04	MPStrip	40	0.22	16
	Hunter MP2000 135° - MPR40-04	MP2000 90-210°	40	0.55	19
	Hunter MP2000 360° - MPR40-04	MP2000 360°	40	1.47	19
	Hunter MP3000 180° - MPR40-04	MP3000 90-210°	40	1.82	30
	Hunter MP3000 210° - MPR40-04	MP3000 90-210°	40	2.12	30
	Hunter MP3000 90° - MPR40-04	MP3000 90-210°	40	0.86	30
	2" Febco 765 PVB Backflow Preventer	765 - 2"			
	1" Rain Bird 100-PEB Control Valve	100-PEB			
	1.5" Rain Bird 150-PEB Control Valve	150-PEB			
	2" Rain Bird 200-PEB Control Valve	200-PEB			
	Rain Bird XCZ-100-PRB-COM Valve	XCZ-PRB-100-COM			
	Hunter IC-1200-M Controller / Timer	IC-1200-M			
	Hunter IC-2400-M Controller / Timer	IC-2400-M			
	2" Nibco Isolation Valve				
	Hunter MINI-CLIK Rain Switch	MINI-CLIK			
	2" Dedicated Irrigation Water Meter				
	Class 200 PVC Lateral Line				
	2" Sch 40 PVC Mainline				
	6" Sch 40 PVC Sleeve				
	LD-06-12 Drip Line	XFS-06-12			

IRRIGATION SPECIFICATIONS :

1.) General Contractor to provide two - 2" dedicated irrigation water meters and at least 4 l.f. of capped-off service line in general location shown.
2.) General Contractor to provide a two 110V outlets or junction boxes for timer / controllers in general locations shown.
3.) General Contractor to provide 6" Sch 40 PVC sleeves in areas indicated under driveways and walkways.
4.) General Contractor to show location of all utility lines to irrigation contractor.
5.) Line layout is diagrammatic and should be adjusted in field to accommodate existing conditions.
6.) Irrigation Contractor to obtain all necessary irrigation permits and inspections.
7.) All irrigation work to conform to local codes and requirements and be installed by a licensed professional.
8.) Valve control wires to be 14 UF AWG.
9.) All valves to have appropriate valve cover "boxes".
10.) Dig trenches to support pipe continuously along bottom of trench at an even grade. All lines shall be 12" - 18" deep. Coordinate any machine trenching with General Contractor to ensure safety of all on-site utilities.
11.) All glued connections to be primed first with primer. Great care should be taken not to drip blue primer or glue onto new concrete work and paving.
12.) Initial backfill material on all lines shall be of a fine granular nature with no foreign material larger than 1/ 2" in size. Backfill material will be tamped under and uniformly on both sides of the pipe for the full width and length of the pipe. Install backfill and tamp in 4" layers. Finished backfill to be free of voids. Top of backfill to be smooth and at an even grade with existing adjacent undisturbed soil surface after watering in. Any excess soil upon completion to be legally disposed of by Irrigation Contractor.
13.) After all is in place and connected system will be thoroughly flushed without nozzles in heads to remove all dirt and debris from lines. Install nozzles and filters in heads only after adequate flushing has been completed.
14.) Test integrity of main line at 100 psi for 4 hours minimum. Adjust all valve flows, nozzles and rotary arcs for optimum coverage / wetting. Coverage may be inspected by Landscape Architect, Owner or Landscape Contractor at their discretion. All shall work together to achieve a good system that will sufficiently water all new plantings and turf.
15.) Irrigation Contractor to maintain a clean and safe jobsite at all times. Excess excavated soils,accumulations of trash, pieces of pipe, boxes etc. to be removed from jobsite by Irrigation Contractor daily and at the end of the project.
16.) The Owner and Landscape Architect reserve the right to inspect the progress of the project and any or all materials being used at any time. Such materials, progress or procedures will be subject to approval or rejection at that time and promptly followed up in writing to all concerned parties.

NOTES :

1.) This is a design for 2 separate irrigation systems. One is for the school and is designed to operate properly with a 2 " meter and main line. The other is a system for the R.O.W. setback. It is also shown with a 2" meter and mainline for future extension. If this system is not to be extended it will operate with a 1.5" meter, mainline, PVB etc.
2.) The actual location of the 2 separate irrigation controllers is to determined by the project owner, general contractor and ARC.

INTEGRATED LANDSCAPE ARCHITECTURE, LLC
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DRIFTWOOD, TEXAS 78619
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6/03/19
STATE OF TEXAS
LESLIE W SHOUR
1531
REGISTERED LANDSCAPE ARCHITECT

ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
	6/03/19	ISSUE FOR PERMIT

IVY KIDS EARLY LEARNING CENTER
CROSS CREEK RANCH - LOT COM21
6407 CROSS CREEK BEND LANE
FULSHEAR, TEXAS 77441

Irrigation Plan

L2.0

IRRIGATION PLAN | SCALE : 1" = 20' | 1

SITE IRRIGATION HYDRAULIC CALCULATIONS

Run Set: 1-1

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.003 (psi)
Meter Loss: 0.499 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.003 (psi)
Meter Loss: 0.499 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-1 @ 20.45 (GPM)
Mainline Loss: 0.22 (psi)
Valve Loss: 3.89 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.54 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 39.15 (psi)
Residual Pressure: 25.85 (psi)

Run Set: 1-2

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.002 (psi)
Meter Loss: 0.39 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.002 (psi)
Meter Loss: 0.39 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-2 @ 16.67 (GPM)
Mainline Loss: 0.18 (psi)
Valve Loss: 3.25 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.14 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 37.97 (psi)
Residual Pressure: 27.03 (psi)

Run Set: 1-3

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.001 (psi)
Meter Loss: 0.343 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.001 (psi)
Meter Loss: 0.343 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-3 @ 15.1 (GPM)
Mainline Loss: 0.3 (psi)
Valve Loss: 2.94 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.95 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 37.54 (psi)
Residual Pressure: 27.46 (psi)

Run Set: 1-4

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.001 (psi)
Meter Loss: 0.34 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.001 (psi)
Meter Loss: 0.34 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-4 @ 15 (GPM)
Mainline Loss: 0.29 (psi)
Valve Loss: 2.93 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.02 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 37.58 (psi)
Residual Pressure: 27.42 (psi)

Run Set: 1-5

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.004 (psi)
Meter Loss: 0.615 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.004 (psi)
Meter Loss: 0.615 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-5 @ 24.5 (GPM)
Mainline Loss: 0.72 (psi)
Valve Loss: 3.77 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.32 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 39.43 (psi)
Residual Pressure: 25.57 (psi)

Run Set: 1-6

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.005 (psi)
Meter Loss: 0.743 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.005 (psi)
Meter Loss: 0.743 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-6 @ 28.57 (GPM)
Mainline Loss: 0.65 (psi)
Valve Loss: 3.64 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.74 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 38.78 (psi)
Residual Pressure: 26.22 (psi)

Run Set: 1-7

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.01 (psi)
Meter Loss: 1.456 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.01 (psi)
Meter Loss: 1.456 (psi)
Backflow Loss: 3.044 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-7 @ 43.56 (GPM)
Mainline Loss: 1.99 (psi)
Valve Loss: 4.18 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.05 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 41.73 (psi)
Residual Pressure: 23.27 (psi)

Run Set: 1-8

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.009 (psi)
Meter Loss: 1.3 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.009 (psi)
Meter Loss: 1.3 (psi)
Backflow Loss: 3.019 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-8 @ 41.56 (GPM)
Mainline Loss: 2.25 (psi)
Valve Loss: 3.99 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.36 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 41.92 (psi)
Residual Pressure: 23.08 (psi)

Run Set: 1-9

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.009 (psi)
Meter Loss: 1.269 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.009 (psi)
Meter Loss: 1.269 (psi)
Backflow Loss: 3.009 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-9 @ 40.69 (GPM)
Mainline Loss: 2.39 (psi)
Valve Loss: 3.91 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.9 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 41.48 (psi)
Residual Pressure: 23.52 (psi)

Run Set: 1-10

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.001 (psi)
Meter Loss: 0.288 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.001 (psi)
Meter Loss: 0.288 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-10 @ 12.9 (GPM)
Mainline Loss: 0.28 (psi)
Valve Loss: 2.12 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.4 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 37.08 (psi)
Residual Pressure: 27.92 (psi)

Run Set: 1-11

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.003 (psi)
Meter Loss: 0.573 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.003 (psi)
Meter Loss: 0.573 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-11 @ 22.76 (GPM)
Mainline Loss: 0.86 (psi)
Valve Loss: 3.82 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.31 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 39.57 (psi)
Residual Pressure: 25.43 (psi)

Run Set: 1-12

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.002 (psi)
Meter Loss: 0.412 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.002 (psi)
Meter Loss: 0.412 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-12 @ 17.59 (GPM)
Mainline Loss: 0.54 (psi)
Valve Loss: 3.43 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.99 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 38.24 (psi)
Residual Pressure: 26.76 (psi)

Run Set: 1-13

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0 (psi)
Meter Loss: 0.179 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0 (psi)
Meter Loss: 0.179 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-13 @ 8.47 (GPM)
Mainline Loss: 0.14 (psi)
Valve Loss: 1.77 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.26 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 35.25 (psi)
Residual Pressure: 29.75 (psi)

Run Set: 1-14

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0 (psi)
Meter Loss: 0.151 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0 (psi)
Meter Loss: 0.151 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-14 @ 7.07 (GPM)
Mainline Loss: 0.1 (psi)
Valve Loss: 1.74 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.26 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 35.25 (psi)
Residual Pressure: 29.75 (psi)

Run Set: 1-15

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.007 (psi)
Meter Loss: 0.994 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.007 (psi)
Meter Loss: 0.994 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-15 @ 36.42 (GPM)
Mainline Loss: 1.97 (psi)
Valve Loss: 3.5 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.85 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 40 (psi)

Total Design Pressure: 51.32 (psi)
Residual Pressure: 13.68 (psi)

Run Set: 1-16

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.005 (psi)
Meter Loss: 0.806 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.005 (psi)
Meter Loss: 0.806 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-16 @ 30.41 (GPM)
Mainline Loss: 1.32 (psi)
Valve Loss: 3.6 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.3 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 40.02 (psi)
Residual Pressure: 24.98 (psi)

Run Set: 1-17

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0 (psi)
Meter Loss: 0.118 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0 (psi)
Meter Loss: 0.118 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-17 @ 5.6 (GPM)
Mainline Loss: 0.05 (psi)
Valve Loss: 1.71 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.48 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 35.36 (psi)
Residual Pressure: 29.64 (psi)

Run Set: 1-18

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.001 (psi)
Meter Loss: 0.254 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.001 (psi)
Meter Loss: 0.254 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-18 @ 11.2 (GPM)
Mainline Loss: 0.19 (psi)
Valve Loss: 1.93 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.6 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 36.97 (psi)
Residual Pressure: 28.03 (psi)

Run Set: 1-19

Water Source 1
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.001 (psi)
Meter Loss: 0.332 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.001 (psi)
Meter Loss: 0.332 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 1-19 @ 14.6 (GPM)
Mainline Loss: 0.3 (psi)
Valve Loss: 2.85 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 1.37 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 37.84 (psi)
Residual Pressure: 27.16 (psi)

NEIGHBORHOOD HYDRAULIC CALCULATIONS

Run Set: 2-1

Water Source 2
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.004 (psi)
Meter Loss: 0.619 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.004 (psi)
Meter Loss: 0.619 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 2-1 @ 24.64 (GPM)
Mainline Loss: 1.34 (psi)
Valve Loss: 3.76 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.98 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 39.7 (psi)
Residual Pressure: 25.3 (psi)

Run Set: 2-2

Water Source 2
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.003 (psi)
Meter Loss: 0.587 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.003 (psi)
Meter Loss: 0.587 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 2-2 @ 23.37 (GPM)
Mainline Loss: 0.44 (psi)
Valve Loss: 3.8 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.86 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 38.69 (psi)
Residual Pressure: 26.31 (psi)

Run Set: 2-3

Water Source 2
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.003 (psi)
Meter Loss: 0.546 (psi)

Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.003 (psi)
Meter Loss: 0.546 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 2-3 @ 21.91 (GPM)
Mainline Loss: 0.41 (psi)
Valve Loss: 3.84 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.84 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 38.64 (psi)
Residual Pressure: 26.36 (psi)

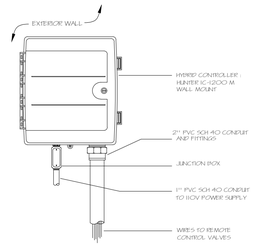
Run Set: 2-4

Water Source 2
Description: New Water Source
Type: Meter
Static Pressure: 65 (psi)
Service Line: 0.003 (psi)
Meter Loss: 0.501 (psi)

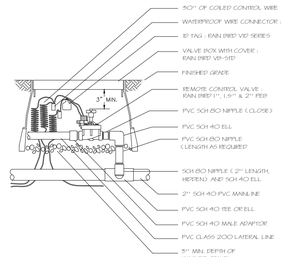
Mean System
Static Pressure: 65 (psi)
Service Line Loss: 0.003 (psi)
Meter Loss: 0.501 (psi)
Backflow Loss: 3 (psi)
Master Valve Loss: 0 (psi)
Filter Loss: 0 (psi)

Zone 2-4 @ 20.53 (GPM)
Mainline Loss: 0.76 (psi)
Valve Loss: 3.88 (psi)
Filter Loss: 0 (psi)
Lateral Loss: 0.77 (psi)
Elevation: 0 (psi)
Sprinkler Requirement: 30 (psi)

Total Design Pressure: 38.91 (psi)
Residual Pressure: 26.09 (psi)



A CONTROLLER MOUNTING DETAIL
(NO SCALE)



B CONTROL VALVE DETAIL
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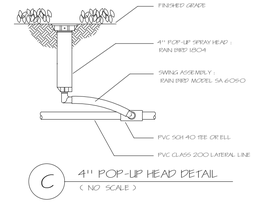
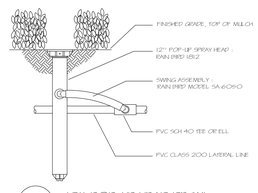
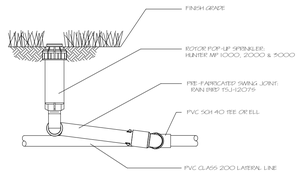


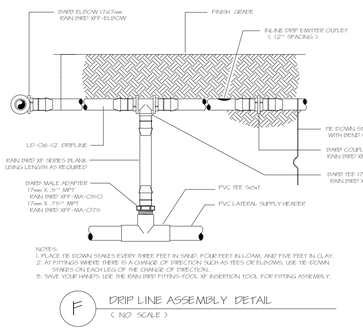
C 4" POP-UP HEAD DETAIL
(NO SCALE)



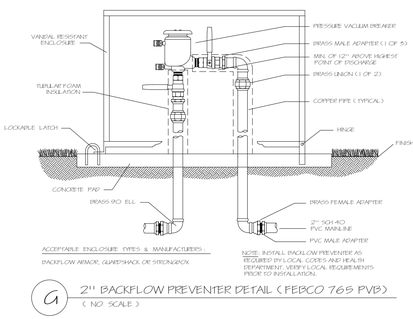
D 12" POP-UP HEAD DETAIL
(NO SCALE)



E HUNTER MP POP-UP TURF ROTOR DETAIL
(NO SCALE)



F DRIP LINE ASSEMBLY DETAIL
(NO SCALE)



G 2" BACKFLOW PREVENTER DETAIL (FEBCO 765 PVB)
(NO SCALE)

INTEGRATED LANDSCAPE ARCHITECTURE, LLC
765 ROLLING OAKS DRIVE
DRIFTWOOD, TEXAS 78619
E-MAIL : INFO@LANDARCHTX.COM
PHONE : 713-973-7851

6/03/19
STATE OF TEXAS
LESLIE W SHOUR
1531
REGISTERED LANDSCAPE ARCHITECT

ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
	6/03/19	ISSUE FOR PERMIT

IVY KIDS EARLY LEARNING CENTER

CROSS CREEK RANCH - LOT COM21
6407 CROSS CREEK BEND LANE
FULSHEAR, TEXAS 77441

Irrigation Details

L3.0