SITE PLAN FOR

C.C. CREATIONS LEGACY CAMPUS 619 CAPITOL PARKWAY BRYAN, TX 77807



OWNER: LAWSON PROPERTIES V

NAME: LAWSON PROPERTIES V CONTACT: KENNY LAWSON ADDRESS: 1800 SHILOH AVE, TX 77803 TELEPHONE: (979) 220-4050 EMAIL: K.LAWSON@CCCREATIONSUSA.COM



GEORGETOWN 512.930.5832

ط

NTS

	NDEX OF DRAWINGS
DRAWING NO.	DESCRIPTION
C1.0 C1.1 C1.2 C1.3 C1.4 L1.1 L1.2 L2.1	OVERALL SITE PLAN SITE PLAN SITE PLAN DETAILS TREE PROTECTION AND DISPOSITION P LANDSCAPE PLAN IRRIGATION PLAN

FOR CONSTRUCTION











SEE SHEET C101







9

SEE SHEET C102

EMAIL: K.LAWSON@CCCREATIONSUSA.COM 6. CONCRETE WASHOUT AREAS(S) TO BE OVER EXCAVATED AND WASTE MATERIAL REMOVED & DISPOSED OF OFF-SITE PRIOR TO PROJECT CLOSEOUT. FILL AREA BACK TO PLAN GRADE / EXISTING GROUND. 7. ALL ROOF AND GROUND-MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED FROM VIEW OR

> ISOLATED SO AS NOT TO BE VISIBLE FROM ANY PUBLIC RIGHT-OF-WAY OR RESIDENTIAL DISTRICT WITHIN 150' OF THE SUBJECT LOT, MEASURED FROM A POINT FIVE FEET ABOVE GRADE. SUCH SCREENING SHALL BE COORDINATED WITH THE BUILDING ARCHITECTURE AND SCALE TO MAINTAIN A UNIFIED APPEARANCE. 100% COVERAGE OF GROUNDCOVER, DECORATIVE PAVING, DECORATIVE ROCK, OR A PERENNIAL

GRASS IS REQUIRED IN PARKING LOT ISLANDS, SWALES AND DRAINAGE AREA, THE PARKING LOT SETBACK, RIGHTS-OF-WAY, AND ADJACENT PROPERTY DISTURBED DURING CONSTRUCTION. IRRIGATION SYSTEM (TO BE INSTALLED AND DESIGNED BY OTHERS) WILL BE PROTECTED BY EITHER A PRESSURE VACUUM BREAKER, A REDUCED PRESSURE PRINCIPLE BACK FLOW DEVICE, OR A DOUBLE-CHECK BACK FLOW DEVICE, AND INSTALLED. 10. ALL BACK FLOW DEVICES WILL BE INSTALLED AND TESTED UPON INSTALLATION. 11. SEPARATION AND CROSSINGS, AND IN ACCORDANCE WITH THE 2012 INTERNATIONAL PLUMBING

CODE. 12. METERS TO BE IN A VAULT AND TOUCH-READ. ALL METERS TO BE LOCATED WITHIN THE P.U.E. 13. FIRE SUPPRESSION LINE VALVES SHALL HAVE A LOCKABLE LID TO BE AMP OR USA LL562 LOCKING LID. ALTERNATE LOCKING LIDS SHALL BE APPROVED BY COLLEGE STATION UTILITIES DIRECTOR.

19. SOLID WASTE NOT BY CITY SERVICES. FLANKING SCREEN WALL TO BE 6' HIGH. NO ENCLO PROPOSED DUE TO SERVICEABILITY OF TRASH COMPACTOR, DUMPSETER, AND DOCK FA



	BU	ILDING DATA SUM	MARY	
S NOT	EXISTING USE:		VACANT LOT	
	PROPOSED USE:		INDUSTRIAL	
	NO. OF STORIES:	BUILDING SF:	BUILDING HEIGHT:	BUILDING TYPE:
	2	171,556	40' Above FFE	liB
OCATE,	BUILDING SPRINKLER SYSTEM:	YES		
	FIRM MAP NO:	48041C0185E (Not	located in 100 year flo	odplain or floodway
EPUE, I				
LECTRIC			_	
		UTILITY DEMAND	S	
EPOE, ELECTRIC E IES.	Minimum Water	UTILITY DEMAND	s	
E POE, ELECTRIC E IES.	Minimum Water Maximum Water	UTILITY DEMAND 0 GPM 150 GPM	S (Peak Flow =Avg.	Daily Flow* 4)
EPOE, EECTRIC	Minimum Water Maximum Water Average Water	UTILITY DEMAND O GPM 150 GPM 37.5 GPM	S (Peak Flow =Avg.	Daily Flow* 4)
EPOE, ILECTRIC	Minimum Water Maximum Water Average Water Max. Sewer Load	UTILITY DEMAND 0 GPM 150 GPM 37.5 GPM 104,760 GPD	S (Peak Flow =Avg. (Based on 16 ho	Daily Flow* 4) ur day usage)
E POE, ELECTRIC E IES.	Minimum Water Maximum Water Average Water Max. Sewer Load Fire Flow Requirement	UTILITY DEMAND 0 GPM 150 GPM 37.5 GPM 104,760 GPD 8000 GPM	S (Peak Flow =Avg. (Based on 16 ho (Based on Fire Cod	Daily Flow* 4) ur day usage) e Tables B105.1)

CAPITOL PARKWAY

(80' R.O.W.) PER PLAT

PARKING TABULATION TOTAL SF REQUIREMENT: 1/1000 SF TOTAL PARKING REQUIRED: 172 SPACES TOTAL PARKING PROVIDED: 371 SPACES (357 STD, 14 HC)

	LEGEND
	PROPOSED 7" CONCRETE PAVEMENT
+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	PROPOSED 6" CONCRETE PAVEMENT
	PROPOSED 4" CONCRETE PAVEMENT
	PROPOSED BRICK PAVERS
	PROPOSED BUILDING
	EXISTING PAVEMENT EDGE
	PROPERTY LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
340	EXISTING CONTOURS
(340)	PROPOSED CONTOURS

299_

CURVE TABLE					
CURVE DELTA RADIUS LENGTH CHORD BRG.					
C1	89°41'01"	25.00'	39.13'	S 47°34'39" W	
C2	17°17'05"	450.00'	135.75'	N 78°45'43" W	
C3	90°19'29"	25.00'	39.41'	N 25°11'28" W	
C4	17°45'55"	541.07'	167.77'	N 11°00'35" E	
C5	14°02'03"	460.00'	112.67'	N 9°30'30" E	



Suite 3 Bryan, Texas 77803 www.gessnerengineering.com

FIRM REGISTRATION NUMBER: TBPE F-7451, TBPLSF-10193910









C1.1



	LOCATED APPROXIMATELY 12 FEE SOUTHWEST OF A LIGHT POLE AN APPROXIMATELY 28 FEET NORTHE OF A WATER METER
	ELEVATION = 295.74
	BENCHMARK 2: SM2 SQUARE X SET IN CONCRETE ON NORTH SIDE OF PHIL GRAMM BLVI LOCATED APPROXIMATELY 3.5 FEI SOUTHWEST OF A STORM MANHO AND APPROXIMATELY 45 FEET WE OF LIGHT POLE ELEVATION: 300.07
	LEGEND
	PROPOSED 7" CONCRETE PAVEMENT
+ + + + + + + + + + + + + + + + + + +	PROPOSED 6" CONCRETE PAVEMENT
	PROPOSED 4" CONCRETE PAVEMENT
	PROPOSED BRICK PAVERS
	PROPOSED BUILDING
	EXISTING PAVEMENT EDGE
	PROPERTY LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
340	EXISTING CONTOURS

PROPOSED CONTOURS

SCALE: 1"= 20'

PROJECT BENCHMARK:

BENCHMARK 1: S BM1 SQUARE X SET IN CONCRETE ON THE

WEST SIDE OR CAPITOL PKWY.

2777 Allen Parkway, Suite 460 Houston, TX 77019 713.487.3400 www.energyarch.com





GESSNER ENGINEERING Corporate Office 401 W. 26th Street, Suite 3

Bryan, Texas 77803 www.gessnerengineering.com

FIRM REGISTRATION NUMBER: TBPE F-7451, TBPLSF-10193910













20 60 40 SCALE: 1"= 20'

PROJECT BENCHMARK: BENCHMARK 1: S BM1 SQUARE X SET IN CONCRETE ON THE WEST SIDE OR CAPITOL PKWY. LOCATED APPROXIMATELY 12 FEET SOUTHWEST OF A LIGHT POLE AND

OF A WATER METER ELEVATION = 295.74

BENCHMARK 2:

BM2 SQUARE X SET IN CONCRETE ON THE NORTH SIDE OF PHIL GRAMM BLVD. LOCATED APPROXIMATELY 3.5 FEET SOUTHWEST OF A STORM MANHOLE AND APPROXIMATELY 45 FEET WEST OF LIGHT POLE

ELEVATION: 300.07





LEGEND PROPOSED 7" CONCRETE PAVEMENT PROPOSED 6" CONCRETE PAVEMENT PROPOSED 4" CONCRETE PAVEMENT PROPOSED BRICK PAVERS PROPOSED BUILDING EXISTING PAVEMENT EDGE ----- EXISTING EASEMENT PROPOSED EASEMENT **EXISTING CONTOURS** PROPOSED CONTOURS

2777 Allen Parkway, Suite 460 Houston, TX 77019 713,487,3400 www.energyarch.com







ENGINEERING **GESSNER ENGINEERING** Corporate Office 401 W. 26th Street, Suite 3

Bryan, Texas 77803 www.gessnerengineering.com

FIRM REGISTRATION NUMBER: TBPE F-7451, TBPLSF-10193910













4'-3"



- 8" --





1' DEEP "CLAY PLUG"

SAND BACKFILL WITH

GEOTEXTILE FABRIC

4" PERFORATED PVC PIPE

- 8" -►

ADA PARKING SIGN

TW ELEVATION -



STABILIZED SUBGRADE PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. MINIMUM 6" STABILIZATION

UNDER SIDEWALKS

4" DEPTH

EXISTING CURB INLET EXTENSION NTS

—— 5.5' —



2777 Allen Parkway, Suite 460 Houston, TX 77019 713.487.3400 www.energyarch.com



GESSNER ENGINEERING Corporate Office 401 W. 26th Street, Suite 3 Bryan, Texas 77803

www.gessnerengineering.com

FIRM REGISTRATION NUMBER: TBPE F-7451, TBPLSF-10193910







Special Notes for Protection of Existing Trees:

- 1. Tree protection fencing shall be installed to eliminate activities detrimental to trees including but not limited to the following:
- a. Soil compaction in the critical root zones resulting from heavy equipments, vehicular or excessive pedestrian traffic or storage of equipments or materials.
- b. Root disturbance due to cuts, fills, or trenching works.
- c. Wounds to exposed roots, trunks or limbs by mechanical equipments. d. Other activities such as chemical storage, cement truck cleaning, fire, etc. are not acceptable or allowed around existing trees designated to remain on site.
- 2. Location and types of tree protection devices: a. Tree protection devices are to be installed to completely surround the critical root zones (tree dripline) of ail trees to be preserved.
- b. Tree protection fencing shall consists of chain link fencing or accepted substitutes (orange colored fabric mesh membrane). In addition to fencing, where tree trunks are in jeopardy of being damaged by equipments, 2x4 inch boards may be required to be strapped around the trunks of trees.
- c. Tree protection fence may be installed around a grouping of existing trees for better control.
- 3. All tree protection fencing shall be installed prior to any clearing, grubbing or grading. Tree protection fences must remain in functioning condition throughout all phases of the site development/construction.
- 4. The contractor shall provide Class One Tree works for ail trees designated to remain on the project site. Work shall include required root pruning; removal of dead/dying branches, trimming/thinning out of tree branches; repair of tree cavities and other tree damages. Trees shall be fertilized annually. A 3-1-1 ratio of nitrogen, phosphorus and potassium containing slow release, non-burning nitrogen should be applied according to manufacturer's instructions.
- 5. All existing trees to remain shall be maintained by a certified tree arborist.
- 6. During construction, no excess soil, additional fill, equipment, liquids or construction debris shall be placed inside the protective barrier, upon the root protection zone, nor shall any soil be removed from within the barrier.
- 7. The proposed finished grade and elevation of land within the root protection zone of any tree to be preserved shall not be raised or lowered more than one inch. Welling and retaining methods are allowed outside the root protection zone and shall be done in conformance with the Texas A & M University, Extension Landscape Horticulture, Protecting Existing Landscape Trees from Construction Damage Due to Grade Changes", Everett E. Janne and Douglas F. Welch, PhD, authors.





12" ELM ELM 10" Х 10" ELM Х ELM 11" Х 15" ELM X ELM 13" 10 ELM 12" Х 11 ELM 11" Х 12 12" ELM Х Х ELM 12" 13 14 ELM 9" Х

13"

13"

9"

9"

8"

12"

9"

8"

10"

42"

-

18"

29"

24"

23"

Х

Х

Х

X

X

Х

Х

Х

Х

Х

Tree Analysis Inventory Table:

LIVE OAK

ELM

LIVE OAK

TREE

TREE

LIVE OAK

TREE

LIVE OAK

Caliper

29"

12"

11"

Fence

Protect

Х

Х

Х

To Be

Removed

Tree No. Tree Type

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

TREE PROTECTION PLAN

EX	Existing Trees	To be removed and replaced
FENCE	Existing Trees	To be fence protected and to receive root and canopy pruning work by a certified arborist prior to any site demolition work.

NOTE: The services of a certified arborist shall be engaged for the project. The certified arborist shall monitor the condition of all existing trees marked to remain from pre-construction, construction and post construction phase of the project. The certified arborist shall oversee the installation of all required tree protection fencing and also provide required work to include: root pruning, canopy pruning, removal of dead/dying branches and fertilization of all existing trees designated to remain. The certified arborist shall also monitor the removal of all existing trees located outside the limits of the current median design.

Symbolic Name	Quantities	Square Feet Provided
Existing Trees with trunk dia. over 4.5" protected during construction	18	18 existing trees x 400 sf. = 7200 sf.
Newly planted canopy trees, greater than 3"	50	50 trees x 250 sf. = 12,500 sf.
Newly planted non-canopy trees greater than 1.5"	32	32 trees x 100 sf. = 320 sf.
Shrubs 2 gallons up to 15 gallons	2722	2722 shrubs x 15 sf. = 40,830 sf.
Total SF applied to City Requirements: 60 Impervious Cover: 402,826 SF. Total Landscaped percentage: 15.1%),850 SF.	

Owner's Responsibility For Maintenance the results of any lack of or improper maintenance. Landscape Contractor's Responsibilities:

All drainage (surface and subsurface) of all landscape areas within the project limits shall be the responsibility of the installing landscape contractor and landscape maintenance company. All grading of areas along all building areas must absolutely have positive slope away from building. In no case shall any plant bed be constructed along edge of building that will impede water flow away from building. If planting beds are located at edges of building, landscape contractor shall make sure that these areas drain properly (surface and subsurface-wise). Contractor shall install moisture barrier along building as necessary to keep water from penetrating underneath building "REFER TO FINISHED GRADES SHOWN ON PROJECT CIVIL GRADING PLAN. IT WILL REPRESENT FINAL ELEVATIONS. CARE SHOULD BE TAKEN BY THE LANDSCAPE CONTRACTOR NOT TO INCREASE THESE FINISHED GRADES WITH LANDSCAPING OR OTHER ALTERATIONS. THE THICKNESS OF SOD, GRASS AND LANDSCAPING MATERIALS SHOULD BE DEDUCTED FROM THE FINISHED GRADE ELEVATIONS IN THESE CIVIL GRADING PLANS IN ORDER TO DETERMINE THE GROUND ELEVATIONS DURING CONSTRUCTION."



Preliminary Landscape Calculations

Client acknowledges and agrees that proper Project maintenance is required after the Project is complete. A lack of or improper maintenance in areas such as, but not limited to, operation and maintenance of automatic irrigation system, all site drainage and all planting materials maintenance may result in damage to property or persons. Client further acknowledges that he is solely responsible for

TREE PROTECTION AND DISPOSITION PLAN

2777 Allen Parkway, Suite 460 Houston, TX 77019 713,487,3400 www.energyarch.com



7 kway 7807 NS 0 σ 6 – σ تب _ id ⊢ J C



	and	local authorities in supply, transportation, and installation of materials.	
	The wate	contractor shall be responsible for the verification of all underground utility lines (telephone, gas, er, electrical, cable, TV, etc.) and all overhead utility easements prior to start of any planting works.	
	All p	plant materials shall possess the following minimum qualities:	
	a. b.	conditions similar to those of the project for at least twelve months. All plants shall be heavy, symmetrical, tightly knit, so trained or favored for development and	
	с.	appearance as to be superior in form, number of branches, compactness, and symmetry. Plants shall be sound, healthy and vigorous, well branched, and densely foliated when in leaf.	
	d.	They shall be free of disease, insects, pests, eggs, or larvae. All plants shall be true of species and variety and shall conform to measurements (caliper size,	
	e.	trunk heights, spread) as specified on the drawings. Container grown stock when specified shall have grown in the container in which delivered for at	
	f.	least six months, but not over two years. Samples must prove no rootbound conditions exist. Caliper measurements shall be taken at a point on the trunk six inches (6") above natural ground	
	g.	line for trees up to four inches (4") in caliper. All trees shall be staked by a minimum of two metal "T" stakes for single trunk trees and three	
	Plan	stakes for all multi-trunk trees.	
	a.	Prepared soil as backfill for shade and ornamental trees shall be: 5 part clay loam topsoil + 2 part compost + 1 part sharp sand + 4 Lbs. Commercial fertilizer per CY Or 10 Lbs. Organic fertilizer.	
	b.	Prepared soil as backfill for shrubs and groundcovers and seasonal colors shall be: 1 part enriched mulch + 1 part compost bark mulch + 1 part enriched topsoil + 1 part No. 1 Bank Sand + 3 Lbs. Time- released fertilizer, 14-14-14 per CY or 8 Lbs. Organic fertilizer.	
	Exca a.	avation work and Surface drainage works shall conform to the following requirements: Test drainage of plant beds and plant pits by filling with water twice in succession. Conditions permitting the retention of water for more than 24 hours shall be brought to the attention of the Owner.	
	b.	Work shall include the final responsibility for proper surface drainage of planted areas. Any obstructions on the site, or prior work done by another part, which precludes establishing proper	
	C.	drainage shall be brought to the attention of the Owner in writing. Excavate each tree hole 18" deep plus the depth of the tree container size (15 gal. Or 30 gal. Or	
	d.	Excavate entire shrub bed to a depth of 8" plus the depth of the shrub container size (5 gal.)	
	e.	Excavate entire groundcover bed to a depth of 6" plus the depth of the groundcover container size (4" pot or 1 gal.).	
	Add	itional work requirements on landscape areas:	
	a. b.	Prior to installation of any planting works (trees, shrubs,groundcover and grass works); apply "Round Up" in all planting areas to eradicate all weed growths on site. ADD ALTERNATE: Install weed control barriers in all trees, shrub and groundcover planting areas. Weed barrier fabric shall be back polypropylene sheet 27 mils thick, 4 oz/s.y. grab tensile strength per ASTM D-4632; 90 lbs. (machine direction) 50 lbs.(cross machine direction). Provide	
	c. d	Use "Shovel Edge" to separate all plant beds from grass areas. Spread a minimum two inch laver of pine bark mulch overall shrub and droundcover bed areas	
	Land	dscape maintenance work by the Landscape Contractor after final acceptance shall include the	
	follo a.	wing: The maintenance period shall commence upon inspection and approval at Final Acceptance and	
	b.	shall be for a period of Sixty Days (60). The landscape contractor shall coordinate the watering program for all the landscape work with	
	C.	the Owner. Maintenance of new plantings shall consist of watering, cultivating, weeding, mulching, restaking, tightening and repair of guys; resetting plants for proper grades or upright position, and furnishing and application of pesticides/herbicides; sprays, and invigorants as are necessary to keep plantings free of insects and disease and in a thriving condition.	
		after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	
		after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	
	SSS	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements:	
	SSS Gras a.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable.	
Č	SSS Gras a. b.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by weight and meeting the accepted standards of pure live seed content, purity and proportions by meeting the accepted standards of pure live seed content, purity and proportions by meeting the accepted standards of pure live seed content.	
	SSS Gras a. b. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio:	
	Gras a. b. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre	
	Gras a. b. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unbulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure	
	Gras a. b. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Annual Rye Grass or equal, 85% pure live seed at 175 Lbs. Pure live seed per acre.	
	Gras a. b. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre.	
	Gras a. b. c. Slur Hyd a.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Ty Mix Component per Acre shall be Wood cellulose fiber mulch = 2,000 pounds + Grass Seed as specified + fertilizer (13-13-13) 800 pounds. Ty Mix Component per Acre shall be Wood cellulose fiber mulch = 2,000 pounds + Grass Seed as specified + fertilizer (13-13-13) 800 pounds. Tomulched seeding on Prepared finished grades: Install and spread out a minimum of one inch layer of topsoil over all areas to be hydromulched.	
	Gras a. b. c. Slur Hydl a. b.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. ry Mix Component per Acre shall be Wood cellulose fiber mulch = 2,000 pounds + Grass Seed as specified + fertilizer (13-13-13) 800 pounds. romulched seeding on Prepared finished grades: Install and spread out a minimum of one inch layer of topsoil over all areas to be hydromulched. Bed preparation: Immediately after the finished grade has been approved, begin hydroseeding operation to reduce excessive weed growth and erosion.	
	Gras a. b. c. Slur Hydi a. b. c. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. ry Mix Component per Acre shall be Wood cellulose fiber mulch = 2,000 pounds + Grass Seed as specified + fertilizer (13-13-13) 800 pounds. romulched seeding on Prepared finished grades: Install and spread out a minimum of one inch layer of topsoil over all areas to be hydromulched. Bed preparation: Immediately after the finished grade has been approved, begin hydroseeding operation to reduce excessive weed growth and erosion. Apply seed, fertilizer and mulch by spraying them on the previously prepared seedbeds in the form of an aqueous mixture and by using the methods and equipment described herein. Particular care shall be averviced by the orderative the the mediately after the finished grade has been approved, begin hydroseeding operation: Immediately after the finished grade has been approved, begin hydroseeding operation: Immediately after the finished grade has been approved, begin hydroseeding operation: Immediately after the finished grade has been approved, begin hydroseeding operation: Immediately after the finished grade has been approved, begin hydroseeding operation: Immediately after the finished grade has been approved, begin hydroseeding operation in reduce excessive weed growth and erosion.	
	Gras a. b. c. Slur Hydi a. b. c. d. e	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. PMix Component per Acre shall be Wood cellulose fiber mulch = 2,000 pounds + Grass Seed as specified + fertilizer (13-13-13) 800 pounds. romulched seeding on Prepared finished grades: Install and spread out a minimum of one inch layer of topsoil over all areas to be hydromulched. Bed preparation: Immediately after the finished grade has been approved, begin hydroseeding operation to reduce excessive weed growth and erosion. Apply seed, fertilizer and mulch by spraying them on the previously prepared seedbeds in the form of an aqueous mixture and by using the methods and equipment described herein. Particular care shall be exercised by the contractor to insure that the application is made uniformly and at the prescribed rate and to guard against miss and overlapped areas.	
	Gras a. b. c. Slur Hydi a. b. c. d. e. Mair	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Install and spread out a minimum of one inch layer of topsoil over all areas to be hydromulched. Bed preparation: Immediately after the finished grades been approved, begin hydroseeding operation in reduce excessive weed growth and erosino. Apply seed, fertilizer and mulch by spraying them on the previously prepared seedbeds in the form of an aqueous mixture and by using the methods and equipment described herein. Particular care shall be exercised by the contractor to insure that the application is made uniformly and at the prescribed rate and to guard against miss and overlapped areas. Where slope of areas to be grassed exceed a 3:1 H:V; an erosion control fabric shall be installed prior to hyromulching process.	
	Gras a. b. c. Slur Hyd a. b. c. d. e. Mair a.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	
	Gras a. b. c. Slur Hydi a. b. c. d. e. Mair a. b.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	
	Gras a. b. c. Slur Hyd a. b. c. d. e. Mair a. b. c.	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner. Hydromulching Work Requirements: ss works: Seed which has become wet, moldy and otherwise damaged in transit or in storage will not be acceptable. All grass seed shall be fresh, re-cleaned grass seed of the latest crop, mixed in the following proportions by weight and meeting the accepted standards of pure live seed content, purity and germination. Grass seed shall have the following minimum ratio: Summer Mix: Cynodon Dactylon (Hulled Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Winter Mix: Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. Annual Rye Grass or equal, 85% pure live seed at 75 Lbs. Pure live seed per acre. (Minter Mix:) Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. (Minter Mix:) Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. (Minter Mix:) Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. (Minter Mix:) Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. (Minter Mix:) Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. (Minter Mix:) Cynodon Dactylon (Unhulled - Common Bermuda Grass) 85% pure live seed at 75 Lbs. Pure live seed per acre. (Mix Component per Acre shall be Wood cellulose fiber mulch = 2,000 pounds + Grass Seed as specified + fertilizer (13-13) 800 pounds. (Total acre shall be exercised by the contractor to insure that the application is made uniformly and at the prescribed rate and to guard against miss and overlapped areas. (Mere slope of areas to be grassed exceed a 3:1 H:V; an erosion control fabric shall be installed prior to hyromulching process.). (Materiang: Coordinate with the Owner to pr	
	Gras a. b. c. Slur Hydi a. b. c. d. e. Mair a. b. b. c. Lnsp	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	
	Gras a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	<text><section-header><section-header><text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text></section-header></section-header></text>	
	Slur Gras a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	<text><section-header><section-header><section-header><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></section-header></section-header></section-header></text>	
r	Slur Gras a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	S
<u>r</u>	Slur Hydl a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	s Il be I is De e site
	Gras a. b. c. Slur Hydi a. b. c. d. e. Mair a. b. c. Insp	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	s II be I is Pe e site
	Slur A. B. C. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	after initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	s II be I is De e site
	Gras a. b. c. Slur Hydi a. b. c. d. e. Mair a. b. c. Insp	Reference of the Owner.	s II be I is Pe is site
	Gras a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	Advances of the Owner.	s Il be I is >e = site rips It air eight nent
	Gras a. b. c. Slur Hydi a. b. c. d. e. Mair a. b. c. Insp	A the initial acceptance or within 12 months shall be removed and replaced immediately to the satisfaction of the Owner.	s II be I is e site rips It air eight nent
	ASS Gras a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	Response of the owner.	s Il be I is be e site rips It air eight nent be st of
	Gras a. b. c. Slur Hydl a. b. c. d. e. Mair a. b. c. Insp	Response of the control of the contr	s II be I is e site rips t air eight nent De st of Jpon

Landscape	Ca	cul	ati	ons

Symbolic Name	Quantities	Square Feet Provided
Existing Trees with trunk dia. over 4.5" protected during construction	18	18 existing trees x 400 sf. = 7200 sf.
Newly planted canopy trees, greater than 3"	50	50 trees x 250 sf. = 12,500 sf.
Newly planted non-canopy trees greater than 1.5"	32	32 trees x 100 sf. = 320 sf.
Shrubs 2 gallons up to 15 gallons	2722	2722 shrubs x 15 sf. = 40,830 sf.
Total SF applied to City Requirements: 60,8 Impervious Cover: 402,826 SF. Total Landscaped percentage: 15.1%	350 SF.	





Owner's Responsibility For Maintenance Client acknowledges and agrees that proper Project maintenance is required after the Project is complete. A lack of or improper maintenance in areas such as, but not limited to, operation and maintenance of automatic irrigation system, all site drainage and all planting materials maintenance may result in damage to property or persons. Client further acknowledges that he is solely responsible for the results of any lack of or improper maintenance. Landscape Contractor's Responsibilities: All drainage (surface and subsurface) of all landscape areas within the project limits shall be the responsibility of the installing landscape contractor and landscape maintenance company. All grading of areas along all building areas must absolutely have positive slope away from building. In no case shall any plant bed be constructed along edge of building that will impede water flow away from building. If planting beds are located at edges of building, landscape contractor shall make sure that these areas drain properly (surface and subsurface-wise). Contractor shall install moisture barrier along building as necessary to keep water from penetrating underneath building "REFER TO FINISHED GRADES SHOWN ON PROJECT CIVIL GRADING PLAN. IT WILL REPRESENT FINAL ELEVATIONS. CARE SHOULD BE TAKEN BY THE LANDSCAPE CONTRACTOR NOT TO INCREASE THESE FINISHED GRADES WITH LANDSCAPING OR OTHER ALTERATIONS. THE THICKNESS OF SOD, GRASS AND LANDSCAPING MATERIALS SHOULD BE DEDUCTED FROM

THE FINISHED GRADE ELEVATIONS IN THESE CIVIL GRADING PLANS IN ORDER TO DETERMINE THE GROUND ELEVATIONS

DURING CONSTRUCTION."

Symbolic Name	Quantities (Verify)	Botanical Name	Common Name	Size and Plant Requirements
MG	3	Magnolia Grandiflora	Little Gem Magnolia	3.5" cal. 45 gal.container; 12' to 14' ht.
LO	26	Quercus Virginiana	Live Oak 'High Rise'	3.5" cal. 45 gal.container; 12' to 14' ht.
UP	23	Ulmus Parvifolia	Lacebark Elm	3.5" cal. 45 gal.container; 12' to 14' ht.
CC	7	Cercis Canadensis	Eastern Redbud	3" cal. 45 gal. container; 12' to 14' ht.
AH	0	llex x Attenuatta	Eagleton American Holly	2.5" cal. 30 gal. container; 9' to 10' ht. tree form.
вт	3	Callestemon Citrinus	Bottlebrush Tree	2" cal. 30 gal. container; 9' to 10'ht.
IV	6	llex Vomitoria Aiton	Yaupon Holly	2" cal. 30 gal. container; 9' to 10'ht.
WL	772	Ligustrum Japonicum	Waxleaf Ligustrum	3 gal. planted at 36" o.c. single row.
PO	62	Nerium Oleander	Petite Pink Oleander	3 gal. planted at 36" o.c. double row.
LF	797	Leoucophyllum Frutescens	Silver cloud Texas Sage	3 gal. planted at 36" o.c. double row.
DR	162	Rosa Drift Red	Drift Red Roses	3 gal planted at 30" o.c. triangularly space.
AM	192	Miscanthus Sinenses	Adagio Miscanthus	1 gal. planted at 24" o.c. triangularly spaced.
HP	41	Pennisetum Aloepecuroides	Hamln Pennisetum	1 gal. planted at 24" o.c. triangularly spaced.
Iris	230	Morae Dietes	Bi Color Iris	1 gal. planted at 24" o.c. triangulary spaced.
0.1	0	Ophiopogon	Mondo Grass	1 gal. planted at 12" o.c. triangulary
		Japonicus		spaced.
ТА	110	Trachelospermum asiaticum	Asian Jasmine	4" pots planted at 12" o.c. triangulary spaced.
МС	265	Myrica Cerifera	Southern Waxmyrtles	1 gal. planted at 24" o.c. triangulary spaced.
FL	68	Danaiella Tasmanica	Variegated Flax Lily	1 gal. planted at 24" o.c. triangulary spaced.
Grass	Verify SF.	Cynodon Dactylon	Common Bermuda	Cynodon Dactylon (Common Bermuda) hydromulched for all areas within limits of the project + all right of way areas and all detention pond areas. All areas to be grassed shall be cleaned up of all construction and any foreign debris. All areas shall be fine graded to adhere to civil grading/ drainage plan.
Black Star	Verify			Proposed areas to received Black Star crushed gravel. Excavate subject areas to a depth of 3". Compact subgrade and overlay entire area with geotextile filter fabric membrane prior

to filling the entire channel with Black

Star Crushed granite.

L1.1

LANDSCAPE PLAN SCALE: 1" = 40'-0"

2777 Allen Parkway, Suite 460 Houston, TX 77019 713.487.3400 www.energyarch.com



U kway 7807 () 0 a Ti **Creati** apital Pá n, Texas n an **C D D D D**



L1.2

Irrigation General Notes: ALL materials and equipment shall conform to all applicable State of Texas, City and County codes. The irrigation contractor shall be responsible for securing all permits prior to actual work on site. The intent of the 100% coverage of all landscape areas. Prior to commencement of work, the irrigation contractor shall contact the Owner to coordinate all required inspections. Extreme care shall be exercised in excavating and working near existing utility easements. The irrigation contractor shall be responsible for the verification of all utility locations (telephone, TV, gas electrical, water, cable, etc.). The irrigation contractor shall be responsible for all damages inflicted on any and all utility lines. The Irrigation contractor shall at all times protect his work from damage and theft and replace all damaged or stolen parts at his expense until receipt of the Certificate of Substantial Completion from the Owner. The Irrigation contractor shall flush and adjust the system for optimum performance. This shall include regulating the pressure at each valve to obtain the optimum operating pressure for each system. Use glue joints in mainline passing through sleeves under pavement. PVC sleeves shall be Schedule 40 and shall extend 24" out of the nearest existing pavement areas for easy location. The irrigation contractor shall be responsible for coordinate all sleeve locations on the project site with the Owner and/or general contractor. The irrigation contractor shall also comply to these additional special requirements to the irrigation system shall include the following.

- a. All mainlines shall have a minimum of 18" of cover (Sch. 40 PVC Pipe.). b. All lateral and sub-main pipe to have a minimum of 12" of cover (Sch. 40 PVC Pipe.). c. No rocks, boulders or other extraneous materials shall be used for backfilling of trenches.
- d. All pipes to be installed as per manufacturer's specifications. e. All threaded joints to be coated with Teflon tape or Liquid Teflon.
- f. All lines to be thouroughly flushed before installation of any sprinkler heads. g. Sprinkler and related equipments shall be installed as per manufacturer's specification. h. No electrical connections shall be made in the field except at a valve control box or another valve
- box specifically for connections. i. All 24 volt wire shall be No. 12UF/UL for common wire and No. 14 UF/UL for control wires, direct
- burial shall be solid copper j. The irrigation contractor shall be responsible for proper coverage of areas to be watered; i.e. adjust
- heads with insufficient coverage due to blockage by existing or proposed site features or sizing down sprinkler heads to avoid excessive overthrow. k. The irrigation contractor shall refer to landscape planting plan to keep sprinkler equipments and
- accessory materials from interfering with proper planting; i.e. Verify rootball size for planting; configuration of shrub/groundcover beds, etc. I. The irrigation contractor shall provide expansion coils at each wire connection in valve box (wrap
- around 3/4" pipe 12 times). m. The irrigation contractor shall utilize appropriate automatic drain device where low head drainage
- may occur. n. All sprinkler heads shall be mounted on swing joints unless otherwise noted. o. The irrigation contractor shall install a separate common for each controller.
- p. 24 Volt wire shall be color coded: Common shall be white and Control red. q. The irrigation contractor shall install manufacturer's recommended grounding equipment for power
- supply and valve output with (2) 5/8" copper clad ground rods. r. The irrigation contractor shall install manufacturer's recommendation on fault ground and lightning protection.
- s. The irrigation contractor shall furnish the owner with the following : 2 wrenches for disassembling and adjusting each type of sprinkler heads and valves + 2 keys for the automatic controller +2 quick coupler keys with matching hose swivels.
- t. The irrigation contractor shall add extension risers to pop up sprinklers when needed for proper coverage. Coordinate with landscape contractor as to where risers for sprinkler heads are required.
- u. The irrigation contractor shall install sprinkler equipments 12" from all buildings foundations and install sprinklers 4" from any curbs or walkways. v. The irrigation backflow prevention device shall be installed within areas of proposed shrub plantings.
- The purpose of this is to keep the device screened from view. 9. The entire irrigation system (labor and materials) shall be guaranteed and warranted for a period of one
- year. The warranty period shall commenced upon final acceptance by Owner of all landscape and irrigation works.

10. The irrigation contractor for the project must be licensed to do business within the State of Texas, as required by TCEQ." 11. This irrigation plan is diagrammatic only. Irrigation contractor shall provide final irrigation design layout plan complete with licensed irrigator's seal and signature. All applicable design calculations shall be shown on this irrigation plan to comply with all TCEQ requirements.











A B C D E F G H J K L M U W N O P R S S		Hunter I-20 Rotary SprinklerI-20-36V 4"-4.0 nozzle Full CircleI-20-ADS 4"-4.0 nozzle Part CircleI-20-36V 4"-1.0 nozzle Full CircleI-20-ADS 4"-1.0 nozzle Part CircleRainbird 1806 Pop Up Sprinkler or equal.RB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Full 360 degreeRB 1806 Gut. 90 degreeRB 1806 Gut. 90 degreeRB 1806 Low Angle End Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip NozzleRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	38'-0" radius 38'-0" radius 30'-0" radius 30'-0" radius 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius	4.80 2.40 4.00 2.00 3.70 1.85 0.95 2.60 1.30 0.65 0.95 2.60 1.30 0.95 2.60 1.30
A B C D E F G H J K L M U W N O P R S S C		I-20-36V 4"-4.0 nozzle Full Circle I-20-ADS 4"-4.0 nozzle Part Circle I-20-ADS 4"-1.0 nozzle Full Circle I-20-ADS 4"-1.0 nozzle Part Circle Rainbird 1806 Pop Up Sprinkler or equal. RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Qtr. 90 degree RB 1806 Full 360 degree RB 1806 Low Angle End Strip Nozzle RB 1806 Low Angle Center Strip Nozzle Rainbird 1812 Shrub Pop Up Sprinkler or equal. RB 1812 Full 360 degree RB 1812 Half 180 degree RB 1812 Qtr. 90 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle Center Strip Nozzle	38'-0" radius 38'-0" radius 30'-0" radius 30'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius	4.80 2.40 4.00 2.00 1.85 0.95 2.60 1.30 0.65 0.61 1.21 3.70 1.85 0.95 2.60 1.30 0.95 2.60
B C D E F G H J K L M U W N O P R S S C N O P R S S C C C C C C C C C C C C C C C C C		 I-20-ADS 4"-4.0 nozzle Part Circle I-20-36V 4"-1.0 nozzle Full Circle I-20-ADS 4"-1.0 nozzle Part Circle Rainbird 1806 Pop Up Sprinkler or equal. RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Qtr. 90 degree RB 1806 Half 180 degree RB 1806 Half 180 degree RB 1806 Cur. 90 degree RB 1806 Low Angle End Strip Nozzle RB 1812 Full 360 degree RB 1812 Qtr. 90 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle Center Strip Nozzle RB 1812 Low Angle Center Strip Nozzle 	38'-0" radius 30'-0" radius 30'-0" radius 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	2.40 4.00 2.00 1.85 0.95 2.60 1.30 0.65 0.61 1.21 3.70 1.85 0.95 2.60 1.30 0.95 2.60 1.30
C D E F G H J K L M T U W N O P R S		I-20-36V 4"-1.0 nozzle Full Circle I-20-ADS 4"-1.0 nozzle Part Circle Rainbird 1806 Pop Up Sprinkler or equal. RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Qtr. 90 degree RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Low Angle End Strip Nozzle RB 1806 Low Angle Center Strip Nozzle Rainbird 1812 Shrub Pop Up Sprinkler or equal. RB 1812 Full 360 degree RB 1812 Qtr. 90 degree RB 1812 Half 180 degree RB 1812 Qtr. 90 degree RB 1812 Qtr. 90 degree RB 1812 Qtr. 90 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle End Strip Nozzle	30'-0" radius 30'-0" radius 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius	4.00 2.00 3.70 1.85 0.95 2.60 0.61 1.21 3.70 1.85 0.95 2.60 1.30 0.65
D E F G H J K L M T U W N O P R S I I I I I I I I I I I I I		I-20-ADS 4"-1.0 nozzle Part Circle Rainbird 1806 Pop Up Sprinkler or equal. RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Qtr. 90 degree RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Low Angle End Strip Nozzle RB 1806 Low Angle Center Strip Nozzle Rainbird 1812 Shrub Pop Up Sprinkler or equal. RB 1812 Full 360 degree RB 1812 Full 360 degree RB 1812 Qtr. 90 degree RB 1812 Half 180 degree RB 1812 Half 180 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle End Strip Nozzle	30'-0" radius 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	2.000 3.7(1.85 0.95 2.6(1.30 0.65 0.61 1.21 3.7(1.85 0.95 2.6(1.30 0.65
E F G H J K L M T U W N O P R S S		Rainbird 1806 Pop Up Sprinkler or equal.RB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Gtr. 90 degreeRB 1806 Qtr. 90 degreeRB 1806 Low Angle End Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	3.70 1.85 0.95 2.60 1.30 0.65 0.61 1.21 3.70 1.85 2.60 1.30 0.95 2.60 1.30 0.65 2.60 1.30 0.95 2.60 1.21 1.85 0.95 1.21 1.85 0.95 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.21 1.21 1.25 1.30 0.95 1.21 1.25 1.30 0.95 1.21 1.25 1.30 0.95 1.21 1.25 1.30 0.95 1.21 1.30 0.95 1.25 1.30 0.95 1.21 1.30 0.95 1.21 1.30 0.95 1.21 1.30 0.95 1.30 0.95 1.30 0.95 1.30 0.95 1.30 0.95 1.30 0.95 1.30 0.95 1.30 0.95 1.30 0.65 1.30 0.95 1.30 0.95 1.30 0.65 1.30 0.95 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 0.65 1.30 1
E F G H J K L M T U W N O P R S I I I I I I I I I I I I I		RB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Full 360 degreeRB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Low Angle End Strip NozzleRB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Pull 360 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 DugreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	3.70 1.85 0.95 2.60 1.30 0.65 0.61 1.21 3.70 1.85 0.95 2.60 1.30 0.65 2.60 1.30 0.65 2.60 1.21 1.21 1.21 1.21 1.25 1.20 1.21 1.21 1.21 1.21 1.25 1.20 1.21 1.21 1.21 1.25 1.25 1.21 1.21 1.21 1.25 1.25 1.25 1.21 1.21 1.25 1
F G H J K L M T U W N O P R S S		RB 1800 Full 000 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Low Angle End Strip NozzleRB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle End Strip Nozzle	15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	1.85 0.9992.60 1.300 0.65 0.66 1.21 3.70 1.85 0.99 2.60 1.30 0.655
- G H J K L M T U W N O P R S		RB 1800 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Full 360 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Low Angle End Strip NozzleRB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	1.30 0.95 2.60 1.30 0.65 1.21 3.70 1.85 0.95 2.60 1.30 0.65
H J K L M T U W N O P R S		RB 1800 Gull. 30 degree RB 1806 Full 360 degree RB 1806 Half 180 degree RB 1806 Qtr. 90 degree RB 1806 Low Angle End Strip Nozzle RB 1806 Low Angle Center Strip Nozzle Rainbird 1812 Shrub Pop Up Sprinkler or equal. RB 1812 Full 360 degree RB 1812 Half 180 degree RB 1812 Qtr. 90 degree RB 1812 Full 360 degree RB 1812 Qtr. 90 degree RB 1812 Full 360 degree RB 1812 Full 360 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle Center Strip Nozzle RB 1812 Low Angle Center Strip Nozzle	12'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	2.60 1.30 0.65 0.67 1.21 3.70 1.85 0.95 2.60 1.30 0.65
Image: matrix of the second state of the second stat		RB 1806 Full 300 degreeRB 1806 Half 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Low Angle End Strip NozzleRB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Full 360 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	12'-0' radius 12'-0'' radius 12'-0'' radius 4'x15' 4'x30' 15'-0'' radius 15'-0'' radius 15'-0'' radius 12'-0'' radius 12'-0'' radius 12'-0'' radius 12'-0'' radius	2.60 1.30 0.65 1.21 3.70 1.85 0.95 2.60 1.30 0.65
J K L M T U W N O P R S		RB 1806 Hall 180 degreeRB 1806 Qtr. 90 degreeRB 1806 Low Angle End Strip NozzleRB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	12'-0' radius 12'-0" radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	1.30 0.65 0.67 1.21 3.70 1.85 0.95 2.60 1.30 0.65
K L M T U W N O P R S S		RB 1806 Qtr. 90 degree RB 1806 Low Angle End Strip Nozzle RB 1806 Low Angle Center Strip Nozzle Rainbird 1812 Shrub Pop Up Sprinkler or equal. RB 1812 Full 360 degree RB 1812 Half 180 degree RB 1812 Qtr. 90 degree RB 1812 Full 360 degree mounted on 24" Sch. 40 riser RB 1812 Half 180 degree RB 1812 Full 360 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle Center Strip Nozzle RB 1812 Low Angle Center Strip Nozzle	12-0 radius 4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	0.63 0.67 1.27 3.70 1.85 0.95 2.60 1.30 0.65
L M T U W N O P R S S		RB 1806 Low Angle End Strip NozzleRB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Half 180 degreeRB 1812 Half 180 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	4'x15' 4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius	0.6 ⁷ 1.21 3.70 1.85 0.95 2.60 1.30 0.65
M T U W N O P R S		RB 1806 Low Angle Center Strip NozzleRainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	4'x30' 15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15'	1.21 3.70 1.85 2.60 1.30 0.65
TU WN OP RS S		Rainbird 1812 Shrub Pop Up Sprinkler or equal.RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15'	3.7(1.85 0.95 2.6(1.3(0.65
T U W N O P R S S		RB 1812 Full 360 degreeRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15'	3.70 1.85 0.95 2.60 1.30 0.65
U W N O P R S S		RB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15'	1.85 0.95 2.60 1.30 0.65
W N O P R S		RB 1812 Qtr. 90 degreeRB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	15'-0" radius 12'-0" radius 12'-0" radius 12'-0" radius 4'x15'	0.9 2.6 1.3 0.6
N O P R S		RB 1812 Full 360 degree mounted on 24" Sch. 40 riserRB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	12'-0" radius 12'-0" radius 12'-0" radius 4'x15'	2.6 1.3 0.6
O P R S		RB 1812 Half 180 degreeRB 1812 Qtr. 90 degreeRB 1812 Low Angle End Strip NozzleRB 1812 Low Angle Center Strip Nozzle	12'-0" radius 12'-0" radius 4'x15'	1.30
P R S		RB 1812 Qtr. 90 degree RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle Center Strip Nozzle	12'-0" radius 4'x15'	0.6
R S	▲ ▲ ◆	RB 1812 Low Angle End Strip Nozzle RB 1812 Low Angle Center Strip Nozzle	4'x15'	0.0
S	<u> </u>	RB 1812 Low Angle Center Strip Nozzle	1,10	06
	•		1'v30'	1.2
		Rainbird PEB series Electric Remote Control Valves with sizes as noted plan.		
	 > 4	Gate Valve		
		One (1) 2" water meter Supplied and installed by irrigation contractor for the irrigation system. Water meter to be installed as per city and county codes.	Verify point of connection.	
		One (1) 2" FEBCO RPZ & 2" ISOLATION VALVE to be installed as per city and county code by irrigation contractor. Install BPDI Guardshack Enclosure GS-3.3 to protect backflow devices. Verify location on site.		
	¢	Rainbird 33 DRC quick coupling valve (valves to be installed below grade inside valve box)	Total (11) field located on site.	
	÷	One (1) Rainbird ESP LXME 32 Station Irrigation controllers. Verify location and coordinate electrical requirements for controller with General contractor and / or owner. Install Rainbird Rain Sensors within close proximity of controller location. Verify location with Owner.		
		Pressure Line shall be 2" sch. 40 PVC pipe. Install "Thrust Blocks" as required. Install appropriate Gate Valves where noted.		
		6" Sch. 40 PVC irrigation sleeves unless noted as 4" on plan. Verify location of all sleeves on project site.		
		1/2" Sch. 40 PVC non pressure line.		
		3/4" Sch. 40 PVC non pressure line.		
		1" Sch. 40 PVC non pressure line.		
		1-1/2" Sch. 40 PVC non pressure line.		
	(\leftarrow)	Sequence of Irrigation Valve		
L		+Size of Irrigation Valve		

















L2.