#### CITY OF EL PASO, TEXAS AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM

DEPARTMENT:Capital ImprovementAGENDA DATE:October 12, 2021CONTACT PERSON/PHONE:Yvette Hernandez, P.E., CID Director of Grant Funded Programs, 212-1860<br/>Sam Rodriguez, P.E., City Engineer, 212-0065

#### DISTRICT(S) AFFECTED: 8

### STRATEGIC GOAL: No. 7: Enhance and Sustain El Paso's Infrastructure Network

### SUBJECT:

That the City Council approves a change order in the amount of \$264,139.21 to J.A.R. Concrete Inc. for the increase in landscaping, irrigation and other elements to the project under Contract No. 2019-452 Paso Del Norte (PDN) Port of Entry (POE) Roundabout Improvements. This notice provides for the additional scope of work, which allows for additional capacity to the awarded contract. The new contract sum, including this change order notice and previous change order notices is \$2,662,492.51. The City Manager, or designee, is authorized to execute any documents and contract amendments needed to carry out the intent of this resolution.

### **BACKGROUND / DISCUSSION:**

This change order is to provide additional landscaping and irrigation at the Paso del Norte Roundabout located at the Paso del Norte Port of Entry. The scope of work includes constructing, furnishing, and installing additional plant material, planters, landscape rock, irrigation system, and traffic control. In addition, the public art piece will be elevated by one foot. The total amount of the change order is \$264,139.21.

#### COUNCIL REPRESENTATIVE BRIEFING:

Was a briefing provided?  $\Box$  Yes or  $\boxtimes$  Not Applicable (Routine) If yes, select the applicable districts.

District 1
District 2
District 3
District 4
District 5
District 6
District 7
District 8
All Districts

## PRIOR COUNCIL ACTION:

NA

PPS FORM 001, Rev. 3, 8/9/2016 (Discard Previous Versions) 2018 CO's

### **BOARD / COMMISSION ACTION:**

N/A

**DEPARTMENT HEAD:** 

Gvette Hernandez

### RESOLUTION

#### BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

That the City Council approves a change order in the amount of \$264,139.21 to J.A.R. Concrete Inc. for the increase in landscaping, irrigation and other elements to the project under Contract No. 2019-452 Paso Del Norte (PDN) Port of Entry (POE) Roundabout Improvements. This notice provides for the additional scope of work, which allows for additional capacity to the awarded contract. The new contract sum, including this change order notice and previous change order notices is \$2,662,492.51. The City Manager, or designee, is authorized to execute any documents and contract amendments needed to carry out the intent of this resolution.

ADOPTED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2021.

CITY OF EL PASO:

Oscar Leeser Mayor

ATTEST:

Laura D. Prine City Clerk

APPROVED AS TO FORM:

Omar De La Rosa

Assistant City Attorney

APPROVED AS TO CONTENT

Gvette Hernandez

Yvette Hernandez, P.E. Grant Funded Program Director

21-1004-1296/ 1122981 Change Order Resolution 2019-452/OAR

### CITY OF EL PASO CONSTRUCTION CHANGE ORDER

CONSTRUCTION CHANGE ORDER NO.: 3	DATE:	July 30, 2020 scope cł	ANGE
PROJECT: Paso Del Norte (PDN) Port of Entry (Po	DE) Roundabout Improvements	SOLICITATION NO, Solicitation: 2019-452 X CONSTRU	CTION CHANGE
Original Contract Amount:	\$ 2,394,924.50	Contract Time to Subtantial Completion	218
Net Change by previous Change Orders:	\$ 3,428.80	Total days added due to Change Orders and CQN's	0
Net Change by previous Construction Quantity Notices:	\$ .	Total days added for this Change Order	0
Amount of this Construction Change Order:	\$ 264,139.21	New Contract Time to Substantial Completion:	218
New Amended Contract Amount:	\$2,662,492.51	Current Substantial Completion Due Date	NA
Change Order Percentage:	11.179	6	
CONTRACTOR NAME: J.A.R. Concrete	Inc.	. <u></u>	
Please provide a detailed scope of work of the change order	(see back for reason/justifica	lion):	

- Scope of work: Increase in landscaping and irrigation elements as well as introduction to various elements that were not previously part of the original drawings, Increase elevation of the Art piece by a foot. The Scope of Work shall include constructing, furnishing, and installing all the new elements in accordance with the updated drawings, details, dimensions, and requirements.

- Specifications: Specifications shall remain unchanged, using TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges Items 192 Landscaping Planting, 193 Landscape Establishment, 1002 Landscape Amenity, 1005 Loose Aggregate for Groundcover, Include new specification 160 Topsoil

Drawings: Revised sheets Structural Sheets S,0 – S.5, Landscape General Notes LG-001 – LG-002, Landscape Plan Sheets LP101 – LP104, Irrigation
 Schedules LI-101 – LI-103, Construction Details LC-501 – LC-510, Landscape Details Sheets LP-501, Irrigation Details LI-501,
 Cost and Bid Schedule:

Add new item 192-6002 PLANT MATERIAL (1-GAL) with an estimated quantity of 435 EA with a unit price of \$20.94/EA.

Add new item 192-6074 PLANT MATERIAL (25-GAL) with an estimated quantity of 12 EA with a unit price of \$376,12/EA.

Add new item 192-6004 PLANT MATERIAL (5-GAL) (CACTUS) with an estimated quantity of 282 EA with a unit price of \$44.47/EA.

Add new item 193-6003 PLANT REPLACEMENT (1-GAL) with an estimated quantity of 340 EA with a unit price of \$20.14/EA.

Add new item 193-6010 PLANT REPLACEMENT (30-GAL) with an estimated quantity of 12 EA with a unit price of \$424,00/EA.

Add new item 1002-6002 112"X18" PLANTER with an estimated quantity of 7 EA with a unit price of \$7,416.03/EA.

Add new item 1002-6003 96"x16" PLANTER with an estimated quantity of 18 EA with a unit price of \$3,813,88/EA.

Add new item 1002-6004 60"X14" PLANTER with an estimated quantity of 10 EA with a unit price of \$2,053,75/EA.

Add new item 10005-6003 LOOSE AGGRE FOR GROUNDCOVER (TYPE III) with an estimated quantity of 12 CY with a unit price of \$ 143,10/CY.

Add new item STAR STRUCTURE MODIFICATION with a quantity of 1 LS with a unit price of \$1060.00/LS

Add new item STAR STRUCTURE ADDITIONAL REINFORCEMENT with an esimated quantity of 10 CY with a unit price of \$40,50/CY

Add new item 160-6005 FURNISHING AND PLACING TOP SOIL with an estimated quantity of 13 CY with a unit price of \$104.89/CY

Add new item FRENCH DRAIN with an estimated quantity of 80 LF with a unit price of \$13,52/LF

Add new item 531-6032 CONC SIDEWALKS SPECIAL (TYPE A) (PLANTER BASE) with an estimated quantity of 75 SY with a unit price of \$62,20/SY The items below already exist in the contract but will be added at a different unit price

Add new item 170 6001 IRRIGATION SYSTEM with a quantity of 1 LS with a unit price of \$46,878.28/LS

Add new item 193 6007 IRRIGATION OPER AND MAINT with a quantity of 12 MO with a unit price of \$174,90/MO

Add new item 193 6001 PLANT MAINTENANCE with a quantity of 12 MO with a unit price of \$492.90/MO

Add new item 192 6004 PLANT MATERIAL (5-GAL) with an estimated quantity of 86 EA with a unit price of \$34,72/EA

Add new item 192 6017 VEGETATION BARRIER with an estimated quantity of 207 SY with a unit price of \$2.09/SY

Add new item 193 6005 PLANT REPLACEMENT (5-GAL) with an estimated quantity of 260 EA with a unit price of \$31,80/EA

Add new item 1005 6002 LOOSE AGGR FOR GROUNDCOVER (TYPEII) with an estimated quantity of 17 CY with a unit price of \$130.38/CY

Add new item 500 6001 BARRICADES SIGNS AND TRAFFIC HANDLING with an estimated quanitity of 1 MO with a unit price of \$6,450.00/MO

- Time: 60 working days will be allowed in order for this work to take place.

Unless specifically noted, this change order addresses all compensation for time, money, material, equipment, labor, tools, and incidentals including all direct and indirect costs associated with the scope of work.

Summary:

INCREASE contract amount by \$264,139.21

INCREASE in the contract time. 60 days will be alloted for this work to take place. Additional contract time will depend on when work change directive is given

NDARD WORKWEEK DAYS ADDED TO COMPLETION TIME:		TOTAL CHANGE ORDER	AMOUNT: \$ 264,139.2
CONTRACTOR: JAR Construction			
I, Joe A. Losales Jr. conditions of this change order.	. of J.A.R	'Concrete	agree and accept the terms and
Signature: CITY OF EL PASO (OWNER)			Date:
I, <u>Sam Rodriguez</u> of the City of El in this form.	Paso hereby authorize and direct	the Contractor to proceed with a	dditional work as described
Signature:			Date:

Sam Rodriguez P.E. City Engineer

## **CITY OF EL PASO CONSTRUCTION CHANGE ORDER- Pg. 2**

CONSTRUCTION CHANGE	_	3 DATE:	July 30, ements SOLICITA	CS	J: 0924-06-539	CHANGE RUCTION CHANGE
Project Numb Cla: Departme Fur Accou	ss 38290 ent 190 nd 4743		Project Number Class _ Department Fund Account	PCP14IB001 38290 4950 190 580270	PURCAHSE ORDER #	200000333
CONTRACTOR NAME:	J.A.R. C	oncrete Inc.				

#### PROVIDE REASON/JUSTIFICATION FOR CHANGE ORDER:

Prior to commencing construction, the City Manager was made aware of the improvements done to the area and had recomended additional landscaping amenities to the project that were not part of the original scope. Coordination began with the Engineer of record to make the changes to the landscaping and irrigation to reflect the comments provided by the City Manager.

Costs were justified by comparison of the contractor's proposal to an estimate based on TxDOT low average bid cost, they existing and similar bid items from on recent projects adjusted for inflation and found to be fair and reasonable.

Contractor will be given 60 working days to complete all of the work from the date the work change directive is issued.

STANDARD WORKWEEK DAYS ADDED TO COMPLETION TIME:	0	TOTAL CHANGE ORDER AMOUNT:	\$ 264,139.21
Project Manager recommends approval:	Mull		
	Alex Pedroza		
Engineering Division Manager recommends approval:	Margaret Margaret Schoeder, P.E.	t-KSchroeder	
	Margaret Scoreder, F.E.		
Financing Department approval: (If Required)			 

	REQUEST FOR PO I	NCREASE/DE	CREASE FO	R CHANGE OR	DER
CONSTRUCTION C	HANGE ORDER NO.: 3 Paso Del Norte (PDN) Port of Entry (POI	DATE:		CSJ: 0924-06-539	CREASE
	jject Number <u>PCP14IB001</u> Class <u>38290</u> Department <u>190</u> Fund <u>4743</u> Account <u>580270</u>	PURCHASE		33	
CONTRACTOR N	AME: J.A.R. Concrete In	IC			
LINE	AS A RESULT OF THIS CHANGE O	DRDER, PLEASE MAKE THE	E FOLLOWING ADJUSTMI	ENT TO THE PUCHASE ORD	ER:
	264139.21			NET CHANGE TO CHASE ORDER	
			:	264139.21	
			()	should match cost below)	
				Additional funding/d	irection:
					5054 400 04
	Engineering Division Manager recor		rgaret KS	ange order amount:	\$264,139.21

#### Attachment 1, 20 S-2 Documenting Change Order Cost Reasonableness, Sample Summary, Page 1

#### **Contract Change Order Documentation Summery and Determination of Cost Reasonableness:**

Contract Name: Paso Del Norte (PDN) Port of Entry (POE) Roundabout Improvements

Solicitation / Project Number: 2019-452

Change Order Number: 3

Prepared By: Alex Pedroza

#### **RFP: NA**

In response to an (Select one and entry number and date) **RFP number** \_\_\_\_\_\_ **or Field Directive number** \_\_\_\_\_\_ dated \_\_\_\_\_ (Attach Copy). Or In response to \_\_\_\_\_ (describe the situation that resulted in the unsolicited proposal)

and unsolicited proposal was provided .

#### **Initial Cost Estimate:**

Check all that apply:

\_\_\_\_\_ No initial estimate of the change order costs was attempted. (Attach Justification countersigned by assigned DM)

<u>X</u> A ROM Estimate in the amount of  $\frac{$276,557.48}{$276,557.48}$  was prepared on Date  $\frac{9/9/21}{$21}$  attach copy

\_\_\_\_\_ A Detailed Estimate in the amount of \$ \_\_\_\_\_\_ was prepared on Date \_\_\_\_\_\_ attach copy.

\_\_\_\_\_ The Design Consultant provided a detailed estimate in the amount of \$\_\_\_\_\_\_ was prepared on Date \_\_\_\_\_\_ attach copy.

\$272,337 +/-

#### Contractors Proposal: July 08, 2020

The contractor provided a proposal Dated uly 08, 2020 (attach copy) in the amount of \$264,139.21 and requesting <u>60</u> Calendar/Working days to perform the entire work. Any of these days that fall outside of the contract time will be added as work days.

Attach continuation sheet if necessary

#### Attachment 1, 20 S-2 Documenting Change Order Cost Reasonableness, Sample Summary, Page 2

Cost evaluation: Cost reasonableness was determined using the following methods check all that apply.

\_\_\_\_ Utilizing existing Bid Item

 $\underline{X}$  Price Analysis  $\checkmark$ 

\_\_\_\_ Cost Analysis

(Provide narrative description for each method utilized and how reasonableness was determined) Attach mark up a proposal with negotiation objectives, including accepted cost, Dated and initialed by the Preparer and Assigned Division Manager. Label Marked UP Proposal:

Narrative description of determination of reasonableness: (Attach Continuation sheets as necessary, include detailed table showing Proposed/Objective /and Negotiated when appropriate. (Sample included)

Narrative: I created a cost estimate using existing bid item prices for items already in the contract, researching sale price and shipping costs and adding O&P for other items, and using TxDOT low average bid for other items.

For planters, I found a vendor selling the same planters as proposed on the plans. Cost and shipping were taken for the planters and 15% was added for overhead and profit for the installation. When talking to the contractor about this item, they mentioned they are including careful handling into the cost as these planters are large, heavy and fragile and they are at risk of damaging the planters while they are under their care. The cost the contractor provided was reasonable compared to our estimate.

For irrigation, I met with Tyson to discuss the item provided in the contractor's cost proposal. The original bid price was for \$8,875.00/LS for a system with one valve and only irrigation on the median on 6<sup>th</sup> Ave. The new irrigation system includes 7 valves and approximately 228 emitters whereas the original irrigation system had 1 valve and 17 emitters. Tyson agreed we can multiply the system by 7 to get an approximate cost for the system of \$62,125. The Irrigation was adjusted to \$52,000 after reviewing irrigation costs for similar projects like the Rich Beem Roundabout. The cost the contractor provided was reasonable compared to our estimate.

Plant Maintenance and Irrigation maintenance estimates were both calculated using ratios between plants installed on the original design vs plants installed on the redesign. The proposal cost the contractor provided was reasonable compared to this estimate and costs from similar projects.

25 Gallon tree was found using CBDIV 30 gallon tree item (25 gallon tree was not found on other projects). Upon checking with Brent Pearson, we found out the Crape Myrtle tree was found locally for \$180 EA brought this to the contractor's attention and they insisted the trees for sale locally were not quality trees and the contractor wanted to provide a tree the city would be pleased with from out of town. After asking for proof of this and going back and forth, the contractor negotiated to a price of \$376 EA.

Star modification proposal was broken down to provide manpower and material cost for modifications done to the star monument. This work was necessary to mount the star monument per revised plans and provide thicker steel for structure.

Star structure additional reinforcement and concrete was necessary to modify footing for star and spiral per new plans. The price was found fair and reasonable based on the CY price of concrete per yard.

4" concrete slab necessary for planter mounting. This item cost was found to be higher compared to our estimate based on sidewalk pricing. This cost was justified by the increase in labor necessary to form 35 individual round slabs which are more labor intensive than placing normal sidewalk.

All of the other items were compared to existing contract bid items and were found to be fair and reasonable.

Below is a table showing the initial costs proposed by the contractor, our estimated price based on the estimate generated, and the final contractor proposal cost.

\*Aggregate type 3 was not initially priced due to omission on contractor's part.

ITEM	QUANTITY	UOM	Initia	al proposal cost	CID	estimated price	Fina	al proposal cost
1 GAL PLANT	435	EA	\$	20.94	\$	21.67	\$	20.94
5 GALLON PLANT	86	EA	\$	34.72	\$	40.00	\$	34.72
CACTUS	282	EA	\$	44.47	\$	40.00	\$	44.47
WEED BARRIER	207	SY	\$	2.09	\$	2.00	\$	2.09
25 GALLON TREE	12	ES	\$	514.10	\$	300.00	\$	376.12
PLANT MAINTENANCE	12	MO	\$	492.90	\$	1,458.00	\$	492.90
1 GAL PLANT REPLACEMENT	340	EA	\$	20.14	\$	21.67	\$	20.14
5 GAL PLANT REPLACEMENT	260	EA	\$	31.80	\$	40.00	\$	31.80
IRRIGATION MAINTENANCE	12	MO	\$	174.90	\$	500.00	\$	174.90
30 GAL PLANT REPLACMENT	12	EA	\$	487.60	\$	5,851.20	\$	424.00
AGGREGATE TYPE 2	17	CY	\$	130.38	\$	145.00	\$	130.38
AGGREGATE TYPE 3	12	CY	\$	-	\$	145.00	\$	143.10
PLANTERS LARGE	7	EA	\$	7,416.03	\$	6,598.69	\$	7,416.03
PLANTERS MEDIUM	18	EA	\$	3,813.88	\$	3,388.00	\$	3,813.88
PLANTERS SMALL	10	EA	\$	2,053.75	\$	1,924.00	\$	2,053.75
BACKFILL PLANTERS	13	CY	\$	104.89	\$	13.00	\$	104.89
IRRIGATION	1	LS	\$	44,878.28	\$	52,000.00	\$	46,286.50
FRENCH DRAIN	80	LF	\$	13.52	\$	28.78	\$	13.52
Star modifications	1	LS	\$	1,060.00	\$	1,060.00	\$	1,060.00
STAR STRUCTURE ADDITIONAL REINFORCEMENT	10	СҮ	\$	40.50	\$	150.00	\$	40.50
4" CONCRETE SLAB	75	SY	\$	62.20	\$	40.00	\$	62.20
BARRICADES & TRAFFIC HANDLING	1	MO	\$	6,450.00	\$	6,450.00	\$	6,450.00

Below is the back up information used in order to estimate pricing for items.

#### Back up information

Contractor initially sent a request of 90 additional work days to be added to the contract in order to perform the extra irrigation and landscape work. The designer was tasked with finding the appropriate amount of work days that should be given for the additional work. The designer calculated a total of 30 workdays that should be added to the contract. The contractor was advised that his requested amount of days did not line up with the designer's amount. The contractor was requested to send his schedule of work in order to justify the additional days. The contractor sent the schedule found in this change order requesting 60 days. When asked about why they are including the entire landscaping on this

schedule, the contractor answered that it would take them 60 days to do the entire work and not only the added work. The contractor requested that any of the 60 days that fall outside of the contract time be added to the contract as additional days with a start date of the 60 days starting with the work change directive. With an estimated work change directive date of 10/12/21, an estimated 33 days will be added to the contract using this method.

 Wed 6/16/2021 4:39 PM

 Alan Herrera < aherrera@ceagroup.net>

 FW: PDN Landscape revision time

 Image: The Pedroza, Alejandro

 You forwarded this message on 6/17/2021 2:56 PM.

 Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

 Phish Alert V2

 Good afternoon Alex,

 As per today's phone conversation, please see below recommendation from Landscape Architect, which is 30 working days, approximately 45 calendar days.

 Thank you,

Alan D. Herrera, P.E. CEA Group

From: David Parra <<u>david@greenway-studio.com</u>> Sent: Tuesday, June 15, 2021 2:50 PM To: Alan Herrera <<u>aherrera@ceagroup.net</u>> Subject: Re: PDN Landscape revision time

Alan,

Apologies for the delayed response.

I believe the new tasks will amount to 30 additional work days. Below are the tasks considered however the pot production and shipping will hopefully not produce any idle time, see below.

1 ft. Earthwork Increment Sleeves and Irrigation Pot Prep. Pot base form and Leveling Pot Soil, amendments and mulch.

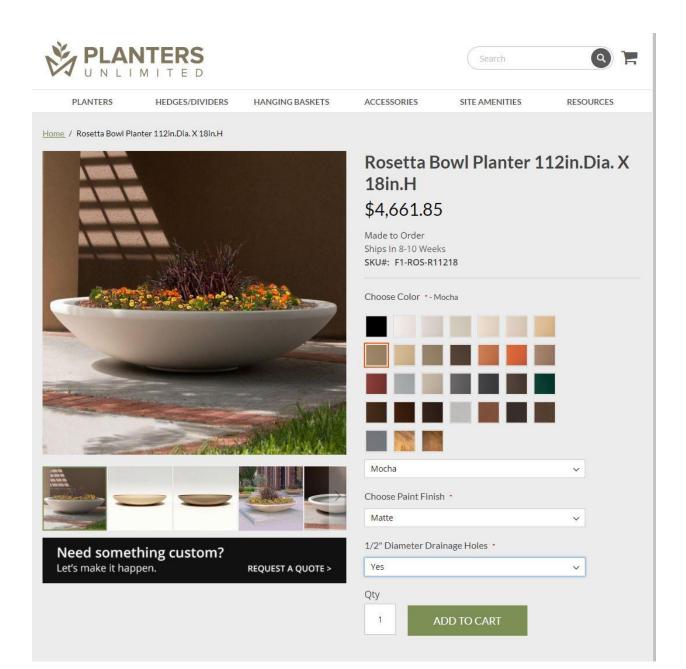
Thank you

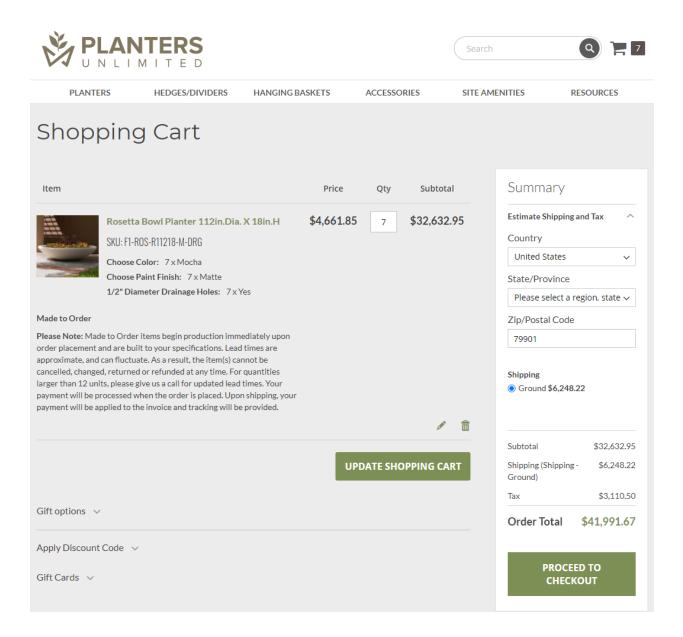
#### DAVID A. PARRA, RLA, CNU-A, ASLA

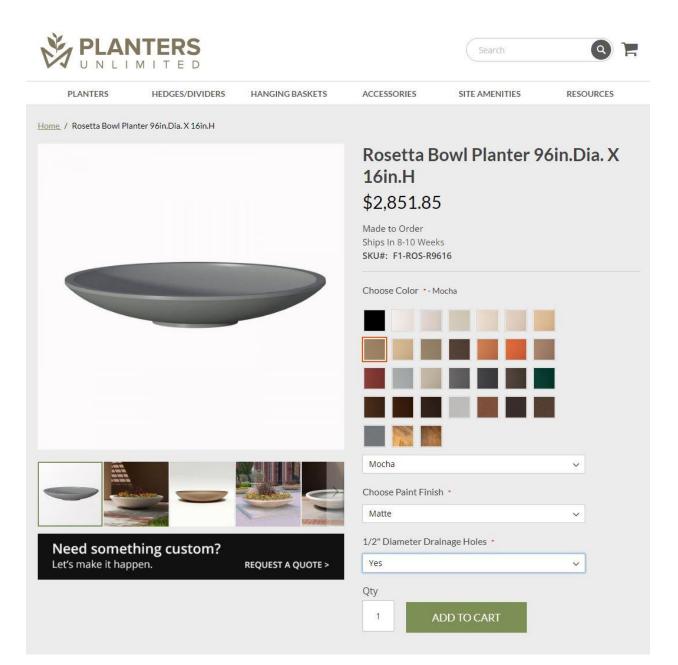
PRINCIPAL / LANDSCAPE ARCHITECT

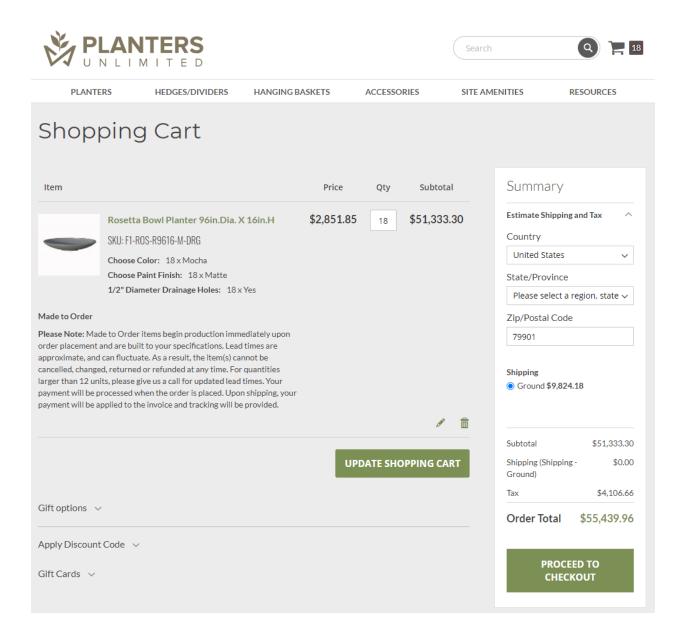
#### GREENWAY STUDIO, LLC

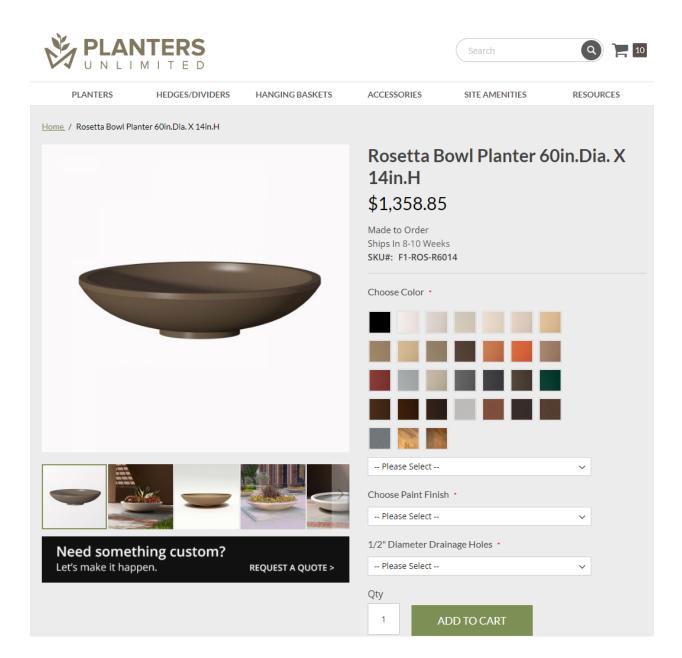
a: 817 Olive Avenue, El Paso, TX 79901











<b>P</b>	LAN N L I M	TERS				Searc	h	Q 📜 10
PLANT	ERS	HEDGES/DIVIDERS	HANGING B/	ASKETS	ACCESSORIE	S SITE A	MENITIES	RESOURCES
Shop	ping	Cart						
Item				Price	Qty	Subtotal	Summa	ry
order placement approximate, and cancelled, change larger than 12 un payment will be p	SKU: F1-R0S Choose Co Choose Pai 1/2" Diame and are built f d can fluctuate ed, returned o hits, please giv processed who	Sowl Planter 60in.Dia. X S-R6014-M-DRG lor: 10 × Mocha int Finish: 10 × Matte eter Drainage Holes: 10 × 10 eters begin production imme to your specifications. Lead e. As a result, the item(s) can r refunded at any time. For e us a call for updated lead t en the order is placed. Upon invoice and tracking will be	Yes diately upon times are not be quantities imes. Your shipping, your	\$1,358.85	10 \$	s13,588.50	Country United Sta State/Prov	ince ect a region, state ✓ ince Code
				UPI	DATE SHOPP	PING CART		
Gift options 🚿	/						Subtotal Shipping (Shi Ground)	\$13,588.50 pping - \$2,605.05
Apply Discount	t Code 🗸						Tax	\$1,295.48
Gift Cards ∨							Order Tot	
								OCEED TO HECKOUT

#### PDN Roundabout bid tab

12	. 19	92 6004		EA	91	PLANT MATE	RIAL (5-GAL)		\$40.00	\$3,640.00	\$50.00	\$4,550.00			
	Yarbrough Bridge 2020														
	16	192	60	002	PLANT	MATÉRIAL (1- GAL)	EA	61	\$32.0	0 \$1,952	2.00 \$21	.00 \$1,28	1.00 \$	12,00	\$732.00

PDN Roundabout

13.	192 6017		SY	39	93 VEC	GETATION BA	RRIER	\$2.0	0 \$786.0	0 \$3.0	00 \$1,1	79.00
					CBD4 plar	nt materi	al 25 gal tr	ree ( didn't	find 25 gal	lon)		
16	192 6024	PLA	NT MATE (TR	ERIAL (30 REE)	GAL) EA	513	\$625.00	\$320,625.00	\$560.00 \$28	7,280.00 \$85	0.00 \$4	36,050.00
	TxDOT low average bid for French drain											
55	56 6008		PE UN 78) (6		DRAINS	LF 4	1,960.000	19.50	000 82,612	2.000	25.66080	12
Richbeem Edgemere roundabout plant maintenance and irrigation maintenance												
16.	193-6001		мо	12	PLANT MAIN	TENANCE	\$1,000.00	\$12,000.00	\$800.00	\$9,600.00	\$960.13 CON	\$11,521.56 ITRACTOR'S CE \$11,521.50
17.	193-6007		мо	12	IRRIGATION SYST		\$850.00	\$10,200.00	\$300.00	\$3,600.00	\$800.00	\$9,600.00
	Rich Beem and Edgemere roundabout irrigation system											
7.	170-6001		LS	1	IRRIGATION	SYSTEM	\$43,000.00	\$43,000.00	<b>\$8</b> 9,00 <b>0</b> .00	\$89,000.00	\$42,000.00	\$42,000.00
					U	niversity	Avenue P	lant mainte	enance			
1.000							1			\$20,941.92		

8.	193 6001	мо	12	PLANT MAINTENANCE	\$875.00	\$10,500.00	\$20,941.92 \$1,745.16 CONTRACTOR'S PRICE: \$20,942.00	\$3,996.28	\$47,955.36	
		 			1	9				

## PDN Roundabout Loose aggregate groundcover

#### Designer concurrence on initial proposal pricing and comments



David Parra <david@greenway-studio.com>

To 🗧 Alan Herrera; 🗌 Rene Cano

1 Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

#### Good Morning Alan,

We are in agreeance with most of the contractor's costs however there seems to be a few discrepancies in the landscape contractor's following line items:

25 Gal. Tree - \$485 ea (This cost is high and in fact higher than the cost of a 3" Caliper Tree, item needs review.)

30 Gal. Plant Replacement - \$460 ea (This cost is high and does not match gallon size of proposed plant material, item needs review.)

1 Gal Plant Replacement - \$19 ea 5 Gal Plant Replacement - \$30 ea 30 Gal Plant Replacement - \$460 ea (Cost is high and not comparable with item below) 65 Gal Plant Replacement - \$400 ea (Why less than above?)

(The plant replacement items above assume a 100% mortality rate for all plants. This should be in accordance with standard mortality rates within the 1 year warranty, items need review.)

Additionally, we are not sure why the original contract amount is summed up with the new contract? Only a couple of items have been deducted in the new quote and others remain

#### Thank you

#### DAVID A. PARRA, RLA, CNU-A, ASLA

PRINCIPAL / LANDSCAPE ARCHITECT

#### GREENWAY STUDIO, LLC

- 817 Olive Avenue, El Paso, TX 79901 a:
- david@greenway-studio.com e:
- www.greenway-studio.com w:
- t: 915.873.7393
- 915.215.9488 c:



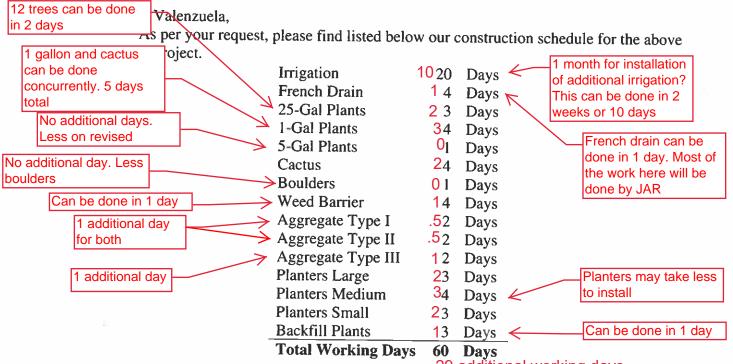
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August 6, 2021

J A R Construction 8000 Escobar El Paso, TX 79907 Attn: Mr. Jesus Valenzuela

Re: Construction Schedule Paseo Del Norte Roundabout



29 additional working days

Please Note: This schedule may change due to the delivery of the planters. Manufacture is telling us delivery after receipt of order is 8 – 10 weeks out.

Plant Maintenance, Plant Replacement, Irrigation maintenance is not part of this schedule.

Should you have any questions, please don't hesitate to call.

Sincerely,

Jor T. Ayuilan )

Joe L. Aguilar, Jr.

28 San Marcos El Paso, TX 79922 (915)585-1693 Office WWW.accentls.org

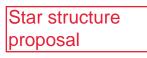
(915) 585-1695 Fax

## CID Estimate

CID Estimate								
ITEM	QUANTITY	UOM	UNIT PRICE	COST				
1 GAL PLANT	435	EA	21.67	\$ 9,426.45				
5 GALLON PLANT	86	EA	40	\$ 3,440.00				
CACTUS	282	EA	40	\$ 11,280.00				
WEED BARRIER	207	SY	2	\$ 414.00				
25 GALLON TREE	12	ES	300	\$ 3,600.00				
PLANT MAINTENANCE	12	MO	1458	\$ 17,496.00				
1 GAL PLANT REPLACEMENT	340	EA	21.67	\$ 7,367.80				
5 GAL PLANT REPLACEMENT	260	EA	40	\$ 10,400.00				
IRRIGATION MAINTENANCE	12	MO	500	\$ 6,000.00				
30 GAL PLANT REPLACMENT	12	EA	678	\$ 8,136.00				
AGGREGATE TYPE 2	17	CY	145	\$ 2,465.00				
AGGREGATE TYPE 3	12	CY	145	\$ 1,740.00				
PLANTERS LARGE	7	EA	6598.69	\$ 46,190.83				
PLANTERS MEDIUM	18	EA	3388	\$ 60,984.00				
PLANTERS SMALL	10	EA	1924	\$ 19,240.00				
BACKFILL PLANTERS	13	CY	13	\$ 169.00				
IRRIGATION	1	LS	52000	\$ 52,000.00				
FRENCH DRAIN	80	LF	28.78	\$ 2,302.40				
STAR MODIFICATIONS	1	LS	1000	\$ 1,000.00				
STAR STRUCTURE ADDITIONAL REINFORCEMENT	10	CY	150	\$ 1,500.00				
4" CONCRETE SLAB	75	SY	40	\$ 3,000.00				
BARRICADES AND TRAFFIC HANDLING	1	MO	6450	\$ 6,450.00				
			Total	\$ 274,601.48				

## Westside Welding Inc.

GENERAL CONTRACTORS



# Estimate

Date	Estimate #
6/9/2021	7090
Phone #	915-877-5345

#### Name / Address

J.A.R. Construction Inc 8000 Escobar Dr. El Paso, Texas 79907

		-	P.O. No.	Project
De	scription	Qty	Rate	Total
Roundabout Change Order				
Material and labor for modifications of fram	ne for Star Sculpture.	1	1,000.00	1,000.0
Material: \$400.00 Labor: 1 man x \$75.00/hr x 8 hrs = \$600.00	)			
Thank you for your business.		Subtota		\$1,000.0
westsidewelding@sbcglobal.net	Web Site	Sales Ta	ax (8.25%)	\$0.0
timate is only good by the end of day!	westsidewelding.net	Total		\$1,000.0

Disclaimer: Westside Welding completes projects as per customer request, specs, or drawings. Safety lids, decals, rails, and other safety equipment are only installed as per customer request. Customer agrees that work was completed as ordered. Westside Welding will not be held liable for any safety items not requested by customer.

Third proposal with breakdown

			Change Order				
OWNER :	City of El Paso 218 N. Campbell, 2nd Floor El Paso, TX 79901		PROJECT :		e Roundabout ementes	Change Order	1
CONTRACTOR :	J.A.R. Construction, Inc. 8000 Escobar Drive El Paso, TX 79907					CONTRACTOR'S PROJECT NO. :	2019-452
	Despcription	Unit	Quantity	Unit Price	Total Amount		
	Lan	dscape & Irriga	tion Re-design				
	Accent Landscape						
	Total Add from New Plan	LS	1	\$234,419.50	\$234,419.50		
	Total Deduct from New Plan	LS	1	-\$6,535.00	-\$6,535.00		
	Original Contract Amount	LS	1	\$27,915.46	\$27,915.46		
	Westside Welding						
	Star Structure Modifications	LS	1	\$1,000.00	\$1,000.00		
	J.A.R Concrete Inc				4		
	Existing Subgrade Prep below planters	CY	35	\$46.50	\$1,627.50		
	4" Concrete Slab (No Wire Mesh) for planters Concrete Footing Steel Reinforcement	SY CY	75 10	\$40.50 \$40.50	\$3,037.50 \$405.00		
	Subtotal	Cr	10	\$40.50	\$261,869.96		
	General Contractor Markup	n	5.00% Markup		\$13,093.50		
	Bond		1.00% Markup		\$13,093.50 \$2,618.70		
		7	1.0070 (Markup	Total	\$277,582.16		
				10(0)	<i>7211,302</i> .10		



August 23, 2021

JAR Construction, Inc. 8000 Escobar Drive El Paso, Texas 79936 Attn: Mr. Jesus Valenzuela

#### Re: Paseo Del Norte Roundabout

Dear Mr. Valenzuela,

As per your request, please find listed below our revised breakdown of the new pricing for the above referenced project, as per revised drawing by Greenway Studios dated March 2021. We have broken down pricing and quantities from our original bid to the revised proposal.

	Original Plan Quantity	New Plan Quantity	Adds	Deducts	Unit Price	Total Add	Total Deduct
1 Gal. Plant	0	435 ea.	435		\$19.75	\$8,591.25	\$0.00
5 Gal. Plant	91 ea.	53 ea.	38		\$40 \$32.75	\$1,244.50	-1,520\$0.00
Cactus	0	282 ea.	282		\$41.95	\$11,829.90	\$0.00
Weed Barrier	393 Syds.	600 Syds.	207		2.00 \$1.97	\$407.79	\$0.00
3" Tree	<u>l</u> ea.	0	- 1 to	o remain	\$450.00	\$0.00	-\$450.00
25 Gal. Tree	0	12 ea.	12		\$354.83	\$4,257.96	\$0.00
Plant Maintenance	1,485-11 months	5,580 - 12 ea.	12		\$465.00	\$5,580.00	\$0.00
1 Gal. Plant Replacement	0	<u>340 ea.</u>	340		\$19.00	\$6,460.00	\$0.00
5 Gal. Plant Replacement	20 ea.	280 ea.	260		\$36 <sub>\$30.00</sub>	\$7,800.00	\$0.00
Irrigation Maintenance	550-11 months	1980- 12 ea.	12		\$165.00	\$1,980.00	\$0.00
30 Gal. Plant Replacement	0	12 ea.	12		\$400.00	\$4,800.00	\$0.00
65 Gal. Plant Replacement	1 ea.	0	1 to re	main <sub>l</sub>	\$460.00	\$0.00	-\$460.00
Boulders	37 ea.	12 ea.		25	\$225.00	\$0.00	-\$5,625.00
Aggregate Type I	29 cyds.	29 cyds.	0	0	\$0.00	\$0.00	\$0.00
Aggregate Type	12 cyds.	29 cyds.	17		\$123.00	\$2,091.00	\$0.00
Aggregate Type	0	12 cyds.			\$135.00	\$1,620.00	\$0.00
Planters Large	0	7 ea.	7		\$6,996.25	\$48,973.75	\$0.00
Planters Medium	0	18 ea.	18		\$3,598.00	\$64,764.00	\$0.00
Planters Small	00	10 ea.	10		\$1,937.50	\$19,375.00	\$0.00
Backfill Planters	0	13 cyds.	13		\$98.95	\$1,286.35	\$0.00
Irrigation	1	1	49,733	7,395		\$42,338.00	\$0.00
French Drain	0	80 L.F.	80		\$12.75	<u>\$1,020.00</u>	<u>\$0.00</u>
						\$234,419.50	-\$6,535.00

28 San Marcos

(915)585-1693 Office

(915) 585-1695 Fax

El Paso, TX 79922

WWW.accentls.org



Total Add from New Plan	\$234,419.50
Total Deduct from New Plan	(\$6,535.00)
Original Contract Amount	<u>\$27,915.46</u>
New Total Contract Amount	\$255,799.96

If you have any questions, please don't hesitate to contact me.

Sincerely,

Jor T. Aquilar

Joe L. Aguilar, Jr.

(915)585-1693 Office

El Paso, TX 79922

WWW.accentis.org



August 23, 2021

JAR Construction, Inc. 8000 Escobar Drive El Paso, Texas 79936 Attn: Mr. Jesus Valenzuela

Re: Paseo Del Norte Roundabout

Dear Mr. Valenzuela,

As per the City of El Paso's request please find listed below our breakdown of the items requested. Please note that the pricing for the 25 gal. trees has been corrected and the quantity for the 30 gal. tree has been changed to reflect the quantity the City of El Paso requested.

#### Material

1.1000011001						
7	ea.	Large Planters @ \$5,335.6	58/ea.	=	\$	37,349.78
18	ea.	Medium Planters @ \$2,72	2.77/ea.	=	\$	49,009.78
10	ea.	Small Planters @ \$1,351.5	57/ea.	=	\$	13,515.67
1	ea.	Freight		=	\$	7,682.72
Labor Un	loading	-				,
17	hrs.	Operator @ \$22.00/hr.		=	\$	374.00
17	hrs.	Labor @ \$18.95/hr.		=	\$	322.15
	L.S.	Labor Burden @ 28%		=	\$	194.92
Labor to	Install	e				
53	hrs.	Operator @ \$22.00/hr.		=	\$	1,166.00
70	hrs.	Labor @ \$18.95/hr.		=	\$	1,326.50
	L.S.	Labor Burden @ 28%		=	\$	697.90
Rental Ec	uipment	<u> </u>				
2	weeks	Sky Track @ \$2,058.72/w	eek	=	\$	4,117.44
			Subtotal	=	\$	115,756.86
			15% O & P	=	\$	17,363.53
			Total	=		133,120.39
Backfill P	lanters					
18	tons	Topsoil @ \$17.66/ton		=	\$	317.88
35	bags	Peat Moss @ \$12.05/bag		=	Ŝ	421.75
Labor	Ũ	0.00			~	
20	hrs.	Labor @ \$18.95/hr.		=	\$	379.00
		-	Subtotal	=	\$	1,118.63
			15 % O & P	=	\$	167.79
			Total	=	\$	1,286.42
					-	,= · · <b>-</b>

If you have any questions, please don't hesitate to contact me.

Sincerely,

Jor T. Aguilar

Joe L. Aguilar, Jr.

## Fourth Proposal

OWNER :         City of El Paso 218 N. Campbell, 2nd Floor El Paso, TX 79901         PROJECT:         Paso del Norte Roundabout Improvementes         Change Order           CONTRACTOR :         JA.R. Construction, Inc. 800 Escolur Drive El Paso, TX 79907         CONTRACTOR'S PROJECT NO.         CONTRACTOR'S PROJECT NO.         201           I Gal. Plant         435         EA         \$19.75         \$8,591.25         \$20.94         \$9,106.73           S Gal. Plant         86         EA         \$32.75         \$2,816.50         \$34.72         \$2,985.49           Catus         282         EA         \$41.95         \$11,829.90         \$44.47         \$12,539.69           25 Gal. Tree         12         EA         \$34.33         \$4,27.96         \$37.61.2         \$4,513.44           Plant Maintenance         12         MONTH         \$465.00         \$5,580.00         \$44.47         \$12,539.69           25 Gal. Tree         12         MONTH         \$465.00         \$5,580.00         \$42.90         \$5,914.80         \$6,877.60           36 Gal. Plant Replacement         260         EA         \$30.00         \$7,800.00         \$31.80         \$8,807.60           30 Gal. Plant Replacement         120         MONTH         \$150.00         \$1,439.0         \$2,2098.80				Change	Order				
Description         Qty         Unit         Unit Price         Total         JAR Markup 6% Unit Price         Change Order Total         1           1 Gal. Plant         435         EA         \$19.75         \$8,591.25         \$20.94         \$9,106.73         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.49         \$2,2855.40         \$2,2855.49         \$2,2855.49         \$2,2855.40         \$2,290         \$4,427.90         \$2,290         \$4,427.90         \$2,44.71         \$2,2855.40         \$2,988.40         \$2,988.40         \$2,988.40         \$2,988.40         \$2,998.40         \$2,998.40         \$2,998.40         \$2,998.40         \$2,998.80         \$2,098.40         \$2,098.80         \$2,098.80         \$2,098.80         \$2,098.80         \$2,098.80 <th>OWNER :</th> <th>218 N. Campbell, 2nd Floor</th> <th></th> <th></th> <th>PROJECT:</th> <th>Paso del Norte R</th> <th>oundabout Improvementes</th> <th>Change Order</th> <th></th>	OWNER :	218 N. Campbell, 2nd Floor			PROJECT:	Paso del Norte R	oundabout Improvementes	Change Order	
Description         Qty         Unit         Unit Price         Total         Price         Change Order Total           1 Gal. Plant         435         EA         \$19.75         \$8,591.25         \$20.94         \$9,106.73           5 Gal. Plant         86         EA         \$32.75         \$2,816.50         \$34.72         \$2,985.49           Cactus         282         EA         \$41.95         \$11,829.90         \$44.47         \$12,539.69           Weed Barrier         207         SY         \$1.97         \$407.79         \$2.09         \$432.26           25 Gal. Tree         12         MONTH         \$465.00         \$5,580.00         \$492.90         \$5,514.80           I Gal. Plant Replacement         12         MONTH         \$465.00         \$5,580.00         \$20.14         \$6,847.60           5 Gal. Plant Replacement         260         EA         \$30.00         \$7,800.00         \$31.80         \$82,208.80           30 Gal. Plant Replacement         12         MONTH         \$165.00         \$1,980.00         \$424.00         \$5,588.00           Aggregate Typell         17         CY         \$135.00         \$2,091.00         \$130.38         \$2,216.46           Aggregate Typell         12         <	CONTRACTOR :	8000 Escobar Drive							2019-4
5 Gal. Plant       86       EA       \$32.75       \$2,816.50       \$34.72       \$2,985.49         Cactus       282       EA       \$41.95       \$11,829.90       \$44.47       \$12,539.69         Weed Barrier       207       SY       \$1.97       \$407.79       \$2.09       \$432.26         25 Gal. Tree       12       EA       \$354.83       \$4,257.96       \$376.12       \$44.47         Plant Maintenance       12       MONTH       \$465.00       \$5,80.00       \$492.90       \$5,914.80         I Gal. Plant Replacement       340       EA       \$19.00       \$6,460.00       \$20.14       \$6,847.60         5 Gal. Plant Replacement       260       EA       \$30.00       \$7,800.00       \$31.80       \$8,268.00         Irrigation Maintenance       12       MONTH       \$465.00       \$44.00       \$6,6847.60         30 Gal. Plant Replacement       12       EA       \$400.00       \$44.800.00       \$424.00       \$5,088.00         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Small		Description	Qty	Unit	Unit Price	Total	•	Change Order Total	
Cactus       282       EA       \$41.95       \$11,829.90       \$44.47       \$12,539.69         Weed Barrier       207       SY       \$1.97       \$407.79       \$2.09       \$432.26         25 Gal. Tree       12       EA       \$354.83       \$4,257.96       \$376.12       \$4,513.44         Plant Maintenance       12       MONTH       \$465.00       \$50.00       \$492.90       \$5,914.80         I Gal. Plant Replacement       340       EA       \$19.00       \$6,460.00       \$20.14       \$6,847.60         5 Gal. Plant Replacement       260       EA       \$30.00       \$7,800.00       \$31.80       \$8,268.00         Irrigation Maintenance       12       MONTH       \$165.00       \$1,980.00       \$174.90       \$2,098.80         30 Gal. Plant Replacement       12       MONTH       \$165.00       \$1,980.00       \$174.90       \$2,098.80         Aggregate Typell       12       CY       \$123.00       \$2,091.00       \$130.38       \$2,216.46         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Medium       18       EA       \$3,937.50       \$1,937.50       \$2,053.75       \$2,053.75 <t< td=""><td></td><td>1 Gal. Plant</td><td>435</td><td>EA</td><td>\$19.75</td><td>\$8,591.25</td><td>\$20.94</td><td>\$9,106.73</td><td></td></t<>		1 Gal. Plant	435	EA	\$19.75	\$8,591.25	\$20.94	\$9,106.73	
Weed Barrier         207         SY         \$1.97         \$407.79         \$2.09         \$432.26           25 Gal. Tree         12         EA         \$354.83         \$4,257.96         \$376.12         \$4,513.44           Plant Maintenance         12         MONTH         \$465.00         \$5,580.00         \$492.90         \$5,914.80           I Gal. Plant Replacement         340         EA         \$19.00         \$6,40.00         \$20.14         \$6,6847.60           5 Gal. Plant Replacement         260         EA         \$30.00         \$7,800.00         \$31.80         \$8,268.00           Irrigation Maintenance         12         MONTH         \$165.00         \$1,980.00         \$174.90         \$2,098.80           30 Gal. Plant Replacement         12         EA         \$400.00         \$4,800.00         \$424.00         \$5,088.00           Aggregate Typell         17         CY         \$123.00         \$2,091.00         \$130.38         \$2,216.46           Aggregate Typell         12         CY         \$135.00         \$1,620.00         \$143.10         \$1,717.20           Planters Small         10         EA         \$3,598.00         \$64,764.00         \$3,813.88         \$68,649.84           Planters Small		5 Gal. Plant	86	EA	\$32.75	\$2,816.50	\$34.72	\$2,985.49	
25 Gal. Tree       12       EA       \$354.83       \$4,257.96       \$376.12       \$4,513.44         Plant Maintenance       12       MONTH       \$465.00       \$5,580.00       \$492.90       \$5,914.80         I Gal. Plant Replacement       340       EA       \$19.00       \$6,460.00       \$20.14       \$6,847.60         5 Gal. Plant Replacement       260       EA       \$30.00       \$7,800.00       \$31.80       \$8,268.00         Irrigation Maintenance       12       MONTH       \$165.00       \$1,980.00       \$174.90       \$2,098.80         30 Gal. Plant Replacement       12       EA       \$400.00       \$4,800.00       \$424.00       \$5,088.00         Aggregate Typell       17       CY       \$123.00       \$2,091.00       \$130.38       \$2,216.46         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.		Cactus	282	EA	\$41.95	\$11,829.90	\$44.47	\$12,539.69	
Plant Maintenance       12       MONTH       \$465.00       \$5,580.00       \$492.90       \$5,914.80         I Gal. Plant Replacement       340       EA       \$19.00       \$6,460.00       \$20.14       \$6,847.60         5 Gal. Plant Replacement       260       EA       \$30.00       \$7,800.00       \$31.80       \$8,268.00         Irrigation Maintenance       12       MONTH       \$165.00       \$1,980.00       \$174.90       \$2,098.80         30 Gal. Plant Replacement       12       EA       \$400.00       \$4,800.00       \$424.00       \$5,088.00         Aggregate Typell       12       EA       \$400.00       \$4,800.00       \$130.38       \$2,216.46         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89 <t< td=""><td></td><td>Weed Barrier</td><td>207</td><td>SY</td><td>\$1.97</td><td>\$407.79</td><td>\$2.09</td><td>\$432.26</td><td></td></t<>		Weed Barrier	207	SY	\$1.97	\$407.79	\$2.09	\$432.26	
I Gal. Plant Replacement       340       EA       \$19.00       \$6,460.00       \$20.14       \$6,847.60         5 Gal. Plant Replacement       260       EA       \$30.00       \$7,800.00       \$31.80       \$8,268.00         Irrigation Maintenance       12       MONTH       \$165.00       \$1,980.00       \$174.90       \$2,098.80         30 Gal. Plant Replacement       12       EA       \$400.00       \$4,800.00       \$424.00       \$5,088.00         Aggregate Typell       17       CY       \$123.00       \$2,091.00       \$130.38       \$2,216.46         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28       \$4		25 Gal. Tree	12	EA	\$354.83	\$4,257.96	\$376.12	\$4,513.44	
5 Gal. Plant Replacement       260       EA       \$30.00       \$7,800.00       \$31.80       \$8,268.00         Irrigation Maintenance       12       MONTH       \$165.00       \$1,980.00       \$174.90       \$2,098.80         30 Gal. Plant Replacement       12       EA       \$400.00       \$4,800.00       \$424.00       \$5,088.00         Aggregate Typell       17       CY       \$123.00       \$2,091.00       \$130.38       \$2,216.46         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$1,200.00       \$1,060.00       \$1,081.20         Star Structure		Plant Maintenance	12	MONTH	\$465.00	\$5,580.00	\$492.90	\$5,914.80	
Irrigation Maintenance12MONTH\$165.00\$1,980.00\$174.90\$2,098.8030 Gal. Plant Replacement12EA\$400.00\$4,800.00\$424.00\$5,088.00Aggregate Typell17CY\$123.00\$2,091.00\$130.38\$2,216.46Aggregate Typell12CY\$135.00\$1,620.00\$143.10\$1,717.20Planters Large7EA\$6,996.25\$48,973.75\$7,416.03\$51,912.18Planters Medium18EA\$3,598.00\$64,764.00\$3,813.88\$68,649.84Planters Small10EA\$1,937.50\$12,053.75\$20,537.50Backfill Planters13CY\$98.95\$1,286.35\$104.89\$1,363.53Irrigation1LS\$42,338.00\$44,878.28\$44,878.28French Drain80LF\$12.75\$1,020.00\$13.52\$1,081.20Star Structure Modifications1LS\$1,000.00\$1,060.00\$1,060.00Star Structure Additional Reinforcement10CY\$40.50\$405.004" Concrete Slab75SY\$62.20\$4,665.00		I Gal. Plant Replacement	340	EA	\$19.00	\$6,460.00	\$20.14	\$6,847.60	
30 Gal. Plant Replacement       12       EA       \$400.00       \$4,800.00       \$424.00       \$5,088.00         Aggregate Typell       17       CY       \$123.00       \$2,091.00       \$130.38       \$2,216.46         Aggregate Typell       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$12.75       \$1,020.00       \$13.52       \$1,081.20         Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00       \$405.00         4" Concrete Slab		5 Gal. Plant Replacement	260	EA	\$30.00	\$7,800.00	\$31.80	\$8,268.00	
Aggregate Typell17CY\$123.00\$2,091.00\$130.38\$2,216.46Aggregate Typelll12CY\$135.00\$1,620.00\$143.10\$1,717.20Planters Large7EA\$6,996.25\$48,973.75\$7,416.03\$51,912.18Planters Medium18EA\$3,598.00\$64,764.00\$3,813.88\$68,649.84Planters Small10EA\$1,937.50\$1,02.05\$2,053.75\$20,537.50Backfill Planters13CY\$98.95\$1,286.35\$104.89\$1,363.53Irrigation1LS\$42,338.00\$44,878.28\$44,878.28French Drain80LF\$12.75\$1,020.00\$13.52\$1,081.20Star Structure Modifications1LS\$1,000.00\$1,060.00\$1,060.00Star Structure Additional Reinforcement10CY\$40.50\$405.004" Concrete Slab75SY\$62.20\$4,665.00		Irrigation Maintenance	12	MONTH	\$165.00	\$1,980.00	\$174.90	\$2,098.80	
Aggregate TypeIII       12       CY       \$135.00       \$1,620.00       \$143.10       \$1,717.20         Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$12.75       \$1,020.00       \$13.52       \$1,081.20         Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00         4" Concrete Slab       75       SY       \$62.20       \$4,665.00		30 Gal. Plant Replacement	12	EA	\$400.00	\$4,800.00	\$424.00	\$5,088.00	
Planters Large       7       EA       \$6,996.25       \$48,973.75       \$7,416.03       \$51,912.18         Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$12.75       \$1,020.00       \$13.52       \$1,081.20         Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00         4" Concrete Slab       75       SY       \$62.20       \$4,665.00		Aggregate Typell	17	CY	\$123.00	\$2,091.00	\$130.38	\$2,216.46	
Planters Medium       18       EA       \$3,598.00       \$64,764.00       \$3,813.88       \$68,649.84         Planters Small       10       EA       \$1,937.50       \$19,375.00       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$12.75       \$1,020.00       \$13.52       \$1,081.20         Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00         4" Concrete Slab       75       SY       \$62.20       \$4,665.00		Aggregate TypeIII	12	CY	\$135.00	\$1,620.00	\$143.10	\$1,717.20	
Planters Small       10       EA       \$1,937.50       \$2,053.75       \$20,537.50         Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$12.75       \$1,020.00       \$13.52       \$1,081.20         Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00         4" Concrete Slab       75       SY       \$62.20       \$4,665.00		Planters Large	7	EA	\$6,996.25	\$48,973.75	\$7,416.03	\$51,912.18	
Backfill Planters       13       CY       \$98.95       \$1,286.35       \$104.89       \$1,363.53         Irrigation       1       LS       \$42,338.00       \$44,878.28       \$44,878.28         French Drain       80       LF       \$12.75       \$1,020.00       \$13.52       \$1,081.20         Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00         4" Concrete Slab       75       SY       \$62.20       \$4,665.00		Planters Medium	18	EA	\$3,598.00	\$64,764.00	\$3,813.88	\$68,649.84	
Irrigation         1         LS         \$42,338.00         \$44,878.28         \$44,878.28           French Drain         80         LF         \$12.75         \$1,020.00         \$13.52         \$1,081.20           Star Structure Modifications         1         LS         \$1,000.00         \$1,060.00         \$1,060.00           Star Structure Additional Reinforcement         10         CY         \$40.50         \$40,650.00           4" Concrete Slab         75         SY         \$62.20         \$4,665.00		Planters Small	10	EA	\$1,937.50	\$19,375.00	\$2,053.75	\$20,537.50	
French Drain         80         LF         \$12.75         \$1,020.00         \$13.52         \$1,081.20           Star Structure Modifications         1         LS         \$1,000.00         \$1,060.00         \$1,060.00           Star Structure Additional Reinforcement         10         CY         \$405.00         \$405.00           4" Concrete Slab         75         SY         \$62.20         \$4,665.00		Backfill Planters	13	CY	\$98.95	\$1,286.35	\$104.89	\$1,363.53	
Star Structure Modifications       1       LS       \$1,000.00       \$1,060.00       \$1,060.00         Star Structure Additional Reinforcement       10       CY       \$40.50       \$405.00         4" Concrete Slab       75       SY       \$62.20       \$4,665.00		Irrigation	1	LS	\$42,338.00	\$42,338.00	\$44,878.28	\$44,878.28	
Star Structure Additional Reinforcement10CY\$40.50\$405.004" Concrete Slab75SY\$62.20\$4,665.00		French Drain	80	LF	\$12.75	\$1,020.00	\$13.52	\$1,081.20	
4" Concrete Slab 75 SY \$62.20 \$4,665.00		Star Structure Modifications	1	LS	\$1,000.00	\$1,000.00	\$1,060.00	\$1,060.00	
		Star Structure Additional Reinforcement	10	CY			\$40.50	\$405.00	
		4" Concrete Slab	75	SY			\$62.20	\$4,665.00	
		Barricades & Traffic Handling	3	MONTH			\$6,450.00		

The items above are additional quantities/items which reflect the new irrigation and landscape plans. The original contract items will remain as part of the contract except for items "Plant Maintenance" & "Irrigation Maintenance", which will end up getting removed from the original contract bid items in a CQN at the end of the project. Additional months for Barricades and Traffic Handling shall be issued to JAR Concrete as previously discussed. TOTAL AMOUN for CHANGE ORDER - \$275,630.99

Please provide a prompt written approval directive; our suppliers will only hold the material prices until 09/17/2021.

## Fifth proposal

			Change	Order				
OWNER :	City of El Paso 218 N. Campbell, 2nd Floor El Paso, TX 79901			PROJECT:	Paso del Norte Ro	oundabout Improvementes	Change Order	
CONTRACTOR :	J.A.R. Construction, Inc. 8000 Escobar Drive El Paso, TX 79907						CONTRACTOR'S PROJECT NO.	202
	Description	Qty	Unit	Unite Price	Total	JAR Markup 6% Unit Price	Change Order Total	
	1 Gal. Plant	435	EA	\$19.75	\$8,591.25	\$20.94	\$9,106.73	
	5 Gal. Plant	86	EA	\$32.75	\$2,816.50	\$34.72	\$2,985.49	
	Cactus	282	EA	\$41.95	\$11,829.90	\$44.47	\$12,539.69	
	Weed Barrier	207	SY	\$1.97	\$407.79	\$2.09	\$432.26	
	25 Gal. Tree	12	EA	\$354.83	\$4,257.96	\$376.12	\$4,513.44	
	Plant Maintenance	12	MONTH	\$465.00	\$5,580.00	\$492.90	\$5,914.80	
	I Gal. Plant Replacement	340	EA	\$19.00	\$6,460.00	\$20.14	\$6,847.60	
	5 Gal. Plant Replacement	260	EA	\$30.00	\$7,800.00	\$31.80	\$8,268.00	
	Irrigation Maintenance	12	MONTH	\$165.00	\$1,980.00	\$174.90	\$2,098.80	
	30 Gal. Plant Replacement	12	EA	\$400.00	\$4,800.00	\$424.00	\$5,088.00	
	Aggregate Typell	17	CY	\$123.00	\$2,091.00	\$130.38	\$2,216.46	
	Aggregate TypeIII	12	CY	\$135.00	\$1,620.00	\$143.10	\$1,717.20	
	Planters Large	7	EA	\$6,996.25	\$48,973.75	\$7,416.03	\$51,912.18	
	Planters Medium	18	EA	\$3,598.00	\$64,764.00	\$3,813.88	\$68,649.84	
	Planters Small	10	EA	\$1,937.50	\$19,375.00	\$2,053.75	\$20,537.50	
	Backfill Planters	13	CY	\$98.95	\$1,286.35	\$104.89	\$1,363.53	
	Irrigation	1	LS	\$42,338.00	\$42,338.00	\$44,878.28	\$44,878.28	
	French Drain	80	LF	\$12.75	\$1,020.00	\$13.52	\$1,081.20	
	Star Structure Modifications	1	LS	\$1,000.00	\$1,000.00	\$1,060.00	\$1,060.00	
	Star Structure Additional Reinforcement	10	CY			\$40.50	\$405.00	
	4" Concrete Slab	75	SY			\$62.20	\$4,665.00	
	Barricades & Traffic Handling	1	MONTH			\$6,450.00	\$6,450.00	

The items above are additional quantities/items which reflect the new irrigation and landscape plans. The original contract items will remain as part of the contract except for items "Plant Maintenance" & "Irrigation Maintenance", which will end up getting removed from the original contract bid items in a CQN at the end of the project. Additional months for Barricades and Traffic Handling shall be issued to JAR Concrete as previously discussed. TOTAL AMOUN for CHANGE ORDER - \$262,730.99

Please provide a prompt written

approval directive; our suppliers will only hold the material prices until 09/17/2021.

Final Proposal

CONTRACTOR :	City of El Paso 218 N. Campbell, 2nd Floor El Paso, TX 79901 J.A.R. Construction, Inc. 8000 Escobar Drive El Paso, TX 79907 Description 1 Gal. Plant 5 Gal. Plant Cactus	<b>Qty</b> 435 86	Unit	PROJECT: Unite Price	Total	oundabout Improvementes JAR Markup 6% Unit Price	Change Order CONTRACTOR'S PROJECT NO. Change Order Total	201
	8000 Escobar Drive El Paso, TX 79907 Description 1 Gal. Plant 5 Gal. Plant	435	EA				PROJECT NO.	20
	1 Gal. Plant 5 Gal. Plant	435	EA				Change Order Total	
	5 Gal. Plant			¢10.7E				
		86		<b>ΣΤΆΥΙΣ</b>	\$8,591.25	\$20.94	\$9,106.73	
	Cactus		EA	\$32.75	\$2,816.50	\$34.72	\$2,985.49	
		282	EA	\$41.95	\$11,829.90	\$44.47	\$12,539.69	
	Weed Barrier	207	SY	\$1.97	\$407.79	\$2.09	\$432.26	
	25 Gal. Tree	12	EA	\$354.83	\$4,257.96	\$376.12	\$4,513.44	
	Plant Maintenance	12	MONTH	\$465.00	\$5,580.00	\$492.90	\$5,914.80	
	I Gal. Plant Replacement	340	EA	\$19.00	\$6,460.00	\$20.14	\$6,847.60	
	5 Gal. Plant Replacement	260	EA	\$30.00	\$7,800.00	\$31.80	\$8,268.00	
	Irrigation Maintenance	12	MONTH	\$165.00	\$1,980.00	\$174.90	\$2,098.80	
	30 Gal. Plant Replacement	12	EA	\$400.00	\$4,800.00	\$424.00	\$5,088.00	
	Aggregate Typell	17	CY	\$123.00	\$2,091.00	\$130.38	\$2,216.46	
	Aggregate TypeIII	12	CY	\$135.00	\$1,620.00	\$143.10	\$1,717.20	
	Planters Large	7	EA	\$6,996.25	\$48,973.75	\$7,416.03	\$51,912.18	
	Planters Medium	18	EA	\$3,598.00	\$64,764.00	\$3,813.88	\$68,649.84	
	Planters Small	10	EA	\$1,937.50	\$19,375.00	\$2,053.75	\$20,537.50	
	Backfill Planters	13	CY	\$98.95	\$1,286.35	\$104.89	\$1,363.53	
	Irrigation	1	LS	\$43,666.51	\$43,666.51	\$46,286.50	\$46,286.50	
	French Drain	80	LF	\$12.75	\$1,020.00	\$13.52	\$1,081.20	
	Star Structure Modifications	1	LS	\$1,000.00	\$1,000.00	\$1,060.00	\$1,060.00	
	Star Structure Additional Reinforcement	10	CY			\$40.50	\$405.00	
	4" Concrete Slab	75	SY			\$62.20	\$4,665.00	
	Barricades & Traffic Handling	1	MONTH			\$6,450.00	\$6,450.00	

The items above are additional quantities/items which reflect the new irrigation and landscape plans. The original contract items will remain as part of the contract except for items "Plant Maintenance" & "Irrigation Maintenance", which will end up getting removed from the original contract bid items in a CQN at the end of the project. A TOTAL AMOUNT for CHANGE ORDER - \$264,139.21



September 17, 2021

JAR Construction, Inc. 8000 Escobar Drive El Paso, Texas 79936 Attn: Mr. Jesus Valenzuela

Re: Paseo Del Norte Roundabout

Dear Mr. Valenzuela,

As per your request, please find listed below our revised breakdown of the new pricing for the above referenced project, as per revised drawing by Greenway Studios dated March 2021. We have broken down pricing and quantities from our original bid to the revised proposal.

	Original Plan Quantity	New Plan Quantity	Adds	Deducts	Unit Price	Total Add	Total Deduct
1 Gal. Plant	0	435 ea.	435		\$19.75	\$8,591.25	\$0.00
5 Gal. Plant	91 ea.	53 ea.	86		\$32.75	\$2,846.50	\$0.00
Cactus	0	282 ea.	282		\$41.95	\$11,829.90	\$0.00
Weed Barrier	393 Syds.	600 Syds.	207		\$1.97	\$407.79	\$0.00
3" Tree	<u>l ca.</u>	0	-	1	\$450.00	\$0.00	-\$450.00
25 Gal. Tree	0	12 ea.	12		\$354.83	\$4,257.96	\$0.00
Plant							
Maintenance	1,485-11 months	5,580 - <u>12 ea</u> .	12		\$465.00	\$5,580.00	\$0.00
Replacement	0	340 ea.	340		\$19.00	\$6,460.00	\$0.00
5 Gal. Plant Replacement	20 ea.	280 ea.	260		\$30.00	\$7,800.00	\$0.00
Irrigation Maintenance	550-11 months	1980- 12 ea.	12		\$165.00	\$1,980.00	\$0.00
30 Gal. Plant Replacement	0	12 ea.	12		\$400.00	\$4,800.00	\$0.00
65 Gal. Plant							
Replacement	l ea.	0	-	1	\$460.00	\$0.00	-\$460.00
Boulders	<u>37 ca.</u>	<u>12 ca.</u>		25	\$225.00	\$0.00	-\$5,625.00
Aggregate Type I	29 cyds	29 cyds.	0	0	\$0.00	\$0.00	\$0.00
Aggregate Type	12 cyds.	29 cyds.	17		\$123.00	\$2,091.00	\$0.00
Aggregate Type	0	12 cyds.			\$135.00	\$1,620.00	\$0.00
Planters Large	0	7 ea.	7		\$6,996.25	\$48,973.75	\$0.00
Planters Medium	0	18 ea.	18		\$3,598.00	\$64,764.00	\$0.00
Planters Small	0	10 ea.	10		\$1,937.50	\$19,375.00	\$0.00
Backfill Planters	0	13 cyds.	13		\$98.95	\$1,286.35	\$0.00
Irrigation	1	1	51,061.51	7,395		\$43,666.51	\$0.00
French Drain	0	<u>80 L</u> .F.	80		\$12.75	<u>\$1,020.00</u>	\$0.00
						237.320.01	-\$6,535.00

28 San Marcos

(915)585-1693 Office

El Paso, TX 79922



Total Add from New Plan	\$237.320.01	→ Change Order Total
Total Deduct from New Plan	(\$6,535.00) ←	
Original Contract Amount	<u>\$27,915.46</u>	Original Irrigation/Landscape Amount will
New Total Contract Amount	\$257,128.47	remain as is, a CQN will be provided to
		JAR for any quantities not used

If you have any questions, please don't hesitate to contact me.

Sincerely,

Jur Le Aquilar

Joe L. Aguilar, Jr.

28 San Marcos

(915)585-1693 Office

(915) 585-1695 Fax

El Paso, TX 79922

WWW.accentls.org

First proposal

			Change Order				
OWNER :	City of El Paso 218 N. Campbell, 2nd Floor El Paso, TX 79901	8 N. Campbell, 2nd Floor		Paso del Norte Roundabout Improvementes		Change Order 1	
CONTRACTOR :	J.A.R. Construction, Inc. 8000 Escobar Drive El Paso, TX 79907					CONTRACTOR'S PROJECT NO. :	2019-452
	Despcription	Unit	Quantity	Unit Price	Total Amount		
		dscape & Irrig	rigation Re-design				
	Accent Landscape						
	Total Add from New Plan	LS	1	\$222,936.54	\$222,936.54		
	Original Contract Amount	LS	1	\$27,915.46	\$27,915.46		
	Westside Welding						
	Star Structure Modifications	LS	1	\$1,000.00	\$1,000.00		
	J.A.R Concrete Inc						
	Existing Subgrade Prep below planters	CY	35	\$46.50	\$1,627.50		
	4" Concrete Slab (No Wire Mesh) for planters	SY	75	\$40.50	\$3,037.50		
	Concrete Footing Steel Reinforcement	CY	10	\$40.50	\$405.00		
	Subtotal				\$256,922.00		
	General Contractor Markup @		5.00% Markup		\$12,846.10		
	Bond @		1.00% Markup	<b>—</b>	\$2,569.22		
				Total	\$272,337.32		



April 22, 2021

JAR Construction, Inc. 8000 Escobar Drive El Paso, Texas 79936 Attn: Mr. Jesus Valenzuela

### Re: Paseo Del Norte Roundabout

Dear Mr. Valenzuela,

As per your request, please find listed below our breakdown of the new pricing for the above referenced project, as per revised drawing by Greenway Studios dated March 2021. We have broken down pricing and quantities from our original bid to the revised proposal.

	Original Plan Quantity	New Plan Quantity	Adds	Deducts	Unit Price	Total Add	Total Deduct	
1 Gal. Plant	0	435 ea.		1	gh avg \$19.75	1		٦
5 Gal. Plant	91 ea.	177 53 ea.	1	\$45 PDN			\$0.00	-
Cactus	0	234 282 ea.		\$45 PDN \$45 PDN	\$32.75	· · · · · · · · · · · · · · · · · · ·	\$0.00	-
Weed Barrier		202 ca.			\$41.95	<u> </u>	\$0.00	-
	<u>393 Syds.</u>	<u>600 Syds.</u>	207	\$2 PDN	\$1.97	-	\$0.00	-1
<u>3" Tree</u>	<u>l ea.</u>	0	\$678 fo	l r 30 gal CB	\$450.00	\$0.00	-\$450.00	\$540
25 Gal. Tree	0	<u>6 ea\$180 p</u>	er tree at e	east side nu	D 4 avg Irsery \$485.00	\$2,910.00	\$0.00	
Plant Maintenance	1,485-11 months	<u>5,580 - 12 ea.</u>	12		\$465.00	\$5,580.00	\$0.00	
1 Gal. Plant Replacement	0	<u>3</u> 40 ea.	340		\$19.00	\$6,460.00	\$0.00	]
5 Gal. Plant Replacement	<u>20 ea.</u>	280 ea.	260		\$30.00	\$7,800.00	\$0.00	1
Irrigation Maintenance	550-11 months	1980- 12 ea.	12		\$165.00	\$1,980.00	\$0.00	
30 Gal. Plant			\$678 f	or 30 gal Cl	3D 4 avg			1
Replacement	0	<u>6 ea.</u>	6		<u> </u>	\$2,760.00	\$0.00	
65 Gal. Plant Replacement	<u>l ea.</u>	0	-	1	<b>✓</b> \$400.00	\$0.00	-\$400.00	\$480
Boulders	37 ea.	12 <b>ea</b> .	-	25	\$250 PDN \$225.00	\$0.00	\$6250 - \$5,625.00	
Aggregate Type I	29 cyds.	29 cyds.	0	0	\$0.00	\$0.00	\$0.00	
Aggregate Type 11	12 cyds.	29 cyds.	17	\$145 PI		\$2,091.00	\$0.00	V
Planters Large	0	7 ea.	7	\$41,991 fo	or ples, 1998.25	\$48,973.75	\$0.00	
Planters Medium	0	18 ea.	18	\$55,439 f	or ptaters8.00	\$64,764.00	\$0.00	
Planters Small	0	10 ea.	10		pr pl <b>gn,t9</b> 37.50	\$19,375.00	\$0.00	1
Backfill Planters	0	13 cyds.	13	[	\$98.95	\$1,286.35	\$0.00	
Irrigation	1	1	49,733	7,395	φ/0./5	\$42,338.00	\$0.00	
French Drain	0	80 L.F.			LB <b>/</b> \$12.75	<u>\$42,338.00</u> <u>\$1,020.00</u>	<u> </u>	
						\$229,411.54	\$6,475.00	

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Total Add From New Plan	\$ 222,936.54 \$222141.54
Original Contract Amount	<u>\$ 27,915.46</u>
New Total Contract Amount	\$ 250,852.00

If you have any questions, please don't hesitate to contact me.

Sincerely,

Jur T. Ayuilar

Joe L. Aguilar, Jr.

28 San Marcos

(915)585-1693 Office

El Paso, TX 79922

WWW.accentis.org

## Westside Welding Inc.

GENERAL CONTRACTORS

# Estimate

Date	Estimate #
6/9/2021	7090
Phone #	915-877-5345

#### Name / Address

J.A.R. Construction Inc 8000 Escobar Dr. El Paso, Texas 79907

		-	P.O. No.	Project
Des	scription	Qty	Rate	Total
Roundabout Change Order				
Material and labor for modifications of fram	ne for Star Sculpture.	1	1,000.00	1,000.0
What extra material was neede	d for the modifications?			
Thank you for your business.		Subtotal		\$1,000.0
westsidewelding@sbcglobal.net	Web Site	Sales Ta	ıx (8.25%)	\$0.0
timate is only good by the end of day!	westsidewelding.net	Total		\$1,000.0

Disclaimer: Westside Welding completes projects as per customer request, specs, or drawings. Safety lids, decals, rails, and other safety equipment are only installed as per customer request. Customer agrees that work was completed as ordered. Westside Welding will not be held liable for any safety items not requested by customer.

			Change Order				
OWNER :	City of El Paso PROJECT : 218 N. Campbell, 2nd Floor El Paso, TX 79901		Paso del Norte Roundabout Improvementes		Change Order	1	
CONTRACTOR :	J.A.R. Construction, Inc. 8000 Escobar Drive El Paso, TX 79907					CONTRACTOR'S PROJECT NO. :	2019-452
	Despcription	Unit	Quantity	Unit Price	Total Amount		
	Accent Landscape	andscape & Irri	gation Re-design				
	Total Add from New Plan	LS	1	\$233,581.54	\$233,581.54		
	Original Contract Amount	LS	1	\$27,915.46	\$27,915.46		
	Westside Welding						
	Star Structure Modifications	LS	1	\$1,000.00	\$1,000.00		
	J.A.R Concrete Inc						
	Existing Subgrade Prep below planters	CY	35	\$46.50	\$1,627.50		
	4" Concrete Slab (No Wire Mesh) for planters	SY	75	\$40.50	\$3,037.50		
	Concrete Footing Steel Reinforcement	CY	10	\$40.50	\$405.00		
	Subtotal	0	5 00% Mark		\$267,567.00		
	General Contractor Markup Bond	@ @	5.00% Markup 1.00% Markup		\$13,378.35		
	DUIIU	μ.	1.00% iviai kup		\$2,675.67		

## Second proposal



July 28, 2021

JAR Construction, Inc. 8000 Escobar Drive El Paso, Texas 79936 Attn: Mr. Jesus Valenzuela

#### Re: Paseo Del Norte Roundabout

#### Dear Mr. Valenzuela,

As per your request, please find listed below our revised breakdown of the new pricing for the above referenced project, as per revised drawing by Greenway Studios dated March 2021. We have broken down pricing and quantities from our original bid to the revised proposal.

	Original Plan Quantit <u>y</u>	New Plan Quantity	Adds	Deducts	Unit Price	Total Add	Total Deduct
1 Gal. Plant	0	435 ea.	435		\$19.75	\$8,591.25	\$0.00
5 Gal. Plant	91 ea.	53 ea.	38		\$32.75	\$1,244.50	\$0.00
Cactus	0	282 ea.	282		\$41.95	\$11,829.90	\$0.00
Weed Barrier	393 Syds.	600 Syds.	207		\$1.97	\$407.79	\$0.00
3" Tree	l ea.	0	-	1	\$450.00	\$0.00	-\$450.00
25 Gal. Tree	0	12 ea.	12		\$485.00	\$5,820.00	\$0.00
Plant Maintenance	1,485-11 months	5,580 - 12 ea.	12		\$465.00	\$5,580.00	\$0.00
I Gal. Plant Replacement	0	340 ea.	340		\$19.00	\$6,460.00	\$0.00
5 Gal. Plant Replacement	20 ea.	280 ea.	260		\$30.00	\$7,800.00	\$0.00
Irrigation Maintenance 30 Gal. Plant	550-11 months	1980- 12 ea.	12		\$165.00	\$1,980.00	\$0.00
Replacement 65 Gal. Plant	0	<u>6 ea.</u>	6		✓ \$400.00	\$2,400.00	\$0.00
Replacement	1 ea.	0	-	1	✔ \$460.00	\$0.00	-\$460.00
Boulders	37 ea.	12 ea.	-	25	\$225.00	\$0.00	-\$5,625.00
Aggregate Type I	29 cyds.	29 cyds.	0	0	\$0.00	\$0.00	\$0.00
Aggregate Type	12 cyds.	29 cyds.	17		\$123.00	\$2,091.00	\$0.00
Aggregate Type	0	12 cyds.			\$135.00	\$1,620.00	\$0.00
Planters Large	0	7 ea.	7		\$6,996.25	\$48,973.75	\$0.00
Planters Medium	0	18 ea.	18		\$3,598.00	\$64,764.00	\$0.00
Planters Small	0	10 ea.	10		\$1,937.50	\$19,375.00	\$0.00
Backfill Planters	0	13 cyds.	13		\$98.95	\$1,286.35	\$0.00
Irrigation	1	1	49,733	7,395		\$42,338.00	\$0.00
French Drain	0	80 L.F.	80		\$12.75	<u>\$1,020.00</u>	<u>\$0.00</u>
						\$233,581.54	-\$6,535.00

28 San Marcos

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Total Add from New Plan	\$233,581.54
Original Contract Amount	<u>\$ 27,915.46</u>
New Total Contract Amount	\$261,497.00

If you have any questions, please don't hesitate to contact me.

Sincerely,

Jor T. Ayuilar

Joe L. Aguilar, Jr.

28 San Marcos

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# **Capital Improvement Department**

# MAYOR Oscar Leeser

**CITY COUNCIL** 

Alexsandra Annello

Cassandra Hernandez

District 1 Peter Svarzbein

District 2

District 3

District 4

District 5

District 6

District 7

District 8

Henry Rivera

Cissy Lizarraga

**CITY MANAGER** 

Tommy Gonzalez

Isabel Salcido

Claudia L. Rodriguez

Joe Molinar

# **Request for Proposal No. 2**

May 24, 2021

JAR Construction 8000 Escobar Dr El Paso, Texas 79907

RE: Paso Del Norte Roundabout Improvements Solicitation No. 2019-452 TxDOT CSJ No. 0924-06-539 Landscape and irrigation revision RFP

Mr. Valenzuela,

The City of El Paso, Capital Improvement Department is requesting a Cost Proposal for the following items:

Scope of work: Furnish all labor, materials, equipment and supervision to provide the additional landscaping described on sheets LG-001, LG-002, LP-101, LP-102, LP-103, LP-104, LI-101, LI-102, LI-103, LC-507, LC-508, LC-509, LC-510, LP-501, LI-501. Specification Changes: N/A

Drawing Changes: LG-001, LG-002, LP-101, LP-102, LP-103, LP-104, LI-101, LI-102, LI-103, LC-507, LC-508, LC-509, LC-510, LP-501, LI-501.

Your proposal shall contain a complete itemized breakdown in sufficient detail to permit an analysis of material, labor, equipment, subcontractor costs, and markups. State additional time required, if necessary. Justify your request with a description of the delays which you anticipate. Support your position with a marked-up progress chart depicting the impact of this proposed change to the original contract.

This is not a Change Order, a Construction Change Directive or a direction to proceed with the work described in the proposed modifications. If the proposal is found acceptable, a Change Order will be processed and executed in accordance to the Contract's General Conditions. The Contract Sum and Contract Time may only be changed via an executed Change Order.

If you have any questions or comments, please do not hesitate to contact me at (915) 873-1677 or pedrozaax@elpasotexas.gov.

Sincerely,

Alex Pedroza Project Manager



**Yvette Hernandez, P.E. – Grant Funded Program Director** Capital Improvement Dept. | 218 N. Campbell | El Paso, TX 79901

# GENERAL NOTES (ALL ITEMS BELOW ARE SUBSIDIARY TO TXDOT ITEM #192)

- THESE PLANS SHOW LANDSCAPE ARCHITECTURE CONSTRUCTION DOCUMENTS. THESE ARE NOT TO BE USED FOR STAKING OR SURVEYING LOT BOUNDARIES.
- LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS AND SHALL BE FAMILIAR WITH PLANS DETAILS AND SPECIFICATIONS AS THEY PERTAIN TO THE SITE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE LANDSCAPE ARCHITECT IF ANY ITEMS CONTAINED WITHIN THE SCOPE OF WORK DEFINED HEREIN ARE IN CONFLICT WITH THE PROPOSED WORK OF OTHER CONTRACTORS. IF PROBLEMS ARE DISCOVERED, CONTACT LANDSCAPE ARCHITECT TO DETERMINE A COURSE OF ACTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW AND REFERENCE TXDOT SPECIFICATIONS
- EXISTING UTILITY LINES ARE TO BE BLUE STAKED PRIOR TO EXCAVATION FOR ANY WORK CONTAINED IN THESE PLANS. CHECK AND FIELD VERIFY ALL SITE CONDITIONS, UTILITIES AND SERVICES PRIOR TO EXCAVATION.

CONTRACTOR SHALL NOTE THAT REQUESTS TO 811 DO NOT ACCOUNT FOR CITY OF FL PASO IT AND FIBER-OPTIC CABLES, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT CITY IT AT 915-212-0072 TO ACCOUNT FOR THE NEEDED SITE DATA

- CONTRACTOR SHALL PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION, KEEP AREAS FREE OF TRASH AND DEBRIS. REPAIR AND RE-ESTABLISH GRADES IN SETTLED. ERODED AND RUTTED AREAS AND PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL FIELD VERIEV THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT
- ALL LANDSCAPE AREAS SHALL BE GRADED TO FINISH SOIL DEPTH OF 4" BELOW TOP OF CURB AND EDGE OF SIDEWALK
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA, ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS OF WORK. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE, ADDITIONALLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO TRAFFIC SIGNAL INFRASTRUCTURE.
- APPROVAL OF TRAFFIC CONTROL PLAN BY TXDOT ISSUE 48 HRS PRIOR TO NOTICE TO PROCEED THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY
- 10. PRIOR TO TURNING OVER THE PROJECT, AS-BUILTS SHALL BE PROVIDED TO THE CITY OF EL PASO'S CAPITAL IMPROVEMENT DEPARTMENT (CID) PROJECT MANAGER, THE IRRIGATION TRANSMITTER SHALL ALSO BE SUBMITTED FOR PROGRAMMING
- 11. THE CONTRACTOR SHALL BE FAMILIAR AND REFER TO THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS STREETS AND BRIDGES" FOR CONSTRUCTION AND INSTRUCTIONS FOR THE ENTIRELY OF THE PROJECT. REFER TO http://ftp.dot.state.tx.us/pub/txdot-info/des/spec-book-1114.pdf
- 12. THE LANDSCAPE ARCHITECT SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL PLANT MATERIALS. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO OWNER.
- 13. MAINTENANCE AND PROTECTION OF NEW PLANT MATERIAL SHALL CONTINUE FOR 90 DAYS AFTER PLANTING. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, CULTIVATING, REMOVAL OF DEAD MATERIAL AND DEBRIS, RESETTING OF TREES TO UPRIGHT POSITIONS AND SUCH OTHER OPERATIONS AS MAY BE NECESSARY FOR THE HEALTH OF THE PLANTED STOCK AND THE GENERAL APPEARANCE OF THE LANDSCAPED AREAS. PROTECTION SHALL INCLUDE CARE OF THE PLANTED STOCK FROM DAMAGES RESULTING FROM, EROSION (INCLUDING WATERING), WEATHER, DISEASE AND THE LIKE.
- 14. ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR THE PERIOD OF 90 DAYS, BEGINNING AFTER ITEM 192 HAS BEEN COMPLETED AND ACCEPTED
- 15. CONTRACTOR SHALL APPLY A HERBICIDE AND PRE-EMERGENT TO ALL LANDSCAPE AREAS PRIOR TO COMMENCING WORK, AND INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
- 16 WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED SUCH AS RUBBLE FULL ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS CONSULT THE LANDSCAPE ARCHITECT BEFORE PLANTING
- 17. PLANT OR INSTALL MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF LANDSCAPE WORK REQUIRED

# PLANTING NOTES (ALL ITEMS BELOW ARE SUBSIDIARY TO TXDOT ITEM #192)

- ALL LANDSCAPE OPERATIONS SHALL CONFIRM TO EL PASO CITY CODE 18,46 AND THE "POLICY AND STANDARDS MANUAL FOR THE CARE OF TREES AND SHRUBS IN THE CITY OF EL PASO"
- 2 ALL NEW PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, EXISTING TREES AND SHRUBS SHALL BE PROTECTED WHEN PLANTING OPERATIONS INCLUDING THOSE HEAVY MACHINERY MAY COME IN PROXIMITY OF 20. FEET FROM EDGE OF CANOPY.
- 3. PLANT MATERIAL SUBSTITUTIONS SHALL NOT BE MADE WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. THE SUBSTITUTION OF MATERIALS DIFFERING IN KIND, QUALITY OR SIZE FROM THAT SPECIFIED WILL BE ALLOWED ONLY AFTER THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IS CONVINCED THAT ALL MEANS OF OBTAINING THE SPECIFIED MATERIALS HAVE BEEN EXHAUSTED, CONTRACTOR SHALL PROVIDE WRITTEN ASSURANCE THAT ALL MATERIALS NECESSARY TO COMPLETE THE PROJECT AS SPECIFIED HAVE BEEN LOCATED AND ALL REQUESTS FOR SUBSTITUTIONS MUST BE SUBMITTED NO LATER THAN 2 WEEKS PRIOR TO THE INITIATION OF WORK
- PLANT MATERIAL QUALITY, SIZE AND CONDITION SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK CURRENT EDITION AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS BORES AND ALL OTHER FORMS OF INFECTIONS
- UNLESS OTHERWISE STATED ON THE DRAWINGS OR APPROVED BY THE LANDSCAPE ARCHITECT, ALL PLANTS SHALL BE NURSERY GROWN AND SHALL BE TAGGED WITH NURSERY LABELS INDICATING SPECIES AND VARIETY. TAGS SHALL REMAIN ON UNTIL PROJECT IS ACCEPTED BY CITY OF EL PASO AND LANDSCAPE ARCHITECT: ALL TAGS SHALL THEN BE REMOVED
- BALLED AND BURLAPPED PLANT MATERIAL SHALL HAVE A SOLID BALL OF EARTH OF MINIMUM SPECIFIED SIZE AND HELD IN PLACE SECURELY BY BURLAP AND A STOLT TWINE OR ROPE BROKEN OR LOOSE BALLS WILL BE REJECTED
- THE LANDSCAPE ARCHITECT AND CITY ARBORIST SHALL INSPECT ALL PLANT MATERIAL AT THE CONTRACTOR'S YARD PRIOR TO DELIVERY, DURING PLANTING AND AFTER PLANTING AT THE JOB SITE, CONTRACTOR SHALL SCHEDULE AND COORDINATE NURSERY VISIT WITH A MINIMUM OF TWO WEEKS IN ADVANCE FOR THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE TO INSPECT AND TAG PLANT MATERIAL AT A WHOLESALE NURSERY OF THE CONTRACTOR'S CHOICE PRIOR TO DELIVERY OF MATERIALS TO THE CONTRACTOR'S YARD
- 9. THE LANDSCAPE ARCHITECT / CITY ARBORIST SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL PLANT MATERIALS. ALL REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO OWNER.
- 10 CONTAINER GROWN PLANT MATERIAL SHALL HAVE BEEN ESTABLISHED IN ITS DELIVERY CONTAINER FOR NOT LESS THAN SIX MONTHS, BUT FOR NOT MORE THAN TWO YEARS, ANY ROOTBOUND MATERIAL WILL NOT BE ACCEPTED
- 11. UNLESS SPECIFICALLY NOTED ON THE DRAWINGS, ALL TREES SHALL HAVE A SINGLE TRUNK THAT IS STRAIGHT AND FREE OF "DOG JEGS" "CROOKS" X-CROTCHES" OR OTHER DISEIGURING SHAPES THE CENTRAL LEADER OF ALL TREES SHALL NOT HAVE BEEN PRUNED. TREES WITH DOUBLE LEADERS ARE NOT ACCEPTABLE, UNLESS SPECIFIED AS MULTI-TRUNKED
- 12. ALL PLANT MATERIAL SHALL HAVE A UNIFORM SHAPE AROUND ITS COMPLETE CIRCUMFERENCE. PLANT MATERIAL WITH IRREGULAR BRANCHING PATTERNS OR WITH BRANCHING PATTERNS MORE HIGHLY DEVELOPED ON ONE SIDE THAN ON OTHER SIDES SHALL NOT BE ACCEPTABLE
- 13. TREE LOCATIONS AS SHOWN ARE SCHEMATIC AND MAY VARY BASED ON SIGNAGE & UNDERGROUND UTILITY LOCATIONS, AND OTHER SITE CONSTRAINTS. TREE LOCATIONS SHALL COMPLY WITH ALL JURISDICTIONAL ORDINANCES WHICH APPLY. PLANS ARE DIAGRAMMATIC AND APPROXIMATE DUE TO THE SCALE OF THE DRAWINGS, AND NOT ALL INDIVIDUAL SHRUBS AND/OR GROUND COVERS ARE NECESSARILY SHOWN.
- 14. NO PLANTS SHALL BE LOCATED WITHIN 5 FT. RADIUS OF FIRE HYDRANT, LEAVE PLANTS OUT OR MORE OVER IF WITHIN 6" OF ORIGINAL PLANT LOCATION, AFTER LOCATING AND VERIFYING LOCATION OF FIRE HYDRANT, NOTIFY LANDSCAPE ARCHITECT / CITY ARBORIST AS TO NEW LOCATION FOR PLANT MATERIAL.
- 15 TREES SHALL ONLY BE STAKED (BASED ON THE PLANTING SEASON) IF APPROVED BY AND AT THE DIRECTION OF THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE AS PER THE APPROPRIATE TREE PLANTING DETAIL AND SHALL BE STAKED AT NO ADDITIONAL COST
- 16. PLANTING SOIL BACKFILL SHALL CONSIST OF CLEAN SOILS AND SHALL BE FREE FROM RUBBISH, ROCK, LARGE STONES BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE SUBSTANCE THAT IS DETRIMENTAL TO PLANT GROWTH
- 17. NO PLANTING AREA WILL BE LEFT UNCOVERED OR NOT TOP-DRESSED. ALL PLANTING AREAS WILL BE PLANTED WITH TREES, SHRUBS OR GROUND COVERS. ALL PLANTING AREAS WILL BE MULCHED AS PER PLANS.
- 18. ADEQUATE VERTICAL CLEARANCE BELOW THE BRANCHES MUST BE MAINTAINED FOR PEDESTRIANS, CARS AND BICYCLIST. THE MINIMUM HEIGHT TO THE LOWEST BRANCH OVERHANGING A SIDEWALK SHALL BE SEVEN FEET.

# PLANTING NOTES (ALL ITEMS BELOW ARE SUBSIDIARY TO TXDOT ITEM #192)

- COMMENCING WORK, AND INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
- PLANT MATERIALS. CONTRACTOR TO COORDINATE ACCORDINGLY.
- CONSTRUCTION ACTIVITY SHALL BE REPLACED OR AMENDED AT THE CONTRACTOR'S EXPENSE.

# PLANT MAINTENANCE

(ALL ITEMS BELOW ARE SUBSIDIARY TO TXDOT ITEM #193)

- AFTER ITEM 192 HAS BEEN COMPLETED

# **PRE-EMERGENT NOTES**

PACKAGE

19. CONTRACTOR SHALL APPLY A HERBICIDE AND PRE-EMERGENT TO ALL LANDSCAPE AREAS PRIOR TO

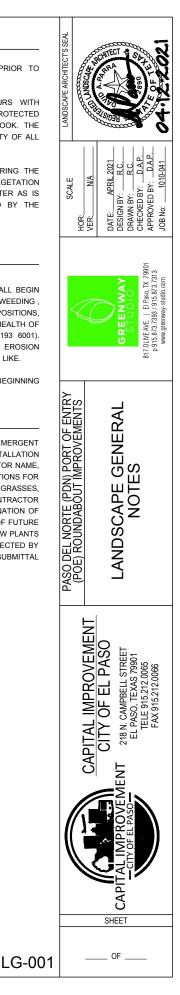
20. CONTRACTOR SHALL TRANSPORT ALL SPECIFIED PLANT MATERIAL DURING DAY TIME HOURS WITH TEMPERATURES BELOW 78 DEGREES FAHRENHEIT. ALL PLANT MATERIAL SHALL BE COVERED AND PROTECTED FROM EXPOSURE TO WIND AS THIS WILL DIRECTLY CAUSE LEAF WATER-LOSS AND PLANT-SHOOK. THE LANDSCAPE ARCHITECT / CITY ARBORIST SHALL BE THE JUDGE OF THE QUALITY AND ACCEPTABILITY OF ALL

21. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EXISTING LANDSCAPE AREAS, SECURING THE OVERALL HEALTH AND WELL-BEING OF EXISTING TREES, SHRUBS, AND GROUND COVERS, EXISTING VEGETATION SHALL NOT BE RESTRAINED FROM WATERING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WATER AS IS REQUIRED FOR THE VEGETATION'S NEEDS; ANY DAMAGE TO EXISTING VEGETATION CAUSED BY THE

MAINTENANCE AND PROTECTING OF NEW TREES (ITEM # 193 6011), SHRUBS (ITEM # 193 6005), SHALL BEGIN IMMEDIATELY COMPLETION OF ITEM 192. MAINTENANCE SHALL INCLUDE WATERING (ITEM # 193 6006), WEEDING , CULTIVATING, REMOVAL OF DEAD MATERIAL AND DEBRIS, RESETTING OF TREES TO UPRIGHT POSITIONS. RESTORATION OF EARTH BASINS, AND SUCH OTHER OPERATIONS AS MAY BE NECESSARY FOR THE HEALTH OF THE PLANTED STOCK AND THE GENERAL APPEARANCE OF THE LANDSCAPED AREAS (ITEM # 193 6001). PROTECTION SHALL INCLUDE CARE OF THE PLANTED STOCK FROM DAMAGES RESULTING FROM EROSION (INCLUDING WATERING) APPARENT NEGLIGENCE DURING THE MAINTENANCE CYCLE. DISEASE AND THE LIKE

ALL TREES, SHRUBS AND GROUND COVERS SHALL BE MAINTAINED FOR THE PERIOD OF ONE YEAR, BEGINNING

CONTRACTOR SHALL HAVE A TDA LICENSED APPLICATOR APPLY SURFLAN OR APPROVED EQUAL PRE-EMERGENT TO PROJECT SITE DURING BEGINNING OF CONSTRUCTION, AFTER FINAL GRADING, BUT PRIOR TO INSTALLATION OF WEED FABRIC. CONTRACTOR SHALL SUBMIT PRODUCT DATA AS WELL AS TDA LICENSED APPLICATOR NAME, LICENSE NUMBER AND COMPANY DETAILS. CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION AND PRE-EMERGENT MUST INCLUDE PREVENTION OF ALL INVASIVE WEEDS AND GRASSES INCLUDING BERMUDA GRASS. APPLICATION MUST INCLUDE FADE AWAY FLUORESCENT DYE AND CONTRACTOR MUST GIVE OWNER REPRESENTATIVE APPLICATION COMMENCEMENT DATE FOR RECORD. A COMBINATION OF PRE-EMERGENT PRODUCTS MAY BE USED IN ORDER TO ACHIEVE DESIRED RESULTS - PREVENTION OF FUTURE WEEDS AND GRASSES, HOWEVER, PRODUCT(S) MUST NOT HARM EXISTING DESIRABLE PLANTS, OR NEW PLANTS AND PROPER PROTECTION OF EXISTING PLANTS AND TREE ROOT SYSTEMS MUST BE TAKEN AS DIRECTED BY PRODUCT LITERATURE. CONTRACTOR TO PROVIDE MSDS INFORMATION FOR PRODUCT(S) IN SUBMITTAL



# **IRRIGATION NOTES** (ALL ITEMS BELOW ARE SUBSIDIARY TO TXDOT ITEM #170)

- 1. CONTRACTOR SHALL FIELD VERIFY PRESSURE PRIOR TO INITIATION OF CONSTRUCTION BY INSTALLING A FLOW METER AND PRESSURE GAUGE ON THE DOWNSTREAM SIDE OF THE WATER METER. THIS INFORMATION SHALL BE PROVIDED TO THE IRRIGATION DESIGNER / CLIENT REPRESENTATIVE IN WRITING FOR APPROVAL, PRIOR TO PROCEEDING.
- 2. THIS IS A POTABLE IRRIGATION SYSTEM, ANTICIPATED AT 70 PSI AT THE POINT OF CONNECTION, A NEW BACKELOW WILL BE REQUIRED. CONTRACTOR SHALL PROVIDE AND INSTALL AS SHOWN ON DETAIL A/LI-501, AT NO ADDITIONAL COST TO THE OWNER
- 3 LICENSED IRRIGATOR IN GOOD STANDING IN THE STATE OF TEXAS REQUIRED ON JOB SITE AT ALL TIME CONTRACTOR SHALL FIELD VERIFY PRESSURE PRIOR TO INITIATION OF CONSTRUCTION BY INSTALLING A FLOW METER AND A PRESSURE GAUGE ON THE DOWNSTREAM SIDE OF THE WATER METER. THIS INFORMATION SHALL BE PROVIDED TO THE IRRIGATION DESIGNER IN WRITING FOR APPROVAL PRIOR TO PROCEEDING.
- 4. ANY EXPOSED IRRIGATION PIPE SHOULD BE PROTECTED FROM FREEZE AND UV DAMAGED WITH INSULATED TAPE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL SITE ELEMENTS & AREAS TO REMAIN. CONTRACTOR SHALL REPLACE IN KIND, ALL ITEMS DAMAGED DURING THE COURSE OF WORK, AS DETERMINED BY THE LANDSCAPE ARCHITECT / CITY ARBORIST
- 6. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED IN WRITING TO THE LANDSCAPE ARCHITECT.
- 7. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK
- 8. THIS DESIGN IS DIAGRAMMATIC AND FOR GRAPHIC CLARITY. ALL EQUIPMENT SHOWN IN PAVED AREA IS FOR DESIGN CLARITY ONLY AND CONSTRUCTED ELEMENTS AND OBSTRUCTIONS WHETHER NOTED ON THE PLANS OR NOT SHALL BE AVOIDED TO MINIMIZE SLEEVING. EQUIPMENT IS TO BE INSTALLED WITHIN PLANTING AREAS. ACTUAL ALIGNMENTS TO BE LOCATED AS PER NOTES OR AS PER APPROVED IN FIELD BY LANDSCAPE ARCHITECT AND CITY ARBORIST
- 9. INSTALL EMITTERS ON THE TOP SIDE OF PLANTS ROOTBALL.
- 10. ROTOR SPRAY AND WATERING ON HARDSCAPE (WALKWAYS, CONCRETE PADS, STREETS, ETC.) IS STRICTLY PROHIBITED. CONTRACTOR SHALL REPLACE AND AMEND ROTORS AS NECESSARY TO AVOID OVERSPRAY. WHERE NEW HARDSCAPE FEATURES ARE INSTALLED, THE CONTRACTOR SHALL MOVE ROTORS OF CLOSE PROXIMITY TO THE EDGE OF THE HARD SURFACE (6-INCHES) AND REDIRECT SPRAY ARCS AWAY FROM THE HARDSCAPE.
- 11. CONTRACTOR SHALL ABIDE BY CITY OF EL PASO'S REQUIREMENTS AND TCEO IRRIGATION REQUIREMENTS. IN THE EVENT OF A CONFLICT BETWEEN SPECIFICATIONS AND IRRIGATION DESIGN, CONTRACTOR SHALL NOTIFY THE LICENSED IRRIGATION DESIGNER IN WRITING. THE CONTRACTOR SHALL NOT PROCEED WITH INSTALLATION OF CONFLICTING IRRIGATION COMPONENTS UNTIL HE RECEIVES CLARIFICATION IN WRITING FROM THE CONSULTANT
- 12. ALL PIPE CUTS SHALL BE MITERED TO 90 DEGREES & ALL BURRS SHALL BE REMOVED PRIOR TO GLUING. PIPE THREE INCHES OR LARGER MUST HAVE FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4) THE WIDTH OF PIPE WALL TO ASSURE A PROPER SOLVENT WELD
- 13. PIPE SOLVENT WELDING PROCEDURES ON ALL JOINTS SHALL BE SPECIFIED AS FOLLOWS: FIRST USE IPS WELD-ON CLEANER, NEXT USE IPS WELD-ON PURPLE PRIMER P68 OR P70, THEN USE IPS WELD-ON GRAY GLUE #711 HEAVY DUTY. LASTLY, WIPE OFF ALL EXCESS CEMENT AND LET SET AS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL SET TIMES SHALL BE AS FOLLOWS: MIN. OF 5 MINUTES FOR 1/2" TO 1 1/4", 8 MINUTES FOR 1 1/2" TO 2" PIPE AND 2 HRS. FOR 2 1/2" TO 6" PIPE. CURE TIMES SHALL BE AS FOLLOWS: MIN. OF 20 MINUTES FOR 1/2" TO 1 ½" FIPE, 30 MINUTES FOR 1 ½" TO 2" FIPE, 4 HRS. FOR 2 1/2" TO 6" PIPE. WHEN HUMIDITY EXCEEDS 60%, INCREASE CURE TIME BY 50%. ONCE WELD IS SET, PIPE SHALL NOT BE MOVED FOR ANY REASON UNTIL SET TIMES HAVE BEEN ACHIEVED, WATER SHALL NOT BE TURNED ON UNTIL ALL CURE TIMES HAVE BEEN ACHIEVED
- 14. SLEEVING PIPE SHALL BE TWICE THE SIZE OF IRRIGATION PIPE BEING CARRIED. PIPE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL, DURING CONSTRUCTION SLEEVES SHALL BE EXTENDED 24" BEYOND EDGE OF HARD SURFACES, WRAP ENDS WITH FOUR MIL PLASTIC AND TAPE WITH GOOD QUALITY PLASTIC TAPE, GRAY DUCT TAPE IS NOT ACCEPTABLE.
- 15. FIELD WIRING SHALL BE IN A SEPARATE TRENCH & EXPANSION LOOPS SHALL BE PROVIDED EVERY 200 FEET, WIRE SHALL NOT RE STRETCHED TIGHT, VALVE WIRE SHALL BE STANDARD COLORS RED (HOT) AND WHITE (COMMON) & LABELED AT CONTROLLER AND IN VALVE BOX. CONNECTIONS AT VALVES MUST BE MADE WITH DRI-SPLICE CONNECTORS. CONNECTORS MUST BE READY FILLED FROM FACTORY WITH SILICONE.
- 16. CONTRACTOR SHALL REFER TO CITY OF EL PASO STREETS & TRAFFIC STANDARD SPECIFICATIONS FOR IRRIGATION CONSTRUCTION. IN THE EVENT OF A CONFLICT BETWEEN SPECIFICATIONS AND IRRIGATION DESIGN, CONTRACTOR SHALL NOTIFY THE LICENSED IRRIGATION DESIGNER IN WRITHING. THE CONTRACTOR SHALL NOT PROCEED WITH INSTALLATION OF CONFLICTING IRRIGATION COMPONENTS UNTIL HE RECEIVES CLARIFICATION IN WRITING FROM THE CONSULTANT.
- 17 MAINLINE SHALL BE HYDROSTATICALLY TESTED FOR 24 HOURS

# **IRRIGATION NOTES** (ALL ITEMS BELOW ARE SUBSIDIARY TO TXDOT ITEM #170)

- PROPER SOLVENT WELD.
- LIMITED TO WATER METER UNTIL FINAL ACCEPTANCE
- SUBSEQUENT YEARS, SCHEDULE SHALL BE FURTHER REDUCED.
- PLACEMENT SHALL COME AT NO ADDITIONAL COST TO THE OWNER.
- DETAILS.
- CITY OF EL PASO.
- EL PASO WITHIN TEN MONTHS OF THE PROJECTS FINAL ACCEPTANCE.
- TX 78711

18. ALL PIPE CUTS SHALL BE MITERED TO 90 DEGREES & ALL BURRS SHALL BE REMOVED PRIOR TO GLUING. PIPE THREE INCHES OR LARGER MUST HAVE FILED BEVELED EDGE A MINIMUM OF ONE FOURTH (1/4) THE WIDTH OF PIPE WALL TO ASSURE A

19. CONTRACTOR TO COVER ALL FEES FOR INSTALLATION AND MAINTENANCE OF IMPROVEMENTS, INCLUDING BUT NOT

20. AGAVE SPECIMEN INDICATED ON PLANS SHALL NOT BE WATERED THROUGH THE AUTOMATIC IRRIGATION SYSTEM. SPECIMENS SHALL BE HAND WATERED IMMEDIATELY AFTER INSTALLATION AND SHORTLY REFORE FINAL WALK-THROUGH

21. IRRIGATION RUN TIME SCHEDULE FOR FIRST 3 YEARS: 3 TIMES PER WEEK FOR SUMMER MONTHS (MAY-SEPTEMBER). IN THE WINTER MONTHS (OCTOBER-APRIL), RUN TIME SHALL STAY THE SAME, BUT SHALL BE REDUCED TO 1 TIME PER WEEK. FOR

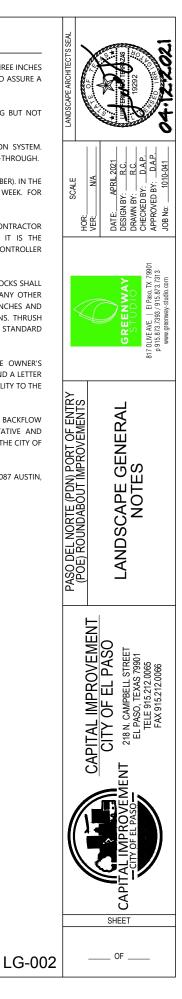
22. IRRIGATION CONTROLLER PLACEMENT IS BASED ON THE BEST AVAILABLE INFORMATION HOWEVER THE CONTRACTOR SHALL COORDINATE, VERIFY, AND DETERMINE EXACT LOCATION WITH THE OWNER REPRESENTATIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUCH ITEMS FARLY IN CONSTRUCTION CHANGES IN CONTROLLER

23. CONCRETE THRUST BLOCKS SHALL BE PROVIDED WHERE NECESSARY TO RESIST SYSTEM PRESSURE. THRUST BLOCKS SHALL BE CONSTRUCTED AT ALL CHANGES OF DIRECTION, SIZE CHANGES, VALVES AND TERMINATIONS, OR AT ANY OTHER POINTS OF THE SYSTEM THAT WILL RESULT IN AN UNBALANCED THRUST LINE FOR EQUIPMENT 2 (TWO) INCHES AND LARGER, DO NOT OBSTRUCT THE OUTLETS OF FITTINGS WHICH ARE INTENDED FOR FUTURE CONNECTIONS. THRUSH BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH AND IN ACCORDANCE WITH THE PLANS OR STANDARD

24. UPON PROJECT'S FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL PROVIDE OWNER'S REPRESENTATIVE THE PERTINENT INFORMATION, SUCH AS THE METER NO., ACCOUNT NO., LOCATION, ETC: AND A LETTER OF ACCEPTANCE BY THE CITY OF EL PASO'S DEPARTMENT OF TRANSPORTATION TO TRANSFER THE RESPONSIBILITY TO THE

25. UPON COMPLETION OF IRRIGATION INSTALLATION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE A BACKFLOW TEST BY A CERTIFIED BACKFLOW INSPECTOR AND SUBMIT WRITTEN RESULTS TO OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT, CONTRACTOR SHALL PROVIDE A YEARLY BACKELOW TEST AND PROVIDE RESULTS TO THE CITY OF

26. IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, PO BOX 13087 AUSTIN,



MATERIAL LEGEND	MATERIAI	L LEGEND	KEYED	NOTES (#)	PLANT SC	CHEDULE (ALL ITEMS E
******     PROVIDE AND INSTALL LOOSE AGGREGATE TYPE I       COLOR: DESERT TAN OR APPROVED EQUAL       SIZE: 2" - 4"       LAYER DEPTH: 4" DEPTH WITH FILTER FABRIC (TXDOT ITEM#		PROVIDE AND INSTALL 32 GAL TRASH RECEPTACLE, SIDE OPENING, SURFACE MOUNT OR APPROVED EQUAL. REFER TO DETAIL R/LC-504.	1	PRESERVE AND PROTECT EXISTING INFORMATION KIOSK.	SYMBOL	BOTANICAL NAME (
0192 6017) TXDOT ITEM# 1005-6001 TY I.	٢	(SUBSIDIARY TO TXDOT ITEM # 1002 6025)	2	CONCRETE RAMP, REFER TO ENGINEERING PLANS.		
BASE BID APPROX. QUANTITY: 2,282 SQ.FT. PROVIDE AND INSTALL LOOSE AGGREGATE TYPE II COLOR: DESERT TAN OR APPROVED EQUAL		PROVIDE AND INSTALL BIKE RACK, 5-LOOP RACK, SURFACE MOUNT OR APPROVED EQUAL. REFER TO DETAIL N/LC-504. (SUBSIDIARY TO TXDOT ITEM # ELP ELP25)	3	INSTALL CONCRETE CURB CUT. (CURB CUT SHALL ALLOW WATER TO ENTER LANDSCAPE SWALE.) REFER TO ENGINEERING PLANS.	$5 \downarrow$	Chilopsis linearis 'Art's Seedless'
SIZE: 1-1/2" LAYER DEPTH: 3" DEPTH WITH FILTER FABRIC (TXDOT ITEM# 0192 6017) TXDOT ITEM# 1005-6002 TY II.		PRESERVE AND PROTECT EXISTING DUMOR LETTER BIKE RACK (DWNTWN), AND RELOCATE AS SPECIFIED ON PLANS. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 3)	4	EXISTING ELECTRIC POLE, REFER TO ELECTRICAL PLANS.		7
BASE BID APPROX. QUANTITY: 1,245 SQ.FT.		PROVIDE AND INSTALL SECURITY BOLLARD, IN-GROUND MOUNT OR APPROVED EQUAL. REFER TO DETAIL T/LC-505	5	LIGHT FIXTURE, REFER TO ELECTRICAL ENGINEERING PLANS.		
PROVIDE AND INSTALL PAVERS, SIZE 4" X 8", BASKET WAVE PATTERN, TUMBLED/ANTIQUED FINISH, COLOR SIERRA, OR APPROVED EQUAL. REFER TO DETAILS K.N/LC-504		AND ELECTRICAL PLANS. PROVIDE AND INSTALL REMOVABLE BOLLARD, IN-GROUND	6	REINFORCED CONCRETE SPEED TABLE, REFER TO ENGINEERING PLANS.	$(\cdot)$	Lagerstroemia indica x N fauriei 'Natchez'
CONTRACTOR TO INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.	<b></b>	MOUNT OR APPROVED EQUAL, REFER TO DETAIL S/LC-505. (SUBSIDIARY TO TXDOT ITEM # ELP ELP26)	7	EXISTING FIRE HYDRANT TO PRESERVE AND PROTECT.	$\smile$	
	<b></b>	REMOVE EXISTING BENCH AND REPLACE WITH 6' BENCH,WITHOUT BACK AND ARMRESTS, SURFACE MOUNT	8	CONCRETE APRON, REFER TO CIVIL ENGINEERING PLANS.	SHRUBS, PERE	ENNIALS & GRASS PLANTING
PROVIDE AND INSTALL INTEGRAL COLORED CONCRETE PAVING, COLOR: SLATE, AT 3000 PSI. REFER TO DETAIL L,P/LC-504. (SUBSIDIARY TO TX DOT ITEM# 0528 6001)		OR APPROVED EQUAL. REFER TO DETAIL Q/LC-504. (SUBSIDIARY TO TXDOT ITEM # 1002 6026)	9	NEW FLAGPOLE, REFER TO ENGINEERING PLANS.	T.	Pennisetum D' alopecuroides 'Hameln'
GOLDEN BROWN BOULDERS (12) - 2'X2', 3'X3', & 4'X4' EVENLY MIXED, PARTIALLY BURIED. REFER TO DETAIL K/LC-504.	××	PROVIDE AND INSTALL STEEL FENCE, REFER TO DETAILS U,V/ LC-505 AND Y/LC-506. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 11)	10	PROVIDE AND INSTALL DOUBLE STEEL GATE, REFER TO DETAIL, REFER TO DETAIL, Z,AA/LC-507.	0	Artemesia 'Powis Castle' Hesperaloe Funifera BF
(SUBSIDIARY TO TXDOT ITEM # 1002 6029)		PROVIDE AND INSTALL STEEL FENCE, REFER TO DETAILS		(SUBSIDIARY TO TXDOT ITEM # ELP ELP 21)	*	'Brakelights' TM
INSTALL SWALE FOR WATER HARVESTING, GRADUALLY GRADE TO FINAL DEPTH, 6" INCHES PER CONTOUR. REFER TO DETAIL AB/LC-507.	**	V/LC-505, AND W,Y/LC-506 . (SUBSIDIARY TO TXDOT ITEM # ELP ELP 11)	44	SCULPTURE FEATURE, CONTAINMENT, AND SIGNAGE; REFER TO SHEETS LC-501, LC-502 AND LC-503. CONTRACTOR SHALL REFERENCE		, SUCCULENTS AND DESERT STALL AS PER DETAILS ON SI
() (SUBSIDIARY TO TXDOT ITEM # 0110 6003 - EXCAVATION SPECIAL)		PROVIDE AND INSTALL PLANTERS UNLIMITED FIBERSTONE LOW BOWL PLANTER, SIZE: 112" X 18", REFER TO DETAILS AC, AF/LC-508 AND AG, AI/LC-509. (SUBSIDIARY TO TXDOT ITEM # 1002 6002)	11	STRUCTURAL FOOTING AND ANCHORING ON STRUCTURAL ENGINEERING PLANS. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 12)	Ś	Dasylirion longissimum
	$\sim$	PROVIDE AND INSTALL PLANTERS UNLIMITED FIBERSTONE LOW BOWL PLANTER, SIZE: 96" X 16", REFER TO DETAILS	12	FRENCH DRAIN SYSTEM, REFER TO DETAIL AL/LC-510.	$\odot$	Hesperaloe funifera GI
		AD, AF/LC-508 AND AG, AJ/LC-509. (SUBSIDIARY TO TXDOT ITEM # 1002 6003)		CONCRETE STOP FEATURE. REFER TO DETAIL	$\circledast$	Yucca recurvifolia So
		PROVIDE AND INSTALL PLANTERS UNLIMITED FIBERSTONE LOW BOWL PLANTER, SIZE: 60" X 14", REFER TO DETAILS AE, AF/LC-508, AG, AK/LC-509.	13	CUNCKETE STOP FEATURE, REFER TO DETAIL AL/LC-510.	۲	Opuntia Cacanapa SP "Elisiana"

(SUBSIDIARY TO TXDOT ITEM # 1002 6004)

С

EXISTING TREE TO REMAIN; PRESERVE AND PROTECT. REFER TO TREE PROTECTION DETAIL F/LP-505. (SUBSIDIARY TO TXDOT ITEM # 1004 6001) PROTOTYPICAL 96"X16" PLANTER PLANTING AT 13 SCULPTURE FEATURE, REFER TO DETAIL AH/LC-509.

14 SCULPTURE FOOTING, REFER TO STRUCTURAL ENGINEERING PLANS.

 Opuntia Cacanapa SF "Elisiana"
 GROUND COVER, INSTALL AS PER DETAIL: ABBREVIATION AND QUANTITY.
 IP Delosperma cooperi PL
 Delosperma cooperi YI
 DN Delosperma YI

NOTES:

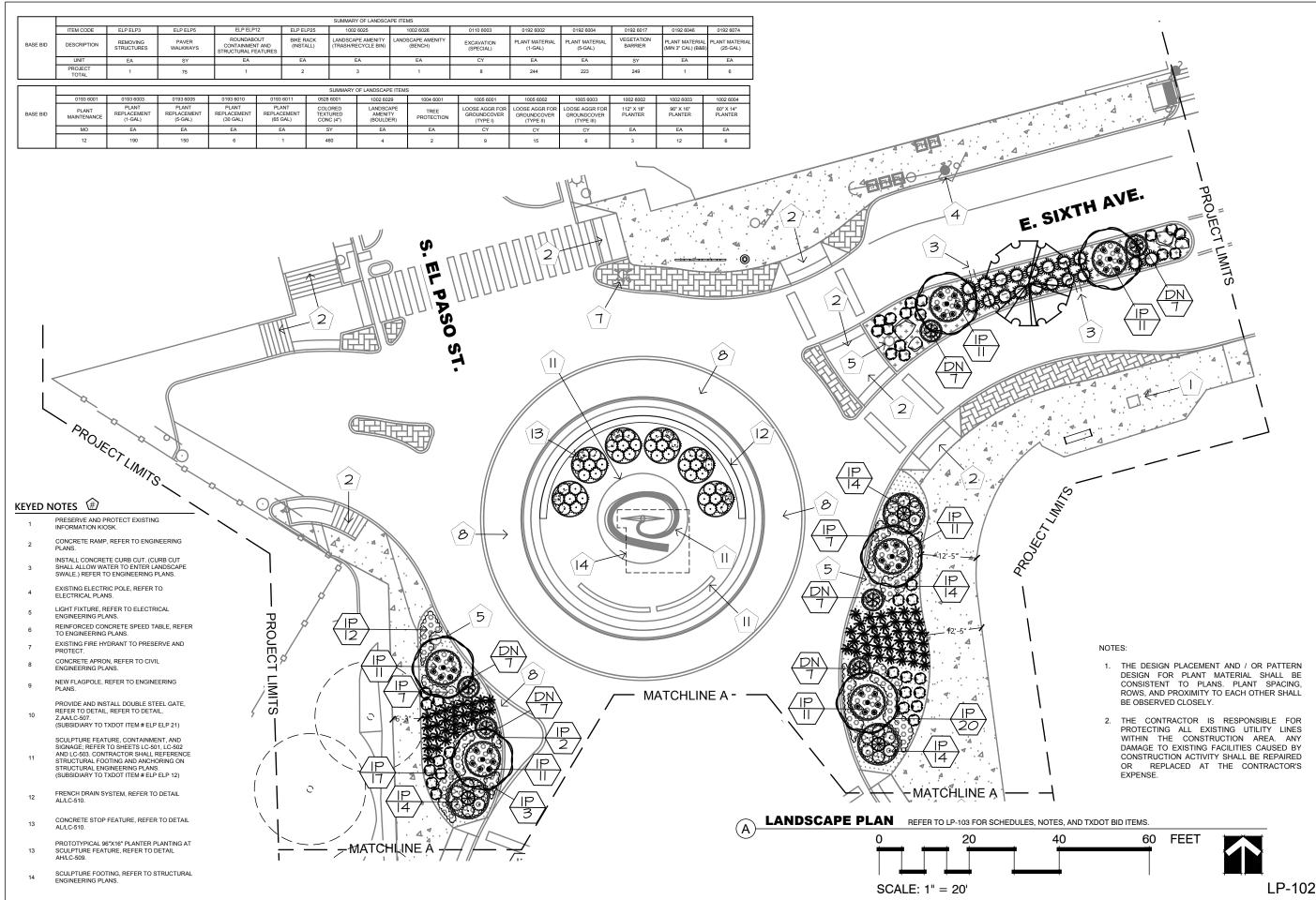
1. THE DESIGN PLACEMENT SHALL BE CONSISTENT TO EACH OTHER SHALL BE OF

2. THE CONTRACTOR IS RE LINES WITHIN THE CO FACILITIES CAUSED BY REPLACED AT THE CONTR

AILS			
DESERT WILLOW	1	3" CALIPER, 10FT MIN.	25' X 25'
NATCHEZ CRAPE MYRTLE	6	25 GAL. 8FT MIN	15'X15'
GS, INSTALL AS PEI	R DETAILS.		
WARF FOUNTAIN GRASS	18	5 GAL.	- 3' x 3'
POWIS CASTLE	36	5 GAL.	1' X 2'
RAKELIGHTS RED YUCCA	64	5 GAL.	2' x 2'
T PLANT SHEET LP-501.			
SOTOL	2	5 GAL.	3' X 3'
IANT HESPERALOE	64	5 GAL.	3' X 4'
SOFT LEAF YUCCA	3	5 GAL.	3' X 3'
PINELESS PRICKLY PEAR	36	5 GAL.	3' X 3'
.S. LETTER & NUMB	ER WILL INDI	CATE PLANT	
PURPLE ICE PLANT	202	1 GAL.	1' X 2'
ELLOW ICEPLANT	42	1 GAL.	1' X 2'
I AND / OR PATTE O PLANS. PLANT SI BSERVED CLOSELY SPONSIBLE FOR P INSTRUCTION ARE CONSTRUCTION ARE CONSTRUCTION A	PACING, ROW ROTECTING EA. ANY DA CTIVITY SHA	/S, AND PROXIMI ALL EXISTING U MAGE TO EXI	TY TO TILITY STING



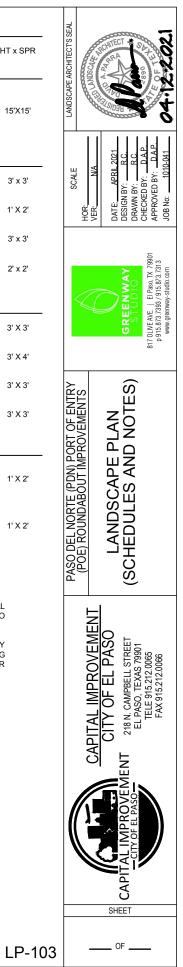
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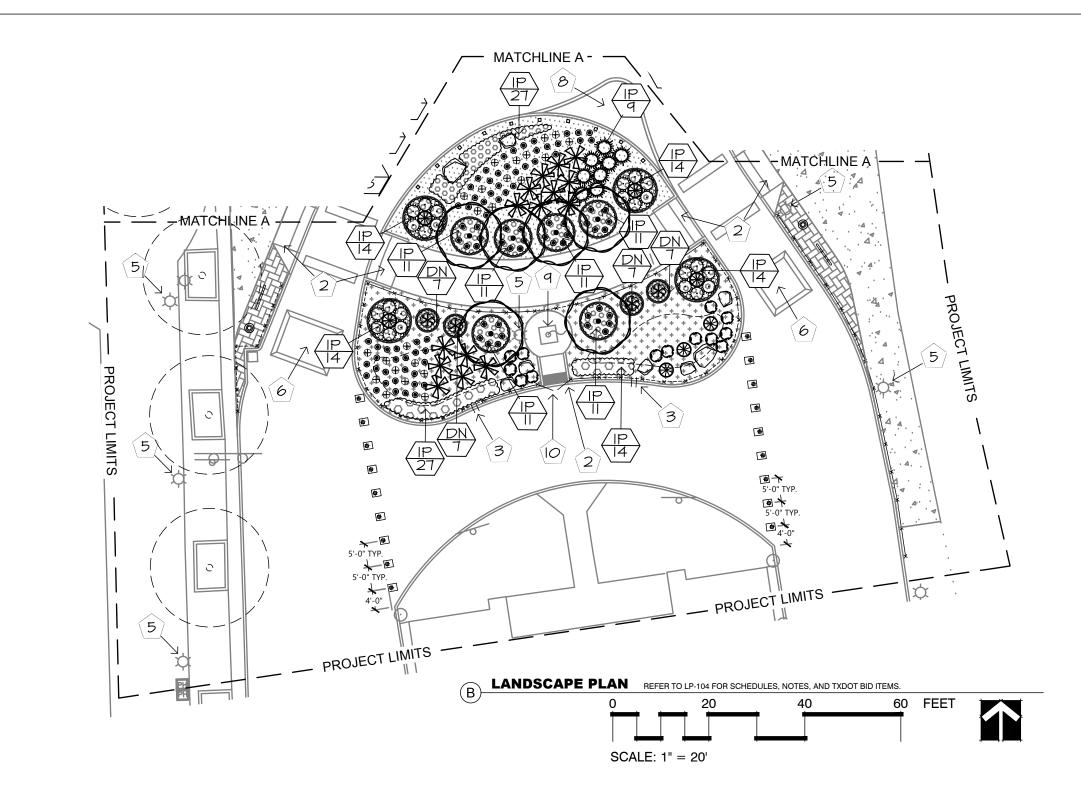


- DESIGN FOR PLANT MATERIAL SHALL BE CONSISTENT TO PLANS. PLANT SPACING, ROWS, AND PROXIMITY TO EACH OTHER SHALL
- 2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S



MATERIAL LEGEND	MATERIAL LEGEN	۱D	KEYED	NOTES	PLAN	IT SCH	IEDULE (ALL ITEN	IS BELOW ARE SUB	SIDIARY TO TX	DOT ITEM #192)	
PROVIDE AND INSTALL LOOSE AGGREGATE TYPE I COLOR: DESERT TAN OR APPROVED EQUAL SIZE: 2" - 4" LAYER DEPTH: 4" DEPTH WITH FILTER FABRIC (TXDOT ITEM#	OPENING, S OPENING, S TO DETAIL	ND INSTALL 32 GAL TRASH RECEPTACLE, SIDE SURFACE MOUNT OR APPROVED EQUAL. REFER R/LC-504. YY TO TXDOT ITEM # 1002 6025)	1	PRESERVE AND PROTECT EXISTING INFORMATION KIOSK. CONCRETE RAMP, REFER TO ENGINEERING		'MBOL SHALL BE	BOTANICAL NAME		QUANTITY	SIZE & COMMENTS	HT x SPR
0192 6017) TXDOT ITEM# 1005-6001 TY I. BASE BID APPROX. QUANTITY: 2,282 SQ.FT. PROVIDE AND INSTALL LOOSE AGGREGATE TYPE II COLOR: DESERT TAN OR APPROVED EQUAL	PROVIDE A MOUNT OR (SUBSIDIAF	ND INSTALL BIKE RACK, 5-LOOP RACK, SURFACE APPROVED EQUAL. REFER TO DETAIL N/LC-504. Y TO TXDOT ITEM # ELP ELP25)	3	PLANS. INSTALL CONCRETE CURB CUT. (CURB CUT SHALL ALLOW WATER TO ENTER LANDSCAPE SWALE.) REFER TO ENGINEERING PLANS.	$\overline{(\cdot)}$		Lagerstroemia indica x fauriei 'Natchez'	NATCHEZ CRAPE MYRTLE	6	25 GAL. 8FT MIN	15'X15'
SIZE: 1-1/2" LAYER DEPTH: 3" DEPTH WITH FILTER FABRIC (TXDOT ITEM# 0192 6017)	RACK (DWN	AND PROTECT EXISTING DUMOR LETTER BIKE ITWN), AND RELOCATE AS SPECIFIED ON PLANS. IY TO TXDOT ITEM # ELP ELP 3)	4	EXISTING ELECTRIC POLE, REFER TO ELECTRICAL PLANS.	SHRUBS	S, PERENI	NIALS & GRASS PLANT	INGS, INSTALL AS PE	ER DETAILS.		
TXDOT ITEM# 1005-6002 TY II. BASE BID APPROX. QUANTITY: 1,245 SQ.FT. FTF-TTF-TT PROVIDE AND INSTALL PAVERS. SIZE 4" X 8". BASKET WAVE	MOUNT OR	ND INSTALL SECURITY BOLLARD, IN-GROUND APPROVED EQUAL. REFER TO DETAIL T/LC-505 'RICAL PLANS.	5	LIGHT FIXTURE, REFER TO ELECTRICAL ENGINEERING PLANS. REINFORCED CONCRETE SPEED TABLE, REFER		Ċ.	Pennisetum alopecuroides 'Hameln'	DWARF FOUNTAIN GRASS	8	5 GAL.	3' x 3'
PATTERN, TUMBLED/ANTIQUED FINISH, COLOR SIERRA, OR APPROVED EQUAL. REFER TO DETAILS K,N/LC-504 CONTRACTOR TO INSTALL AS PER MANUFACTURER'S	MOUNT OR	ND INSTALL REMOVABLE BOLLARD, IN-GROUND APPROVED EQUAL. REFER TO DETAIL S/LC-505. YY TO TXDOT ITEM # ELP ELP26)	6 7	TO ENGINEERING PLANS. EXISTING FIRE HYDRANT TO PRESERVE AND PROTECT.		0	Artemesia 'Powis Castle'	POWIS CASTLE	13	5 GAL.	1' X 2'
RECOMMENDATIONS. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 5)	REMOVE EX BENCH,WIT	KISTING BENCH AND REPLACE WITH 6` HOUT BACK AND ARMRESTS, SURFACE MOUNT	8	CONCRETE APRON, REFER TO CIVIL ENGINEERING PLANS.		$\ast$	Salvia clevelandii	CLEVELAND SAGE	15	5 GAL.	3' x 3'
PROVIDE AND INSTALL INTEGRAL COLORED CONCRETE PAVING, COLOR: SLATE, AT 3000 PSI. REFER TO DETAIL L,P/LC-504. (SUBSIDIARY TO TX DOT ITEM# 0528 6001)	(SUBSIDIAF	/ED EQUAL. REFER TO DETAIL Q/LC-504. Y TO TXDOT ITEM # 1002 6026) ND INSTALL STEEL FENCE. REFER TO DETAILS	9	NEW FLAGPOLE, REFER TO ENGINEERING PLANS.		Ð	Gaura lindheimeri 'Geyser White'	GEYSER WHITE GAURA	23	5 GAL.	2' x 2'
GOLDEN BROWN BOULDERS (12) - 2'X2', 3'X3', & 4'X4' EVENLY MIXED, PARTIALLY BURIED, REFER TO DETAIL K/LC-504.	×	AND Y/LC-506. Y TO TXDOT ITEM # ELP ELP 11)	10	PROVIDE AND INSTALL DOUBLE STEEL GATE, REFER TO DETAIL, REFER TO DETAIL, Z.AA/LC-507.			UCCULENTS AND DESI				
(SUBSIDIARY TO TXDOT ITEM # 1002 6029)	** V/LC-505, A	ND INSTALL STEEL FENCE, REFER TO DETAILS ND W,Y/LC-506 .		(SUBSIDIARY TO TXDOT ITEM # ELP ELP 21) SCULPTURE FEATURE, CONTAINMENT, AND		SF)	Dasylirion longissimum	SOTOL	4	5 GAL.	3' X 3'
GRADE TO FINAL DEPTH, 6" INCHES PER CONTOUR. REFER TO DETAIL AB/LC-507. (SUBSIDIARY TO TXDOT ITEM # 0110 6003 - EXCAVATION	PROVIDE A	Y TO TXDOT ITEM # ELP ELP 11)	11	SIGNAGE; REFER TO SHEETS LC-501, LC-502 AND LC-503. CONTRACTOR SHALL REFERENCE STRUCTURAL FOOTING AND ANCHORING ON		$\odot$		GIANT HESPERALO		5 GAL.	3' X 4'
SPECIAL)	AC, AF/LC-5	PLANTER, SIZE: 112" X 18", REFER TO DETAILS 508 AND AG, AI/LC-509. 2Y TO TXDOT ITEM # 1002 6002)		STRUCTURAL ENGINEERING PLANS. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 12)		⊛	Yucca recurvifolia Opuntia Cacanapa	SOFT LEAF YUCCA		5 GAL. 5 GAL.	3' X 3' 3' X 3'
	LOW BOWL AD, AF/LC-5	ND INSTALL PLANTERS UNLIMITED FIBERSTONE PLANTER, SIZE: 96" X 16", REFER TO DETAILS 508 AND AG, AJ/LC-509.	12	FRENCH DRAIN SYSTEM, REFER TO DETAIL AL/LC-510.			"Elisiana" , INSTALL AS PER DET	PEAR AILS. LETTER & NUM	04		3 ^ 3
	PROVIDE A	Y TO TXDOT ITEM # 1002 6003) ND INSTALL PLANTERS UNLIMITED FIBERSTONE PLANTER. SIZE: 60" X 14". REFER TO DETAILS	13	CONCRETE STOP FEATURE, REFER TO DETAIL AL/LC-510.	ABBREV		ND QUANTITY.				
		i08, AG, AK/LC-509. Y TO TXDOT ITEM # 1002 6004) REE TO REMAIN: PRESERVE AND PROTECT.	13	PROTOTYPICAL 96"X16" PLANTER PLANTING AT SCULPTURE FEATURE, REFER TO DETAIL AH/LC-509.	00000	IP	Delosperma coopen	PURPLE ICE PLANT	163	1 GAL.	1' X 2'
	REFER TO	REE PROTECTION DETAIL F/LP-505. Y TO TXDOT ITEM # 1004 6001)	14	SCULPTURE FOOTING, REFER TO STRUCTURAL ENGINEERING PLANS.		DN	Delosperma Nubigenum 'Yellow'	YELLOW ICEPLANT	28	1 GAL.	1' X 2'
							E DESIGN PLACEMENT				
						EAC	ALL BE CONSISTENT TO CH OTHER SHALL BE O E CONTRACTOR IS RE	BSERVED CLOSELY.	,,		
						LINE FAC	E CONTRACTOR IS RE ES WITHIN THE CO ILLITIES CAUSED BY PLACED AT THE CONTR	NSTRUCTION AREA	A. ANY DAM	AGE TO EXIST	TING





BASE BID         PAVER WALKWAYS         DECORATIVE FENCING         DECORATIVE FENCING GATE         REMOVABLE BOLLARD         LANDSCAPE AMENITY (BOULDER)         TREE PROTECTION         EXCAVATION (SPECIAL)         PLANT MATERIAL (1-GAL)         PLANT MATERIAL (S-GAL)         VEGETA (2-GAL)           UNIT         SY         LF         LF         EA         EA         CY         EA         EA         SY           DEDIEST         V         V         EA         EA         EA         CY         EA         EA         SY																
BASE BID         PAVER WALKWAYS         DECORATIVE FENCING         REMOVABLE BOLLARD         LANDSCAPE AMENTY (BOULDED)         TREE PROTECTION         EXCAVATION (SPECIAL)         PLANT MATERIAL (1-GAL)         PLANT MATERIAL (S-GAL)         PLANT MATERIAL (2-GAL)         VECTA BARRI (2-GAL)           UNIT         SY         LF         LF         EA         EA         CY         EA         EA         EA         SY           PROJECT         33         380         7         18         6         3         23         191         183         6         318           SY         0193 6001         0193 6003         0193 6005         0193 6001         0052 6001         1005 6002         1002 6003         1002 6004         1002 6004           BASE BID         PLANT MAINTENANCE         PLANT REPLACEMENT         PLANT REPLACEMENT (35 GAL)         PLANT REPLACEMENT (35 GAL)         PLANT REPLACEMENT (35 GAL)         COLORED CON (4 <sup>4</sup> )         LOOSE AGGR FOR CON (4 <sup>4</sup> )         LOOSE AGGR FOR GROUNDCOVER         LOOSE AGGR FOR GROUNDCOVER         127 X18* PLANTER         P6'X 16* PLANTER         60'X 14* PLANTER           MO         EA         EA         SY         CY         CY         EA         EA         EA						SUMMARY C	OF LANDSCAPE ITEMS	6								
BASE BID         DESCRIPTION         PAVER WALKWAYS         DECORATIVE FENCING         DECORATIVE FENCING         DECORATIVE BOLLARD         AMENTY BOLLARD         TREE PROTECTION         CACAVATION (SECILA)         PLANT MATERIAL (1-GAL)         PLANT MATERIAL (SGAL)         PLANT (SGAL)         PLA		ITEM CODE	ELP ELP5	ELP ELP11	ELP ELP21	ELP ELF	26 1002	6029	100	4 6001	0110	6003	0192 6002	0192 6004	0192 6074	0192 6017
PROJECT TOTAL         33         380         7         18         6         3         23         191         183         6         318           PROJECT TOTAL         33         380         7         18         6         3         23         191         183         6         318           OUBS 6001         0193 6001         0193 6001         0193 6001         1005 6001         1005 6003         1002 6003         1002 6004         1	BASE BID	DESCRIPTION					RD AME	NITY								VEGETATION BARRIER
TOTAL         33         300         7         10         0         3         23         191         163         6         318           TOTAL         33         300         7         10         0         3         23         191         163         6         318           VICTORAL         33         300         7         10         0         3         23         191         163         6         318           VICTORAL         33         0193 6010         0528 601         1005 6002         1005 6003         1002 6003         1002 6004         1002 6004         1002 6004         1002 6004         1002 6004         1002 6004         60° X 14°         PLANT         PLANT         REPLACEMENT         TEXTURED         COLORED         LOOSE AGGR FOR         LOOSE AGGR FOR         112° X 18°         98° X 16°         60° X 14°         PLANTER         PLANTER         PLANTER         PLANTER         PLANTER         PLANTER         PLANTER         PLANTER         00° X 14°         00° X		UNIT	SY	LF	LF	EA	E	A	1	EA		CY	EA	EA	EA	SY
0193 6001         0193 6003         0193 6005         0193 6010         0528 6001         1005 6001         1005 6003         1002 6002         1002 6003         1002 6004           BASE BID         PLANT MAINTENANCE         PLANT (1-GAL)         PLANT REPLACEMENT (1-GAL)         PLANT REPLACEMENT (3 GAL)         PLANT REPLACEMENT (3 GAL)         PLANT REPLACEMENT (3 GAL)         PLANT REPLACEMENT (3 GAL)         COLORED DCONC (4')         LOOSE AGGR FOR GROUNDCOVER (TYPE II)         LOOSE AGGR FOR GROUNDCOVER (TYPE II)         102 6002         1002 6003         1002 6004           MO         EA         EA         EA         SY         CY         CY         CY         EA         EA         EA			33	380	7	18	6	-		3		23	191	183	6	318
0193 6001         0193 6003         0193 6005         0193 6010         0052 6001         1005 6002         1005 6002         1002 6003         1002 6004           BASE BID         PLANT MAINTENANCE         PLANT (1-GAL)         PLANT (1-GAL)         PLANT REPLACEMENT (3 GAL)         PLANT REPLACEMENT (3 GAL)         PLANT REPLACEMENT (3 GAL)         PLANT REPLACEMENT (3 GAL)         DATE REPLACEMENT (3 GAL)         DOSE ACGR FOR DOSE ACGR FOR COUNDCOVER (TYPE II)         LOOSE ACGR FOR GROUNDCOVER (TYPE II)         LOOSE ACGR FOR GROUNDCOVER (TYPE II)         1102 6003         1002 6003         60° X 14° PLANTER           MO         EA         EA         SY         CY         CY         CY         EA         EA         EA																
BASE BID         PLANT MAINTENANCE         PLANT REPLACEMENT         PLANT REPLACEMENT         PLANT REPLACEMENT         PLANT REPLACEMENT         COLORED REPLACEMENT         LOOSE AGGR FOR (30 GAL)         LOOSE AGGR FOR GROUNDCOVER         LOOSE AGGR FOR GROUNDCOVER         112 x 18" GROUNDCOVER         98" x 16" PLANTER         98" x 16" PLANTER           MO         EA         EA         EA         SY         CY         CY         CY         EA         EA         EA						SUMMARY	OF LANDSCAPE ITEM	AS								
BASE BID         PLANT MAINTENANCE         REPLACEMENT (1-GAL)         REPLACEMENT (5 GAL)         REPLACEMENT (3 GAL)         TEXTURED (30 GAL)         COUCH OUT (TYPE II)         COUCH OUT (SC COUCH (TYPE III)         PLANTER         PLANTER         PLANTER           MO         EA         EA         SY         CY         CY         EA         EA         EA		0193 6001	0193 6003	0193 6005	0193 6010	0528 6001	1005 6001	1005	6002	1005 60	003	1002 6002	1002 6003	1002 6004		
	BASE BID		REPLACEMENT	REPLACEMENT	REPLACEMENT	TEXTURED	GROUNDCOVER	GROUNE	COVER	GROUNDC	OVER					
12 150 130 6 107 20 12 6 4 6 4		MO	EA	EA	EA	SY	CY	C	Υ	CY		EA	EA	EA		
		12	150	130	6	107	20	1	2	6		4	6	4	]	

NOTES:

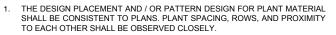
# KEYED NOTES 🛞

11

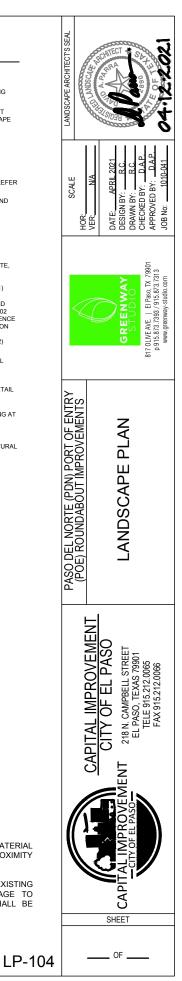
- PRESERVE AND PROTECT EXISTING INFORMATION KIOSK.
- CONCRETE RAMP, REFER TO ENGINEERING 2 PLANS.
- INSTALL CONCRETE CURB CUT. (CURB CUT SHALL ALLOW WATER TO ENTER LANDSCAPE SWALE.) REFER TO ENGINEERING PLANS.
- EXISTING ELECTRIC POLE, REFER TO 4 ELECTRICAL PLANS.
- LIGHT FIXTURE, REFER TO ELECTRICAL ENGINEERING PLANS. 5
- REINFORCED CONCRETE SPEED TABLE, REFER TO ENGINEERING PLANS. 6
- EXISTING FIRE HYDRANT TO PRESERVE AND 7 PROTECT
- CONCRETE APRON, REFER TO CIVIL ENGINEERING PLANS. 8
- NEW FLAGPOLE, REFER TO ENGINEERING 9 PLANS.
- PROVIDE AND INSTALL DOUBLE STEEL GATE, REFER TO DETAIL, REFER TO DETAIL, Z,AA/LC-507. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 21) 10

SCULPTURE FEATURE, CONTAINMENT, AND SIGNAGE; REFER TO SHEETS LC-501, LC-502 AND LC-503. CONTRACTOR SHALL REFERENCE STRUCTURAL FOOTING AND ANCHORING ON STRUCTURAL ENGINEERING PLANS. (SUBSIDIARY TO TXDOT ITEM # ELP ELP 12)

- FRENCH DRAIN SYSTEM, REFER TO DETAIL 12 AL/LC-510.
- CONCRETE STOP FEATURE, REFER TO DETAIL AL/LC-510. 13
- PROTOTYPICAL 96"X16" PLANTER PLANTING AT SCULPTURE FEATURE, REFER TO DETAIL AH/LC-509. 13
- SCULPTURE FOOTING, REFER TO STRUCTURAL ENGINEERING PLANS. 14



2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.



# **CRITICAL ANALYSIS**

P.O.C. NUMBER: 01 Water Source Information:	
FLOW AVAILABLE Water Meter Size: Flow Available:	1" 37.50 gpm
PRESSURE AVAILABLE Static Pressure at POC: Elevation Change: Service Line Size: Length of Service Line: Pressure Available:	70.00 psi 5.00 ft 1 1/2" 20.00 ft 66.00 psi
DESIGN ANALYSIS Maximum Station Flow: Flow Available at POC: Residual Flow Available:	6.29 gpm 37.50 gpm 31.21 gpm
Critical Station: Design Pressure: Friction Loss: Fittings Loss: Elevation Loss: Loss through Valve: Pressure Req. at Critical Station: Loss for Fittings: Loss for Fittings: Loss for Fittings: Loss for Backflow: Loss for Backflow: Loss for Water Meter: Critical Station Pressure at POC: Pressure Available: Residual Pressure Available:	6 30.00 psi 0.16 psi 0.01 psi 0.00 psi 6.55 psi 36.71 psi 0.22 psi 2.16 psi 2.16 psi 12.52 psi 0.33 psi 51.94 psi 66.00 psi 14.06 psi

# IRRIGATION SCHEDULE

IRRIGATIO	N SCHEDULE	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	
5	HUNTER ICZ-101-40-LF PROVIDE AND INSTALL DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: .5 GPM TO 15 GPM. 150 MESH STAINLESS STEEL SCREEN. WITH DC LATCHING SOLENOID, OR APPROVED EQUAL. REFER TO DETAIL B/LI-501.	
ø	HUNTER PLD-AVR PLD-AVR ALLOWS FOR AIR TO ESCAPE A DRIP IRRIGATION SYSTEM TO PREVENT BLOCKAGE AND WATER HAMMERING. 1/2" MPT CONNECTION WITH 80 PSI MAXIMUM RATING.	
♥ ♥ ₩ 05 1.0 20	RAIN BIRD XB-PC SINGLE OUTLET EMITTER FOUR(4) SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS PER SYMBOL. FLOW RATES OF 0.5GPH=BLUE, 1.0GPH=BLACK, AND 2.0GPH=RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET.	
♥ ♥ ♥ 05 10 20	RAIN BIRD XBT-6 SIX MULTI-OUTLET DRIP EMITTER/BUBBLER PROVIDE AND INSTALL SIX-OUTLET, PRESSURE COMPENSATING, DRIP EMITTER. FLOW RATES OF 0.5GPH=BLUE, 1.0GPH=BLACK, AND 2.0GPH=RED, AT EACH EMITTER OUTLET. COMES WITH 1/2" FPT INLET X BARB OUTLET, OR APPROVED EQUAL. REFER TO DETAILS E,G/LI-501.	
<u>SYMBOL</u>	MANUFACTURER/MODEL/DESCRIPTION	
Ň	ISOLATION VALVE 1", 1-1/2", 2", AND 3" PLASTIC FULL BLOCK TRUE UNION BALL VALVE. SHUT OFF/ISOLATION VALVE TO ELIMINATE WATER HAMMER. INSTALL SAME SIZE AS MAINLINE.	
	PRESSURE REDUCING VALVE PRESSURE LIMITED TO 40.99 PSI REFER TO DETAIL C/LI-501.	
æ	WATTS LF909 3/4" PROVIDE AND INSTALL LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER, OR APPROVED EQUAL. REFER TO DETAIL A/LI-501.	
C	HUNTER XCH-1200-SS ELECTROMECHANICAL CONTROLLER, 12 STATIONS, OUTDOOR MODEL, BATTERY-POWERED. STAINLESS STEEL CABINET. WITH SOLAR PANEL.	
М	WATER METER 1"	
	— IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	
	IRRIGATION LATERAL LINE: TORO-BLUE STRIPE POLY HOSE	

- • • - • • IRRIGATION MAINLINE: PVC SCHEDULE 40

Valve Callou

# • \ # •\_\_\_

#" •7

Valve Numb

- Valve Flow

Valve Size

PIPE SLEEVE: PVC SCHEDULE 40

# NOTES:

- REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- COORDINATION.
- 3.
- APPROVAL.
- 5. EMITTER VALVES SHALL BE STRATEGICALLY PLACED WITHIN GROUNDCOVER AREAS, IN LINEAR MANNER AT THE CONTRACTOR TO COORDINATE CLOSELY WITH LANDSCAPE ARCHITECT.
- EQUAL UNLESS OTHERWISE NOTED.

# 

VALVE	SCHEDULE						
NUMBER 1 2 3 4 5 6 7	MODEL HUNTER ICZ-101-40-LF HUNTER ICZ-101-40-LF HUNTER ICZ-101-40-LF HUNTER ICZ-101-40-LF HUNTER ICZ-101-40-LF HUNTER ICZ-101-40-LF	<u>SIZE</u> 1" 1" 1" 1" 1" 1"	TYPE DRIP EMITTER DRIP EMITTER DRIP EMITTER DRIP EMITTER DRIP EMITTER DRIP EMITTER DRIP EMITTER	GPM 1.25 1.26 0.36 2.75 2.61 6.29 1.78	PSI 31.7 11.72 11.01 33.06 12.97 36.72 32.17	PSI @ POC 41.67 21.7 20.43 44.17 24.18 51.94 42.73	PRECIP 2.95 in/h 0.92 in/h 2.72 in/h 2.72 in/h 2.88 in/h 2.73 in/h

	SUMMARY OF IRRIGATION ITEMS							
	ITEM CODE	0170 6001	0193 6007					
BASE BID	DESCRIPTION	IRRIGATION SYSTEM	IRRIGATION SYSTEM OPER. AND MAINT.					
	UNIT	LS	MO					
	PROJECT TOTAL	1	12					



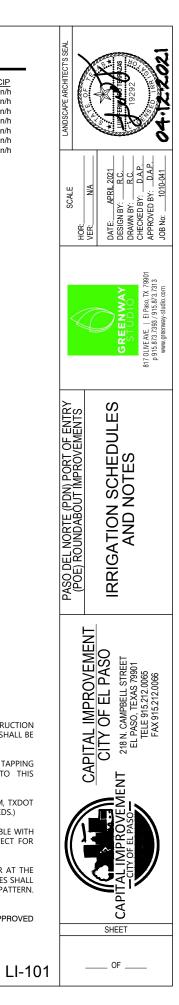
2. CONTRACTOR SHALL COORDINATE AND KEEP COEP INFORMED OF ALL IRRIGATION LINE CONNECTIONS TAPPING INTO EXISTING COEP IRRIGATION SYSTEM. NO IRRIGATION WORK SHALL TAKE PLACE PRIOR TO THIS

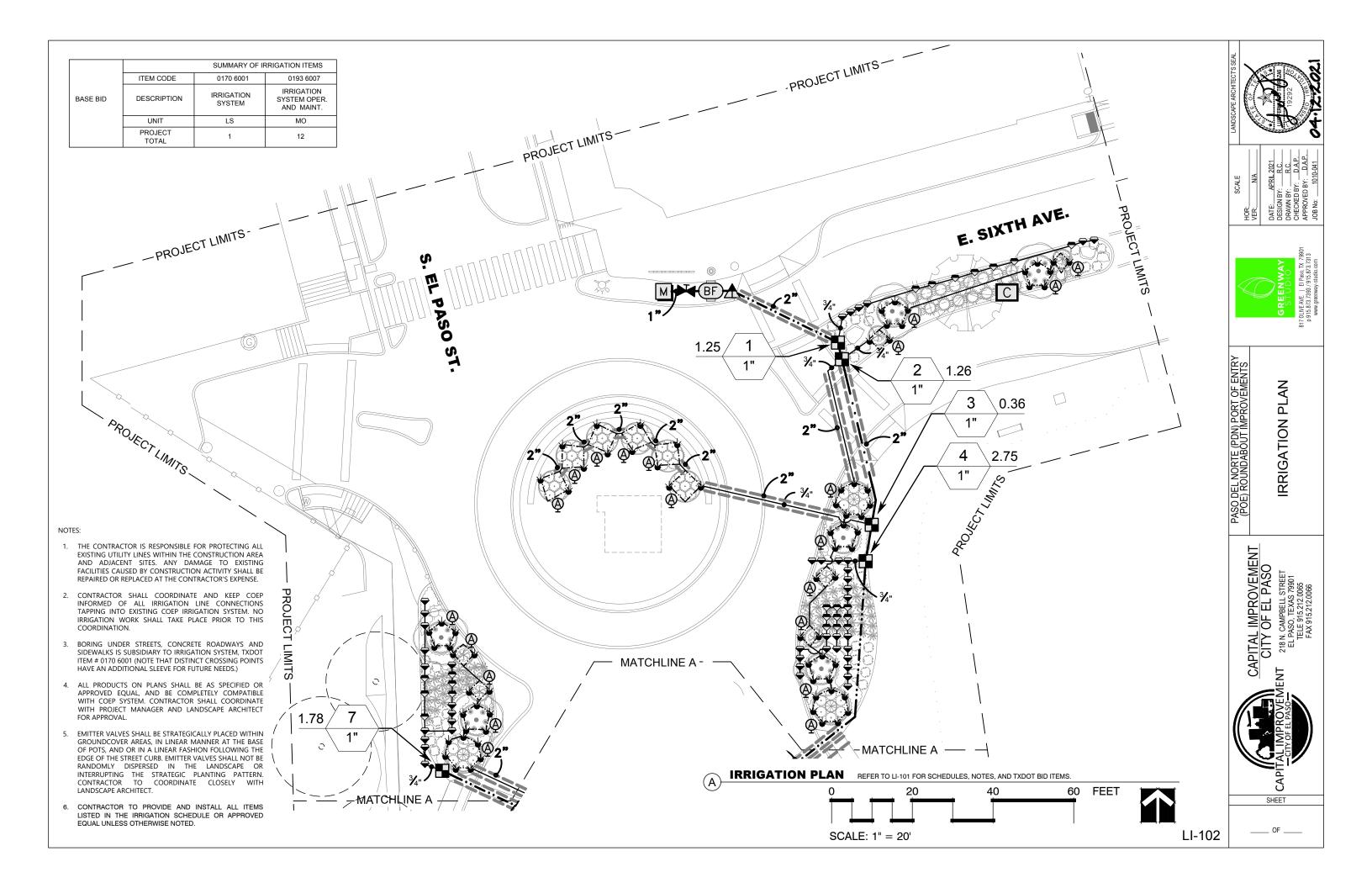
BORING UNDER STREETS, CONCRETE ROADWAYS AND SIDEWALKS IS SUBSIDIARY TO IRRIGATION SYSTEM, TXDOT ITEM # 0170 6001 (NOTE THAT DISTINCT CROSSING POINTS HAVE AN ADDITIONAL SLEEVE FOR FUTURE NEEDS.)

4. ALL PRODUCTS ON PLANS SHALL BE AS SPECIFIED OR APPROVED EQUAL, AND BE COMPLETELY COMPATIBLE WITH COEP SYSTEM. CONTRACTOR SHALL COORDINATE WITH PROJECT MANAGER AND LANDSCAPE ARCHITECT FOR

BASE OF POTS, AND OR IN A LINEAR FASHION FOLLOWING THE EDGE OF THE STREET CURB. EMITTER VALVES SHALL NOT BE RANDOMLY DISPERSED IN THE LANDSCAPE OR INTERRUPTING THE STRATEGIC PLANTING PATTERN.

6. CONTRACTOR TO PROVIDE AND INSTALL ALL ITEMS LISTED IN THE IRRIGATION SCHEDULE OR APPROVED







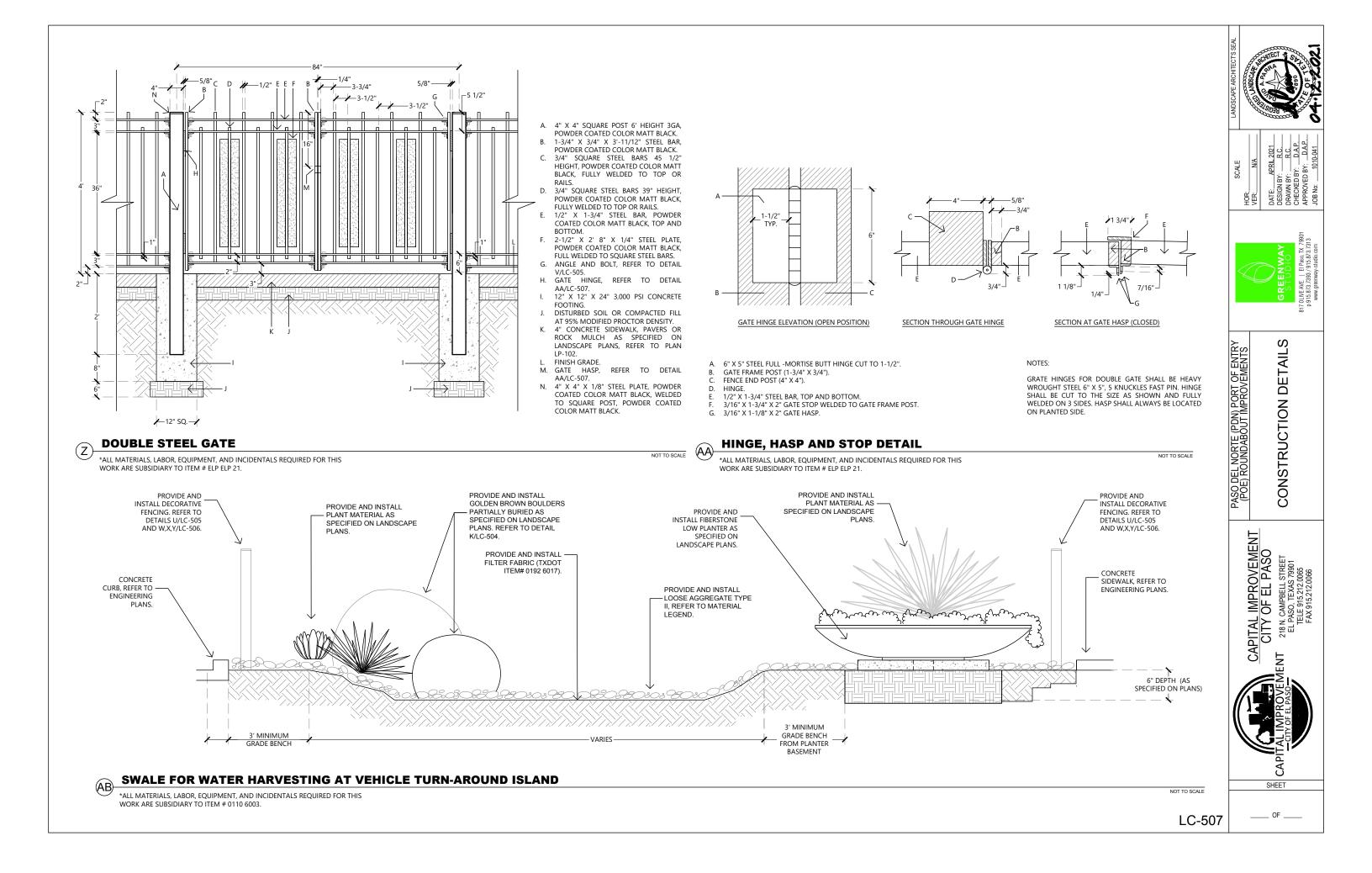
	SUMMARY OF IRRIGATION ITEMS						
	ITEM CODE	0170 6001	0193 6007				
BASE BID	DESCRIPTION	IRRIGATION SYSTEM	IRRIGATION SYSTEM OPER. AND MAINT.				
	UNIT	LS	MO				
	PROJECT TOTAL	1	12				

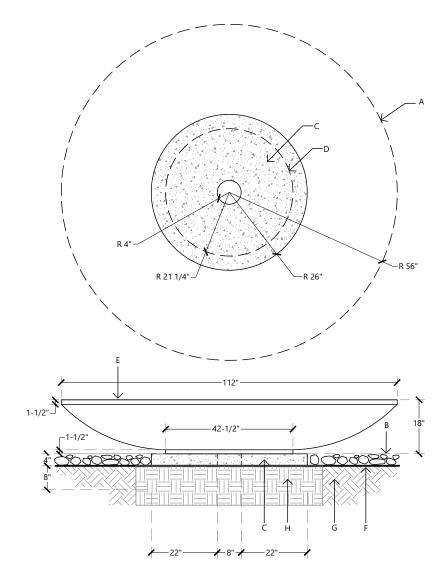
SCALE VER: PASO DEL NORTE (PDN) PORT OF ENTRY (POE) ROUNDABOUT IMPROVEMENTS **IRRIGATION PLAN** CAPITAL IMPROVEMENT CITY OF EL PASO ENT 218 N. CAMPBELL STREET EL PASO, TEXAS 79901 TELE 915,212.0065 FAX 915,212.0065 ENT CAPI SHEET \_\_\_\_\_ OF \_\_\_\_\_

NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA AND ADJACENT SITES. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE AND KEEP COEP INFORMED OF ALL IRRIGATION LINE CONNECTIONS TAPPING INTO EXISTING COEP IRRIGATION SYSTEM. NO IRRIGATION WORK SHALL TAKE PLACE PRIOR TO THIS COORDINATION.
- BORING UNDER STREETS, CONCRETE ROADWAYS AND SIDEWALKS IS SUBSIDIARY TO IRRIGATION SYSTEM, TXDOT ITEM # 0170 6001 (NOTE THAT DISTINCT CROSSING POINTS HAVE AN ADDITIONAL SLEEVE FOR FUTURE NEEDS.)
- 4. ALL PRODUCTS ON PLANS SHALL BE AS SPECIFIED OR APPROVED EQUAL, AND BE COMPLETELY COMPATIBLE WITH COEP SYSTEM. CONTRACTOR SHALL COORDINATE WITH PROJECT MANAGER AND LANDSCAPE ARCHITECT FOR APPROVAL.

LI-103





- EXTERIOR PLANTER EDGE Α
- ROCK MULCH AS SPECIFIED ON LANDSCAPE PLANS.
- 3,000 PSI STANDARD CONCRETE BASE, 4" DEPTH, INSTALL FLAT LEVEL, WITH ZERO SLOPE.
- PLANTER BASE CONTOUR.
- 112" X 18" FIBERSTONE PLANTER
- GCI 500 SERIES FILTER FABRIC OR APPROVED EQUAL.
- UNDISTURBED SOIL
- COMPACTED FILL AT 95% MODIFIED PROCTOR DENSITY.

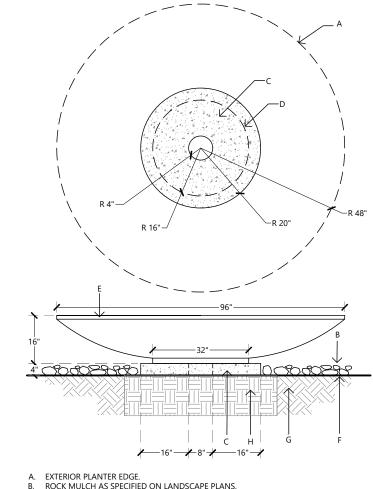
PROVIDE AND INSTALL LOW BOWL FIBERSTONE PLANTER, 112" DIA. X 18" HEIGHT, 3/16" THICKNESS AND 6" DIA. DRAIN HOLE, WEIGHT 2.5 LBS. PER SQUARE FOOT, WITH SAND AND AGGREGATE COATING COLOR: MOCHA OR APPROVED EQUAL. THIS ITEM SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMENDATIONS

NOTE

CONTRACTOR SHALL ENSURE ALL PLANTER ORDERS INCLUDE A MANUFACTURER-MADE PLANTER DRAIN HOLE AS SPECIFIED ON PLANS. CONTRACTOR-MADE PLANTER DRAIN HOLES WILL NOT BE ACCEPTED. CONTRACTOR SHALL COORDINATE ACCORDINGLY WITH THE MANUFACTURER.

## **112" X 18" FIBERSTONE LOW BOWL PLANTER** (AC)

\*ALL PRODUCTS ON DETAIL SHALL BE AS SPECIFIED OR APPROVED EQUAL ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED FOR THIS WORK ARE SUBSIDIARY TO ITEM # 1002 6002.



- 3,000 PSI STANDARD CONCRETE BASE, 4" DEPTH, INSTALL FLAT LEVEL, WITH ZERO SLOPE.
- PLANTER BASE CONTOUR
- 96" X 16" FIBERSTONE PLANTER
- GCI 500 SERIES FILTER FABRIC OR APPROVED EQUAL.
- UNDISTURBED SOIL
- COMPACTED FILL AT 95% MODIFIED PROCTOR DENSITY

PROVIDE AND INSTALL LOW BOWL FIBERSTONE PLANTER, 96" DIA. X 16" HEIGH, 3/16" THICKNESS AND 6" DIA. DRAIN HOLE, WEIGHT 2.5 LBS. PER SQUARE FOOT, WITH SAND AND AGREGATE COATING COLOR: MOCHA OR APPROVED EQUAL. THIS ITEM SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMENDATIONS.

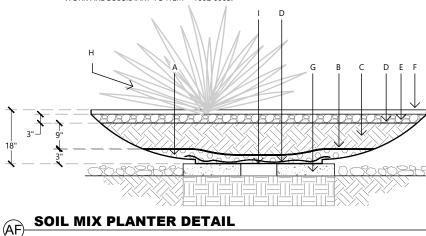
### NOTE:

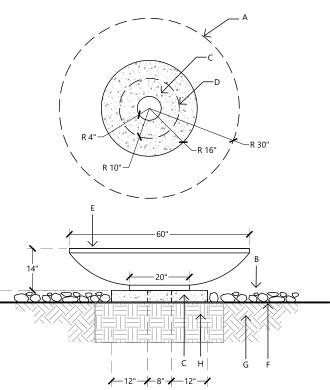
NOT TO SCALE

CONTRACTOR SHALL ENSURE ALL PLANTER ORDERS INCLUDE A MANUFACTURER-MADE PLANTER DRAIN HOLE AS SPECIFIED ON PLANS. CONTRACTOR-MADE PLANTER DRAIN HOLES WILL NOT BE ACCEPTED. CONTRACTOR SHALL COORDINATE ACCORDINGLY WITH THE MANUFACTURER.

## 96" X 16" FIBERSTONE LOW BOWL PLANTER (AD)

\*ALL PRODUCTS ON DETAIL SHALL BE AS SPECIFIED OR APPROVED EQUAL. ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED FOR THIS WORK ARE SUBSIDIARY TO ITEM # 1002 6003.





- EXTERIOR PLANTER EDGE.
- 3,000 PSI STANDARD CONCRETE BASE, 4" DEPTH.
- D PLANTER BASE CONTOUR. 60" X 14" FIBERSTONE PLANTER.
- GCI 500 SERIES FILTER FABRIC OR APPROVED EQUAL.
- UNDISTURBED SOIL

PROVIDE AND INSTALL LOW BOWL FIBERSTONE PLANTER, 60" DIA. X 14" HEIGH, 3/16" THICKNESS AND 6" DIA. DRAIN HOLE, WEIGHT 2.5 LBS. PER SQUARE FOOT, WITH SAND AND AGGREGATE COATING COLOR: MOCHA OR APPROVED EQUAL. THIS ITEM SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMENDATIONS.

NOT TO SCALE

NOTE: CONTRACTOR SHALL ENSURE ALL PLANTER ORDERS INCLUDE A MANUFACTURER-MADE PLANTER DRAIN HOLE AS SPECIFIED ON PLANS. CONTRACTOR-MADE PLANTER DRAIN HOLES WILL NOT BE ACCEPTED. CONTRACTOR SHALL COORDINATE ACCORDINGLY WITH THE MANUFACTURER.

## **60" X 14" FIBERSTONE LOW BOWL PLANTER** (AE)

\*ALL PRODUCTS ON DETAIL SHALL BE AS SPECIFIED OR APPROVED EQUAL ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED FOR THIS WORK ARE SUBSIDIARY TO ITEM # 1002 6004.

- 1/4" GRAVEL AGGREGATE FOR DRAINAGE, PROVIDE AND INSTALL DRAIN MEDIA Α. PERMEABLE ROOT BARRIER FABRIC, SEPARATION FABRIC OR APPROVED EQUAL. Β. RED TOP-SOIL AND ORGANIC AMENDMENT MIX GROWTH MEDIA, OR APPROVED C
- EQUAL. D
- PROVIDE AND INSTALL PLANTERS UNLIMITED LOW BOWL, MODEL: ROSSETA
- FIBERSTONE, SIZE: 112" WIDTH X 18' HEIGHT. 3,000 PSI STANDARD CONCRETE BASE, 4" DEPTH, INSTALL FLAT LEVEL, WITH ZERO G
- SLOPE PLANT MATERIAL AS SPECIFIED ON LANDSCAPE PLANS. 6-INCH PLANTER DRAINAGE HOLE. CONTRACTOR SHALL COORDINATE
- \*ALL PRODUCTS ON DETAIL SHALL BE AS SPECIFIED OR APPROVED EQUAL. ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED FOR THIS WORK ARE

SOIL MIX PLANTER DETAIL

ROCK MULCH AS SPECIFIED ON LANDSCAPE PLANS.

COMPACTED FILL AT 95% MODIFIED PROCTOR DENSITY

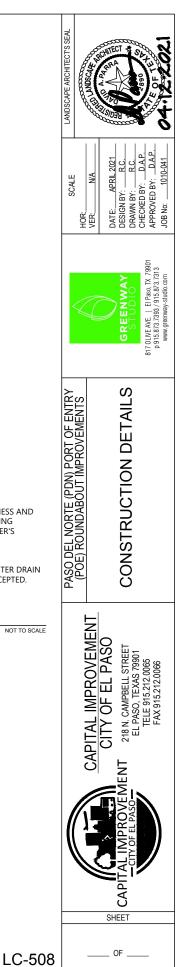
NOT TO SCALE

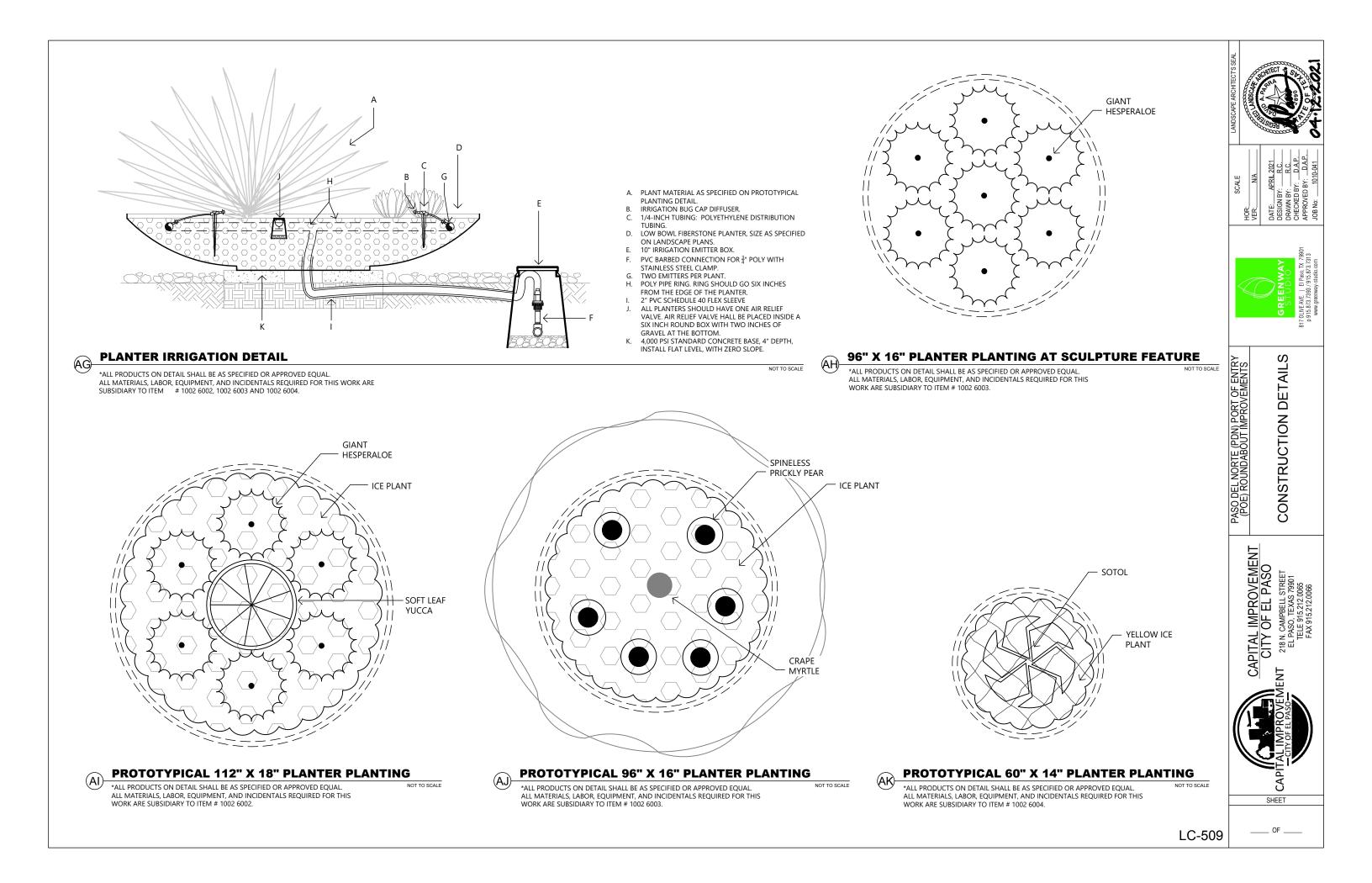
PROVIDE AND INSTALL GCI 500 SERIES FILTER FABRIC OR APPROVED EQUAL. PROVIDE AND INSTALL LOOSE AGGREGATE TYPE III, COLOR: RIVER ROCK OR APPROVED EQUAL, SIZE 1-1/2", LAYER DEPTH: 3" DEPTH. TXDOT ITEM #1005-602 TY III.

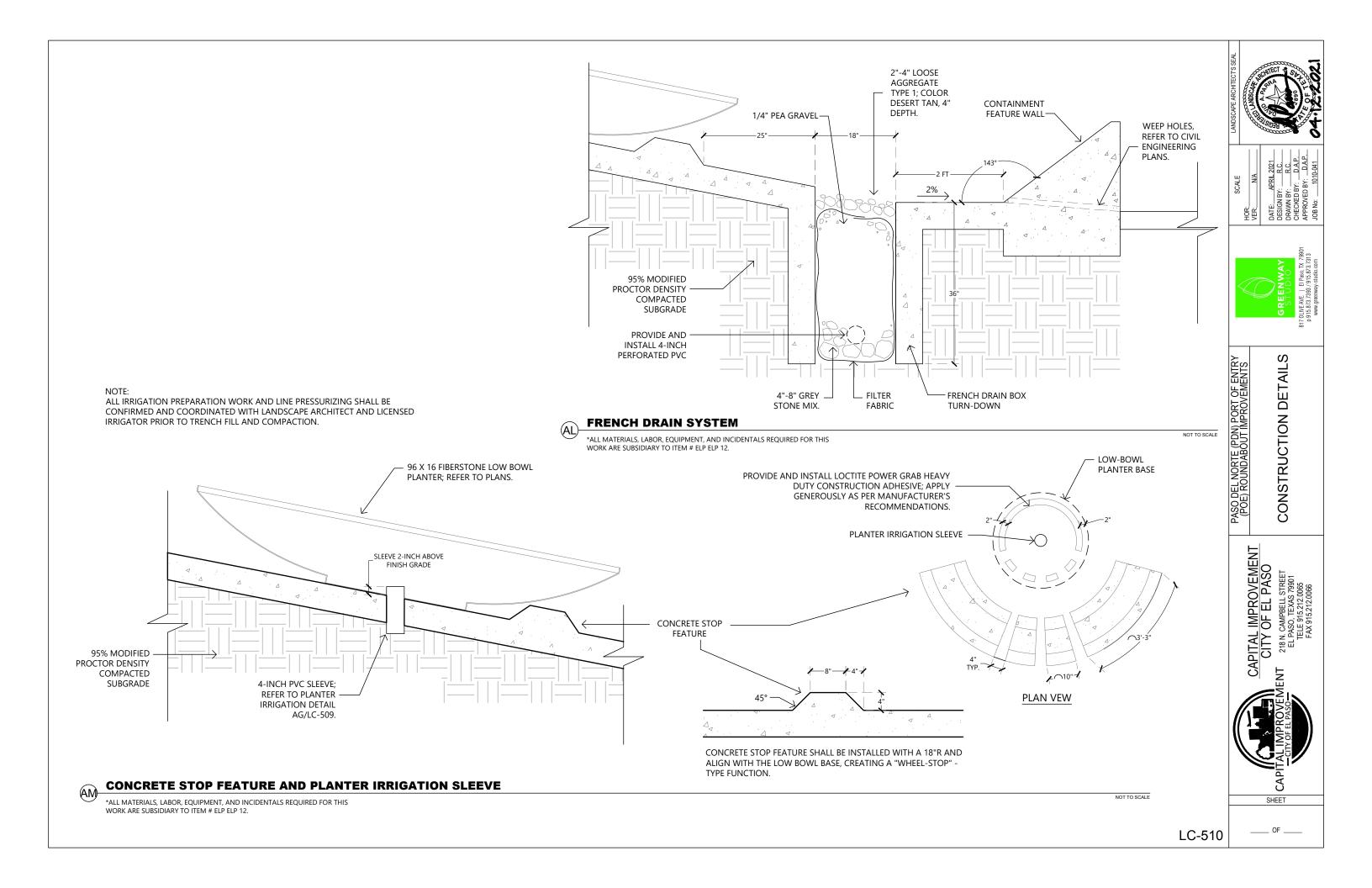
MANUFACTURER-MADE PLANTER DRAIN HOLE AS SPECIFIED ON PLANS.

SUBSIDIARY TO ITEM # 1002 6002, 1002 6003 AND 1002 6004

NOT TO SCALE

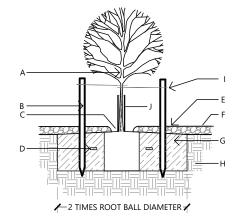






# GENERAL NOTES:

- TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 5 TIMES THE SZE OF THE ROOTBALL
- TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE  $\frac{1}{3}$  TO  $\frac{1}{2}$ TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL
- TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL З LARGER THAN 1" IN SIZE REMOVED.





- STAKING 4" SPACE BETWEEN MULCH AND TREE
- 7 GRAM PLANT TABLETS (15 GRAM=12 TABLETS OR 4
- TABLETS PER 1/2" OR CALIPER.)
- 3" DEPTH OF MULCH
- FINISH SOIL GRADE BACKFILL WITH EXISTING NATIVE SOIL
- UNDISTURBED SOIL
- TREEGUARD
- TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE (1" TO 2" PLAY ON PLAN). WIRE TIES TO BE SET ON MAIN TRUNK.

# **TREE PLANTING, CONTAINER**

- KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.
- REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE LEVEL AT FINISH GRADE (OR 1"-2" HIGHER IN SLOWLY DRAINING SOIL)
- PRIOR TO BACKFILLING, REMOVE CONTAINER AND CUT ANY ROOTS THAT THAT ARE CIRCLING THE CONTAINER PRIOR TO SETTING TREE IN PLANTING HOLE (PIT)
- TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE
- AT TIME OF PLANTING, ONLY PRUNE CO-DOMINANT LEADERS (DOES NOT APPLY TO NATIVE OR MULTI-TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
- STAKING IS NOT REQUIRED STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINATLEY, APPROVAL MUST BE OBTAINED TO STAKE TREES.
- DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK, KEEP AT LEAST 4" AWAY FROM TRUNK.
- INSTALL TREE GUARD.

12

2-3X ROOT

BALL DIAMETER

A. PULL BACK MULCH AT LEAST 2"

SHRUB OR VINE, AS PER PLAN

ROOT BALL (SET CROWN FLUSH

7 GRAM PLANT TABLETS (1 GAL= 3.

\*ALL PRODUCTS ON DETAIL

SHALL BE AS SPECIFIED OR

SHRUB PLANTING

MULCH AS PER THE PLANS.

FROM BASE OF SHRUB.

WITH FINISHED GRADE

G. BACKFILL WITH NATIVE SOIL

5 GAI = 6 10 - 15 GAI = 9

APPROVED EQUAL

UNDISTURBED NATIVE SOII

FINISH GRADE.

SUBGRADE.

(E

- PROVIDE AND INSTALL TREE FERTILIZER SPIKES TO PROMOTE BENEFICIAL TREE GROWTH AND INSTALL AS PER MANUFACTURER'S SPECIFICATIONS.
- 10. WHEN DONE, THOUROUGHLY WATER TO ELIMINATE AIR POCKETS.
- 11. WITH APPROVAL, PROVIDE MIN. 3 STAKES/ TREE (TYP.) IN A TRIANGULAR PATTERN, STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL, REMOVE AFTER ONE GROWING SEASON.
- TOP OF ROOTBALL SHALL BE LEVEL WITH TOP OF MULCH OR BARK, MULCH SHALL BE FEATHERED TO FULL DEPTH

1 🖊 2 TIMES ROOT BALL DIAMETER 🖌 TRFF STAKING 4" SPACE BETWEEN MULCH AND TREE

- 7 GRAM PLANT TABLETS (15 GRAM=12 TABLETS OR 4 D.
- TABLETS PER 1/2" OR CALIPER.) 3" DEPTH OF MULCH
- FINISH SOIL GRADE
- BACKFILL WITH EXISTING NATIVE SOIL
- UNDISTURBED SOIL
- TREEGUARD

В

TIES TO STAKES TO HAVE RUBBER HOSE TO PROTECT TREE TRUNK FROM DAMAGE BY WIRE. WIRE TIES TO BE LOOSE (1" TO 2" PLAY ON PLAN). WIRE TIES TO BE SET ON MAIN TRUNK

# **TREE PLANTING, BALLED & BURLAP**

GENERAL NOTES

- TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE PIT EXCAVATED 5 TIMES THE SZE OF THE ROOTBALL
- TREES PLANTED IN ROCKY, CALICHE AND CLAY SOILS TO HAVE  $\frac{1}{3}$  TO  $\frac{1}{2}$ TOP SOIL BLENDED WITH CLAY SOIL AND USED AS BACKFILL.
- TREES PLANTED IN ROCKY SOIL ARE TO HAVE ALL ROCKY MATERIAL LARGER THAN 1" IN SIZE REMOVED

KEEP SOIL BELOW ROOT BALL UNDISTURBED TO PREVENT TREE FROM SETTLING.

- REMOVE ANY EXCESS SOIL FROM TOP OF ROOTBALL TO EXPOSE ROOT FLARE (WHERE TOP MOST ROOT EMERGES FROM THE TRUNK). PLANT WITH ROOT FLARE LEVEL AT FINISH GRADE (OR 1"-2" HIGHER IN SLOWLY DRAINING SOIL)
- PRIOR TO BACKFILLING, REMOVE BURLAP, ROPE, TWINE, AND WIRE FROM TOP AND SIDES OF ROOTBALL AND FROM PLANTING HOLE, CUT ANY ROOTS THAT ARE CIRCLING THE CONTAINER.
- TAMP SOIL FIRMLY AROUND BASE OF ROOTBALL WITH FOOT PRESSURE.
- AT TIME OF PLANTING, ONLY PRUNE CO-DOMINANT LEADERS (DOES NOT APPLY TO NATIVE OR MULTI-TRUNK SPECIMENS), CROSSOVER LIMBS, AND DEAD OR BROKEN BRANCHES.
- STAKING IS NOT REQUIRED STAKE TREES ONLY IF TREE CANNOT STAND ALONE AND WITH APPROVAL OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT STAKE ALL TREES INDISCRIMINATLEY, APPROVAL MUST BE OBTAINED TO STAKE TREES.
- DO NOT ALLOW MULCH IN CONTACT WITH TREE TRUNK, KEEP AT LEAST 4" AWAY FROM TRUNK.
- INSTALL TREE GUARD
- PROVIDE AND INSTALL TREE FERTILIZER SPIKES TO PROMOTE BENEFICIAL TREE GROWTH AND INSTALL AS PER MANUFACTURER'S SPECIFICATIONS. 10. WHEN DONE, THOUROUGHLY WATER TO ELIMINATE AIR
- POCKETS. 11. WITH APPROVAL, PROVIDE MIN. 3 STAKES/ TREE (TYP.) IN
- A TRIANGULAR PATTERN, STAKED INTO UNDISTURBED SOIL WITH CLARK'S TREE STAKE KIT OR APPROVED EQUAL, REMOVE AFTER ONE GROWING SEASON. 12. TOP OF ROOTBALL SHALL BE LEVEL WITH TOP OF MULCH
  - OR BARK. MULCH SHALL BE FEATHERED TO FULL DEPTH

3" MIN

2

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GCI 500 SERIES EILTER

FABRIC SPECIFIED ON

LANDSCAPE PLANS.

SOIL

COMPACTED SUBGRADE

- (D
- ZONE SHALL BE PRESERVED AND PROTECTED
- 3
- CONTACT PROJECT LANDSCAPE ARCHITECT

PULL BACK MULCH AT LEAST 2" FROM BASE OF SHRUB.

- TAPER ROCK MULCH DEPTH FROM 3 FT. AWAY
- FROM BASE OF SHRUB.

2-3X ROOT

BALL DIAMETER

- FINISH GRADE.
- SUBGRADE.
- ROOT BALL.
- BACKFILL WITH NATIVE SOIL
- UNDISTURBED SOIL 7 GRAM PLANT TABLETS (1 GAL= 3, 5 GAL=6, 10-15 GAL= 9)

# SHRUB PLANTING AT (F

4"-6" ROCK MULCH \*ALL PRODUCTS ON DETAIL SHALL BE AS SPECIFIED OR APPROVED EOUAL

42" WIDE, 120 LB., WIRE-FASTENED TO POSTS SILT FENCE BURY 12" OF SILT FENCE AT 3" DEPTH DRIPLINE BURY POST 2' MIN. BELOW GRADE UNDISTURBED

# NOTES

- 1. USE SILT FENCE FOR PROTECTION OF ALL EXISTING TREES AND PALMS INDICATED TO REMAIN WITHIN THE LIMITS OF WORK. INSTALL A MINIMUM OF 6' RADIUS FROM TRUNK
- 2. SILT FENCE SHALL BE REMOVED AT COMMENCEMENT OF FINAL GRADING AFTER FINAL ACCEPTANCE OF ALL GRADING OR IRRIGATION WORK

## **TREE PRESERVATION DETAIL** (G)

\*ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED FOR THIS WORK ARE SUBSIDIARY TO ITEM # 1004 6001.

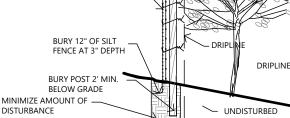
4"X4" WOOD OR STEEL T-POSTS, 4' HT.

- NOTES

NOT TO SCALE

- MECHANISM FOR NUTRIENT AND WATER UPTAKE FOR THE USE BY THE REST OF THE TREE. DESTROYING A SECTION OF A TREE'S ROOTS WILL ULTIMATELY RESULT IN A PROPORTIONAL LOSS
- MINIMUM AREA PROTECTED WITH TREE PROTECTION FENCING.

- - NOT BE REMOVED UNTIL COMPLETION OF ALL CONSTRUCTION ACTIVITY
- MIN. ABOVE GRADE @ 10' SPACING
- SUBGRADE







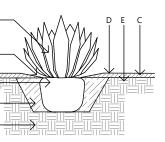
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- TAPERING MULCH, 3" MAX. DEPTH

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NOT TO SCALE



TAPER AND PULL BACK MULCH AT LEAST 3" FROM BASE OF AGAVE SPECIMEN. AGAVE SPECIES, REFER TO PLANS, MULCH AS PER PLANS. FINISH GRADE.

BACKFILL WITH NATIVE SOIL UNDISTURBED SOIL. GENERAL NOTES:

SUBGRADE.

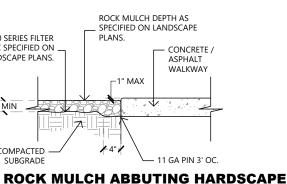
ROOT BALL

THIS DETAIL IS SPECIFIC TO CACTI, AGAVE, SUCCULENTS, AND MOST DESERT PLANT MATERIAL.

HAND WATER AGAVE SPECIMENS IMMEDIATELY AFTER INSTALLATION TO DAMPEN SURROUNDING

# AGAVE SPECIMEN PLANTING

NOT TO SCALE



THE CRITICAL ROOT ZONE OF A TREE IS THE ZONE IN WHICH THE MAJORITY OF A TREE'S ROOTS LIE. NINETY-FIVE PERCENT OF THE ROOTS OF MOST TREES WILL BE FOUND IN THE UPPER 30-36" OF SOIL. OF THOSE, THE MAJORITY OF THE ROOTS THAT SUPPLY THE NUTRIENTS AND WATER TO THE TREE ARE FOUND IN THE UPPERMOST LAYER, JUST BELOW THE SOIL SURFACE. THE TOTAL AMOUNT OF A TREE'S ROOTS ARE GENERALLY PROPORTIONAL TO THE VOLUME OF THE TREES CANOPY THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE LIMITS OF THE CANOPY. ROOTS ARE VITAL TO THE FUNCTIONING OF ANY TREE. THEY PROVIDE STRUCTURAL SUPPORT AS WELL AS THE MAJOR

OF THE TREE'S CANOPY. THE CRITICAL ROOT ZONE OF A TREE TO BE SAVED SHALL BE THE TREE PROTECTION SHALL BE A SUPER SILT FENCE (OR APPROVED EQUAL) MOUNTED ON VERTICAL

PIPES DRIVEN 2'-0" INTO THE GROUND AND AT CORNERS AND 10' O.C.. THE PERIMETER OF THIS

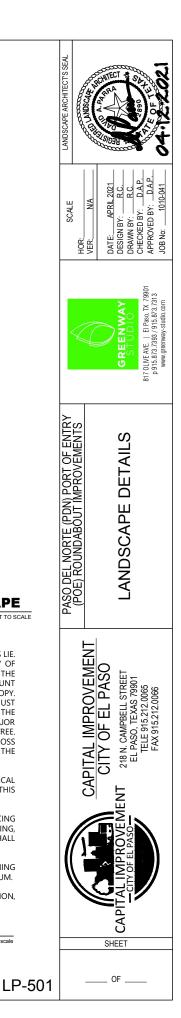
A NO COMPACTION ZONE SHALL BE CLEARED AND ESTABLISHED AND TREE PROTECTION FENCING SHALL BE ERECTED AT THE CRITICAL ROOT ZONE OR BEYOND PRIOR TO START OF ANY CLEARING GRADING OR OTHER CONSTRUCTION ACTIVITY WITH HEAVY EQUIPMENT. TREE PROTECTION SHALL

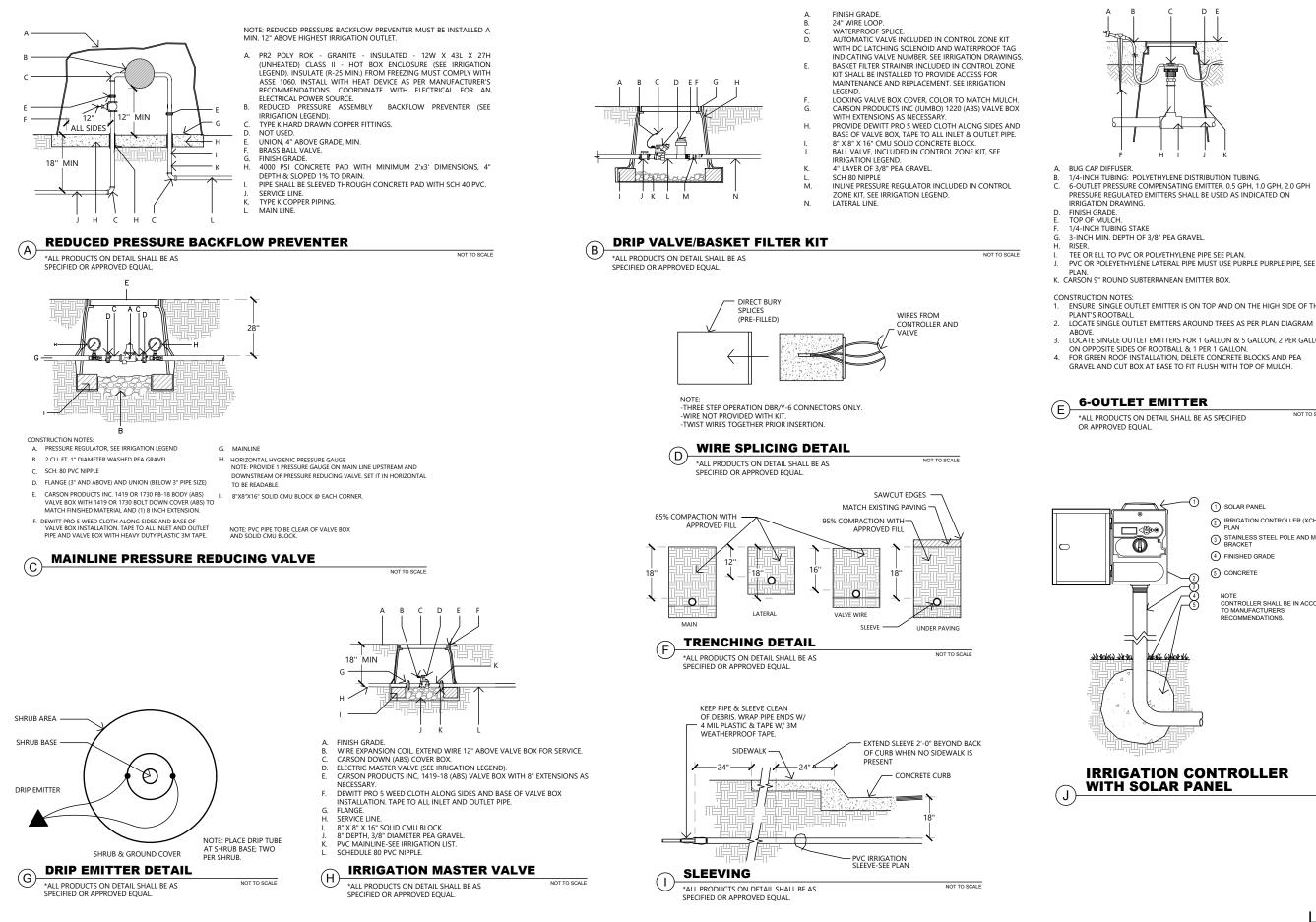
ALL TREES TO REMAIN SHALL BE MARKED ON ALL FOUR SIDES BY PLACING AND MAINTAINING FLORESCENT COLOR SURVEYORS TAPE TO LOWEST BRANCHES ON ALL FOUR SIDES AT A MINIMUM

FOR QUESTIONS RELATED TO TREE PROTECTION OR FOR FIELD INSPECTION OF TREE PROTECTION,

Not to scale

NOT TO SCALE





6-OUTLET PRESSURE COMPENSATING EMITTER. 0.5 GPH, 1.0 GPH, 2.0 GPH PRESSURE REGULATED EMITTERS SHALL BE USED AS INDICATED ON

TEE OR ELL TO PVC OR POLYETHYLENE PIPE SEE PLAN. PVC OR POLEYETHYLENE LATERAL PIPE MUST USE PURPLE PURPLE PIPE, SEE

ENSURE SINGLE OUTLET EMITTER IS ON TOP AND ON THE HIGH SIDE OF THE

LOCATE SINGLE OUTLET EMITTERS FOR 1 GALLON & 5 GALLON, 2 PER GALLON 4. FOR GREEN ROOF INSTALLATION, DELETE CONCRETE BLOCKS AND PEA

1 SOLAR PANEL

IRRIGATION CONTROLLER (XCH-SS) PER PLAN

NOT TO SCALE

STAINLESS STEEL POLE AND MOUNTING BRACKET

CONTROLLER SHALL BE IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS

**IRRIGATION CONTROLLER** 

