# JENNIE E. HUGHES PARK IMPROVEMENTS

Sheet List			
Sheet Number	Sheet Title		
	COVER		
	SURVEY		
L0.01	SITE PREPARATION & TREE DISPOSITION PLAN		
L0.02	EROSION CONTROL DETAILS		
L1.01	SITE PLAN		
L2.01	LAYOUT PLAN		
L3.01	GRADING PLAN		
L4.01	STORM & WATER PIPING PLAN		
L5.01	PLANTING PLAN		
L5.10	PLANTING DETAILS		
L6.01	DETAILS		
L6.02	DETAILS		
L6.03	DETAILS		
L6.04	DETAILS		
L6.11	PAVILION DETAILS		
L6.12	PAVILION NOTES		
L6.21	FENCE DETAILS		
L6.22	FENCE DETAILS		
L6.23	FENCE DETAILS		
L6.31	FURNISHING DETAILS		
LE1.01	LANDSCAPE ELECTRICAL PLAN		
IR1.01	IRRIGATION PLAN		
IR1.02	IRRIGATION DETAILS		
SN1.01	GENERAL NOTES		
S1.0	FOUNDATION PLANS AND DETAILS		
S2.0	FRAMING PLAN AND DETAILS		



Parks & Recreation Department 3800 University Blvd. West University Place, TX 77005

PRIME CONSULTANT & LANDSCAPE ARCHITECT

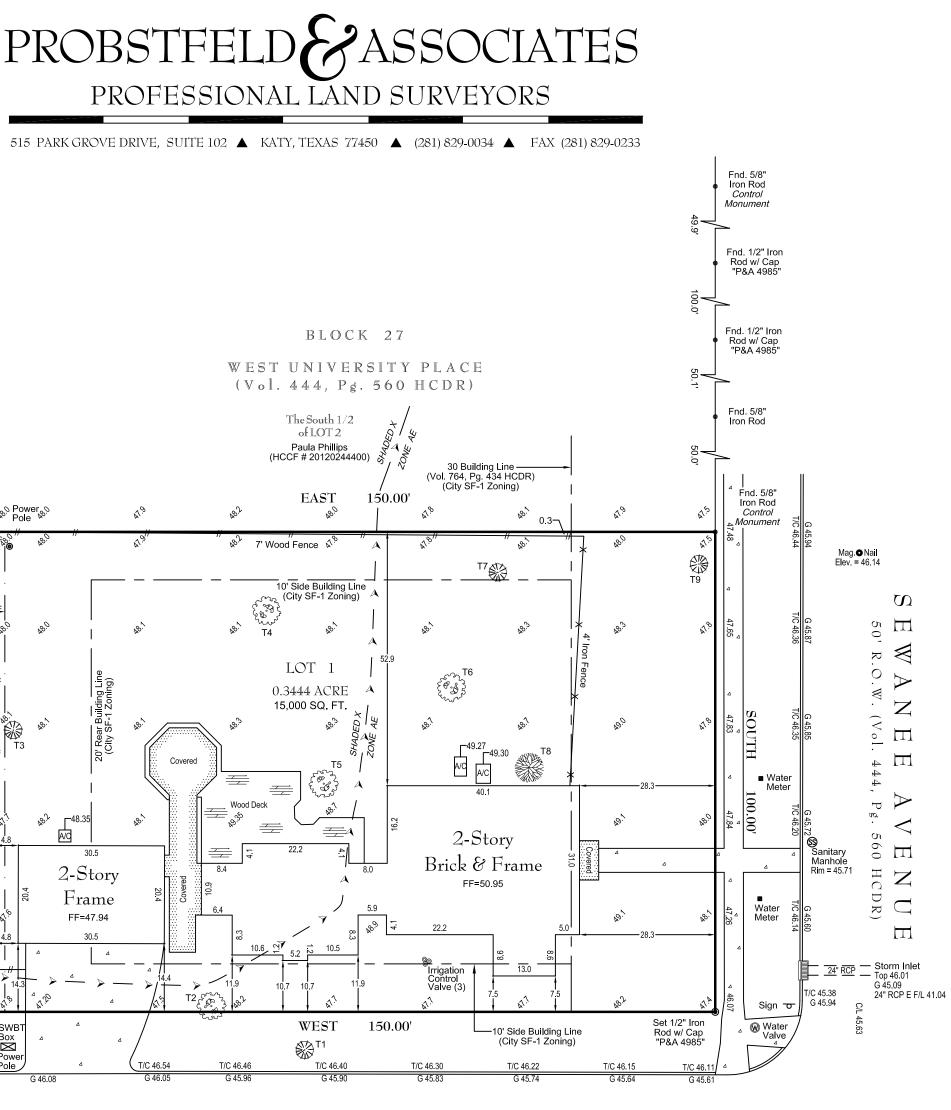


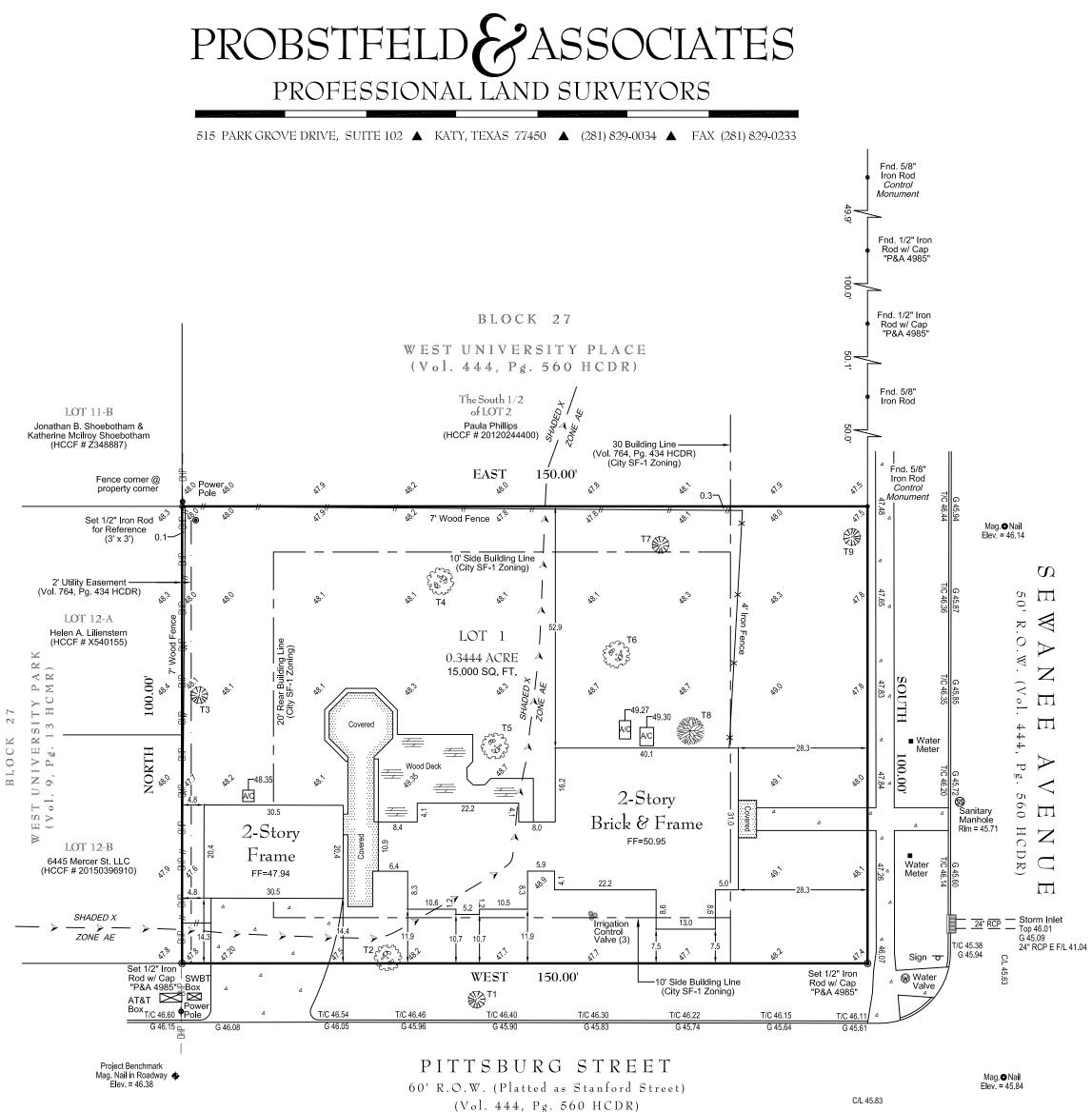
6446 Sewanee Ave.,

West University Place, TX 77005

# **100% Construction Documents Documents** March 6, 2018







### **NOTES:**

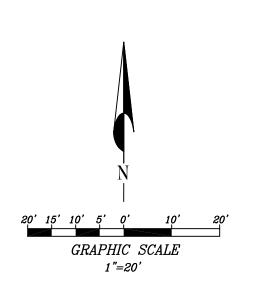
- 1. Elevations shown based on City of West University Place Benchmark No. 5R, Elevation = 52.06' NAVD88 (2001 Adjusted). 2. Lot subject to the Zoning Ordinances now in force in the City of West University Place, Texas, including but not limited to Ordinance No. 1204 as set forth in instrument recorded under Harris County Clerk's File No. R741573, those recorded in Volume 1075, Page 485 of the Deed Records of Harris County, Texas, and Article 7, Table 7-2 of the Code of Ordinances. Subject property lies within Zone Residential SF-1.
- 3. TABLE 7-2 Yards (or 'setbacks') as per City of West University Place Charter & Ordinances notes the following for SF-1: FRONT YARD: 20 feet if the building site depth is 110 feet or less; 25 feet if the building site depth is more than 110 feet but not more than 125 feet; 30 feet if the building site depth is more than 125 feet. INTERIOR SIDE YARD: greater of 10% of building site width or 5 feet. (subject to narrow site 3/7 exception). STREET SIDE YARD: greater of 10% building site width or 5 feet. REAR YARD: 20 feet. Front, side and rear yards shown for main residence only. Additional requirements for accessory and architectural features are not shown.
- 4. Surveyor has not abstracted this property. Information for restrictions and easements only provided by Abstractor's Certificate, GF Number: 7910-16-8572, dated September 27, 2016. No independent investigation of the accuracy of the title company's work has been performed by the surveyor.
- 5. This survey was performed without the benefit of a current title opinion and is subject to any facts a full and accurate title search may disclose. All building lines, zoning setbacks and covenants of record may not be shown.
- 6. Lot may be subject to certain requirements pertaining to front, side and rear setback lines and also architectural protrusions such as eaves, overhangs, ledges, etc., in relation to easements and/or building lines and should be verified prior to any planning or construction.
- 7. To assure all easements are known, the City of West University Place retains planning maps and other maps which may indicate other easements not filed for record in the Harris County Real Property Records. Public Works Map dated April 27, 1959 reflects a sanitary sewer line along the rear of the above shown tract. Surveyor finds no observable physical evidence to define location of said sewer line.
- 8. All bearings are based on the West right-of-way line of Sewanee Avenue (SOUTH).
- THIS SURVEY IS THE PROPERTY OF PROBSTFELD & ASSOCIATES, INC., IS CERTIFIED FOR THIS TRANSACTION ONLY, AND IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR OWNERS.

Tree#	Diameter	Tree Type	Circ.	Drip Line
T1	12"	Crape Myrtle	3.1'	30'
T2	24"	Oak	6.2'	30'
Т3	16"	Crape Myrtle	4.2'	20'
T4	30"	Oak	7.8'	30'
T5	12"	Oak	3.1'	20'
T6	28"	Oak	7.3'	35'
T7	30"	Crape Myrtle	7.8'	30'
T8	14"	Tree	3.6'	15'
Т9	26"	Crape Myrtle	6.8'	30'

Tree Leaend

### PLAT OF PROPERTY

LGL:	L	OT 1, BLOCK 27	
		UNIVERSITY PLAC	CE
VOLUME	444, PAGE 560		
OF THE M	AP RECORDS OF HA	ARRIS COUNTY, TEX	AS
SCALE:	1" = 20'		
DATE:	10/4/2016	REVISED DATE:	
This Prop	erty DOES Lie within	the designated 100 y	ear floodplain.
PANEL NO	D:	48201C 0860	L
		EFF. DATE:	
BASE FLC	OD ELEVATION:	48.5' FI	S: AZ-BA
LOCATED BY	GRAPHIC PLOTTING ONLY	Y AND NOT RESPONSIBLE F	OR ACTUAL DETERMINATION.

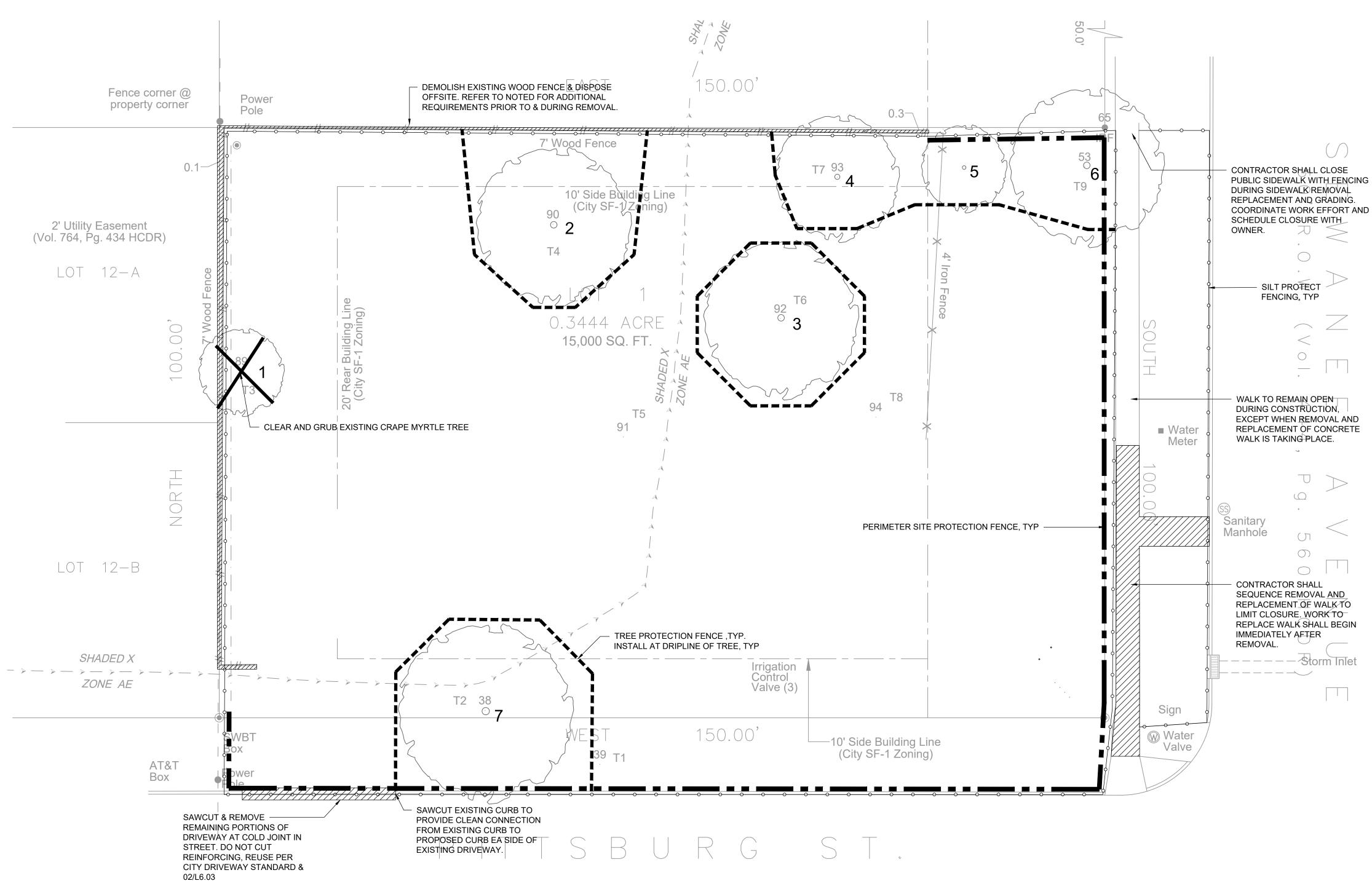


# **EMAIL COPY**

**NOT TO BE RECORDED FOR ANY PURPOSE** 

JOB #\_\_\_\_\_1689-004 \_\_\_\_ DRAWN BY:\_\_\_\_\_LD

			Canopy Dia. (Critical				E DISPOSITION NOTES
Tree #	Tree Type	Trunk Dia.	Root Zone)	Protect or Remove	Notes	•	No trees on adjacent
		Multi Trunk			tree interferes with proposed		critical root zone on th
		Medium sized crape	50'		masonry fence, requires	•	All protected trees to
1	Crape Myrtle	tree		Remove	removal.	_	installed at the tree's
2	Water Oak	30"	54'	Protect			
3	Water Oak	28"	48'	Protect			STRUCTION ACTIVITY
		Multi Trunk				•	Pavement subgrade p
		large sized crape	22'			••	Walk grades wer
4	Crape Myrtle	myrtle tree		Protect			critical root zone
		Multi Trunk				••	Geotechincal rec inches at pavem
5	American Holly	medium sized crape	8'	Protect			zone.
		myrtle tree				••	Walk along Pitts
		Multi Trunk					of curb to protect
6	Crape Myrtle	large sized crape	25'	Protect		•	Utilities planned for ar
		myrtle tree				••	Irrigation, Water
7	Water Oak	24"	50'	Protect			call for hand digg
							are shown to avo
						••	No cutting of roo
						•	Lighting -
						••	Tree moon lightir
							will utilize stand
						••	growth. Light fixt Conduit routes to
						••	to tree trunk in ra
						••	No cutting of roo
						•	Planting
						••	Shrub and groun
							critical root zone
						••	Asian jasmine ut



ADDITIONAL NOTES

ent properties appear to have any portion of • Refer to L1.01 For Site Plan on this property. • Refer to L5.01 for Planting to receive chainlink tree protection fencing,

s dripline.

e prep

vere designed to limit excavation within tree's ne. recommendation of excavating 6 additional ement areas will not occur within critical root

ittsburg St. separated and raised 9" above back tect tree from additional excavation.

r areas surrounding critical root zone er lines, drainage lines, electrical lines. All plans ligging only within critical root zone. Pipe routes avoid critical root zones where possible. roots 1" larger in diameter

hting planned for (3) water oak trees. Mounting nd off threaded rods which will allow for trunk fixture will interfere with trunk growth. s towards tree trunks are required to be directly n radial pattern.

oots 1" larger in diameter

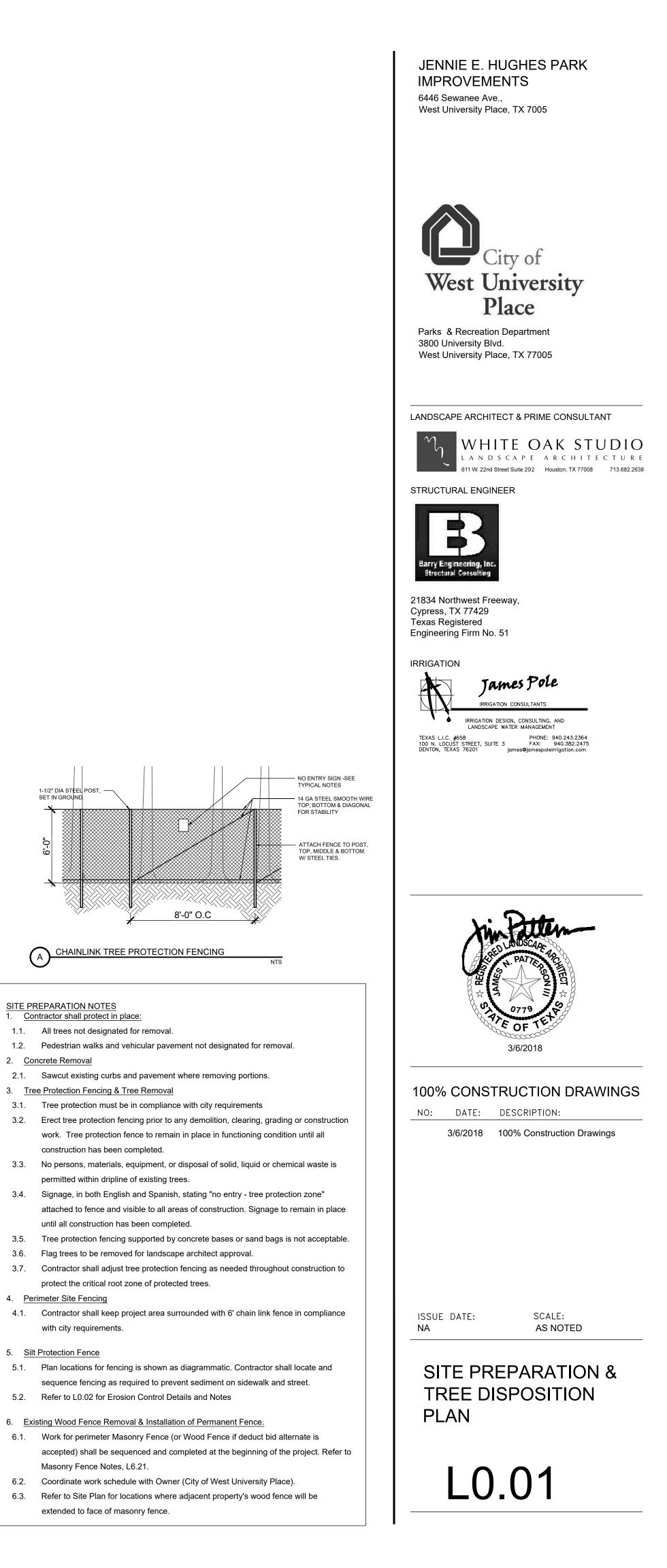
zones

undcover pot sizes were decreased within

utilized as ground cover for most critical root

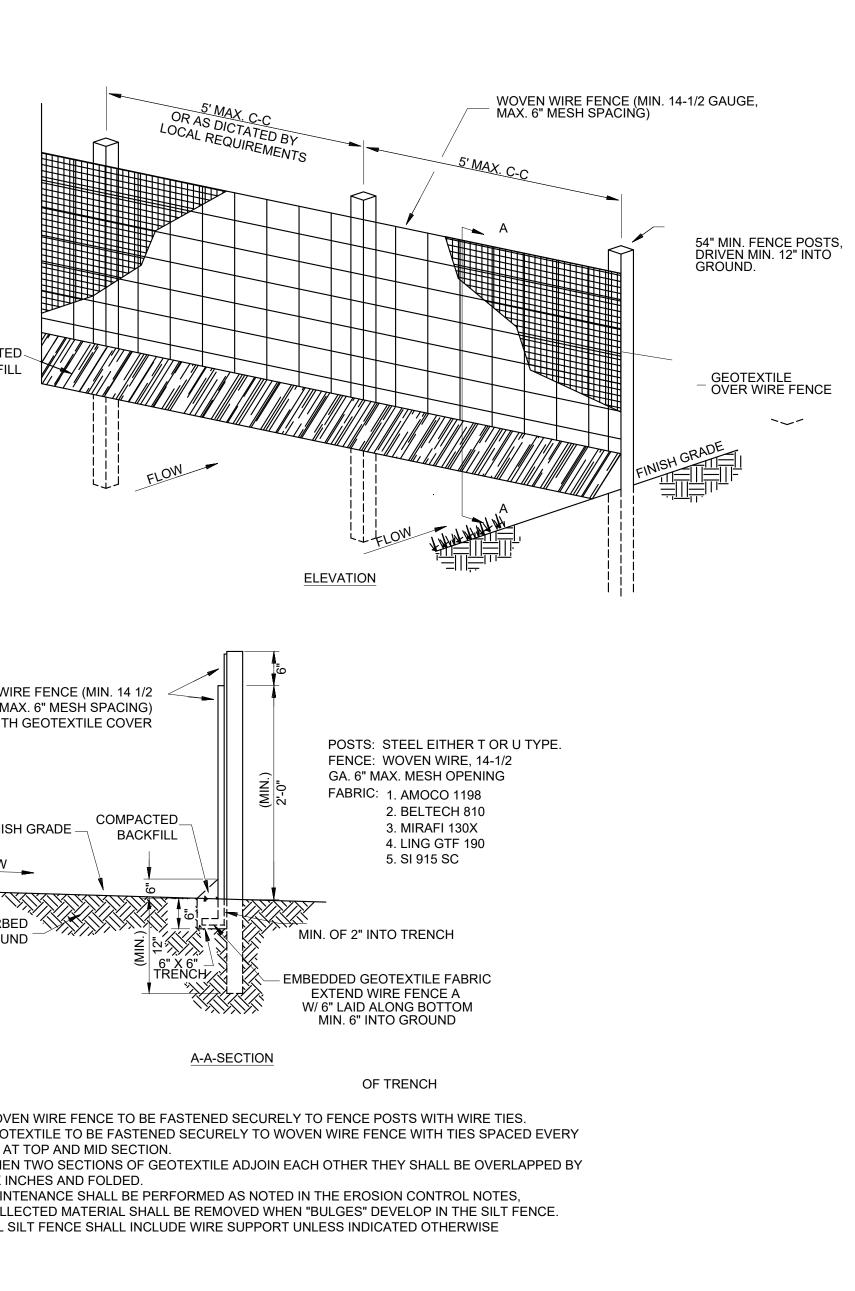


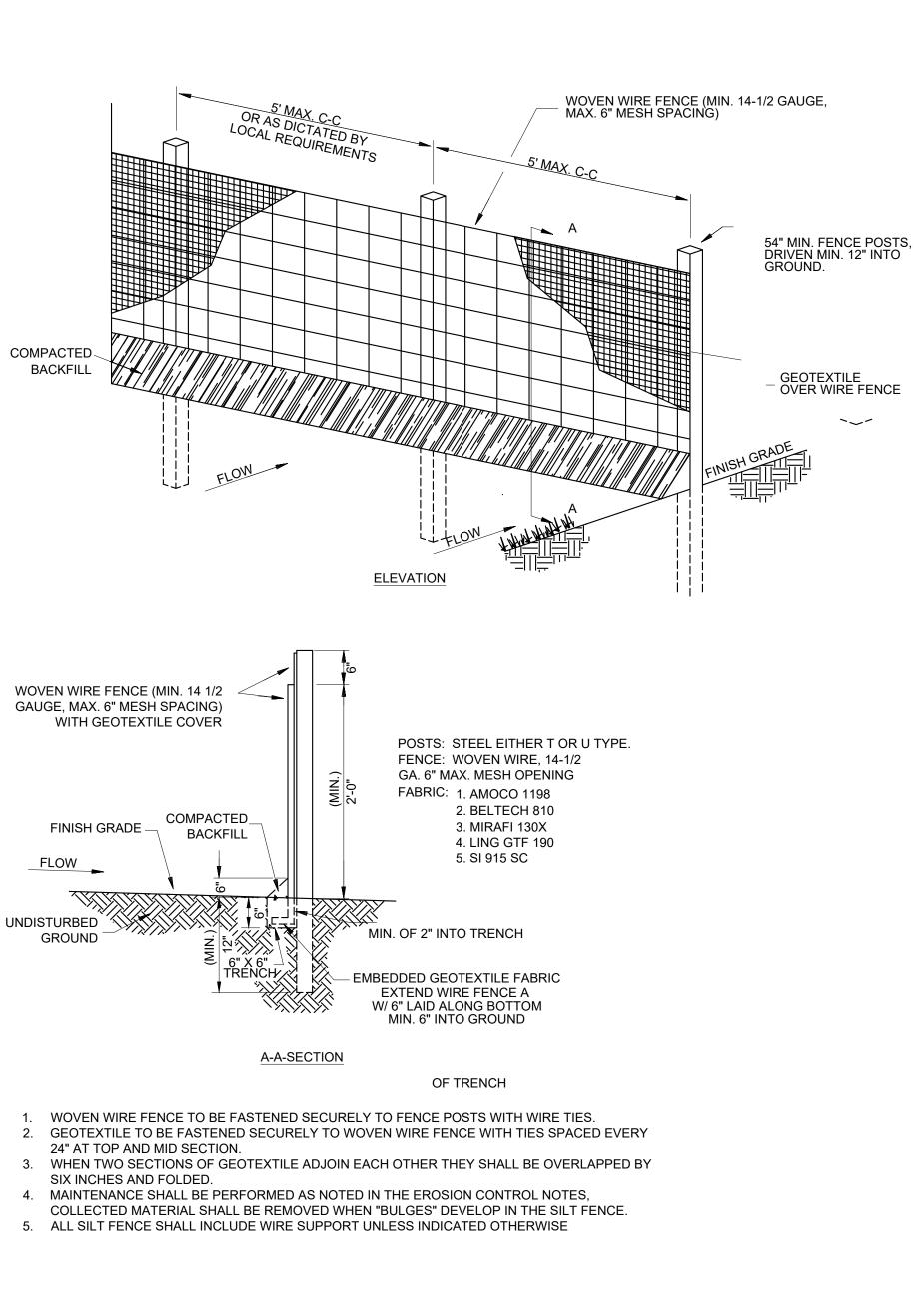
SCALE : I" = 10'-0"



- construction plans and shall be retained on-site during construction.
- manner that is legible.







11. All BPMs and control measures shall be in place prior to commencement of any earthwork. 12. A concrete washout shall be used on site.

the largest tank plus the runoff of a 24-hour, 25 year rainfall event.

reach 70% coverage prior to removal of erosion control measures.

otherwise, covering or encircling with some protective measure will be necessary.

roads shall be paid by the contractor.

determined by the owner's representative.

any solid waste materials.

tanks.

# **EROSION CONTROL NOTES**

1. Site entry and exit locations shall be maintained in a condition which will prevent tracking or flowing of sediment onto

street and public walks. All sediment spilled, dropped, washed or tracked on street and public walks must be removed

immediately. When washing is required to remove sediment prior to exiting project area, it shall be done on an area

2. A bermed or otherwise spill protected area shall be specified by the contractor for the location of any on-site fuel storage

3. Temporary seeding or other method of stabilization shall be initiated within 14 days of the last disturbance on any area of the site, unless additional construction on the area is expected within 21 days of the last disturbance. vegetation must

permanently stabilized. Stabilization is obtained when the site is covered with impervious structures and paving and/or a

directed by the owner's representative. Accumulated silt at any erosion control device shall be removed when it reaches

unauthorized discharge or storm water pollution, sedimentation or other pollutants. Unauthorized pollutants include, but

tanks are not double walled, an external containment basin shall be provided capable of holding at a minimum, the size of

are not limited to, excess concrete dumping or concrete residue, paints, solvents, greases, fuel and lube oil, pesticides,

7. The contractor is responsible for re-establishing any erosion control device which he disturbs. Each contractor shall notify

uniform perennial vegetative cover. The perennial vegetative cover must have a coverage of at least 70 percent, as

4. All staging areas, stockpiles, spoils, etc. shall be located such that they will not adversely affect storm water quality.

5. Upon completion of fine grading, all surface areas disturbed within or adjacent to the construction limits shall be

6. Maintenance - erosion controls shall be repaired or replaced within 24 hours as inspection deems necessary or as

the owner's representative of any deficiencies in the established erosion control measures which may lead to

9. Any pipe stubbed out from a storm drain shall be plugged until the incoming pipe connection has been completed.

10. Contractor shall ensure any on-site petroleum storage shall provide a secondary containment method. If the storage

a depth of 6", and shall be distributed on site in a manner not contributing to additional siltation.

8. Open ends of storm sewer pipes shall be adequately protected at the end of each day by the contractor.

stabilized with crushed stone which drains into an approved sediment basin. All fines imposed for tracking onto public

SILT FENCE

N.T.S.

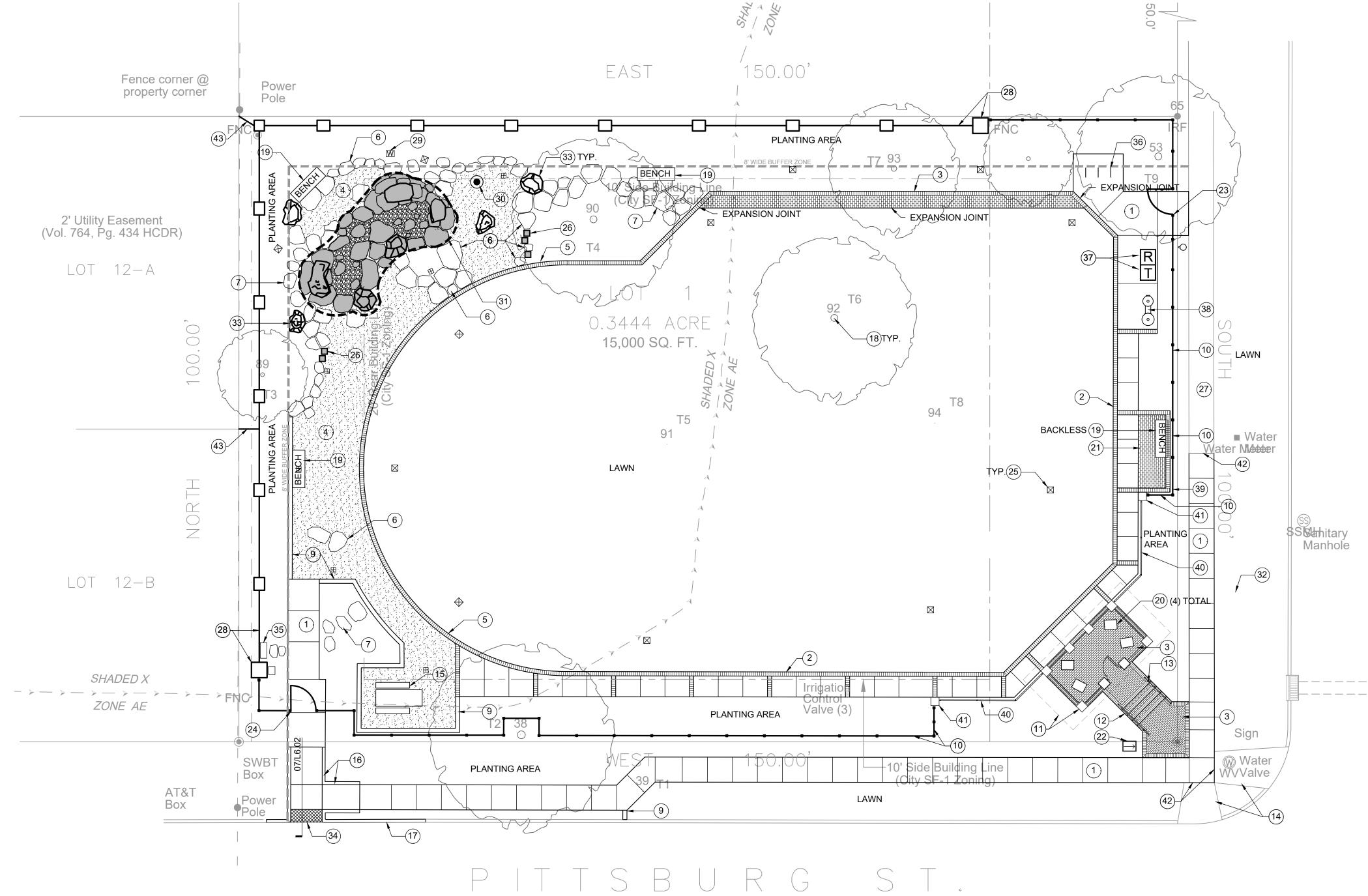
1. All contractors and subcontractors providing services related to the SWPPP shall sign a contractor certification statement acknowledging their responsibilities as specified in the SWPPP. 2. A copy of the SWPPP, including contractor certifications and any revisions shall be filed with the 3. Any deviation from the BMPs that are shown shall be updated on the contractor's plans. 4. The contractor shall post the project contact information and SWPPP at the entrance of the site in a

# STORM WATER DISCHARGE AUTHORIZATION

JENNIE E. HUGHES PARK IMPROVEMENTS 6446 Sewanee Ave., West University Place, TX 7005 City of West University Place Parks & Recreation Department 3800 University Blvd. West University Place, TX 77005 LANDSCAPE ARCHITECT & PRIME CONSULTANT WHITE OAK STUDIO LANDSCAPE ARCHITECTURE 611 W. 22nd Street Suite 202 Houston, TX 77008 713.682.2638 STRUCTURAL ENGINEER Barry Engineering, In Structural Consulting 21834 Northwest Freeway, Cypress, TX 77429 Texas Registered Engineering Firm No. 51 IRRIGATION James Pole IRRIGATION CONSULTANT IRRIGATION DESIGN, CONSULTING, AND LANDSCAPE WATER MANAGEMENT 
 TEXAS L.I.C. #658
 PHONE:
 940.243.2364

 100 N. LOCUST STREET, SUITE 3
 FAX:
 940.382.2475

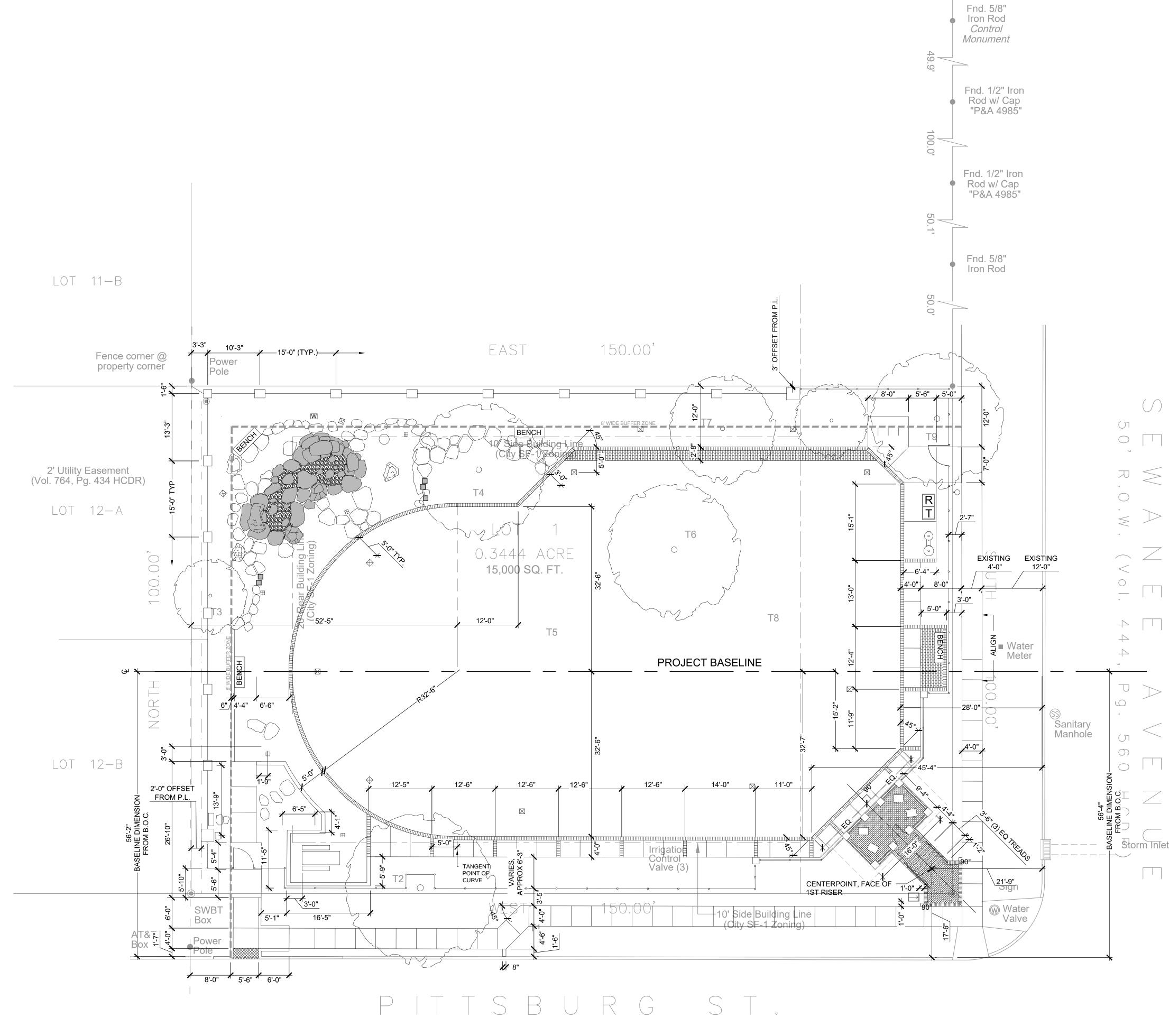
 DENTON, TEXAS 76201
 james@jamespoleirrigation.com
 3/6/2018 100% CONSTRUCTION RAWINGS DESCRIPTION: 3/6/2018 100% Construction Drawings ISSUE DATE: SCALE: NA AS NOTED **EROSION CONTROL** DETAILS L0.02



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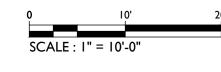
JENNIE E. HUGHES PARK IMPROVEMENTS
6446 Sewanee Ave., West University Place, TX 7005
City of City of West University of DlaceParks & Recreation Department 3800 University Blvd. West University Place, TX 77005
LANDSCAPE ARCHITECT & PRIME CONSULTANT WHITE OAK STUDIC LANDSCAPE ARCHITECTURE 611 W. 22nd Street Suite 202 Houston, TX 77008 713.682.263
STRUCTURAL ENGINEER
21834 Northwest Freeway, Cypress, TX 77429 Texas Registered Engineering Firm No. 51
IRRIGATION James Pole IRRIGATION CONSULTANTS IRRIGATION DESIGN, CONSULTING, AND LANDSCAPE WATER MANAGEMENT
TEXAS L.I.C. #658 PHONE: 940.243.2364 100 N. LOCUST STREET, SUITE 3 FAX: 940.382.2475 DENTON, TEXAS 76201 james@jamespoleirrigation.com
KHED LANDSC408 THE ST. O779 ES 3/6/2018
100% CONSTRUCTION DRAWINGS NO: DATE: DESCRIPTION:
3/6/2018 100% Construction Drawings
ISSUE DATE: SCALE: NA AS NOTED
LAYOUT PLAN

L2.01

LAYOUT NOTES:

arrive.

otherwise noted.



Stake baseline for review and approval. Baseline is not parallel with

Pittsburgh back of curb
Contractor shall not scale from drawings. Ask Landscape Architect for additional information where required.
All dimensions from baselines, property lines, back of curb are 90° unless specifically noted otherwise.

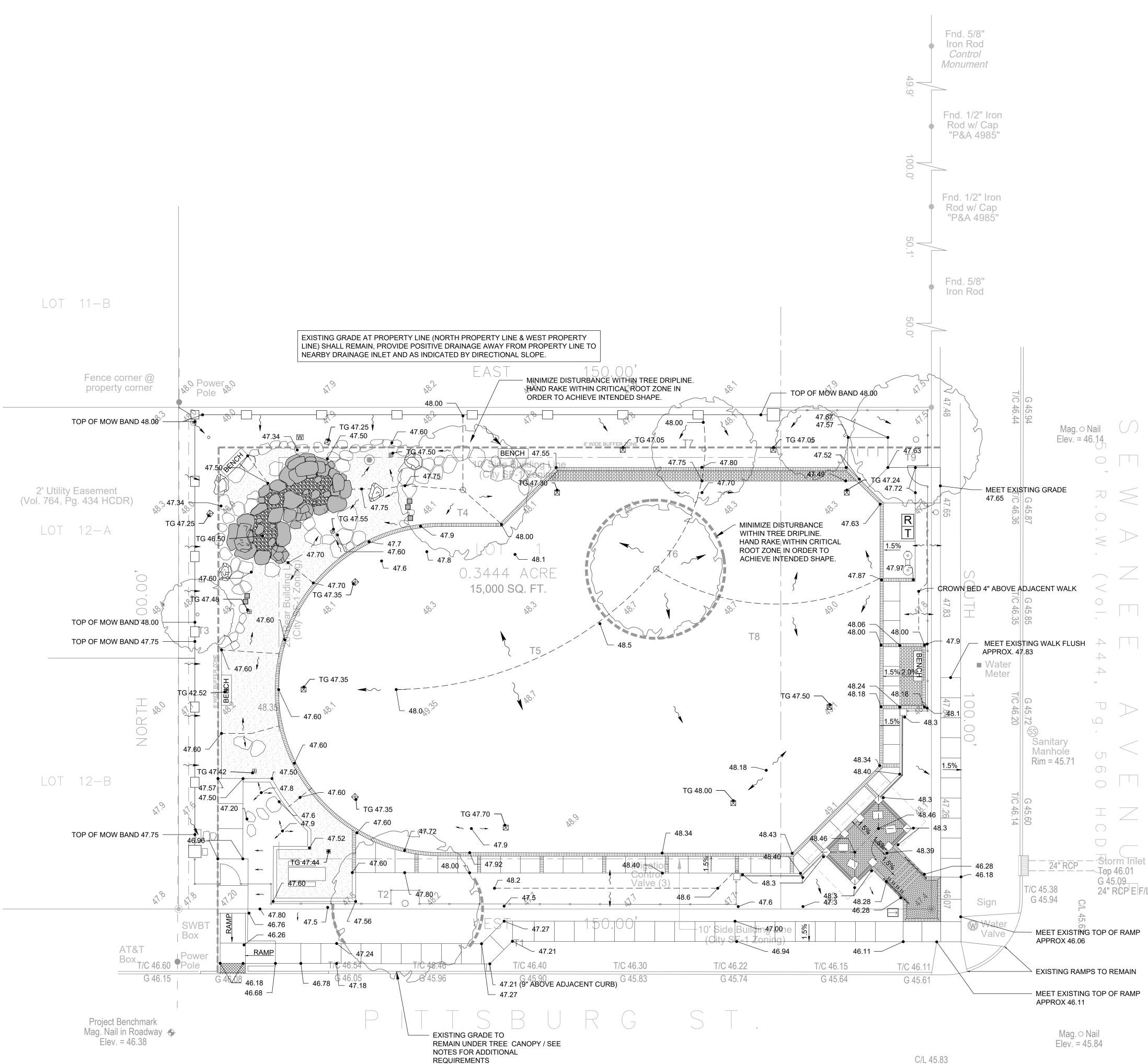
Layout and mark all elements for review by landscape architect prior to setting forms or otherwise fixing permanent location. precise location and relationship between elements is important and must be coordinated carefully with landscape architect.

Request review of forms when ready for concrete pour; allow adequate time for review and correction of problems before concrete is due to

Notify landscape architect upon discovery of any discrepancy within the drawings or between the drawings and actual site conditions for resolution with the landscape architect.
Contractor shall maintain electronic equipment onsite at all times, as required to verify vertical grades.
All curves shall be smooth curves without kinks or flat spots unless otherwise noted

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### POST CONSTRUCTION SURVEY

Contractor is required to provide a topographic survey documenting finished elevations are in compliance with the drawings. Survey shall be sealed by a registered professional surveyor currently licensed in Texas. Submit to the city as part of permit close-out. Additional work and re-survey will be required for non-compliance.

### LANDSCAPE GRADING NOTES

- 1. Review proposed grades with Landscape Architect prior to rough grading to discuss drainage design and intent.
- 2. Majority of site will be disturbed in order to meet proposed grades, surplus of soil is expected as a result of grading. Contractor is responsible for removal of excess soil from site.
- All proposed grades indicate finished surface: top of paving, top of landscape soil, etc.
- 4. Underground obstructions: known existing underground improvements have been indicated herein and on the survey provided for full information. Coordinate also with the General Contractor and utility location services to determine existence, location and depth of possible existing underground obstructions, before excavating or trenching.
- 5. Top sod layer (top 2") shall be stripped and discarded from site.
- 6. Refer to Landscape Grading details for full information about landscape iniets and subdrain pipes.
- Pedestrian walks: all walks are intended to comply with Texas Accessibility Standards. Contractor shall verify the following before placing pedestrian pavements:
- a. No cross-slope (perpendicular to direction of travel) steeper than 2% (1/4" per foot).
- b. No longitudinal (with direction of travel) slope steeper than 5% (1' in 20'), except for ramps specifically indicated.
- 10. Meeting existing grades: Where proposed improvements abut similar existing surface, verify that proposed grade meets existing.
- 11. Coordinate with the landscape architect to achieve the intended shape of main lawn area. All grade changes in planting and lawn areas shall be smooth and natural in appearance.
- 12. Fine Grading Review: Arrange review by Landscape Architect of all finished soil grades before planting sod or plants.
- 13. All earthwork operations are subject to Geotechnical recommendations. Refer to project Geotechnical Report.
- 14. Topsoil & Planting Soil

46.82 —

48.0 —

9" NDS INLET

12" NDS INLET

- a. Refer to planting details and Technical Specifications for requirements.
- 15. Ensure that surface drainage does not flow onto surrounding properties. Provide positive drainage from property lines at all times throughout the work.

PROPOSED GRADE or PIPE FLOW LINE

PROPOSED PLANTING GRADE

(ATRIUM GRATE WITHIN PLANTING BEDS)

SLOPE DIRECTION

### LANDSCAPE GRADING & DRAINAGE LEGEND EXISTING SURVEY GRADE

1	
EF/L4	

OF	RAMP	
OF	RAMP	

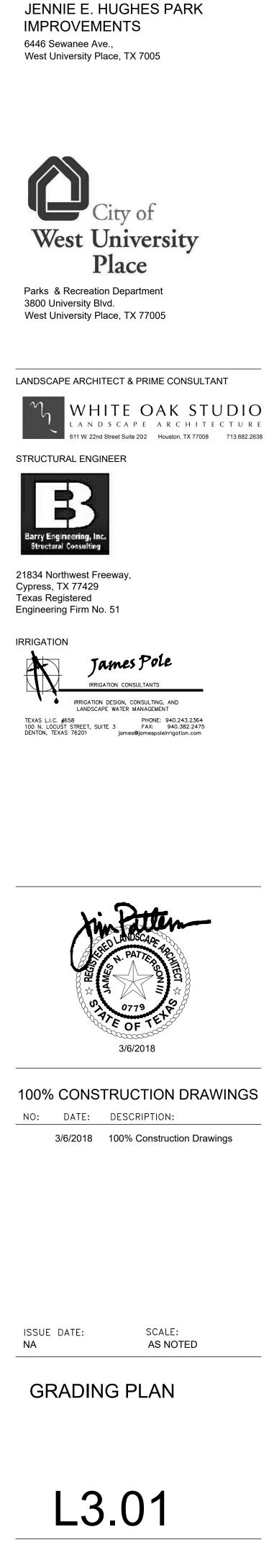
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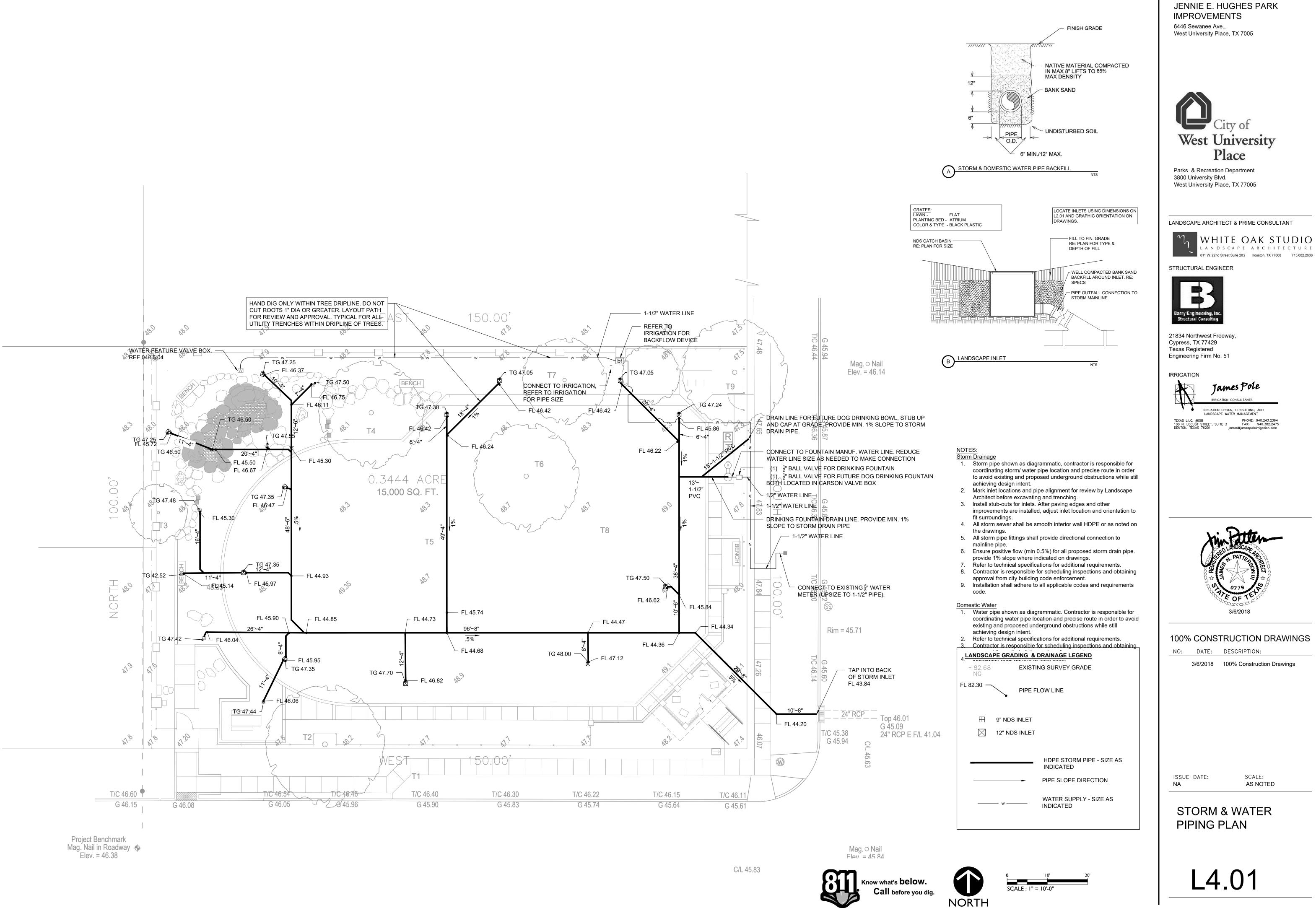
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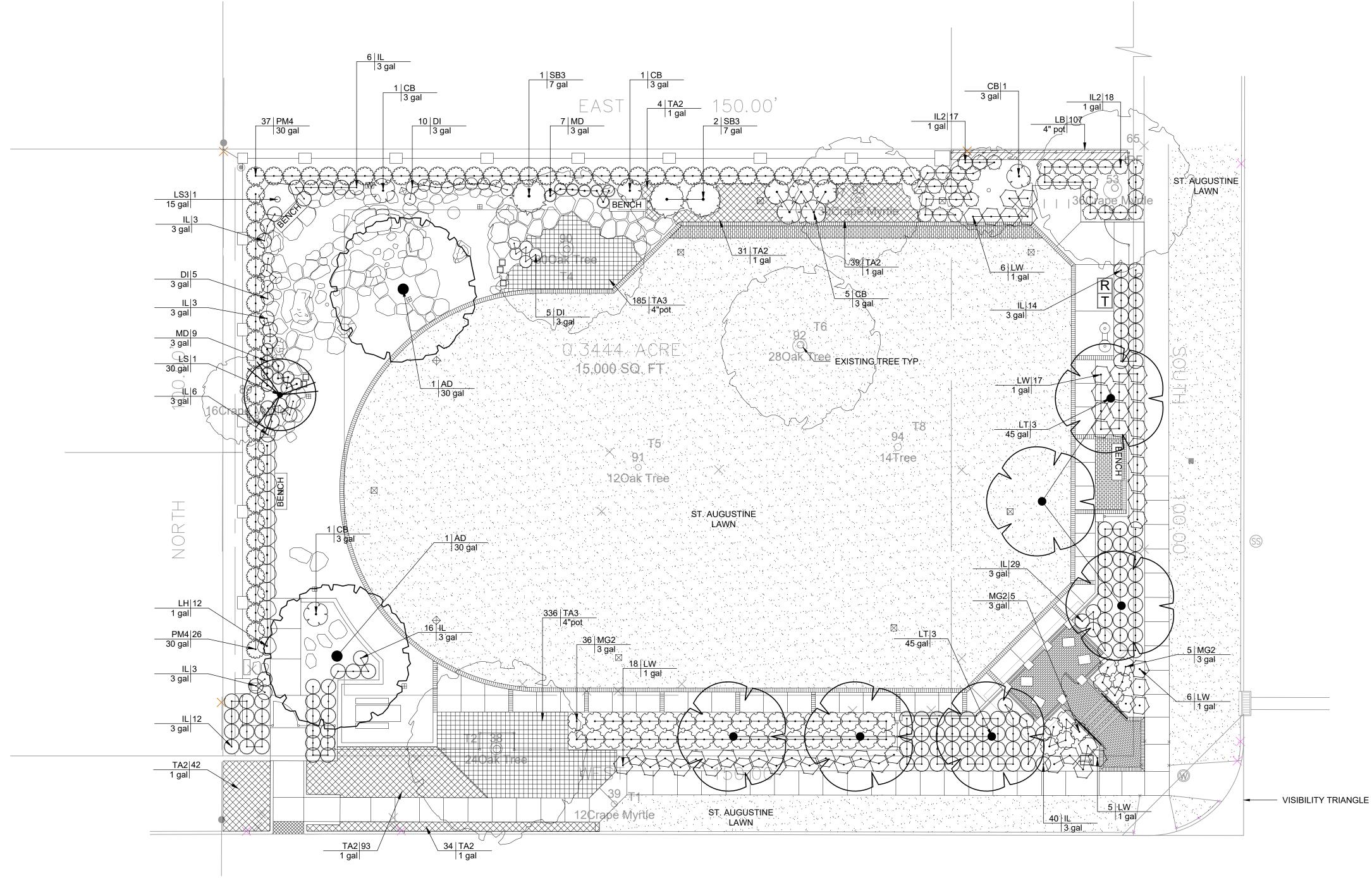
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SCA	ALE :	" =  0'	-0"	









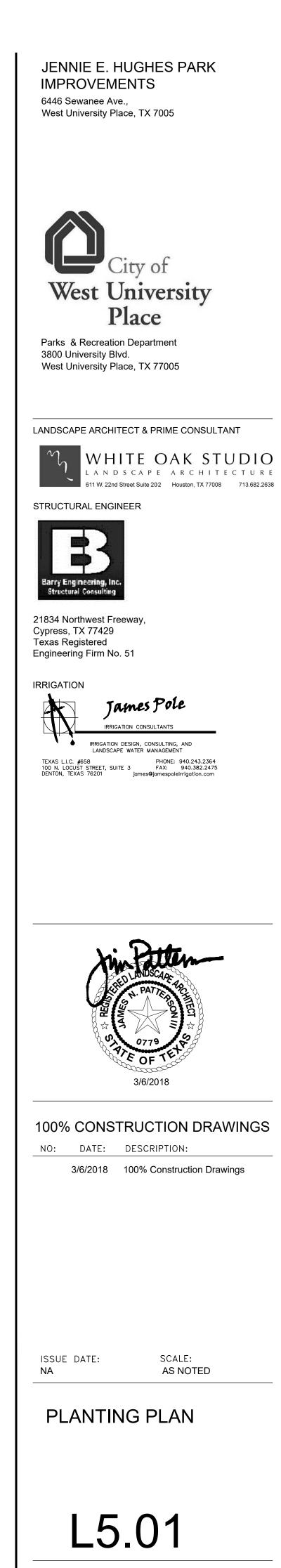


TREES	QTY	COMMON NAME / BOTANICAL NAME	CONT		DETAIL	REMARKS
AD	2	Drummond Red Maple / Acer rubrum drummondii	30 gal			
LS	1	Sioux Crape Myrtle / Lagerstroemia indica `Sioux`	30 gal			Multi-trunk
LT	6	Tuscarora Crape Myrtle / Lagerstroemia indica x faurei `Tuscarora`	45 gal			Multi trunk
SHRUBS	QTY	COMMON NAME / BOTANICAL NAME	SIZE	SPACING	DETAIL	REMARKS
СВ	9	American Beautyberry / Callicarpa americana	3 gal	48" o.c.	DETAIL	
DI	20	Fortnight Lily / Dietes iridioides	3 gal	24" o.c.		
IL	131	Virginia Sweetspire / Itea virginica `Little Henry` TM	3 gal	30" o.c.		
IL2	-					
	35	Virginia Sweetspire / Itea virginica `Little Henry` TM     1 gal     30" o.c.				
LH	12	New Gold Lantana / Lantana x `New Gold`1 gal36" o.c.				
LS3	1	Purple Diamond Loropetalum / Loropetalum chinense `Shang-hi`	15 gal	72" o.c.		Multi-trunk
LW	50	White Trailing Lantana / Lantana montevidensis `Alba`	1 gal	36" o.c.		
MD	16	Turk`s Cap / Malvaviscus drummondii	3 gal	24" o.c.		
MG2	46	Gulf Coast Muhly / Muhlenbergia capillaris `Gulf Coast`	3 gal	36" o.c.		
PM4	63	Yew Pine / Podocarpus macrophyllus	30 gal	36" o.c.		
SB3	3	Bridal Wreath Spirea / Spiraea prunifolia `Bridalwreath`	7 gal	72" o.c.		
		1				1
SHRUB AREAS	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING	DETAIL	REMARKS
LB	107	Big Blue Lilyturf / Liriope muscari `Big Blue`	4" pot	8" o.c.		
TA2	243	Asian Jasmine / Trachelospermum asiaticum	1 gal	18" o.c.		
TA3	521	Asian Jasmine / Trachelospermum asiaticum	4"pot	12" o.c.		
SOD/SEED	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING	DETAIL	REMARKS
SS3	9,581 sf	St. Augustine Grass / Stenotaphrum secundatum	Solid sod			Sand-based soc

IARKS	
i-trunk	
i trunk	
IARKS	
i-trunk	



0		I	0'	20'
SCA	LE :	1" = 10'	-0"	



1. Submittals 1.1. Contractor shall submit proposed source and photographs of each type of plant for review and comment. If requested by consultant,

5. Planting shall be performed in strict accordance with the planting details and technical specifications. Installations not performed accordingly will be rejected.

6. Lawn: contractor shall install solid sod (incl. specified bed preparation) at all areas indicated on drawings. 7. Soil amendments: refer to specifications. 8. Refer to specifications for full planting requirements.

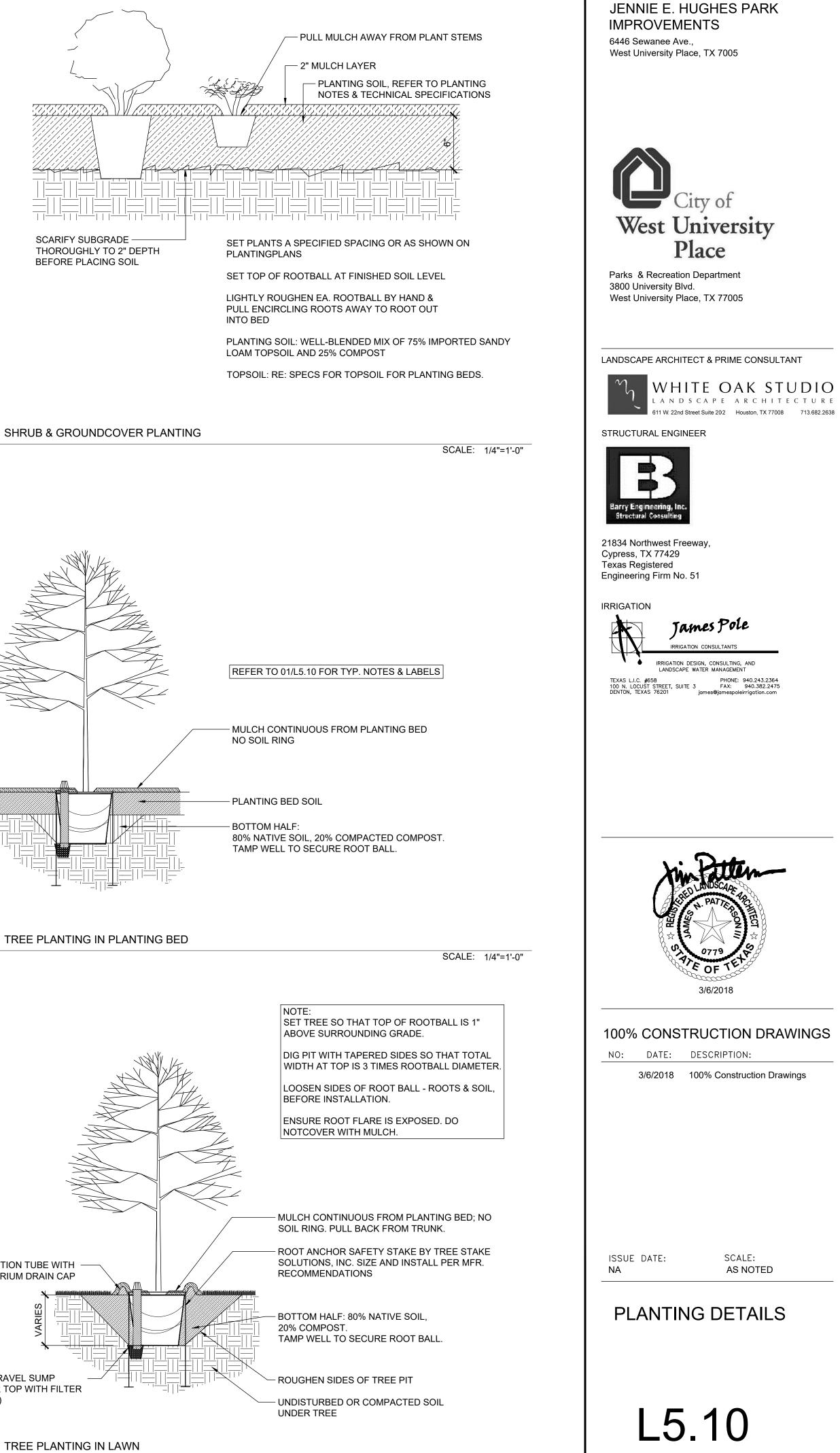
c) Place onsite fill as specified to achieve designated subgrade. proof-roll lifts as specified. d) Proposed lawn areas: Scarify top 2 inches of subgrade and immediately rake-in two inches (2") of specified topsoil and fine grade as e) Proposed planting bed areas: Scarify top 2 inches of subsoil fill and place planting soil as specified 4. Planting Soil within existing tree dripline

a) Do not excavate for placement of planting soil. Prepare areas within dripline 2" below specified finish grade and shape by hand to achieve

04

### PLANTING NOTES

INSPECTION TUBE WITH NDS ATRIUM DRAIN CAP



6"x6" GRAVEL SUMP (COVER TOP WITH FILTER FABRIC)

SCALE:

3. Backfill, grading and surface preparation: a) Remove any remaining debris and any subsoil that is contaminated by fuels, lime or other materials noxious to plant growth. b) Scarify subsoil to 2 inch depth and lightly proof-roll.

before planting begins in that area. Irrigation system will be coordinated with existing supply and adjacent installations. Contractor shall flag proposed tree locations for review by landscape architect prior to tree delivery to site. Minor adjustment may occur.

2. Coordination with irrigation: Contractor shall coordinate irrigation and planting operations such that irrigation is completed and operational

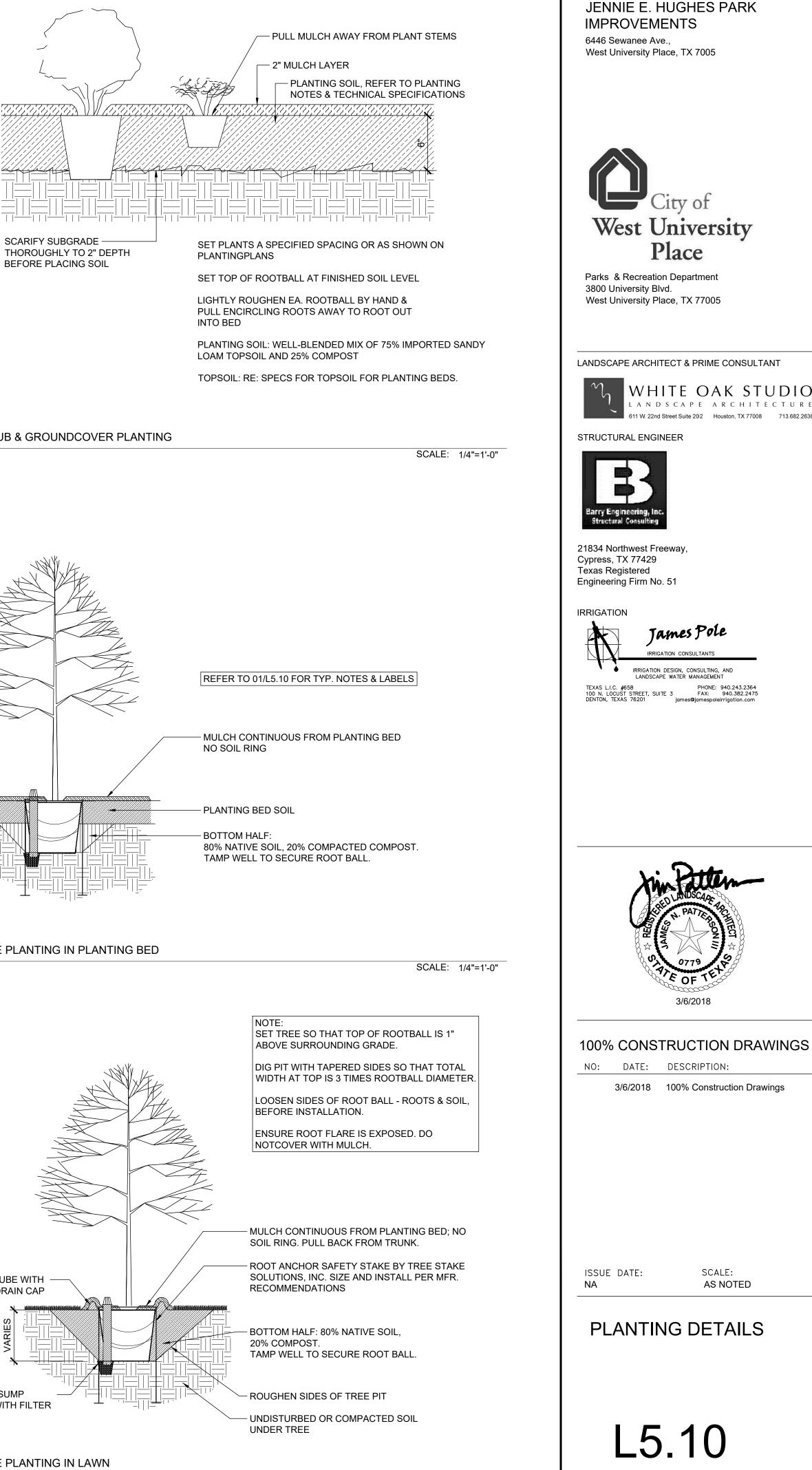
contractor shall arrange for consultant to visit plant sources to review plant material. Failure of consultant to review plants at the source does not relieve contractor of requirement to meet plant specifications. 1.2. Submit 1 gal sample of planting soil, topsoil compost, and hardwood mulch.

desired drainage pattern. Import 2" layer of compost and work into soil by hand with spading fork.

Planting Notes

designated.

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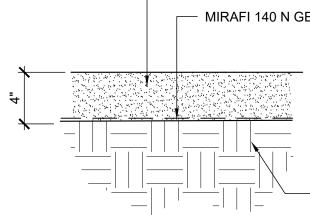


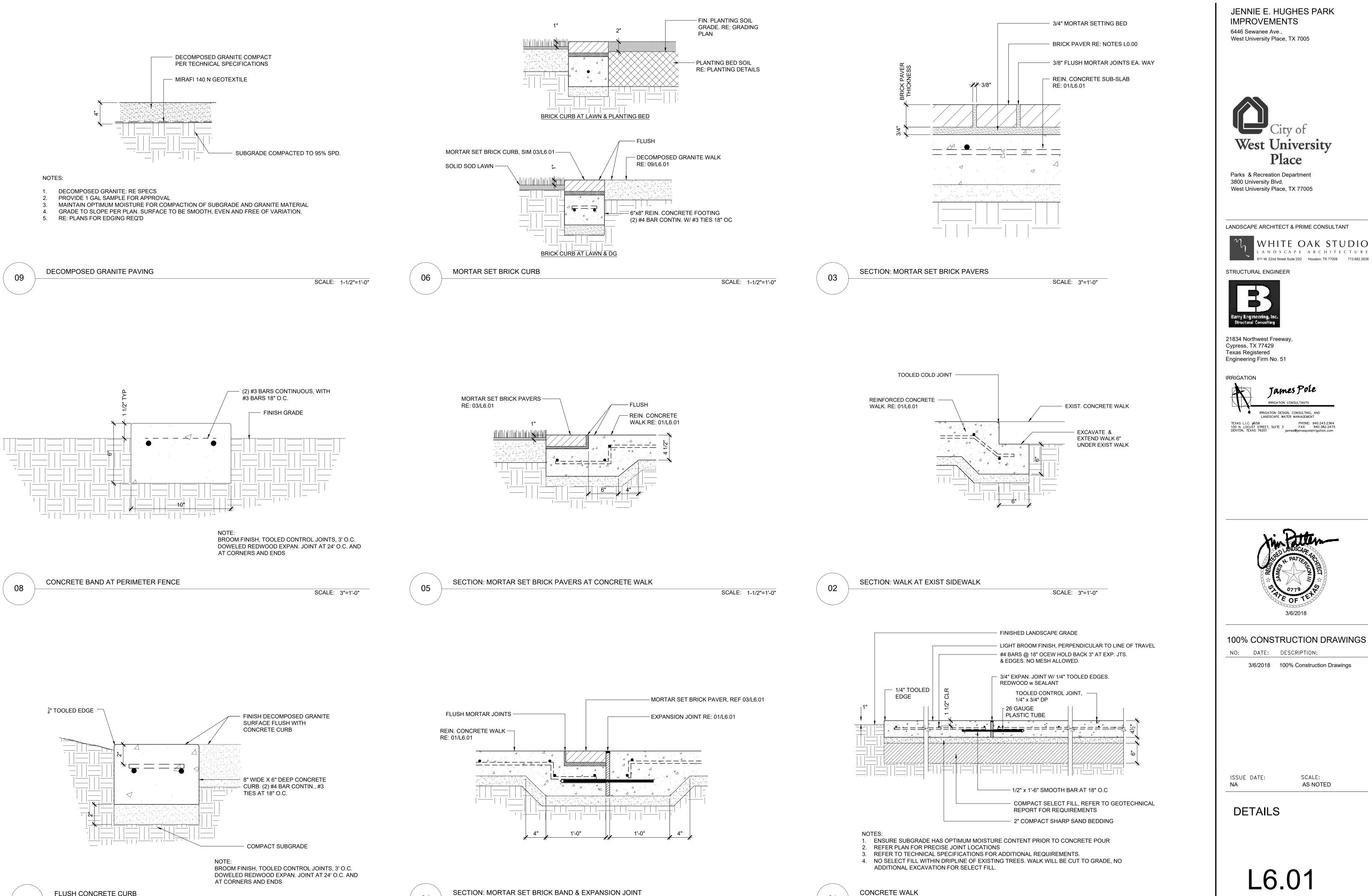
SCALE: 1/4"=1'-0"

03

02







07

- CONCRETE WALK

SCALE: 1"=1'-0"

1. Refer to technical specifications and details for additional requirements.

### 2. Product Information

- 2.1. Masonry Column & Masonry Pedestal Brick:
- 2.1.1. Cherry River <u>Queen Size</u> as provided by Master Brick, or approved equal.
- 2.1.2. Contact Master Brick (713) 849-0030, 19103 Cypress Rosehill Road Tomball TX 77377
- 2.2. Mortar Set Brick Paving:
- Same as Masonry Column & Masonry Pedestal Brick above 2.2.1.

2.3. Sand Set Brick Paving:

- 2.3.1. Pine Hall Brick 4" X 8" X 2-1/4" Georgian Edge Gray, or approved equal.
- Contact Acme Brick Company (713)-681-4651, 5020 Acon St. Houston TX 77092 2.3.2.

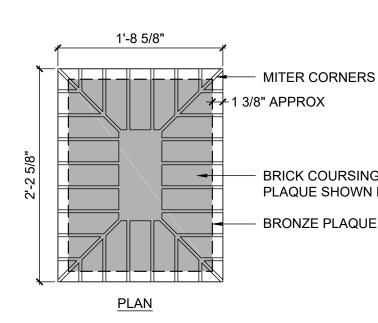
2.4. Detectable Warning Pavers

- 2.4.1. Pavestone, 4 X 8 Holland, or approved equal, Charcoal Color.
- 3. <u>Submittals</u>
- 3.1. Manufacturers brick product and related accessory product information for review and approval
- 3.2. Mortar Color chart for selection of mortar color samples within mock-up
- 3.3. Representative units of each type.
- 4. Mockups

06

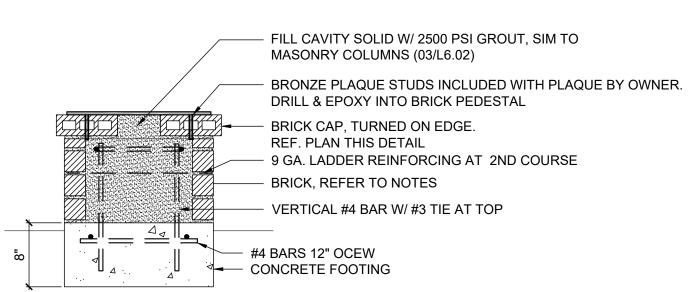
- 4.1. Masonry Column & Masonry Pedestal
- 1'-4' x 2'-0" high, including brick cap. 4.1.1.
- 4.1.2. Prepare mortar color samples for review/ selection and approval.
- 4.2. Mortar Set Brick Paving & Mortar Set Brick Flush Curb
- 4.2.1. 2' X 2' on concrete subslab showing representative mortar joints and sealant installation at expansion joints.
- 4.2.2. 2' Long Mortar Set Brick Curb on concrete subslab showing representative mortar joints and sealant installation at expansion joints
- 4.3. Sand Set Brick Paving
- 4.3.1. In-place review of installation.



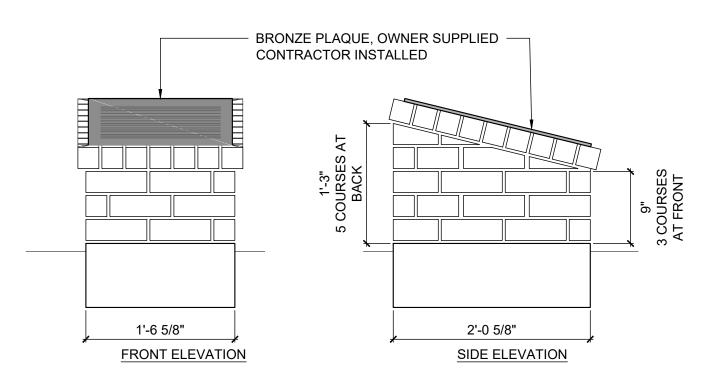


BRICK COURSING BELOW

PLAQUE SHOWN FOR CLARITY BRONZE PLAQUE, 24" X 18"



SECTION



05

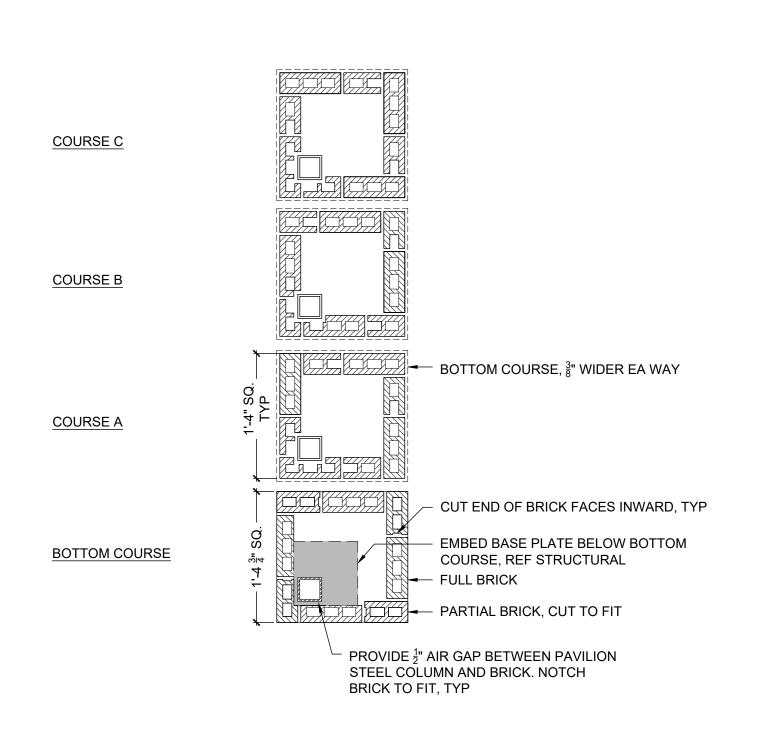
SCALE: NA

MASONRY COLUMN

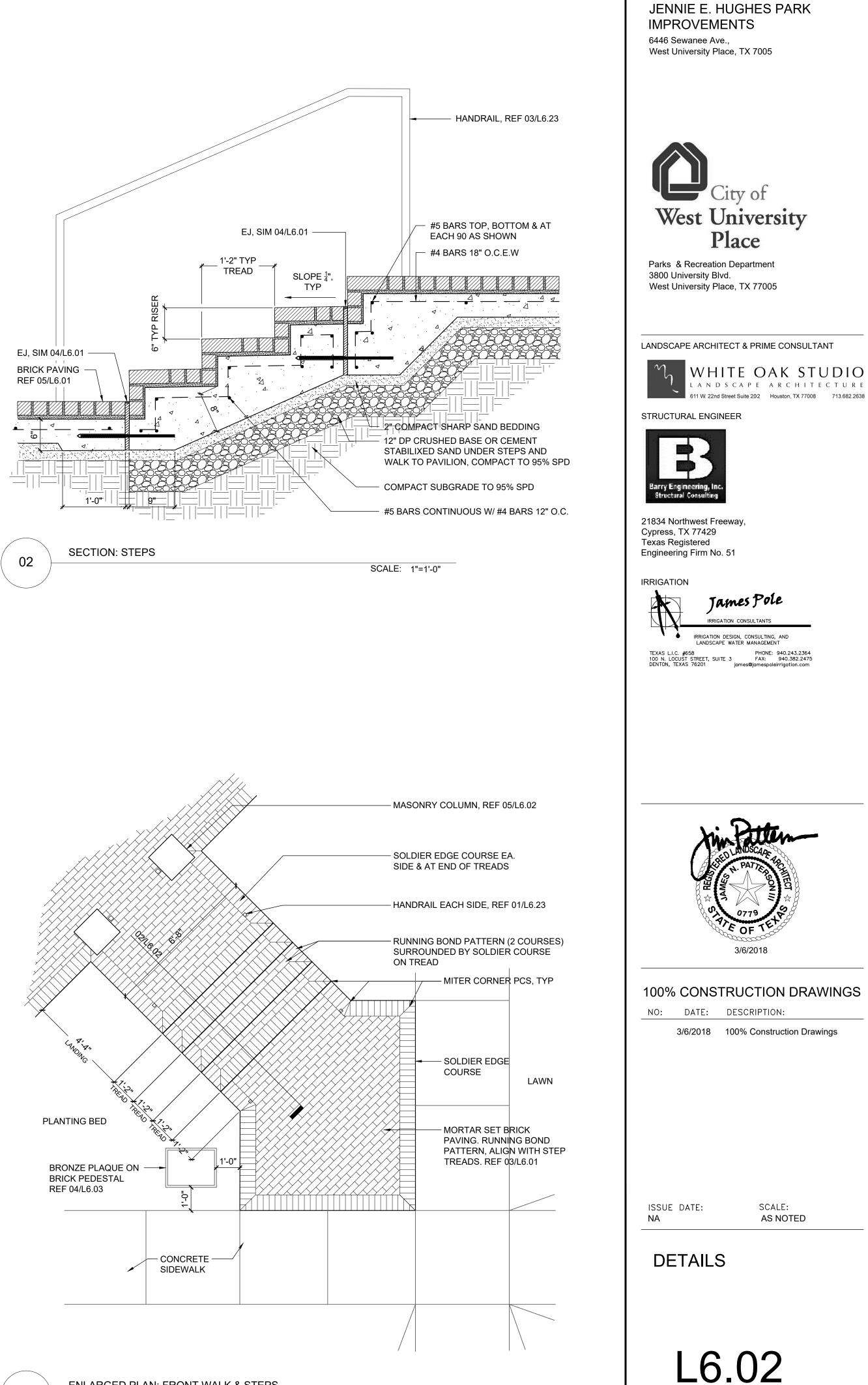
04

1'-6"

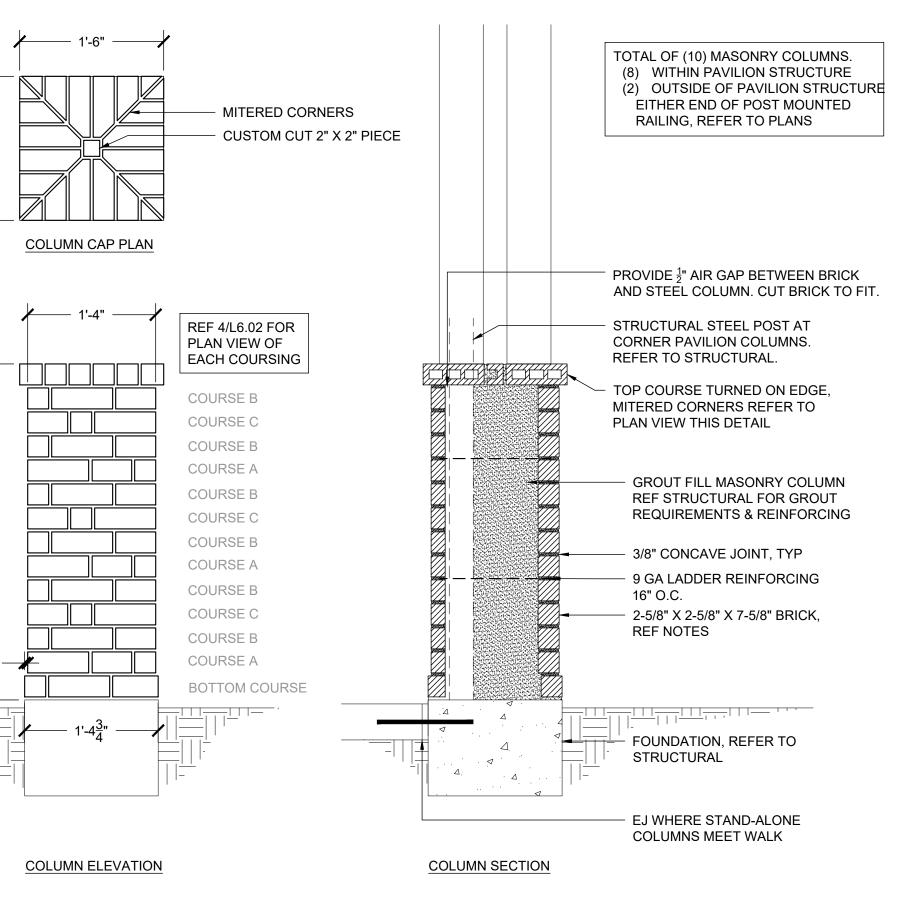
3'-6"

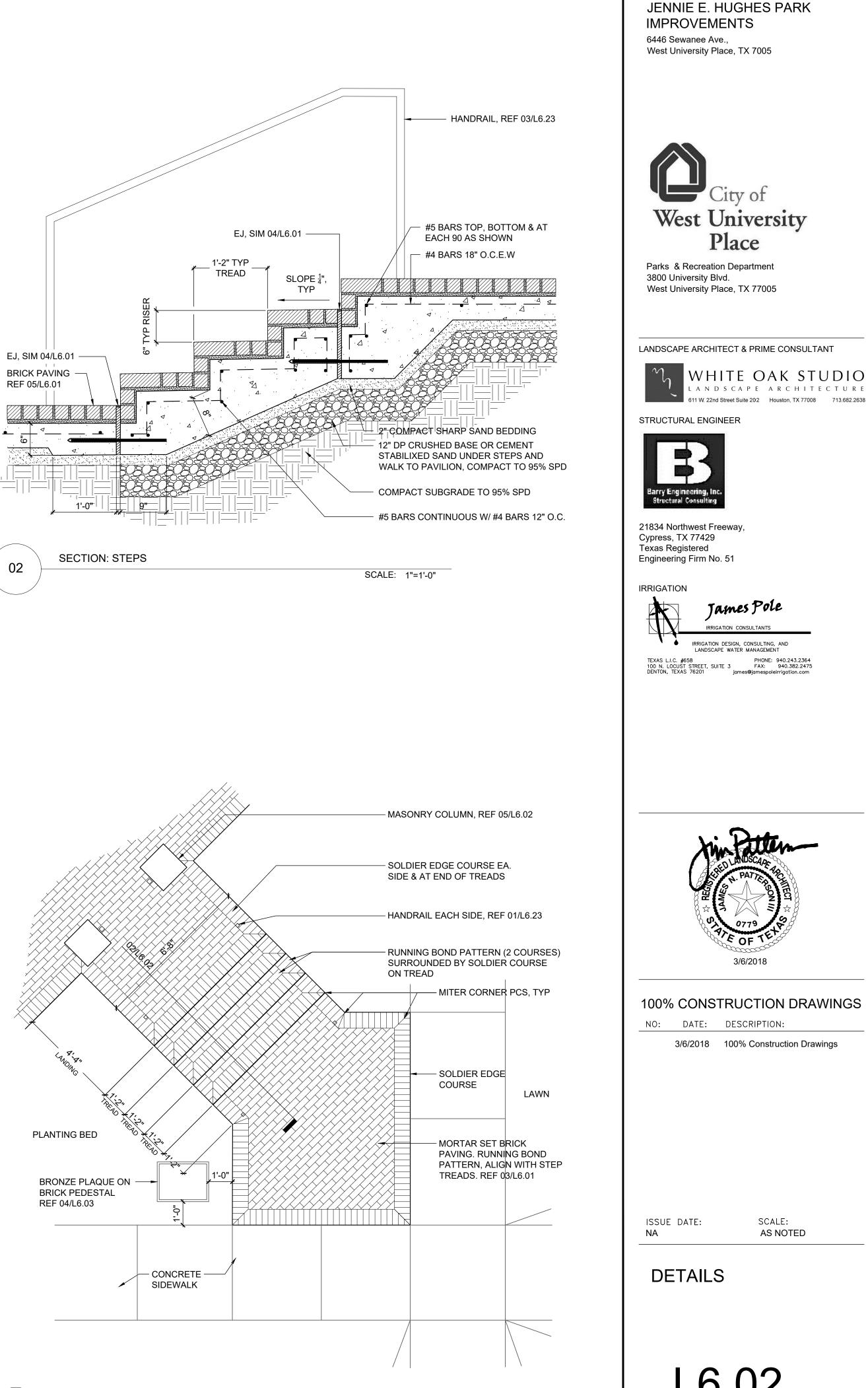




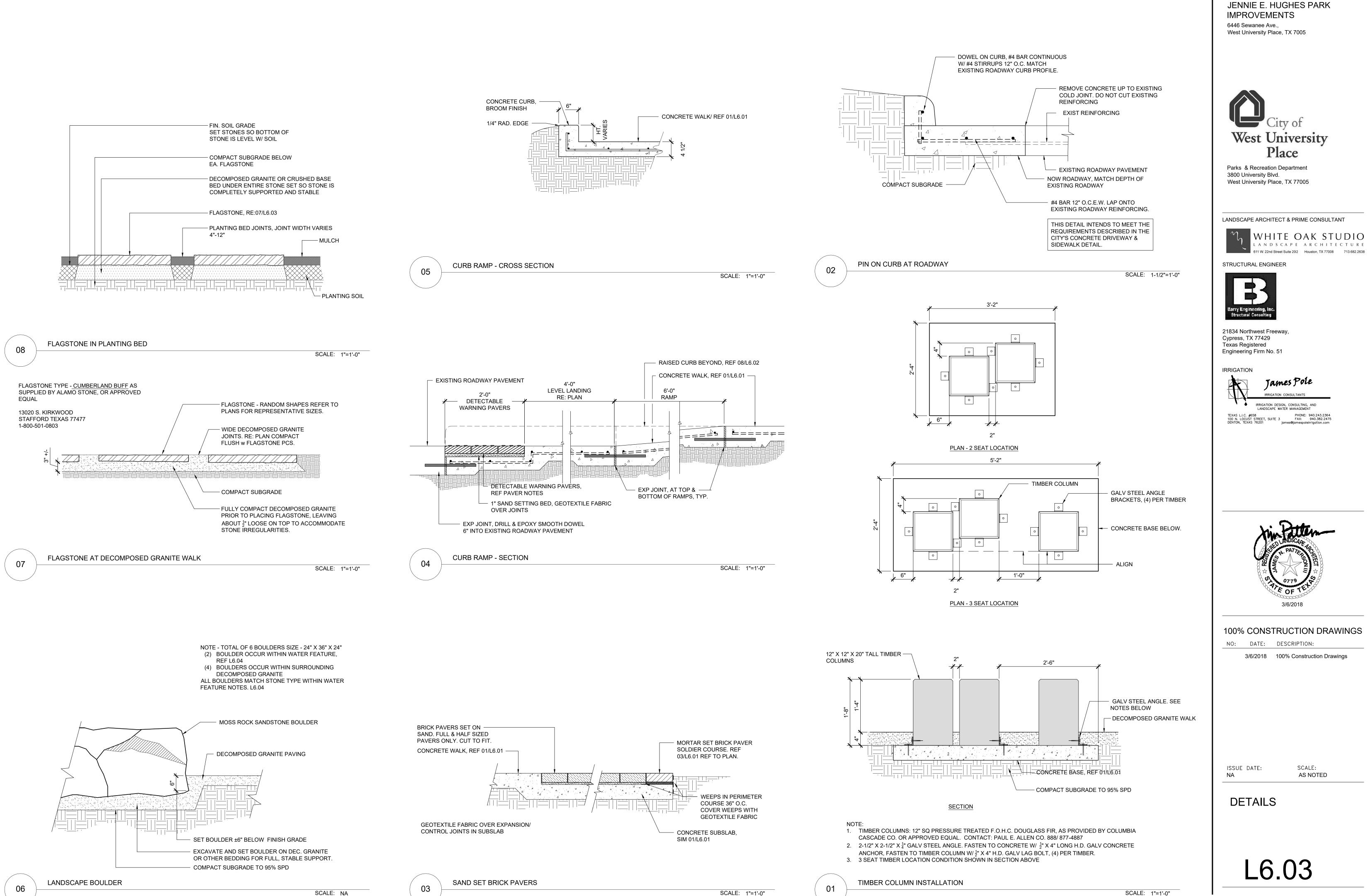


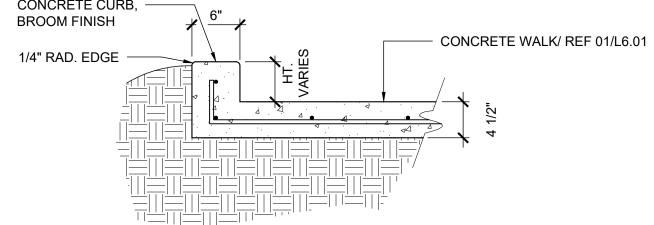
SCALE: 1"=1'-0"

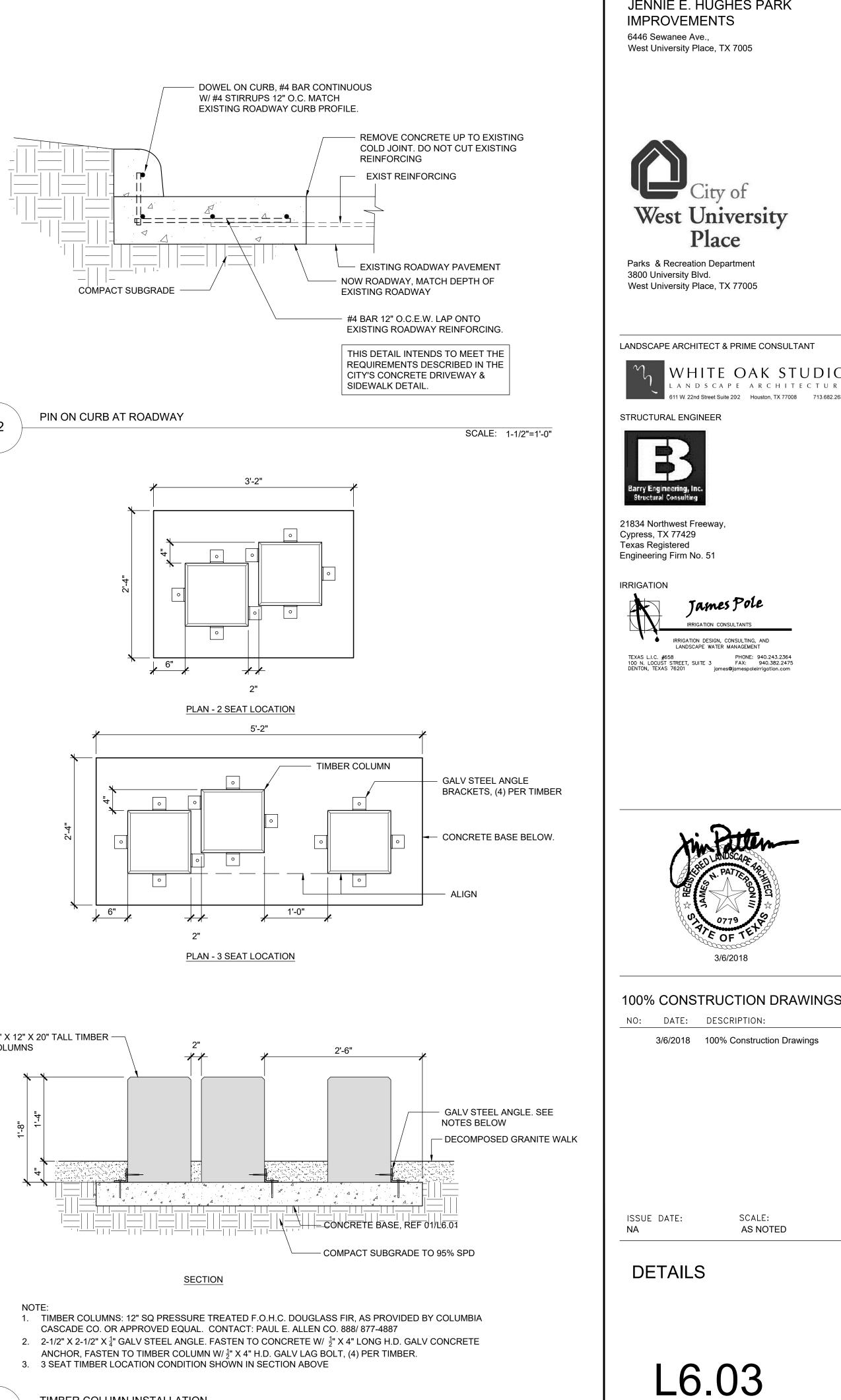




SCALE: 1"=1'-0"







SCALE: 1"=1'-0"

### WATER FEATURE NOTES

- 1. Products & Finishes
- 1.1. Activator Bollard Push Button Activator (BOL-A002) by Raindrop Products (800) 343.6063. Submit standard colors for selection.
- 1.2. Valve Box Carson 1324, Black lid w/ Drop-N-Lock option
- 1.3. Valve 1-1/2" Brass remote control valve, Rainbird EFB-CP
- 1.4. Drain Jay R. Smith floor drain #2109-G. All components galvanized. Contractor shall determine preferred outlet type prior to ordering drain. Stacked Stone - 'Alamo Rustic Boulder' as supplied by Alamo Stone (1-800-501-0803) or approved equal. Stone 1.5. slabs shall be 8"-10" thick with length and width as represented by the drawings. Large Accent Boulders shall be
- same stone type but hand selected by landscape architect at stone yard. Topping Slab shall be custom exposed aggregate finish (mixed onsite). 1.6.
- 1.6.1. 2,500 p.s.i. Type S mortar mix

Aggregate sizes shall range from 3/4" - 6" (+). Visible surface shall contain the mixture of the following 1.6.2. aggregate sizes and types. • 16.5% 6" Plus Arizona River Rock (by Apex Stone - 979.885.1400) or approved equal. Hand placed POWER SUPPLY FROM -

(MYANNKA)XK

CONTROL PANEL

VALVE BOX

(3) <sup>3</sup>/<sub>4</sub>" HDPE TO

(3) <sup>3</sup>/<sub>4</sub>" BRASS

COMPRESSION

 $(3)\frac{3}{4}$ " BRASS GATE VALVE

 $(3)\frac{3}{4}$ " BRASS 1-1/2" TO  $\frac{3}{4}$ "

REDUCER FITTING

WATER

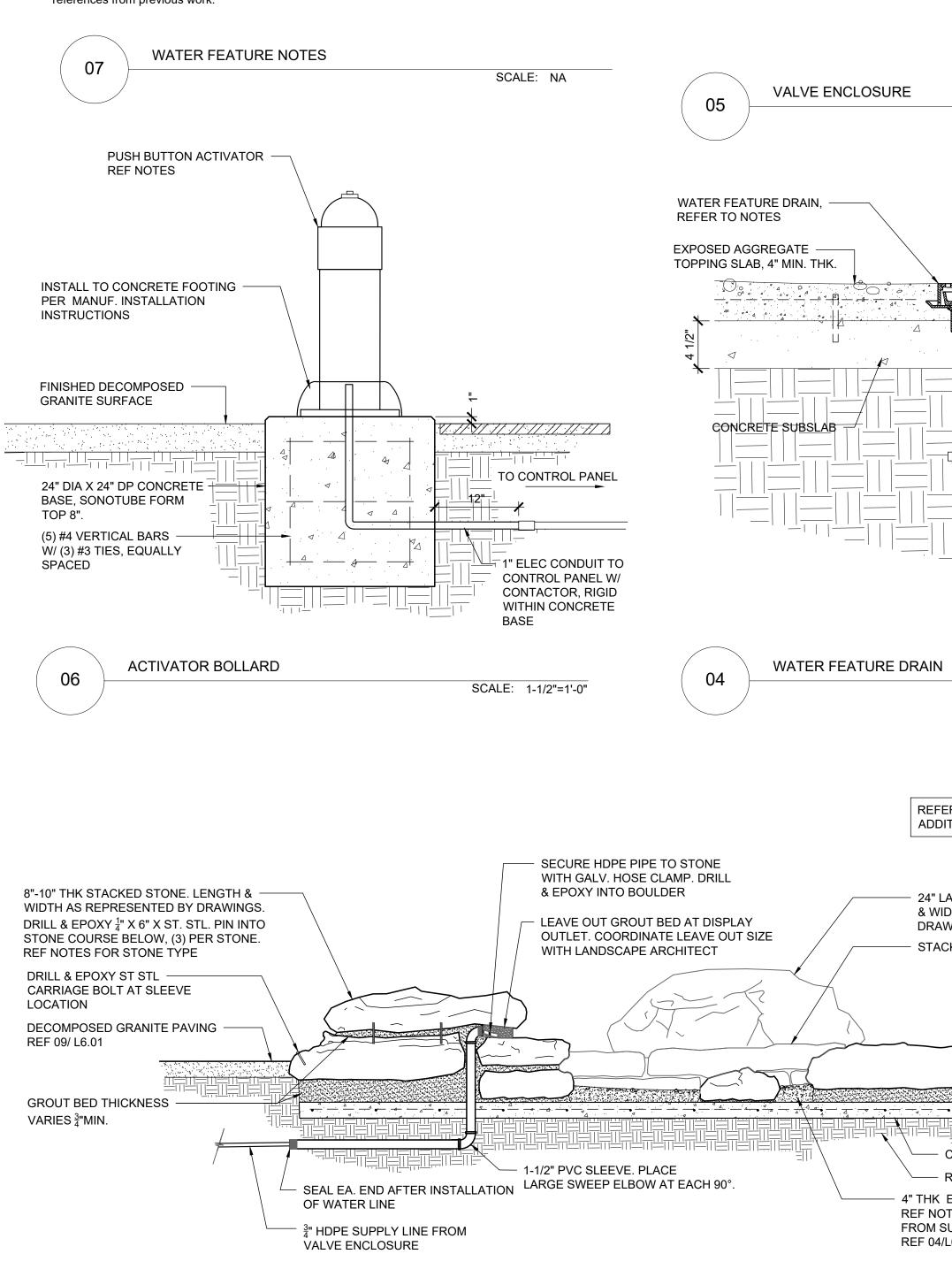
FEATURE

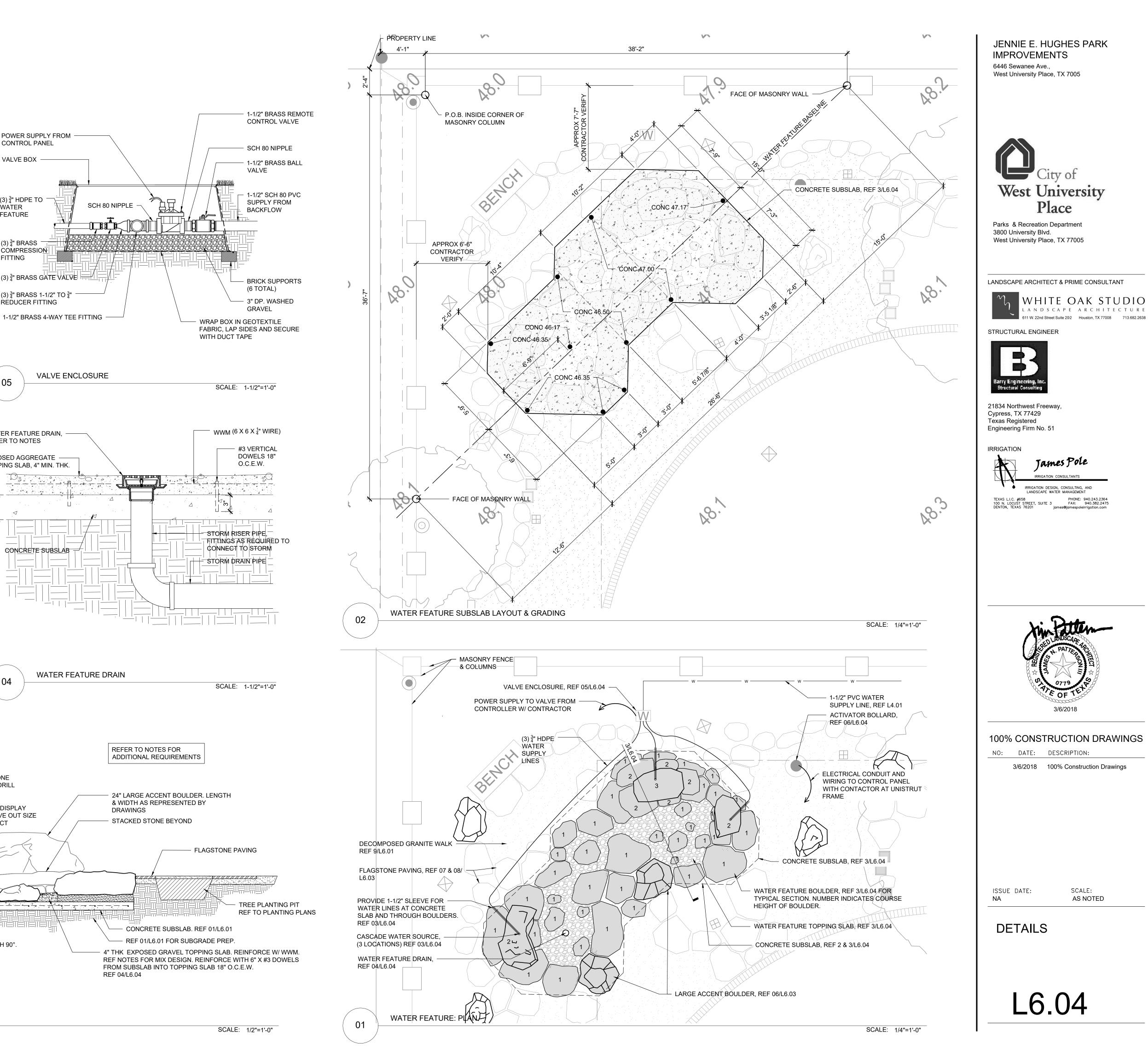
FITTING

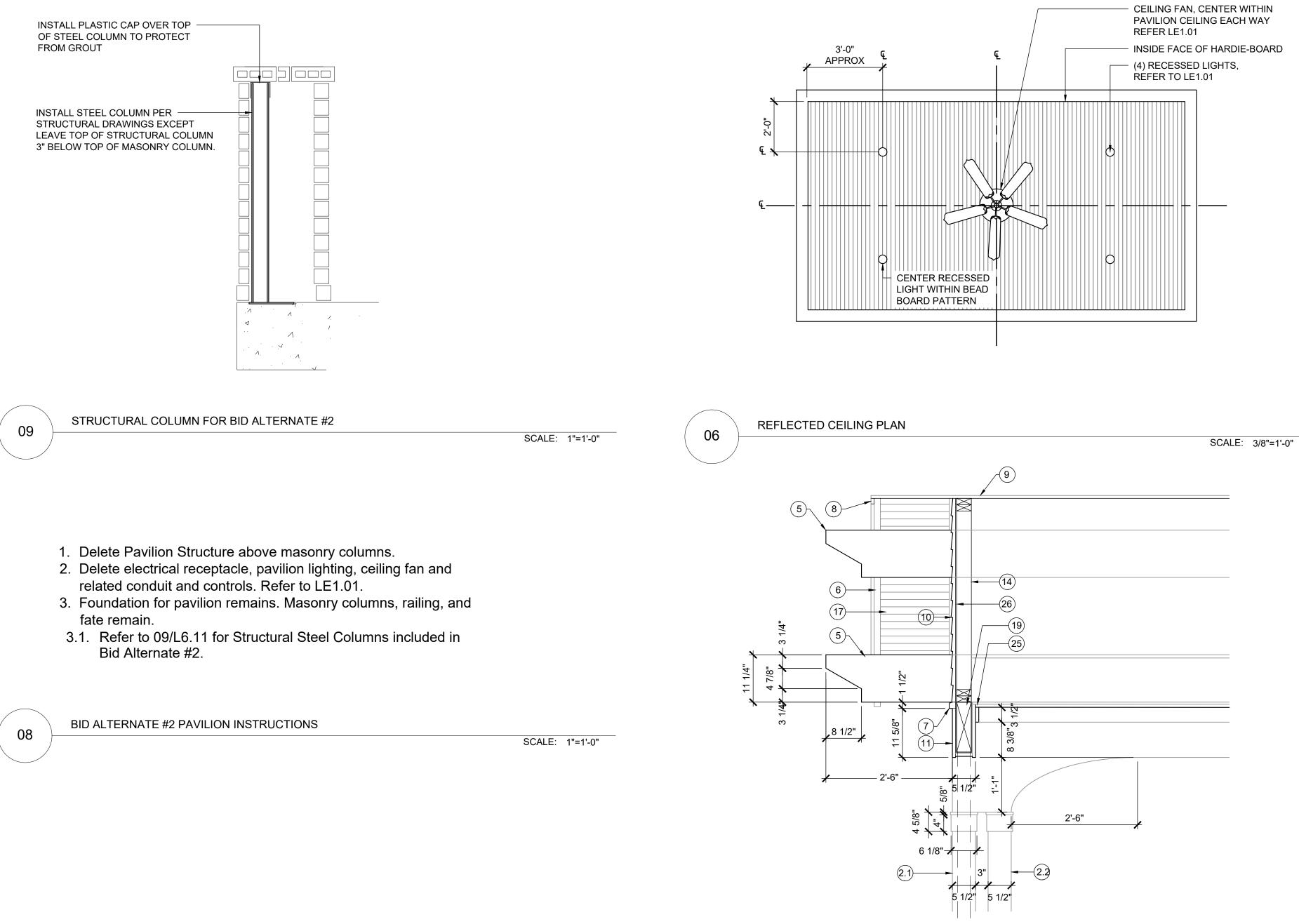
- and grouted prior to pouring topping slab.
- 16.5% 3"-6" Arizona River Rock (by Apex Stone) or approved equal
- 33% 1-<sup>1</sup>/<sub>2</sub>"-3" Arizona River Rock (by Apex Stone) or approved equal
- $33\% \frac{3}{4}$ "  $1-\frac{1}{2}$ " Arizona River Rock (by Apex Stone) or approved equal 2. Water effect is an original creation, intended to be natural in appearance. Contractor shall cooperate with landscape architect to achieve design intent for stone placement, joints, concrete surfaces and water effects, including minor
- additions or changes as required by the landscape architect. Include adequate provision for labor and materials in Water Feature scope of work . 2. Submittals -
- 2.1. Submit product information for all components
- 2.2. Representative samples of stone and rock. 1 gallon sample of each rock size. Photographs of representative boulders.

### 3. Mock-Ups

- 3.1. Boulders In place dry stack each level of stone for review and approval by landscapearchitect prior to grouting and pinning in place. 3.2. Exposed Aggregate - Provide (3) 18" X 18" exposed aggregate mock-ups for review/ comment / approval
- bylandscape architect. Mock-ups shall be provided in sequence to allow comment and revision by contractor on subsequent mock-ups. Exposed aggregate method determined by contractor, sandblasting not allowed. 4. Contractor Experience - Contractor shall have 5 years experience with similar work. landscape architect may require references from previous work.







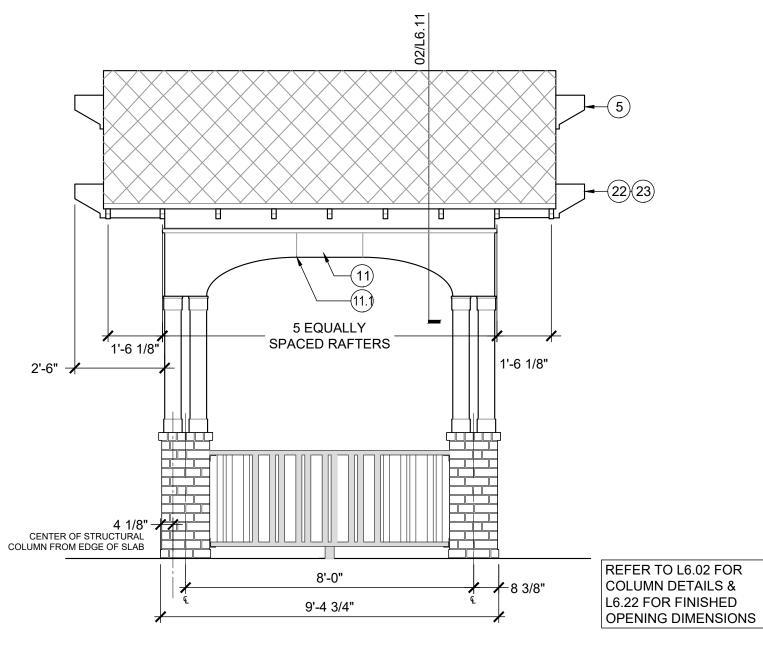
**KEYED NOTES** 

THIS SHEET ONLY AS INDICATED BY # Refer to Notes L6.12 and Structural for additional information.

- 1. Masonry column, Ref 03/L6.02
- 2. see pavilion column types below.
- 2.1. 3x3 steel column with hardieboard cladding, total width is 5-1/2" by 5-1/2" (4 total). Shim as required to meet specified dimension. 2.2. Hardie clad wood post (8 total). Shim as required to
- meet specified dimension.
- 3. Railing Ref: 01 & 02/6.23 4. Railing gate Ref: 03/L6.23
- 5. 4x12 cedar beam with decorative ends
- 6. 2x8 roof rafters with decorative ends
- 7. 2 X 2 Mahogany trim with continuous metal flashing, cut  $\frac{1}{2}$ "
- chamfer, ptd. 8. 1x2 rectagular edge trim with continuous metal flashing, ptd.
- 9. Composition shingle roofing on #30 felt on  $\frac{5}{8}$ " plywood deck
- 10. Hardie siding with 4"exposure, ptd.
- 11. Smooth hardie board, ptd. 11.1. Hardie board joint location
- 12. Wood column cap,  $\frac{3}{4}$ " Hardie X cut to fit
- 13. Wood column base,  $\frac{3}{4}$ " Hardie X cut to fit
- 14. 2x end gable wall framing to support hardie, 16" O.C.
- 15. Soffit vent
- 16. Ridge vent 17. Bead Board ceiling, wd. ptd. 2" exposure
- 18. 2x8 ceiling joist
- 19. APB, refer to structural
- 20. 1 x 1 Mahogany Cove trim
- 21. not used 22. not used
- 23. not used
- 24.  $\frac{1}{2}$ " Plywood sheathing 25. 1x hardie trim board, ptd.
- 26. Tyvex building wrap over  $\frac{1}{2}$ " cdx exterior grade plywood sheathing

05

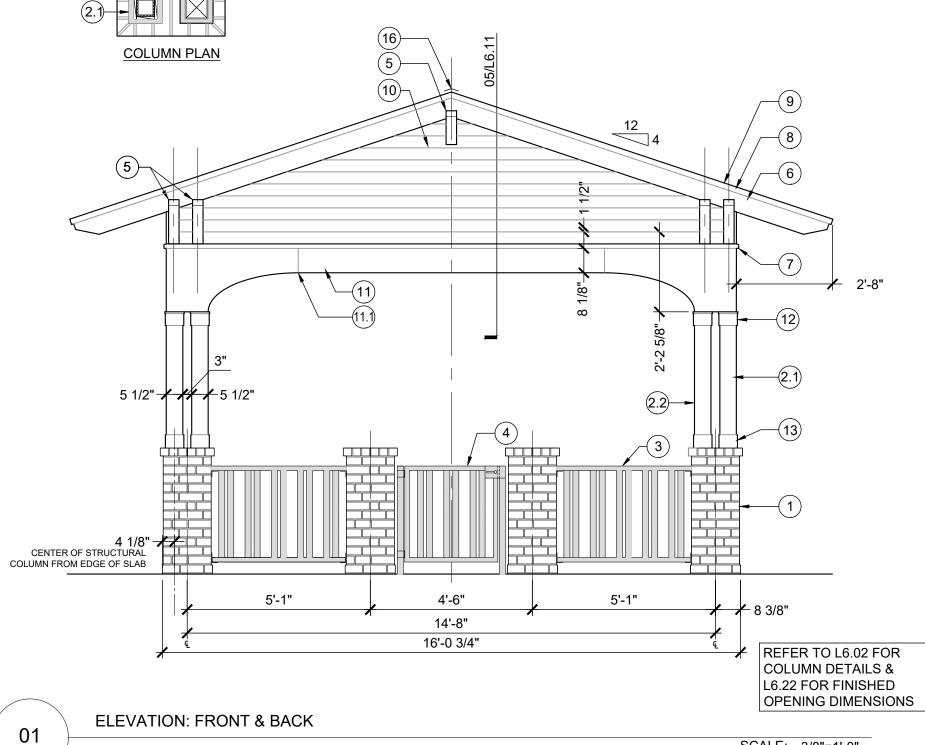
CROSS-SECTION: COLUMN LINES C & D

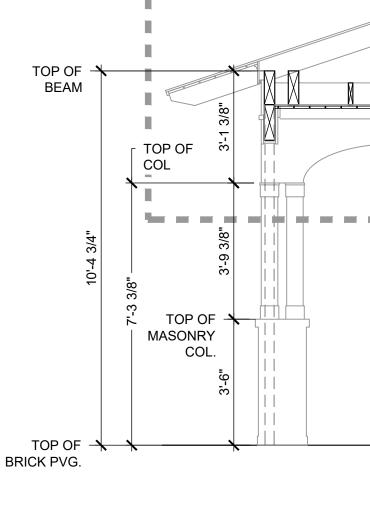


ELEVATION: SIDE

SCALE: 3/8"=1'-0"

SCALE: 3/8"=1'-0"

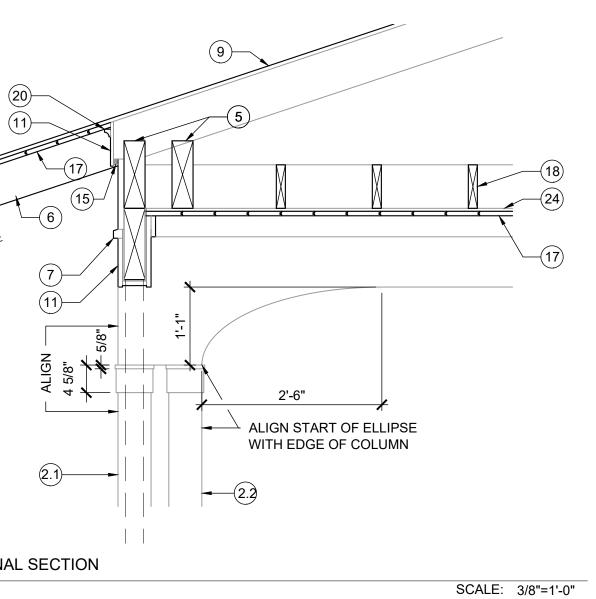


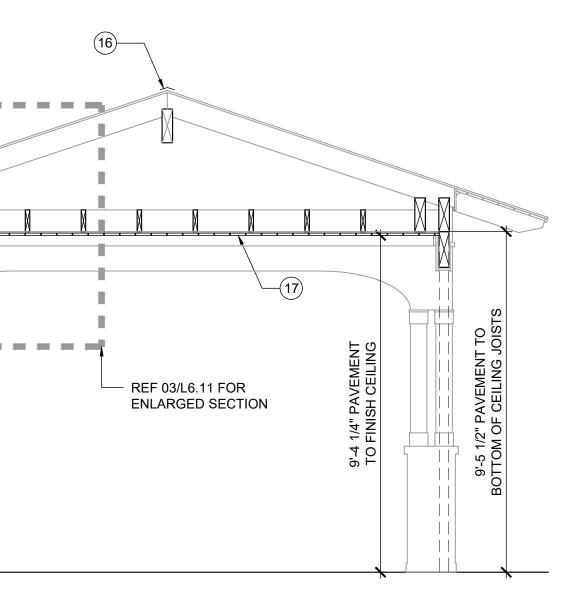


02

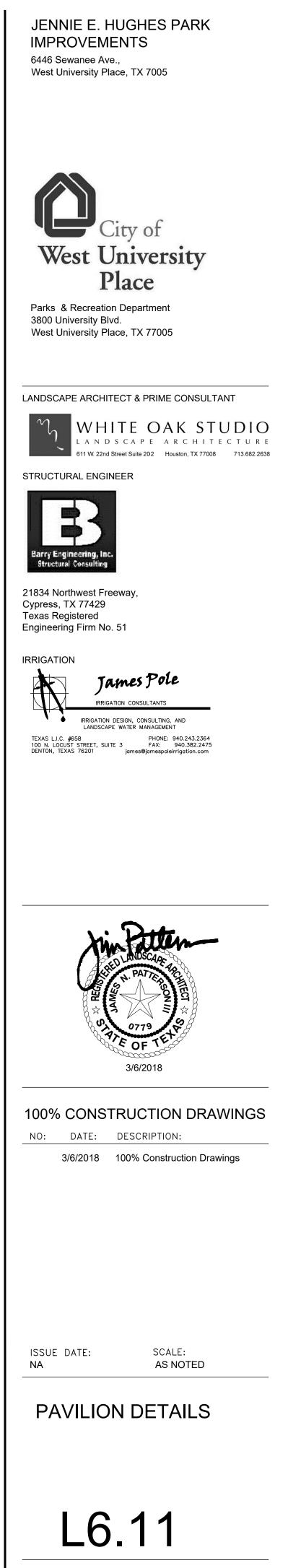
LONGITUDINAL SECTION

ENLARGED LONGITUDINAL SECTION 03





SCALE: 3/8"=1'-0"



SCALE: 3/8"=1'-0"

### **PAVILION NOTES**

### FRAMING

- 1. Lumber:
- 1.1. Light framing: #2 Southern Yellow Pine 19 % MC KD.
- 1.2. Ceiling; Joist/Roof; Rafters/Beams/Headers: #2 Southern Yellow Pine 19 % MC KD. 1.3. Hardie Clad Wood post: #2 Southern Yellow Pine pressure treated with MCA to .06 p.c.f. per AWPA Standards.

2. Plywood:

2.1. Roof sheathing: APA rated, 5/8" CDX

3. Rough Hardware:

- 3.1. Furnish all nails, screws, bolts, joist/beam hangers, column bases/caps, and plate connectors necessary for fastening materials. All fasteners on the exterior shall be hot dipped galvanized. Non corrosive finish gun nails for fascia, soffit, and other exterior trim.
- 3.2. Hurricane Clips/Tiles: Simpson Model H hurricane clips, or engineer specified equal. The use of hurricane clips is required.
- 3.3. Simpson CPT44Z Concealed post tie for 4 X 4 post connection to top of masonry column. Execution:
- 1. Erect wood framing members in accordance with applicable building codes and except as otherwise indicated, comply with "Manual of House Framing" by National Forest Product Association, including nailing, fir-stopping, anchorage, framing, and bracing.
- 2. All materials are to be erected plumb, with straight angle alignment, accurately cut, fully bearing, and securely anchored. Provide proper shoring and bracing as required.
- 3. All wood framing shall be inspected by the Landscape Architect prior to installation of finish material. Coordinate all framing work with applicable trades having special framing requirements: i.e. light locations. Landscape architect shall review with Contractor location of all electrical and lighting devices to insure their proper locations.

### **FINISH CARPENTRY**

Scope: Finish carpentry includes all wood trim.

Products:

1. Quality standard for fabrication and products shall be Architectural Woodwork Institute Quality Standards, Custom Grade unless noted otherwise.

2. Exterior finish carpentry:

- 2.1. Stained and Sealed Wood: All wood exposed to weather shall be #1 Western Red Cedar, smooth, unless otherwise noted. Refer to drawings for size.
- 2.2. Painted Wood: All wood exposed to weather shall be mahogany, treated or Hardie-board (smooth). All painted exterior trim shall be back primed. Refer to drawings for size.
- 2.3. Hardie-board shall be  $\frac{3}{4}$ " material, width per drawings or cut to fit.
- 2.4. Mahogany Cover Trim MC-159 by Masons Mill or approved equal.

Execution:

- 1. All interior millwork is to be covered and protected from the elements upon delivery to jobsite to avoid water damage, nicks, warpage, etc.
- 2. Install architectural woodwork plumb, level and straight with no distortion. Shim as required using concealed shims. Scribe and cut woodwork to fit adjoining work. Anchor woodwork to anchors or blocking or directly to substrates, using concealed fasteners.
- 3. Corner joints for Hardie shall be butt joints, corner joints for wood trim shall be mitered.

### **VAPOR BARRIERS/AIR BARRIERS**

Scope:Provide the following building systems to achieve continuity of building enclosure, air and vapor barrier in conjunction with materials in other sections.

Products:

- 1. Building Paper (Walls): 15 lb. Asphalt impregnated felt.
- 2. Sealants: Tremco "MONO" acrylic terpolymer or approved equal.
- 3. Exterior joints on vertical surfaces: Non-sag polyurethane; Tremco Dymeric or equal.
- 4. Primers, bond breakers, and backer rods (for joints deeper than 1/2") compatible with sealant and adjacent surfaces.

Execution:

- 1. Installation methods shall conform to applicable manufacturer's instructions.
- 2. Verify substrate materials are dry and clean. Remove loose or foreign matter which might impair adhesion.
- 3. Seal all dissimilar materials in exterior walls such as wood junctions, and trim and cladding junctions.

### **COMPOSITION SHINGLE ROOF**

Products:

Scope: Provide roofing shingles, valleys, crickets and flashing. Provide soffit and ridge venting as required.

- 1. Composition shingle roof: Sienna Shingle by GAF. Provide samples for color selection and approval.
- 2. Underlayment: #30 asphalt impregnated felt.
- 3. Nails: Galvanized 4 nails per shingle
- 4. Soffit Vent Cor-A-Vent S-400 Strip Vent or equal product . Install per manufacturer's instructions.
- 5. Ridge Vent Cor-A-Vent V-300 or equal product. Install per manufacturer's instructions.

Execution:

1. Substrate to be clear of all debris

FLASHING

- Scope:
- 1. Provide flashing and sheet metal components required to prevent the penetration of water through the exterior shell of the building:
- Products:
- 1. Sheet Materials: 1.1. Steel: 20 gage galvanized steel, G90 galvanizing, ASTM A 525.

### Execution:

- 1. All work shall be in accordance with SMACNA guide lines and details.
- 1.1. Form, fabricate, and install sheet metal as to adequately provide for expansion and contraction

# stained.

Color selection will be by Owner. Allow for (4) representative colors on 12" X 6" hardie board for slection. Color information will be provided by Landscape Architect

### PAINTING AND STAINING

### Scope:

Provide painting, staining, and surface preparation for all interior and exterior surfaces. It is the intent of this specification that all items, other than those provided with a factory applied finish, be painted or

### Products:

1. First-line standard products for all systems from the following approved suppliers. 1.1. Sherwin Williams, Benjamin Moore, Pratt and Lambert

2. Exterior paint systems: 2.1. Woodwork and Trim (Painted) - One (1) coat acrylic waterborne primer plus two (2) coats acrylic satin waterborne finish. Sand surfaces and plug nail holes before painting. Backprime all wood

surfaces. 2.2. Additives: In all exterior paint, provide Mildew additive M-1 and Insect repellent Additive CPF as

manufactured by Sherwin Williams or approved equal.

### Execution:

1. Workmanship shall be accomplished by skilled trained painters who are experienced in every phase of the work. All materials shall be applied under adequate illumination, evenly spread and smoothly flowed on without brush marks, runs, sags using clean brushes or spraying equipment. All painting work shall be done in favorable weather conditions and shall follow mfg. standard application recommendations. Surface shall be clean, smooth, and dry at the time of application.

2. At the completion of the job, provide the Owner with all open and unused containers of paint and stain for future touchup.

### JENNIE E. HUGHES PARK IMPROVEMENTS 6446 Sewanee Ave., West University Place, TX 7005



Parks & Recreation Department 3800 University Blvd. West University Place, TX 77005

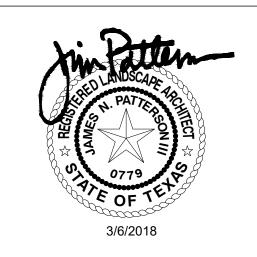
LANDSCAPE ARCHITECT & PRIME CONSULTANT



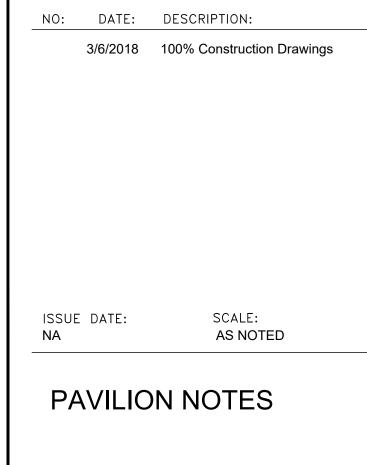
21834 Northwest Freeway, Cypress, TX 77429 Texas Registered Engineering Firm No. 51

Barry Engineering, In Structural Consulting

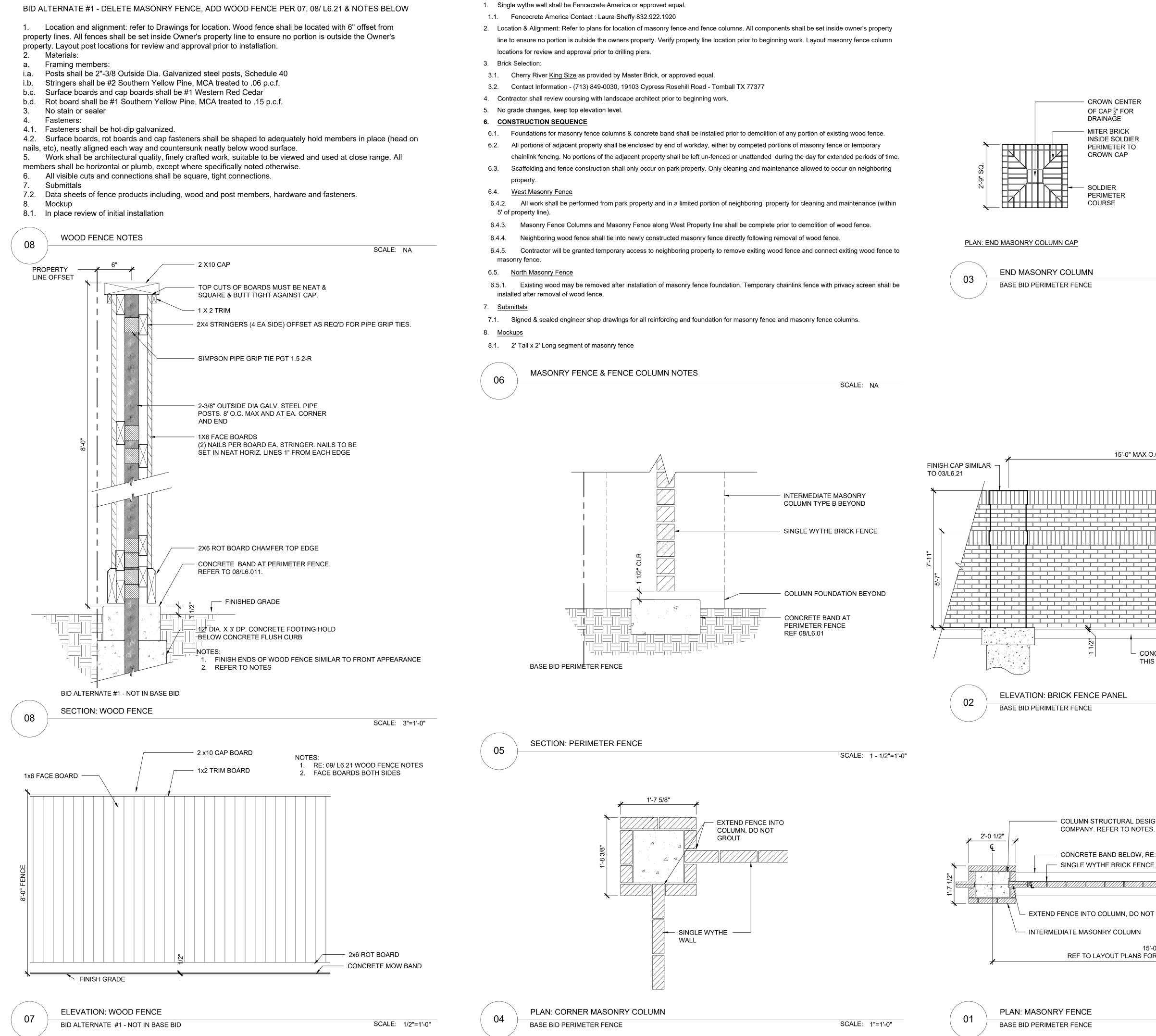




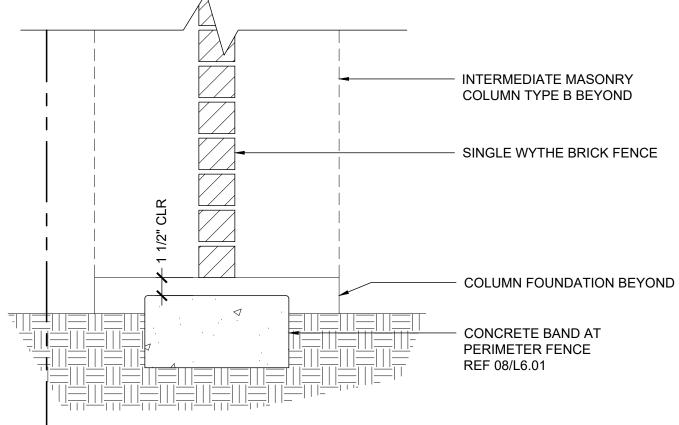
### **100% CONSTRUCTION DRAWINGS**

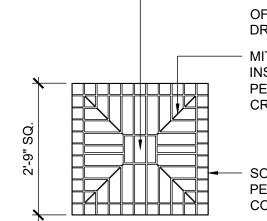


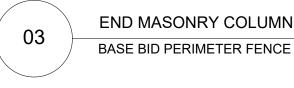
L6.12

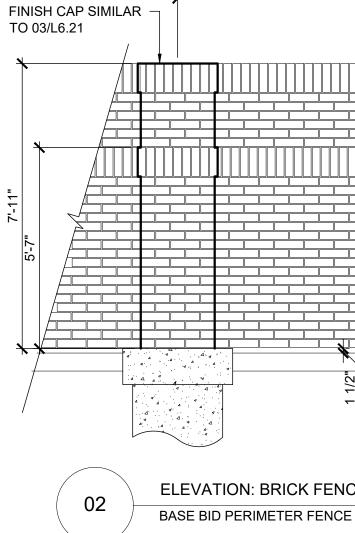


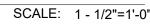
### **MASONRY FENCE & FENCE COLUMN NOTES:**

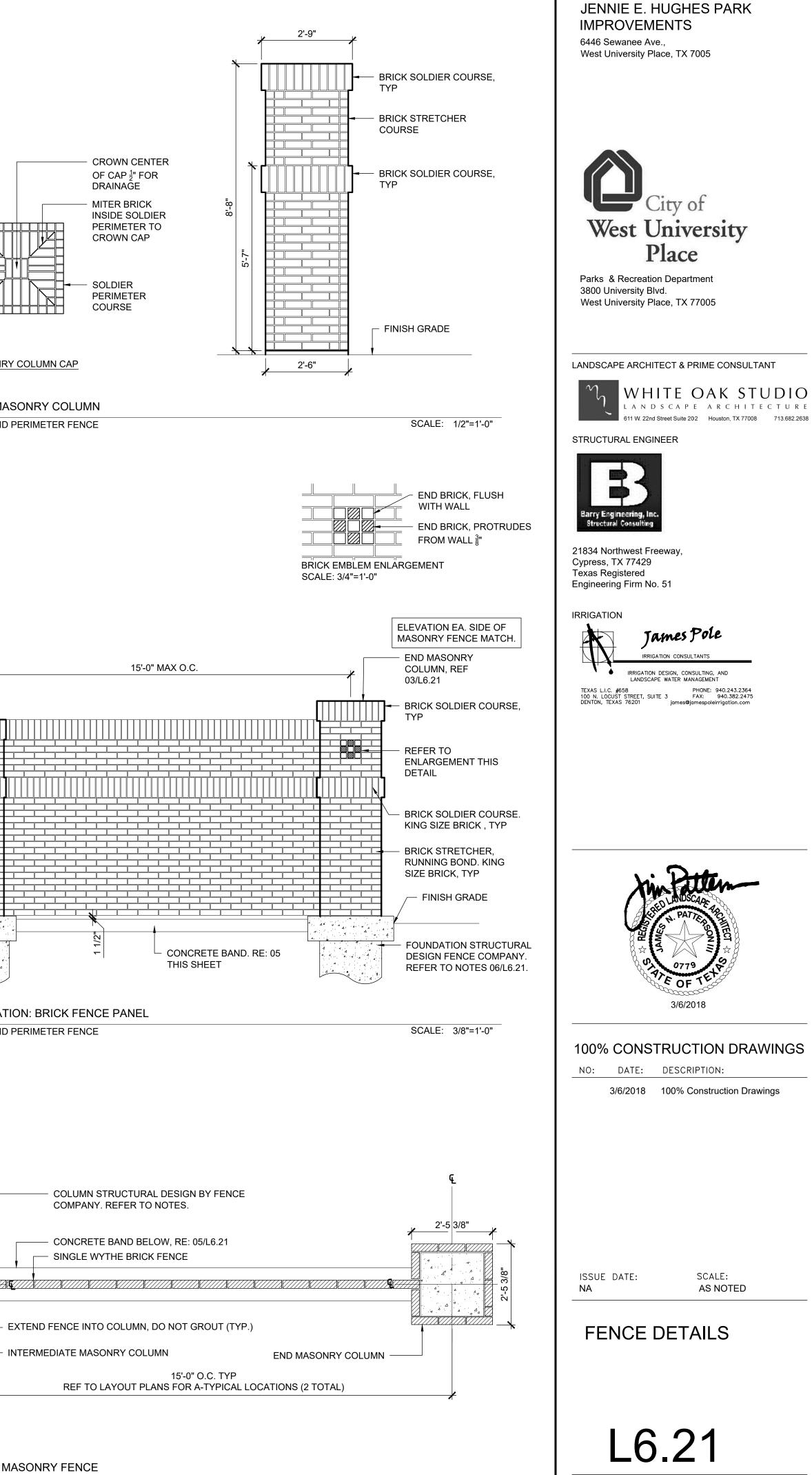


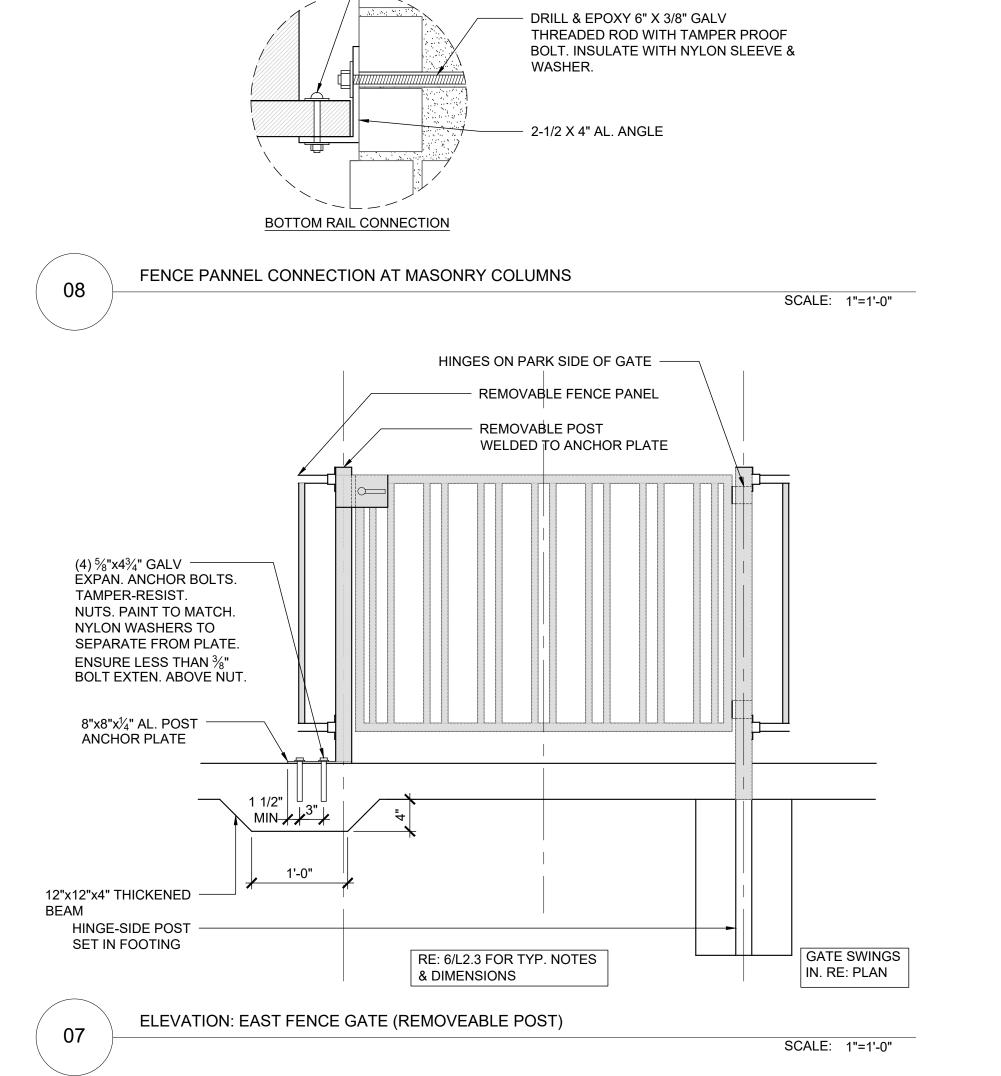


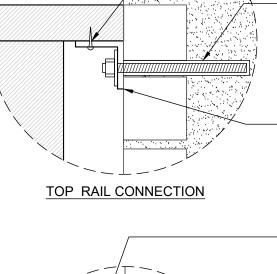












BOLT. INSULATE WITH NYLON SLEEVE & WASHER.

2" X 2" AL. ANGLE

DRILL & EPOXY 6" X 3/8" GALV

(2) AL. SELF TAPPING TAMPER PROOF SCREWS.

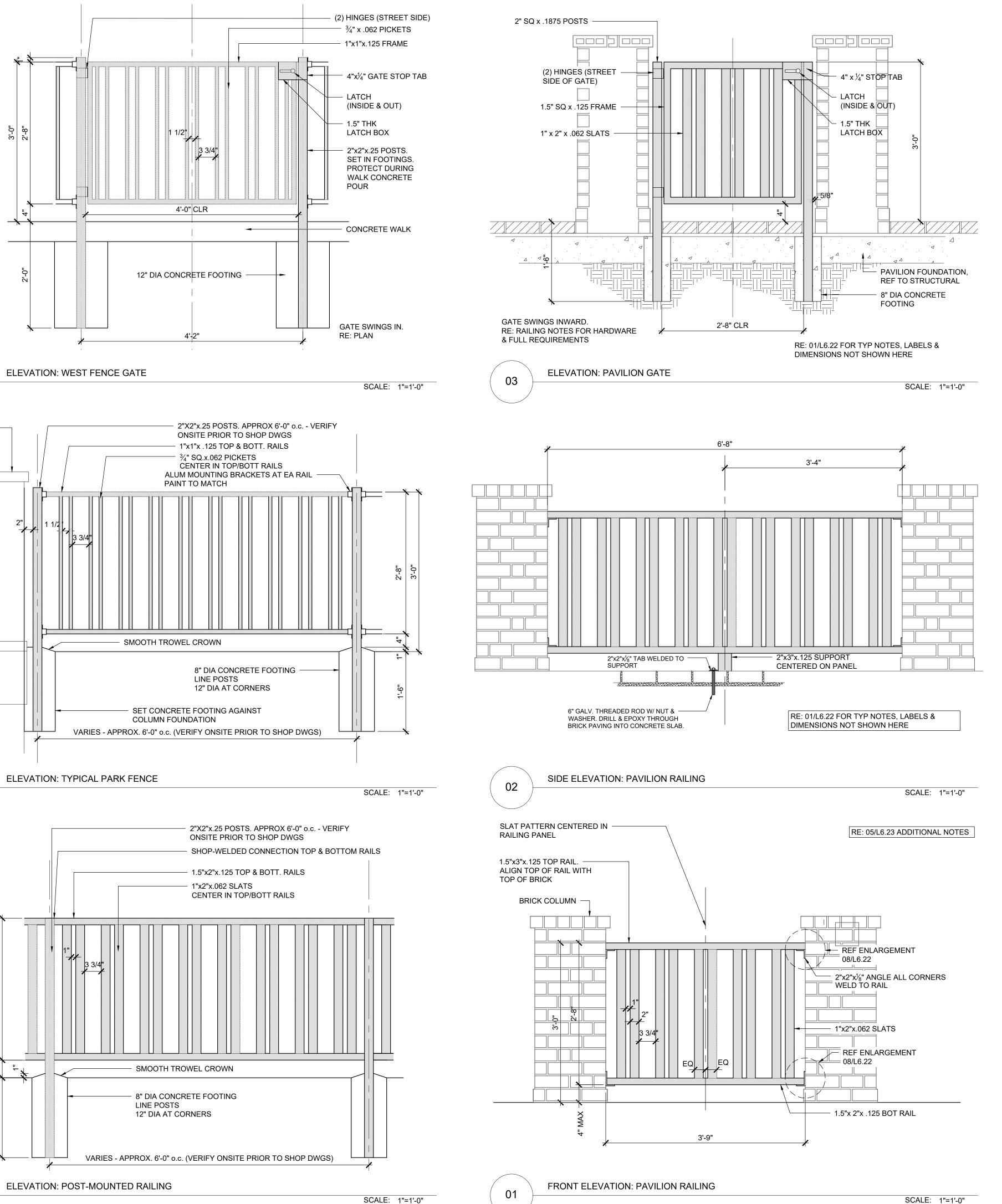
THREADED ROD WITH TAMPER PROOF

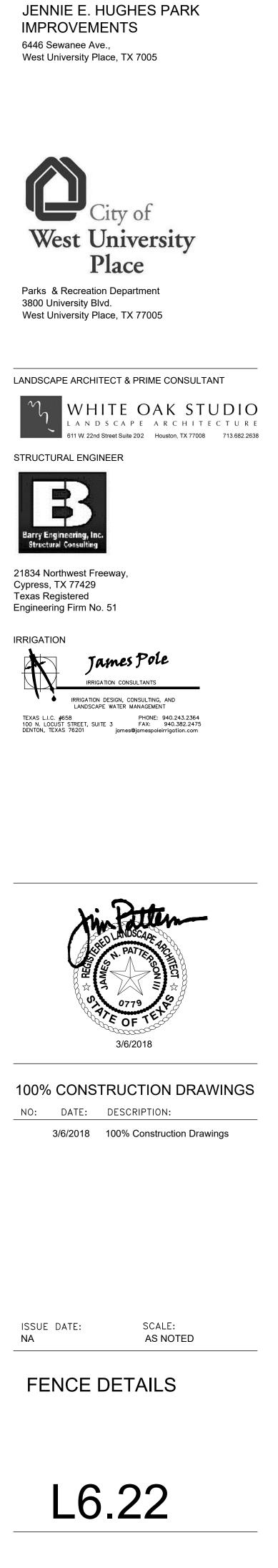
ALUMINUM ROUNDED HEAD CARRIAGE BOLT, TAMPER PROOF NUT & WASHER



05

06





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3.	Cont
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	ensu
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7. Hardware:

for approval.

9. Mockups: 10. Submittals:

05

STEP HANDRAIL - SECTION

er to Specifications for full requirements.

posts, line posts, horizontal bracing, gates set plumb.

tractor: Company with demonstrated successful experience in installing similar projects and have at least 5 years experience.

naterials shall be 6061 Extruded Aluminum, square edges, not rounded except for step hand rail shall have rounded edges.

Railing (Pavilion and 16 LF each side) shall be completely shop-welded, prepped and painted prior to delivery to site. Field-measure to ure snug fit between brick columns. Panels shall be shop-welded to metal posts, ready for installation. No site modification allowed for ng.

ence panels shall be shop-welded, prepped and painted for field attachment to posts, except fence panel for signs shall be shop-welded osts, similar to railing panels.

7.1. Hinges: SureClose Safety Ready-Fit Hinge, Aluminum Brackets (Paint to match Aluminum Gate)

- Self Closing Hinge RF-108SF-S (1) per gate)
- Non Self-Closing Hinge RF-SM-S (1 per gate)
- Contact: Hardware Source hardwaresource.com
- 9.2 Latches: 316 Stainless steel lever handle. No lock. Self-latching. Heavy duty Exterior Application.

8. Finish of all Railing, Hand Railing and Fence materials shall be shop-painted. Prepare surface and apply paint per mfr recommendations. Paint shall be:

- Sherwin Williams
- Primer: DTM Wash Primer 1 coat;
- Finish Coat: Bond-Plex WB Acrylic, 2 coats

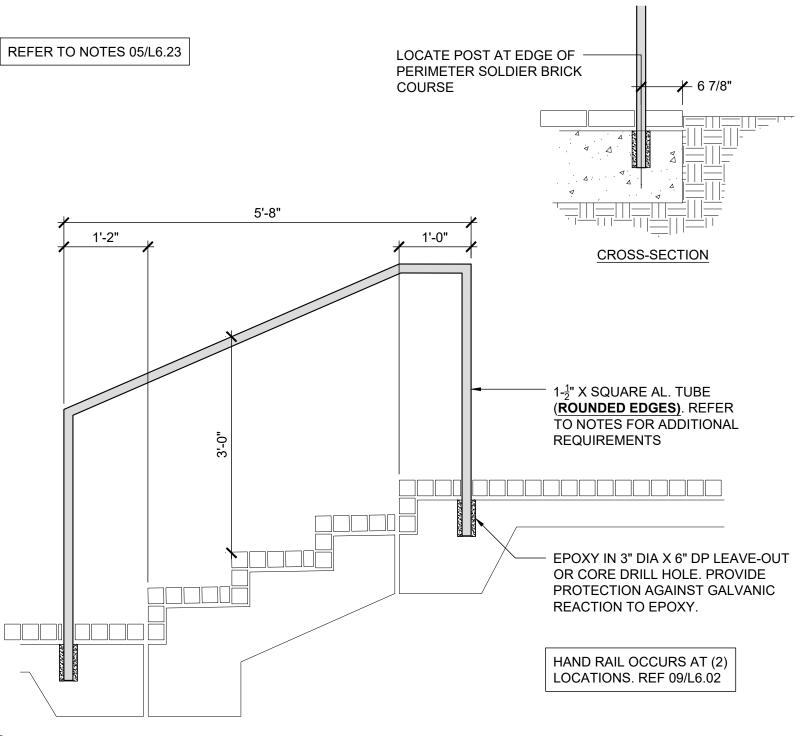
9.1. Prepare mockup, including painted finish of one 2' long section of Pavilion Railing and one 2' long section of Park Fence for consultant review and approval, prior to fabrication.

10.1. Submit shop drawings and product data for approval, prior to order or fabrication. Include accessories, fittings, hardware, anchorages, and schedule of components.

RAILING, STEP HAND RAIL AND FENCE NOTES

SCALE: NA

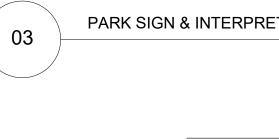
Provide mfr. information

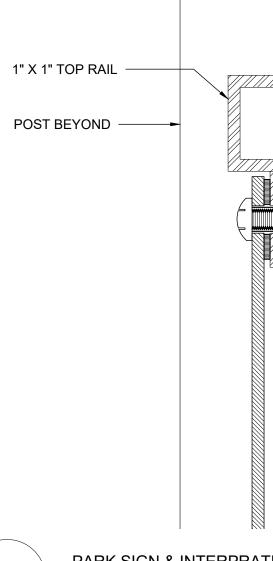


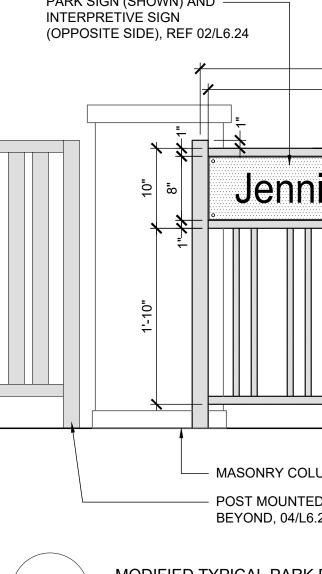
JENNIE E. HUGHES PARK IMPROVEMENTS 6446 Sewanee Ave., West University Place, TX 7005 1. (2) total signs, Park Sign faces street, Interpretive Sign faces park 2. Landscape Architect to provide digital file of sign for production purposes 3. Contractor shall verify dimensions of fence opening and coordinate with sign vendor to ensure neat, snug fit of signs within the opening. City of 4. Signs graphics shall be Powder Coated High-Resolution Embedded Coating West University 5. Coating provider shall be Direct Embed Coating Systems or approved equal; 6 Morris St., Paterson, NJ 07501. Place ASD. Tel: (954) 825-0410. Email: info@directembedcoating.com. Web: http://www.directembedcoating.com Parks & Recreation Department 6. Submittals 3800 University Blvd. 6.1. Shop Drawings: For all fabrications, including details of construction and attachment to fence West University Place, TX 77005 6.2. Manuf. data sheets 6.3. Verification Samples: For each finish product specified, minimum size 6 inches square representing actual product, color, and patterns LANDSCAPE ARCHITECT & PRIME CONSULTANT 7. Mockups WHITE OAK STUDIO 7.1. 6"x6"x1/8" aluminum plate of each sign, with portion of specified design to represent letters, photo image, etc. LANDSCAPE ARCHITECTURE 611 W. 22nd Street Suite 202 Houston, TX 77008 713.682.2638 included in the sign. STRUCTURAL ENGINEER PARK SIGN & INTERPRETIVE SIGN NOTES 03 SCALE: NA Barry Engineering, In Structural Consulting 21834 Northwest Freeway, Cypress, TX 77429 Texas Registered Engineering Firm No. 51 1" X 1" TOP RAIL IRRIGATION REFER TO NOTES 03/L6.23 James Pole POST BEYOND -IRRIGATION CONSULTANT IRRIGATION DESIGN, CONSULTING, AND ANDSCAPE WATER MANAGEMEN 
 TEXAS L.I.C.
 #658
 PHONE:
 940.243.2364

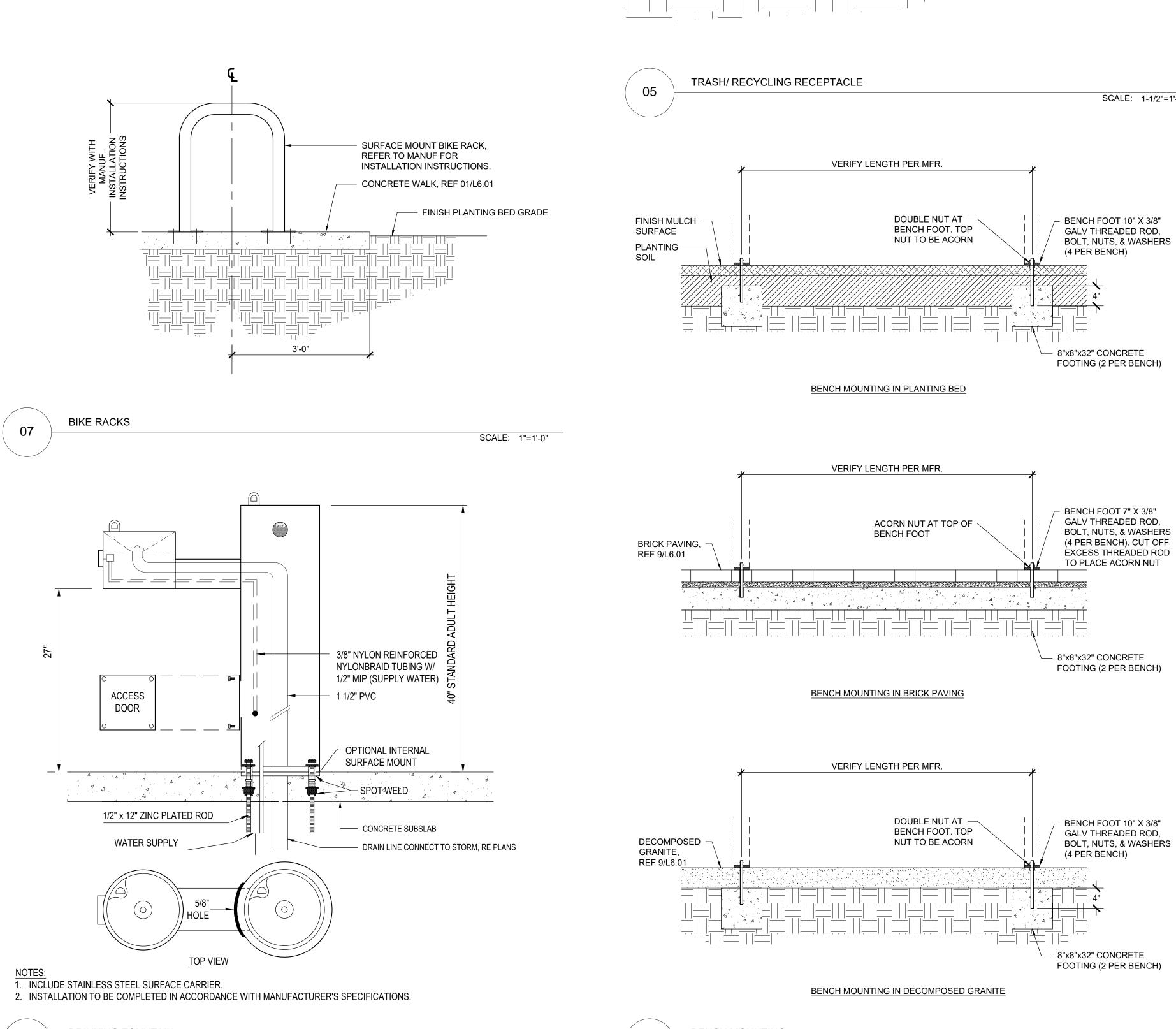
 100 N. LOCUST STREET, SUITE 3
 FAX:
 940.382.2475

 DENTON, TEXAS
 76201
 james@jamespoleirrigation.com
 - 2 HOLE SECURITY BARREL BOLT & NUT, ALUMINUM,  $\frac{3}{8}$ " HEAD SIZE. NEOPRENE WASHERS 1" X 1" X  $\frac{1}{8}$ " AL. TAB WELDED TO TOP AND MIDDLE RAIL. HOLES DRILLED TO RECEIVE BARREL BOLT AND NUT. <sup>1</sup>/<sub>a</sub>" THK. ALUMINUM (BRUSHED FINISH) PARK SIGN & INTERPRETIVE SIGN (2 TOTAL SIGNS). LENGTH & WIDTH TO FIT NEATLY WITH MINIMAL GAP WITHIN PROVIDED SPACE ON MODIFIED TYPICAL FENCE. DIRECT EMBED COATING. PARK SIGN FACES STREET, INTERPRETIVE SIGN FACES PARK. VOID BETWEEN SIGNS PARK SIGN & INTERPRATIVE SIGN 02 SCALE: 1'-0"=1'-0" 3/6/2018 100% CONSTRUCTION DRAWINGS ALL MEMBERS & SPACING MATCH TYPICAL PARK FENCE, NO: DATE: DESCRIPTION: PARK SIGN (SHOWN) AND -----REF 05/L6.22 INTERPRETIVE SIGN 3/6/2018 100% Construction Drawings (OPPOSITE SIDE), REF 02/L6.24 6'-0" 5'-10" CLR SIGN CONNECTION TO FENCE, REF 02/L6.23
 (5) LOCATIONS TOP AND BOTTOM, EQUALLY SPACED Jennie Elizabeth Hughes Park TOP, MIDDLE, & BOTTOM RAIL WELDED TO POST EA SCALE: ISSUE DATE: SIDE, REF NOTES NA AS NOTED FENCE, SIGN, & RAILING DETAILS MASONRY COLUMN BEYOND, 03/L6.02 TYPICAL PARK FENCE 'SHOE' CONNECTION POST MOUNTED RAILING TO POST BEYOND, 04/L6.22 REF NOTES 05/ L6.23 L6.23 MODIFIED TYPICAL PARK FENCE AT PARK SIGN & INTERPRATIVE SIGN 01 SCALE: 1"=1'-0"







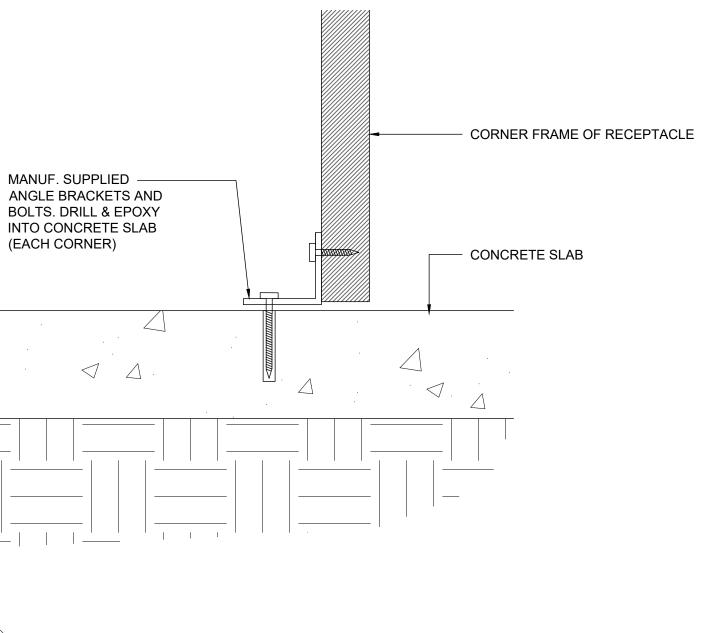


 $\triangle$ 



DRINKING FOUNTAIN

SCALE: 1"=1'-0"





SCALE: 1-1/2"=1'-0"

02

03

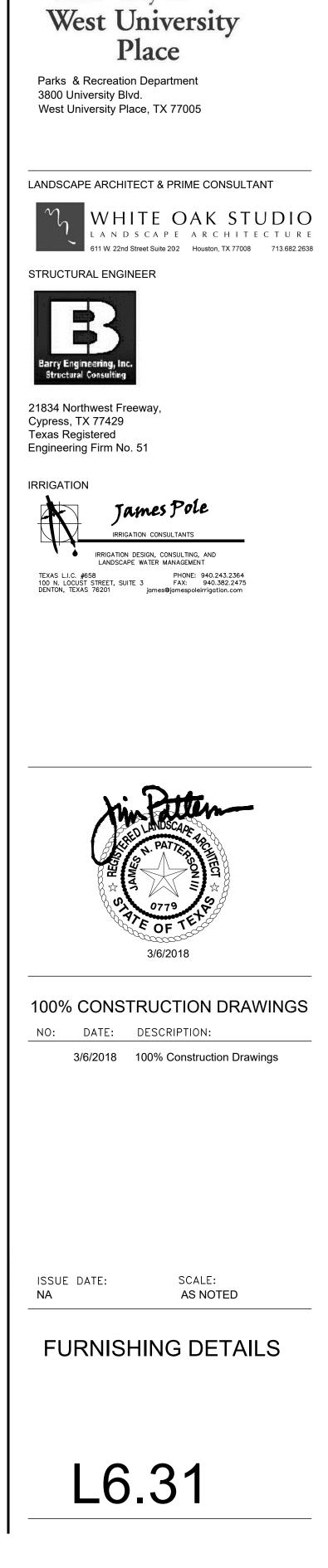


SCHEDULE OF PRODUCTS AND FURNISHINGS MANUFACTUR QTY DESCRIPTION SUPPLIER INSTALL OWNER Recycle Away PROVIDED - Trash and Recycling Station Most Dependab INSTALL OWNER PROVIDED - Drinking Fountains Fountain The Park Catalo INSTALL OWNER PROVIDED - Picnic Table INSTALL OWNER The Park Catal PROVIDED - Park Bench INSTALL OWNER The Park Catal PROVIDED - Park Bench -Backless The Park Catalo INSTALL OWNER PROVIDED - Bike Racks Polywood INSTALL OWNER **PROVIDED** - Rocking Chairs

FURNISHING SCHEDULE

		GALV EYE HOOK, W DRILL & EPOXY 3" IN 12" DP CONCRETE F	ITO 6" DIA		
FURNISHING S	CHEDULE	SONOTUBE FORM, S TROWEL CROWN TO			
					SCALE: na
PRODUCTS AND FUR	1				
RIPTION	MANUFACTURER/ SUPPLIER	MODEL	FINISH/ COLOR	CONTACT	REMARKS/ SUBMITTALS/ MOCKUPS
LL OWNER IDED - Trash and ling Station	Recycle Away	Manchester Sideload Double Recycling Station Item #: N3-19201932DP2	na	na	Owner provided contractor installed. Product is assembled by manufacturer. Anchor into concrete pad w/ provided angle brackets and concrete anchors at each corner.
LL OWNER IDED - Drinking in	Most Dependable Fountains	440-SSM	Black	na	Owner provided contractor installed. Install per manuf installation instructions. Review plumbing and drainage requirements prior to installing water and drain to storm.
LL OWNER IDED - Picnic Table	The Park Catalog	Everest Series 8 FT Heavy Duty ADA Picnic Table	Black	na	Picnic Table placed on decomposed granite surface, no t anchored.
<b>LL OWNER</b> IDED - Park Bench	The Park Catalog	Prlaza Strap Metal Bench with Backrest	Black	na	Refer to Drawings for installation detail
<b>LL OWNER</b> I <b>DED</b> - Park Bench - ss	The Park Catalog	Powder-Coated Steel Strap Flat Bench	Black	na	Refer to Drawings for installation detail
LL OWNER IDED - Bike Racks	The Park Catalog	145-1438 Standard Style Bike Rack Made of 2 7/8" Galv. Tubing, Inground Mount	Black	na	Refer to Drawings for installation detail
LL OWNER IDED - Rocking Chairs	Polywood	Presidential Rocker R100	White	na	Refer to Drawings for installation detail for tethering to Front Porch

	SCALE: na
	SUBMIT SIZE & TYPE OF ALL HARDWARE FOR APPROVAL.
	<ul> <li>GALV EYE HOOK WITH GALV NUT &amp; WASHERS. DRILL AND FASTEN THROUGH ROCKING CHAIR FRAME. REVIEW INSTALLATION WITH LANDSCAPE.</li> <li><sup>1</sup>/<sub>8</sub>" X 4' LONG (AFTER LOOPED)</li> </ul>
	COATED STAINLESS STEEL WIRE ROPE W/ (2) LOOP FERRULE EACH END.
GALV EYE HOOK, WET SET OR DRILL & EPOXY 3" INTO 6" DIA X 12" DP CONCRETE FOOTING. SONOTUBE FORM, SMOOTH TROWEL CROWN TOP OF FTG.	



JENNIE E. HUGHES PARK

City of

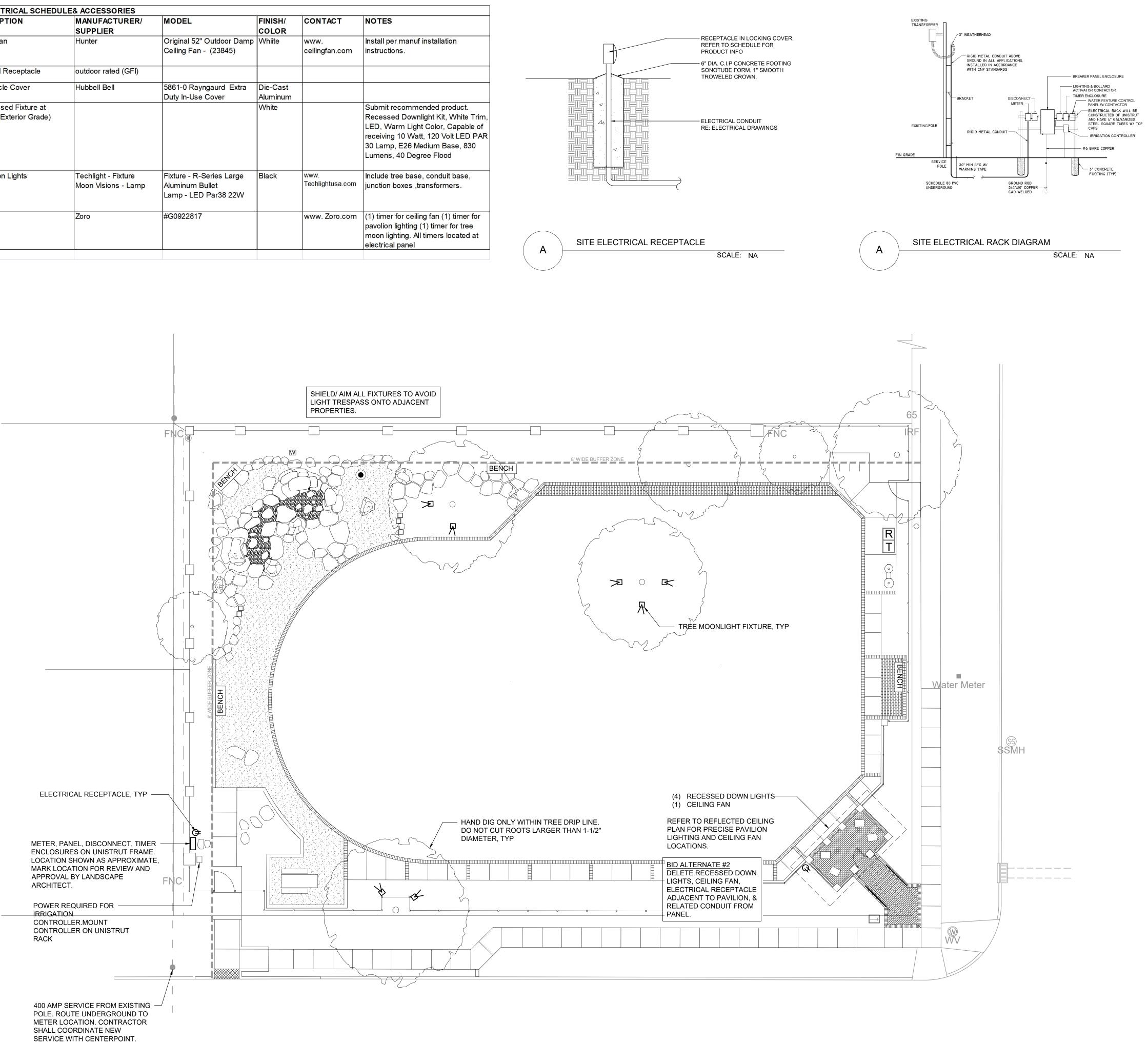
IMPROVEMENTS

West University Place, TX 7005

6446 Sewanee Ave.,

SCALE: na

LIGHTI	NG/ ELECTRICAL SCHEDU	LE& ACCESSORIES				
QTY	DESCRIPTION	MANUFACTURER/ SUPPLIER	MODEL	FINISH/ COLOR	CONTACT	NOTES
1	Ceiling Fan	Hunter	Original 52" Outdoor Damp Ceiling Fan - (23845)	Whiite	www. ceilingfan.com	Install per manuf installation instructions.
2	Electrical Receptacle	outdoor rated (GFI)				
2	Receptacle Cover	Hubbell Bell	5861-0 Rayngaurd Extra Duty In-Use Cover	Die-Cast Aluminum		
4	4" Recessed Fixture at Pavilion (Exterior Grade)			White		Submit recommended product. Recessed Downlight Kit, White LED, Warm Light Color, Capab receiving 10 Watt, 120 Volt LED 30 Lamp, E26 Medium Base, 83 Lumens, 40 Degree Flood
7	Tree Moon Lights	Techlight - Fixture Moon Visions - Lamp	Fixture - R-Series Large Aluminum Bullet Lamp - LED Par38 22W	Black	www. Techlightusa.com	Include tree base, conduit base junction boxes ,transformers.
3	Timer	Zoro	#G0922817		www. Zoro.com	(1) timer for ceiling fan (1) timer pavolion lighting (1) timer for tre moon lighting. All timers located electrical panel



### ELECTRICAL NOTES

- 1. 2011 National Electrical Code is the minimum standard to be followed.
- 2. Provide 400 Amp Service with single ext. disconnect. 3. Panel shall have Plug-In Type breakers
- 4. All lighting circuits and convenience outlet circuits shall be
- wired with 12 gauge wire and have 20 amp circuit capacity 5. All circuits shall be ground fault (GFI) protected.
- 6. Any required electrical splicing must be done within electrical box.
- 7. Pull boxes shall be Quazite type. Contractor shall utilize smallest pullbox needed to perform work.
- 8. All enclosures shall be locking, NEMA 3 rated. 9. All timers shall be housed in an enclosure mounted on unistrut rack. Unistrut rack shall be smallest size as required
- to hang all electrical components. 10. Contractor is responsible for all permits and submittals to
- the city. 11. Include all related wiring, conduit, low voltage wiring, connections, and fittings as required for a complete functional system.

### SUBMITTALS

WATER FEATURE CONTROL PANEL W/ CONTACTOR

- IRRIGATION CONTROLLER

- 1. Contractor shall submit conduit routing and pull box locations to Landscape Architect for review and approval. All pull boxes shall be located within planting bed. No pull boxes shall be located within lawn or hardscape areas.
- 2. Submit all electrical products/ items for review and approval. 3. Shop drawing of rack and equipment

### TREE LIGHT REQUIREMENTS & NOTES

- 1. Tree lighting installation shall be performed by company with minimum 5 years experience with similar work.
- 1.1. Pre-approved lighting company Illuminations Lighting Design
  - Rick Luberger 713-867-6802
- 2. Provide 10' tall flexible conduit on trunk of trees.Neatly fasten to without damage to tree.
- 3. Conduit route to trunk of tree, within tree dripline, shall be direct radial path to trunk, hand dig only. Do not cut tree roots larger than 1-1/2" diameter in size.
- 4. Grey wire on tree truck. Install with stainless steel standoff bolts. Discuss mounting, riser location, and overall installation with Landscape Architect prior to installation.



JENNIE E. HUGHES PARK

IMPROVEMENTS

West University Place, TX 7005

6446 Sewanee Ave.,



West University Place, TX 77005

LANDSCAPE ARCHITECT & PRIME CONSULTANT



STRUCTURAL ENGINEER

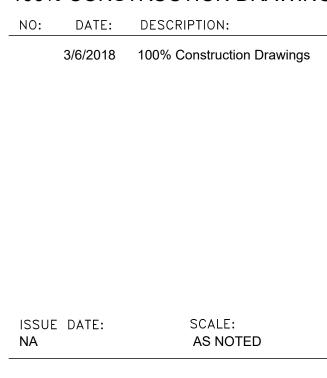


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### 100% CONSTRUCTION DRAWINGS



LANDSCAPE ELECTRICAL PLAN



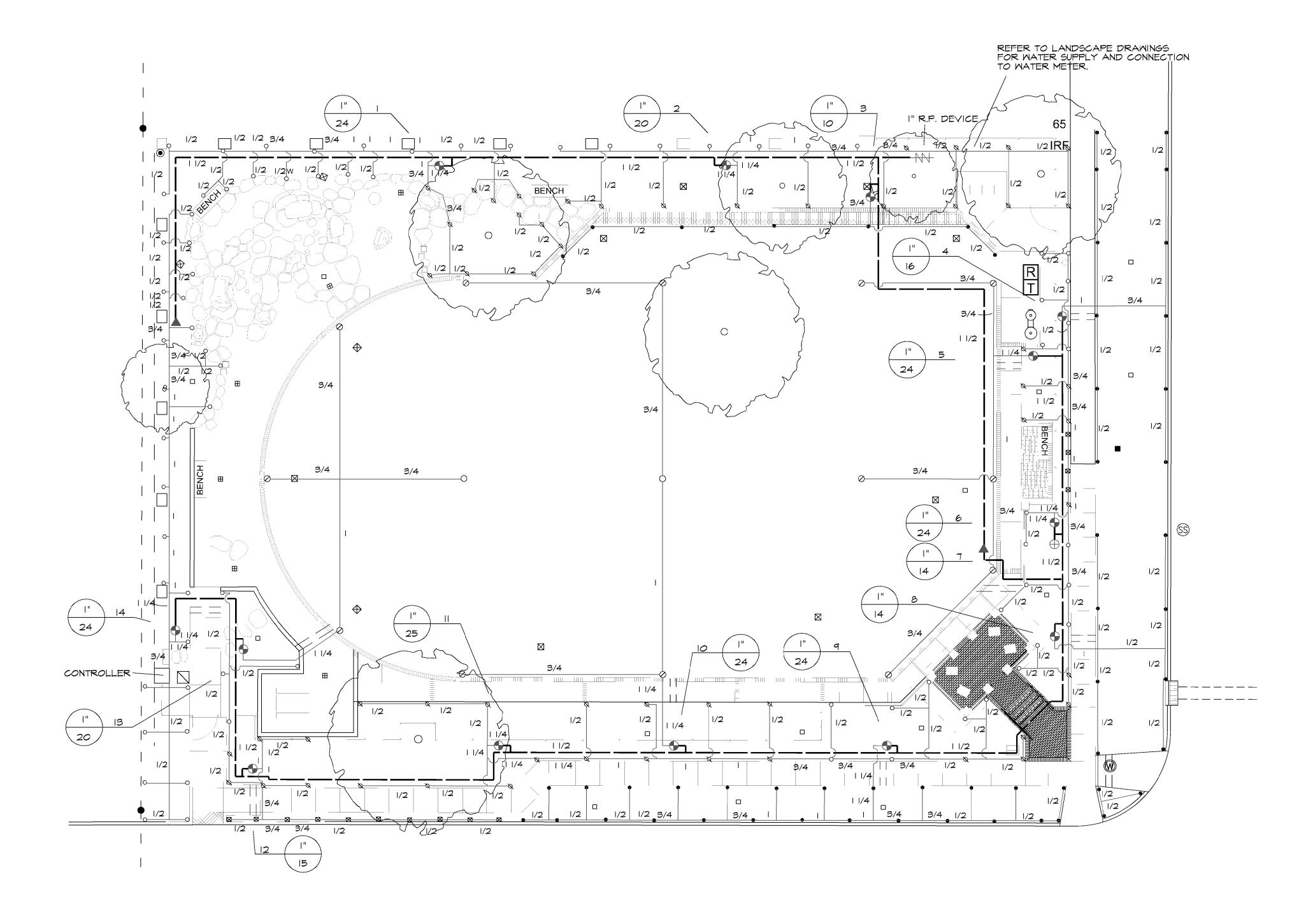


ò			10'		20'
SCA	LE :	1" = 10	)'-0"		

### LEGEND

- HUNTER PROS-06-NSI-PRS30 SERIES POP UP SPRAY HEADS WITH HUNTER MSBN-50H STREAM BUBBLER NOZZLES. (TWO PER TREE) SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
- HUNTER PROS-04-PRS30 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SERIES NOZZLE AS NOTED BELOW
- HUNTER PROS-12-NSI-PRS30 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SERIES NOZZLE AS NOTED BELOW HUNTER PROS-04-PRS30 SERIES POP UP SPRAY HEAD WITH 8' PRO-SPRAY SERIES NOZZLE UNLESS NOTED OTHERWISE.
- HUNTER PROS-06-NSI-PRS30 SERIES POP UP SPRAY HEAD WITH HUNTER MSBN-50H STREAM BUBBLER NOZZLE.
- 0 HUNTER PGP ULTRA, ADJUSTABLE ARC 4" POP UP ROTARY HEAD, PART CIRCLE, #4.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
- 0 HUNTER PGP ULTRA, ADJUSTABLE ARC 4" POP UP ROTARY HEAD, FULL CIRCLE, #8.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
- $\bullet$ HUNTER ICY SERIES ELECTRIC REMOTE CONTROL VALVE  $\oplus$ 
  - HUNTER ICY SERIES ELECTRIC REMOTE CONTROL, "TREE BUBBLER ZONE" VALVE SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
  - HUNTER HQ-33-LRC-R QUICK COUPLING VALVE WITH LOCKING PURPLE COVER AND 3/4" PVC BALL VALVE
- WILKING 375 SERIES REDUCED PRESSURE TYPE BACKFLOW PREVENTOR INSTALLED PER CITY CODE
- $\square$ HUNTER PRO-C SERIES AUTOMATIC CONTROLLER WITH (1) PCM-300 AND (1) PCM-900 EXPANSION MODULE AND 'WSS-SEN' WIRELESS ET SENSOR. LOCATE SENSOR AS FIELD DIRECTED BY THE LANDSCAPE ARCHITECT ----- SCHEDULE 40 PVC MAINLINE PIPE
- CLASS 200 (EXCEPT 1/2 INCH #315 ) PVC LATERAL PIPE

\_\_\_\_ ONE 4" CLASS 200 SLEEVE PIPE



COORDINATION WITH EXISTING TREES NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN THE ROOT ZONE OF EXISTING TREES. HAND-DIG ONLY, WITHIN THE ROOT ZONES OF EXISTING TREES. NO ROOTS OVER I" DIAMETER SHALL BE CUT. STAKE ALL PROPOSED TRENCH ROUTES NEAR EXISTING TREES FOR APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE DIGGING BEGINS.

VALVE BOX PLACEMENT THE CONTRACTOR SHALL STAKE ALL VALVE BOX LOCATIONS FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.



IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISION ON ENVIRONMENTAL QUALITY (TCEQ) (MC-178) P.O. BOX 13087 T.C.E.Q.'S WEB SITE IS: WWW.TCEQ.STATE.TX.US

JENNIE HUGHES PARK 6446 Sewanee Ave., West University Place, TX 7005



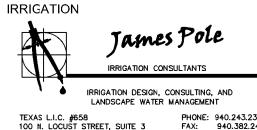
Parks & Recreation Department 3800 University Blvd. West University Place, TX 77005

LANDSCAPE ARCHITECT & PRIME CONSULTANT

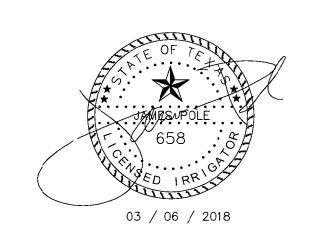




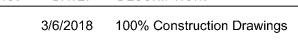
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### **100% CONSTRUCTION DRAWINGS** NO: DATE: DESCRIPTION:



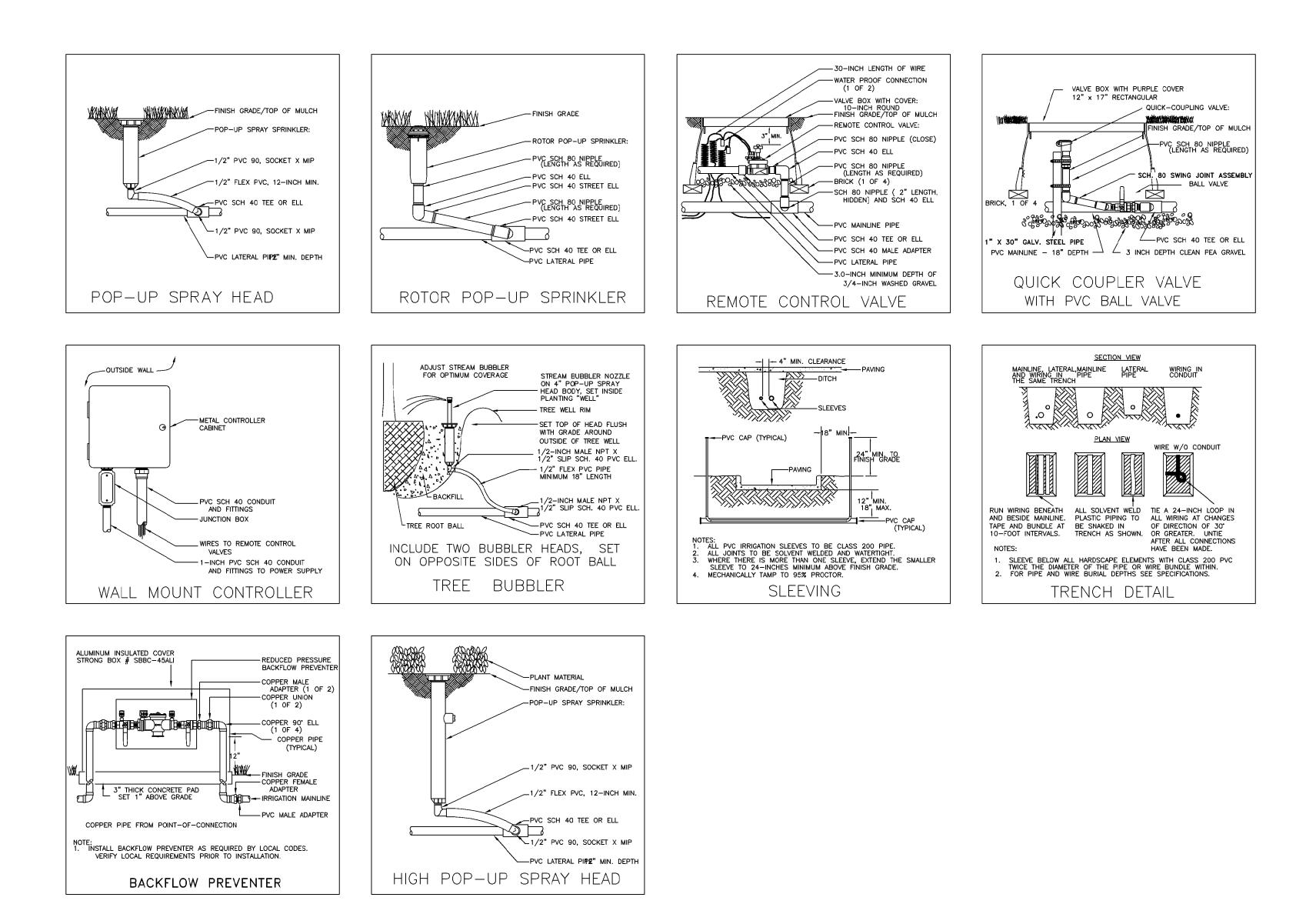
ISSUE DATE: 3/6/18

SCALE: AS NOTED









### LEGEND

HUNTER PROS-06-NSI-PRS30 SERIES POP UP SPRAY HEADS WITH HUNTER MSI SEE INSTALLATION NOTE #13 REGARDING TREE BUBBLER LATERAL PIPE
HUNTER PROS-04-PRS30 SERIES POP UP SPRAY HEAD WITH PRO SPRAY SER
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'WSS-SEN' WIRELESS ET SENSOR LOCATE SENSOR AS FIELD DIRECTED I

'WSS-SEN' WIRELESS ET SENSOR. LOCATE SENSOR AS FIELD DIRECTED BY THE LANDSCAPE ARCHITECT ----- SCHEDULE 40 PVC MAINLINE PIPE CLASS 200 (EXCEPT 1/2 INCH #315) PVC LATERAL PIPE

\_\_\_\_\_ ONE 4" CLASS 200 SLEEVE PIPE

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 $\square$ 

- I. COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES, AND WILL SECURE ALL REQUIRED PERMITS. L.I.C. SHALL PAY ANY ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN AND SHALL BE ADDRESSED BEFORE ANY CONSTRUCTION BEGINS.
- 2. NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN THE ROOT ZONE OF EXISTING TREES. HAND-DIG ONLY, WITHIN THE ROOT ZONES OF EXISTING TREES. NO ROOTS OVER I" DIAMETER SHALL BE CUT. STAKE ALL PROPOSED TRENCH ROUTES NEAR EXISTING TREES FOR APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE DIGGING BEGINS. 3. CONFIRM MINIMUM STATIC WATER PRESSURE OF 60 PSI AT THE HIGHEST ELEVATION OF THE SYSTEM LIMITS, AND MAXIMUM STATIC WATER PRESSURE OF 90 P.S.I. AT THE LOWEST ELEVATION OF THE SYSTEM LIMITS AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS OUTSIDE THE RANGE STATED ABOVE, DO NOT PROCEED UNTIL DIRECTED BY THE LANDSCAPE ARCHITECT.
- 4. LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES. NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN EXISTING TREE ROOT ZONES. WHEN HAND - TRENCHING WITHIN EXISTING TREE ROOT ZONES, NO ROOTS LARGER THAN I" DIAMETER SHALL BE CUT. 5. UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY ONLY. INSTALL THESE PIPES IN
- ADJACENT LANDSCAPED AREAS.
- 6. ELECTRIC POWER SHALL BE PROVIDED WITHIN FIVE FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. L.I.C. TO PROVIDE FINAL HARD-WIRE TO CONTROLLER.
- "IRRIGATION WIRE". WIRE SPLICES SHALL INCLUDE DBY CONNECTORS AS MANUFACTURED BY 3M COMPANY. ALL FIELD SPLICES SHALL BE LOCATED IN A ROUND VALVE BOX OF SUFFICIENT SIZE TO ALLOW INSPECTION. OF CLEAN PEA GRAVEL LOCATED BELOW THE VALVE. USE 12" x 17" RECTANGULAR VALVE BOXES WITH PURPLE LID
- 7. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR 8. VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, SUPPORTED BY BRICKS IF NEEDED, WITH 3 INCHES FOR QUICK COUPLING VALVES, AND 10" ROUND BOXES FOR ELECTRIC VALVES UNLESS NOTED OTHERWISE.
- 9. USE RIGID SCH. 80 PVC SWING JOINT ASSEMBLIES TO CONNECT ALL ROTARY HEADS AND QUICK COUPLERS.
- IO. ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #795 SOLVENT AND #P-70 PRIMER
- II. PROVIDE ONE QUICK COUPLER KEY WITH SWIVEL HOSE ELL FOR EVERY SIX Q.C. VALVES. (MINIMUM ONE SET). 12. CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION 13. LATERAL PIPE TO TREE STREAM BUBBLER HEADS IS OMITTED FOR GRAPHIC CLARITY. CONNECT TREE BUBBLER HEADS TO
- VALVES AS SHOWN WITH CLASS 200 PVC PIPE SIZED TO ALLOW A MAXIMUM FLOW VELOCITY OF 5 FEET PER SECOND 14. THE PROPOSED LOCATIONS OF ALL ABOVE- GROUND EQUIPMENT INCLUDING BACKFLOW PREVENTORS, CONTROLLERS, VALVE BOXES, AND WEATHER SENSORS SHALL BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THESE ITEMS ARE INSTALLED.
- 15. ALL HEADS SHALL BE INSTALLED A MINIMUM OF 4" FROM PAVEMENT EDGES. (6" OR GREATER WHERE REQUIRED BY LOCAL CODE ) FINAL HEAD ADJUSTMENTS BY THE CONTRACTOR SHALL INCLUDE THE ADDITION OF CHECK VALVES WHERE NEEDED TO PREVENT EXCESSIVE LOW HEAD DRAINAGE. THE CONTRACTOR SHALL BUDGET FOR, AND INSTALL CHECK VALVES FOR UP 10 % OF THE TOTAL NUMBER OF HEADS WHEN NEEDED, WITH NO ADDITIONAL COST TO THE OWNER.

COORDINATION WITH EXISTING TREES NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN THE ROOT ZONE OF EXISTING TREES. HAND-DIG ONLY, WITHIN THE ROOT ZONES OF EXISTING TREES. NO ROOTS OVER I" DIAMETER SHALL BE CUT. STAKE ALL PROPOSED TRENCH ROUTES NEAR EXISTING TREES FOR APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE DIGGING BEGINS.

VALVE BOX PLACEMENT THE CONTRACTOR SHALL STAKE ALL VALVE BOX LOCATIONS FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

MSBN-50H STREAM BUBBLER NOZZLES. ( TWO PER TREE ) PE

- SERIES NOZZLE AS NOTED BELOW
- AY SERIES NOZZLE AS NOTED BELOW
- AY SERIES NOZZLE UNLESS NOTED OTHERWISE.
- 198N-50H STREAM BUBBLER NOZZLE.
- IRCLE, #4.0 BLUE NOZZLE UNLESS NOTED OTHERWISE RCLE, #8.0 BLUE NOZZLE UNLESS NOTED OTHERWISE
- /ALVE
- VER AND 3/4" PVC BALL VALVE
- ISTALLED PER CITY CODE
- ) PCM-900 EXPANSION MODULE AND

CONTROLLER STATION-

### INSTALLATION NOTES





WaterSense

IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISION ON ENVIRONMENTAL QUALITY (TCEQ) (MC-178) P.O. BOX 13087 T.C.E.Q.'S WEB SITE IS: WWW.TCEQ.STATE.TX.US

# JENNIE HUGHES PARK

6446 Sewanee Ave., West University Place, TX 7005



Parks & Recreation Department 3800 University Blvd. West University Place, TX 77005

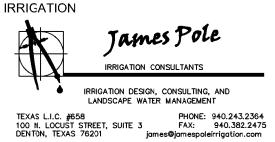
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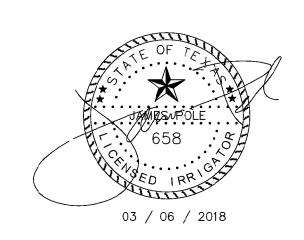


STRUCTURAL ENGINEER



21834 Northwest Freeway, Cypress, TX 77429 **Texas Registered** Engineering Firm No. 51





### **100% CONSTRUCTION DRAWINGS** NO: DATE: DESCRIPTION:

3/6/2018 100% Construction Drawings

**ISSUE DATE:** 3/6/18

SCALE: AS NOTED

# **IRRIGATION DETAILS**

# IR1.02

### **GENERAL COORDINATION NOTES**

- 1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE ERECTION BRACING AS REQUIRED FOR STABILITY OF THE STRUCTURE AND STRUCTURAL COMPONENTS TO RESIST BOTH GRAVITY AND LATERAL LOADS DURING ALL PHASES OF CONSTRUCTION AND FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND AROUND THE SITE AND FOR THE STRENGTH AND STABILITY OF ALL PARTIALLY COMPLETED STRUCTURES. THE CONTRACTOR SHALL AT HIS DISCRETION EMPLOY THE AID OF A STATE REGISTERED ENGINEER WHERE THIS PROJECT IS LOCATED TO DESIGN ALL TEMPORARY BRACING AND SHORING NECESSARY TO COMPLETE THE WORK DESCRIBED IN THESE CONTRACT DOCUMENTS.
- 2. ALL DETAILS AND SECTIONS SHOWN ON STRUCTURAL DRAWINGS ARE TYPICAL AND REPRESENT ALL SIMILAR CONDITIONS WHERE DETAIL AND SECTION MARKS MAY NOT BE SHOWN; HOWEVER IF A DIFFERENT "ATYPICAL" CONDITION EXISTS, A CORRESPONDING SECTION AND DETAIL WILL BE SHOWN.
- 3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE ALL CONSULTANT DRAWINGS AND NOTIFY. IN THE FORM OF A WRITTEN "REQUEST FOR INFORMATION" (RFI), THE STRUCTURAL ENGINEER AND THE OTHER CONSULTANTS OF ANY AND ALL DISCREPANCIES.
- PRINCIPAL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. ALL OTHER OPENINGS SHALL BE 4. COORDINATED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. ALL OPENINGS REQUIRED THROUGH THE STRUCTURE NOT SHOWN ON STRUCTURAL DRAWINGS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.
- 5. LOADING FOR MECHANICAL EQUIPMENT IS BASED ON THE EQUIPMENT LOADING FOUND IN THE MECHANICAL DRAWINGS. ANY CHANGES IN THE EQUIPMENT TYPE, SIZE, OR NUMBER OF EQUIPMENT SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER TO VERIFY THE ADEQUACY OF THE SUPPORTING FRAMING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.
- STRUCTURAL PLAN DIMENSIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS. THE 6. STRUCTURAL ENGINEER AND ARCHITECT SHOULD BE INFORMED BY A WRITTEN RFI OF ANY AND ALL DISCREPANCIES. IN NO CASE SHALL A DIMENSION BE DIMENSIONED FROM THE PLANS.

### **DESIGN CRITERIA**

- DESIGN CONFORMANCE STANDARD: 2012 INTERNATIONAL BUILDING CODE.
- 2. STRUCTURAL DESIGN LIVE LOADS:
  - ROOF 20 PSF
- 3. WIND DESIGN DATA: \*WIND SPEED V<sub>ULT</sub>:142 MPH IMPORTANCE FACTOR, Iw: 1.0 EXPOSURE CATEGORY : C

### GEOTECHNICAL

- 1. GEOTECHNICAL ENGINEERING FIRM: TOLUNAY-WONG ENGINEERS, INC.
- 2. GEOTECHNICAL REPORT NUMBER AND DATE:
- NO. 18.13.002, MARCH 5TH, 2018
- ALLOWABLE SOIL BEARING VALUES, PSF: GRADE BEAM LOAD: 2000 PSF, INTO UNDISTURBED SOIL, IMPROVED EXISTING FILL, OR TESTED NEW FILL SOIL. BELLED PIER LOAD: 3000 PSF AT A DEPTH OF 8'-0"
- SUBGRADE PREPARATION:
- ALL SUBGRADE PREPARATION SHALL CONFORM TO THE REQUIREMENTS AS SET FORTH IN THE GEOTECHNICAL REPORT THAT RESULTS IN A MAXIMUM PVR OF 1 INCH.
- EARTHWORK: 5.
- IT IS RECOMMENDED THAT A QUALIFIED GEOTECHNICAL ENGINEER BE RETAINED AT THE START OF THE PROJECT'S CONSTRUCTION PHASE TO OBSERVE AND TEST THE EARTHWORK AT THE SITE. THIS MAY INCLUDE PROOF-ROLLING, SUBGRADE COMPACTION AND FILL PLACEMENT. THE GEOTECHNICAL ENGINEER SHOULD INFORM THE FOUNDATION DESIGNER IF CONDITIONS DIFFER FROM THOSE NOTED IN THE PROJECT'S GEOTECHNICAL REPORT. 6. VAPOR BARRIER
- A 10 MIL VAPOR BARRIER SHALL BE PROVIDED UNDER THE ENTIRE FOUNDATION. JOINTS SHALL LAP A MINIMUM OF 6 INCHES AND SHALL BE CONTINUOUSLY TAPED.

## MATERIAL TESTING FOR CAST-IN-PLACE CONCRETE

- THE PROJECT OWNER OR ENTITY RESPONSIBLE FOR THE CONSTRUCTION OF THIS PROJECT SHALL EMPLOY ONE OR MORE 3RD PARTY SPECIAL INSPECTOR(S) OR QUALIFIED MATERIALS AND TESTING AGENCIES TO PERFORM MATERIAL TESTING AND TO PROVIDE TEST REPORTS TO THE ARCHITECT AND ENGINEER-OF-RECORD IN CONFORMANCE WITH THE INTERNATIONAL BUILDING CODE AND ACI 318.
- FIELD OBTAINED SAMPLING FOR STRENGTH TESTS SHALL BE TAKEN IN ACCORDANCE WITH CHAPTER 5 OF ACI 318, LATEST EDITION.

# CAST-IN-PLACE CONCRETE

- 1. ALL CONCRETE SHALL BE LABORATORY DESIGNED AND CONTROLLED AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
- 2. CEMENT USED TO PROVIDE CONCRETE SHALL CONFORM TO CHAPTER 3 ACI 318 AND ASTM C 150. CEMENT MUST BE TYPE 1 OR 2 PORTLAND CEMENT FOR ALL CONCRETE.
- 3. WATER USED IN MIXING CONCRETE SHALL CONFORM TO SECTION 3.4 ACI 318.
- 4. CONCRETE WEIGHT: ALL CONCRETE SHALL BE OF REGULAR WEIGHT OF 145 POUNDS PER CUBIC FOOT UNLESS NOTED OTHERWISE.
- 5. AGGREGATE: SIZE OF AGGREGATE SHALL CONFORM TO ASTM C33-85. 3/4".....ASTM SIZE C67 .....ASTM SIZE C57
- 6. CONCRETE AGE: NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND
- CONCRETE PLACEMENT UNLESS APPROVED BY TESTING AGENCY. 7. ADMIXTURES: NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE MIX WITHOUT THE APPROVAL OF THE ENGINEER, UNLESS NOTED OTHERWISE. ADMIXTURES OR CONCRETE CONTAINING CHLORIDES SHALL NOT BE USED IN THE POST-TENSIONED SLABS.
- 8. SEGREGATION OF AGGREGATES: CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS, COLUMNS AND DROP CAPITALS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. USE HOPPERS, CHUTES OR TRUNKS OF VARYING LENGTH SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED EIGHT FEET, AND A SUFFICIENT NUMBER SHALL BE USED TO ENSURE THAT THE CONCRETE IS KEPT LEVEL AT ALL TIMES.
- 9. CURING OF CONCRETE: IT IS RECOMMENDED THAT CURING OF CONCRETE SHOULD BEGIN IMMEDIATELY UPON COMPLETION OF CASTING OPERATION TO MAINTAIN SATISFACTORY MOISTURE CONTENT AND TEMPERATURE (BETWEEN 50° F AND 75° F) IN THE CONCRETE, IN ORDER TO DEVELOP DESIRED CONCRETE PROPERTIES AND MINIMIZE CRACK FORMATION. G.C. MAY EMPLOY ANY CURING METHOD DEEMED EFFECTIVE FOR THIS PURPOSE WITHIN THE GUIDELINES OF ACI 308R; HOWEVER USE OF CURING COMPOUND IS SUBJECT TO OWNER'S APPROVAL.
- 10. MINIMUM COMPRESSIVE STRENGTH FOR 100% CABLE STRESS: 2,250 PSI 11. CONCRETE STRENGTH: 3,000 PSI @ 28 DAYS
  - NOTE: (1) USE OF A CURING COMPOUND MAY AFFECT THE PERFORMANCE OF CONCRETE STAIN. SEEK OWNER APPROVAL PRIOR TO USAGE.

# **REINFORCEMENT STEEL**

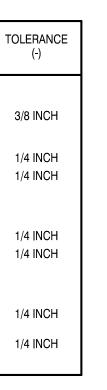
- INSERTS: ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING.
- 2. SPLICES: SPLICE BARS IN MEMBERS SUCH AS SPANDRELS, BEAMS, ETC., AS FOLLOWS: TOP BARS AT CENTERLINE OF SPAN, BOTTOM BARS AT THE SUPPORT. ALL REINFORCING STEEL SHALL BE SECURELY WIRED AND PROPERLY SUPPORTED ABOVE GROUND AND AWAY FROM THE FORMS.
- 3. CONSTRUCTION JOINTS: CONSTRUCTION JOINTS SHALL HAVE ENTIRE SURFACE REMOVED TO EXPOSE CLEAN, SOLIDLY EMBEDDED AGGREGATE. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL OF CONSTRUCTION JOINT LOCATION IN SLABS AND BEAMS.
- 4. TEMPERATURE AND SHRINKAGE REINFORCEMENT: SHALL HAVE A LAP OF THIRTY (30) BAR DIAMETERS, BUT NOT LESS THAN 18 INCHES, AND THE SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN FIVE (5) FEET APART. ALL OTHER LAPS SHALL BE 48 BAR DIAMETERS. REBAR GRADES: ALL REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A61

15 AS FOLLOWS:	
#3 & TIES & STIRRUPS	GRADE 40
#3 SLAB REINFORCEMENT	GRADE 60
#4 & LARGER BARS	GRADE 60

THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS SHALL NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETEST SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.

- 5. WELDED WIRE FABRIC: WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND A185. 6. WELDING: TACK WELDING OF REBAR IS NOT PERMITTED UNLESS CALLED FOR OR APPROVED BY THE
- ENGINEER. ALL APPROVED WELDING TO CONFORM TO SECTION 2625 (d)2D AND (e)3B. WELDING SHALL COMPLY WITH UNIFORM BUILDING CODE STANDARD NO. 26-8. WELDING OF STIRRUPS, TIES, INSERTS OR OTHER SIMILAR ELEMENTS TO LONGITUDINAL REINFORCING BARS SHALL NOT BE PERMITTED.
- 7. WET SET: ANCHORS MAY NOT BE WET SET IN CONCRETE POURS. 8. TOLERANCES FOR REBAR PLACEMENT: TOLERANCE FOR LONGITUDINAL LOCATION OF BENDS AND ENDS OF REINFORCEMENT SHALL BE PLUS OR MINUS TWO (2) INCHES, EXCEPT AT DISCONTINUOUS ENDS OF
- MEMBERS WHERE TOLERANCES SHALL BE  $\pm 1/2$  INCH. 9. REBAR COVER: MINIMUM REBAR COVER FOR PRE-STRESSED CONCRETE SHALL BE AS SHOWN IN THIS TABLE

EXPOSURE CONDITION	MINIMUM COVER	
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	
EXPOSED TO EARTH OR WEATHER: NO. 5 AND SMALLER BARS NO. 6 AND LARGER BARS	2" 2"	
NOT EXPOSED TO EARTH OR WEATHER: SLABS, WALLS, JOISTS: NO. 14 AND NO. 18 BARS NO. 11 AND SMALLER BARS	1-1/2" 3/4 INCH	
BEAMS AND COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1-1/2"	
SLABS ON GRADE	1-1/2"	



### WELDING

- 1. ALL WELDERS ARE REQUIRED TO HAVE PASSED AN "AMERICAN WELDING SOCIETY" QUALIFICATION TEST BEFORE BEING PERMITTED TO MAKE A STRUCTURAL CONNECTION.
- 2. ALL WELDING PROCEDURES SHALL FOLLOW THE REQUIREMENTS AS SET FORTH IN THE SPECIFICATIONS OF AWS AND AISC. 3. IF NOT SPECIFIED IN THE DETAILS, MINIMUM WELD SIZES SHALL FOLLOW THE GUIDELINES FOUND IN AWS
- 5.25 AND AISC 1.5 AND 1.15.
- 4. ALL WELDS IN WHICH THE LENGTH OF WELD IS NOT SPECIFIED SHALL BE CONTINUOUS. 5. ALL SHOP OR FABRICATION WELDING SHALL BE SUBMERGED ARC WELDING (SAW) PER THE AWS
- STANDARDS 6. WELD STRENGTH FOR ALL STRUCTURAL STEEL SHALL BE 70 KSI. WELD STRENGTH FOR REINFORCING STEEL
- (WHEN APPROVED) SHALL BE 80 KSI. 7. ALL WELDS SHALL BE INSPECTED BY A 3RD PARTY TESTING AGENCY UNDER THE PROVISIONS OF CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

# STRUCTURAL STEEL

- 1. STRUCTURAL STEEL SHALL CONFORM TO A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST APPROVED EDITION.
- ALL STRUCTURAL STEEL SHALL HAVE A MINIMUM OF ONE COAT OF STANDARD IRON OXIDE PRIMER, WITH A MINIMUM DRY FILM THICKNESS OF 1.5 MILS. U.N.O. BY ARCHITECT. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

WIDE FLANGE SECTIONS	ASTM A992, GRADE 50
SQUARE/RECTANGULAR TUBE STEEL	ASTM 500, GRADE B, 46 KSI
ROUND STEEL PIPE	ASTM A53, GRADE B
CHANNELS, PLATES, ANGLES AND MISCELLANEOUS STEEL	ASTM A36, 36 KSI

4. CONNECTION BOLTS AND ANCHORS SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

CONNECTION BOLTS	ASTM A325-N		
ANCHOR BOLTS	ASTM F1554, GRADE 36		
LINE ESS OTHERWISE NOTED IN THE DRAWINGS ALL			

- 5. UNLESS OTHERWISE NOTED IN THE DRAWINGS, ALL BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL BE DESIGNED AS "SIMPLE CONNECTIONS", AND SHALL BE SHOP WELDED AND FIELD BOLTED. SHEAR CONNECTIONS SHALL BE DESIGNED AS DOUBLE SHEAR CONNECTIONS FOR 55% OF THE TOTAL LOAD CAPACITY LISTED ON TABLE 3-6 "MAXIMUM TOTAL UNIFORM LOAD" (ASD) OF THE THIRTEENTH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.
- 6. ALL CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 3/4"Ø CONFORMING TO ASTM A325. ALL SHEAR CONNECTIONS SHALL BE DESIGNED AS BEARING-TYPE DOUBLE SHEAR BASED ON THREADS BEING INCLUDED IN THE SHEAR PLANE. ALL BOLTS SHALL BE TIGHTENED AS SPECIFIED FOR SLIP CRITICAL CONNECTIONS.
- 7. SHEAR CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE DESIGNED BY THE STRUCTURAL STEEL FABRICATOR UNDER THE DIRECT SUPERVISION OF A LICENSED ENGINEER. REGISTERED IN THE STATE OF THIS PROJECT, USING THE DESIGN PARAMETERS IN NOTE (5) ABOVE.
- 8. PROVIDE STIFFENER PLATES AT ALL LOCATIONS INDICATED ON DRAWINGS REGARDLESS OF WHETHER THEY ARE FOUND BY CALCULATION NOT TO BE NECESSARY.

### **ENGINEERED WOOD**

- 1. ALL ENGINEERED WOOD SHALL BE DESIGNED PER THE REQUIREMENTS OF THE NATIONAL DESIGN STANDARD'S MANUAL FOR ENGINEERED CONSTRUCTION.
- 2. ALL ENGINEERED WOOD MUST SATISFY THE FOLLOWING MATERIAL PROPERTIES:

MATERIAL PROPERTIES				
TYPE	F <sub>b</sub> (PSI)		E (PSI)	F <sub>v</sub> (PSI)
LAMINATED STRAND LUMBER, LSL	2,300		1.55 X 10 <sup>6</sup>	310
LAMINATED VENEER LUMBER, LVL	2,600		1.90 X 10 <sup>6</sup>	285
PARALLEL STRAND LUMBER, PSL	2,900		2.00 X 10 <sup>6</sup>	290
GLUE LAMINATED LUMBER 24F V4, GL	2,400		1.80 X 10 <sup>6</sup>	265
	Beam	Width		
ANTHONY POWER BEAM, A.P.B.	<u>&lt;</u> 6"	> 6"	2.10 X 10 <sup>6</sup>	300
		2,800		

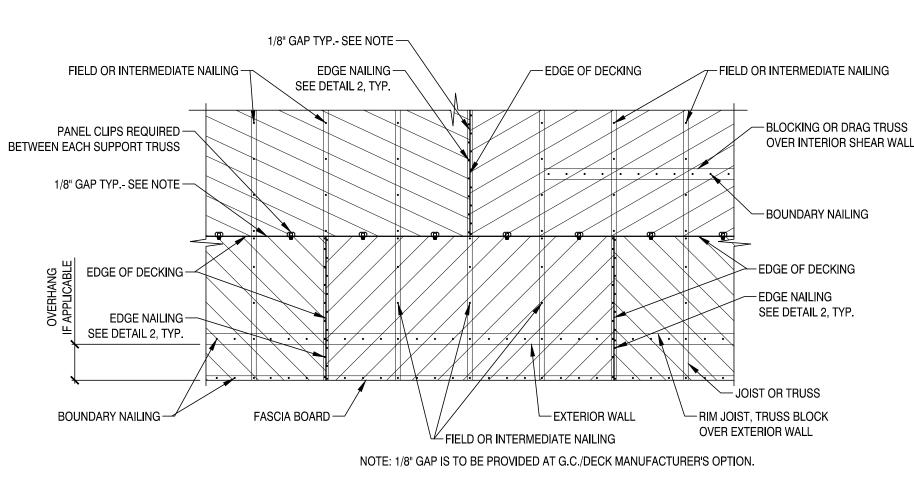
NOTE: TYPES OF BEAMS SCHEDULED MAY ONLY BE SUBSTITUTED WITH ENGINEER'S APPROVAL.

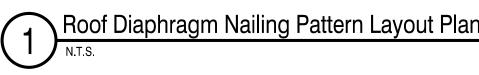
# WOOD DECKING

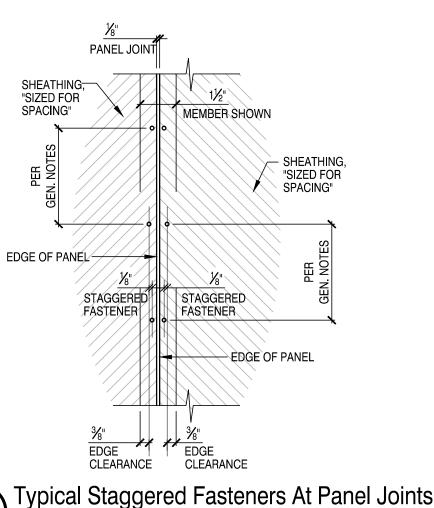
 ROOF SHEATHING SHALL BE APA RATED, EXPOSURE 1 SHEATHING AS FOLLOWS, UNLESS NOTED OTHERWISE IN DETAILS AND SCHEDULES. APA RATED SHEATHING SHALL COMPLY WITH THE NATIONAL STANDARD PS-1 OR PS-2 :

ROOF PITCH (1)	ROOFING MATERIAL (2)	THICKNESS	FASTENING
> 3/12	ASPHALT SHINGLES	15/32"	8d COMMON SPACED PER 1
> 3/12	STANDING SEAM METAL	15/32"	8d COMMON SPACED PER 1
> 3/12	CLAY/CONCRETE TILE	23/32"	10d COMMON SPACED PER 1
LOW	Modified Bitumen, TPO Single PLY, EPDM	19/32"	10d COMMON SPACED PER 1
LOW (TERRACE)	TPO WITH PAVERS	23/32"	10d COMMON SPACED PER 1

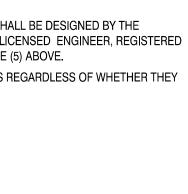
- NOTE (1): LOW PITCH INCLUDES ROOFS FROM NO PITCH (FLAT) UP TO 3 UNITS VERTICAL TO 12 UNITS HORIZONTAL (3/12).
  - (2): ANY ROOFING MEMBRANE NOT SPECIFIED IN TABLE MUST BE APPROVED BY THE STRUCTURAL ENGINEER
  - FOR SHEATHING VERIFICATION.
- 2. FLOOR DECKING AND ROOF TERRACE (IF PRESENT) DECKING SHALL BE 23/32" APA RATED, EXPOSURE 1 SHEATHING GLUED CONTINUOUSLY TO SUPPORTS AND FASTENED WITH 10d COMMON NAILS @ 6" O.C. AT BOUNDARIES AND EDGES, AND 6" O.C. AT INTERMEDIATE SUPPORTS, UNLESS NOTED OTHERWISE IN DETAILS AND SCHEDULES. APA RATED SHEATHING SHALL COMPLY WITH THE NATIONAL STANDARD PS-1 OR PS-2.
- 3. INSTALL DECKING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS.
- 4. REFER TO DETAILS FOR THE NAILING PATTERN LAYOUT PLAN.







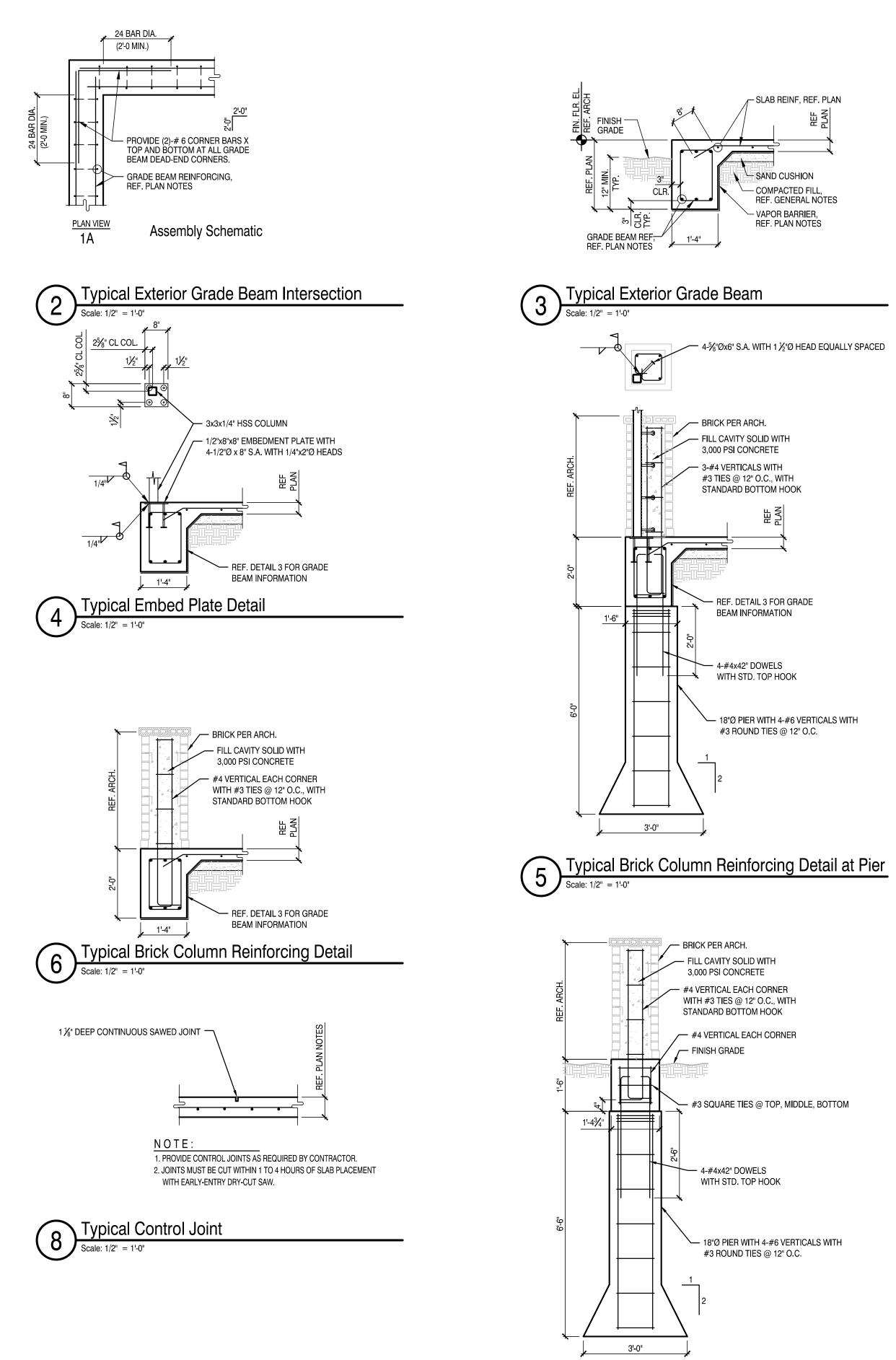




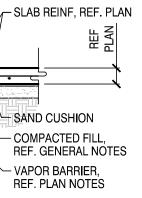
	West University Place, TX 7005
5 LL	City of City of West University of DlaceParks & Recreation Department 
	LANDSCAPE ARCHITECT & PRIME CONSULTANT WHITE OAK STUDIO LANDSCAPE ARCHITECTURE 611 W. 22nd Street Suite 209 Houston, TX 77008 713.682.2638
	STRUCTURAL ENGINEER
	Arry Engineering, Inc. Barry Engineering, Inc. Btructural Consulting 21834 Northwest Freeway, Cypress, TX 77429 Texas Registered Engineering Firm No. 51
	IRRIGATION James Pole Invidation consultants Invidation design, consultants Invidation des
	MICHAEL E. BARRY MICHAEL E. BARRY BIGISTERE SIGNAL ENGLASSIONAL ENG
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	ISSUE DATE: SCALE: NA AS NOTED
	GENERAL NOTES
	SN1.0

JENNIE HUGHES PARK

6446 Sewanee Ave.



Typical Stand Alone Brick Column Reinforcing Detail Scale: 1/2" = 1'-0"



· 4-⅛"Øx6" S.A. WITH 1½"Ø HEAD EQUALLY SPACED

STANDARD BOTTOM HOOK



- REF. DETAIL 3 FOR GRADE

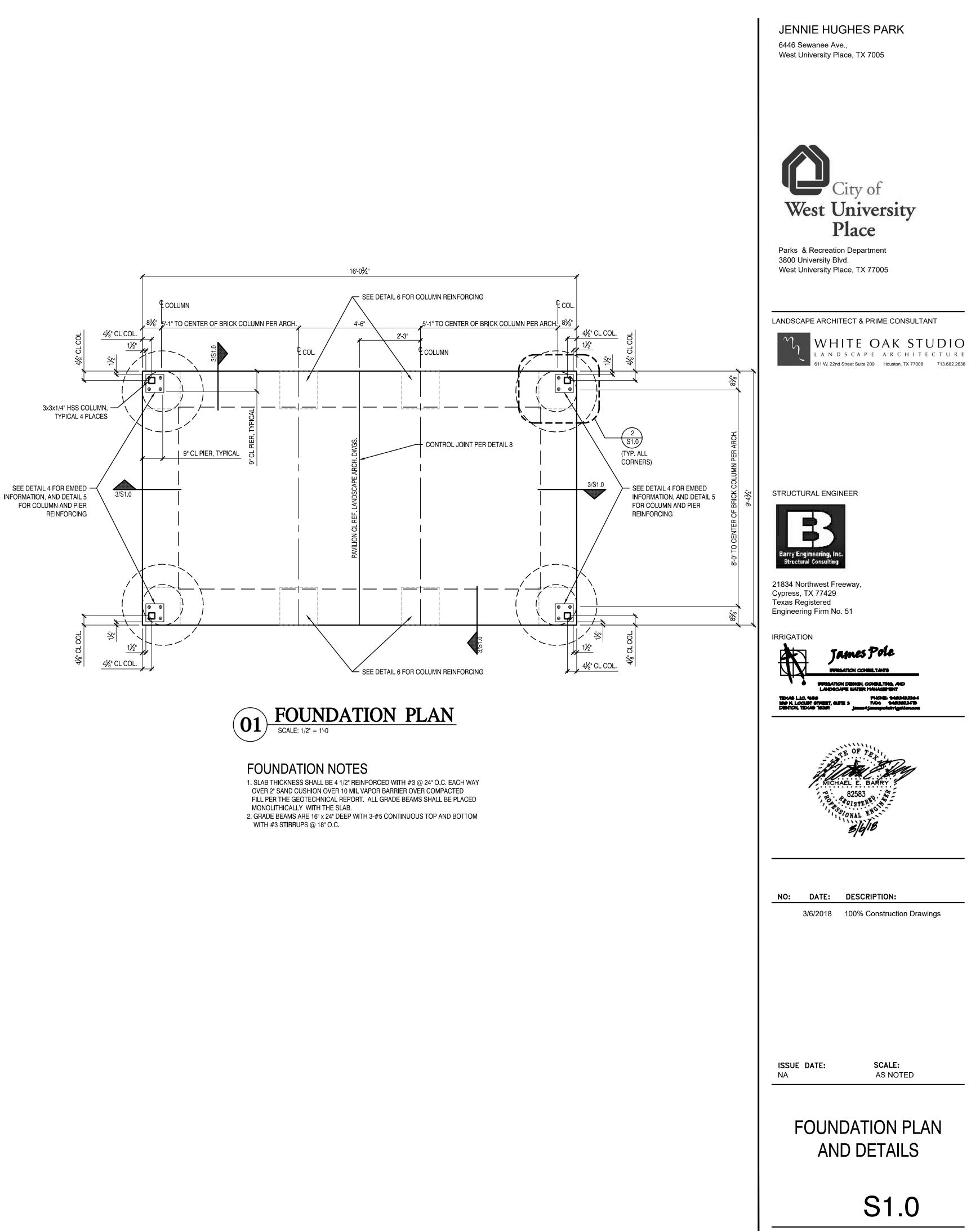
WITH STD. TOP HOOK

18"Ø PIER WITH 4-#6 VERTICALS WITH #3 ROUND TIES @ 12" O.C.

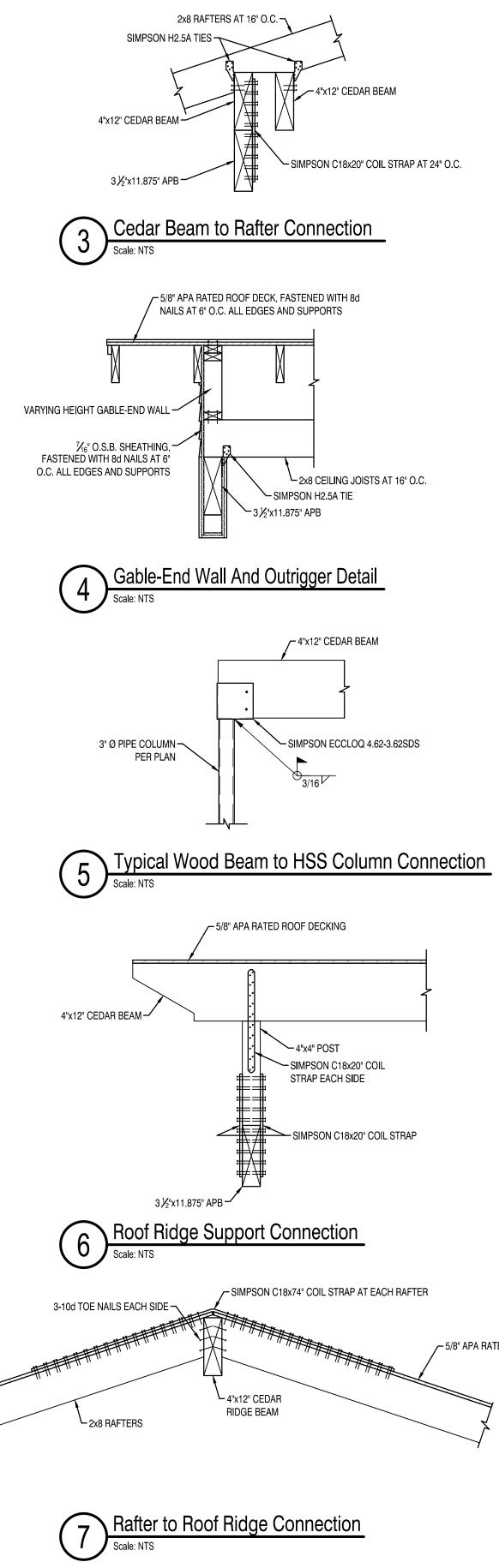
#3 SQUARE TIES @ TOP, MIDDLE, BOTTOM

18"Ø PIER WITH 4-#6 VERTICALS WITH





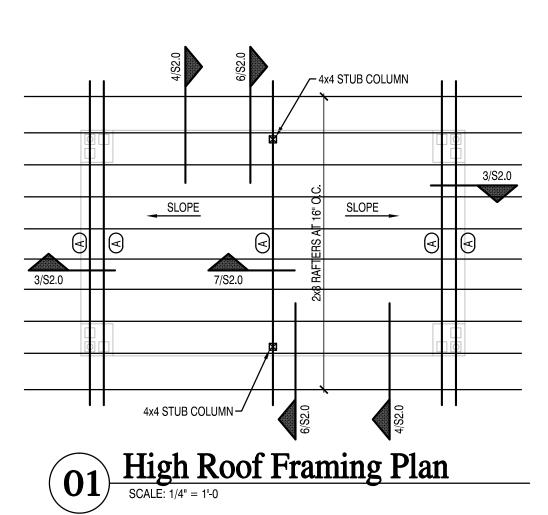


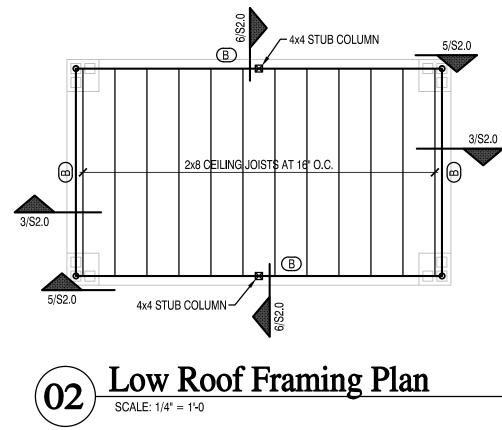


### - 4"x12" CEDAR BEAM

SIMPSON ECCLOQ 4.62-3.62SDS

∽ 5/8" APA RATED ROOF DECKING





-					
WOOD BEAM & HEADEF					
MARK	MINIMUM SIZE	MARK			
A	4x12 CEDAR BEAM	B		3	
PSL =	ANTHONY POWER BEAM PARALLEL STRAND LUMBER GLU-LAM	DB PB FB	=	DROP POCK FLUSH	

NOTES: 1. REFER TO GENERAL NOTES FOR REQUIRED MATERIAL PROPERTIES. 2. TYPES OF BEAMS SCHEDULED MAY ONLY BE SUBSTITUTED WITH ENGINEER'S APPROVAL

1
MINIMUM SIZE
1/2"x11.875" A.P.B.
BEAM ET BEAM I BEAM

Kit<
LANDSCAPE ARCHITECT & PRIME CONSULTANTOPPENDE CAPE ARCHITECTURE 611 W. 22nd Street Suite 209Houston, TX 77008713.682.2638
STRUCTURAL ENGINEER         Image: Display structural consulting         Structural Consulting      <
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AND DETAILS
S2.0

JENNIE HUGHES PARK

West University Place, TX 7005

6446 Sewanee Ave.,