



Office of Purchasing/Contract Management
3410 Taft Boulevard Wichita Falls, Texas 76308-2099

ADDENDUM TWO

July 26, 2016

TO WHOM IT MAY CONCERN

Reference: RFP #735-16-8163 Legacy Hall Landscaping

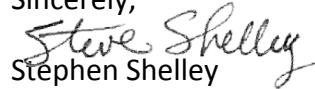
This letter serves as addendum two to the above referenced RFP. Please note the narrative and the drawings, attached.

- Final day for questions is August 2, 2016.
- The new date for bids to be received is now August 9, 2016.
- Schedule to be included with your bid per the order for the new bid sheet, attached, with the start and completion of each item on the bid sheet..

If you have any questions please contact me.

Thank You.

Sincerely,


Stephen Shelley

Director of Purchasing/Contract Management

stephen.shelley@mwsu.edu

940 397-4110

BID SHEET
RFP #735-16-8163
LEAGCY HALL LANDSCAPING

Base Bid: _____
Top Soil, Bed Prepared Soil Mix, Sod and Hydromulch (excluding Alternate 1 area)

Adder #1: _____
Irrigation System (excluding Alternate 1 area)

Adder #2: _____
Shrubs and Bed Mulch (excluding Alternate 1 area)

Adder #3: _____
Trees Installed Per Planting Details (excluding Alternate 1 area)

Adder #4: _____
Alternate 1 - Killingsworth Area Complete (soil, sod, bushes, trees, irrigation and sand volleyball court) (Adder #4 will only occur if all other adders are being done.)

Base Bid with Adders # 1 and 2: _____

Base Bid with Adders # 1, 2 and 3: _____

BID DOCUMENT ADDENDUM

Page 1 of 1

Project: Midwestern State University
New Residence Hall
Site Improvements - Bid Package 02

Addendum No.: 02

RFP No.: #735-16-8163

Date of Issuance: July 22, 2016

You are instructed to read and to note the following described changes, corrections, clarifications, omissions, deletions, additions, approvals and statements pertinent to the Contract Bid and Construction Documents.

Addendum No.2 is a part of the Contract Bid and Construction Documents and shall govern in the performance of the Work.

General:

1. C102 – Site Grading Plan (Attachment) is included “For Reference Only” to provide the following information:
 - a. Final finish grades
 - b. Location of storm water inlets that will require riser extensions to meet final finish grades.
2. PROVIDE and INSTALL the following storm water riser extension drains at all storm water inlets as indicated on C102 to meet final finish grades:
 - a. Nyloplast, 8in-30in Riser Extension. (Cut Sheet Attached). Size extension per already installed storm water riser and grates.
3. CLARIFICATION: Landscape contractor to provide 4” of topsoil across the entire project site. Topsoil is to meet the performance specifications of Section 32 9200 Turf and Grasses.

Article 2-1, Drawings, L100.02, Landscape Plan, Bid Package 2 (Attachment):

- A. REPLACE Sheet L100.02 with the following Sheet L100.02, Rev 1. Changes to the sheet include the following:
 1. Modified quantity of shrubs and groundcover.

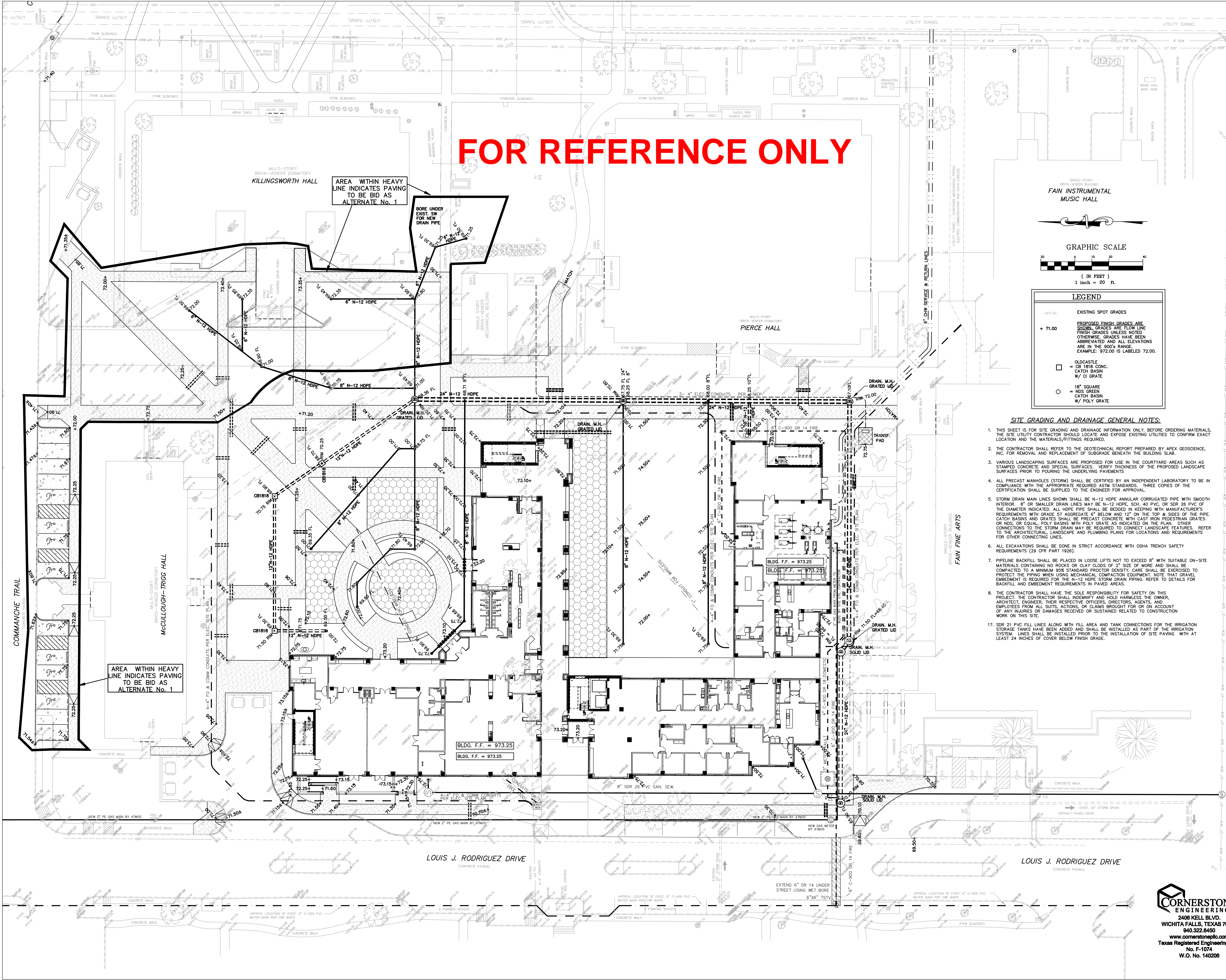
Article 2-2, Drawings, L200.01, Irrigation Plan, Bid Package 2 (Attachment):

- A. ADD Sheet 200.01 – Irrigation Plan.

Article 2-3, Drawings, L201.02, Irrigation Plan, Alternate, Bid Package 2 (Attachment):

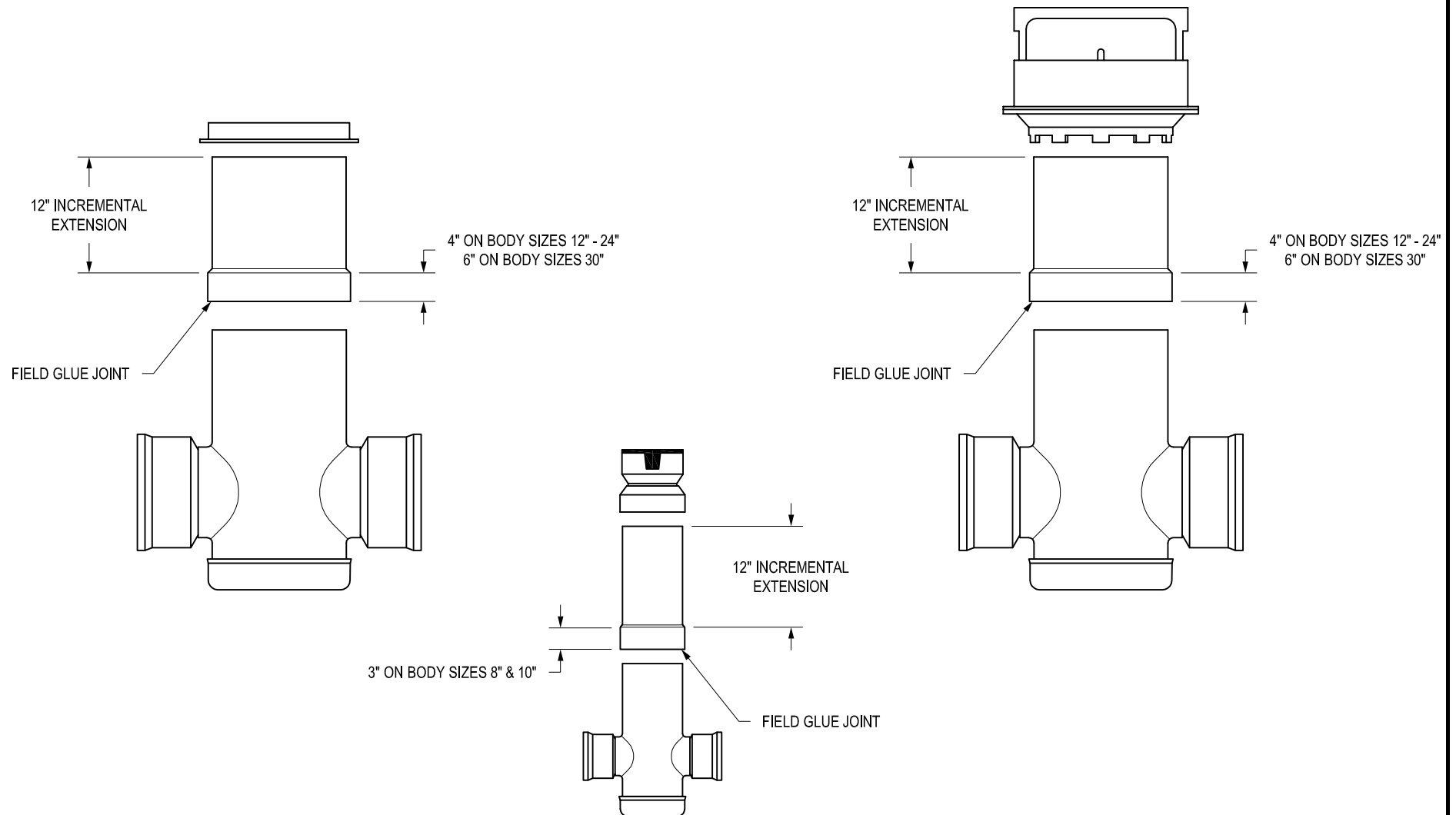
- A. ADD Sheet 201.01 – Irrigation Plan, Alternate.

End of Addendum No. 2
Attachments



- SITE GRADING AND DRAINAGE GENERAL NOTES:**
- THIS SHEET IS FOR SITE GRADING AND DRAINAGE INFORMATION ONLY. BEFORE ORDERING MATERIALS, THE SITE UTILITY CONTRACTOR SHOULD LOCATE AND EXPOSE EXISTING UTILITIES TO CONFIRM EXACT LOCATION AND THE MATERIALS/FITTINGS REQUIRED.
 - THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT PREPARED BY APEX GEOSCIENCE, INC. FOR REMOVAL AND REPLACEMENT OF SUBGRADE BENEATH THE BUILDING SLAB.
 - VARIOUS LANDSCAPING SURFACES ARE PROPOSED FOR USE IN THE COURTYARD AREAS SUCH AS STAMPED CONCRETE AND SPECIAL SURFACES. VERIFY THICKNESS OF THE PROPOSED LANDSCAPE SURFACES PRIOR TO POURING THE UNDERLYING PAVEMENTS.
 - ALL PRECAST MANHOLES (STORM) SHALL BE CERTIFIED BY AN INDEPENDENT LABORATORY TO BE IN COMPLIANCE WITH THE APPROPRIATE REQUIRED ASTM STANDARDS. THREE COPIES OF THE CERTIFICATION SHALL BE SUPPLIED TO THE ENGINEER FOR APPROVAL.
 - STORM DRAIN MAIN LINES SHOWN SHALL BE N-12 HDPE ANNULAR CORRUGATED PIPE WITH SMOOTH INTERIOR. 8" OR SMALLER DRAIN LINES MAY BE N-12 HDPE, SCH. 40 PVC, OR SDR 26 PVC OF THE DIAMETER INDICATED. ALL HDPE PIPE SHALL BE BEDDED IN KEEPING WITH MANUFACTURER'S REQUIREMENTS WITH GRADE 57 AGGREGATE 6" BELOW AND 12" ON THE TOP & SIDES OF THE PIPE. CATCH BASINS AND GRATES SHALL BE PRECAST CONCRETE WITH CAST IRON PEDESTAL GRATES OR NDS, OR EQUAL, POLY BASINS WITH POLY GRATE AS INDICATED ON THE PLAN. OTHER CONNECTIONS TO THE STORM DRAIN MAY BE REQUIRED TO CONNECT LANDSCAPE FEATURES. REFER TO THE ARCHITECTURAL, LANDSCAPE AND PLUMBING PLANS FOR LOCATIONS AND REQUIREMENTS FOR OTHER CONNECTING LINES.
 - ALL EXCAVATIONS SHALL BE DONE IN STRICT ACCORDANCE WITH OSHA TRENCH SAFETY REQUIREMENTS (29 CFR PART 1926).
 - PIPELINE BACKFILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8" WITH SUITABLE ON-SITE MATERIALS CONTAINING NO ROCKS OR CLAY CLODS OF 2" SIZE OR MORE AND SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY. CARE SHALL BE EXERCISED TO PROTECT THE PIPING WHEN USING MECHANICAL COMPACTION EQUIPMENT. NOTE THAT GRAVEL EMBEDMENT IS REQUIRED FOR THE N-12 HDPE STORM DRAIN PIPING. REFER TO DETAILS FOR BACKFILL AND EMBEDMENT REQUIREMENTS IN PAVED AREAS.
 - THE CONTRACTOR SHALL HAVE THE SOLE RESPONSIBILITY FOR SAFETY ON THIS PROJECT. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ARCHITECT, ENGINEER, THEIR RESPECTIVE OFFICERS, DIRECTORS, AGENTS, AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS BROUGHT FOR OR ON ACCOUNT OF ANY INJURIES OR DAMAGES RECEIVED OR SUSTAINED RELATED TO CONSTRUCTION WORK ON THIS SITE.
 - SDR 21 PVC FILL LINES ALONG WITH FILL AREA AND TANK CONNECTIONS FOR THE IRRIGATION STORAGE TANKS HAVE BEEN ADDED AND SHALL BE INSTALLED AS PART OF THE IRRIGATION SYSTEM. LINES SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF SITE PAVING WITH AT LEAST 24 INCHES OF COVER BELOW FINISH GRADE.


NYLOPLAST RISER EXTENSION: 29 __ AG

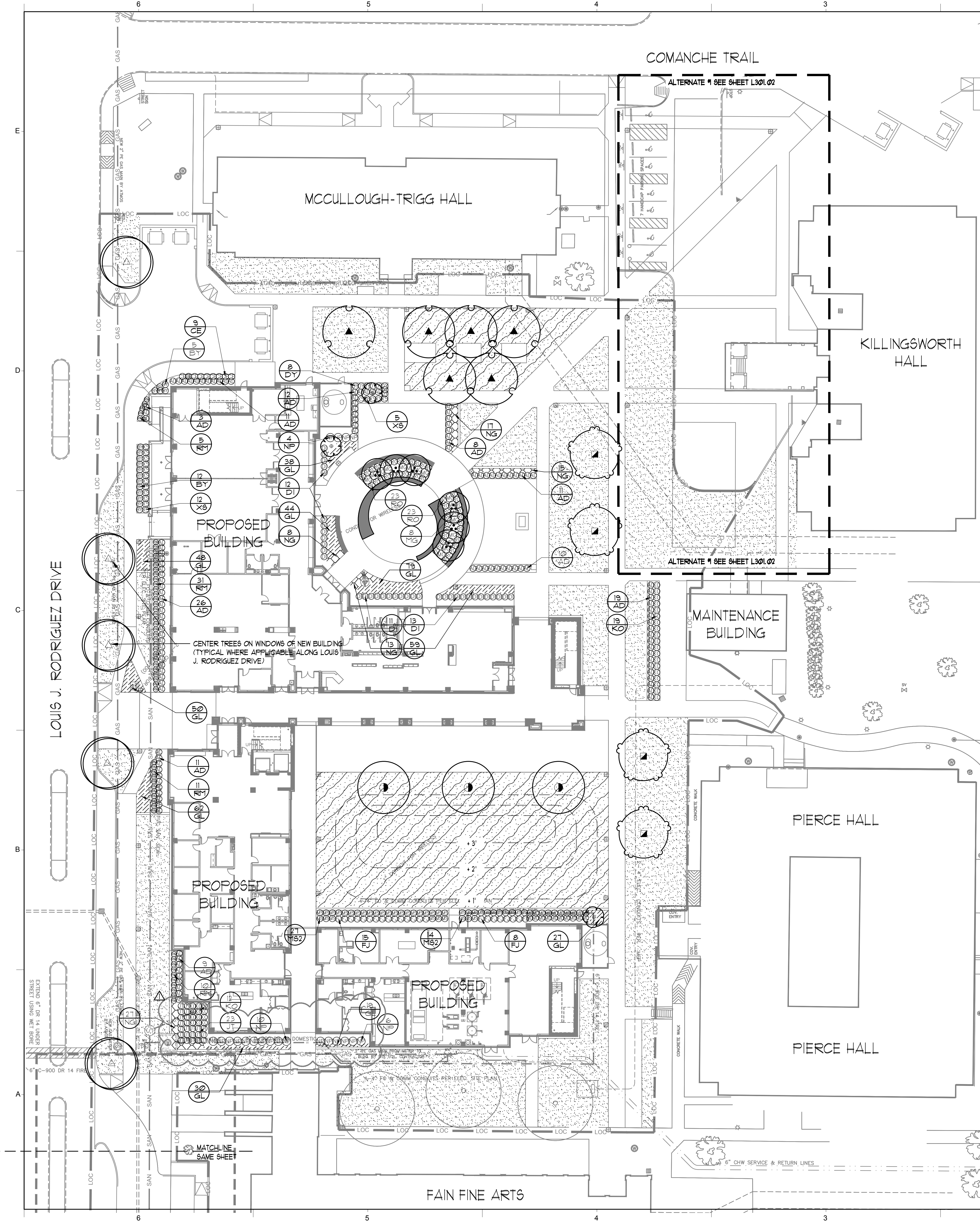


1. NYLOPLAST RISER JOINTS SHALL BE FIELD INSTALLED USING THE GUIDELINES OUTLINED IN ASTM D2855.
2. PVC CEMENT USED SHALL MEET THE REQUIREMENTS OF ASTM D2564.
3. PVC PRIMER USED SHALL MEET THE REQUIREMENTS OF ASTM F656.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

©2012 NYLOPLAST

DRAWN BY	CJA	MATERIAL				 Nyloplast® 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com			
DATE	9-18-00								
REVISED BY	JJC	PROJECT NO./NAME							
DATE	1-30-12								
						TITLE			
						8 IN - 30 IN RISER EXTENSION			
DWG SIZE	A	SCALE	1:20	SHEET	1 OF 1	DWG NO.	7001-110-065	REV	D

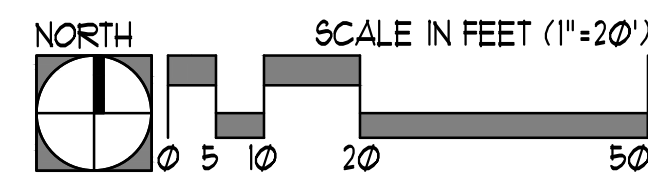
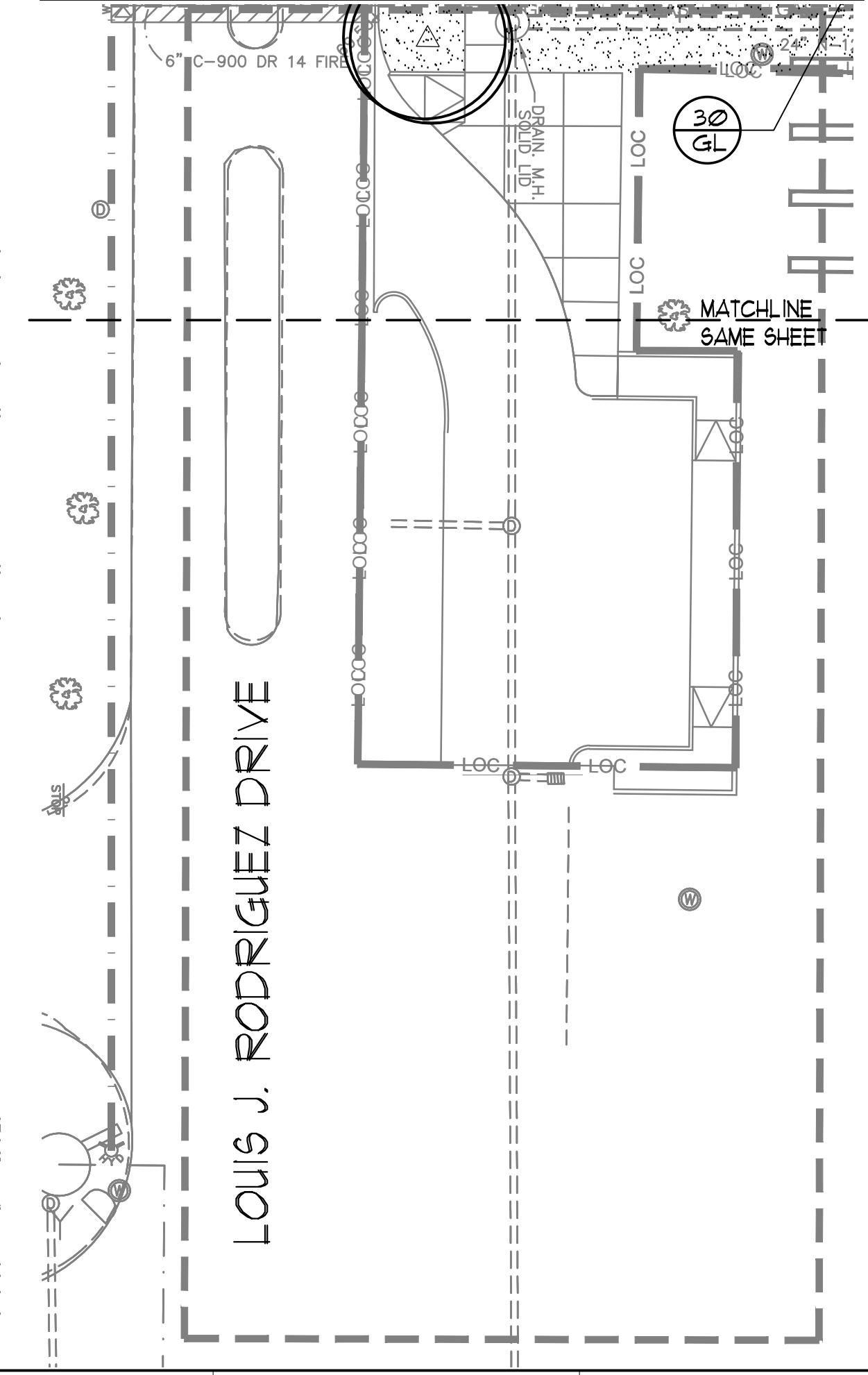


PLANT SCHEDULE

ORNAMENTAL	QTY	COMMON NAME / BOTANICAL NAME	CONT	CALIPER	HEIGHT	FEET
	3	LITTLE GEM MAGNOLIA / MAGNOLIA GRANDIFLORA 'LITTLE GEM'	24" BOX	2.25-2.75" CAL.	9'-10' HT.	
	6	NATCHEZ CRAPE MYRTLE / LAGERSTROEMIA INDICA FAURIEI 'NATCHEZ'	45 GAL	1.75-2" CAL.	8'-10' HT. 3'-5' SPR	
SHADE TREES	QTY	COMMON NAME / BOTANICAL NAME	CONT	CALIPER	HEIGHT	FEET
	4	BALD CYPRESS / TAXODIUM DISTICHUM	100' GAL	4" CAL.	14'-16' HT.	
	5	SOUTHERN LIVE OAK/QUERCUS VIRGINIANA	100' GAL	4" CAL.	14'-16' HT.	
	6	LACEBARK ELM / ULMUS PARVIFOLIA	100' GAL	4" CAL.	14'-16' HT.	
	3	CHINGAPIN OAK / QUERCUS MUEHLBERGII	100' GAL	4" CAL.	14'-16' HT.	
SURBUSH	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING		
	20	FIREPOWER NANDINA / NANDINA DOMESTICA 'FIRE POWER'	3 GAL	48" o.c.		
	16	MAIDEN GRASS / MISCANTHUS SINENSIS 'GRACILLIMUS'	3 GAL	48" o.c.		
	23	TAM'S JUNIFER / JUNIFERUS SABINA 'TAM'	3 GAL	36" o.c.		
	51	GLOSSY ABELIA / ABELIA X GRANDIFLORA	3 GAL	30" o.c.		
	31	KNOCKOUT ROSE / ROSA X RADRAZZ	5 GAL	36" o.c.		
	36	DWARF INDIAN HAWTHORNE / RAPHIOLEPSIS INDICA 'CLARA'	5 GAL	36" o.c.		
	8	DWARF YAUPOIN / ILEX VOMITORIA 'STOKES DWARF'	5 GAL	36" o.c.		
	9	GRAYLEAF COTONEASTER / COTONEASTER GLAUCOPHYLLUS	5 GAL	36" o.c.		
	120	TEXAS SAGE / LEUCOPHYLLUM FRUTESCENS VAR. TSD	5 GAL	36" o.c.		
	46	ADAGIO DWARF MAIDEN GRASS / MISCANTHUS SINENSIS 'ADAGIO'	5 GAL	36" o.c.		
	46	UPRIGHT ROSEMARY / ROSMARINUS OFFICINALIS 'TUSCAN BLUE'	5 GAL	36" o.c.		
	11	BRAKELIGHT RED YUCCA / HESPERALOE PARVIFLORA 'BRAKELIGHTS'	5 GAL	36" o.c.		
	41	'SOFT CARESS' MAHONIA / MAHONIA EURYBRACTEATA 'SOFT CARESS'	5 GAL	36" o.c.		
	20	TURK'S CAP / MALVAVISCUS DRUMMONDII 'BIG MOMMA'	5 GAL	36" o.c.		
	23	FATSIA / FATSIA JAPONICA	5 GAL	36" o.c.		

GRND COVER CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT	SPACING
	81	LANTANA 'NEW GOLD' / LANTANA X 'NEW GOLD'	1 GAL	24" o.c.
	460	GIANT LIRIOPE / LIRIOPE MUSCARI GIGANTEA	1 GAL	18" o.c.
TURF	CODE	QTY	COMMON NAME / BOTANICAL NAME	CONT
	ZJ	11,185 SF	JAMUR ZOYSIA / ZOYSIA X 'JAMUR'	50D
	SBG	34,200 SF	SAHARA BERMUDA GRASS / CYNODON DACTYLON 'SAHARA'	HYDRO-MULCH

PARKING AREA



SITE IMPROVEMENTS -
BP 02

DATE: 06/09/16

MIDWESTERN STATE
UNIVERSITY
3410 Taft Blvd.
Wichita Falls, TX 76308

COLEMAN &
ASSOCIATES
Landscape Architecture
Environmental Design
9890 Silver Mountain Drive
Austin, Texas 78737
Ph: 512-476-2090
F: 512-476-2099

NEW RESIDENCE HALL

3410 TAFT BLVD.
WICHITA FALLS, TX 76308

TREASOR
ARCHITECTS
1700 Pacific Avenue, Suite 2630
Dallas, TX 75201
Office: 214.310.1018
www.treasorarchitects.com
Treasor Architects P.A., Architects
Professional Seal of State of Texas
License Certificate of Authority # A2009030447

6/9/2016

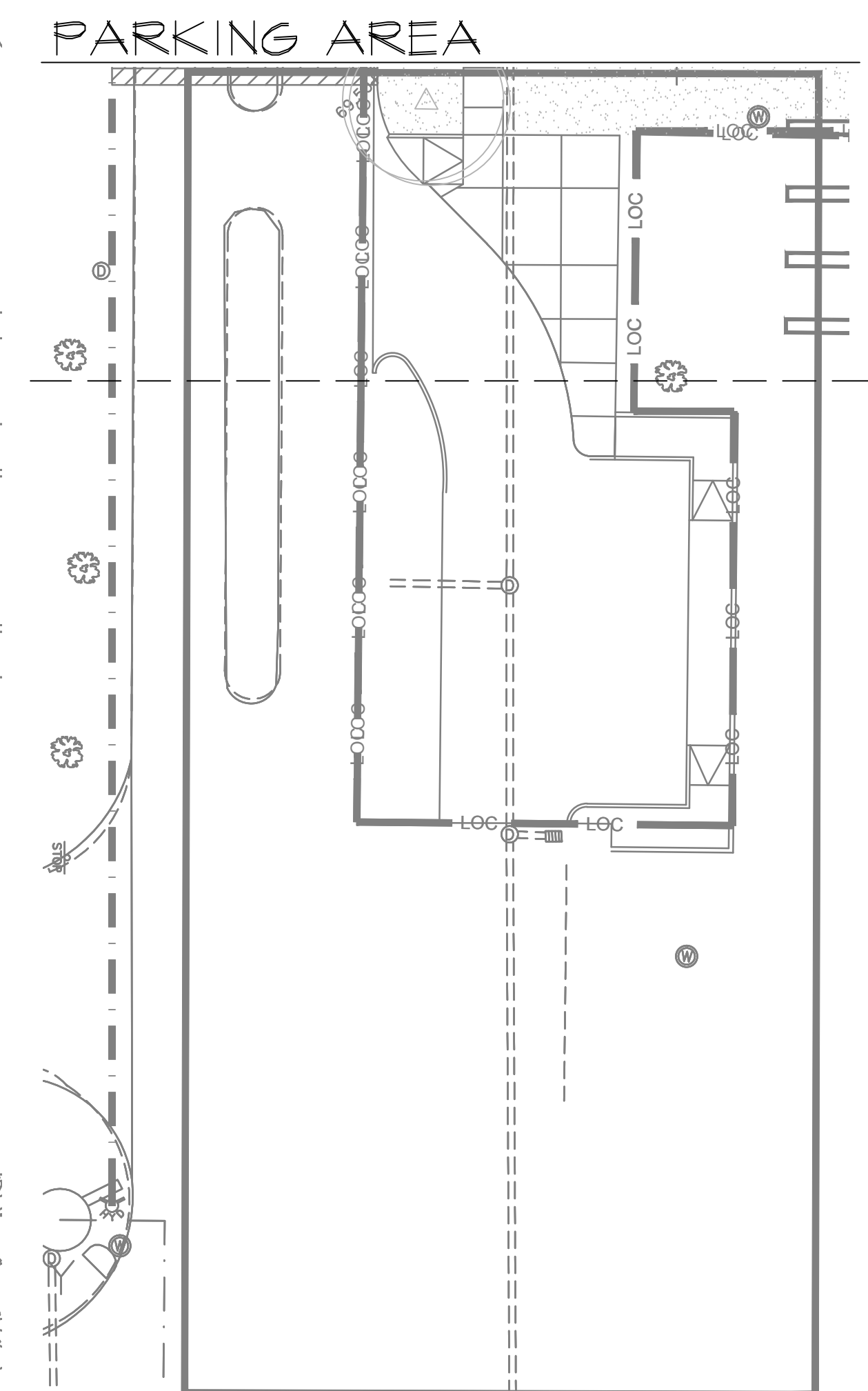
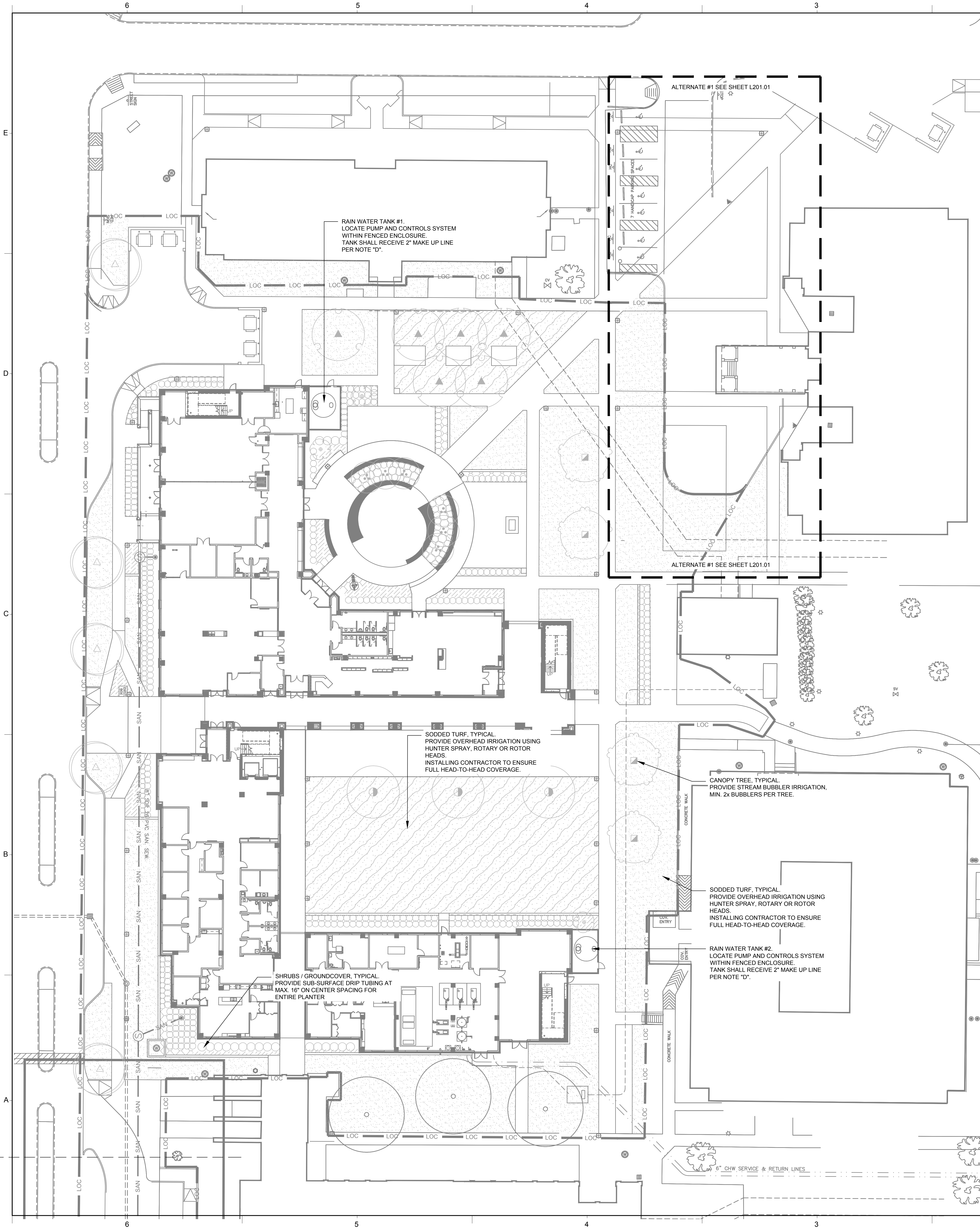
NO.	REVISIONS	DATE
1	DESCRIPTION	1/25/16
	APPENDUM 2	

L100.02

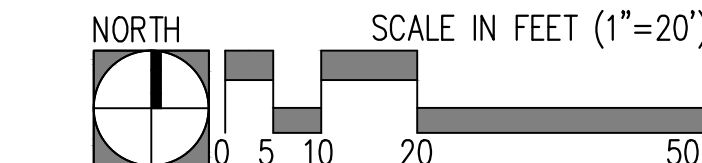
LANDSCAPE PLAN
BID PACKAGE 02

TREASOR NO. SL14.003.008

DATE PLOTTED: 01/09/16 02:21 AM
FILE PATH: DESIG_ARCH_L200.01



- NOTE A:
PROPOSED SHRUB, GROUND COVER AND CANOPY TREE LANDSCAPE SHALL BE SERVED BY RAIN WATER HARVESTING SYSTEM DESIGNED AND INSTALLED BY OTHERS.
- NOTE B:
PROPOSED SODDED AND SEEDED TURF LANDSCAPE SHALL BE SERVED BY A DEDICATED DOMESTIC WATER METER AND SERVICE.
- NOTE C:
IRRIGATION CONTROLLER(S) SHALL BE OF THE BRAND AND MODEL AS INDICATED ON THE IRRIGATION MATERIALS LEGEND. THE CONTRACTOR SHALL COORDINATE THE REQUIRED ELECTRICAL POWER SUPPLY AT THE FINAL INSTALLATION LOCATION WITH THE OWNER'S AUTHORIZED REPRESENTATIVE. FINAL LOCATION OF CONTROLLER AND ELECTRICAL POINT OF CONNECTION SHALL BE CONFIRMED WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
- NOTE D:
RAIN WATER CISTERN TANKS SHALL AVE A 2" SDR 21 PVC FILL LINE TO PROVIDE MAKE UP WATER. REFER TO UTILITY PLAN FOR LOCATION.
- NOTE E:
ALL PROPOSED LANDSCAPE SHALL BE IRRIGATED BY A PERMANENT AND AUTOMATIC IRRIGATION SYSTEM. SYSTEM SHALL CONSIST OF POP-UP SPRINKLER HEADS, ROTARY HEADS AND ROTORS, AS WELL AS SUB-SURFACE DRIP TUBING FOR SHRUB AND GROUND COVER PLANTERS.
- NOTE F:
ALL PROPOSED TREES SHALL RECEIVE SUPPLEMENTAL BUBBLER IRRIGATION. ALIGN BUBBLERS WITH TREES AS SHOWN ON THE PLANTING PLANS, AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
- NOTE G:
IRRIGATION MAINLINE AND RELATED EQUIPMENT SHALL BE INSTALLED WITHIN LANDSCAPED AREAS AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES, TYPICAL.
- NOTE H:
CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR IN THE LANDSCAPE, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, TREES, ETC. WHEN A SLIGHT RELOCATION OF THE HEAD IS NOT SUFFICIENT TO CLEAR THE OBSTACLE, OR IF IT NEGATIVELY AFFECTS THE COVERAGE, AN ADDITIONAL HEAD SHALL BE INSTALLED TO PLACE ONE HEAD ON EITHER SIDE OF THE OBSTACLE. THE NOZZLES OF THESE TWO HEADS SHALL HAVE ARC PATTERNS THAT ADD UP TO THE ORIGINAL ARC PATTERN OF THE HEAD INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
- NOTE I:
REFER TO SHEET L201.01 FOR IRRIGATION MATERIALS LEGEND.



sweeney + associates
IRRIGATION DESIGN AND CONSULTING

3000 Joe DiMaggio Blvd., Bldg. 1700, Suite 61
Houston, TX 77055
P: 281.466.9330
F: 281.466.9330
W: www.sweeneyassoc.com

SITE IMPROVEMENTS -
BP 02

DATE: 06/09/16

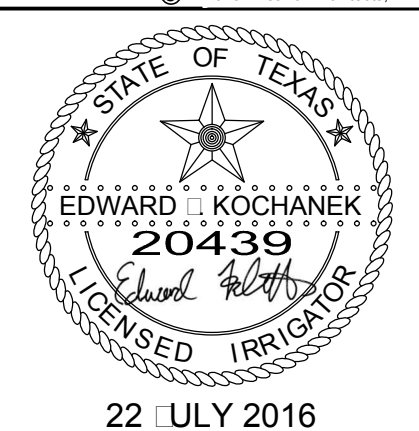
MIDWESTERN STATE
UNIVERSITY
3410 Taft Blvd.
Wichita Falls, TX 76308

**COLEMAN &
ASSOCIATES**
Landscape Architecture
Environmental Design
9890 Silver Mountain Drive
Austin, Texas 78727
P: 512.476.2090
F: 512.476.2099

NEW RESIDENCE HALL

3410 TAFT BLVD.
WICHITA FALLS, TX 76308

**TREANOR
ARCHITECTS**
1700 Pacific Avenue, Suite 2650
Houston, TX 77055
Office: 214.310.1018
Fax: 214.310.1042
www.treanorarchitects.com
Treasurer: 2015 Treanor Architects, P.A. A200069047



REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDENDUM #2	7/25/2016

L200.01

IRRIGATION PLAN
BID PACKAGE 02

TREANOR NO. SL14.003.008

ALL LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR ENFORCEMENT BY THE CONTRACTOR.

THE FLY LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE THE COMMENCEMENT OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE TO BE VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL VERIFY THE REPRESENTATIVE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE BEGINNING CONSTRUCTION.

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN.

THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR EROSION CONTROL.

THE CONTRACTOR SHALL PROVIDE A CONNECTION SERVING TURF LANDSCAPE SHALL RECEIVE A BACKFLOW PREVENTER AT THE FINAL LOCATION TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORITY.

THE CONTRACTOR SHALL RECEIVE MAKE UP FILL LINE. SEE UTILITY PLAN FOR MORE INFORMATION.

THE CONTRACTOR SHALL BE INSTALLED WITHIN FENCE ENCLOSURES HOUSING THE RAIN WATER CISTERNS. SEE ATTACHED DRAWING FOR DETAILS.

THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL PILOT WIRE FROM THE CONTROLLER ALONG ENTIRETY OF MAIN LINE TO EACH END OF EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS.

THE CONTRACTOR SHALL BE INSTALLED IN SLEEVED 2.5 TIMES THE DIAMETER OF THE PIPE CARRIED THEREIN. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SLEEVE THE SIZE OF WHICH SHALL BE DETERMINED THROUGH SLEEVES TO EXTEND AT LEAST 24" PAST THE EDGE OF THE PAVING.

THE CONTRACTOR SHALL PROVIDE REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS. THE CONTRACTOR SHALL PROVIDE A 1/2" QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.

THE CONTRACTOR SHALL BE REQUIRED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THE CONTRACTOR SHALL PROVIDE, TO ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF DIFFUSER PIN, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.

THE CONTRACTOR SHALL PROVIDE ADDITIONAL CHECK VALVES TO HEADS AND LATERALS AS REQUIRED TO PREVENT BACKFLOW.

THE CONTRACTOR SHALL PROVIDE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND THE MANUFACTURER'S SPECIFICATIONS. SWEENEY AND ASSOCIATES RECOMMENDS GROUNDING THE CONTROLLER AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH THE MANUFACTURER'S SPECIFICATIONS.

MANUFACT.	MODEL NO. / DESCRIPTION	GPM	PSI	RADIUS	PREC. RATE
POP-UP SPRINKLER HEADS FOR LANDSCAPES 5'-15' IN WIDTH. 6" POP-UPS TO BE USED IN TURF LANDSCAPE					
HUNTER	PROS-06-PR330-CV 6" POP-UP TURF HEAD WITH 5-/5H NO LLES	.12, .23	30	5 FT	2.05 IN./HR.
HUNTER	PROS-06-PR330-CV 6" POP-UP TURF HEAD WITH 8-/8T/H4HF NO LLES	24, .32, 47, .97	30	8 FT	1.69 IN./HR.
HUNTER	PROS-06-PR330-CV 6" POP-UP TURF HEAD WITH 10-/10T/H4HF NO LLES	42, .57, 88, 1.59	30	10 FT	1.77 IN./HR.
HUNTER	PROS-06-PR330-CV 6" POP-UP TURF HEAD WITH 12-/12T/H4HF NO LLES	67, .89, 1.30, 2.70	30	12 FT	2.09 IN./HR.
HUNTER	PROS-06-PR330-CV 6" POP-UP TURF HEAD WITH 15-/15T/H4HF NO LLES	97, 1.30, 1.86, 3.75	30	15 FT	1.85 IN./HR.
HUNTER	PROS-06-PR330-CV 6" POP-UP TURF HEAD WITH LCS/RCS/SS530 NO LLES	65, 1.30	30	4X15 FT	2.09 IN./HR.
POP-UP STREAM BUBBLER FOR ALL PROPOSED TREES					
HUNTER	PROS-04-PR330-CV 4" POP-UP BUBBLER HEAD WITH A RAIN BIRD 5'-8" STREAM BUBBLER NO LLE. EACH SYMBOL REPRESENTS TWO BUBBLERS PER TREE, PLACE BUBBLERS AT EDGE OF ROOTBALL ON OPPOSITE SIDES OF TREE TYPICAL.	50 : 1.0 :	30	N/A	N/A
POP-UP ROTARY HEADS FOR LANDSCAPES 15'-23' IN WIDTH. 6" POP-UPS TO BE USED IN TURF LANDSCAPE					
HUNTER	PROS-06-PR340-CV POP-UP TURF HEAD W/ MP1000 NO LLE	.19, .37, .75	40	14 FT	0.39 IN./HR.
HUNTER	PROS-06-PR340-CV POP-UP TURF HEAD W/ MP2000 NO LLE	40, .74, 1.47	40	20 FT	0.39 IN./HR.
HUNTER	PROS-06-PR340-CV POP-UP TURF HEAD W/ MP3000 NO LLE	86, 1.82, 3.64	40	30 FT	0.39 IN./HR.
HUNTER	PROS-06-PR340-CV POP-UP TURF HEAD W/ MP/LCS/RCS/SS530 NO LLES	22, .44	40	4X15 FT 4X30 FT	0.47 IN./HR.
POP-UP ROTOR HEADS FOR LANDSCAPES 23'-35' IN WIDTH. 4" POP-UPS TO BE USED IN TURF LANDSCAPE. 12" HIGH-POP FOR SHRUB PLANTINGS					
HUNTER	PGP-04-CV 4" POP-UP TURF ROTOR WITH MPR-25 NO LLES RED	1.00, 1.38, 1.98, 3.82	45	25 FT	0.70 IN./HR.
HUNTER	PGP-04-CV 4" POP-UP TURF ROTOR WITH MPR-30 NO LLES GREEN	1.00, 1.85, 2.96, 5.78	45	30 FT	0.70 IN./HR.
HUNTER	PGP-04-CV 4" POP-UP TURF ROTOR WITH MPR-35 NO LLES BEIGE	1.92, 2.46, 3.91, 7.58	45	35 FT	0.70 IN./HR.
HUNTER	MPR-25/30/35 NO LLES ARE NOT SUPPLIED AS STANDARD NO LLES WITH THE HUNTER PGP ULTRA OR I-20 ROTOR HEADS. THE CONTRACTOR MUST ORDER THESE NO LLES SEPARATELY AS AN ADDITIONAL COMPONENT FOR THE ROTOR HEADS. ONLY THE COLOR CODED MPR SERIES NO LLES SHALL BE ACCEPTABLE IN THE ROTOR HEADS.				
SUB-SURFACE DRIP TUBING TO BE USED WITHIN SHRUB AND GROUNDERCOVER PLANTERS					
HUNTER	PLD-06-12 SERIES DRIP TUBING BROWN EXTERIOR COLOR WITH 0.60 GPH PRESSURE COMPENSATING EMITTERS INTERNALLY INSTALLED IN THE DRIP TUBING AT 12" O.C. SPACING. DRIP TUBING EMITTERS SHALL BE EQUIPPED WITH A BUILT-IN CHECK VALVE TO PREVENT TUBING DRAINAGE. DRIP TUBING SHALL BE INSTALLED 4-INCHES BELOW SOIL GRADE, NOT COUNTING THE MULCH LAYER AND IN PARALLEL ROWS A MAXIMUM OF 16" ON CENTER. THE PERIMETER Rotor OF THE TUBING SHALL BE INSTALLED A MAXIMUM OF 4" FROM THE EDGE OF ANY HARDSCAPE OR TURF EDGE. ALL SUBSEQUENT INTERIOR ROWS SHALL BE ADJUSTED TO PROVIDE AN EVEN SPACING ACROSS THE PLANTER WITHOUT EXCEEDING 16" MAXIMUM SPACING. INSTALL 9" PVC COATED GALVANIZED TUBING STAKES A MAXIMUM OF FIVE (5) FEET ON CENTER ALONG THE LENGTH OF THE TUBING. TUBING STAKES SHALL BE MODEL #GDT5140900 AS MANUFACTURED BY GPH IRRIGATION PRODUCTS 866-582-9684. THE HATCH PATTERN SYMBOLS ON THE PLANS REPRESENT THE APPROXIMATE DIRECTION AND SPACING OF THE DRIP TUBING ROWS, SEE ACTUAL SPACING REQUIREMENTS ABOVE AND IN DETAILS.				
HUNTER	CONNECTION BETWEEN PLD DRIP TUBING AND PVC SUPPLY AND DISCHARGE HEADERS SHALL BE MADE USING PLD DRIP LINE BARBED FITTINGS, SCH. 40 PVC THREADED FITTINGS, SCH. 80 NIPPLES AND FLEXIBLE NIPPLES. WHEN THE CONNECTION IS AT THE END RUN OF THE TUBING USE A 1/2" SCH. 40 PVC THREADED 90° ELBOW. A 1/2" X LENGTH AS REQUIRED SCH. 80 PVC THREADED NIPPLE. A 1/2" X 6" MIPT X FIPT FLEXIBLE NIPPLE, AND A PLD-050 17mm BARB X 1/2" MIPT ADAPTER FITTING. WHEN THE CONNECTION IS IN THE MIDDLE OF THE TUBING RUN USE A 1/2" SCH. 40 PVC THREADED TE FITTING. A 1/2" X LENGTH AS REQUIRED SCH. 80 PVC THREADED NIPPLE. A 1/2" X 6" MIPT X FIPT FLEXIBLE NIPPLE, AND TWO (2) PLD-050 17mm BARBS X 1/2" MIPT ADAPTERS. ALL END RUNS OF TUBING SHALL BE CONNECTED WITH A PVC DISCHARGE HEADER. FLEXIBLE NIPPLES SHALL BE MODEL #GFN050600 AS MANUFACTURED BY GPH IRRIGATION PRODUCTS 866-582-9684.				
AS APPROVED	PVC SUPPLY AND DISCHARGE HEADERS SHALL BE PVC LATERAL LINE PIPE AS SHOWN BELOW, 1/4" MINIMUM SIZE WITH SCH. 40 PVC FITTINGS.				
HUNTER	REDUCER AIR/VACUUM RELIEF VALVE INSTALLED WITH A PLD-075-TBTEE BARB X BARB X 3/4" FIPT TEE FITTING AND A 3/4" X 1/2" SCH. 40 PVC THREADED PLUG/BUSHING. INSTALL AIR RELIEF ASSEMBLY AT THE HIGH POINT OF EACH TUBING. SEE PLANS FOR APPROXIMATE LOCATION AND QUANTITY OF ARVS PER DRIP LINE. USING AN AIR RELIEF LATERAL CONSTRUCTED OF "BLANK" PLD TUBING, CONNECT AIR RELIEF VALVE TO ALL DRIP LINE LATERALS WITHIN THE ELEVATED AREA. LOBBY ARV MAY BE REQUIRED PER DRIP TUBING ONE, SEE PLANS. INSTALL INSIDE A 6" ROUND VALVE BOX.				
LASCO	1/2" SCH. 40 PVC BALL VALVE WITH THREADED ENDS AND A LASCO MHT-102 3/4" X 1/2" FIPT ADAPTER WITH A LASCO FHT-301 HOSE THROAT CAP FOR USE AS A DRIP TUBING FLUSH VALVE. SEE PLANS FOR LOCATIONS. INSTALL INSIDE A 10" ROUND VALVE BOX.				
IRRIGATION POINT OF CONNECTION AND SYSTEM CONTROLS					
JOHN DEERE OR ECUAL	DL MANUFACTURED IRRIGATION BOOSTER PUMP CONNECTED DOWNSTREAM OF IRRIGATION CISTERN. CONFIRM ELECTRICAL AVAILABILITY IN FIELD PRIOR TO ORDERING. MODEL TO BE DETERMINED BY DL REPRESENTATIVE. BOTH PROPOSED IRRIGATION BOOSTER PUMPS SHALL BE DESIGNED TO PROVIDE 60 PSI BOOST PRESSURE AT 35 GALLONS PER MINUTE.				
FEBECO	850-Y SERIES SMALL DIAMETER DOUBLE CHECK VALVE ASSEMBLY WITH WYE STRAINER, INSTALLED WITH VALVE BOX				
SUPERIOR	3300 SERIES NORMALLY OPEN MASTER CONTROL VALVE				
HUNTER	IFC-600 PP 6 STATION IN-LINE BASE CONTROLLER WITH ICM-600 6 STATION EXPANSION MODULES. INSTALL MODULES AS NECESSARY TO ACCOMMODATE ALL PROPOSED CONTROL VALVES. INSTALL CONTROLLER INSIDE A PLASTIC PEDESTAL ENCLOSURE AS PART OF MODEL.				
HUNTER	SOLAR-SYNC-SEN ET SENSOR, INSTALL ADJACENT TO CONTROLLER PEDESTAL AND WIRE TO CONTROLLER. CONTRACTOR SHALL ENSURE SENSOR IS MOUNTED IN AN OPEN AIR LOCATION				
N/A	120 VOLT ELECTRICAL POWER, PROVIDED BY ELECTRICIAN, VERIFY ACTUAL LOCATION IN FIELD				
AS APPROVED	IRRIGATION CONTROLLER WIRE #14UF AWG DIRECT BURIAL U/L APPROVED				
3M	DBRY-6 DIRECT BURIAL WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE CONNECTIONS U/L APPROVED				
IRRIGATION VALVES AND VALVE BOXES					
LASCO	SLO-CLOSE SCH. 80 PVC TRUE-UNION BALL VALVE WITH SOLVENT WELD CONNECTIONS LINE SI/E				
HUNTER	HL-44RC 1" QUICK COUPLER VALVE WITH LOCKING VINYL COVER AND A LASCO G13S-218 SWING JUNT. INSTALL WITH BRASS BALL VALVE UPSTREAM OF QUICK COUPLER WITH SAME VALVE BOX				
HUNTER	ICV-XK1G-FS-AD PRESSURE REGULATING PLASTIC REMOTE CONTROL VALVE RCV/SI/E AS SHOWN 1" X 1/2" AND 2" SI/ES SET AS ADJ. PRESSURE REGULATOR TO PROVIDE THE OPERATING PRESSURE OF THE SPRINKLER/BUBBLER HEAD TO THE HIGHEST OR FARTEST HEAD ON THE CONTROL VALVE ONE. INSTALL THE RCV INSIDE A STANDARD RECTANGULAR VALVE BOX.				
HUNTER	ICV-XK1G-FS PLASTIC DRIP REMOTE CONTROL VALVE SI/E AS SHOWN 1" AND 1 1/2" SI/ES. INSTALL A DISC FILTER AND AN INLINE PRESSURE REGULATOR ON THE DOWNSTREAM SIDE OF EACH DRIP REMOTE CONTROL VALVE DRVCV. FOR 1" DRVCV'S INSTALL A RAIN BIRD LC89Y-1000 DISC FILTER AND A SENNINGER 1 1/4" PMR-40-MF PRESSURE REGULATOR. FOR 1 1/2" DRVCV'S INSTALL A RAIN BIRD LC89Y-1500 DISC FILTER AND A SENNINGER 1 1/4" PMR-40-MF PRESSURE REGULATOR. USE A 1/2" X 1/2" SCH. 40 PVC THREADED COUPLING, A 1/2" X 1/4" PVC THREADED REDUCER BUSHING, AND A 1 1/4" X 2" SCH. 80 PVC NIPPLE AS REQUIRED TO CONNECT THE 1 1/4" REGULATOR TO THE DOWNSTREAM SIDE OF THE 1 1/2" FILTER. INSTALL THE DRVCV ASSEMBLY INSIDE A HUMBO RECTANGULAR VALVE BOX.				



TREANOR NO. SL14.003.00B