The City of Durant encourages participation from all its citizens. If participation at any public meeting is not possible due to a disability, notification to the City Clerk at least 48 hours prior to the scheduled meeting is encouraged in order to make the necessary accommodations. The City of Durant may waive the 48-hour rule if interpreters for the deaf (signing) or translation services for limited English proficient (LEP) individuals are not the necessary accommodation.

THE DURANT CITY UTILITIES AUTHORITY / DCUA

6:00 PM **Roscoe J. Hatfield Council Chambers, 300 West Evergreen, Durant, Oklahoma** **July 10, 2018**

AGENDA

DURANT CITY HALL
300 W. EVERGREEN, DURANT, OK
ROSCOE J. HATFIELD COUNCIL CHAMBERS

CALL TO ORDER

ROLL CALL

ORDER OF BUSINESS

1. Consent Items

To help streamline meetings and allow the focus to be on other items requiring strategic thought, the "Consent Items" portion of the agenda groups the routine, procedural, and self-explanatory non-controversial items together. These items are voted on in a single motion (one vote). However, any Council member requesting further information on a specific item thus removes it from the "Consent Items" section for individual attention and separate vote.

a. Consider Approval of Regular Meeting Minutes of June 12, 2018

2. Consider Items Removed from Consent

3. Administration

a. Consider Approval of Request for Authorization to Purchase to Esbenshade, Inc. for Sludge Disposal FY 2018-2019 (RFAP #2019-014)

b. Consider Approval of Request for Authorization to Purchase to Southern Oklahoma Regional Disposal Inc. (SORD) for Solid Waste Disposal Fees for FY 2018-19 (RFAP #2019-15)

c. Consider Approval of Request for Authorization to Purchase for Chemicals to be Used at the Water Treatment Plant (RFAP#2019-30)

d. Consider Approval of Hach Service Agreement for Water Treatment Plant

e. Consider Approval of Service Agreement with Evoqua Water Technologies LLC for Water Treatment Plant

f. Consider Approval of Resolution 2018-18 - A Resolution to Approve Water and Sewer Infrastructure of Country Estates VI

4. Information Items

a. Landfill Information & Reports - June 2018

b. Solid Waste Department Monthly Report - June 2018

c. Utilities Department Monthly Report - May 2018

d. Waste Water Treatment Plant and Lab Monthly Report - June 2018

e. Water Treatment Plant Monthly Reports - June 2018

ADJOURNMENT

CERTIFICATE

This is to certify that in conformity with the Oklahoma Open Meeting Act, public notice of the date, time and place of this meeting was filed with the City Clerk of Durant on the 14th day of November, 2017 and that an agenda of said meeting was posted at the place of such meeting at 5:30 p.m. on the 6th day of July, 2018.

_____

Cynthia J. Price, City of Durant

Agenda Item: 1.a.

The City of Durant

Office of City Clerk

Memorandum

Date: 6/20/2018
To: Utilities Authority
From: Cynthia J. Price, City Clerk
Re: Consider Approval of Regular Meeting Minutes of June 12, 2018

Council Information / Action Requested

Approval of Regular Meeting Minutes of June 12, 2018

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Minutes 6.12.2018	Exhibit	6/20/2018

This is to certify that in conformity with the Oklahoma Open Meeting Act, public notice of the date, time and place of this meeting was filed with the City Clerk of Durant on the 14th day of November, 2017 and that an agenda of said meeting was posted at the place of such meeting at 5:05 p.m. on the 8th day of June, 2018.

MINUTES OF THE REGULAR SCHEDULED MEETING OF THE DURANT CITY UTILITIES AUTHORITY OF June 12, 2018 AT 6:00 PM, Roscoe J. Hatfield Council Chambers, 300 West Evergreen, Durant, Oklahoma

CALL TO ORDER

Chairman Tomlinson called the meeting to order at 6:15 p.m.

ROLL CALL

Present: Trustee Oden Grube
Trustee Mike Dills
Trustee Destry Hawthorne
Vice Chairman Chad Hitchcock
Chairman Jerry Tomlinson

City Attorney Tom Marcum
City Manager Tim Rundel
City Clerk Cynthia J. Price

Absent: None (*denotes partial attendance)

Chairman Tomlinson declared a quorum.

1. Consent Items

To help streamline meetings and allow the focus to be on other items requiring strategic thought, the "Consent Items" portion of the agenda groups the routine, procedural, and self-explanatory non-controversial items together. These items are voted on in a single motion (one vote). However, any Council member requesting further information on a specific item thus removes it from the "Consent Items" section for individual attention and separate vote.

a. Consider Approval of Regular Meeting Minutes of May 8, 2018

b. Consider Appointing Kenneth Cooper to Act as the City Representative on the Southern Oklahoma Regional Disposal (SORD) Board.

Approved

Motion was made by Chad Hitchcock and seconded by Destry Hawthorne to approve consent items as presented. Motion Passed with the following vote:

Ayes: Dills, Grube, Hawthorne, Hitchcock, Tomlinson

2. Consideration Items Removed from Consent

3. Administration

a. Consider Approval of Motion to File Durant City Utilities Authority FY 18/19 Financial Plan with City Council as Beneficiary

Approved

City Manager Tim Rundel stated this is a procedure done annually pursuant to Title 60 of the Oklahoma State Statutes.

Motion was made by Destry Hawthorne and seconded by Chad Hitchcock to approve Motion to File Durant City Utilities Authority FY 18/19 Financial Plan with City Council as Beneficiary. Motion Passed with the following vote:

Ayes: Dills, Grube, Hawthorne, Hitchcock, Tomlinson

4. Information Items

a. Landfill Information & Reports -May 2018

b. Solid Waste Department Monthly Report - May 2018

c. Waste Water Treatment Plant and Lab Monthly Report - May 2018

d. Water Treatment Plant Operational Reports - May 2018

Adjournment

Motion was made by Chad Hitchcock and seconded by Destry Hawthorne to adjourn meeting. Motion Passed with the following vote:

Ayes: Dills, Grube, Hawthorne, Hitchcock, Tomlinson

Agenda Item: 3.a.

The City of Durant

Office of the Wastewater Treatment Plant

Memorandum

Date:	7/4/2018
To:	Utilities Authority
From:	Terry Condor, Waste Water Treatment Plant Superintendent
Re:	Consider Approval of Request for Authorization to Purchase to Esbenshade, Inc. for Sludge Disposal FY 2018-2019 (RFAP #2019-014)

Consider Approval Request for Authorization to Purchase (RFAP #2019-014) for Sludge Disposal for the Wastewater Treatment Plant in the Blanket Amount of $115,000 for FY 2018/2019.

Council Information / Action Requested

Approve Request for Authorization to Purchase (RFAP # 2019-014) for Sludge Disposal for FY 2018/2019 in the amount of $115,000.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
RFAP2019-014 Esbenshade	Cover Memo	7/4/2018

R02122015

SPEND/CNTRCT#
INCODE PROJ#
RFAP #2019-014

REQUEST FOR AUTHORIZATION TO PURCHASE

Ref: 11 O.S. §10:114 (B) and 61 O.S. §103 (D) and & City of Durant Code: § 37.003-37.010

Item #

1 Item planned for spending (provide details):
SLUDGE DISPOSAL FY 2018/2019

2 Department requesting authorization:
WWTP

3 Bidding recommendation (award or reject along with name and contact information of vendor):
ESBENSHADE, INC. P.O. BOX 55 HENDRIX, OK 74741

4 Estimated Purchase Date (M/D/Y): July 3, 2018

5 What are the financing or lease purchase terms (APR %, length of financing, payments, etc.)

6 Is this item included in the current FY budget (Yes/No) Yes

7 GL account code: #405-028-553-30-36

8 Spending / purchase request details (complete below blanks):

8a Amount requested to spend $115,000.00

8b Item (new or replacement, if a capital item complete fixed asset form)? New

8c Old Item to be Traded-In (Yes / No). Note: if a capital item complete fixed asset form? No

If a Replacement Item, give description, age and condition of item to be replaced (including model & serial or VIN, trade allowance)

8d Is a contractor written agreement involved (Yes / No), if yes include a copy of the contract after City Attorney Review No

8e Does the purchase involve Grant Funding (Yes or No) No

8f What is the City Cash Match for the Grant $

8g What other match or financial obligation is involved with the City accepting this Grant (explain with details)

9 Purchase is Planned By (complete appropriate item(s) below):

9a **Informal Quotes** – Purchases of $2000-$15,000 City Manager approval required. Purchases with an estimated cost over $15,000 use formal bids. Specifications & at least 3 quotes must be attached for items over $5,000 (city manager can require quotes for below $5,000):

9b **Formal Bids** – Purchases with an estimated cost over $15,000 Council approval required. Attach complete specifications and a bidders list with at least 3 bidders. Include bidder name, address, phone number, fax number and email address of recommended vendor:

9c **State Contract** – Purchases of $2,000-$15,000 City Manager approval required. Purchases over $15,000 Council approval required. Include name, address, phone number, fax number, email address of state contract vendor and state contract number:

9d **Buy Board** – Purchases of $2,000-$15,000 City Manager approval required. Purchases more than $15,000 Council approval required. Include name, address, phone number, fax number, email address of Buy Board:

9e **Professional Services Agreement** – Purchases over $2,000 and less than $15,000 via an engineering, surveying, architect, computer services, janitorial, etc. firm covered by a council approved professional services agreement, City Manager approval required.

9f **Emergency Purchase** – To be utilized only when immediate action must be taken to protect the public health or safety or to prevent damage to property, prior council approval not required. Notify the City Manager immediately that an emergency purchase is needed.

9g **Sole Source Purchase** – Purchases of $2,000-$15,000 City Manager approval required. Purchases with an estimated cost over $15,000 Council approval required in addition to City Manager approval. Attach to this request a memo detailing the nature of the Sole source designation, that is explain how this purchase fulfills the requirements to be considered a sole source purchase:

LAND APPLICATION OF SLUDGE REQUIRES PERMITTING FROM ODEQ PRIOR TO APPLICATION. ESBENSHADE FARMS IS A SOLE SOURCE DUE TO IT'S THE ONLY VENDOR WITH THE REQUIRED PERMITTING.

10 Signature & date blocks (complete appropriate sections):

10a Signature of Grants Administrator (if applicable) — date (M/D/Y): 7-3-18

10b Signature Department Head — date (M/D/Y): 7-3-18

10c Signature of Division Head — date (M/D/Y):

10d Signature of Budget Administrator — date (M/D/Y):

10e Signature of Project Manager — date (M/D/Y): 7-3-18

10f Signature of City Treasurer — date (M/D/Y): 7-3-18

10g Signature of City Manager (only over $2,000) — date (M/D/Y):

11h City Manager Comments:

Agenda Item: 3.b.

The City of Durant

Office of City Clerk

Memorandum

Date:	7/6/2018
To:	Utilities Authority
From:	Kenny Cooper, Supervisor, Solid Waste Landfill
Re:	Consider Approval of Request for Authorization to Purchase to Southern Oklahoma Regional Disposal Inc. (SORD) for Solid Waste Disposal Fees for FY 2018-19 (RFAP #2019-15)

Council Information / Action Requested

Approval of Request for Authorization to Purchase to Southern Oklahoma Regional Disposal Inc. (SORD) for solid waste disposal fees for FY 2018-19 (RFAP #2019-15)

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
RFAP #2019-015	Exhibit	7/6/2018

R02122015

SPEND/CNTRCT#
INCODE PROJ#
RFAP #2019-015

REQUEST FOR AUTHORIZATION TO PURCHASE

Ref: 11 O.S. §10:114 (B) and 61 O.S. §103 (D) and & City of Durant Code: § 37.003-37.010

Item #

1 Item planned for spending (provide details):
SOLID WASTE DISPOSAL FEES FOR FY 2018/2019

2 Department requesting authorization:
SOLID WASTE DISPOSAL

3 Bidding recommendation (award or reject along with name and contact information of vendor):
S.O.R.D.

4 Estimated Purchase Date (M/D/Y): July 3, 2018

5 What are the financing or lease purchase terms (APR %, length of financing, payments, etc.)

6 Is this item included in the current FY budget (Yes/No) Yes

7 GL account code: #405-049-554-30-44

8 Spending / purchase request details (complete below blanks):

8a Amount requested to spend $500,000.00

8b Item (new or replacement, if a capital item complete fixed asset form)? New

8c Old Item to be Traded-In (Yes / No). Note: if a capital item complete fixed asset form? No

If a Replacement Item, give description, age and condition of item to be replaced (including model & serial or VIN, trade allowance)

8d Is a contractor written agreement involved (Yes / No), if yes include a copy of the contract after City Attorney Review No

8e Does the purchase involve Grant Funding (Yes or No) No

8f What is the City Cash Match for the Grant $

8g What other match or financial obligation is involved with the City accepting this Grant (explain with details)

9 Purchase is Planned By (complete appropriate item(s) below):

9a **Informal Quotes** – Purchases of $2000-$15,000 City Manager approval required. Purchases with an estimated cost over $15,000 use formal bids. Specifications & at least 3 quotes must be attached for items over $5,000 (city manager can require quotes for below $5,000):

9b **Formal Bids** – Purchases with an estimated cost over $15,000 Council approval required. Attach complete specifications and a bidders list with at least 3 bidders. Include bidder name, address, phone number, fax number and email address of recommended vendor:

9c **State Contract** – Purchases of $2,000-$15,000 City Manager approval required. Purchases over $15,000 Council approval required. Include name, address, phone number, fax number, email address of state contract vendor and state contract number:

9d **Buy Board** – Purchases of $2,000-$15,000 City Manager approval required. Purchases more than $15,000 Council approval required. Include name, address, phone number, fax number, email address of Buy Board:

9e **Professional Services Agreement** – Purchases over $2,000 and less than $15,000 via an engineering, surveying, architect, computer services, janitorial, etc. firm covered by a council approved professional services agreement, City Manager approval required.

S.O.R.D HAS BEEN OUR REGIONAL LANDFILL USED BY THE CITY FOR OVER 20+ YEARS, USING THEM WE RECEIVE A DISCOUNTED RATE.

9f **Emergency Purchase** – To be utilized only when immediate action must be taken to protect the public health or safety or to prevent damage to property, prior council approval not required. Notify the City Manager immediately that an emergency purchase is needed.

9g **Sole Source Purchase** – Purchases of $2,000-$15,000 City Manager approval required. Purchases with an estimated cost over $15,000 Council approval required in addition to City Manager approval. Attach to this request a memo detailing the nature of the Sole source designation, that is explain how this purchase fulfills the requirements to be considered a sole source purchase:

10 Signature & date blocks (complete appropriate sections):

10a	Signature of Grants Administrator (if applicable)	date (M/D/Y): 7-3-18
10b	Signature Department Head	date (M/D/Y): 7-3-18
10c	Signature of Division Head	date (M/D/Y):
10d	Signature of Budget Administrator	date (M/D/Y):
10e	Signature of Project Manager	date (M/D/Y): 7-3-18
10f	Signature of City Treasurer	date (M/D/Y): 7-3-18
10g	Signature of City Manager (only over $2,000)	date (M/D/Y):

11h City Manager Comments:

Agenda Item: 3.c.

The City of Durant

Office of the Water Treatment Plant

Memorandum

Date:	7/5/2018
To:	Utilities Authority
From:	Phillip Hightower, Water Treatment Plant
Re:	Consider Approval of Request for Authorization to Purchase for Chemicals to be Used at the Water Treatment Plant (RFAP#2019-30)

Council Information / Action Requested

Approval of Request for Authorization to Purchase for chemicals to be used at the Water Treatment Plant (RFAP#2019-30)

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
RFAP #2019-30 Chemicals	Cover Memo	7/5/2018

R02122015

SPEND/CNTRCT#
INCODE PROJ#
RFAP# 2019-30

REQUEST FOR AUTHORIZATION TO PURCHASE

Ref: 11 O.S. §10:114 (B) and 61 O.S. §103 (D) and & City of Durant Code: § 37.003-37.010

Item #

1 Item planned for spending (provide details):
Chemicals for the use ath the Water treatment Plant. Alum,Chlorine, Polymer, Sodium Chlorite, Caustic Soda,and Hydrofluorosilic acid

2 Department requesting authorization:
Water Treatment plant

3 Bidding recommendation (award or reject along with name and contact information of vendor):

Water Tech and Brenntag. Water Tech contact Rodger Gilchrist rgilchrist@watertechinc.com BrenntagSouthwest contact is George Drye Phone #(918)637-2246

4 Estimated Purchase Date (M/D/Y): July 11 2018

5 What are the financing or lease purchase terms (APR %, length of financing, payments, etc.)

6 Is this item included in the current FY budget (Yes/No) Yes

7 GL account code: 405-027-552-50-53

8 Spending / purchase request details (complete below blanks):

8a Amount requested to spend $250,000.00

8b Item (new or replacement, if a capital item complete fixed asset form)? New

8c Old Item to be Traded-In (Yes / No). Note: if a capital item complete fixed asset form?

If a Replacement Item, give description, age and condition of item to be replaced (including model & serial or VIN, trade allowance)

8d Is a contractor written agreement involved (Yes / No), if yes include a copy of the contract after City Attorney Review

8e Does the purchase involve Grant Funding (Yes or No)

8f What is the City Cash Match for the Grant

8g What other match or financial obligation is involved with the City accepting this Grant (explain with details)

9 Purchase is Planned By (complete appropriate item(s) below):

9a **Informal Quotes** – Purchases of $2000-$15,000 City Manager approval required. Purchases with an estimated cost over $15,000 use formal bids. Specifications & at least 3 quotes must be attached for items over $5,000 (city manager can require quotes for below $5,000):

Requested Three quotes only received two and these are attached

9b **Formal Bids** – Purchases with an estimated cost over $15,000 Council approval required. Attach complete specifications and a bidders list with at least 3 bidders. Include bidder name, address, phone number, fax number and email address of recommended vendor:

9c **State Contract** – Purchases of $2,000-$15,000 City Manager approval required. Purchases over $15,000 Council approval required. Include name, address, phone number, fax number, email address of state contract vendor and state contract number:

9d **Buy Board** – Purchases of $2,000-$15,000 City Manager approval required. Purchases more than $15,000 Council approval required. Include name, address, phone number, fax number, email address of Buy Board:

9e **Professional Services Agreement** – Purchases over $2,000 and less than $15,000 via an engineering, surveying, architect, computer services, janitorial, etc. firm covered by a council approved professional services agreement, City Manager approval required.

9f **Emergency Purchase** – To be utilized only when immediate action must be taken to protect the public health or safety or to prevent damage to property, prior council approval not required. Notify the City Manager immediately that an emergency purchase is needed.

9g **Sole Source Purchase** – Purchases of $2,000-$15,000 City Manager approval required. Purchases with an estimated cost over $15,000 Council approval required in addition to City Manager approval. Attach to this request a memo detailing the nature of the Sole source designation, that is explain how this purchase fulfills the requirements to be considered a sole source purchase:

10 Signature & date blocks (complete appropriate sections):

10a Signature of Grants Administrator (if applicable) date (M/D/Y):

Phillip Nightingale 7-5-18

10b Signature Department Head date (M/D/Y):

Mark Carl 7-5-18

10c Signature of Division Head date (M/D/Y):

10d Signature of Budget Administrator date (M/D/Y):

10e Signature of Project Director (only over $5,000 capital projects) date (M/D/Y):

7-5-18

10f Signature of City Manager (only over $2,000) date (M/D/Y):

7-5-18

10g Signature of City Treasurer (date) date (M/D/Y):

11h City Manager Comments:

BRENNTAG

Brenntag Southwest, Inc.

To: City of Durant
From: George Drye
CC:
Date: 5/8/14
Subject: Price Quote

Thank you for this opportunity to quote on your chemical requirements. We are pleased offer you the following prices for your consideration.

Product Name	Product Code	Container	Price	Deposit / Notes
Alum-acid	45112	truckload	0.09174	
Alum-tech	876747	"	0.089	
Chlorine	788524	150#	0.70	
Chlorine	253418	ton	0.338	
Caustic soda, 50%	666745	truckload	0.16	
Polymer, 9921	366396	tote	0.816	
HFS (fluoride)		truckload	0.48	

If you have any questions, or need any further information, please do not hesitate to give me a call. You can reachme anytime on my cell phone at (918) 637 2246.

Thanks,

George Drye
Brenntag Southwest, Inc.

Water tech
INCORPORATED

7215 Highway 271 South - Fort Smith, AR - 72908 - 479-649-7447 - 800-488-7451 - cleanwater@watertechinc.net

June 25, 2018

Phillip Hightower
City of Durant
844 Caddo Highway
Durant, Ok. 74729

Dear Phillip:

Thank you for allowing Water Tech Inc. to offer this product to you, the price includes delivery to your facility.

Hydroflourosilic acid; in bulk 18 wheeler loads (42,000 pounds min.) for $0.209 per pound.

Alum; in bulk as you have been receiving it for $259/liquid ton.

50% caustic in bulk for $0.265 per liquid pound.

Your Polymer in drums for $0.77 per pound delivered

Chlorine; in 150# cylinders for $99.00 per cylinder or $0.66 per pound.

This price is valid until July 1, 2019 and is subject to reconfirmation thereafter. Please contact me at (405) 343-5523 if you have questions or if I can be of any assistance.

Very truly yours,

Rodger Gilchrist
Account Manager
Water Tech Inc.
Email; rgilchrist@watertechinc.com

Agenda Item: 3.d.

The City of Durant

Office of the Water Treatment Plant

Memorandum

Date:	7/2/2018
To:	Utilities Authority
From:	Phillip Hightower
Re:	Consider Approval of Hach Service Agreement for Water Treatment Plant

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The service agreement from Hach Co. is to calibrate our lab and inline instruments on a quarterly basis. This is mandated by DEQ and the EPA.

Council Information / Action Requested

Approval of Hach Service Agreement for Water Treatment Plant.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Hach Co Agreement	Exhibit	7/2/2018

HACH SERVICEPLUS CERTIFIED PROGRAMS	**HACH SERVICE PARTNERSHIP QUOTATION**	Page : Partnership Number :	1 of 5 HACH234960
	Headquarters P.O. Box 389 5600 Lindbergh Drive Loveland, CO 80539-0389 ***Purchase Orders***	***WebSite***: www.hach.com	***Remittance*** 2207 Collections Center Dr Chicago, IL 60693 ***Wire Transfers*** Bank of America 231 S. LaSalle St. Chicago, IL 60604 Account: 8765602385 Routing (ABA): 026009593

Partnership Number :	HACH234960	**Version :**	0.13	**Quotation Date :**	03-MAY-18
				Expiration Date :	31-JUL-18
Hach Company Contact :	Ballard, Brent Allen	**Service Partnership Phone :**		**Service Partnership Email :**	bballard@hach.com
Customer Ref :	RENEWAL QUOTE			**Customer Contact :**	HIGHTOWER, PHILLIP
Customer Phone :	580-924-3416	**Customer Fax :**	918-486-5366	**Customer Email :**	phightower@durant.org

Bill-To Account # 086352		**Ship-To Account # 086352**			
Customer Name	CITY OF DURANT	Customer Name	CITY OF DURANT	**Payment Terms:**	Net 30
Address4	ACCOUNTS PAYABLE CLERK	Address4	WATER TREATMENT PLT	**Billing Method:**	Quarterly
Address1	PO BOX 578	Address1	844 CADDO HWY	**Currency:**	USD
Address2		Address2			
Address3		Address3			
City,State, PostalCode	DURANT-OK-74702	City,State, Postalcode	CADDO-OK-74729		
Province/ Country	US	Province/ Country	US		

Line	Service Name				Line Total
	Covered Product	**Start Date**	**End Date**	**Description/Serial Number**	
1	FSPCL17	01-JUL-18	30-JUN-19	Fld Svc-2V CL17 Cl(current) Field Service includes: All parts, labor, and travel for on-site repairs, 2 on-site calibrations per year, factory recommended maintenance (including required parts), unlimited technical support calls, and free firmware updates. Please see service terms and conditions for additional details on our service plans, and to ensure you have an opportunity to review our environmental and safety requirements.	2,314.00
	1.1 5440000			CL17 FINAL ASSEMBLY W/KITS ; 070800019670	
	1.2 5440000			CL17 FINAL ASSEMBLY W/KITS ; 050900013806	
2	FSPSC100	01-JUL-18	30-JUN-19	ff RENEWAL ONLY - NO new Service Agreement sales	214.00

	2.1	LXV401.52.00002			oo SC100, Hach ; 06120C0141	
3	PMP-GLPHORP-1V		01-JUL-18	30-JUN-19	PMP-GLI pH ORP PROBE-1V (FRV 1)	276.00
	3.1	DPD2P1			Digital pH Sensor, PEEK, Insertion ; 1007431313	
4	FSP1720E		01-JUL-18	30-JUN-19	Fld Svc-4V 1720E Turb Sensor Field Service includes: All parts, labor, and travel for on-site repairs, 4 on-site calibrations per year, factory recommended maintenance (including required parts), unlimited technical support calls, and free firmware updates. Please see service terms and conditions for additional details on our service plans, and to ensure you have an opportunity to review our environmental and safety requirements.	6,561.00
	4.1	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200535	
	4.2	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200536	
	4.3	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200538	
	4.4	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200540	
	4.5	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200542	
	4.6	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200543	
	4.7	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200545	
	4.8	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200546	
	4.9	LPV417.99.00002			1720E LR TURBIDITY SENSOR, HACH ; 110808200548	
5	FSPSC200		01-JUL-18	30-JUN-19	Fld Svc-1V SC200 Controller	1,200.00
	5.1	LXV404.99.00552			sc200 CONTROLLER, AC-DC, 2 DIG, HACH ; 1107C0017314	
	5.2	LXV404.99.00552			sc200 CONTROLLER, AC-DC, 2 DIG, HACH ; 1107C0017332	
	5.3	LXV404.99.00552			sc200 CONTROLLER, AC-DC, 2 DIG, HACH ; 1107C0017352	
	5.4	LXV404.99.00552			sc200 CONTROLLER, AC-DC, 2 DIG, HACH ; 1108C0017609	
	5.5	LXV404.99.00552			sc200 CONTROLLER, AC-DC, 2 DIG, HACH ; 1108C0017956	
6	HACH PM 4 VISIT		01-JUL-18	30-JUN-19	4 ON SITE VISITS	0.00
	6.1	FIELD CONTRACT SITE			Field Service Contract site visit ; HACH234960	

7	PMP-2100N-1V 7.1	4700000	01-JUL-18	30-JUN-19	PMP-2100N LAB TURB-1V (FRV1) oo 2100N LAB TURB, EPA 1821 ; 950700001681	255.00
8	BSPPLUSDR3900 8.1	 LPV440.99.00012	01-JUL-18	30-JUN-19	BenchPlus-DR3900 The Bench Service Plus includes: Factory repairs only, one Start-up or one PM/Calibration on site per year, unlimited technical support calls and free software upgrades on your instrument. Travel is included for one on-site visit. Additional visits may be billable. db aa DR3900 SPECTROPHOTOMETER WITH RFID ; 1526518	867.00

Sub Total :	11,687.00
Tax:	0.00
Total :	11,687.00

Partnership Notes :

All purchases of Hach Company products and/or services are expressly and without limitation subject to Hach Company's Terms & Conditions of Sale ("Hach TCS"), incorporated herein by reference and published on Hach Company's website at www.hach.com/terms . Hach TCS are incorporated by reference into each of Hach's offers or quotations, order acknowledgments, and invoice and shipping documents. The first of the following acts shall constitute an acceptance of Hach's offer and not a counteroffer and shall create a contract of sale ("Contract") in accordance with the Hach TCS, subject to Hach's final credit approval: (i) Buyer's issuance of a purchase order document against Hach's offer or quotation; (ii) Hach's acknowledgement of Buyer's order; or (iii) commencement of any performance by Hach in response to Buyer's order. Provisions contained in Buyer's purchase documents that materially alter, add to or subtract from the provisions of these Terms and Conditions of Sale shall be null and void and not considered part of the Contract

Customer Name : CITY OF DURANT

Customer P.O. Number : _____

Customer Reference Number : _____

TERMS & CONDITIONS OF SALE FOR HACH COMPANY PRODUCTS AND SERVICES

This document sets forth the Terms & Conditions of Sale for goods manufactured and/or supplied, and services provided, by Hach Company of Loveland, Colorado ("Hach") and sold to the original purchaser thereof ("Buyer"). Unless otherwise specifically stated herein, the term "Hach" includes only Hach Company and none of its affiliates. Unless otherwise specifically stated in a previously-executed written purchase agreement signed by authorized representatives of Hach and Buyer, these Terms & Conditions of Sale establish the rights, obligations and remedies of Hach and Buyer which apply to this offer and any resulting order or contract for the sale of Hach's goods and/or services ("Products").

1. APPLICABLE TERMS & CONDITIONS:

These Terms & Conditions of Sale are contained directly and/or by reference in Hach's offer, order acknowledgment, and invoice documents. The first of the following acts constitutes an acceptance of Hach's offer and not a counteroffer and creates a contract of sale ("Contract") in accordance with these Terms & Conditions: (i) Buyer's issuance of a purchase order document against Hach's offer; (ii) acknowledgement of Buyer's order by Hach; or (iii) commencement of any performance by Hach pursuant to Buyer's order. Provisions contained in Buyer's purchase documents (including electronic commerce interfaces) that materially alter, add to or subtract from the provisions of these Terms & Conditions of Sale are not a part of the Contract.

2. CANCELLATION:

Buyer may cancel goods orders subject to fair charges for Hach's expenses including handling, inspection, restocking, freight and invoicing charges as applicable, provided that Buyer returns such goods to Hach at Buyer's expense within 30 days of delivery and in the same condition as received. Buyer may cancel service orders on ninety (90) day's prior written notice and refunds will be prorated based on the duration of the service plan. Inspections and reinstatement fees may apply upon cancellation or expiration of service programs. Seller may cancel all or part of any order prior to delivery without liability if the order includes any Products that Seller determines may not comply with export, safety, local certification, or other applicable compliance requirements.

3. DELIVERY:

Delivery will be accomplished FCA Hach's facility located in Ames, Iowa or Loveland, Colorado, United States (Incoterms 2010). For orders having a final destination within the U.S., legal title and risk of loss or damage pass to Buyer upon transfer to the first carrier. For orders having a final destination outside the U.S., legal title and risk of loss or damage pass to Buyer when the Products enter international waters or airspace or cross an international

frontier. Hach will use commercially reasonable efforts to deliver the Products ordered herein within the time specified on the face of this Contract or, if no time is specified, within Hach's normal lead-time necessary for Hach to deliver the Products sold hereunder. Upon prior agreement with Buyer and for an additional charge, Hach will deliver the Products on an expedited basis. Standard service delivery hours are 8 am – 5 pm Monday through Friday, excluding holidays.

4. INSPECTION:
Buyer will promptly inspect and accept any Products delivered pursuant to this Contract after receipt of such Products. In the event the Products do not conform to any applicable specifications, Buyer will promptly notify Hach of such nonconformance in writing. Hach will have a reasonable opportunity to repair or replace the nonconforming product at its option. Buyer will be deemed to have accepted any Products delivered hereunder and to have waived any such nonconformance in the event such a written notification is not received by Hach within thirty (30) days of delivery.

5. PRICES & ORDER SIZES:

All prices are in U.S. dollars and are based on delivery as stated above. Prices do not include any charges for services such as insurance; brokerage fees; sales, use, inventory or excise taxes; import or export duties; special financing fees; VAT, income or royalty taxes imposed outside the U.S.; consular fees; special permits or licenses; or other charges imposed upon the production, sale, distribution, or delivery of Products. Buyer will either pay any and all such charges or provide Hach with acceptable exemption certificates, which obligation survives performance under this Contract. Hach reserves the right to establish minimum order sizes and will advise Buyer accordingly.

6. PAYMENTS:
All payments must be made in U.S. dollars. For Internet orders, the purchase price is due at the time and manner set forth at www.hach.com. Invoices for all other orders are due and payable NET 30 DAYS from date of the invoice without regard to delays for inspection or transportation, with payments to be made by check to Hach at the above address or by wire transfer to the account stated on the front of Hach's invoice, or for customers with no established credit, Hach may require cash or credit card payment in advance of delivery. In the event payments are not made or not made in a timely manner, Hach may, in addition to all other remedies provided at law, either: (a) declare Buyer's performance in breach and terminate this Contract for default; (b) withhold future shipments until delinquent payments are made; (c) deliver future shipments on a cash-with-order or cash-in-advance basis even after the delinquency is cured; (d) charge interest on the delinquency at a rate of 1-1/2% per month or the maximum rate permitted by law, if lower, for each month or part thereof of delinquency in payment plus applicable storage charges and/or inventory carrying charges; (e) repossess the Products for which payment has not been made; (f) recover all costs of collection including reasonable attorney's fees; or (g) combine any of the above rights and remedies as is practicable and permitted by law. Buyer is prohibited from setting off any and all monies owed under this from any other sums, whether liquidated or not, that are or may be due Buyer, which arise out of a different transaction with Hach or any of its affiliates. Should Buyer's financial responsibility become unsatisfactory to Hach in its reasonable discretion, Hach may require cash payment or other security. If Buyer fails to meet these requirements, Hach may treat such failure as reasonable grounds for repudiation of this Contract, in which case reasonable cancellation charges shall be due Hach. Buyer grants Hach a security interest in the Products to secure payment in full, which payment releases the security interest but only if such payments could not be considered an avoidable transfer under the U.S. Bankruptcy Code or other applicable laws. Buyer's insolvency, bankruptcy, assignment for the benefit of creditors, or issolution or termination of the existence of Buyer, constitutes a default under this Contract and affords Hach all the remedies of a secured party under the U.C.C., as well as the remedies stated above for late payment or non-payment.

7. LIMITED WARRANTY:
Hach warrants that Products sold hereunder will be free from defects in material and workmanship and will, when used in accordance with the manufacturer's operating and maintenance instructions, conform to any express written warranty pertaining to the specific goods purchased, which for most Hach instruments is for a period of twelve (12) months from delivery. Hach warrants that services furnished hereunder will be free from defects in workmanship for a period of ninety (90) days from the completion of the services. Parts provided by Hach in the performance of services may be new or refurbished parts functioning equivalent to new parts. Any non-functioning parts that are repaired by Hach shall become the property of Hach. No warranties are extended to consumable items such as, without limitation, reagents, batteries, mercury cells, and light bulbs. **All other guarantees, warranties, conditions and representations, either express or implied, whether arising under any statute, law, commercial usage or otherwise, including implied warranties of merchantability and fitness for a particular purpose, are hereby excluded.** The sole remedy for Products not meeting this Limited Warranty is replacement, credit or refund of the purchase price. This remedy will not be deemed to have failed of its essential purpose so long as Hach is willing to provide such replacement, credit or refund.

8. INDEMNIFICATION:
Indemnification applies to a party and to such party's successors-in-interest, assignees, affiliates, directors, officers, and employees ("Indemnified Parties"). Hach is responsible for and will defend, indemnify and hold harmless the Buyer Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to Hach's breach of the Limited Warranty. This indemnification is provided on the condition that the Buyer is likewise responsible for and will defend, indemnify and hold harmless the Hach Indemnified Parties against all losses, claims, expenses or damages which may result from accident, injury, damage, or death due to the negligence or misuse or misapplication of any goods or services by the Buyer or any third party affiliated or in privity with Buyer.

9. PATENT PROTECTION:
Subject to all limitations of liability provided herein, Hach will, with respect to any Products of Hach's design or manufacture, indemnify Buyer from any and all damages and costs as finally determined by a court of competent jurisdiction in any suit for infringement of any U.S. patent (or European patent for Products that Hach sells to Buyer for end use in a member state of the E.U.) that has issued as of the delivery date, solely by reason of the sale or normal use of any Products sold to Buyer hereunder and from reasonable expenses incurred by Buyer in defense of such suit if Hach does not undertake the defense thereof, provided that Buyer promptly notifies Hach of such suit and offers Hach either (i) full and exclusive control of the defense of such suit when Products of Hach only are involved, or (ii) the right to participate in the defense of such suit when products other than those of Hach are also involved. Hach's warranty as to use patents only applies to infringement arising solely out of the inherent operation of the Products according to their applications as envisioned by Hach's specifications. In case the Products are in such suit held to constitute infringement and the use of the Products is enjoined, Hach will, at its own expense and at its option, either procure for Buyer the right to continue using such Products or replace them with non-infringing products, or modify them so they become non-infringing, or remove the Products and refund the purchase price (prorated for depreciation) and the transportation costs thereof. The foregoing states the entire liability of Hach for patent infringement by the Products. Further, to the same extent as set forth in Hach's above obligation to Buyer, Buyer agrees to defend, indemnify and hold harmless Hach for patent infringement related to (x) any goods manufactured to the Buyer's design, (y) services provided in accordance with the Buyer's instructions, or (z) Hach's Products when used in combination with any other devices, parts or software not provided by Hach hereunder.

10. TRADEMARKS AND OTHER LABELS:
Buyer agrees not to remove or alter any indicia of manufacturing origin or patent numbers contained on or within the Products, including without limitation the serial numbers or trademarks on nameplates or cast, molded or machined components.

11. SOFTWARE:.
All licenses to Hach's separately-provided software products are subject to the separate software license agreement(s) accompanying the software media. In the absence of such terms and for all other software, Hach grants Buyer only a personal, non-exclusive license to access and use the software provided by Hach with Products purchased hereunder solely as necessary for Buyer to enjoy the benefit of the Products. A portion of the software may contain or consist of open source software, which Buyer may use under the terms and conditions of the specific license under which the open source software is distributed. Buyer agrees that it will be bound by any and all such license agreements. Title to software remains with the applicable licensor(s).

12 . PROPRIETARY INFORMATION; PRIVACY:
"Proprietary Information" means any information, technical data or know-how in whatever form, whether documented, contained in machine readable or physical components, mask works or artwork, or otherwise, which Hach considers proprietary, including but not limited to service and maintenance manuals. Buyer and its customers, employees and agents will keep confidential all such Proprietary Information obtained directly or indirectly from Hach and will not transfer or disclose it without Hach's prior written consent, or use it for the manufacture, procurement, servicing or calibration of Products or any similar products, or cause such products to be manufactured, serviced or calibrated by or procured from any other source, or reproduce or otherwise appropriate it. All such Proprietary Information remains Hach's property. No right or license is granted to Buyer or its customers, employees or agents, expressly or by implication, with respect to the Proprietary Information or any patent right or other proprietary right of Hach, except for the limited use licenses implied by law. Hach will manage Customer's information and personal data in accordance with its Privacy Policy, located at http://www.hach.com/privacypolicy.

13. CHANGES AND ADDITIONAL CHARGES:
Hach reserves the right to make design changes or improvements to any products of the same general class as Products being delivered hereunder without liability or obligation to incorporate such changes or improvements to Products ordered by Buyer unless agreed upon in writing before the Products' delivery date. Services which must be performed as a result of any of the following conditions are subject to additional charges for labor, travel and parts: (a) equipment alterations not authorized in writing by Hach; (b) damage resulting from improper use or handling, accident, neglect, power surge, or operation in an environment or manner in which the instrument is not designed to operate or is not in accordance with Hach's operating manuals; (c) the use of parts or accessories not provided by Hach; (d) damage resulting from acts of war, terrorism or nature; (e) services outside standard business hours; (f) site prework not complete per proposal; or (g) any repairs required to ensure equipment meets manufacturer's specifications upon activation of a service agreement.

14. SITE ACCESS / PREPARATION / WORKER SAFETY / ENVIRONMENTAL COMPLIANCE:
In connection with services provided by Hach, Buyer agrees to permit prompt access to equipment. Buyer assumes full responsibility to back-up or otherwise protect its data against loss, damage or destruction before services are performed. Buyer is the operator and in full control of its premises, including those areas where Hach employees or contractors are performing service, repair and maintenance activities. Buyer will ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of services. Buyer is the generator of any resulting wastes, including without limitation hazardous wastes. Buyer is solely responsible to arrange for the disposal of any wastes at its own expense. Buyer will, at its own expense, provide Hach employees and contractors working on Buyer's premises with all information and training required under applicable safety compliance regulations and Buyer's policies. If the instrument to be serviced is in a Confined Space, as that term is defined under OSHA regulations, Buyer is solely responsible to make it available to be serviced in an unconfined space. Hach service technicians will not work in Confined Spaces. In the event that a Buyer requires Hach employees or contractors to attend safety or compliance training programs provided by Buyer, Buyer will pay Hach the standard hourly rate and expense reimbursement for such training attended. The attendance at or completion of such training does not create or expand any warranty or obligation of Hach and does not serve to alter, amend, limit or supersede any part of this Contract.

15. LIMITATIONS ON USE:
Buyer will not use any Products for any purpose other than those identified in Hach's catalogs and literature as intended uses. Unless Hach has advised the Buyer in writing, in no event will Buyer use any Products in drugs, food additives, food or cosmetics, or medical applications for humans or animals. In no event will Buyer use in any application any Product that requires FDA 510(k) clearance unless and only to the extent the Product has such clearance. Any warranty granted by Hach is void if any goods covered by such warranty are used for any purpose not permitted hereunder.

16. EXPORT AND IMPORT LICENSES AND COMPLIANCE WITH LAWS:
Unless otherwise specified in this Contract, Buyer is responsible for obtaining any required export or import licenses. Hach represents that all Products delivered hereunder will be produced and supplied in compliance with all applicable laws and regulations. Buyer will comply with all laws and regulations applicable to the installation or use of all Products, including applicable import and export control laws and regulations of the U.S., E.U. and any other country having proper jurisdiction, and will obtain all necessary export licenses in connection with any subsequent export, re-export, transfer and use of all Products and technology delivered hereunder. Buyer will not sell, transfer, export or re-export any Hach Products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor use Hach Products or technology in any facility which engages in activities relating to such weapons. Buyer will comply with all local, national, and other laws of all jurisdictions globally relating to anti-corruption, bribery, extortion, kickbacks, or similar matters which are applicable to Buyer's business activities in connection with this Contract, including but not limited to the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "FCPA"). Buyer agrees that no payment of money or provision of anything of value will be offered, promised, paid or transferred, directly or indirectly, by any person or entity, to any government official, government employee, or employee of any company owned in part by a government, political party, political party official, or candidate for any government office or political party office to induce such organizations or persons to use their authority or influence to obtain or retain an improper business advantage for Buyer or for Hach, or which otherwise constitute or have the purpose or effect of public or commercial bribery, acceptance of or acquiescence in extortion, kickbacks or other unlawful or improper means of obtaining business or any improper advantage, with respect to any of Buyer's activities related to this Contract. Hach asks Buyer to "*Speak Up!*" if aware of any violation of law, regulation or our Standards of Conduct ("SOC") in relation to this Contract. See http://danaher.com/integrity-and-compliance and www.danaherintegrity.com for a copy of the SOC and for access to our Helpline portal.

17. FORCE MAJEURE:
Hach is excused from performance of its obligations under this Contract to the extent caused by acts or omissions that are beyond its control of, including but not limited to Government embargoes, blockages, seizures or freeze of assets, delays or refusals to grant an export or import license or the suspension or revocation thereof, or any other acts of any Government; fires, floods,severe weather conditions, or any other acts of God; quarantines; labor strikes or lockouts; riots; strife; insurrections; civil disobedience or acts of criminals or terrorists; war; material shortages or delays in deliveries to Hach by third parties. In the event of the existence of any force majeure circumstances, the period of time for delivery, payment terms and payments under any letters of credit will be extended for a period of time equal to the period of delay. If the force majeure circumstances extend for six months, Hach may, at its option, terminate this Contract without penalty and without being deemed in default or in breach thereof.

18. NON ASSIGNMENT AND WAIVER:
Buyer will not transfer or assign this Contract or any rights or interests hereunder without Hach's prior written consent. Failure of either party to insist upon strict performance of any provision of this Contract, or to exercise any right or privilege contained herein, or the waiver of any breach of the terms or conditions of this Contract will not be construed as thereafter waiving any such terms, conditions, rights, or privileges, and the same will continue and remain in force and effect as if no waiver had occurred.

19. LIMITATION OF LIABILITY:
None of the Hach Indemnified Parties will be liable to Buyer under any circumstances for any special, treble, incidental or consequential damages, including without limitation, damage to or loss of property other than for the Products purchased hereunder; damages incurred in installation, repair or replacement; lost profits, revenue or opportunity; loss of use; losses resulting from or related to downtime of the products or inaccurate measurements or reporting; the cost of substitute products; or claims of Buyer's customers for such damages, howsoever caused, and whether based on warranty, contract, and/or tort (including negligence, strict liability or otherwise). The total liability of the Hach Indemnified Parties arising out of the performance or nonperformance hereunder or Hach's obligations in connection with the design, manufacture, sale, delivery, and/or use of Products will in no circumstance exceed in the aggregate a sum equal to twice the amount actually paid to Hach for Products delivered hereunder.

20. APPLICABLE LAW AND DISPUTE RESOLUTION:
The construction, interpretation and performance hereof and all transactions hereunder shall be governed by the laws of the State of Colorado, without regard to its principles or laws regarding conflicts of laws. If any provision of this Contract violates any Federal, State or local statutes or regulations of any countries having jurisdiction of this transaction, or is illegal for any reason, said provision shall be self-deleting without affecting the validity of the remaining provisions. Unless otherwise specifically agreed upon in writing between Hach and Buyer, any dispute relating to this Contract which is not resolved by the parties shall be adjudicated in order of preference by a court of competent jurisdiction (i) in the State of Colorado, U.S.A. if Buyer has minimum contacts with Colorado and the U.S., (ii) elsewhere in the U.S. if Buyer has minimum contacts with the U.S. but not Colorado, or (iii) in a neutral location if Buyer does not have minimum contacts with the United States.

21. ENTIRE AGREEMENT & MODIFICATION:
These Terms & Conditions of Sale constitute the entire agreement between the parties and supersede any prior agreements or representations, whether oral or written. No change to or modification of these Terms & Conditions shall be binding upon Hach unless in a written instrument specifically referencing that it is amending these Terms & Conditions of Sale and signed by an authorized representative of Hach. Hach rejects any additional or inconsistent Terms & Conditions of Sale offered by Buyer at any time, whether or not such terms or conditions materially alter the Terms & Conditions herein and irrespective of Hach's acceptance of Buyer's order for the described goods and services.

Agenda Item: 3.e.

The City of Durant

Office of City Clerk

Memorandum

Date:	7/6/2018
To:	Utilities Authority
From:	Philip Hightower, Water Treatment Plant
Re:	Consider Approval of Service Agreement with Evoqua Water Technologies LLC for Water Treatment Plant

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The service agreement with Evoqua Water Technologies, LLC is for monthly service on our two Chlorine Dioxide Generators which Evoqua supplied. This agreement would also give us a large discount on Sodium Chlorite that we use to produce Chlorine Dioxide.

Council Information / Action Requested

Approval of Service Agreement with Evoqua Water Technologies LLC for Water Treatment Plant

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Evoqua Water Technologies LLC Service Agreement	Exhibit	7/6/2018

evoqua
WATER TECHNOLOGIES

April 27, 2018

Mr. Phillip Hightower
City of Durant
Water Treatment Plant
844 Caddo Highway
Caddo, OK 74729
Email: phightower@durant.org

RE: CITY OF DURANT CHLORINE DIOXIDE CONTRACT 2018
Ref. Evoqua Quote No. Q130423LF3

Dear Mr. Hightower:

Evoqua Water Technologies LLC would like to extend the current Chlorine Dioxide Program; AKTA KLOR 25 supply, and service for one additional calendar year, beginning July 1, 2018 through June 30, 2019. There is a 3% increase in the price per liquid pound of AKTA KLOR 25 (25% Sodium Chlorite) to $0.638 per liquid pound. The monthly service fee will increase by 3% to $566.50/month. Prices do not include any applicable taxes.

All other terms and conditions remain unchanged per the original contract Q130423LF3.

We appreciate the opportunity to work with you and are looking forward to the coming year. If you have any questions or need additional information, you can reach me at (303) 349-0520.

Please sign and return the contract to sheri.whalen@evoqua.com.

Sincerely,

Evoqua Water Technologies LLC

Michael Trefry

Michael Trefry
Sr. Account Representative

ACCEPTANCE OF PROPOSAL
Evoqua Water Technologies will process your order when we receive acceptance of this request by signing below and returning to sheri.whalen@evoqua.com or fax to: (941) 359-7985.

Accepted by: _____

This _____ day of _____2018

By: _____

Title: _____

Company: _____

Agenda Item: 3.f.

The City of Durant

Office of City Clerk

Memorandum

Date:	7/6/2018
To:	Utilities Authority
From:	Matthew Nahrstedt, LEED GA, Community Development Director and City Planner
Re:	Consider Approval of Resolution 2018-18 - A Resolution to Approve Water and Sewer Infrastructure of Country Estates VI

See attached memo.

Council Information / Action Requested

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Memo to Council	Exhibit	7/6/2018
Resolution 2018-18 Country Estates VI	Exhibit	7/6/2018
Final Plat, Country Estates VI	Exhibit	7/6/2018
Country Estates VI, Sewer Plans	Exhibit	7/6/2018
Country Estates VI, Water Plans	Exhibit	7/6/2018
Original Letter, City of Durant and RGB Investments	Exhibit	7/6/2018

Agenda Item: 4.k.

The City of Durant

Office of Community Development

Memorandum

Date:	7/2/2018
To:	Mayor and City Council
From:	Matthew Nahrstedt, LEED GA, Community Development Director and City Planner
Re:	Consider Approval of Resolution 2018-18 – A Resolution to Approve Water and Sewer Infrastructure of Country Estates VI.

The single-family housing addition Country Estates VI is a de-annexed subdivision that is currently part of Bryan County but surrounded by City of Durant city limits on all sides. A letter signed by City of Durant City Manager Tim Rundel and RGB Investments, LLC--developer of the Country Estates VI addition ("the addition"), states the following conditions:

- the City to approve and service the water and sewer infrastructure of the addition upon the finished installation of said infrastructure; and for the developer to install all infrastructure of the addition per approved engineer plans.
- the City of Durant to adopt said infrastructure as property of the City.
- the City of Durant to provide water and sewer services to the addition. The effective date of this service shall be the same as the date of approval by the Durant City Council.

Council Information / Action Requested

To approve or disapprove Resolution 2018-18, taking in water and sewer infrastructure of Country Estates Vi as City property and servicing said infrastructure.

City Staff Information / Action Follow-up, if Council authorizes this action:

Public Works Department to service water and sewer infrastructure and file water and sewer plans.

ATTACHMENTS:

Description	Type	Upload Date
Resolution 2018-18, Country Estates VI	Resolution Letter	7/5/2018
Final Plat, Country Estates VI	Backup Material	7/5/2018
Country Estates VI, Sewer Plans	Backup Material	7/5/2018
Country Estates VI, Water Plans	Backup Material	7/5/2018
Original Letter, Durant and RGB Investments	Backup Material	7/5/2018

RESOLUTION # 2018-18

A RESOLUTION FOR THE CITY OF DURANT TO APPROVE THE INFRASTRUCTURE OF THE ADDITION OF COUNTRY ESTATES VI, TO ADOPT SAID INFRASTRUCTURE AS CITY PROPERTY AND TO PROVIDE WATER AND SEWER SERVICES TO SAID PROPERTY.

WHEREAS, an agreement stands between the City of Durant and the developer, RGB Investments, LLC, of the Country Estates VI addition ("the addition") for the City to approve and service the water and sewer infrastructure of the addition upon the finished installation of said infrastructure; and

WHEREAS, the developer has installed all infrastructure of the addition per approved engineer plans and the City of Durant adopts said infrastructure as property of the City; and

WHEREAS, the City of Durant will provide water and sewer services to the addition. The effective date of this service shall be the same as the date of approval by the Durant City Council; and

BE IT FURTHER RESOLVED that the final water and sewer infrastructure plans will be documented and maintained at the City of Durant Department of Public Works.

PASSED AND APPROVED by the Mayor and City Council of the City of Durant, Oklahoma, this 10th day of July, 2018.

_____
JERRY L. TOMLINSON, MAYOR
CITY OF DURANT, OKLAHOMA

ATTEST:

_____
CYNTHIA PRICE
CITY CLERK

Refiled to Correct Road names

COUNTRY ESTATES PART VI SUBDIVISION

SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY, STATE OF OKLAHOMA.

I-2018-702674 Book 1462 Pg 866
03/20/2018 3:32 pm Pg 0866-0866
Fee: $ 15.00 Doc: $ 0.00
Tammy Reynolds - Bryan County Clerk
State of Oklahoma

RGB Investments, LLC.
Owners

OWNER'S CERTIFICATE & DEDICATION

KNOW ALL MEN BY THESE PRESENTS:

That RGB Investments, LLC., being the sole owner(s) in fee simple of the following described real property respectively, to wit.

LEGAL DESCRIPTION

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET;
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 114.65 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 309.70 FEET;
THENCE S 55°17'47" E A DISTANCE OF 382.03 FEET;
THENCE S 32°13'26" W A DISTANCE OF 634.40 FEET;
THENCE S 51°03'44" W A DISTANCE OF 128.86 FEET;
THENCE N 37°48'18" W A DISTANCE OF 68.53 FEET;
THENCE S 47°05'57" W A DISTANCE OF 378.33 FEET;
THENCE S 87°47'29" W A DISTANCE OF 240.18 FEET;
THENCE S 36°30'15" W A DISTANCE OF 70.01 FEET;
THENCE S 89°11'44" W A DISTANCE OF 135.86 FEET;
THENCE N 19°23'49" W A DISTANCE OF 254.53 FEET;
THENCE N 39°42'07" W, TO A POINT ON THE EASTERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 296.32 FEET;
THENCE N 46°54'05" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 573.60 FEET;
THENCE N 37°41'40" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I & III, A DISTANCE OF 292.34 FEET;
THENCE S 46°12'28" E, A DISTANCE OF 139.34 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 186.31 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 28°21'21" E, WITH A CHORD LENGTH OF 186.10 FEET;
THENCE N 44°26'56" W, TO A POINT ON THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 109.10 FEET;
THENCE N 37°47'00" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 51.51 FEET;
THENCE S 44°16'30" E A DISTANCE OF 105.07 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 194.43 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 40°40'30" E, WITH A CHORD LENGTH OF 194.19 FEET, BACK TO THE TRUE POINT OF BEGINNING.

LESS AND ACCEPT

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET;
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 164.93 FEET;
THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 241.05 FEET, WITH A RADIUS OF 1075.83 FEET, WITH A CHORD BEARING OF S 38°55'40" W, WITH A CHORD LENGTH OF 240.54 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S 41°39'56" E A DISTANCE OF 255.56 FEET;
THENCE S 55°17'47" E A DISTANCE OF 43.48 FEET;
THENCE S 27°17'27" W A DISTANCE OF 150.29 FEET;
THENCE N 56°03'58" W A DISTANCE OF 281.58 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 215.46', WITH A RADIUS OF 1075.83', WITH A CHORD BEARING OF N 26°48'18" E, WITH A CHORD LENGTH OF 215.10' BACK TO THE POINT OF BEGINNING.

SAID TRACT OF LAND CONTAINS 21.87 ACRES MORE OR LESS.

RGB Investments, LLC., offers for dedication to the public use of all streets, avenues, parks, public facilities and easements as shown on the annexed plat of Country Estates Part VI, a Subdivision to Bryan County, State of Oklahoma. The transaction of this irrevocable offer of dedication shall be consummated upon the execution of the Certificate for Acceptance of Dedication, for the purpose of providing an orderly development of Country Estates Part VI, a Subdivision to Bryan County, State of Oklahoma, we do hereby provide restrictive covenants. Filed in Book ____, Page ____, of the records in the office of the County Clerk, Bryan County, Oklahoma.

RGB INVESTMENTS — Date 12/19/17

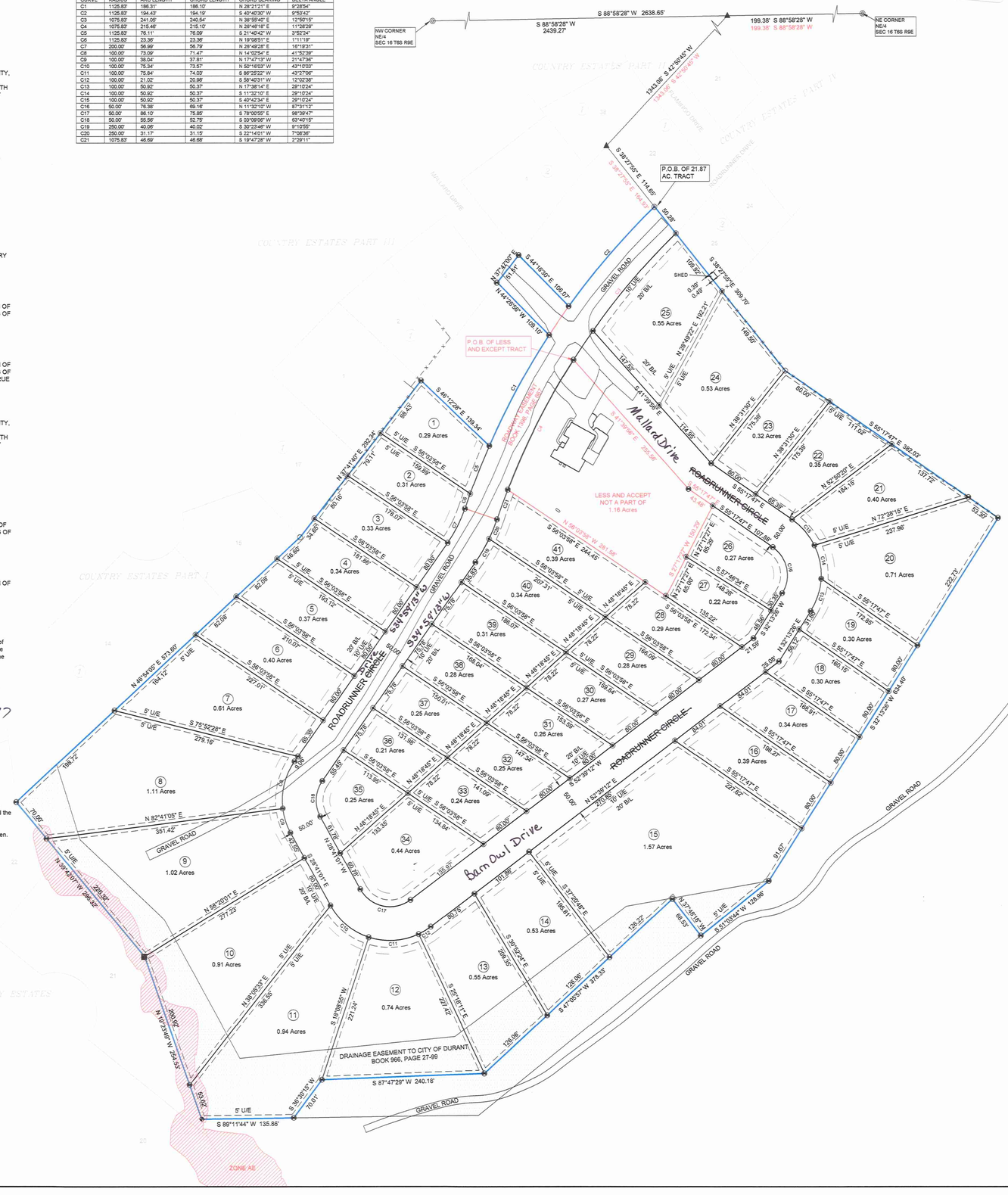
STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this 20 day of Dec, 2017, personally appeared Derrick Brown to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that He executed the same as His free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Debra Watkins
Notary Public
2-11-2021
Commission Expiration

DEBRA WATKINS NOTARY #05001575 PUBLIC STATE OF OKLAHOMA

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1125.83'	186.31'	186.10'	N 28°21'21" E	9°28'54"
C2	1125.83'	194.43'	194.19'	S 40°40'30" W	9°53'42"
C3	1075.83'	241.05'	240.54'	N 38°59'40" E	12°50'15"
C4	1075.83'	215.46'	215.10'	N 26°48'18" E	11°28'26"
C5	1125.83'	76.11'	76.09'	S 21°45'42" W	3°52'24"
C6	1125.83'	23.36'	23.36'	N 19°08'51" E	1°11'19"
C7	200.00'	56.99'	56.79'	N 26°49'28" E	16°19'31"
C8	100.00'	73.09'	71.47'	N 14°02'54" E	41°52'39"
C9	100.00'	38.04'	37.81'	N 17°47'13" W	21°47'36"
C10	100.00'	75.34'	73.57'	N 50°16'03" W	43°10'03"
C11	100.00'	75.84'	74.03'	S 86°25'22" W	43°27'06"
C12	100.00'	21.02'	20.98'	S 58°40'31" W	12°02'38"
C13	100.00'	50.92'	50.37'	N 17°38'14" E	29°10'24"
C14	100.00'	50.92'	50.37'	S 11°32'10" E	29°10'24"
C15	100.00'	50.92'	50.37'	S 40°42'34" E	29°10'24"
C16	50.00'	76.38'	69.16'	N 11°32'10" W	87°31'12"
C17	50.00'	86.10'	75.86'	S 78°00'55" E	98°39'47"
C18	50.00'	55.56'	52.75'	S 03°09'06" W	63°40'15"
C19	250.00'	40.06'	40.02'	S 30°23'46" W	9°10'55"
C20	250.00'	31.17'	31.15'	S 22°14'01" W	7°08'36"
C21	1075.83'	46.69'	46.68'	S 19°47'38" W	2°29'11"



LICENSED LAND SURVEYORS CERTIFICATE

I, B.J. McIninch, a Licensed Land Surveyor in the State of Oklahoma, do hereby state that this plat of survey is based on an actual field survey, by myself, or under my direction, in conformance with the Oklahoma Minimum Standards for the Practice of Land Surveying. And subject to easements and/or rights-of-way, either recorded, or implied, thereof.

B.J. McIninch P.L.S. 1819 — Date 8/24/17

STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this 24 day of Aug., 2017, personally appeared B.J. McIninch to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that He executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Tracie Hobbs
Notary Public
3-24-18
Commission Expiration

COUNTY TREASURERS CERTIFICATE

I, Sheila Presley The duly elected and qualified County Treasurer of Bryan County, Oklahoma, do hereby certify that there are no unpaid taxes up to and including the year 2016 on the described real property known as Country Estates Part VI being a part of Bryan County, State of Oklahoma, and the required security has been deposited in the office of the County Treasurer guaranteeing payment of the current years taxes.

Witness my hand this 14 day of Dec 2017.

Sheila Presley by Substitution
County Treasurer

STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this 4 day of Dec 2017, personally appeared Sheila Presley by Substitution to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that She executed the same as Her free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Notary Public
2-23-2018
Commission Expiration

DEPARTMENT OF ENVIRONMENTAL QUALITY APPROVAL

The Oklahoma State Department of Environmental Quality, certifies that this plat is approved for the construction of a private sewage disposal system and a public water system this 12th day of Dec, 2017.

Environmental Specialist

COUNTY CLERK CERTIFICATE
STATE OF OKLAHOMA
COUNTY OF BRYAN

This instrument, 700665 was filed on the 20th day of Dec, 2017, at 9:12, and duly recorded in book 1456 page 504

County Clerk

I-2017-700665 Book 1456 Pg: 504
12/20/2017 9:12 am Pg 0504-0504
Fee: $ 15.00 Doc: $ 0.00
Tammy Reynolds - Bryan County Clerk
State of Oklahoma

STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this 20 day of Dec, 2017, personally appeared Jay Pierce to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that He executed the same as His free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Debra Watkins
Notary Public
2-11-2021
Commission Expiration

BRYAN COUNTY COMMISSIONERS APPROVAL

I, Jim Chairman of the Bryan County, Planning Commission for the County of Bryan, State of Oklahoma, hereby certify that the said commission duly approved the plat of Country Estates Part VI, on this ____ day of _____, 2017.

Chairman

FLOOD ZONE INFORMATION:

A PORTION OF SUBJECT PROPERTY IS LOCATED IN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AND ZONE AE (BASE FLOOD ELEVATIONS DETERMINED). ACCORDING TO FIRM PANEL NO. 40013C0190E. MAP REVISED JUNE 2, 2011.

LEGEND

These standard symbols will be found in the drawing.

- FOUND 3/8" STEEL PIN
- FOUND 1" SQUARE TUBING
- FOUND 1/2" STEEL PIPE
- CALCULATED POINT
- FOUND 1/2" STEEL PIN
- SET 1/2" STEEL PIN (PLS 1819)
- EXISTING 1/2" STEEL PIN (PLS 1566)
- WIRE FENCE
- BUILDING SET BACK LINE
- UTILITY EASEMENT
- BOUNDARY LINE
- LINE NOT TO SCALE

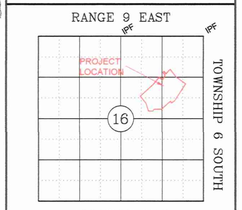
BM SURVEYING, INC
2836 W. TWIN OAKS RD
CANEY, OKLAHOMA 74533
(580) 279-9544
BM.SURVEYING@YAHOO.COM

B.J. McININCH - COPYRIGHT 2017

PROFESSIONAL LAND SURVEYOR - #1819
CERTIFICATE OF AUTHORIZATION - #7076

COUNTRY ESTATES PART VI

SECTION 16,
TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY, STATE OF OKLAHOMA.



LOCATION MAP

SECTION 16
TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY

0' 80' 160'

~BASIS OF BEARINGS~
BEARINGS OBTAINED FROM G.P.S. OBSERVATIONS (SPC NAD 83)
CONTROLLING CORNERS ARE EXISTING CORNERS FOUND IN SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST, BRYAN COUNTY, OKLAHOMA AND LOT AND BLOCK CORNERS OF COUNTRY ESTATES SUBDIVISIONS.

GENERAL NOTES

SUBJECT TO EASEMENTS AND/OR RIGHTS-OF-WAY, EITHER RECORDED, OR IMPLIED, THEREOF.

NO UTILITIES OF ANY KIND HAVE BEEN LOCATED EXCEPT THOSE SHOWN ON THE ABOVE PLAT

CONTROLLING CORNERS FOR THIS SURVEY ARE AS SHOWN ON THE LOCATION MAP

THIS IS NOT A VALID SURVEY WITHOUT THE SURVEYORS ORIGINAL SIGNATURE AND ORIGINAL SEAL

PORTIONS OF THIS PLAT ARE IN COLOR, PHOTO AND ELECTRONIC COPIES OF THIS PLAT MAKE IT INVALID AND MAY ALTER ITS MEANING

THIS PLAT AND SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

BEFORE YOU DIG ... 1-800-522-6543 CALL OKIE

NO.	REVISION/ISSUE	DATE
1	REDESIGN OF LOTS	8-14-17

SURVEY INFORMATION

FIELD WORK PERFORMED: 5-9-17 - 5-23-17
DATE OF LAST SITE VISIT: 5-23-17
PLAT COMPLETED: 5-24-17

Project Name and Address
COUNTRY ESTATES
PART VI
DURANT, OKLAHOMA

DATE 5-24-17

SCALE 1" = 80'

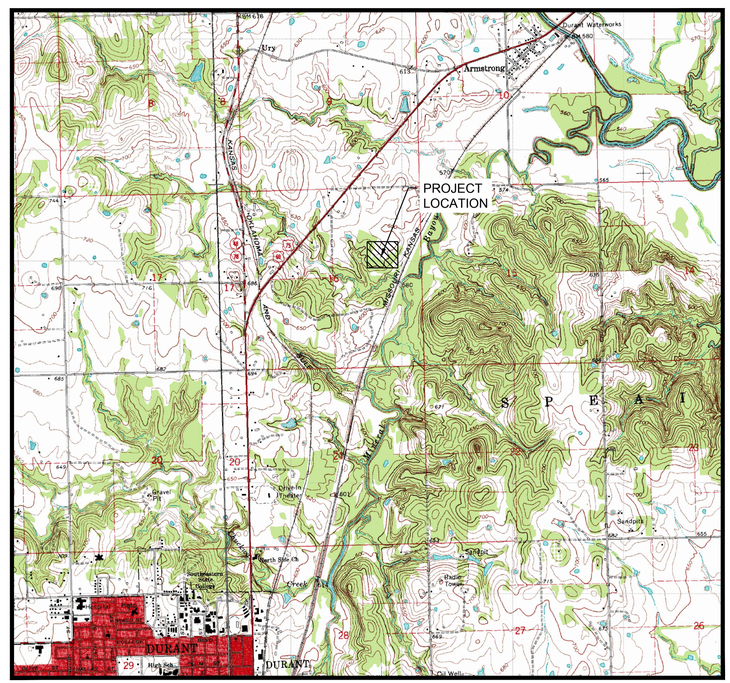
SHEET NO. 1 OF 1

DURANT UTILITIES AUTHORITY
COUNTRY ESTATES VI SEWER IMPROVEMENTS
DURANT, OKLAHOMA

SEPT. 2017

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
C001	COVER
C002	GENERAL NOTES
CS101	EXISTING SITE PLAN
CI101	PROPOSED SITE PLAN
CU301	SEWER LINE A PLAN & PROFILE
CU302	SEWER LINE A PLAN & PROFILE
CU303	SEWER LINE B PLAN & PROFILE
CU501	SEWER DETAILS



LOCATION MAP
NOT TO SCALE

ENGINEER:

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

H. WAYNE BARKER, P.E.
PROJECT MANAGER
OK. NO. 18513

DATE

3902 University Blvd.
Durant, OK 74701
Voice: 580.931.9045
Fax: 580.931.9099
OK CA# 3998
Exp. 06/30/2018

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

GENERAL NOTES

1. THE CONTRACTOR SHALL HAVE EXISTING UTILITIES LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CALL "OKIE" 1-800-522-6543 IN ADDITION TO DIRECT NOTIFICATION. CONTRACTOR SHALL BRACE UTILITY POLES AS NECESSARY. UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE UTILITY OWNER'S SPECIFICATIONS BY THE CONTRACTOR AT NO COST TO THE OWNER.

2. THE CONTRACTOR SHALL ESTABLISH, INSTALL, OPERATE, AND MAINTAIN COMPLETE AND ADEQUATE AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE ENGINEER.

3. ALL DIMENSIONS OR ELEVATIONS WITH ± SHALL BE CONFIRMED BY THE CONTRACTOR.

4. ALL DIMENSIONS OF EXISTING STRUCTURES AND EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER & OWNER.

5. TOPSOIL IN THE DISTURBED AREAS SHALL BE REMOVED, STOCKPILED, AND RESTORED AFTER CONSTRUCTION OPERATIONS, IN ACCORDANCE WITH PROJECT SPECIFICATIONS. ALL EXCESS TOPSOIL SHALL BE CONSIDERED WASTE AND STOCKPILED ON-SITE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.

6. ALL DISTURBED ROADWAY AND DRIVEWAY SURFACES SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION.

7. FALL PROTECTION AROUND ALL OPENINGS AND EXCAVATION SHALL BE MAINTAINED AT ALL TIMES.

8. NORTH ARROWS SHOWN ON DRAWINGS INDICATE LOCAL COORDINATE SYSTEM ESTABLISHED BY THE SURVEYOR, UNLESS OTHERWISE NOTED.

9. TRENCH SAFETY AND SHORING IN ACCORDANCE WITH CURRENT OSHA REGULATIONS SHALL BE EMPLOYED BY CONTRACTOR AT ALL TIMES.

10. IF AT ANY POINT CONSTRUCTION ACTIVITIES EXPOSE ARCHEOLOGICAL MATERIALS SUCH AS CHIPPED STONE, TOOLS, POTTERY, BONE, HISTORIC CROCKERY, GLASS, METAL ITEMS OR BUILDING MATERIALS, THE OKLAHOMA ARCHEOLOGICAL SURVEY STATE ARCHEOLOGIST SHALL BE CONTACTED IMMEDIATELY AT 405-325-7211.

11. ALL STATIONS SHOWN ON THE PLANS ARE CENTERLINE STATIONS UNLESS NOTED OTHERWISE.

12. THE TOPOGRAPHIC SURVEY WAS FURNISHED BY BM SURVEYING , INC. ALL EXISTING INFORMATION IS SHOWN AS ACCURATELY AS POSSIBLE BASE UPON FIELD RECONNAISSANCE AND RESEARCH. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION. IF CONTRACTOR BELIEVES EXISTING INFORMATION IS INACCURATE, THE CONTRACTOR MAY HAVE A NEW SURVEY COMPLETED AT NO ADDITIONAL COST TO THE OWNER, ARCHITECT, OR ENGINEER.

13. DIMENSIONS SHOWN ARE TO BACK OF CURB OR CENTERLINE OF PIPE UNLESS NOTED OTHERWISE.

14. CONTRACTOR SHALL REVIEW & COORDINATE W/ ARCHITECTURAL, MECH., ELEC., & PLUMBING DISCIPLINES DRAWINGS, SPEC'S & DETAILS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. IN THE EVENT THAT THE ARCH. &/OR CONTRACTOR DEVIATES CONSTRUCTION FROM THESE PLANS W/O THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER, THE ARCH. &/OR CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THOSE MODIFICATIONS.

15. PROPERTY LINES SHOWN ARE APPROX. & HAVE NOT BEEN VERIFIED.

UTILITY NOTES

1. ALL SANITARY SEWER AND PUBLIC WATER SUPPLY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARD CONSTRUCTION SPECIFICATIONS.

2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SERVICES FROM DAMAGE. UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES, AND ANY DISRUPTION OF SERVICE SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.

3. ALL STRUCTURES AND MANHOLES SHALL BE CONSTRUCTED ON A MINIMUM THICKNESS OF 4" OF CLEAN COMPACTED CRUSHED ROCK UNLESS OTHERWISE NOTED. SUCH BEDDING SHALL BE APPROVED PRIOR TO PLACEMENT.

4. CONTRACTOR SHALL VERIFY PROPOSED WATER LINE ELEVATIONS TO INSURE NO CONFLICTS WITH EXISTING UTILITIES. MINOR FIELD ADJUSTMENTS NECESSARY TO AVOID CONFLICTS SHALL BE COORDINATED WITH THE APPROVAL OF THE ENGINEER.

5. CONTRACTOR SHALL VERIFY EXISTING PIPE SIZE, TYPE AND LOCATION PRIOR TO ORDERING MATERIALS, TO INSURE PROPER CONNECTION.

6. ALL BURIED FITTINGS, SUCH AS BENDS, TEES, ETC., SHALL BE BLOCKED FOR THRUST, AS SHOWN ON THE STANDARD DETAIL DRAWING. THIS REQUIREMENT SHALL INCLUDE ALL PRESSURE PIPING AND LOW HEAD (GRAVITY) PIPING. COST SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

7. MINIMUM DEPTH OF COVER SHALL BE 36-INCHES UNLESS OTHERWISE NOTED.

8. NO. 12 COPPER WIRE (TRACER WIRE) AND MYLAR DETECTABLE MARKING TAPE SHALL BE BURIED ABOVE THE TOP OF ALL NON-FERROUS PRESSURE LINES.

9. WATER LINE SHALL BE PRESSURE & LEAK TESTED IN ACCORDANCE WITH SPECIFICATIONS.

10. WATER LINE SHALL BE DISINFECTED IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO USE.

11. DEFLECTION OF WATER LINE SHALL NOT EXCEED MANUFACTURERS RECOMMENDATION.

12. ALL SERVICE LINES CROSSINGS & TAPS SHALL BE INSTALLED PRIOR TO PAVING.

13. WATERLINES AND SANITARY SEWER LINES SHALL MAINTAIN A MINIMUM SEPARATION OF 10' HORIZONTAL AND 2' VERTICAL.

14. GRAVITY PIPE LENGTHS MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

15. GRAVITY SEWER SHALL BE LEAK & DEFLECTION TESTED IN ACCORDANCE W/ SPECIFICATIONS.

16. ALL MANHOLE TOP OF RIM ELEVATIONS SHOWN SHALL BE VERIFIED BY CONTRACTOR IN THE FIELD TO FIT GRADE.

17. THE PLANS HAVE BEEN PREPARED TO SHOW THE APPROXIMATE LOCATION OF EXISTING KNOWN UTILITIES. THE CONTRACTOR SHALL CONTACT OKIE, EACH RESPECTIVE UTILITY COMPANY AND THE PROJECT OWNER TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION. ANY CHANGE IN ALIGNMENT OR GRADE CAUSED BY INTERFERING UTILITIES SHALL BE MADE BY THE CONTRACTOR AT NO COST TO THE OWNER AND THE ENGINEER NOTIFIED.

18. DEPTHS OF ANY EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL AT HIS OWN EXPENSE UNCOVER AND VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES IN ADVANCE OF THE CONSTRUCTION.

19. THE CONTRACTOR SHALL PROVIDE ANY TAPS, CROSS-OVERS, VALVES, ETC. AS REQUIRED TO FLUSH, HYDROSTATIC TEST AND DISINFECT ALL NEW LINES PRIOR TO BEING PLACED IN SERVICE.

20. CONTRACTOR SHALL COORDINATE ANY ACTIVITIES INVOLVING WATER & SANITARY SEWER SYSTEM WITH UTILITY AND OWNER'S REPRESENTATIVE.

21. UTILITY TRENCH PENETRATIONS INTO OR UNDER BUILDING FOUNDATION SHALL BE SEALED OR PLUGGED PER DETAIL PROVIDED. REFER TO SHEET CU501.7B FOR DETAILS.

22. CONTRACTOR SHALL PROVIDE OR OTHERWISE PAY ANY CITY BUILDING PERMITS, TAP//METER FEES, CONNECTION FEES ETC. CONTRACTOR SHALL COORDINATE WITH CITY TO DETERMINE ANY SPECIFIC REQUIREMENTS.

23. SUGGESTED SEQUENCE OF CONSTRUCTION-

A. VERIFY FINISHED GRADING ELEVATIONS TO INSURE ADEQUATE COVER AFTER INSTALLATION.
B. CONFIRM/VERIFY ALL PLUMBING /BLDG PIPE EXIT ELEVATIONS AND OTHER CONNECTIONS IN THE FIELD.
C. INSTALL GRAVITY SANITARY SEWER, STORM SEWER & DUCT BANK. INSTALL LIFT STATION
D. INSTALL PRESSURE PIPING.

24. PROPOSED GRADE AS SHOWN ON PROFILE IS TOP OF PROPOSED FINAL SURFACE, I.E. TO OF PAVEMENT, TOP OF LANDSCAPE COVER, ECT.

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND SEDIMENT BUILDUP REGULARLY REMOVED UNTIL PAVING OPERATIONS ARE COMPLETE AND/OR SEEDING IS IN PLACE AND 75% VEGETATION STABILIZATION IS OBTAINED.

2. ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE AT EACH STRUCTURE, IN A MANNER APPROVED BY THE ENGINEER.

3. ALL FLOW LINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY COMPACTED TO 95% STANDARD PROCTOR DENSITY BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES.

4. IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS, AND AFTER GRADING OPERATIONS ARE COMPLETED, BUT BEFORE PAVEMENT AND/OR PERMANENT EROSION CONTROL WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE OWNERS REPRESENTATIVE.

5. ALL UNPAVED DISTURBED AREAS SHALL RECEIVE SLAB SOD FOR PERMANENT EROSION CONTROL, UNLESS NOTED OTHERWISE. THIS SHALL INCLUDE FERTILIZER, WATERING & MOWING AS REQUIRED TO ESTABLISH A VIABLE TURF.

6. AT THE BEGINNING OF THE TURF OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS AS DETERMINED BY THE OWNER'S REPRESENTATIVE, SHALL BE FERTILIZED AND WATERED BUT SHALL NOT BE SEEDED, SODDED OR SPRIGGED.

7. VEGETATIVE MULCH AND SEEDING SHALL BE UTILIZED FOR TEMPORARY EROSION CONTROL.

8. SEED: THE FOLLOWING KINDS OF SEEDS, AT ACRES-RATES INDICATED BELOW, SHALL BE PLANTED ON THE AREAS DESIGNATED FOR SEEDING.

TEMPORARY SEEDING

KINDS OF SEED TO BE FURNISHED	QUANTITY PER ACRE
COOL SEASON MIX-	
PERENNIAL RYEGRASS (LOLIUM PERENNE)	20 LBS. OF SEED
CRIMSOM CLOVER (TRIFOLIUM INCARNATUM)	12 LBS. OF SEED
WARM SEASON MIX-	
KOREAN LESPEDEZA (LESPEDEZA STRIATA)	12 LBS. OF SEED
CRIMSOM CLOVER (TRIFOLIUM INCARNATUM)	20 LBS. OF SEED
LITTLE BLUESTEM (ANDROPOGON SCOPARIUS)	12 LBS. OF SEED
COMMON BERMUDA (CYNODON DACYLON)	4 LBS. OF SEED

VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "ADHESIVE SPRAY METHOD", AS SPECIFIED IN 233.04(b) OF THE ODOT STANDARD SPECIFICATIONS.

SEASONAL PLANTING RESTRICTIONS

THE PLANTING OF SPRIGGING SHALL BE RESTRICTED TO THE PERIOD FROM APRIL 1ST TO JUNE 30TH.

THE PLANTING OF TEMPORARY SEEDS (COOL SEASON MIX) SHALL BE RESTRICTED TO THE PERIOD FROM SEPTEMBER 1ST TO NOVEMBER 15TH.

THE PLANTING OF TEMPORARY SEEDS (WARM SEASON MIX) SHALL BE RESTRICTED TO THE PERIOD FROM MARCH 15TH TO JUNE 30TH.

AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 0-46-0 FERTILIZER APPLIED, AT THE RATE OF 150 LBS. PER ACRE, JUST PRIOR TO THE REPLACEMENT OF SALVAGED TOPSOIL.

MATERIALS NOTES

1. NEW SITE WATER DISTRIBUTION MATERIALS AND INSTALLATION SHALL COMPLY WITH THE INSTALLATION, TESTING AND REPORTING REQUIREMENTS OF NFPA 24 - INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.

   THIS SHALL INCLUDE THE FOLLOWING REQUIREMENTS:
   - SUBMIT WORKING PLANS INCLUDING THE ITEMS LISTED IN NFPA 24-4.1.3
   - UNDERGROUND PIPING MUST BE FLUSHED PER NFPA 24-10.10.2.1
   - HYDROSTATIC TESTING PER NFPA 24-10.10.2.2
   - OPERATING TESTS PER NFPA 24-10.10.2.4
   - BACKFLOW PREVENTER CROSS CONTROL TESTING AND REPORT
   - PROVIDING CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING PER NFPA 24- FIG. 10.10.1

2. ALL NEW PUBLIC WATER LINE PIPING SHALL BE HDPE AWWA C901 DR9 (2" DIA.OR SMALLER), HDPE AWWA C906 (4" - 63" DIA), PVC AWWA C900 DR18 (4" - 12" Ø), PVC AWWA C905 DR18(14" - 36" Ø) OR DUCTILE IRON AWWA C151 CLASS 250 FOR 6"DIA. AND LARGER.

3. GRAVITY SEWER PIPE SHALL BE ASTM D3034 PVC SDR 35, OR APPROVED EQUAL. PRESSURE SEWER PIPE SHALL BE ASTM D2241 SDR21 PVC

4. ALL FITTINGS (TEES, BENDS, VALVES, ETC.) SHALL BE DUCTILE IRON MECHANICAL JOINTS (MJ) AND RESTRAINED (RJ). RESTRAINTS SHALL BE "MIDCO" AS MANUFACTURED BY MIDLAND MANUFACTURING COMPANY OR APPROVED EQUAL. THRUST BLOCKING SHALL ALSO BE REQUIRED. ALL FITTINGS TO BE FUSION BONDED EPOXY COATED, STAINLESS STEEL HARDWARE & POLY WRAPPED.

5. TAPPING SLEEVES SHALL BE SMITH-BLAIR 665 STAINLESS STEEL OR EQUAL. 200PSI WATER SERVICE SADDLES TO BE DOUBLE STRAP BRONZE, FORD MODEL 202B OR EQUAL (TAP < 2").

5. STORM SEWER (IN PARKING AREA AND STREETS) SHALL BE EITHER REINFORCED CONCRETE PIPE, POLYMER COATED CORR. GALV, STEEL PIPE, OR CORR. HDPE (ONLY WHERE COVER IS 18 INCHES OR MORE).

6. ALL ROOF DRAIN LINES SHALL HAVE WATER TIGHT CONNECTIONS AND BE LAID ON LINE AND GRADE, WIITH PROPER BACKFILL PROCEDURES TO INSURE POSITIVE SLOPE AWAY FROM BUILDING FOUNDATION. ROOF DRAIN LINES SHALL BE EITHER PVC SDR 35, OR CORRUGATED HDPE.

EXISTING LEGEND

These standard symbols will be found in the drawing.

- FOUND 3/8" STEEL PIN
- FOUND 1" SQUARE TUBING
- FOUND 1/2" STEEL PIPE
- CALCULATED POINT
- FOUND 1/2" STEEL PIN
- SET 1/2" STEEL PIN (PLS 1819)
- EXISTING 1/2" STEEL PIN (PLS 1566)
- WIRE FENCE
- BUILDING SET BACK LINE
- UTILITY EASEMENT
- BOUNDARY LINE
- LINE NOT TO SCALE
- DRAINAGE PIPE
- SEWER MANHOLE
- SANITARY SEWER LINE
- CLEAN OUT
- TELEPHONE/COMMUNICATIONS PEDESTAL
- ELECTRIC BOX
- EXISTING WIRE FENCES
- UNDERGROUND ELECTRIC
- POWER POLE
- OVERHEAD ELECTRIC
- WATER METER
- WATER LINE

PROPOSED LEGEND

- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED CLEAN OUT
- PROPOSED BLIND FLANGE
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TOPO - MAJOR
- PROPOSED TOPO - MINOR

UTILITY CONTACTS:

GAS	ONG	CORA NELSON	580-920-5999
WATER / SEWER	CITY OF DURANT	JAY NEAL	580-924-8923
TELEPHONE	AT&T	KRISTINA EATON	(580)924-6473
ELECTRIC	OG&E	RICHARD DELANO	(580)220-3644 (580)220-7858 C
CODE ENFORCEMENT	CITY OF DURANT	DARLA SMITH	580-931-6611

ABBREVIATION LEGEND:

THESE ABBREVIATIONS WILL BE FOUND ON THE PROPOSED GRADING SHEETS.

TG = TOP OF GRATE
TR = TOP OF RIM
TS = TOP OF SLAB
EL = PROPOSED ELEV.
ME EL = MATCH EXISTING ELEV.
TC = TOP OF CURB ELEV.
FL = FLOW LINE ELEV.

THESE ABBREVIATIONS WILL BE FOUND ON THE PROPOSED PAVING SHEETS

PRC = POINT REVERSE CURVATURE
BOP = BEGIN POINT
EOP = END POINT
PC = POINT OF CURVATURE
PT = POINT OF INTERSECTION

CONSULTING ENGINEERS
Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI SEWER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

GENERAL NOTES

PROJECT NUMBER: 10455

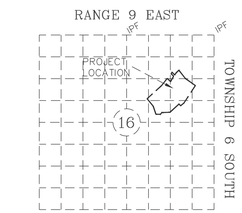
STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
C002	8

COUNTRY ESTATES PART VI SUBDIVISION

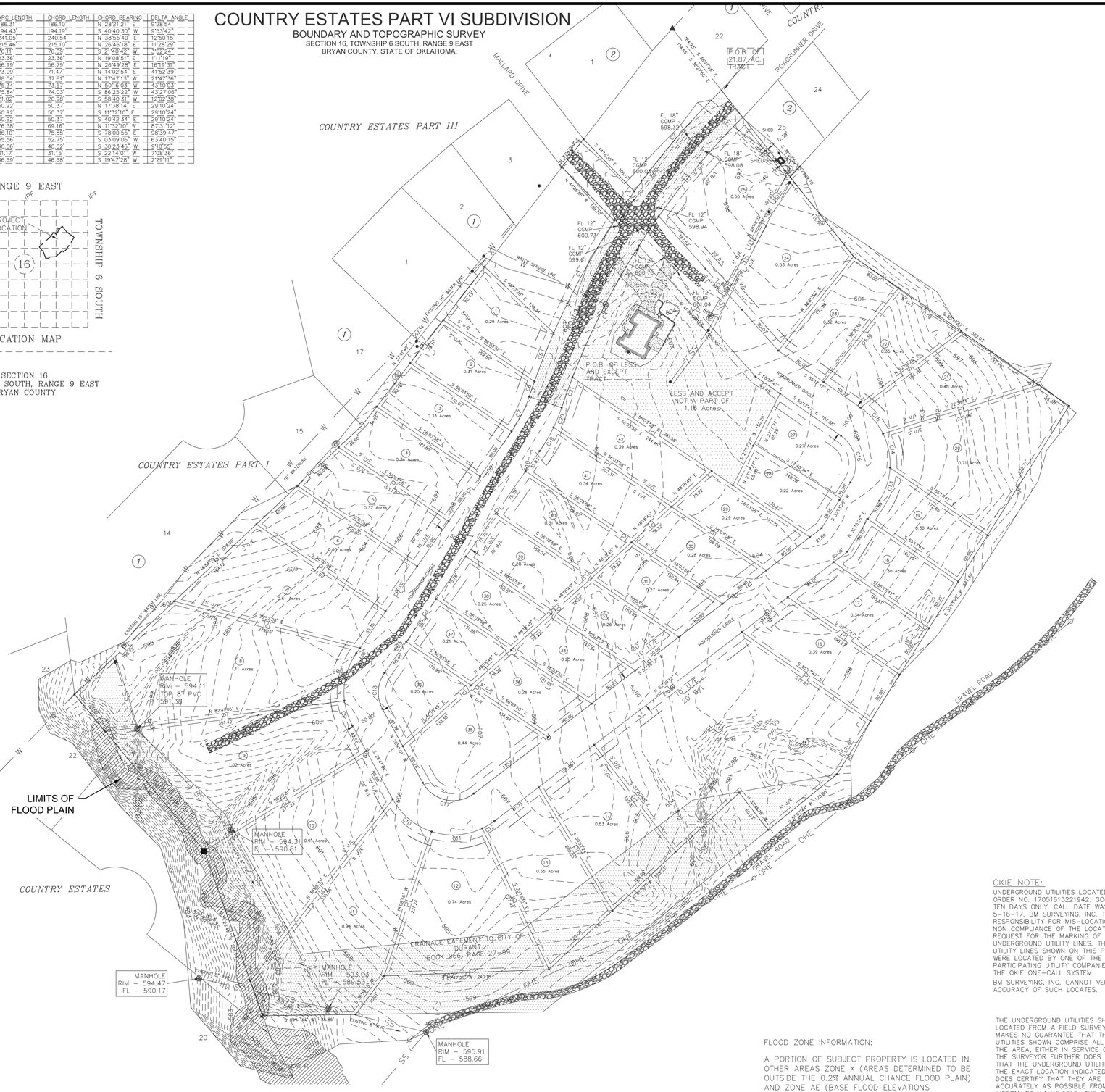
BOUNDARY AND TOPOGRAPHIC SURVEY
SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY, STATE OF OKLAHOMA.

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1125.83'	186.31'	186.10'	N 28°21'21" E	9°28'54"
C2	1125.83'	194.43'	194.19'	S 40°40'30" W	9°53'42"
C3	1075.83'	241.05'	240.54'	N 38°55'40" E	12°50'15"
C4	1075.83'	215.46'	215.10'	N 26°46'18" E	11°28'29"
C5	1125.83'	76.11'	76.09'	S 21°49'42" W	3°52'24"
C6	1125.83'	23.36'	23.36'	N 19°08'51" E	1°11'19"
C7	200.00'	56.99'	56.79'	N 26°49'28" E	16°19'31"
C8	100.00'	73.09'	71.47'	N 14°02'54" E	41°52'39"
C9	100.00'	38.04'	37.81'	N 17°47'13" W	21°47'36"
C10	100.00'	75.34'	73.57'	N 50°16'03" W	43°10'03"
C11	100.00'	75.84'	74.03'	S 86°23'22" W	43°27'06"
C12	100.00'	21.02'	20.98'	S 58°40'31" W	12°02'38"
C13	100.00'	50.92'	50.37'	N 17°38'14" E	29°10'24"
C14	100.00'	50.92'	50.37'	S 11°32'10" E	29°10'24"
C15	100.00'	50.92'	50.37'	S 40°42'34" E	29°10'24"
C16	50.00'	76.38'	69.16'	N 11°32'10" W	87°31'12"
C17	50.00'	86.10'	75.85'	S 78°00'55" E	98°39'47"
C18	50.00'	55.56'	52.75'	S 03°09'08" W	63°40'15"
C19	250.00'	40.06'	40.02'	S 30°23'46" W	9°10'55"
C20	250.00'	31.17'	31.15'	S 22°14'01" W	7°08'36"
C21	1075.83'	46.69'	46.68'	S 19°47'28" W	2°29'11"



LOCATION MAP

SECTION 16
TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY



FLOOD ZONE INFORMATION:

A PORTION OF SUBJECT PROPERTY IS LOCATED IN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AND ZONE AE (BASE FLOOD ELEVATIONS DETERMINED). ACCORDING TO FIRM PANEL NO. 40013C0190E. MAP REVISED JUNE 2, 2011.

OKIE NOTE:

UNDERGROUND UTILITIES LOCATED BY ORDER NO. 17051613221942. GOOD FOR TEN DAYS ONLY. CALL DATE WAS 5-16-17. BM SURVEYING, INC. TAKES NO RESPONSIBILITY FOR MIS-LOCATION OR NON COMPLIANCE OF THE LOCATE REQUEST FOR THE MARKING OF UNDERGROUND UTILITY LINES. THE UTILITY LINES SHOWN ON THIS PLAT WERE LOCATED BY ONE OF THE PARTICIPATING UTILITY COMPANIES OF THE OKIE ONE-CALL SYSTEM.

BM SURVEYING, INC. CANNOT VERIFY THE ACCURACY OF SUCH LOCATES.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM A FIELD SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PERFORMED ANY EXCAVATION TO LOCATE THE UNDERGROUND UTILITIES.

I, B.J. MCININCH, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF OKLAHOMA, DO HEREBY CERTIFY THAT THIS BOUNDARY SURVEY PLAT, PREPARED UNDER MY DIRECT SUPERVISION, ACCURATELY REPRESENTS PART OF THE FOLLOWING DESCRIBED TRACT OF LAND TO WIT:

LEGAL DESCRIPTION

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET;
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 114.65 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 309.70 FEET;
THENCE S 55°17'47" E A DISTANCE OF 382.03 FEET; THENCE S 32°13'26" W A DISTANCE OF 634.40 FEET;
THENCE S 51°03'44" W A DISTANCE OF 128.96 FEET;
THENCE N 37°48'18" W A DISTANCE OF 68.53 FEET;
THENCE S 47°05'57" W A DISTANCE OF 378.33 FEET;
THENCE S 87°47'29" W A DISTANCE OF 240.18 FEET;
THENCE S 36°30'15" W A DISTANCE OF 70.01 FEET;
THENCE S 89°11'44" W A DISTANCE OF 135.86 FEET;
THENCE N 19°23'49" W A DISTANCE OF 254.53 FEET;
THENCE N 39°42'07" W, TO A POINT ON THE EASTERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 296.32 FEET;
THENCE N 46°54'05" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 573.60 FEET;
THENCE N 37°41'40" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I & III, A DISTANCE OF 292.34 FEET;
THENCE S 46°12'28" E, A DISTANCE OF 139.34 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 186.31 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 28°21'21" E, WITH A CHORD LENGTH OF 186.10 FEET;
THENCE N 44°26'56" W, TO A POINT ON THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 109.10 FEET;
THENCE N 37°47'00" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 51.51 FEET;
THENCE S 44°16'30" E A DISTANCE OF 106.07 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 194.43 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 40°40'30" E, WITH A CHORD LENGTH OF 194.19 FEET, BACK TO THE TRUE POINT OF BEGINNING.

LESS AND ACCEPT

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET;
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 164.93 FEET;
THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 241.05 FEET, WITH A RADIUS OF 1075.83 FEET, WITH A CHORD BEARING OF S 38°55'40" W, WITH A CHORD LENGTH OF 240.54 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S 41°39'56" E A DISTANCE OF 255.56 FEET;
THENCE S 55°17'47" E A DISTANCE OF 43.48 FEET;
THENCE S 27°17'27" W A DISTANCE OF 150.29 FEET;
THENCE N 56°03'58" W A DISTANCE OF 281.58 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 215.46', WITH A RADIUS OF 1075.83', WITH A CHORD BEARING OF N 26°46'18" E, WITH A CHORD LENGTH OF 215.10' BACK TO THE POINT OF BEGINNING.

SAID TRACT OF LAND CONTAINS 21.87 ACRES MORE OR LESS.

CONSULTING ENGINEERS
Barker ASSOCIATES
Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI SEWER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

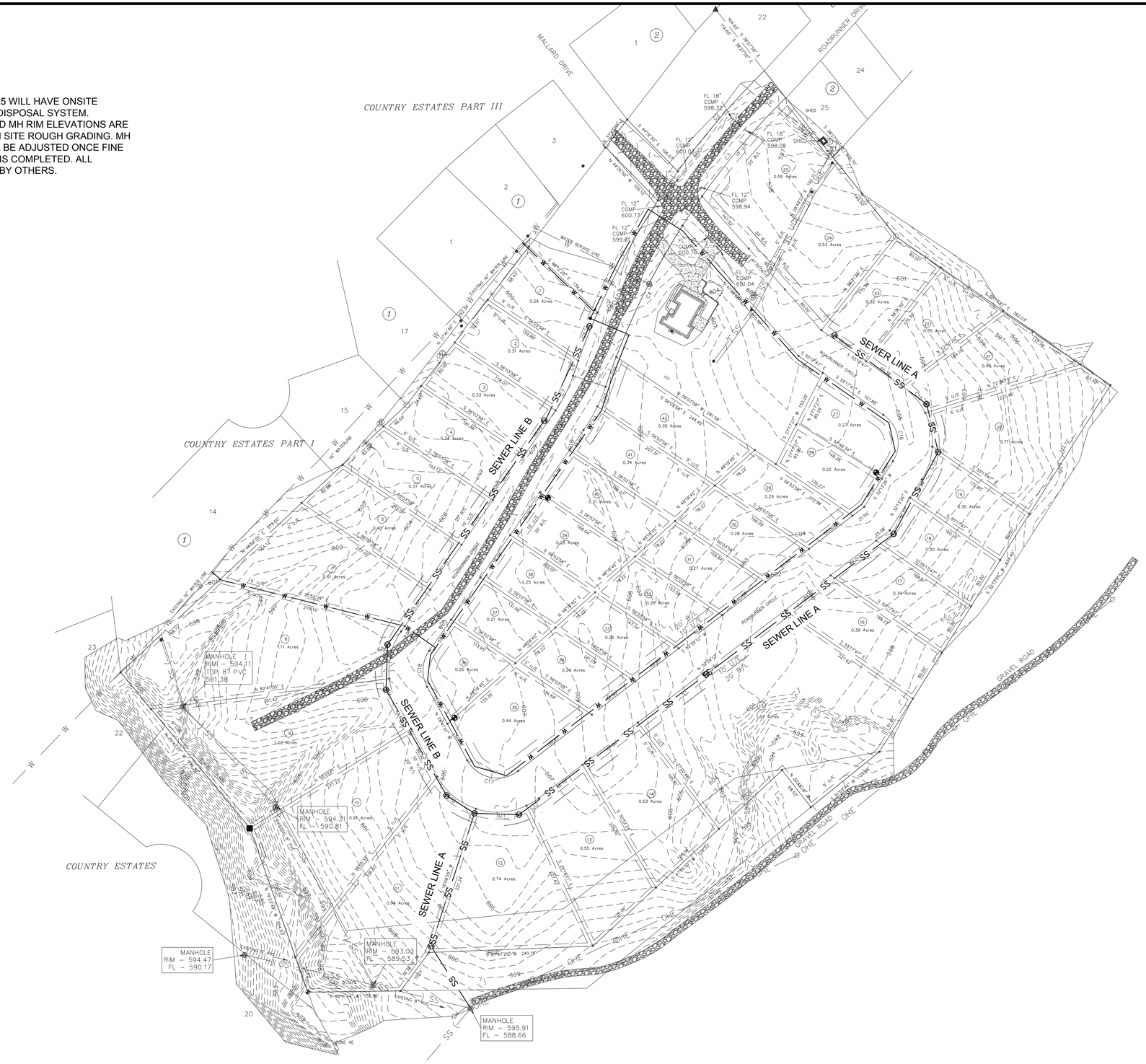
EXISTING SITE PLAN

PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CS101	8

NOTE:
1. LOT 24 & 25 WILL HAVE ONSITE SEWAGE DISPOSAL SYSTEM.
2. PROPOSED MH RIM ELEVATIONS ARE BASED ON SITE ROUGH GRADING. MH RIMS WILL BE ADJUSTED ONCE FINE GRADING IS COMPLETED. ALL GRADING BY OTHERS.



0 80' 160' 320'

SCALE IN FEET

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
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H. WAYNE BARKER
10-13-17
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PROJECT NUMBER

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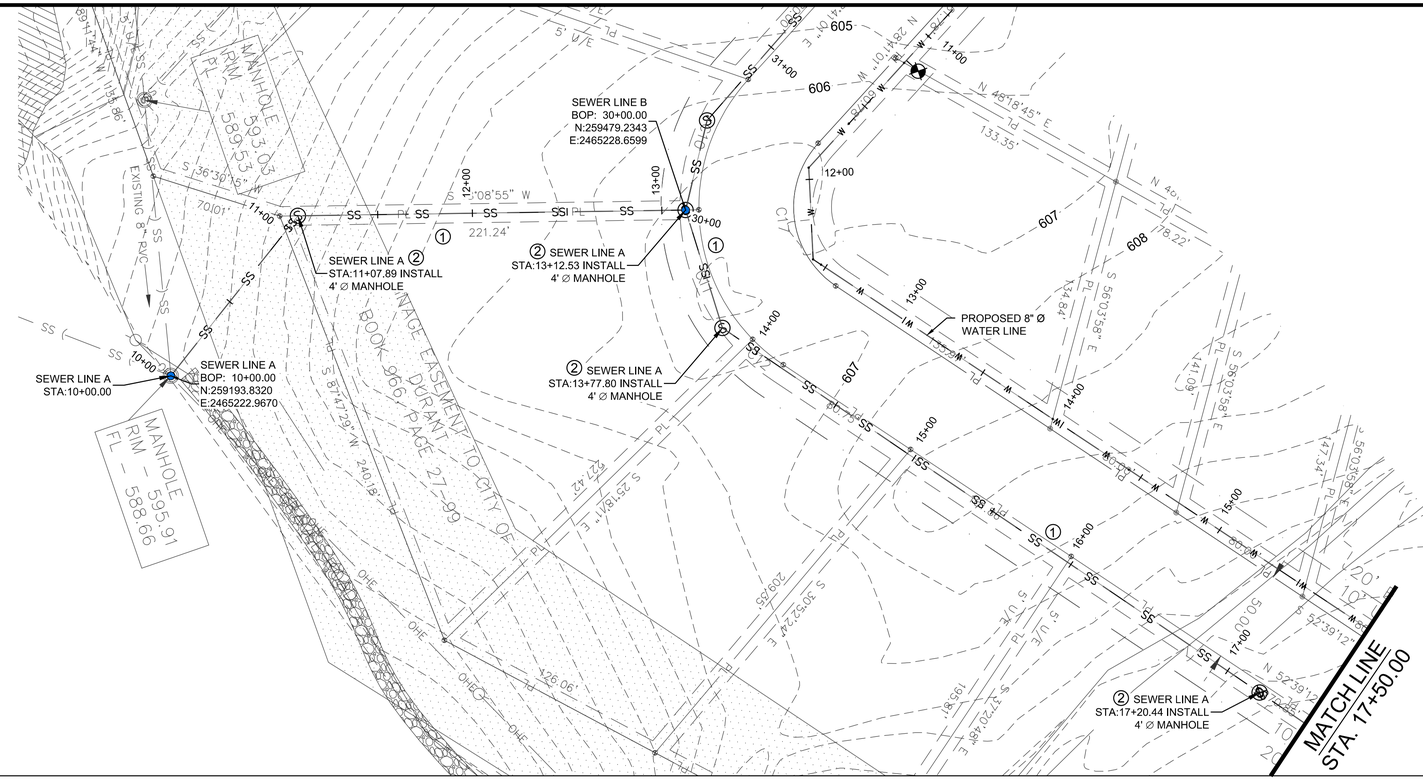
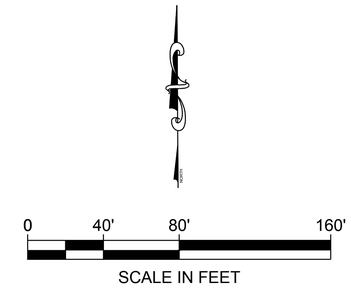
OKLAHOMA	**2017**

SHEET NUMBER	TOTAL SHEETS
CI101	**8**



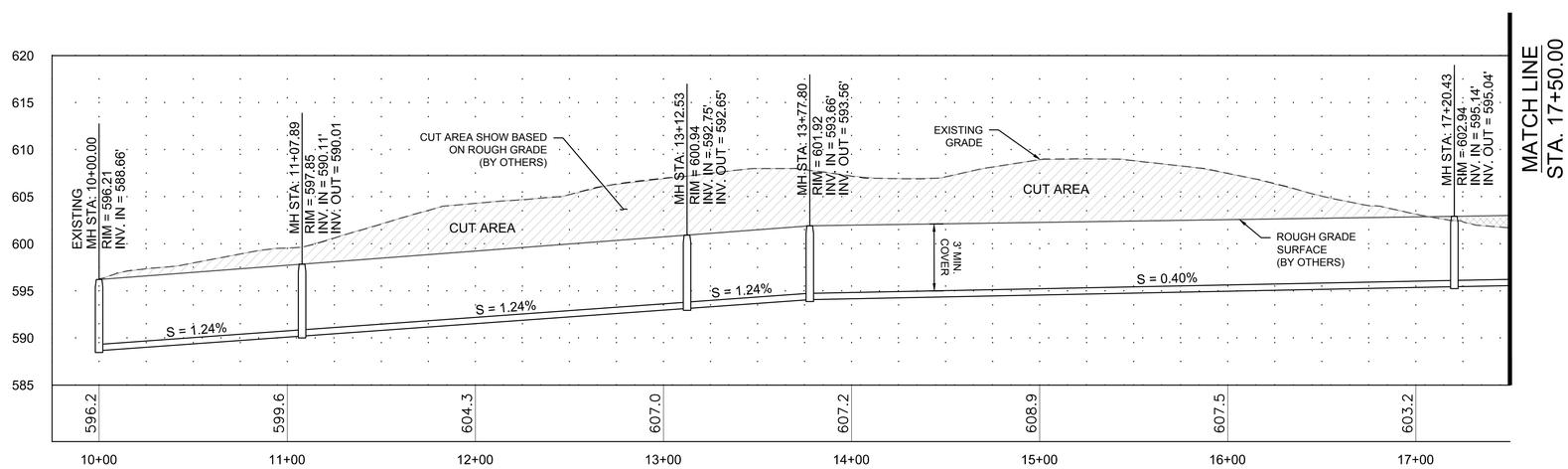
PLAN
STA. 10+00.00 TO STA. 17+50.00



CONSTRUCTION NOTES

SEWER:

1. INSTALL 8"Ø ASTM D3034 SDR 35 PVC SEWER LINE.
2. INSTALL 4'Ø PRE-CAST MANHOLE PER DETAILS ON SHT. CU501.



PROFILE
STA. 10+00.00 TO STA. 17+50.00

CONSULTING ENGINEERS
Barker & ASSOCIATES

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
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RECORD OF REVISIONS

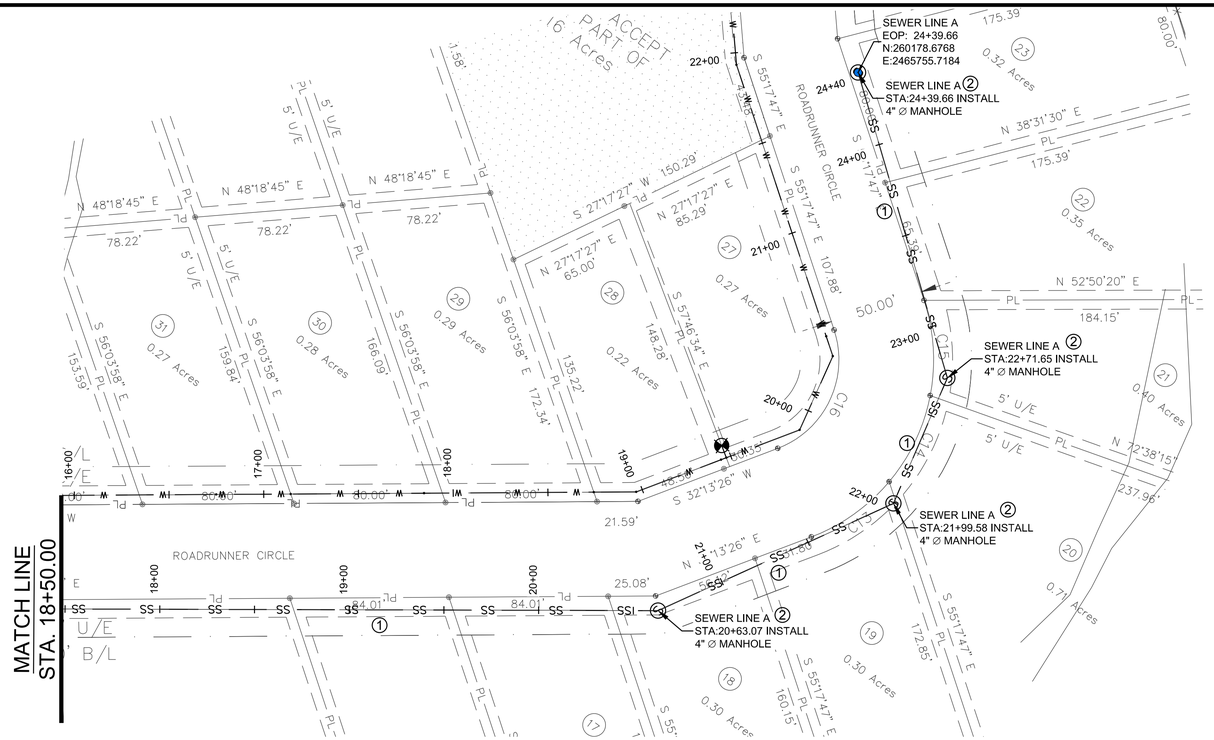
No.	DATE	DESCRIPTION

SEWER LINE A PLAN & PROFILE

PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU301	8



PLAN
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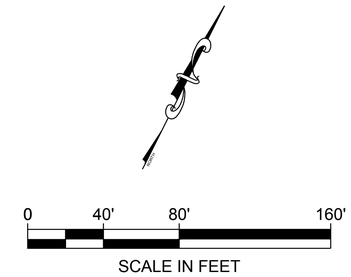

CONSTRUCTION NOTES

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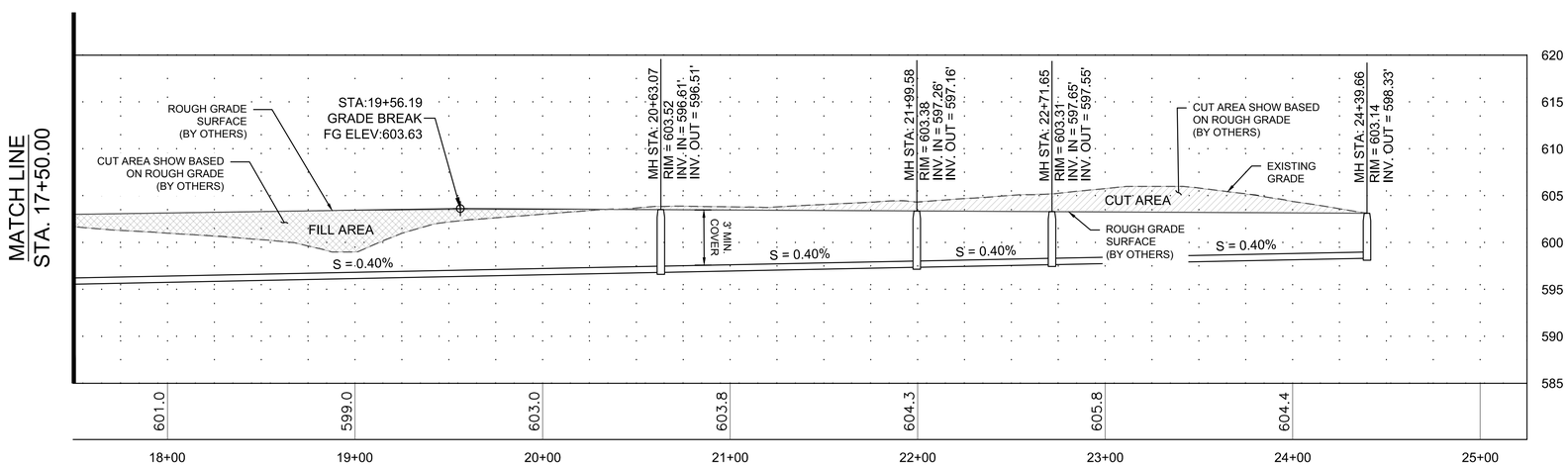

PROFILE
STA. 17+50.00 TO STA. 29+34.66

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

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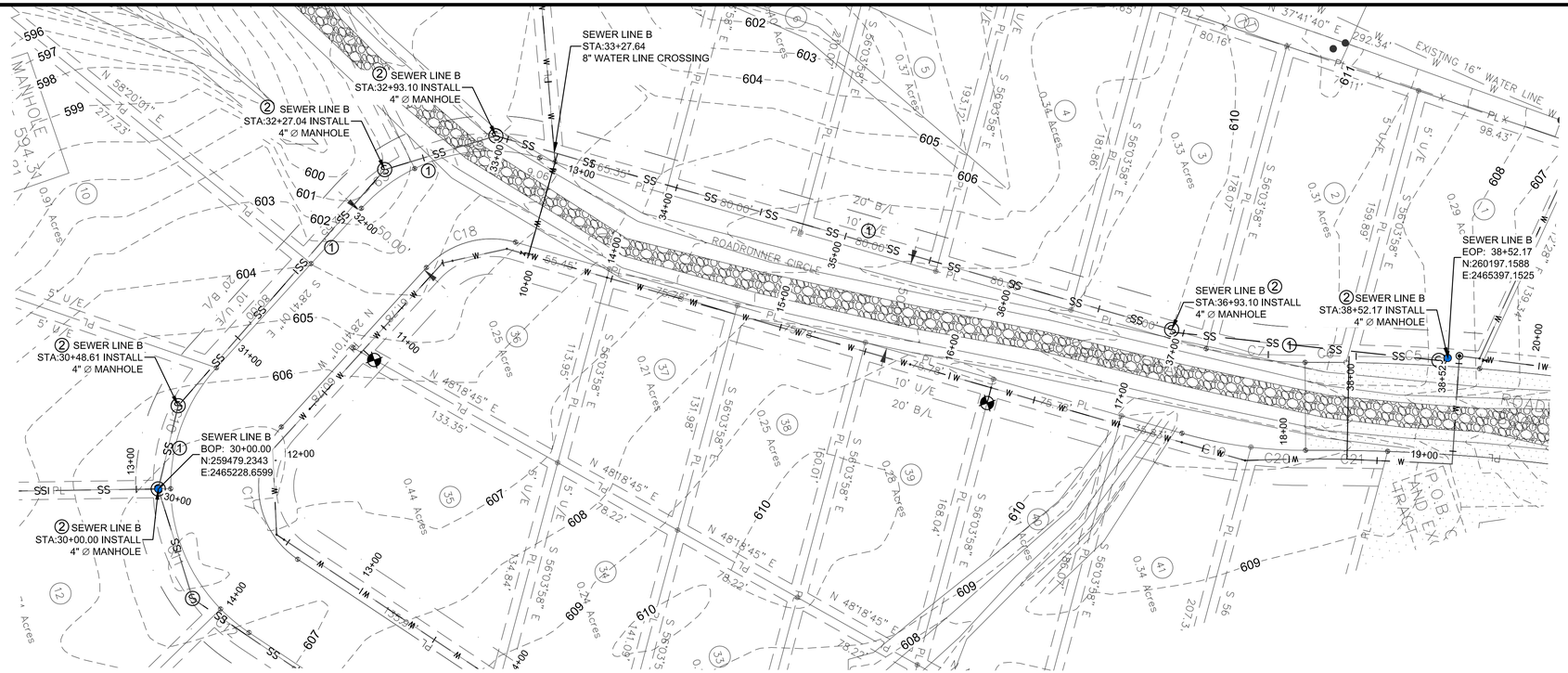
SEWER LINE A PLAN & PROFILE

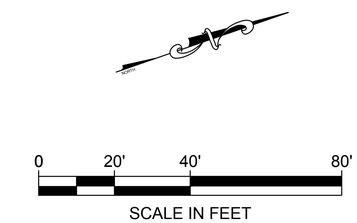
PROJECT NUMBER: 10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU302	8



PLAN
STA. 30+00.00 TO STA. 38+52.17



CONSTRUCTION NOTES

SEWER:

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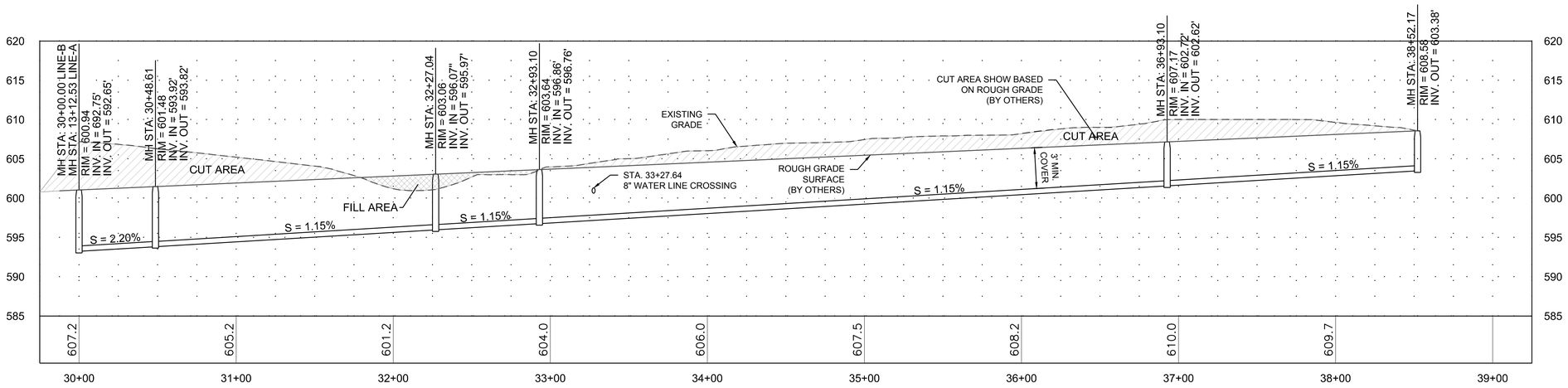
2. INSTALL 4'Ø PRE-CAST MANHOLE PER DETAILS ON SHT. CU501.



PROFILE
STA. 10+00.00 TO STA. 17+50.00

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI SEWER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

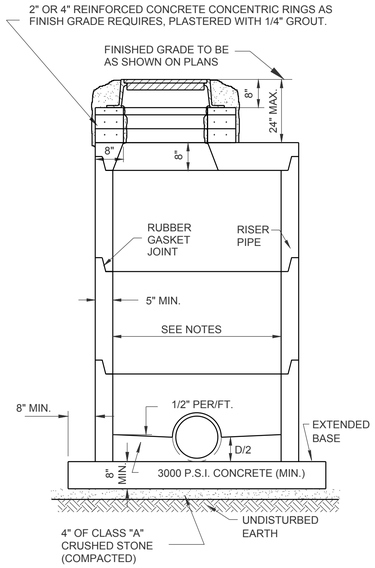
No.	DATE	DESCRIPTION

SEWER LINE B PLAN & PROFILE

PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU303	8

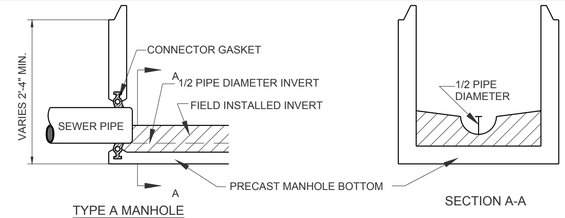


TYPICAL PRECAST MANHOLE DETAIL

NOT TO SCALE

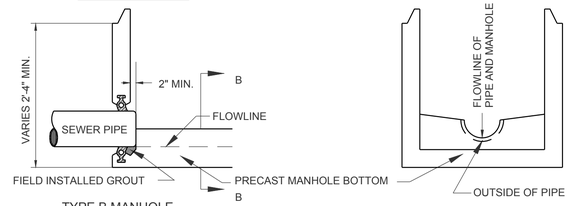
NOTES:

1. SHALL CONFORM TO CURRENT ASTM C478.
2. 8" TO 18" PIPE, 4' ID MANHOLE REQUIRED.
3. 21" TO 27" PIPE, 5' ID MANHOLE REQUIRED.
4. OVER 27" PIPE MANHOLE ID AS SPECIFIED BY ENGINEER.
5. MANHOLES LESS THAN 4'-6" IN HEIGHT SHALL HAVE A FULL 4'-0" ID OR LARGER FROM TOP TO BOTTOM.



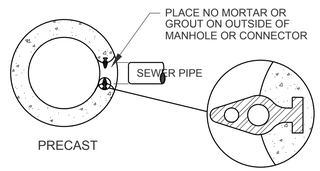
TYPE A MANHOLE

SECTION A-A

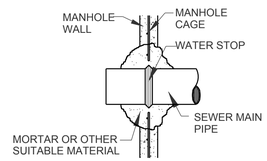


TYPE B MANHOLE

SECTION B-B

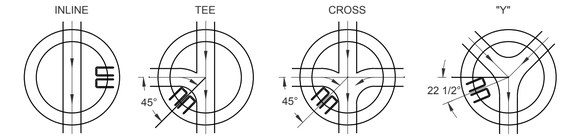


PRECAST

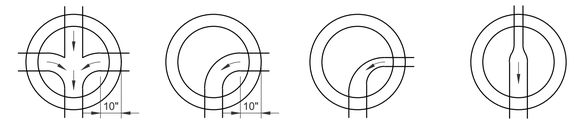


INSTALLED IN THE FIELD

TYPICAL
SANITARY SEWER MANHOLE PIPE CONNECTOR
DETAIL

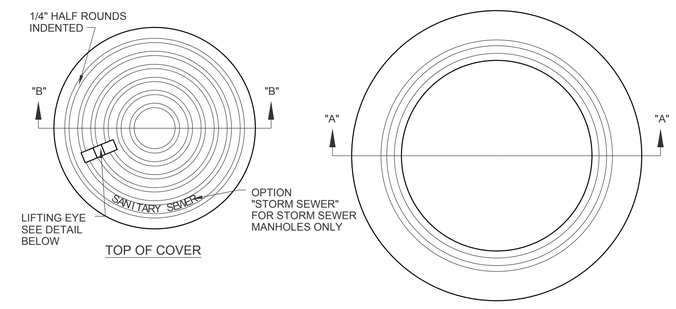


TYPICAL LOCATION OF MANHOLE STEPS DETAIL



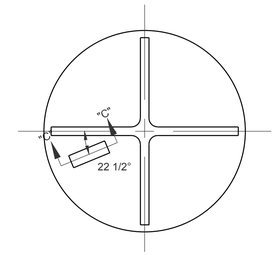
TYPICAL MANHOLE INVERT DETAIL

TYPICAL
MANHOLE STEPS AND INVERT
DETAIL

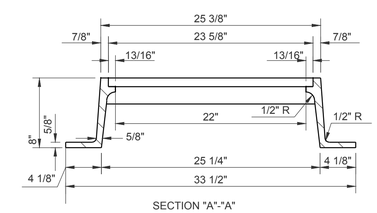


TOP OF COVER

PLAN

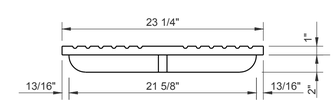


BOTTOM OF COVER



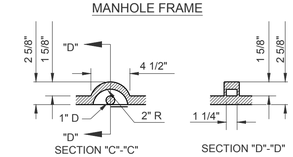
SECTION "A"-"A"

MANHOLE FRAME



SECTION "B"-"B"

MANHOLE COVER

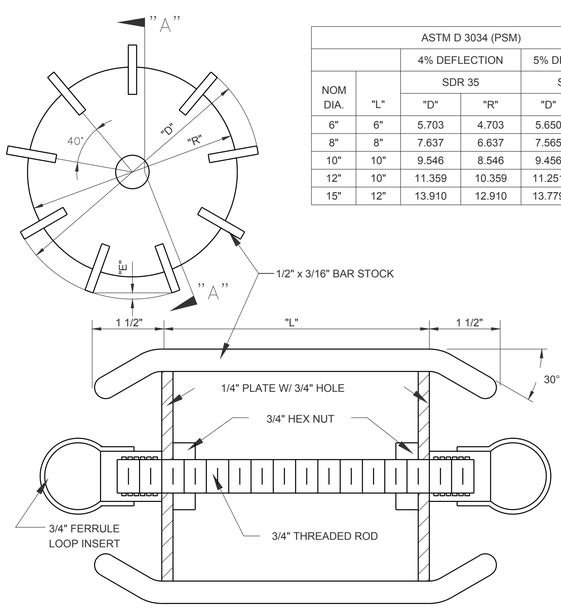


LIFTING EYE DETAIL

22"Ø MANHOLE FRAME AND SOLID COVER, HEAVY DUTY, CAST IRON FRAME AND COVER, WITH 1-INCH LETTERING (SANITARY SEWER) LOCATED ON THE ARC OF THE SOLID COVER, DEETER CASTING NUMBER 1265 BY DEETER FOUNDRY, INC., OR APPROVED EQUIVALENT.

TYPICAL MANHOLE FRAME
AND COVER DETAIL

NOT TO SCALE



SECTION "A"-"A"

ASTM D 3034 (PSM)					
		4% DEFLECTION		5% DEFLECTION	
		SDR 35		SDR 35	
NOM DIA.	"L"	"D"	"R"	"D"	"R"
6"	6"	5.703	4.703	5.650	4.650
8"	8"	7.637	6.637	7.565	6.565
10"	10"	9.546	8.546	9.456	8.456
12"	10"	11.359	10.359	11.251	10.251
15"	12"	13.910	12.910	13.779	12.779

NOTES:

1. USE 5% GAGE IF DEFLECTION TEST IS MADE WITHIN 6 MONTHS OF INSTALLATION.
2. MARK ALL GAGES WITH ASTM SPECIFICATION NUMBER, SDR NUMBER AND DEFLECTION.
3. THE 1/2" BAR STOCK ON THE EDGE PROVIDES CLEARANCE TO PASS SMALL AMOUNTS OF SOIL WHICH MAY BE IN PIPE.

SEWER MANDREL DEFLECTION GAGE
TYPICAL DETAIL

GENERAL NOTES

1. FOR LOCATION, ORIENTATION, AND ELEVATIONS, SEE CONSTRUCTION DRAWING PLAN SHEETS AND/OR PLAN AND PROFILE SHEETS.
2. PRIOR TO EXCAVATION AND/OR TRENCHING FOR ALL THE NEW SANITARY SEWER LINE, MANHOLES, SERVICE CONNECTIONS ETC., THE CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THESE EXISTING UTILITIES. FORTY EIGHT (48) HOURS BEFORE YOU DIG CALL OKIE 1-800-522-6543.
3. ALL MATERIALS, CONSTRUCTION ACTIVITIES, TESTING PROCEDURES, ETC. SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THE MOST CURRENT EDITION OF OKLAHOMA DEPARTMENT OF ENVIRONMENTAL

CONSULTING ENGINEERS
Barker ASSOCIATES
Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI SEWER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD

DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

SEWER DETAILS

PROJECT NUMBER: 10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU501	8

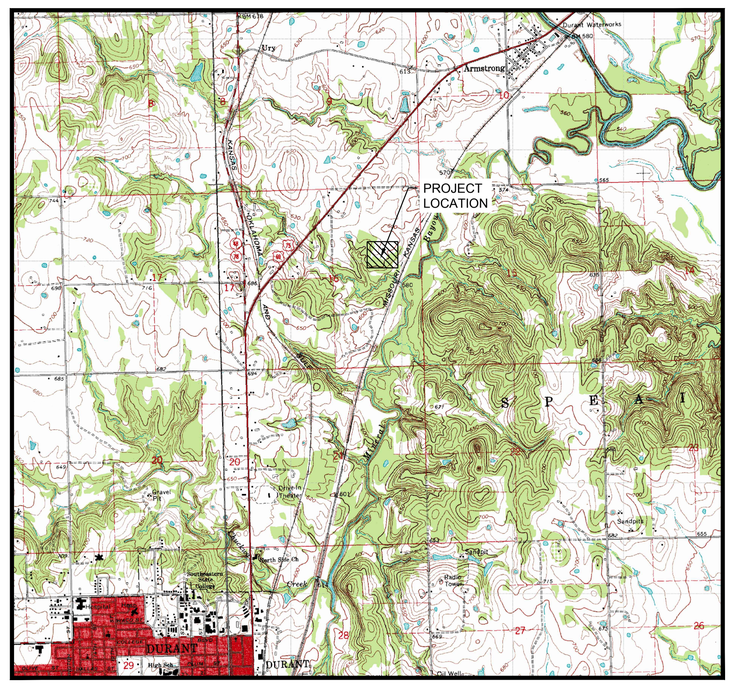
DURANT CITY UTILITIES AUTHORITY
COUNTRY ESTATES VI WATER IMPROVEMENTS

DURANT, OKLAHOMA

SEPT. 2017

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
C001	COVER
C002	GENERAL NOTES
CS101	EXISTING SITE PLAN
CI101	PROPOSED SITE PLAN
CU301	WATER LINE A PLAN & PROFILE
CU302	WATER LINE A PLAN & PROFILE
CU303	WATER LINE A PLAN & PROFILE
CU304	WATER LINE B PLAN & PROFILE
CU305	WATER LINE B PLAN & PROFILE
CU306	WATER LINE B PLAN & PROFILE
CU307	WATER LINE B PLAN & PROFILE
CU308	WATER LINE C PLAN & PROFILE
CU501	WATER DETAILS
CU502	WATER DETAILS



LOCATION MAP

NOT TO SCALE

ENGINEER:

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

H. WAYNE BARKER, P.E.
PROJECT MANAGER
OK. NO. 18513

DATE

Barker Associates
3902 University Blvd.
Durant, OK 74701
Voice: 580.931.9045
Fax: 580.931.9099
OK CA# 3998
Exp. 06/30/2018

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

GENERAL NOTES

1. THE CONTRACTOR SHALL HAVE EXISTING UTILITIES LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CALL "OKIE" 1-800-522-6543 IN ADDITION TO DIRECT NOTIFICATION. CONTRACTOR SHALL BRACE UTILITY POLES AS NECESSARY. UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE UTILITY OWNER'S SPECIFICATIONS BY THE CONTRACTOR AT NO COST TO THE OWNER.
2. THE CONTRACTOR SHALL ESTABLISH, INSTALL, OPERATE, AND MAINTAIN COMPLETE AND ADEQUATE AND SAFE TRAFFIC CONTROLS DURING THE ENTIRE CONSTRUCTION PERIOD. ALL TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE ENGINEER.
3. ALL DIMENSIONS OR ELEVATIONS WITH ± SHALL BE CONFIRMED BY THE CONTRACTOR.
4. ALL DIMENSIONS OF EXISTING STRUCTURES AND EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER & OWNER.
5. TOPSOIL IN THE DISTURBED AREAS SHALL BE REMOVED, STOCKPILED, AND RESTORED AFTER CONSTRUCTION OPERATIONS, IN ACCORDANCE WITH PROJECT SPECIFICATIONS. ALL EXCESS TOPSOIL SHALL BE CONSIDERED WASTE AND STOCKPILED ON-SITE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
6. ALL DISTURBED ROADWAY AND DRIVEWAY SURFACES SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION CONDITION.
7. FALL PROTECTION AROUND ALL OPENINGS AND EXCAVATION SHALL BE MAINTAINED AT ALL TIMES.
8. NORTH ARROWS SHOWN ON DRAWINGS INDICATE LOCAL COORDINATE SYSTEM ESTABLISHED BY THE SURVEYOR, UNLESS OTHERWISE NOTED.
9. TRENCH SAFETY AND SHORING IN ACCORDANCE WITH CURRENT OSHA REGULATIONS SHALL BE EMPLOYED BY CONTRACTOR AT ALL TIMES.
10. IF AT ANY POINT CONSTRUCTION ACTIVITIES EXPOSE ARCHEOLOGICAL MATERIALS SUCH AS CHIPPED STONE, TOOLS, POTTERY, BONE, HISTORIC CROCKERY, GLASS, METAL ITEMS OR BUILDING MATERIALS, THE OKLAHOMA ARCHEOLOGICAL SURVEY STATE ARCHEOLOGIST SHALL BE CONTACTED IMMEDIATELY AT 405-325-7211.
11. ALL STATIONS SHOWN ON THE PLANS ARE CENTERLINE STATIONS UNLESS NOTED OTHERWISE.
12. THE TOPOGRAPHIC SURVEY WAS FURNISHED BY BM SURVEYING INC. ALL EXISTING INFORMATION IS SHOWN AS ACCURATELY AS POSSIBLE BASE UPON FIELD RECONNAISSANCE AND RESEARCH. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION. IF CONTRACTOR BELIEVES EXISTING INFORMATION IS INACCURATE, THE CONTRACTOR MAY HAVE A NEW SURVEY COMPLETED AT NO ADDITIONAL COST TO THE OWNER, ARCHITECT, OR ENGINEER.
13. DIMENSIONS SHOWN ARE TO BACK OF CURB OR CENTERLINE OF PIPE UNLESS NOTED OTHERWISE.
14. CONTRACTOR SHALL REVIEW & COORDINATE W/ ARCHITECTURAL, MECH., ELEC., & PLUMBING DISCIPLINES DRAWINGS, SPEC'S & DETAILS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. IN THE EVENT THAT THE ARCH. &/OR CONTRACTOR DEVIATES CONSTRUCTION FROM THESE PLANS W/O THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER, THE ARCH. &/OR CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THOSE MODIFICATIONS.
15. PROPERTY LINES SHOWN ARE APPROX. & HAVE NOT BEEN VERIFIED.

UTILITY NOTES

1. ALL SANITARY SEWER AND PUBLIC WATER SUPPLY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARD CONSTRUCTION SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SERVICES FROM DAMAGE. UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES, AND ANY DISRUPTION OF SERVICE SHALL BE AT THE CONTRACTOR'S SOLE EXPENSE.
3. ALL STRUCTURES AND MANHOLES SHALL BE CONSTRUCTED ON A MINIMUM THICKNESS OF 4" OF CLEAN COMPACTED CRUSHED ROCK UNLESS OTHERWISE NOTED. SUCH BEDDING SHALL BE APPROVED PRIOR TO PLACEMENT.
4. CONTRACTOR SHALL VERIFY PROPOSED WATER LINE ELEVATIONS TO INSURE NO CONFLICTS WITH EXISTING UTILITIES. MINOR FIELD ADJUSTMENTS NECESSARY TO AVOID CONFLICTS SHALL BE COORDINATED WITH THE APPROVAL OF THE ENGINEER.
5. CONTRACTOR SHALL VERIFY EXISTING PIPE SIZE, TYPE AND LOCATION PRIOR TO ORDERING MATERIALS, TO INSURE PROPER CONNECTION.
6. ALL BURIED FITTINGS, SUCH AS BENDS, TEES, ETC., SHALL BE BLOCKED FOR THRUST, AS SHOWN ON THE STANDARD DETAIL DRAWING. THIS REQUIREMENT SHALL INCLUDE ALL PRESSURE PIPING AND LOW HEAD (GRAVITY) PIPING. COST SHALL BE INCLUDED IN OTHER ITEMS OF WORK.
7. MINIMUM DEPTH OF COVER SHALL BE 36-INCHES UNLESS OTHERWISE NOTED.
8. NO. 12 COPPER WIRE (TRACER WIRE) AND MYLAR DETECTABLE MARKING TAPE SHALL BE BURIED ABOVE THE TOP OF ALL NON-FERROUS PRESSURE LINES.
9. WATER LINE SHALL BE PRESSURE & LEAK TESTED IN ACCORDANCE WITH SPECIFICATIONS.
10. WATER LINE SHALL BE DISINFECTED IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO USE.
11. DEFLECTION OF WATER LINE SHALL NOT EXCEED MANUFACTURERS RECOMMENDATION.
12. ALL SERVICE LINES CROSSINGS & TAPS SHALL BE INSTALLED PRIOR TO PAVING.
13. WATERLINES AND SANITARY SEWER LINES SHALL MAINTAIN A MINIMUM SEPARATION OF 10' HORIZONTAL AND 2' VERTICAL.
14. GRAVITY PIPE LENGTHS MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.
15. GRAVITY SEWER SHALL BE LEAK & DEFLECTION TESTED IN ACCORDANCE W/ SPECIFICATIONS.
16. ALL MANHOLE TOP OF RIM ELEVATIONS SHOWN SHALL BE VERIFIED BY CONTRACTOR IN THE FIELD TO FIT GRADE.
17. THE PLANS HAVE BEEN PREPARED TO SHOW THE APPROXIMATE LOCATION OF EXISTING KNOWN UTILITIES. THE CONTRACTOR SHALL CONTACT OKIE, EACH RESPECTIVE UTILITY COMPANY AND THE PROJECT OWNER TO DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION. ANY CHANGE IN ALIGNMENT OR GRADE CAUSED BY INTERFERING UTILITIES SHALL BE MADE BY THE CONTRACTOR AT NO COST TO THE OWNER AND THE ENGINEER NOTIFIED.
18. DEPTHS OF ANY EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL AT HIS OWN EXPENSE UNCOVER AND VERIFY THE LOCATION AND ELEVATION OF EXISTING UTILITIES IN ADVANCE OF THE CONSTRUCTION.
19. THE CONTRACTOR SHALL PROVIDE ANY TAPS, CROSS-OVERS, VALVES, ETC. AS REQUIRED TO FLUSH, HYDROSTATIC TEST AND DISINFECT ALL NEW LINES PRIOR TO BEING PLACED IN SERVICE.
20. CONTRACTOR SHALL COORDINATE ANY ACTIVITIES INVOLVING WATER & SANITARY SEWER SYSTEM WITH UTILITY AND OWNER'S REPRESENTATIVE.
21. UTILITY TRENCH PENETRATIONS INTO OR UNDER BUILDING FOUNDATION SHALL BE SEALED OR PLUGGED PER DETAIL PROVIDED. REFER TO SHEET CU501.7B FOR DETAILS.
22. CONTRACTOR SHALL PROVIDE OR OTHERWISE PAY ANY CITY BUILDING PERMITS, TAP//METER FEES, CONNECTION FEES ETC. CONTRACTOR SHALL COORDINATE WITH CITY TO DETERMINE ANY SPECIFIC REQUIREMENTS.
23. SUGGESTED SEQUENCE OF CONSTRUCTION-

A. VERIFY FINISHED GRADING ELEVATIONS TO INSURE ADEQUATE COVER AFTER INSTALLATION.
B. CONFIRM/VERIFY ALL PLUMBING /BLDG PIPE EXIT ELEVATIONS AND OTHER CONNECTIONS IN THE FIELD.
C. INSTALL GRAVITY SANITARY SEWER, STORM SEWER & DUCT BANK. INSTALL LIFT STATION
D. INSTALL PRESSURE PIPING.

24. PROPOSED GRADE AS SHOWN ON PROFILE IS TOP OF PROPOSED FINAL SURFACE, I.E. TO OF PAVEMENT, TOP OF LANDSCAPE COVER, ECT.

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND SEDIMENT BUILDUP REGULARLY REMOVED UNTIL PAVING OPERATIONS ARE COMPLETE AND/OR SEEDING IS IN PLACE AND 75% VEGETATION STABILIZATION IS OBTAINED.
2. ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE AT EACH STRUCTURE, IN A MANNER APPROVED BY THE ENGINEER.
3. ALL FLOW LINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY COMPACTED TO 95% STANDARD PROCTOR DENSITY BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES.
4. IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS, AND AFTER GRADING OPERATIONS ARE COMPLETED, BUT BEFORE PAVEMENT AND/OR PERMANENT EROSION CONTROL WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE OWNERS REPRESENTATIVE.
5. ALL UNPAVED DISTURBED AREAS SHALL RECEIVE SLAB SOD FOR PERMANENT EROSION CONTROL, UNLESS NOTED OTHERWISE. THIS SHALL INCLUDE FERTILIZER, WATERING & MOWING AS REQUIRED TO ESTABLISH A VIABLE TURF.
6. AT THE BEGINNING OF THE TURF OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS AS DETERMINED BY THE OWNER'S REPRESENTATIVE, SHALL BE FERTILIZED AND WATERED BUT SHALL NOT BE SEEDED, SODDED OR SPRIGGED.
7. VEGETATIVE MULCH AND SEEDING SHALL BE UTILIZED FOR TEMPORARY EROSION CONTROL.
8. SEED: THE FOLLOWING KINDS OF SEEDS, AT ACRES-RATES INDICATED BELOW, SHALL BE PLANTED ON THE AREAS DESIGNATED FOR SEEDING.

TEMPORARY SEEDING

KINDS OF SEED TO BE FURNISHED	QUANTITY PER ACRE
COOL SEASON MIX-	
PERENNIAL RYEGRASS (LOLIUM PERENNE)	20 LBS. OF SEED
CRIMSOM CLOVER (TRIFOLIUM INCARNATUM)	12 LBS. OF SEED
WARM SEASON MIX-	
KOREAN LESPEDEZA (LESPEDEZA STRIATA)	12 LBS. OF SEED
CRIMSOM CLOVER (TRIFOLIUM INCARNATUM)	20 LBS. OF SEED
LITTLE BLUESTEM (ANDROPOGON SCOPARIUS)	12 LBS. OF SEED
COMMON BERMUDA (CYNODON DACYLON)	4 LBS. OF SEED

VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "ADHESIVE SPRAY METHOD", AS SPECIFIED IN 233.04(b) OF THE ODOT STANDARD SPECIFICATIONS.

SEASONAL PLANTING RESTRICTIONS

THE PLANTING OF SPRIGGING SHALL BE RESTRICTED TO THE PERIOD FROM APRIL 1ST TO JUNE 30TH.

THE PLANTING OF TEMPORARY SEEDS (COOL SEASON MIX) SHALL BE RESTRICTED TO THE PERIOD FROM SEPTEMBER 1ST TO NOVEMBER 15TH.

THE PLANTING OF TEMPORARY SEEDS (WARM SEASON MIX) SHALL BE RESTRICTED TO THE PERIOD FROM MARCH 15TH TO JUNE 30TH.

AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 0-46-0 FERTILIZER APPLIED, AT THE RATE OF 150 LBS. PER ACRE, JUST PRIOR TO THE REPLACEMENT OF SALVAGED TOPSOIL.

MATERIALS NOTES

1. NEW SITE WATER DISTRIBUTION MATERIALS AND INSTALLATION SHALL COMPLY WITH THE INSTALLATION, TESTING AND REPORTING REQUIREMENTS OF NFPA 24 - INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.

   THIS SHALL INCLUDE THE FOLLOWING REQUIREMENTS:
   - SUBMIT WORKING PLANS INCLUDING THE ITEMS LISTED IN NFPA 24-4.1.3
   - UNDERGROUND PIPING MUST BE FLUSHED PER NFPA 24-10.10.2.1
   - HYDROSTATIC TESTING PER NFPA 24-10.10.2.2
   - OPERATING TESTS PER NFPA 24-10.10.2.4
   - BACKFLOW PREVENTER CROSS CONTROL TESTING AND REPORT
   - PROVIDING CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING PER NFPA 24- FIG. 10.10.1
2. ALL NEW PUBLIC WATER LINE PIPING SHALL BE HDPE AWWA C901 DR9 (2" DIA.OR SMALLER), HDPE AWWA C906 (4" - 63" DIA), PVC AWWA C900 DR18 (4" - 12" Ø), PVC AWWA C905 DR18(14" - 36" Ø) OR DUCTILE IRON AWWA C151 CLASS 250 FOR 6"DIA. AND LARGER.
3. GRAVITY SEWER PIPE SHALL BE ASTM D3034 PVC SDR 35, OR APPROVED EQUAL. PRESSURE SEWER PIPE SHALL BE ASTM D2241 SDR21 PVC
4. ALL FITTINGS (TEES, BENDS, VALVES, ETC.) SHALL BE DUCTILE IRON MECHANICAL JOINTS (MJ) AND RESTRAINED (RJ). RESTRAINTS SHALL BE "MIDCO" AS MANUFACTURED BY MIDLAND MANUFACTURING COMPANY OR APPROVED EQUAL. THRUST BLOCKING SHALL ALSO BE REQUIRED. ALL FITTINGS TO BE FUSION BONDED EPOXY COATED, STAINLESS STEEL HARDWARE & POLY WRAPPED.
5. TAPPING SLEEVES SHALL BE SMITH-BLAIR 665 STAINLESS STEEL OR EQUAL. 200PSI WATER SERVICE SADDLES TO BE DOUBLE STRAP BRONZE, FORD MODEL 202B OR EQUAL (TAP < 2").
5. STORM SEWER (IN PARKING AREA AND STREETS) SHALL BE EITHER REINFORCED CONCRETE PIPE, POLYMER COATED CORR. GALV, STEEL PIPE, OR CORR. HDPE (ONLY WHERE COVER IS 18 INCHES OR MORE).
6. ALL ROOF DRAIN LINES SHALL HAVE WATER TIGHT CONNECTIONS AND BE LAID ON LINE AND GRADE, WIITH PROPER BACKFILL PROCEDURES TO INSURE POSITIVE SLOPE AWAY FROM BUILDING FOUNDATION. ROOF DRAIN LINES SHALL BE EITHER PVC SDR 35, OR CORRUGATED HDPE.

EXISTING LEGEND

These standard symbols will be found in the drawing.

- FOUND 3/8" STEEL PIN
- FOUND 1" SQUARE TUBING
- FOUND 1/2" STEEL PIPE
- CALCULATED POINT
- FOUND 1/2" STEEL PIN
- SET 1/2" STEEL PIN (PLS 1819)
- EXISTING 1/2" STEEL PIN (PLS 1566)
- X — WIRE FENCE
- BUILDING SET BACK LINE
- UTILITY EASEMENT
- PL — BOUNDARY LINE
- LINE NOT TO SCALE
- DRAINAGE PIPE
- SEWER MANHOLE
- SS — SANITARY SEWER LINE
- CLEAN OUT
- TELEPHONE/COMMUNICATIONS PEDESTAL
- ELECTRIC BOX
- X — EXISTING WIRE FENCES
- UGE — UNDERGROUND ELECTRIC
- POWER POLE
- OHE — OVERHEAD ELECTRIC
- WATER METER
- W — WATER LINE

PROPOSED LEGEND

- SS — PROPOSED SANITARY SEWER MANHOLE
- PROPOSED CLEAN OUT
- PROPOSED BLIND FLANGE
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER LINE
- PROPOSED RIGHT OF WAY LINE
- 610 — PROPOSED TOPO - MAJOR
- 609 — PROPOSED TOPO - MINOR

UTILITY CONTACTS:

GAS	ONG	CORA NELSON	580-920-5999
WATER / SEWER	CITY OF DURANT	JAY NEAL	580-924-8923
TELEPHONE	AT&T	KRISTINA EATON	(580)924-6473
ELECTRIC	OG&E	RICHARD DELANO	(580)220-3644 (580)220-7858 C
CODE ENFORCEMENT	CITY OF DURANT	DARLA SMITH	580-931-6611

ABBREVIATION LEGEND:

THESE ABBREVIATIONS WILL BE FOUND ON THE PROPOSED GRADING SHEETS.

TG = TOP OF GRATE
TR = TOP OF RIM
TS = TOP OF SLAB
EL = PROPOSED ELEV.
ME EL = MATCH EXISTING ELEV.
TC = TOP OF CURB ELEV.
FL = FLOW LINE ELEV.

THESE ABBREVIATIONS WILL BE FOUND ON THE PROPOSED PAVING SHEETS

PRC = POINT REVERSE CURVATURE
BOP = BEGIN POINT
EOP = END POINT
PC = POINT OF CURVATURE
PT = POINT OF INTERSECTION

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI WATER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

GENERAL NOTES

PROJECT NUMBER: 10455

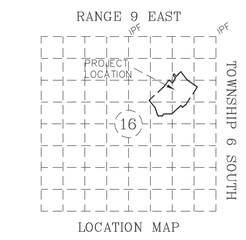
STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
C002	14

COUNTRY ESTATES PART VI SUBDIVISION

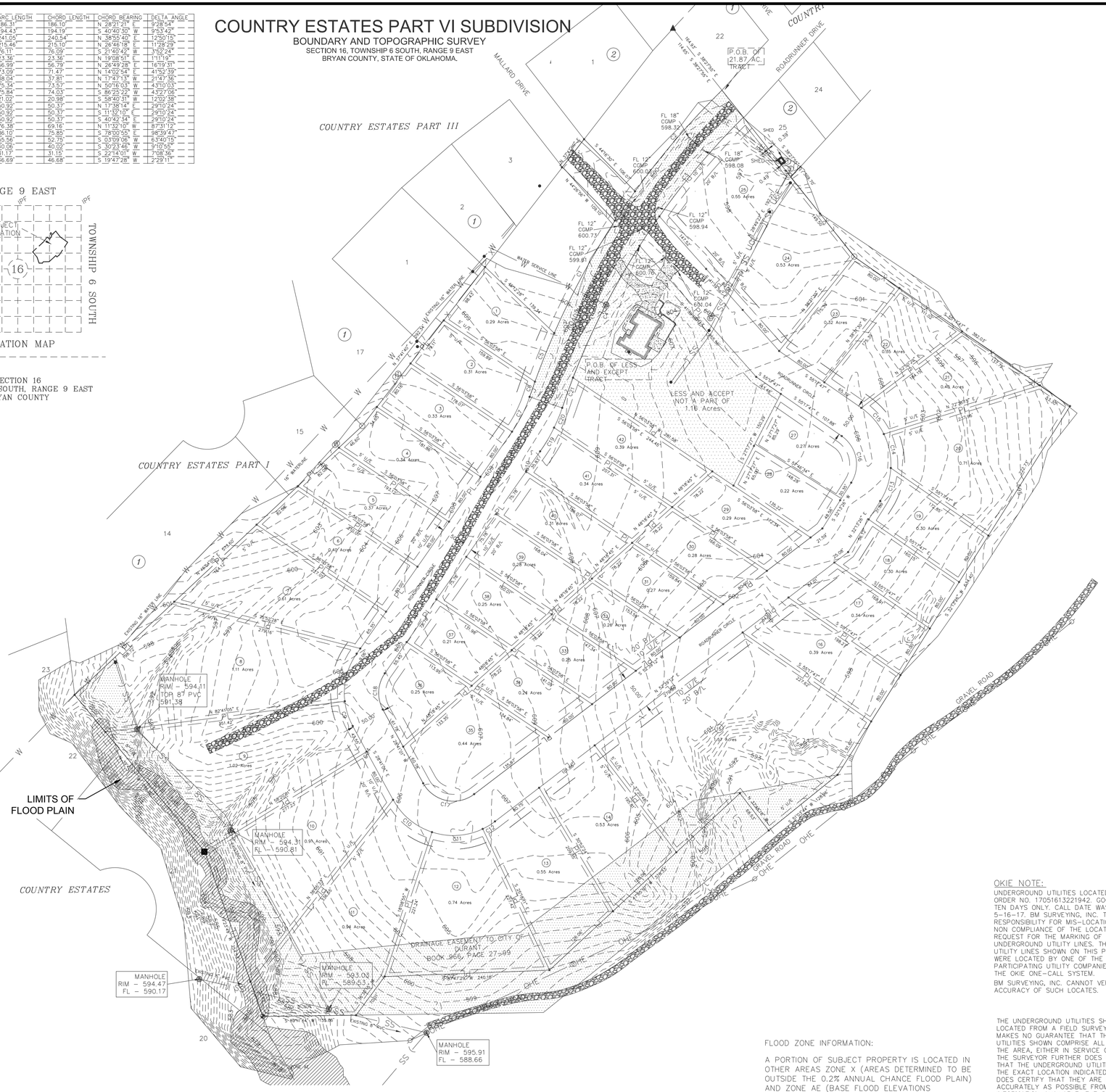
BOUNDARY AND TOPOGRAPHIC SURVEY
SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY, STATE OF OKLAHOMA.

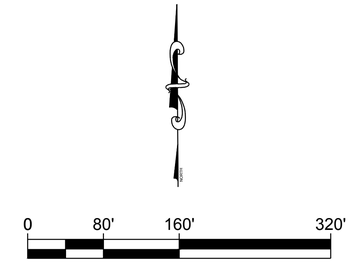
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1125.83'	186.31'	186.10'	N 28°21'21" E	9°28'54"
C2	1125.83'	194.43'	194.19'	S 40°40'30" W	9°53'42"
C3	1075.83'	241.05'	240.54'	N 38°55'40" E	12°50'15"
C4	1075.83'	215.46'	215.10'	N 26°46'18" E	11°28'29"
C5	1125.83'	76.11'	76.09'	S 21°40'42" W	3°52'24"
C6	1125.83'	23.36'	23.36'	N 19°08'51" E	1°11'19"
C7	200.00'	56.99'	56.79'	N 26°49'28" E	16°19'31"
C8	100.00'	73.09'	71.47'	N 14°02'54" E	41°52'39"
C9	100.00'	38.04'	37.81'	N 17°47'13" W	21°47'36"
C10	100.00'	75.34'	73.57'	N 50°16'03" W	43°10'03"
C11	100.00'	75.84'	74.03'	S 86°23'22" W	43°27'06"
C12	100.00'	21.02'	20.98'	S 58°40'31" W	12°02'38"
C13	100.00'	50.92'	50.37'	N 17°38'14" E	29°10'24"
C14	100.00'	50.92'	50.37'	S 11°32'10" E	29°10'24"
C15	100.00'	50.92'	50.37'	S 40°42'34" E	29°10'24"
C16	50.00'	76.38'	69.16'	N 11°52'10" W	87°31'12"
C17	50.00'	86.10'	75.85'	S 78°00'55" E	98°39'47"
C18	50.00'	55.56'	52.75'	S 03°09'08" W	63°40'15"
C19	250.00'	40.06'	40.02'	S 30°23'46" W	9°10'55"
C20	250.00'	31.17'	31.15'	S 22°14'01" W	7°08'36"
C21	1075.83'	46.69'	46.68'	S 19°47'28" W	2°29'11"



LOCATION MAP

SECTION 16
TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY





I, B.J. MCININCH, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF OKLAHOMA, DO HEREBY CERTIFY THAT THIS BOUNDARY SURVEY PLAT, PREPARED UNDER MY DIRECT SUPERVISION, ACCURATELY REPRESENTS PART OF THE FOLLOWING DESCRIBED TRACT OF LAND TO WIT:

LEGAL DESCRIPTION

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET;
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 114.65 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 309.70 FEET;
THENCE S 55°17'47" E A DISTANCE OF 382.03 FEET; THENCE S 32°13'26" W A DISTANCE OF 634.40 FEET;
THENCE S 51°03'44" W A DISTANCE OF 128.96 FEET;
THENCE N 37°48'18" W A DISTANCE OF 68.53 FEET;
THENCE S 47°05'57" W A DISTANCE OF 378.33 FEET;
THENCE S 87°47'29" W A DISTANCE OF 240.18 FEET;
THENCE S 36°30'15" W A DISTANCE OF 70.01 FEET;
THENCE S 89°11'44" W A DISTANCE OF 135.86 FEET;
THENCE N 19°23'49" W A DISTANCE OF 254.53 FEET;
THENCE N 39°42'07" W, TO A POINT ON THE EASTERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 296.32 FEET;
THENCE N 46°54'05" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 573.60 FEET;
THENCE N 37°41'40" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I & III, A DISTANCE OF 292.34 FEET;
THENCE S 46°12'28" E, A DISTANCE OF 139.34 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 186.31 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 28°21'21" E, WITH A CHORD LENGTH OF 186.10 FEET;
THENCE N 44°26'56" W, TO A POINT ON THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 109.10 FEET;
THENCE N 37°47'00" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 51.51 FEET;
THENCE S 44°16'30" E A DISTANCE OF 106.07 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 194.43 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 40°40'30" E, WITH A CHORD LENGTH OF 194.19 FEET, BACK TO THE TRUE POINT OF BEGINNING.

LESS AND ACCEPT

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET;
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET;
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 164.93 FEET;
THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 241.05 FEET, WITH A RADIUS OF 1075.83 FEET, WITH A CHORD BEARING OF S 38°55'40" W, WITH A CHORD LENGTH OF 240.54 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S 41°39'56" E A DISTANCE OF 255.56 FEET;
THENCE S 55°17'47" E A DISTANCE OF 43.48 FEET;
THENCE S 27°17'27" W A DISTANCE OF 150.29 FEET;
THENCE N 56°03'58" W A DISTANCE OF 281.58 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 215.46', WITH A RADIUS OF 1075.83', WITH A CHORD BEARING OF N 26°46'18" E, WITH A CHORD LENGTH OF 215.10' BACK TO THE POINT OF BEGINNING.

SAID TRACT OF LAND CONTAINS 21.87 ACRES MORE OR LESS.

OKIE NOTE:
UNDERGROUND UTILITIES LOCATED BY ORDER NO. 17051613221942. GOOD FOR TEN DAYS ONLY. CALL DATE WAS 5-16-17. BM SURVEYING, INC. TAKES NO RESPONSIBILITY FOR MIS-LOCATION OR NON COMPLIANCE OF THE LOCATE REQUEST FOR THE MARKING OF UNDERGROUND UTILITY LINES. THE UTILITY LINES SHOWN ON THIS PLAT WERE LOCATED BY ONE OF THE PARTICIPATING UTILITY COMPANIES OF THE OKIE ONE-CALL SYSTEM.

BM SURVEYING, INC. CANNOT VERIFY THE ACCURACY OF SUCH LOCATES.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM A FIELD SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PERFORMED ANY EXCAVATION TO LOCATE THE UNDERGROUND UTILITIES.

FLOOD ZONE INFORMATION:

A PORTION OF SUBJECT PROPERTY IS LOCATED IN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AND ZONE AE (BASE FLOOD ELEVATIONS DETERMINED). ACCORDING TO FIRM PANEL NO. 40013C0190E. MAP REVISED JUNE 2, 2011.

CONSULTING ENGINEERS
Barker ASSOCIATES
Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
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CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI WATER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

EXISTING SITE PLAN

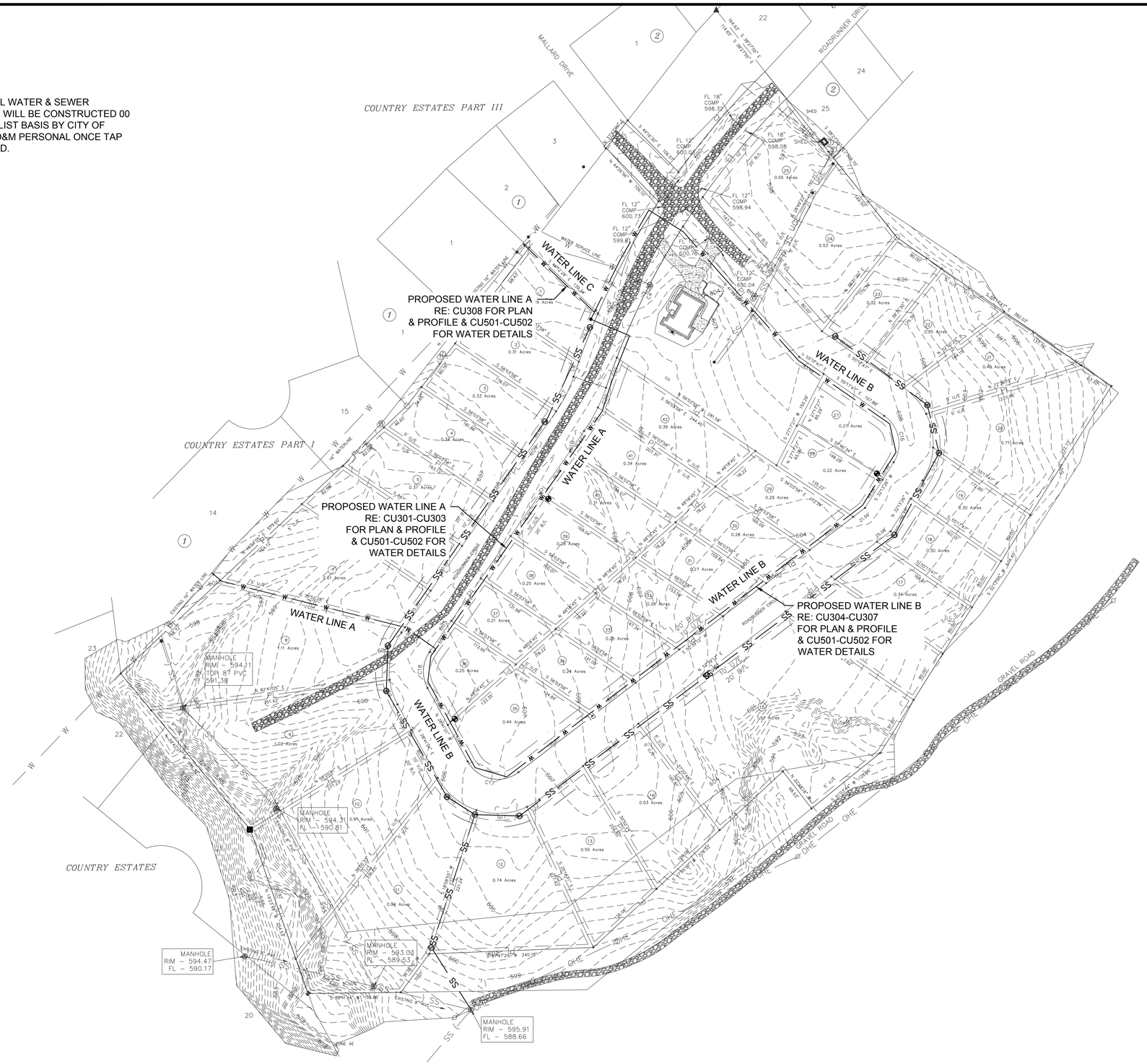
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CS101	14

NOTE:

1. INDIVIDUAL WATER & SEWER SERVICES WILL BE CONSTRUCTED 00 A LOT BY LIST BASIS BY CITY OF DURANT O&M PERSONAL ONCE TAP FEE IS PAID.



0 80' 160' 320'

SCALE IN FEET

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
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RECORD OF REVISIONS

No.	DATE	DESCRIPTION

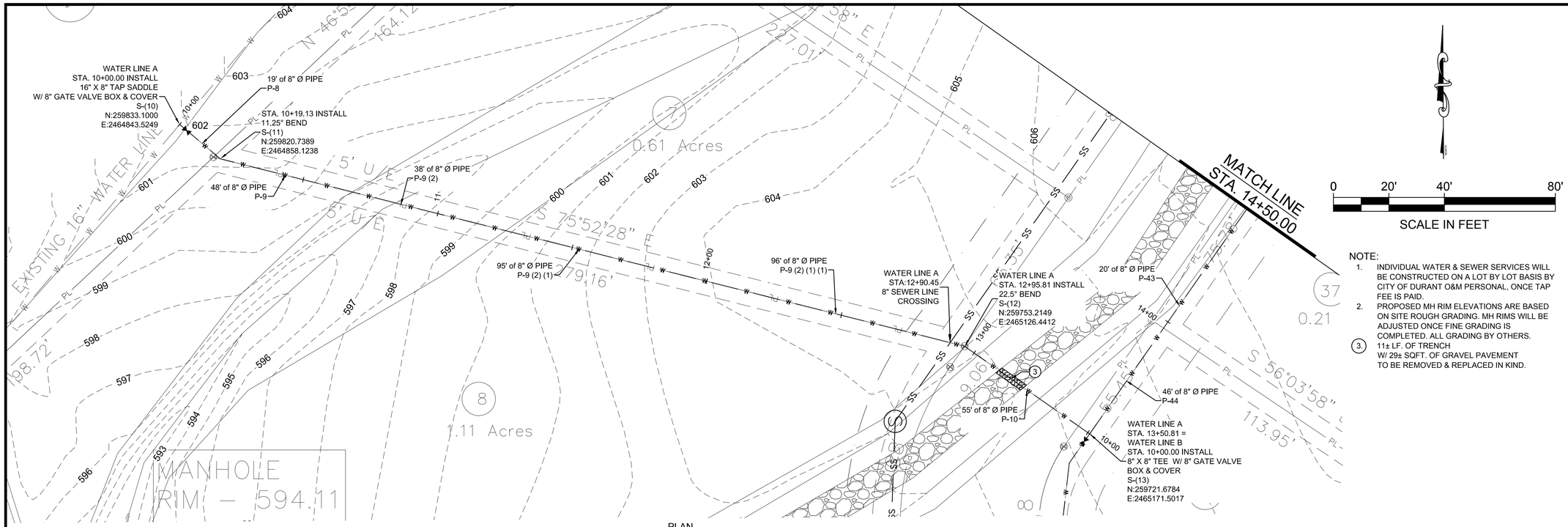
PROPOSED SITE PLAN

PROJECT NUMBER

10455

STATE	YEAR
OKLAHOMA	**2017**

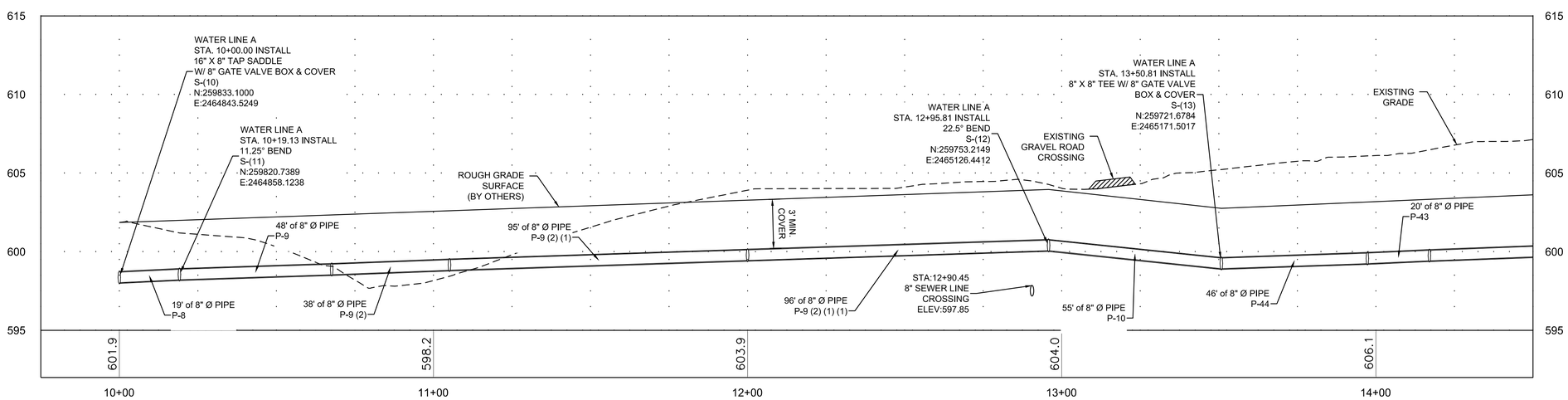
SHEET NUMBER	TOTAL SHEETS
CI101	**14**



PLAN
STA. 10+00.00 TO STA. 14+50.00

NOTE:

1. INDIVIDUAL WATER & SEWER SERVICES WILL BE CONSTRUCTED ON A LOT BY LOT BASIS BY CITY OF DURANT O&M PERSONAL, ONCE TAP FEE IS PAID.
2. PROPOSED MH RIM ELEVATIONS ARE BASED ON SITE ROUGH GRADING. MH RIMS WILL BE ADJUSTED ONCE FINE GRADING IS COMPLETED. ALL GRADING BY OTHERS.
3. 11± LF. OF TRENCH W/ 29± SQFT. OF GRAVEL PAVEMENT TO BE REMOVED & REPLACED IN KIND.



PROFILE
STA. 10+00.00 TO STA. 14+50.00

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
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RECORD OF REVISIONS

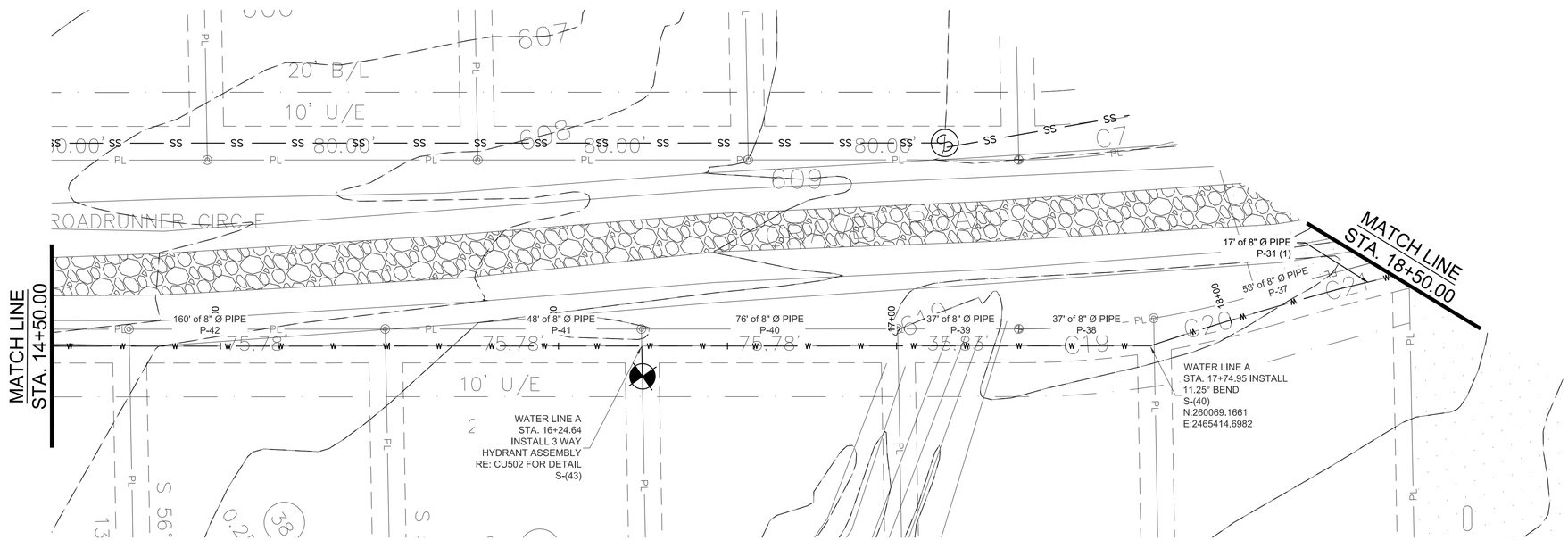
No.	DATE	DESCRIPTION

WATER LINE A PLAN & PROFILE

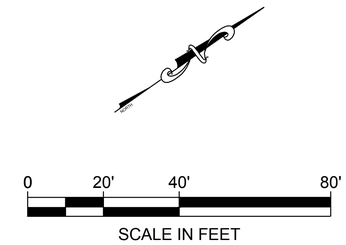
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU301	14

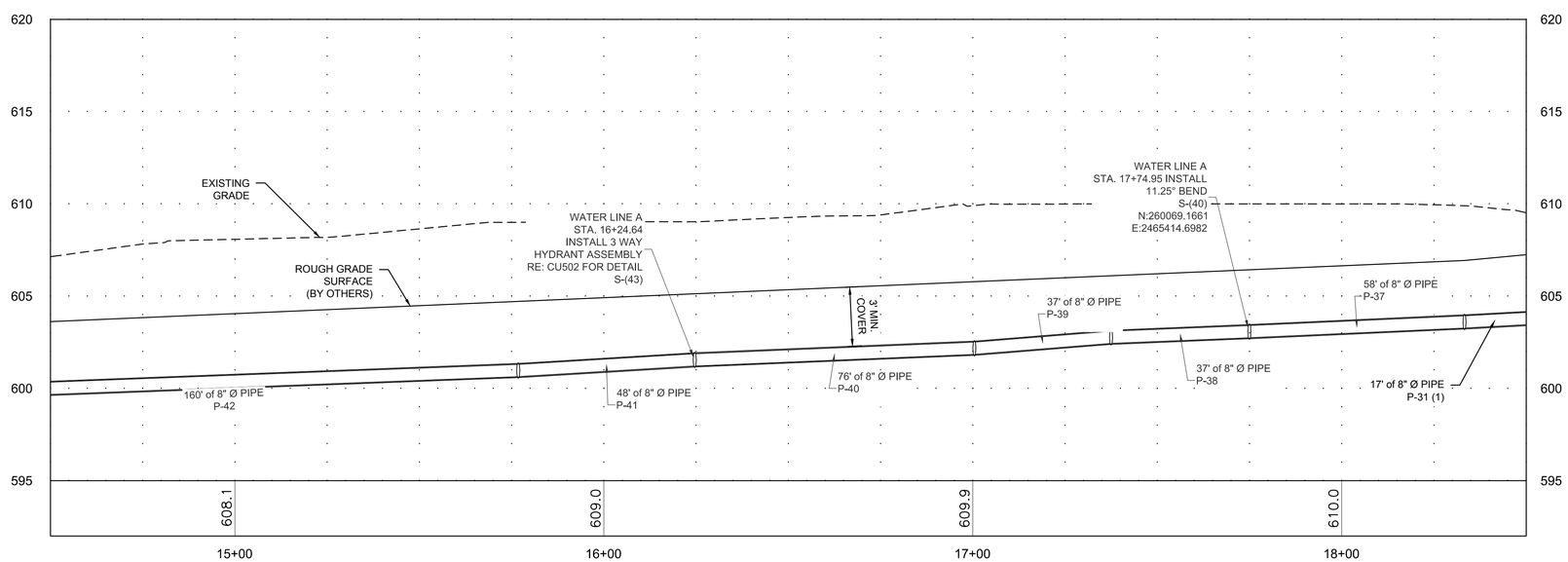


PLAN
STA. 14+50.00 TO STA. 18+50.00



NOTE:

1. INDIVIDUAL WATER & SEWER SERVICES WILL BE CONSTRUCTED ON A LOT BY LOT BASIS BY CITY OF DURANT O&M PERSONAL, ONCE TAP FEE IS PAID.
2. PROPOSED MH RIM ELEVATIONS ARE BASED ON SITE ROUGH GRADING. MH RIMS WILL BE ADJUSTED ONCE FINE GRADING IS COMPLETED. ALL GRADING BY OTHERS.
3. 11± LF. OF TRENCH W/ 29± SQFT. OF GRAVEL PAVEMENT TO BE REMOVED & REPLACED IN KIND.



PROFILE
STA. 14+50.00 TO STA. 18+50.00

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
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H. WAYNE BARKER
10-13-17
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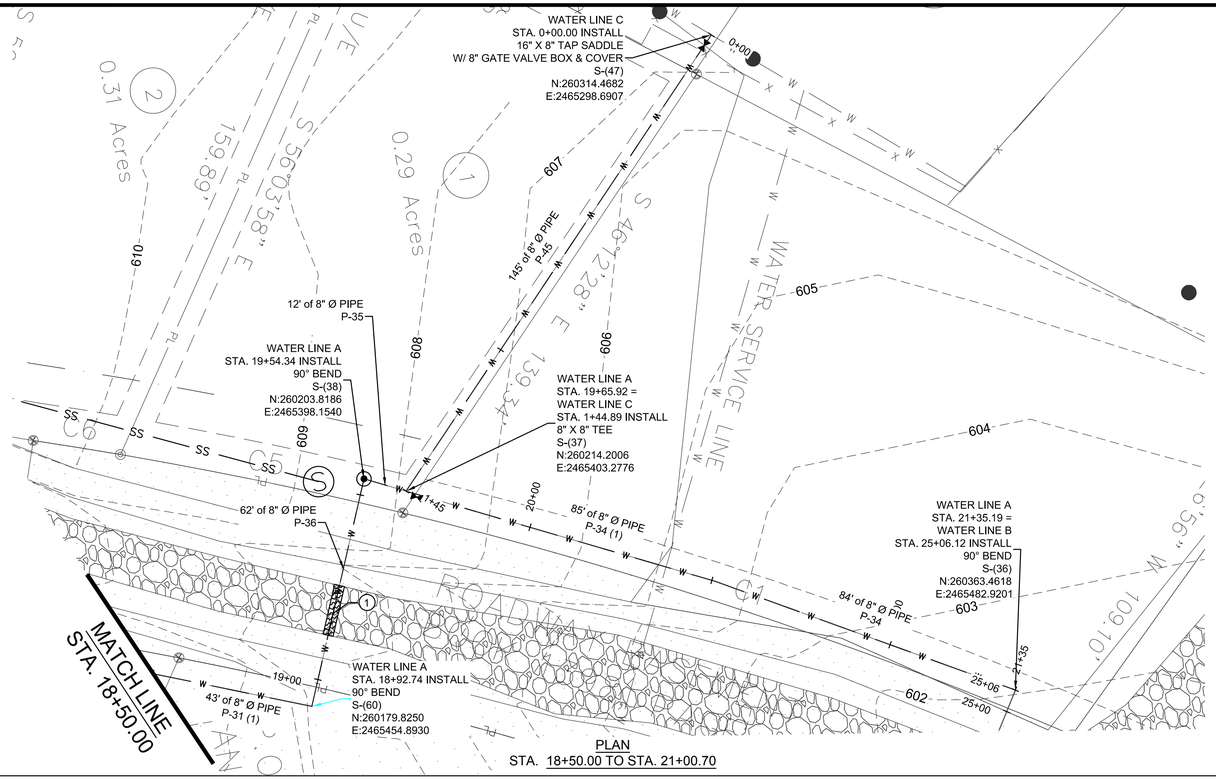
WATER LINE A PLAN & PROFILE

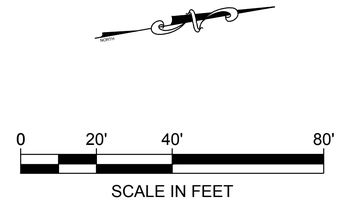
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU302	14

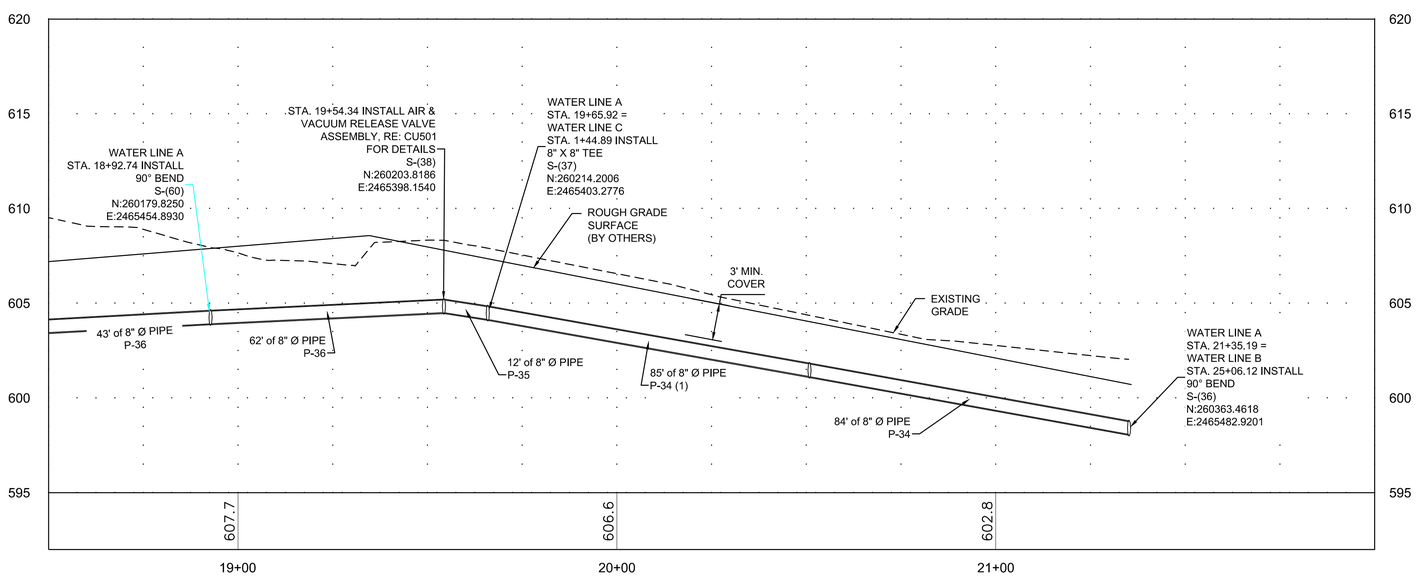


PLAN
STA. 18+50.00 TO STA. 21+00.70



NOTE:

1. 13± LF. OF TRENCH
W/ 36± SQFT. OF GRAVEL PAVEMENT
TO BE REMOVED & REPLACE IN KIND



PROFILE
STA. 18+50.00 TO STA. 21+00.70

Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
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REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
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RECORD OF REVISIONS

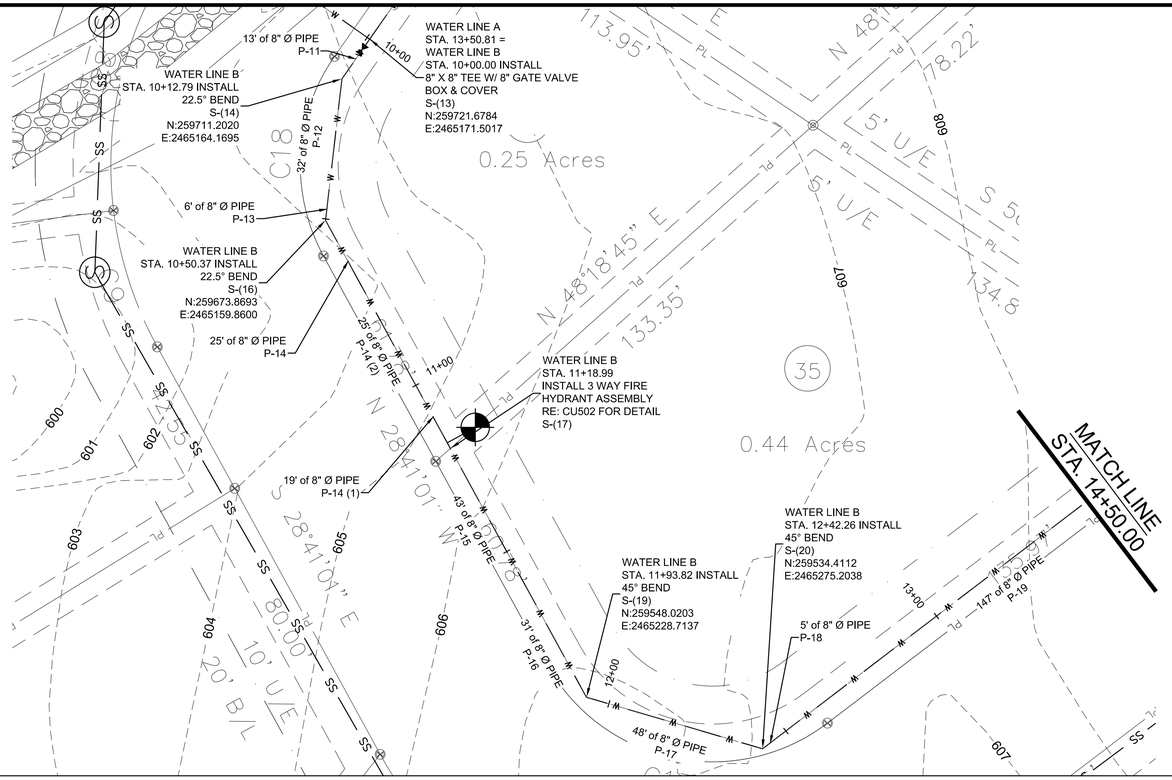
No.	DATE	DESCRIPTION

WATER LINE A PLAN & PROFILE

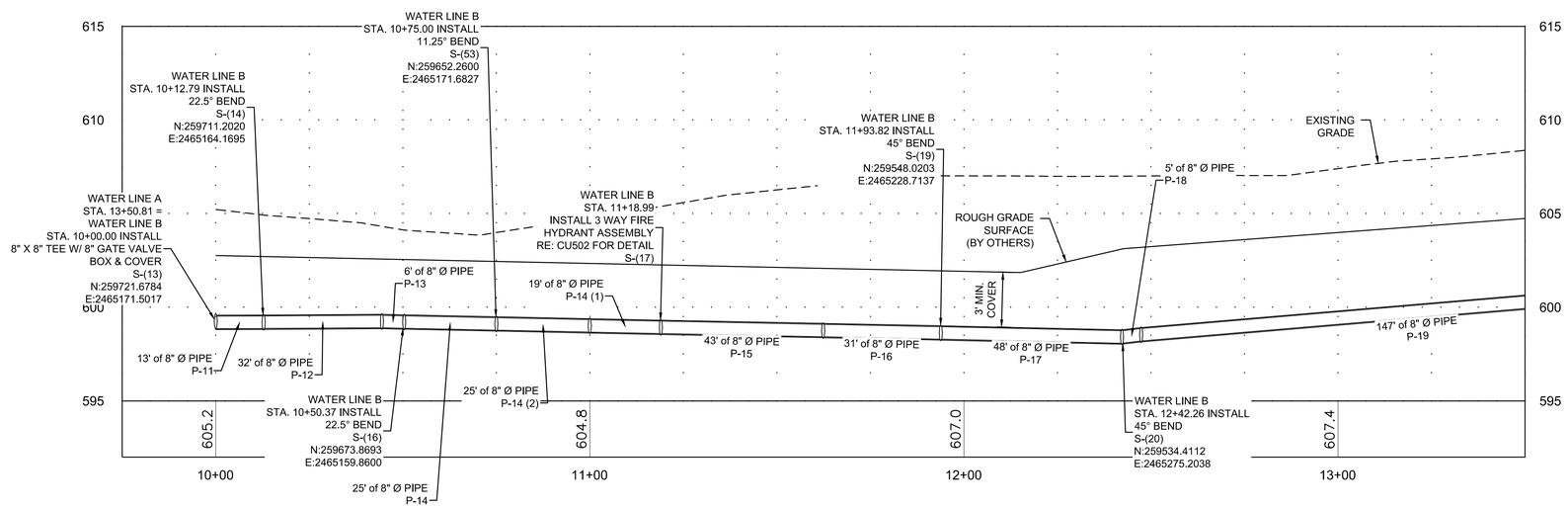
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	2017

SHEET NUMBER	TOTAL SHEETS
CU303	14



PLAN
STA. 10+00.00 TO STA. 13+50.00



PROFILE
STA. 10+00.00 TO STA. 13+50.00

0 20' 40' 80'
SCALE IN FEET

CONSULTING ENGINEERS
Barker & Associates
3902 University Blvd.
Durant, OK 74701
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OK. CA. 3998
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H. WAYNE BARKER
10-13-17
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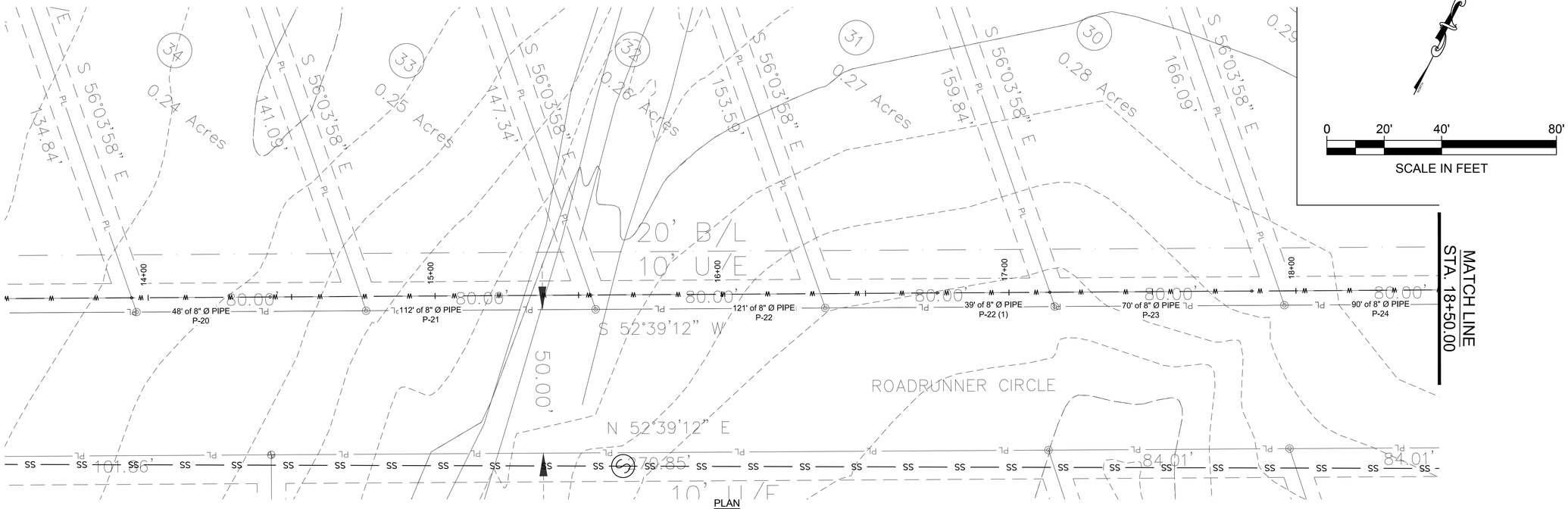
No.	DATE	DESCRIPTION

WATER LINE B PLAN & PROFILE

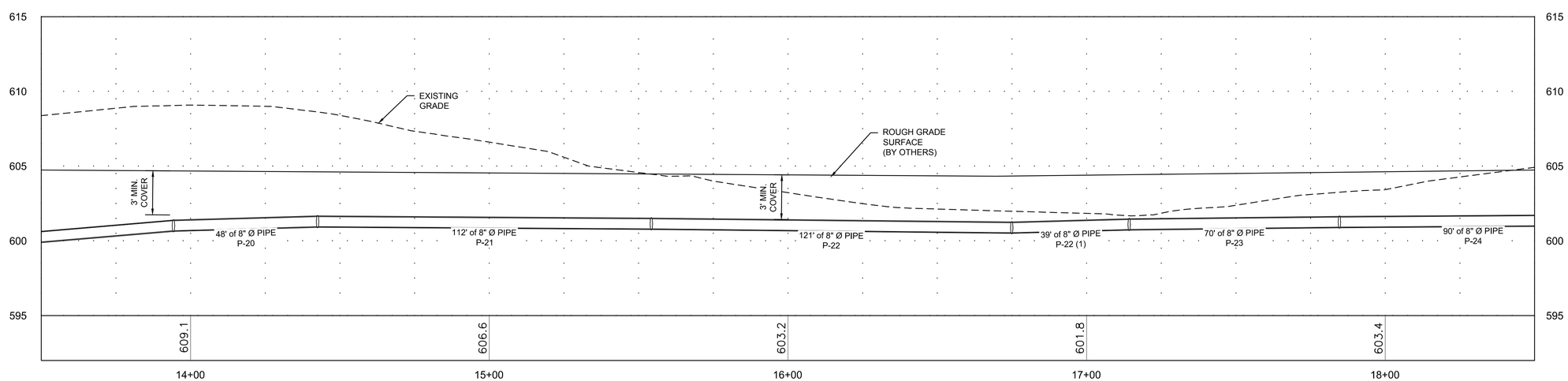
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	**2017**

SHEET NUMBER	TOTAL SHEETS
CU304	**14**



PLAN
STA. 13+50.00 TO STA. 18+50.00



PROFILE
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Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
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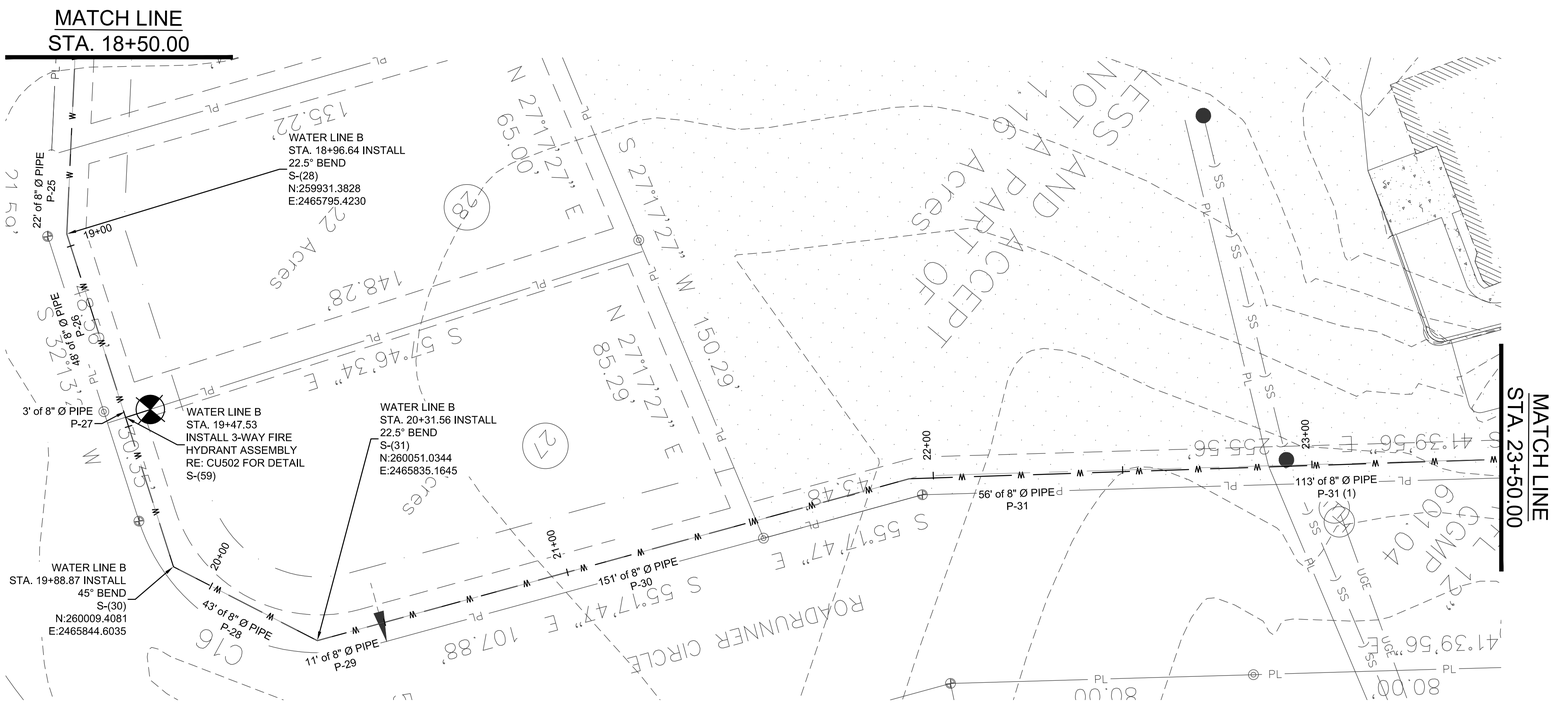
WATER LINE B PLAN & PROFILE

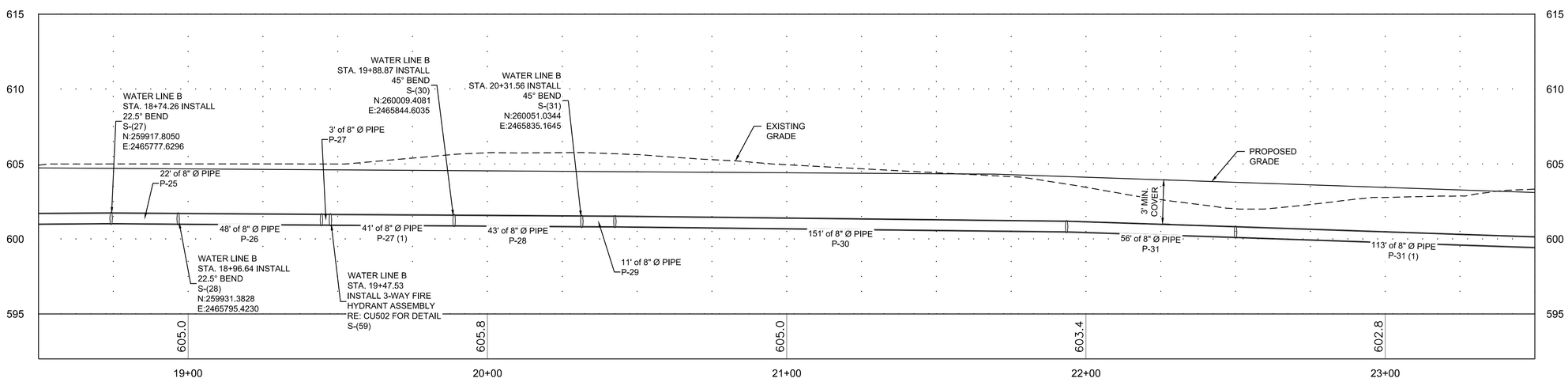
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	**2017**

SHEET NUMBER	TOTAL SHEETS
CU305	**14**



PLAN
STA. 18+50.00 TO STA. 23+50.00



PROFILE
STA. 18+50.00 TO STA. 23+50.00

0 20' 40' 80'
SCALE IN FEET

CONSULTING ENGINEERS
Barker ASSOCIATES
Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY
UTILITIES AUTHORITY

COUNTRY ESTATES VI
WATER
IMPROVEMENTS

DURANT, OKLAHOMA

100%
CONSTRUCTION
DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

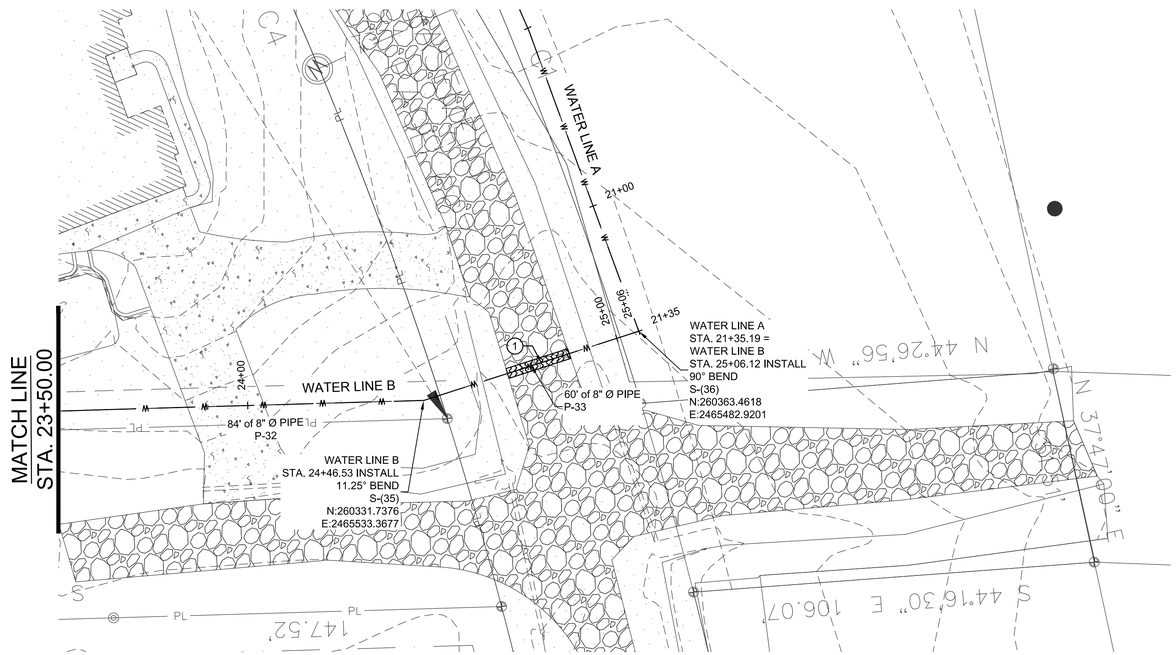
RECORD OF REVISIONS

No.	DATE	DESCRIPTION

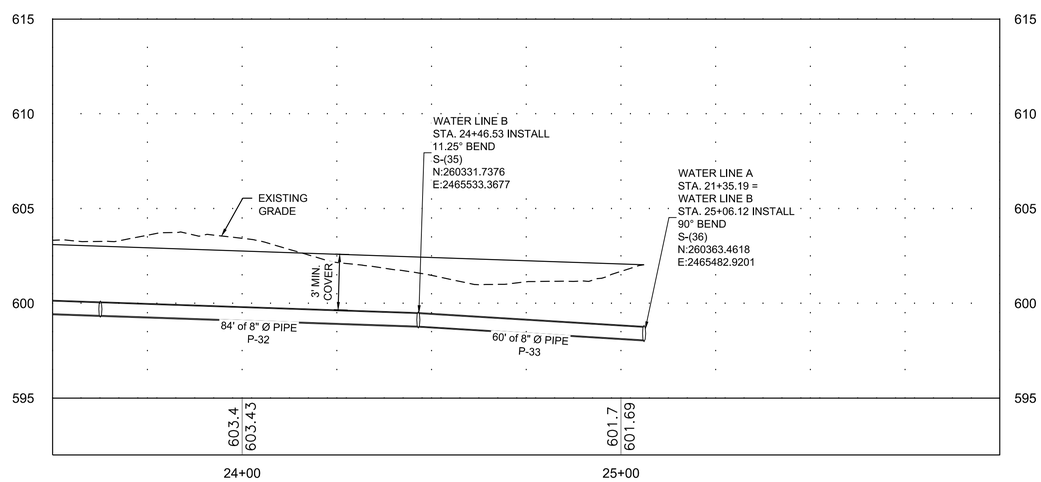
WATER LINE B
PLAN & PROFILE

PROJECT NUMBER
10455

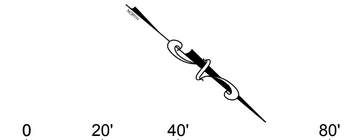
STATE	YEAR
OKLAHOMA	**2017**
SHEET NUMBER	TOTAL SHEETS
CU306	**14**



PLAN
STA. 10+00.00 TO STA. 14+50.00



PROFILE
STA. 10+00.00 TO STA. 14+50.00



SCALE IN FEET

NOTE:

1. 17± LF. OF TRENCH W/ 46± SQFT. OF GRAVEL PAVEMENT TO BE REMOVED & REPLACED IN KIND

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EXP. 06/30/2018

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10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI WATER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD

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RECORD OF REVISIONS

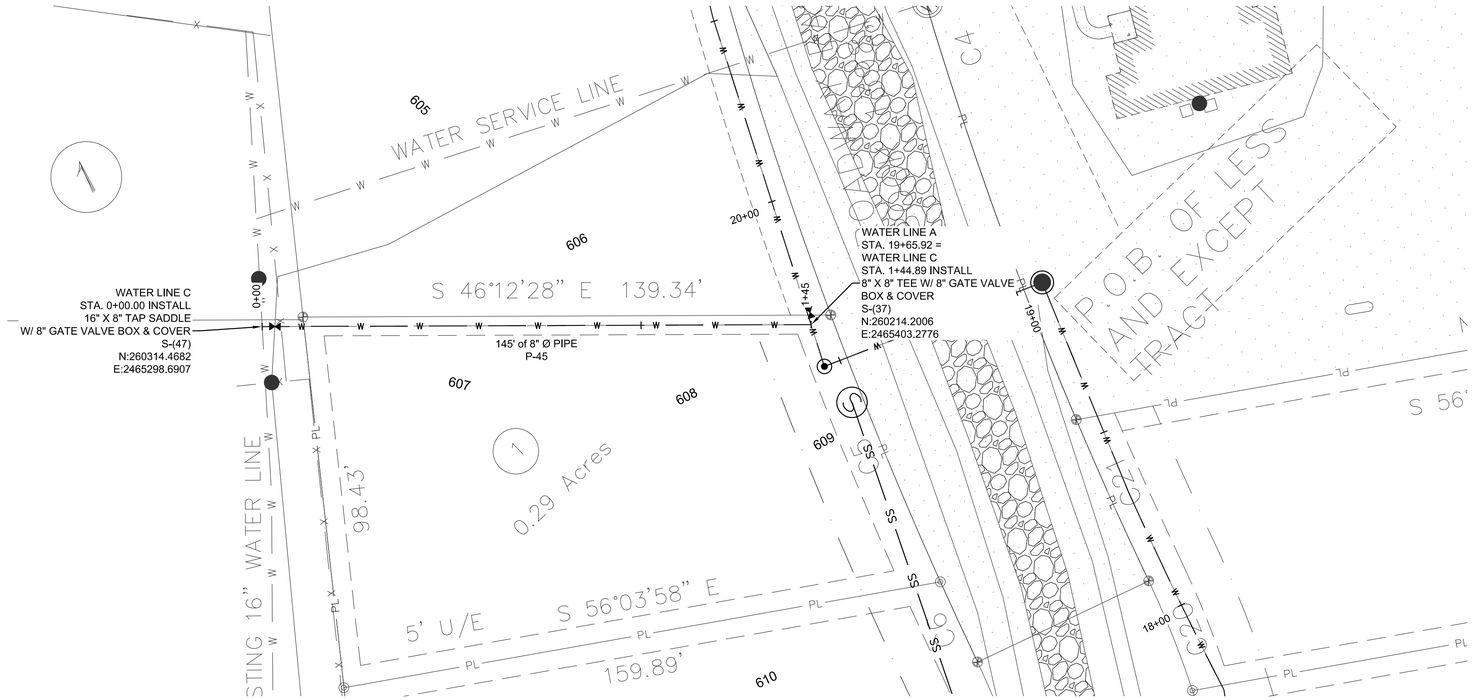
No.	DATE	DESCRIPTION

WATER LINE B PLAN & PROFILE

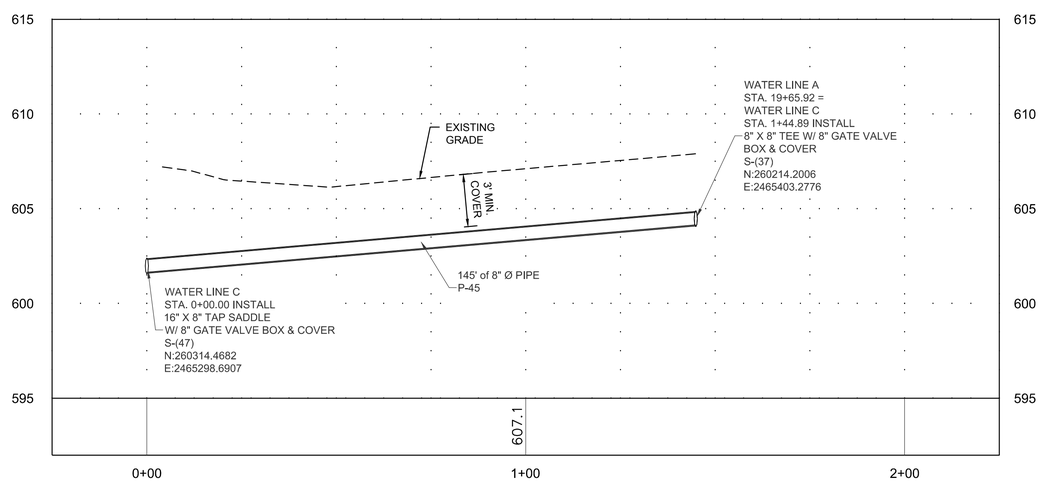
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	**2017**

SHEET NUMBER	TOTAL SHEETS
CU307	**14**



PLAN
STA. 0+0.00 TO STA. 1+44.89



PROFILE
STA. 0+0.00 TO STA. 1+44.89

0 20' 40' 80'
SCALE IN FEET

Barker & Associates
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Durant, OK 74701
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EXP. 06/30/2018

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18513
OKLAHOMA

DURANT CITY
UTILITIES AUTHORITY

COUNTRY ESTATES VI
WATER
IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

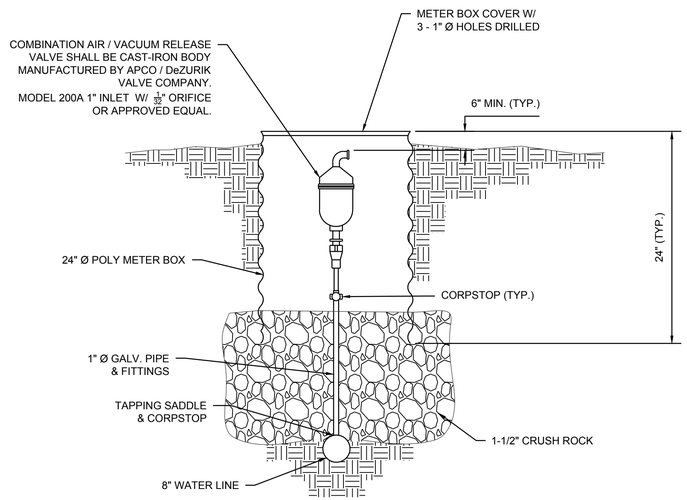
RECORD OF REVISIONS

No.	DATE	DESCRIPTION

WATER LINE C PLAN & PROFILE

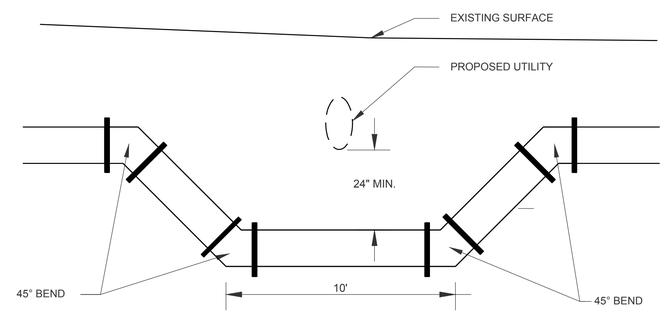
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	**2017**
SHEET NUMBER	TOTAL SHEETS
CU308	**14**



COMBINATION WATER AIR/VACUUM RELEASE VALVE

N.T.S.



NOTES:
1. PIPE BENDING TO AVOID CONFLICTING UTILITIES MAY ACCOMPLISHED IN LIEU OF FITTINGS.
2. CENTER 1-10' JOINT C-900 PVC UNDER WASTE WATER UTILITIES.
3. MINIMUM CLEAREANCE BETWEEN PROPOSAL WATER MAIN AND OTHER UTILITIES (EXCLUDING WASTE WATER) MAY BE REDUCED AT THE DISCRETION AT THE ENGINEER.
4. ALTERNATE METHOD OF JOINT RESTAINT SHALL BE CONSIDERED IN A CASE BY CASE BASIS.

INSTALL PROPOSED WATER MAIN
UNDER EXISTING UTILITY

Barker & Associates
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Durant, OK 74701
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18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI WATER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

WATER DETAILS

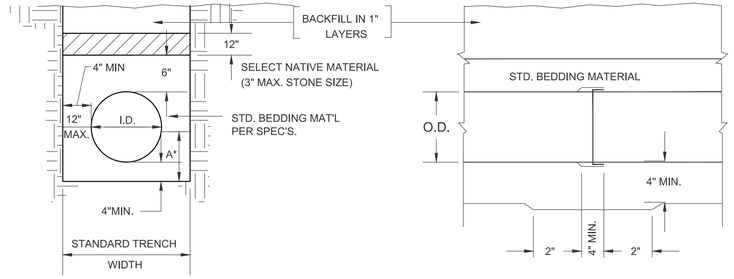
PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	**2017**

SHEET NUMBER	TOTAL SHEETS
CU501	**14**

STANDARD TRENCH WIDTH		
RIGID PIPE		FLEXIBLE PIPE
<2"	6"	6"
2"-3"	12"	12"
4"-6"	18"	18"
8"	24"	30"
10"-12"	30"	36"
14"-18"	36"	45"
20"-24"	42"	54"
26"-30"	54"	66"
32"-36"	60"	75"
38"-42"	66"	81"
44"-48"	72"	
50"-54"	78"	
56"-60"	84"	
	90"	
	96"	
	108"	

NOTE:
REMOVE ALL STONES AND DEBRIS FOUND IN TRENCH TO A DEPTH OF AT LEAST 6 INCHES BELOW THE BOTTOM OF THE PIPE.



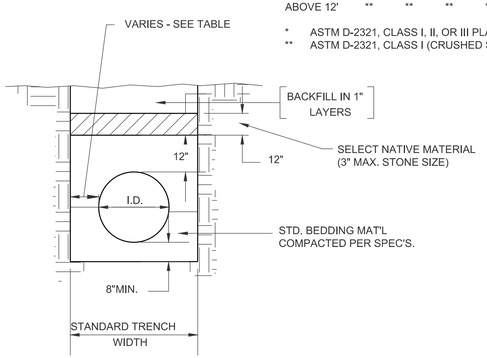
CROSS SECTION
RIGID PIPE

LONGITUDINAL SECTION

STANDARD BEDDING MATERIAL

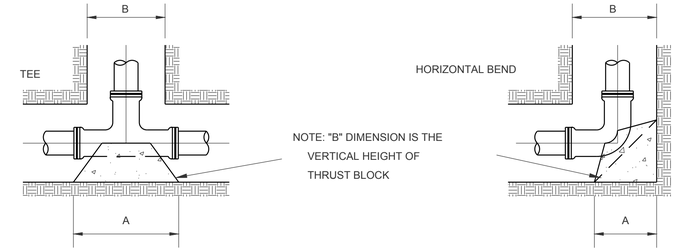
DEPTH	PVC	ABS	VCP	PRESSURE
LESS THAN 4'	*	**	*	*
4' - 9'	*	*	*	*
9' - 12'	**	*	*	*
ABOVE 12'	**	**	**	**

* ASTM D-2321, CLASS I, II, OR III PLACED PER SPECS.
** ASTM D-2321, CLASS I (CRUSHED STONE) ONLY, PER SPECS.

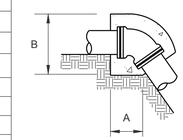


TRENCH CONDITIONS
NOT TO SCALE

CROSS SECTION
FLEXIBLE PIPE



PIPE SIZE	TEES		BENDS							
			90		45		22 1/2		VERT.	
	A	B	A	B	A	B	A	B	A	B
4"	16"	14"	16"	16"	12"	8"	8"	8"	12"	14"
6"	24"	21"	24"	24"	18"	12"	12"	12"	18"	21"
8"	39"	24"	24"	26"	21"	15"	15"	15"	18"	24"
10"	48"	30"	30"	32"	26"	24"	18"	18"	18"	24"
12"	48"	30"	32"	34"	28"	30"	18"	18"	20"	28"
14"	54"	36"	36"	39"	30"	30"	21"	21"	20"	28"
16"	54"	38"	38"	41"	32"	32"	24"	24"	21"	30"

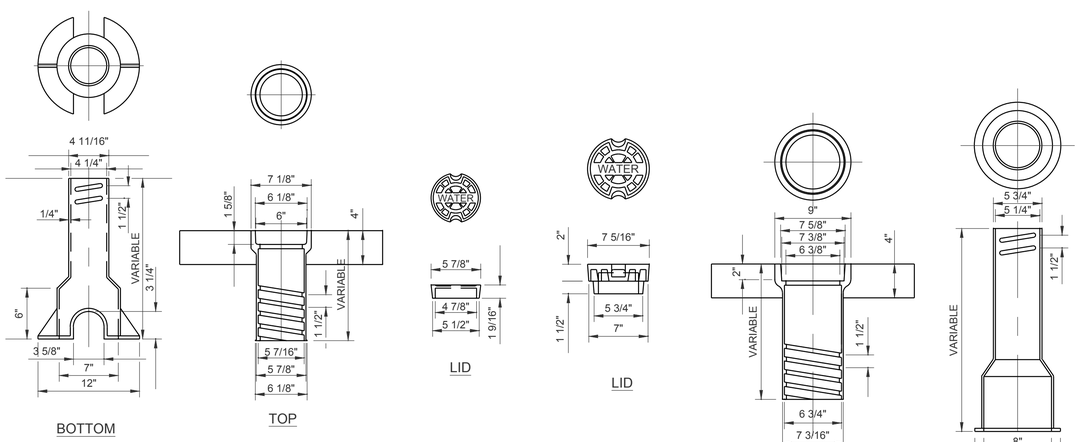


VERTICAL BENDS

NOTES:

1. USE 2000 P.S.I. CONCRETE ON ALL BLOCKING
2. ALL BEARING AREAS SHALL BE ON UNDISTURBED EARTH
3. BLOCKING SHALL BE PLACED SO THAT PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRED.
4. 22 1/2" OR GREATER (I.E,TEES,BENDS AND CROSSES) CHANGE IN SIZE (I.E. REDUCERS). STOPS (I,E.DEAD ENDS) AND VALVES WHERE THRUST DEVELOPS WHEN CLOSED

TYPICAL THRUST BLOCK DETAILS
NOT TO SCALE



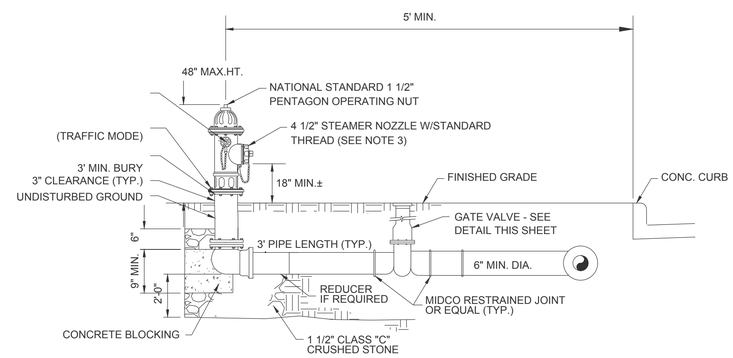
2" - 3" VALVE BOX DETAIL

4" - 12" VALVE BOX DETAIL

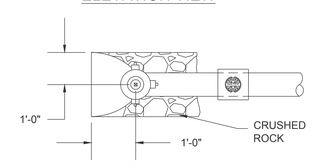
NOTES:

1. IN PAVED AREAS, WATER LINE CONTRACTOR TO PLACE 2 FOOT SQUARE CONCRETE PAD AROUND EACH WATER VALVE AFTER PAVING IS COMPLETE , THE PAVEMENT SHALL BE SAW-CUT FOR PAD PLACEMENT.
2. VALVE BOXES REQUIRING OVER 2 ADDITIONAL BOTTOM SECTIONS SHALL BE EXTENDED USING PVC PIPE WITH A BOTTOM AND TOP SECTION PLACED ON TOP OF THE PVC PIPE.

TYPICAL GATE VALVE BOXES
NOT TO SCALE



ELEVATION VIEW



PLAN VIEW

NOTES

1. HYDRANT DRAIN MUST REMAIN CLEAR AFTER POURING CONCRETE BLOCKING.
2. UNLESS OTHERWISE SPECIFIED, ALL HYDRANTS WILL BE LOCATED INSIDE OF R/W FENCES ON PUBLIC R/W. UNLESS SEPARATE QUANTITIES ARE SHOWN, THE CONTRACTOR WILL INCLUDE THE COST OF ALL PIPE & FITTINGS FOR THE HYDRANT FROM THE LINE TEE TO THE HYDRANT.
3. CONTRACTOR TO CONFIRM WITH OWNER THE NUMBER, SIZE AND THREAD TYPES OF ALL HYDRANT CONNECTIONS.
4. AS MANUFACTURE BY CLOW IND.
5. HYDRANTS SHALL HAVE 5 1/4" MAIN VALVE, AND 6" MJ, RJ CONNECTION.

TYPICAL FIRE HYDRANT ASSEMBLY INSTALLATION
NOT TO SCALE

CONSULTING ENGINEERS
Barker ASSOCIATES
Barker & Associates
3902 University Blvd.
Durant, OK 74701
580.931.9045
OK. CA. 3998
EXP. 06/30/2018

CHECKED BY: H. WAYNE BARKER, P.E.

REGISTERED PROFESSIONAL ENGINEER
H. WAYNE BARKER
10-13-17
18513
OKLAHOMA

DURANT CITY UTILITIES AUTHORITY

COUNTRY ESTATES VI WATER IMPROVEMENTS

DURANT, OKLAHOMA

100% CONSTRUCTION DOCUMENTS

DESIGNED BY: LRD
DRAWN BY: BARKER TEAM

RECORD OF REVISIONS

No.	DATE	DESCRIPTION

WATER DETAILS

PROJECT NUMBER
10455

STATE	YEAR
OKLAHOMA	**2017**
SHEET NUMBER	TOTAL SHEETS
CU502	**14**

RGB INVESTMENTS, LLC

1010 W MAIN STREET

DURANT, OK 74701

This letter is to serve as written notice that the City of Durant will provide water and sewer services to the future addition of Country Estates VI. The developer (RGB Investments, LLC) will install all infrastructure per approved engineer plans and incur all customary developer cost. Finished infrastructure will become property of the City of Durant pending final approval by City of Durant. Attached plat indicates legal description of property and is not considered final plat.

Derek Brewer

Tim Randel

City Manager

City of Durant, OK

PHONE: (580) 916-0638 FAX: (580)745-9498

email: derek@brewerrealtyok.com

Website: brewerrealtyok.com

RONALD F. COKER, BARBARA J. COKER HUSBAND AND WIFE, AND TOMMY ATKINSON AND CAROL ATKINSON HUSBAND AND WIFE
Owners

OWNER'S CERTIFICATE & DEDICATION

KNOW ALL MEN BY THESE PRESENTS:

That Ronald F. Coker, Barbara J. Coker Husband and Wife and Tommy Atkinson and Carol Atkinson Husband and Wife, being the sole owner(s) in fee simple of the following described real property respectively, to wit:

LEGAL DESCRIPTION

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET,
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET,
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 114.85 FEET TO THE TRUE POINT OF BEGINNING.
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 309.70 FEET;
THENCE S 55°17'47" E A DISTANCE OF 382.03 FEET; THENCE S 32°13'28" W A DISTANCE OF 634.40 FEET;
THENCE S 51°03'44" W A DISTANCE OF 128.50 FEET;
THENCE N 37°48'18" W A DISTANCE OF 88.53 FEET;
THENCE S 47°05'57" W A DISTANCE OF 378.33 FEET;
THENCE S 87°47'29" W A DISTANCE OF 240.18 FEET;
THENCE S 36°30'15" W A DISTANCE OF 70.07 FEET;
THENCE S 89°11'44" W A DISTANCE OF 135.06 FEET;
THENCE N 19°23'47" W A DISTANCE OF 264.53 FEET;
THENCE N 30°42'07" W, TO A POINT ON THE EASTERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 280.32 FEET,
THENCE N 46°54'05" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I, A DISTANCE OF 573.60 FEET;
THENCE N 33°41'30" E, CONTINUING ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART I & II, A DISTANCE OF 292.34 FEET;
THENCE S 46°12'20" E, A DISTANCE OF 103.34 FEET;
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 186.31 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 28°2'21" E, WITH A CHORD LENGTH OF 186.10 FEET,
THENCE N 44°46'30" W, TO A POINT ON THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 109.18 FEET;
THENCE N 37°47'00" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART III, A DISTANCE OF 51.51 FEET,
THENCE S 44°16'30" E A DISTANCE OF 106.97 FEET,
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 194.43 FEET, WITH A RADIUS OF 1125.83 FEET, WITH A CHORD BEARING OF N 40°40'30" E, WITH A CHORD LENGTH OF 194.19 FEET, BACK TO THE TRUE POINT OF BEGINNING.

LESS AND ACCEPT

A TRACT OF LAND IN THE NE/4 OF SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST OF THE INDIAN MERIDIAN AND BASE LINE, BRYAN COUNTY, OKLAHOMA BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS, WITH A BASE BEARING BEING S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION SECTION 16, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTHEAST CORNER OF THE NE/4 OF SAID SECTION 16;
THENCE S 88°58'28" W, ALONG THE NORTH LINE OF THE NE/4 OF SAID SECTION 16, A DISTANCE OF 199.38 FEET,
THENCE S 42°50'45" W, TO A POINT ON THE EAST LINE OF COUNTRY ESTATES PART II, A DISTANCE OF 1343.06 FEET,
THENCE S 38°27'55" E, ALONG THE SOUTHERLY LINE OF COUNTRY ESTATES PART IV, A DISTANCE OF 164.93 FEET,
THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 245.21 FEET, WITH A RADIUS OF 1075.83 FEET, WITH A CHORD BEARING OF S 38°55'40" W, WITH A CHORD LENGTH OF 240.54 FEET TO THE TRUE POINT OF BEGINNING.
THENCE S 41°39'56" E A DISTANCE OF 149.52 FEET
THENCE S 27°17'27" W A DISTANCE OF 177.29 FEET
THENCE N 56°03'58" W A DISTANCE OF 138.99 FEET
THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 215.40 FEET, WITH A RADIUS OF 1075.83 FEET, WITH A CHORD BEARING OF N 26°46'10" E, WITH A CHORD LENGTH OF 215.10 FEET BACK TO THE TRUE POINT OF BEGINNING.

SAID TRACT OF LAND CONTAINS 22.39 ACRES MORE OR LESS.

Ronald F. Coker, Barbara J. Coker Husband and Wife and Tommy Atkinson and Carol Atkinson Husband and Wife offers for dedication to the public use of all streets, avenues, parks, public facilities and easements as shown on the annexed plat of Country Estates Part VI, a Subdivision to Bryan County, State of Oklahoma. The formation of this irrevocable offer of dedication shall be consummated upon the execution of the Certificate for Acceptance of Dedication, for the purpose of providing an orderly development of Country Estates Part VI, a Subdivision to Bryan County, State of Oklahoma, we do hereby provide restrictive covenants. Filed in Book ____, Page ____ of the records in the office of the County Clerk, Bryan County, Oklahoma.

Ronald F. Coker ______ Date

Barbara J. Coker ______ Date

Tommy Atkinson ______ Date

Carol Atkinson ______ Date

STATE OF OKLAHOMA
COUNTY OF BRYAN

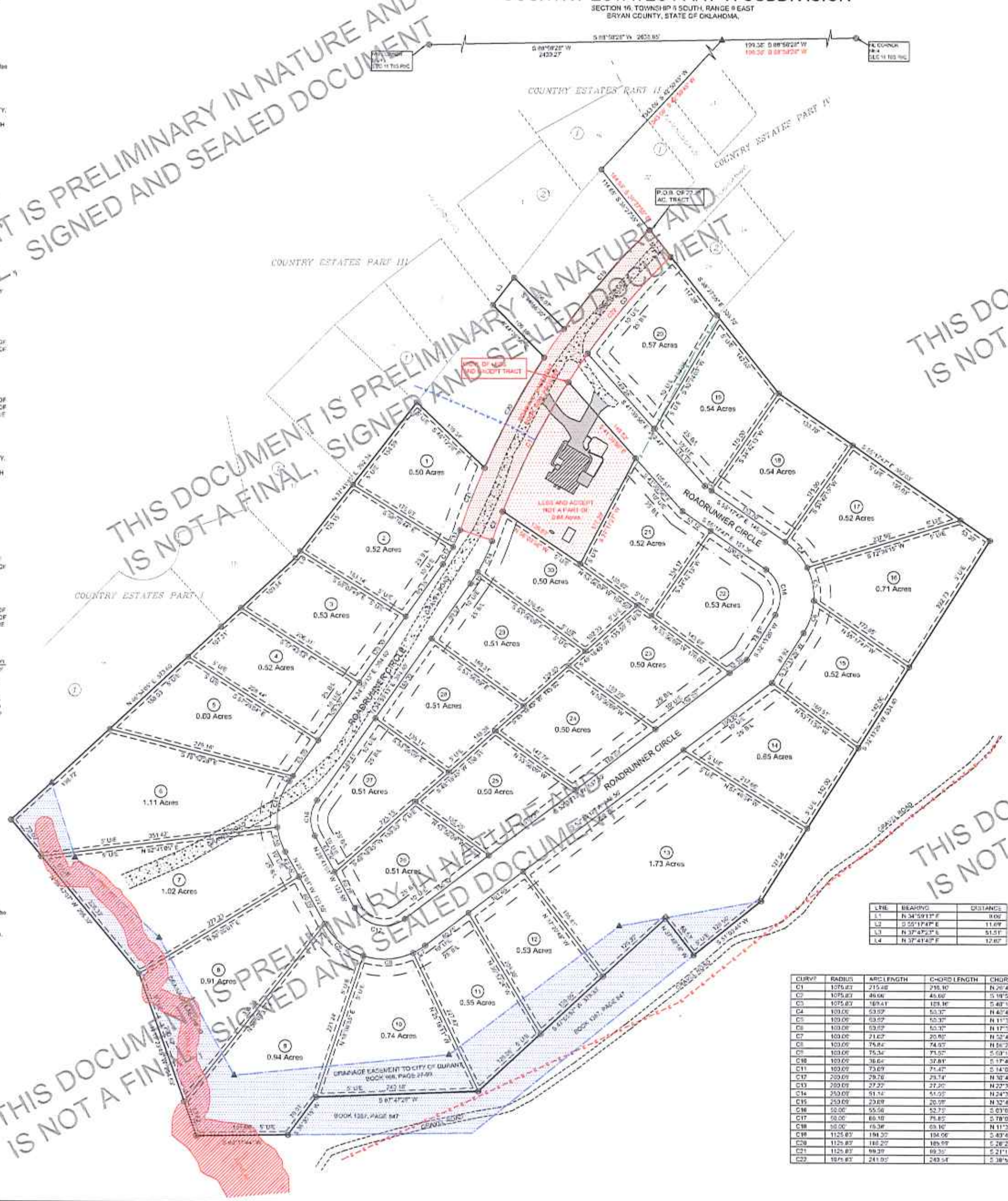
Before me, the undersigned, a Notary Public in and for said County and State on this ____ day of ______, 2016, personally appeared ________ to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that ____ executed the same as ____ free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Notary Public

Commission Expiration

COUNTRY ESTATES PART VI SUBDIVISION

SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY, STATE OF OKLAHOMA.



LINE	BEARING	DISTANCE
L1	N 34°59'13" E	9.06'
L2	S 55°17'47" E	11.69'
L3	N 37°47'23" E	51.51'
L4	N 37°41'40" E	12.87'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1075.83'	215.40'	215.10'	N 26°46'10" E	11°28'20"
C2	1075.83'	46.66'	46.66'	S 18°54'16" W	2°29'06"
C3	1075.83'	189.41'	189.16'	S 40°18'11" W	10°05'14"
C4	100.00'	50.92'	50.37'	N 40°42'34" W	29°10'24"
C5	100.00'	50.92'	50.37'	N 11°32'10" W	29°10'24"
C6	100.00'	50.92'	50.37'	N 17°38'14" E	29°10'24"
C7	100.00'	21.03'	20.99'	N 52°40'31" E	12°02'38"
C8	100.00'	75.84'	74.03'	N 56°25'22" E	43°27'00"
C9	100.00'	75.34'	71.57'	S 60°16'03" E	43°10'01"
C10	100.00'	38.04'	37.81'	S 17°47'13" E	21°47'30"
C11	100.00'	73.09'	71.47'	S 14°02'54" W	41°52'37"
C12	200.00'	29.78'	29.74'	N 30°43'25" E	8°31'37"
C13	200.00'	27.22'	27.20'	N 22°33'40" E	7°47'54"
C14	250.00'	51.14'	51.05'	N 24°31'20" E	11°43'15"
C15	250.00'	20.09'	20.08'	N 32°41'05" E	4°36'16"
C16	50.00'	55.56'	52.75'	S 03°09'06" W	63°40'15"
C17	50.00'	66.10'	75.65'	S 78°03'55" E	98°39'47"
C18	50.00'	76.38'	69.16'	N 11°32'10" W	87°31'12"
C19	1125.83'	194.37'	194.06'	S 40°45'12" W	9°53'18"
C20	1125.83'	186.27'	185.99'	S 28°27'28" W	9°28'34"
C21	1125.83'	99.39'	99.35'	S 21°11'27" W	5°03'29"
C22	1075.83'	241.05'	240.54'	S 38°55'40" W	12°50'15"

LICENSED LAND SURVEYORS CERTIFICATE

I, David L. Page Jr., a Licensed Land Surveyor in the State of Oklahoma, do hereby state that this plat of survey is based on an actual field survey, by myself, or under my direction. In conformance with the Oklahoma Minimum Standards for the Practice of Land Surveying. And subject to easements and/or rights-of-way, either recorded, or implied, thereof.

David L. Page Jr. P.L.S. 1566 ______ Date

LICENSED PROFESSIONAL LAND SURVEYOR DAVID L. PAGE, JR. 1566 OKLAHOMA

STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this ____ day of ______, 2016, personally appeared ________ to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that ____ executed the same as ____ free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Notary Public

Commission Expiration

NOTARY

COUNTY TREASURERS CERTIFICATE

I, ________ the duly elected and qualified County Treasurer of Bryan County, Oklahoma, do hereby certify that there are no unpaid taxes up to and including the year 2015 on the described real property known as Country Estates Part VI being a part of Bryan County, State of Oklahoma, and the required security has been deposited in the office of the County Treasurer guaranteeing payment of the current years taxes.

Witness my hand this ____ day of ______, 2016.

County Treasurer

TREASURER

STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this ____ day of ______, 2016, personally appeared ________ to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that ____ executed the same as ____ free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Notary Public

Commission Expiration

NOTARY

DEPARTMENT OF ENVIRONMENTAL QUALITY APPROVAL

The Oklahoma State Department of Environmental Quality, certifies that this plat is approved for the construction of a ____ sewage disposal system and a ____ water system this ___ day of ____, 2016.

Environmental Specialist

ENVIRONMENTAL QUALITY

COUNTY CLERK CERTIFICATE
STATE OF OKLAHOMA
COUNTY OF BRYAN

This Instrument, ______ was filed on the ____ day of ______, 2016, at ______ and duly recorded in book ____, page ____

County Clerk

NOTARY

STATE OF OKLAHOMA
COUNTY OF BRYAN

Before me, the undersigned, a Notary Public in and for said County and State on this ____ day of ______, 2016, personally appeared ________ to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that ____ executed the same as ____ free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and seal of office the day and year last above written.

Notary Public

Commission Expiration

CLERK

BRYAN COUNTY COMMISSIONERS APPROVAL

I, ________ Chairman of the Bryan County, Planning Commission for the County of Bryan, State of Oklahoma, hereby certify that the said commission duly approved the plat of Country Estates Part VI, on this ____ day of ______ 2016.

Chairman

NOTARY

FLOOD ZONE INFORMATION

CAPTIONED PROPERTY IS LOCATED IN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AND ZONE AE (BASE FLOOD ELEVATIONS DETERMINED), ACCORDING TO FIRM PANEL NO. 40013C0190E, MAP REVISED JUNE 2, 2011.

LEGEND

These standard symbols will be found in the drawing.

- FOUND STEEL PIN
- SET 1/2" STEEL PIN (PLS1566)
- EXISTING 1/2" STEEL PIN (LS 1566)
- WIRE FENCE
- WATERLINE
- OVERHEAD ELECRIC
- SANITARY SEWER
- BUILDING SET BACK LINE
- UTILITY EASEMENT
- BOUNDARY LINE
- LINE NOT TO SCALE

PAGE SURVEYING
124 SOUTH 5th AVENUE
DURANT, OKLAHOMA 74701
(580) 920-8101 OR (580) 212-0176
FAX (580) 920-8121

DAVID L. PAGE JR. © 2016
PROFESSIONAL LAND SURVEYOR #1566
C/A # 1991 EXPIRES 6-30-2017

COUNTRY ESTATES
PART VI

SECTION 16,
TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY, STATE OF OKLAHOMA.

RANGE 9 EAST

TOWNSHIP 6 SOUTH

LOCATION MAP

SECTION 16
TOWNSHIP 6 SOUTH, RANGE 9 EAST
BRYAN COUNTY

0' 80' 160'

N

-BASIS OF BEARINGS-
BEARINGS OBTAINED FROM G.P.S. OBSERVATIONS (SPC NAD 83)
CONTROLLING CORNERS ARE EXISTING CORNERS FOUND IN SECTION 16, TOWNSHIP 6 SOUTH, RANGE 9 EAST, BRYAN COUNTY, OKLAHOMA AND LOT AND BLOCK CORNERS OF COUNTRY ESTATES SUBDIVISIONS AS SHOWN ON THE LOCATION MAP.

GENERAL NOTES

SUBJECT TO EASEMENTS AND/OR RIGHTS-OF-WAY, EITHER RECORDED OR IMPLIED THEREOF.

NO UTILITIES OF ANY KIND HAVE BEEN LOCATED EXCEPT THOSE SHOWN ON THE ABOVE PLAT.

CONTROLLING CORNERS FOR THIS SURVEY ARE AS SHOWN ON THE LOCATION MAP.

THIS IS NOT A VALID SURVEY WITHOUT THE SURVEYORS ORIGINAL SIGNATURE AND ORIGINAL SEAL.

PORTIONS OF THIS PLAT ARE IN COLOR. PHOTO AND ELECTRONIC COPIES OF THIS PLAT MAKE IT INVALID AND MAY ALTER ITS MEANING.

THIS PLAT AND SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

BEFORE YOU DIG ... 1-800-522-6543 CALL OKIE

NO.	REVISION/ISSUE	DATE

SURVEY INFORMATION

FIELD WORK PERFORMED: 8-31-15
DATE OF LAST SITE VISIT: 8-31-15
PLAT COMPLETED: 8-31-16

Project Name and Address
COUNTRY ESTATES
PART VI
DURANT, OKLAHOMA

DATE 1-29-16

SCALE 1" = 80'

SHEET NO. 1 OF 1

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

Agenda Item: 4.a.

The City of Durant

Solid Waste Landfill

Memorandum

Date: 6/29/2018
To: Utilities Authority
From: Kenny Cooper, Supervisor, Solid Waste Landfill
Re: Landfill Information & Reports - June 2018

Council Information / Action Requested

Information only.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
DEQ Report - June 2018	Exhibit	7/2/2018
Project Schedule - June 2018	Exhibit	7/5/2018

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY REPORT FOR SOLID WASTE DISPOSAL FACILITIES

(Please see instructions prior to completing this form)

Due by the 10th of the month following the reporting month

Administrative Services
Accounts Receivable
P. O. Box 2036
Oklahoma City, OK 73101-2036

Report month/year: Jun-18

Facility Name: CITY OF DURANT C/D LANDFILL
Mailing Address: P.O. BOX 578
DURANT,OK 74702-0578

Permit Number: 3507001

Phone Number: 580-931-6606

Total # of Days open: 26

COMPLETE SECTIONS 5-10 ONLY IF SCALES GO DOWN

DAY	(1) Total weight accepted (tons)	(2) Weight which is reused or recycled in accordance with facility permit (tons)	(3) Weight accepted from a DEQ approved emergency or special event (tons)	(4) Weight accepted from large industrial waste generators with DEQ exemption certificate (tons)	(5) Time scales placed out of service	(6) Time scales placed into service	(7) Total volume accepted (yd3)	(8) Volume which is reused or recycled in accordance with facility permit (yd3)	(9) Volume accepted from a DEQ approved emergency or special event (yd3)	(10) Volume accepted from large industrial waste generators with DEQ exemption certificate (yd3)
1	57.31									
2	32.34									
3										
4	54.27									
5	40.31									
6	113.03									
7	160.24									
8	111.22									
9	14.26									
10										
11	77.37									
12	36.1									
13	69.21									
14	48.04									
15	66.49									
16	12.36									
17										
18	49.95									
19	62.77									
20	72.99									
21	56.4									
22	31.76									
23	4.22									
24										
25	5.78									
26	106.34									
27	134.46									
28	66.38									
29	74.44									
30	22.18									
31										
Total	1580.22	0	0	0	0	0	0	0	0	0

I hereby certify that the information reported above is accurate and correct to the best of my knowledge and includes all solid waste received at this facility.

Signature of authorized agent: _____ Phone #: 580-924-8358 Date: _____

INSTRUCTIONS FOR COMPLETING THE MONTHLY REPORT FOR SOLID WASTE DISPOSAL FACILITIES

The monthly report for solid waste disposal facilities should be submitted to the DEQ no later than the 10th of the month following the reporting month and should include all solid waste received during the month. **If no solid waste is received in a given month, a monthly report is still required. Please include a notation that no solid waste was received during the month.**

1. In the spaces provided, enter the month and year covered by the report, the facility name, permit number, mailing address, and phone number.

2. For each operating day of the month, provide the following and identify which days during the month the facility was closed.

Column 1: **Total weight accepted**: Enter the total weight, **in tons**, of all waste accepted at the facility for each day. The total must include weights to be reported in columns 2, 3, and 4.

Column 2: (Only applicable to landfill disposal facilities) **Weight which is reused or recycled in accordance with facility permit**: Enter the weight, **in tons**, of waste accepted at the facility which was productively reused at the facility in accordance with the facility's permit OR was recovered and sold in accordance with the facility's permit.

Column 3: (Only applicable to landfill disposal facilities) **Weight accepted from a DEQ approved emergency or special event**: Enter the weight, **in tons**, of waste accepted at the facility from an emergency or special event for which the facility received prior approval from the DEQ to waive the state disposal fee.

Column 4: (Only applicable to landfill disposal facilities) **Weight accepted from large industrial waste generators with DEQ exemption certificate**: Enter the weight, **in tons**, of waste received from large industrial waste generators **which was accompanied by a large industrial waste generator fee exemption certificate issued by the DEQ.**

Column 5: (Only applicable to landfill disposal facilities) **Time scales placed out-of-service**: Enter the approximate time (hour:minute) the scales became inoperative.

Column 6: (Only applicable to landfill disposal facilities) **Time scales placed into service**: Enter the approximate time (hour:minute) the scales were placed into service.

Note: Section 2-10-802 of the Oklahoma Solid Waste Management Act requires operators of certain landfill disposal facilities to weigh all solid waste received at the landfill. ***Only when the scales are inoperative may a landfill record the volume of waste***

Column 7: **Total volume accepted**: Enter the total volume **in cubic yards** of all waste accepted at the facility. The total must include volumes to be reported in columns 8, 9, and 10.

Column 8: (Only applicable to landfill disposal facilities) **Volume which is reused or recycled in accordance with facility permit**: Enter the volume, **in cubic yards**, of waste accepted at the facility which was productively reused at the facility in accordance with the facility's permit OR was recovered and sold in accordance with the facility's permit.

Column 9: (Only applicable to landfill disposal facilities) **Volume accepted from a DEQ approved emergency or special event**: Enter the volume, **in cubic yards**, of waste accepted at the facility from an emergency or special event for which the facility received prior approval from the DEQ to waive the state disposal fee.

Column 10: (Only applicable to landfill disposal facilities) **Volume accepted from large industrial waste generators with DEQ exemption certificate**: Enter the volume, **in cubic yards**, of waste received from large industrial waste generators **which was accompanied by a large industrial waste generator fee exemption certificate issued by the DEQ.**

3. At the end of the month, calculate the total down time for the scales (hours:minutes) and include in the space provided. Sum each column and include in the appropriate column.

THE CITY OF DURANT
Office of the Solid Waste Superintendent

DURANT
| · OKLAHOMA ·

SOLID WASTE DISPOSAL PROJECTS SCHEDULE
June 2018

A. Work Completed for June:

1. Covered C & D Site
2. Hauled MSW To SORD
3. picked up 325 rolloff's & 11 delivered

B. Work Planned For July:

1. Continue Covering C&D site
2. Have new C&D cell 10C inspected and approved
3. Haul MSW To SORD
4. Continue Picking up, Delivering

C. Work Planned For Jan. '18 – Dec. '18:	**Approx. Start – Finish Date:**
1. Haul trash to Ardmore	1-2018 thru 12-2018

D. Projects Planned And Requested For Authorization:

1. S.O.R.D. (R.F.A.P.)

1620 Blanchard Rd. • Durant, Oklahoma 74701 • (580) 920-2579 • Fax (580) 924-8344
www.durant.org

Agenda Item: 4.b.

The City of Durant

Office of the Solid Waste Department

Memorandum

Date: 7/2/2018
To: Utilities Authority
From: Albert Pierce, Solid Waste Department Superintendent
Re: Solid Waste Department Monthly Report - June 2018

Council Information / Action Requested

Information only.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Solid Waste Department Monthly Report - June 2018	Exhibit	6/29/2018

THE CITY OF DURANT
Office of the Solid Waste Superintendent

DURANT
· OKLAHOMA ·

SOLID WASTE PROJECTS SCHEDULE
June 2018

A. Work Completed:

1. Hauled 40.82 tons of extra hauling
2. Hauled 51 loads of extra hauling
3. Picked up and delivered 22 sharps
4. One abatement this month
5. Cleaned Sunny Side rd. 1 time
6. Refurbished 3 dumpsters
7. Replaced 0 dumpsters with new
8. Cleaned dead ends of Cemetery rd. 2 times

B. Work Planned For July

1. Refurbish. dumpsters
2.

C. Work Planned For Jan. '1-18 – Dec. 31-18

1. Pick up trash

D. Projects Planned And Requested For Authorization:

1. None.

1202 1/2 N.E. 2nd • Durant, Oklahoma 74701 • (580) 924-2707 • Fax (580) 924-8344
www.durant.org

Agenda Item: 4.c.

The City of Durant

Office of City Clerk

Memorandum

Date: 6/29/2018
To: Utilities Authority
From: Stephanie Barfield, Utility Billing Supervisor
Re: Utilities Department Monthly Report - May 2018

Council Information / Action Requested

Information only.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Utilities Department Monthly Report - May 2018	Exhibit	6/29/2018

Monthly Utility Billing,
Cash Collection,
And Consumption Summary

May 2018

	WATER		SANITARY SEWER		SANITATION	
	Month	YTD	Month	YTD	Month	YTD
Number of Bills - Active Accounts	6830		5953		6867	
Total Revenue Billed	$280,986.74	$3,338,289.86	$193,736.80	$2,420,589.07	$372,488.24	$3,964,240.71
Adjustments in Dollar	($27,843.55)	($86,044.85)	($7,663.94)	($78,003.23)	($100.08)	($17,854.22)
TOTAL CASH RECEIPTS	$204,118.95	$2,705,739.27	$131,768.98	$1,723,909.22	$254,878.49	$3,038,389.21

CONSUMPTION IN GALLONS	74,935,300

NEW SERVICE APPLICATIONS	177
NUMBER OF WALK IN/PHONE PAYMENTS	2,022
MAIL PAYMENTS	1,414
CREDIT CARD PAYMENTS	911
WEB PAYMENTS	887
DROP BOX PAYMENTS	523
BANK DRAFT PAYMENTS	743
CREDIT CARD DRAFT PAYMENTS	197
KIOSK	615
OTHERS	

Agenda Item: 4.d.

The City of Durant

Office of the Wastewater Treatment Plant

Memorandum

Date: 7/3/2018
To: Utilities Authority
From: Terry Condor, Waste Water Treatment Plant Superintendent
Re: Waste Water Treatment Plant and Lab Monthly Report - June 2018

Council Information / Action Requested

Information only.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
Waste Water Treatment Plant and Lab Monthly Report - June 2018	Exhibit	7/3/2018

The City of Durant

Office of the Wastewater Treatment Plant

DURANT
· OKLAHOMA ·

PROJECTS SCHEDULE

A: WORK COMPLETED IN JUNE 2018

1: MONITORING OF SBR SE VALVES TO DETERMINE FURTHER FAILURES (on going)
2: CLEAN CLARIFIER WEIRS 6/26/18
3: CLEAN BLEND TANK MIXER
4: CLEAN EFFLUENT PUMP STATION -----
5: CLEAN RAW WATER PUMP STATION -----
6: CLEAN SCUM PUMP STATION 6/20/18
7: CLEAN DRAIN LIFT STATION 6/7/18
8: CK TORQUE & OVERLOAD & GREASE CHAIN ON CLARIFIER 6/20/18
9: CALIBRATE DISCHARGE DO & PH METER
10: CHECK CALIBRATION OF DISCHARGE FLOW METER 6/12/18
11: RESET SBR PLC (not needed)
12: WASH DOWN STEP SCREEN 6/5/18
13: CLEAN UV TROUGHS AND FLUME 6/7/18
14: CHECK ELECTRIC MANHOLES 6/29/18
15: CLEAN OUT BUILDINGS 6/1/18
16: MANUALLY CHECK U.V. BULBS 6/14/18
17: WASH DOWN CASINO STEPSCREEN 6/27/18
18: CHECK ALL AUTOMATIC VALVES
19: VEHICLE INSPECTION 6/7/18
20: WALK-THRU INSPECTION 6/5/18
21: CLEAN ALL PLC's 6/5/11
22: CLEAN D.O. METERS 6/11/18
23: CHECK CLARIFIER OIL WEEKLY 6/11/18, 6/26/18
24: REPAIR DIGESTER FLOW METER

TREATED 53.765 MG OF WASTEWATER
PROCESSED 1.119766 MG OF TREATED SLUDGE

B: WORK PLANNED FOR JULY 2018

1: MONITORING OF SBR SE VALVES TO DETERMINE FURTHER FAILURES (on going)
2: CLEAN CLARIFIER WEIRS
3: CLEAN BLEND TANK MIXER
4: CLEAN EFFLUENT PUMP STATION -----
5: CLEAN RAW WATER PUMP STATION -----
6: CLEAN SCUM PUMP STATION
7: CLEAN DRAIN LIFT STATION
8: CK TORQUE & OVERLOAD & GREASE CHAIN ON CLARIFIER
9: CALIBRATE DISCHARGE DO & PH METER
10: CHECK CALIBRATION OF DISCHARGE FLOW METER
11: RESET SBR PLC
12: WASH DOWN STEP SCREEN
13: CLEAN UV TROUGHS AND FLUME
14: CHECK ELECTRIC MANHOLES
15: CLEAN OUT BUILDINGS
16: MANUALLY CHECK U.V. BULBS
17: WASH DOWN CASINO STEPSCREEN
18: CHECK ALL AUTOMATIC VALVES
19: VEHICLE INSPECTION
20: WALK-THRU INSPECTION
21: CLEAN ALL PLC's
22: CLEAN D.O. METERS
23: CHECK CLARIFIER OIL WEEKLY
24: REPAIR DIGESTER FLOW METER

THE CITY OF DURANT

Office of the Wastewater Treatment Plant
Lab Report

06/1/18 to 06/30/18

Tests Processed

80 Bac-t's
96 BOD's
24 TSS's
15 NH3's
14 DO's
6 Ph's
9 sets Fecal Coliforms (May 1st – Sept. 30th)
2 FOG's

Work Projects

- Data entry
- Reports (water test results), Make copies and envelope
- Purchase Orders, copy, file
- Equipment calibrations and maintenance
- Sampling and process readings
- Quality Assurance, Quality Control tests
- Laboratory Testing
- Filing
- Daily/Weekly laboratory and WWTP building cleaning
- Monthly, Quarterly, Bi-annual, Yearly reports
- Ordering Lab chemicals and supplies
- Water Billing
- Storm water monitoring
- Storm water Report
- Pre-Treatment
- State Testing DMR-QA 38

Process Water and Sludge Flow Report

June 2018

Date	Influent Flow (MG)	Drain Lift Station Flow (MG)	Casino Lift Station Flow (MG)	Combined Infl (MG)	Effluent Flow (MG)	GBT #1 Flow (KG)	GBT #2 Flow (KG)	Sludge Flow Digester #1 (KG)	Sludge Flow Digester #2 (KG)
6/1/2018	1.367	0.072	0.335	1.774	2.007	54.320	0.000	0.000	11.278
6/2/2018	1.209	0.027	0.328	1.563	1.844	0.000	0.000	0.000	10.732
6/3/2018	1.251	0.037	0.290	1.578	1.799	0.000	0.000	0.000	10.794
6/4/2018	1.413	0.076	0.290	1.779	1.998	54.167	0.000	0.000	10.808
6/5/2018	1.802	0.089	0.275	2.165	2.269	54.508	0.000	0.000	10.829
6/6/2018	1.618	0.067	0.289	1.974	2.089	54.921	0.000	0.000	10.743
6/7/2018	1.705	0.069	0.349	2.123	2.407	56.135	0.000	0.000	10.850
6/8/2018	1.600	0.073	0.368	2.040	2.167	54.689	0.000	0.000	10.092
6/9/2018	1.389	0.029	0.358	1.776	2.033	0.000	0.000	0.000	10.767
6/10/2018	1.541	0.026	0.313	1.880	2.148	0.000	0.000	0.000	10.767
6/11/2018	1.696	0.076	0.284	2.056	2.248	59.455	0.000	0.000	20.318
6/12/2018	1.535	0.077	0.271	1.884	2.168	54.500	0.000	0.000	10.189
6/13/2018	1.517	0.076	0.292	1.885	2.145	58.244	0.000	0.000	10.775
6/14/2018	1.311	0.083	0.319	1.713	1.992	55.303	0.000	0.000	10.771
6/15/2018	1.301	0.070	0.369	1.740	1.998	54.780	0.000	0.000	10.171
6/16/2018	1.229	0.031	0.339	1.599	1.898	0.000	0.000	0.000	10.631
6/17/2018	1.515	0.035	0.293	1.843	1.975	0.000	0.000	0.000	11.332
6/18/2018	1.510	0.074	0.292	1.877	2.147	55.226	0.000	0.000	12.029
6/19/2018	1.381	0.078	0.268	1.727	1.979	54.664	0.000	0.000	9.950
6/20/2018	1.642	0.075	0.272	1.990	2.206	54.863	0.000	0.000	10.679
6/21/2018	1.374	0.070	0.269	1.713	1.988	54.944	0.000	0.000	10.835
6/22/2018	1.306	0.073	0.316	1.695	2.019	54.635	0.000	0.000	10.694
6/23/2018	1.321	0.031	0.363	1.716	2.142	0.010	0.000	0.000	10.056
6/24/2018	1.370	0.033	0.316	1.719	2.147	0.010	0.000	0.000	10.341
6/25/2018	1.603	0.078	0.314	1.995	2.251	54.526	0.000	0.000	10.847
6/26/2018	1.315	0.077	0.298	1.691	2.097	56.613	0.000	0.000	10.802
6/27/2018	1.328	0.070	0.315	1.714	2.056	56.128	0.000	0.000	10.050
6/28/2018	1.191	0.040	0.319	1.550	1.987	15.888	0.000	0.000	11.366
6/29/2018	1.098	0.072	0.361	1.530	1.973	51.239	0.000	0.000	10.167
6/30/2018	1.078	0.033	0.367	1.478	1.883	0.000	0.000	0.000	10.468

Sum	42.515	1.818	9.433	53.765	62.058	1119.766	0.000	0.000	330.130
Avg	1.417	0.061	0.314	1.792	2.069	37.326	0.000	0.000	11.004
Min	1.078	0.026	0.268	1.478	1.799	0.000	0.000	0.000	9.950
Max	1.802	0.089	0.369	2.165	2.407	59.455	0.000	0.000	20.318

Agenda Item: 4.e.

The City of Durant

Office of the Water Treatment Plant

Memorandum

Date: 7/2/2018
To: Utilities Authority
From: Phillip Hightower, Water Treatment Plant
Re: Water Treatment Plant Monthly Reports - June 2018

Council Information / Action Requested

Information only.

City Staff Information / Action Follow-up, if Council authorizes this action:

ATTACHMENTS:

Description	Type	Upload Date
MOR #1 - June 2018	Exhibit	7/2/2018
MOR #2 - June 2018	Exhibit	7/2/2018
Chlorite and CLO2 - June 2018	Exhibit	7/2/2018
Monthly Report - June 2018	Exhibit	7/2/2018
2018 Year End Report	Exhibit	7/2/2018

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY OPERATIONAL REPORT
WATER TREATMENT PLANTS

Mail original before the 10th of the following month
to the Department of Environmental Quality, Water Quality Division
P. O. Box 1677, Oklahoma City, OK 73101-1677

Plant: Durant Water Treatement F
PWSID: 1010601
Month: June 2018
Population: 19,491

System	Address	City	ZIP
Durant City Utilities Authority	PO Box 578	Durant OK	74702

DAY	WATER TREATED	FILTER OPERATION: FILTERS USED-HOURS 1	2	3	4	5	6	7	8	WASH WATER IN 1000 GALS.	CHEMICALS USED-LBS.: ALUM	LIME	POLYMER Name:	NAOH	CARBON	OTHER Name: NH2SIF6	OTHER Name: copper sulf	CHLORINE PRE	CHLORINE POST	ALKALINITY "P" RAW	"P" FILT	TOTAL AM RAW	TOTAL AM FILT	CLO2 Residual RAW	CLO2 Residual FILT	TOTAL PM RAW	TOTAL PM FILT	pH AM RAW	pH AM FILT	pH PM FILT	CaCO3 STABILITY Method:	HARDNESS (ppm) AM RAW	HARDNESS (ppm) AM FILT	Chlorite residual	Chlorite lbs/day	REMARKS
1	5,091	23	23	23	23	24	24	24	24	140	3300	0	50	0	0	0	0	120	100			224	166		0.05	236	164	7.9	6.9	7	222	240	226	0.71	340	
2	5,172	24	24	24	24	23	23	24	24	70	3600	0	50	0	0	0	0	140	120			248	200		0.08	248	200	7.9	7	7.1	202	268	242	0.76	340	
3	5,194	23	24	23	24	24	24	23	23	130	2500	0	50	0	0	0	0	100	80			248	204		0.07	250	202	8	6.7	7.2	200	250	250	0.71	340	
4	5,196	24	23	23	23	24	24	24	24	115	3000	0	50	0	0	0	0	120	100			250	210		0.17	252	208	8	7.2	7.3	208	256	258	0.66	340	
5	4,880	24	24	24	24	23	23	24	24	70	2500	0	50	0	0	0	0	100	80			252	224		0.13	264	222	7.9	7.3	7.1	218	280	274	0.71	320	
6	4,933	24	24	24	24	24	24	23	23	70	2100	0	50	0	0	0	0	100	80			236	220		0.07	262	226	7.9	7.3	7.5	220	268	264	0.66	320	
7	5,033	23	24	24	23	24	24	24	24	70	2200	0	50	0	0	0	0	100	100			250	220		0.08	248	220	8	7.3	7.5	230	282	270	0.71	320	
8	5,000	24	4	23	24	24	24	24	24	90	2000	0	50	0	0	0	0	100	60			248	230		0.13	254	232	7.9	7.4	7.5	224	278	282	0.8	320	
9	5,037	24	0	24	24	23	23	24	24	70	2100	0	50	0	0	0	0	110	90			252	230		0.1	254	226	8	7.6	7.5	232	256	260	0.66	320	
10	4,972	24	0	24	24	24	24	23	23	60	2100	0	50	0	0	0	0	110	90			256	224		0.1	270	222	8.1	7.5	7.6	228	270	270	0.61	320	
11	5,425	23	0	24	23	24	24	24	24	70	2100	0	50	0	0	0	0	110	90			256	226		0.08	260	224	7.9	7.2	7.3	230	260	268	0.71	360	
12	5,752	24	0	23	24	24	24	24	24	35	2500	0	50	0	0	0	0	160	100			258	248		0.08	262	244	8	7.4	7.7	230	278	288	0.71	360	
13	5,784	24	0	24	24	23	23	24	24	70	2100	0	50	0	0	0	0	120	100			252	226		0.13	262	238	8	7.5	7.5	226	266	264	0.85	360	
14	6,241	23	0	24	24	24	24	23	23	100	2500	0	50	0	0	0	0	140	120			262	242		0.2	252	238	8	7.4	7.5	240	262	258	0.76	380	
15	6,120	23	0	23	23	24	24	24	24	116	2300	0	50	0	0	0	0	140	120			252	240		0.09	250	236	8	7.4	7.4	240	264	256	0.61	380	
16	6,178	24	0	24	24	24	24	24	24		2500	0	50	0	0	0	0	130	110			244	220		0.14	250	232	8	7.6	7.5	230	262	242	0.8	380	
17	5,728	23	0	23	23	23	23	24	24	170	2300	0	50	0	0	0	0	150	130			250	226		0.17	248	228	8	7.6	7.5	232	266	248	0.8	380	
18	5,571	24	0	24	24	24	24	23	23	70	2300	0	50	0	0	0	0	120	100			258	228		0.11	258	232	8.1	7.6	7.5	238	254	242	0.61	360	
19	5,492	23	0	23	24	24	24	24	24	60	2100	0	50	0	0	0	0	100	100			248	216		0.19	260	228	8	7.2	7.4	216	250	248	0.85	380	
20	5,102	24	0	24	23	24	24	24	24	35	2800	0	50	0	0	0	0	100	80			244	216		0.13	240	230	8	7.5	7.4	208	256	250	0.76	360	
21	5,165	24	0	24	24	23	23	24	24	70	3500	0	50	0	0	0	0	120	80			252	226		0.1	244	230	8	7.4	7.4	228	252	252	0.71	370	
22	5,277	24	0	24	24	24	24	23	23	70	2700	0	50	0	0	0	0	120	100			252	212		0.1	238	220	8.1	7.4	7.4	222	248	242	0.61	370	
23	5,191	23	0	23	24	24	24	24	24	80	2600	0	50	0	0	0	0	120	100			254	218		0.17	242	216	8	7.4	7.5	222	246	246	0.71	370	
24	5,433	24	0	24	23	24	24	24	24	35	2500	0	50	0	0	0	0	120	100			240	214		0.1	226	218	8	7.5	7.3	208	232	238	0.71	370	
25	5,131	24	0	24	24	23	23	24	24	70	3100	0	50	0	0	0	0	100	100			242	200		0.1	242	208	8.1	7.6	7.7	210	240	240	0.71	360	
26	4,947	24	0	24	24	24	24	23	23	70	3200	0	50	0	0	0	0	100	100			242	202		0.08	250	202	7.9	7.1	7.2	216	242	248	0.61	360	
27	4,993	23	0	23	24	24	24	24	24	70	2400	0	50	0	0	0	0	120	100			252	214		0.12	252	216	8	7.2	7.5	210	268	258	0.8	360	
28	5,700	24	0	24	23	24	24	24	24	35	3200	0	50	0	0	0	0	150	130			258	222		0.08	242	212	8	7.3	7.3	222	250	246	0.85	390	
29	6,155	23	0	23	23	23	23	24	24	175	3300	0	50	0	0	0	0	140	120			250	210		0.07	230	212	7.9	7.2	7.3	224	250	250	0.52	390	
30	5,693	24	0	24	24	24	24	23	23	65	3000	0	50	0	0	0	0	140	120			248	222		0.08	232	210	8	7.3	7.3	222	250	248	0.57	390	
31																																				
TOT	161586	712	168	712	710	712	712	712	712	2351	78400		1500					3600	3000			7478	6556		3.3	7478	6596	240	220	222	6658	7744	7628	21.25	10710	
Avg	5386	24	24	24	24	24	24	24	24	78	2613		50.00					120	100			249	219		0	249	220	8.0	7.3	7.4	221.9	258	254	0.708	######	

Power Costs	**$21,797.57**
Labor Costs	**$30,110.25**
Chemicals	**$17,056.02**
Supplies	**$1,133.89**
Repairs	**$17,625.16**
TOTAL	**$87,722.89**

Cost per thousand Gallons $ 0.54

Ave. Rate of Wash (Vert. in/min.)

Ave Wash Period (Minutes)

% Wash Water Used 1.45%

Ave. Head Loss for Washing

I hereby certify the above to be correct to the best of my knowledge.

Signed PhillipHightower

Title Water Treatment Plant Supervisor

DEQ Form # 630-577A
Revised 9/1/2000

Oper. Cert. No. B 90404

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY OPERATIONAL REPORT
WATER TREATMENT PLANTS

Plant: Durant Water Treatment Plant
PWSID: 1010601
Month: June 2018
Population: 19,491

Durant City Utilities Authority — *System*
PO Box 578 — *Address*
Durant — *City*
74702 — *ZIP*

☑ Rapid Rate Filter
☐ Slow Sand Filter

	No. OF SAMPLES	% OF TOTAL SAMPLES
TURBIDITY GREATER THAN 0.5 NTU:	0	0%
TURBIDITY GREATER THAN 0.3 NTU:	0	0%
TURBIDITY GREATER THAN 0.1 NTU:	0	0%
TOTAL NO. OF TURBIDITY ANALYSES:	180	

HIGHEST TURBIDITY READING	0.09
NUMBER OF SAMPLES > 1 NTU	0
NUMBER OF SAMPLES > 5 NTU	0
95TH PERCENTILE OF FINISHED WATER TURBIDITY	0.07 NOT REQUIRED
95TH PERCENTILE OF SETTLED WATER TURBIDITY	3.31 NOT REQUIRED
CHLORINE RESIDUAL < 1.0 mg/l LEAVING PLANT *(# Samples)*	

INDIVIDUAL FILTER TURBIDITY CHECKLIST

1. IS TURBIDITY FROM EACH INDIVIDUAL FILTER RECORDED EVERY 15 MINUTES? ☑ Yes ☐ No
2. DID ANY SINGLE FILTER EXCEED 2.0 NTU IN TWO CONSECUTIVE 15 MINUTE PERIODS?
   - ☑ No, Go to Question 3.
   - ☐ Yes, What date was the filter profile completed?

   DID THIS SAME FILTER EXCEED 2.0 NTU IN 2 CONSECUTIVE 15-MIN PERIODS DURING THE LAST MONTH?
   - ☐ No, Go to Question 3.
   - ☐ Yes, Schedule Comprehensive Perfomance Evaluation (CPE) with DEQ.
3. DID ANY SINGLE FILTER EXCEED 1.0 NTU IN TWO CONSECUTIVE 15 MINUTE PERIODS?
   - ☑ No, Go to Question 4.
   - ☐ Yes, What date was the filter profile completed?

   DID THIS SAME FILTER EXCEED 1.0 NTU IN 2 CONSECUTIVE 15-MIN PERIODS DURING THE LAST 2 MONTHS?
   - ☐ No, Go to Question 4.
   - ☐ Yes, What date was the filter self-assessment completed?
4. DID ANY SINGLE FILTER EXCEED 0.5 NTU IN 2 CONSECUTIVE 15-MIN PERIODS AT THE END OF 4 HRS OF OPERATION?
   - ☑ No, You are finished with the checklist.
   - ☐ Yes, What date was the filter profile completed?

* IF ANY OF QUESTIONS 2 THROUGH 4 ARE CHECKED "YES", YOU MUST COMPLETE THE TURBIDITY TRIGGER EVALUATION FORM AND ATTACH TO THIS MOR.

	TURBIDITY									RESIDUAL DISINFECTANT								
										ENTRY POINT TO DISTRIBUTION						DISTRIBUTION		
DAY	RAW	SET	SET	2400-0400	0400-0800	0800-1200	1200-1600	1600-2000	2000-2400	12am	4am	8am	12pm	4pm	8pm	SYSTEM		COMMENTS
1	31.56	1.9	2.6	0.03	0.05	0.05	0.03	0.03	0.03	2.38	2.54	2.64	2.49	2.39	2.25	1.93	1.88	
2	22.29	1.8	2.3	0.04	0.04	0.03	0.03	0.03	0.03	2.43	2.66	2.77	2.64	2.47	2.26	1.89	1.80	
3	17.32	2.7	2.9	0.03	0.03	0.03	0.06	0.04	0.03	2.47	2.75	2.91	2.61	2.47	2.13	2.13	1.79	
4	15.46	2.2	2.7	0.08	0.03	0.03	0.03	0.04	0.06	2.26	2.65	2.66	2.67	2.52	2.46	1.84	2.36	
5	14.01	1	2	0.03	0.03	0.03	0.03	0.03	0.03	2.64	2.81	2.79	2.75	2.55	2.15	2.29	1.84	
6	12.50	1.4	2.4	0.03	0.03	0.03	0.03	0.03	0.03	2.20	2.75	2.82	2.60	2.35	2.22	1.87	1.93	
7	13.12	1.8	3.3	0.07	0.03	0.03	0.03	0.03	0.03	2.39	2.60	2.65	2.54	2.46	2.49	2.17	1.92	
8	18.30	1.8	2.7	0.03	0.04	0.03	0.03	0.03	0.03	2.53	2.61	3.05	2.51	2.38	2.09	1.94	1.89	
9	17.65	2.2	2.6	0.03	0.04	0.03	0.03	0.03	0.03	2.46	2.60	2.74	2.09	2.17	2.08	1.95	1.90	
10	14.63	1.9	2.9	0.03	0.03	0.03	0.03	0.03	0.03	2.28	2.59	2.55	2.51	2.30	2.17	1.87	1.83	
11	12.89	1.9	2.7	0.04	0.03	0.03	0.03	0.03	0.03	2.39	2.71	2.67	2.66	2.39	2.42	2.03	1.79	
12	15.70	2.1	2.5	0.05	0.03	0.03	0.03	0.03	0.03	2.72	2.97	2.99	2.94	2.93	2.72	1.79	2.70	
13	16.63	1.2	2.9	0.04	0.03	0.03	0.03	0.03	0.03	3.00	3.21	3.20	2.94	2.43	2.66	2.60	1.90	
14	18.00	2.2	3.3	0.04	0.03	0.03	0.06	0.04	0.03	2.92	3.03	3.03	2.36	2.24	2.84	2.15	2.72	
15	21.65	2	2.6	0.03	0.04	0.04	0.04	0.04	0.03	2.96	3.01	3.07	2.46	2.31	2.74	2.13	2.12	
16	17.92	2.1	2.3	0.04	0.04	0.04	0.04	0.04	0.04	2.91	2.99	3.01	2.53	2.37	2.54	2.15	2.71	
17	17.14	1.7	2.5	0.04	0.07	0.08	0.07	0.04	0.04	2.88	3.06	3.09	2.71	2.40	2.28	2.39	2.68	
18	15.34	1.9	2.5	0.05	0.04	0.04	0.04	0.04	0.04	2.55	2.85	2.80	2.64	2.39	2.17	2.07	1.99	
19	14.99	1.3	2.9	0.09	0.04	0.04	0.04	0.04	0.04	2.36	2.73	2.77	2.71	2.57	2.35	2.04	1.89	
20	17.00	2.1	3.5	0.05	0.04	0.04	0.04	0.04	0.04	2.48	2.87	2.85	2.65	2.49	2.18	1.84	1.87	
21	35.83	1.9	3.2	0.07	0.04	0.04	0.04	0.04	0.04	2.44	2.72	2.63	2.39	2.21	2.16	2.11	1.86	
22	20.51	2.1	2.4	0.04	0.05	0.04	0.04	0.04	0.04	2.68	2.79	2.83	2.82	2.59	2.20	1.84	1.76	
23	19.00	1.5	3.4	0.08	0.06	0.04	0.03	0.03	0.04	2.63	2.72	2.78	2.43	2.18	2.44	1.84	1.89	
24	22.32	2.2	2.9	0.05	0.04	0.04	0.04	0.04	0.05	2.61	2.73	2.73	2.71	2.47	2.62	1.92	1.85	
25	29.33	2.4	2.6	0.09	0.04	0.04	0.04	0.04	0.04	2.76	2.92	2.96	2.77	2.40	2.29	2.23	1.87	
26	27.66	1.8	3.1	0.07	0.04	0.04	0.04	0.04	0.04	2.43	3.04	3.05	2.73	2.56	2.25	1.90	1.90	
27	17.56	1.5	3.6	0.06	0.05	0.03	0.04	0.04	0.04	2.51	2.99	3.15	2.60	2.29	2.21	2.15	1.96	
28	15.95	2.2	2.4	0.08	0.04	0.04	0.04	0.04	0.04	2.52	2.93	2.94	2.43	2.12	2.80	1.99	1.95	
29	18.08	1.8	3.1	0.04	0.05	0.04	0.04	0.04	0.08	2.94	2.98	3.05	3.05	3.05	2.82	1.96	1.96	
30	16.10	1.8	2.6	0.04	0.05	0.04	0.04	0.04	0.04	3.07	2.95	2.95	2.29	2.29	2.57	2.01	1.81	
31																		

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
. . . for a clean, attractive, prosperous Oklahoma

CHLORINE DIOXIDE AND CHLORITE MONITORING AND REPORTING FORM

1. Public Water System (PWS) Information:

PWSID: OK 1010601 PWS Name: City of Durant

2. Compliance Information:

Water System Facility ID: 1010601 Plant Name: Durant Water Plant

Month: June Year: 2018

3. Analytical Results & Summary Information:

Entry Point Monitoring		
Day	ClO_2 (mg/L)	Chlorite (mg/L)
1	0.05	0.71
2	0.08	0.76
3	0.07	0.71
4	0.17	0.66
5	0.13	0.71
6	0.06	0.66
7	0.08	0.71
8	0.13	0.8
9	0.1	0.66
10	0.1	0.61
11	0.08	0.71
12	0.08	0.71
13	0.13	0.85
14	0.2	0.76
15	0.09	0.61
16	0.14	0.8
17	0.17	0.8
18	0.11	0.61
19	0.19	0.85
20	0.13	0.76
21	0.1	0.71
22	0.1	0.61
23	0.17	0.71
24	0.1	0.71
25	0.1	0.71
26	0.08	0.61
27	0.12	0.8
28	0.08	0.85
29	0.07	0.52
30	0.08	0.57
31		

Chlorine Dioxide Daily Monitoring (Summary Type: CLO2)

Number of Samples Required:		
Number of Samples Collected:		30
Was All Chlorine Dioxide Monitoring & Reporting Completed?	Yes / No	Yes / No
Number of ClO_2 samples exceeded the MRDL of 0.8 mg/L?		0

If a routine sample exceeds the MRDL, the system is required to take (3) three more samples the next day.

Chlorite Daily Monitoring (Summary Type: $CLO2^-$)

Number of Samples Required:		
Number of Samples Collected:		30
Was All Chlorite Monitoring & Reporting Completed?	Yes / No	Yes / No
Number of Chlorite samples exceeded the MCL of 1.0 mg/L?		

If a routine sample exceeds the MCL, the system is required to take (3) three more samples the next day.

*** If you didn't use Chlorine Dioxide for disinfection any day this month, please mark "n/a" in that day's box to prevent a Monitoring violation.**

Routine Chlorite Monthly Monitoring in Distribution System

Sampling Location	Lab Sample ID	Sampling Point ID	Collection Date	Certified Lab ID	Chlorite (mg/L)
Near 1st Customer					
Avg. Residence Time					
Max. Residence Time					

Monitoring Period Average:

Mark (X) if analytical results were reported electronically: _____

- If the arithmetic average of any three sample set exceeds the Chlorite MCL (1.0 mg/L), the system is in violation of the MCL.
- If more than one three-sample set was collected, attach additional copies of this form.

Signature of owner or operator: _____ Date: _____

Operator License Number _____

Send all documents to:

Joe Keeble
Disinfection Byproducts Compliance Coordinator
Water Quality Division, DEQ
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

DEQ Form # 630-577D
Revision 06/01/2009

THE CITY OF DURANT
Office of the Water Treatment Plant

Water Treatment Plant Projects Schedule
June 2018 Monthly Report

A. Work Completed
1. Calibrate lab instruments daily
2. Maintained Water Plant
3. Cleaned all buildings weekly
4. Backwashed filters as needed
5. Backwashed raw pumps weekly
6. Hooked up chlorine tanks and checked for leaks
7. Unload chemicals as they arrived
8. Pulled sludge as needed
9. Run daily chlorine dioxide samples on raw line
10. Flushed alum pumps
11. Inspected fire extinguishers
12. Pulled required water samples and send to ODEQ
13. Clean turbidity meters as needed
14. Cleaned screens on CLO2 generator as needed
15. Pumped out vault at So. 9th pump station
16. Installed gearbox on new plant rapid mixer
17. Mowed CG pump station and high service pump station
18. Check and maintain fluid levels on trucks and mower
19. Mowed Plant grounds
20. Weed eated Plant grounds
21. Mowed Arkansas Tower
22. Fixed sump pump line coming out of vault at Arkansas tower
23. Removing filter media from #2 old plant filter.
24. Treated161,586,000 gallons of water

B. Work Planned for January-December	Approx Start/Finish Date
1. Paint buildings	Time permitting
2. Install rebuilt motor at High Service	When it is recieved
3. Finsh covering up valves at Chuckwa Tower	Time Permitting
4. Put Gravel at Chuckwa Tower	Time Permitting
5. Put Gravel at Raw Pump Station	Time Permitting

C. Projects Planned and Requested for Authorization
A. Upgrade raw pump building at the water plant
B. Upgrade Scada system on Old and New Plant Filters
C. Install new Fluoride System

844 Caddo Hwy • Caddo, Oklahoma 74729 • (580) 924-1487 • Fax (580) 924-8566
www.durant.org

THE CITY OF DURANT
Office of the Water Treatment Plant

DURANT
· OKLAHOMA ·

2018 Yearend Report

A. Projects Completed
1) Produced 1,645,354,000 gallons of water
2) Used the following chemicals to treat the water
    a. Alum –703,400 lbs.
    b. Poly –18,410 lbs
    c. Cl2 –81,535 lbs
    d. Chlorites –113,700 lbs.
    e. NAOH –91,435 lbs.

3) Maintained and operated water treatment plant and performed routine maintenance 24/7
4) Average costs per 1,000 gallons of water produced were 0.49 cents including labor, chemicals, utilities and repairs.
5) Performed walk thru inspections on daily basis
6) Pulled TOC and Chlorites samples for required analysis monthly.
7) Pulled HAA5 & THM samples for required analysis quarterly
8) Submitted annual Water Rights Permit for Oklahoma resource Board
9) Attended the following classes:
    a. OWPCA certification renewal class

10) Passed all lab tests required by EPA and DEQ, costs for analysis of TOC, THM, HAA5, Chlorites, Fluoride, Bac T's, Nitrates, VOCS, Lead and Copper and Radioactive chemicals,UCMR3 samples
11) Hired new employee
12) Installed new VFD on #4 raw pump at raw pump station
13) Performed up keep on Lake Durant
14) Performed yearly inspection on Dam with engineer
15) Installed altitude valves at Arkansas, 13th, and Chuckwa towers
16) Fixed broken valves at Arkansas, 13th towers in front of the vaults
17) Replaced valve at Chuckwa tower that would not hold
18) Installed #4 raw pump
19) Removed media from #2 old plant filter

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