



# MIDWEST CITY

## MEETING AGENDAS FOR

### May 28, 2019

---



The 6:00 PM meetings will be shown live on Channel 20 and streamed live on YouTube.



The recorded video will be available on YouTube and the City's website within 48 hours at [www.youtube@midwestcityok.org](mailto:www.youtube@midwestcityok.org).



The meeting minutes and video can be found on the City's website in the Agenda Center: <https://midwestcityok.org/AgendaCenter>.



To make a special assistance request, call 739-1215 or email [pmenefee@midwestcityok.org](mailto:pmenefee@midwestcityok.org) no less than 24 hours prior to the start of a meeting. If special assistance is needed during a meeting, call 739-1388.



The Council will go directly into the City meetings down in the Council Chambers of City Hall at 6:00 PM. However, they will informally gather at or after 5:00 PM in the second floor conference room for dinner, but no City Council business will be discussed or acted upon and the room will be open to the public. Meals will only be provided to the City Council and staff.



## **CITY OF MIDWEST CITY COUNCIL AGENDA**

City Hall - Midwest City Council Chambers, 100 N. Midwest Boulevard

May 28, 2019 – 6:00 PM

- A. CALL TO ORDER.
- B. OPENING BUSINESS.
- Invocation by Public Works Director Vaughn Sullivan
  - Pledge of Allegiance by Councilmember Byrne
  - Community-related announcements and comments
  - Presentation by the Oklahoma Chapter of the American Public Works Association to Public Works Director Vaughn Sullivan as one of the "Top 10 Public Works Leader of the Year" award
  - Mayoral Proclamations Bobby and Gene Holland and Jaylin Vinson
- C. CONSENT AGENDA. These items are placed on the Consent Agenda so the Council, by unanimous consent, can approve routine agenda items by one motion. If any item proposed does not meet with the approval of all Council, or members of the audience wish to discuss an item, it will be removed and heard in a regular order.
1. Discussion and consideration of approving the minutes of the regular meeting of May 14, 2019, as submitted. (City Clerk - S. Hancock)
  2. Discussion and consideration of supplemental budget adjustments to the following fund for FY 2018-2019, increase: Employee Activity Fund, expenses/MWC Activities (38) \$288. Disaster Relief Fund, expenses/Neighborhood Services (15) \$20,000. (Finance - C. Barron)
  3. Discussion and consideration of accepting the City Manager's Report for the month of April 2019. (Finance - C. Barron)
  4. Discussion and consideration of approving and entering into a Primary Service Answering Point Agreement with Rose State College to provide dispatching services for the Rose State Security Office from July 1, 2019 through June 30, 2020 for \$25,000.00 per year. (Emergency Management - M. Bower)
  5. Discussion and consideration of accepting the Monthly Neighborhood Services report for April 2019. (Neighborhood Services - M. Stroh)
  6. Discussion and consideration of renewing a contract with Sierra Environmental Services, Inc., without modifications, for code enforcement abatement for FY 2019-2020. (Neighborhood Services - M. Stroh)
  7. Discussion and consideration of approving and entering into an agreement with Mid-Del Group Home for FY 19/20 to provide cleaning at various pavilions, parks, and bus stops as well as litter pick up around Midwest City. (Parks and Recreation - F. Gilles)

8. Discussion and Consideration of approval of a Certificate of Registered Land Surveyor Correction of Plat Sundance Addition Section 6 a subdivision of part the Northeast Quarter (NE/4) of Section 9, Township 11 North Range 1 West, of the Indian Meridian, Oklahoma County, Oklahoma. (Community Development P. Menefee)
9. Discussion and consideration of accepting maintenance bonds from Central Contracting Services, Inc. in the amount of \$6,100.00, \$5,500.00, and \$1,000.00 and First Water Contracting, L.L.C. in the amount of \$16,719.15, all in conjunction with the new Sundance, Section 6 subdivision. (Community Development - P. Menefee)
10. Discussion and consideration of accepting maintenance bonds from Wee Construction Company in the amount of \$90,340.00 and \$895.00, respectively. (Community Development - P. Menefee)
11. Discussion and consideration of awarding a contract for construction management to CMS Willowbrook, Inc., for an addition to the Reed Conference Center and the property improvement plan and brand conversion of the Midwest City Sheraton Hotel in the amount of 1% of the construction budget for preconstruction phase services and 6% of the cost of work for construction phase services (City Manager - T. Lyon).

D. DISCUSSION ITEMS.

1. Discussion and consideration of awarding the bid to and entering into a contract with Holland Backhoe, Inc. in the amount of \$245,031.00 for the Roefan and Hand waterline extension project. (Community Development - P. Menefee)
2. (PC – 1990) Discussion and consideration of approval of the proposed preliminary plat of Cassidy Cove Section III, described as a part of the NW/4 of Section 1, T11N, R2W, located at 500 and 600 Davidson Road. (Continued from May 14, 2019 Council meeting.) (Community Development - B. Harless)
3. (PC-1992) Discussion and consideration of approval of the proposed preliminary plat of Roller Lot, described as a part of the NW/4 of Section 36, T12N, R2W, addressed as 9401 E. Cardinal Place. (Community Development - B. Harless)
4. (PC-1993) Public hearing with discussion and consideration of an ordinance to redistrict from C-3, Community Commercial to SPUD, Simplified Planned Unit Development, governed by the C-4, General Commercial district, and a resolution to amend the Comprehensive Plan from OR, Office Retail to COMM, Commercial, for the property addressed as 5712 E. Reno Ave. (Community Development - B. Harless)
5. (PC-1994) Discussion and consideration of the proposed preliminary plat of Tuscany Ridge Section II, described as a part of the NW/4 of Section 9, T11N, R1W, of the Indian Meridian, Midwest City, OK (Community Development - B. Harless)

6. (PC-1995) Public hearing with discussion and consideration of an ordinance to redistrict from R-6, Single Family Detached Residential to O-2, General Office, for the property described as a part of Lot 1 of Block 2 of the Friendly Acres Addition, addressed as 11126 E. Reno Avenue. (Community Development - B. Harless)
  7. Discussion and consideration to approve an Ordinance amending the Midwest City Municipal Code, Chapter 28, Offenses, Section 28-130, Possession of Dangerous Drugs; Section 28-131, Possession and sale of certain toxins and other drugs prohibited, and Section 28-132, Possession or sale of drug related paraphernalia, and Providing for Repealer and Severability. (Police - B. Clabes)
- E. NEW BUSINESS/PUBLIC DISCUSSION. The purpose of the "Public Discussion Section" of the Agenda is for members of the public to speak to the City Council on any Subject not scheduled on the Regular Agenda. The Council shall make no decision or take any action, except to direct the City Manager to take action, or to schedule the matter for discussion at a later date. Pursuant to the Oklahoma Open Meeting Act, the Council will not engage in any discussion on the matter until that matter has been placed on an agenda for discussion. **THOSE ADDRESSING THE COUNCIL ARE REQUESTED TO STATE THEIR NAME AND ADDRESS PRIOR TO SPEAKING TO THE COUNCIL.**
- F. FURTHER INFORMATION.
1. Minutes of the May 7, 2019 Planning Commission meeting. (Community Development - B. Harless)
- G. ADJOURNMENT.



CONSENT AGENDA



A notice for staff briefings for the Midwest City Council was filed for the calendar year with the City Clerk of Midwest City. Public notice of this agenda was accessible at least 24 hours before this meeting at City Hall and on the Midwest City website ([www.midwestcityok.org](http://www.midwestcityok.org)).

## **Midwest City Council Minutes**

May 14, 2019 – 6:00 PM

This meeting was held in the Midwest City Council Chambers at City Hall, 100 N. Midwest Boulevard, Midwest City, County of Oklahoma, State of Oklahoma. Mayor Matt Dukes called the meeting to order at 6:03 PM with the following members present: Councilmembers \*Susan Eads, Pat Byrne, \*Españiola Bowen, Sean Reed, Christine Allen, and Jeff Moore with City Clerk Sara Hancock, City Attorney Heather Poole, and City Manager Guy Henson. Absent: none.

**OPENING BUSINESS.** Public Works Director Vaughn Sullivan opened with the invocation, followed by the Pledge of Allegiance led by Councilmember Eads. Council and Staff made community-related announcements. Mayor Dukes presented the proclamations to retiree Chris Whitlow and to Parks and Recreation for “Kids to Parks Day.”

Eads made a motion to recess the City Council Meeting at 6:15 PM, seconded by Allen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

Returned to City Council Meeting at 6:24 PM.

**CONSENT AGENDA.** Eads made a motion to approve the consent agenda, except item 5 and 10, as submitted, seconded by Bowen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

1. Discussion and consideration of approving the minutes of the special meeting of April 16, 2019 and the regular meeting of April 23, 2019, as submitted.
2. Discussion and consideration of supplemental budget adjustments to the following funds for FY 2018-2019, increase: General Fund, expenses/Transfers Out (00) \$804,267. Police Fund, revenue/Transfers In (00) \$320,286. Fire Fund, revenue/Transfers In (00) \$259,010. General Fund, expenses/Transfers Out (00) \$2,520. CDBG Fund, revenue/Transfers In (00) \$2,520. General Fund, expenses/Street (09) \$58,547. Hotel/Motel Fund, expenses/Transfers Out (87) \$4,369. Park and Rec Fund, revenue/Transfers In (00) \$611. CVB Fund, revenue/Transfers In (00) \$2,447. Welcome Center Fund, revenue/Transfers In (00) \$1,311. Customer Deposits Fund, revenue/Investment Interest (00) \$5,278; expenses/Transfers Out (00) \$5,278. Municipal Court Fund, revenue/Investment Interest (00) \$225; expenses/Transfers Out (00) \$225. General Fund, revenue/Transfers In (00) \$225. L&H Fund, expenses/Personnel (03) \$377,018. General Fund, revenue/Transfers In (00) \$224,971. Sales Tax Capital Improvement Fund, expenses/Transfers Out (00) \$227,366. Capital Improvements Fund, revenue/Transfers In (00) \$91,963. Sooner Rose TIF Fund, expenses/None (00) \$1,221; expenses/Hospital Authority (90) \$65,000. General Gov't Sales Tax Fund, expenses/City Manager (01) \$750. Fire Fund, expenses/Fire (64) \$270,580. Grants Fund, revenue/Intergovernmental (88) \$75,619; expenses/Transfers Out (88) \$75,619. Disaster Relief Fund, revenue/Transfers In (88) \$75,619. Capital Improvements Fund, expenses/Capital Improvements (57) \$8,000. Fire Fund, expenses/Fire (64) \$36,000. 2018 Election G.O. Bonds Fund, expenses/Fire (64) \$1,272; expenses/Emergency Operations (21) \$26,198. Decrease: 2018 Election G.O. Bonds Fund, expenses/Park & Rec (06) \$94,104; expenses/General Government (14) \$26,703; expenses/29<sup>th</sup> Street (92) \$60,910; expenses/Animal Control (10) \$3,142.

3. Discussion and consideration approving a resolution for the City Council of the City of Midwest City relating to the expenditure of approximately \$17,000 of the total police/fire joint training facility bond project and \$19,000 of the total fire station remodel bond project for the payment of professional program management services; indicating the official action of the City Council for the reimbursement to Midwest City Fire Department's 040 Fund balance of such expenditure by the issuance of tax exempt general obligation bonds of the City of Midwest City, previously authorized at an election held for that purpose on August 28, 2018 authorizing the payment of professional services.
4. Discussion and consideration of accepting the monthly report on the City of Midwest City Employees' Health Benefits Plan by the City Manager and action as deemed necessary by the Council to maintain the plan.
5. **Discussion and consideration of renewing the Consulting Agreement with Gallagher Benefit Services Inc. in the amount of \$55,560 to include the coordination and management of benefit services, serving as the liaison with PlanSource to provide an electronic platform for streamlining benefit enrollments and information, and for the coordination and management of the Section 125 Flexible Spending Plan (Cafeteria Plan) with Discovery Benefits for the 2019- 20 fiscal year.** Reed made a motion to table, seconded by Allen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
6. Discussion and consideration of renewing for the Fiscal Year 2019/2020 contracts with DB Compensation Software in the amount of \$2,000.04 to maintain the City's non-represented employees' compensation plan and job descriptions. There is no cost increase over last year.
7. Discussion and consideration of entering into a contract to provide employee assistance and related services with Dan L. Benton, Licensed Professional Counselor for FY 2019/2020 to provide the Employee Assistance Program and related services to City employees at the rate of \$2.25 per employee per month, \$106.83 per initial assessment and \$62.44 per session.
8. Discussion and consideration of entering into a contract to provide employee assistance and related services with Stacey A. Stephens, a Licensed Professional Counselor (LPC) for the FY 2019/2020 to provide the Employee Assistance Program (EPA) and related services at the rate of \$2.25 per employee per month, \$106.83 charge per initial assessment and \$62.44 per session. In addition Ms. Stephens will provide lead or assistance to lead counselor in conducting post critical incident group debriefing services at a fee of \$100 per debrief, as requested by the City.
9. Discussion and consideration of approving and entering into an agreement in the amount of \$6,000 with Production Essentials, LLC to provide a sound system and sound system services associated with entertainment in Regional Park as part of the 2019 Tribute to Liberty 4th of July celebration.
10. **Discussion and consideration of approving and entering into an agreement with Dr. Irvin L. Wagner, Professor of Music at University of Oklahoma, in the amount of \$12,000, for a 50-piece concert band to provide the headliner entertainment in Regional Park as part of the 2019 Tribute to Liberty 4th of July celebration.** After discussion, Eads made a motion to approve the agreement, as submitted, seconded by Allen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

11. Discussion and consideration of renewing the Memorandum of Understanding with the Oklahoma Department of Mental Health and Substance Abuse Services for FY 2019/2020 in an amount not to exceed \$25,000, which establishes the terms and conditions under which the City participates in this program to identify eligible municipal offenders in Midwest City who are in need of behavioral health treatment services and fund supplies necessary to operate the screening program such as a computer or drug testing supplies in the amount of \$1,000.
12. Discussion and consideration of accepting maintenance bonds from Mid-South Contracting, L.L.C. in the amount of \$1,868.50 for the sewer line improvements located at 5600 Tinker Diagonal.
13. Discussion and consideration of approving and entering into a contract in an amount not to exceed \$6,500.00 for fiscal year 2019-2020 with THICK DESCRIPTIONS (“TD”) to establish the terms and conditions under which THICK DESCRIPTIONS will provide an extended week long S.T.E.A.M. (Science, Technology, Engineering, Anthropology, and Math) camp to NIA Youth Summer Camp participants.
14. Discussion and consideration of approving and entering into a contract in an amount not to exceed \$2,200.00 for fiscal year 2019-2020 with Crutch Public School to establish the terms and conditions under which Crutch Public School will provide a school bus and driver for NIA Youth Summer Camp.
15. Discussion and consideration declaring the following items as surplus: (2) Vacuums; (1) Storage Cabinet; (2) Storage Drawers; (7) Light Fixtures; (1) Air Compressor; (2) Full Length Mirrors; (6) Lobby Chairs; (4) Flush Mount Stainless Paper Towel Dispensers; (5) Toilet Paper Holders Stainless; (4) Soap Dispensers Stainless, and authorizing their disposal by public auction, sealed bid, or destruction, if necessary.
16. Discussion and consideration of declaring (1) 2008 Chevrolet 2500 Animal Welfare Truck and 2006 Simulated Impaired Driving Experience, as surplus and authorizing their disposal by public auction, sealed bid or destruction, if necessary.
17. Discussion and consideration of declaring the following equipment from Street Department: (2) Stihl weed eaters, (2) Stihl back pack blowers, (1) One Stihl blower vacuum and (1) One Stihl chain saw, as surplus and authorizing their disposal by sealed bid, public auction, or by other means as necessary.
18. Discussion and consideration of declaring surplus (8) Whelen Vortex 1 sirens and (2) Whelen Vortex R4 sirens and putting them up for public auction, sealed bid or destruction, if necessary.

#### DISCUSSION ITEMS.

1. **(PC – 1990) Discussion and consideration of approval of the proposed preliminary plat of Cassidy Cove Section III, described as a part of the NW/4 of Section 1, T11N, R2W, located at 500 and 600 Davidson Road. (Continued from April 23, 2019 Council meeting.)** After discussion, Eads made a motion to table the item, seconded by Bowen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.



Discussion Items continued.

Staff made a request to approve item 3 first and then item 2.

3. **Consider and award of the sale of General Obligation Bonds of the City of Midwest City, Oklahoma in the amount of Seventeen Million Two Hundred Fifty Thousand and no/100s dollars (\$17,250,000.00) to the lowest bidder.** After discussion with Greg Neito of The Baker Group, Reed made a motion to award the bid to D.A. Davidson and Company, seconded by Allen. Roll call vote: Aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
2. **Consider and adopt an ordinance providing for the issuance of General Obligation Bonds in the sum of Seventeen Million Two Hundred Fifty Thousand and no/100s Dollars (\$17,250,000.00) by the City of Midwest City, Oklahoma authorized at an election duly called and held for such purpose: Prescribing Form of Bonds; Providing for registration thereof; Providing for a system of registration for uncertificated registered public obligations; Providing levy of an annual tax for payment of principal and interest on the same; fixing other details of the issue; and Declaring an Emergency.**

After discussion with Greg Neito of The Baker Group, Reed made a motion to approve Ordinance 3380, as submitted, seconded by Allen. Roll call vote: Aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

Eads made a motion to declare Ordinance 3380 an emergency, seconded by Bowen. Roll call vote: Aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

4. **Discussion and consideration of 1) approving a change order in the amount of \$22,770.00 with SafetyCom, Inc. for additional equipment to encrypt the outdoor warning sirens, and 2) purchasing the necessary encrypted radio equipment from Total Radio in the amount of \$29,973.24 per the Oklahoma State Wide Contract #SW1053M, Public Safety Communication Equipment - Motorola Solutions.** After discussion with Staff, Eads made a motion to approve the change order, as submitted, seconded by Byrne. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
5. **Discussion and consideration of approving and awarding proposal to Tyler Technologies for their Brazos' eCitation and eCrash Solutions, who submitted the only bid, in the amount of \$23,557.00 (five year total includes \$564 annual maintenance) for one device, and \$6,500.00 for software modules with a \$1,300 annual maintenance.** After discussion with staff, Eads made a motion to approve the proposal, as submitted, seconded by Reed. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
6. **Discussion and consideration of 1) purchase and installation of Kenwood/EF Johnson P25 radios for the Fire department in the amount of \$283,588.34 from the Oklahoma County contract #CW19044 with Stolz Telecom LLC and 2) approving the resolution authorizing the purchase and installation of Kenwood/EF Johnson P25 radios per Oklahoma County contract #CW19044 with Stolz Telecom LLC.** After discussion with Staff, Eads made a motion to approve Resolution 2019-12, as submitted, seconded by Byrne. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

Discussion Items continued.

7. **Discussion and consideration of awarding the bid and entering into a contract with Casco Industries for New Self Contained Breathing Apparatus (SCBA) and associated, bid upon, equipment and optional accessories, in a total amount of \$436,875.** After discussion with Staff, Allen made a motion to award the bid and enter into a contract, seconded by Eads. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
8. **Discussion and consideration of awarding the bid and entering into a contract with Tescorp for two (2) Self Contained Breathing Apparatus Air Compressor Fill Stations at \$41,576.00 each and (2) Integrated Carbon Monoxide Detectors at \$2,900.00, in the total amount of \$88,952.00, to be placed at Fire Stations No. 1 and 6.** After discussion with Staff, Bowen made a motion to approve the bid and enter into the Agreement, as submitted, seconded by Allen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
9. **Discussion and consideration of appointing representatives from Midwest City to an advisory committee that would oversee efforts related to a pilot study for Indirect Potable Reuse (IPR) by the City of Norman.** After discussion with Staff, Eads made a motion to appoint Councilmember Byrne, Assistant Public Works Director Paul Streets, and Midwest City citizen Steve Carano, seconded by Reed. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.
10. **Discussion and consideration of appointing a replacement for Travis Jernigan to the Plumbing, Gas, and Mechanical Board. (Continued from April 23, 2019 Council meeting)** Eads made a motion to appoint Shawn Sission, seconded by Moore. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

NEW BUSINESS/PUBLIC DISCUSSION. There was no new business or public discussion.

FURTHER INFORMATION.

1. Discussion and consideration to approve an Ordinance amending the Midwest City Municipal Code, Chapter 28, Offenses, Section 28-130, Possession of Dangerous Drugs; Section 28-131, Possession and sale of certain toxins and other drugs prohibited, and Section 28-132, Possession or sale of drug related paraphernalia, and Providing for Repealer and Severability.

\* At 7:10 PM, Eads and Bowen recused themselves from Further Information item 2.

2. Presentation of information by Dana Brockway, Executive Committee Legal Redress, NAACP Oklahoma City Branch.

EXECUTIVE SESSION.

1. **Discussion and consideration of (1) entering into executive session, as allowed under 25 O.S., § 307(B)(4), to discuss Shane Campbell v. the City of Midwest City, Case No. CM-2017-01546126A and CM-2017-01548K, and (2) in open session, authorizing the city manager to take action as appropriate based on the discussion in executive session.**

Executive Session continued.

7:41 PM, Reed made a motion to go into executive session, seconded by Allen. Voting aye: Byrne, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: Eads, Bowen. Motion carried.

\*\*At 7:41 PM, Eads and Bowen returned to the meeting and entered Executive Session.

At 7:50 PM, Allen made a motion to return to open session, seconded by Byrne. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

At 7:50 PM, Eads made a motion to authorize the Assistant City Manager to take action as appropriate, as discussed in executive session, seconded by Byrne. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Mayor Dukes. Nay: none. Absent: none. Motion carried.

ADJOURNMENT.

There being no further business, Mayor Dukes adjourned the meeting at 7:50 PM.

ATTEST:

\_\_\_\_\_  
MATT DUKES, Mayor

\_\_\_\_\_  
SARA HANCOCK, City Clerk



**FINANCE DEPARTMENT**  
100 N. MIDWEST BOULEVARD  
MIDWEST CITY, OK 73110  
CBARRON@MIDWESTCITY.ORG  
OFFICE: 405-739-1245  
WWW.MIDWESTCITYOK.ORG

TO: Honorable Mayor and City Council

FROM: Christy Barron, City Treasurer/Finance Director

DATE: May 28, 2019

SUBJECT: Discussion and consideration of supplemental budget adjustments to the following fund for FY 2018-2019, increase: Employee Activity Fund, expenses/MWC Activities (38) \$288. Disaster Relief Fund, expenses/Neighborhood Services (15) \$20,000.

The first supplement is needed to budget City's portion of cost of Dodger baseball game tickets. The second supplement is needed to budget estimated code enforcement mowing expenses to end of fiscal year.

*Christy Barron*

Christy Barron  
Finance Director

## SUPPLEMENTS

**May 28, 2019**

Fund EMPLOYEE ACTIVITY (035)		BUDGET AMENDMENT FORM Fiscal Year 2018-2019			
		Estimated Revenue		Budget Appropriations	
<u>Dept Number</u>	<u>Department Name</u>	<u>Increase</u>	<u>Decrease</u>	<u>Increase</u>	<u>Decrease</u>
38	MWC Activities			288	
		<u>0</u>	<u>0</u>	<u>288</u>	<u>0</u>
<b>Explanation:</b> To budget City's portion of cost of Dodger's baseball game tickets. Funding to come from fund balance.					

Fund DISASTER RELIEF (310)		BUDGET AMENDMENT FORM Fiscal Year 2018-2019			
		Estimated Revenue		Budget Appropriations	
<u>Dept Number</u>	<u>Department Name</u>	<u>Increase</u>	<u>Decrease</u>	<u>Increase</u>	<u>Decrease</u>
15	Neighborhood Services			20,000	
		<u>0</u>	<u>0</u>	<u>20,000</u>	<u>0</u>
<b>Explanation:</b> To budget estimated expenses for code enforcement mowing to end of fiscal year. Funding to come from fund balance.					



**Finance Department**

100 N. Midwest Boulevard  
Midwest City, OK 73110  
cbarron@midwestcity.org  
Office: 405-739-1245  
www.midwestcityok.org

TO: Honorable Mayor and City Council

FROM: Christy Barron, City Treasurer/Finance Director

DATE: May 28, 2019

SUBJECT: Discussion and consideration of accepting the City Manager's Report for the month of April, 2019.

The funds in April that experienced a significant change in fund balance from the March report are as follows:

**Storm Water Quality (61)** decreased because of the payments to:  
J & R Equipment LLC <\$285,000>

**Hotel/Conference Center (195)** had an operational gain of \$25,127 in April.

**Golf (197)** had an operational gain of \$24,592 in April.

**2018 Election G.O. Bond (270) and 2018 G.O. Bonds MA (271)** were added to record the Series 2019 General Obligation Bonds transactions. The sources and uses of funds will be as follows:

Sources: Bond proceeds	\$20,093,013.29
Uses: Costs of project	<\$19,700,000.00>
Cost of issuance	<\$300,000.00>
Deposit to sinking fund	<\$93,013.29>
Total use of funds	<\$20,093,013.29>

**G.O. Debt Services (350)** decreased due to the following activities:

Series 2006 debt interest payment	<\$19,256>
Series 2006 debt principal payment	<\$325,000>

**MWC Hospital Authority (425)** activities for April:

Compounded Principal (9010) – unrealized gain on investment	\$2,428,673
– adjustment of prepaid rent	\$896,934
Discretionary (9050) – unrealized gain on investment	\$499,139

This item is at Council's discretion.

Christy Barron  
Finance Director

City of Midwest City  
Financial Summary by Fund  
for Period Ending April, 2019  
(Unaudited)

Fund Number	Fund Description	Assets	Liabilities	6-30-18 Fund Balance	Revenues	Expenditures	Gain or (Loss)	Fund Balance
9	GENERAL GOVERNMENT SALES TAX	2,975,282	-	2,364,357	2,075,146	(1,464,221)	610,925	2,975,282
10	GENERAL	5,747,248	(147,180)	4,922,938	31,204,924	(30,527,793)	677,131	5,600,068
11	CAPITAL OUTLAY RESERVE	937,561	-	924,939	17,577	(4,955)	12,622	937,561
13	STREET AND ALLEY FUND	1,248,049	-	1,237,093	463,541	(452,585)	10,956	1,248,049
14	TECHNOLOGY FUND	184,860	-	263,115	337,789	(416,044)	(78,255)	184,860
15	STREET LIGHT FEE	1,538,624	-	1,103,255	504,054	(68,684)	435,369	1,538,624
16	REIMBURSED PROJECTS	795,667	(184,125)	580,104	334,369	(302,932)	31,438	611,542
17	29TH & DOUGLAS PROPERTY	5,509,682	-	5,500,144	10,123	(584)	9,538	5,509,682
20	MWC POLICE DEPARTMENT	3,401,359	(270)	2,477,841	12,931,223	(12,007,975)	923,249	3,401,090
21	POLICE CAPITALIZATION	689,753	-	411,574	788,862	(510,683)	278,179	689,753
25	JUVENILE FUND	37,170	-	55,803	51,902	(70,535)	(18,633)	37,170
30	POLICE STATE SEIZURES	73,613	-	65,811	9,021	(1,218)	7,802	73,613
31	SPECIAL POLICE PROJECTS	79,779	-	78,654	8,236	(7,112)	1,125	79,779
33	POLICE FEDERAL PROJECTS	63,929	-	66,543	718	(3,332)	(2,614)	63,929
34	POLICE LAB FEE FUND	21,806	-	16,064	13,108	(7,367)	5,741	21,806
35	EMPLOYEE ACTIVITY FUND	20,751	(590)	20,717	9,537	(10,093)	(556)	20,161
36	JAIL	139,519	-	120,161	89,864	(70,506)	19,358	139,519
37	POLICE IMPOUND FEE	176,967	-	208,443	55,249	(86,725)	(31,476)	176,967
40	MWC FIRE DEPARTMENT	2,570,129	(4)	1,530,845	10,051,711	(9,012,431)	1,039,280	2,570,125
41	FIRE CAPITALIZATION	818,113	-	615,372	497,218	(294,477)	202,741	818,113
45	MWC WELCOME CENTER	352,137	(145)	345,044	170,018	(163,070)	6,948	351,992
46	CONV / VISITORS BUREAU	179,398	-	170,847	273,253	(264,703)	8,550	179,398
50	DRAINAGE TAX FUND	-	-	14,670	811	(15,481)	(14,670)	-
60	CAPITAL DRAINAGE IMP	555,795	-	484,549	388,929	(317,683)	71,246	555,795
61	STORM WATER QUALITY	836,828	-	1,022,326	644,213	(829,711)	(185,498)	836,828
65	STREET TAX FUND	1,499,927	-	1,294,577	393,819	(188,469)	205,350	1,499,927
70	EMERGENCY OPER FUND	707,626	-	666,108	455,033	(413,515)	41,518	707,626
75	PUBLIC WORKS ADMIN	388,121	-	323,195	839,044	(774,118)	64,926	388,121
80	INTERSERVICE FUND	390,387	-	324,335	1,968,969	(1,902,917)	66,053	390,387
81	SURPLUS PROPERTY	405,415	(322,039)	75,599	44,383	(36,607)	7,776	83,376
115	ACTIVITY FUND	342,776	(347)	361,252	130,365	(149,187)	(18,822)	342,429
123	PARK & RECREATION	715,313	(150)	560,631	544,441	(389,909)	154,531	715,163
141	COMM. DEV. BLOCK GRANT	6,039	(10)	6,029	447,002	(447,002)	-	6,029
142	GRANTS/HOUSING ACTIVITIES	166,337	-	154,840	173,346	(161,849)	11,497	166,337
143	GRANT FUNDS	104,332	(44,332)	60,000	199,115	(199,115)	-	60,000

City of Midwest City  
Financial Summary by Fund  
for Period Ending April, 2019  
(Unaudited)

Fund Number	Fund Description	Assets	Liabilities	6-30-18 Fund Balance	Revenues	Expenditures	Gain or (Loss)	Fund Balance
157	CAPITAL IMPROVEMENTS	2,339,086	(25,765)	2,533,542	900,888	(1,121,110)	(220,221)	2,313,321
172	CAP. WATER IMP-WALKER	969,146	-	775,403	385,521	(191,777)	193,744	969,146
178	CONST LOAN PAYMENT REV	3,156,943	-	2,640,106	587,280	(70,443)	516,837	3,156,943
184	SEWER BACKUP FUND	82,110	-	80,576	1,534	-	1,534	82,110
186	SEWER CONSTRUCTION	3,877,584	(175,000)	3,396,171	1,256,132	(949,719)	306,413	3,702,584
187	UTILITY SERVICES	486,863	(924)	430,911	950,894	(895,866)	55,029	485,939
188	CAP. SEWER IMP.-STROTH	556,833	-	387,633	350,857	(181,656)	169,201	556,833
189	UTILITIES CAPITAL OUTLAY	2,981,536	(77,941)	2,212,408	831,152	(139,965)	691,187	2,903,595
190	MWC SANITATION DEPARTMENT	2,221,727	-	2,532,079	5,106,503	(5,416,856)	(310,353)	2,221,727
191	MWC WATER DEPARTMENT	2,353,286	-	1,964,796	5,137,192	(4,748,702)	388,491	2,353,286
192	MWC SEWER DEPARTMENT	1,020,683	(61)	1,059,189	4,552,435	(4,591,001)	(38,566)	1,020,623
193	MWC UTILITIES AUTHORITY	933,860	-	916,418	17,442	-	17,442	933,860
194	DOWNTOWN REDEVELOPMENT	2,491,579	(5,045)	2,937,767	89,638	(540,871)	(451,233)	2,486,534
195	HOTEL/CONFERENCE CENTER	734,640	(561,045)	130,617	4,090,284	(4,047,307)	42,977	173,594
196	HOTEL 4% FF&E	826,276	-	820,955	163,611	(158,290)	5,322	826,276
197	JOHN CONRAD REGIONAL GOLF	17,833	(5,446)	121,184	692,063	(800,860)	(108,797)	12,387
201	URBAN RENEWAL AUTHORITY	48,043	-	57,066	995	(10,018)	(9,023)	48,043
202	RISK MANAGEMENT	1,432,386	(37)	1,718,668	749,597	(1,035,916)	(286,319)	1,432,349
204	WORKERS COMP	2,929,465	-	2,563,722	902,417	(536,674)	365,743	2,929,465
220	ANIMALS BEST FRIEND	80,526	-	73,944	26,671	(20,088)	6,582	80,526
225	HOTEL MOTEL FUND	-	-	-	481,734	(481,734)	-	-
230	CUSTOMER DEPOSITS	1,485,281	(1,485,281)	-	27,682	(27,682)	-	-
235	MUNICIPAL COURT	59,551	(59,551)	-	968	(968)	-	-
240	L & H BENEFITS	2,222,853	(51,072)	2,215,453	6,679,250	(6,722,922)	(43,672)	2,171,781
250	CAPITAL IMP REV BOND	13,516,323	(58,748,373)	(47,664,330)	12,414,957	(9,982,677)	2,432,280	(45,232,050)
269	2002 G.O. STREET BOND	442,905	-	458,027	8,592	(23,714)	(15,122)	442,905
270	2018 ELECTION G.O. BOND	19,347,599	(305,000)	-	19,726,081	(683,482)	19,042,599	19,042,599
271	2018 G.O. BONDS MA	304,963	-	-	309,501	(4,538)	304,963	304,963
310	DISASTER RELIEF	1,382,224	(146,651)	1,181,082	664,888	(610,397)	54,491	1,235,573
340	REVENUE BOND SINKING FUND	-	-	-	4,714,048	(4,714,048)	-	-
350	G. O. DEBT SERVICES	175,195	-	124,438	418,739	(367,982)	50,757	175,195
352	SOONER ROSE TIF	7,411,616	-	8,318,025	160,459	(1,066,867)	(906,408)	7,411,616
353	ECONOMIC DEV AUTHORITY	51,242,094	(49,983,806)	349,514	1,152,066	(243,292)	908,774	1,258,288
425-9010	MWC HOSP AUTH-COMP PRINCIPAL	95,101,389	(7,122,013)	83,859,161	5,939,792	(1,819,575)	4,120,217	87,979,378
425-9020	MWC HOSP AUTH-LOAN RESERVE	3,026,866	(526,866)	2,500,000	50,385	(50,385)	-	2,500,000
425-9050	MWC HOSP AUTH-DISCRETIONARY	10,773,720	(18,746)	10,958,390	3,112,746	(3,316,163)	(203,416)	10,754,974
425-9060	MWC HOSP IN LIEU OF/ROR/MISC	6,645,352	(154,711)	5,783,307	2,977,852	(2,270,516)	707,336	6,490,643
	<b>TOTAL</b>	<b>276,358,630</b>	<b>(120,152,525)</b>	<b>123,863,996</b>	<b>151,759,759</b>	<b>(119,417,649)</b>	<b>32,342,110</b>	<b>156,206,107</b>





**Emergency Management**

100 N. Midwest Boulevard

Midwest City, OK 73110

office 405.739.1386

TO: Honorable Mayor and Council

From: Mike Bower, Emergency Manager

Date: May 28, 2019

Subject: Discussion and consideration of approving and entering into a Primary Service Answering Point Agreement with Rose State College to continue to provide dispatching services for Rose State College from July 1, 2019 through June 30, 2020 for \$25,000 per year.

Rose State College agrees to pay to the city to provide PSAP service to the college in the annual amount of \$25,000.00. Services being provided to the college have been slightly reduced by \$2,250 annually from the previous year (\$27,250 annually FY 18/19) and shall be divided into twelve (12) equal monthly payments of which shall be due and payable to the City on or before the 15th day of the month following the receipt of the preceding month's PSAP service. The College's payment obligation shall be prorated accordingly if this agreement terminates prior to expiration of its initial term or any renewal term. Staff recommends approval.

Mike Bower

Mike Bower  
Emergency Manager

## PRIMARY SERVICE ANSWERING POINT AGREEMENT

This agreement is entered into by and between Rose State College, hereinafter referred to as College, and the City of Midwest City, hereinafter referred to as City.

Whereas, Rose State College owns and operates the Rose State College Campus Security Office; and

Whereas, the City operates an Emergency 9-1-1 answering service which provides a Primary Service Answering Point for the emergency services provided to the citizens of Midwest City, Including the College hereinafter referred to as the PSAP; and

Whereas, the College and the City desire to enter into an agreement wherein the PSAP shall serve as the primary answering point and dispatch center for the Rose State Campus Security Office;

NOW, THEREFORE, the parties to this agreement, in consideration of the mutual covenants, obligations and stipulations set out herein, agree as follows:

1. Term of Agreement. This agreement shall commence on July 1, 2019 and shall expire on June 30, 2020, unless sooner terminated as provided herein.

2. Obligations and Responsibilities. The City shall provide an emergency 9-1-1 answering point for the College. The PSAP shall operate twenty-four (24) hours a day, seven days a week. The City shall provide all personnel and equipment required to staff and manage the PSAP. The City will also monitor *The Fire Alarm System* for the College, all equipment pertaining to said alarm will be provided by the College. The College shall provide all personnel required to staff and manage the Rose State Security Office.

3. Mutual Aid Agreements. Both the City and the College are hereby authorized to enter into Mutual Aid Agreements, as provided by Oklahoma State Statutes, to augment and supplement their respective services. No such Mutual Aid Agreement shall affect the terms and conditions of this agreement but shall be in addition hereto.

4. Consideration. The College agrees to pay to the city to provide PSAP service to the college in the annual amount of \$25,000.00, this amount shall be divided into twelve (12) equal monthly payments of which shall be due and payable to the City on or before the 15th day of the month following the receipt of the preceding month's PSAP service. The College's payment obligation shall be prorated accordingly if this agreement terminates prior to expiration of its initial term or any renewal term.

5. Continuation. This agreement may be renewed with the mutual consent of both parties hereto for successive one-year periods following the initial term. The City reserves the right to renegotiate the monetary consideration contained in paragraph 5 hereof. In no event shall the renegotiated rate be less than the rate provided herein, nor

shall the renegotiated rate exceed the actual increased labor, materials, supplies and equipment cost incurred by the City to provide the PSAP service required herein.

6. Assignment. Except as provided in paragraph 3, Mutual Aid Agreements, this agreement may not be assigned by either party.

7. Termination. Either party may terminate this agreement at any time by giving thirty (30) days written notice to the other party. Intent to terminate this agreement at the expiration date hereof, or any renewal expiration date for any renewal period, shall also be given in writing at least thirty (30) days in advance of the expiration date to the other party.

8. Indemnity. The City is solely responsible for providing the College with accurate information with respect to the dispatching of Rose State Campus Security Office employees. In that regard, the City shall hold the College harmless for any errors, omissions, mistakes or negligence committed by the City which result in college employees being dispatched to incorrect addresses and/or any claims being filed against the College. In the event that the College is somehow found to be liable for errors, acts or omissions of the City, the City agrees to indemnify the College for such liability to the full extent of the limits established in the Oklahoma Governmental Tort Claims Act.

9. Effective Date. This agreement shall become effective the 1st day of July 2019. Services required shall commence on the effective date hereof.

10. Complete Agreement. This Agreement is the complete agreement between the parties. No additions, alterations or modifications shall be effective unless reduced to writing and signed by all parties hereto.

PASSED AND APPROVED by the Mayor and Council of the City of Midwest City the \_\_\_\_ day of \_\_\_\_\_, 2019 and by Rose State College, on the \_\_\_\_ day of \_\_\_\_\_, 2019.

CITY OF MIDWEST CITY

---

Mathew D. Dukes II, Mayor

ATTEST:

---

Sara Hancock, City Clerk

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 2019

\_\_\_\_\_  
Heather Poole, City Attorney

Rose State College

\_\_\_\_\_  
DR. Jeanie Webb, Rose State President

ATTEST:

\_\_\_\_\_  
Secretary

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Rose State College, Legal Counsel



**The City Of Midwest City**  
**Neighborhood Services Department**  
*Neighborhoods In Action • Code Enforcement • Neighborhood Initiative*

MEMO

To: Honorable Mayor and Council

From: Mike S. Stroh, Neighborhood Services Director

Date: May 28, 2019

Subject: Discussion and consideration of accepting the Monthly Neighborhood Services report for April 2019.

In April 2019, the Code Enforcement Division had a total of seven officers for the month. City Clerk's, Code Officer was included in these numbers. Together they opened 809 new cases, cleared 711 cases, contracted 33 properties, and wrote 44 new citations. This makes 2,537 cases for the year and we currently have 898 open cases.

Here is a breakdown of all the violations worked for the month.

	April 2018	Total 2018	April 2019	Total 2019
Tall Grass & Weeds	79	94	232	261
Rubbish	103	222	101	328
Trash & Debris	202	650	163	589
Other Nuisance	126	610	131	506
Structures	279	402	125	448
Vehicles	64	236	48	225

This shows a comparison between 2018 and 2019 of the total cases worked by each ward.

	April 2018	Total 2018	April 2019	Total 2019
Ward 1	494	769	192	837
Ward 2	61	196	121	344
Ward 3	124	328	179	518
Ward 4	48	208	72	180
Ward 5	127	444	167	444
Ward 6	152	288	78	214

For the total in the Tall Grass & Weeds we only count the one notice type.

For the total in the Rubbish we only count the one notice type.

For the total in the Trash & Debris we only count the one notice type.

For the total in the Other Nuisance we count thirty-two notice types; Alcoholic Beverages, Assistance to Another Officer, Beer License, Coin Amusement Devices, Collection/Donation Boxes-Debris, Collection/Donation Boxes-Maintenance, Collection/Donation Boxes-Registered, Computer Work, Family Amusement License, Garage Sale-Permit Required, Graffiti, Health License, Litter, Misc. Violation, Nuisance Yard, Personal Storage Units (Commercial), Personal Storage Units (Residential), PM-Sewer, PM-Utilities Required-Water, Polycarts, Pool and Billiard Halls, Sight Triangle, Solicitor-Permit Required, Sports Equipment, Temporary Signs, Thank You Cards, Trim Trees, Utilities Required-Sanitation, Zoning-Group Residential, Zoning-Merchandise For Sale, and Zoning-C-3.

For the total in the Structures we count thirteen notice types; Address Numbers, PM-Accessory Structure, PM-Blighting Influence, PM-Boarded Dwellings, PM-Condemned Structure, PM-Exterior Paint, PM-Garage Doors, PM-General Exterior, PM-Open and Unsecure, PM-Roofs & Drainage, PM-Stairways and Porches, PM-Swimming Pools, Spas & Hot Tubs, PM-Vacant (Dilapidated) Structures, and PM-Windows and Glazing.

For the total in the Vehicle we count four notice types; Commercial Soft Surface, Inoperative Vehicle, Parking or Storing Commercial Vehicles, and Soft Surface Parking.

*Mike S. Stroh*

Mike S. Stroh, Neighborhood Services Director



*The City Of Midwest City*  
*Neighborhood Services Department*  
*Code Enforcement • Neighborhood Initiative • Neighborhoods in Action*

MEMO

To: Honorable Mayor and City Council

From: Mike S. Stroh, Neighborhood Services Director

Date: May 28, 2019

Subject: Discussion and consideration of renewing a contract with Sierra Environmental Services, Inc., without modifications, for code enforcement abatement for FY 2019-2020.

Sierra has agreed to renew its abatement contract without modifications for FY 2019-2020. The last bid for these services was done for FY 2013-2014.

Neighborhood Services is very pleased with the quality of the work we receive from Sierra.

Staff recommends approval.

*Mike S. Stroh*  
Mike S. Stroh, Neighborhood Services Director



## Sierra Environmental Services, Inc.

2905 Harr Dr., Ste. 202  
Midwest City, OK 73110

(405) 733-8832  
Fax (405) 733-8832

Neighborhood Services  
8726 SE 15th St  
Midwest City, OK 73110  
Attn: Mike Stroh

May 6, 2019

Re: Cutting and Mowing of Rank Weeds, Grass,  
etc. and Clean-up of Trash and/or Debris  
Contract

Please be advised that Sierra Environmental desires  
to continue referenced contract with Midwest City  
for an additional year at existing pricing.

Sincerely,

Dennis Larson  
President



**PRICES FOR CONTRACT STARTING JULY 1, 2013  
FOR THE CUTTING AND MOWING OF RANK WEEDS, GRASS, ETC. AND  
THE CLEAN-UP OF TRASH AND/OR DEBRIS**

**1. SHOW-UP FEE:**

Based on Contractor transporting equipment to job site if job was completed by property owner after contract was received by Contractor. \$15.00

**2. CUTTING, MOWING AND DEBRIS REMOVAL:**

A. up to and including 1/4 acre ( $\leq 10,890$  Sq. Ft.) and one (1) 30 gallon container of trash. \$60.00

B. 1/4 acre up to and including 1/2 acre ( $>10,890$  Sq. Ft. -  $\leq 21,780$  Sq. Ft.) and one (1) 30 gallon container of trash. \$80.00

C. 1/2 acre up to and including 3/4 acre ( $>21,780$  Sq. Ft. -  $\leq 32,670$  Sq. Ft.) and one (1) 30 gallon container of trash. \$95.00

D. 3/4 acre up to and including 1 acre ( $>32,670$  Sq. Ft. -  $\leq 43,560$  Sq. Ft.) and one (1) 30 gallon container of trash. \$110.00

E. more than 1 acres ( $>43,560$  Sq. Ft.) (per acre) and one (1) 30 gallon container of trash. \$110.00 for first acre & \$65.00 for each additional acre of portion thereof.  
\$65.00

**3. TRASH AND/OR DEBRIS REMOVAL:**

Removal of each one-half (1/2) ton pick-up load (per load).

**4. LITTER REMOVAL:**

Per half hour of litter pick up. \$25.00

**5. TIRE DISPOSAL:**

A. automobile or pick-up truck \$5.00 without rim  
~~\$8.00 with rim~~

B. semi-truck or similar \$8.00 without rim  
~~\$12.00 with rim~~

As the undersigned, I agree to adhere to all rules and regulations as set forth in this contract/ bid form. Further, as the undersigned, I agree to the prices set forth in this agreement for the 2013-2014 contract year.

Name: Dennis Larson Date: June 17, 2013

Address: 2905 Harr Dr Ste 202, Midwest City, OK 73110

Company Name: Sierra Environmental

Phone Number: 405-733-8832



**Public Works Administration**  
**Vaughn Sullivan, Director**  
[vsullivan@midwestcityok.org](mailto:vsullivan@midwestcityok.org)  
**R. Paul Streets, Assistant Director**  
[rstreets@midwestcityok.org](mailto:rstreets@midwestcityok.org)  
8730 S.E. 15<sup>th</sup> Street,  
Midwest City, Oklahoma 73110  
O: 405-739-1060 /Fax: 405-739-1090

## Memorandum

TO: Honorable Mayor and Council Members

FROM: Vaughn Sullivan, Public Works Director

DATE: May 28, 2019

SUBJECT: Discussion and consideration of approving and entering into an agreement with Mid-Del Group Home for FY 19/20 to provide cleaning at various pavilions, parks, and bus stops as well as litter pick up around Midwest City.

Since July 2003 Mid-Del Group Home has provided cleaning of pavilions at various parks and provided cleaning assistance with other special projects and events. The City pays \$35.00 per pavilion for each weekend requested and \$35.00 per hour for special projects and events. Mid-Del Group will also provide crews of 3-4 people for weekly trash pickup for \$20.00 per bus stop and weed eating/edging for \$20.00 per bus stop. In addition, Mid-Del Group Home can provide litter crews of 8-10 people for the cost of \$100.00 per hour or smaller crews of 3-4 people for the cost of \$45.00 per hour for litter pick up along roadside rights-of-way.

The agreement runs through June 30, 2020.

The City has projected it will pay Mid-Del Group Home \$10,000.00 for cleaning services in FY 19/20.

Staff recommends renewal of the agreement.

---

Vaughn Sullivan  
Public Works Director

Attachments: Renewal form Agreement

## **AGREEMENT**

The City of Midwest City desires to enter into an agreement with the Mid-Del Group Home for the period of July 1, 2019 through June 30, 2020. The purpose of this agreement is to provide cleaning of pavilions at various City parks and provide assistance with other special projects and events as specified below. Following is a list of tasks for each entity:

### **TERMS:**

The total term of the contract shall be five (5) years maximum and shall commence with the signing of the contract and expire on June 30 of each year. The contract will be reviewed annually and approved by the City for continuance if such action is in the best interests of the City and Mid Del Group Homes. The contract may be renewed by the City and Mid Del Group Homes for additional one (1) year terms upon the same terms and conditions set forth in this scope of services, up to maximum of four (4) annual extensions. The renewal agreement is to be completed 60 days before the contract expires.

### **PAVILIONS:**

City of Midwest City will be responsible for:

1. Providing trash can liners, toilet tissue, brooms, disinfectant, cleaning tools, and buckets.
2. Paying \$35.00 per pavilion for each weekend requested.
3. Paying \$35.00 per hour for any work requested by the city performed on any special project or events by Group Home residents.

Mid-Del Group Home will responsible for:

1. Sweeping, emptying trash at Kiwanis South (Kiwanis Park), Rotary Pavilion (Regional Park), Joe B. Barnes Pavilion (Regional Park), Garden Pavilion (Regional Park), Basketball Courts (Regional Park), Lions Pavilion, Lions Spray Pad (Lions Park) and Optimist Pavilion (Optimist Park) by 8:00 a.m. on Saturdays and Sundays.
2. Providing manpower to wash down the same pavilions on Saturdays and Sundays by 8:00 a.m.
3. Providing manpower to wash down and stock restrooms at Regional Park (restrooms at Rotary, Joe B. Barnes and at the Basketball Courts/Garden pavilion), Kiwanis Park, Lions Park and Optimist Park on Saturdays and Sundays by 8:00 a.m.
4. Providing proof of liability insurance (i.e., workers compensation) for personnel.
5. Contacting the Park and Recreation office on a weekly basis to get the schedule of pavilions needed to be cleaned.
6. Provide the city with an invoice monthly with date(s) and name(s) of pavilions cleaned.
7. Contact the city if unable to provide needed service for a weekend.

**LITTER PICK-UP:**

City of Midwest City will be responsible for:

- 1. Notifying Mid-Del Group Home locations and times for litter to be picked up.
- 2. Supply trash bags and trash dumpster to dispose of trash.

Mid-Del Group Home will be responsible for:

- 1. Picking up litter around parks as requested by the city.
- 2. Transportation to site.
- 3. Provide proof of liability insurance (i.e. workers compensation) for personnel.
- 4. Provide the City of Midwest City with a monthly invoice with dates and location of services.
- 5. Contact City of Midwest City if for any reason service cannot be provided.
- 6. Litter crew will consist of between 8-10 people.
- 7. Cost of service will be \$100.00 per hour.
- 8. For roadside/parking lot litter pick-up the crew will be 3-4 people and the rate for this service will be \$45.00 per hour.

**BUS STOP SHELTERS:**

City of Midwest City will be responsible for:

- 1. Monitoring work performed by Mid-Del Group Home personnel.
- 2. Providing map and locations of current bus stop shelters.
- 3. Supplying trash bags and trash dumpster to dispose of trash.

Mid-Del Group Home will be responsible for:

- 1. Transportation to bus stop shelter locations in Midwest City.
- 2. Sweeping, picking up litter at and around shelters, trash pickup, replacement of can liner, cleaning surfaces as needed, maintaining grassy area immediately around shelter and sidewalk to street, to include weed eating and edging around concrete surfaces, as needed.
- 3. Providing maintenance tools and materials such as brooms, weed eater, glass and surface cleaner, cleaning rags, etc. If needed, City will provide graffiti remover.
- 4. Reporting any damage, vandalism or concerns about shelters to City of Midwest City.
- 5. Adhering to standard safety practices, to include wearing safety vests and utilizing portable signage.
- 6. Providing proof of liability insurance (i.e. workers compensation) for personnel.
- 7. Providing the City of Midwest City with a monthly invoice with dates and location of services.
- 8. Providing a maintenance crew consisting of 3 - 4 people.
- 9. Agreeing to the following maintenance costs per shelter for service:
  - A. Weekly trash pickup/replacing can liner/sweeping/litter \$20.00
  - B. Weed eating/edging of vegetation growth as needed \$20.00

- C. Quarterly deep clean of shelter surfaces \$20.00  
10. Contacting the City of Midwest City if for any reason service cannot be provided.

**RENEWAL CLAUSE**

1. This Agreement may be renewable annually at the option of both parties. However, this Agreement may otherwise be terminated by either party upon thirty (30) days written notice of intent to terminate.

CITY OF MIDWEST CITY

MID-DEL GROUP HOME

\_\_\_\_\_  
Matthew D. Dukes II, Mayor

\_\_\_\_\_  
BY:

DATE:\_\_\_\_\_

DATE:\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
CITY CLERK

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
CITY ATTORNEY



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT -  
ENGINEERING DIVISION

Billy Harless, Community Development Director  
Patrick Menefee, P.E., City Engineer

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Allison, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

---

TO : Honorable Mayor and City Council

FROM : Patrick Menefee, P.E., City Engineer

DATE : May 28, 2019

SUBJECT : Discussion and Consideration of approval of a Certificate of Registered Land Surveyor Correction of Plat Sundance Addition Section 6 a subdivision of part the Northeast Quarter (NE/4) of Section 9, Township 11 North Range 1 West, of the Indian Meridian, Oklahoma County, Oklahoma.  
(Community Development P. Menefee )

---

Approval is needed to correct the omission of a lot line dimension in the plat of Sundance Addition Section 6 filed in the records of the Oklahoma County Clerk November 30, 2018 in Plat Book 77 Page 32.

Staff recommends approval. .

Patrick Menefee, P.E.  
City Engineer

Attachments

CERTIFICATE OF REGISTERED LAND SURVEYOR  
CORRECTION OF PLAT

STATE OF OKLAHOMA )  
 ) SS:  
COUNTY OF OKLAHOMA)

1. The undersigned, Doug R. Alford, the Licensed Land Surveyor who executed the subdivision plat of Sundance Addition Section 6, an addition to the City of Midwest City, Oklahoma, being a part of the N.E. ¼ of Section 9, Township 11 North, Range 1 West, of the Indian Meridian, certifies that said Plat was duly filed and recorded in Plat Book 77 of Plats, on Page 32 of the records in the office of the County Clerk of Oklahoma County, Oklahoma.
2. The surveyor hereby certifies that said instrument is being corrected to reflect the following changes;

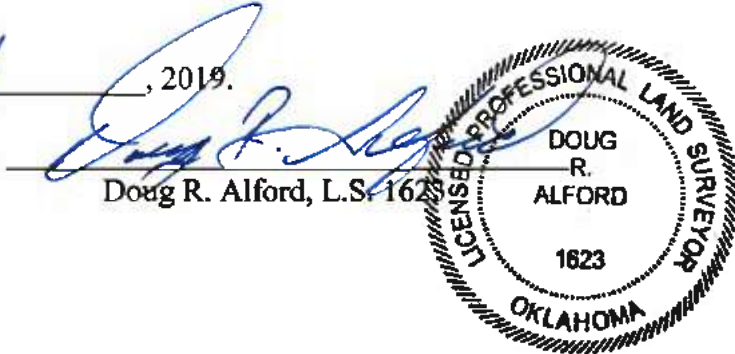
The lot dimension along the East line of Lot 5, Block 1 was omitted

See Attachment "A" – Lot dimensions of Lot 5, Block 1 as filed

See Attachment "B" - Lot dimensions of Lot 5, Block 1 as corrected

This revision is hereby amended and corrected by the certificate pursuant to the provisions of Section 41-115 of Title 11 of the Oklahoma Statutes.

Dated this 10<sup>TH</sup> day of MAY, 2019.

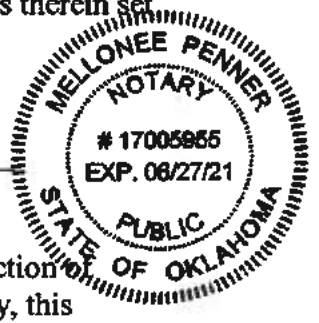


STATE OF OKLAHOMA )  
 ) SS:  
COUNTY OF OKLAHOMA)

Before me, the undersigned Notary Public, in and for said County and State, on this 10<sup>th</sup> day of May, 2019, personally appeared Doug R. Alford, 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.

My Commission Expires: 6/27/21 Mellonee Penner  
Notary Public



Be it resolved by The Council of the City of Midwest City that the plat correction of Sundance Addition Section 6, shown hereon is approved by the City of Midwest City, this \_\_\_\_\_ day of \_\_\_\_\_, 2019.


ATTEST: CITY OF MIDWEST CITY

\_\_\_\_\_  
City Clerk Mayor

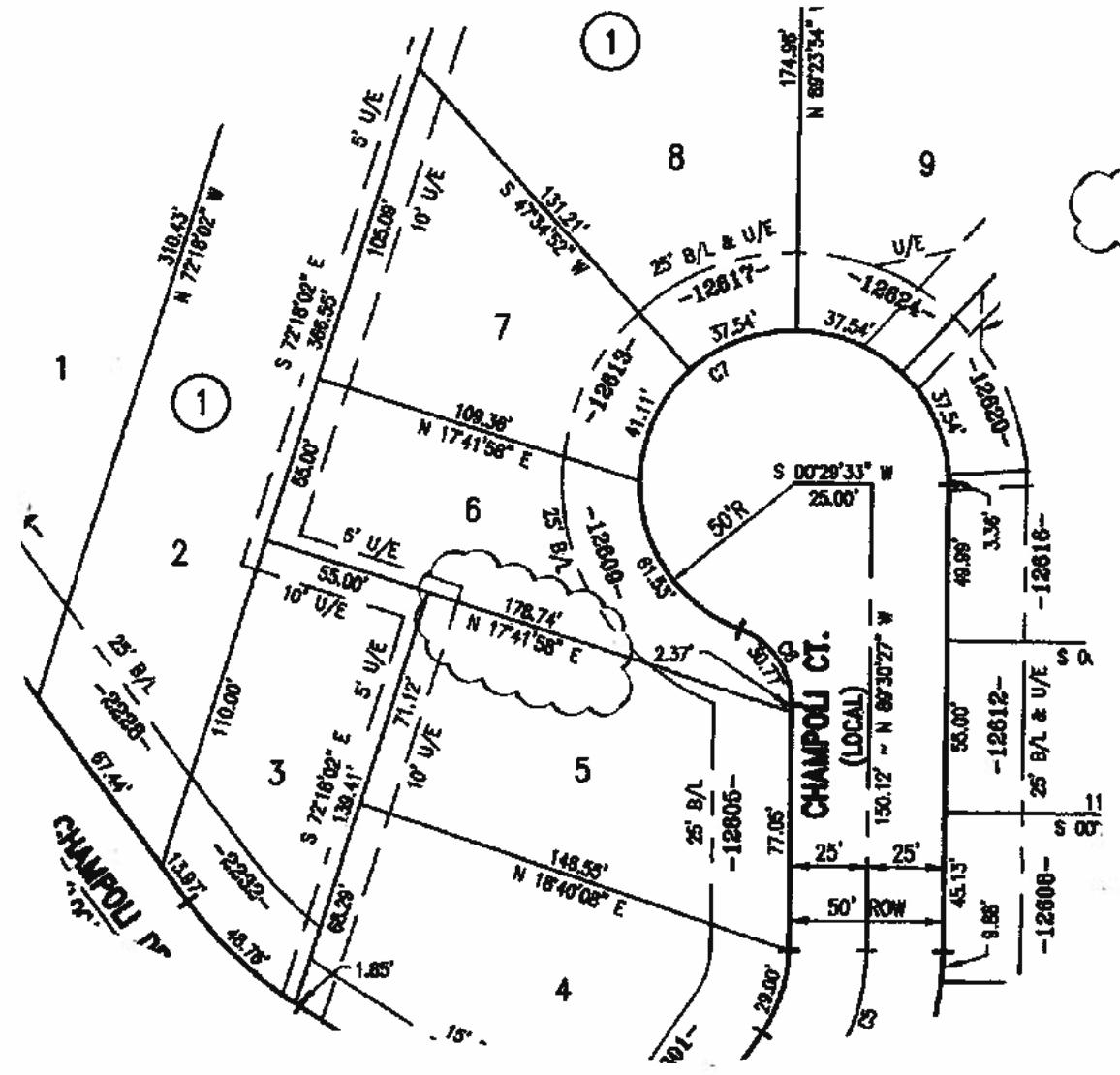
Approved as to form only this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Assistant Municipal Counselor

**EXHIBIT "B"**  
**PLAT CORRECTION - AS FILED**  
**SUNDANCE ADDITION SECTION 6**  
 A PART OF THE N.E. 1/4, SECTION 9, T11N, R1W, 1M.  
 MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA

  
 20181130011655000  
 11/30/2018 04:11:34 PM  
 Bk: PL77 Pg: 32 Pgs: 2 FLAT  
 State of Oklahoma  
 County of Oklahoma  
 Oklahoma County Clerk  
 David B. Hooten

  
 SCALE: 1" = 60'



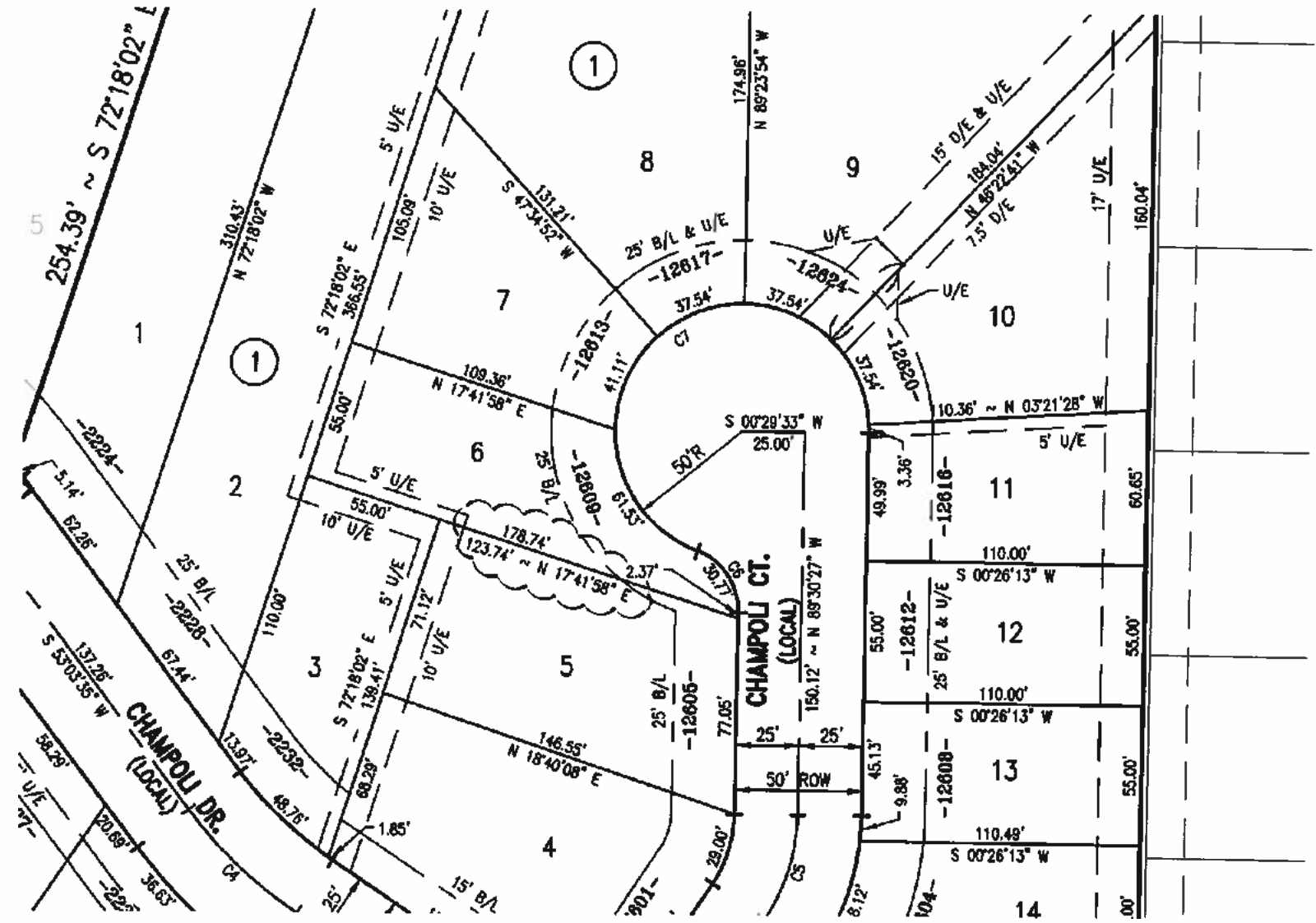
 AS FILED



**EXHIBIT "B"**  
**PLAT CORRECTION - AS CORRECTED**  
**SUNDANCE ADDITION SECTION 6**  
 A PART OF THE N.E. 1/4, SECTION 8, T11N, R11W, LM.  
 MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA

SCALE: 1" = 60'

AS CORRECTED





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT -  
ENGINEERING DIVISION

Billy Harless, Community Development Director  
Patrick Menefee, P.E., City Engineer

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

TO : Honorable Mayor and City Council

FROM : Patrick Menefee, P.E., City Engineer

DATE : May 28th, 2019

SUBJECT : Discussion and consideration of accepting maintenance bonds from Central Contracting Services, Inc. in the amount of \$6,100.00, \$5,500.00, and \$1,000.00, and from First Water Contracting, L.L.C. in the amount of \$16,719.15, all in conjunction with the new Sundance, Section 6 subdivision.

The one year maintenance bonds from Central Contracting Services, Inc. are for the water line and the sewer line improvements installed in conjunction with the new Sundance, Section 6 subdivision.

The five year maintenance bonds from Central Contracting Services, Inc. are for the storm sewer line improvements installed in conjunction with the new Sundance, Section 6 subdivision.

The five year maintenance bonds from First Water Contracting, L.L.C. are for the paving improvements installed in conjunction with the new Sundance, Section 6 subdivision.

Staff recommends acceptance as this is consistent with past policy.

Patrick Menefee, P.E.  
City Engineer

Attachments



**AmTrust Surety**  
An AmTrust Financial Company

**AmTrust Surety**

17771 Cowan, Suite 100 • Irvine, California 92614 • (949) 263-3300  
[www.AmTrustSurety.com](http://www.AmTrustSurety.com)

**MAINTENANCE BOND**

BOND NO.: 413588P

KNOW ALL MEN BY THESE PRESENTS:

THAT we, Central Contracting Services, Inc., 17301 S. Sunnylane Rd., Norman, OK, 73071, as Principal, and Developers Surety and Indemnity Company, a corporation organized and doing business under and by virtue of the laws of the State of California and duly licensed to conduct surety business in the State of Oklahoma, as Surety, are held and firmly bound unto The City of Midwest City, 100 N. Midwest Blvd., Midwest City, OK, 73110

as Oblige, in the sum of Six Thousand One Hundred and 00/100 (\$6,100) Dollars, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal entered into an agreement or agreements with said Oblige to: Sundance - Section 6 Water Main

WHEREAS, said agreement provided that Principal shall guarantee replacement and repair of improvements as described therein for a period of one year following final acceptance of said improvements;

NOW, THEREFORE, if the above Principal shall indemnify the Oblige for all loss that Oblige may sustain by reason of any defective materials or workmanship which become apparent during the period of one year from and after acceptance of the said improvements by Oblige, then this obligation shall be void; otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney-in-Fact

this 11th day of May 2018  
YEAR

Central Contracting Services, Inc.  
Principal

James L. Tipken  
James L. Tipken, President

Developers Surety and Indemnity Company

BY: Tina E. Switzer  
Tina E. Switzer Attorney-in-Fact



AmTrust Surety  
An AmTrust Financial Company

**AmTrust Surety**  
17771 Cowan, Suite 100 • Irvine, California 92614 • (949) 263-3300  
[www.AmTrustSurety.com](http://www.AmTrustSurety.com)

**MAINTENANCE BOND**

BOND NO.: 413589P

KNOW ALL MEN BY THESE PRESENTS:

THAT we, Central Contracting Services, Inc., 17301 S. Sunnyside Rd., Norman, OK, 73071, as Principal, and Developers Surety and Indemnity Company, a corporation organized and doing business under and by virtue of the laws of the State of California and duly licensed to conduct surety business in the State of Oklahoma, as Surety, are held and firmly bound unto The City of Midwest City, 100 N. Midwest Blvd., Midwest City, OK, 73110

as Oblige, in the sum of Five Thousand Five Hundred Dollars and 00.100

(\$5,500.00) Dollars, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal entered into an agreement or agreements with said Oblige to: Sundance - Section 6, Sanitary Sewer

WHEREAS, said agreement provided that Principal shall guarantee replacement and repair of improvements as described therein for a period of one year following final acceptance of said improvements;

NOW, THEREFORE, if the above Principal shall indemnify the Oblige for all loss that Oblige may sustain by reason of any defective materials or workmanship which become apparent during the period of one year from and after acceptance of the said improvements by Oblige, then this obligation shall be void; otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney-in-Fact

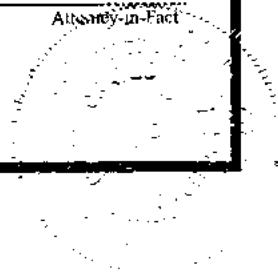
this 11th day of May 2018  
YEAR

Central Contracting Services, Inc.  
Principal

Developers Surety and Indemnity Company

James L. Tipken  
James L. Tipken, President

BY: Jana E. Switzer  
Attorney-in-Fact



**DEVELOPMENT - PAVING, WATER MAINS, STORM AND SANITARY SEWERS**

**MAINTENANCE BOND**

Bond No: 2264536

KNOW ALL BY THESE PRESENTS that we, First Water Contracting, LLC  
as Principal, and North American Specialty Insurance Company  
as Surety, are held and firmly bound unto the City of Midwest City, Oklahoma, a municipal corporation  
in the state of Oklahoma, in the full and just sum of Sixteen Thousand Seven Hundred Nineteen & 15/100— dollars  
(\$ 16,719.15 ), such sum being not less than ten percent (10%) of the total contract price to  
construct or install Asphalt Paving for Sundance Addition Section 6 (the  
"improvement"), for a period of Five Years years after acceptance of the Improvement by the  
City Council of the City of Midwest City (the "Maintenance Period"), for the payment of which, well and  
truly to be made, we, and each of us, bind ourselves, our heirs, executors and assigns, jointly and  
severally, firmly by these presents:

The conditions of this obligation are such that the Principal has by a certain contract between the  
Principal and Ideal Homes, dated the 24th day of  
April, 20 18, agreed to construct or install the Improvement in the city of  
Midwest City and to maintain the Improvement against any failures due to defective materials or  
workmanship during the Maintenance Period.

NOW, THEREFORE, if the Principal, during the Maintenance Period, shall maintain the Improvement  
against any failures due to defective materials or workmanship, then this obligation shall be void;  
otherwise it shall remain in full force and effect.

It is further agreed that if the Principal or the Surety shall fail to maintain the Improvement against any  
failures due to defective materials or workmanship for the Maintenance Period, and at any time  
repairs shall be necessary, that the cost of making the repairs shall be determined by the City Council  
of the City of Midwest City, or some person or persons designated by them to ascertain the cost of  
making the repairs. If, upon thirty (30) days notice, the Principal or the Surety do not make the repairs  
or pay the amount necessary to make the repairs, the amount necessary to make the repairs shall be  
due upon the expiration of thirty (30) days, and suit may be instituted to obtain the amount necessary  
to make the repairs and shall be conclusive upon the parties as to the amount due on this bond to  
make the repairs, and that the cost of all repairs shall be so determined from time to time during the  
Maintenance Period, as the condition of the Improvement may require.

Signed, sealed and delivered this 26th day of April, 20 18.

ATTEST: [Signature]  
Secretary

First Water Contracting, LLC  
Principal  
By: [Signature]

ATTEST: [Signature]  
Secretary Patti Jackson

North American Specialty Insurance Company  
Surety  
By: [Signature]  
Deborah L. Raper, Attorney-in-Fact

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
City Attorney

ACCEPTED by the City Council of the City of Midwest City this \_\_\_\_\_ day of  
\_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor



AmTrust Surety  
An AmTrust Financial Company

AmTrust Surety  
17771 Cowan Suite 100 • Irvine, California 92614 • (949) 263-3300  
[www.AmTrustSurety.com](http://www.AmTrustSurety.com)

### MAINTENANCE BOND

BOND NO. 413597P

KNOW ALL MEN BY THESE PRESENTS:

THAT we, Central Contracting Services, Inc., 17301 S. Sunnyslane Rd., Norman, OK, 73071, as Principal, and Developers Surety and Indemnity Company, a corporation organized and doing business and under and by virtue of the laws of the State of California and duly licensed to conduct surety business in the State of Oklahoma, as Surety, are held and firmly bound unto The City of Midwest City, 100 N Midwest Blvd., Midwest City, OK, 73110

as Oblige, in the sum of One Thousand and 00/100 (\$ 1,000.00 ) Dollars, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal entered into an agreement or agreements with said Oblige to: Sundance - section 6, Storm Sewer

WHEREAS, said agreement provided that Principal shall guarantee replacement and repair of improvements as described therein for a period of Five (5) year(s) following final acceptance of said improvements.

NOW, THEREFORE, if the above Principal shall indemnify the Oblige for all loss that Oblige may sustain by reason of any defective materials or workmanship which become apparent during the period of Five (5) year(s) from and after acceptance of the said improvements by Oblige, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney-in-Fact, this 11th day of May, 2018 Year

Central Contracting Services, Inc. Principal

BY: James L. Tipken  
James L. Tipken, President

Developers Surety and Indemnity Company

BY: Tina E. Switzer  
Tina E. Switzer Attorney-in-Fact



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT -  
ENGINEERING DIVISION

Billy Harless, Community Development Director  
Patrick Menefee, P.E., City Engineer

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

TO : Honorable Mayor and City Council

FROM : Patrick Menefee, P.E., City Engineer

DATE : May 28th, 2019

SUBJECT : Discussion and consideration of accepting maintenance bonds from Wee Construction Company in the amount of \$90,340.00 and \$895.00, respectively.

The one year maintenance bonds from Wee Construction Company are for the water line and the sewer line improvements installed in conjunction with the new Dollar General Store located at the northwest corner of East Reno Avenue and Anderson Road.

Staff recommends acceptance as this is consistent with past policy.

---

Patrick Menefee, P.E.  
City Engineer

Attachments

**DEVELOPMENT - PAVING, WATER MAINS, STORM AND SANITARY SEWERS**

**MAINTENANCE BOND**

KNOW ALL BY THESE PRESENTS that we, Wee Construction Co.  
as Principal, and North American Specialty Insurance Company  
as Surety, are held and firmly bound unto the City of Midwest City, Oklahoma, a municipal corporation  
in the state of Oklahoma, in the full and just sum of Ninety Thousand Three Hundred Forty Dollars & 00/100 dollars  
(\$ 90,340.00), such sum being not less than ten percent (10%) of the total contract price to  
construct or install Dollar General Store Sewer Line Extension (the  
"Improvement"), for a period of One (1) Year years after acceptance of the Improvement by the  
City Council of the City of Midwest City (the "Maintenance Period"), for the payment of which, well and  
truly to be made, we, and each of us, bind ourselves, our heirs, executors and assigns, jointly and  
severally, firmly by these presents:

The conditions of this obligation are such that the Principal has by a certain contract between the  
Principal and 4D Construction, LLC, dated the 12th day of  
October, 2018, agreed to construct or install the Improvement in the city of  
Midwest City and to maintain the Improvement against any failures due to defective materials or  
workmanship during the Maintenance Period.

NOW, THEREFORE, if the Principal, during the Maintenance Period, shall maintain the Improvement  
against any failures due to defective materials or workmanship, then this obligation shall be void;  
otherwise it shall remain in full force and effect.

It is further agreed that if the Principal or the Surety shall fail to maintain the Improvement against any  
failures due to defective materials or workmanship for the Maintenance Period, and at any time  
repairs shall be necessary, that the cost of making the repairs shall be determined by the City Council  
of the City of Midwest City, or some person or persons designated by them to ascertain the cost of  
making the repairs. If, upon thirty (30) days notice, the Principal or the Surety do not make the repairs  
or pay the amount necessary to make the repairs, the amount necessary to make the repairs shall be  
due upon the expiration of thirty (30) days, and suit may be instituted to obtain the amount necessary  
to make the repairs and shall be conclusive upon the parties as to the amount due on this bond to  
make the repairs, and that the cost of all repairs shall be so determined from time to time during the  
Maintenance Period, as the condition of the Improvement may require.

Signed, sealed and delivered this 1st day of November, 2018

ATTEST:  
Kelley Rollins  
Secretary

Wee Construction Co.  
Principal  
By Elin H. O'X

ATTEST:  
Jamie Burris  
Secretary

North American Specialty Insurance Company  
Surety  
By Cathy Combs  
Cathy Combs, Attorney-in-Fact

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
City Attorney

ACCEPTED by the City Council of the City of Midwest City this \_\_\_\_\_ day of  
\_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor





**MAINTENANCE  
BOND**

BOND NO. 2283227

KNOW ALL MEN BY THESE PRESENTS;

That We, Wee Constructon Co.

(hereinafter called the "Principal"), as Principal, and North American Specialty Insurance Company  
a corporation duly licensed to transact business in the State of Oklahoma

(hereinafter called the "Surety"), as Surety, are held and firmly bound unto City of Midwest City, OK

100 N. Midwest Boulevard, Midwest City, OK 73110 (hereinafter called the "Obligee"), in the sum of  
Eight Hundred Ninety Five Dollars & 00/100 Dollars (\$ 895.00 ),

for the payment of which sum well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our  
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 25th date of February, 2019.

WHEREAS, the said Principal has heretofore entered into a contract with said Obligee dated 25th day of  
February, 2019 for: Fire Hydrant to serve Dollar General, 1109 E. Reno Ave, Midwest City, OK

WHEREAS, the said Principal is required to guarantee the work installed under said contract, against defects in materials  
or workmanship which may occur within a period of one (1) year from and after acceptance of said project by owner.

In no event shall losses paid under this bond aggregate more than the amount of this bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that said Principal shall faithfully carry out  
and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in  
materials or workmanship in the said work which may develop during the period specified above or shall pay over, make  
good and reimburse to the said obligee all losses sustained by reason of failure or default of said Principal so to do, then  
this obligation shall be null and void; otherwise shall remain in full force and effect

Wee Construction Co.  
Principal

By: Kelley Rollins Sec Treas  
Name/Title:

North American Specialty Insurance Company

By: Cathy Combs  
Cathy Combs, Attorney-in-Fact



**Assistant City Manager**

100 N. Midwest Boulevard

Midwest City, OK 73110

office 405.739.1201

## MEMORANDUM

To: Honorable Mayor and Council

From: Tim Lyon, Assistant City Manager

Date: May 28, 2019

Subject: Discussion and consideration of awarding a contract for construction management to CMS Willowbrook, Inc., for an addition to the Reed Conference Center and the property improvement plan and brand conversion of the Midwest City Sheraton Hotel in the amount of 1% of the construction budget for preconstruction phase services and 6% of the cost of work for construction phase services.

Staff for the past six months have been working with Marriott International to develop a required property improvement plan and negotiating a brand conversion from Sheraton to Delta by Marriott. The amendment to our current franchise agreement is on the agenda for approval under the Municipal Authority. In addition, staff is recommending glassing in the south patio in order to create approximately 2,000 square feet of additional meeting room space. The Reed Center has multiple groups who rent the entire facility and need this additional meeting room space to continue using our facility. One example of these groups is Tinker in the Primes.

Staff has reviewed qualifications, conducted interviews and reviewed proposals and is recommending entering into a contract for construction management services with CMS Willowbrook. At a later date, a Guaranteed Maximum Price proposal will be added as an addendum.

CMS Willowbrook is the company who managed the original build of the Reed Conference Center. In addition, they are currently working with Mid-Del Schools and Rose State College for construction management services for the student union and several other school bond projects.

Staff has compared this amount to previous projects and has determined the price to be very competitive.

Funds are a part of the construction budget and will be made available through a revenue bond.

Staff recommends approval.

*Tim L. Lyon*

Tim Lyon, Assistant City Manager

Enc. AIA Construction Manager Contract





# AIA<sup>®</sup> Document A133<sup>™</sup> – 2009

## **Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price**

**AGREEMENT** made as of the 1<sup>st</sup> day of May in the year 2019

**BETWEEN** the Owner:  
(Name, legal status and address)  
City of Midwest City  
100 N. Midwest Blvd.  
Midwest City, Oklahoma 73110

and the Construction Manager:

CMSWillowbrook, Inc.  
3108 S. 9<sup>th</sup> Street  
Chickasha, Oklahoma 73018

for the following Project:

Reed Center and Hotel Renovation

The Architect:

QMA Architects  
1390 S. Douglas Blvd. #200  
Midwest City, Oklahoma 73130

The Owner's Designated Representative:

Tim Lyon  
100 N. Midwest Blvd.  
Midwest City, Oklahoma 73110

The Construction Manager's Designated Representative:

Cary DeHart  
3108 S. 9<sup>th</sup> Street  
Chickasha, Oklahoma 73018

The Architect's Designated Representative:

Fred Quinn  
1390 S. Douglas Blvd. #200  
Midwest City, Oklahoma 73130

The Owner and Construction Manager agree as follows.

### **ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201<sup>™</sup>–2007, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

Init.

AIA Document A133<sup>™</sup> – 2009 (formerly A121<sup>™</sup>CMc – 2003). Copyright © 1991, 2003 and 2009 by The American Institute of Architects. **All rights reserved.**  
**WARNING: This AIA<sup>®</sup> Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA<sup>®</sup> Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.**  
This document was produced by AIA software at 09:28:28 ET on 05/16/2019 under Order No.4938267400 which expires on 08/11/2019, and is not for resale.  
**User Notes:** (1716204611)

## TABLE OF ARTICLES

1	GENERAL PROVISIONS
2	CONSTRUCTION MANAGER'S RESPONSIBILITIES
3	OWNER'S RESPONSIBILITIES
4	COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES
5	COMPENSATION FOR CONSTRUCTION PHASE SERVICES
6	COST OF THE WORK FOR CONSTRUCTION PHASE
7	PAYMENTS FOR CONSTRUCTION PHASE SERVICES
8	INSURANCE AND BONDS
9	DISPUTE RESOLUTION
10	TERMINATION OR SUSPENSION
11	MISCELLANEOUS PROVISIONS
12	SCOPE OF THE AGREEMENT

### EXHIBIT A GUARANTEED MAXIMUM PRICE AMENDMENT

#### ARTICLE 1 GENERAL PROVISIONS

##### § 1.1 The Contract Documents

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract and are as fully a part of the Contract as if attached to this Agreement or repeated herein. Upon the Owner's acceptance of the Construction Manager's Guaranteed Maximum Price proposal, the Contract Documents will also include the documents described in Section 2.2.3 and identified in the Guaranteed Maximum Price Amendment and revisions prepared by the Architect and furnished by the Owner as described in Section 2.2.8. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. If anything in the other Contract Documents, other than a Modification, is inconsistent with this Agreement, this Agreement shall govern.

##### § 1.2 Relationship of the Parties

The Construction Manager accepts the relationship of trust and confidence established by this Agreement and covenants with the Owner to cooperate with the Architect and exercise the Construction Manager's skill and judgment in furthering the interests of the Owner; to furnish efficient construction administration, management services and supervision; to furnish at all times an adequate supply of workers and materials; and to perform the Work in an expeditious and economical manner consistent with the Owner's interests. The Owner agrees to furnish or approve, in a timely manner, information required by the Construction Manager and to make payments to the Construction Manager in accordance with the requirements of the Contract Documents.

The Construction Manager (CM) is also the Program Manager (PM). The CM/PM shall integrate the construction process of planning, design, procurement, construction, and activation of the Owner's program. The Architect of Designer's while contractually responsible to the Owner, shall report progress to the CM/PM for compliance with the scope, design, and budgets.

Init.

### § 1.3 General Conditions

For the Preconstruction Phase, AIA Document A201™–2007, General Conditions of the Contract for Construction, shall apply only as specifically provided in this Agreement. For the Construction Phase, the general conditions of the contract shall be as set forth in A201–2007, which document is incorporated herein by reference. The term "Contractor" as used in A201–2007 shall mean the Construction Manager.

## ARTICLE 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES

The Construction Manager's Preconstruction Phase responsibilities are set forth in Sections 2.1 and 2.2. The Construction Manager's Construction Phase responsibilities are set forth in Section 2.3. The Owner and Construction Manager may agree, in consultation with the Architect, for the Construction Phase to commence prior to completion of the Preconstruction Phase, in which case, both phases will proceed concurrently. The Construction Manager shall identify a representative authorized to act on behalf of the Construction Manager with respect to the Project.

### § 2.1 Preconstruction Phase

**§ 2.1.1** The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other.

#### § 2.1.2 Consultation

The Construction Manager shall schedule and conduct meetings with the Architect and Owner to discuss such matters as procedures, progress, coordination, and scheduling of the Work. The Construction Manager shall advise the Owner and the Architect on proposed site use and improvements, selection of materials, and building systems and equipment. The Construction Manager shall also provide recommendations consistent with the Project requirements to the Owner and Architect on constructability; availability of materials and labor; time requirements for procurement, installation and construction; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

**§ 2.1.3** When Project requirements in Section 3.1.1 have been sufficiently identified, the Construction Manager shall prepare and periodically update a Project schedule for the Architect's review and the Owner's acceptance. The Construction Manager shall obtain the Architect's approval for the portion of the Project schedule relating to the performance of the Architect's services. The Project schedule shall coordinate and integrate the Construction Manager's services, the Architect's services, other Owner consultants' services, and the Owner's responsibilities and identify items that could affect the Project's timely completion. The updated Project schedule shall include the following: submission of the Guaranteed Maximum Price proposal; components of the Work; times of commencement and completion required of each Subcontractor; ordering and delivery of products, including those that must be ordered well in advance of construction; and the occupancy requirements of the Owner.

#### § 2.1.4 Phased Construction

The Construction Manager shall provide recommendations with regard to accelerated or fast-track scheduling, procurement, or phased construction. The Construction Manager shall take into consideration cost reductions, cost information, constructability, provisions for temporary facilities and procurement and construction scheduling issues.

#### § 2.1.5 Preliminary Cost Estimates

**§ 2.1.5.1** Based on the preliminary design and other design criteria prepared by the Architect, the Construction Manager shall prepare preliminary estimates of the Cost of the Work or the cost of program requirements using area, volume or similar conceptual estimating techniques for the Architect's review and Owner's approval. If the Architect or Construction Manager suggests alternative materials and systems, the Construction Manager shall provide cost evaluations of those alternative materials and systems.

**§ 2.1.5.2** As the Architect progresses with the preparation of the Schematic Design, Design Development and Construction Documents, the Construction Manager shall prepare and update, at appropriate intervals agreed to by the Owner, Construction Manager and Architect, estimates of the Cost of the Work of increasing detail and refinement and allowing for the further development of the design until such time as the Owner and Construction Manager agree on a Guaranteed Maximum Price for the Work. Such estimates shall be provided for the Architect's review and the Owner's approval. The Construction Manager shall inform the Owner and Architect when estimates of the Cost of the Work exceed the latest approved Project budget and make recommendations for corrective action.

Init.

### § 2.1.6 Subcontractors and Suppliers

The Construction Manager shall develop bidders' interest in the Project.

§ 2.1.7 The Construction Manager shall prepare, for the Architect's review and the Owner's acceptance, a procurement schedule for items that must be ordered well in advance of construction. The Construction Manager shall expedite and coordinate the ordering and delivery of materials that must be ordered well in advance of construction. If the Owner agrees to procure any items prior to the establishment of the Guaranteed Maximum Price, the Owner shall procure the items on terms and conditions acceptable to the Construction Manager. Upon the establishment of the Guaranteed Maximum Price, the Owner shall assign all contracts for these items to the Construction Manager and the Construction Manager shall thereafter accept responsibility for them.

### § 2.1.8 Extent of Responsibility

The Construction Manager shall exercise reasonable care in preparing schedules and estimates. The Construction Manager, however, does not warrant or guarantee estimates and schedules except as may be included as part of the Guaranteed Maximum Price. The Construction Manager is not required to ascertain that the Drawings and Specifications are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Construction Manager shall promptly report to the Architect and Owner any nonconformity discovered by or made known to the Construction Manager as a request for information in such form as the Architect may require.

### § 2.1.9 Notices and Compliance with Laws

The Construction Manager shall comply with applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to its performance under this Contract, and with equal employment opportunity programs, and other programs as may be required by governmental and quasi governmental authorities for inclusion in the Contract Documents.

## § 2.2 Guaranteed Maximum Price Proposal and Contract Time

§ 2.2.1 At a time to be mutually agreed upon by the Owner and the Construction Manager and in consultation with the Architect, the Construction Manager shall prepare a Guaranteed Maximum Price proposal for the Owner's review and acceptance. The Guaranteed Maximum Price in the proposal shall be the sum of the Construction Manager's estimate of the Cost of the Work, including contingencies described in Section 2.2.4, and the Construction Manager's Fee.

§ 2.2.2 To the extent that the Drawings and Specifications are anticipated to require further development by the Architect, the Construction Manager shall provide in the Guaranteed Maximum Price for such further development consistent with the Contract Documents and reasonably inferable therefrom. Such further development does not include such things as changes in scope, systems, kinds and quality of materials, finishes or equipment, all of which, if required, shall be incorporated by Change Order.

§ 2.2.3 The Construction Manager shall include with the Guaranteed Maximum Price proposal a written statement of its basis, which shall include the following:

- .1 A list of the Drawings and Specifications, including all Addenda thereto, and the Conditions of the Contract;
- .2 A list of the clarifications and assumptions made by the Construction Manager in the preparation of the Guaranteed Maximum Price proposal, including assumptions under Section 2.2.2, to supplement the information provided by the Owner and contained in the Drawings and Specifications;
- .3 A statement of the proposed Guaranteed Maximum Price, including a statement of the estimated Cost of the Work organized by trade categories or systems, allowances, contingency, and the Construction Manager's Fee;
- .4 The anticipated date of Substantial Completion upon which the proposed Guaranteed Maximum Price is based; and
- .5 A date by which the Owner must accept the Guaranteed Maximum Price.

§ 2.2.4 In preparing the Construction Manager's Guaranteed Maximum Price proposal, the Construction Manager shall include its contingency for the Construction Manager's exclusive use to cover those costs considered reimbursable as the Cost of the Work but not included in a Change Order.

**§ 2.2.5** The Construction Manager shall meet with the Owner and Architect to review the Guaranteed Maximum Price proposal. In the event that the Owner and Architect discover any inconsistencies or inaccuracies in the information presented, they shall promptly notify the Construction Manager, who shall make appropriate adjustments to the Guaranteed Maximum Price proposal, its basis, or both.

**§ 2.2.6** If the Owner notifies the Construction Manager that the Owner has accepted the Guaranteed Maximum Price proposal in writing before the date specified in the Guaranteed Maximum Price proposal, the Guaranteed Maximum Price proposal shall be deemed effective without further acceptance from the Construction Manager. Following acceptance of a Guaranteed Maximum Price, the Owner and Construction Manager shall execute the Guaranteed Maximum Price Amendment amending this Agreement, a copy of which the Owner shall provide to the Architect. The Guaranteed Maximum Price Amendment shall set forth the agreed upon Guaranteed Maximum Price with the information and assumptions upon which it is based.

**§ 2.2.7** The Construction Manager shall not incur any cost to be reimbursed as part of the Cost of the Work prior to the commencement of the Construction Phase, unless the Owner provides prior written authorization for such costs.

**§ 2.2.8** The Owner shall authorize the Architect to provide the revisions to the Drawings and Specifications to incorporate the agreed upon assumptions and clarifications contained in the Guaranteed Maximum Price Amendment. The Owner shall promptly furnish those revised Drawings and Specifications to the Construction Manager as they are revised. The Construction Manager shall notify the Owner and Architect of any inconsistencies between the Guaranteed Maximum Price Amendment and the revised Drawings and Specifications.

**§ 2.2.9** The Construction Manager shall include in the Guaranteed Maximum Price all sales, consumer, use and similar taxes for the Work provided by the Construction Manager that are legally enacted, whether or not yet effective, at the time the Guaranteed Maximum Price Amendment is executed.

### **§ 2.3 Construction Phase**

#### **§ 2.3.1 General**

**§ 2.3.1.1** For purposes of Section 8.1.2 of A201–2007, the date of commencement of the Work shall mean the date of commencement of the Construction Phase.

**§ 2.3.1.2** The Construction Phase shall commence upon the Owner’s acceptance of the Construction Manager’s Guaranteed Maximum Price proposal or the Owner’s issuance of a Notice to Proceed, whichever occurs earlier.

#### **§ 2.3.2 Administration**

**§ 2.3.2.1** Those portions of the Work that the Construction Manager does not customarily perform with the Construction Manager’s own personnel shall be performed under subcontracts or by other appropriate agreements with the Construction Manager. The Owner may designate specific persons from whom, or entities from which, the Construction Manager shall obtain bids. The Construction Manager shall obtain bids from Subcontractors and from suppliers of materials or equipment fabricated especially for the Work and shall deliver such bids to the Architect. The Owner shall then determine, with the advice of the Construction Manager and the Architect, which bids will be accepted. The Construction Manager shall not be required to contract with anyone to whom the Construction Manager has reasonable objection.

**§ 2.3.2.2** If the Guaranteed Maximum Price has been established and when a specific bidder (1) is recommended to the Owner by the Construction Manager, (2) is qualified to perform that portion of the Work, and (3) has submitted a bid that conforms to the requirements of the Contract Documents without reservations or exceptions, but the Owner requires that another bid be accepted, then the Construction Manager may require that a Change Order be issued to adjust the Contract Time and the Guaranteed Maximum Price by the difference between the bid of the person or entity recommended to the Owner by the Construction Manager and the amount and time requirement of the subcontract or other agreement actually signed with the person or entity designated by the Owner.

**§ 2.3.2.3** Subcontracts or other agreements shall conform to the applicable payment provisions of this Agreement, and shall not be awarded on the basis of cost plus a fee without the prior consent of the Owner. If the Subcontract is awarded on a cost plus fee basis, the Construction Manager shall provide in the Subcontract for the Owner to receive the same audit rights with regard to the Subcontractor as the Owner receives with regard to the Construction Manager in Section 6.11 below.

Init.



**§ 2.3.2.4** If the Construction Manager recommends a specific bidder that may be considered a "related party" according to Section 6.10, then the Construction Manager shall promptly notify the Owner in writing of such relationship and notify the Owner of the specific nature of the contemplated transaction, according to Section 6.10.2.

**§ 2.3.2.5** The Construction Manager shall schedule and conduct meetings to discuss such matters as procedures, progress, coordination, scheduling, and status of the Work. The Construction Manager shall prepare and promptly distribute minutes to the Owner and Architect.

**§ 2.3.2.6** Upon the execution of the Guaranteed Maximum Price Amendment, the Construction Manager shall prepare and submit to the Owner and Architect a construction schedule for the Work and submittal schedule in accordance with Section 3.10 of A201–2007.

**§ 2.3.2.7** The Construction Manager shall record the progress of the Project. On a monthly basis, or otherwise as agreed to by the Owner, the Construction Manager shall submit written progress reports to the Owner and Architect, showing percentages of completion and other information required by the Owner. The Construction Manager shall also keep, and make available to the Owner and Architect, a daily log containing a record for each day of weather, portions of the Work in progress, number of workers on site, identification of equipment on site, problems that might affect progress of the work, accidents, injuries, and other information required by the Owner.

**§ 2.3.2.8** The Construction Manager shall develop a system of cost control for the Work, including regular monitoring of actual costs for activities in progress and estimates for uncompleted tasks and proposed changes. The Construction Manager shall identify variances between actual and estimated costs and report the variances to the Owner and Architect and shall provide this information in its monthly reports to the Owner and Architect, in accordance with Section 2.3.2.7 above.

#### **§ 2.4 Professional Services**

Section 3.12.10 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

#### **§ 2.5 Hazardous Materials**

Section 10.3 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

### **ARTICLE 3 OWNER'S RESPONSIBILITIES**

#### **§ 3.1 Information and Services Required of the Owner**

**§ 3.1.1** The Owner shall provide information with reasonable promptness, regarding requirements for and limitations on the Project, including a written program which shall set forth the Owner's objectives, constraints, and criteria, including schedule, space requirements and relationships, flexibility and expandability, special equipment, systems, sustainability and site requirements.

**§ 3.1.2** Prior to the execution of the Guaranteed Maximum Price Amendment, the Construction Manager may request in writing that the Owner provide reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. Thereafter, the Construction Manager may only request such evidence if (1) the Owner fails to make payments to the Construction Manager as the Contract Documents require, (2) a change in the Work materially changes the Contract Sum, or (3) the Construction Manager identifies in writing a reasonable concern regarding the Owner's ability to make payment when due. The Owner shall furnish such evidence as a condition precedent to commencement or continuation of the Work or the portion of the Work affected by a material change. After the Owner furnishes the evidence, the Owner shall not materially vary such financial arrangements without prior notice to the Construction Manager and Architect.

**§ 3.1.3** The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1.1, (2) the Owner's other costs, and (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Construction Manager and Architect. The Owner and the Architect, in consultation with the Construction Manager, shall thereafter agree to a corresponding change in the Project's scope and quality.

**§ 3.1.4 Structural and Environmental Tests, Surveys and Reports.** During the Preconstruction Phase, the Owner shall furnish the following information or services with reasonable promptness. The Owner shall also furnish any other

Init.

information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services. The Construction Manager shall be entitled to rely on the accuracy of information and services furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

**§ 3.1.4.1** The Owner shall furnish tests, inspections and reports required by law and as otherwise agreed to by the parties, such as structural, mechanical, and chemical tests, tests for air and water pollution, and tests for hazardous materials.

**§ 3.1.4.2** The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; designated wetlands; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data with respect to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.

**§ 3.1.4.3** The Owner, when such services are requested, shall furnish services of geotechnical engineers, which may include but are not limited to test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, seismic evaluation, ground corrosion tests and resistivity tests, including necessary operations for anticipating subsoil conditions, with written reports and appropriate recommendations.

**§ 3.1.4.4** During the Construction Phase, the Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Construction Manager's performance of the Work with reasonable promptness after receiving the Construction Manager's written request for such information or services.

### **§ 3.2 Owner's Designated Representative**

The Owner shall identify a representative authorized to act on behalf of the Owner with respect to the Project. The Owner's representative shall render decisions promptly and furnish information expeditiously, so as to avoid unreasonable delay in the services or Work of the Construction Manager. Except as otherwise provided in Section 4.2.1 of A201-2007, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

**§ 3.2.1 Legal Requirements.** The Owner shall furnish all legal, insurance and accounting services, including auditing services, that may be reasonably necessary at any time for the Project to meet the Owner's needs and interests.

### **§ 3.3 Architect**

The Owner shall retain an Architect to provide services, duties and responsibilities as described in AIA Document B133™-2014, Standard Form of Agreement Between Owner and Architect, Construction Manager as Constructor Edition. The Owner shall provide the Construction Manager a copy of the executed agreement between the Owner and the Architect, and any further modifications to the agreement.

**§ 3.1.3** The Owner shall establish and periodically update the Owner's budget for the Project, including (1) the budget for the Cost of the Work as defined in Section 6.1.1, (2) the Owner's other costs, and (3) reasonable contingencies related to all of these costs. If the Owner significantly increases or decreases the Owner's budget for the Cost of the Work, the Owner shall notify the Construction Manager and Architect. The Owner and the Architect, in consultation with the Construction Manager, shall thereafter agree to a corresponding change in the Project's scope and quality.

## **ARTICLE 4 COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES**

### **§ 4.1 Compensation**

**§ 4.1.1** For the Construction Manager's Preconstruction Phase services, the Owner shall compensate the Construction Manager as follows:

**§ 4.1.2** For the Construction Manager's Preconstruction Phase services described in Sections 2.1 and 2.2:  
*(Insert amount of, or basis for, compensation and include a list of reimbursable cost items, as applicable.)*

Init.

1% of the Construction Budget

**§ 4.1.3** If the Preconstruction Phase services covered by this Agreement have not been completed within eight (8) months of the date of this Agreement, through no fault of the Construction Manager, the Construction Manager's compensation for Preconstruction Phase services shall be equitably adjusted.

**§ 4.1.4** Compensation based on Direct Personnel Expense includes the direct salaries of the Construction Manager's personnel providing Preconstruction Phase services on the Project and the Construction Manager's costs for the mandatory and customary contributions and benefits related thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, employee retirement plans and similar contributions.

**§ 4.2 Payments**

**§ 4.2.1** Unless otherwise agreed, payments for services shall be made monthly in proportion to services performed.

**§ 4.2.2** Payments are due and payable upon presentation of the Construction Manager's invoice. Amounts unpaid ( ) days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Construction Manager.  
*(Insert rate of monthly or annual interest agreed upon.)*

All payments are per State Statutes

**ARTICLE 5 COMPENSATION FOR CONSTRUCTION PHASE SERVICES**

**§ 5.1** For the Construction Manager's performance of the Work as described in Section 2.3, the Owner shall pay the Construction Manager the Contract Sum in current funds. The Contract Sum is the Cost of the Work as defined in Section 6.1.1 plus the Construction Manager's Fee.

**§ 5.1.1** The Construction Manager's Fee:  
*(State a lump sum, percentage of Cost of the Work or other provision for determining the Construction Manager's Fee.)*

Percentage fee of 6% of the Cost of the Work.

**§ 5.1.2** The method of adjustment of the Construction Manager's Fee for changes in the Work:

7%

**§ 5.1.3** Limitations, if any, on a Subcontractor's overhead and profit for increases in the cost of its portion of the Work:

15% Overhead and Profit

**§ 5.1.4** Rental rates for Construction Manager-owned equipment shall not exceed one hundred percent (100%) of the standard rate paid at the place of the Project.

**§ 5.1.5** Unit prices, if any:  
*(Identify and state the unit price; state the quantity limitations, if any, to which the unit price will be applicable.)*

Item	Units and Limitations	Price per Unit (\$0.00)
NA		

**§ 5.2 Guaranteed Maximum Price**

**§ 5.2.1** The Construction Manager guarantees that the Contract Sum shall not exceed the Guaranteed Maximum Price set forth in the Guaranteed Maximum Price Amendment, as it is amended from time to time. To the extent the Cost of the Work exceeds the Guaranteed Maximum Price, the Construction Manager shall bear such costs in excess of the Guaranteed Maximum Price without reimbursement or additional compensation from the Owner.  
*(Insert specific provisions if the Construction Manager is to participate in any savings.)*

NA

Init.

**§ 5.2.2** The Guaranteed Maximum Price is subject to additions and deductions by Change Order as provided in the Contract Documents and the Date of Substantial Completion shall be subject to adjustment as provided in the Contract Documents.

### **§ 5.3 Changes in the Work**

**§ 5.3.1** The Owner may, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions. The Owner shall issue such changes in writing. The Architect may make minor changes in the Work as provided in Section 7.4 of AIA Document A201–2007, General Conditions of the Contract for Construction. The Construction Manager shall be entitled to an equitable adjustment in the Contract Time as a result of changes in the Work.

**§ 5.3.2** Adjustments to the Guaranteed Maximum Price on account of changes in the Work subsequent to the execution of the Guaranteed Maximum Price Amendment may be determined by any of the methods listed in Section 7.3.3 of AIA Document A201–2007, General Conditions of the Contract for Construction.

**§ 5.3.3** In calculating adjustments to subcontracts (except those awarded with the Owner’s prior consent on the basis of cost plus a fee), the terms "cost" and "fee" as used in Section 7.3.3.3 of AIA Document A201–2007 and the term "costs" as used in Section 7.3.7 of AIA Document A201–2007 shall have the meanings assigned to them in AIA Document A201–2007 and shall not be modified by Sections 5.1 and 5.2, Sections 6.1 through 6.7, and Section 6.8 of this Agreement. Adjustments to subcontracts awarded with the Owner’s prior consent on the basis of cost plus a fee shall be calculated in accordance with the terms of those subcontracts.

**§ 5.3.4** In calculating adjustments to the Guaranteed Maximum Price, the terms "cost" and "costs" as used in the above-referenced provisions of AIA Document A201–2007 shall mean the Cost of the Work as defined in Sections 6.1 to 6.7 of this Agreement and the term "fee" shall mean the Construction Manager’s Fee as defined in Section 5.1 of this Agreement.

**§ 5.3.5** If no specific provision is made in Section 5.1.2 for adjustment of the Construction Manager’s Fee in the case of changes in the Work, or if the extent of such changes is such, in the aggregate, that application of the adjustment provisions of Section 5.1.2 will cause substantial inequity to the Owner or Construction Manager, the Construction Manager’s Fee shall be equitably adjusted on the same basis that was used to establish the Fee for the original Work, and the Guaranteed Maximum Price shall be adjusted accordingly.

## **ARTICLE 6 COST OF THE WORK FOR CONSTRUCTION PHASE**

### **§ 6.1 Costs to Be Reimbursed**

**§ 6.1.1** The term Cost of the Work shall mean costs necessarily incurred by the Construction Manager in the proper performance of the Work. Such costs shall be at rates not higher than the standard paid at the place of the Project except with prior consent of the Owner. The Cost of the Work shall include only the items set forth in Sections 6.1 through 6.7.

**§ 6.1.2** Where any cost is subject to the Owner’s prior approval, the Construction Manager shall obtain this approval prior to incurring the cost. The parties shall endeavor to identify any such costs prior to executing Guaranteed Maximum Price Amendment.

### **§ 6.2 Labor Costs**

**§ 6.2.1** Wages of construction workers directly employed by the Construction Manager to perform the construction of the Work at the site or, with the Owner’s prior approval, at off-site workshops.

**§ 6.2.2** Wages or salaries of the Construction Manager’s supervisory and administrative personnel when stationed at the site with the Owner’s prior approval.

*(If it is intended that the wages or salaries of certain personnel stationed at the Construction Manager’s principal or other offices shall be included in the Cost of the Work, identify in Section 11.5, the personnel to be included, whether for all or only part of their time, and the rates at which their time will be charged to the Work.)*

Init.

**§ 6.2.3** Wages and salaries of the Construction Manager’s supervisory or administrative personnel engaged at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of their time required for the Work.

**§ 6.2.4** Costs paid or incurred by the Construction Manager for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Sections 6.2.1 through 6.2.3.

**§ 6.2.5** Bonuses, profit sharing, incentive compensation and any other discretionary payments paid to anyone hired by the Construction Manager or paid to any Subcontractor or vendor, with the Owner’s prior approval.

**§ 6.3 Subcontract Costs**

Payments made by the Construction Manager to Subcontractors in accordance with the requirements of the subcontracts.

**§ 6.4 Costs of Materials and Equipment Incorporated in the Completed Construction**

**§ 6.4.1** Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

**§ 6.4.2** Costs of materials described in the preceding Section 6.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, if any, shall become the Owner’s property at the completion of the Work or, at the Owner’s option, shall be sold by the Construction Manager. Any amounts realized from such sales shall be credited to the Owner as a deduction from the Cost of the Work.

**§ 6.5 Costs of Other Materials and Equipment, Temporary Facilities and Related Items**

**§ 6.5.1** Costs of transportation, storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and fully consumed in the performance of the Work. Costs of materials, supplies, temporary facilities, machinery, equipment and tools that are not fully consumed shall be based on the cost or value of the item at the time it is first used on the Project site less the value of the item when it is no longer used at the Project site. Costs for items not fully consumed by the Construction Manager shall mean fair market value.

**§ 6.5.2** Rental charges for temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers that are provided by the Construction Manager at the site and costs of transportation, installation, minor repairs, dismantling and removal. The total rental cost of any Construction Manager-owned item may not exceed the purchase price of any comparable item. Rates of Construction Manager-owned equipment and quantities of equipment shall be subject to the Owner’s prior approval.

**§ 6.5.3** Costs of removal of debris from the site of the Work and its proper and legal disposal.

**§ 6.5.4** Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

**§ 6.5.5** That portion of the reasonable expenses of the Construction Manager’s supervisory or administrative personnel incurred while traveling in discharge of duties connected with the Work.

**§ 6.5.6** Costs of materials and equipment suitably stored off the site at a mutually acceptable location, subject to the Owner’s prior approval.

**§ 6.6 Miscellaneous Costs**

**§ 6.6.1** Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract. Self-insurance for either full or partial amounts of the coverages required by the Contract Documents, with the Owner’s prior approval.

**§ 6.6.2** Sales, use or similar taxes imposed by a governmental authority that are related to the Work and for which the Construction Manager is liable.

Init.

/

§ 6.6.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which the Construction Manager is required by the Contract Documents to pay.

§ 6.6.4 Fees of laboratories for tests required by the Contract Documents, except those related to defective or nonconforming Work for which reimbursement is excluded by Section 13.5.3 of AIA Document A201–2007 or by other provisions of the Contract Documents, and which do not fall within the scope of Section 6.7.3.

§ 6.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suits or claims for infringement of patent rights arising from such requirement of the Contract Documents; and payments made in accordance with legal judgments against the Construction Manager resulting from such suits or claims and payments of settlements made with the Owner's consent. However, such costs of legal defenses, judgments and settlements shall not be included in the calculation of the Construction Manager's Fee or subject to the Guaranteed Maximum Price. If such royalties, fees and costs are excluded by the last sentence of Section 3.17 of AIA Document A201–2007 or other provisions of the Contract Documents, then they shall not be included in the Cost of the Work.

§ 6.6.6 Costs for electronic equipment and software, directly related to the Work with the Owner's prior approval.

§ 6.6.7 Deposits lost for causes other than the Construction Manager's negligence or failure to fulfill a specific responsibility in the Contract Documents.

§ 6.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between the Owner and Construction Manager, reasonably incurred by the Construction Manager after the execution of this Agreement in the performance of the Work and with the Owner's prior approval, which shall not be unreasonably withheld.

§ 6.6.9 Subject to the Owner's prior approval, expenses incurred in accordance with the Construction Manager's standard written personnel policy for relocation and temporary living allowances of the Construction Manager's personnel required for the Work.

#### § 6.7 Other Costs and Emergencies

§ 6.7.1 Other costs incurred in the performance of the Work if, and to the extent, approved in advance in writing by the Owner.

§ 6.7.2 Costs incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property, as provided in Section 10.4 of AIA Document A201–2007.

§ 6.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by the Construction Manager, Subcontractors or suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of the Construction Manager and only to the extent that the cost of repair or correction is not recovered by the Construction Manager from insurance, sureties, Subcontractors, suppliers, or others.

§ 6.7.4 The costs described in Sections 6.1 through 6.7 shall be included in the Cost of the Work, notwithstanding any provision of AIA Document A201–2007 or other Conditions of the Contract which may require the Construction Manager to pay such costs, unless such costs are excluded by the provisions of Section 6.8.

#### § 6.8 Costs Not To Be Reimbursed

§ 6.8.1 The Cost of the Work shall not include the items listed below:

- .1 Salaries and other compensation of the Construction Manager's personnel stationed at the Construction Manager's principal office or offices other than the site office, except as specifically provided in Section 6.2, or as may be provided in Article 11;
- .2 Expenses of the Construction Manager's principal office and offices other than the site office;
- .3 Overhead and general expenses, except as may be expressly included in Sections 6.1 to 6.7;
- .4 The Construction Manager's capital expenses, including interest on the Construction Manager's capital employed for the Work;

Init.

- .5 Except as provided in Section 6.7.3 of this Agreement, costs due to the negligence or failure of the Construction Manager, Subcontractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable to fulfill a specific responsibility of the Contract;
- .6 Any cost not specifically and expressly described in Sections 6.1 to 6.7;
- .7 Costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price to be exceeded; and
- .8 Costs for services incurred during the Preconstruction Phase.

**§ 6.9 Discounts, Rebates and Refunds**

**§ 6.9.1** Cash discounts obtained on payments made by the Construction Manager shall accrue to the Owner if (1) before making the payment, the Construction Manager included them in an Application for Payment and received payment from the Owner, or (2) the Owner has deposited funds with the Construction Manager with which to make payments; otherwise, cash discounts shall accrue to the Construction Manager. Trade discounts, rebates, refunds and amounts received from sales of surplus materials and equipment shall accrue to the Owner, and the Construction Manager shall make provisions so that they can be obtained.

**§ 6.9.2** Amounts that accrue to the Owner in accordance with the provisions of Section 6.9.1 shall be credited to the Owner as a deduction from the Cost of the Work.

**§ 6.10 Related Party Transactions**

**§ 6.10.1** For purposes of Section 6.10, the term "related party" shall mean a parent, subsidiary, affiliate or other entity having common ownership or management with the Construction Manager; any entity in which any stockholder in, or management employee of, the Construction Manager owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of the Construction Manager. The term "related party" includes any member of the immediate family of any person identified above.

**§ 6.10.2** If any of the costs to be reimbursed arise from a transaction between the Construction Manager and a related party, the Construction Manager shall notify the Owner of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If the Owner, after such notification, authorizes the proposed transaction, then the cost incurred shall be included as a cost to be reimbursed, and the Construction Manager shall procure the Work, equipment, goods or service from the related party, as a Subcontractor, according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3. If the Owner fails to authorize the transaction, the Construction Manager shall procure the Work, equipment, goods or service from some person or entity other than a related party according to the terms of Sections 2.3.2.1, 2.3.2.2 and 2.3.2.3.

**§ 6.11 Accounting Records**

The Construction Manager shall keep full and detailed records and accounts related to the cost of the Work and exercise such controls as may be necessary for proper financial management under this Contract and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the Owner. The Owner and the Owner's auditors shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Construction Manager's records and accounts, including complete documentation supporting accounting entries, books, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, purchase orders, vouchers, memoranda and other data relating to this Contract. The Construction Manager shall preserve these records for a period of three years after final payment, or for such longer period as may be required by law.

**ARTICLE 7 PAYMENTS FOR CONSTRUCTION PHASE SERVICES**

**§ 7.1 Progress Payments**

**§ 7.1.1** Based upon Applications for Payment submitted to the Architect by the Construction Manager and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Construction Manager as provided below and elsewhere in the Contract Documents.

**§ 7.1.2** The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

Or as mutually agreed to by all parties

Init.

§ 7.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the certified amount to the Construction Manager not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than thirty (30) days after the Architect receives the Application for Payment.

*As Per State Statutes*

§ 7.1.4 With each Application for Payment, the Construction Manager shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner or Architect to demonstrate that cash disbursements already made by the Construction Manager on account of the Cost of the Work equal or exceed progress payments already received by the Construction Manager, less that portion of those payments attributable to the Construction Manager's Fee, plus payrolls for the period covered by the present Application for Payment.

§ 7.1.5 Each Application for Payment shall be based on the most recent schedule of values submitted by the Construction Manager in accordance with the Contract Documents. The schedule of values shall allocate the entire Guaranteed Maximum Price among the various portions of the Work, except that the Construction Manager's Fee shall be shown as a single separate item. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Construction Manager's Applications for Payment.

§ 7.1.6 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment. The percentage of completion shall be the lesser of (1) the percentage of that portion of the Work which has actually been completed, or (2) the percentage obtained by dividing (a) the expense that has actually been incurred by the Construction Manager on account of that portion of the Work for which the Construction Manager has made or intends to make actual payment prior to the next Application for Payment by (b) the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values.

§ 7.1.7 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Guaranteed Maximum Price properly allocable to completed Work as determined by multiplying the percentage of completion of each portion of the Work by the share of the Guaranteed Maximum Price allocated to that portion of the Work in the schedule of values. Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201-2007;
- .2 Add that portion of the Guaranteed Maximum Price properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work, or if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing;
- .3 Add the Construction Manager's Fee, less retainage of five percent (5%). The Construction Manager's Fee shall be computed upon the Cost of the Work at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, shall be an amount that bears the same ratio to that fixed-sum fee as the Cost of the Work bears to a reasonable estimate of the probable Cost of the Work upon its completion;
- .4 Subtract retainage of five percent (5%) from that portion of the Work that the Construction Manager self-performs;
- .5 Subtract the aggregate of previous payments made by the Owner;
- .6 Subtract the shortfall, if any, indicated by the Construction Manager in the documentation required by Section 7.1.4 to substantiate prior Applications for Payment, or resulting from errors subsequently discovered by the Owner's auditors in such documentation; and
- .7 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201-2007.

§ 7.1.8 The Owner and Construction Manager shall agree upon (1) a mutually acceptable procedure for review and approval of payments to Subcontractors and (2) the percentage of retainage held on Subcontracts, and the Construction Manager shall execute subcontracts in accordance with those agreements.

Init.



§ 7.1.9 Except with the Owner's prior approval, the Construction Manager shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 7.1.10 In taking action on the Construction Manager's Applications for Payment, the Architect shall be entitled to rely on the accuracy and completeness of the information furnished by the Construction Manager and shall not be deemed to represent that the Architect has made a detailed examination, audit or arithmetic verification of the documentation submitted in accordance with Section 7.1.4 or other supporting data; that the Architect has made exhaustive or continuous on-site inspections; or that the Architect has made examinations to ascertain how or for what purposes the Construction Manager has used amounts previously paid on account of the Contract. Such examinations, audits and verifications, if required by the Owner, will be performed by the Owner's auditors acting in the sole interest of the Owner.

## § 7.2 Final Payment

§ 7.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Construction Manager when

- .1 the Construction Manager has fully performed the Contract except for the Construction Manager's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201-2007, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the Construction Manager has submitted a final accounting for the Cost of the Work and a final Application for Payment; and
- .3 a final Certificate for Payment has been issued by the Architect.

The Owner's final payment to the Construction Manager shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

As per State Statutes

§ 7.2.2 The Owner's auditors will review and report in writing on the Construction Manager's final accounting within 30 days after delivery of the final accounting to the Architect by the Construction Manager. Based upon such Cost of the Work as the Owner's auditors report to be substantiated by the Construction Manager's final accounting, and provided the other conditions of Section 7.2.1 have been met, the Architect will, within seven days after receipt of the written report of the Owner's auditors, either issue to the Owner a final Certificate for Payment with a copy to the Construction Manager, or notify the Construction Manager and Owner in writing of the Architect's reasons for withholding a certificate as provided in Section 9.5.1 of the AIA Document A201-2007. The time periods stated in this Section supersede those stated in Section 9.4.1 of the AIA Document A201-2007. The Architect is not responsible for verifying the accuracy of the Construction Manager's final accounting.

§ 7.2.3 If the Owner's auditors report the Cost of the Work as substantiated by the Construction Manager's final accounting to be less than claimed by the Construction Manager, the Construction Manager shall be entitled to request mediation of the disputed amount without seeking an initial decision pursuant to Section 15.2 of A201-2007. A request for mediation shall be made by the Construction Manager within 30 days after the Construction Manager's receipt of a copy of the Architect's final Certificate for Payment. Failure to request mediation within this 30-day period shall result in the substantiated amount reported by the Owner's auditors becoming binding on the Construction Manager. Pending a final resolution of the disputed amount, the Owner shall pay the Construction Manager the amount certified in the Architect's final Certificate for Payment.

§ 7.2.4 If, subsequent to final payment and at the Owner's request, the Construction Manager incurs costs described in Section 6.1.1 and not excluded by Section 6.8 to correct defective or nonconforming Work, the Owner shall reimburse the Construction Manager such costs and the Construction Manager's Fee applicable thereto on the same basis as if such costs had been incurred prior to final payment, but not in excess of the Guaranteed Maximum Price. If the Construction Manager has participated in savings as provided in Section 5.2.1, the amount of such savings shall be recalculated and appropriate credit given to the Owner in determining the net amount to be paid by the Owner to the Construction Manager.

## ARTICLE 8 INSURANCE AND BONDS

For all phases of the Project, the Construction Manager and the Owner shall purchase and maintain insurance, and the Construction Manager shall provide bonds as set forth in Article 11 of AIA Document A201-2007.

Init.

(State bonding requirements, if any, and limits of liability for insurance required in Article 11 of AIA Document A201–2007.)

Type of Insurance or Bond	Limit of Liability or Bond Amount (\$0.00)
Commercial General Liability:	
Each Occurrence	1,000,000.00
Damage to Rented Premises	\$ 100,000.00
Medical Expense	\$ 5,000.00
Personal & Advertising Injury	\$1,000,000.00
General Aggregate	\$2,000,000.00
Products-Completed Operations Aggregate	\$2,000,000.00
 Automobile Liability:	 \$1,000,000.00 each accident
Combined Single	
Other Coverages:	\$1,000,000.00 each occurrence
Excess Umbrella Liability	\$1,000,000.00 aggregate
 Worker's Compensation: Provide as per State Law	
Each Accident	\$1,000,000.00
Each Disease - Each Employee	\$1,000,000.00

**ARTICLE 9 DISPUTE RESOLUTION**

§ 9.1 Any Claim between the Owner and Construction Manager shall be resolved in accordance with the provisions set forth in this Article 9 and Article 15 of A201–2007. However, for Claims arising from or relating to the Construction Manager's Preconstruction Phase services, no decision by the Initial Decision Maker shall be required as a condition precedent to mediation or binding dispute resolution, and Section 9.3 of this Agreement shall not apply.

§ 9.2 For any Claim subject to, but not resolved by mediation pursuant to Section 15.3 of AIA Document A201–2007, the method of binding dispute resolution shall be as follows:

*(Check the appropriate box. If the Owner and Construction Manager do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.)*

- Arbitration pursuant to Section 15.4 of AIA Document A201–2007
- Litigation in a court of competent jurisdiction
- Other: *(Specify)*

*(Paragraphs deleted)*

**ARTICLE 10 TERMINATION OR SUSPENSION**

**§ 10.1 Termination Prior to Establishment of the Guaranteed Maximum Price**

§ 10.1.1 Prior to the execution of the Guaranteed Maximum Price Amendment, the Owner may terminate this Agreement upon not less than seven days' written notice to the Construction Manager for the Owner's convenience and without cause, and the Construction Manager may terminate this Agreement, upon not less than seven days' written notice to the Owner, for the reasons set forth in Section 14.1.1 of A201–2007.

§ 10.1.2 In the event of termination of this Agreement pursuant to Section 10.1.1, the Construction Manager shall be equitably compensated for Preconstruction Phase services performed prior to receipt of a notice of termination. In no event shall the Construction Manager's compensation under this Section exceed the compensation set forth in Section 4.1.

§ 10.1.3 If the Owner terminates the Contract pursuant to Section 10.1.1 after the commencement of the Construction Phase but prior to the execution of the Guaranteed Maximum Price Amendment, the Owner shall pay to the

Init.

Construction Manager an amount calculated as follows, which amount shall be in addition to any compensation paid to the Construction Manager under Section 10.1.2:

- .1 Take the Cost of the Work incurred by the Construction Manager to the date of termination;
- .2 Add the Construction Manager's Fee computed upon the Cost of the Work to the date of termination at the rate stated in Section 5.1 or, if the Construction Manager's Fee is stated as a fixed sum in that Section, an amount that bears the same ratio to that fixed-sum Fee as the Cost of the Work at the time of termination bears to a reasonable estimate of the probable Cost of the Work upon its completion; and
- .3 Subtract the aggregate of previous payments made by the Owner for Construction Phase services.

The Owner shall also pay the Construction Manager fair compensation, either by purchase or rental at the election of the Owner, for any equipment owned by the Construction Manager which the Owner elects to retain and which is not otherwise included in the Cost of the Work under Section 10.1.3.1. To the extent that the Owner elects to take legal assignment of subcontracts and purchase orders (including rental agreements), the Construction Manager shall, as a condition of receiving the payments referred to in this Article 10, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Construction Manager, as the Owner may require for the purpose of fully vesting in the Owner the rights and benefits of the Construction Manager under such subcontracts or purchase orders. All Subcontracts, purchase orders and rental agreements entered into by the Construction Manager will contain provisions allowing for assignment to the Owner as described above.

If the Owner accepts assignment of subcontracts, purchase orders or rental agreements as described above, the Owner will reimburse or indemnify the Construction Manager for all costs arising under the subcontract, purchase order or rental agreement, if those costs would have been reimbursable as Cost of the Work if the contract had not been terminated. If the Owner chooses not to accept assignment of any subcontract, purchase order or rental agreement that would have constituted a Cost of the Work had this agreement not been terminated, the Construction Manager will terminate the subcontract, purchase order or rental agreement and the Owner will pay the Construction Manager the costs necessarily incurred by the Construction Manager because of such termination.

#### **§ 10.2 Termination Subsequent to Establishing Guaranteed Maximum Price**

Following execution of the Guaranteed Maximum Price Amendment and subject to the provisions of Section 10.2.1 and 10.2.2 below, the Contract may be terminated as provided in Article 14 of AIA Document A201–2007.

**§ 10.2.1** If the Owner terminates the Contract after execution of the Guaranteed Maximum Price Amendment, the amount payable to the Construction Manager pursuant to Sections 14.2 and 14.4 of A201–2007 shall not exceed the amount the Construction Manager would otherwise have received pursuant to Sections 10.1.2 and 10.1.3 of this Agreement.

**§ 10.2.2** If the Construction Manager terminates the Contract after execution of the Guaranteed Maximum Price Amendment, the amount payable to the Construction Manager under Section 14.1.3 of A201–2007 shall not exceed the amount the Construction Manager would otherwise have received under Sections 10.1.2 and 10.1.3 above, except that the Construction Manager's Fee shall be calculated as if the Work had been fully completed by the Construction Manager, utilizing as necessary a reasonable estimate of the Cost of the Work for Work not actually completed.

#### **§ 10.3 Suspension**

The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2007. In such case, the Guaranteed Maximum Price and Contract Time shall be increased as provided in Section 14.3.2 of AIA Document A201–2007, except that the term "profit" shall be understood to mean the Construction Manager's Fee as described in Sections 5.1 and 5.3.5 of this Agreement.

### **ARTICLE 11 MISCELLANEOUS PROVISIONS**

**§ 11.1** Terms in this Agreement shall have the same meaning as those in A201–2007.

#### **§ 11.2 Ownership and Use of Documents**

Section 1.5 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

#### **§ 11.3 Governing Law**

Section 13.1 of A201–2007 shall apply to both the Preconstruction and Construction Phases.

Init.

**§ 11.4 Assignment**

The Owner and Construction Manager, respectively, bind themselves, their agents, successors, assigns and legal representatives to this Agreement. Neither the Owner nor the Construction Manager shall assign this Agreement without the written consent of the other, except that the Owner may assign this Agreement to a lender providing financing for the Project if the lender agrees to assume the Owner’s rights and obligations under this Agreement. Except as provided in Section 13.2.2 of A201–2007, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

**§ 11.5 Other provisions:**

**ARTICLE 12 SCOPE OF THE AGREEMENT**

**§ 12.1** This Agreement represents the entire and integrated agreement between the Owner and the Construction Manager and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Construction Manager.

**§ 12.2** The following documents comprise the Agreement:

- .1 AIA Document A133–2009, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price
- .2 AIA Document A201–2007, General Conditions of the Contract for Construction
- .3 AIA Document E201™–2007, Digital Data Protocol Exhibit, if completed, or the following:  
| NA
- .4 AIA Document E202™–2008, Building Information Modeling Protocol Exhibit, if completed, or the following:  
| NA
- .5 Other documents:  
*(List other documents, if any, forming part of the Agreement.)*  
| Exhibit A – GMP Amendments as approved

This Agreement is entered into as of the day and year first written above.

\_\_\_\_\_  
**OWNER** *(Signature & Date)*  
 Matt Dukes, Mayor  
*(Printed name and title)*

\_\_\_\_\_  
**CONSTRUCTION MANAGER** *(Signature & Date)*  
 Cary DeHart, CEO  
*(Printed name and title)*

\_\_\_\_\_  
**OWNER** *(Signature & Date)*  
 Sara Hancock, City Clerk  
*(Printed name and title)*

\_\_\_\_\_  
**OWNER** *(Signature & Date)*  
 Heather Poole, City Attorney  
*(Printed name and title)*



DISCUSSION ITEMS





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT -  
ENGINEERING DIVISION

Billy Harless, Community Development Director  
Patrick Menefee, P.E., City Engineer

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

---

To: Honorable Mayor and Council

From: Patrick Menefee, P.E., City Engineer

Date: May 28th, 2019

Subject: Discussion and consideration of awarding the bid to and entering into a contract with Holland Backhoe, Inc. in the amount of \$245,031.00 for the Roefan and Hand waterline extension project.

Bids were received on May 14th, 2019 for the above referenced project. Staff recommends award of the bid to Holland Backhoe, Inc. which submitted the lowest and best bid meeting specifications in the amount of \$245,031.00. Attached are the bid tabulations for the six bids received for the project, plus the engineer's estimate. The funds for this project were allocated by the Capital Improvements Committee.

Staff recommends awarding the bid to Holland Backhoe, Inc.

A handwritten signature in black ink, appearing to read "Patrick Menefee", is written over a horizontal line.

Patrick Menefee, P.E.  
City Engineer

Attachments

**Bid Tab - Roefan and Hand Waterline, Midwest City OK**

Pay Item	Description	Unit	QTY	Engineer's Estimate		Cimmarron Construction		Cross-Bo Construction		Holland Backhoe Inc		Matthews Trenching Co. Inc.		SMC Utility Construction		Southwest Water Works	
				Unit Price	Price	Unit Price	Price	Unit Price	Price	Unit Price	Price	Unit Price	Price	Unit Price	Price	Unit Price	Price
201(A)0102	Clearing and Grubbing	LS	1	\$ 1,000.00	\$ 1,000.00	\$ 1,500.00	\$ 1,500.00	\$ 1,920.00	\$ 1,920.00	\$ 3,500.00	\$ 3,500.00	\$ 4,500.00	\$ 4,500.00	\$ 10,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
202(H) 0185	Earthwork	LS	1	\$ 1,000.00	\$ 1,000.00	\$ 2,800.00	\$ 2,800.00	\$ 1,228.00	\$ 1,228.00	\$ 2,900.00	\$ 2,900.00	\$ 4,500.00	\$ 4,500.00	\$ 7,500.00	\$ 7,500.00	\$ 5,000.00	\$ 5,000.00
221(C)2801	Temporary Silt Fence	LF	200	\$ 2.00	\$ 400.00	\$ 2.00	\$ 400.00	\$ 1.30	\$ 260.00	\$ 2.00	\$ 400.00	\$ 5.00	\$ 1,000.00	\$ 7.00	\$ 1,400.00	\$ 3.00	\$ 600.00
221©0150	Temporary Rock Filter Dam Type 1	CY	8	\$ 120.00	\$ 960.00	\$ 80.00	\$ 640.00	\$ 149.00	\$ 1,192.00	\$ 93.75	\$ 750.00	\$ 75.00	\$ 600.00	\$ 1,000.00	\$ 8,000.00	\$ 30.00	\$ 240.00
230(A)2806	Solid Slab Sodding	SY	2516	\$ 3.00	\$ 7,548.00	\$ 3.00	\$ 7,548.00	\$ 7.25	\$ 18,241.00	\$ 3.00	\$ 7,548.00	\$ 4.00	\$ 10,064.00	\$ 5.00	\$ 12,580.00	\$ 2.00	\$ 5,032.00
613(A) 0491	18" R.C. Pipe Class III	LF	96	\$ 55.63	\$ 5,340.48	\$ 89.00	\$ 8,544.00	\$ 142.00	\$ 13,632.00	\$ 45.00	\$ 4,320.00	\$ 60.00	\$ 5,760.00	\$ 50.00	\$ 4,800.00	\$ 25.00	\$ 2,400.00
616(B) 5223	6" PVC Pipe (C900)	LF	32	\$ 30.00	\$ 960.00	\$ 65.00	\$ 2,080.00	\$ 5.00	\$ 160.00	\$ 15.00	\$ 480.00	\$ 38.00	\$ 1,216.00	\$ 15.00	\$ 480.00	\$ 15.00	\$ 480.00
616(B) 5225	8" PVC Pipe (C900)	LF	3601	\$ 50.00	\$ 180,050.00	\$ 43.00	\$ 154,843.00	\$ 19.50	\$ 70,219.50	\$ 28.00	\$ 100,828.00	\$ 40.00	\$ 144,040.00	\$ 30.00	\$ 108,030.00	\$ 39.00	\$ 140,439.00
616	Boring 8" DIP (Class 51) with Encasement	LF	60	\$ 250.00	\$ 15,000.00	\$ 295.00	\$ 17,700.00	\$ 113.50	\$ 6,810.00	\$ 290.00	\$ 17,400.00	\$ 200.00	\$ 12,000.00	\$ 200.00	\$ 12,000.00	\$ 125.00	\$ 7,500.00
	Boring 8" DIP (Class 51) no Encasement	LF	35	\$ 175.00	\$ 6,125.00	\$ 175.00	\$ 6,125.00	\$ 77.75	\$ 2,721.25	\$ 100.00	\$ 3,500.00	\$ 145.00	\$ 5,075.00	\$ 100.00	\$ 3,500.00	\$ 65.00	\$ 2,275.00
	Boring 8" C900 no Encasement	LF	44	\$ 175.00	\$ 7,700.00	\$ 92.00	\$ 4,048.00	\$ 55.75	\$ 2,453.00	\$ 100.00	\$ 4,400.00	\$ 150.00	\$ 6,600.00	\$ 75.00	\$ 3,300.00	\$ 45.00	\$ 1,980.00
616(D) 0767	2" Air Relief Valve Assembly and Meter Can	EA	1	\$ 3,212.50	\$ 3,212.50	\$ 2,600.00	\$ 2,600.00	\$ 2,575.00	\$ 2,575.00	\$ 2,500.00	\$ 2,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00	\$ 2,500.00	\$ 2,500.00
616(D) 0775	2" Blow Off Valve	EA	1	\$ 2,612.50	\$ 2,612.50	\$ 2,400.00	\$ 2,400.00	\$ 1,825.00	\$ 1,825.00	\$ 1,500.00	\$ 1,500.00	\$ 3,500.00	\$ 3,500.00	\$ 2,000.00	\$ 2,000.00	\$ 2,500.00	\$ 2,500.00
616(D) 1070	6" Gate Valve	EA	8	\$ 1,237.50	\$ 9,900.00	\$ 975.00	\$ 7,800.00	\$ 1,030.00	\$ 8,240.00	\$ 1,200.00	\$ 9,600.00	\$ 950.00	\$ 7,600.00	\$ 1,500.00	\$ 12,000.00	\$ 1,500.00	\$ 12,000.00
616(D) 1080	8" Gate Valve	EA	5	\$ 1,400.00	\$ 7,000.00	\$ 1,500.00	\$ 7,500.00	\$ 1,505.00	\$ 7,525.00	\$ 1,700.00	\$ 8,500.00	\$ 1,750.00	\$ 8,750.00	\$ 2,000.00	\$ 10,000.00	\$ 2,000.00	\$ 10,000.00
616(D) 8055	8" Tapping Valve and Box	EA	2	\$ 2,400.00	\$ 4,800.00	\$ 5,400.00	\$ 10,800.00	\$ 2,344.00	\$ 4,688.00	\$ 2,500.00	\$ 5,000.00	\$ 7,500.00	\$ 15,000.00	\$ 3,000.00	\$ 6,000.00	\$ 3,500.00	\$ 7,000.00
616(G) 1195	Fire Hydrant and Assembly	EA	8	\$ 3,587.50	\$ 28,700.00	\$ 2,900.00	\$ 23,200.00	\$ 2,600.00	\$ 20,800.00	\$ 2,500.00	\$ 20,000.00	\$ 2,850.00	\$ 22,800.00	\$ 5,000.00	\$ 40,000.00	\$ 3,000.00	\$ 24,000.00
616(N) 0090	Service Connection (Short)	EA	13	\$ 950.00	\$ 12,350.00	\$ 950.00	\$ 12,350.00	\$ 1,200.00	\$ 15,600.00	\$ 480.00	\$ 6,240.00	\$ 750.00	\$ 9,750.00	\$ 1,200.00	\$ 15,600.00	\$ 500.00	\$ 6,500.00
616(N) 0092	Service Connection (Long)	EA	12	\$ 1,000.00	\$ 12,000.00	\$ 1,850.00	\$ 22,200.00	\$ 1,500.00	\$ 18,000.00	\$ 1,290.00	\$ 15,480.00	\$ 1,250.00	\$ 15,000.00	\$ 1,600.00	\$ 19,200.00	\$ 750.00	\$ 9,000.00
616(O) 0300	8" 11 1/4 Degree Fitting	EA	4	\$ 575.00	\$ 2,300.00	\$ 475.00	\$ 1,900.00	\$ 472.00	\$ 1,888.00	\$ 255.00	\$ 1,020.00	\$ 400.00	\$ 1,600.00	\$ 750.00	\$ 3,000.00	\$ 350.00	\$ 1,400.00
616(O) 0350	8" 22 1/2 Degree Fitting	EA	6	\$ 575.00	\$ 3,450.00	\$ 500.00	\$ 3,000.00	\$ 486.00	\$ 2,916.00	\$ 265.00	\$ 1,590.00	\$ 425.00	\$ 2,550.00	\$ 750.00	\$ 4,500.00	\$ 350.00	\$ 2,100.00
616(O) 0400	8" 45 Degree Fitting	EA	5	\$ 575.00	\$ 2,875.00	\$ 525.00	\$ 2,625.00	\$ 489.00	\$ 2,445.00	\$ 275.00	\$ 1,375.00	\$ 450.00	\$ 2,250.00	\$ 750.00	\$ 3,750.00	\$ 350.00	\$ 1,750.00
616(S) 0215	8" Plug	EA	1	\$ 275.00	\$ 275.00	\$ 325.00	\$ 325.00	\$ 206.00	\$ 206.00	\$ 200.00	\$ 200.00	\$ 175.00	\$ 175.00	\$ 500.00	\$ 500.00	\$ 300.00	\$ 300.00
616(T) 0560	8" X 8" X 8" Tee	EA	1	\$ 700.00	\$ 700.00	\$ 800.00	\$ 800.00	\$ 850.00	\$ 850.00	\$ 625.00	\$ 625.00	\$ 625.00	\$ 625.00	\$ 1,000.00	\$ 1,000.00	\$ 750.00	\$ 750.00
616(T) 0570	8" X 8" X 6" Tee	EA	8	\$ 680.00	\$ 5,440.00	\$ 725.00	\$ 5,800.00	\$ 600.00	\$ 4,800.00	\$ 575.00	\$ 4,600.00	\$ 550.00	\$ 4,400.00	\$ 1,000.00	\$ 8,000.00	\$ 700.00	\$ 5,600.00
616(V) 0100	Hydrostatic Pressure Testing and Disinfection	LS	1	\$ 4,500.00	\$ 4,500.00	\$ 4,000.00	\$ 4,000.00	\$ 1,306.00	\$ 1,306.00	\$ 2,400.00	\$ 2,400.00	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
619	Remove and Replace Sidewalk	SY	2	\$ 55.00	\$ 110.00	\$ 125.00	\$ 250.00	\$ 720.00	\$ 1,440.00	\$ 375.00	\$ 750.00	\$ 1,500.00	\$ 3,000.00	\$ 50.00	\$ 100.00	\$ 55.00	\$ 110.00
619	Remove and Replace Gravel Drive	SY	212	\$ 35.00	\$ 7,420.00	\$ 30.00	\$ 6,360.00	\$ 15.00	\$ 3,180.00	\$ 10.00	\$ 2,120.00	\$ 20.00	\$ 4,240.00	\$ 50.00	\$ 10,600.00	\$ 22.00	\$ 4,664.00
619(B) 5918	Removal of Existing Pipe	LF	84	\$ 10.93	\$ 918.12	\$ 8.00	\$ 672.00	\$ 6.20	\$ 520.80	\$ 20.00	\$ 1,680.00	\$ 15.00	\$ 1,260.00	\$ 10.00	\$ 840.00	\$ 15.00	\$ 1,260.00
629(E ) 5048	Remove and Reset Mailbox	EA	1	\$ 137.85	\$ 137.85	\$ 200.00	\$ 200.00	\$ 200.00	\$ 200.00	\$ 300.00	\$ 300.00	\$ 250.00	\$ 250.00	\$ 500.00	\$ 500.00	\$ 150.00	\$ 150.00
805(D) 8756	Remove and Reset Existing Signs	EA	3	\$ 300.00	\$ 900.00	\$ 250.00	\$ 750.00	\$ 100.00	\$ 300.00	\$ 150.00	\$ 450.00	\$ 150.00	\$ 450.00	\$ 500.00	\$ 1,500.00	\$ 150.00	\$ 450.00
880(J) 8905	Construction Traffic Control	LS	1	\$ 10,000.00	\$ 10,000.00	\$ 3,500.00	\$ 3,500.00	\$ 5,000.00	\$ 5,000.00	\$ 2,575.00	\$ 2,575.00	\$ 4,500.00	\$ 4,500.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
641 1399	Mobilization	LS	1	\$ 46,287.15	\$ 46,287.15	\$ 9,500.00	\$ 9,500.00	\$ 23,500.00	\$ 23,500.00	\$ 4,000.00	\$ 4,000.00	\$ 5,000.00	\$ 5,000.00	\$ 7,000.00	\$ 7,000.00	\$ 5,000.00	\$ 5,000.00
642(B) 0096	Construction Staking Level II	LS	1	\$ 10,370.53	\$ 10,370.53	\$ 4,005.00	\$ 4,005.00	\$ 3,500.00	\$ 3,500.00	\$ 6,500.00	\$ 6,500.00	\$ 7,500.00	\$ 7,500.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
				Total	\$ 402,342.13		\$ 338,765.00		\$ 250,141.55		\$ 245,031.00		\$ 321,555.00		\$ 336,180.00		\$ 282,980.00



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

**Date:** May 28, 2019

**Subject:** (PC – 1990) Discussion and consideration of approval of the proposed preliminary plat of Cassidy Cove Section III, described as a part of the NW/4 of Section 1, T11N, R2W, located at 500 and 600 Davidson Road.

After a review of applicant's proposed preliminary plat application and additional review and flood study for the drainage basin by the City's consulting engineer, Johnson and Associates, the proposed preliminary plat of Cassidy Cove Section III meets or exceeds minimum standards. Staff and Planning Commission recommend approval.

Please see the attached staff reports concerning this additional information.

**Action Required:** Action is at the discretion of the Council.

Billy Harless, AICP  
Community Development Director





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT -  
ENGINEERING DIVISION

Billy Harless, Community Development Director  
Patrick Menefee, P.E., City Engineer

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

TO : Honorable Mayor and City Council  
FROM : Patrick Menefee, P.E., City Engineer  
DATE : May 28th, 2019

The City Council had an application for the Cassidy Cove 3 subdivision preliminary plat presented to them at the April 23rd, 2019 meeting for review and approval. After some discussion, it was decided to delay the vote on the plat's approval until after a review of the detention pond and its impact to the surrounding areas could be evaluated by the City's on call drainage consultant, Johnson and Associates. This summary memo is attached to Johnson and Associates findings to help summarize both the letter addressing the detention pond review and the drainage report and flood study of the drainage basin.

Mr. Timothy W. Johnson P.E., from Johnson and Associates has provided the attached letter dated May 6th, 2019 with his conclusions after reviewing the preliminary drainage report and detention pond design submitted to the City of Midwest City for the Cassidy Cove 3 preliminary plat.

The following is the paragraphs from that letter and a summarization:

*Johnson and Associates has completed the second review of the proposed storm water detention facility for Cassidy Cove Section 3. The review focused solely on the drainage report for the detention pond. No construction plans were provided. No other plans or reports for any other site construction were provided for review at this time.*

The review was focused on the pond only, the public improvement plans for the water, sewer, roads, and storm inlets will be designed and submitted later if this application is approved.

*If constructed as discussed in the drainage report, the detention facility will provide adequate storage volume and sufficient flow attenuation to satisfy the Midwest City detention requirement for the 100-year frequency storm event.*

If built according to the detention plans, the pond does meet Midwest City code.

To continue, the letter has some attached comments for consideration:

1. *The detention facility will not function as proposed unless sufficient and adequate storm water drainage facilities are constructed to collect and convey the 100-year runoff for the entire 142.75 acres of onsite and surrounding drainage area into the detention pond. No drainage plans have been reviewed. A full system drainage analysis should be submitted for review.*

Unless every structure upstream in the drainage basin is sized to carry a 100-year flood event amount of water to the pond, it doesn't operate at maximum efficiency. All proposed drainage improvements will be sized to carry this amount of water, meeting these requirements.

2. *A storm sewer facility should be constructed to collect and convey storm runoff from the west end of S.E 6<sup>th</sup> Street, westerly into the detention facility, to eliminate surface flow across Lots 13 and 14, Block 1, of the plat.*

This requirement has been discussed with the developer and the design engineer and they are incorporating this feature into the design plans.

3. *Construction of improvements within the plat will disturb a drainage swale identified as a "blue line" on the USGS Quad Map of the area. This line generally indicates an area of Waters of the United States which is regulated by the Tulsa District Corps of Engineers (COE) under Section 404 of the Clean Water Act. The COE should be contacted in request of possibly a Nationwide Permit 29 or 43 for approval of the proposed construction. Summary sheets of these permits are attached for review as well as a local USGS map exhibit.*

If this application is approved, the consultant engineer will submit the proposal to the Corps of Engineers. The Corps will state whatever regulation the development must follow as outlined in their attached regulations.

4. *Should the detention pond outlet be constructed with the release as proposed, then there will be a dramatic impact on the existing stream, downstream of the project. Review of the conditions of this existing stream indicate that it is unimproved and in a natural state, with homes near and potentially in the backwater of the stream. Some consideration should be given to mitigate the much higher velocities that will be released from the proposed detention pond.*

This requirement has also been discussed with the developer and the design engineer and they are incorporating these features into the designed plans. The outflow of the pond will have velocity increases that must be negated before water leaves the site. Tombstone blocks, diverters, and other features are to be incorporated into to outfall to insure no velocity increase from the site.

5. *Although the development will not increase the magnitude of the flow rate leaving the site, consideration should be given to addressing concerns mentioned in the last public hearing and noted by staff. J&A would request that the applicant consider continuing this item until the next meeting so a field review and analysis of the Private and*

*Public drainage facilities can be completed to determine downstream system inadequacies. Even though the pond meets and exceeds the City's design criteria there is a perceived concern by downstream neighbors. This is something that the staff can use to explain the current conditions to elected officials and concerned citizens.*

Following this recommendation, the agenda item for the plat was continued at the May 14th City Council meeting. The drainage study was commissioned to evaluate the downstream conditions from Cassidy Cove 3. That is the second part of Johnson and Associates submittal summarized here:

The conclusion page starts with:

#### PROJECT SCOPE

*The City of Midwest City has received various comments of concern regarding local flooding in an area east of Douglas Blvd. and north of Nawassa Drive along an unnamed tributary to Soldier Creek Tributary 6. The information within this report includes a drainage and flood analysis of the 100-year and the 2-year frequency storm events.*

The study looked at not only an analysis of the 100-year level event, but the more frequent 2-year level event to see if there was a different result when comparing the different intensities. Some low water storms can behave differently than larger rain events.

#### PROJECT DISCUSSION

*The studied basin consists of a drainage area of 264.32 acres. The flood study defines rainfall runoff for the 100-year frequency storm and the 2-year frequency storm. The existing level of development within the basin produces a maximum flowrate for the 100 year and the 2-year storms of 780.46 and 325.75 cubic feet per second, respectively, at the confluence of Soldier Creek Tributary 6. These values were used to define the 100- year flood plain of the stream and to determine the local street culvert capacities related to the fairly common 2-year frequency storm runoff flow rates.*

*The constructed storm sewer system consists of an existing concrete channel with an approximate bottom width of 16 to 18 feet, having vertical concrete walls of 2 to 3 feet high. Unusually low-head culverts are in place under Nawassa Drive, Timber Ridge Road, and Old Colony Road, consisting of 8 - 27" RCP's at Nawassa Dr., and double 8' x 2' RCB's located at both Timber Ridge Rd. and Old Colony Rd.*

*Results of the flood study indicate the runoff will overflow the roadways during the 2- year storm event and will overflow with depths of several feet over the roads during the 100-year event. Significant flooding of adjacent structures would occur during various rainfall events.*

The study notes the size of the concrete channel and street crossings. The study shows these crossings under Old Colony, Timber Ridge, and Nawassa are undersized and that water can overtop these crossings at 2-year level event up to a 100-year level of water.

CONCLUSION

*This drainage study indicates the probability of occasional flooding along the stream and that adjacent homes may be affected. Midwest City could consider future funding to improve and enlarge the drainage system. However, Midwest City requires stormwater detention with new developments that detains the increased volume and produces a developed runoff rate equal to or below the current pre-developed discharge rate of each developed site. With that, future development within the basin will not increase the probability of flooding and can continue as long as the detention requirement is placed on the various developments.*

*Any questions Staff has regarding this report and exhibits should be directed to Johnson & Associates for review and response.*

The conclusion to the study states that the City should pursue drainage projects downstream from the site, enlarging the three existing road crossings and the adjacent concrete channels. Note that Johnson and Associates also had the outflow from the detention pond under the proposed road in the addition modified from a proposed box structure including three, eight foot by four foot (8'x4') concrete boxes down to a pipe installation of six, 42" corrugated plastic pipes. This significantly reduces the size of the outflow and helps slow the release rate from the pond, helping further regulate water outflowing from the pond.

Other questions brought up during this review had to do with the existing home south of Davidson Road. The designer has reconfigured the slope of the southwest lot to drain directly east. No water will drain from the proposed development to the south onto the house and yard. Johnson and Associates also verified the water levels are below the existing house elevation.

Johnson and Associates concludes in both the detention pond review letter and the downstream drainage study summary the proposed detention plan submitted with this preliminary plat application meets Midwest City subdivision codes.



Patrick Menefee, P.E.  
City Engineer

Attachments

**DRAINAGE REPORT AND FLOOD STUDY**

TO SERVE

***UNNAMED CHANNEL TRIBUTARY  
TO SOLDIER CREEK TRIBUTARY 6***

LOCATED AT

**Nawassa Drive and Old Colony Road, East of Douglas Blvd.  
Midwest City, Oklahoma County, Oklahoma**



May 20, 2019

Prepared by:



***JOHNSON & ASSOCIATES, INC.***

1 East Sheridan Ave., Suite 200  
Oklahoma City, Oklahoma 73104  
(405) 235-8075  
(405) 235-8078\*Fax

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
PROJECT SCOPE .....	1
PROJECT DISCUSSION .....	1
CONCLUSION .....	2

**APPENDIX**

- HEC – RAS FLOOD STUDY OUTPUT
  - 100 YEAR STORM
  - 2 YEAR STORM
- LOCAL DRAINAGE BASIN CALCULATIONS
- LOCAL BASIN FLOOD ROUTING
- LOCAL AREA TOPOGRAPHIC SURVEY
- FEMA FIS REFERENCE DATA
- NOAA ATLAS 14 RAINFALL DATA REFERENCE
- STREAMSTATS REFERENCE
- J&A PREVIOUS STORMWATER DETENTION PLAN REVIEW DATA
  - CASSIDY COVE 3
- AREA PHOTOGRAPHS

**DRAINAGE MAPS ATTACHED SEPARATELY**

## **PROJECT SCOPE**

The City of Midwest City has received various comments of concern regarding local flooding in an area east of Douglas Blvd. and north of Nawassa Drive along an unnamed tributary to Soldier Creek Tributary 6. The information within this report includes a drainage and flood analysis of the 100-year and the 2-year frequency storm events.

## **PROJECT DISCUSSION**

The studied basin consists of a drainage area of 264.32 acres. The flood study defines rainfall runoff for the 100-year frequency storm and the 2-year frequency storm. The existing level of development within the basin produces a maximum flowrate for the 100 year and the 2-year storms of 780.46 and 325.75 cubic feet per second, respectively, at the confluence of Soldier Creek Tributary 6. These values were used to define the 100-year flood plain of the stream and to determine the local street culvert capacities related to the fairly common 2-year frequency storm runoff flow rates.

The constructed storm sewer system consists of an existing concrete channel with an approximate bottom width of 16 to 18 feet, having vertical concrete walls of 2 to 3 feet high. Unusually low-head culverts are in place under Hawassa Drive, Timber Ridge Road, and Old Colony Road, consisting of 8 - 27" RCP's at Hawassa Dr., and double 8' x 2' RCB's located at both Timber Ridge Rd. and Old Colony Rd.

Results of the flood study indicate the runoff will overflow the roadways during the 2-year storm event and will overflow with depths of several feet over the roads during the 100-year event. Significant flooding of adjacent structures would occur during various rainfall events.

## **CONCLUSION**

This drainage study indicates the probability of occasional flooding along the stream and that adjacent homes may be affected. Midwest City could consider future funding to improve and enlarge the drainage system. However, Midwest City requires stormwater detention with new developments that detains the increased volume and produces a developed runoff rate equal to or below the current pre-developed discharge rate of each developed site. With that, future development within the basin will not

increase the probability of flooding and can continue as long as the detention requirement is placed on the various developments.

Any questions Staff has regarding this report and exhibits should be directed to Johnson & Associates for review and response.



**Events for Link 19L: TOTAL AT SOLD CRK TRIB 6**

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
2-Year	325.75	325.75	<b>0.00</b>
5-Year	434.71	434.71	0.00
10-Year	510.11	510.11	0.00
25-Year	615.37	615.37	0.00
50-Year	693.09	693.09	0.00
100-Year	<b>780.46</b>	<b>780.46</b>	0.00

# APPENDIX

# **HEC-RAS FLOOD STUDY OUTPUT**

**100 YEAR STORM  
2 YEAR STORM**

**STREET CULVERT FLOW CAPACITY - OVERFLOW COMPARISON**  
**100 YEAR STORM - 2 YEAR STORM**

<b><u>100 YEAR STORM</u></b> <b><u>LOCATION</u></b>	<b><u>CULVERT</u></b> <b><u>SIZE</u></b>	<b><u>STORM</u></b> <b><u>FLOW</u></b>	<b><u>CULVERT</u></b> <b><u>CONVEYANCE</u></b>	<b><u>STREET</u></b> <b><u>OVERFLOW</u></b>
NAWASSA DR	8-27" RCP	780.46	268.95	511.51
TIMBER RIDGE RD	2-8 X 2 RCB	437.45	34.68	402.77
OLD COLONY RD	2- 8 X 2 RCB	437.45	266.05	171.40

<b><u>2 YEAR STORM</u></b> <b><u>LOCATION</u></b>	<b><u>CULVERT</u></b> <b><u>SIZE</u></b>	<b><u>STORM</u></b> <b><u>FLOW</u></b>	<b><u>CULVERT</u></b> <b><u>CONVEYANCE</u></b>	<b><u>STREET</u></b> <b><u>OVERFLOW</u></b>
NAWASSA DR	8-27" RCP	325.75	230.47	95.28
TIMBER RIDGE RD	2-8 X 2 RCB	200.85	155.62	45.23
OLD COLONY RD	2- 8 X 2 RCB	200.85	192.43	8.42

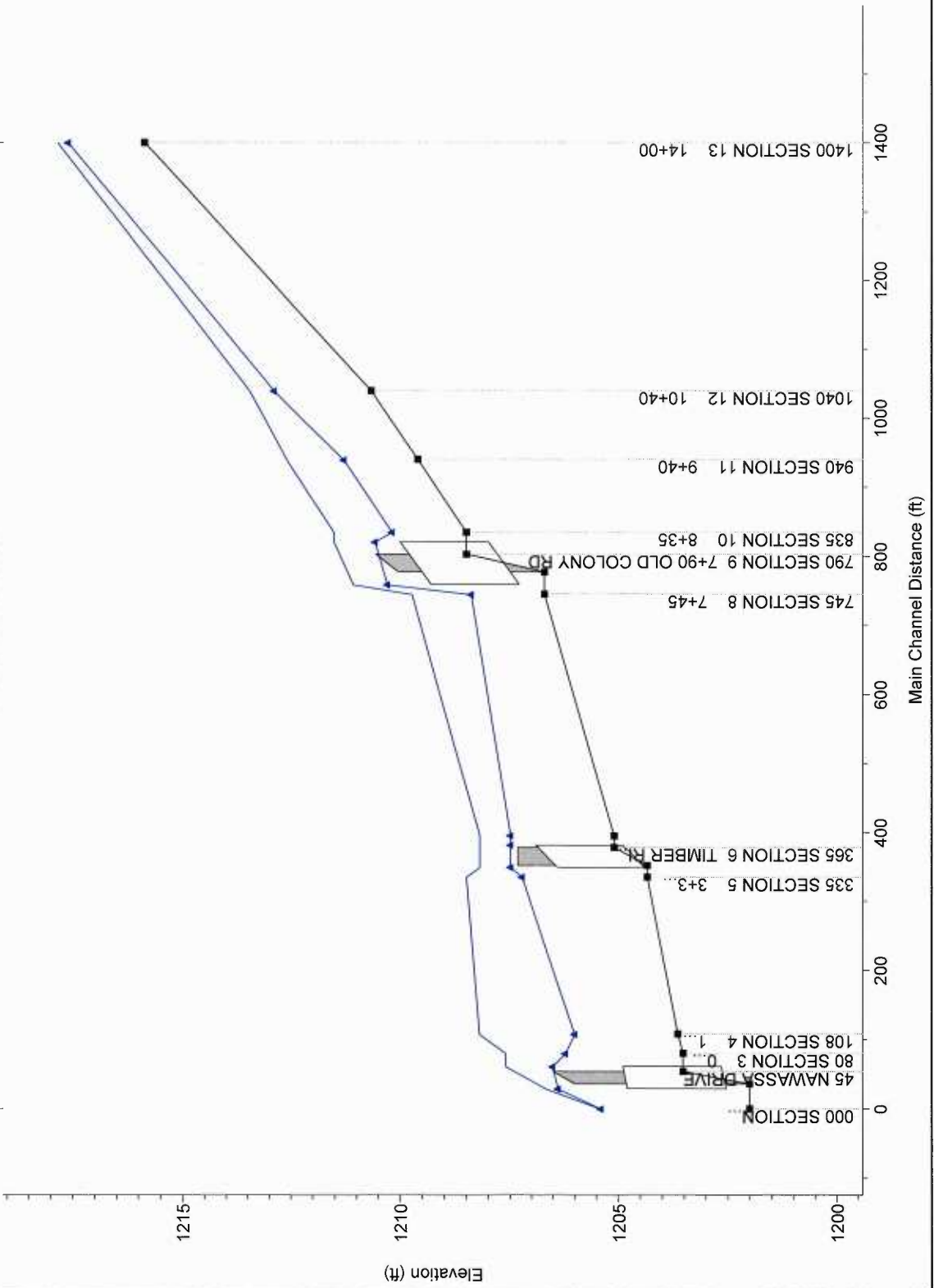
HEC-RAS Plan: EXISTING River: TRIB TO S C T6 Reach: MAIN

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
MAIN	1400	100 YR	437.45	1215.87	1217.84	1217.60	1217.93	0.011662	2.83	201.74	328.18	0.48
MAIN	1400	2 YR	200.85	1215.87	1217.61		1217.66	0.007058	1.93	130.76	273.77	0.36
MAIN	1040	100 YR	437.45	1210.67	1213.46		1213.59	0.012460	3.76	175.86	242.84	0.52
MAIN	1040	2 YR	200.85	1210.67	1212.89	1212.89	1213.14	0.028051	4.41	63.03	155.02	0.74
MAIN	940	100 YR	437.45	1209.60	1212.59	1212.59	1213.25	0.001260	7.26	170.72	177.99	0.74
MAIN	940	2 YR	200.85	1209.60	1211.29	1211.29	1212.15	0.002699	7.42	27.07	16.00	1.01
MAIN	835	100 YR	437.45	1208.50	1211.52	1211.52	1212.58	0.001722	8.53	87.93	95.06	0.87
MAIN	835	2 YR	200.85	1208.50	1210.19	1210.19	1211.05	0.002700	7.42	27.07	16.00	1.01
MAIN	790		Culvert									
MAIN	745	100 YR	437.45	1206.70	1209.73	1209.73	1210.86	0.001764	8.67	74.14	67.11	0.88
MAIN	745	2 YR	200.85	1206.70	1208.39	1208.39	1209.25	0.002698	7.42	27.07	16.00	1.01
MAIN	395	100 YR	437.45	1205.10	1208.19	1208.19	1208.90	0.001179	7.24	147.39	176.51	0.73
MAIN	395	2 YR	200.85	1205.10	1207.49	1206.73	1207.86	0.000754	4.87	52.82	79.35	0.56
MAIN	365		Culvert									
MAIN	335	100 YR	437.45	1204.34	1208.50		1208.79	0.000379	4.94	273.68	199.17	0.43
MAIN	335	2 YR	200.85	1204.34	1207.23	1206.03	1207.48	0.000435	4.15	78.56	94.39	0.43
MAIN	108	100 YR	780.46	1203.64	1208.21	1208.21	1208.65	0.000625	6.75	631.96	764.59	0.56
MAIN	108	2 YR	325.75	1203.64	1206.01	1206.01	1207.15	0.002438	8.60	39.10	24.27	0.99
MAIN	80	100 YR	780.46	1203.52	1207.60	1207.60	1208.26	0.000913	7.67	427.93	517.47	0.67
MAIN	80	2 YR	325.75	1203.52	1206.22	1205.68	1206.90	0.001198	6.67	54.40	41.25	0.72
MAIN	45		Culvert									
MAIN	000	100 YR	780.46	1202.00	1205.40	1205.27	1206.02	0.000946	6.95	321.02	343.99	0.66
MAIN	000	2 YR	325.75	1202.00	1205.40	1203.65	1205.51	0.000165	2.90	321.02	343.99	0.28

CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q.2

TRIB TO S C T6 MAIN



Legend	
—	WS 100 YR
—	WS 2 YR
—	Ground

Plan: EXISTING TRIB TO S C T6 MAIN RS: 365 Culv Group: Culvert #2 Profile: 2 YR

Q Culv Group (cfs)	155.62	Culv Full Len (ft)	32.00
# Barrels	2	Culv Vel US (ft/s)	4.86
Q Barrel (cfs)	77.81	Culv Vel DS (ft/s)	4.86
E.G. US. (ft)	1207.86	Culv Inv El Up (ft)	1204.90
W.S. US. (ft)	1207.49	Culv Inv El Dn (ft)	1204.40
E.G. DS (ft)	1207.48	Culv Frctn Ls (ft)	0.08
W.S. DS (ft)	1207.23	Culv Exit Loss (ft)	0.11
Delta EG (ft)	0.37	Culv Entr Loss (ft)	0.18
Delta WS (ft)	0.26	Q Weir (cfs)	45.23
E.G. IC (ft)	1207.71	Weir Sta Lft (ft)	391.83
E.G. OC (ft)	1207.86	Weir Sta Rgt (ft)	513.25
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1206.90	Weir Max Depth (ft)	0.52
Culv WS Outlet (ft)	1206.40	Weir Avg Depth (ft)	0.27
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	32.48
Culv Crt Depth (ft)	1.43	Min El Weir Flow (ft)	1207.34

Plan: EXISTING TRIB TO S C T6 MAIN RS: 45 Culv Group: Culvert #1 Profile: 100 YR

Q Culv Group (cfs)	268.95	Culv Full Len (ft)	32.00
# Barrels	8	Culv Vel US (ft/s)	8.46
Q Barrel (cfs)	33.62	Culv Vel DS (ft/s)	8.46
E.G. US. (ft)	1207.44	Culv Inv El Up (ft)	1202.65
W.S. US. (ft)	1207.60	Culv Inv El Dn (ft)	1202.54
E.G. DS (ft)	1206.02	Culv Frctn Ls (ft)	0.38
W.S. DS (ft)	1205.40	Culv Exit Loss (ft)	0.50
Delta EG (ft)	1.43	Culv Entr Loss (ft)	0.56
Delta WS (ft)	2.20	Q Weir (cfs)	511.51
E.G. IC (ft)	1207.41	Weir Sta Lft (ft)	235.99
E.G. OC (ft)	1207.44	Weir Sta Rgt (ft)	675.58
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1204.90	Weir Max Depth (ft)	0.93
Culv WS Outlet (ft)	1204.79	Weir Avg Depth (ft)	0.54
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	238.18
Culv Crt Depth (ft)	1.98	Min El Weir Flow (ft)	1206.51

Plan: EXISTING TRIB TO S C T6 MAIN RS: 45 Culv Group: Culvert #1 Profile: 2 YR

Q Culv Group (cfs)	230.47	Culv Full Len (ft)	32.00
# Barrels	8	Culv Vel US (ft/s)	7.25
Q Barrel (cfs)	28.81	Culv Vel DS (ft/s)	7.25
E.G. US. (ft)	1206.90	Culv Inv El Up (ft)	1202.65
W.S. US. (ft)	1206.22	Culv Inv El Dn (ft)	1202.54
E.G. DS (ft)	1205.51	Culv Frctn Ls (ft)	0.28
W.S. DS (ft)	1205.40	Culv Exit Loss (ft)	0.71
Delta EG (ft)	1.39	Culv Entr Loss (ft)	0.41
Delta WS (ft)	0.82	Q Weir (cfs)	95.28
E.G. IC (ft)	1206.85	Weir Sta Lft (ft)	312.68
E.G. OC (ft)	1206.90	Weir Sta Rgt (ft)	559.09
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1204.90	Weir Max Depth (ft)	0.42
Culv WS Outlet (ft)	1204.79	Weir Avg Depth (ft)	0.27
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	65.56
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	1206.51

Plan: EXISTING TRIB TO S C T6 MAIN RS: 790 Culv Group: Culvert #3 Profile: 100 YR

Q Culv Group (cfs)	266.05	Culv Full Len (ft)	62.00
# Barrels	2	Culv Vel US (ft/s)	8.31
Q Barrel (cfs)	133.03	Culv Vel DS (ft/s)	8.31
E.G. US. (ft)	1211.84	Culv Inv El Up (ft)	1208.00
W.S. US. (ft)	1211.52	Culv Inv El Dn (ft)	1207.30
E.G. DS (ft)	1210.86	Culv Frctn Ls (ft)	0.44
W.S. DS (ft)	1209.73	Culv Exit Loss (ft)	0.00
Delta EG (ft)	0.98	Culv Entr Loss (ft)	0.54
Delta WS (ft)	1.78	Q Weir (cfs)	171.40
E.G. IC (ft)	1211.86	Weir Sta Lft (ft)	414.64
E.G. OC (ft)	1211.84	Weir Sta Rgt (ft)	611.10
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1210.00	Weir Max Depth (ft)	1.25
Culv WS Outlet (ft)	1209.30	Weir Avg Depth (ft)	0.42
Culv Nml Depth (ft)	1.36	Weir Flow Area (sq ft)	81.89
Culv Crt Depth (ft)	2.00	Min El Weir Flow (ft)	1210.58

Plan: EXISTING TRIB TO S C T6 MAIN RS: 790 Culv Group: Culvert #3 Profile: 2 YR

Q Culv Group (cfs)	192.43	Culv Full Len (ft)	
# Barrels	2	Culv Vel US (ft/s)	7.29
Q Barrel (cfs)	96.21	Culv Vel DS (ft/s)	10.00
E.G. US. (ft)	1210.96	Culv Inv El Up (ft)	1208.00
W.S. US. (ft)	1210.19	Culv Inv El Dn (ft)	1207.30
E.G. DS (ft)	1209.25	Culv Frctn Ls (ft)	0.08
W.S. DS (ft)	1208.39	Culv Exit Loss (ft)	0.81
Delta EG (ft)	1.72	Culv Entr Loss (ft)	0.49
Delta WS (ft)	1.80	Q Weir (cfs)	8.42
E.G. IC (ft)	1210.96	Weir Sta Lft (ft)	519.83
E.G. OC (ft)	1210.89	Weir Sta Rgt (ft)	556.59
Culvert Control	Inlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1209.65	Weir Max Depth (ft)	0.40
Culv WS Outlet (ft)	1208.50	Weir Avg Depth (ft)	0.20
Culv Nml Depth (ft)	1.09	Weir Flow Area (sq ft)	7.28
Culv Crt Depth (ft)	1.65	Min El Weir Flow (ft)	1210.58

Plan: EXISTING TRIB TO S C T6 MAIN RS: 365 Culv Group: Culvert #2 Profile: 100 YR

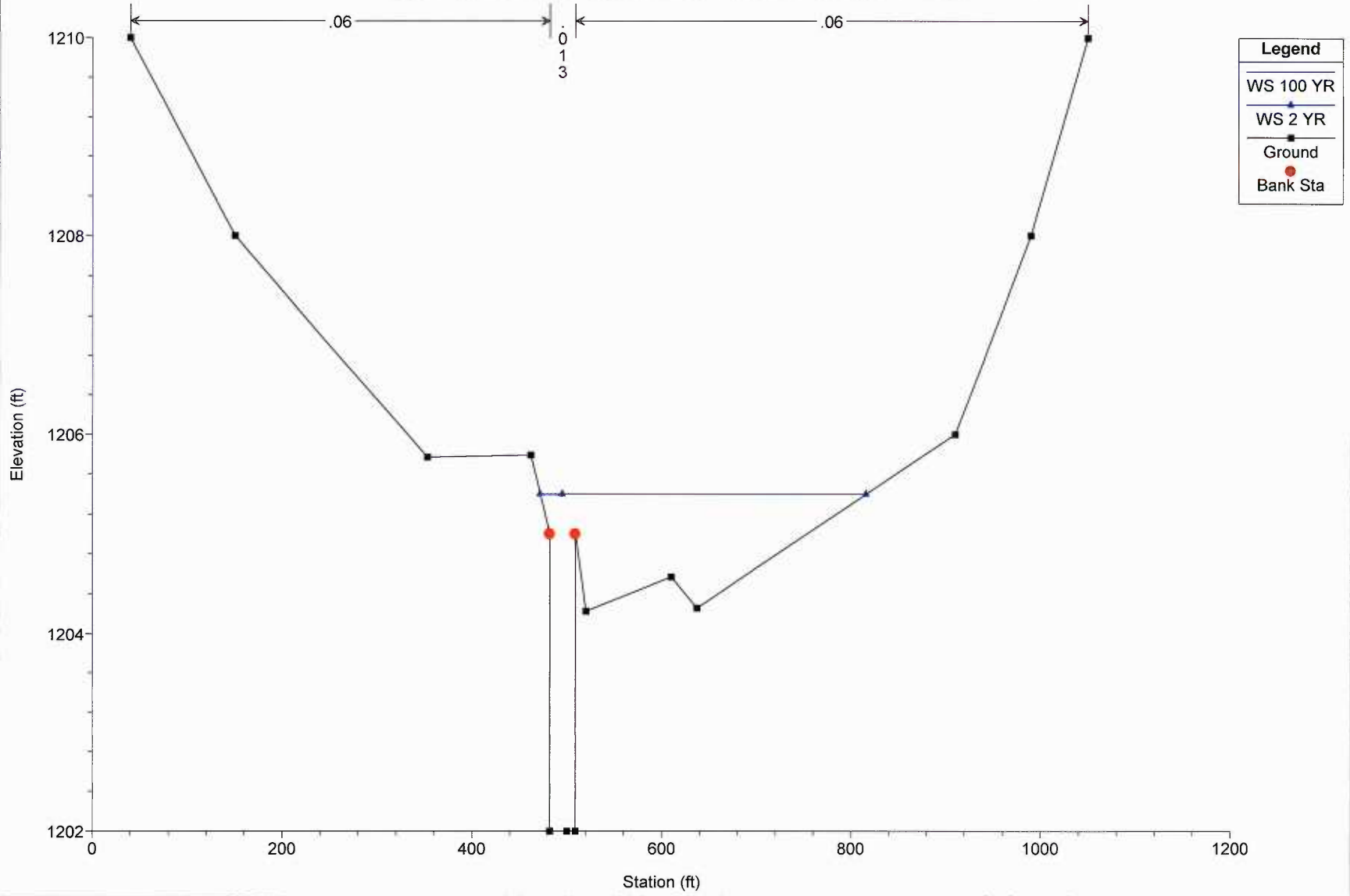
Q Culv Group (cfs)	34.68	Culv Full Len (ft)	32.00
# Barrels	2	Culv Vel US (ft/s)	1.08
Q Barrel (cfs)	17.34	Culv Vel DS (ft/s)	1.08
E.G. US. (ft)	1208.80	Culv Inv El Up (ft)	1204.90
W.S. US. (ft)	1208.19	Culv Inv El Dn (ft)	1204.40
E.G. DS (ft)	1208.79	Culv Frctn Ls (ft)	0.00
W.S. DS (ft)	1208.50	Culv Exit Loss (ft)	0.00
Delta EG (ft)	0.01	Culv Entr Loss (ft)	0.01
Delta WS (ft)	0.31	Q Weir (cfs)	402.77
E.G. IC (ft)	1208.76	Weir Sta Lft (ft)	340.67
E.G. OC (ft)	1208.80	Weir Sta Rgt (ft)	537.55
Culvert Control	Outlet	Weir Submerg	0.91
Culv WS Inlet (ft)	1206.90	Weir Max Depth (ft)	1.47
Culv WS Outlet (ft)	1206.40	Weir Avg Depth (ft)	0.97
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	191.78
Culv Crt Depth (ft)	0.53	Min El Weir Flow (ft)	1207.34



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

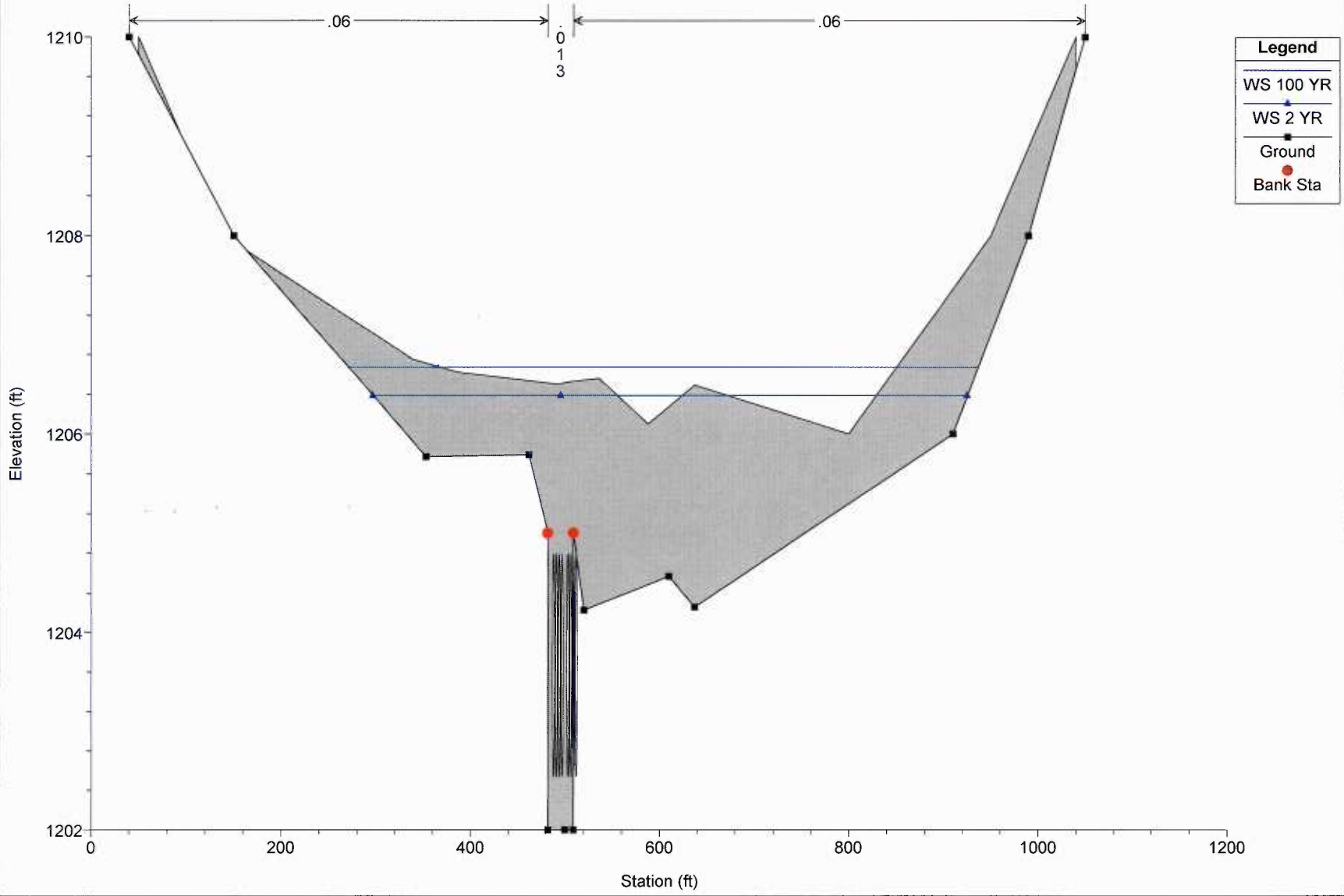
River = TRIB TO S C T6 Reach = MAIN RS = 000 SECTION 1 0+00



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

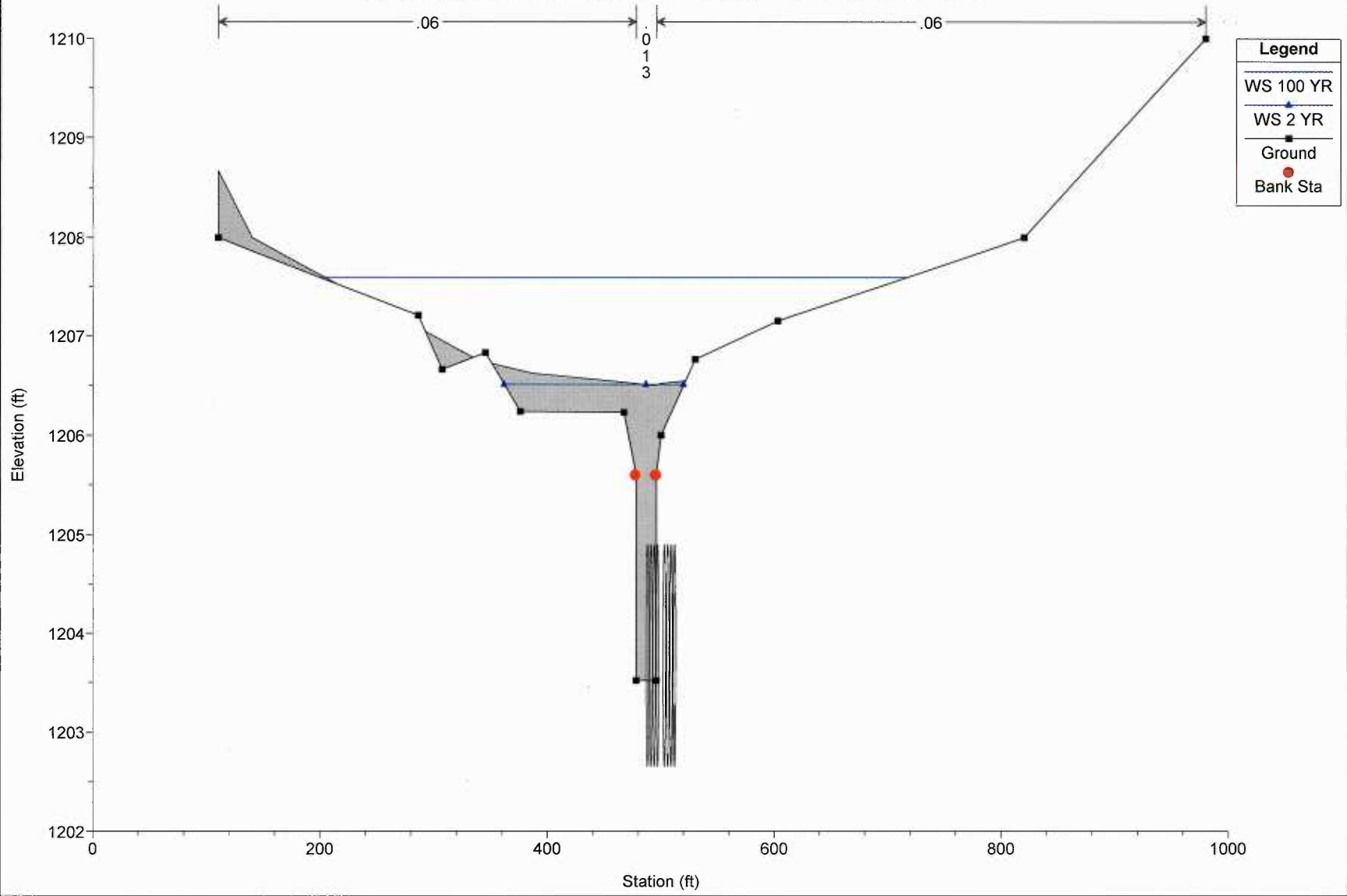
River = TRIB TO S C T6 Reach = MAIN RS = 45 Culv NAWASSA DRIVE



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

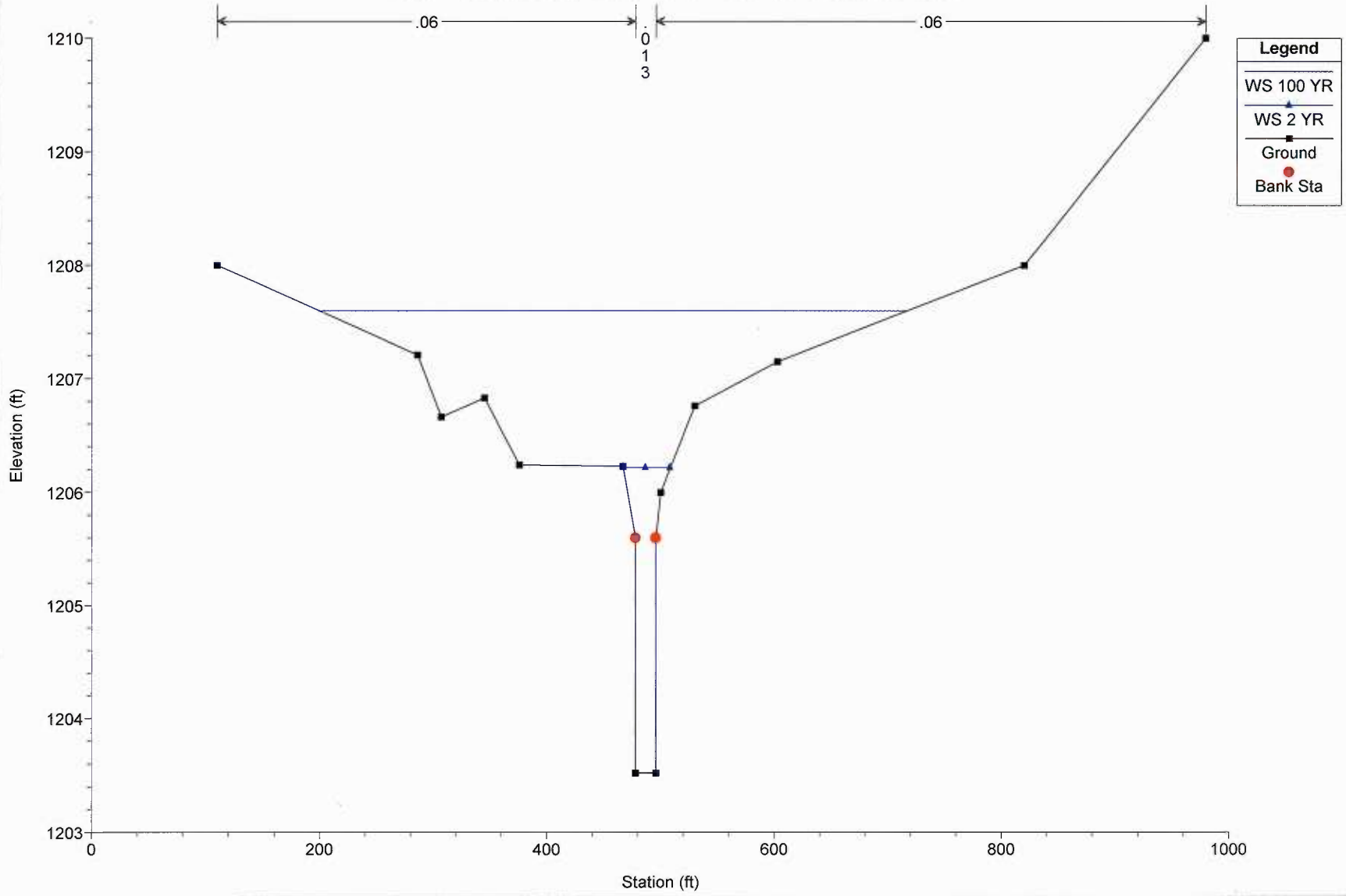
Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

River = TRIB TO S C T6 Reach = MAIN RS = 45 Culv NAWASSA DRIVE



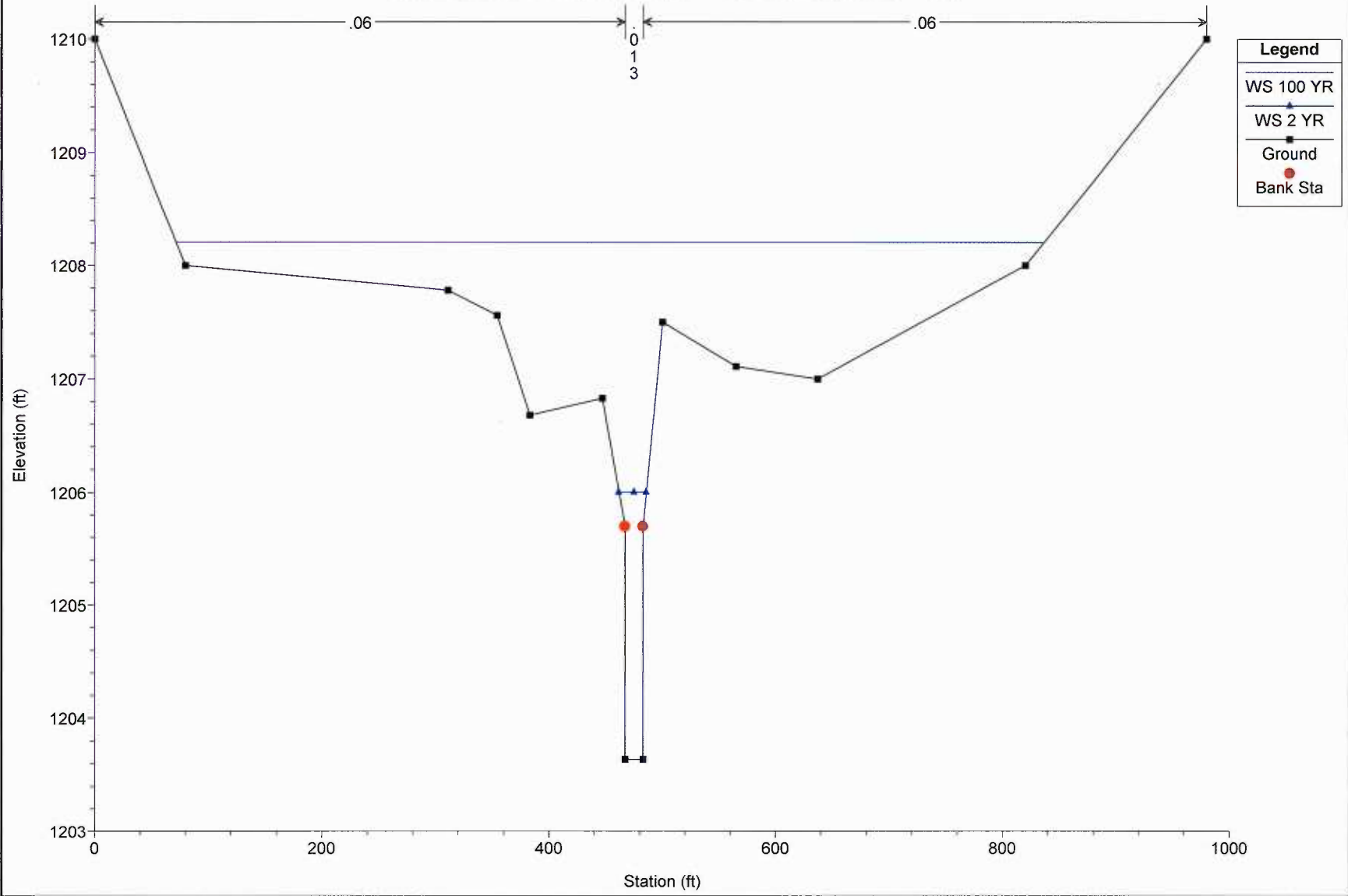
CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2  
River = TRIB TO S C T6 Reach = MAIN RS = 80 SECTION 3 0+80



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

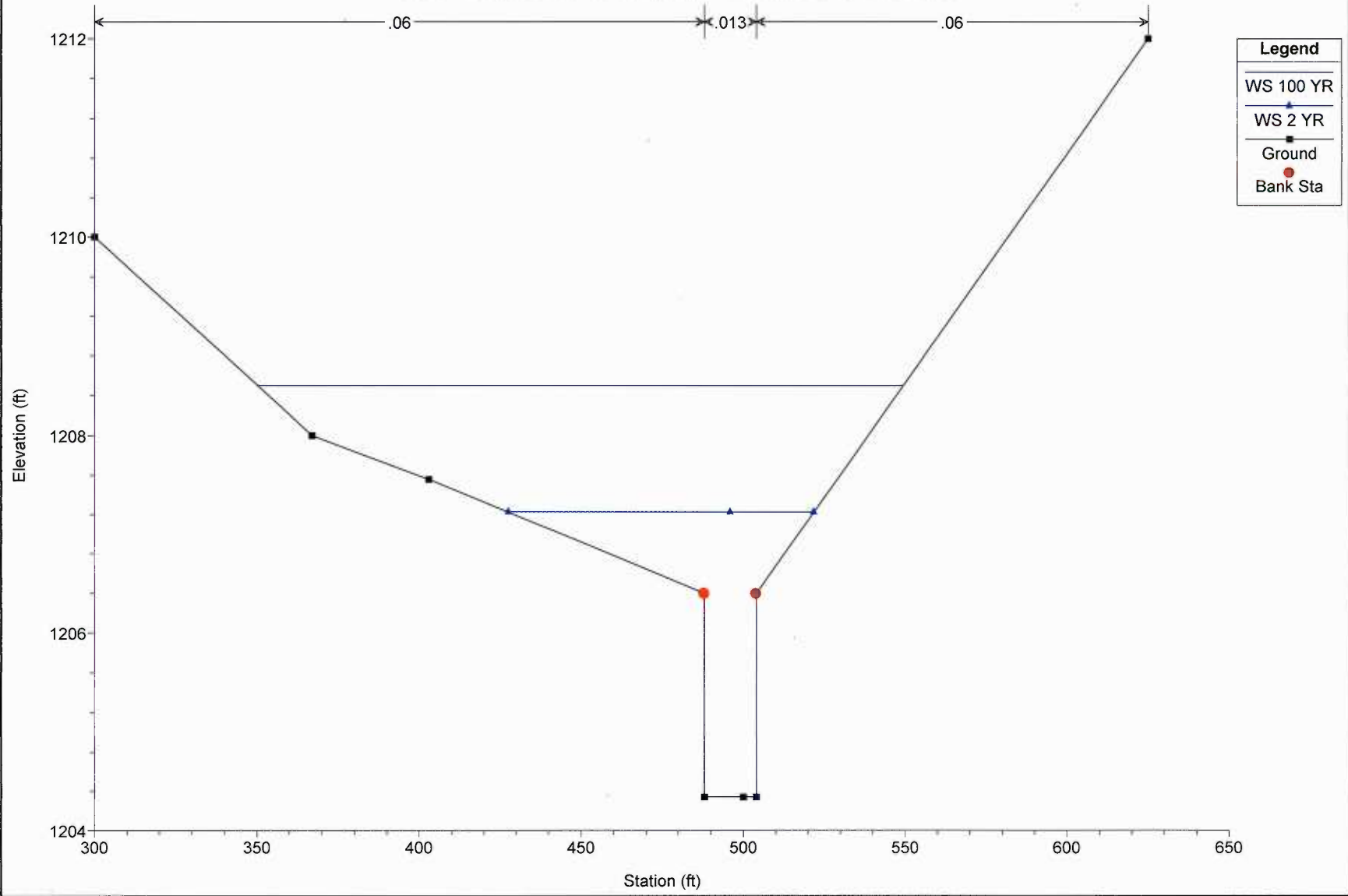
Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2  
River = TRIB TO S C T6 Reach = MAIN RS = 108 SECTION 4 1+08



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

River = TRIB TO S C T6 Reach = MAIN RS = 335 SECTION 5 3+35

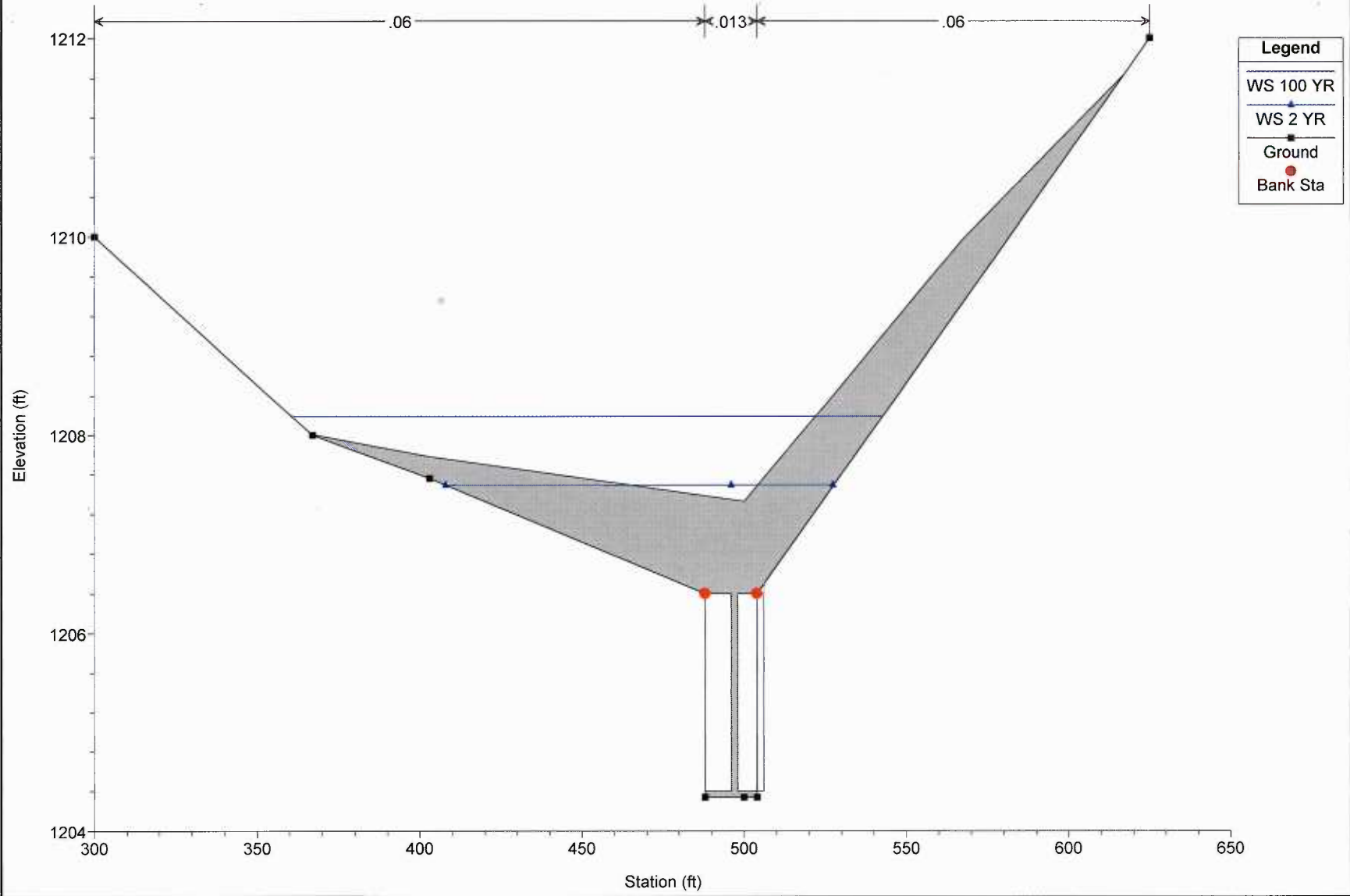


Legend	
WS 100 YR	▲
WS 2 YR	■
Ground	■
Bank Sta	●

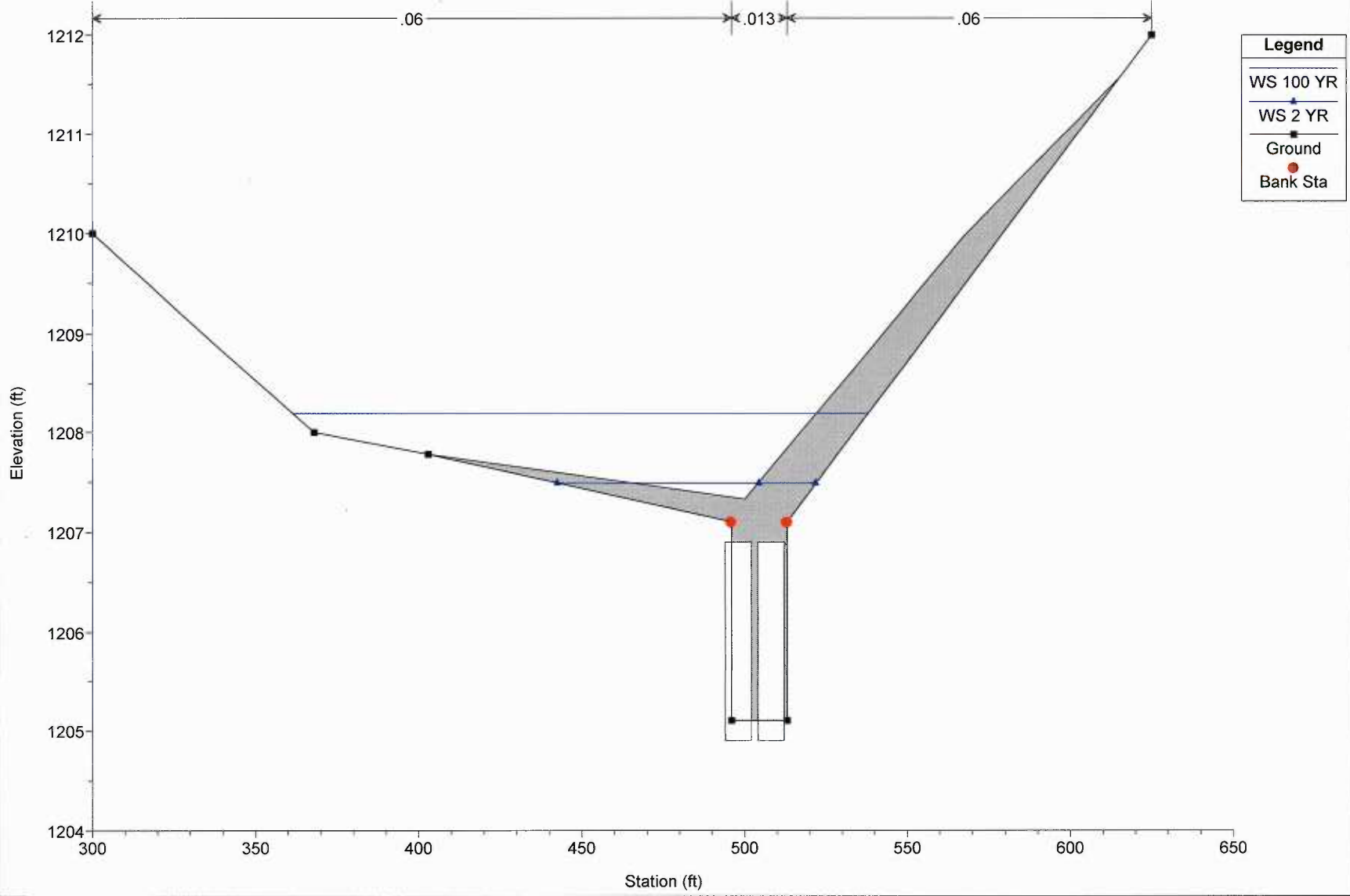
CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

River = TRIB TO S C T6 Reach = MAIN RS = 365 Culv SECTION 6 TIMBER RIDGE RD 3+65



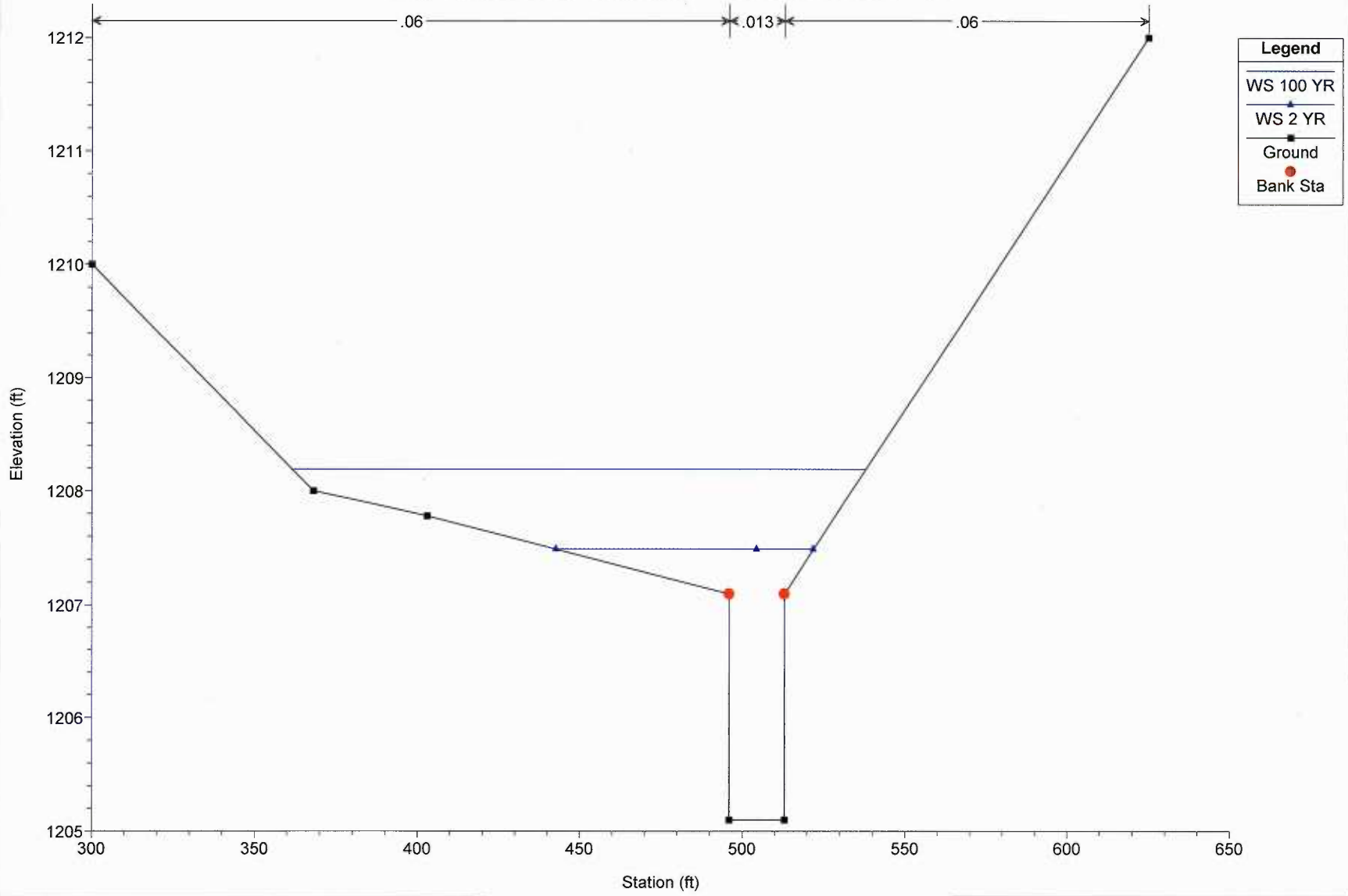
CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019  
 Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2  
 River = TRIB TO S C T6 Reach = MAIN RS = 365 Culv SECTION 6 TIMBER RIDGE RD 3+65





CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

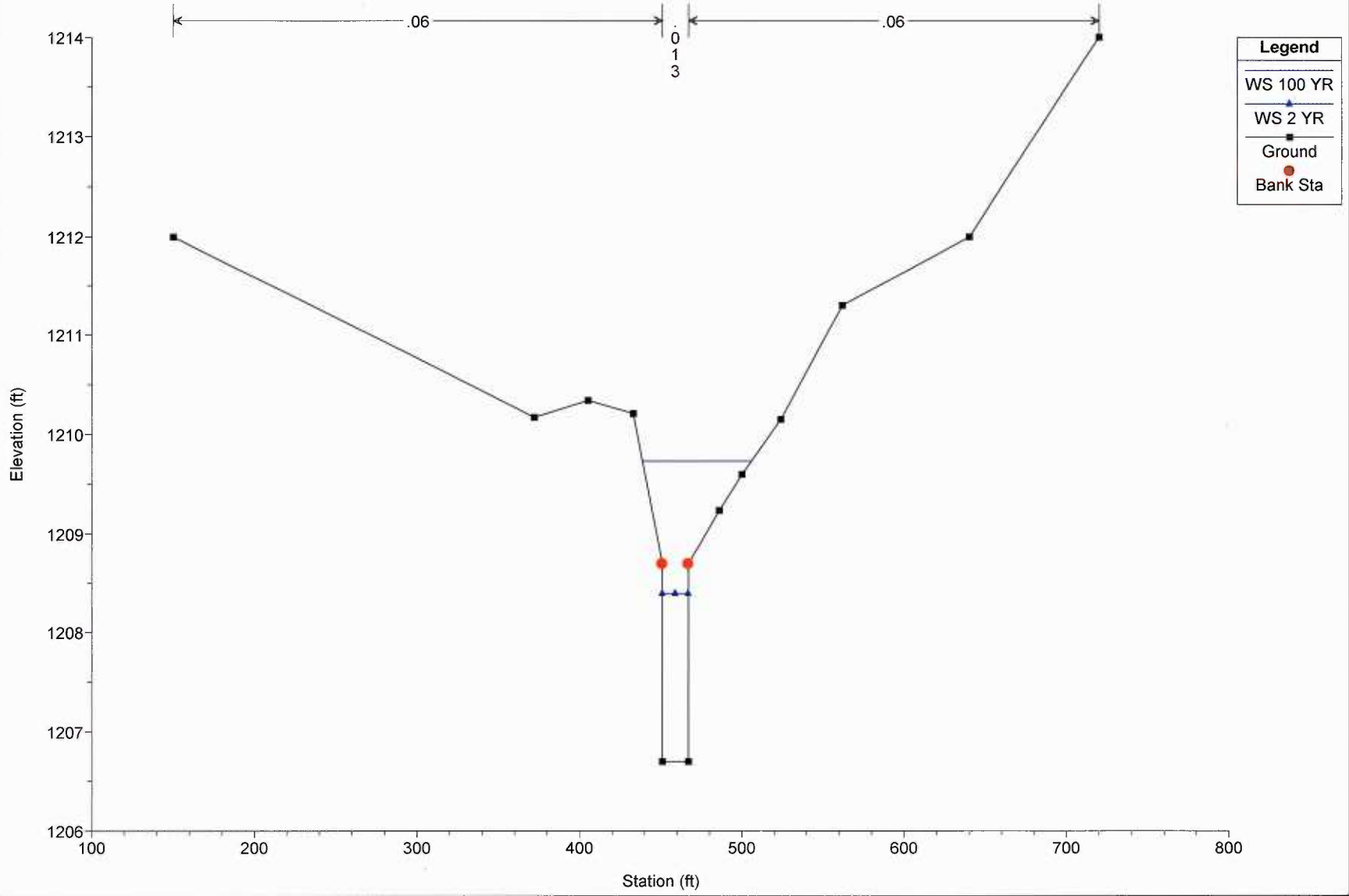
Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2  
River = TRIB TO S C T6 Reach = MAIN RS = 395 SECTION 7 3+95



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

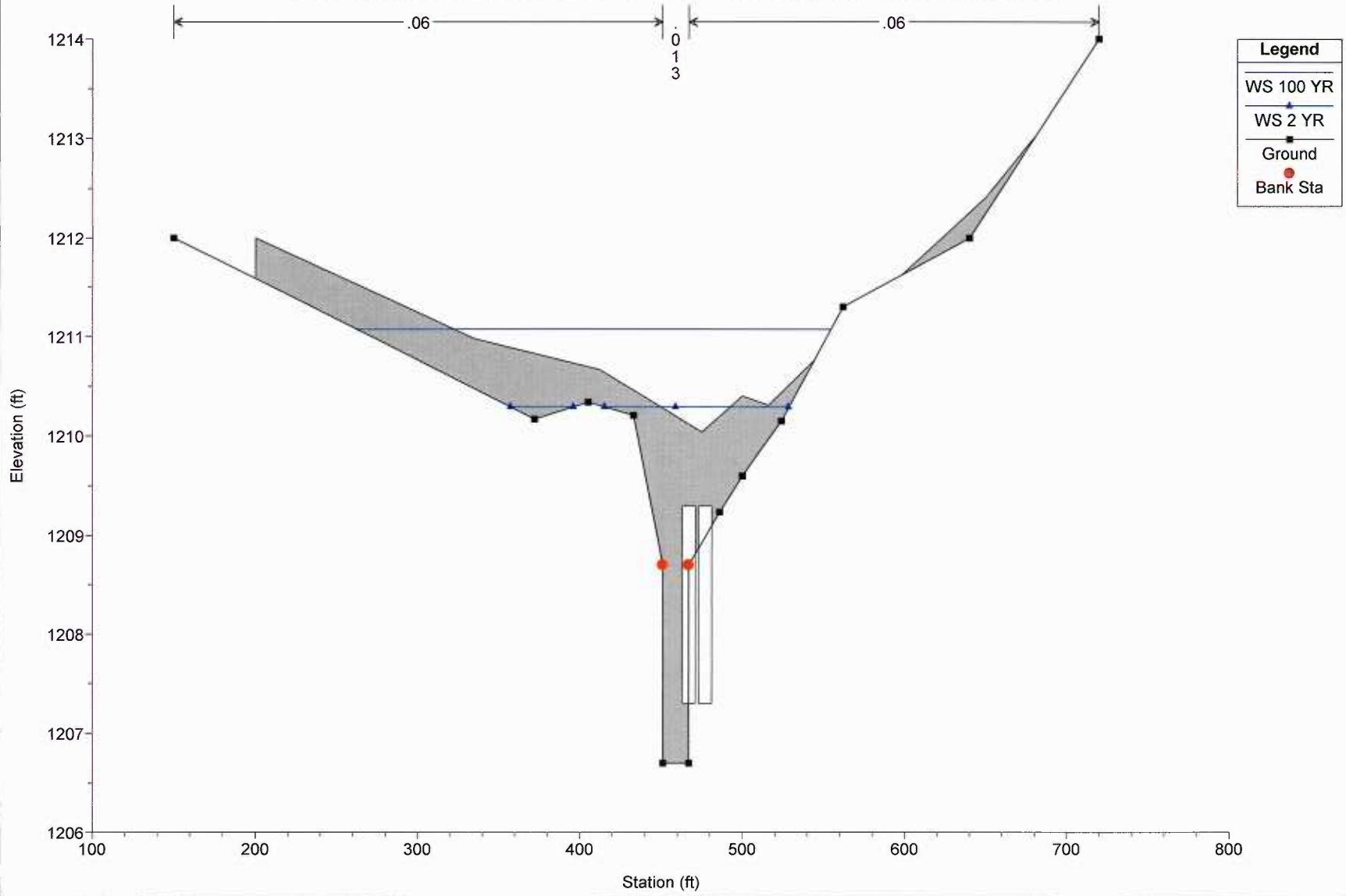
River = TRIB TO S C T6 Reach = MAIN RS = 745 SECTION 8 7+45



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

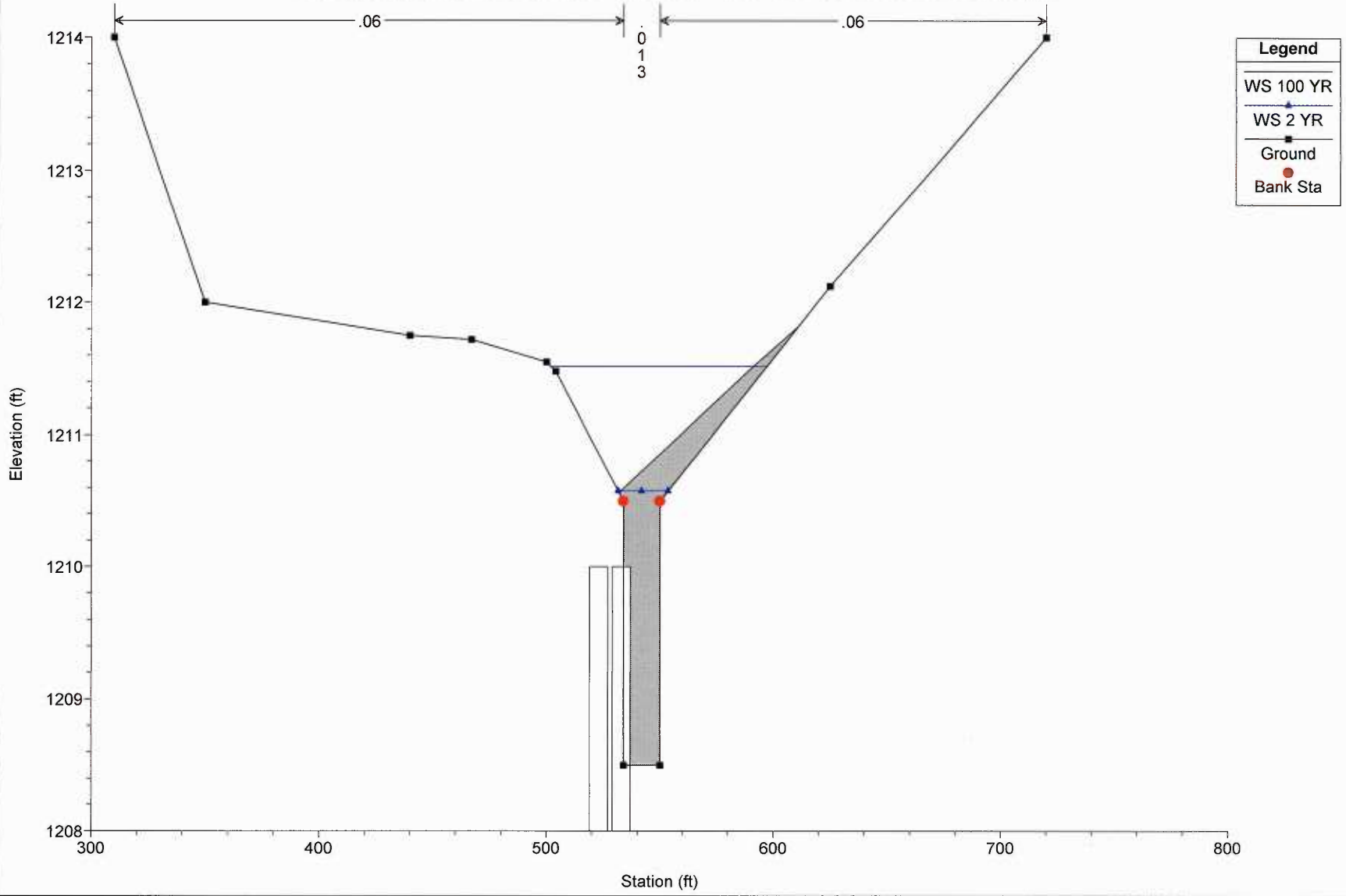
River = TRIB TO S C T6 Reach = MAIN RS = 790 Culv SECTION 9 7+90 OLD COLONY RD



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

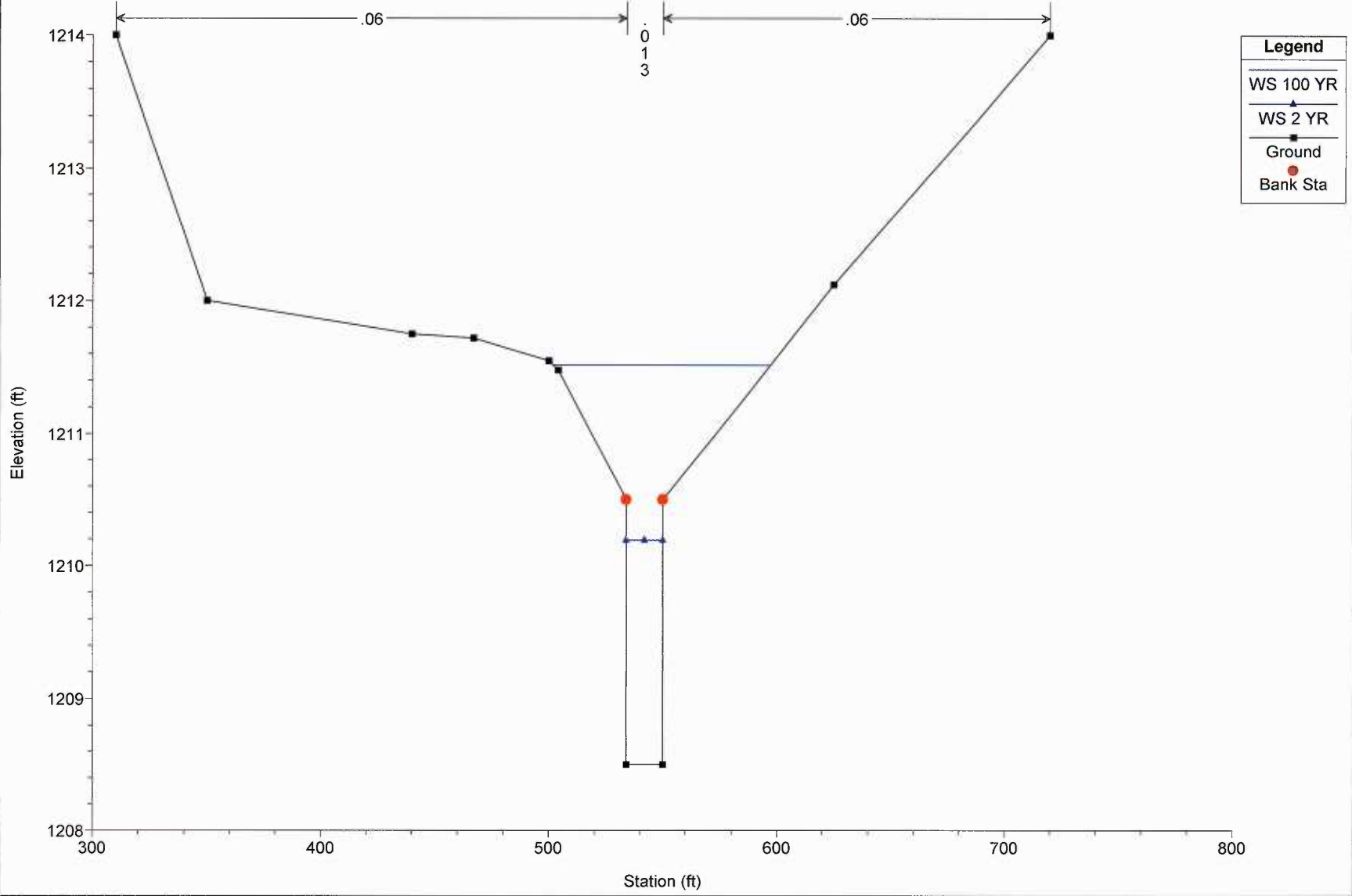
River = TRIB TO S C T6 Reach = MAIN RS = 790 Culv SECTION 9 7+90 OLD COLONY RD



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

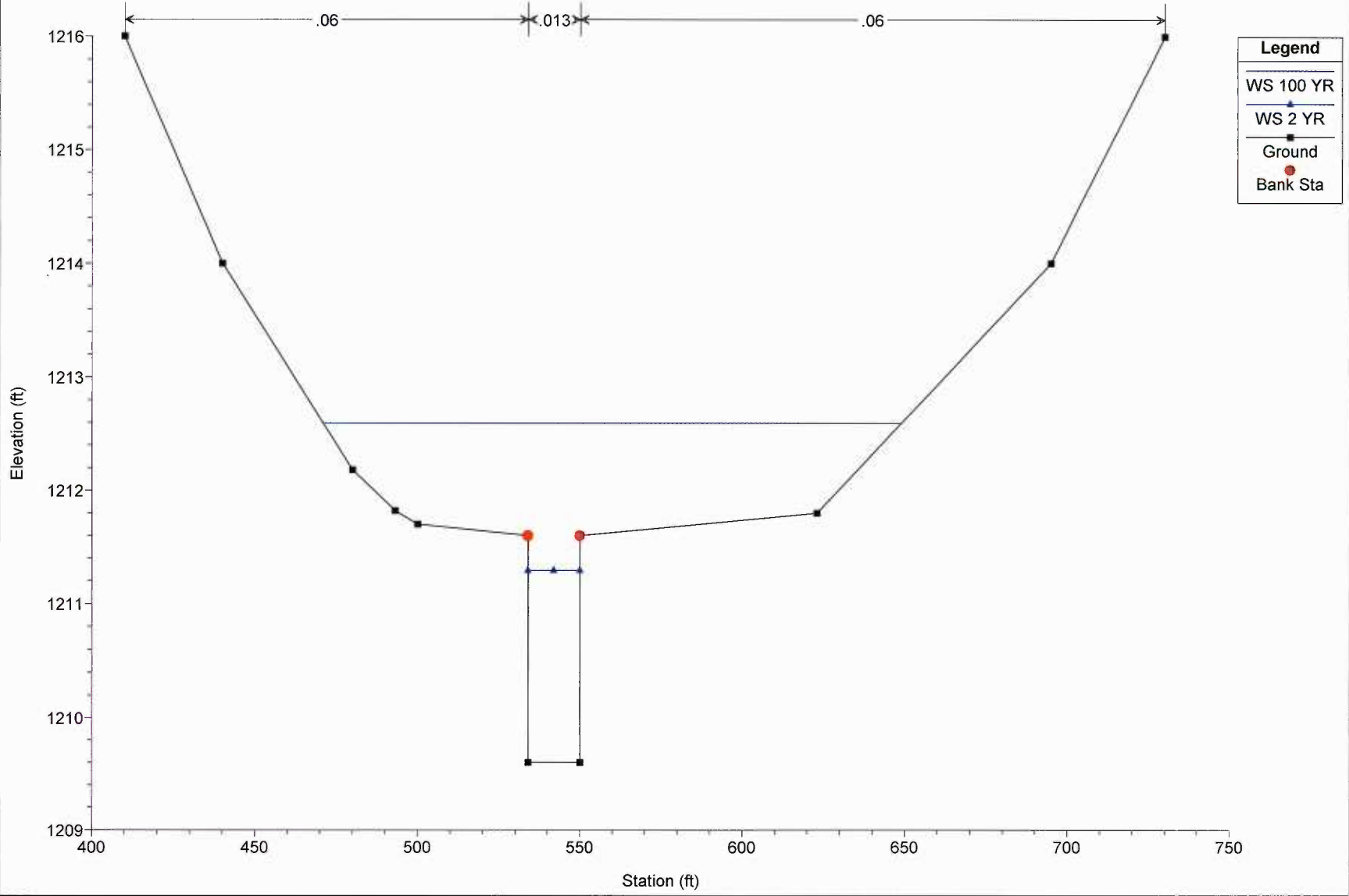
River = TRIB TO S C T6 Reach = MAIN RS = 835 SECTION 10 8+35



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

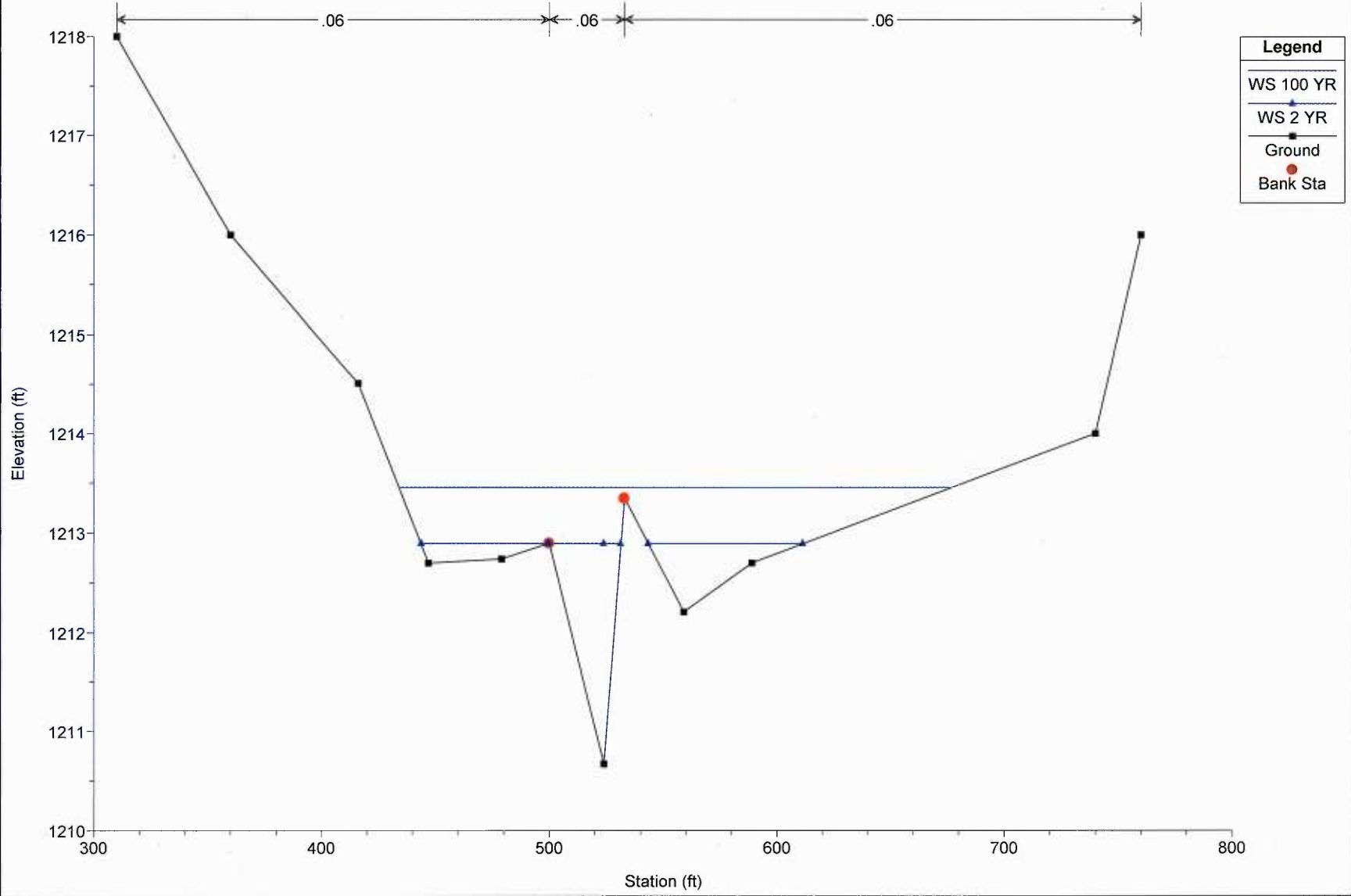
River = TRIB TO S C T6 Reach = MAIN RS = 940 SECTION 11 9+40



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

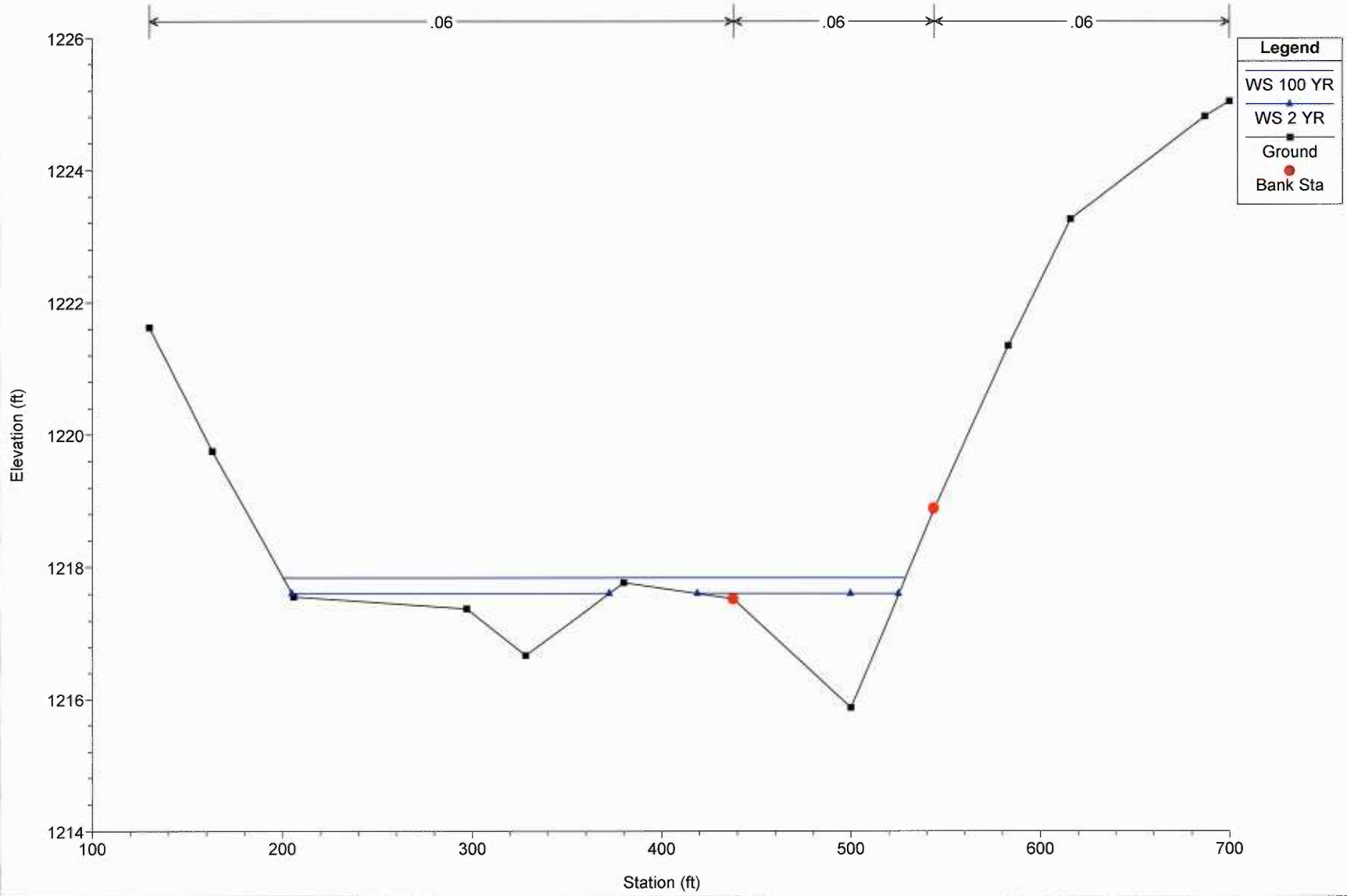
River = TRIB TO S C T6 Reach = MAIN RS = 1040 SECTION 12 10+40



CASSIDY BASIN FLOOD STUDY Plan: EXISTING CONDITIONS 5/20/2019

Geom: EXISTING CONDITIONS Flow: CASSIDY BASIN Q 100 Q 2

River = TRIB TO S C T6 Reach = MAIN RS = 1400 SECTION 13 14+00





HEC-RAS HEC-RAS 5.0.3 September 2016  
 U.S. Army Corps of Engineers  
 Hydrologic Engineering Center  
 609 Second Street  
 Davis, California

```

X      X  XXXXXX      XXXX      XXXX      XX      XXXX
X      X X           X   X      X   X      X X      X
X      X X           X           X   X      X   X      X
XXXXXXXX XXXX      X           XXX XXXX      XXXXXXXX      XXXX
X      X X           X           X   X      X   X           X
X      X X           X           X   X      X   X           X
X      X XXXXXXXX      XXXX      X   X      X   X      XXXXXX
  
```

PROJECT DATA

Project Title: CASSIDY BASIN FLOOD STUDY  
 Project File : CASSIDYBASINFLOOD.prj  
 Run Date and Time: 5/20/2019 11:12:33 AM

Project in English units

PLAN DATA

Plan Title: EXISTING CONDITIONS  
 Plan File : C:\Users\USER\Documents\CASSIDY BASIN FLOOD STUDY\CASSIDYBASINFLOOD.p02

Geometry Title: EXISTING CONDITIONS  
 Geometry File : C:\Users\USER\Documents\CASSIDY BASIN FLOOD STUDY  
 \CASSIDYBASINFLOOD.g01

Flow Title : CASSIDY BASIN Q 100 Q 2  
 Flow File : C:\Users\USER\Documents\CASSIDY BASIN FLOOD STUDY  
 \CASSIDYBASINFLOOD.f01

Plan Summary Information:

Number of:	Cross Sections =	10	Multiple Openings =	0
	Culverts =	3	Inline Structures =	0
	Bridges =	0	Lateral Structures =	0

Computational Information

Water surface calculation tolerance =	0.01
Critical depth calculation tolerance =	0.01
Maximum number of iterations =	20
Maximum difference tolerance =	0.3
Flow tolerance factor =	0.001

Computation Options

Critical depth computed only where necessary  
 Conveyance Calculation Method: At breaks in n values only  
 Friction Slope Method: Average Conveyance  
 Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: CASSIDY BASIN Q 100 Q 2

Flow File : C:\Users\USER\Documents\CASSIDY BASIN FLOOD STUDY\CASSIDYBASINFLOOD.f01

Flow Data (cfs)

River	Reach	RS	100 YR	2 YR
TRIB TO S C T6	MAIN	1400	437.45	200.85
TRIB TO S C T6	MAIN	108	780.46	325.75

Boundary Conditions

River	Reach	Profile	Upstream	
Downstream				
TRIB TO S C T6	MAIN	100 YR	Normal S = 0.008	Known WS =
1205.4				
TRIB TO S C T6	MAIN	2 YR	Normal S = 0.008	Known WS =
1205.4				

GEOMETRY DATA

Geometry Title: EXISTING CONDITIONS

Geometry File : C:\Users\USER\Documents\CASSIDY BASIN FLOOD STUDY\CASSIDYBASINFLOOD.g01

CROSS SECTION

RIVER: TRIB TO S C T6  
 REACH: MAIN RS: 1400

INPUT

Description: SECTION 13 14+00

Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
130	1221.63	163	1219.75	206	1217.56	297	1217.38	328	1216.67
380	1217.77	438	1217.53	500	1215.87	544	1218.89	583	1221.35
616	1223.26	687	1224.81	700	1225.04				

Manning's n Values

num= 3

Sta	n Val	Sta	n Val	Sta	n Val
130	.06	438	.06	544	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	438	544		360 360	360	.1	.3

CROSS SECTION OUTPUT Profile #100 YR

E.G. Elev (ft)	1217.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	1217.84	Reach Len. (ft)	360.00	360.00	360.00

Crit W.S. (ft)	1217.60	Flow Area (sq ft)	102.83	98.90	
E.G. Slope (ft/ft)	0.011662	Area (sq ft)	102.83	98.90	
Q Total (cfs)	437.45	Flow (cfs)	157.40	280.05	
Top Width (ft)	328.18	Top Width (ft)	237.49	90.69	
Vel Total (ft/s)	2.17	Avg. Vel. (ft/s)	1.53	2.83	
Max Chl Dpth (ft)	1.97	Hydr. Depth (ft)	0.43	1.09	
Conv. Total (cfs)	4050.8	Conv. (cfs)	1457.5	2593.3	
Length Wtd. (ft)	360.00	Wetted Per. (ft)	237.51	90.78	
Min Ch El (ft)	1215.87	Shear (lb/sq ft)	0.32	0.79	
Alpha	1.27	Stream Power (lb/ft s)	0.48	2.25	
Frctn Loss (ft)	4.34	Cum Volume (acre-ft)	2.38	2.61	1.80
C & E Loss (ft)	0.00	Cum SA (acres)	4.21	0.93	3.15

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #2 YR

E.G. Elev (ft)	1217.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.	0.060	0.060	
W.S. Elev (ft)	1217.61	Reach Len. (ft)	360.00	360.00	360.00
Crit W.S. (ft)		Flow Area (sq ft)	52.37	78.39	
E.G. Slope (ft/ft)	0.007058	Area (sq ft)	52.37	78.39	
Q Total (cfs)	200.85	Flow (cfs)	49.20	151.65	
Top Width (ft)	273.77	Top Width (ft)	186.44	87.34	
Vel Total (ft/s)	1.54	Avg. Vel. (ft/s)	0.94	1.93	
Max Chl Dpth (ft)	1.74	Hydr. Depth (ft)	0.28	0.90	
Conv. Total (cfs)	2390.8	Conv. (cfs)	585.6	1805.2	
Length Wtd. (ft)	360.00	Wetted Per. (ft)	186.46	87.42	
Min Ch El (ft)	1215.87	Shear (lb/sq ft)	0.12	0.40	
Alpha	1.29	Stream Power (lb/ft s)	0.12	0.76	
Frctn Loss (ft)	4.51	Cum Volume (acre-ft)	0.37	1.34	0.14
C & E Loss (ft)	0.02	Cum SA (acres)	1.55	0.91	0.77

Warning: Divided flow computed for this cross-section.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN

RS: 1040

INPUT

Description: SECTION 12 10+40

Station Elevation Data num= 12

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
310	1218	360	1216	416	1214.51	447	1212.7
500	1212.9	524	1210.67	533	1213.35	559	1212.21
740	1214	760	1216	589	1212.7		

Manning's n Values num= 3  
 Sta n Val Sta n Val Sta n Val  
 310 .06 500 .06 533 .06

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
 500 533 100 100 100 .1 .3

CROSS SECTION OUTPUT Profile #100 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1213.59				
Vel Head (ft)	0.13	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	1213.46	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)	41.84	53.14	80.88
E.G. Slope (ft/ft)	0.012460	Area (sq ft)	41.84	53.14	80.88
Q Total (cfs)	437.45	Flow (cfs)	85.37	199.80	152.28
Top Width (ft)	242.84	Top Width (ft)	65.96	33.00	143.88
Vel Total (ft/s)	2.49	Avg. Vel. (ft/s)	2.04	3.76	1.88
Max Chl Dpth (ft)	2.79	Hydr. Depth (ft)	0.63	1.61	0.56
Conv. Total (cfs)	3918.9	Conv. (cfs)	764.8	1789.9	1364.2
Length Wtd. (ft)	100.00	Wetted Per. (ft)	65.98	33.49	143.91
Min Ch El (ft)	1210.67	Shear (lb/sq ft)	0.49	1.23	0.44
Alpha	1.37	Stream Power (lb/ft s)	1.01	4.64	0.82
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	1.78	1.98	1.47
C & E Loss (ft)	0.05	Cum SA (acres)	2.96	0.42	2.56

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #2 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1213.14				
Vel Head (ft)	0.24	Wt. n-Val.	0.060	0.060	0.060
W.S. Elev (ft)	1212.89	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)	1212.89	Flow Area (sq ft)	7.44	34.91	20.68
E.G. Slope (ft/ft)	0.028051	Area (sq ft)	7.44	34.91	20.68
Q Total (cfs)	200.85	Flow (cfs)	8.08	154.03	38.74
Top Width (ft)	155.02	Top Width (ft)	55.50	31.40	68.11
Vel Total (ft/s)	3.19	Avg. Vel. (ft/s)	1.09	4.41	1.87
Max Chl Dpth (ft)	2.22	Hydr. Depth (ft)	0.13	1.11	0.30
Conv. Total (cfs)	1199.2	Conv. (cfs)	48.2	919.7	231.3
Length Wtd. (ft)	100.00	Wetted Per. (ft)	55.51	31.83	68.13
Min Ch El (ft)	1210.67	Shear (lb/sq ft)	0.23	1.92	0.53
Alpha	1.54	Stream Power (lb/ft s)	0.25	8.48	1.00
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	0.12	0.87	0.05
C & E Loss (ft)	0.06	Cum SA (acres)	0.55	0.42	0.48

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning: Divided flow computed for this cross-section.

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated

water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The

program defaulted to critical depth.

CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN

RS: 940

INPUT

Description: SECTION 11 9+40

Station Elevation Data num= 12

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
410	1216	440	1214	480	1212.18	493	1211.82	500	1211.7
534	1211.6	534	1209.6	550	1209.6	550	1211.6	623	1211.8
695	1214	730	1216						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
410	.06	534	.013	550	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	534	550		105	105	.1	.3

CROSS SECTION OUTPUT Profile #100 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1213.25				
Vel Head (ft)	0.65	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1212.59	Reach Len. (ft)	105.00	105.00	105.00
Crit W.S. (ft)	1212.59	Flow Area (sq ft)	47.43	47.88	75.41
E.G. Slope (ft/ft)	0.001260	Area (sq ft)	47.43	47.88	75.41
Q Total (cfs)	437.45	Flow (cfs)	34.48	347.65	55.31
Top Width (ft)	177.99	Top Width (ft)	63.06	16.00	98.93
Vel Total (ft/s)	2.56	Avg. Vel. (ft/s)	0.73	7.26	0.73
Max Chl Dpth (ft)	2.99	Hydr. Depth (ft)	0.75	2.99	0.76
Conv. Total (cfs)	12322.4	Conv. (cfs)	971.4	9792.9	1558.2
Length Wtd. (ft)	105.00	Wetted Per. (ft)	63.08	20.00	98.94
Min Ch El (ft)	1209.60	Shear (lb/sq ft)	0.06	0.19	0.06
Alpha	6.40	Stream Power (lb/ft s)	0.04	1.37	0.04
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	1.68	1.87	1.29
C & E Loss (ft)	0.04	Cum SA (acres)	2.81	0.36	2.28

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated

water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The

program defaulted to critical depth.

CROSS SECTION OUTPUT Profile #2 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1212.15	Element			
Vel Head (ft)	0.86	Wt. n-Val.		0.013	
W.S. Elev (ft)	1211.29	Reach Len. (ft)	105.00	105.00	105.00
Crit W.S. (ft)	1211.29	Flow Area (sq ft)		27.07	
E.G. Slope (ft/ft)	0.002699	Area (sq ft)		27.07	
Q Total (cfs)	200.85	Flow (cfs)		200.85	
Top Width (ft)	16.00	Top Width (ft)		16.00	
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)		7.42	
Max Chl Dpth (ft)	1.69	Hydr. Depth (ft)		1.69	
Conv. Total (cfs)	3866.3	Conv. (cfs)		3866.3	
Length Wtd. (ft)	105.00	Wetted Per. (ft)		19.38	
Min Ch El (ft)	1209.60	Shear (lb/sq ft)		0.24	
Alpha	1.00	Stream Power (lb/ft s)		1.75	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	0.11	0.80	0.03
C & E Loss (ft)	0.00	Cum SA (acres)	0.49	0.36	0.41

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

#### CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN RS: 835

#### INPUT

Description: SECTION 10 8+35

Station Elevation Data		num=	12							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	
310	1214	349.999	1212	440	1211.75	467	1211.72	499.999	1211.55	
504	1211.48	534	1210.5	534	1208.5	550	1208.5	550	1210.5	
625	1212.12	720	1214							

Manning's n Values		num=	3		
Sta	n Val	Sta	n Val	Sta	n Val
310	.06	534	.013	550	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	534	550		90	90	.1	.3

#### CROSS SECTION OUTPUT Profile #100 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1212.58	Element			
Vel Head (ft)	1.07	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1211.52	Reach Len. (ft)	90.00	90.00	90.00
Crit W.S. (ft)	1211.52	Flow Area (sq ft)	15.81	48.25	23.88
E.G. Slope (ft/ft)	0.001722	Area (sq ft)	15.81	48.25	23.88
Q Total (cfs)	437.45	Flow (cfs)	10.14	411.69	15.62

Top Width (ft)	95.06	Top Width (ft)	32.04	16.00	47.02
Vel Total (ft/s)	4.97	Avg. Vel. (ft/s)	0.64	8.53	0.65
Max Chl Dpth (ft)	3.02	Hydr. Depth (ft)	0.49	3.02	0.51
Conv. Total (cfs)	10541.0	Conv. (cfs)	244.3	9920.4	376.3
Length Wtd. (ft)	90.00	Wetted Per. (ft)	32.05	20.00	47.03
Min Ch El (ft)	1208.50	Shear (lb/sq ft)	0.05	0.26	0.05
Alpha	2.77	Stream Power (lb/ft s)	0.03	2.21	0.04
Frctn Loss (ft)		Cum Volume (acre-ft)	1.60	1.75	1.17
C & E Loss (ft)		Cum SA (acres)	2.69	0.32	2.10

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

CROSS SECTION OUTPUT Profile #2 YR

E.G. Elev (ft)	1211.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.013	
W.S. Elev (ft)	1210.19	Reach Len. (ft)	90.00	90.00	90.00
Crit W.S. (ft)	1210.19	Flow Area (sq ft)		27.07	
E.G. Slope (ft/ft)	0.002700	Area (sq ft)		27.07	
Q Total (cfs)	200.85	Flow (cfs)		200.85	
Top Width (ft)	16.00	Top Width (ft)		16.00	
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)		7.42	
Max Chl Dpth (ft)	1.69	Hydr. Depth (ft)		1.69	
Conv. Total (cfs)	3865.4	Conv. (cfs)		3865.4	
Length Wtd. (ft)	90.00	Wetted Per. (ft)		19.38	
Min Ch El (ft)	1208.50	Shear (lb/sq ft)		0.24	
Alpha	1.00	Stream Power (lb/ft s)		1.75	
Frctn Loss (ft)		Cum Volume (acre-ft)	0.11	0.73	0.03
C & E Loss (ft)		Cum SA (acres)	0.49	0.32	0.41

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

CULVERT

RIVER: TRIB TO S C T6

REACH: MAIN RS: 790

INPUT

Description: SECTION 9 7+90 OLD COLONY RD

Distance from Upstream XS = 32

Deck/Roadway Width = 26

Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates

num= 9

Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord	Sta	Hi	Cord	Lo	Cord
199.999		1212		1206	335	1210.98		1206		412	1210.67		1206	
	475	1210.04		1206	499.999	1210.4		1206		516	1210.31		1206	
	590	1211.5		1206	649.999	1212.41		1206		730	1214		1206	

Upstream Bridge Cross Section Data

Station Elevation Data num= 12

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
310	1214	349.999	1212	440	1211.75	467	1211.72	499.999	1211.55
504	1211.48	534	1210.5	534	1208.5	550	1208.5	550	1210.5

625 1212.12 720 1214

Manning's n Values num= 3  
Sta n Val Sta n Val Sta n Val  
310 .06 534 .013 550 .06

Bank Sta: Left Right Coeff Contr. Expan.  
534 550 .1 .3

Downstream Deck/Roadway Coordinates

num= 9  
Sta Hi Cord Lo Cord Sta Hi Cord Lo Cord Sta Hi Cord Lo Cord  
199.999 1212 1206 335 1210.98 1206 412 1210.67 1206  
475 1210.04 1206 499.999 1210.4 1206 516 1210.31 1206  
590 1211.5 1206 649.999 1212.41 1206 730 1214 1206

Downstream Bridge Cross Section Data

Station Elevation Data num= 14  
Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev  
150 1212 372 1210.17 405 1210.34 433 1210.21 451 1208.7  
451 1206.7 467 1206.7 467 1208.7 486 1209.24 499.999 1209.6  
524 1210.15 562 1211.3 640 1212 720 1214

Manning's n Values num= 3  
Sta n Val Sta n Val Sta n Val  
150 .06 451 .013 467 .06

Bank Sta: Left Right Coeff Contr. Expan.  
451 467 .1 .3

Upstream Embankment side slope = 0 horiz. to 1.0 vertical  
Downstream Embankment side slope = 0 horiz. to 1.0 vertical  
Maximum allowable submergence for weir flow = .98  
Elevation at which weir flow begins =  
Energy head used in spillway design =  
Spillway height used in design =  
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span  
Culvert #3 Box 2 8  
FHWA Chart # 8 - flared wingwalls  
FHWA Scale # 1 - Wingwall flared 30 to 75 deg.  
Solution Criteria = Highest U.S. EG  
Culvert Upstrm Dist Length Top n Bottom n Depth Blocked Entrance Loss Coef Exit Loss Coef  
14 62 .013 .013 0 .5 1

Number of Barrels = 2  
Upstream Elevation = 1208

Centerline Stations  
Sta. Sta.  
523 533

Downstream Elevation = 1207.3  
Centerline Stations

Sta. Sta.  
467 477

CULVERT OUTPUT Profile #100 YR Culv Group: Culvert #3



Q Culv Group (cfs)	266.05	Culv Full Len (ft)	62.00
# Barrels	2	Culv Vel US (ft/s)	8.31
Q Barrel (cfs)	133.03	Culv Vel DS (ft/s)	8.31
E.G. US. (ft)	1211.84	Culv Inv El Up (ft)	1208.00
W.S. US. (ft)	1211.52	Culv Inv El Dn (ft)	1207.30
E.G. DS (ft)	1210.86	Culv Frctn Ls (ft)	0.44
W.S. DS (ft)	1209.73	Culv Exit Loss (ft)	0.00
Delta EG (ft)	0.98	Culv Entr Loss (ft)	0.54
Delta WS (ft)	1.78	Q Weir (cfs)	171.40
E.G. IC (ft)	1211.86	Weir Sta Lft (ft)	414.64
E.G. OC (ft)	1211.84	Weir Sta Rgt (ft)	611.10
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1210.00	Weir Max Depth (ft)	1.25
Culv WS Outlet (ft)	1209.30	Weir Avg Depth (ft)	0.42
Culv Nml Depth (ft)	1.36	Weir Flow Area (sq ft)	81.89
Culv Crt Depth (ft)	2.00	Min El Weir Flow (ft)	1210.58

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

Note: Culvert critical depth exceeds the height of the culvert.

Note: During the supercritical calculations a hydraulic jump occurred inside of the culvert.

Note: The culvert inlet is submerged and the culvert flows full over part or all of its length. Therefore, the culvert inlet

equations are not valid and the supercritical result has been discarded. The outlet answer will be used.

#### CULVERT OUTPUT Profile #2 YR Culv Group: Culvert #3

Q Culv Group (cfs)	192.43	Culv Full Len (ft)	
# Barrels	2	Culv Vel US (ft/s)	7.29
Q Barrel (cfs)	96.21	Culv Vel DS (ft/s)	10.00
E.G. US. (ft)	1210.96	Culv Inv El Up (ft)	1208.00
W.S. US. (ft)	1210.19	Culv Inv El Dn (ft)	1207.30
E.G. DS (ft)	1209.25	Culv Frctn Ls (ft)	0.08
W.S. DS (ft)	1208.39	Culv Exit Loss (ft)	0.81
Delta EG (ft)	1.72	Culv Entr Loss (ft)	0.49
Delta WS (ft)	1.80	Q Weir (cfs)	8.42
E.G. IC (ft)	1210.96	Weir Sta Lft (ft)	519.83
E.G. OC (ft)	1210.89	Weir Sta Rgt (ft)	556.59
Culvert Control	Inlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1209.65	Weir Max Depth (ft)	0.40
Culv WS Outlet (ft)	1208.50	Weir Avg Depth (ft)	0.20
Culv Nml Depth (ft)	1.09	Weir Flow Area (sq ft)	7.28
Culv Crt Depth (ft)	1.65	Min El Weir Flow (ft)	1210.58

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

Note: The flow in the culvert is entirely supercritical.

#### CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN

RS: 745

INPUT

Description: SECTION 8 7+45

Station Elevation Data		num=		14							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
150	1212	372	1210.17	405	1210.34	433	1210.21	451	1208.7		
451	1206.7	467	1206.7	467	1208.7	486	1209.24	499.999	1209.6		
524	1210.15	562	1211.3	640	1212	720	1214				

Manning's n Values		num=		3	
Sta	n Val	Sta	n Val	Sta	n Val
150	.06	451	.013	467	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	451	467		350	350	.1	.3

CROSS SECTION OUTPUT Profile #100 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1210.86				
Vel Head (ft)	1.12	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1209.73	Reach Len. (ft)	350.00	350.00	350.00
Crit W.S. (ft)	1209.73	Flow Area (sq ft)	6.36	48.53	19.26
E.G. Slope (ft/ft)	0.001764	Area (sq ft)	6.36	48.53	19.26
Q Total (cfs)	437.45	Flow (cfs)	4.25	420.65	12.56
Top Width (ft)	67.11	Top Width (ft)	12.31	16.00	38.79
Vel Total (ft/s)	5.90	Avg. Vel. (ft/s)	0.67	8.67	0.65
Max Chl Dpth (ft)	3.03	Hydr. Depth (ft)	0.52	3.03	0.50
Conv. Total (cfs)	10415.0	Conv. (cfs)	101.1	10014.9	298.9
Length Wtd. (ft)	350.00	Wetted Per. (ft)	12.36	20.00	38.81
Min Ch El (ft)	1206.70	Shear (lb/sq ft)	0.06	0.27	0.05
Alpha	2.08	Stream Power (lb/ft s)	0.04	2.32	0.04
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	1.60	1.55	1.17
C & E Loss (ft)	0.12	Cum SA (acres)	2.65	0.29	2.01

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated

water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The

program defaulted to critical depth.

CROSS SECTION OUTPUT Profile #2 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1209.25				
Vel Head (ft)	0.86	Wt. n-Val.		0.013	
W.S. Elev (ft)	1208.39	Reach Len. (ft)	350.00	350.00	350.00
Crit W.S. (ft)	1208.39	Flow Area (sq ft)		27.07	
E.G. Slope (ft/ft)	0.002698	Area (sq ft)		27.07	
Q Total (cfs)	200.85	Flow (cfs)		200.85	
Top Width (ft)	16.00	Top Width (ft)		16.00	
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)		7.42	
Max Chl Dpth (ft)	1.69	Hydr. Depth (ft)		1.69	
Conv. Total (cfs)	3866.7	Conv. (cfs)		3866.7	
Length Wtd. (ft)	350.00	Wetted Per. (ft)		19.38	
Min Ch El (ft)	1206.70	Shear (lb/sq ft)		0.24	

Alpha	1.00	Stream Power (lb/ft s)		1.75	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	0.11	0.69	0.03
C & E Loss (ft)	0.15	Cum SA (acres)	0.49	0.29	0.41

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated

water surface came back below critical depth. This indicates that there is not a valid

subcritical answer. The

program defaulted to critical depth.

### CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN

RS: 395

### INPUT

Description: SECTION 7

3+95

Station Elevation Data

num=

8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
300	1210	368	1208	403	1207.78	496	1207.1	496	1205.1
513	1205.1	513	1207.1	625	1212				

Manning's n Values

num=

3

Sta	n Val	Sta	n Val	Sta	n Val
300	.06	496	.013	513	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	496	513		60	60	.1	.3

### CROSS SECTION OUTPUT Profile #100 YR

E.G. Elev (ft)	1208.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1208.19	Reach Len. (ft)	60.00	60.00	60.00
Crit W.S. (ft)	1208.19	Flow Area (sq ft)	81.18	52.57	13.64
E.G. Slope (ft/ft)	0.001179	Area (sq ft)	81.18	52.57	13.64
Q Total (cfs)	437.45	Flow (cfs)	49.30	380.41	7.74
Top Width (ft)	176.51	Top Width (ft)	134.54	17.00	24.97
Vel Total (ft/s)	2.97	Avg. Vel. (ft/s)	0.61	7.24	0.57
Max Chl Dpth (ft)	3.09	Hydr. Depth (ft)	0.60	3.09	0.55
Conv. Total (cfs)	12739.7	Conv. (cfs)	1435.6	11078.5	225.5
Length Wtd. (ft)	60.00	Wetted Per. (ft)	134.55	21.00	24.99
Min Ch El (ft)	1205.10	Shear (lb/sq ft)	0.04	0.18	0.04
Alpha	5.17	Stream Power (lb/ft s)	0.03	1.33	0.02
Frctn Loss (ft)		Cum Volume (acre-ft)	1.25	1.15	1.04
C & E Loss (ft)		Cum SA (acres)	2.06	0.16	1.76

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

CROSS SECTION OUTPUT Profile #2 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1207.86				
Vel Head (ft)	0.36	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1207.49	Reach Len. (ft)	60.00	60.00	60.00
Crit W.S. (ft)	1206.73	Flow Area (sq ft)	10.43	40.64	1.74
E.G. Slope (ft/ft)	0.000754	Area (sq ft)	10.43	40.64	1.74
Q Total (cfs)	200.85	Flow (cfs)	2.39	198.06	0.40
Top Width (ft)	79.35	Top Width (ft)	53.42	17.00	8.93
Vel Total (ft/s)	3.80	Avg. Vel. (ft/s)	0.23	4.87	0.23
Max Chl Dpth (ft)	2.39	Hydr. Depth (ft)	0.20	2.39	0.20
Conv. Total (cfs)	7315.5	Conv. (cfs)	87.0	7214.0	14.5
Length Wtd. (ft)	60.00	Wetted Per. (ft)	53.42	21.00	8.94
Min Ch El (ft)	1205.10	Shear (lb/sq ft)	0.01	0.09	0.01
Alpha	1.62	Stream Power (lb/ft s)	0.00	0.44	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)	0.07	0.42	0.02
C & E Loss (ft)		Cum SA (acres)	0.27	0.16	0.37

CULVERT

RIVER: TRIB TO S C T6  
 REACH: MAIN RS: 365

INPUT

Description: SECTION 6 TIMBER RIDGE RD 3+65  
 Distance from Upstream XS = 17  
 Deck/Roadway Width = 26  
 Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates

num= 6					
Sta	Hi	Cord	Lo	Cord	
368		1208		1203	
567	1209.96			1203	
Sta	Hi	Cord	Lo	Cord	
403	1207.78			1203	
625	1211.9			1203	
Sta	Hi	Cord	Lo	Cord	
500	1207.33			1203	
780	1214			1203	

Upstream Bridge Cross Section Data

Station Elevation Data num= 8									
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
300	1210	368	1208	403	1207.78	496	1207.1	496	1205.1
513	1205.1	513	1207.1	625	1212				

Manning's n Values

num= 3					
Sta	n Val	Sta	n Val	Sta	n Val
300	.06	496	.013	513	.06

Bank Sta: Left Right Coeff Contr. Expan.  
 496 513 .1 .3

Downstream Deck/Roadway Coordinates

num= 6					
Sta	Hi	Cord	Lo	Cord	
368		1208		1203	
567	1209.96			1203	
Sta	Hi	Cord	Lo	Cord	
403	1207.78			1203	
625	1211.9			1203	
Sta	Hi	Cord	Lo	Cord	
500	1207.33			1203	
780	1214			1203	

Downstream Bridge Cross Section Data

Station Elevation Data num= 9

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
300	1210	367	1208	403	1207.56	488	1206.4	488	1204.34
500	1204.34	504	1204.34	504	1206.4	625	1212		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
300	.06	488	.013	504	.06

Bank Sta: Left Right Coeff Contr. Expan.

488	504	.1	.3
-----	-----	----	----

Upstream Embankment side slope = 0 horiz. to 1.0 vertical  
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical  
 Maximum allowable submergence for weir flow = .98  
 Elevation at which weir flow begins =  
 Energy head used in spillway design =  
 Spillway height used in design =  
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name Shape Rise Span  
 Culvert #2 Box 2 8  
 FHWA Chart # 8 - flared wingwalls  
 FHWA Scale # 1 - Wingwall flared 30 to 75 deg.  
 Solution Criteria = Highest U.S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
	14	32	.013	.013	0	.5	1

Number of Barrels = 2  
 Upstream Elevation = 1204.9

Centerline Stations  
 Sta. Sta.  
 498 508

Downstream Elevation = 1204.4  
 Centerline Stations  
 Sta. Sta.  
 492 502

CULVERT OUTPUT Profile #100 YR Culv Group: Culvert #2

Q Culv Group (cfs)	34.68	Culv Full Len (ft)	32.00
# Barrels	2	Culv Vel US (ft/s)	1.08
Q Barrel (cfs)	17.34	Culv Vel DS (ft/s)	1.08
E.G. US. (ft)	1208.80	Culv Inv El Up (ft)	1204.90
W.S. US. (ft)	1208.19	Culv Inv El Dn (ft)	1204.40
E.G. DS (ft)	1208.79	Culv Frctn Ls (ft)	0.00
W.S. DS (ft)	1208.50	Culv Exit Loss (ft)	0.00
Delta EG (ft)	0.01	Culv Entr Loss (ft)	0.01
Delta WS (ft)	0.31	Q Weir (cfs)	402.77
E.G. IC (ft)	1208.76	Weir Sta Lft (ft)	340.67
E.G. OC (ft)	1208.80	Weir Sta Rgt (ft)	537.55
Culvert Control	Outlet	Weir Submerg	0.91
Culv WS Inlet (ft)	1206.90	Weir Max Depth (ft)	1.47
Culv WS Outlet (ft)	1206.40	Weir Avg Depth (ft)	0.97
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	191.78
Culv Crt Depth (ft)	0.53	Min El Weir Flow (ft)	1207.34

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

CULVERT OUTPUT Profile #2 YR Culv Group: Culvert #2

Q Culv Group (cfs)	155.62	Culv Full Len (ft)	32.00
# Barrels	2	Culv Vel US (ft/s)	4.86
Q Barrel (cfs)	77.81	Culv Vel DS (ft/s)	4.86
E.G. US. (ft)	1207.86	Culv Inv El Up (ft)	1204.90
W.S. US. (ft)	1207.49	Culv Inv El Dn (ft)	1204.40
E.G. DS (ft)	1207.48	Culv Frctn Ls (ft)	0.08
W.S. DS (ft)	1207.23	Culv Exit Loss (ft)	0.11
Delta EG (ft)	0.37	Culv Entr Loss (ft)	0.18
Delta WS (ft)	0.26	Q Weir (cfs)	45.23
E.G. IC (ft)	1207.71	Weir Sta Lft (ft)	391.83
E.G. OC (ft)	1207.86	Weir Sta Rgt (ft)	513.25
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1206.90	Weir Max Depth (ft)	0.52
Culv WS Outlet (ft)	1206.40	Weir Avg Depth (ft)	0.27
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	32.48
Culv Crt Depth (ft)	1.43	Min El Weir Flow (ft)	1207.34

CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN RS: 335

INPUT

Description: SECTION 5 3+35

Station Elevation Data num= 9

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
300	1210	367	1208	403	1207.56	488	1206.4	488	1204.34
500	1204.34	504	1204.34	504	1206.4	625	1212		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
300	.06	488	.013	504	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff	Contr.	Expan.
488	504	227	227	227	.1	.3	

CROSS SECTION OUTPUT Profile #100 YR

E.G. Elev (ft)	1208.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1208.50	Reach Len. (ft)	227.00	227.00	227.00
Crit W.S. (ft)		Flow Area (sq ft)	159.42	66.57	47.68
E.G. Slope (ft/ft)	0.000379	Area (sq ft)	159.42	66.57	47.68
Q Total (cfs)	437.45	Flow (cfs)	84.72	328.99	23.74
Top Width (ft)	199.17	Top Width (ft)	137.78	16.00	45.39
Vel Total (ft/s)	1.60	Avg. Vel. (ft/s)	0.53	4.94	0.50
Max Chl Dpth (ft)	4.16	Hydr. Depth (ft)	1.16	4.16	1.05
Conv. Total (cfs)	22467.3	Conv. (cfs)	4351.0	16897.0	1219.3
Length Wtd. (ft)	227.00	Wetted Per. (ft)	137.80	20.12	45.44
Min Ch El (ft)	1204.34	Shear (lb/sq ft)	0.03	0.08	0.02
Alpha	7.22	Stream Power (lb/ft s)	0.01	0.39	0.01

Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	1.25	0.88	1.04
C & E Loss (ft)	0.02	Cum SA (acres)	1.87	0.14	1.71

CROSS SECTION OUTPUT Profile #2 YR

E.G. Elev (ft)	1207.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1207.23	Reach Len. (ft)	227.00	227.00	227.00
Crit W.S. (ft)	1206.03	Flow Area (sq ft)	25.01	46.18	7.37
E.G. Slope (ft/ft)	0.000435	Area (sq ft)	25.01	46.18	7.37
Q Total (cfs)	200.85	Flow (cfs)	7.16	191.57	2.11
Top Width (ft)	94.39	Top Width (ft)	60.54	16.00	17.85
Vel Total (ft/s)	2.56	Avg. Vel. (ft/s)	0.29	4.15	0.29
Max Chl Dpth (ft)	2.89	Hydr. Depth (ft)	0.41	2.89	0.41
Conv. Total (cfs)	9629.1	Conv. (cfs)	343.5	9184.4	101.2
Length Wtd. (ft)	227.00	Wetted Per. (ft)	60.54	20.12	17.87
Min Ch El (ft)	1204.34	Shear (lb/sq ft)	0.01	0.06	0.01
Alpha	2.51	Stream Power (lb/ft s)	0.00	0.26	0.00
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	0.07	0.35	0.02
C & E Loss (ft)	0.09	Cum SA (acres)	0.20	0.14	0.35

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: TRIB TO S C T6  
 REACH: MAIN RS: 108

INPUT

Description: SECTION 4 1+08  
 Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	1210	80	1208	311	1207.78	354	1207.56
447	1206.83	467	1205.7	467	1203.64	483	1203.64
500	1207.5	565	1207.11	637	1207	820	1208
						980	1210

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	467	.013	483	.06

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
467	483	28	28	28	.1	.3

CROSS SECTION OUTPUT Profile #100 YR

E.G. Elev (ft)	1208.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1208.21	Reach Len. (ft)	28.00	28.00	28.00
Crit W.S. (ft)	1208.21	Flow Area (sq ft)	259.65	73.04	299.27
E.G. Slope (ft/ft)	0.000625	Area (sq ft)	259.65	73.04	299.27
Q Total (cfs)	780.46	Flow (cfs)	121.51	493.10	165.85

Top Width (ft)	764.59	Top Width (ft)	395.20	16.00	353.40
Vel Total (ft/s)	1.23	Avg. Vel. (ft/s)	0.47	6.75	0.55
Max Chl Dpth (ft)	4.56	Hydr. Depth (ft)	0.66	4.56	0.85
Conv. Total (cfs)	31211.4	Conv. (cfs)	4859.4	19719.4	6632.6
Length Wtd. (ft)	28.00	Wetted Per. (ft)	395.25	20.12	353.50
Min Ch El (ft)	1203.64	Shear (lb/sq ft)	0.03	0.14	0.03
Alpha	18.95	Stream Power (lb/ft s)	0.01	0.96	0.02
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.16	0.52	0.13
C & E Loss (ft)	0.02	Cum SA (acres)	0.48	0.05	0.67

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated

water surface came back below critical depth. This indicates that there is not a valid

subcritical answer. The

program defaulted to critical depth.

#### CROSS SECTION OUTPUT Profile #2 YR

E.G. Elev (ft)	1207.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.15	Wt. n-Val.	0.060	0.013	0.060
W:S. Elev (ft)	1206.01	Reach Len. (ft)	28.00	28.00	28.00
Crit W.S. (ft)	1206.01	Flow Area (sq ft)	0.82	37.84	0.44
E.G. Slope (ft/ft)	0.002438	Area (sq ft)	0.82	37.84	0.44
Q Total (cfs)	325.75	Flow (cfs)	0.29	325.31	0.15
Top Width (ft)	24.27	Top Width (ft)	5.39	16.00	2.88
Vel Total (ft/s)	8.33	Avg. Vel. (ft/s)	0.35	8.60	0.35
Max Chl Dpth (ft)	2.36	Hydr. Depth (ft)	0.15	2.36	0.15
Conv. Total (cfs)	6597.7	Conv. (cfs)	5.8	6588.8	3.1
Length Wtd. (ft)	28.00	Wetted Per. (ft)	5.40	20.12	2.89
Min Ch El (ft)	1203.64	Shear (lb/sq ft)	0.02	0.29	0.02
Alpha	1.06	Stream Power (lb/ft s)	0.01	2.46	0.01
Frctn Loss (ft)	0.05	Cum Volume (acre-ft)	0.00	0.13	0.00
C & E Loss (ft)	0.14	Cum SA (acres)	0.02	0.05	0.30

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated

water surface came back below critical depth. This indicates that there is not a valid

subcritical answer. The

program defaulted to critical depth.

#### CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN RS: 80

#### INPUT

Description: SECTION 3 0+80

Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
110	1208	286	1207.21	307	1206.66	345	1206.83
						376	1206.24



467	1206.23	478	1205.6	478	1203.52	496	1203.52	496	1205.6
500	1206	530	1206.76	603	1207.15	820	1208	980	1210

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
110	.06	478	.013	496	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	478	496		80	80		.1	.3

CROSS SECTION OUTPUT Profile #100 YR

E.G. Elev (ft)	1208.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1207.60	Reach Len. (ft)	80.00	80.00	80.00
Crit W.S. (ft)	1207.60	Flow Area (sq ft)	238.41	73.39	116.13
E.G. Slope (ft/ft)	0.000913	Area (sq ft)	238.41	73.39	116.13
Q Total (cfs)	780.46	Flow (cfs)	160.88	563.04	56.54
Top Width (ft)	517.47	Top Width (ft)	278.29	18.00	221.19
Vel Total (ft/s)	1.82	Avg. Vel. (ft/s)	0.67	7.67	0.49
Max Chl Dpth (ft)	4.08	Hydr. Depth (ft)	0.86	4.08	0.53
Conv. Total (cfs)	25835.6	Conv. (cfs)	5325.6	18638.5	1871.6
Length Wtd. (ft)	80.00	Wetted Per. (ft)	278.32	22.16	221.22
Min Ch El (ft)	1203.52	Shear (lb/sq ft)	0.05	0.19	0.03
Alpha	12.80	Stream Power (lb/ft s)	0.03	1.45	0.01
Frctn Loss (ft)		Cum Volume (acre-ft)		0.47	
C & E Loss (ft)		Cum SA (acres)	0.26	0.04	0.48

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

CROSS SECTION OUTPUT Profile #2 YR

E.G. Elev (ft)	1206.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1206.22	Reach Len. (ft)	80.00	80.00	80.00
Crit W.S. (ft)	1205.68	Flow Area (sq ft)	3.31	48.52	2.58
E.G. Slope (ft/ft)	0.001198	Area (sq ft)	3.31	48.52	2.58
Q Total (cfs)	325.75	Flow (cfs)	1.29	323.69	0.77
Top Width (ft)	41.25	Top Width (ft)	10.75	18.00	12.50
Vel Total (ft/s)	5.99	Avg. Vel. (ft/s)	0.39	6.67	0.30
Max Chl Dpth (ft)	2.70	Hydr. Depth (ft)	0.31	2.70	0.21
Conv. Total (cfs)	9410.2	Conv. (cfs)	37.3	9350.7	22.3
Length Wtd. (ft)	80.00	Wetted Per. (ft)	10.76	22.16	12.53
Min Ch El (ft)	1203.52	Shear (lb/sq ft)	0.02	0.16	0.02
Alpha	1.23	Stream Power (lb/ft s)	0.01	1.09	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)		0.11	
C & E Loss (ft)		Cum SA (acres)	0.02	0.04	0.29

CULVERT

RIVER: TRIB TO S C T6  
 REACH: MAIN RS: 45

INPUT  
 Description: NAWASSA DRIVE

Distance from Upstream XS = 26  
 Deck/Roadway Width = 18  
 Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates

num= 13									
Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	
50	1210	1200	140	1208	1200	339	1206.75	1200	
387	1206.62	1200	432	1206.57	1200	494	1206.5	1200	
500	1206.52	1200	536	1206.56	1200	588	1206.1	1200	
637	1206.49	1200	800	1206	1200	950	1208	1200	
1040	1210	1200							

Upstream Bridge Cross Section Data

Station Elevation Data		num= 15							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
110	1208	286	1207.21	307	1206.66	345	1206.83	376	1206.24
467	1206.23	478	1205.6	478	1203.52	496	1203.52	496	1205.6
500	1206	530	1206.76	603	1207.15	820	1208	980	1210

Manning's n Values		num= 3			
Sta	n Val	Sta	n Val	Sta	n Val
110	.06	478	.013	496	.06

Bank Sta:	Left	Right	Coeff	Contr.	Expan.
	478	496	.1	.3	

Downstream Deck/Roadway Coordinates

num= 13									
Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	
50	1210	1200	140	1208	1200	339	1206.75	1200	
387	1206.62	1200	432	1206.57	1200	494	1206.5	1200	
500	1206.52	1200	536	1206.56	1200	588	1206.1	1200	
637	1206.49	1200	800	1206	1200	950	1208	1200	
1040	1210	1200							

Downstream Bridge Cross Section Data

Station Elevation Data		num= 15							
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
40	1210	150	1208	353	1205.77	462	1205.79	482	1205
482	1202	500	1202	509	1202	509	1205	520	1204.23
610	1204.57	637	1204.26	910	1206	990	1208	1050	1210

Manning's n Values		num= 3			
Sta	n Val	Sta	n Val	Sta	n Val
40	.06	482	.013	509	.06

Bank Sta:	Left	Right	Coeff	Contr.	Expan.
	482	509	.1	.3	

Upstream Embankment side slope = 0 horiz. to 1.0 vertical  
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical  
 Maximum allowable submergence for weir flow = .98  
 Elevation at which weir flow begins =  
 Energy head used in spillway design =  
 Spillway height used in design =  
 Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name      Shape      Rise      Span  
 Culvert #1      Circular      2.25  
 FHWA Chart # 1 - Concrete Pipe Culvert  
 FHWA Scale # 1 - Square edge entrance with headwall  
 Solution Criteria = Highest U.S. EG  
 Culvert Upstrm Dist   Length      Top n      Bottom n      Depth Blocked      Entrance Loss Coef      Exit Loss Coef  
                          19      32      .013      .013      0      .5      1  
 Number of Barrels = 8  
 Upstream Elevation = 1202.65  
 Centerline Stations  
     Sta.      Sta.      Sta.      Sta.      Sta.      Sta.      Sta.      Sta.  
     488      491      494      497      503      506      509      512  
 Downstream Elevation = 1202.54  
 Centerline Stations  
     Sta.      Sta.      Sta.      Sta.      Sta.      Sta.      Sta.      Sta.  
     488      491      494      497      503      506      509      512

CULVERT OUTPUT Profile #100 YR Culv Group: Culvert #1

Q Culv Group (cfs)	268.95	Culv Full Len (ft)	32.00
# Barrels	8	Culv Vel US (ft/s)	8.46
Q Barrel (cfs)	33.62	Culv Vel DS (ft/s)	8.46
E.G. US. (ft)	1207.44	Culv Inv El Up (ft)	1202.65
W.S. US. (ft)	1207.60	Culv Inv El Dn (ft)	1202.54
E.G. DS (ft)	1206.02	Culv Frctn Ls (ft)	0.38
W.S. DS (ft)	1205.40	Culv Exit Loss (ft)	0.50
Delta EG (ft)	1.43	Culv Entr Loss (ft)	0.56
Delta WS (ft)	2.20	Q Weir (cfs)	511.51
E.G. IC (ft)	1207.41	Weir Sta Lft (ft)	235.99
E.G. OC (ft)	1207.44	Weir Sta Rgt (ft)	675.58
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1204.90	Weir Max Depth (ft)	0.93
Culv WS Outlet (ft)	1204.79	Weir Avg Depth (ft)	0.54
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	238.18
Culv Crt Depth (ft)	1.98	Min El Weir Flow (ft)	1206.51

Warning: During subcritical analysis, the water surface upstream of culvert went to critical depth.

CULVERT OUTPUT Profile #2 YR Culv Group: Culvert #1

Q Culv Group (cfs)	230.47	Culv Full Len (ft)	32.00
# Barrels	8	Culv Vel US (ft/s)	7.25
Q Barrel (cfs)	28.81	Culv Vel DS (ft/s)	7.25
E.G. US. (ft)	1206.90	Culv Inv El Up (ft)	1202.65
W.S. US. (ft)	1206.22	Culv Inv El Dn (ft)	1202.54
E.G. DS (ft)	1205.51	Culv Frctn Ls (ft)	0.28
W.S. DS (ft)	1205.40	Culv Exit Loss (ft)	0.71
Delta EG (ft)	1.39	Culv Entr Loss (ft)	0.41
Delta WS (ft)	0.82	Q Weir (cfs)	95.28
E.G. IC (ft)	1206.85	Weir Sta Lft (ft)	312.68
E.G. OC (ft)	1206.90	Weir Sta Rgt (ft)	559.09
Culvert Control	Outlet	Weir Submerg	0.00
Culv WS Inlet (ft)	1204.90	Weir Max Depth (ft)	0.42
Culv WS Outlet (ft)	1204.79	Weir Avg Depth (ft)	0.27
Culv Nml Depth (ft)		Weir Flow Area (sq ft)	65.56
Culv Crt Depth (ft)	1.86	Min El Weir Flow (ft)	1206.51

CROSS SECTION

RIVER: TRIB TO S C T6

REACH: MAIN

RS: 000

INPUT

Description: SECTION 1 0+00

Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
40	1210	150	1208	353	1205.77	462	1205.79	482	1205
482	1202	500	1202	509	1202	509	1205	520	1204.23
610	1204.57	637	1204.26	910	1206	990	1208	1050	1210

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
40	.06	482	.013	509	.06

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff Contr.	Expan.
	482	509		0	0	.1	.3

CROSS SECTION OUTPUT Profile #100 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1206.02				
Vel Head (ft)	0.62	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1205.40	Reach Len. (ft)			
Crit W.S. (ft)	1205.27	Flow Area (sq ft)	2.03	91.80	227.19
E.G. Slope (ft/ft)	0.000946	Area (sq ft)	2.03	91.80	227.19
Q Total (cfs)	780.46	Flow (cfs)	0.53	638.32	141.61
Top Width (ft)	343.99	Top Width (ft)	10.13	27.00	306.87
Vel Total (ft/s)	2.43	Avg. Vel. (ft/s)	0.26	6.95	0.62
Max Chl Dpth (ft)	3.40	Hydr. Depth (ft)	0.20	3.40	0.74
Conv. Total (cfs)	25376.3	Conv. (cfs)	17.1	20754.8	4604.4
Length Wtd. (ft)		Wetted Per. (ft)	10.13	33.00	306.90
Min Ch El (ft)	1202.00	Shear (lb/sq ft)	0.01	0.16	0.04
Alpha	6.70	Stream Power (lb/ft s)	0.00	1.14	0.03
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

CROSS SECTION OUTPUT Profile #2 YR

		Element	Left OB	Channel	Right OB
E.G. Elev (ft)	1205.51				
Vel Head (ft)	0.11	Wt. n-Val.	0.060	0.013	0.060
W.S. Elev (ft)	1205.40	Reach Len. (ft)			
Crit W.S. (ft)	1203.65	Flow Area (sq ft)	2.03	91.80	227.19
E.G. Slope (ft/ft)	0.000165	Area (sq ft)	2.03	91.80	227.19
Q Total (cfs)	325.75	Flow (cfs)	0.22	266.42	59.11
Top Width (ft)	343.99	Top Width (ft)	10.13	27.00	306.87
Vel Total (ft/s)	1.01	Avg. Vel. (ft/s)	0.11	2.90	0.26
Max Chl Dpth (ft)	3.40	Hydr. Depth (ft)	0.20	3.40	0.74
Conv. Total (cfs)	25376.3	Conv. (cfs)	17.1	20754.8	4604.4
Length Wtd. (ft)		Wetted Per. (ft)	10.13	33.00	306.90
Min Ch El (ft)	1202.00	Shear (lb/sq ft)	0.00	0.03	0.01
Alpha	6.70	Stream Power (lb/ft s)	0.00	0.08	0.00
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

SUMMARY OF MANNING'S N VALUES

River: TRIB TO S C T6

Reach	River Sta.	n1	n2	n3
MAIN	1400	.06	.06	.06
MAIN	1040	.06	.06	.06
MAIN	940	.06	.013	.06
MAIN	835	.06	.013	.06
MAIN	790	Culvert		
MAIN	745	.06	.013	.06
MAIN	395	.06	.013	.06
MAIN	365	Culvert		
MAIN	335	.06	.013	.06
MAIN	108	.06	.013	.06
MAIN	80	.06	.013	.06
MAIN	45	Culvert		
MAIN	000	.06	.013	.06

SUMMARY OF REACH LENGTHS

River: TRIB TO S C T6

Reach	River Sta.	Left	Channel	Right
MAIN	1400	360	360	360
MAIN	1040	100	100	100
MAIN	940	105	105	105
MAIN	835	90	90	90
MAIN	790	Culvert		
MAIN	745	350	350	350
MAIN	395	60	60	60
MAIN	365	Culvert		
MAIN	335	227	227	227
MAIN	108	28	28	28
MAIN	80	80	80	80
MAIN	45	Culvert		
MAIN	000	0	0	

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS

River: TRIB TO S C T6

Reach	River Sta.	Contr.	Expan.
MAIN	1400	.1	.3
MAIN	1040	.1	.3
MAIN	940	.1	.3

MAIN	835	.1	.3
MAIN	790	Culvert	
MAIN	745	.1	.3
MAIN	395	.1	.3
MAIN	365	Culvert	
MAIN	335	.1	.3
MAIN	108	.1	.3
MAIN	80	.1	.3
MAIN	45	Culvert	
MAIN	000	.1	.3

# **LOCAL DRAINAGE BASIN CALCULATIONS**

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/17/2019

Johnson & Associates, Inc.

DEVELOPED

Drainage Area Designation:

DA 1

City Standard: Oklahoma City

D.A.: 88.32 acres  
 Weighted C: 0.69

DEVELOPMENT TYPE	"c"	acres	SURFACE TYPE	"k"	LF
Industrial/Conc/Asph	0.95	0.00	Pavement	0.372	0
OKC Commercial	0.90	0.00	Bare Soil	0.604	0
Residential	0.70	82.82	Poor Grass	0.942	0
Apartments	0.85	0.00	Average Grass	1.000	0
Rocky/Bare Soil	0.50	0.00	Dense Grass	1.130	0
Grass	0.50	0.00	Residential (Avg)	0.511	350
Undeveloped	0.50	5.50	Custom Value		0
<b>TOTAL SITE ACREAGE</b>		<b>88.32</b>	<b>Composite "k"</b>	<b>0.511</b>	<b>350</b>

**TIME OF CONCENTRATION CALCULATIONS**

Upstream Elevation 1261.00  
 Downstream Elevation 1252.00

Overland	Length	Slope	k	Tc
	350	2.57%	0.511	9.28 min
Channel Flow	Length	Velocity (fps)		
	4400	4.00		18.33 min
Pipe Flow	Length	Velocity (fps)		
	0	7.00		0.00 min
<b>Total</b>				<b>27.62 min</b>

**RUNOFF**

Intensity (in/hr)	Q=CiA (cfs)
i2= 2.98	Q2= 180.7
i5= 3.61	Q5= 219.5
i10= 4.10	Q10= 249.0
i25= 4.77	Q25= 289.9
i50= 5.31	Q50= 322.4
i100= 5.84	Q100= 354.4



**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/17/2019

Johnson & Associates, Inc.

DEVELOPED

Drainage Area Designation:

DA 2

City Standard: Oklahoma City

D.A.: 11.60 acres

Weighted C: 0.70

DEVELOPMENT TYPE	"c"	acres	SURFACE TYPE	"k"	LF
Industrial/Conc/Asph	0.95	0.00	Pavement	0.372	0
OKC Commercial	0.90	0.00	Bare Soil	0.604	0
Residential	0.70	11.60	Poor Grass	0.942	0
Apartments	0.85	0.00	Average Grass	1.000	0
Rocky/Bare Soil	0.50	0.00	Dense Grass	1.130	0
Grass	0.50	0.00	Residential (Avg)	0.511	380
Undeveloped	0.50	0.00	Custom Value		0
<b>TOTAL SITE ACREAGE</b>		<b>11.60</b>	<b>Composite "k"</b>	<b>0.511</b>	<b>380</b>

**TIME OF CONCENTRATION CALCULATIONS**

Upstream Elevation 1232.00

Downstream Elevation 1224.00

Overland	Length	Slope	k	Tc
	380	2.11%	0.511	9.96 min
Channel Flow	Length	Velocity (fps)		
	1460	4.00		6.08 min
Pipe Flow	Length	Velocity (fps)		
	0	7.00		0.00 min
<b>Total</b>				<b>16.04 min</b>

**RUNOFF**

	Intensity (in/hr)	Q=CiA (cfs)
i2=	3.93	Q2= 31.9
i5=	4.70	Q5= 38.2
i10=	5.27	Q10= 42.8
i25=	6.09	Q25= 49.4
i50=	6.75	Q50= 54.8
i100=	7.39	Q100= 60.0

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/17/2019

Johnson & Associates, Inc.

DEVELOPED

Drainage Area Designation:

DA 3 + 4

City Standard: Oklahoma City

3=1.85 4=7.65 TOT=9.50

D.A.: 9.50 acres

Weighted C: 0.62

DEVELOPMENT TYPE	"c"	acres	SURFACE TYPE	"k"	LF
Industrial/Conc/Asph	0.95	0.00	Pavement	0.372	0
OKC Commercial	0.90	0.00	Bare Soil	0.604	0
Residential	0.70	5.48	Poor Grass	0.942	0
Apartments	0.85	0.00	Average Grass	1.000	0
Rocky/Bare Soil	0.50	0.00	Dense Grass	1.130	0
Grass	0.50	0.00	Residential (Avg)	0.511	500
Undeveloped	0.50	4.02	Custom Value		0
<b>TOTAL SITE ACREAGE</b>		<b>9.50</b>	<b>Composite "k"</b>	<b>0.511</b>	<b>500</b>

**TIME OF CONCENTRATION CALCULATIONS**

Upstream Elevation 1232.00

Downstream Elevation 1215.00

Overland	Length	Slope	k	Tc
	500	3.40%	0.511	10.02 min
Channel Flow	Length	Velocity (fps)		
	420	3.75		1.87 min
Pipe Flow	Length	Velocity (fps)		
	0	7.00		0.00 min
<b>Total</b>				<b>11.88 min</b>

**RUNOFF**

Intensity (in/hr)	Q=CiA (cfs)
i2= 4.45	Q2= 26.0
i5= 5.30	Q5= 31.0
i10= 5.90	Q10= 34.5
i25= 6.79	Q25= 39.7
i50= 7.52	Q50= 44.0
i100= 8.21	Q100= 48.0

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/17/2019

Johnson & Associates, Inc.

DEVELOPED

Drainage Area Designation:

DA 5

City Standard: Oklahoma City

D.A.: 4.49 acres  
 Weighted C: 0.70

DEVELOPMENT TYPE	"c"	acres	SURFACE TYPE	"k"	LF
Industrial/Conc/Asph	0.95	0.00	Pavement	0.372	0
OKC Commercial	0.90	0.00	Bare Soil	0.604	0
Residential	0.70	4.49	Poor Grass	0.942	0
Apartments	0.85	0.00	Average Grass	1.000	0
Rocky/Bare Soil	0.50	0.00	Dense Grass	1.130	0
Grass	0.50	0.00	Residential (Avg)	0.511	290
Undeveloped	0.50	0.00	Custom Value		0
<b>TOTAL SITE ACREAGE</b>		<b>4.49</b>	<b>Composite "k"</b>	<b>0.511</b>	<b>290</b>

**TIME OF CONCENTRATION CALCULATIONS**

Upstream Elevation	1232.00				
Downstream Elevation	1218.00				
Overland	Length	Slope	k	Tc	
	290	4.83%	0.511	7.63 min	
Channel Flow	Length	Velocity (fps)			
	250	4.00		1.04 min	
Pipe Flow	Length	Velocity (fps)			
	0	7.00		0.00 min	
			<b>Total</b>	<b>8.68 min</b>	

RUNOFF	Intensity (in/hr)	Q=CiA (cfs)
i2=	4.97	Q2= 15.6
i5=	5.89	Q5= 18.5
i10=	6.52	Q10= 20.5
i25=	7.47	Q25= 23.5
i50=	8.27	Q50= 26.0
i100=	9.02	Q100= 28.3

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/17/2019

Johnson & Associates, Inc.

DEVELOPED

Drainage Area Designation:

DA 6

City Standard: Oklahoma City

D.A.: 4.61 acres

Weighted C: 0.70

DEVELOPMENT TYPE	"c"	acres	SURFACE TYPE	"k"	LF
Industrial/Conc/Asph	0.95	0.00	Pavement	0.372	0
OKC Commercial	0.90	0.00	Bare Soil	0.604	0
Residential	0.70	4.61	Poor Grass	0.942	0
Apartments	0.85	0.00	Average Grass	1.000	0
Rocky/Bare Soil	0.50	0.00	Dense Grass	1.130	0
Grass	0.50	0.00	Residential (Avg)	0.511	210
Undeveloped	0.50	0.00	Custom Value		0
<b>TOTAL SITE ACREAGE</b>		<b>4.61</b>	<b>Composite "k"</b>	<b>0.511</b>	<b>210</b>

**TIME OF CONCENTRATION CALCULATIONS**

Upstream Elevation 1224.00

Downstream Elevation 1216.00

Overland	Length	Slope	k	Tc
	210	3.81%	0.511	7.10 min
Channel Flow	Length	Velocity (fps)		
	350	4.00		1.46 min
Pipe Flow	Length	Velocity (fps)		
	0	7.00		0.00 min
<b>Total</b>				<b>8.56 min</b>

**RUNOFF**

Intensity (in/hr)	Q=CiA (cfs)
i2= 4.99	Q2= 16.1
i5= 5.91	Q5= 19.1
i10= 6.54	Q10= 21.1
i25= 7.50	Q25= 24.2
i50= 8.30	Q50= 26.8
i100= 9.05	Q100= 29.2

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE  
DEVELOPED

5/17/2019

Johnson & Associates, Inc.

Drainage Area Designation: DA 7 City Standard: Oklahoma City

D.A.: 3.05 acres  
Weighted C: 0.70

DEVELOPMENT TYPE	"c"	acres	SURFACE TYPE	"k"	LF
Industrial/Conc/Asph	0.95	0.00	Pavement	0.372	0
OKC Commercial	0.90	0.00	Bare Soil	0.604	0
Residential	0.70	3.05	Poor Grass	0.942	0
Apartments	0.85	0.00	Average Grass	1.000	0
Rocky/Bare Soil	0.50	0.00	Dense Grass	1.130	0
Grass	0.50	0.00	Residential (Avg)	0.511	450
Undeveloped	0.50	0.00	Custom Value		0
<b>TOTAL SITE ACREAGE</b>		<b>3.05</b>	<b>Composite "k"</b>	<b>0.511</b>	<b>450</b>

**TIME OF CONCENTRATION CALCULATIONS**

Upstream Elevation	1208.00				
Downstream Elevation	1200.00				
Overland	Length	Slope	k	Tc	
	450	1.78%	0.511	10.97 min	
Channel Flow	Length	Velocity (fps)			
	0	3.75		0.00 min	
Pipe Flow	Length	Velocity (fps)			
	0	7.00		0.00 min	
			<b>Total</b>	<b>10.97 min</b>	

RUNOFF	Intensity (in/hr)	Q=CiA (cfs)
i2=	4.59	Q2= 9.8
i5=	5.45	Q5= 11.6
i10=	6.06	Q10= 12.9
i25=	6.97	Q25= 14.9
i50=	7.72	Q50= 16.5
i100=	8.43	Q100= 18.0

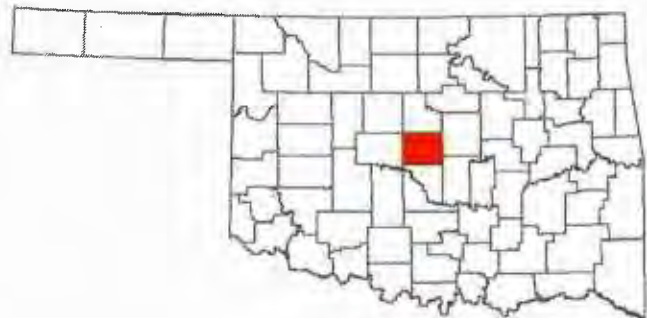
# **FEMA FIS REFERENCE DATA**

# FLOOD INSURANCE STUDY



## OKLAHOMA COUNTY, OKLAHOMA AND INCORPORATED AREAS VOLUME 1 OF 8

Community Name	Community Number	Community Name	Community Number
OKLAHOMA COUNTY, UNINCORPORATED AREAS	400466	OKLAHOMA CITY, CITY OF	405378
ARCADIA, TOWN OF	400551	*SMITH VILLAGE, TOWN OF	400549
BETHANY, CITY OF	400254	SPENCER, CITY OF	400412
CHOCTAW, CITY OF	400357	THE VILLAGE, CITY OF	400420
DEL CITY, CITY OF	400233	VALLEY BROOK, TOWN OF	400445
EDMOND, CITY OF	400252	WARR ACRES, CITY OF	400449
FOREST PARK, TOWN OF	400379	*WOODLAWN PARK, TOWN OF	400340
HARRAH, CITY OF	400140		
JONES CITY, TOWN OF	400141		
*LAKE ALUMA, TOWN OF	400550		
LUTHER, TOWN OF	400396		
MIDWEST CITY, CITY OF	400405		
NICHOLS HILLS, CITY OF	400423		
NICOMA PARK, CITY OF	400424		



\* NON-FLOODPRONE COMMUNITIES



REVISED  
DECEMBER 18, 2009

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER  
40109CV001A

**Table 4: Summary of Discharges (cont.)**

<u>Flooding Source and Location</u>	<u>Drainage Area (Square Miles)</u>	<u>Peak Discharges (Cubic Feet per Second)</u>			
		<u>10-percent</u>	<u>2-percent</u>	<u>1-percent</u>	<u>0.2-percent</u>
<b>SOLDIER CREEK TRIBUTARY 4</b>					
At confluence with Soldier Creek	1.10	1,350	1,790	2,020	2,590
At Del Rey Creek	1.00	1,290	1,690	1,920	2,460
At Douglas Boulevard	0.80	1,200	1,590	1,800	2,310
<b>SOLDIER CREEK TRIBUTARY 6</b>					
At confluence with Soldier Creek	2.80	2,630	3,470	3,930	5,050
At Southeast 15th Street	1.00	1,530	2,020	2,290	2,940
At Post Road	0.70	1,300	1,720	1,950	2,510
<b>SOLDIER CREEK TRIBUTARY TO CRUTCHO CREEK</b>					
At South Douglas Road	3.86	2,463	4,066	4,819	7,132
Approximately 170 feet upstream of Southeast 29th Street	3.75	2,446	4,105	4,874	7,262
<b>SOLDIER CREEK TRIBUTARY TO DEER CREEK</b>					
	*	*	*	*	*
<b>SPRING CREEK</b>					
Approximately 2,530 feet upstream of Douglas Boulevard	14.80	3,300	6,110	7,610	11,360
At Coltrane Boulevard	9.90	2,710	4,690	5,800	8,520
At Bryant Avenue	1.80	1,290	2,110	2,540	3,590
At Wilshire Boulevard	2.10	2,310	3,220	3,650	4,640
At Northwest 63rd Street	1.40	2,310	3,220	3,650	4,640

\* Data Not Available



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD 88)	WITHOUT FLOODWAY (FEET NAVD 88)	WITH FLOODWAY (FEET NAVD 88)	INCREASE (FEET)
<b>Soldier Creek Tributary 6</b>								
A	510	119	1,114	4.2	1,200.8 <sup>2</sup>	1,198.6	1,198.8	0.2
B	1,730	100	504	6.9	1,203.2	1,203.2	1,203.3	0.1
C	3,345	210	1,233	3.3	1,208.4	1,208.4	1,209.2	0.8
D	4,685	161	697	4.9	1,211.4	1,211.4	1,212.2	0.8
E	5,525	207	913	3.2	1,215.6	1,215.6	1,216.5	0.9
F	6,425	176	547	4.2	1,220.6	1,220.6	1,221.1	0.5
G	7,040	146	526	4.4	1,225.3	1,225.3	1,225.7	0.4
H	8,005	71	390	5.0	1,228.8	1,228.8	1,229.4	0.6
I	8,465	65	313	6.2	1,230.1	1,230.1	1,230.7	0.6

<sup>1</sup> Feet above confluence with Soldier Creek Tributary to Crutcho Creek.

<sup>2</sup> Backwater from Soldier Creek Tributary to Crutcho Creek.

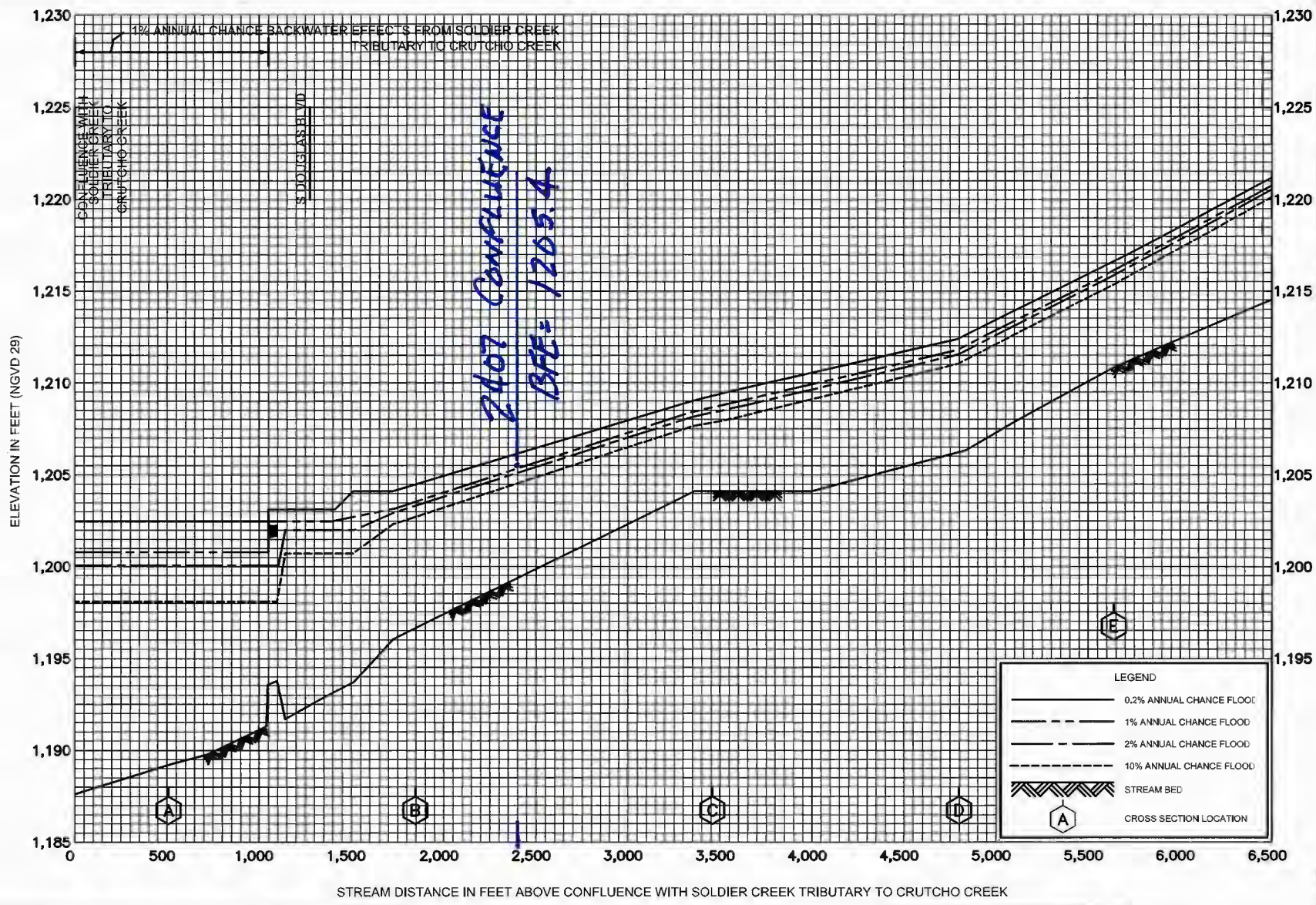
**TABLE 6**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OKLAHOMA COUNTY, OK  
AND INCORPORATED AREAS**

**FLOODWAY DATA**

**SOLDIER CREEK TRIBUTARY 6**



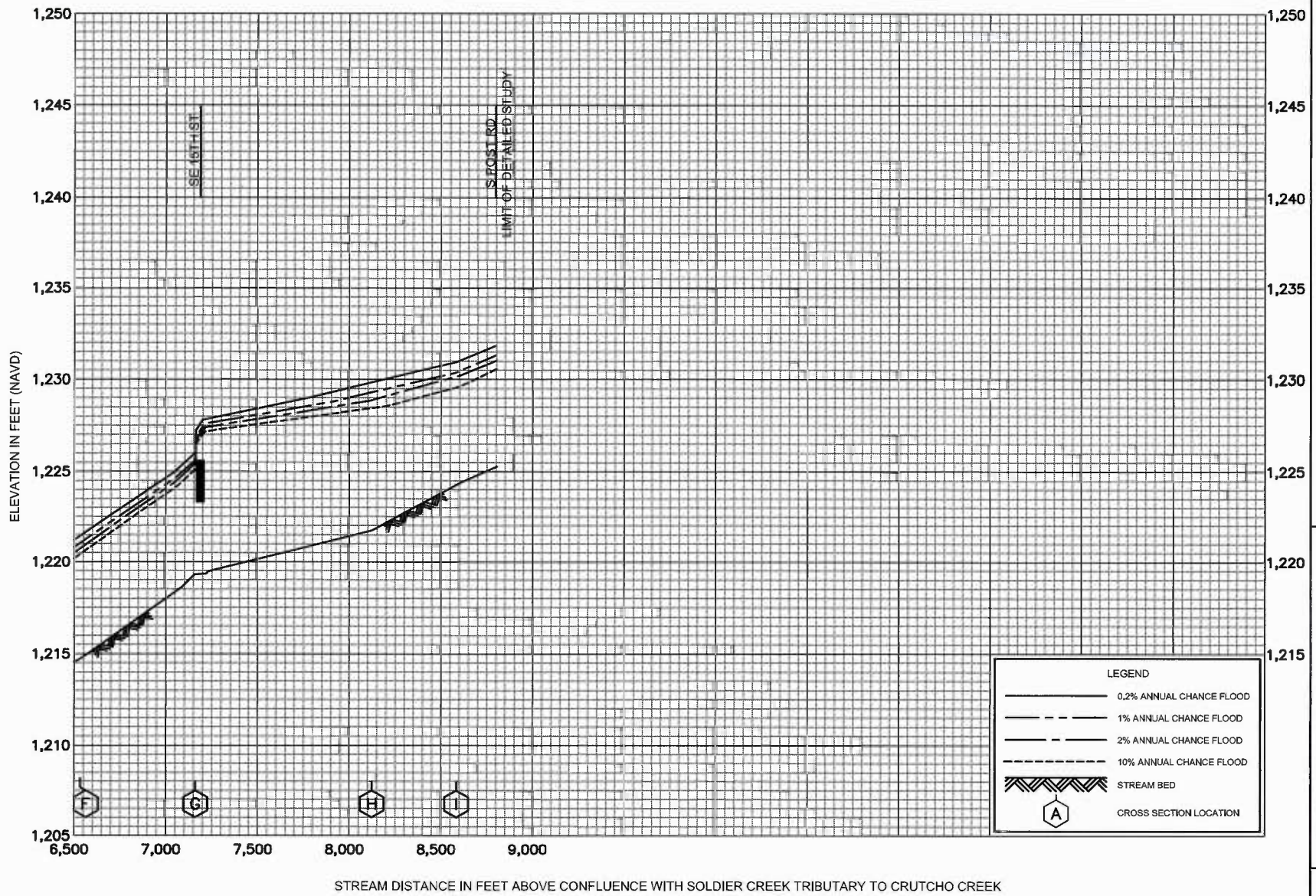
FLOOD PROFILES

SOLDIER CREEK TRIBUTARY 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

OKLAHOMA COUNTY, OK  
AND INCORPORATED AREAS


352P



# Untitled Map

Write a description for your map

## Legend

 CASSIDY



# CONFLUENCE AT T6

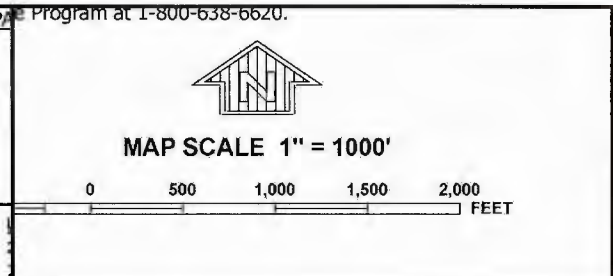
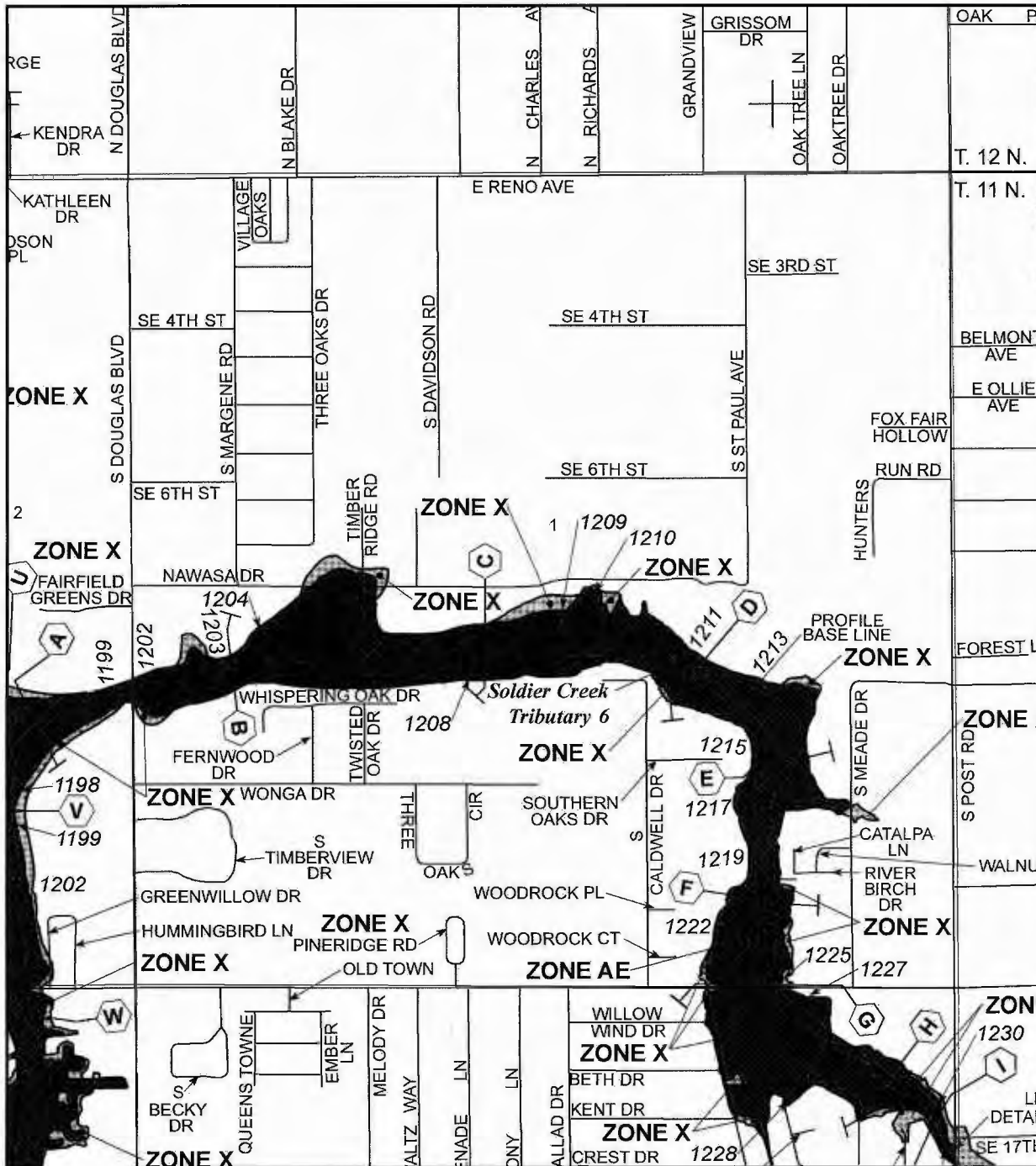
Write a description for your map.

**Legend**

- CONFLUENCE

AREA OF MINIMAL FLOOD HAZARD Zone X





NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0330H

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**OKLAHOMA COUNTY**  
**OKLAHOMA**  
**AND INCORPORATED AREAS**

**PANEL 330 OF 370**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHOCTAW, CITY OF	400357	0330	H
MIDWEST CITY, CITY OF	400405	0330	H
NIDOMA PARK, CITY OF	400424	0330	H
SPENCER, CITY OF	400412	0330	H

Notice to User: The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community.

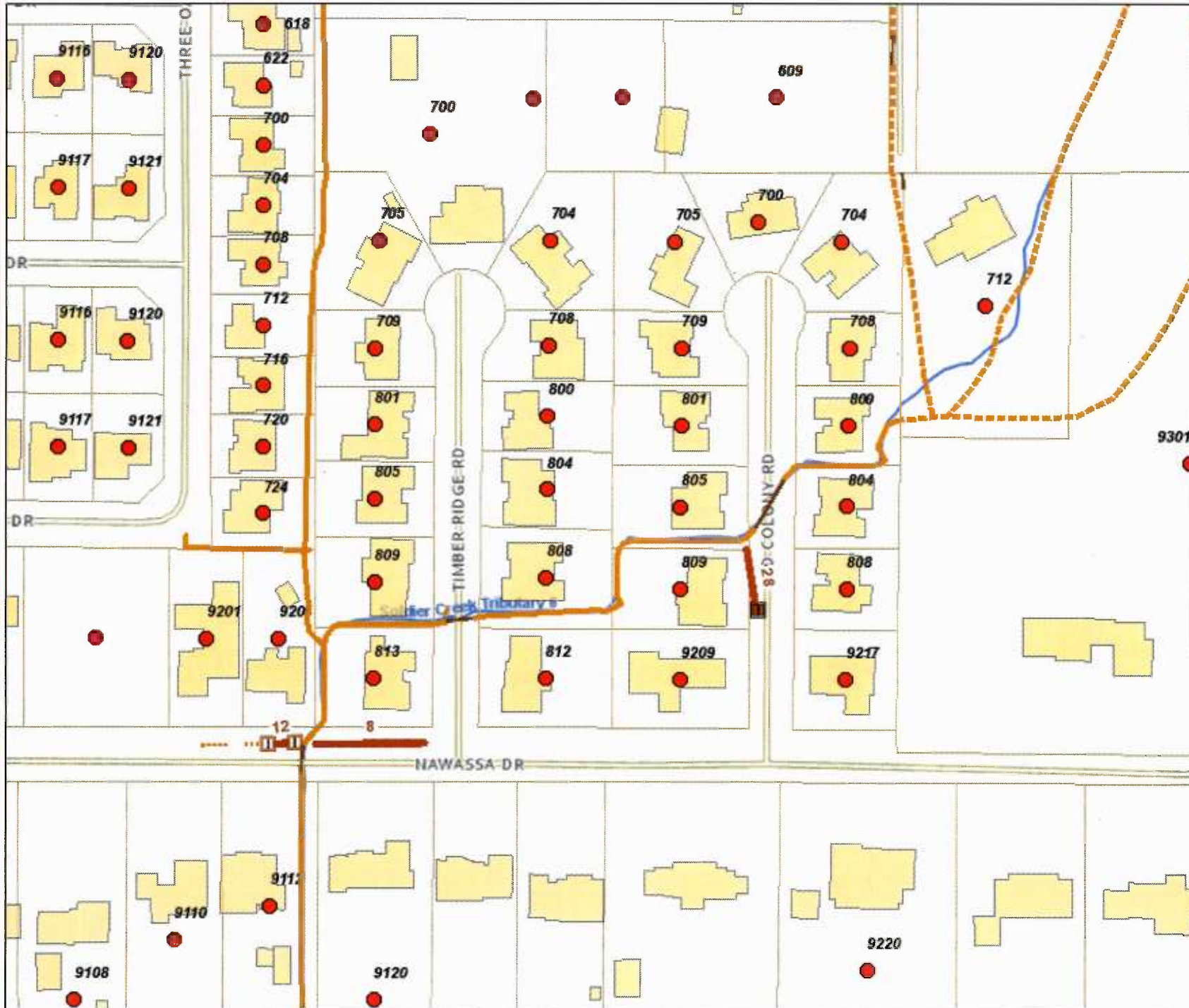


**MAP NUMBER**  
**40109C0330H**

**REVISED DATE**  
**DECEMBER 18, 2009**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



**Legend**

- Buried Manholes
- Curb Inlets
- Inlets
- Junction Boxes
- Outfalls
- Culverts
- Flumes
- Developed Channels
- Trickle Channels
- Undeveloped Channels
- Storm Lines



**1 in = 188 ft**  
 when printed actual size  
 on 8-1/2"x11" paper

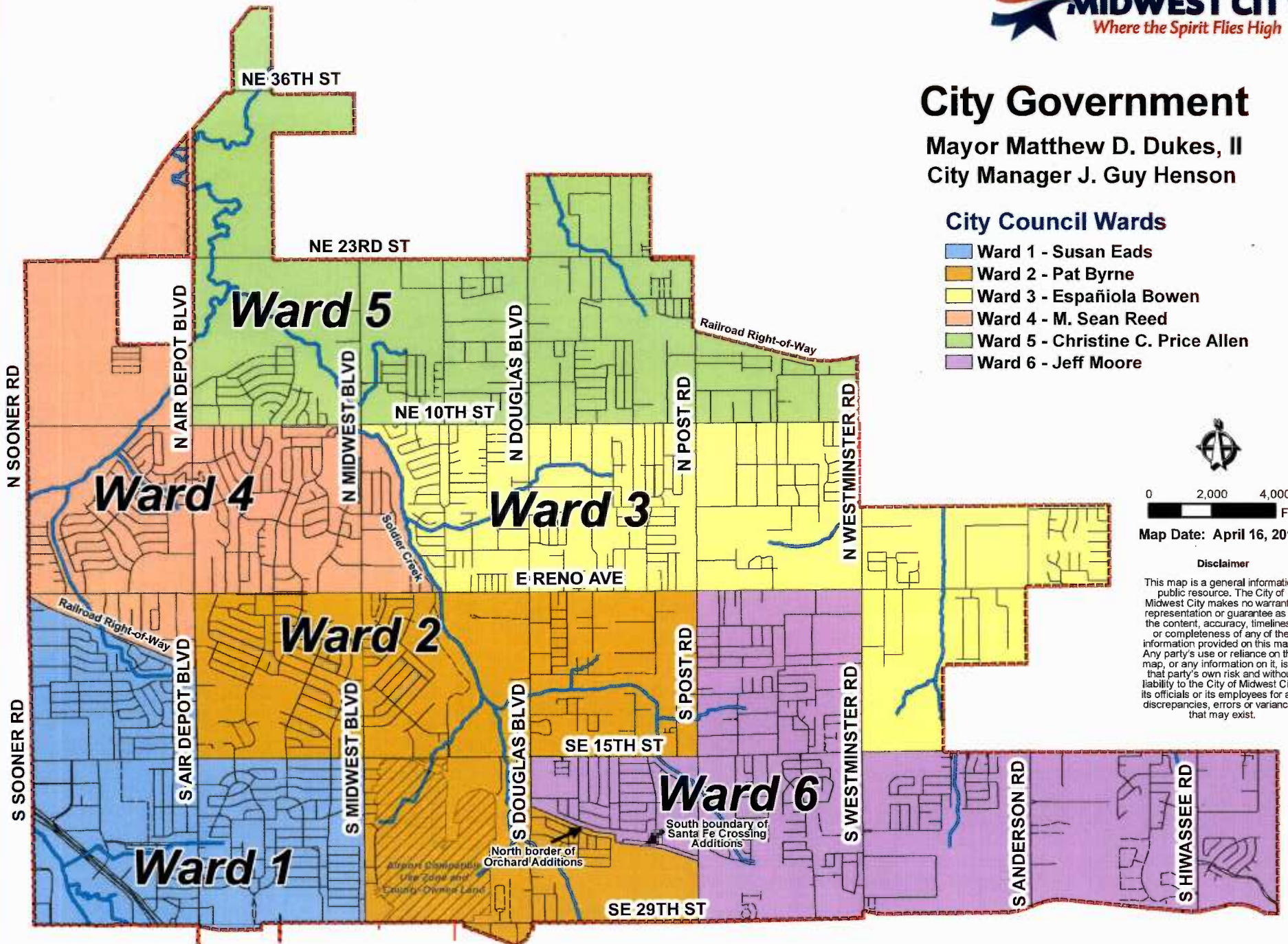
**DISCLAIMER**  
 This map is a general information public resource. The City of Midwest City makes no warranty, representation or guarantee as to the content, accuracy, timeliness or completeness of any of the information provided on this map. Any party's use or reliance on this map, or any information on it, is at that party's own risk and without liability to the City of Midwest City, its officials or its employees for any discrepancies, errors or variances that may exist.

# City Government

Mayor Matthew D. Dukes, II  
City Manager J. Guy Henson

## City Council Wards

- Ward 1 - Susan Eads
- Ward 2 - Pat Byrne
- Ward 3 - Española Bowen
- Ward 4 - M. Sean Reed
- Ward 5 - Christine C. Price Allen
- Ward 6 - Jeff Moore



0 2,000 4,000  
Ft

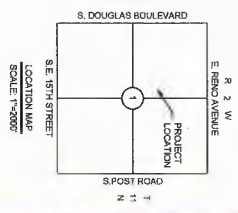
Map Date: April 16, 2018

### Disclaimer

This map is a general information public resource. The City of Midwest City makes no warranty, representation or guarantee as to the content, accuracy, timeliness or completeness of any of the information provided on this map. Any party's use or reliance on this map, or any information on it, is at that party's own risk and without liability to the City of Midwest City, its officials or its employees for any discrepancies, errors or variances that may exist.



**LOCAL AREA  
TOPOGRAPHIC SURVEY**



THIS DRAWING IS FOR TOPOGRAPHICAL USE ONLY. IT IS NOT TO BE USED AS A BOUNDARY SURVEY.

**Survey Legend**

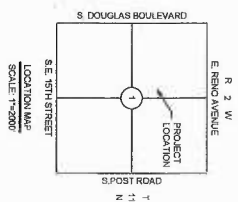
1	STAKE	1	WOOD
2	CONTROL POINT	2	WOOD POST
3	SETBACK MARKER	3	ROCK
4	PERMITS	4	REBAR
5	ADJUSTMENT	5	REBAR
6	WATER METER	6	REBAR
7	WATER VALVE	7	REBAR
8	SPRINKLER VALVE	8	REBAR
9	SPRINKLER HEAD	9	REBAR
10	SPRINKLER	10	REBAR
11	STATION MARK	11	REBAR
12	STATION MARK	12	REBAR
13	STATION MARK	13	REBAR
14	STATION MARK	14	REBAR
15	STATION MARK	15	REBAR
16	STATION MARK	16	REBAR
17	STATION MARK	17	REBAR
18	STATION MARK	18	REBAR
19	STATION MARK	19	REBAR
20	STATION MARK	20	REBAR
21	STATION MARK	21	REBAR
22	STATION MARK	22	REBAR
23	STATION MARK	23	REBAR
24	STATION MARK	24	REBAR
25	STATION MARK	25	REBAR
26	STATION MARK	26	REBAR
27	STATION MARK	27	REBAR
28	STATION MARK	28	REBAR
29	STATION MARK	29	REBAR
30	STATION MARK	30	REBAR
31	STATION MARK	31	REBAR
32	STATION MARK	32	REBAR
33	STATION MARK	33	REBAR
34	STATION MARK	34	REBAR
35	STATION MARK	35	REBAR
36	STATION MARK	36	REBAR
37	STATION MARK	37	REBAR
38	STATION MARK	38	REBAR
39	STATION MARK	39	REBAR
40	STATION MARK	40	REBAR
41	STATION MARK	41	REBAR
42	STATION MARK	42	REBAR
43	STATION MARK	43	REBAR
44	STATION MARK	44	REBAR
45	STATION MARK	45	REBAR
46	STATION MARK	46	REBAR
47	STATION MARK	47	REBAR
48	STATION MARK	48	REBAR
49	STATION MARK	49	REBAR
50	STATION MARK	50	REBAR



Copyright © 2019 Johnson & Associates, Inc.

<b>MAP</b> SHEET NUMBER	<b>CASSIDY COVE 3</b> MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA <b>TOPOGRAPHIC SURVEY</b>		Johnson & Associates, Inc. 1 E. Sheridan Ave., Suite 200 Oklahoma City, OK 73104 (405) 241-8111 FAX (405) 241-8104 <a href="http://www.jaand.com">www.jaand.com</a> <a href="mailto:info@jaand.com">info@jaand.com</a> 11100 N. Lincoln Blvd. Suite 1000 OKC, OK 73120	<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISIONS DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	REVISIONS DESCRIPTION	DATE												
	NO.		REVISIONS DESCRIPTION	DATE															
Date: _____ Scale: _____ Drawn By: _____ Checked By: _____ Approved By: _____	Surveyed: _____ Surveyed: _____ Surveyed: _____ Surveyed: _____ Surveyed: _____	Surveyed: _____ Surveyed: _____ Surveyed: _____ Surveyed: _____ Surveyed: _____	Surveyed: _____ Surveyed: _____ Surveyed: _____ Surveyed: _____ Surveyed: _____																

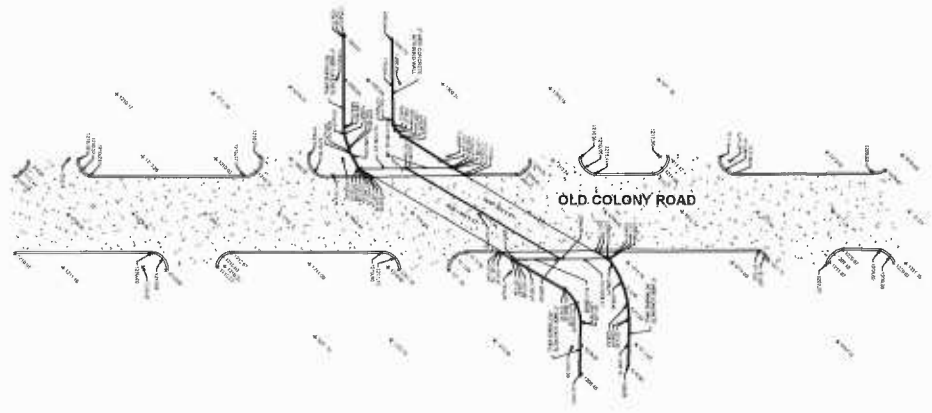




THIS SHEET IS FOR TOPOGRAPHICAL USE ONLY. IT IS NOT TO BE USED AS A CONVEYANCE INSTRUMENT.

**Survey Legend**

①	BOUNDARY	—	ADJUSTED
②	CONCRETE POLE	—	ADJUSTED
③	WOOD POLE	—	ADJUSTED
④	STAKE	—	ADJUSTED
⑤	IRON NAIL	—	ADJUSTED
⑥	IRON PIPE	—	ADJUSTED
⑦	WOOD PIPE	—	ADJUSTED
⑧	WOOD POST	—	ADJUSTED
⑨	IRON POST	—	ADJUSTED
⑩	CONCRETE POST	—	ADJUSTED
⑪	WOOD POST	—	ADJUSTED
⑫	IRON POST	—	ADJUSTED
⑬	CONCRETE POST	—	ADJUSTED
⑭	WOOD POST	—	ADJUSTED
⑮	IRON POST	—	ADJUSTED
⑯	CONCRETE POST	—	ADJUSTED
⑰	WOOD POST	—	ADJUSTED
⑱	IRON POST	—	ADJUSTED
⑲	CONCRETE POST	—	ADJUSTED
⑳	WOOD POST	—	ADJUSTED
㉑	IRON POST	—	ADJUSTED
㉒	CONCRETE POST	—	ADJUSTED
㉓	WOOD POST	—	ADJUSTED
㉔	IRON POST	—	ADJUSTED
㉕	CONCRETE POST	—	ADJUSTED
㉖	WOOD POST	—	ADJUSTED
㉗	IRON POST	—	ADJUSTED
㉘	CONCRETE POST	—	ADJUSTED
㉙	WOOD POST	—	ADJUSTED
㉚	IRON POST	—	ADJUSTED
㉛	CONCRETE POST	—	ADJUSTED
㉜	WOOD POST	—	ADJUSTED
㉝	IRON POST	—	ADJUSTED
㉞	CONCRETE POST	—	ADJUSTED
㉟	WOOD POST	—	ADJUSTED
㊱	IRON POST	—	ADJUSTED
㊲	CONCRETE POST	—	ADJUSTED
㊳	WOOD POST	—	ADJUSTED
㊴	IRON POST	—	ADJUSTED
㊵	CONCRETE POST	—	ADJUSTED
㊶	WOOD POST	—	ADJUSTED
㊷	IRON POST	—	ADJUSTED
㊸	CONCRETE POST	—	ADJUSTED
㊹	WOOD POST	—	ADJUSTED
㊺	IRON POST	—	ADJUSTED
㊻	CONCRETE POST	—	ADJUSTED
㊼	WOOD POST	—	ADJUSTED
㊽	IRON POST	—	ADJUSTED
㊾	CONCRETE POST	—	ADJUSTED
㊿	WOOD POST	—	ADJUSTED



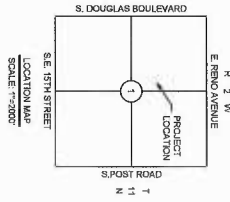
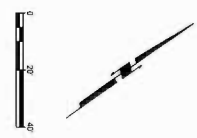
**20F3**  
SHEET NUMBER

**CASSIDY COVE 3**  
MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA  
TOPOGRAPHIC SURVEY

Johnson & Associates, Inc.  
1 E. Sheridan Ave., Suite 200  
Oklahoma City, OK 73104  
PHONE: (405) 234-1111 FAX: (405) 234-1112  
WWW: www.jandassoc.com  
• ENGINEERS • SURVEYORS • PLANNERS •

REVISIONS		
NO.	DESCRIPTION	DATE

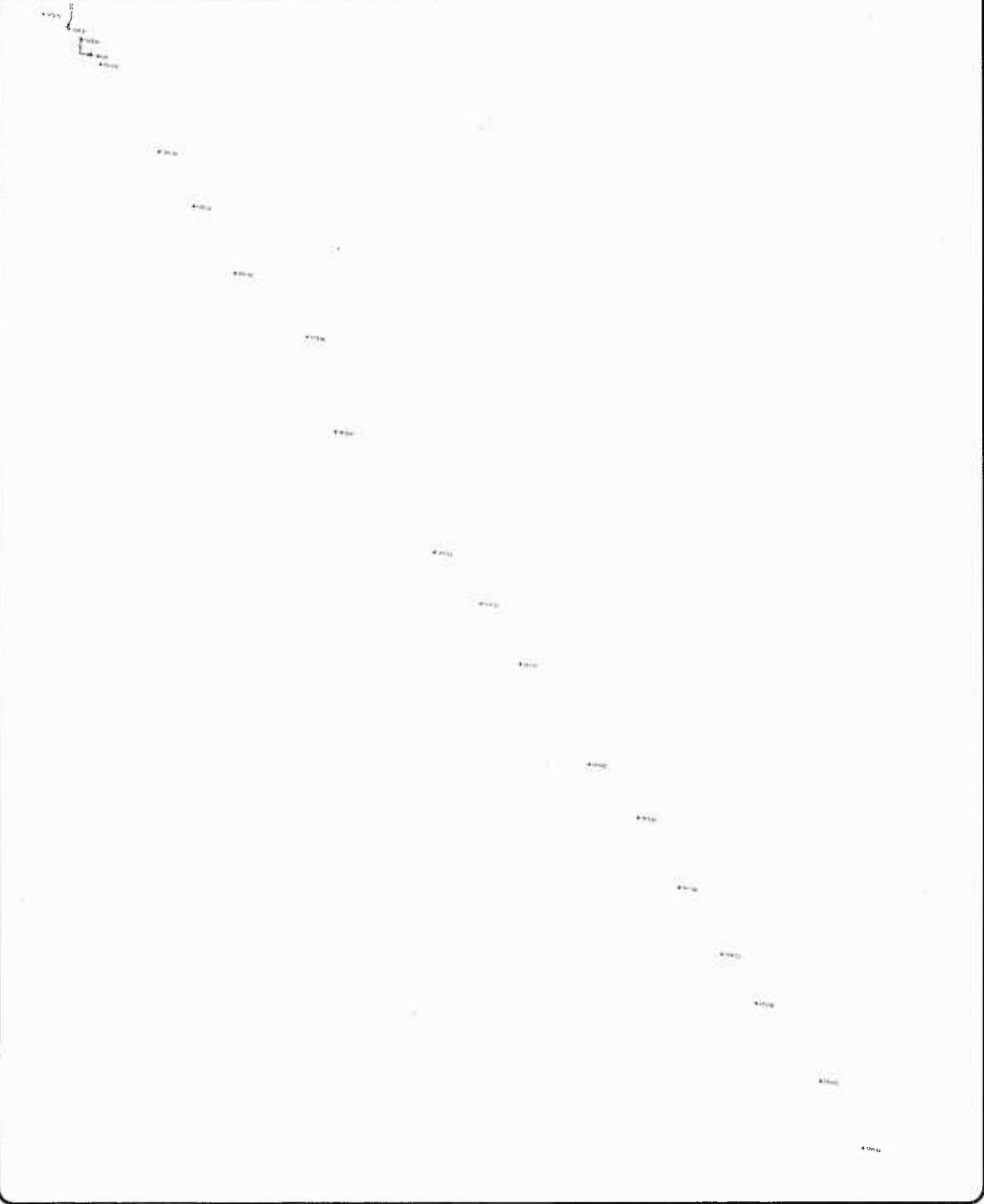
Copyright © 2019 Johnson & Associates, Inc.



NOTE  
THIS DRAWING IS FOR INFORMATIONAL USE ONLY. IT IS NOT TO BE USED AS A BOUNDARY SURVEY.

**Survey Legend**

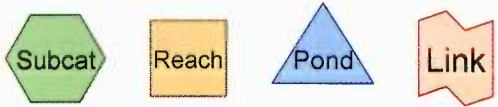
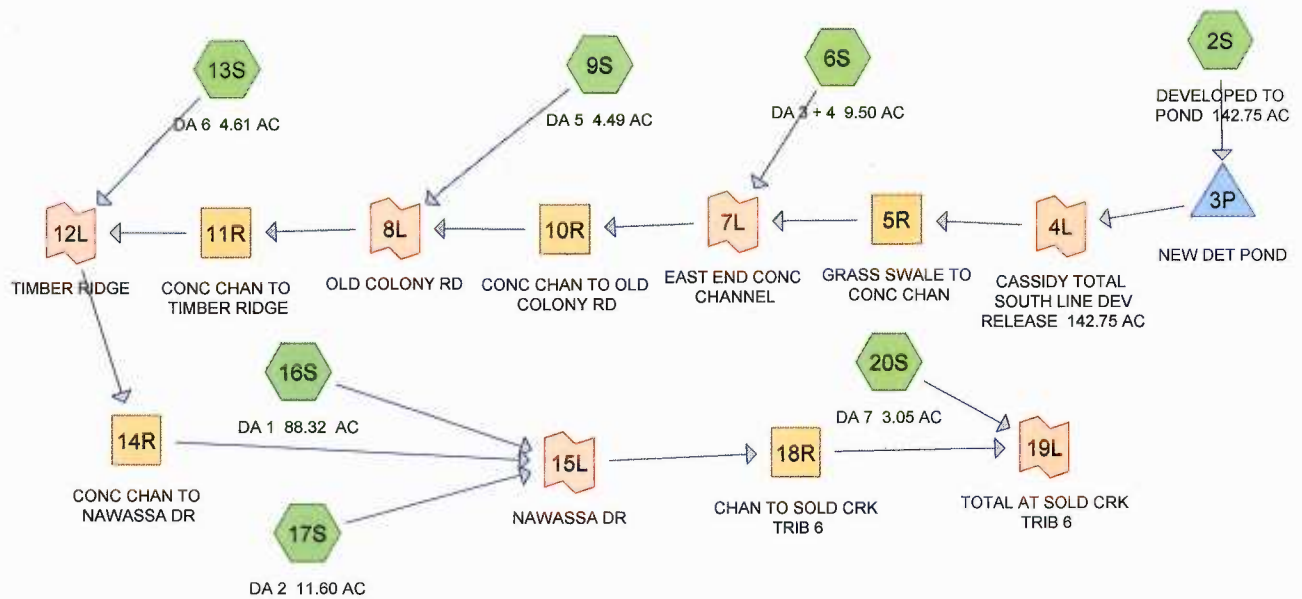
1	ENCLOSURE	40	ROCK SHALE
2	CONCRETE CURB	41	ROCK SHALE
3	SET MONUMENT	42	SKALET POST
4	PIPE HUB/JUNCTION	43	EMERGENCY TREE
5	ALUMINUM	44	DESIGNATED TREE
6	WATER METER	45	DATE
7	WATER VALVE	46	VEGETATION
8	SPRINKLER HEAD	47	STANDARD
9	SPRINKLER VALVE	48	CHALKLINE FENCE
10	SAFETY VEHICLE	49	STAINLESS STEEL
11	STORM DRAIN	50	FRAMING
12	STORM DRAIN	51	UNDERGROUND POWER
13	FIELD MARK	52	UNDERGROUND TELEPHONE
14	OLD METERS	53	UNDERGROUND CABLE
15	NO. 100 METERS	54	RAILROAD TRACKS
16	VERIFY PIPE	55	RAILROAD TRACKS
17	MONITORING WELL	56	CEMETERY CRYPTS
18	CONCRETE	57	CONCRETE FOUND
19	USER POLE	58	TOP OF DRAINAGE
20	ELECTRIC BOX	59	TOP OF FIRM
21	ELECTRIC METERS	60	PAVED DRIVE
22	ELECTRIC MANSUET	61	REINFORCED CONCRETE
23	PULL BOX	62	REINFORCED CONCRETE
24	TELEPHONE MANSUET	63	CONCRETE
25	TELEPHONE MANSUET	64	CONCRETE
26	CABLE BOX	65	CONCRETE
27	MANHOLE	66	CONCRETE
28	WATER	67	CONCRETE
29	SEWER	68	CONCRETE
30	ASPH/CONCRETE	69	CONCRETE
31	CONCRETE	70	CONCRETE



<b>30F3</b> SHEET NUMBER	Title No. _____ Scale _____ Drawn by _____ Checked by _____ Approved by _____	<b>CASSIDY COVE 3</b> MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA <b>TOPOGRAPHIC SURVEY</b>		Johnson & Associates, Inc. 11 E. Sheridan Ave., Suite 200 Oklahoma City, OK 73104 (405) 233-0000 www.jandassoc.com	<b>REVISIONS</b>	
		NO. _____ DESCRIPTION _____ DATE _____			NO. _____ DESCRIPTION _____ DATE _____	

Copyright © 2019 Johnson & Associates, Inc.

# **LOCAL BASIN FLOOD ROUTING**



**Routing Diagram for CASSIDY COVE BASIN DRAINAGE STUDY**  
 Prepared by {enter your company name here}, Printed 5/18/2019  
 HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

# CASSIDY COVE BASIN DRAINAGE STUDY

Prepared by {enter your company name here}

HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

Printed 5/18/2019

Page 2

## Area Listing (all nodes)

Area (acres)	C	Description (subcatchment-numbers)
142.750	0.70	(2S)
112.050	0.70	(6S, 9S, 13S, 16S, 17S, 20S)
9.520	0.50	(6S, 16S)



# CASSIDY COVE BASIN DRAINAGE STUDY

Prepared by {enter your company name here}

Printed 5/18/2019

HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

Page 3

## Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	1,216.75	1,216.50	65.0	0.0038	0.013	42.0	0.0	0.0

Time span=0.00-2.00 hrs, dt=0.01 hrs, 201 points  
 Runoff by Rational method, Rise/Fall=1.0/1.0 xTc  
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>Subcatchment 2S: DEVELOPED TO POND</b>	Runoff Area=142.750 ac	0.00% Impervious	Runoff Depth=1.98"	Tc=29.04 min	C=0.70	Runoff=586.05 cfs	23.603 af				
<b>Subcatchment 6S: DA 3 + 4 9.50 AC</b>	Runoff Area=9.500 ac	0.00% Impervious	Runoff Depth=1.76"	Tc=11.88 min	C=0.62	Runoff=34.78 cfs	1.391 af				
<b>Subcatchment 9S: DA 5 4.49 AC</b>	Runoff Area=4.490 ac	0.00% Impervious	Runoff Depth=1.98"	Tc=8.68 min	C=0.70	Runoff=18.56 cfs	0.742 af				
<b>Subcatchment 13S: DA 6 4.61 AC</b>	Runoff Area=4.610 ac	0.00% Impervious	Runoff Depth=1.98"	Tc=8.56 min	C=0.70	Runoff=19.06 cfs	0.762 af				
<b>Subcatchment 16S: DA 1 88.32 AC</b>	Runoff Area=88.320 ac	0.00% Impervious	Runoff Depth=1.96"	Tc=27.62 min	C=0.69	Runoff=359.93 cfs	14.396 af				
<b>Subcatchment 17S: DA 2 11.60 AC</b>	Runoff Area=11.600 ac	0.00% Impervious	Runoff Depth=1.98"	Tc=16.04 min	C=0.70	Runoff=47.95 cfs	1.918 af				
<b>Subcatchment 20S: DA 7 3.05 AC</b>	Runoff Area=3.050 ac	0.00% Impervious	Runoff Depth=1.98"	Tc=10.97 min	C=0.70	Runoff=12.61 cfs	0.504 af				
<b>Reach 5R: GRASS SWALE TO CONC</b>	Avg. Flow Depth=2.96'	Max Vel=4.22 fps	Inflow=436.69 cfs	23.581 af	n=0.060	L=540.0'	S=0.0111 '/'	Capacity=796.25 cfs	Outflow=434.01 cfs	23.533 af	
<b>Reach 10R: CONC CHAN TO OLD</b>	Avg. Flow Depth=1.67'	Max Vel=16.38 fps	Inflow=437.72 cfs	24.924 af	n=0.013	L=150.0'	S=0.0133 '/'	Capacity=577.80 cfs	Outflow=437.63 cfs	24.919 af	
<b>Reach 11R: CONC CHAN TO</b>	Avg. Flow Depth=2.15'	Max Vel=12.72 fps	Inflow=437.63 cfs	25.661 af	n=0.013	L=390.0'	S=0.0062 '/'	Capacity=392.54 cfs	Outflow=437.45 cfs	25.644 af	
<b>Reach 14R: CONC CHAN TO</b>	Avg. Flow Depth=2.14'	Max Vel=12.79 fps	Inflow=437.45 cfs	26.406 af	n=0.013	L=280.0'	S=0.0063 '/'	Capacity=395.59 cfs	Outflow=437.29 cfs	26.393 af	
<b>Reach 18R: CHAN TO SOLD CRK</b>	Avg. Flow Depth=3.22'	Max Vel=14.93 fps	Inflow=770.26 cfs	42.706 af	n=0.013	L=450.0'	S=0.0056 '/'	Capacity=693.44 cfs	Outflow=769.89 cfs	42.683 af	
<b>Pond 3P: NEW DET POND</b>	Peak Elev=1,221.67'	Storage=297,502 cf	Inflow=586.05 cfs	23.603 af	42.0"	Round Culvert x 6.00	n=0.013	L=65.0'	S=0.0038 '/'	Outflow=436.69 cfs	23.581 af
<b>Link 4L: CASSIDY TOTAL SOUTH LINE DEV RELEASE 142.75 AC</b>			Inflow=436.69 cfs	23.581 af				Primary=436.69 cfs	23.581 af		
<b>Link 7L: EAST END CONC CHANNEL</b>			Inflow=437.72 cfs	24.924 af				Primary=437.72 cfs	24.924 af		
<b>Link 8L: OLD COLONY RD</b>			Inflow=437.63 cfs	25.661 af				Primary=437.63 cfs	25.661 af		

**Link 12L: TIMBER RIDGE** Inflow=437.45 cfs 26.406 af  
Primary=437.45 cfs 26.406 af

**Link 15L: NAWASSA DR** Inflow=770.26 cfs 42.706 af  
Primary=770.26 cfs 42.706 af

**Link 19L: TOTAL AT SOLD CRK TRIB 6** Inflow=780.46 cfs 43.187 af  
Primary=780.46 cfs 43.187 af

**Summary for Subcatchment 2S: DEVELOPED TO POND 142.75 AC**

Runoff = 586.05 cfs @ 0.48 hrs, Volume= 23.603 af, Depth= 1.98"

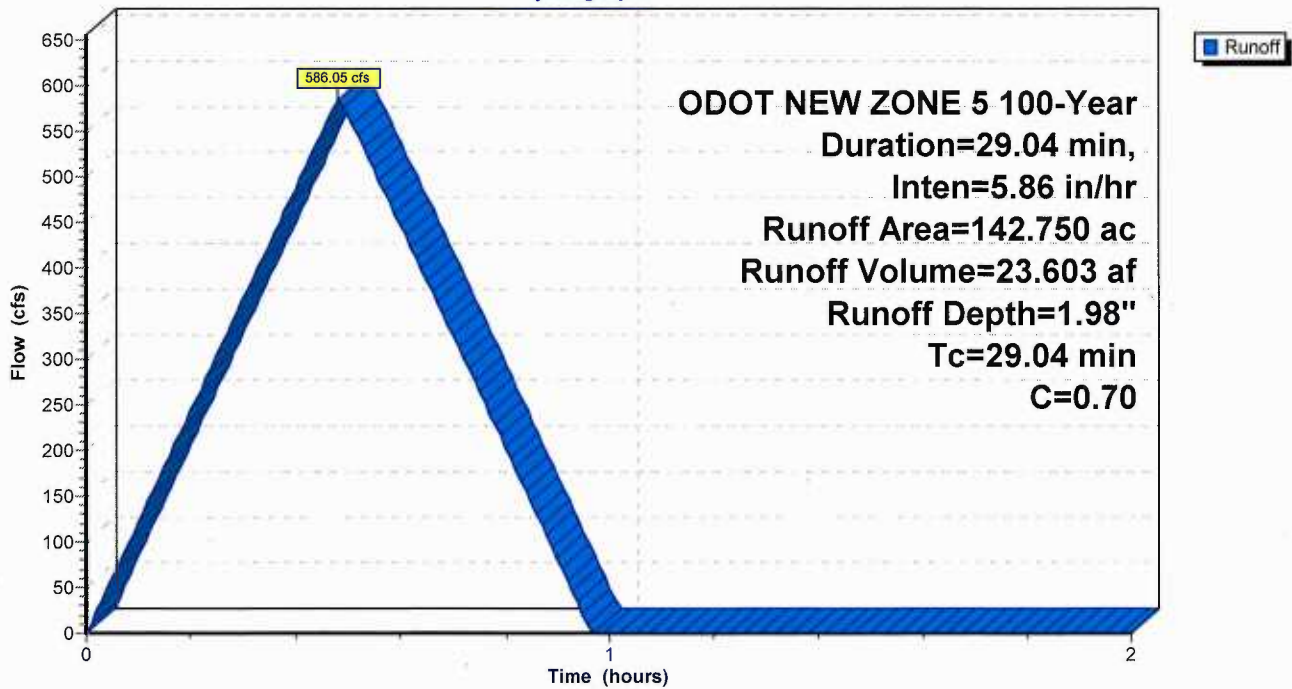
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
142.750	0.70	
142.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.04					Direct Entry,

**Subcatchment 2S: DEVELOPED TO POND 142.75 AC**

Hydrograph



**Summary for Subcatchment 6S: DA 3 + 4 9.50 AC**

Runoff = 34.78 cfs @ 0.20 hrs, Volume= 1.391 af, Depth= 1.76"

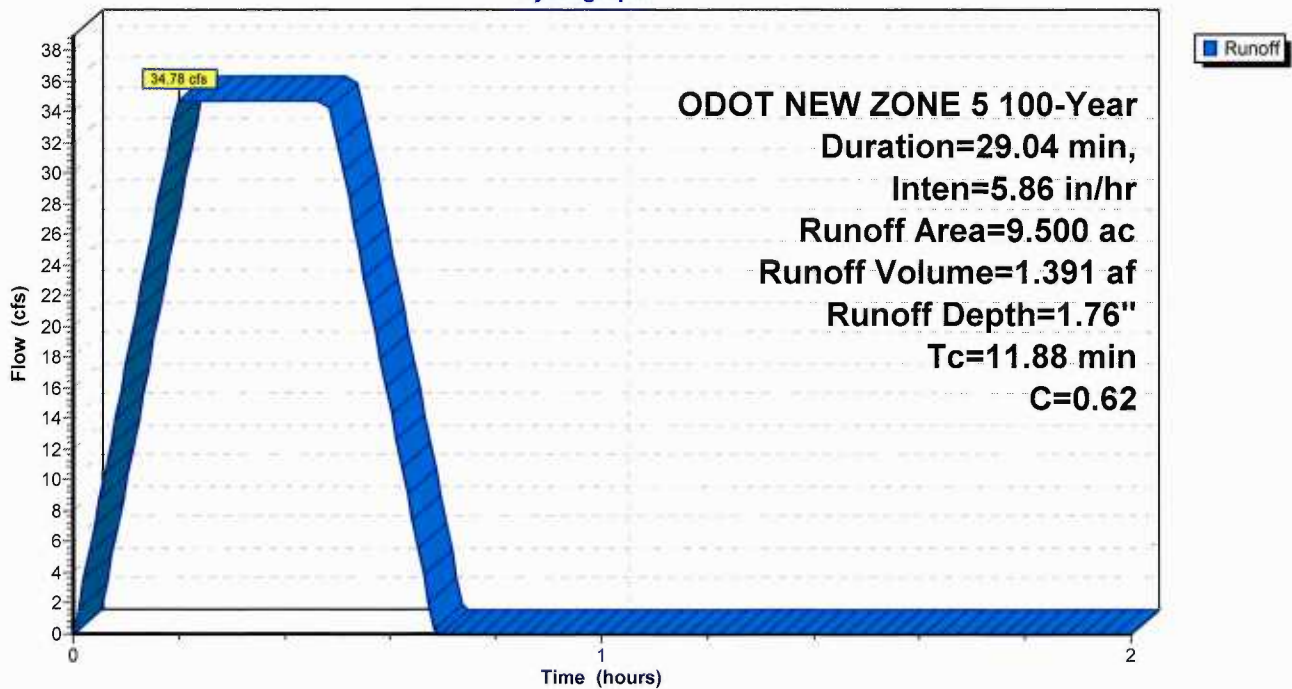
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
5.480	0.70	
4.020	0.50	
9.500	0.62	Weighted Average
9.500		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.88					Direct Entry,

**Subcatchment 6S: DA 3 + 4 9.50 AC**

Hydrograph



**Summary for Subcatchment 9S: DA 5 4.49 AC**

Runoff = 18.56 cfs @ 0.15 hrs, Volume= 0.742 af, Depth= 1.98"

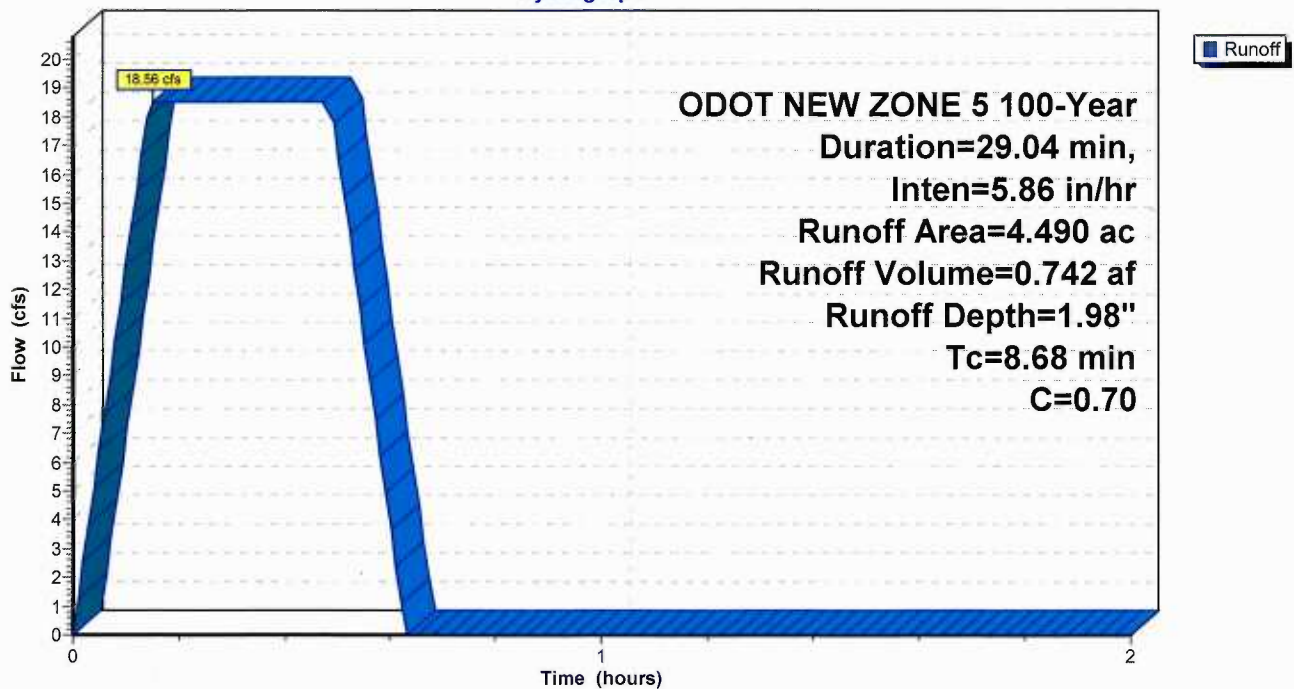
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
4.490	0.70	
4.490		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.68					Direct Entry,

**Subcatchment 9S: DA 5 4.49 AC**

Hydrograph



**Summary for Subcatchment 13S: DA 6 4.61 AC**

Runoff = 19.06 cfs @ 0.15 hrs, Volume= 0.762 af, Depth= 1.98"

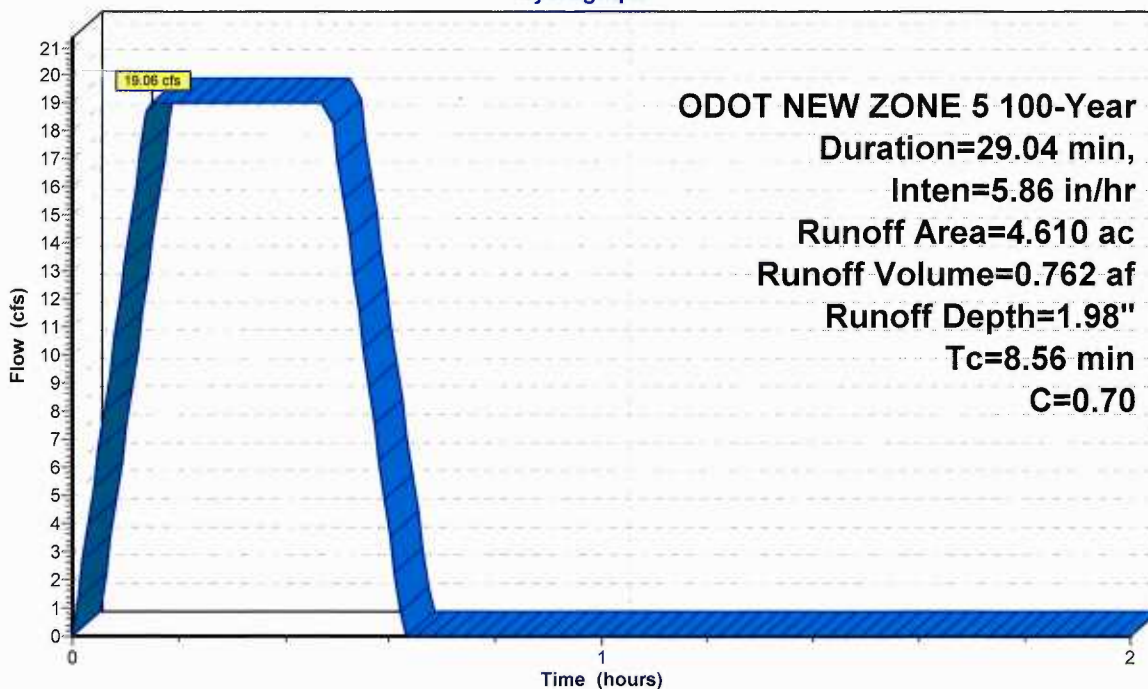
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
4.610	0.70	
4.610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.56					Direct Entry,

**Subcatchment 13S: DA 6 4.61 AC**

Hydrograph



**Summary for Subcatchment 16S: DA 1 88.32 AC**

Runoff = 359.93 cfs @ 0.48 hrs, Volume= 14.396 af, Depth= 1.96"

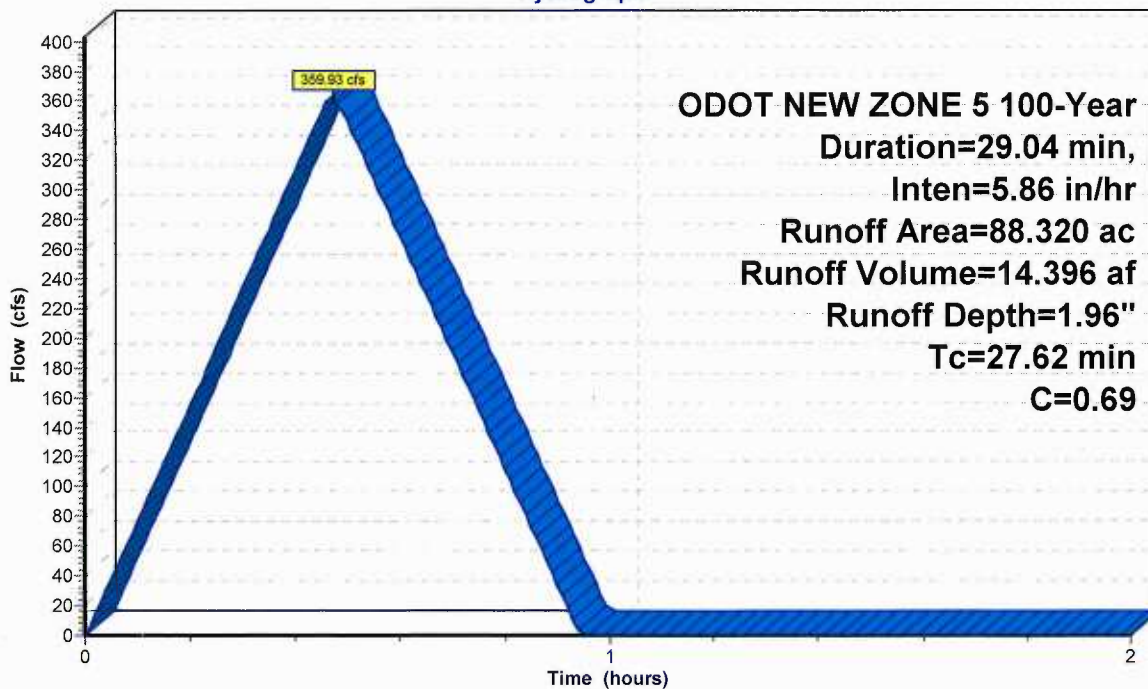
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
82.820	0.70	
5.500	0.50	
88.320	0.69	Weighted Average
88.320		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.62					Direct Entry,

**Subcatchment 16S: DA 1 88.32 AC**

Hydrograph





**Summary for Subcatchment 17S: DA 2 11.60 AC**

Runoff = 47.95 cfs @ 0.27 hrs, Volume= 1.918 af, Depth= 1.98"

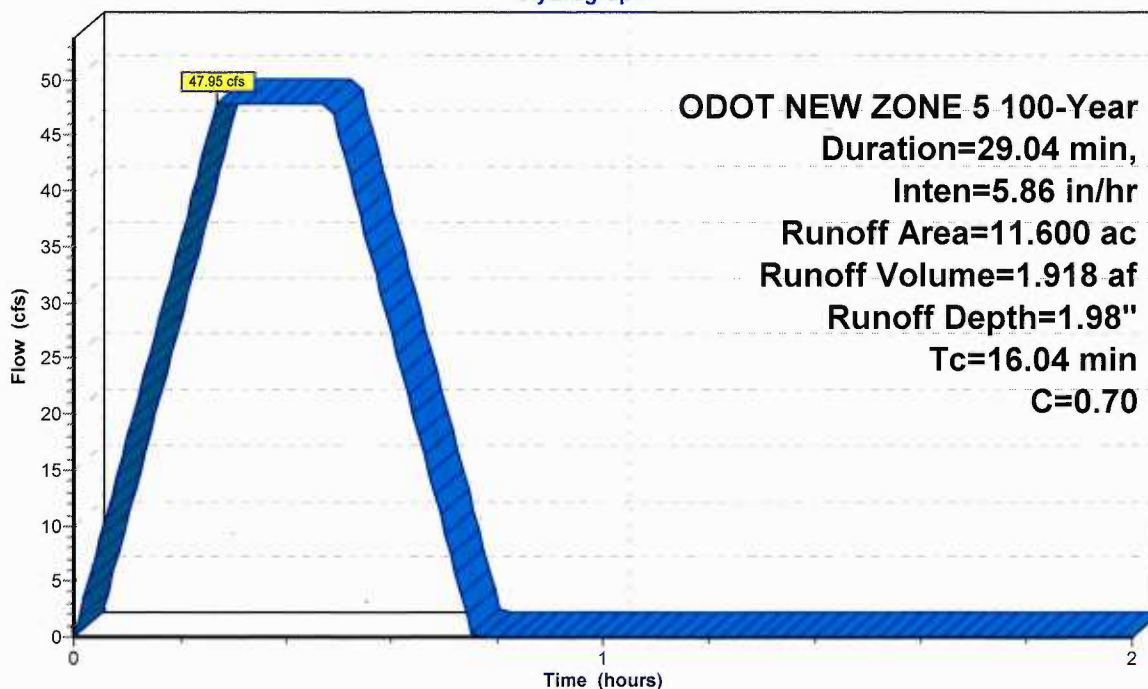
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
11.600	0.70	
11.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.04					Direct Entry,

**Subcatchment 17S: DA 2 11.60 AC**

Hydrograph



Runoff

**Summary for Subcatchment 20S: DA 7 3.05 AC**

Runoff = 12.61 cfs @ 0.19 hrs, Volume= 0.504 af, Depth= 1.98"

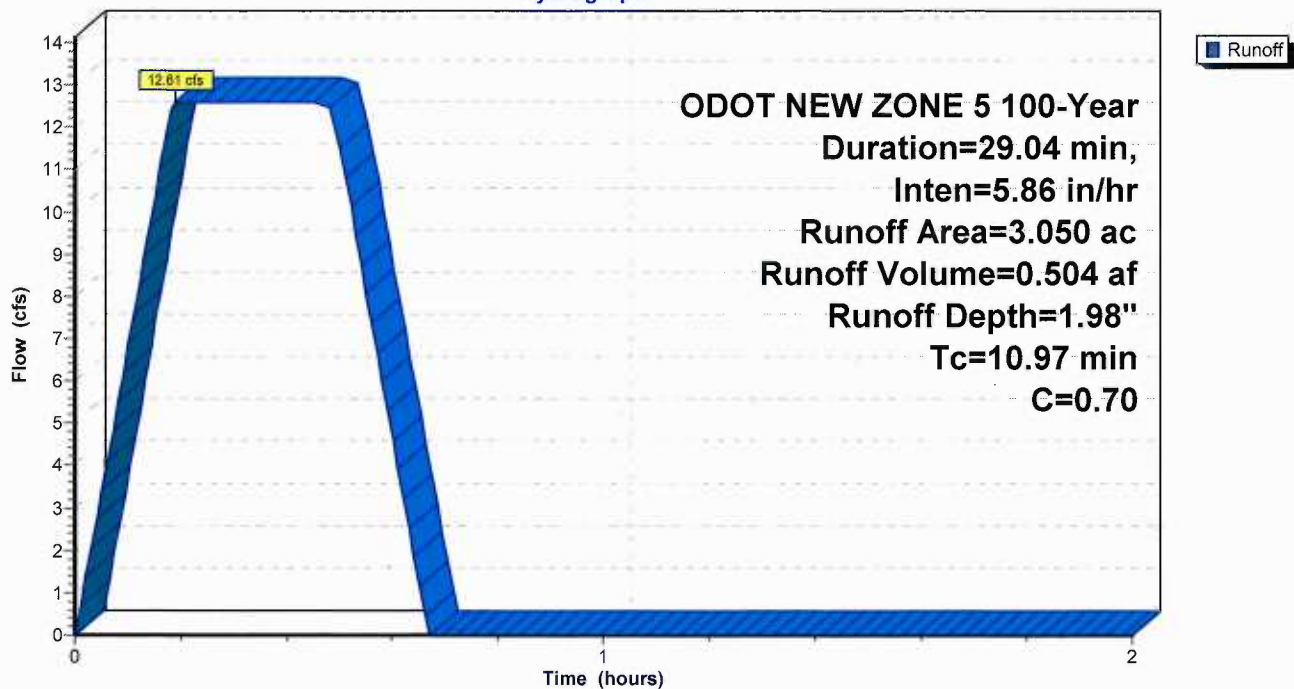
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=29.04 min, Inten=5.86 in/hr

Area (ac)	C	Description
3.050	0.70	
3.050		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.97					Direct Entry,

**Subcatchment 20S: DA 7 3.05 AC**

Hydrograph



**Summary for Reach 5R: GRASS SWALE TO CONC CHAN**

Inflow Area = 142.750 ac, 0.00% Impervious, Inflow Depth > 1.98" for 100-Year event  
 Inflow = 436.69 cfs @ 0.61 hrs, Volume= 23.581 af  
 Outflow = 434.01 cfs @ 0.67 hrs, Volume= 23.533 af, Atten= 1%, Lag= 3.8 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Max. Velocity= 4.22 fps, Min. Travel Time= 2.1 min  
 Avg. Velocity = 2.46 fps, Avg. Travel Time= 3.7 min

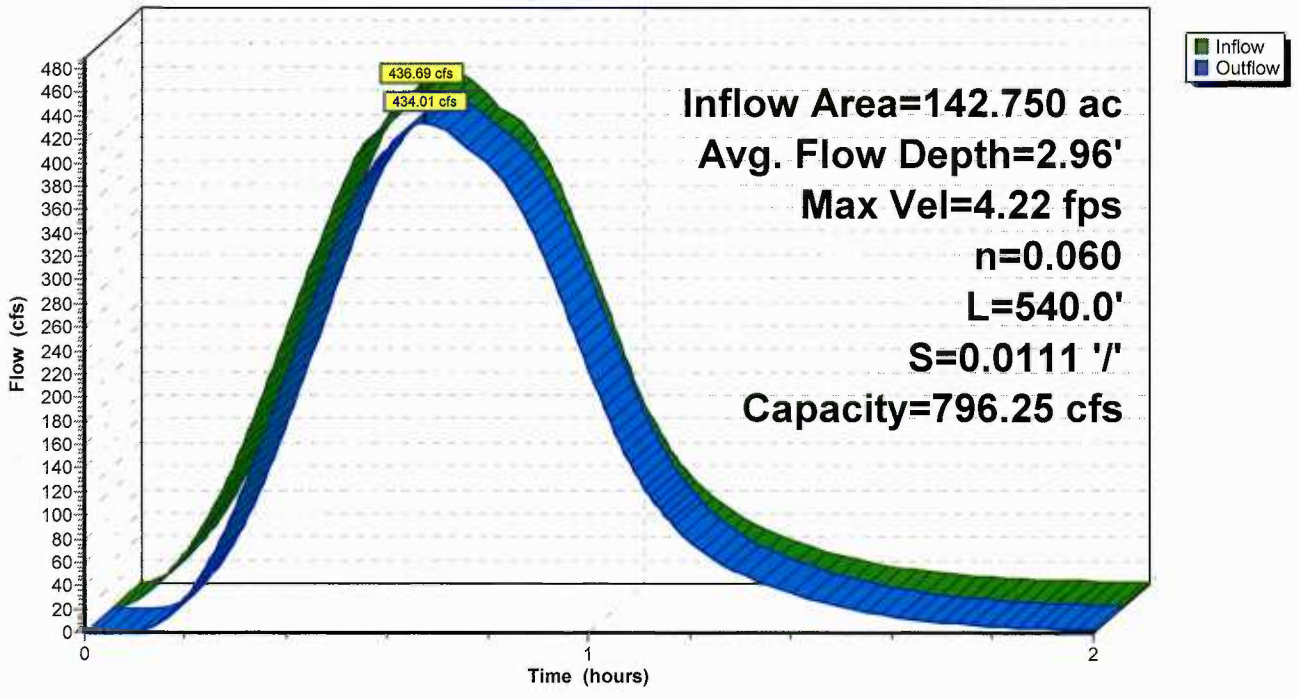
Peak Storage= 55,604 cf @ 0.64 hrs  
 Average Depth at Peak Storage= 2.96'  
 Bank-Full Depth= 4.00' Flow Area= 160.0 sf, Capacity= 796.25 cfs

20.00' x 4.00' deep channel, n= 0.060  
 Side Slope Z-value= 5.0 '/' Top Width= 60.00'  
 Length= 540.0' Slope= 0.0111 '/'  
 Inlet Invert= 1,216.00', Outlet Invert= 1,210.00'



**Reach 5R: GRASS SWALE TO CONC CHAN**

Hydrograph



**Summary for Reach 10R: CONC CHAN TO OLD COLONY RD**

Inflow Area = 152.250 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
 Inflow = 437.72 cfs @ 0.65 hrs, Volume= 24.924 af  
 Outflow = 437.63 cfs @ 0.65 hrs, Volume= 24.919 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Max. Velocity= 16.38 fps, Min. Travel Time= 0.2 min  
 Avg. Velocity = 9.16 fps, Avg. Travel Time= 0.3 min

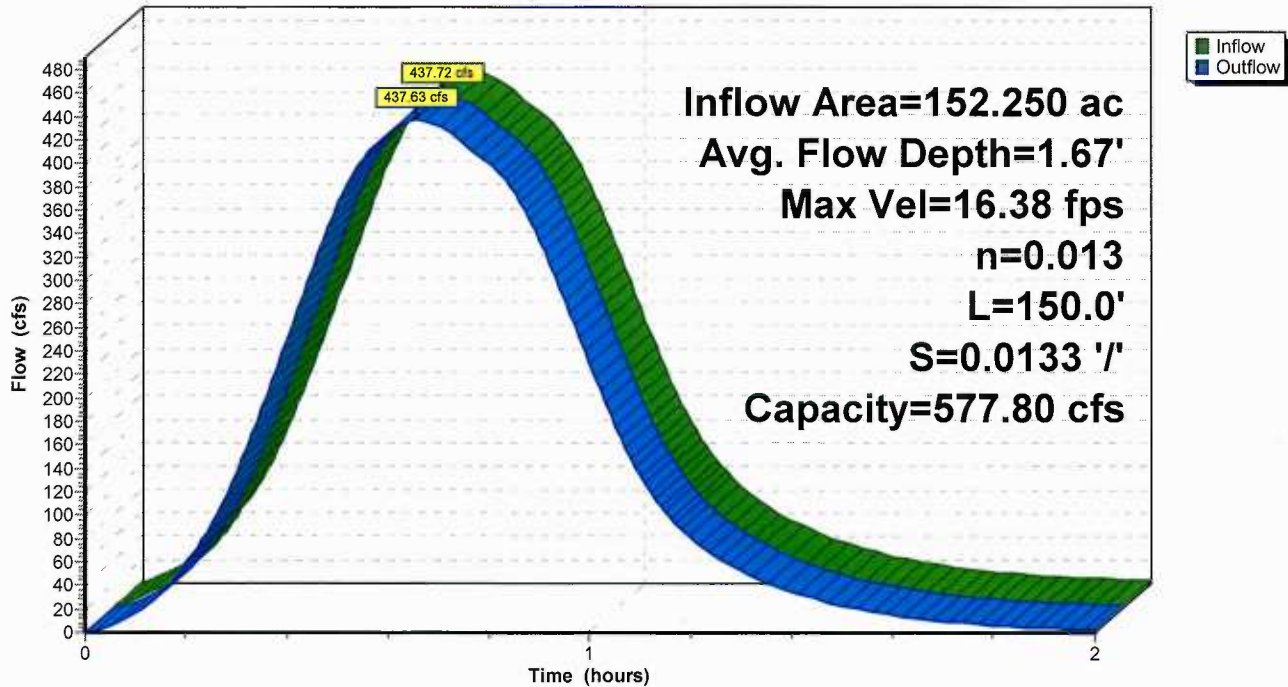
Peak Storage= 4,009 cf @ 0.65 hrs  
 Average Depth at Peak Storage= 1.67'  
 Bank-Full Depth= 2.00' Flow Area= 32.0 sf, Capacity= 577.80 cfs

16.00' x 2.00' deep channel, n= 0.013  
 Length= 150.0' Slope= 0.0133 '/'  
 Inlet Invert= 1,210.00', Outlet Invert= 1,208.00'



**Reach 10R: CONC CHAN TO OLD COLONY RD**

Hydrograph



**Summary for Reach 11R: CONC CHAN TO TIMBER RIDGE**

Inflow Area = 156.740 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
 Inflow = 437.63 cfs @ 0.65 hrs, Volume= 25.661 af  
 Outflow = 437.45 cfs @ 0.67 hrs, Volume= 25.644 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Max. Velocity= 12.72 fps, Min. Travel Time= 0.5 min  
 Avg. Velocity = 7.30 fps, Avg. Travel Time= 0.9 min

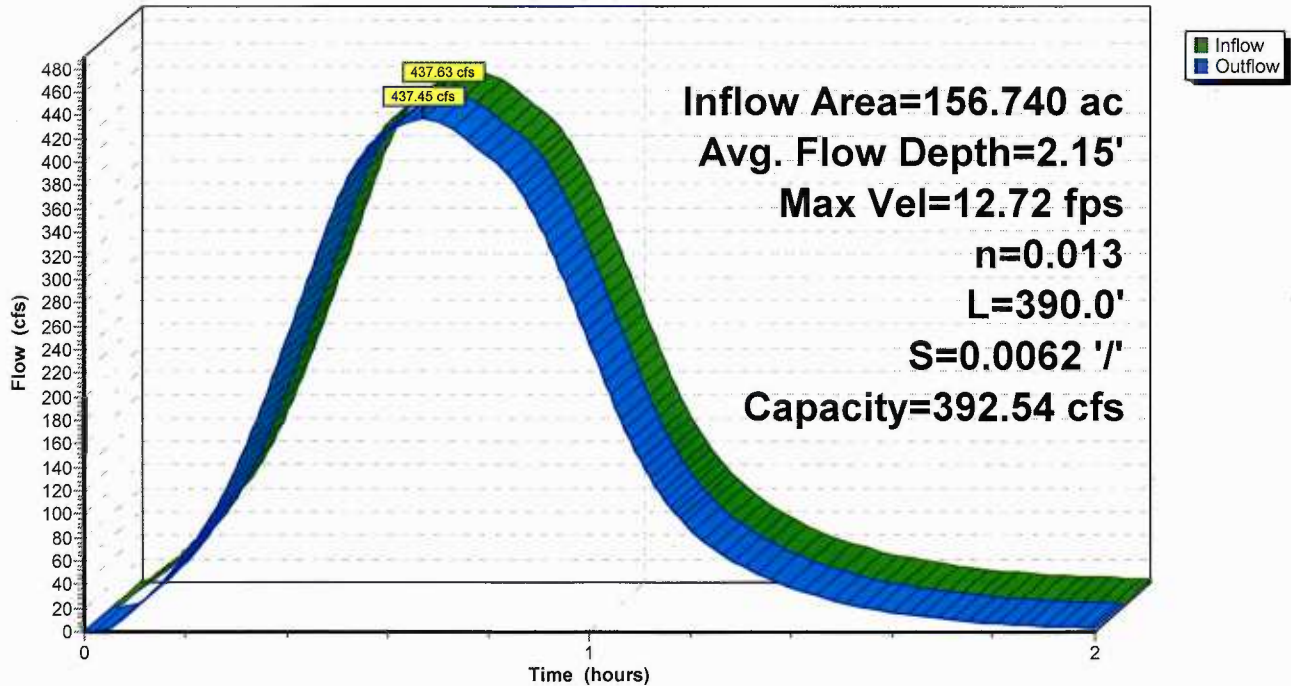
Peak Storage= 13,415 cf @ 0.66 hrs  
 Average Depth at Peak Storage= 2.15'  
 Bank-Full Depth= 2.00' Flow Area= 32.0 sf, Capacity= 392.54 cfs

16.00' x 2.00' deep channel, n= 0.013  
 Length= 390.0' Slope= 0.0062 '/'  
 Inlet Invert= 1,207.30', Outlet Invert= 1,204.90'



**Reach 11R: CONC CHAN TO TIMBER RIDGE**

Hydrograph



**Summary for Reach 14R: CONC CHAN TO NAWASSA DR**

Inflow Area = 161.350 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
 Inflow = 437.45 cfs @ 0.67 hrs, Volume= 26.406 af  
 Outflow = 437.29 cfs @ 0.68 hrs, Volume= 26.393 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Max. Velocity= 12.79 fps, Min. Travel Time= 0.4 min  
 Avg. Velocity = 7.46 fps, Avg. Travel Time= 0.6 min

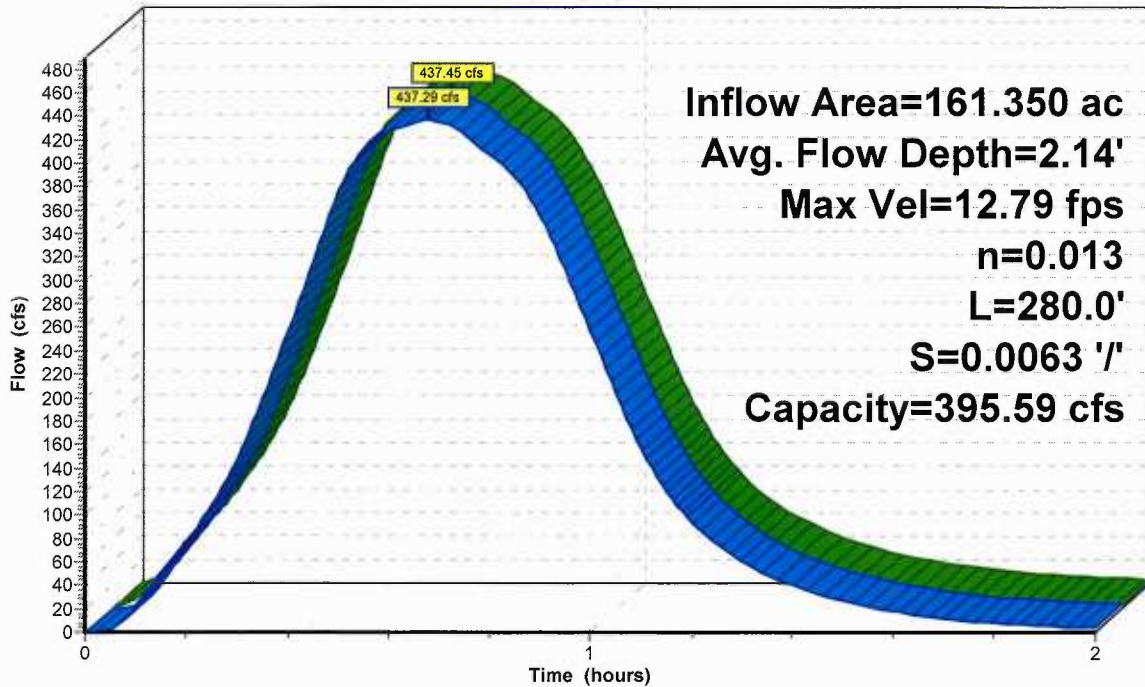
Peak Storage= 9,579 cf @ 0.67 hrs  
 Average Depth at Peak Storage= 2.14'  
 Bank-Full Depth= 2.00' Flow Area= 32.0 sf, Capacity= 395.59 cfs

16.00' x 2.00' deep channel, n= 0.013  
 Length= 280.0' Slope= 0.0063 '/'  
 Inlet Invert= 1,204.40', Outlet Invert= 1,202.65'



**Reach 14R: CONC CHAN TO NAWASSA DR**

Hydrograph



**Summary for Reach 18R: CHAN TO SOLD CRK TRIB 6**

Inflow Area = 261.270 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
 Inflow = 770.26 cfs @ 0.50 hrs, Volume= 42.706 af  
 Outflow = 769.89 cfs @ 0.52 hrs, Volume= 42.683 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Max. Velocity= 14.93 fps, Min. Travel Time= 0.5 min  
 Avg. Velocity = 8.47 fps, Avg. Travel Time= 0.9 min

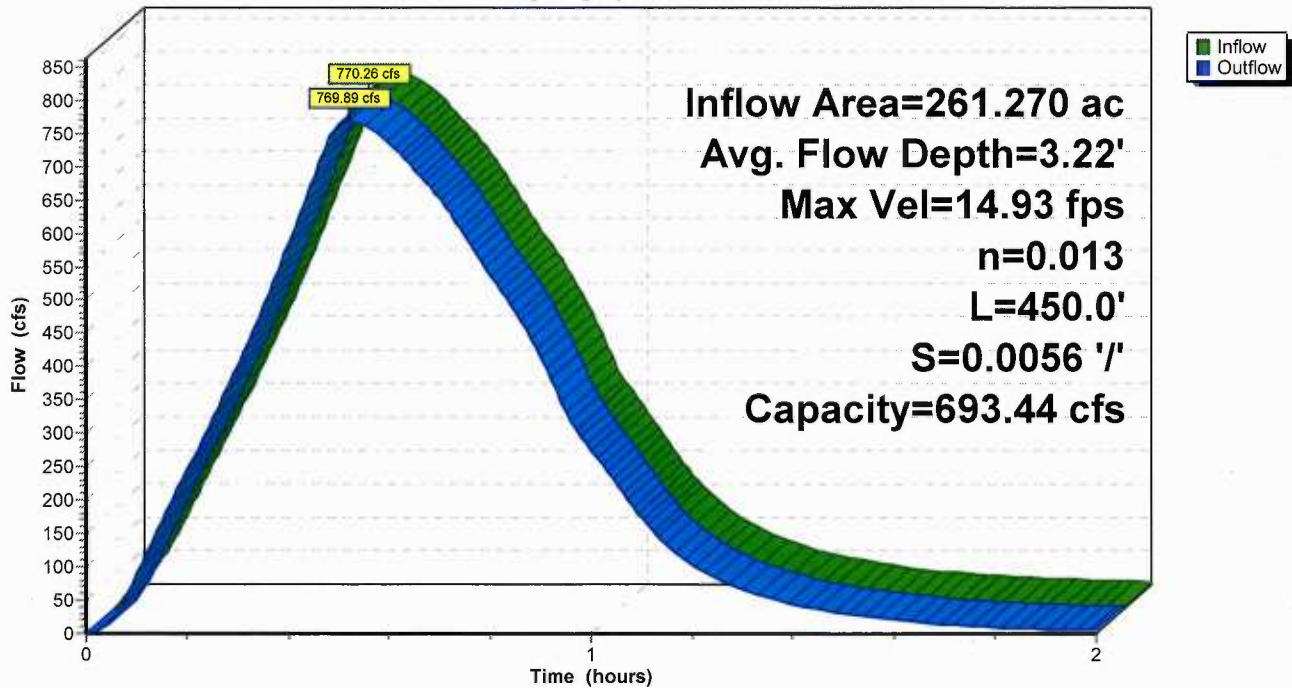
Peak Storage= 23,209 cf @ 0.51 hrs  
 Average Depth at Peak Storage= 3.22'  
 Bank-Full Depth= 3.00' Flow Area= 48.0 sf, Capacity= 693.44 cfs

16.00' x 3.00' deep channel, n= 0.013  
 Length= 450.0' Slope= 0.0056 '/'  
 Inlet Invert= 1,202.54', Outlet Invert= 1,200.00'



**Reach 18R: CHAN TO SOLD CRK TRIB 6**

Hydrograph



**Summary for Pond 3P: NEW DET POND**

Inflow Area = 142.750 ac, 0.00% Impervious, Inflow Depth = 1.98" for 100-Year event  
 Inflow = 586.05 cfs @ 0.48 hrs, Volume= 23.603 af  
 Outflow = 436.69 cfs @ 0.61 hrs, Volume= 23.581 af, Atten= 25%, Lag= 7.6 min  
 Primary = 436.69 cfs @ 0.61 hrs, Volume= 23.581 af

Routing by Stor-Ind method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Peak Elev= 1,221.67' @ 0.61 hrs Surf.Area= 76,564 sf Storage= 297,502 cf

Plug-Flow detention time= 11.2 min calculated for 23.463 af (99% of inflow)  
 Center-of-Mass det. time= 11.3 min ( 40.4 - 29.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.75'	322,620 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.75	0	0	0
1,218.00	63,809	39,881	39,881
1,219.00	67,188	65,499	105,379
1,220.00	70,634	68,911	174,290
1,221.00	74,148	72,391	246,681
1,222.00	77,730	75,939	322,620

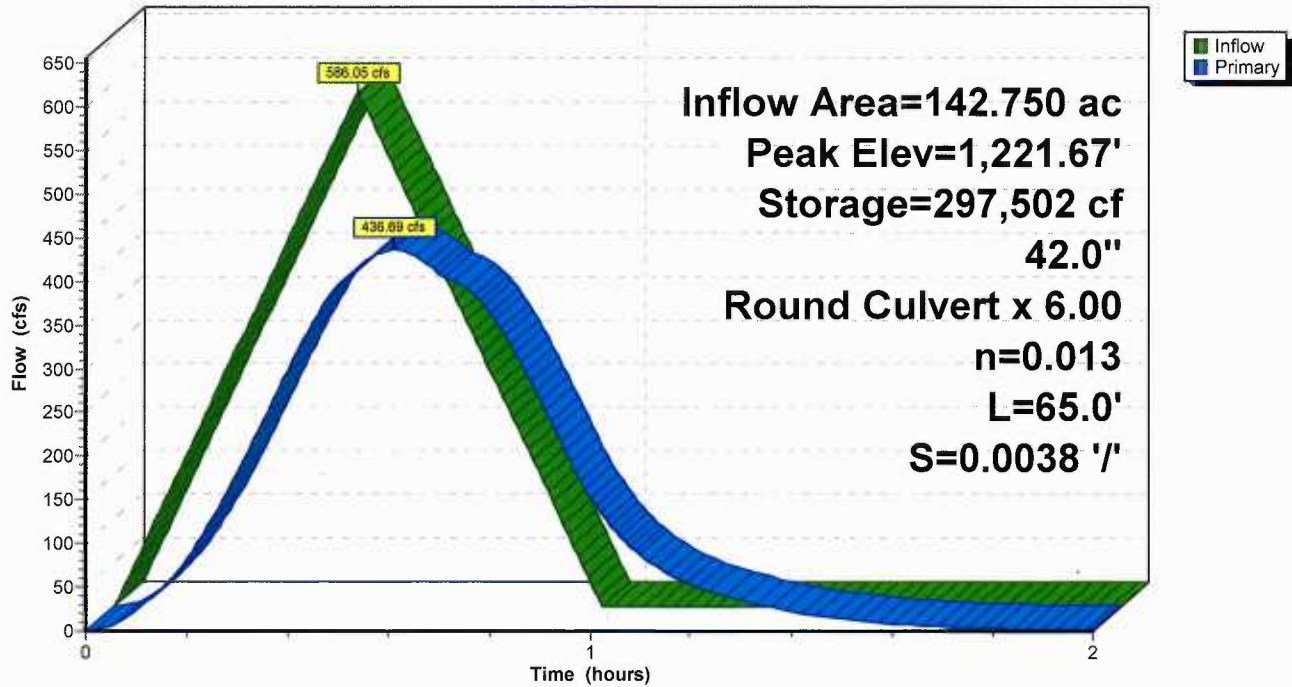
Device	Routing	Invert	Outlet Devices
#1	Primary	1,216.75'	<b>42.0" Round 6 42 INCH RCP X 6.00</b> L= 65.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,216.75' / 1,216.50' S= 0.0038 '/' Cc= 0.900 n= 0.013, Flow Area= 9.62 sf

**Primary OutFlow** Max=436.70 cfs @ 0.61 hrs HW=1,221.67' (Free Discharge)  
 ↳ 1=6 42 INCH RCP (Barrel Controls 436.70 cfs @ 7.56 fps)



### Pond 3P: NEW DET POND

Hydrograph

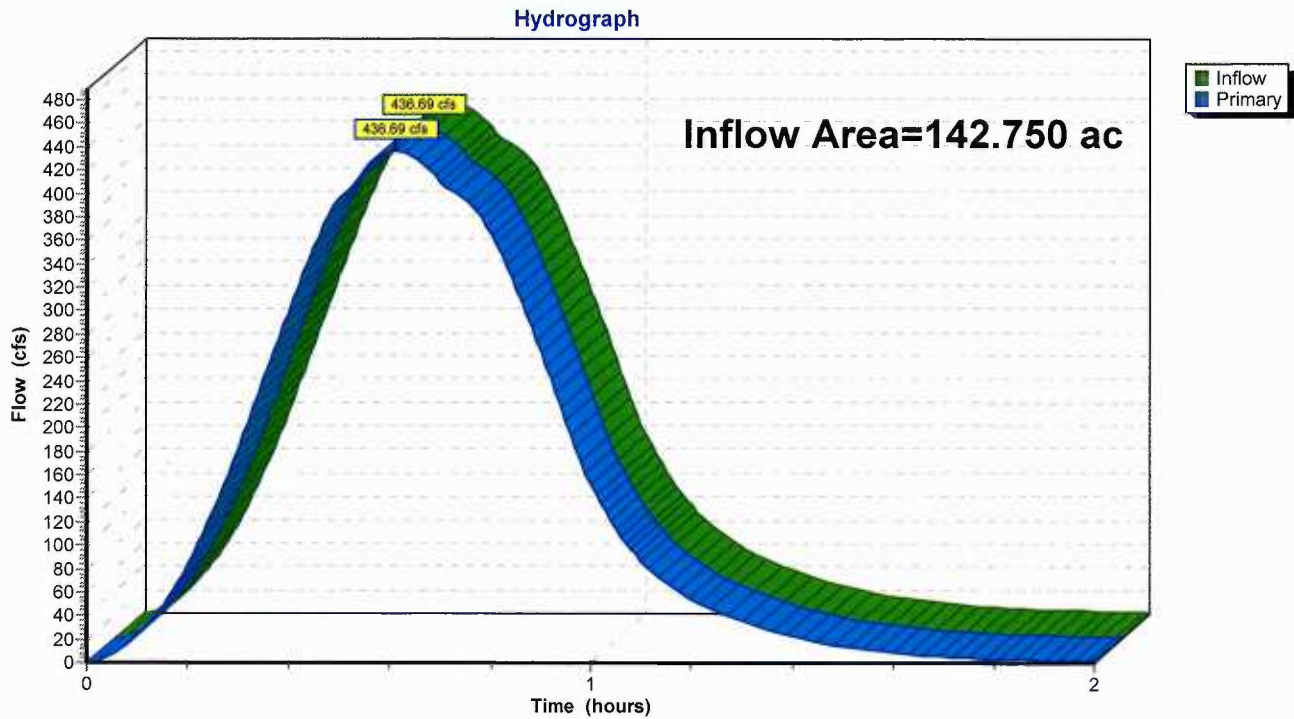


**Summary for Link 4L: CASSIDY TOTAL SOUTH LINE DEV RELEASE 142.75 AC**

Inflow Area = 142.750 ac, 0.00% Impervious, Inflow Depth > 1.98" for 100-Year event  
Inflow = 436.69 cfs @ 0.61 hrs, Volume= 23.581 af  
Primary = 436.69 cfs @ 0.61 hrs, Volume= 23.581 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

**Link 4L: CASSIDY TOTAL SOUTH LINE DEV RELEASE 142.75 AC**



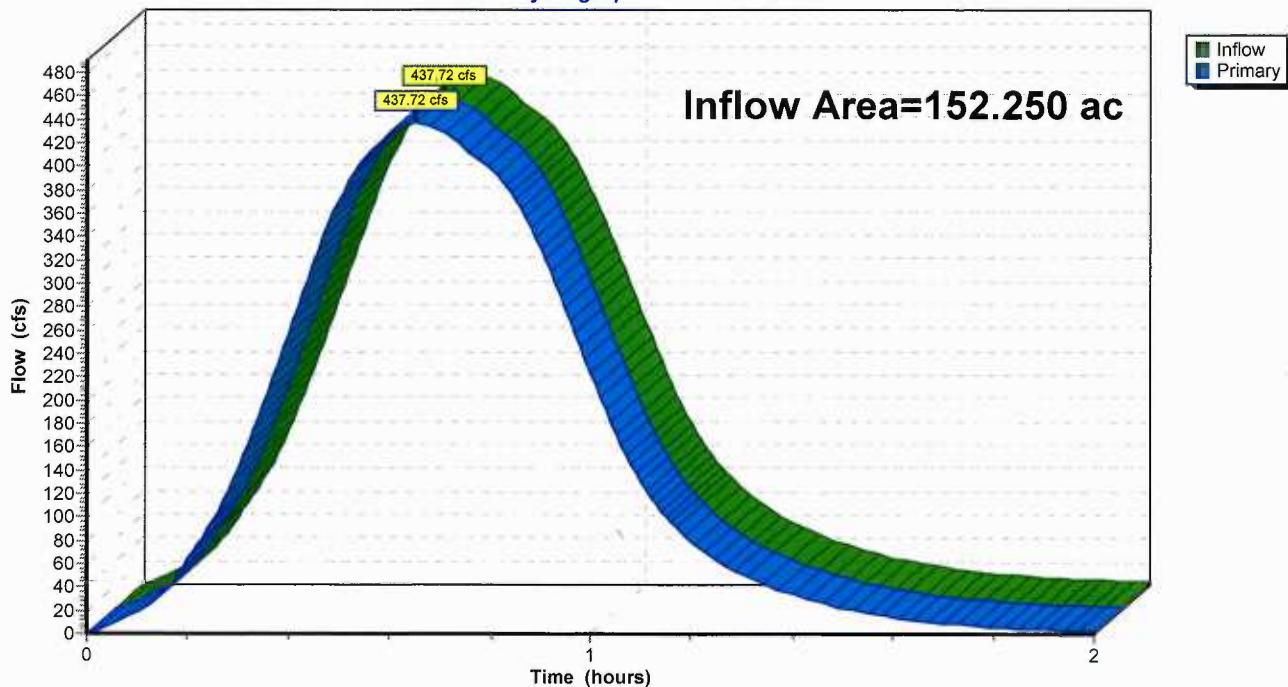
### Summary for Link 7L: EAST END CONC CHANNEL

Inflow Area = 152.250 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
Inflow = 437.72 cfs @ 0.65 hrs, Volume= 24.924 af  
Primary = 437.72 cfs @ 0.65 hrs, Volume= 24.924 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

### Link 7L: EAST END CONC CHANNEL

Hydrograph



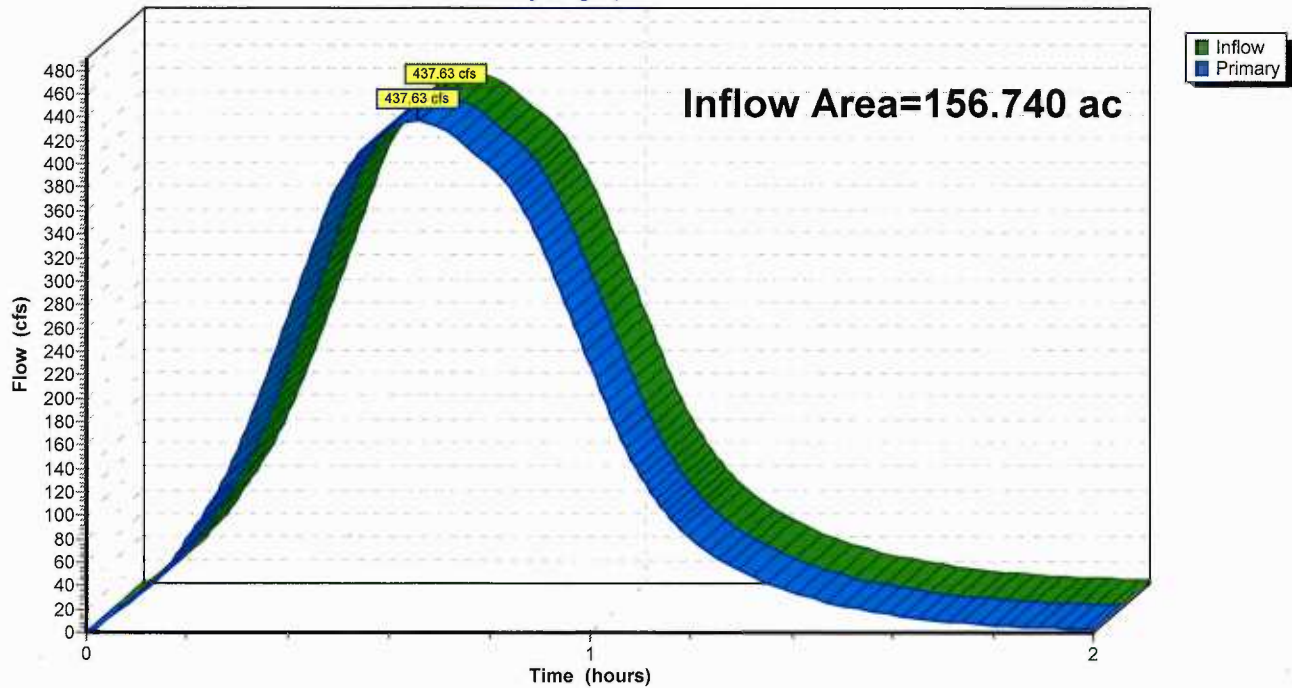
### Summary for Link 8L: OLD COLONY RD

Inflow Area = 156.740 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
Inflow = 437.63 cfs @ 0.65 hrs, Volume= 25.661 af  
Primary = 437.63 cfs @ 0.65 hrs, Volume= 25.661 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

### Link 8L: OLD COLONY RD

Hydrograph



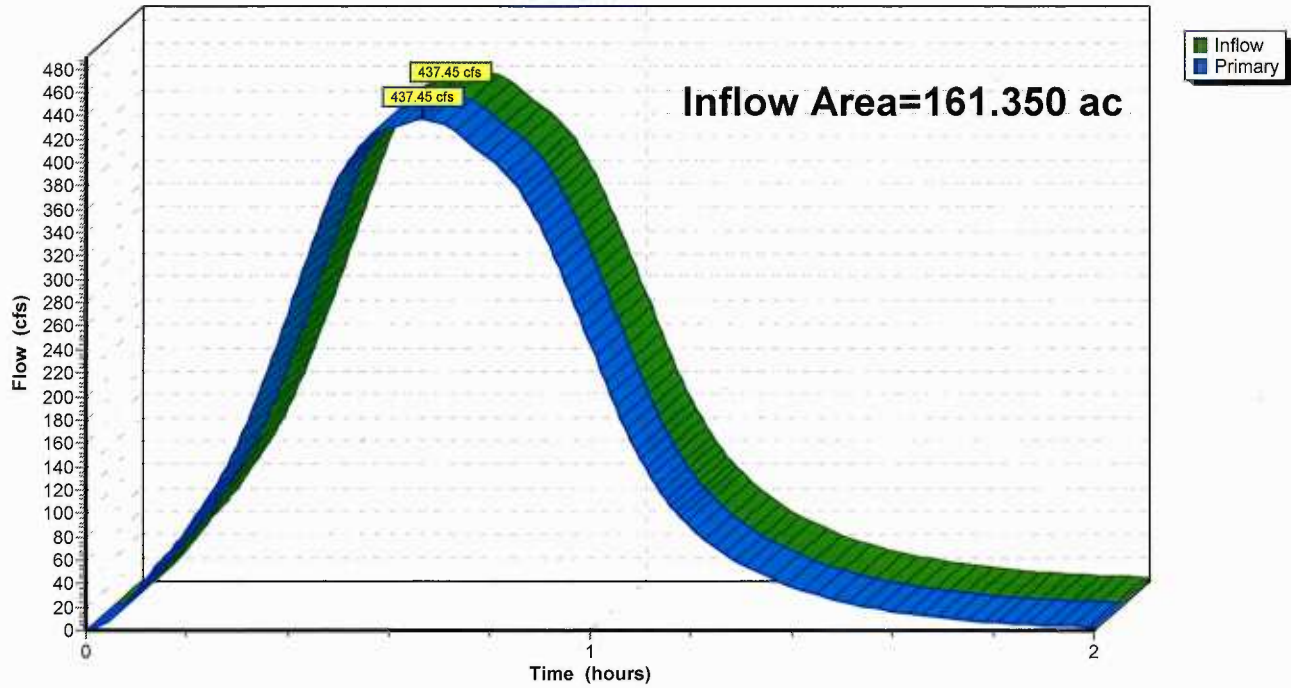
### Summary for Link 12L: TIMBER RIDGE

Inflow Area = 161.350 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
Inflow = 437.45 cfs @ 0.67 hrs, Volume= 26.406 af  
Primary = 437.45 cfs @ 0.67 hrs, Volume= 26.406 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

### Link 12L: TIMBER RIDGE

Hydrograph



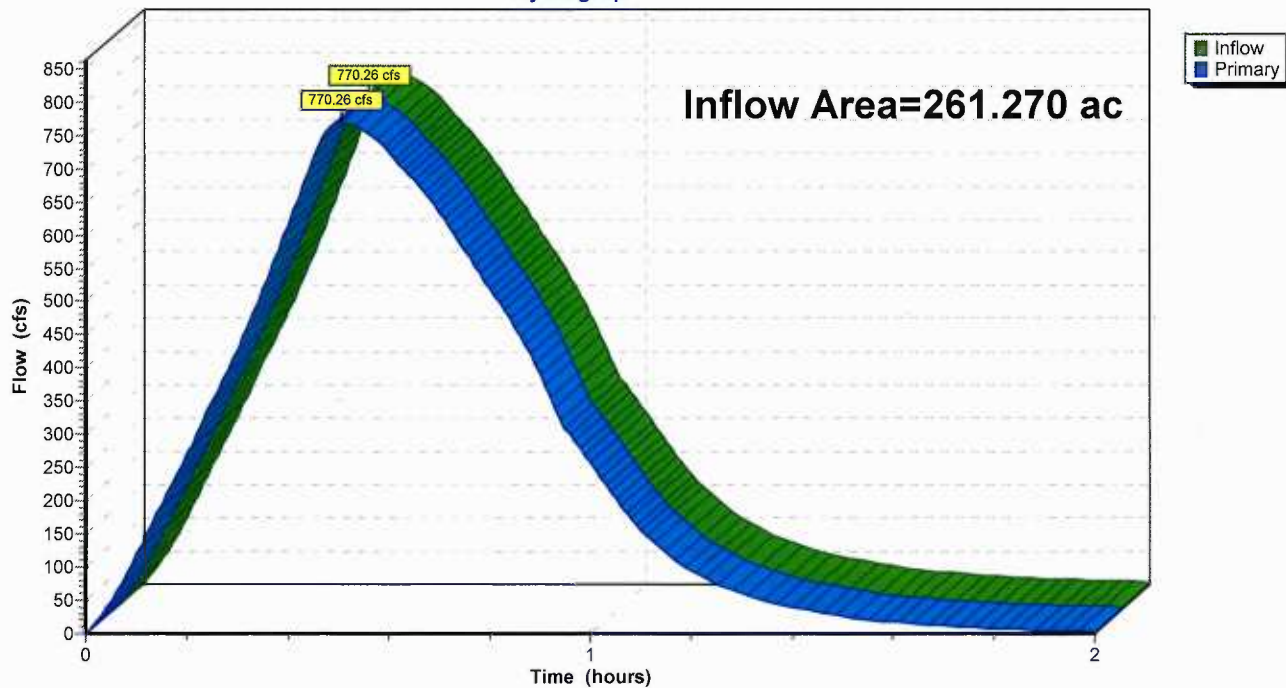
### Summary for Link 15L: NAWASSA DR

Inflow Area = 261.270 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
Inflow = 770.26 cfs @ 0.50 hrs, Volume= 42.706 af  
Primary = 770.26 cfs @ 0.50 hrs, Volume= 42.706 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

### Link 15L: NAWASSA DR

Hydrograph



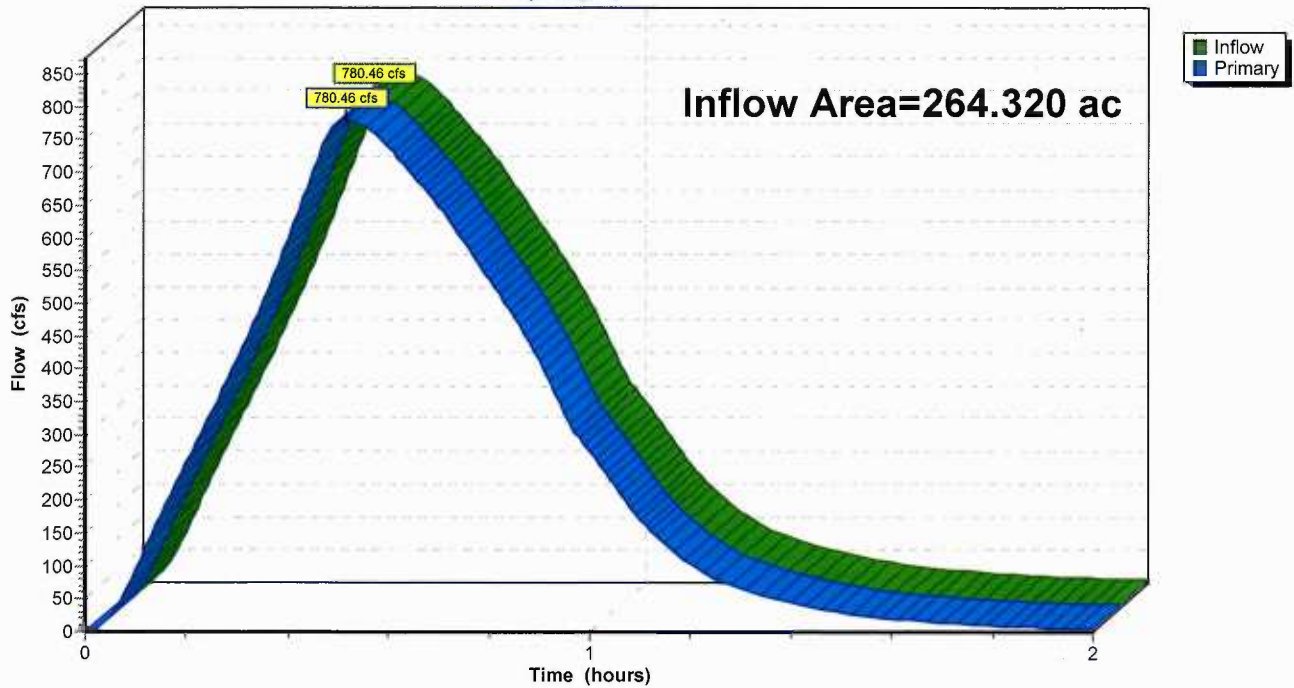
### Summary for Link 19L: TOTAL AT SOLD CRK TRIB 6

Inflow Area = 264.320 ac, 0.00% Impervious, Inflow Depth > 1.96" for 100-Year event  
Inflow = 780.46 cfs @ 0.51 hrs, Volume= 43.187 af  
Primary = 780.46 cfs @ 0.51 hrs, Volume= 43.187 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

### Link 19L: TOTAL AT SOLD CRK TRIB 6

Hydrograph



# **STREAMSTATS REFERENCE**



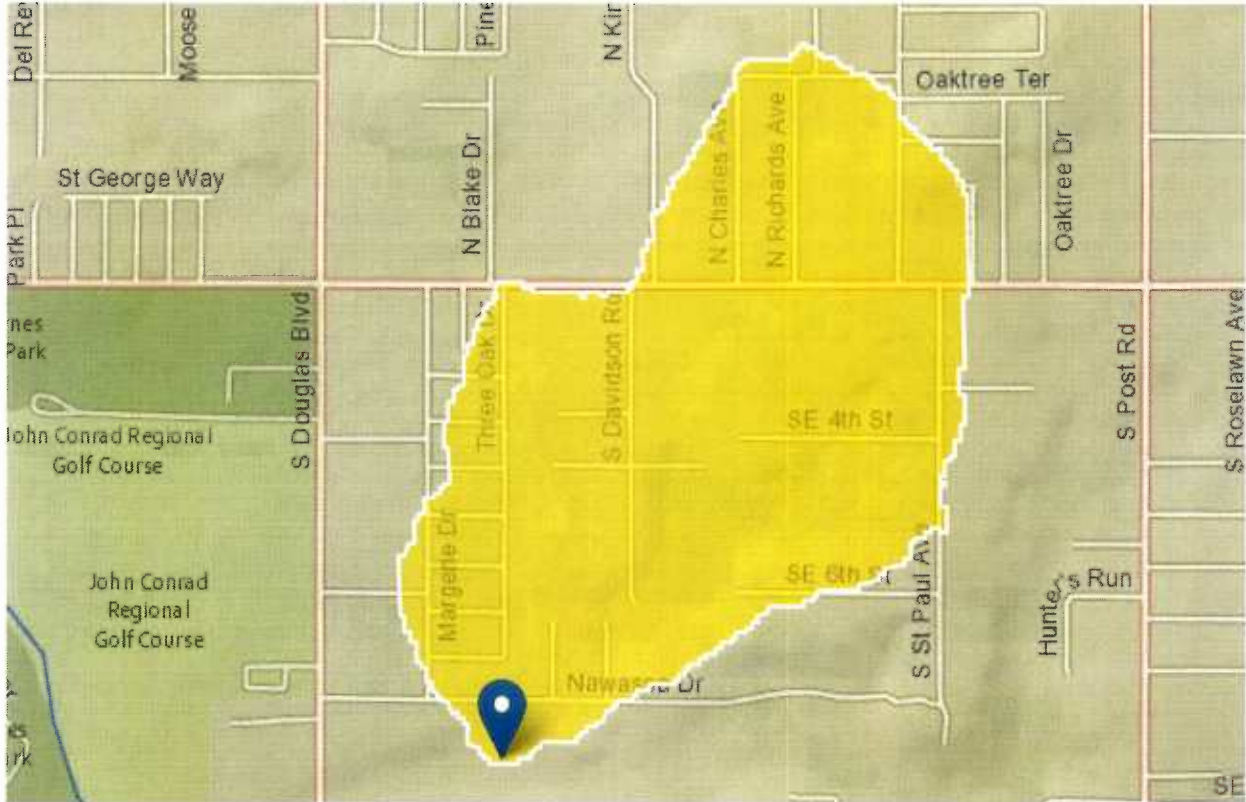
# TRIB TO SOLDIER CREEK TRIB 6

Region ID: OK

Workspace ID: OK20190518185431008000

Clicked Point (Latitude, Longitude): 35.45572, -97.36698

Time: 2019-05-18 13:54:49 -0500



## Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DAUNREG	Unregulated drainage area used in OK regulated equations	0.36	square miles
CSL10_85fm	Change in elevation between points 10 and 85 percent of length along main channel to basin divide divided by length between points ft per mi	62.7	feet per mi
PRECIP	Mean Annual Precipitation	37.06	inches

<b>Parameter Code</b>	<b>Parameter Description</b>	<b>Value</b>	<b>Unit</b>
CONTDA	Area that contributes flow to a point on a stream	0.36	square miles
APRAVPRE	Mean April Precipitation	3.32	inches
BSLDEM10M	Mean basin slope computed from 10 m DEM	2.7	percent
CANOPY_PCT	Percentage of drainage area covered by canopy as described in OK SIR 2009_5267	14.62	percent
DECAVPRE	Mean December Precipitation	1.96	inches
ELEV	Mean Basin Elevation	1240	feet
FEBAVPRE	Mean February Precipitation	1.87	inches
IMPNLCD01	Percentage of impervious area determined from NLCD 2001 impervious dataset	18.02	percent
JUNAVPRE	Mean June Precipitation	4.45	inches
LC01DEV	Percentage of land-use from NLCD 2001 classes 21-24	56.23	percent
MARAVPRE	Mean March Precipitation	3.14	inches
MAYAVPRE	Mean May Precipitation	5.57	inches
NRCSPCT	Percent of contributing drainage area regulated by NRCS floodwater-retarding structures	0	percent
OUTLETELEV	Elevation of the stream outlet in thousands of feet above NAVD88.	1200	feet
PRECIPOUT	Mean annual precip at the stream outlet (based on annual PRISM precip data in inches from 1971-2000)	37.06	inches
PREG_06_10	Mean precipitation at gaging station location for June to October summer period	17.2	inches
PREG_11_05	Mean monthly precipitation for November through May at the stream outlet	19.9	inches
SOILPERM	Average Soil Permeability	1.63	inches per hour

Peak-Flow Statistics Parameters [Peak Statewide NRCS Regulated 2010 5137]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DAUNREG	Unregulated Drainage Area	0.36	square miles	0.1	2510
CSL10_85fm	Stream Slope 10 and 85 Method ft per mi	62.7	feet per mi	1.98	342
PRECIP	Mean Annual Precipitation	37.06	inches	16.6	62.1

Peak-Flow Statistics Parameters [Peak Statewide Unregulated 2010 5137]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	0.36	square miles	0.1	2510
CSL10_85fm	Stream Slope 10 and 85 Method ft per mi	62.7	feet per mi	1.98	342
PRECIP	Mean Annual Precipitation	37.06	inches	16.6	62.1

Peak-Flow Statistics Flow Report [Peak Statewide NRCS Regulated 2010 5137]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SEp	Equiv. Yrs.
Controlled 2 Year Peak Flood	108	ft <sup>3</sup> /s	46.7	2
Controlled 5 Year Peak Flood	232	ft <sup>3</sup> /s	35.1	5
Controlled 10 Year Peak Flood	357	ft <sup>3</sup> /s	31.8	8
Controlled 25 Year Peak Flood	570	ft <sup>3</sup> /s	34.7	9
Controlled 50 Year Peak Flood	711	ft <sup>3</sup> /s	34	11
Controlled 100 Year Peak Flood	917	ft <sup>3</sup> /s	35.7	12
Controlled 500 Year Peak Flood	1450	ft <sup>3</sup> /s	43.3	12

Peak-Flow Statistics Flow Report [Peak Statewide Unregulated 2010 5137]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

<b>Statistic</b>	<b>Value</b>	<b>Unit</b>	<b>SEp</b>	<b>Equiv. Yrs.</b>
2 Year Peak Flood	108	ft <sup>3</sup> /s	46.7	2
5 Year Peak Flood	232	ft <sup>3</sup> /s	35.1	5
10 Year Peak Flood	357	ft <sup>3</sup> /s	31.8	8
25 Year Peak Flood	570	ft <sup>3</sup> /s	34.7	9
50 Year Peak Flood	711	ft <sup>3</sup> /s	34	11
100 Year Peak Flood	917	ft <sup>3</sup> /s	35.7	12
500 Year Peak Flood	1450	ft <sup>3</sup> /s	43.3	12

*Peak-Flow Statistics Citations*

**Lewis, J.M., 2010, Methods for estimating the magnitude and frequency of peak streamflows for unregulated streams in Oklahoma: U.S. Geological Survey Scientific Investigations Report SIR 2010-5137, 41 p. (<http://pubs.usgs.gov/sir/2010/5137/>)**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.3.0

**J&A  
PREVIOUS PLAN REVIEW  
CASSIDY COVE 3  
STORMWATER DETENTION STUDY**

DETENTION ANALYSIS

To Serve

**CASSIDY COVE**

Located

MWC  
Oklahoma City, OK

Prepared by:



***Johnson & Associates, Inc.***

Certificate of Authorization #1484

Expiration Date: 06-30-2019

1 East Sheridan Avenue

Suite 200

Oklahoma City, Oklahoma 73104

(405) 235-8075

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/20/2019

MWC

9:01:15

**Historic Drainage Area****DRAINAGE AREA DELINEATIONS**

Development Type	Acres	C Value
Grass	9.76	0.50
Residential	132.99	0.70

**Total Area = 142.75      Weighted C Value = 0.6863**

**TIME OF CONCENTRATION CALCULATIONS**

Overland Flow Time of Concentration Calculation  $T_c = K(L^{0.37}/S^{0.2})$

Upstream Elevation =	Length	Slope	k	Tc
1290.00				
Downstream Elevation = 1286.00	167	2.40%	0.5110	7.16

Pipe Flow Time of Concentration Calculation  $T_c = V * L$

Pipe Velocity (ft/s)	Length (ft)	Tc
	0	

Channel Flow Time of Concentration Calculation  $T_c = V * L$

Calculation By	Length	Velocity (ft/s)	Tc
Known Velocity	4988	3.750	22.17

**Total Time of Concentration 29.33 min**

**RUNOFF CALCULATIONS**

Intensity (in/hr)	Q=CiA (cfs)
i2= 2.87	Q2= 281.57
i5= 3.50	Q5= 342.76
i10= 3.97	Q10= 389.33
i25= 4.63	Q25= 453.65
i50= 5.15	Q50= 504.82
i100= 5.67	Q100= 555.29

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/20/2019

MWC

9:01:15

**Developed Drainage Area To Pond****DRAINAGE AREA DELINEATIONS**

Development Type	Acres	C Value
Residential	9.76	0.70
Residential	132.99	0.70

**Total Area = 142.75      Weighted C Value = 0.7000**

**TIME OF CONCENTRATION CALCULATIONS**

Overland Flow Time of Concentration Calculation  $T_c = K(L^{0.37}/S^{0.2})$

Upstream Elevation = 1290.00	Length	Slope	k	Tc
Downstream Elevation = 1286.00	167	2.40%	0.5110	7.16

Pipe Flow Time of Concentration Calculation  $T_c = V * L$

Pipe Velocity (ft/s)	Length (ft)	Tc
0.00	0	

Channel Flow Time of Concentration Calculation  $T_c = V * L$

Calculation By	Length	Velocity (ft/s)	Tc
Known Velocity	4988	3.800	21.88

**Total Time of Concentration 29.04 min**

**RUNOFF CALCULATIONS**

Intensity (in/hr)	Q=CiA (cfs)
i2= 2.89	Q2= 288.87
i5= 3.52	Q5= 351.51
i10= 3.99	Q10= 399.17
i25= 4.65	Q25= 465.07
i50= 5.18	Q50= 517.47
i100= 5.70	Q100= 569.15



**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/20/2019

MWC

9:01:15

**Developed Bypass Drainage Area****DRAINAGE AREA DELINEATIONS**

Development Type	Acres	C Value
Residential	0.00	0.7
Residential	0.00	0.7

**Total Area = 0.00      Weighted C Value = 0.0000**

**TIME OF CONCENTRATION CALCULATIONS**

Overland Flow Time of Concentration Calculation  $T_c = K(L^{0.37}/S^{0.2})$

Upstream Elevation =	Length	Slope	k	Tc
1292.00				
Downstream Elevation = 1275.00	0		0.5110	

Pipe Flow Time of Concentration Calculation  $T_c = V * L$

Pipe Velocity (ft/s)	Length (ft)	Tc
0.00	0	

Channel Flow Time of Concentration Calculation  $T_c = V * L$

Calculation By	Length	Velocity (ft/s)	Tc
Known Velocity	0	3.980	0.00

**Total Time of Concentration 5.00 min**

**RUNOFF CALCULATIONS**

Intensity (in/hr)	Q=CiA (cfs)
i2= 5.73	Q2= 0.00
i5= 6.77	Q5= 0.00
i10= 7.44	Q10= 0.00
i25= 8.48	Q25= 0.00
i50= 9.38	Q50= 0.00
i100= 10.20	Q100= 0.00

**DRAINAGE CALCULATIONS for:**

CASSIDY COVE

5/20/2019

MWC

9:01:15

**100 yr Frequency Site Detention Required Storage****Drainage Area Summary**

Historic		Developed To Pond	
Area =	142.75 Acres	Area =	142.75 Acres
Weighted C =	0.6863	Weighted C =	0.7000
Time of C =	29.33 Min	Time of C =	29.04 Min
Q Historic =	555.29 CFS	Q to Pond =	569.15 CFS
Developed Bypass		Peak Storm	
Area =	0.00 Acres	Q to Pond =	569.15 CFS
Weighted C =	0.0000	Pond Release =	555.29 CFS
Time of C =	5.00 Min	Q Bypass =	0.00 CFS
Q Bypass =	0.00 CFS	Storage =	24147 CF

**Max Pond Storage Iteration**

Duration	Intensity	Inflow	Outflow	Storage
----------	-----------	--------	---------	---------

30.00	5.60	1008092.00	983501.68	<b>24590.32</b>
-------	------	------------	-----------	-----------------

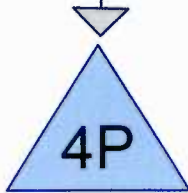
LONGER DURATION EVENTS HAVE DEVELOPED  
Qs LESS THAN HISTORIC & DO NOT REQUIRE DETENTION.

**Storage Summary**

Maximum Storage Occurs At	30.00 min
Q to Pond =	560.05 CFS
Pond Release Rate =	555.29 CFS
Q Bypass =	0.00 CFS
<b>Maximum Storage Volume =</b>	<b>24590 CF</b>



HISTORIC TO POND  
79.23 AC



EXISTING POND



AREA BELOW POND  
63.52 AC

SOUTH LINE TOTAL  
HISTORIC  
DISCHARGE 142.75

AC



**Events for Link 6L: SOUTH LINE TOTAL HISTORIC DISCHARGE 142.75 AC**

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
2-Year	227.66	227.66	<b>0.00</b>
5-Year	285.63	285.63	0.00
10-Year	323.59	323.59	0.00
25-Year	374.78	374.78	0.00
50-Year	444.03	444.03	0.00
100-Year	<b>543.43</b>	<b>543.43</b>	0.00

**CASSIDY COVE HIST W EX PND REV CHK 2**

Prepared by {enter your company name here}

HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

Printed 5/20/2019

Page 2

**Area Listing (all nodes)**

Area (acres)	C	Description (subcatchment-numbers)
132.990	0.70	(1S, 5S)
9.760	0.50	(1S, 5S)

**CASSIDY COVE HIST W EX PND REV CHK 2**

Prepared by {enter your company name here}

Printed 5/20/2019

HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

Page 3

**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	4P	1,220.16	1,218.82	35.0	0.0383	0.024	36.0	0.0	0.0

Time span=0.00-2.00 hrs, dt=0.01 hrs, 201 points  
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: HISTORIC TO POND** Runoff Area=79.230 ac 0.00% Impervious Runoff Depth=1.99"  
Tc=25.73 min C=0.69 Runoff=317.54 cfs 13.121 af

**Subcatchment 5S: AREA BELOW POND** Runoff Area=63.520 ac 0.00% Impervious Runoff Depth=1.96"  
Tc=29.33 min C=0.68 Runoff=251.45 cfs 10.367 af

**Pond 4P: EXISTING POND** Peak Elev=1,224.98' Storage=137,455 cf Inflow=317.54 cfs 13.121 af  
Outflow=301.15 cfs 13.121 af

**Link 6L: SOUTH LINE TOTAL HISTORIC DISCHARGE 142.75 AC** Inflow=543.43 cfs 23.488 af  
Primary=543.43 cfs 23.488 af

**Summary for Subcatchment 1S: HISTORIC TO POND 79.23 AC**

Runoff = 317.54 cfs @ 0.43 hrs, Volume= 13.121 af, Depth= 1.99"

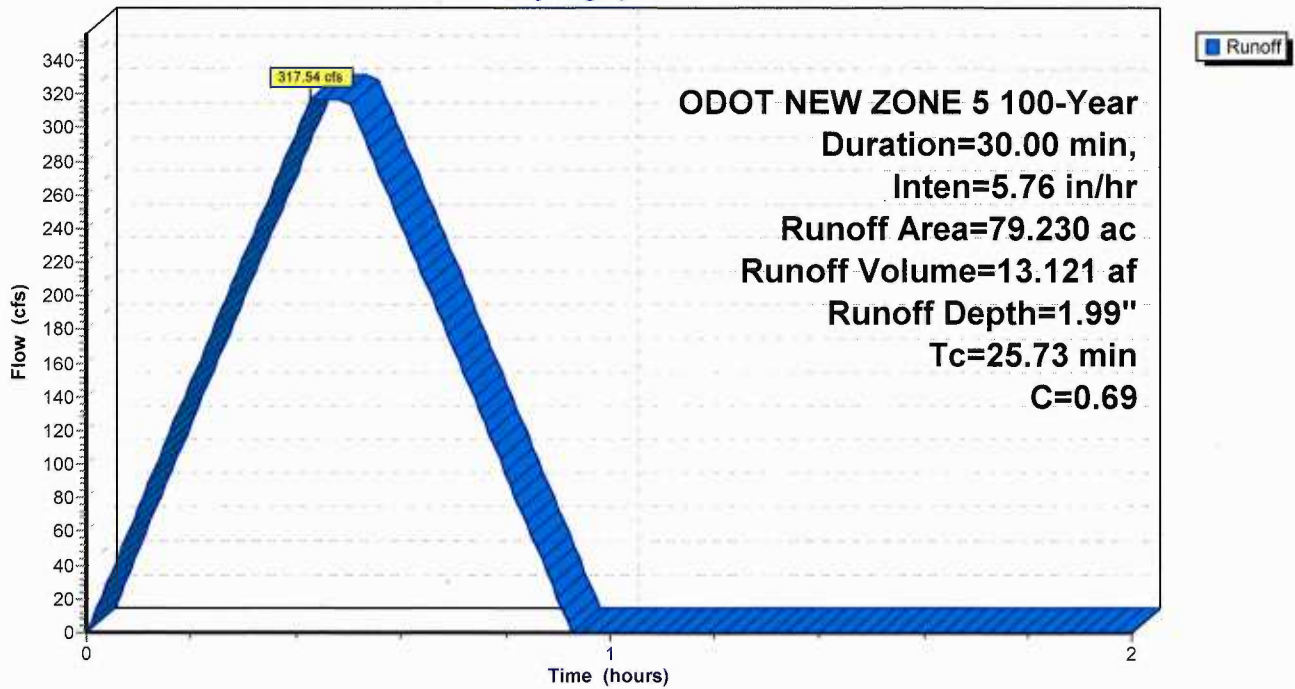
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=30.00 min, Inten=5.76 in/hr

Area (ac)	C	Description
77.060	0.70	
2.170	0.50	
79.230	0.69	Weighted Average
79.230		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.73					Direct Entry,

**Subcatchment 1S: HISTORIC TO POND 79.23 AC**

Hydrograph





**Summary for Subcatchment 5S: AREA BELOW POND 63.52 AC**

Runoff = 251.45 cfs @ 0.50 hrs, Volume= 10.367 af, Depth= 1.96"

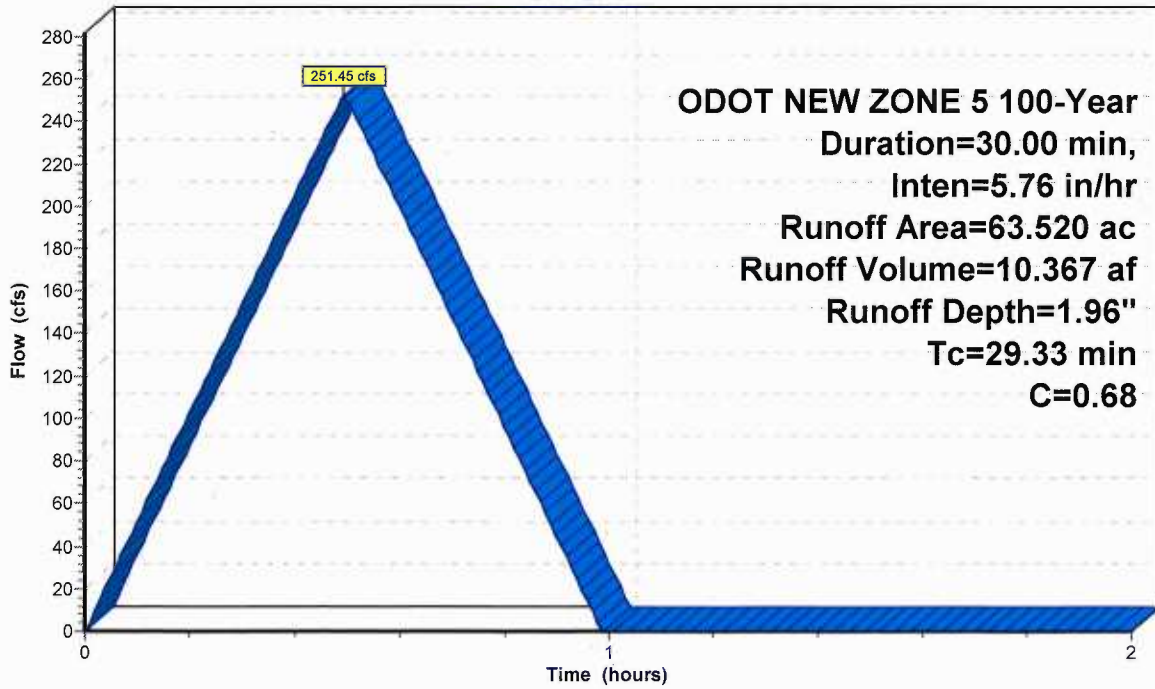
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=30.00 min, Inten=5.76 in/hr

Area (ac)	C	Description
7.590	0.50	
55.930	0.70	
63.520	0.68	Weighted Average
63.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.33					Direct Entry,

**Subcatchment 5S: AREA BELOW POND 63.52 AC**

Hydrograph



**Summary for Pond 4P: EXISTING POND**

Inflow Area = 79.230 ac, 0.00% Impervious, Inflow Depth = 1.99" for 100-Year event  
 Inflow = 317.54 cfs @ 0.43 hrs, Volume= 13.121 af  
 Outflow = 301.15 cfs @ 0.52 hrs, Volume= 13.121 af, Atten= 5%, Lag= 5.6 min  
 Primary = 301.15 cfs @ 0.52 hrs, Volume= 13.121 af

Routing by Stor-Ind method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Peak Elev= 1,224.98' @ 0.52 hrs Surf.Area= 48,249 sf Storage= 137,455 cf

Plug-Flow detention time= 8.7 min calculated for 13.121 af (100% of inflow)  
 Center-of-Mass det. time= 8.6 min ( 36.4 - 27.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	1,220.16'	146,975 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,220.16	100	0	0
1,221.00	10,827	4,589	4,589
1,222.00	29,339	20,083	24,672
1,223.00	34,652	31,996	56,668
1,224.00	40,408	37,530	94,198
1,225.00	48,443	44,426	138,623
1,225.17	49,811	8,352	146,975

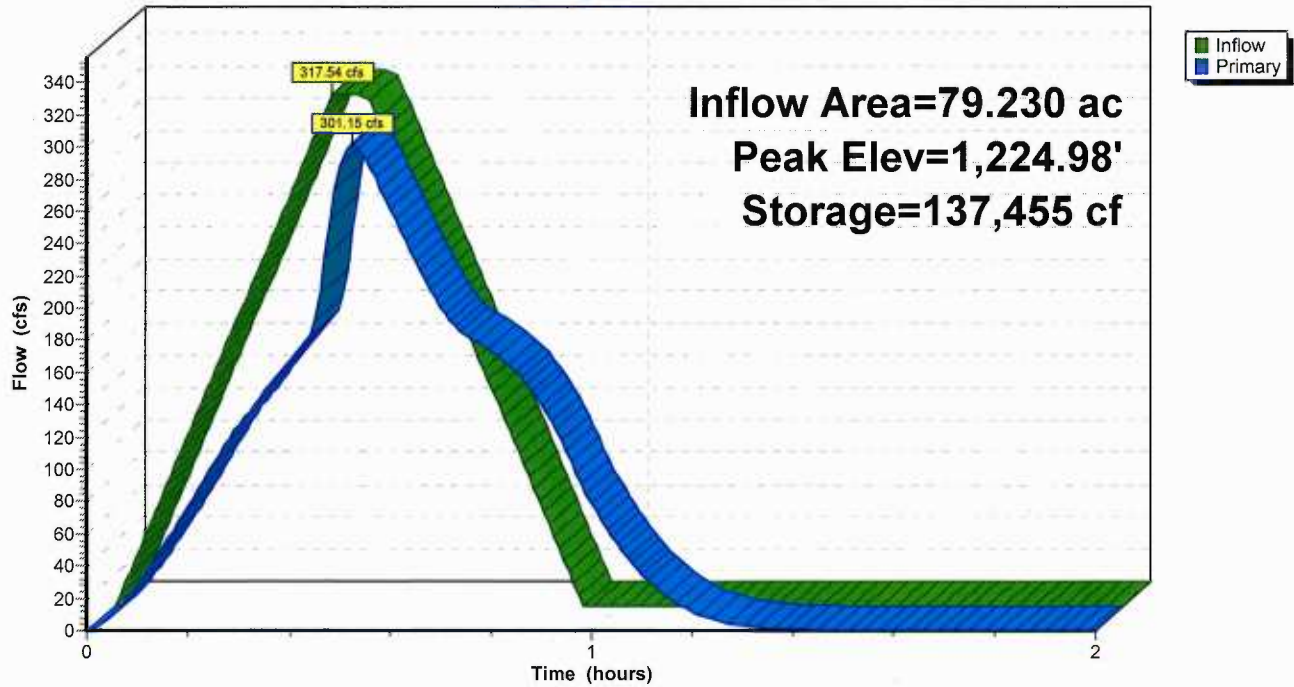
Device	Routing	Invert	Outlet Devices
#1	Primary	1,220.16'	<b>36.0" Round Culvert X 4.00</b> L= 35.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,220.16' / 1,218.82' S= 0.0383 '/ Cc= 0.900 n= 0.024, Flow Area= 7.07 sf
#2	Primary	1,224.52'	<b>Custom Weir/Orifice, Cv= 2.62 (C= 3.28)</b> Head (feet) 0.00 0.48 0.49 Width (feet) 0.00 275.00 276.00

**Primary OutFlow** Max=300.58 cfs @ 0.52 hrs HW=1,224.98' (Free Discharge)

- 1=Culvert (Inlet Controls 195.69 cfs @ 6.92 fps)
- 2=Custom Weir/Orifice (Weir Controls 104.89 cfs @ 1.77 fps)

### Pond 4P: EXISTING POND

Hydrograph

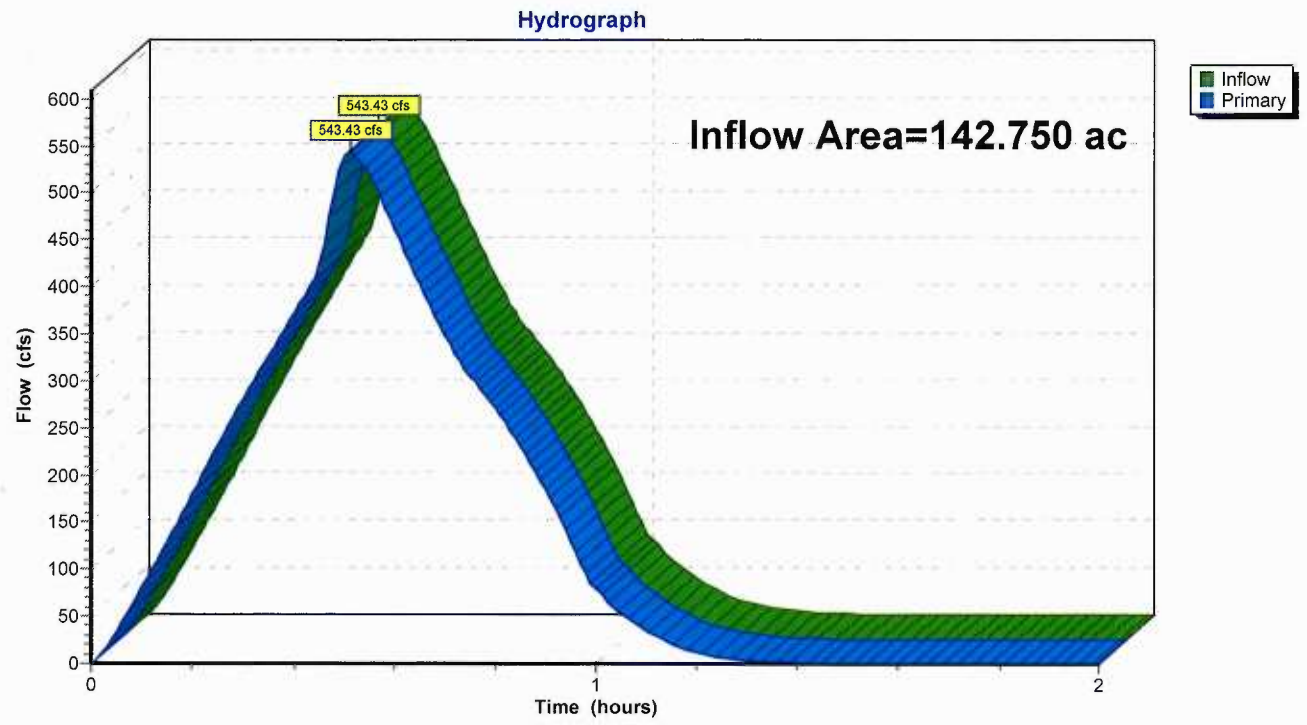


**Summary for Link 6L: SOUTH LINE TOTAL HISTORIC DISCHARGE 142.75 AC**

Inflow Area = 142.750 ac, 0.00% Impervious, Inflow Depth = 1.97" for 100-Year event  
Inflow = 543.43 cfs @ 0.51 hrs, Volume= 23.488 af  
Primary = 543.43 cfs @ 0.51 hrs, Volume= 23.488 af, Atten= 0%, Lag= 0.0 min

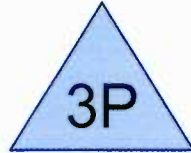
Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

**Link 6L: SOUTH LINE TOTAL HISTORIC DISCHARGE 142.75 AC**





DEVELOPED TO POND  
142.75 AC



NEW DET POND



TOTAL SOUTH LINE  
DEV RELEASE 142.75  
AC



**Events for Link 4L: TOTAL SOUTH LINE DEV RELEASE 142.75 AC**

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
2-Year	207.74	207.74	<b>0.00</b>
5-Year	272.51	272.51	0.00
10-Year	315.21	315.21	0.00
25-Year	370.81	370.81	0.00
50-Year	401.93	401.93	0.00
100-Year	<b>454.10</b>	<b>454.10</b>	0.00

**CASSIDY COVE DEV NEW PND REV CHK 2**

Prepared by {enter your company name here}

HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

Printed 5/20/2019

Page 2

**Area Listing (all nodes)**

Area (acres)	C	Description (subcatchment-numbers)
147.250	0.70	(2S)

**CASSIDY COVE DEV NEW PND REV CHK 2**

Prepared by {enter your company name here}

Printed 5/20/2019

HydroCAD® 10.00-21 s/n 06000 © 2018 HydroCAD Software Solutions LLC

Page 3

**Pipe Listing (all nodes)**

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	1,216.75	1,216.50	65.0	0.0038	0.013	42.0	0.0	0.0



Time span=0.00-2.00 hrs, dt=0.01 hrs, 201 points  
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 2S: DEVELOPED TO POND** Runoff Area=147.250 ac 0.00% Impervious Runoff Depth=2.02"  
Tc=29.04 min C=0.70 Runoff=599.32 cfs 24.740 af

**Pond 3P: NEW DET POND** Peak Elev=1,221.81' Storage=307,961 cf Inflow=599.32 cfs 24.740 af  
42.0" Round Culvert x 6.00 n=0.013 L=65.0' S=0.0038 '/' Outflow=454.10 cfs 24.715 af

**Link 4L: TOTAL SOUTH LINE DEV RELEASE 142.75 AC** Inflow=454.10 cfs 24.715 af  
Primary=454.10 cfs 24.715 af

**Summary for Subcatchment 2S: DEVELOPED TO POND 142.75 AC**

Runoff = 599.32 cfs @ 0.50 hrs, Volume= 24.740 af, Depth= 2.02"

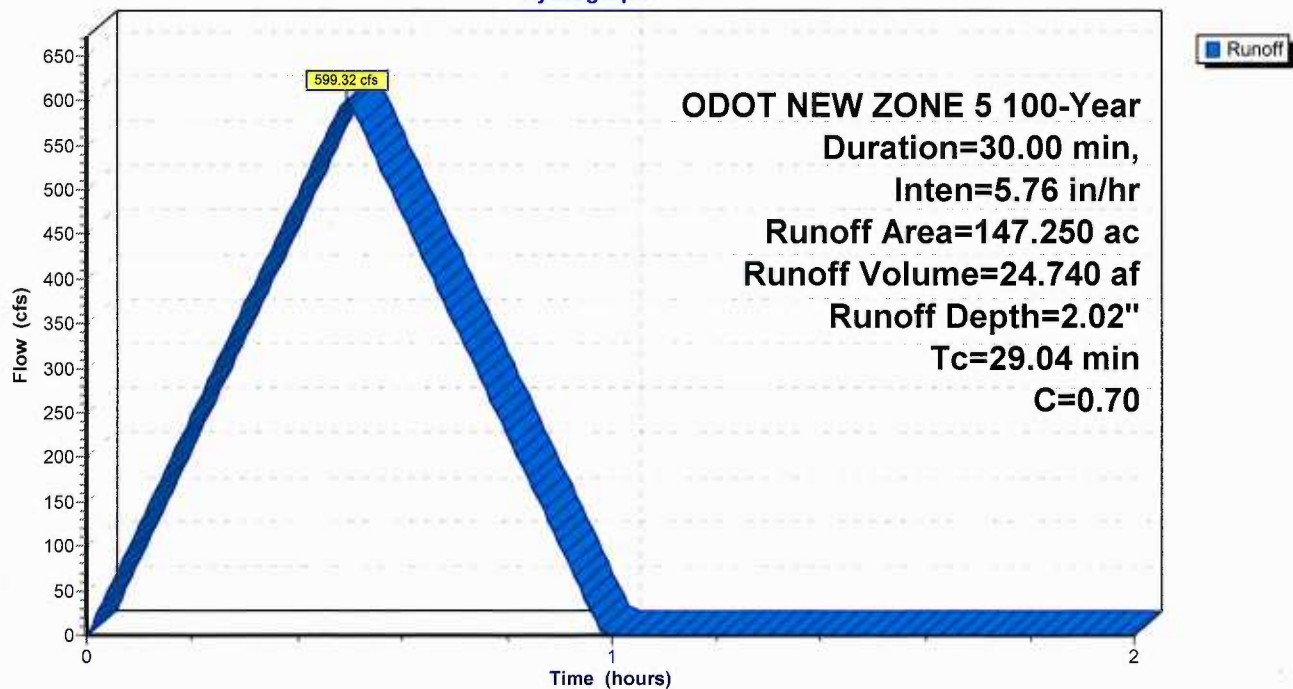
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 ODOT NEW ZONE 5 100-Year Duration=30.00 min, Inten=5.76 in/hr

Area (ac)	C	Description
147.250	0.70	
147.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.04					Direct Entry,

**Subcatchment 2S: DEVELOPED TO POND 142.75 AC**

Hydrograph



**Summary for Pond 3P: NEW DET POND**

Inflow Area = 147.250 ac, 0.00% Impervious, Inflow Depth = 2.02" for 100-Year event  
 Inflow = 599.32 cfs @ 0.50 hrs, Volume= 24.740 af  
 Outflow = 454.10 cfs @ 0.62 hrs, Volume= 24.715 af, Atten= 24%, Lag= 7.3 min  
 Primary = 454.10 cfs @ 0.62 hrs, Volume= 24.715 af

Routing by Stor-Ind method, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs  
 Peak Elev= 1,221.81' @ 0.62 hrs Surf.Area= 77,051 sf Storage= 307,961 cf

Plug-Flow detention time= 11.4 min calculated for 24.715 af (100% of inflow)  
 Center-of-Mass det. time= 11.3 min ( 40.9 - 29.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.75'	322,620 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)

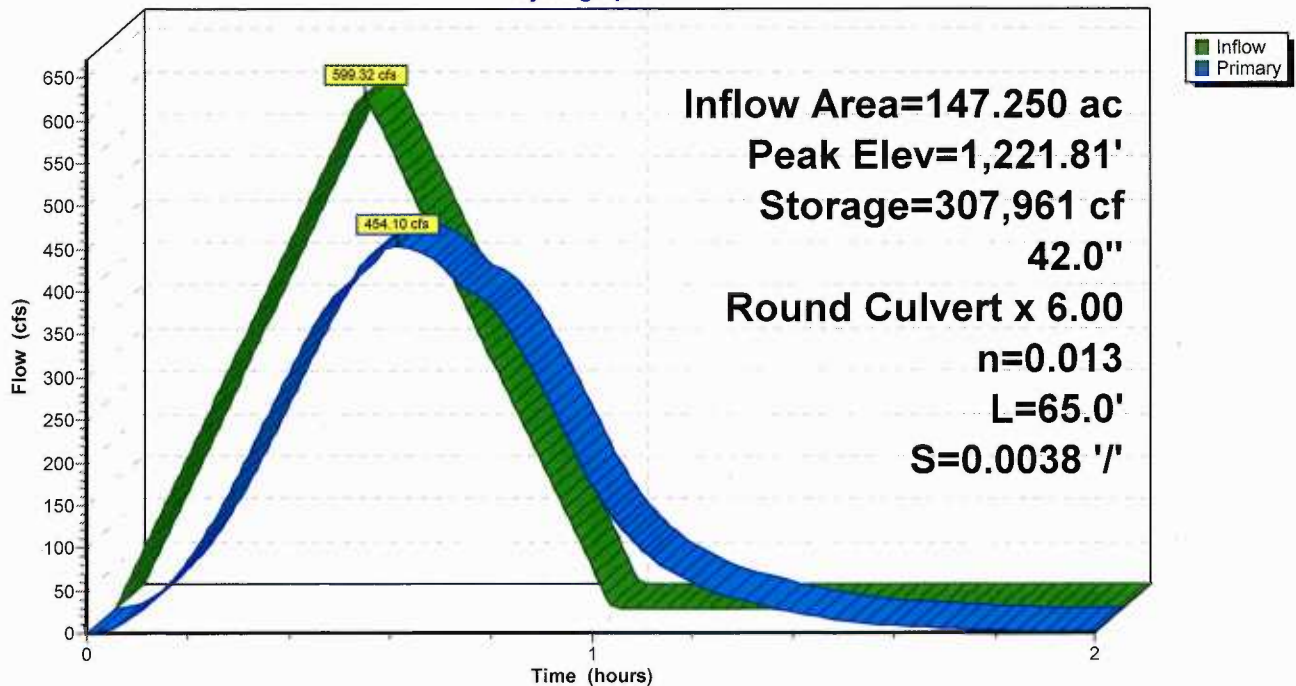
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.75	0	0	0
1,218.00	63,809	39,881	39,881
1,219.00	67,188	65,499	105,379
1,220.00	70,634	68,911	174,290
1,221.00	74,148	72,391	246,681
1,222.00	77,730	75,939	322,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,216.75'	<b>42.0" Round 6 42 INCH RCP X 6.00</b> L= 65.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,216.75' / 1,216.50' S= 0.0038 '/ Cc= 0.900 n= 0.013, Flow Area= 9.62 sf

**Primary OutFlow** Max=454.04 cfs @ 0.62 hrs HW=1,221.81' (Free Discharge)  
 ↳1=6 42 INCH RCP (Barrel Controls 454.04 cfs @ 7.87 fps)

### Pond 3P: NEW DET POND

Hydrograph

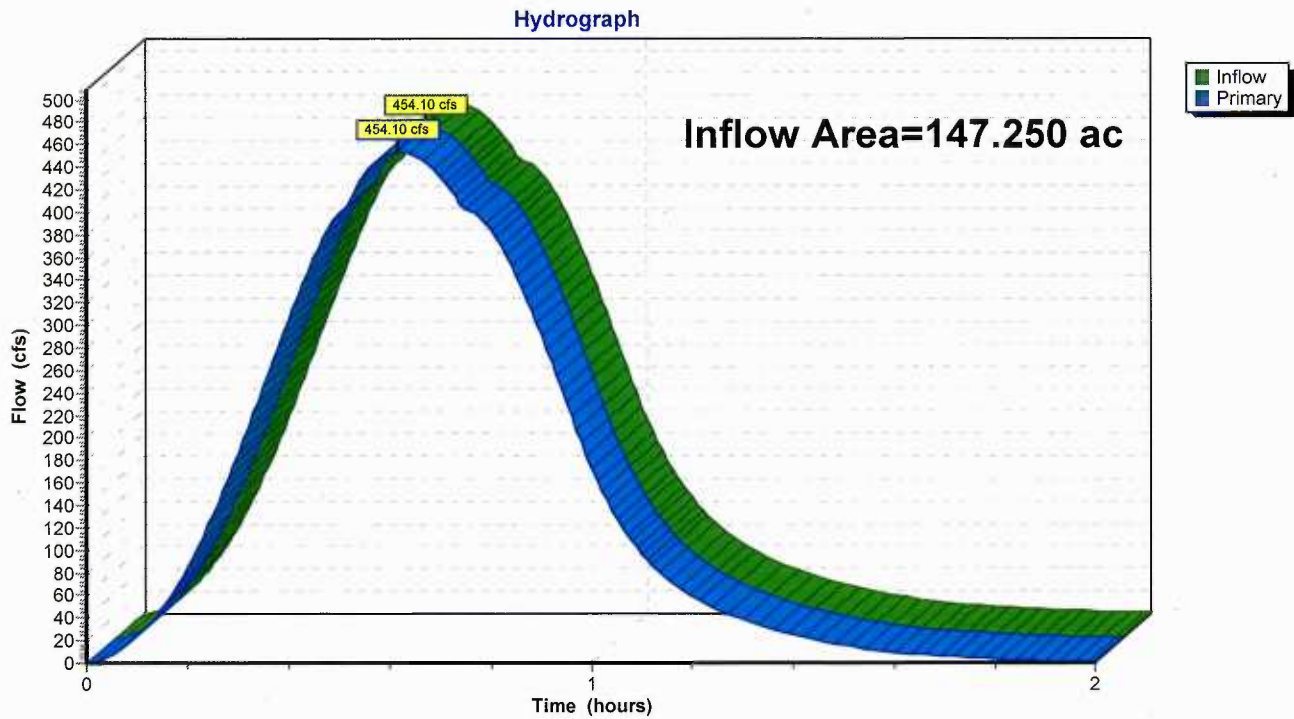


**Summary for Link 4L: TOTAL SOUTH LINE DEV RELEASE 142.75 AC**

Inflow Area = 147.250 ac, 0.00% Impervious, Inflow Depth > 2.01" for 100-Year event  
Inflow = 454.10 cfs @ 0.62 hrs, Volume= 24.715 af  
Primary = 454.10 cfs @ 0.62 hrs, Volume= 24.715 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-2.00 hrs, dt= 0.01 hrs

**Link 4L: TOTAL SOUTH LINE DEV RELEASE 142.75 AC**



**NOAA ATLAS 14  
RAINFALL DATA REFERENCE**

**NOAA ATLAS 14 RAINFALL DATA**  
**RAINFALL DEPTH - INTENSITY COMPARISON**

24 HOUR STORM DURATION

<b><u>STORM FREQUENCY</u></b>	<b><u>DEPTH (INCHES)</u></b>	<b><u>INTENSITY (IN/HR)</u></b>
2 YR	3.76	0.136
5 YR	4.66	0.194
10 YR	5.50	0.229
25 YR	6.83	0.284
50 YR	7.97	0.332
100 YR	9.21	0.384
500 YR	12.60	0.523
1000 YR	14.20	0.591

# IDF Report

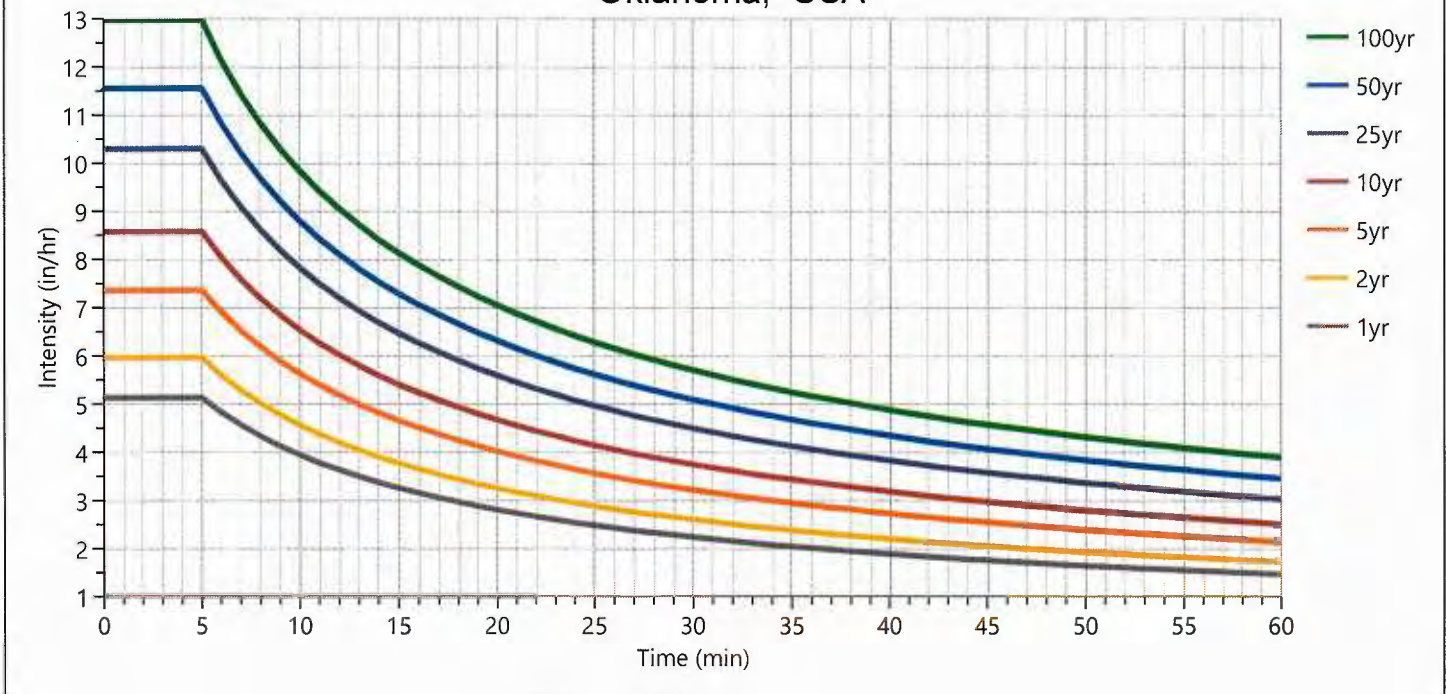
Equation Coefficients	Intensity = B / (Tc + D)^E (in/hr)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
B	26.6420	28.2901	0.0000	33.6484	36.3702	41.0893	44.0662	46.0291
D	5.8000	5.2000	0.0000	5.0000	4.5000	4.1000	3.9000	3.4000
E	0.6920	0.6703	0.0000	0.6600	0.6416	0.6267	0.6120	0.5948

Minimum Tc = 5 minutes

Tc (min)	Intensity Values (in/hr)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Cf	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5	5.13	5.96	0	7.36	8.58	10.30	11.56	12.98
10	3.95	4.56	0	5.63	6.54	7.83	8.80	9.83
15	3.26	3.77	0	4.66	5.41	6.47	7.29	8.14
20	2.81	3.25	0	4.02	4.67	5.59	6.32	7.06
25	2.49	2.88	0	3.56	4.15	4.97	5.62	6.29
30	2.24	2.60	0	3.22	3.75	4.50	5.10	5.71
35	2.05	2.38	0	2.95	3.44	4.13	4.69	5.26
40	1.89	2.20	0	2.73	3.18	3.83	4.35	4.89
45	1.76	2.05	0	2.54	2.97	3.58	4.08	4.58
50	1.65	1.92	0	2.39	2.80	3.37	3.84	4.32
55	1.55	1.81	0	2.26	2.64	3.19	3.64	4.10
60	1.47	1.72	0	2.14	2.51	3.03	3.46	3.90

Cf = Correction Factor applied to Rational Method runoff coefficient.

## Oklahoma, USA





Point precipitation frequency estimates (inches/hour)

NOAA Atlas 14 Volume 8 Version 2

Data type: Precipitation intensity

Time series type: Partial duration

Project area: Midwestern States

Location na Oklahoma USA

Station Name: -

Latitude: 35.4569°

Longitude: -97.3662°

Elevation (USGS): 1209.01 ft

PRECIPITATION FREQUENCY ESTIMATES

by duration	1	2	5	10	25	50	100	200	500	1000
5-min:	5.14	5.98	7.38	8.59	10.3	11.6	13	14.5	16.4	17.9
10-min:	3.76	4.37	5.41	6.29	7.54	8.53	9.53	10.6	12	13.1
15-min:	3.06	3.56	4.4	5.11	6.12	6.93	7.75	8.61	9.77	10.7
30-min:	2.24	2.6	3.22	3.75	4.5	5.1	5.71	6.34	7.21	7.88
60-min:	1.47	1.72	2.14	2.51	3.03	3.46	3.9	4.36	4.99	5.49
2-hr:	0.914	1.07	1.34	1.57	1.91	2.18	2.47	2.77	3.19	3.52
3-hr:	0.68	0.796	0.998	1.18	1.44	1.66	1.88	2.13	2.47	2.74
6-hr:	0.406	0.473	0.592	0.701	0.864	1	1.15	1.31	1.53	1.71
12-hr:	0.236	0.272	0.339	0.402	0.497	0.579	0.668	0.765	0.904	1.02
24-hr:	0.136	0.157	0.194	0.229	0.284	0.332	0.384	0.441	0.523	0.591
2-day:	0.078	0.089	0.11	0.13	0.161	0.188	0.217	0.249	0.294	0.332
3-day:	0.056	0.065	0.08	0.094	0.116	0.134	0.154	0.176	0.208	0.234
4-day:	0.045	0.052	0.064	0.075	0.092	0.106	0.121	0.138	0.162	0.181
7-day:	0.03	0.034	0.042	0.049	0.059	0.067	0.076	0.086	0.099	0.11
10-day:	0.024	0.027	0.033	0.037	0.045	0.051	0.057	0.063	0.073	0.08
20-day:	0.015	0.017	0.021	0.023	0.027	0.03	0.033	0.036	0.041	0.044
30-day:	0.012	0.014	0.016	0.018	0.021	0.023	0.025	0.027	0.03	0.032
45-day:	0.01	0.011	0.013	0.014	0.017	0.018	0.02	0.021	0.023	0.025
60-day:	0.008	0.009	0.011	0.012	0.014	0.016	0.017	0.018	0.02	0.021

Date/time (GMT): Sat May 18 18:36:30 2019

pyRunTime: 0.0404319763184

**STREET CULVERT FLOW CAPACITY - OVERFLOW COMPARISON**

**100 YEAR STORM - 2 YEAR STORM**

<b><u>100 YEAR STORM</u></b>	<b><u>CULVERT</u></b>	<b><u>STORM</u></b>	<b><u>CULVERT</u></b>	<b><u>STREET</u></b>
<b><u>LOCATION</u></b>	<b><u>SIZE</u></b>	<b><u>FLOW</u></b>	<b><u>CONVEYANCE</u></b>	<b><u>OVERFLOW</u></b>
NAWASSA DR	8 -27" RCP	780.46	268.95	511.51
TIMBER RIDGE RD	2- 8 X 2 RCB	437.45	34.68	402.77
OLD COLONY RD	2- 8 X 2 RCB	437.45	266.05	171.40

<b><u>2 YEAR STORM</u></b>	<b><u>CULVERT</u></b>	<b><u>STORM</u></b>	<b><u>CULVERT</u></b>	<b><u>STREET</u></b>
<b><u>LOCATION</u></b>	<b><u>SIZE</u></b>	<b><u>FLOW</u></b>	<b><u>CONVEYANCE</u></b>	<b><u>OVERFLOW</u></b>
NAWASSA DR	8 -27" RCP	325.75	230.47	95.28
TIMBER RIDGE RD	2- 8 X 2 RCB	200.85	155.62	45.23
OLD COLONY RD	2- 8 X 2 RCB	200.85	192.43	8.42



**NOAA Atlas 14, Volume 8, Version 2**  
**Location name: Oklahoma City, Oklahoma,**  
**USA\***  
**Latitude: 35.4531°, Longitude: -97.367°**  
**Elevation: 1224.58 ft\*\***



\* source: ESRI Maps  
 \*\* source: USGS

**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaliuk, Dale Unruh, Michael Yekta, Geoffrey Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

**PF tabular**

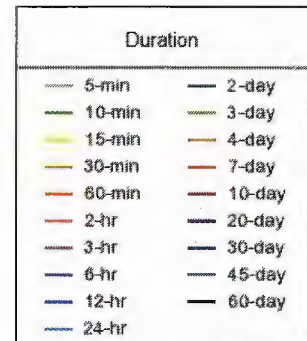
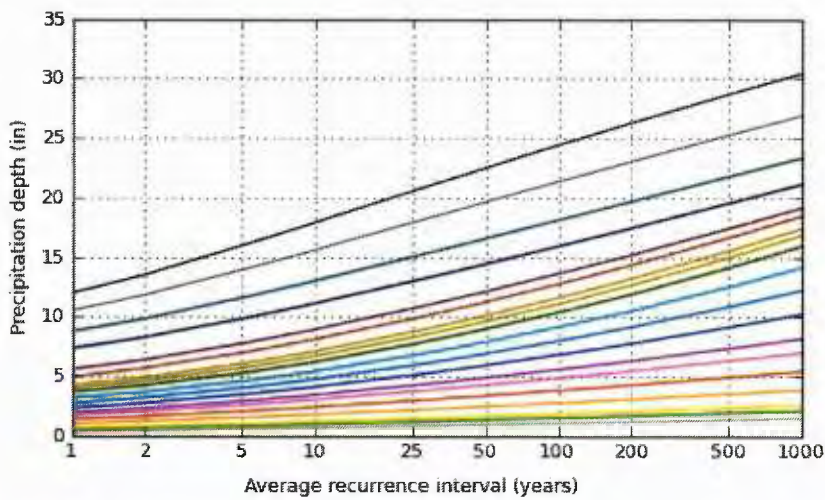
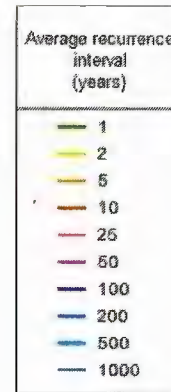
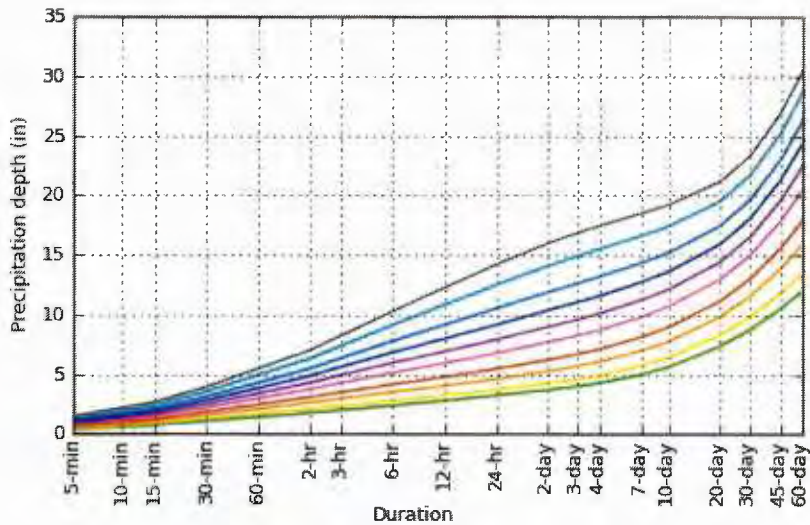
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.428 (0.334-0.544)	0.498 (0.389-0.634)	0.615 (0.479-0.785)	0.715 (0.554-0.916)	0.857 (0.645-1.13)	0.970 (0.714-1.29)	1.09 (0.774-1.47)	1.21 (0.828-1.67)	1.37 (0.906-1.94)	1.50 (0.966-2.14)
10-min	0.626 (0.489-0.797)	0.729 (0.569-0.928)	0.901 (0.701-1.15)	1.05 (0.811-1.34)	1.26 (0.944-1.65)	1.42 (1.05-1.89)	1.59 (1.13-2.16)	1.77 (1.21-2.45)	2.01 (1.33-2.84)	2.19 (1.41-3.14)
15-min	0.764 (0.597-0.972)	0.889 (0.694-1.13)	1.10 (0.855-1.40)	1.28 (0.989-1.64)	1.53 (1.15-2.02)	1.73 (1.27-2.31)	1.94 (1.38-2.63)	2.15 (1.48-2.99)	2.44 (1.62-3.47)	2.67 (1.73-3.83)
30-min	1.12 (0.873-1.42)	1.30 (1.02-1.66)	1.61 (1.25-2.05)	1.87 (1.45-2.40)	2.25 (1.69-2.96)	2.55 (1.88-3.39)	2.85 (2.04-3.87)	3.17 (2.18-4.40)	3.61 (2.39-5.11)	3.94 (2.55-5.65)
60-min	1.47 (1.15-1.87)	1.72 (1.34-2.19)	2.14 (1.67-2.73)	2.51 (1.94-3.21)	3.03 (2.29-4.01)	3.46 (2.55-4.61)	3.90 (2.78-5.30)	4.36 (3.00-6.06)	5.00 (3.31-7.10)	5.50 (3.55-7.89)
2-hr	1.83 (1.44-2.30)	2.14 (1.69-2.70)	2.67 (2.10-3.38)	3.14 (2.46-3.98)	3.82 (2.91-5.01)	4.37 (3.25-5.78)	4.94 (3.56-6.68)	5.55 (3.85-7.66)	6.40 (4.28-9.03)	7.07 (4.60-10.1)
3-hr	2.04 (1.62-2.56)	2.39 (1.90-3.00)	3.00 (2.37-3.78)	3.53 (2.78-4.45)	4.32 (3.32-5.66)	4.98 (3.73-6.57)	5.66 (4.11-7.62)	6.40 (4.47-8.80)	7.42 (4.99-10.4)	8.24 (5.39-11.7)
6-hr	2.43 (1.95-3.01)	2.83 (2.27-3.51)	3.55 (2.83-4.41)	4.20 (3.34-5.24)	5.18 (4.03-6.74)	6.00 (4.55-7.88)	6.89 (5.05-9.22)	7.84 (5.53-10.7)	9.20 (6.25-12.9)	10.3 (6.80-14.5)
12-hr	2.84 (2.31-3.49)	3.28 (2.66-4.03)	4.09 (3.30-5.03)	4.84 (3.89-5.98)	5.99 (4.72-7.76)	6.98 (5.36-9.11)	8.05 (5.98-10.7)	9.23 (6.58-12.6)	10.9 (7.49-15.2)	12.3 (8.18-17.2)
24-hr	3.27 (2.68-3.98)	3.76 (3.08-4.57)	4.66 (3.80-5.67)	5.50 (4.47-6.73)	6.83 (5.44-8.77)	7.97 (6.18-10.3)	9.21 (6.91-12.2)	10.6 (7.63-14.3)	12.6 (8.71-17.4)	14.2 (9.54-19.7)
2-day	3.73 (3.09-4.49)	4.28 (3.55-5.15)	5.30 (4.37-6.39)	6.26 (5.14-7.58)	7.74 (6.24-9.85)	9.02 (7.07-11.6)	10.4 (7.89-13.6)	11.9 (8.69-16.0)	14.2 (9.90-19.4)	16.0 (10.8-22.0)
3-day	4.06 (3.39-4.85)	4.65 (3.88-5.56)	5.74 (4.77-6.89)	6.76 (5.58-8.14)	8.33 (6.74-10.5)	9.67 (7.62-12.3)	11.1 (8.47-14.5)	12.7 (9.29-17.0)	15.0 (10.5-20.5)	16.9 (11.5-23.2)
4-day	4.33 (3.63-5.16)	4.97 (4.16-5.91)	6.11 (5.10-7.30)	7.17 (5.95-8.60)	8.79 (7.14-11.0)	10.2 (8.04-12.9)	11.6 (8.90-15.1)	13.3 (9.72-17.6)	15.6 (11.0-21.2)	17.4 (11.9-23.9)
7-day	5.03 (4.25-5.93)	5.76 (4.86-6.80)	7.04 (5.92-8.33)	8.19 (6.85-9.73)	9.89 (8.07-12.3)	11.3 (8.99-14.2)	12.8 (9.84-16.4)	14.4 (10.6-19.0)	16.7 (11.8-22.5)	18.5 (12.7-25.2)
10-day	5.65 (4.80-6.63)	6.44 (5.47-7.56)	7.81 (6.61-9.19)	9.01 (7.58-10.6)	10.8 (8.80-13.2)	12.2 (9.72-15.1)	13.7 (10.5-17.4)	15.2 (11.3-19.9)	17.4 (12.4-23.4)	19.2 (13.3-26.1)
20-day	7.40 (6.37-8.59)	8.33 (7.16-9.68)	9.88 (8.46-11.5)	11.2 (9.52-13.1)	13.0 (10.7-15.7)	14.5 (11.7-17.8)	16.0 (12.4-20.1)	17.5 (13.1-22.6)	19.6 (14.0-26.0)	21.2 (14.8-28.5)
30-day	8.82 (7.64-10.2)	9.89 (8.55-11.4)	11.6 (10.0-13.5)	13.1 (11.2-15.2)	15.1 (12.5-18.1)	16.6 (13.4-20.2)	18.2 (14.2-22.6)	19.7 (14.8-25.3)	21.8 (15.7-28.8)	23.4 (16.4-31.4)
45-day	10.6 (9.21-12.1)	11.9 (10.3-13.6)	13.9 (12.1-16.0)	15.6 (13.5-18.1)	17.9 (14.9-21.3)	19.7 (16.0-23.7)	21.4 (16.8-26.4)	23.1 (17.4-29.4)	25.3 (18.3-33.1)	26.9 (19.0-36.0)
60-day	12.0 (10.5-13.7)	13.5 (11.8-15.5)	16.0 (13.9-18.3)	17.9 (15.5-20.6)	20.6 (17.2-24.3)	22.5 (18.4-27.0)	24.4 (19.3-30.1)	26.3 (19.9-33.4)	28.7 (20.8-37.5)	30.4 (21.6-40.6)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

### PF graphical

PDS-based depth-duration-frequency (DDF) curves  
 Latitude: 35.4531°, Longitude: -97.3670°



### Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



[Back to Top](#)

---

[US Department of Commerce](#)  
[National Oceanic and Atmospheric Administration](#)  
[National Weather Service](#)  
[National Water Center](#)  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

[Disclaimer](#)



NOAA Atlas 14, Volume 8, Version 2  
 Location name: Oklahoma City, Oklahoma,  
 USA\*  
 Latitude: 35.4569°, Longitude: -97.3662°  
 Elevation: 1209.01 ft\*\*  
 \* source: ESRI Maps  
 \*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffrey Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

**PF tabular**

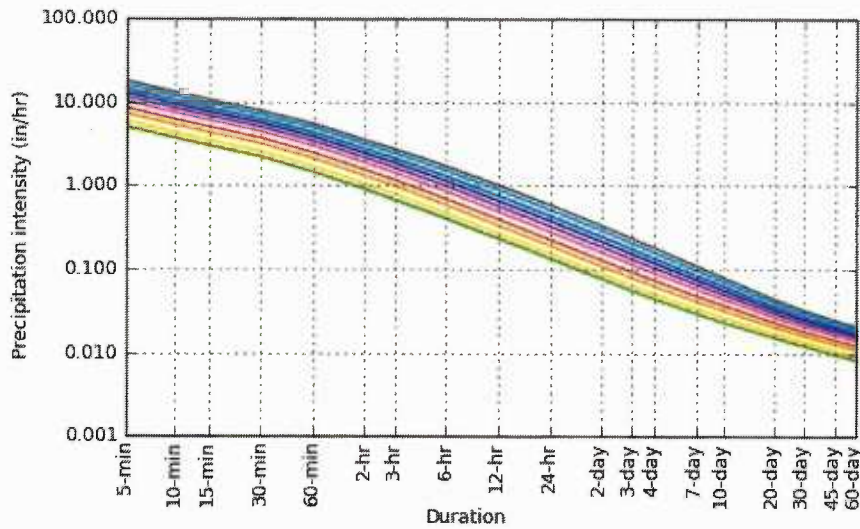
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	5.14 (4.01-6.53)	5.98 (4.66-7.61)	7.38 (5.75-9.42)	8.59 (6.65-11.0)	10.3 (7.74-13.5)	11.6 (8.57-15.5)	13.0 (9.29-17.7)	14.5 (9.92-20.1)	16.4 (10.9-23.3)	17.9 (11.6-25.7)
10-min	3.76 (2.93-4.78)	4.37 (3.41-5.57)	5.41 (4.21-6.89)	6.29 (4.87-8.05)	7.54 (5.66-9.92)	8.53 (6.27-11.3)	9.53 (6.80-12.9)	10.6 (7.27-14.7)	12.0 (7.96-17.0)	13.1 (8.48-18.8)
15-min	3.06 (2.39-3.89)	3.56 (2.78-4.53)	4.40 (3.42-5.61)	5.11 (3.96-6.54)	6.12 (4.60-8.07)	6.93 (5.10-9.22)	7.75 (5.53-10.5)	8.61 (5.91-11.9)	9.77 (6.47-13.9)	10.7 (6.89-15.3)
30-min	2.24 (1.75-2.84)	2.60 (2.03-3.31)	3.22 (2.51-4.11)	3.75 (2.90-4.80)	4.50 (3.38-5.93)	5.10 (3.75-6.78)	5.71 (4.07-7.75)	6.34 (4.35-8.80)	7.21 (4.77-10.2)	7.88 (5.09-11.3)
60-min	1.47 (1.15-1.87)	1.72 (1.34-2.19)	2.14 (1.67-2.73)	2.51 (1.94-3.21)	3.03 (2.29-4.01)	3.46 (2.55-4.61)	3.90 (2.78-5.30)	4.36 (2.99-6.06)	4.99 (3.31-7.09)	5.49 (3.55-7.88)
2-hr	0.914 (0.722-1.15)	1.07 (0.843-1.35)	1.34 (1.05-1.69)	1.57 (1.23-1.99)	1.91 (1.45-2.50)	2.18 (1.62-2.89)	2.47 (1.78-3.33)	2.77 (1.92-3.83)	3.19 (2.13-4.51)	3.52 (2.29-5.02)
3-hr	0.680 (0.540-0.852)	0.796 (0.632-0.998)	0.998 (0.789-1.25)	1.18 (0.925-1.48)	1.44 (1.11-1.88)	1.66 (1.24-2.19)	1.88 (1.37-2.54)	2.13 (1.48-2.93)	2.47 (1.66-3.47)	2.74 (1.79-3.88)
6-hr	0.406 (0.325-0.503)	0.473 (0.379-0.587)	0.592 (0.473-0.737)	0.701 (0.557-0.875)	0.864 (0.672-1.13)	1.00 (0.759-1.32)	1.15 (0.843-1.54)	1.31 (0.922-1.79)	1.53 (1.04-2.15)	1.71 (1.13-2.42)
12-hr	0.236 (0.191-0.290)	0.272 (0.221-0.335)	0.339 (0.274-0.418)	0.402 (0.322-0.496)	0.497 (0.392-0.644)	0.579 (0.444-0.756)	0.668 (0.496-0.890)	0.765 (0.545-1.04)	0.904 (0.621-1.26)	1.02 (0.678-1.43)
24-hr	0.136 (0.112-0.166)	0.157 (0.128-0.190)	0.194 (0.158-0.237)	0.229 (0.186-0.281)	0.284 (0.227-0.366)	0.332 (0.257-0.430)	0.384 (0.288-0.507)	0.441 (0.317-0.597)	0.523 (0.362-0.724)	0.591 (0.397-0.821)
2-day	0.078 (0.064-0.094)	0.089 (0.074-0.107)	0.110 (0.091-0.133)	0.130 (0.107-0.158)	0.161 (0.130-0.205)	0.188 (0.147-0.241)	0.217 (0.164-0.284)	0.249 (0.181-0.334)	0.294 (0.206-0.405)	0.332 (0.225-0.458)
3-day	0.056 (0.047-0.067)	0.065 (0.054-0.077)	0.080 (0.066-0.096)	0.094 (0.077-0.113)	0.116 (0.094-0.146)	0.134 (0.106-0.171)	0.154 (0.117-0.201)	0.176 (0.129-0.236)	0.208 (0.146-0.285)	0.234 (0.159-0.322)
4-day	0.045 (0.038-0.054)	0.052 (0.043-0.062)	0.064 (0.053-0.076)	0.075 (0.062-0.090)	0.092 (0.074-0.115)	0.106 (0.084-0.134)	0.121 (0.093-0.157)	0.138 (0.101-0.183)	0.162 (0.114-0.221)	0.181 (0.124-0.249)
7-day	0.030 (0.025-0.035)	0.034 (0.029-0.040)	0.042 (0.035-0.050)	0.049 (0.041-0.058)	0.059 (0.048-0.073)	0.067 (0.053-0.084)	0.076 (0.058-0.098)	0.086 (0.063-0.113)	0.099 (0.070-0.134)	0.110 (0.076-0.150)
10-day	0.024 (0.020-0.028)	0.027 (0.023-0.032)	0.033 (0.027-0.038)	0.037 (0.032-0.044)	0.045 (0.037-0.055)	0.051 (0.040-0.063)	0.057 (0.044-0.073)	0.063 (0.047-0.083)	0.073 (0.052-0.098)	0.080 (0.055-0.109)
20-day	0.015 (0.013-0.018)	0.017 (0.015-0.020)	0.021 (0.018-0.024)	0.023 (0.020-0.027)	0.027 (0.022-0.033)	0.030 (0.024-0.037)	0.033 (0.026-0.042)	0.036 (0.027-0.047)	0.041 (0.029-0.054)	0.044 (0.031-0.059)
30-day	0.012 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.014-0.019)	0.018 (0.016-0.021)	0.021 (0.017-0.025)	0.023 (0.019-0.028)	0.025 (0.020-0.031)	0.027 (0.020-0.035)	0.030 (0.022-0.040)	0.032 (0.023-0.044)
45-day	0.010 (0.009-0.011)	0.011 (0.010-0.013)	0.013 (0.011-0.015)	0.014 (0.012-0.017)	0.017 (0.014-0.020)	0.018 (0.015-0.022)	0.020 (0.016-0.024)	0.021 (0.016-0.027)	0.023 (0.017-0.031)	0.025 (0.018-0.033)
60-day	0.008 (0.007-0.010)	0.009 (0.008-0.011)	0.011 (0.010-0.013)	0.012 (0.011-0.014)	0.014 (0.012-0.017)	0.016 (0.013-0.019)	0.017 (0.013-0.021)	0.018 (0.014-0.023)	0.020 (0.014-0.026)	0.021 (0.015-0.028)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

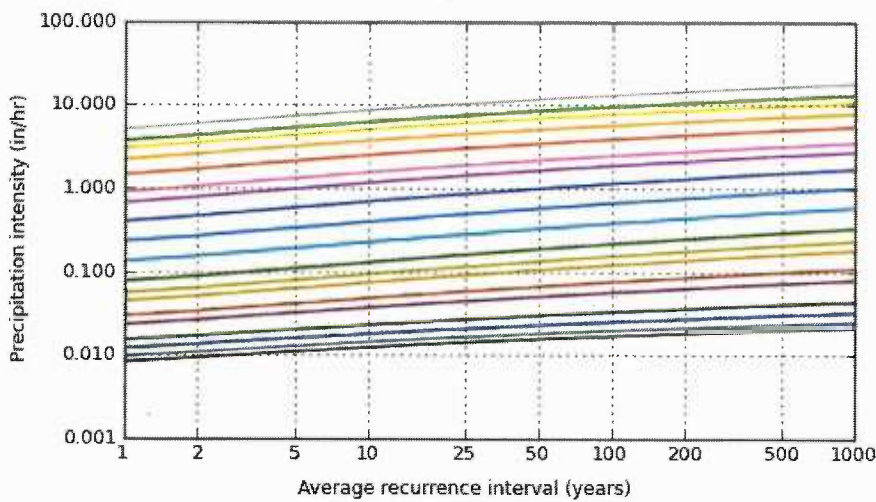
[Back to Top](#)

### PF graphical

PDS-based intensity-duration-frequency (IDF) curves  
 Latitude: 35.4569°, Longitude: -97.3662°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000



Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	



### Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



[Back to Top](#)

---

[US Department of Commerce](#)  
[National Oceanic and Atmospheric Administration](#)  
[National Weather Service](#)  
[National Water Center](#)  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

[Disclaimer](#)

# PHOTOGRAPHS

# **NAWASSA DRIVE**





















# **TIMBER RIDGE ROAD**









# **OLD COLONY ROAD**







May 6, 2019

City of Midwest City  
100 N. Midwest Boulevard  
Midwest City, OK 73110

Attention: Mr. Patrick Menefee, P.E, City Engineer

**RE: CASSIDY COVE SECTION 3  
Detention Pond Review, Second Check, Updated April 30, 2019**

Dear Mr. Menefee:

Johnson & Associates (J&A) has completed the second review of the proposed storm water detention facility for Cassidy Cove Section 3. The review focused solely on the drainage report submitted for the detention pond. No construction plans were provided. No other plans or reports for any other site construction were provided for review at this time.

If constructed as discussed in the drainage report, the detention facility will provide adequate storage volume and sufficient flow attenuation to satisfy the Midwest City detention requirement for the 100-year frequency storm event.

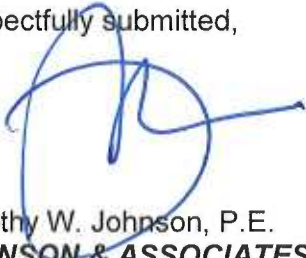
However, the following comments are provided for consideration:

1. The detention facility will not function as proposed unless sufficient and adequate storm water drainage facilities are constructed to collect and convey the 100-year runoff for the entire 142.75 acres of onsite and surrounding drainage area into the detention pond. No drainage plans have been reviewed. A full system drainage analysis should be submitted for review.
2. A storm sewer facility should be constructed to collect and convey storm runoff from the west end of S.E 6<sup>th</sup> Street, westerly into the detention facility, to eliminate surface flow across Lots 13 and 14, Block 1, of the plat.
3. Construction of improvements within the plat will disturb a drainage swale identified as a "blue line" on the USGS Quad Map of the area. This line generally indicates an area of Waters of the United States which is regulated by the Tulsa District Corps of Engineers (COE) under Section 404 of the Clean Water Act. The COE should be contacted in request of possibly a Nationwide Permit 29 or 43 for approval of the proposed construction. Summary sheets of these permits are attached for review as well as a local USGS map exhibit.

4. Should the detention pond outlet be constructed with the release as proposed, there will be a dramatic impact, due to velocity, on the existing streams and channels, downstream of the project. Review of the conditions of this existing stream indicate that it is unimproved and in a natural state, with homes near and potentially in the backwater of the stream. Some consideration should be given to mitigate the much higher velocities that will be released from the proposed detention pond.
  
5. Although the development will not increase the magnitude of the flow rate leaving the site, consideration should be given to addressing concerns mentioned in the last public hearing and noted by staff. J&A would request that the applicant consider continuing this item until the next meeting so a field review and analysis of the Private and Public drainage facilities can be completed to determine downstream system inadequacies. Even though the pond meets and exceeds the City's design criteria there is a perceived concern by downstream neighbors. This is something that the staff can use to explain the current conditions to elected officials and concerned citizens.

Johnson & Associates staff is available for any discussion needed. If any additional information is needed, please contact this office at 405-235-8075.

Respectfully submitted,

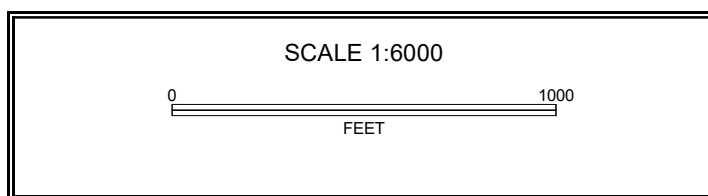


Timothy W. Johnson, P.E.  
**JOHNSON & ASSOCIATES, INC.**

TWJ/dh

Attachment(s): USGS Map, Plat, Drainage Map, Summary NWP 29 and 43

cc: 4001-000/C





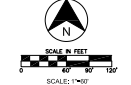
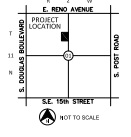


# PRELIMINARY PLAT OF CASSIDY COVE SECTION 3

A PART OF THE NW/4 OF SECTION 01, T11N, R2W, I.M.  
MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA

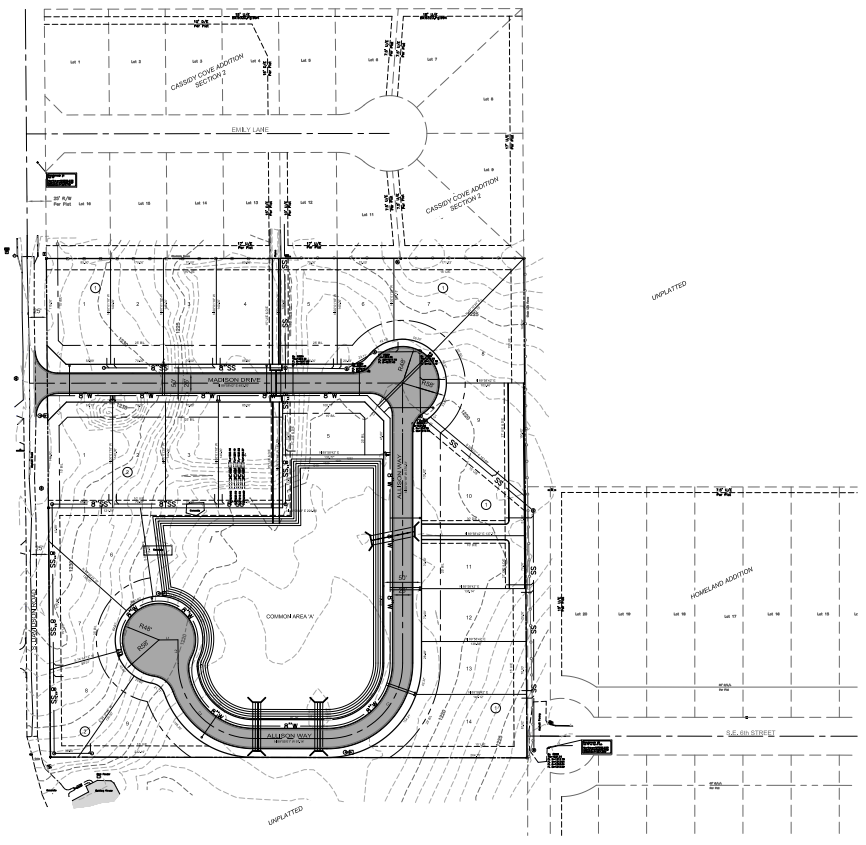
**LEGAL DESCRIPTION:**  
PART OF THE NORTHWEST QUARTER (NW/4) OF SECTION ONE (1), TOWNSHIP ELEVEN (1) NORTH, RANGE TWO (2) WEST OF THE MERIDIAN, MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER (SE/4) OF GOVERNMENT LOT THREE (3) OF SAID SECTION ONE (1), THENCE S07°02'00" E ALONG THE EAST LINE OF THE NORTHWEST QUARTER (NW/4) OF SAID SECTION ONE (1) A DISTANCE OF 663.3 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING S07°02'00" E ALONG THE EAST LINE OF THE NORTHWEST QUARTER (NW/4) OF SAID SECTION ONE (1), A DISTANCE OF 326.20 FEET; THENCE N07°59'52" W A DISTANCE OF 63.82 TO A POINT 63.82 EAST OF THE WEST LINE OF THE SOUTHEAST QUARTER (SE/4) OF GOVERNMENT LOT 3, THENCE N07°59'52" W A DISTANCE OF 20.67 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF THE SOUTHEAST QUARTER (SE/4) OF GOVERNMENT LOT THREE (3) A DISTANCE OF 59.22;  
THENCE S89°32'36" E A DISTANCE OF 63.82 TO THE POINT OF BEGINNING.

AND:  
THE SOUTH HALF (S/2) OF THE SOUTHEAST QUARTER (SE/4) OF LOT THREE (3) OF SECTION ONE (1), TOWNSHIP ELEVEN (1) NORTH, RANGE TWO (2) WEST OF THE MERIDIAN, OKLAHOMA COUNTY, OKLAHOMA, AS SHOWN BY THE GOVERNMENT PLAT THEREOF,  
CONTAINING 425.13576 SQUARE FEET OR 9.76 ACRES, MORE OR LESS,



BASE OF BEARING: AN ASSUMED BEARING OF N42°30'00\"/>

LEGEND	
---	BOUNDARY LINE
---	RIGHT OF WAY LINE
---	EASEMENT LINE
---	EXISTING CONCRETE CURBS AND GUTTER
---	PROPOSED CONCRETE CURBS AND GUTTER
---	PROPOSED FIRE LANE STRIPING
---	OVERHEAD ELECTRIC
---	UNDERGROUND ELECTRIC
---	GAS LINE
---	UNDERGROUND TELEPHONE
---	UNDERGROUND FIBER OPTIC
---	SEWER MAIN
---	WATERLINE
---	BENCHMARK
+	FIRE HYDRANT
+	WATER VALVE
+	EX. WATER METER PIT
+	EX. WATER METER
+	PROP. WATER METER
+	EX. SPRINKLER VALVE
+	EX. AUTO SPRINKLER
+	EX. ELECT. PEDESTAL
+	EX. ELECT. TRANSFORMER
+	EX. ELECT. METER
+	PROP. ELECT. METER
+	EX. AIR CONDITIONER
+	EX. SIGNAGE
+	EX. LIGHT POLE
+	PROP. LIGHT POLE
+	EX. ISOLAND
+	PROP. INLETS (SEE GRADING PLAN FOR TYPE)
+	VERTICAL SEPARATION REQUIREMENT
+	EX. POWER POLE
+	PROP. POWER POLE
+	EX. TELEPHONE PIGTAIL
+	EX. TELEPHONE MANHOLE
+	EX. TRAFFIC SIGNAL LIGHT
+	EX. TRAFFIC CONTROL BOX
+	EX. FLAG POLE
+	EX. YARD LIGHT
+	EX. GREASE TRAP
+	EX. SS MANHOLE
+	PROP. SS MANHOLE
+	EX. GAS METER
+	PROP. GAS METER
+	EX. ELECT. MANHOLE
+	EX. STORM MANHOLE



CURVE TABLE (CENTERLINE)					
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	157.26'	100.00	N 00°08'16\"/>		
C2	156.11'	100.00	N 00°32'27\"/>		

CURVE TABLE (LOTS)					
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	3.56'	25.00	N 81°50'52\"/>		
C2	17.47'	25.00	N 49°57'40\"/>		

LINE TABLE (CENTERLINE)		
LINE #	LENGTH	DIRECTION
L1	25.00'	N 89°31'31\"/>
L2	31.46'	S 00°28'20\"/>

LINE TABLE (LOTS)		
LINE #	LENGTH	DIRECTION
L1	35.49'	S 45°14'53\"/>
L2	35.22'	N 44°40'7\"/>
L3	35.36'	S 45°01'18\"/>

OWNER/DEVELOPER:  
JCH DEVELOPMENT LLC  
P.O. BOX 5078  
MIDWEST CITY, OK 73140  
405-594-9500

SURVEYOR:  
GOLDEN LAND SURVEYING  
300 N.W. 107TH AVENUE  
OKLAHOMA CITY, OK 73133  
405-620-7100

ENGINEER:  
CEDAR CREEK ENGINEERING  
P.O. BOX 1624  
OKLAHOMA CITY, OK 73113  
405-776-2388



## **Nationwide Permit 29 - Residential Developments**

Effective Date: March 19, 2017; Expiration Date: March 18, 2022  
(NWP Final Notice, 82 FR 1860)

**Nationwide Permit 29 - Residential Developments.** Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. This NWP authorizes the construction of building foundations and building pads and attendant features that are necessary for the use of the residence or residential development. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development).

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre.

Subdivisions: For residential subdivisions, the aggregate total loss of waters of United States authorized by this NWP cannot exceed 1/2-acre. This includes any loss of waters of the United States associated with development of individual subdivision lots.

**Notification:** The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

### **A. Nationwide Permit General Conditions**

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of

**Nationwide Permit 43 - Stormwater Management Facilities**  
Effective Date: March 19, 2017; Expiration Date: March 18, 2022  
(NWP Final Notice, 82 FR 1860)

**Nationwide Permit 43 - Stormwater Management Facilities.** Discharges of dredged or fill material into non-tidal waters of the United States for the construction of stormwater management facilities, including stormwater detention basins and retention basins and other stormwater management facilities; the construction of water control structures, outfall structures and emergency spillways; the construction of low impact development integrated management features such as bioretention facilities (e.g., rain gardens), vegetated filter strips, grassed swales, and infiltration trenches; and the construction of pollutant reduction green infrastructure features designed to reduce inputs of sediments, nutrients, and other pollutants into waters to meet reduction targets established under Total Daily Maximum Loads set under the Clean Water Act.

This NWP authorizes, to the extent that a section 404 permit is required, discharges of dredged or fill material into non-tidal waters of the United States for the maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features. The maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features that are not waters of the United States does not require a section 404 permit.

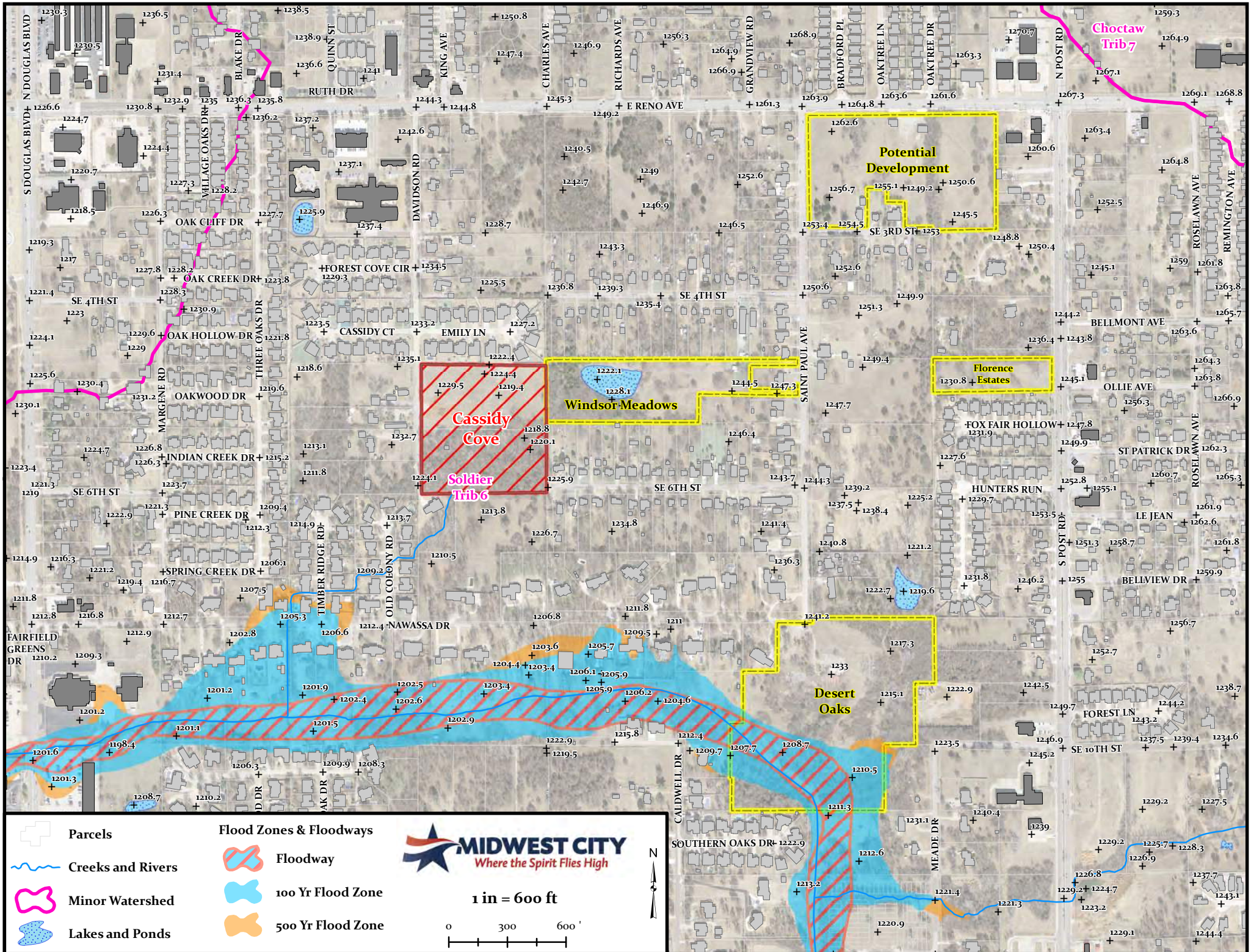
The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges of dredged or fill material for the construction of new stormwater management facilities in perennial streams.

**Notification:** For discharges into non-tidal waters of the United States for the construction of new stormwater management facilities or pollutant reduction green infrastructure features, or the expansion of existing stormwater management facilities or pollutant reduction green infrastructure features, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) Maintenance activities do not require pre-construction notification if they are limited to restoring the original design capacities of the stormwater management facility or pollutant reduction green infrastructure feature. (Authority: Section 404)

#### **A. Nationwide Permit General Conditions**

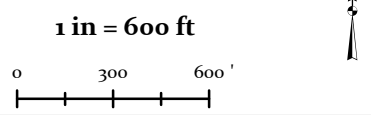
Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and



- Parcels
- Creeks and Rivers
- Minor Watershed
- Lakes and Ponds

- Flood Zones & Floodways**
- Floodway
  - 100 Yr Flood Zone
  - 500 Yr Flood Zone





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

**Date:** April 23, 2019

**Subject:** (PC – 1990) Discussion and consideration of approval of the proposed preliminary plat of Cassidy Cove Section III, described as a part of the NW/4 of Section 1, T11N, R2W, located at 500 and 600 Davidson Road.

**Executive Summary:** This item is a request to subdivide a single parcel into twenty-five (25) individual parcels for single family development. Access to the subdivision will be via Davidson Road. The applicant is proposing water and sewer line extensions to serve all of the lots. The area of request is currently zoned R-6, Single Family Detached Residential. No variances to any of the requirements of the Zoning Ordinance for development in the R-6 district will be allowed within this development. The Park Land Review Committee recommended approval of a fee to be paid in lieu of park land dedication. Tree preservation will be required with this subdivision. The applicant has requested a waiver to the prohibition of lots backing onto a local street as two lots and a

small portion of another lot back onto Davidson Road. Staff recommends approval of the Cassidy Cove Section III Preliminary Plat and the requested waiver.



**Dates of Hearing:** Planning Commission – April 2, 2019  
City Council – April 23, 2019

**Council Ward:** Ward 2, Pat Byrne

**Owner/Applicant:** Jim Campbell

**Engineer:** Jon Doyle, Cedar Creek

**Proposed Use:** Twenty-five (25) single family residential lots

**Size:**

The area of request has a frontage along Davidson Road of approximately 660 ft. and contains an area of approximately 9.76 acres.

**Zoning Districts:**

Area of Request – R-6, Single Family Detached Residential  
North, South, East and West – R-6, Single Family Detached Residential

**Land Use:**

Area of Request – vacant  
North, South and East – single family residences

**Municipal Code Citation:**

2.7.1. R-6, Single –Family Detached Residential District

The R-6, Single-Family Detached Residential District is intended for single-family residences on lots of not less than 6,000 square feet in size. This district is estimated to yield a maximum density of 5.1 gross dwelling units per acre (DUA). Additional uses for the district shall include churches, schools and public parks in logical neighborhood units.

38-18.1. Purpose

The purpose of a Preliminary Plat shall be to determine the general layout of the subdivision, the adequacy of public facilities needed to serve the intended development, and the overall compliance of the land division with applicable requirements of the Subdivision Ordinance.

**History:**

1. This area has been zoned single-family residential since the adoption of the 1985 zoning code and has never been platted.
2. The Planning Commission recommended approval of this item subject to staff comments on April 2, 2019.

**Engineer's Comments:**

Section 38-18 in the Subdivision Regulations requires all existing and proposed utility lines and public improvements be reflected on the preliminary plat and submitted on a preliminary utility site plan. Note that the proposed public utility line installations required with this application are shown on the plat, must be constructed and will be dedicated to the city prior to the final plat application.

Water Supply and Distribution

An eight (8) inch public water main is located in the west right of way of Davidson Road extending to the northwest corner of the area of request.

The applicant has proposed the extension of that public water main south and east, bisecting the site, providing service to all of the proposed lots.

Extension of the water supply to serve this property is required as outlined in Municipal Code 43-32.

Connection to the public water supply system for domestic service is a building permit requirement per Municipal Code 43-32 for all new buildings.

#### Sanitary Sewer Collection and Disposal

An eight (8) inch public sewer main is located in a dedicated utility easement extending along the east side of the area of request. Also, an eight (8) inch public sewer main is located in a dedicated utility easement that passes through the northern half of the area of request.

The applicant has proposed constructing a public sewer main south, bisecting the site, providing service to all of the proposed lots.

Connection to the public sanitary sewer system for domestic service is a building permit requirement per Municipal Code Chapter 43-109 for all lots.

#### Streets and Sidewalks

Access to the area of request is available from Davidson Road. Davidson Road is classified as a local street in the 2008 Comprehensive Plan. Davidson Road is a two (2) lane, 20-foot wide, uncurbed, asphalt concrete roadway. Current code requires a total, half street right-of-way width from center line of twenty five (25) feet for local roads and presently, Davidson Road has twenty five (25) feet of right-of-way adjacent to and parallel to the west side of the area of request.

Right of way grants to the city are not required with this application.

Davidson Road is uncurbed and does not meet city's standards for a local street. As per Section 38-45, half street improvements along the frontage of Davidson Road will be completed prior to the final plat application. The applicant proposes to construct a public local street, Allison Way, with sidewalks to service the area of request.

Improvement plans for the street and sidewalks must be prepared by a registered professional engineer and be submitted to staff for plan review and approval.

The comprehensive plan dictates the connection of internal streets within the square mile sections that are designated as future collector roads. The thoroughfare plan does not designate Davidson Road or S.E. 6th Street as potential collector roads in the plan. The subdivision plan also requires the connection of roads in a proposed subdivision if the proposal contains fifty or more proposed lots. This application falls below that threshold at twenty five lots. The applicant proposes to construct a public local street that is a cul de sac with one point of ingress / egress. A midpoint bulb out is also proposed to benefit fire engine maneuverability in the subdivision.

#### Drainage and Flood Control, Wetlands, and Sediment Control

Drainage to the area of request is from the north and the east, travelling to the south via both overland flow from the east and through a concrete channel from the north. Currently, the area of request is undeveloped.



The concrete channel from the north drains the previous Cassidy Cove subdivision. The drainage from the east is the S.E. 4th and S.E. 6th Street Additions and the undeveloped area adjacent to Saint Paul Avenue. These two runoffs combine on this property and make their way south to a concrete channel located in the Three Oaks Addition.

The applicant has proposed a large, high capacity detention pond that has multiple barrels releasing water into the same creek that drains to Three Oaks. The current creek runs at a flow rate of roughly 645 c.f.s. as is. The proposed detention improvement will reduce the runoff into the creek to 583 c.f.s. The accompanying drainage map shows the improvement would reduce the flow rate to Three Oaks Addition by approximately 10%.

The proposed detention facility will be built at the meeting point of the two creeks entering the proposed subdivision. This creates the opportunity to slow down water at the point it is currently combining to continue south to Three Oaks. It is an optimal point to achieve a slowdown of the creeks. The pond will be a benefit to the area's drainage.

The area of request is not affected by flood zone AE (the 100-year floodplain) as shown on the effective Flood Insurance Rate Map (FIRM) number 40109C0330H, dated December 12, 2009.

No identified wetlands are located on or abutting the area of request as shown on the Choctaw quadrangle of the 1989 National Wetlands Inventory map as prepared by the United States Department of the Interior Fish and Wildlife Service.

All future development on the proposed tracts must conform to the applicable requirements of Municipal Code Chapter 13, "Drainage and Flood Control."

Resolution 84-20 requires that developers install and maintain sediment and/or erosion controls in conjunction with their construction activities. Any proposed development must conform to the applicable requirements of Municipal Code Chapter 43, "Erosion Control." Sediment control plans must be submitted to and approved by the city before any land disturbance is done on-site. The developer is responsible for the cleanup of sediment and other debris from drainage pipes, ditches, streets and abutting properties as a result of his activities.

#### Easements and Right-of-Way

The required easements and existing right of way for the area of request are illustrated on the preliminary plat and will be dedicated to the city when the final plat is filed.

All easements and right of way dedications are to comply with Code Sections 38-41 and 38-44.

#### **Fire Marshal's Comments:**

The Fire Department has reviewed this preliminary plat. The property is required to meet and maintain the requirements of Midwest City Ordinances, Section 15.

**Staff Comments:**

The purpose of this preliminary plat is to create 25 single family residential lots. The area of request is zoned R-6, Single Family Detached Residential. If this proposed subdivision is approved, all development will be required to meet the regulations for the R-6 district as stated in the Zoning Ordinance. These regulations include:

- At least 70% of the dwelling units within the development must adhere to section 5.15 of the Zoning Ordinance pertaining to single-family driveways and garages
- The exterior of each home must be constructed of a minimum of 85% masonry materials, 100% facing the street
- 25' front setback, 20' rear setback, 7' side setbacks
- 40% maximum building coverage
- Minimum 5:12 roof pitch

One new curb-cut along Davidson Road will provide access to the area of request. As this subdivision is creating less than 50 lots, a secondary point of access is not required.

The Park Land Review Committee met on March 8, 2019 to review the proposed subdivision. As the subdivision is anticipated to generate far less than 2,500 new residents, the code does allow the applicant to pay a fee in lieu of a park land dedication. The applicant requested the fee in lieu option and the committee voted to approve the request. The fee will be determined by staff and the applicant as required by code and paid prior to application for the final plat.

Section 38-53.4 of the 2012 Midwest City Subdivision Regulations requires the applicant to submit a Tree Canopy Management Plan with the preliminary plat application. The applicant has provided this plan. The Subdivision Regulations allow developers to preserve trees with two (2) options. The first option is standard compliance wherein the applicant may only remove trees from proposed street right-of-ways, proposed utility easements and proposed areas for site features required by the Subdivision Regulations. The second option allows the developer to create a cluster development, preserving trees in designated open spaces. The applicant has chosen to pursue the first option, standard compliance. Under this requirement of the code, the applicant may only remove trees from the proposed right-of-ways, easements, and areas of site features. All other trees on the lot must remain through the entire platting process.

The applicant has requested a waiver to Section 38-48.6(B), Lot Orientation Restrictions which states that lots are prohibited from backing to Local Streets. In the design of this subdivision, lots 9, 10 and a small portion of lot 8, block 2 back onto Davidson Road, a local street. The applicant chose to move forward with this design to accommodate the necessary size of the detention area. Davidson Road is not a high traffic road and this particular portion of Davidson only provides access to two (2) residential properties and dead-ends at the end of this proposed subdivision. The applicant's letter requesting the waiver is included in this report. For these reasons, staff recommends approval of this request.

Since this preliminary plat meets the subdivision regulations, staff recommends approval of the preliminary plat of Cassidy Cove Section III subject to these comments.

April 23, 2019

**Action Required:** Approve or reject the preliminary plat of Cassidy Cove Section III located on the property as noted herein, subject to the staff comments and found in the April 23, 2019 agenda packet and made a part of PC- 1990 file.

A handwritten signature in black ink, appearing to read "Billy Harless". The signature is fluid and cursive, with a long horizontal stroke at the end.

Billy Harless, AICP  
Community Development Director

KG



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

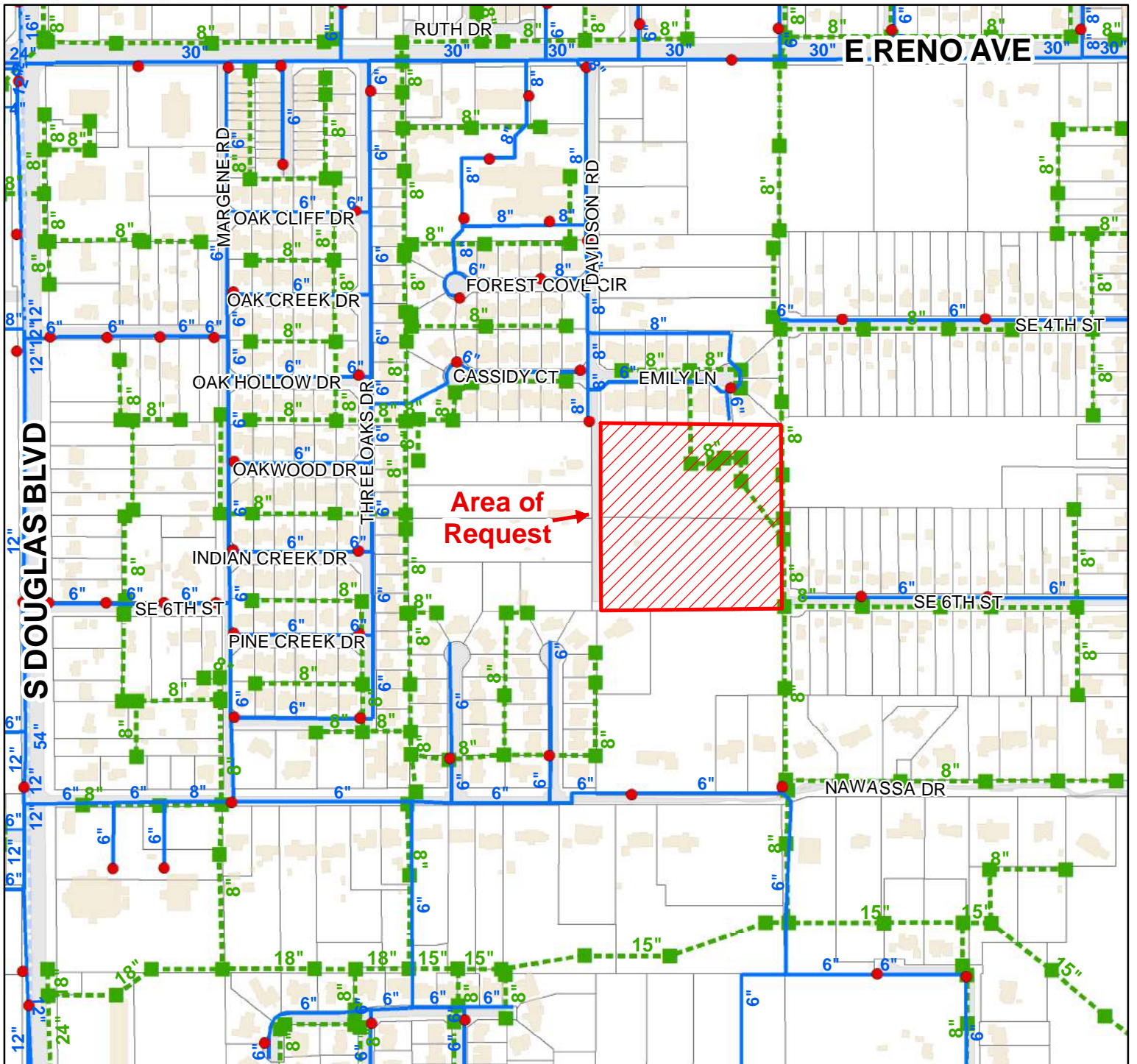
**Date:** May 28, 2019

**Subject:** (PC – 1990) Discussion and consideration of approval of the proposed preliminary plat of Cassidy Cove Section III, described as a part of the NW/4 of Section 1, T11N, R2W, located at 500 and 600 Davidson Road. (Continued from May 14, 2019 Council meeting.)

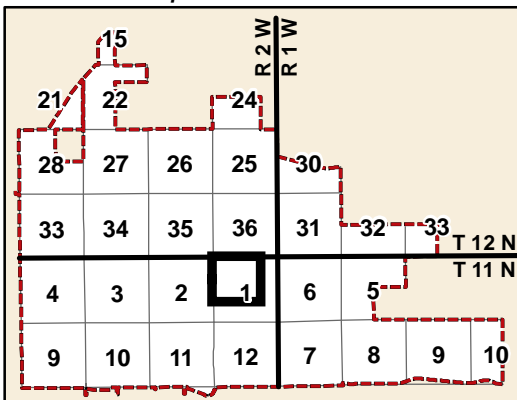
After careful consideration and discussion with Tim Johnson of Johnson and Associates, the City's consulting engineer for drainage requirements, we are requesting this item be continued until the May 28<sup>th</sup> regularly scheduled Council Meeting. This would give the City's consulting engineer, Johnson and Associates, a chance to complete a field review and analysis of the private and public drainage facilities and determine downstream system inadequacies as outlined in the attached letter from Mr. Johnson.

**Action Required:** Action is at the discretion of the Council.

Billy Harless, AICP  
Community Development Director



Locator Map



Water/Sewer Legend

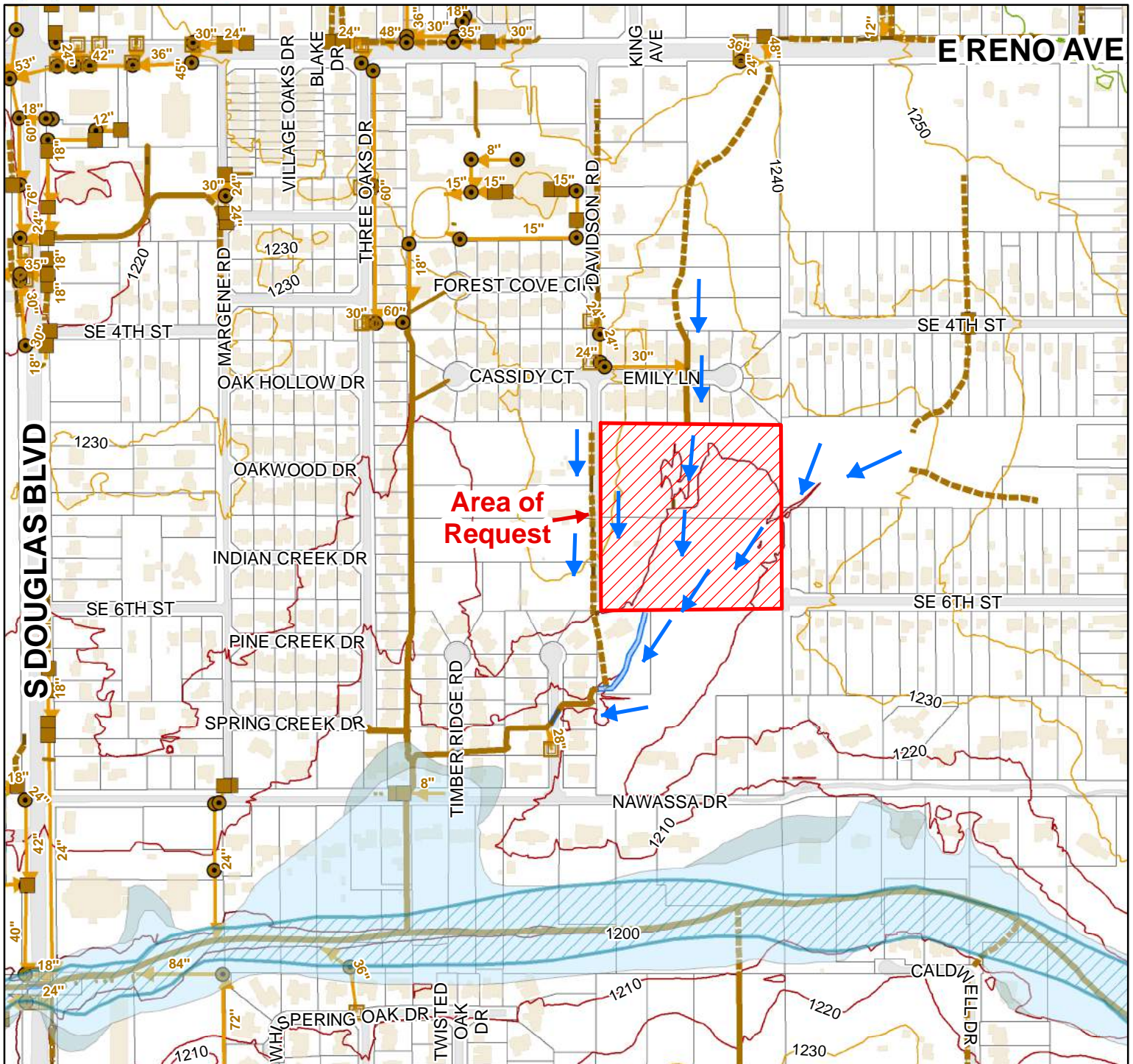
- ( ) Fire Hydrants
- Water Lines
  - Distribution
  - Well
  - OKC Cross Country
  - Sooner Utilities
  - Thunderbird
  - Unknown
- " Sewer Manholes
- Sewer Lines

**WATER/SEWER LINE  
LOCATION MAP FOR  
PC-1990  
(NW/4, Sec. 1, T11N, R2W)**

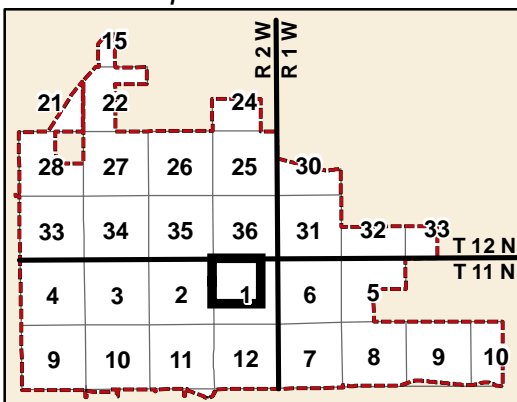
0 500 1,000 Feet

1 inch = 500 feet

THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



Locator Map



- Drainage Legend**
- Curb Inlets
  - Inlets
  - Junction Box
  - Culverts
  - Flumes
  - Developed Channels
  - Trickle Channels
  - Undeveloped Channels
  - Storm Lines
  - Creeks
- ELEVATION**
- 1166-1204 ft
  - 1204-1228 ft
  - 1228-1250 ft
  - 1250-1278 ft
  - 1278-1324 ft

**2009 FEMA Floodplains**

- 500-yr floodplain
- 100-yr floodplain
- 2009 FEMA Floodway

**DRAINAGE  
LOCATION MAP FOR  
PC-1990**

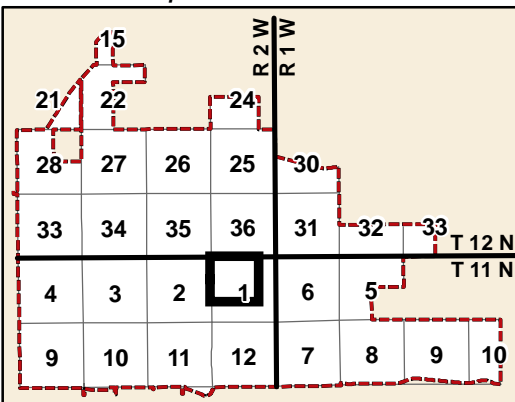
(NW/4, Sec. 1, T11N, R2W)



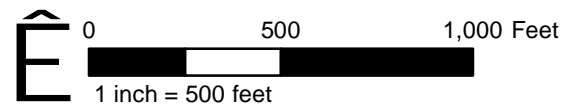
THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



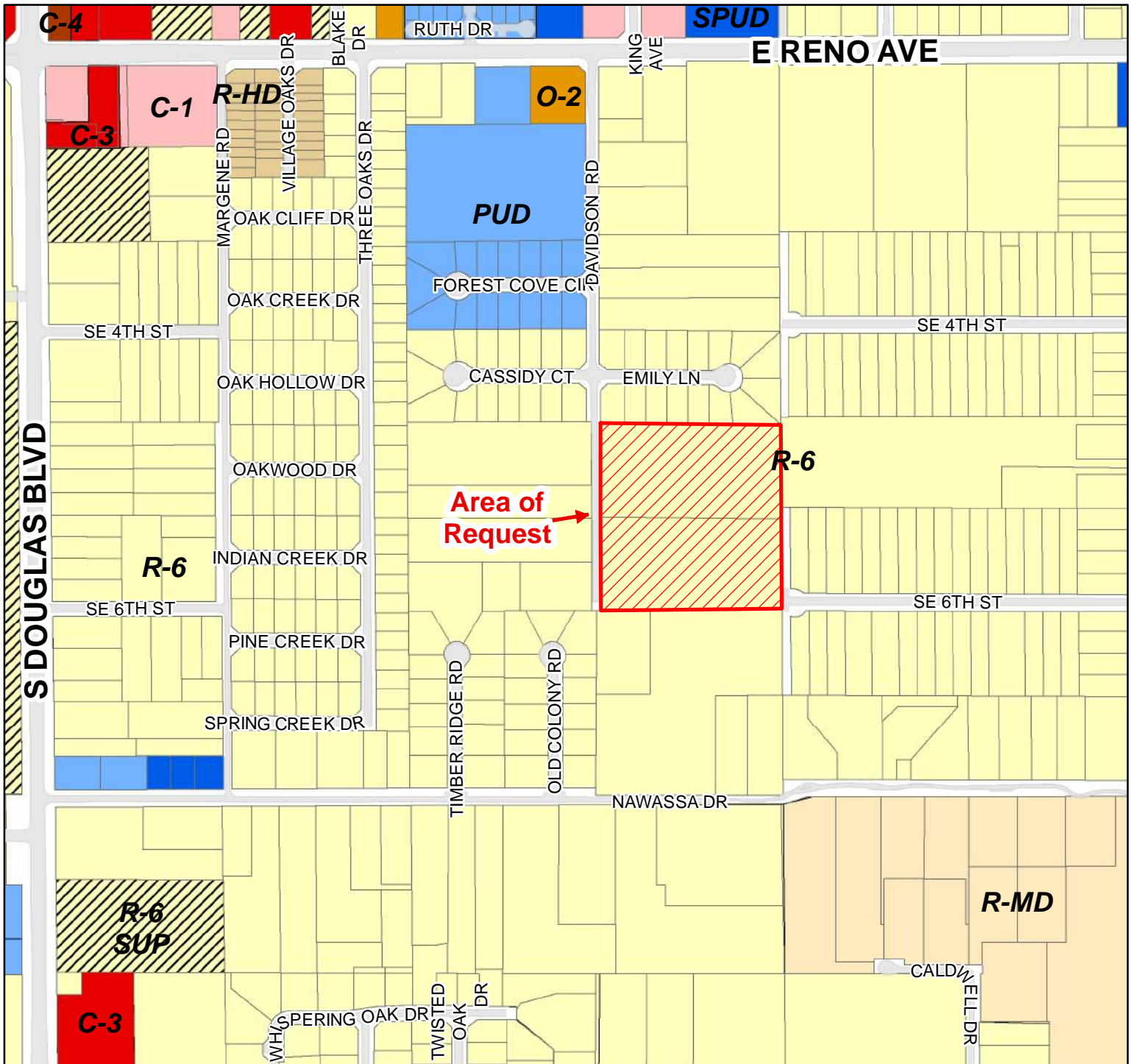
Locator Map



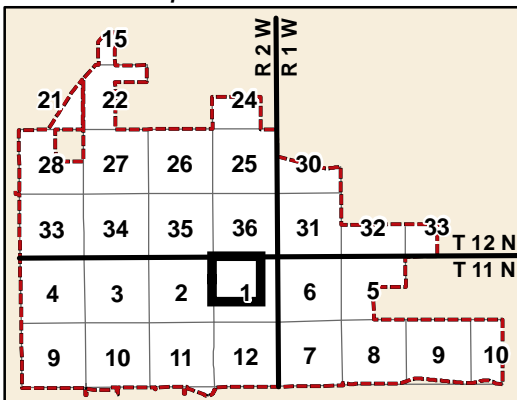
**2017 DOP (AERIAL) VIEW FOR  
PC-1990  
(NW/4, Sec. 1, T11N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



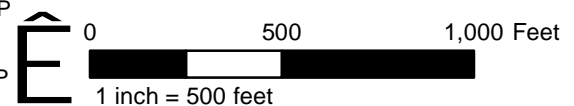
Locator Map



Current Zoning Legend

A-1	I-2 SUP	R-35
A-1 SUP	I-3	R-2F
C-1	O-1	R-MD
C-1 SUP	O-1 SUP	R-MD SUP
C-2	O-2	R-HD
C-3	O-2 SUP	R-HD SUP
C-3 SUP	R-6	R-MH-1
C-4	R-6 SUP	R-MH-2
C-4 SUP	R-8	PUD
I-1	R-10	SPUD
I-2	R-22	HOS
		HOS SUP

**ZONING MAP FOR  
PC-1990  
(NW/4, Sec. 1, T11N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



JCH Development  
P.O. Box 30706  
Midwest City, OK 73130  
Phone: 405.739.0760

March 13, 2019

City of Midwest City  
100 N. Midwest Blvd.  
Midwest City, OK 73110

RE: Request to waiver Section 38-48.6 (B)

To Whom it May Concern,

JCH Development requests a waiver of Section 38-48.6 (B) for the proposed Cassidy Cove, Section 3 Addition.

Section 38-48.6 (B) states that lots are prohibited from backing to local streets. This configuration is necessary to accommodate the size of the detention area. Only 2 lots outside of this proposed subdivision derive access from this part of Davidson. Only 2 lots back onto Davidson. Back fences will observe the same building line as Lot 1- Block 1, and Lot 1- Block 2 at the subdivision entry.

Thank you,

A handwritten signature in black ink, appearing to read "Jim Campbell", with a long, sweeping flourish extending to the right.

Jim Campbell  
JCH Development

# PRELIMINARY PLAT OF CASSIDY COVE SECTION 3

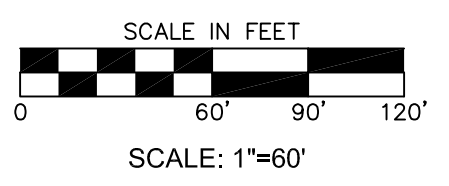
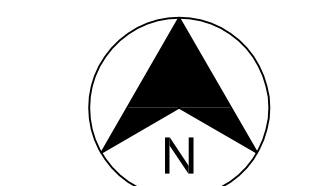
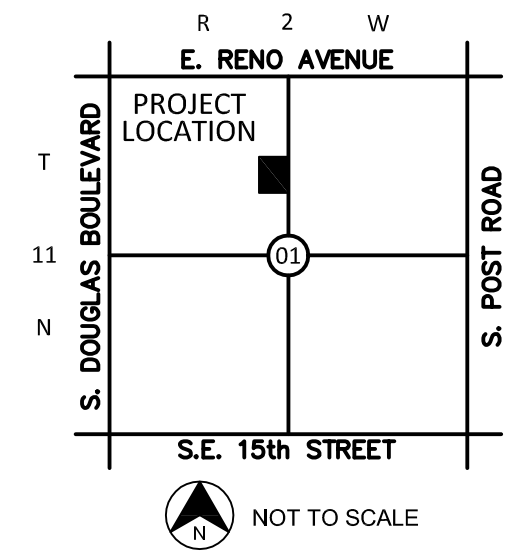
A PART OF THE NW/4 OF SECTION 01, T11N, R2W, I.M.  
MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA

LEGAL DESCRIPTION:  
PART OF THE NORTHWEST QUARTER (NW/4) OF SECTION ONE (1), TOWNSHIP ELEVEN (11) NORTH, RANGE TWO (2) WEST OF THE INDIAN MERIDIAN, MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER (SE/4) OF GOVERNMENT LOT THREE (3) OF SAID SECTION ONE (1); THENCE S00°00'50"E ALONG THE EAST LINE OF THE NORTHWEST QUARTER (NW/4) OF SAID SECTION ONE (1), A DISTANCE OF 660.13 FEET TO THE POINT OF BEGINNING.  
THENCE CONTINUING S00°00'50" E ALONG THE EAST LINE OF THE NORTHWEST QUARTER (NW/4) OF SAID SECTION ONE (1), A DISTANCE OF 328.50';  
THENCE N89°36'28"W A DISTANCE OF 631.26' TO A POINT 25.00' EAST OF THE WEST LINE OF THE SOUTHEAST QUARTER (SE/4) OF GOVERNMENT LOT 3;  
THENCE N00°06'47"W A DISTANCE OF 25.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF THE SOUTHEAST QUARTER (SE/4) OF GOVERNMENT LOT THREE (3) A DISTANCE OF 329.93';  
THENCE S89°39'36"E A DISTANCE OF 631.83' TO THE POINT OF BEGINNING.

AND

THE SOUTH HALF (S/2) OF THE SOUTHEAST QUARTER (SE/4) OF LOT THREE (3) OF SECTION ONE (1), TOWNSHIP ELEVEN (11) NORTH, RANGE TWO (2) WEST OF THE INDIAN MERIDIAN, OKLAHOMA COUNTY, OKLAHOMA, AS SHOWN BY THE GOVERNMENT PLAT THEREOF.

CONTAINING 425,135.76 SQUARE FEET OR 9.76 ACRES, MORE OR LESS.



BASIS OF BEARING: AN ASSUMED BEARING OF N00°28'29" W AS THE WEST LINE OF SE/4 OF GOVERNMENT LOT 3, PER STATE PLANE GRID.

OWNER/SUBDIVIDER:  
JCH DEVELOPMENT LLC  
P.O. BOX 30706  
MIDWEST CITY, OK 73140  
405-739-0760

SURVEYOR:  
GOLDEN LAND SURVEYING  
920 N.W. 139TH PKWY  
OKLAHOMA CITY, OK 73013  
405-802-7883

ENGINEER:  
CEDAR CREEK ENGINEERING  
P.O. BOX 14534  
OKLAHOMA CITY, OK 73113  
405-778-3385

### LEGEND

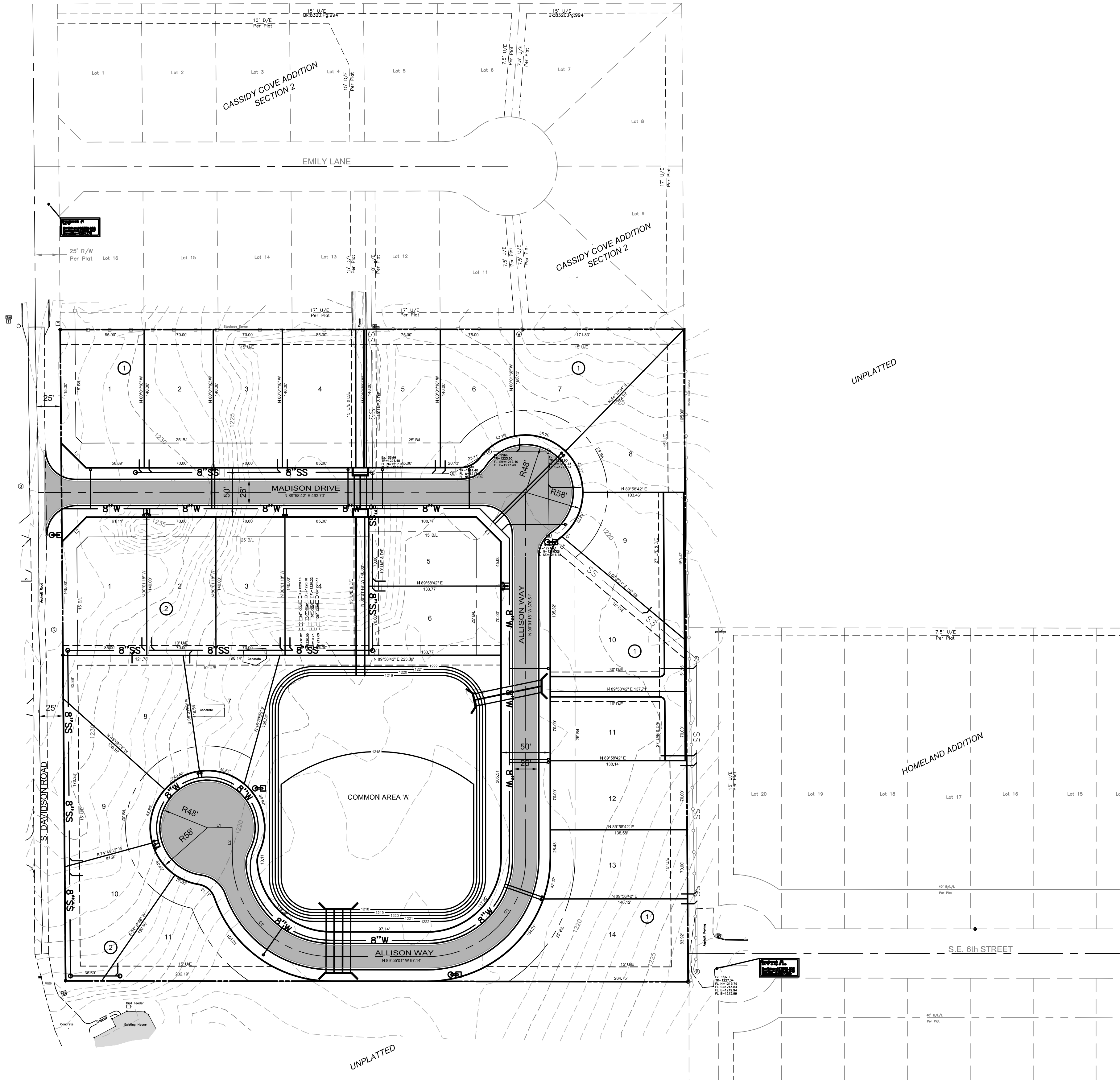
	BOUNDARY LINE		EX. POWER POLE
	RIGHT OF WAY LINE		PROP. POWER POLE
	EASEMENT LINE		EX. TELEPHONE PED.
	EXISTING CONCRETE CURB AND GUTTER		EX. TELEPHONE MANHOLE
	PROPOSED CONCRETE CURB AND GUTTER		PROP. WATER METER
	PROPOSED FIRE LANE STRIPING		EX. TRAFFIC SIGNAL LIGHT
	OVERHEAD ELECTRIC		EX. TRAFFIC CONTROL BOX
	UNDERGROUND ELECTRIC		EX. FLAG POLE
	GAS LINE		EX. YARD LIGHT
	UNDERGROUND TELEPHONE		EX. GREASE TRAP
	UNDERGROUND FIBER OPTIC		EX. ELECT. METER
	SANITARY SEWER		PROP. ELECT. METER
	WATERLINE		EX. AIR CONDITIONER
	BENCHMARK		EX. SIGNAGE
	FIRE HYDRANT		EX. LIGHT POLE
	WATER VALVE		PROP. LIGHT POLE
	EX. WATER METER PIT		EX. BOLLARD
	EX. WATER METER		PROP. INLETS (SEE GRADING PLAN FOR TYPE)
	PROP. WATER METER		VERTICAL SEPARATION REQUIREMENT
	EX. SPRINKLER VALVE		
	EX. AUTO SPRINKLER		
	EX. ELECT. PEDESTAL		
	EX. ELECT. TRANSFORMER		
	EX. ELECT. METER		
	PROP. ELECT. METER		
	EX. AIR CONDITIONER		
	EX. SIGNAGE		
	EX. LIGHT POLE		
	PROP. LIGHT POLE		
	EX. BOLLARD		

CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	157.26'	100.00	N 00°06'16" W	N 45°01'50" E	141.55'
C2	156.11'	100.00	N 00°33'27" E	N 45°11'45" W	140.73'

CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH
C1	3.56'	25.00	N 81°50'57" E	S 44°05'34" W	3.55'
C2	17.47'	25.00	N 49°57'40" E	S 19°59'52" W	17.12'

LINE #	LENGTH	DIRECTION
L1	25.00'	N 89°31'31" E
L2	31.48'	S 00°28'29" E

LINE #	LENGTH	DIRECTION
L1	35.49'	S 45°14'53" E
L2	35.22'	N 44°45'7" E
L3	35.36"	S 45°01'18" E



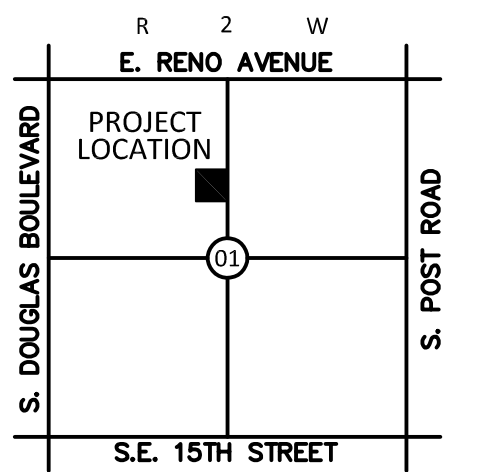
DRAINAGE AREA = 86.4 ACRES  
 INFLOW Q = 383.6 CFS

DRAINAGE AREA = 58.3 ACRES  
 INFLOW Q = 259.1 CFS

MULTIPLE PIPE DISCHARGE TO  
 SPREAD OUT WATER AND  
 ENERGY DISSIPATORS.  
 CURRENT FLOW = 643.2 CFS  
 PROPOSED FLOW = 662.1 CFS  
 DETENTION FLOW = 583.6 CFS  
 REDUCED FLOW = 78.5 CFS

# DRAINAGE PLAN

LOCATION MAP:



NOT TO SCALE

PROJECT:

**CASSIDY COVE**

MIDWEST CITY, OKLAHOMA

PROJECT NUMBER: 19013  
 DRAWING DATE: 02.25.19  
 ISSUE DATE: 02.25.19

SEAL:

SUBMITTAL:

**PRELIMINARY PLAT  
 SUBMITTAL**

REVISIONS:

MARK	DATE	DESCRIPTION

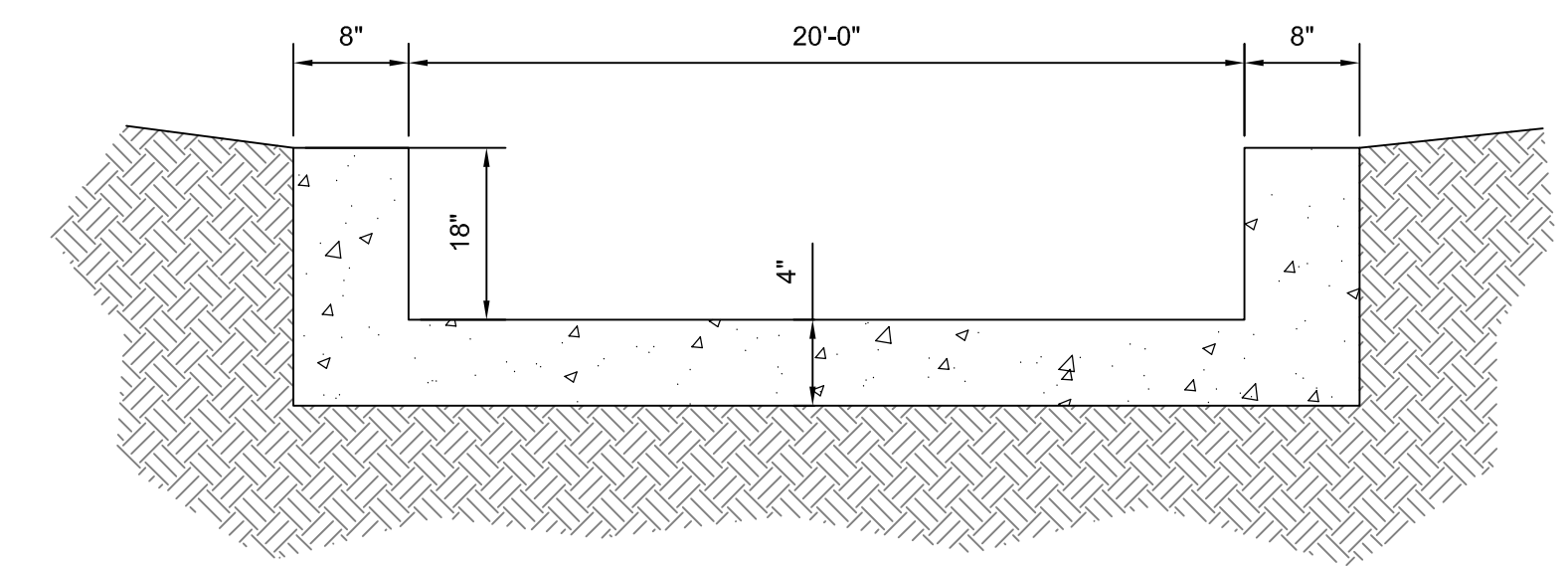
THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF CEDAR CREEK CONSULTING INC. THIS SHEET IS NOT TO BE USED FOR CONSTRUCTION UNLESS THE ISSUE DATE IN THE TITLE BLOCK COINCIDES WITH OR POST DATES THE DRAWING DATE. ANY CHANGES MADE FROM THESE PLANS WITHOUT CONSENT OF CEDAR CREEK CONSULTING INC. ARE UNAUTHORIZED, AND SHALL RELIEVE CEDAR CREEK CONSULTING OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING OUT OF SUCH CHANGES.

DRAWING TITLE:

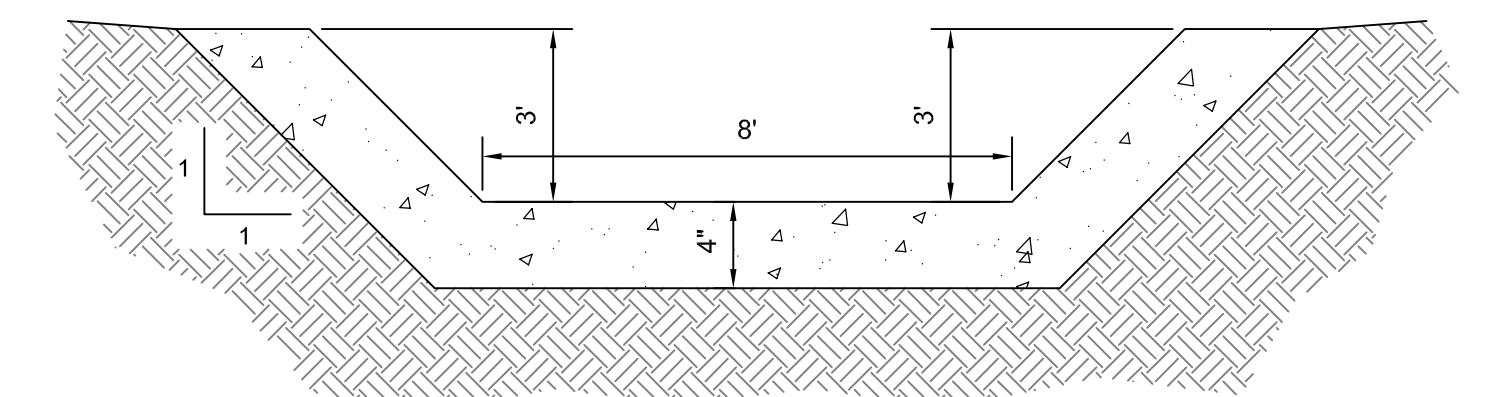
**DRAINAGE  
 MAP**

SHEET:

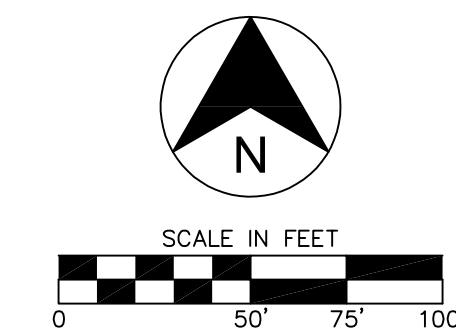
**C2.00**



**CONCRETE FLUME W/ CURB DETAIL**  
 NOT TO SCALE



**CONCRETE CHANNEL DETAIL**  
 NOT TO SCALE



# Drainage Calculations

FOR

**Cassidy Cove, Section 3  
Midwest City, Oklahoma**

Prepared by:

**Cedar Creek Consulting, Inc**

PO Box 14534

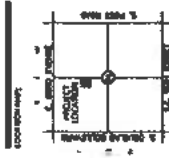
Oklahoma City, OK 73113

Phone: 405-778-3385

CCC Job #19013

**February 26, 2019**





CASSIDY COVE

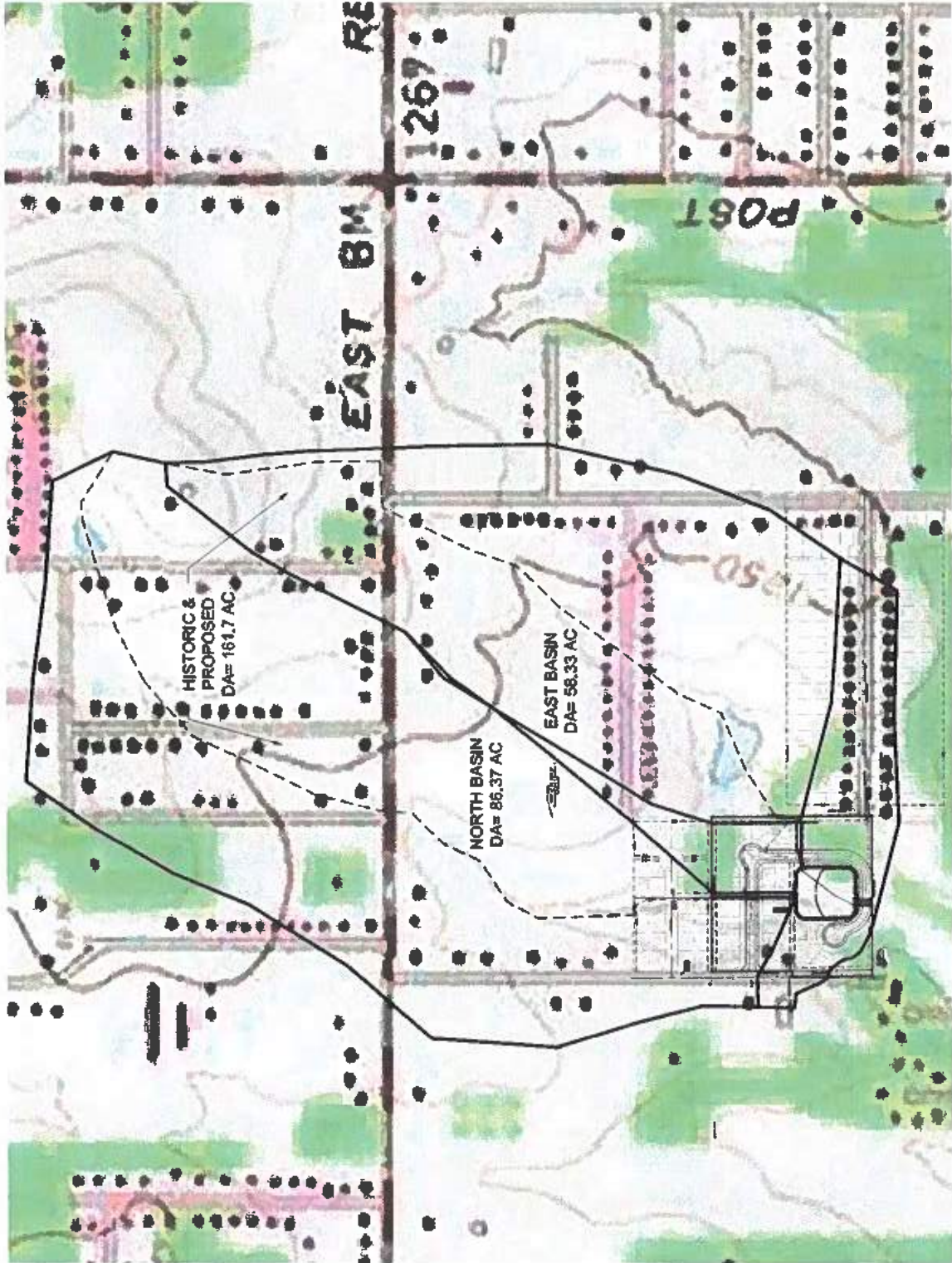
PROJECT NUMBER: 1267  
PROJECT OWNER: [unreadable]  
DATE: [unreadable]

REVISIONS  
DATE: [unreadable]  
BY: [unreadable]

TABLE with multiple rows and columns, likely a revision log or data table.

OVERALL DRAINAGE MAP

DA1



## DRAINAGE BASIN PEAK RUNOFF CALCULATION SPREADSHEET

**PROJECT NAME:** Caesdy Cove Section 3  
**DESCRIPTION:** Historic **DATE:** 2/28/2018  
**OFFICE PROJECT NUMBER:** 18013.0 **DESIGNER:** jd  
**STATE PROJECT NUMBER:** **SPREADSHEET FILE NAME:** drainage calc  
**OKLAHOMA CLIMATE ZONE:** 2  
**DRAINAGE BASIN, in acres:** 161.7000  
**AVERAGE SLOPE OF THE DRAINAGE BASIN, in foot/foot:** 0.0100

In order to determine an accurate runoff coefficient, a weighted average of the drainage basin will be made.

Future Anticipated Land use:	Percent of Total Area (%)	*Runoff Coefficient	Partial Area & Coefficient Product
Natural Grass:	8	0.5	7.2768
Pasture:	8	0.45	0
Cultivated:	0	0	0
Commercial:	0	0.9	0
Residential:	91	0.7	103.0029
Paved:	0	0.95	0
<b>**Percentage of Total Area:</b>	<b>100</b>	<b>Sum of Coefficient Products:</b>	<b>110.2794</b>

To calculate the Weighted "C" Coefficient, divide the Sum of Coefficient Products by the total Drainage Basin.

**WEIGHTED "C" COEFFICIENT TO BE USED: 0.68**

Land Use	Coefficient	Land Use	Coefficient
Downtown Business Areas	0.85 - 0.95	Streets, Drives and Walks	0.90 - 0.95
Neighborhood Business Areas	0.60 - 0.75	Lawns, Parks and Cemeteries	0.30 - 0.50
Residential Areas	0.55 - 0.70	Agricultural and Pasture Land	0.50 - 0.70
Industrial Areas	0.70 - 0.80	Woodlands and Timber	0.05 - 0.25

### A. Overland Flow:

Length of overland flow, L<sub>o</sub>, in feet: 1025 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Overland average slope, S<sub>o</sub>, in feet: 0.034 (As determined by survey, USGS mapping, aerial survey, etc.)

If the overland flow path crosses different types of ground cover a weighted "K" factor must be calculated.

Ground Cover	Percent of Total Length (%)	K Factor	Partial Length & K Factor Product
Pavement:	0	0.372	0
Commercial:	0	0.445	0
Residential:	100	0.511	523.775
Rocky, Bare Soil:	0	0.604	0
Cultivated:	0	0.775	0
Timber, Thin Grass:	0	0.942	0
Average Pasture:	0	1.04	0
Tall Grass:	0	1.113	0
<b>**Percentage of Total Length:</b>	<b>100</b>	<b>Sum of "K" Factor Products:</b>	<b>523.775</b>

**WEIGHTED OVERLAND "K" FACTOR TO BE USED: 0.6110**

Therefore the time of concentration for the overland flow can be calculated from the equation:

$$T_o = K(L_o)^{0.37} / S_o^{0.2} \quad T_o = 13.06 \text{ minutes}$$

### B. Channel Flow:

Length of channel flow, L<sub>c</sub>, in feet: 3090.00 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel average slope, S<sub>c</sub>, in feet: 0.0130 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel condition "K" Factor: 0.0056

Channel Condition	"K" Factor	Channel Condition	"K" Factor
Straight, clean stream	0.00582	Meandering stream with pools	0.0102
Average stream, few obstructions	0.00835	V-Ditch	0.01252

The time of concentration for the Channel flow can be calculated from the equation:

$$T_c = K(L_c)^{0.77} / S_c^{0.385} \quad T_c = 15.30 \text{ minutes}$$

**TIME OF CONCENTRATION TO BE USED, TC = 28.36 minutes**

$$I = a / (TC + b)$$

	2 year	5 year	10 year	25 year	50 year	100 year
a =	104.333	79.655	67.535	101.482	98.925	102.769
b =	17.298	14.826	15.682	16.774	15.865	15.860
c =	0.935	0.825	0.611	0.898	0.775	0.769

Rainfall Intensity for the listed Event:	I 2 =	I 5 =	I 10 =	I 25 =	I 50 =	I 100 =
	2.93	3.56	4.04	4.71	5.24	5.76 in/hour

**Q = A x C x I**  
 A - Area in units of acres  
 C - Runoff coefficient of the drainage basin  
 I - Average historical rainfall intensity in units of inches/hour

<b>DRAINAGE BASIN RUNOFF FOR THE 100 YEAR RAINFALL EVENT:</b>	635.41 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 50 YEAR RAINFALL EVENT:</b>	577.34 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 25 YEAR RAINFALL EVENT:</b>	519.44 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 10 YEAR RAINFALL EVENT:</b>	445.99 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 5 YEAR RAINFALL EVENT:</b>	392.93 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 2 YEAR RAINFALL EVENT:</b>	323.21 cfs

## DRAINAGE BASIN PEAK RUNOFF CALCULATION SPREADSHEET

**PROJECT NAME:** Cassidy Cove Section 3  
**DESCRIPTION:** Developed **DATE:** 2/28/2019  
**OFFICE PROJECT NUMBER:** 19010.0 **DESIGNER:** ja  
**STATE PROJECT NUMBER:** **SPREADSHEET FILE NAME:** drainage calc  
**OKLAHOMA CLIMATE ZONE:** 2  
**DRAINAGE BASIN, in acres:** 181.7000  
**AVERAGE SLOPE OF THE DRAINAGE BASIN, in foot/foot:** 0.0100

In order to determine an accurate runoff coefficient, a weighted average of the drainage basin will be made.

Future Anticipated Land Use:	Percent of Total Area (%)	*Runoff Coefficient	Partial Area & Coefficient Product
Natural Grass:	0	0.6	0
Pasture:	0	0.45	0
Cultivated:	0	0	0
Commercial:	0	0.8	0
Residential:	100	0.7	113.18
Paved:	0	0.95	0
<b>**Percentage of Total Area:</b> 100			<b>Sum of Coefficient Products:</b> 113.18

To calculate the Weighted "C" Coefficient, divide the Sum of Coefficient Products by the total Drainage Basin.

**WEIGHTED "C" COEFFICIENT TO BE USED: 0.70**

Land Use	Coefficient	Land Use	Coefficient
Downtown Business Areas	0.85 - 0.95	Streets, Drives and Walks	0.90 - 0.95
Neighborhood Business Areas	0.80 - 0.75	Lawns, Parks and Cemeteries	0.30 - 0.50
Residential Areas	0.55 - 0.70	Agricultural and Pasture Land	0.50 - 0.70
Industrial Areas	0.70 - 0.80	Woodlands and Timber	0.05 - 0.25

**A. Overland Flow:**

Length of overland flow, L<sub>o</sub>, in feet: 1025 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Overland average slope, S<sub>o</sub>, in feet: 0.034 (As determined by survey, USGS mapping, aerial survey, etc.)

If the overland flow path crosses different types of ground cover a weighted "K" factor must be calculated.

Ground Cover	Percent of Total Length (%)	K Factor	Partial Length & K Factor Product
Pavement:	0	0.372	0
Commercial:	0	0.445	0
Residential:	100	0.511	523.775
Rocky, Bare Soil:	0	0.804	0
Cultivated:	0	0.775	0
Timber, Thin Grass:	0	0.942	0
Average Pasture:	0	1.04	0
Tall Grass:	0	1.113	0
<b>**Percentage of Total Length:</b> 100			<b>Sum of "K" Factor Products:</b> 523.775

**WEIGHTED OVERLAND "K" FACTOR TO BE USED: 0.5110**

Therefore the time of concentration for the overland flow can be calculated from the equation:

$$T_o = K(L_o)^{0.37} / S_o^{0.2} \quad T_o = 13.06 \text{ minutes}$$

**B. Channel Flow:**

Length of channel flow, L<sub>c</sub>, in feet: 3080.00 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel average slope, S<sub>c</sub>, in feet: 0.0130 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel condition "K" Factor: 0.0058

Channel Condition	"K" Factor	Channel Condition	"K" Factor
Straight, clean stream	0.00592	Meandering stream with pools	0.0102
Average stream, few obstructions	0.00835	V-Ditch	0.01252

The time of concentration for the Channel flow can be calculated from the equation:

$$T_c = K'(L_c)^{0.77} / S_c^{0.585} \quad T_c = 15.30 \text{ minutes}$$

**TIME OF CONCENTRATION TO BE USED, TC = 28.36 minutes**

$$I = a / (TC + b)$$

	2 year	5 year	10 year	25 year	50 year	100 year
a =	104.333	79.855	67.535	101.462	88.925	102.769
b =	17.288	14.828	15.892	16.774	15.865	15.860
c =	0.935	0.825	0.811	0.806	0.775	0.760

Rainfall Intensity for the listed Event:	12 =	15 =	10 =	125 =	150 =	100 =
	2.93	3.56	4.04	4.71	5.24	5.76 in/hour

A - Area in units of acres

$$Q = A \times C \times I$$

C - Runoff coefficient of the drainage basin

I - Average historical rainfall intensity in units of inches/hour

<b>DRAINAGE BASIN RUNOFF FOR THE 100 YEAR RAINFALL EVENT:</b>	652.18 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 50 YEAR RAINFALL EVENT:</b>	593.09 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 25 YEAR RAINFALL EVENT:</b>	533.15 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 10 YEAR RAINFALL EVENT:</b>	457.76 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 5 YEAR RAINFALL EVENT:</b>	403.30 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 2 YEAR RAINFALL EVENT:</b>	331.74 cfs

## DRAINAGE BASIN PEAK RUNOFF CALCULATION SPREADSHEET

**PROJECT NAME:** Casleidy Cove Section 3  
**DESCRIPTION:** East Basin **DATE:** 2/26/2019  
**OFFICE PROJECT NUMBER:** 10010.0 **DESIGNER:** jd  
**STATE PROJECT NUMBER:** **SPREADSHEET FILE NAME:** drainage calc  
**OKLAHOMA CLIMATE ZONE:** 2  
**DRAINAGE BASIN, in acres:** 50.3300  
**AVERAGE SLOPE OF THE DRAINAGE BASIN, in foot/foot:** 0.0100

In order to determine an accurate runoff coefficient, a weighted average of the drainage basin will be made.

Future Anticipated Land use:	Percent of Total Area (%)	*Runoff Coefficient	Partial Area & Coefficient Product
Natural Grass:	0	0.5	0
Pasture:	0	0.45	0
Cultivated:	0	0	0
Commercial:	0	0.9	0
Residential:	100	0.7	40.631
Paved:	0	0.95	0
<b>**Percentage of Total Area:</b>	<b>100</b>	<b>Sum of Coefficient Products:</b>	<b>40.631</b>

To calculate the Weighted "C" Coefficient, divide the Sum of Coefficient Products by the total Drainage Basin.

**WEIGHTED "C" COEFFICIENT TO BE USED: 0.70**

Land Use	Coefficient	Land Use	Coefficient
Downtown Business Areas	0.85 - 0.95	Streets, Drives and Walks	0.90 - 0.95
Neighborhood Business Areas	0.60 - 0.75	Lawns, Parks and Cemeteries	0.30 - 0.50
Residential Areas	0.55 - 0.70	Agricultural and Pasture Land	0.50 - 0.70
Industrial Areas	0.70 - 0.80	Woodlands and Timber	0.05 - 0.25

**A. Overland Flow:**

Length of overland flow, L, in feet: **887** (As determined by survey, USGS mapping, aerial survey, etc.)  
 Overland average slope, S, in feet: **0.020** (As determined by survey, USGS mapping, aerial survey, etc.)

If the overland flow path crosses different types of ground cover a weighted "K" factor must be calculated.

Ground Cover	Percent of Total Length (%)	K Factor	Partial Length & K Factor Product
Pavement:	0	0.372	0
Commercial:	0	0.445	0
Residential:	100	0.511	453.257
Rocky, Bare Soil:	0	0.604	0
Cultivated:	0	0.775	0
Timber, Thin Grass:	0	0.942	0
Average Pasture:	0	1.04	0
Tall Grass:	0	1.113	0
<b>**Percentage of Total Length:</b>	<b>100</b>	<b>Sum of "K" Factor Products:</b>	<b>453.257</b>

**WEIGHTED OVERLAND "K" FACTOR TO BE USED: 0.5110**

Therefore the time of concentration for the overland flow can be calculated from the equation:

$$T_o = K(L)^{0.2} / S \quad T_o = 12.87 \text{ minutes}$$

**B. Channel Flow:**

Length of channel flow, L, in feet: **2320.00** (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel average slope, S, in feet: **0.0210** (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel condition "K" Factor: **0.0080**

Channel Condition	"K" Factor	Channel Condition	"K" Factor
Straight, clean stream	0.00592	Meandering stream with pools	0.0102
Average stream, few obstructions	0.00835	V-Ditch	0.01262

The time of concentration for the Channel flow can be calculated from the equation:

$$T_c = K(L)^{0.77} / S^{0.385} \quad T_c = 10.23 \text{ minutes}$$

**TIME OF CONCENTRATION TO BE USED, TC = 23.10 minutes**

$$I = a / (TC + b)$$

	2 year	5 year	10 year	25 year	50 year	100 year
a =	104.333	79.655	67.535	61.462	58.925	62.769
b =	17.298	14.828	16.882	16.774	15.865	15.660
c =	0.936	0.825	0.811	0.806	0.775	0.760

Rainfall Intensity for the Listed Event:	I <sub>2</sub> =	I <sub>5</sub> =	I <sub>10</sub> =	I <sub>25</sub> =	I <sub>50</sub> =	I <sub>100</sub> =
	3.29	3.97	4.48	5.21	5.78	6.34 in/hour

**Q = A x C x I**  
 A - Area in units of acres  
 C - Runoff coefficient of the drainage basin  
 I - Average historical rainfall intensity in units of inches/hour

<b>DRAINAGE BASIN RUNOFF FOR THE 100 YEAR RAINFALL EVENT:</b>	259.05 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 50 YEAR RAINFALL EVENT:</b>	235.03 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 25 YEAR RAINFALL EVENT:</b>	212.53 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 10 YEAR RAINFALL EVENT:</b>	182.99 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 5 YEAR RAINFALL EVENT:</b>	151.95 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 2 YEAR RAINFALL EVENT:</b>	134.18 cfs



## DRAINAGE BASIN PEAK RUNOFF CALCULATION SPREADSHEET

**PROJECT NAME:** Cassidy Cove Section 3  
**DESCRIPTION:** Main Channel **DATE:** 2/28/2019  
**OFFICE PROJECT NUMBER:** 19013.0 **DESIGNER:** jd  
**STATE PROJECT NUMBER:** **SPREADSHEET FILE NAME:** drainage calc  
**OKLAHOMA CLIMATE ZONE:** 2  
**DRAINAGE BASIN, in acres:** 55.3700  
**AVERAGE SLOPE OF THE DRAINAGE BASIN, in foot/foot:** 0.0100

In order to determine an accurate runoff coefficient, a weighted average of the drainage basin will be made.

Future Anticipated Land use:	Percent of Total Area (%)	*Runoff Coefficient	Partial Area & Coefficient Product
Natural Grass:	0	0.5	0
Pasture:	0	0.48	0
Cultivated:	0	0	0
Commercial:	0	0.9	0
Residential:	100	0.7	90.458
Paved:	0	0.95	0
<b>**Percentage of Total Area:</b>	<b>100</b>	<b>Sum of Coefficient Products:</b>	<b>90.458</b>

To calculate the Weighted "C" Coefficient, divide the Sum of Coefficient Products by the total Drainage Basin.

**WEIGHTED "C" COEFFICIENT TO BE USED:** 0.70

Land Use	Coefficient	Land Use	Coefficient
Downtown Business Areas	0.85 - 0.95	Streets, Drives and Walks	0.90 - 0.95
Neighborhood Business Areas	0.80 - 0.75	Lawns, Parks and Cemeteries	0.30 - 0.50
Residential Areas	0.55 - 0.70	Agricultural and Pasture Land	0.50 - 0.70
Industrial Areas	0.70 - 0.80	Woodlands and Timber	0.05 - 0.25

### A. Overland Flow:

Length of overland flow,  $L_o$ , in feet: 857 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Overland average slope,  $S_o$ , in feet: 0.028 (As determined by survey, USGS mapping, aerial survey, etc.)

If the overland flow path crosses different types of ground cover a weighted "K" factor must be calculated.

Ground Cover	Percent of Total Length (%)	K Factor	Partial Length & K Factor Product
Pavement:	0	0.372	0
Commercial:	0	0.445	0
Residential:	100	0.511	453.257
Rocky, Bare Soil:	0	0.604	0
Cultivated:	0	0.775	0
Timber, Thin Grass:	0	0.942	0
Average Pasture:	0	1.04	0
Tall Grass:	0	1.113	0
<b>**Percentage of Total Length:</b>	<b>100</b>	<b>Sum of "K" Factor Products:</b>	<b>453.257</b>

**WEIGHTED OVERLAND "K" FACTOR TO BE USED:** 0.5110

Therefore the time of concentration for the overland flow can be calculated from the equation:

$$T_o = K(L_o)^{0.37} / S_o^{0.2} \quad T_o = 12.87 \text{ minutes}$$

### B. Channel Flow:

Length of channel flow,  $L_c$ , in feet: 2320.00 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel average slope,  $S_c$ , in feet: 0.0210 (As determined by survey, USGS mapping, aerial survey, etc.)  
 Channel condition "K" Factor: 0.0059

Channel Condition	"K" Factor	Channel Condition	"K" Factor
Straight, clean stream	0.00592	Meandering stream with pools	0.0102
Average stream, few obstructions	0.00835	V-Ditch	0.01252

The time of concentration for the Channel flow can be calculated from the equation:

$$T_c = K(L_c)^{0.77} / S_c^{0.385} \quad T_c = 10.23 \text{ minutes}$$

**TIME OF CONCENTRATION TO BE USED: TC = 23.10 minutes**

$$I = a / (TC + b)$$

	<b>2 year</b>	<b>5 year</b>	<b>10 year</b>	<b>25 year</b>	<b>50 year</b>	<b>100 year</b>
a =	104.333	79.655	87.535	101.482	98.925	102.769
b =	17.298	14.828	15.882	16.774	15.865	15.866
c =	0.935	0.825	0.811	0.806	0.775	0.769
<b>Rainfall Intensity for the listed Event:</b>	<b>I<sub>2</sub> = 3.29</b>	<b>I<sub>5</sub> = 3.97</b>	<b>I<sub>10</sub> = 4.48</b>	<b>I<sub>25</sub> = 5.21</b>	<b>I<sub>50</sub> = 5.78</b>	<b>I<sub>100</sub> = 6.34 in/hour</b>

$Q = A \times C \times I$   
 A - Area in units of acres  
 C - Runoff coefficient of the drainage basin  
 I - Average historical rainfall intensity in units of inches/hour

<b>DRAINAGE BASIN RUNOFF FOR THE 100 YEAR RAINFALL EVENT:</b>	383.58 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 50 YEAR RAINFALL EVENT:</b>	349.49 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 25 YEAR RAINFALL EVENT:</b>	314.69 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 10 YEAR RAINFALL EVENT:</b>	270.96 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 5 YEAR RAINFALL EVENT:</b>	238.00 cfs
<b>DRAINAGE BASIN RUNOFF FOR THE 2 YEAR RAINFALL EVENT:</b>	198.89 cfs



Historic



Developed



Detention Pond



**19013 Pond**

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 2

**Area Listing (all nodes)**

<b>Area (acres)</b>	<b>C</b>	<b>Description (subcatchment-numbers)</b>
161.700	0.70	Fully Developed (3S)
161.700	0.68	Historic (1S)
<b>323.400</b>	<b>0.69</b>	<b>TOTAL AREA</b>

**19013 Pond***Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr*

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 3

Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment1S: Historic**

Runoff Area=161.700 ac 0.00% Impervious Runoff Depth=1.85"

Tc=28.4 min C=0.68 Runoff=643.20 cfs 24.961 af

**Subcatchment3S: Developed**

Runoff Area=161.700 ac 0.00% Impervious Runoff Depth=1.91"

Tc=28.4 min C=0.70 Runoff=662.12 cfs 25.696 af

**Pond 4P: Detention Pond**

Peak Elev=1,221.79' Storage=166,742 cf Inflow=662.12 cfs 25.696 af

96.0" x 48.0" Box Culvert x 3.00 n=0.013 L=65.0' S=0.0040 '/' Outflow=583.63 cfs 25.896 af

**Total Runoff Area = 323.400 ac Runoff Volume = 50.657 af Average Runoff Depth = 1.88"****100.00% Pervious = 323.400 ac 0.00% Impervious = 0.000 ac**

**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 4

**Summary for Subcatchment 1S: Historic**

Runoff = 643.20 cfs @ 0.47 hrs, Volume= 24.961 af, Depth= 1.85"

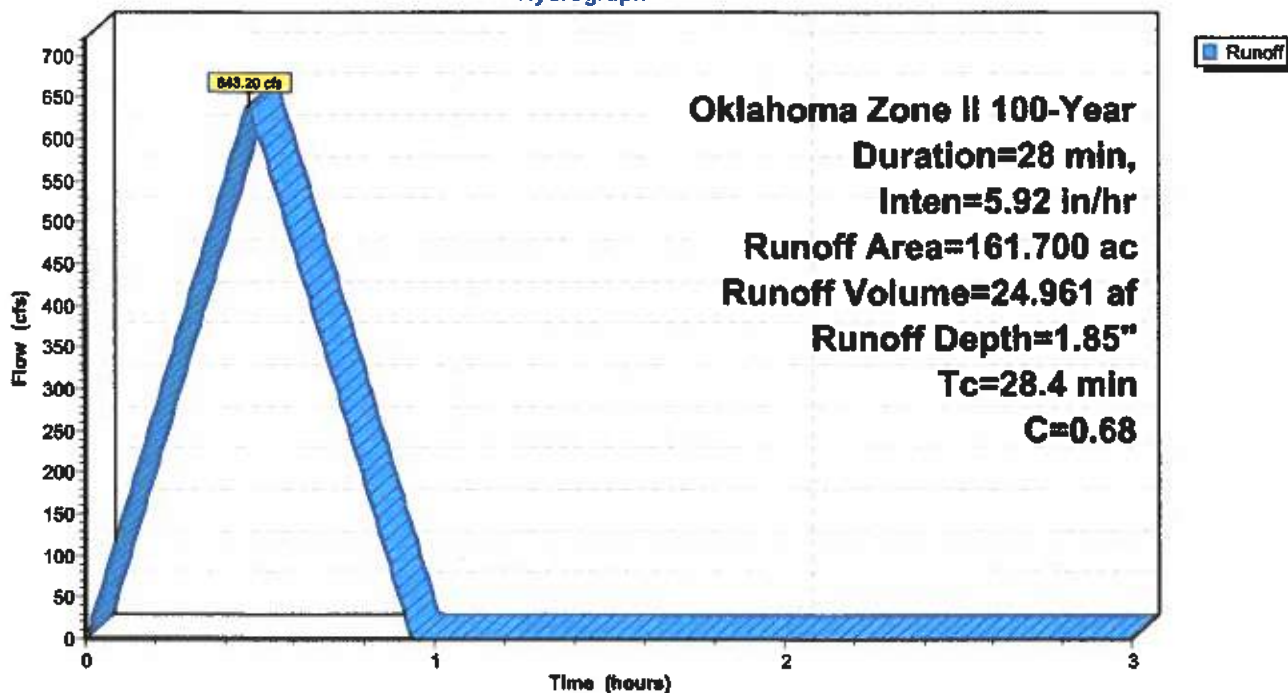
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs  
Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Area (ac)	C	Description
161.700	0.68	Historic
161.700		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.4					Direct Entry, Tc

**Subcatchment 1S: Historic**

Hydrograph



**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 5

**Hydrograph for Subcatchment 1S: Historic**

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	0.00	1.04	0.00	2.08	0.00
0.02	27.74	1.06	0.00	2.10	0.00
0.04	55.48	1.08	0.00	2.12	0.00
0.06	83.22	1.10	0.00	2.14	0.00
0.08	110.96	1.12	0.00	2.16	0.00
0.10	138.70	1.14	0.00	2.18	0.00
0.12	166.43	1.16	0.00	2.20	0.00
0.14	194.17	1.18	0.00	2.22	0.00
0.16	221.91	1.20	0.00	2.24	0.00
0.18	249.65	1.22	0.00	2.26	0.00
0.20	277.39	1.24	0.00	2.28	0.00
0.22	305.13	1.26	0.00	2.30	0.00
0.24	332.87	1.28	0.00	2.32	0.00
0.26	360.61	1.30	0.00	2.34	0.00
0.28	388.35	1.32	0.00	2.36	0.00
0.30	416.09	1.34	0.00	2.38	0.00
0.32	443.83	1.36	0.00	2.40	0.00
0.34	471.56	1.38	0.00	2.42	0.00
0.36	499.30	1.40	0.00	2.44	0.00
0.38	527.04	1.42	0.00	2.46	0.00
0.40	554.78	1.44	0.00	2.48	0.00
0.42	582.52	1.46	0.00	2.50	0.00
0.44	610.26	1.48	0.00	2.52	0.00
0.46	<b>638.00</b>	1.50	0.00	2.54	0.00
0.48	<b>628.75</b>	1.52	0.00	2.56	0.00
0.50	601.01	1.54	0.00	2.58	0.00
0.52	573.27	1.56	0.00	2.60	0.00
0.54	545.54	1.58	0.00	2.62	0.00
0.56	517.80	1.60	0.00	2.64	0.00
0.58	490.06	1.62	0.00	2.66	0.00
0.60	462.32	1.64	0.00	2.68	0.00
0.62	434.58	1.66	0.00	2.70	0.00
0.64	406.84	1.68	0.00	2.72	0.00
0.66	379.10	1.70	0.00	2.74	0.00
0.68	351.36	1.72	0.00	2.76	0.00
0.70	323.62	1.74	0.00	2.78	0.00
0.72	295.88	1.76	0.00	2.80	0.00
0.74	268.14	1.78	0.00	2.82	0.00
0.76	240.41	1.80	0.00	2.84	0.00
0.78	212.67	1.82	0.00	2.86	0.00
0.80	184.93	1.84	0.00	2.88	0.00
0.82	157.19	1.86	0.00	2.90	0.00
0.84	129.45	1.88	0.00	2.92	0.00
0.86	101.71	1.90	0.00	2.94	0.00
0.88	73.97	1.92	0.00	2.96	0.00
0.90	46.23	1.94	0.00	2.98	0.00
0.92	18.49	1.96	0.00	3.00	0.00
0.94	0.00	1.98	0.00		
0.96	0.00	2.00	0.00		
0.98	0.00	2.02	0.00		
1.00	0.00	2.04	0.00		
1.02	0.00	2.06	0.00		

**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 6

**Summary for Subcatchment 3S: Developed**

Runoff = 662.12 cfs @ 0.47 hrs, Volume= 25.696 af, Depth= 1.91"

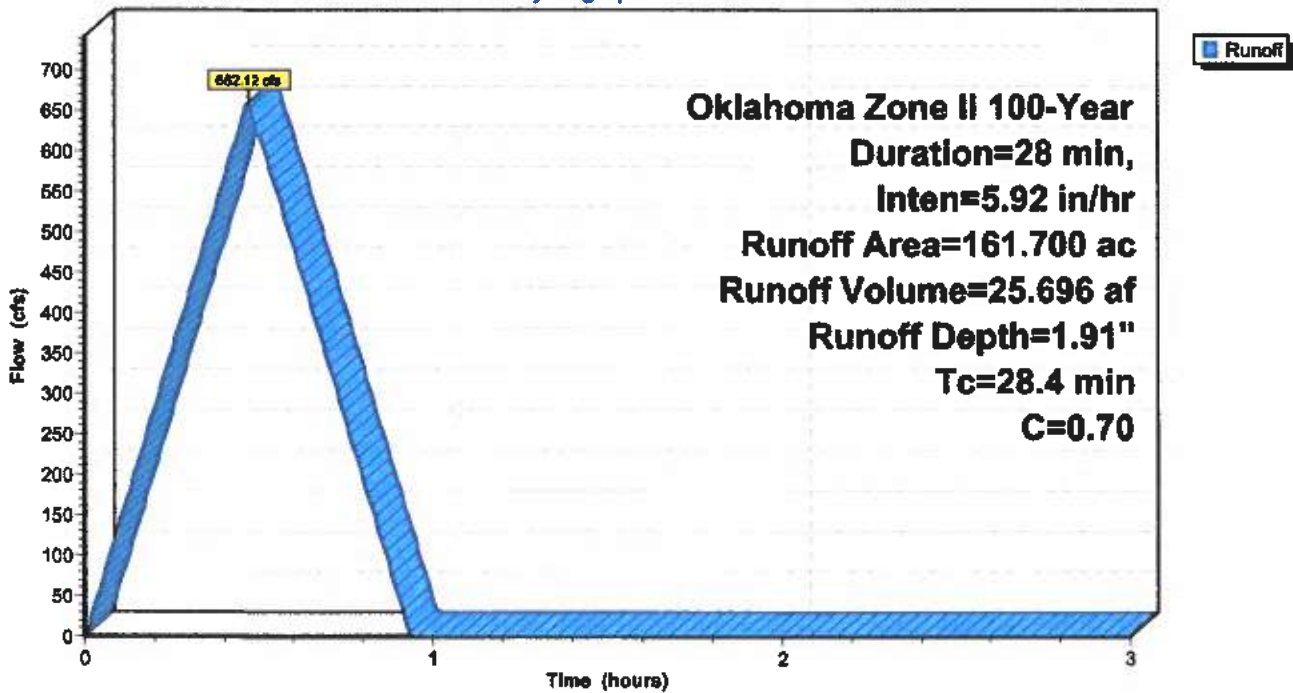
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs  
Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Area (ac)	C	Description
161.700	0.70	Fully Developed
161.700		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.4					Direct Entry, Tc

**Subcatchment 3S: Developed**

Hydrograph



**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 7

**Hydrograph for Subcatchment 3S: Developed**

Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)	Time (hours)	Runoff (cfs)
0.00	0.00	1.04	0.00	2.08	0.00
0.02	28.55	1.06	0.00	2.10	0.00
0.04	57.11	1.08	0.00	2.12	0.00
0.06	85.66	1.10	0.00	2.14	0.00
0.08	114.22	1.12	0.00	2.16	0.00
0.10	142.77	1.14	0.00	2.18	0.00
0.12	171.33	1.16	0.00	2.20	0.00
0.14	199.88	1.18	0.00	2.22	0.00
0.16	228.44	1.20	0.00	2.24	0.00
0.18	256.99	1.22	0.00	2.26	0.00
0.20	285.55	1.24	0.00	2.28	0.00
0.22	314.10	1.26	0.00	2.30	0.00
0.24	342.66	1.28	0.00	2.32	0.00
0.26	371.21	1.30	0.00	2.34	0.00
0.28	399.77	1.32	0.00	2.36	0.00
0.30	428.32	1.34	0.00	2.38	0.00
0.32	456.88	1.36	0.00	2.40	0.00
0.34	485.43	1.38	0.00	2.42	0.00
0.36	513.99	1.40	0.00	2.44	0.00
0.38	542.54	1.42	0.00	2.46	0.00
0.40	571.10	1.44	0.00	2.48	0.00
0.42	599.65	1.46	0.00	2.50	0.00
0.44	628.21	1.48	0.00	2.52	0.00
0.46	656.76	1.50	0.00	2.54	0.00
0.48	647.25	1.52	0.00	2.56	0.00
0.50	618.69	1.54	0.00	2.58	0.00
0.52	590.14	1.56	0.00	2.60	0.00
0.54	561.58	1.58	0.00	2.62	0.00
0.56	533.03	1.60	0.00	2.64	0.00
0.58	504.47	1.62	0.00	2.66	0.00
0.60	475.92	1.64	0.00	2.68	0.00
0.62	447.36	1.66	0.00	2.70	0.00
0.64	418.81	1.68	0.00	2.72	0.00
0.66	390.25	1.70	0.00	2.74	0.00
0.68	361.70	1.72	0.00	2.76	0.00
0.70	333.14	1.74	0.00	2.78	0.00
0.72	304.59	1.76	0.00	2.80	0.00
0.74	276.03	1.78	0.00	2.82	0.00
0.76	247.48	1.80	0.00	2.84	0.00
0.78	218.92	1.82	0.00	2.86	0.00
0.80	190.37	1.84	0.00	2.88	0.00
0.82	161.81	1.86	0.00	2.90	0.00
0.84	133.26	1.88	0.00	2.92	0.00
0.86	104.70	1.90	0.00	2.94	0.00
0.88	76.15	1.92	0.00	2.96	0.00
0.90	47.59	1.94	0.00	2.98	0.00
0.92	19.04	1.96	0.00	3.00	0.00
0.94	0.00	1.98	0.00		
0.96	0.00	2.00	0.00		
0.98	0.00	2.02	0.00		
1.00	0.00	2.04	0.00		
1.02	0.00	2.06	0.00		



**Summary for Pond 4P: Detention Pond**

Inflow Area = 161.700 ac, 0.00% Impervious, Inflow Depth = 1.91" for 100-Year event  
 Inflow = 662.12 cfs @ 0.47 hrs, Volume= 25.696 af  
 Outflow = 583.63 cfs @ 0.52 hrs, Volume= 25.696 af, Atten= 12%, Lag= 3.4 min  
 Primary = 583.63 cfs @ 0.52 hrs, Volume= 25.696 af

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs  
 Peak Elev= 1,221.79' @ 0.52 hrs Surf.Area= 54,317 sf Storage= 188,742 cf

Plug-Flow detention time= 5.5 min calculated for 25.696 af (100% of inflow)  
 Center-of-Mass det. time= 5.5 min ( 33.5 - 28.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	1,217.36'	200,139 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,217.36	0	0	0
1,218.00	28,692	9,181	9,181
1,219.00	47,217	37,955	47,136
1,220.00	49,708	48,463	95,598
1,221.00	52,256	50,982	146,580
1,222.00	54,861	53,559	200,139

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.36'	96.0" W x 48.0" H Box Culvert X 3.00 L= 65.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 1,217.36' / 1,217.10' S= 0.0040' / Cc= 0.900 n= 0.013, Flow Area= 32.00 sf

Primary OutFlow Max=583.39 cfs @ 0.52 hrs HW=1,221.79' (Free Discharge)  
 ↳1=Culvert (Barrel Controls 583.39 cfs @ 7.32 fps)

**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

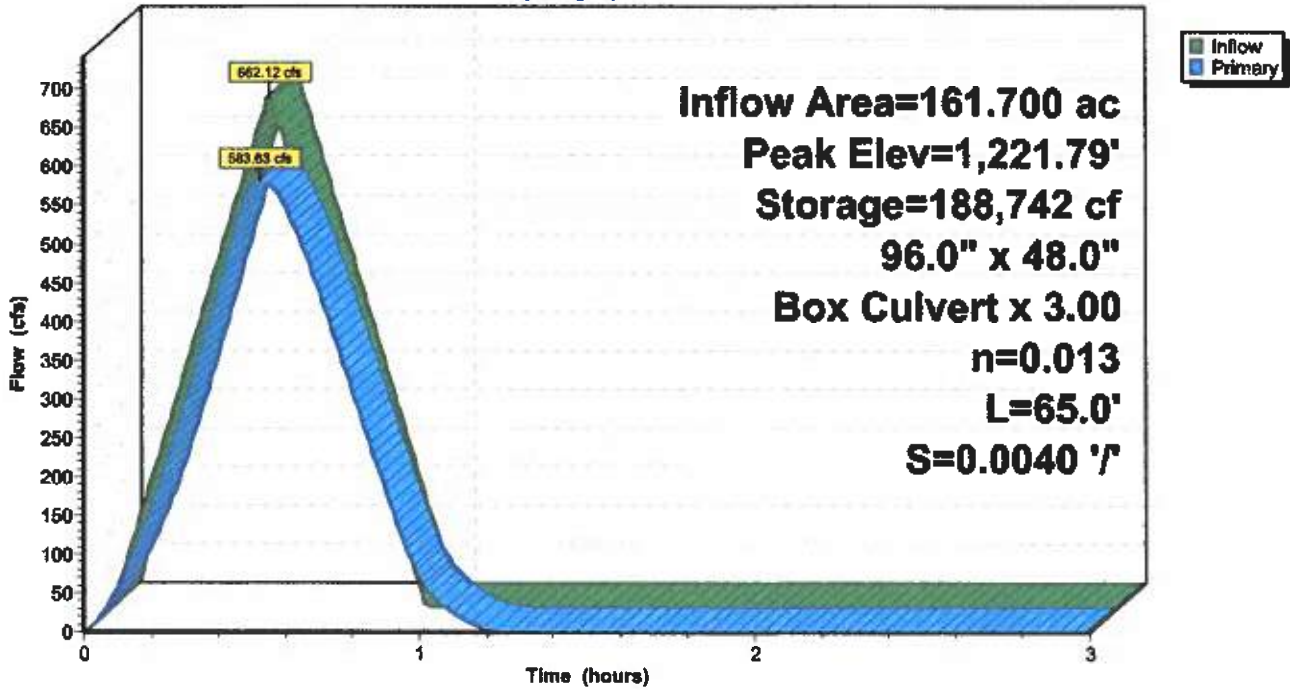
Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 9

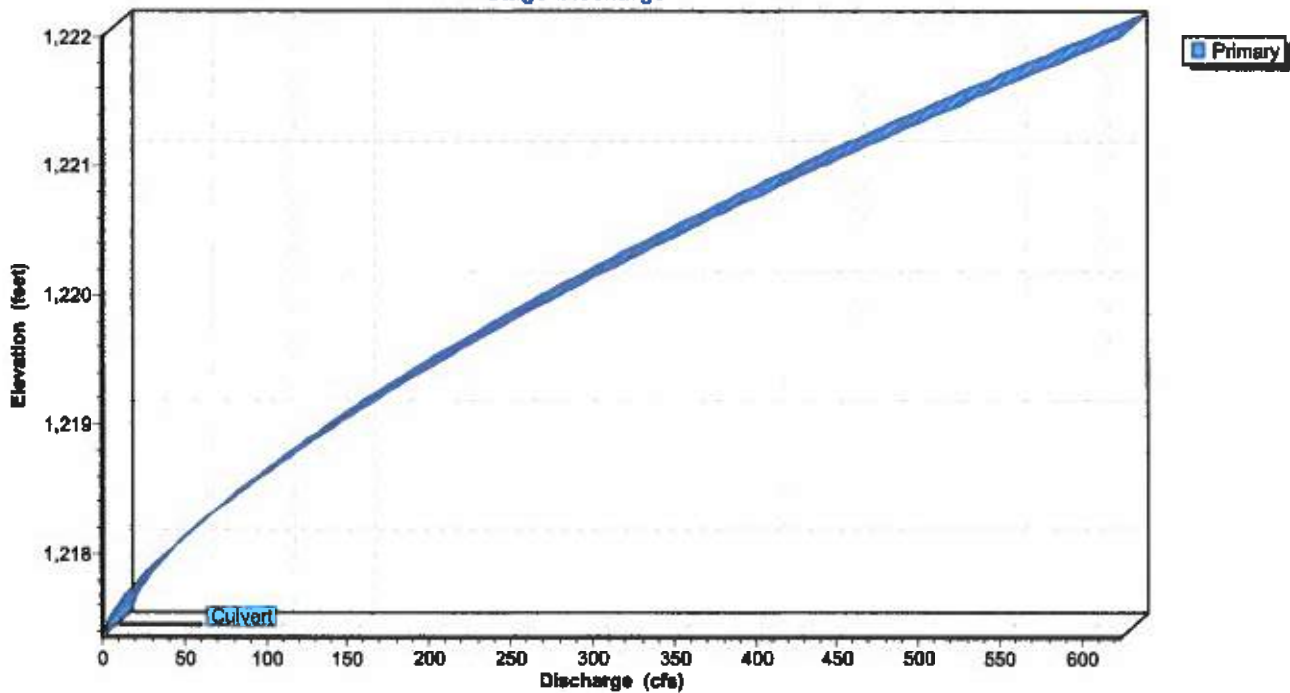
**Pond 4P: Detention Pond**

Hydrograph

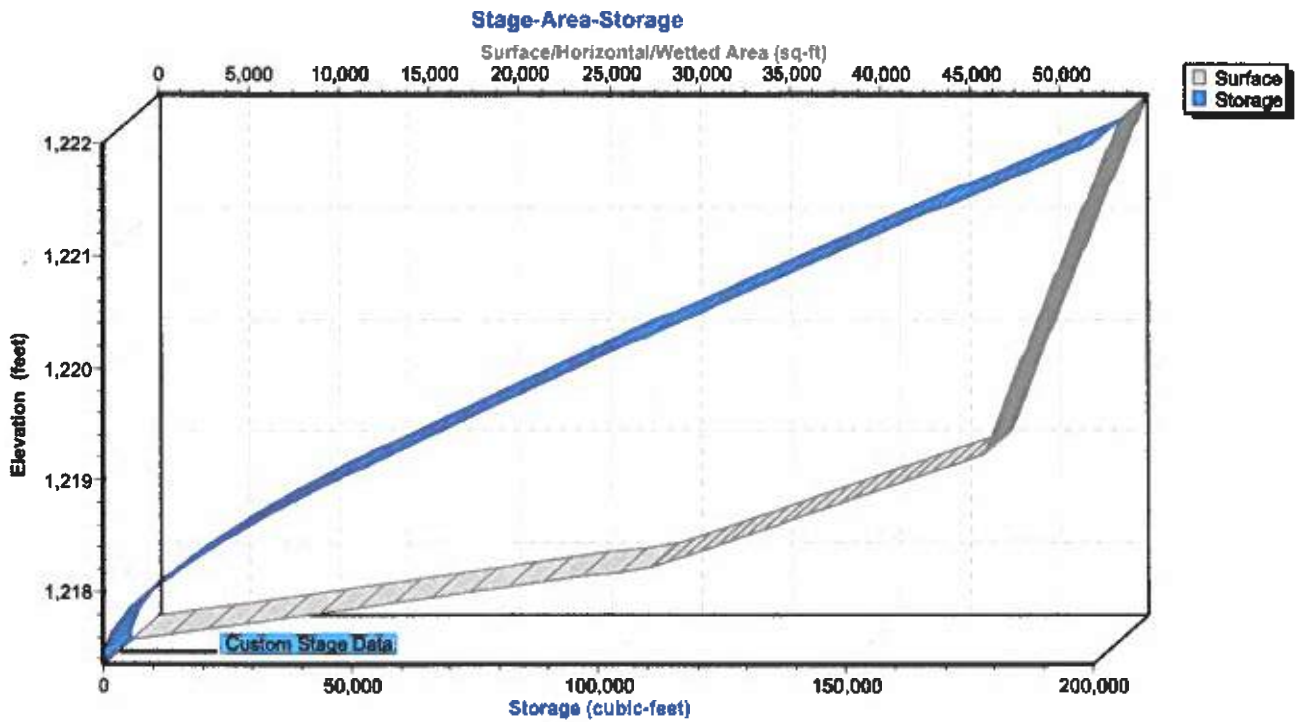


**Pond 4P: Detention Pond**

Stage-Discharge



### Pond 4P: Detention Pond



**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 11

**Hydrograph for Pond 4P: Detention Pond**

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	1,217.36	0.00
0.10	142.77	16,649	1,218.24	59.71
0.20	285.55	54,631	1,219.16	162.27
0.30	428.32	101,373	1,220.12	296.30
0.40	571.10	147,999	1,221.03	444.97
0.50	618.69	186,997	1,221.76	577.55
0.60	475.92	177,818	1,221.59	545.79
0.70	333.14	145,526	1,220.98	436.79
0.80	190.37	105,376	1,220.20	308.56
0.90	47.59	60,633	1,219.28	178.42
1.00	0.00	20,552	1,218.36	70.84
1.10	0.00	4,768	1,217.82	23.64
1.20	0.00	450	1,217.50	3.90
1.30	0.00	7	1,217.37	0.09
1.40	0.00	0	1,217.36	0.00
1.50	0.00	0	1,217.36	0.00
1.60	0.00	0	1,217.36	0.00
1.70	0.00	0	1,217.36	0.00
1.80	0.00	0	1,217.36	0.00
1.90	0.00	0	1,217.36	0.00
2.00	0.00	0	1,217.36	0.00
2.10	0.00	0	1,217.36	0.00
2.20	0.00	0	1,217.36	0.00
2.30	0.00	0	1,217.36	0.00
2.40	0.00	0	1,217.36	0.00
2.50	0.00	0	1,217.36	0.00
2.60	0.00	0	1,217.36	0.00
2.70	0.00	0	1,217.36	0.00
2.80	0.00	0	1,217.36	0.00
2.90	0.00	0	1,217.36	0.00
3.00	0.00	0	1,217.36	0.00

**19013 Pond***Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr*

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 12

**Stage-Discharge for Pond 4P: Detention Pond**

<u>Elevation</u> <u>(feet)</u>	<u>Primary</u> <u>(cfs)</u>	<u>Elevation</u> <u>(feet)</u>	<u>Primary</u> <u>(cfs)</u>
1,217.36	0.00	1,219.96	272.85
1,217.41	0.72	1,220.01	280.31
1,217.46	2.23	1,220.06	287.83
1,217.51	4.28	1,220.11	295.41
1,217.56	6.72	1,220.16	303.06
1,217.61	9.48	1,220.21	310.76
1,217.66	12.50	1,220.26	318.53
1,217.71	15.75	1,220.31	326.35
1,217.76	19.19	1,220.36	334.24
1,217.81	22.81	1,220.41	342.18
1,217.86	26.59	1,220.46	350.19
1,217.91	30.52	1,220.51	358.25
1,217.96	34.59	1,220.56	366.37
1,218.01	38.78	1,220.61	374.55
1,218.06	43.10	1,220.66	382.79
1,218.11	47.53	1,220.71	391.08
1,218.16	52.07	1,220.76	399.43
1,218.21	56.73	1,220.81	407.83
1,218.26	61.48	1,220.86	416.29
1,218.31	66.34	1,220.91	424.81
1,218.36	71.30	1,220.96	433.38
1,218.41	76.35	1,221.01	442.00
1,218.46	81.50	1,221.06	450.68
1,218.51	86.74	1,221.11	459.42
1,218.56	92.07	1,221.16	468.20
1,218.61	97.49	1,221.21	477.05
1,218.66	102.99	1,221.26	485.94
1,218.71	108.58	1,221.31	494.89
1,218.76	114.25	1,221.36	503.88
1,218.81	120.01	1,221.41	512.94
1,218.86	125.84	1,221.46	522.04
1,218.91	131.76	1,221.51	531.19
1,218.96	137.76	1,221.56	540.40
1,219.01	143.83	1,221.61	549.65
1,219.06	149.98	1,221.66	558.96
1,219.11	156.21	1,221.71	568.32
1,219.16	162.51	1,221.76	577.73
1,219.21	168.88	1,221.81	587.18
1,219.26	175.33	1,221.86	596.69
1,219.31	181.85	1,221.91	606.25
1,219.36	188.44	1,221.96	615.85
1,219.41	195.10		
1,219.46	201.83		
1,219.51	208.63		
1,219.56	215.50		
1,219.61	222.44		
1,219.66	229.44		
1,219.71	236.52		
1,219.76	243.65		
1,219.81	250.86		
1,219.86	258.12		
1,219.91	265.45		

**19013 Pond**

Oklahoma Zone II 100-Year Duration=28 min, Inten=5.92 in/hr

Prepared by Windows User

Printed 2/26/2019

HydroCAD® 10.00-15 s/n 07286 © 2015 HydroCAD Software Solutions LLC

Page 13

**Stage-Area-Storage for Pond 4P: Detention Pond**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,217.36	0	0	1,219.96	49,608	93,612
1,217.41	2,242	56	1,220.01	49,733	96,096
1,217.46	4,483	224	1,220.06	49,861	98,586
1,217.51	6,725	504	1,220.11	49,988	101,082
1,217.56	8,966	897	1,220.16	50,116	103,584
1,217.61	11,208	1,401	1,220.21	50,243	106,093
1,217.66	13,449	2,017	1,220.26	50,370	108,609
1,217.71	15,691	2,746	1,220.31	50,498	111,130
1,217.76	17,933	3,587	1,220.36	50,625	113,658
1,217.81	20,174	4,539	1,220.41	50,753	116,193
1,217.86	22,416	5,604	1,220.46	50,880	118,734
1,217.91	24,657	6,781	1,220.51	51,007	121,281
1,217.96	26,899	8,070	1,220.56	51,135	123,834
1,218.01	28,877	9,469	1,220.61	51,262	126,394
1,218.06	29,803	10,936	1,220.66	51,390	128,961
1,218.11	30,730	12,450	1,220.71	51,517	131,533
1,218.16	31,656	14,009	1,220.76	51,644	134,112
1,218.21	32,582	15,615	1,220.81	51,772	136,698
1,218.26	33,508	17,268	1,220.86	51,899	139,290
1,218.31	34,435	18,966	1,220.91	52,027	141,888
1,218.36	35,361	20,711	1,220.96	52,154	144,492
1,218.41	36,287	22,502	1,221.01	52,282	147,103
1,218.46	37,213	24,340	1,221.06	52,412	149,720
1,218.51	38,140	26,224	1,221.11	52,543	152,344
1,218.56	39,066	28,154	1,221.16	52,673	154,975
1,218.61	39,992	30,130	1,221.21	52,803	157,612
1,218.66	40,918	32,153	1,221.26	52,933	160,255
1,218.71	41,845	34,222	1,221.31	53,064	162,905
1,218.76	42,771	36,337	1,221.36	53,194	165,561
1,218.81	43,697	38,499	1,221.41	53,324	168,224
1,218.86	44,623	40,707	1,221.46	53,454	170,894
1,218.91	45,550	42,961	1,221.51	53,585	173,570
1,218.96	46,476	45,262	1,221.56	53,715	176,252
1,219.01	47,242	47,608	1,221.61	53,845	178,941
1,219.06	47,366	49,973	1,221.66	53,975	181,637
1,219.11	47,491	52,345	1,221.71	54,106	184,339
1,219.16	47,616	54,723	1,221.76	54,236	187,047
1,219.21	47,740	57,106	1,221.81	54,366	189,762
1,219.26	47,865	59,497	1,221.86	54,496	192,484
1,219.31	47,989	61,893	1,221.91	54,627	195,212
1,219.36	48,114	64,295	1,221.96	54,757	197,947
1,219.41	48,238	66,704			
1,219.46	48,363	69,119			
1,219.51	48,487	71,541			
1,219.56	48,612	73,968			
1,219.61	48,737	76,402			
1,219.66	48,861	78,842			
1,219.71	48,986	81,288			
1,219.76	49,110	83,740			
1,219.81	49,235	86,199			
1,219.86	49,359	88,664			
1,219.91	49,484	91,135			

# Channel Report

## Box culvert from north: (2) 6'x3' RCB

### Rectangular

Bottom Width (ft) = 12.00  
Total Depth (ft) = 3.00

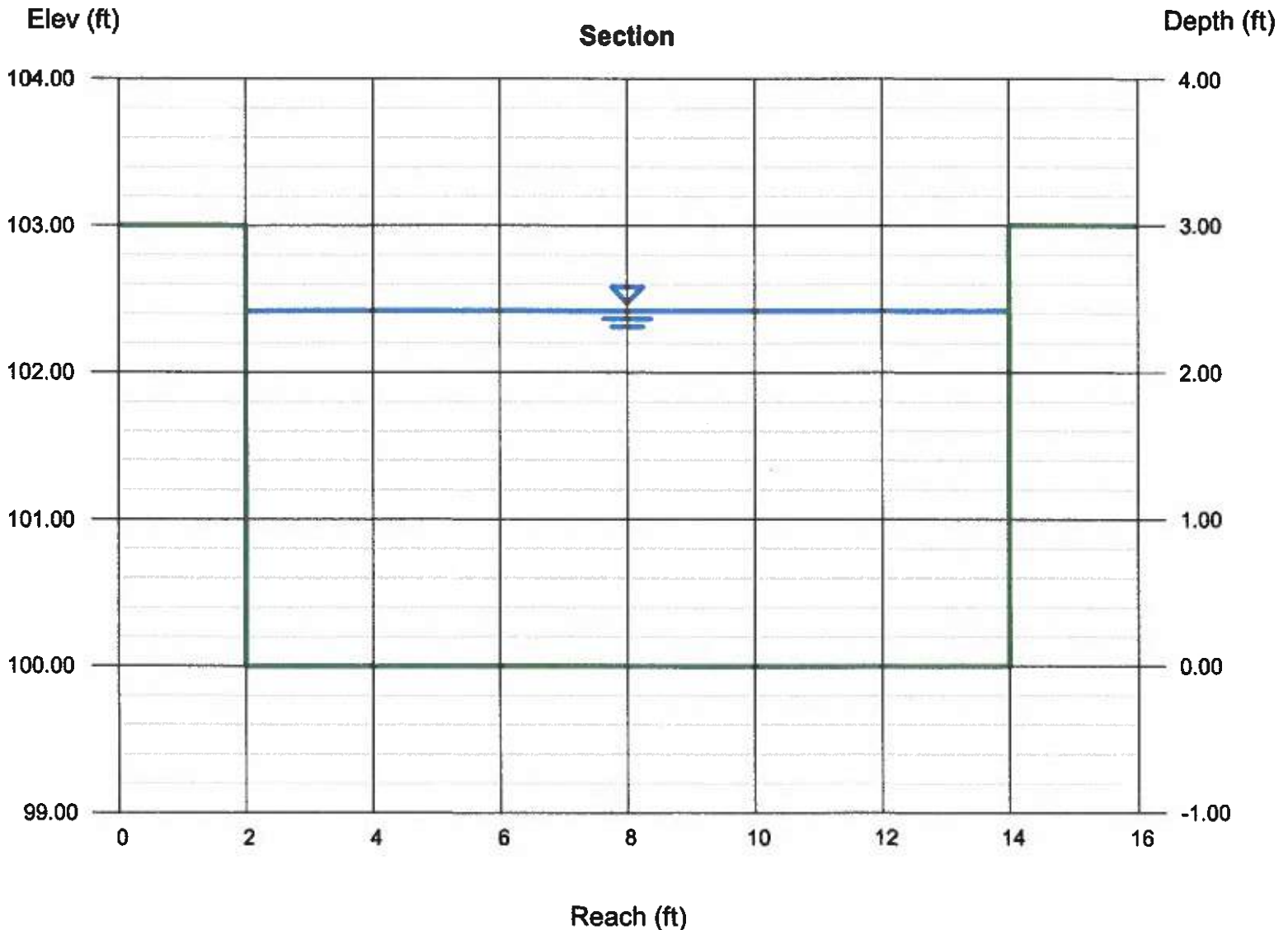
Invert Elev (ft) = 100.00  
Slope (%) = 0.65  
N-Value = 0.013

### Calculations

Compute by: Known Q  
Known Q (cfs) = 383.58

### Highlighted

Depth (ft) = 2.42  
Q (cfs) = 383.58  
Area (sqft) = 29.04  
Velocity (ft/s) = 13.21  
Wetted Perim (ft) = 16.84  
Crit Depth, Yc (ft) = 3.00  
Top Width (ft) = 12.00  
EGL (ft) = 5.13



# Channel Report

## Box culvert from east: (2) 6'x3' RCB

### Rectangular

Bottom Width (ft) = 12.00  
Total Depth (ft) = 3.00

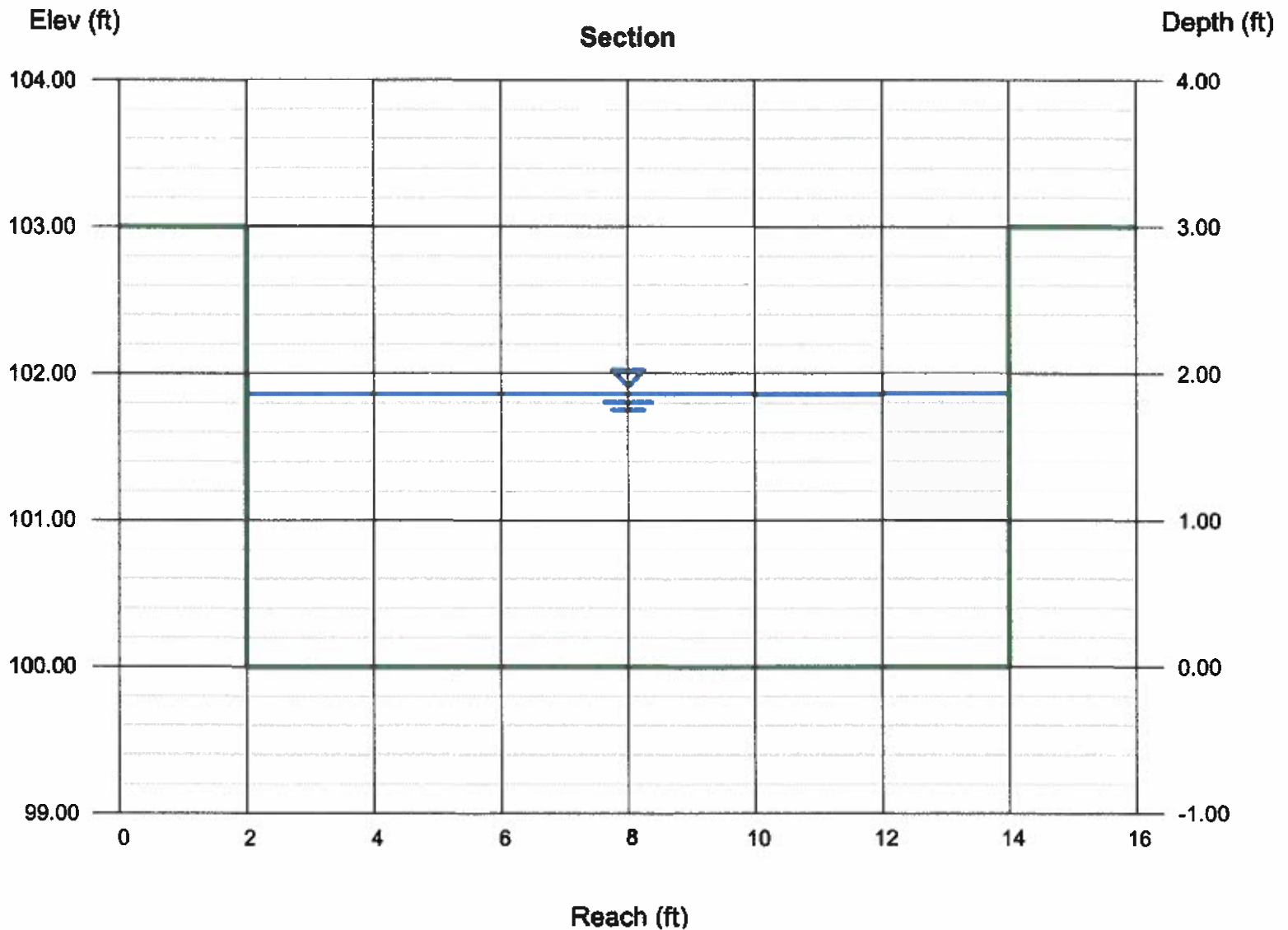
Invert Elev (ft) = 100.00  
Slope (%) = 0.65  
N-Value = 0.013

### Calculations

Compute by: Known Q  
Known Q (cfs) = 259.05

### Highlighted

Depth (ft) = 1.86  
Q (cfs) = 259.05  
Area (sqft) = 22.32  
Velocity (ft/s) = 11.61  
Wetted Perim (ft) = 15.72  
Crit Depth, Yc (ft) = 2.44  
Top Width (ft) = 12.00  
EGL (ft) = 3.95





# Channel Report

## Channel from North

### Trapezoidal

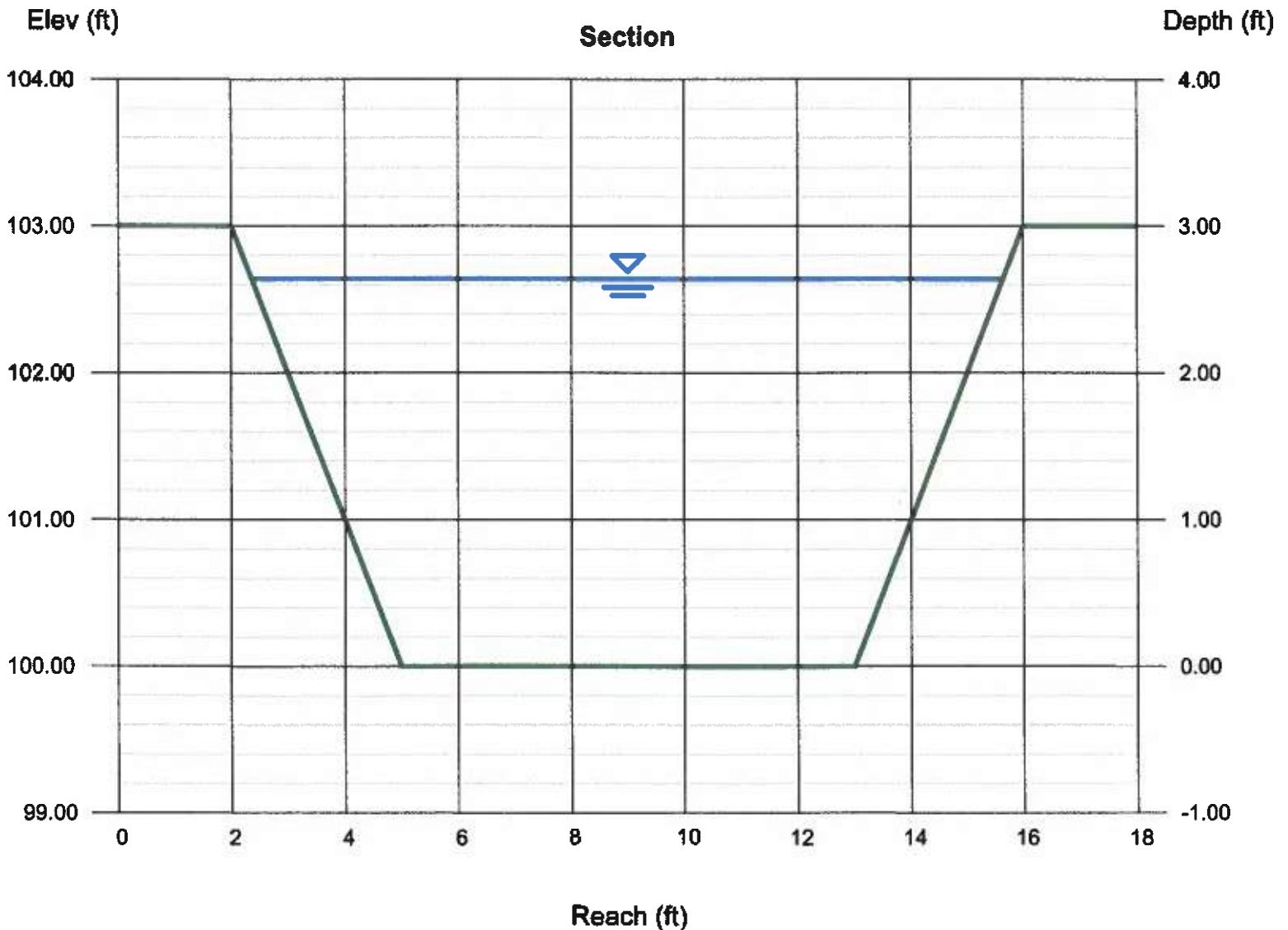
Bottom Width (ft) = 8.00  
Side Slopes (z:1) = 1.00, 1.00  
Total Depth (ft) = 3.00  
Invert Elev (ft) = 100.00  
Slope (%) = 0.65  
N-Value = 0.013

### Highlighted

Depth (ft) = 2.64  
Q (cfs) = 383.58  
Area (sqft) = 28.09  
Velocity (ft/s) = 13.66  
Wetted Perim (ft) = 15.47  
Crit Depth, Yc (ft) = 3.00  
Top Width (ft) = 13.28  
EGL (ft) = 5.54

### Calculations

Compute by: Known Q  
Known Q (cfs) = 383.58



# Channel Report

## Concrete channel from East

### Rectangular

Bottom Width (ft) = 20.00

Total Depth (ft) = 1.50

Invert Elev (ft) = 100.00

Slope (%) = 0.50

N-Value = 0.013

### Calculations

Compute by: Known Q

Known Q (cfs) = 259.05

### Highlighted

Depth (ft) = 1.40

Q (cfs) = 259.05

Area (sqft) = 28.00

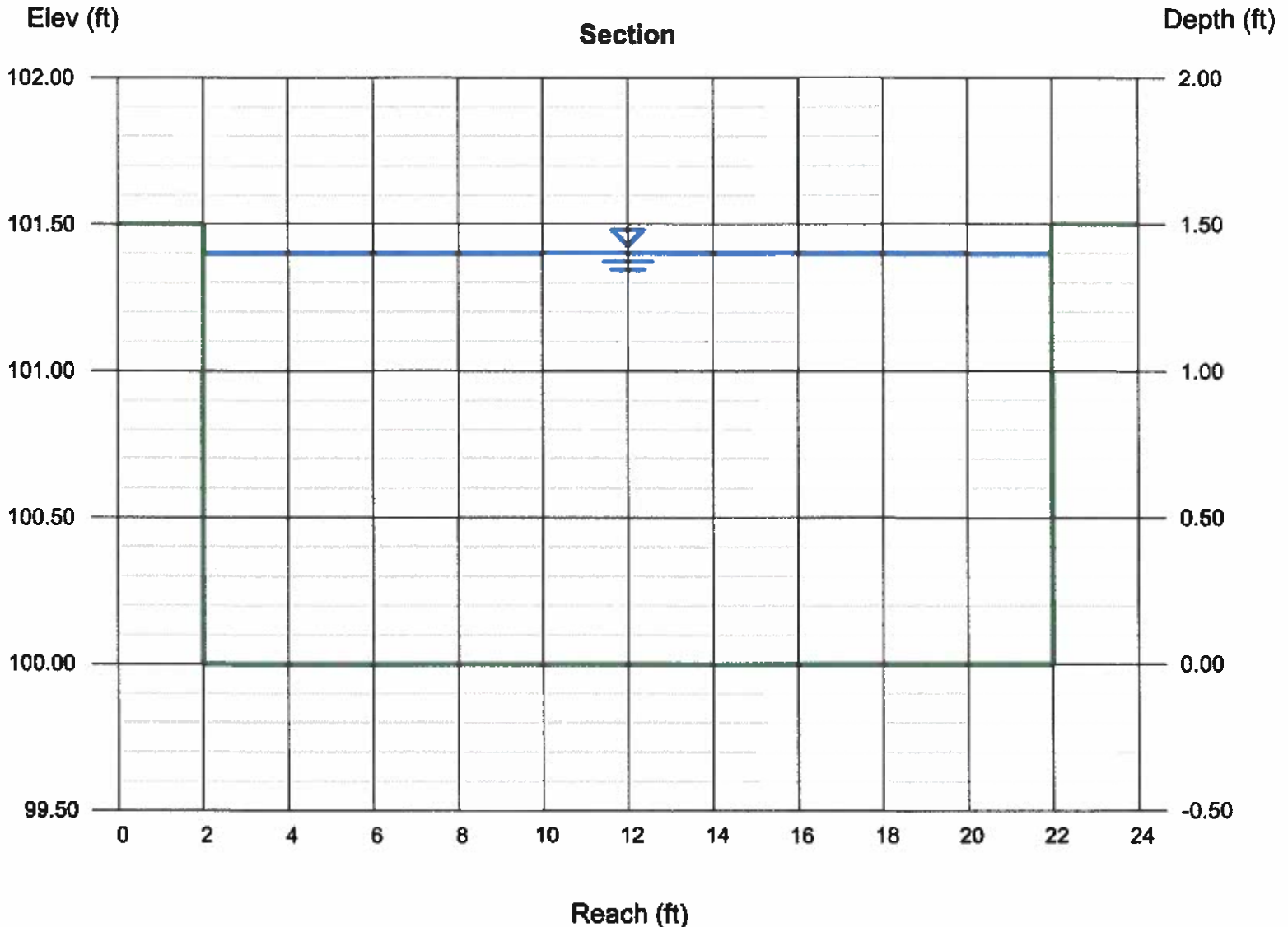
Velocity (ft/s) = 9.25

Wetted Perim (ft) = 22.80

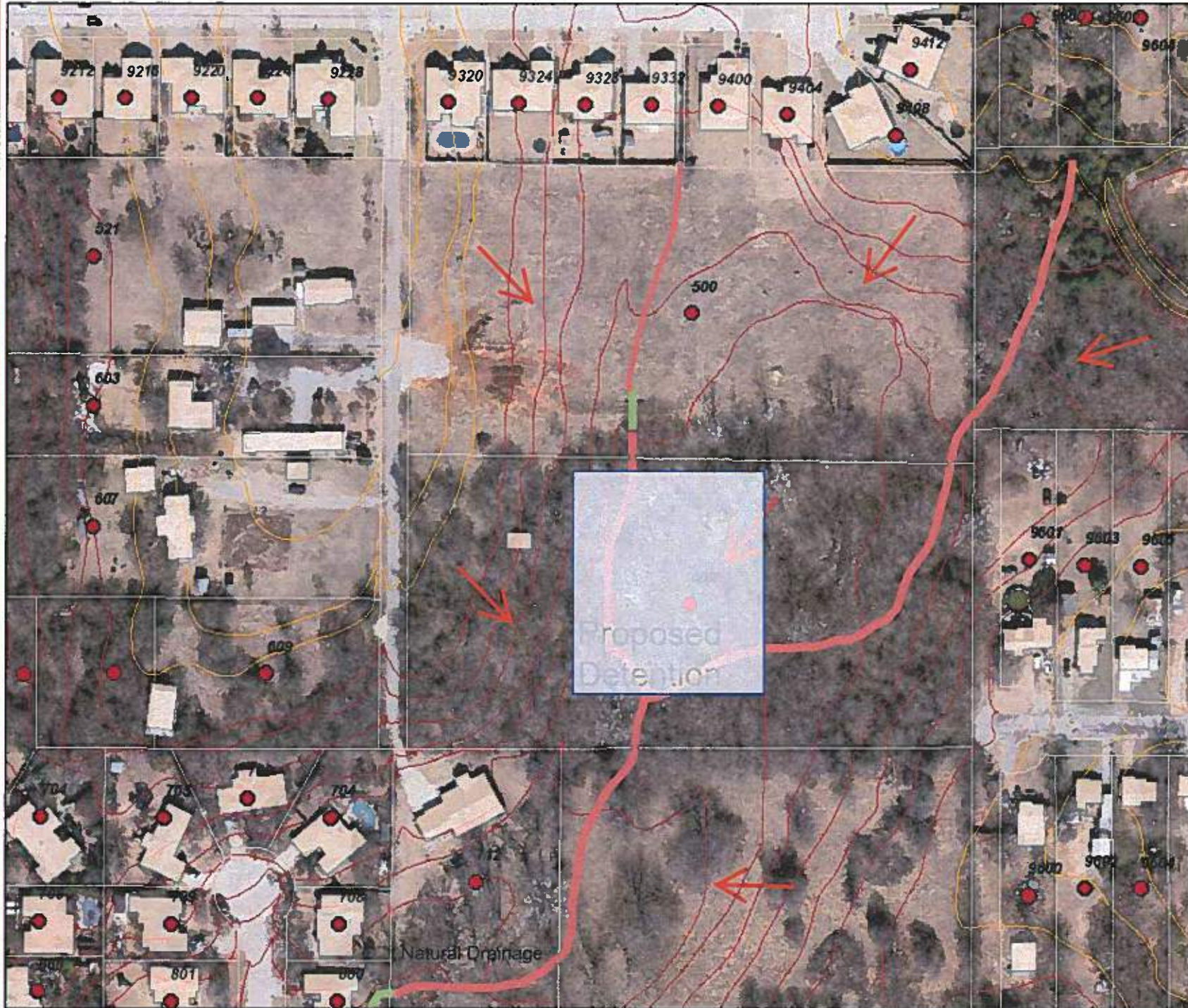
Crit Depth,  $Y_c$  (ft) = 1.50

Top Width (ft) = 20.00

EGL (ft) = 2.73



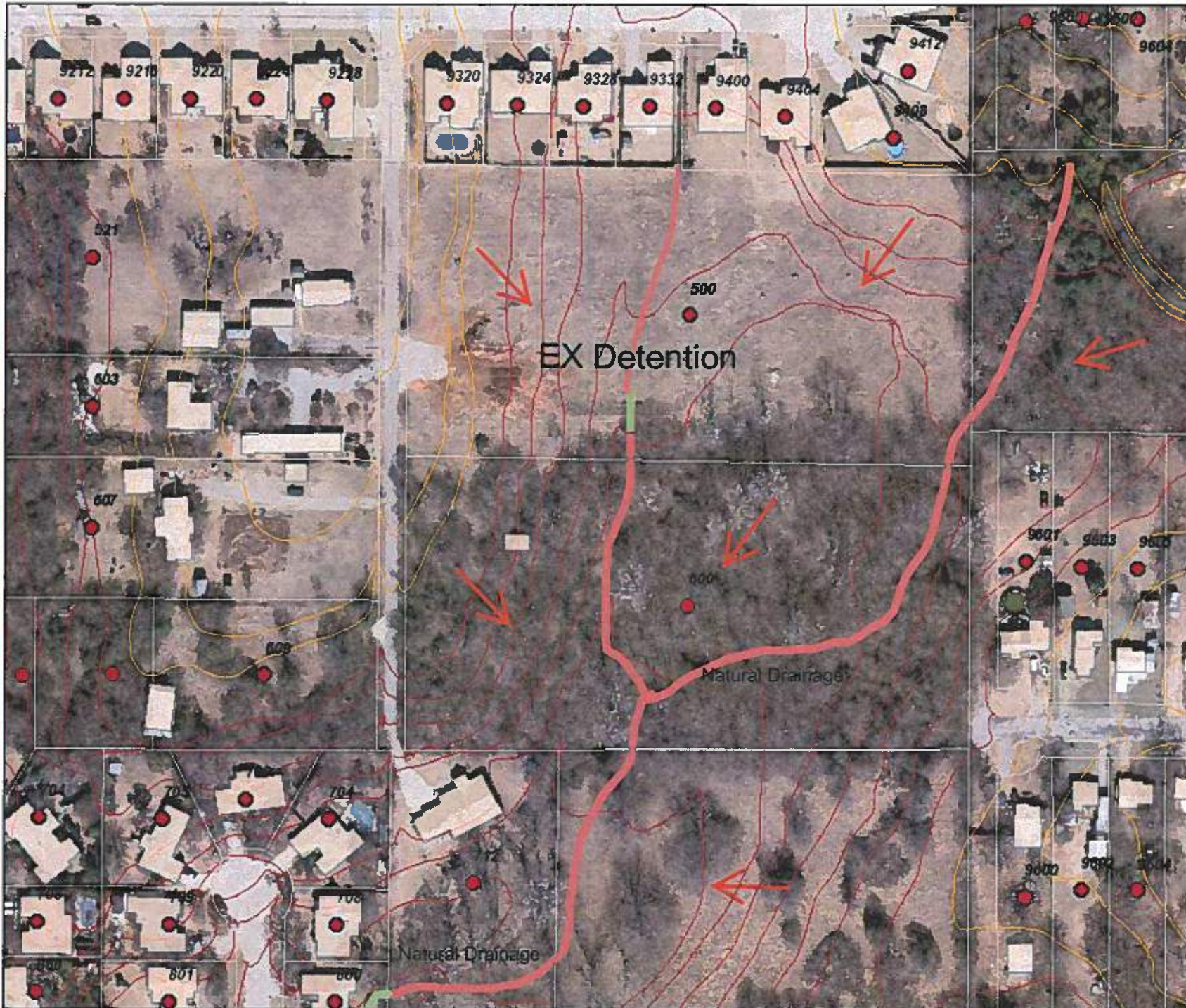
# Existing Cassidy Cove 3 Topo



**1 in = 188 ft**  
when printed actual size  
on 8-1/2"x11" paper

**DISCLAIMER**  
This map is a general information public resource. The City of Midwest City makes no warranty, representation or guarantee as to the content, accuracy, timeliness or completeness of any of the information provided on this map. Any party's use or reliance on it, is at that party's own risk and without liability to the City of Midwest City, its officials or its employees for any discrepancies, errors or omissions that may exist.

# Existing Cassidy Cove 3 Topo

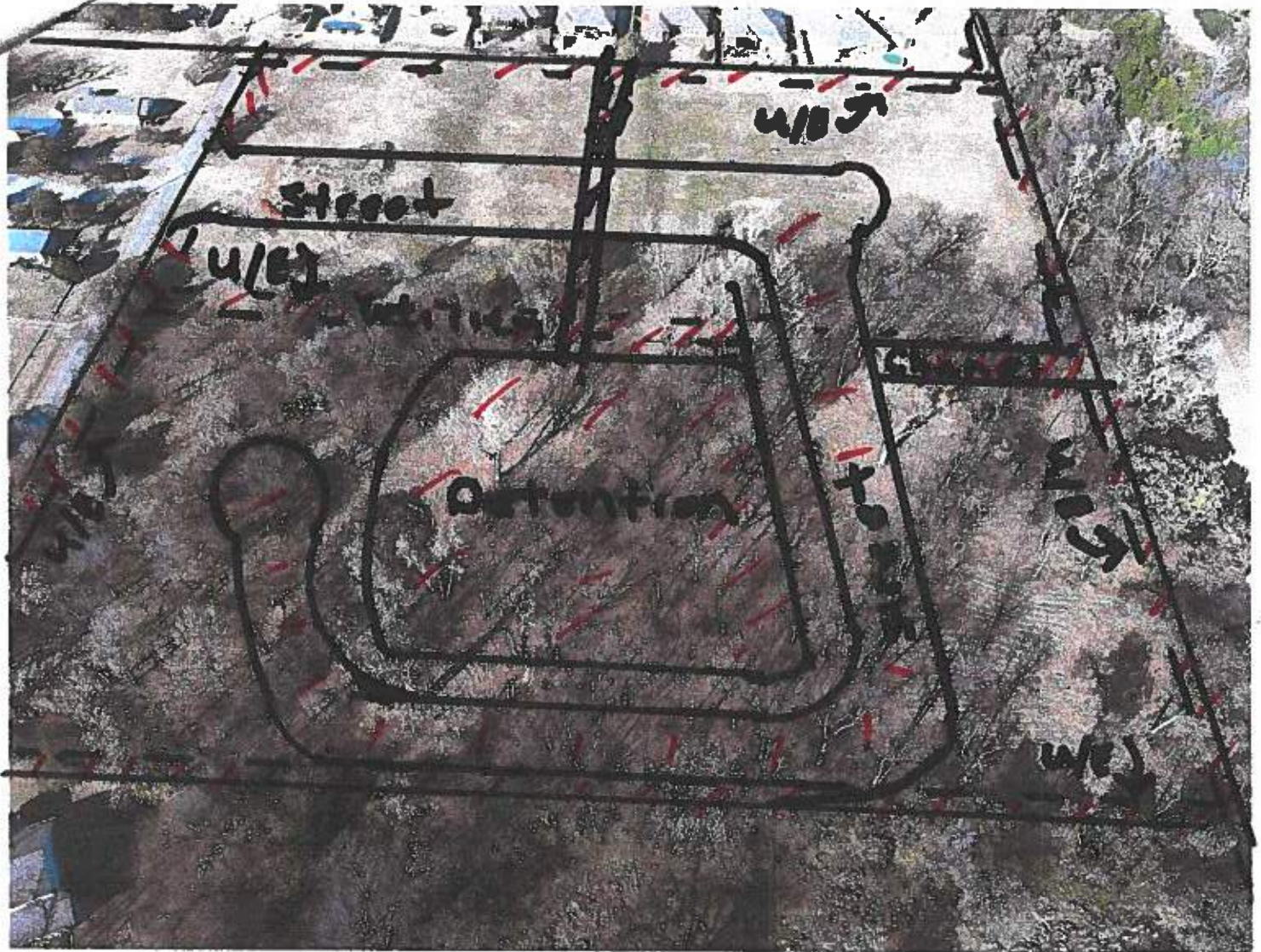


**1 in = 188 ft**  
when printed actual size  
on 8-1/2"x11" paper

**DISCLAIMER**  
This map is a general information public resource. The City of Midwest City makes no warranty, representation or guarantee as to the content, accuracy, timeliness or completeness of any of the information provided on this map. Any party's use or reliance on this map, or any information on it, is at that party's own risk and without liability to the City of Midwest City, its officials or its employees for any discrepancies, errors or omissions that may exist.



# Existing Tree Canopy



# Tree Canopy Management Plan

 Indicates trees to be removed



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

Applicant: Jim Campbell  
 Phone Number: \_\_\_\_\_  
 Address: 500/100 Davidson  
Cassidy Cove Sec. III

**Preliminary Plat Requirements/Checklist – Planning**

- Lot to be subdivided is less than 5 acres
- Lot to be subdivided has an area of more than 10,000 square feet

38-48.2	<b>Zoning Compliance</b>	
38-48.2	All lots shall conform to zoning district compliance.	X
38-48.4	<b>Lot Shape</b>	
38-48.4 (A) (B)	Lots shall generally be rectangular in shape. Flag lots are prohibited. Irregular lots shall meet all width, frontage and setback requirements as required by the zoning ordinance.	X
38-48.5	<b>Lot Lines</b>	
38-48.5 (A) (1)	Side lot lines shall be at ninety degree angles or radial to street Right-of-Way lines to the greatest extent possible.	X
38-48.5 (B) (1)	All lot lines shall align along County, school district and other jurisdictional boundary lines.	X - All Mid- Old Schools
38-48.6	<b>Lot Orientation Restrictions</b>	
38-48.6 (A)	No single-family, two-family or townhome lot shall front onto or have a driveway onto any Arterial Street.	X
38-48.6 (B)	Lots are prohibited from backing to local streets.	- Blk 2 lots 9110 Back onto Davidson
38-48.7	<b>Limits-of-No-Access – shown on preliminary plat</b>	
38-48.7 (A)(1)	Low Density lots shall not derive access from an Arterial Street.	X
38-48.7 (A)(2)	Lots facing Collector Streets should be minimized to the fullest extent.	X
38-48.8	<b>Lot Frontages</b>	
38-48.8 (A)(1)	Each lot shall have adequate access to a street by having frontage on a street that is not less than 35' at the street Right-of-Way line. This also applies to lots fronting onto an eyebrow or bulb portion of a cul-de-sac.	X
38-48.8(B)(1)(a)	For single-family, two-family and townhomes, double frontage lots are prohibited from backing or having the side facing onto an Arterial Street without appropriate screening.	N/A
38-48.8(B)(1)(b)	Where lots back or side onto an Arterial Street, no driveway access is allowed onto the Arterial Street.	N/A
38-48.8(B)(2)	For multifamily and nonresidential lots, if lots have frontage on more than one street, a front building line must be established for each street.	N/A
38-48.8(B)(3)	Residential lots should face the front of a similar lot, park or open space.	
38-48.10	<b>Lot and Block Numbering</b>	
38-48.10(A)	All lots within each phase of a development are to be numbered consecutively	X

- Blk 2 lots 9110  
Back onto  
Davidson  
Waiver  
Requested



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

	within each block. Each block shall have alpha or numeric designations.	
38-48.11	<b>Building Lines</b>	
	Building lines along all streets shall be shown on the Preliminary Plats and shall conform with the minimum setbacks for front, side and rear yards as required by the zoning district.	X
38-48.12	<b>Block Requirements</b>	
38-48.12(B)(1)	Blocks for residential uses shall not be longer than 1,800 feet measured along the center line of the block.	X
38-48.12(B)(2)	When a block exceeds 600 feet in length, the Planning Commission may require a dedicated easement not less than 15 feet wide and a paved crosswalk not less than 4 feet wide to provide pedestrian access across the block.	X
38-48.12(C)(1)	Blocks used for residential purposes should be of sufficient width to allow for two tiers of lots of appropriate depth.	X
38-48.12(C)(2)	Exceptions to the prescribed block width shall be permitted for blocks adjacent to major streets, railroads or waterways.	X
38-48.12(C)(3)	Blocks intended for business and industrial use should be of a width suitable for the intended use, with due allowance for off-street parking and loading facilities.	N/A
38-48.14	<b>Subdivision Name Requirement</b>	
38-48.14(A)(1)	New subdivisions shall be named so as to prevent conflict or "sound-alike" confusion with names of other subdivisions.	X
38-48.14(A)(2)	Subdivisions with similar names shall be located in proximity to each other.	X - Cassidy Cove III
38-49.3	<b>Subdivision Amenities – Where amenities are proposed in conjunction with a development, such amenities shall be reviewed and approved in accordance with the following:</b>	
38-49.3(A)	Preliminary plans and illustrations, along with a written statement of such concepts, shall be submitted for review and approval with the Preliminary Plat.	Detention info provided
38-49.3(B)	Plans for amenities shall then be incorporated into the screening plan and/or landscape plan for submittal as part of the construction plans.	N/A
38-49.3(C)	Lighting plans for all outdoor amenities	X
38-49.3(D)	Plans for structural elements shall be sealed by a licensed Professional Engineer and shall be considered for approval by the City.	
38-49.4	<b>Design of Amenities</b>	
38-49.4(A)(1)(a)	Entry features shall be constructed entirely on privately owned property and shall not suspend over a public Right-of-Way.	N/A - none proposed
38-49.4(A)(1)(b)	Minor elements of an entry feature may be placed within an entry street median upon Plat approval, provided that such street median is platted as a non-buildable lot and dedicated to a HOA for private ownership and maintenance.	N/A
38-49.4(A)(1)(c)	An entry feature having a water pond, fountain or other water feature shall only be allowed if approved by the Planning Commission and City Council during the plat review process.	N/A
38-	No entry feature, other than screening walls or extensions of screening walls,	N/A





The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

49.4(A)(1)(d)	may be constructed on any portion of a single-family, two-family or townhome	
38-49.4(A)(1)(e)	All such features shall be constructed on lots that are platted as "non-buildable" lots and dedicated to a HOA for private ownership and maintenance.	N/A
38-49.4(A)(2)	Entry features shall not encroach into the visibility triangle or otherwise impair pedestrian or vehicular visibility.	N/A
38-49.4(A)(3)	The maximum height for entry features and structures shall be the maximum height of the governing zoning district as measured from the nearest street or sidewalk grade.	N/A
38-49.4(B)	If private recreation facilities are provided, they shall be centrally located within the overall development to the greatest extent possible.	N/A - none proposed
38-49.4(C)	All outdoor amenities shall provide appropriate lighting.	Lighting prop. in detention areas
38-49.4(D)	A detention or retention pond shall be considered an amenity if it meets the following design considerations:	NO
38-49.4(D)(1)	Located between the building and street or completely bounded by streets	X
38-49.4(D)(2)	Viewable from public space	X

38-49.4(D)(4)	Accessible by patrons	X
38-49.4(D)(5)	Seating area, public art or fountain	None proposed
38-49.4(D)(6)	One tree or planter at least 16 square feet for every 200 square feet of open space, and be located within or adjacent to the open space.	Existing trees will remain around perimeter of pond
38-50.2	<b>Homeowners' Association (HOA) Applicability</b>	
38-50.2(A)	Any one or more of the following elements created as part of a development shall require formation of a HOA prior to recordation of a final plat in order to maintain the amenity or facility:	Will Apply
38-50.2(A)(1)	Amenity	no
38-50.2(A)(2)	100-year Floodplain	no
38-50.2(A)(3)	Private streets	no
38-50.2(A)(4)	Thoroughfare screening	no
38-50.2(A)(5)	Detention or retention ponds	X yes
38-50.2(A)(6)	Private park	no
38-51.2	<b>Applicability of Parks and Open Space Dedication</b>	

This shall apply to all residential subdivision plats having a dwelling unit density of greater than one unit per net acre		X										
38-51.5(A)	The acreage to be contributed concurrent with the final approval by the City Council of any residential subdivision plat shall be determined by the following formula:	Parkland Review Committee voted to allow a fee in lieu of parkland dedication as the subdivision will generate much less than 2500 residents Allowed per Section 38-51.5 (c) subdivisions smaller than 75'										
	<table border="1"> <tr> <td>Two acres</td> <td>X (multiplied by)</td> <td>Each 1,000 persons projected to occupy the fully developed subdivision</td> <td>=</td> <td>Amount of land to be contributed</td> </tr> <tr> <td colspan="5" style="text-align: center;">Which is</td> </tr> </table>	Two acres	X (multiplied by)	Each 1,000 persons projected to occupy the fully developed subdivision	=	Amount of land to be contributed	Which is					
Two acres	X (multiplied by)	Each 1,000 persons projected to occupy the fully developed subdivision	=	Amount of land to be contributed								
Which is												



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

	.002 acres	X (multiplied by)	Number of person per dwelling unit	X (multiplied by)	# of dwelling units projected for subdivision	=	Amount of land to be contributed	
38-51.6	<b>Suitability of land</b>							
38-51.6(A)(1)	The dedicated land should form a single parcel or tract of land at least 3 acres in size unless the Parkland Review Committee determines that a smaller tract would be in the public interest.							NO-park land committ Voted for fee in lieu
38-52.3	<b>Design requirements for parks and open space</b>							
38-52.3(A)	Parks and open spaces shall be bounded by a street or by other public uses.							N/A - fee in lieu
38-52.3(B)(1)	Single-family and two-family residential lots shall be oriented such that they front or side onto parks and open spaces but do not back to them.							N/A
38-52.3(B)(2)	Residential lots shall only be allowed to back onto a park or open space when:							↓
38-52.3(B)(2)(a)	A trail is provided within the related park or open space.							
38-52.3(B)(2)(b)	The sites physical character does not reasonably accommodate an alternative design or the layout of the subdivision complements the use of the use of park or open space (e.g., lots backing to a golf course.)							
38-52.3(C)(1)	A proposed development adjacent to a park of open space shall not be designed to restrict public visibility or reasonable access from other area developments.							
38-52.3(C)(2)	Street connections to existing or future adjoining subdivisions shall be required to provide reasonable access to parks and open space areas.							
38-52.3(D)(1)	Where a non-residential use must directly abut a park or open space area, the use shall be oriented such that it sides, and does not back onto the park or open space area if at all possible							
38-52.3(D)(2)	Nonresidential uses shall be separated from the park or open space by a minimum 6 foot tall decorative metal fence with an irrigated living screen.							
38-52.3(E)	Alleys should not be designed to encourage their use as a means of vehicular, bike or pedestrian travel to the park.							
38-52.3(F)(1)	Public access into parks and open spaces shall not be less than 50' in width at the public Right-of-Way line, at the street curb, and at any other public access point.							
38-52.3(F)(2)	Such access shall not be part of a residential lot or other private property.							
38-52.8	<b>Hike-and-Bike Trail Requirements</b>							
38-52.8(B)	Hike-and-Bike trails, especially those providing access too and along 100-year Floodplains and other open spaces, shall be in accordance with the following design criteria:							N/A - no proposed trails in the area
38-52.8(B)(1)	A minimum 30' wide level ground surface shall be provided for a 10' wide public hike-and-bike trail. The 30' wide level ground surface (compliant with ADA) may be provided within and/or outside of the 100-year floodplain.							
38-52.8(B)(2)	The Right-of-Way of a public street may count towards the 30' wide, ADA compliant level ground surface upon approval from the Director of Community Services.							N/A



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

38-52.8(B)(4)	The hike-and-bike trail shall be designed to minimize visibility blind spots from public streets for public safety purposes.	N/A
38-52.8(C)(1)	The Director of Community Services shall have the authority to determine the placement of a public hike-and-bike trail at the time of the preliminary plat review and approval.	↓
38-52.8(C)(2)	The location of such trails shall be safe and economical.	
38-52.8(C)(3)	No development shall interrupt future trail routes or otherwise hinder efficient public access to or from an existing or future planned trail.	
38-52.8(D)(1)	The location of trails within developments adjacent to or within a 100-year Floodplain recognized on the Trails Master Plan shall be coordinated with the Director of Community Services and shall be staked in the field by the developer and approved by the Director of Community Services prior to the submittal of a preliminary plat.	
38-52.8(D)(2)	The location of the trail shall be specified on the preliminary plat as the approved location for the hike-and-bike trail, and an easement for such shall be shown on the preliminary plat and final plat for any portions of the trail that traverse private property.	
38-52.8(E)	When development is adjacent to an undeveloped property, a pedestrian access stub-out in conjunction with a street connection to the edge of the development shall be required to allow for future access between developments as indicated on the Trails Master Plan.	↓
38-53.4	<b>Tree Canopy Management Plan</b>	
38-53.4	A Tree Canopy Management Plan shall be required as part of the preliminary plat. <b>This only applies to sites five acres or larger.</b>	X
38-53.5(B)(1)	The applicant shall prepare a Tree Canopy Management Plan and shall submit the plan as part of the preliminary plat application.	X
38-53.5(B)(2)	Within the Tree Canopy Management Plan, the applicant shall provide the following information:	
38-53.5(B)(2)(a)	Pre-development tree canopy coverage (as determined by the City)	X
38-53.5(B)(2)(b)	Post-development tree canopy coverage (as determined by the applicant)	X
38-53.5(B)(2)(c)	Visual identification of tree canopy to be removed.	X
38-53.5(C)(1)	Tree Canopy Management Plan shall be reviewed by the Director of Community Development for compliance with all standards.	
38-53.5(C)(2)	After reviewing the Tree Canopy Management Plan, the Director of Community Development shall make a recommendation to the Planning Commission and City Council. The Director must act within 30 days of the official filing date of the preliminary plat application.	
38-53.6	<b>Tree Preservation Requirements</b>	
38-53.6(A)	Option A (Standard Option) – Only trees in the following areas may be removed:	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

38-53.6(A)(1)	The Tree Canopy or any tree located within any street Right-of-Way may be removed.	X
38-53.6(A)(2)	The Tree Canopy or any tree located within any area dedicated for water, wastewater, drainage and other similar infrastructure needs may be removed.	X
38-53.6(A)(3)	The Tree Canopy or any tree located within any area required by the subdivision ordinance for a site feature, such as a screening wall, may be removed.	X
38-53.6(B)	Option B (Alternative Compliance)	N/A
38-53.6(B)(1)	The applicant may elect to develop a site using the Residential Cluster Development option.	↓
38-53.6(B)(2)	In the design of the Tree Canopy Management Plan, if a Residential Cluster Development Option is used, only the Tree Canopy or trees within the designated open space areas shall be preserved.	
38-53.7	<b>Tree Mitigation Plan – Required if trees are removed prior to approval of a Tree Canopy Management Plan</b>	
38-53.7(B)(2)	Tree Mitigation Requirements:	
38-53.7(B)(2)(a)	The applicant shall calculate the area of Tree Canopy that should have been preserved under Option A or Option B.	
38-53.7(B)(2)(b)	The resulting calculation shall be the amount of Tree Canopy that shall be restored.	
38-53.7(B)(2)(c)	Replacement trees shall be required to cover an area equal to the calculated restoration area.	
38-53.7(B)(2)(d)	The applicant shall calculate the number of replacement trees needed to cover the calculated restoration area.	
38-53.7(B)(2)(e)	In calculating the area for replacement trees, the mature size of replacement trees shall be used.	
38-53.7(B)(2)(f)	In calculating the area for replacement trees, only large trees shall be used.	
38-53.7(B)(2)(g)	Tree Canopy coverage at maturity is to be obtained through the planting of 2.5 inch caliper trees at spacing that will meet the calculated restoration area.	
38-53.7(B)(2)(h)	Replacement trees shall be a minimum 2.5 inch caliper trees.	
38-53.7(B)(2)(i)	Replacement trees shall be planted at spacing that will meet the calculated restoration area.	
38-53.7(B)(2)(j)	The Tree Canopy Management Plan shall show graphically the location of each replacement tree.	
38-53.7(B)(2)(k)	The number of replacement trees shall be shown in a tabular format and indicated the tree species and area of coverage assumptions for each tree species at maturity.	
38-53.7(B)(2)(l)	Replacement trees shall be planted prior to the approval of a final plat.	
38-53.7(B)(3)	Alternative Tree Mitigation Requirements	✓



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

	<b>Administrative</b>	
	One digital copy of the preliminary plat	X
	Three 24x36 copies of the preliminary plat to scale	X
	Name of subdivision centered at the top of the preliminary plat.	X
	Name of city, county, state, section, township and range centered and printed at the top of the preliminary plat.	X
	Name and address of the owner of record, the subdivider, the owners engineer and the registered surveyor preparing the plat.	X
	Legal description of the property to be subdivided, including the acreage and number of proposed lots in the subdivision.	X
	Key map showing the location of the property to be subdivided referenced to existing or proposed arterial streets or highways.	X

**Preliminary Plat Requirements/Checklist - Zoning**

5.14.1	<b>Lot Variety Required (required for areas 5 acres or larger)</b>	
5.14.1(A)	Applicability – This section only applies to single-family residential developments of 5 acres or larger.	X
5.14.1(B)(1)	15% of lots within a development shall be larger than the minimum lot size. Lots shall be increased at least 20% of the minimum lot size.	X
5.14.1(B)(2)	15% of lots within a development may be smaller than the minimum lot size. Lot sizes shall not be reduced greater than 20% of the minimum lot size.	N/A - none smaller than minimum
5.14.1(C)	Single-family lots shall not be smaller than 6,000 square feet.	X
5.14.1(D)	Lots of various sizes shall be evenly distributed throughout a development.	X

Additional Notes:



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

Applicant: CASHOT CUE 3  
 Phone Number: \_\_\_\_\_  
 Address: \_\_\_\_\_

**Preliminary Plat Requirements/Checklist - Engineering**

The preliminary plat shall be accompanied by a statement signed by the registered engineer preparing the plat that he has, to the best of his ability, designed the subdivision in accordance with the latest subdivision regulations and in accordance with the ordinances and regulations governing the subdivision of land.

38-18	Preliminary Plat:	
Administrative	North arrow, scale, date, and site location map	✓
Administrative	The total number of lots	✓
Administrative	The total area of development	✓
Administrative	The location of proposed lots, areas in Acres and Square Feet, and dimensions.	✓
Administrative 38-42.3(b)(3)	The location of property lines, existing easements, buildings, fences, cemeteries or burial grounds, and other existing features within the area to be subdivided and similar facts regarding existing conditions on immediately adjacent property.	✓
Administrative 38-42.3(b)(3)	The location of any natural features such as water courses, water bodies, flood hazard areas, tree masses, steep slopes, or rock outcroppings within the area to be subdivided and similar facts regarding existing conditions on immediately adjacent property.	✓
Administrative 38-42.3(b)(3)	The location, width, and name of all existing or platted streets or other public ways (i.e. railroad and state-owned) within or immediately adjacent to the tract.	✓
Administrative	The location of all existing or abandoned oil or gas wells, oil or gas pipelines and other appurtenances associated with the extraction, production and distribution of petroleum products and all related easements on the site or on immediately adjacent property.	✓
13-18.2(c)	The applicant shall furnish with the application to the city a current title commitment issued by a title insurance company authorized to do business in Oklahoma, a title opinion letter from an attorney licensed to practice in Oklahoma, or some other acceptable proof of ownership, identifying all persons having an ownership interest in the property subject to the preliminary plat.	✓
Administrative	The legal metes and bounds of the property being developed.	✓
13-69.7(1)	The area of the preliminary drainage plan in acres shown at points where storm water enters and leaves the proposed subdivision, and where drainage channels intersect roadways and at junction points.	✓
13-69.7(3)	The location, size, and type of existing and proposed storm water control facilities including storm sewers, inlets, culverts, swales, channels and retention or detention ponds and areas. The approximate area in acres served by said facilities shall be shown.	✓



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

13-69.7(4)	Special structures such as dams, spillways, dikes or levees.	✓
Administrative	Location of Floodplain if adjacent or within development	✓
Administrative	Location of Wetlands if adjacent or within development. If so, the developer is required to notify the Army Corp of Engineers.	✓
Administrative 38-43.3(a)(1)	Show the location and size of water mains.	✓
Administrative 38-43.3(a)(1)	Show the location and size of wastewater mains.	✓
Administrative 38-43.3(a)(2)	Show the location and specifications for fire hydrant systems.	✓
Administrative	Finish floor elevations for all pad sites	✓
Administrative 13-69.7(2)	Drainage arrows on all lots showing the final grading and where the water will drain	✓
Administrative 38-54.3(c)(1) 38-54.3(d)(1) 38-54.4	Required retaining walls and retaining wall easements	✓
Administrative	Existing contours with intervals not to exceed two (2) feet referenced to a United State Geological Survey or Geodetic Survey bench mark or monument.	✓
Administrative	Show the proposed street layout and right of ways.	✓
38-45.4(c)	All existing arterial streets and such collector and local streets as may be necessary for convenience of traffic circulation and emergency ingress and egress.	✓
38-45.4(d)	All access points to existing roadways and be of the required number.	✓
38-45.4(e)	The development shall have two (2) connections to adjacent properties.	X
38-45.4(n)	The names of all new proposed streets.	✓
38-45.4(o)	The development shall not have any proposed cul-de-sacs longer than five hundred (500) feet in length	✓
38-47	The location and size of all proposed pedestrian crosswalks, bike trails, horse trails, or other supplementary movement systems.	✓
<b>38-18.2(a)(1)</b> <b>38-44.3(a)(2)</b>	<b>Preliminary stormwater management plan (SWMP)</b>	✓
38-44.3(e)(1)	A digital copy of the preliminary SWMP shall be submitted along with the preliminary plat.	
38-44.3(e)(2)	The preliminary SWMP shall be labeled as "Preliminary"	
38-44.3(e)(3)	The preliminary SWMP shall be signed, sealed, and dated by the professional engineer (P.E.) or shall contain a statement showing the professional engineer's name and license number and affirming the preliminary SWMP was prepared under the direction of the engineer and that the plan is preliminary	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

38-44.3(b)(3)	If no preliminary drainage plan is required [only upon city engineer's approval, see 38-44.44 (b)(3)]: show existing drainage patterns, runoff coefficients, and the proposed changes to these items (before and after development)	
38-44.3(c)	The preliminary SWMP must comply with the Engineering Standards Manual and construction details and the Midwest City Code of Ordinances (e.g. chapters 13 and 43), including control/sediment plans	
38-18.2(a)(2) 38-44.4(a)(2)	<b>Preliminary drainage plan</b>	✓
13-69.7(1)	The area of the preliminary drainage plan in acres shown at points where storm water enters and leaves the proposed subdivision, and where drainage channels intersect roadways and at junction points.	✓
13-69.7(3)	The location, size, and type of existing and proposed storm water control facilities including storm sewers, inlets, culverts, swales, channels and retention or detention ponds and areas. The approximate area in acres served by said facilities shall be shown.	✓
13-69.7(4)	Special structures such as dams, spillways, dikes or levees.	✓
38-44.4(c)(1)	The preliminary drainage plan shall show the watershed affecting the development and how the runoff from the fully-developed watershed will be conveyed to, through, and from the development.	✓
38-44.4(c)(2)	The preliminary drainage plan must comply with the Engineering Standards Manual and construction details and the Midwest City Code of Ordinances (e.g. chapters 13 and 43)	✓
38-44.4(d)(1)	Three (3) paper copies of the preliminary drainage plan	✓
38-44.4(d)(2)	The preliminary drainage plan shall be labeled as "Preliminary"	✓
38-44.4(d)(3)	The preliminary drainage plan shall be stamped by and dated by the engineer, professional	✓
<b>38-44.5</b>	<b>If the development proposed is adjacent to or within the 100-year floodplain the following are required:</b>	X
38-44.5(a)	No Development within a floodway.	
38-44.5(b)	All 100-year floodplains shall be maintained in an open natural condition	
38-44.5(b)(3)(a)	The 100-year floodplain shall be dedicated on the final plat to the city as a single lot or may be owned and maintained by an HOA	
38-44.5(b)(3)(b)	No portion of a single-family or two-family residential lot shall exist within the 100-year floodplain	
38-44.5(b)(3)(c)	A fifteen-foot wide maintenance easement adjacent to the floodway	
38-44.5(b)(3)(e)	All streets adjacent to a 100-year floodplain shall have a minimum ROW width of fifty (50) feet.	
38-44.5(b)(3)(f)(2)	All streets adjacent to a 100-year floodplain shall have a minimum sixty (60) percent of the linear frontage	
38-44.5(b)(3)(f)(3)(a)	Not more than one (1) cul-de-sac in a row adjacent to 100-year floodplain	





The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

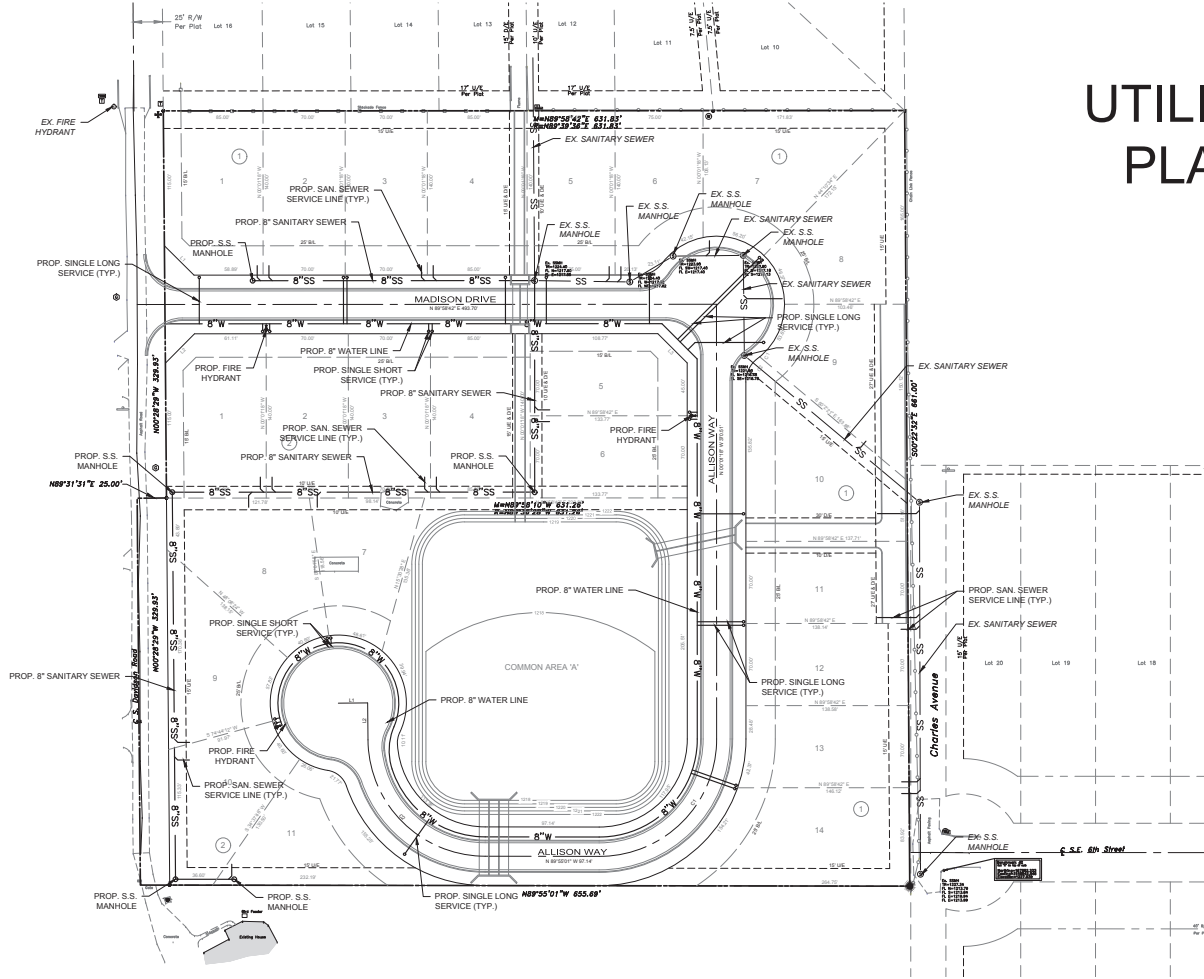
38-44.5(b)(3)(f)(2)(b)(1)	A minimum fifty (50) percent of an adjacent cul-de-sac bulb shall be open to the 100-year floodplain and no residential lot shall encroach within the area between this line and the major creek.	
38-44.5(b)(3)(f)(2)(b)(2)	An entry monument(s) or feature(s) as well as landscaping shall be provided at the end of the cul-de-sac and a pathway of a minimum twelve (12) feet in width shall be provided to the major creek	
<b>38-18.2(a)(3)</b> <b>38-43.3</b>	<b>Preliminary utility plan</b>	✓
Administrative	The preliminary utility plan shall show the location and width of all adjacent utility easements	✓
38-38.43.2(2)	Width of all proposed utility easements	✓
38-43.3(a)(1)	The preliminary utility plan shall show the location and size of water mains.	✓
38-43.3(a)(1)	The preliminary utility plan shall show the location and size of wastewater mains.	✓
38-43.3(a)(2)	The preliminary utility plan shall include plans and specifications for fire hydrant systems.	✓
38-43.4(b)	All water and wastewater utilities including connections within the ROW or easements shall be vested to the city.	✓
38-43.4(d)	No utility or service lines shall cross another lot.	✓
38-43.4(e)	Any utility adjacent to non-city government roads shall be constructed outside that ROW and in a separate easement unless agreed upon by non-city owner and Midwest City	✓
<b>38-18.2(a)(5)</b>	<b>Preliminary site development plan</b>	✓
Administrative	Finish floor elevations for all pad sites	
Administrative 13-69.7(2)	Drainage arrows on all lots showing the final grading and where the water will drain (not to drain over more than adjacent lot)	
Administrative 38-54.3(c)(1) 38-54.3(d)(1) 38-54.4	<b>Required retaining walls and retaining wall easements</b>	
Administrative	<b>Existing contours with intervals not to exceed two (2) feet referenced to a United State Geological Survey or Geodetic Survey bench mark or monument.</b>	
<b>38-18.2(a)(6)</b>	<b>Street layout plan</b>	✓
Administrative	The classification of every street within or adjacent to the development.	
38-45.4(b)	The streets within the development shall conform to the city's comprehensive plan.	
38-45.4(c)	The proposed street system shall extend all existing arterial streets and such collector and local streets as may be necessary for convenience of traffic circulation and emergency ingress and egress.	
38-45.4(d)	The street layout plan shall show all access points to existing roadways and be of the required number.	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

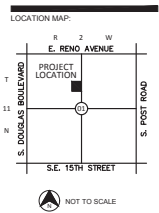
38-45.4(e)	The street layout plan shall have two (2) connections to adjacent properties.	
38-45.4(n)	The street layout plan will have the names of all new proposed streets.	
38-45.4(o)	The street layout plan shall not have any proposed cul-de-sacs longer than five hundred (500) feet in length	
38-47	The location, size, and easements of all proposed pedestrian crosswalks, bike trails, horse trails, or other supplementary movement systems.	
<b>38-18.2 (a) (7)</b>	<b>Street signage and striping plan</b>	✓
Administrative	Proposed signage of development	
Administrative	Proposed striping if required	
<b>38-18.2 (a) (9)</b>	<b>Other plans</b>	
<b>Engineering Comments and Recommendations:</b>		
<b>Associated Departments (Fire, Stormwater, and Utilities) Comments and Recommendations:</b>		

# UTILITY PLAN



## UTILITY NOTES

- A. CONTRACTOR SHALL REFER TO THE CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE WRITTEN SPECIFICATIONS, CONSTRUCTION DRAWINGS, STORM WATER POLLUTION PLAN, AND GEOTECHNICAL REPORT.
- B. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE OWNERS DESIGN GUIDELINES AND SPECIFICATIONS, AND WHERE APPLICABLE SHALL MEET THE REQUIREMENTS OF THE GOVERNING PERMITTING AUTHORITY HAVING JURISDICTION.
- C. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN HORIZONTAL AND VERTICAL CONTROL. REFERENCE POINTS AND CONSTRUCTION STAKING AS INCIDENTAL TO THE PROJECT.
- D. THE CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS/PROPERTY LINES/UTILITIES/DRAINAGE PRIOR TO CONSTRUCTION START.
- E. ALL WORK NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED AS INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.
- F. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND MEP PLANS AND SPECIFICATIONS BEING A PART OF THE CONSTRUCTION DOCUMENTS FOR THE EXACT LOCATIONS AND DIMENSIONS OF ENTRY, EXIT PORCHES, PRECISE BUILDING DIMENSIONS, EXACT EXISTING UTILITY ENTRANCE, AND DOWNSPOUT LOCATIONS/SPECIFICATIONS/DETAILS.
- G. REFER TO ARCHITECTURE PLANS FOR SITE LIGHTING/LIGHT POLE BASES AND ELECTRICAL CONDUIT PLACEMENT AND SPECIFICATIONS. POLE LOCATIONS ARE SHOWN ON THIS SHEET FOR REFERENCE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND ADJUST ANY CONSTRUCTED CONFLICTS WITH UNDERGROUND UTILITIES, SIDEWALKS, ETC.
- H. CONTRACTOR IS REQUIRED TO CALL ONE CALL AS WELL AS THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION/CONSTRUCTION ACTIVITIES TAKE PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS.
- I. CONTRACTOR SHALL ENSURE ALL CONSTRUCTED UTILITIES MEET THE MINIMUM SEPARATION AND COVER REQUIREMENTS SET FORTH BY THE PROVIDER, FEDERAL/STATE/LOCAL REGULATIONS, OR SPECIFICATIONS. IN THE EVENT THERE IS A CONFLICT THE MOST STRINGENT SHALL APPLY.
- J. GENERAL CONTRACTOR TO PROVIDE 2"x2"x2" THICK CONCRETE APRON AT ALL CLEANOUTS, VALVES AND METERS OUTSIDE OF BUILDING.
- K. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND THE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDINGS.
- L. THRUST BLOCKING SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
- M. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
- N. ALL WATER AND SANITARY SEWER LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.
- O. ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE A MAXIMUM OF 18" UNLESS OTHERWISE SPECIFIED BY CITY OFFICIAL FROM HYDRANT.
- P. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO, ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
- Q. REFER TO FIRE PROTECTION SHEETS FOR LOCATION AND DETAIL OF FIRE LINE LEAD IN. FIRE LINE SHALL BE STUBBED UP 1' ABOVE FFE IN SPRINKLER ROOM.
- R. REFER TO PLUMBING SHEETS FOR LOCATION AND DETAILS OF SEWER, DOMESTIC, AND IRRIGATION CONNECTIONS.
- S. CONTRACTOR SHALL REFER TO IRRIGATION PLANS FOR ACTUAL LOCATION, SIZE, LENGTH AND DEPTH. TEMPORARILY PLUG BOTH ENDS. IRRIGATION CONTRACTOR WILL REMOVE TEMPORARY PLUGS, INSTALL LINES AND PROPERLY SEAL BOTH ENDS.
- T. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE LOCATED ON THE STREET SIDE OF ANY STRUCTURE. THE FDC SHALL BE LOCATED AND ARRANGED SO THAT THE HOSE LINES CAN BE READILY ATTACHED TO THE INLETS WITHOUT INTERFERENCE FROM OBJECTS.
- U. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE EXTENSIONS OF ALL UTILITY SERVICE LINES TO THE MAIN UTILITY LINES.
- V. ALL CONDUIT SHALL BE SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED.
- W. CONTRACTOR SHALL REFER TO LANDSCAPE AND IRRIGATION PLAN FOR LOCATION AND CONSTRUCTION DETAILS OF LANDSCAPING AND IRRIGATION.



PROJECT: **CASSIDY COVE**

MIDWEST CITY, OKLAHOMA

PROJECT NUMBER: 19013  
DRAWING DATE: 02.25.19  
ISSUE DATE: 02.25.19

SCALE:

SUBMITTAL: **PRELIMINARY PLAN SUBMITTAL**

REVISIONS:

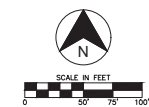
NO.	DATE	DESCRIPTION

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WITHOUT THE WRITTEN PERMISSION AND CONSENT OF CEDAR CREEK. THESE PLANS AND DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNLESS THE ISSUE DATE IN THE TITLE BLOCK COINCIDES WITH OR POST DATES THE DRAWING DATE. ANY CHANGES MADE FROM THESE PLANS WITHOUT CONSENT OF CEDAR CREEK ARE UNAUTHORIZED AND SHALL RELIEVE CEDAR CREEK CONSULTING OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING OUT OF SUCH CHANGES.

DRAWING TITLE:

**OVERALL UTILITY PLAN**

SHEET: **C1.00**





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

**Date:** May 28, 2019

**Subject:** (PC – 1992) Discussion and consideration of approval of the proposed preliminary plat of Roller Lot, described as a part of the NW/4 of Section 36, T12N, R2W, addressed as 9401 E. Cardinal Place.

**Executive Summary:** This item is a request to subdivide a single parcel into two (2) individual parcels. No development is proposed. There is a house on the southwest corner of the lot. The property owner is applying for this plat in order to sell proposed Lot 1 to the people who are currently living in the existing residence. The proposed lots exceed the minimum lot size in the R-6, Single Family Residential zoning district. Public water and sanitary sewer services are not available to the area of proposed Lot 1. The applicant is requesting a waiver to the requirement for half street and sidewalk improvements as well as water and sewer extensions for proposed Lot 1. Staff recommends approval of the Roller Lot Preliminary Plat.



**Dates of Hearing:** Planning Commission – May 7, 2019  
City Council – May 28, 2019

**Council Ward:** Ward 3, Espaniola Bowen

**Owner/Applicant:** Glenn Blumstein and Mark Svoboda

**Surveyor:** Kent Mace, MacBax Land Surveying

**Proposed Use:** Same as existing:  
One (1) single family residence and one (1) oil well

**Size:**

The area of request has a frontage along E. Cardinal Place of approximately 631.07 ft., frontage along N. King Ave. of approximately 638.31 ft., and frontage along Woodland Dr. of approximately 639.55 ft., containing an area of approximately 9.62 acres.

**Zoning Districts:**

Area of Request – R-6, Single Family Detached Residential  
North, South, East and West – R-6, Single Family Detached Residential

**Land Use:**

Area of Request – site of one single family residence and an oil and gas well  
North, South, East and West – single family residences

**Municipal Code Citation:**

2.7.1. R-6, Single –Family Detached Residential District

The R-6, Single-Family Detached Residential District is intended for single-family residences on lots of not less than 6,000 square feet in size. This district is estimated to yield a maximum density of 5.1 gross dwelling units per acre (DUA). Additional uses for the district shall include churches, schools and public parks in logical neighborhood units.

38-18.1. Purpose

The purpose of a Preliminary Plat shall be to determine the general layout of the subdivision, the adequacy of public facilities needed to serve the intended development, and the overall compliance of the land division with applicable requirements of the Subdivision Ordinance.

**History:**

1. This area has been zoned single-family residential since the adoption of the 1985 zoning code and has never been platted.
2. The Board of Adjustment approved an application for an oil and gas well at this location in December of 2013 (BA-378).
3. The Planning Commission recommended approval of this item May 7, 2019.

**Engineer's Comments:**

The following summary notes the lack of city water lines, sewer mains, street, sidewalk, and drainage improvements servicing this site. The applicant is proposing dividing the area of request from one to two lots, separating the current residence away from the larger property containing the oil recovery system site. The applicant is not proposing to build any new residences on the area of request. Municipal Code Sec. 38-60, the subdivision proportionality appeal allows an applicant to petition the city council for a waiver to public improvements in a case where the applicant feels the burden of the required improvements is disproportionate to the goal of the application. The applicant's intention is to separate the existing unoccupied home from this site so it can be sold to a local resident. The applicant states requiring all of the following public improvements would make that financially impractical. This petition does not waive dedicating the right of way and easement grants noted in the summary. Therefore:

**The applicant is petitioning the City Council under Section 38-60 of the Municipal Code to waive the following public improvement requirements.**

Water Supply and Distribution

A six (6) inch public water main is located on the east side of Woodland Drive in the street right-of-way extending along the east side of the area of request.

There are no water main extensions along the frontages of East Cardinal Place, North King Avenue, nor N.E. 6th Street. The applicant is requesting a waiver to the water main extensions along the frontages off these three road corridors.

An individual system services the current residence.

Sanitary Sewer Collection and Disposal

An eight (8) inch public sewer main bisects the area of request from the east to the west. No record of an easement for the main can be found in the county records. An easement covering this main is required with this application. The applicant is requesting a waiver to the sewer main extension to the current residence.

An individual system services the current residence.

Streets and Sidewalks

Access to the area of request is available from Woodland Drive, East Cardinal Place, North King Avenue, and N.E. 6th Street.

Woodland Drive, East Cardinal Place, North King Avenue, and N.E. 6th Street are classified as local streets in the 2008 Comprehensive Plan. Woodland Drive, East Cardinal Place, North King Avenue are two (2) lane, uncurbed, asphalt concrete roadways with bar ditches. None meet current code requirements for local streets. N.E. 6th Street is a dedicated road corridor that has never been constructed.

The four roads do have the minimum, required, half street right-of-way widths of twenty-five (25) feet for local roads adjacent to the area of request.

The applicant is requesting a waiver to the half street improvement requirements to the four adjacent roadways.

There are no sidewalks adjacent to the site. The applicant is requesting a waiver to the sidewalk extensions along the frontages of the area of request.

Drainage and Flood Control, Wetlands, and Sediment Control

Drainage across the area of request is from the east to the west via an unimproved secondary drainage channel bisecting the site. Currently, the area of request is developed with a single family residence and an oil recovery facility on a large acreage. The applicant is not requesting any change to the existing facilities located on the site. Any future change to the area of request will require a drainage study with the necessary drainage improvements and detention pond improvements to accommodate a building permit.

No record of an easement covering the secondary drainage channel can be found in the county records. An easement covering the full width of the channel is required with this application.

The area of request is not affected by flood zone AE (the 100-year floodplain) as shown on the effective Flood Insurance Rate Map (FIRM) number 40109C0330H, dated December 12, 2009.

All future development on the proposed tracts must conform to the applicable requirements of Municipal Code Chapter 13, "Drainage and Flood Control."

Resolution 84-20 requires that developers install and maintain sediment and/or erosion controls in conjunction with their construction activities. Any proposed development must conform to the applicable requirements of Municipal Code Chapter 43, "Erosion Control." Sediment control plans must be submitted to and approved by the city before any land disturbance is done on-site. The developer is responsible for the cleanup of sediment and other debris from drainage pipes, ditches, streets and abutting properties as a result of his activities.

#### Easements and Right-of-Way

The required easements and existing and proposed right of way for the area of request will be dedicated to the city when the final plat is filed.

Twenty-five (25) foot site triangles at the four corners of the area of request are required with this application.

A fifteen (15) foot easement covering the existing sewer main is required with this application.

An easement covering the full width of the secondary drainage channel is required with this application.

The area of request is noted in the Trails Master Plan as a site for the future expansion of the trail system. A thirty (30) foot trail easement is required with this application.

All easements and right of way dedications are to comply with Code Sections 38-41 and 38-44.

#### **Fire Marshal's Comments:**

The property is required to meet and maintain the requirements of Midwest City Ordinances, Section 15.

#### **Staff Comments:**

The purpose of this preliminary plat is to split the existing 9.62 acre lot into two (2) individual lots. No development is proposed with this subdivision of land. There is currently a house in the southwest corner of the lot. The owner of the entire parcel has rented out the house and the current tenants wish to purchase the home and a portion of the lot from the owner. If this preliminary plat is approved with the requested waivers to the street and sidewalk improvements and water and sewer extensions, the applicant will move forward with a final plat application.

The proposed lots each exceed the minimum land area for lots in the R-6, Single Family zoning district. Proposed Lot 1 contains 1 acre and 183.83' of frontage on E. Cardinal Pl. and 184.46' of frontage on N. King Ave.

The density for this development is less than one (1) dwelling unit per acre so there is no requirement for Park Land Dedication.

The Midwest City Master Trails Plan does identify planned trails through the area of request. The applicant has included a 30' trail easement on this plat. A Tree Canopy Management Plan is required as the area of request is greater than five (5) acres. As the applicant is not proposing any future development, he has submitted a letter stating that no trees will be cut down as a result of the sale of proposed Lot 1 in the southwest corner of the area of request.

As this preliminary plat meets the subdivision regulations, and if city council approves the waiver to the public improvements, staff recommends approval of the Roller Lot Preliminary Plat subject to these comments.

**Action Required:** Approve or reject the Roller Lot Preliminary Plat located on the property as noted herein. Approve or reject the waiver to the public improvements as noted herein, subject to the staff comments and found in the May 28, 2019 agenda packet and made a part of PC- 1992 file.

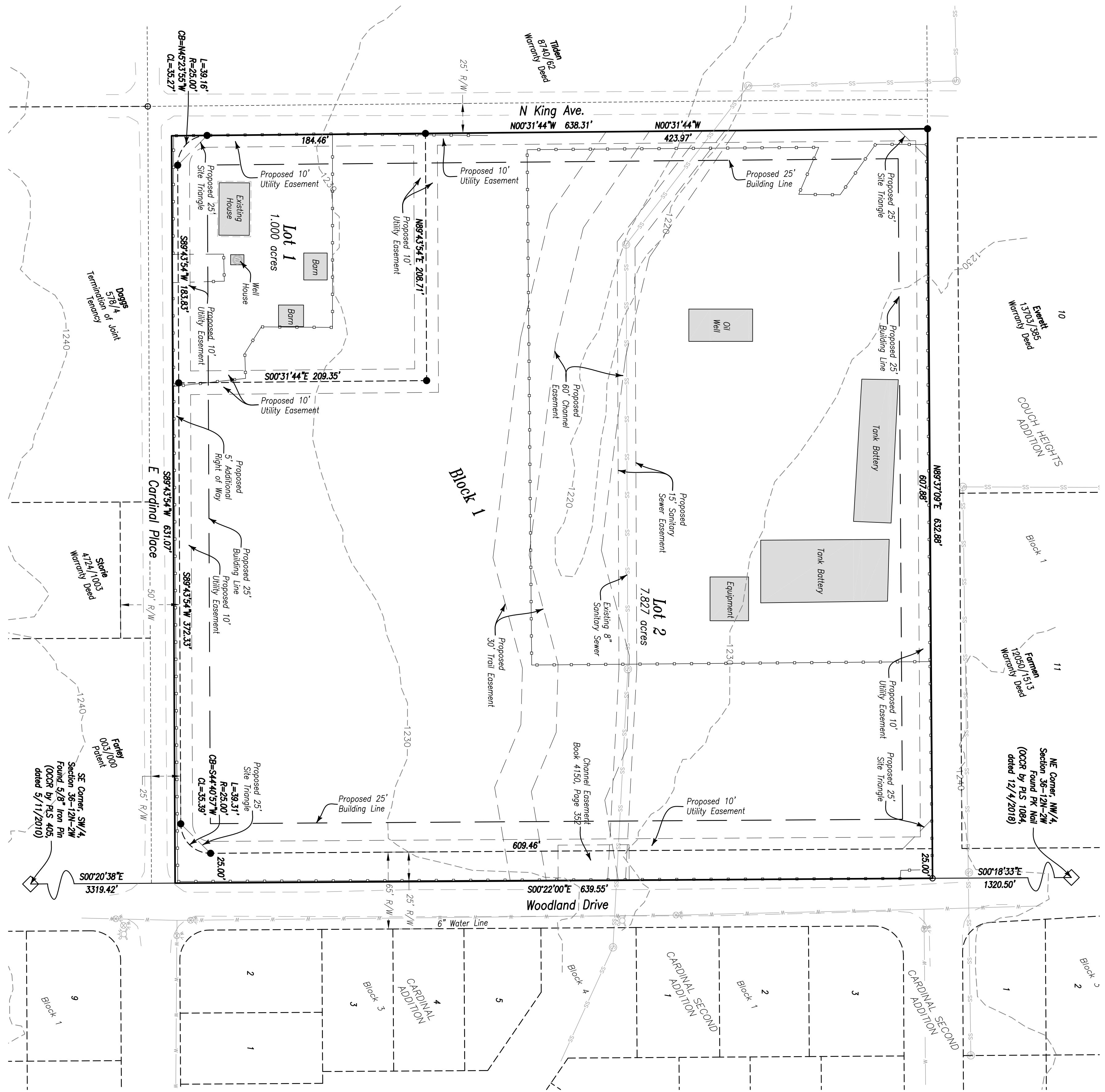


Billy Harless, AICP  
Community Development Director

KG



PRELIMINARY PLAT OF  
**ROLLER LOT**  
 PART OF THE NE/4, SE/4, NW/4, SECTION 36, TOWNSHIP 12 NORTH, RANGE 2 WEST, I.M.,  
 MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA



**PROPERTY DESCRIPTION:**

The South Half of the Northeast Quarter of the Southeast Quarter of the Northwest Quarter of Section 36, Township 12 North, Range 2 West, Indian Meridian, Oklahoma County, Oklahoma, containing five acres more or less; except a strip of land twenty feet wide of the south side thereof, and a strip of land twenty five feet wide off the west side thereof, which is reserved for road and public utility purposes.

and  
 The North Half of the Northeast Quarter of the Southeast Quarter of the Northwest Quarter of Section 36, Township 12 North, Range 2 West, Indian Meridian, Oklahoma County, Oklahoma, containing five acres more or less; except a strip of land twenty five feet wide off the west side thereof, which is reserved for road and public utility purposes.

**Also Known As:**

The East Half of the Southeast Quarter of Section 2, Township 7 North, Range 1 West of the Indian Meridian, Cleveland County, Oklahoma, 190 feet deep, except Beginning of the Southeast Corner, Section 2, Township 7 North, Range 1 West, Indian Meridian, Cleveland County, Oklahoma, 190 feet deep, except Beginning of the Southeast Corner, Section 2, Township 7 North, Range 1 West, Indian Meridian, Cleveland County, Oklahoma, as recorded in Book 5835, Page 1134 in Cleveland County, Oklahoma.

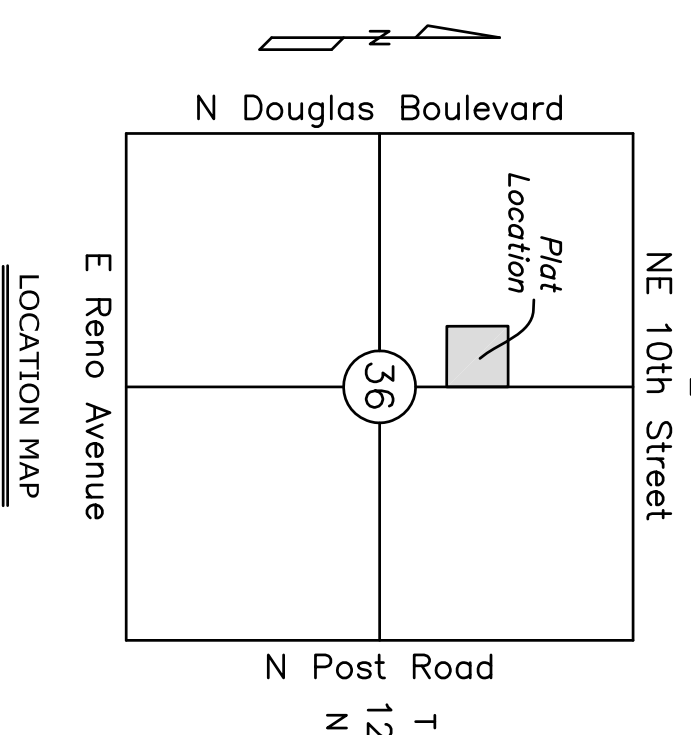
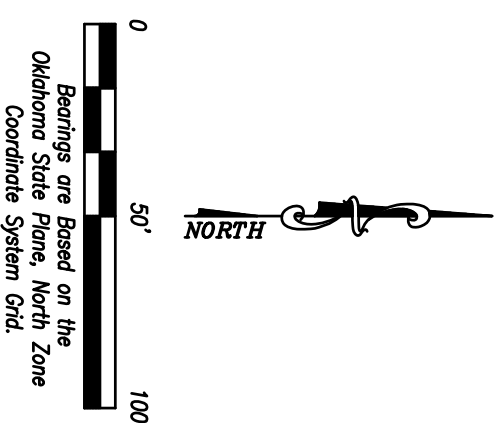
According to Co-Personal Representatives' Deed, recorded in Document 20131028011511100, Book 12390, Page 628 of Oklahoma County, Oklahoma.

**OWNER:**

Snoboda Family Trust & Melrose Lane Properties, LLC  
 7716 Melrose Lane,  
 Oklahoma City, Oklahoma 73127

**Zoning:** R-6

Site Address: 9401 E Cardinal, Midwest City, Oklahoma



LEGEND	
—○—	SIGN
—○—	FIRE HYDRANT
—○—	WATER VALVE
—○—	WATER METER
—○—	TELEPHONE RISER
—○—	GAS METER
—○—	SANITARY SEWER MANHOLE
—○—	SANITARY SEWER CLEANOUT
—○—	POWER POLE
—○—	WATER WELL
—○—	FOUND SURVEY MONUMENT
—○—	FOUND PLSS MONUMENT
—○—	SET 1/2" IRON PIN WITH CAP "MACBAX CA 8137"
—○—	FENCE
—○—	CURB AND GUTTER
—○—	GAS LINE
—○—	WATER LINE
—○—	ELECTRIC OVERHEAD LINE
—○—	SANITARY SEWER LINE
—○—	SUBDIVISION LINE
—○—	RIGHT OF WAY LINE
—○—	BOUNDARY LINE
—○—	EASEMENT LINE
—○—	25' BUILDING LINE

<p>SCALE</p> <p>1" = 50'</p>	<p>PROJECT NUMBER</p> <p><b>MB-19022</b></p>	<p>SHEET TITLE:</p> <p><b>PRELIMINARY PLAT</b></p> <p>3-12-2019</p> <p>SHEET NUMBER</p> <p><b>S1.000</b></p>	<p>REVISIONS:</p> <p>DATE:</p> <p>Added Proposed Easements 4/25/19</p> <p>Added Proposed 25' Building Line 5/1/19</p>	<p>PRELIMINARY PLAT OF</p> <p><b>ROLLER LOT</b></p> <p>Part of the NE/4, SE/4, NW/4,                  Section 36, T12N, R2W, I.M.,                  Midwest City, Oklahoma County, Oklahoma</p>		<p>323-B South Main                  Noble, OK 73068                  Phone 405-872-7594                  Kent@MacBax.net</p> <p style="text-align: right;">Certificate of                  Authorization                  No. 8137</p>
------------------------------	--	--	---	---	--	---

# GLB EXPLORATION, INC.

7716 Melrose Lane  
Oklahoma City, Oklahoma 73127  
(405) 787-0049 (405) 787-8884 Fax

Glenn Blumstein  
President

April 22, 2019

Email Transmitted

Kellie Gilles, AICP  
Planning Manager City of Midwest City  
100 North Midwest Boulevard  
Midwest City, OK 73110

Re: Plat Application  
9401 East Cardinal  
Midwest City, OK 73130

Dear Ms. Giles:

Melrose Lane Properties, LLC and the Svoboda Family Trust currently own a small rental house at the corner of the captioned address. When we purchase the property, the lot was approximately 10 acres. GLB Exploration, Inc. has drilled two wells on the property that continue to produce. The City of Midwest City owns minerals under the two wells and has been receiving royalty from these wells for many years.

We have a sales contract in place with a potential young couple that wants to purchase the house with a 1-acre lot surrounding the house. In visiting with you the city now requires sidewalks and curbs when splitting a lot. This is mainly for new housing additions. In this neighborhood there are no sidewalks or curbs and for us to put this in place would cause us economic hardship and would make the sale of the house to the young couple out of their price range.

Melrose Lane and Svoboda are therefore asking for a waiver from city code 38-45.2(C) of the Subdivision Regulations for sidewalks and curbs. We are also requesting a waiver for the water and sanitary sewer under section 38-43.3(A)(1) of the city codes.

Let me know if you need additional information or have any questions.

Yours truly,



Glenn Blumstein

GB:gb  
xc: Don Wright

## **Tree Canopy Management Plan**

No trees will be cut down or removed from the property due to the sale of the home in the southwest corner of the surveyed property.

March 13, 2019

Patrick Menefee, PE  
Midwest City-City Engineer  
100 N. Midwest Boulevard  
Midwest City, OK 73110

RE: Drainage Impact - Roller Lot Preliminary Plat

The site is under 10 acres in size with an existing drainage channel flowing from east to west through the mid-part of the tract. The outflow is through an existing 48" pipe under N King Avenue.

There is no new construction, no new hard surfaces, or any grading planned with this platting, therefore no increase in drainage with no new impact to the City's drainage system.

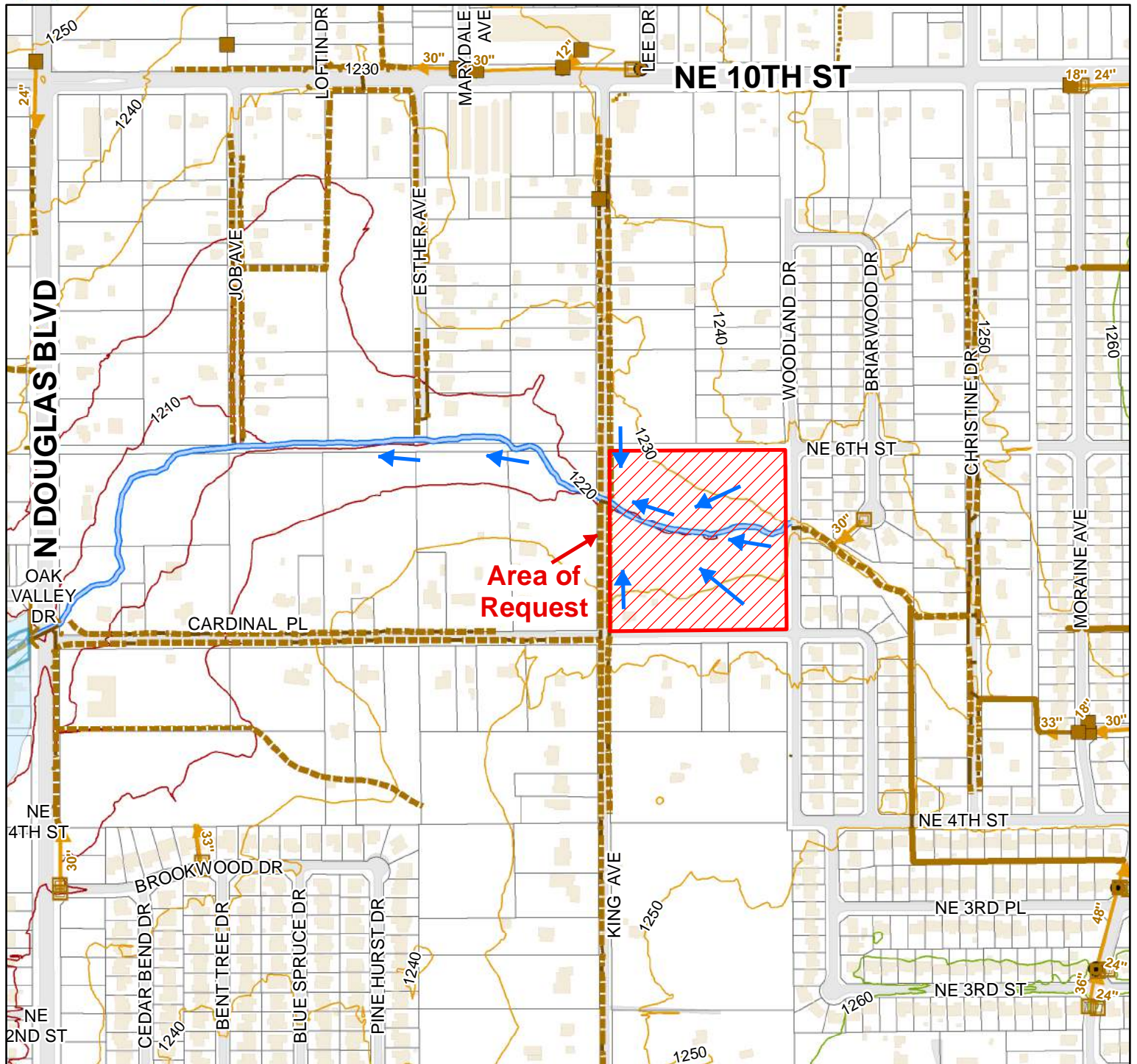
Sincerely,



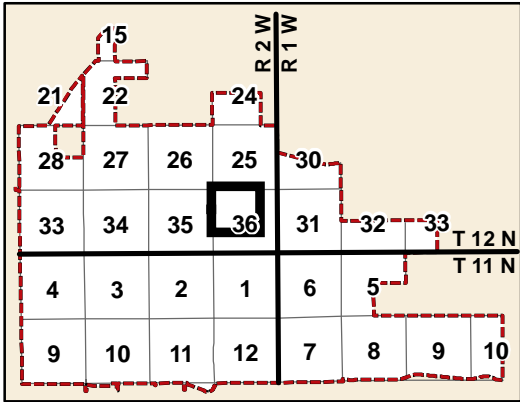
Kent Mace, PE, PLS  
MacBax Land Surveying, PLLC



3/13/2019



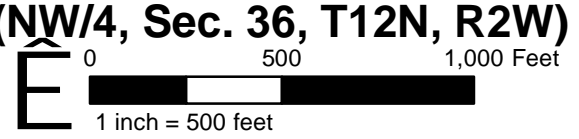
Locator Map



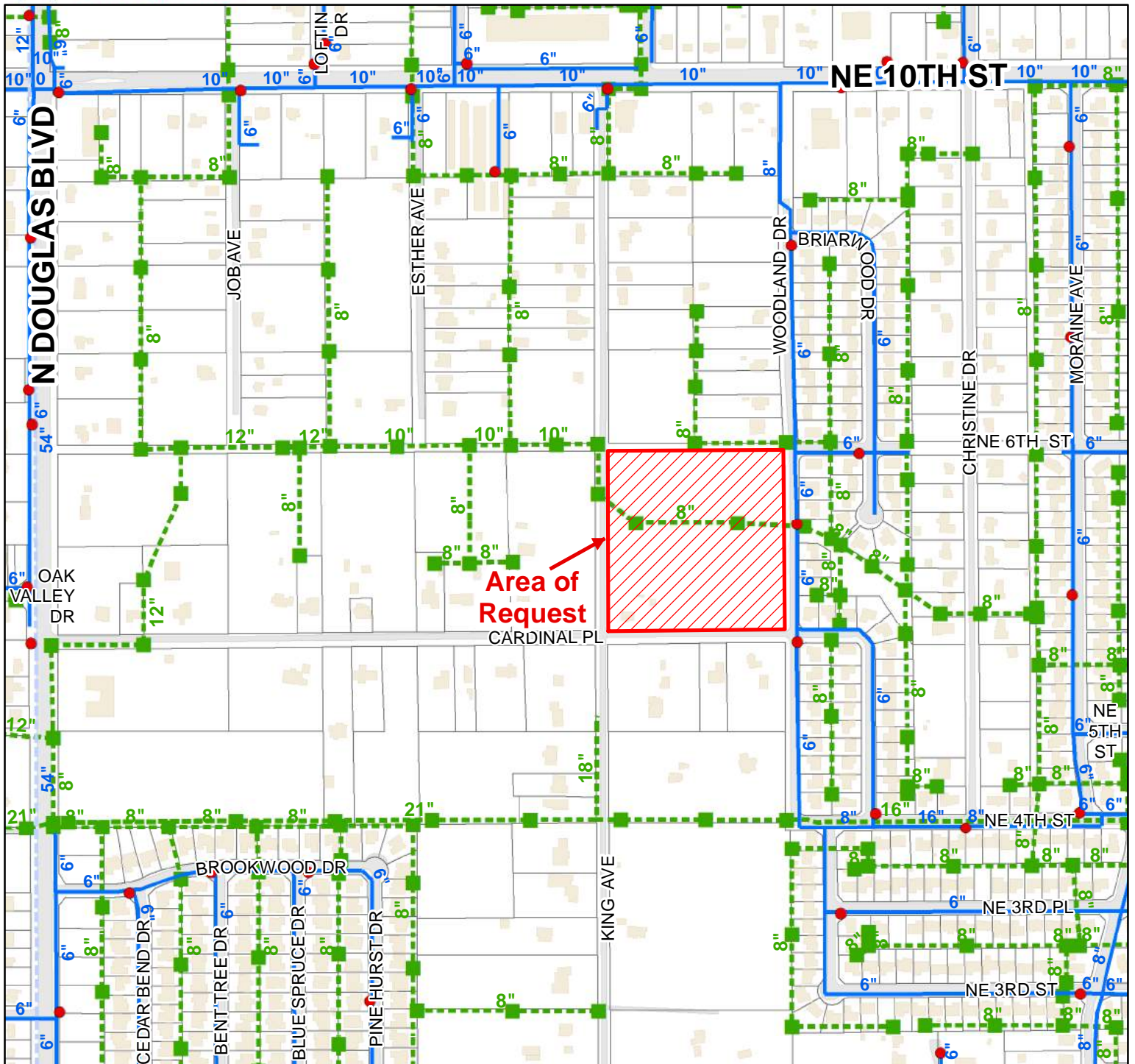
- Drainage Legend**
- Curb Inlets
  - Inlets
  - Junction Box
  - Culverts
  - Flumes
  - Developed Channels
  - Trickle Channels
  - Undeveloped Channels
  - Storm Lines
  - Creeks
- ELEVATION**
- 1166-1204 ft
  - 1204-1228 ft
  - 1228-1250 ft
  - 1250-1278 ft
  - 1278-1324 ft

- 2009 FEMA Floodplains**
- 500-yr floodplain
  - 100-yr floodplain
- 2009 FEMA Floodway**
- FLOODWAY

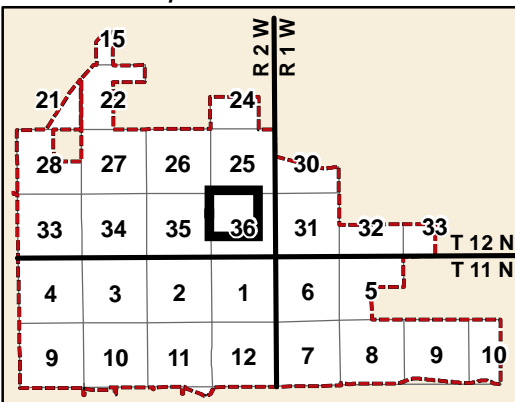
**DRAINAGE LOCATION MAP FOR PC-1992 (NW/4, Sec. 36, T12N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



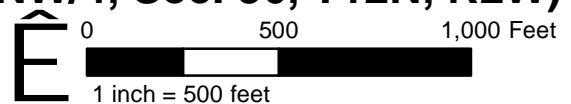
Locator Map



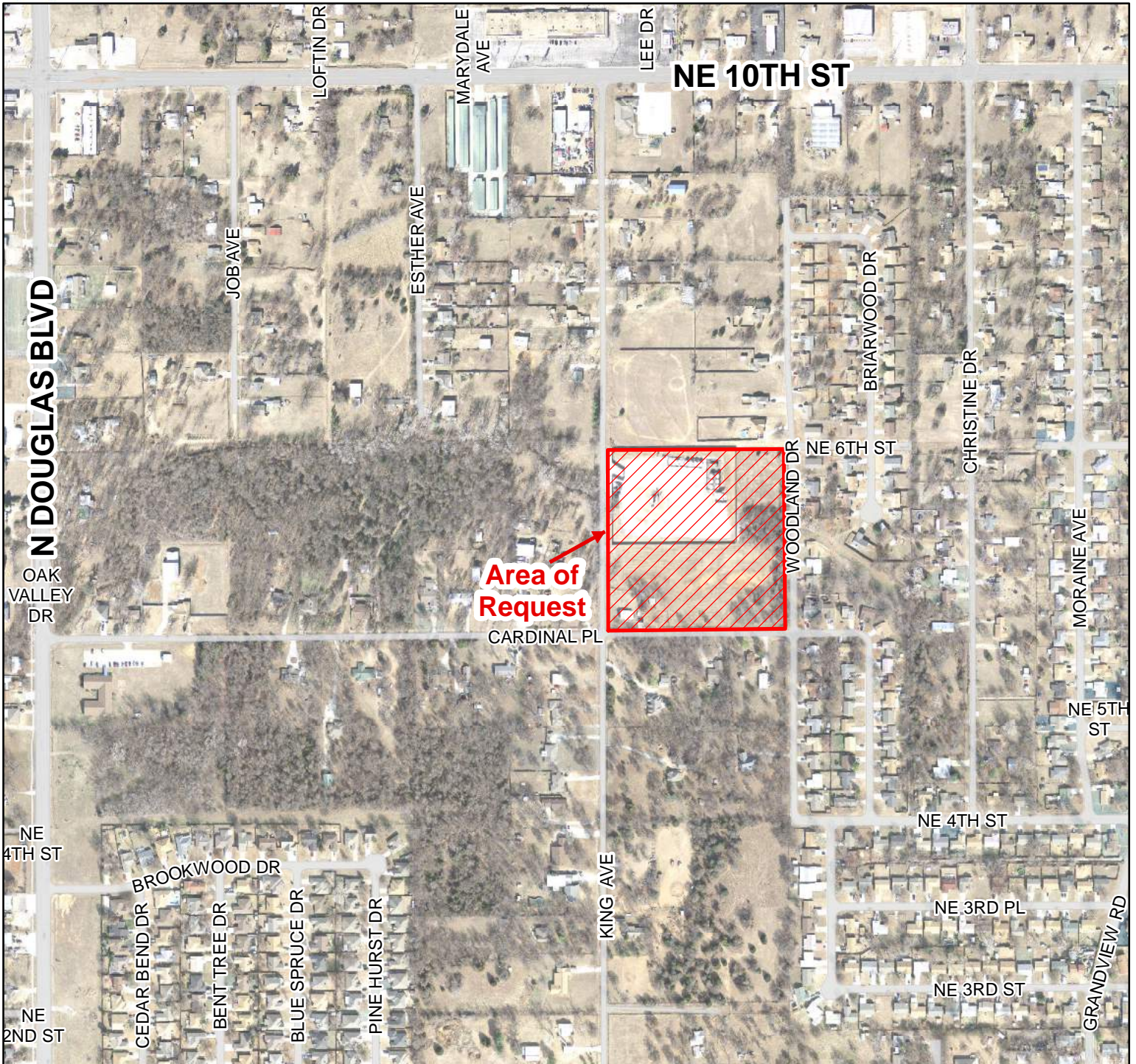
**Water/Sewer Legend**

- ( ) Fire Hydrants
- Water Lines
  - Distribution
  - Well
  - - - OKC Cross Country
  - - - Sooner Utilities
  - - - Thunderbird
  - - - Unknown
- " Sewer Manholes
- - - Sewer Lines

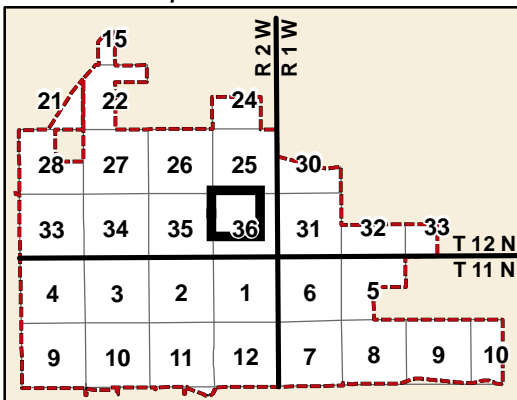
**WATER/SEWER LINE  
LOCATION MAP FOR  
PC-1992  
(NW/4, Sec. 36, T12N, R2W)**



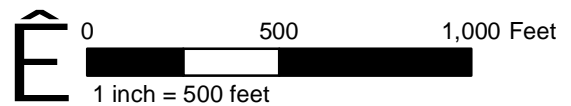
THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



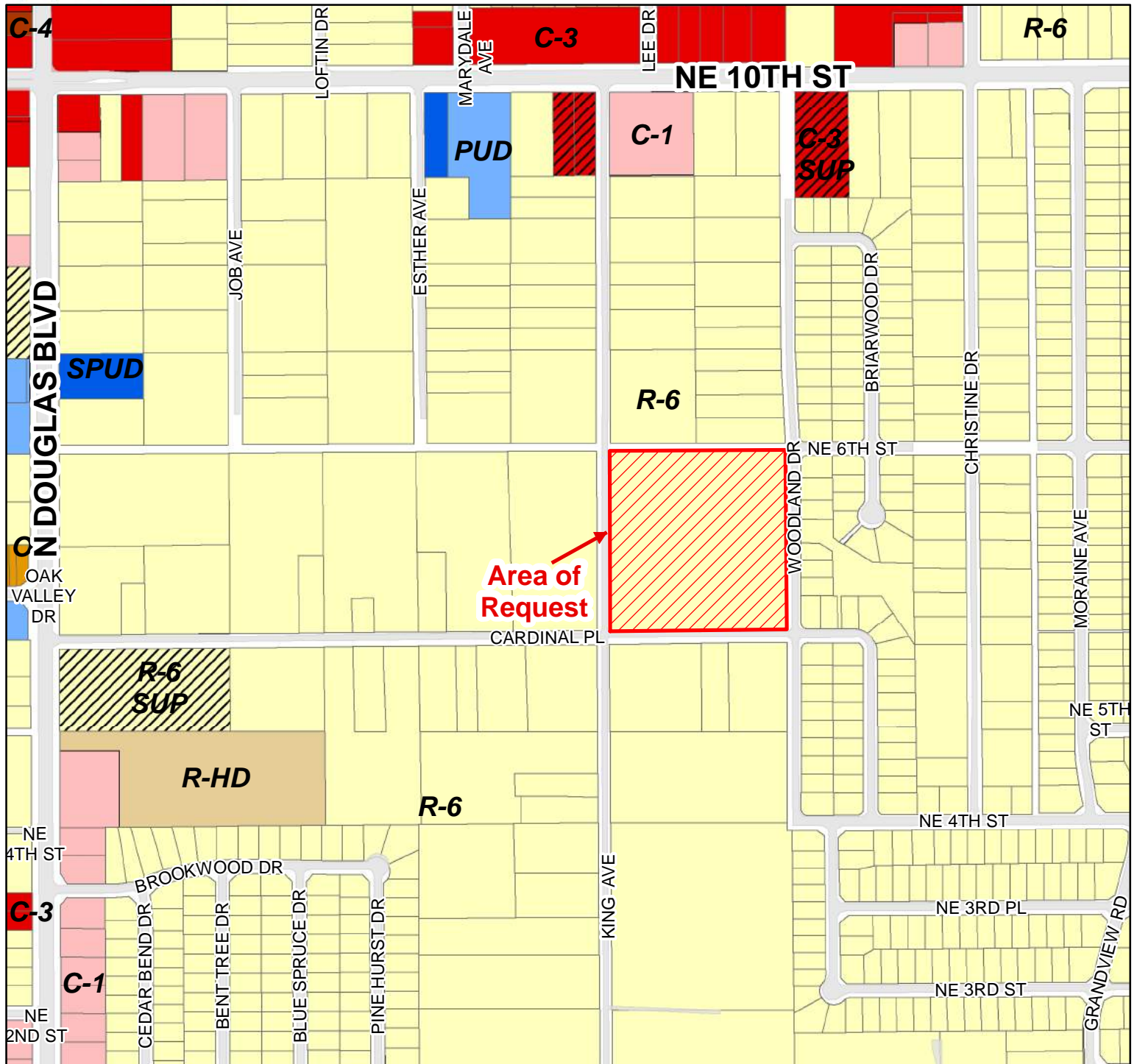
Locator Map



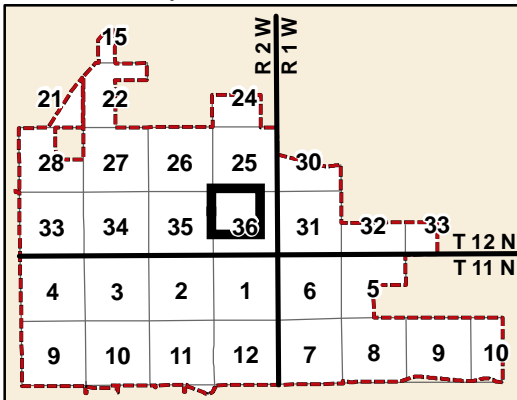
**2017 DOP (AERIAL) VIEW FOR  
PC-1992  
(NW/4, Sec. 36, T12N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



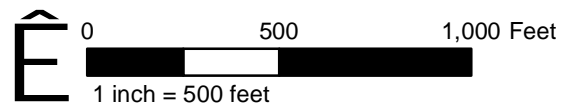
Locator Map



Current Zoning Legend

A-1	I-2 SUP	R-35
A-1 SUP	I-3	R-2F
C-1	O-1	R-MD
C-1 SUP	O-1 SUP	R-MD SUP
C-2	O-2	R-HD
C-3	O-2 SUP	R-HD SUP
C-3 SUP	R-6	R-MH-1
C-4	R-6 SUP	R-MH-2
C-4 SUP	R-8	PUD
I-1	R-10	SPUD
I-2	R-22	HOS
		HOS SUP

**ZONING MAP FOR  
PC-1992  
(NW/4, Sec. 36, T12N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

**Date:** May 28, 2019

**Subject:** (PC-1993) Public hearing with discussion and consideration of an ordinance to redistrict from C-3, Community Commercial to SPUD, Simplified Planned Unit Development, governed by the C-4, General Commercial district, and a resolution to amend the Comprehensive Plan from OR, Office Retail to COMM, Commercial, for the property addressed as 5712 E. Reno Ave.

**Executive Summary:** This SPUD is being requested in order for the applicant to move his existing car sales business from a lot on the southeast corner of Sooner Rd. and E. Reno to the area of request. The lot is currently vacant. If approved the applicant plans to build one commercial structure with connections to City water and sanitary sewer services. The applicant needs a larger lot to accommodate his sales stock. The SPUD is to be governed by the C-4, General Commercial district According to the SPUD document, the applicant is requesting to allow all C-3, Community Commercial uses. The only C-4 use allowed would be the use of Automotive Sales and Rentals: Light. The site plan shows one (1) proposed building and one access point on E. Reno Avenue. All



requirements of the Zoning Ordinance including landscaping, parking, signage and the exterior construction materials will be met. Staff recommends approval.

**Dates of Hearing:** Planning Commission – May 7, 2019  
City Council – May 28, 2018

**Applicant:** Omar Khatib

**Owner:** William Bernhardt

**Proposed Use:** Car sales

**Size:**

The area of request contains 110' of frontage on E. Reno Ave. and contains an area of approximately .97 acres.

**Development Proposed by Comprehensive Plan:**

Area of Request – OR, Office/Retail

North and West – OR, Office/Retail

East – COMM, Commercial

South – Railroad Right-of-Way and LDR, Low Density Residential

**Zoning Districts:**

Area of Request – C-3, Community Commercial

North – C-1, Restricted Commercial

South – Railroad Right-of-Way and R-6, Single Family Residential

East and West – C-3, Community Commercial

**Land Use:**

Area of Request – vacant

North – Mission Mid-Del

South – Railroad Right-of-Way and single family homes

East – one metal building

West – Hair Salon and other commercial uses

**Comprehensive Plan Citation:**

Commercial

Areas designated for commercial land use are intended for a variety of commercial uses and establishments with outside storage, display and sales. Examples of such uses include automobile-related services, manufactured home sales, self-storage units, welding shops, and pawnshops. Commercial uses often located along major thoroughfares not because they need the visibility, as retail uses generally do, but because they need the accessibility. The challenge lies in the face that commercial uses often have a greater need for outside storage areas and these areas tend to lessen the visual quality of major thoroughfares.

**Municipal Code Citation:**

**2.26 SPUD, Simplified Planned Unit Development**

**2.26.1. General Description**

The simplified planned unit development, herein referred to as SPUD, is a special Zoning district that provides an alternate approach to conventional land use controls to produce unique, creative, progressive or quality land developments.

The SPUD may be used for particular tracts or parcels of land that are to be developed as one unit according to a master development plan map.

The SPUD is subject to special review procedures and once approved by the City Council it becomes a special zoning classification for the property it represents.

#### 2.26.2 Intent and Purpose

The intent and purpose of the simplified planned unit development provisions are to ensure:

**(A) Innovative development**

Encouraging innovative development and protect the health, safety and welfare of the community.

**(B) Efficient use of land**

Encourage efficient use of land, facilitate economic arrangement of buildings and circulation systems;

**(C) Appropriate limitations and compatibility**

Maintain appropriate limitations on the character and intensity of use, assuring compatibility with adjoining and proximate properties, and following the guidelines of the comprehensive plan.

#### **History:**

1. This property has been zoned C-3, Community Commercial, since the adoption of the 1985 Zoning Map.
2. The Planning Commission recommended approval of this item May 7, 2019.

#### **Staff Comments:**

##### **Engineer's report:**

Note: This application is for the rezoning of an existing commercial lot. No engineering improvements are required with this application.

#### Water Supply and Distribution

A ten (10) inch public water main is located on the north side of East Reno Avenue in the street right-of-way extending along the north side of the area of request. Public water mains extend along the full frontage of this property, therefore water line improvements are not required as outlined in Municipal Code 43-32.

This is a rezoning application for a proposed parking lot. Setting meters and installing service connections is not required. Connecting to the public water system for service is still required with any future building permit submittal and will be done at that time. Note, East Reno Avenue's median and travel lanes are in one continuous right of way corridor and are not divided into sections. There are service extensions from the north side of Reno, under the median, to the south side properties along this corridor. If a future commercial building is proposed for the site, a public water main does not need to be installed to service the area of request.

#### Sanitary Sewerage Collection and Disposal

An eight (8) inch public sewer main is located on the south side of East Reno Avenue in the street right-of-way extending along the north side of the area of request. A public sewer main is available to connect to providing service to this property, therefore sewer line improvements are not required as outlined in Municipal Code 43-109.

This is a rezoning application for a proposed parking lot. A service connection is not required. Like the water system, connecting to the public sewer system for service is still required with any future building permit submittal and will be done at that time.

#### Streets and Sidewalks

Access to the area of request is available from East Reno Avenue. East Reno Avenue is classified as a secondary arterial in the 2008 Comprehensive Plan. East Reno Avenue is a four (4) lane, medianed, curbed, asphalt concrete roadway. Current code requires a total street right-of-way width of one hundred (100) feet for secondary arterials and presently, East Reno Avenue has one hundred (100) feet of right-of-way adjacent to and parallel to the of the area of request.

Right of way grants to the city are not required with this application.

Street improvements are not required with this application.

There is no sidewalk on site. However, this is a rezoning application and during this phase of the development process, installing sidewalk is not required at this time. Sidewalk improvements along Reno Avenue will be required with a building permit submittal as outlined in Municipal Code 37-67.

#### Drainage and Flood Control, Wetlands, and Sediment Control

Drainage across the area of request is via overland flow from the northwest to the southeast. Currently, the area of request is undeveloped. None of the area of request is affected by flood zone AE (the 100-year floodplain) as shown on the effective Flood Insurance Rate map (FIRM) number 40109C0310H, dated December 12, 2009.

Drainage and detention improvements are not required with this rezoning application. However, as outlined in Municipal Code 13-69, a drainage study and detention pond design will be required with any building permit submittal, including a parking lot. The initial site plan shows most of the area of request being utilized for parking. If this application is approved, a detailed survey will be done that will analyze the slopes on the property. That will be used to write a drainage report that will size the detention facility and its location. The analysis may lead to a reduction to the parking lot footprint to accommodate detention for the site.

Improvement plans for the drainage and detention pond must be prepared by a registered professional engineer and be submitted to staff for plan review and approval.

All development on the proposed tracts must conform with the applicable requirements of Municipal Code Chapter 13, "Drainage and Flood Control."

#### Easements and Right-of-Way

No additional rights-of-way and/or easements are required with this application.

**Fire Marshal's report:**

The Fire Department has reviewed this rezoning request. The property is required to meet and maintain the requirements of the Midwest City Ordinances, Section 15.

**Plan Review Comments:**

As noted above, the applicant is currently operating a car sales lot at 200 S. Sooner Road. This lot is small and cannot always accommodate the applicant's stock of cars. He has been cited by Midwest City Code Enforcement for parking vehicles outside of his gate which is in City right-of-way. Per Section 5.3.1(B) parking in the right-of-way is prohibited. The applicant has met with staff and members of the Council to discuss options to alleviate this issue. One of the solutions was to move his business to a larger lot, capable of accommodating his stock of cars for sale.

Shortly after the meeting with staff, a Councilmember and the Mayor in January of 2019, the applicant contacted Community Development staff to begin the process of moving his business to the area of request. He located the area of request which is currently zoned C-3, Community Commercial, and therefore not currently zoned for a car sales lot. He then scheduled a pre-application meeting to begin the rezoning application process.

The applicant is requesting to rezone this parcel to a SPUD, Simplified Planned Unit Development, to be governed by the C-4, General Commercial district. The applicant wishes to allow all C-3 uses that are presently allowed on the site. The only C-4 use allowed would be that of automotive sales and rentals: light.

The site plan submitted by the applicant shows one curbcut into the property from E. Reno Ave. and a single building towards the south (rear) portion of the lot. The building must meet all the requirements for a commercial building in the C-4 zoning district, including 80% masonry exterior construction requirement and all setbacks. The maximum allowable impervious surface coverage is 90%. The parking area must be a paved hard surface. Site proof screening would be required along the rear of the property. For the use of automotive sales and rentals: light, a minimum of 1 parking space is required for every 5,000 square feet. The parking spaces must be striped and meet the minimum width and depth requirements of the Zoning Ordinance. Regarding landscaping, a base of 6 trees and 12 shrubs are required plus two trees and two shrubs for every 10 parking spaces installed. The SPUD document states that the proposed sign will meet City codes. The maximum allowable height is 20', the maximum surface area is 200 square feet and a pole cover is required. No parking or signage is allowed within the right-of-way.

Staff recommends approval of this request.

**Action Required:**

Approve or reject the ordinance to redistrict to SPUD and a resolution to amend the Comprehensive Plan from OR to COMM for the property as noted herein, subject to staff's comments as found in the May 28, 2019 agenda packet and made a part of PC-1993 file.

A handwritten signature in black ink, appearing to read "Billy Harless". The signature is fluid and cursive, with a long horizontal stroke at the end.

Billy Harless,  
Community Development Director

KG



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT  
CURRENT PLANNING DIVISION

**Simplified Planned Unit Development**

The following is to be used if the request is for a Simplified Planned Unit Development. If this request is not for a Simplified Planned Unit Development, do not complete the next 2 pages.

This document serves as the DESIGN STATEMENT and fulfills the requirement for the SPUD. The Special Development Regulations section of the form must be completed in its entirety. If the applicant proposes additional, more restrictive, design criteria than established in the Special Development Regulations, please elaborate under Other Development Regulations.

**A. Special Development Regulations**

1. List of the owners and/or developers: Omar Khatib
2. Please list the adjoining land uses, both existing and proposed.  
North: Reno  
South: Land  
East: old building  
West: office building
3. Please list the use or uses that would be permitted on the site. All C-3 USCS  
plus Automotive sales & rentals light
4. This site will be developed in accordance with the Development Regulations of the C4 zoning district.
5. Please list all applicable special development regulations or modified regulations to the base zoning district: N/A
6. Please provide a statement of the existing and proposed streets, including right-of-way standards and street design concepts: no new streets
7. Please describe the physical characteristics of the following:  
Sight-proof screening proposed: NONE  
  
Landscaping proposed: will meet city code.



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT  
CURRENT PLANNING DIVISION

Signs proposed: will meet city code.

Area of open space proposed: minimum 10% will meet code.

Proposed access points: one driveway.

Drainage information: will meet city requirement

8. Existing or proposed building size: 30 x 40  
Maximum building height: one story  
Number of existing or proposed buildings: 1 one  
Building setbacks - Front: 350 ft  
Sides: 37.5 ft  
Rear: 31 +

9. Please provide a description of the proposed sequence of development.  
will occur ALL At once

**B. Other Development Regulations**

Please list any other amenities or controls included in the SPUD: NONE

**C. Master Plan Map (attached)**

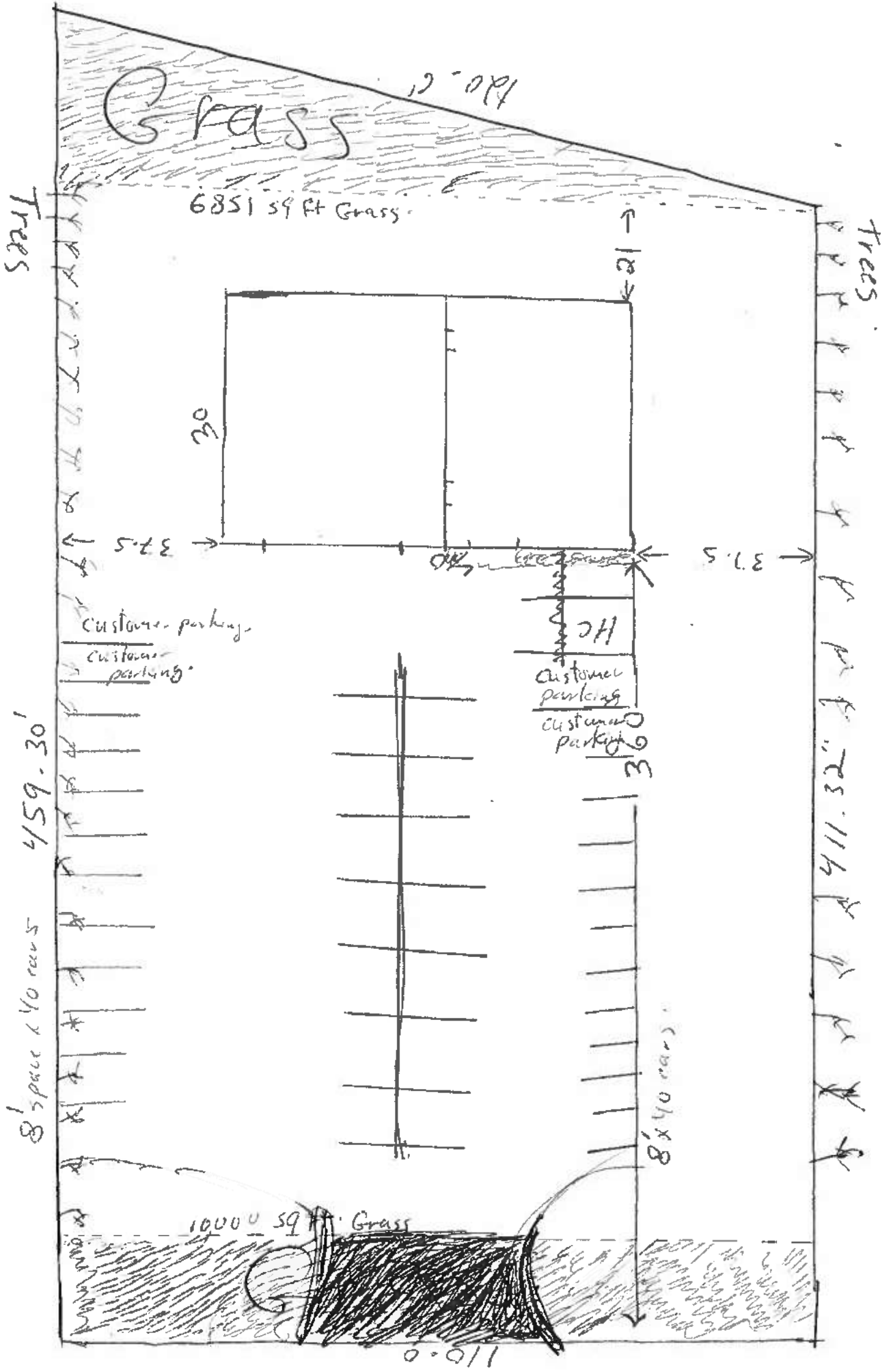
Exhibit A: see Attachment

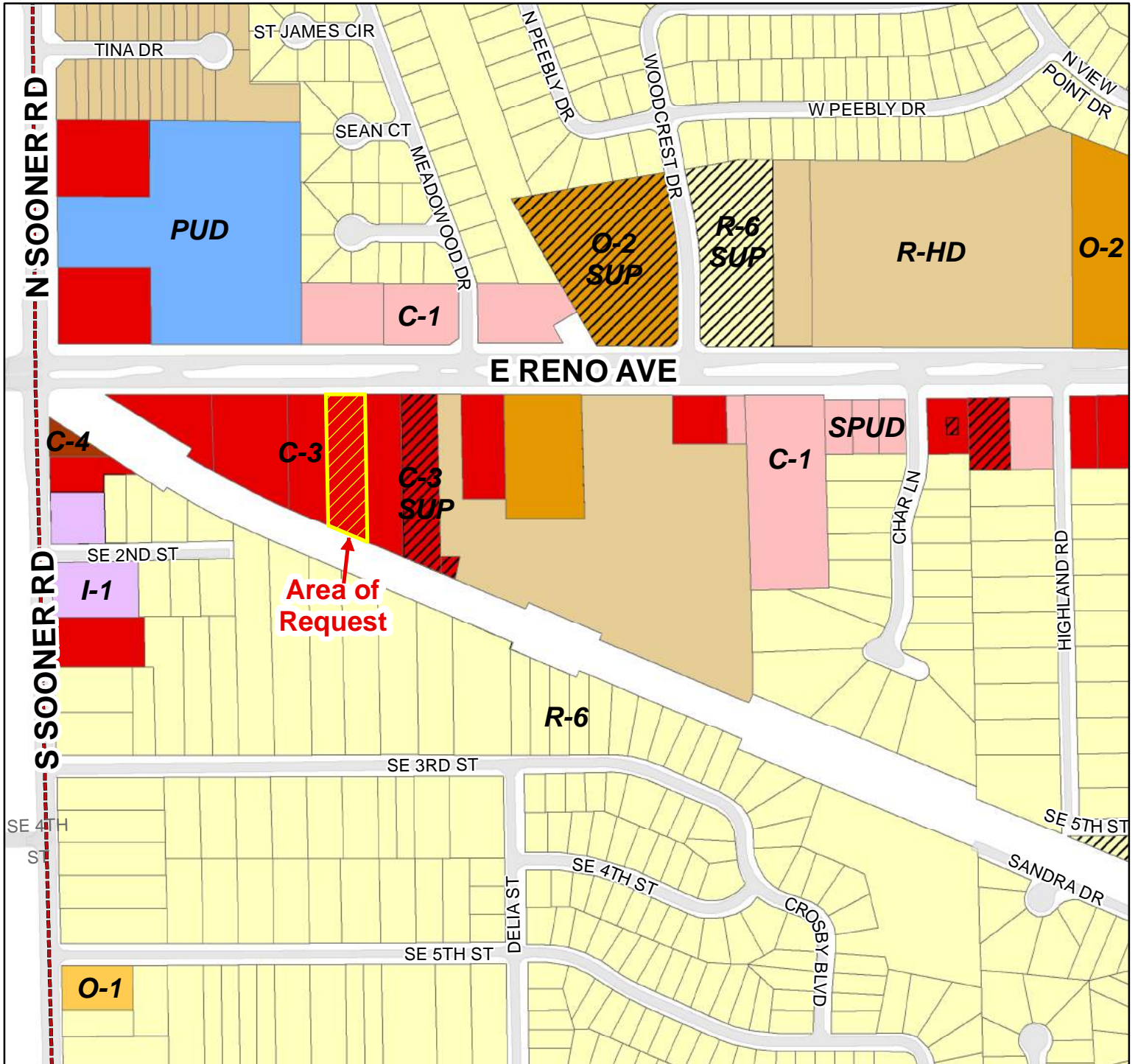
This site will be developed in accordance with the Master Development Plan Map as submitted to the City of Midwest City for approval in conjunction with this request.

Signature

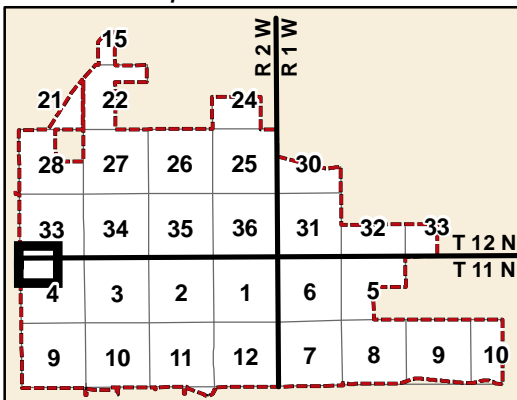
3/19/19.  
Date







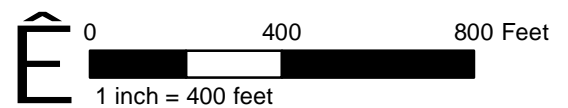
Locator Map



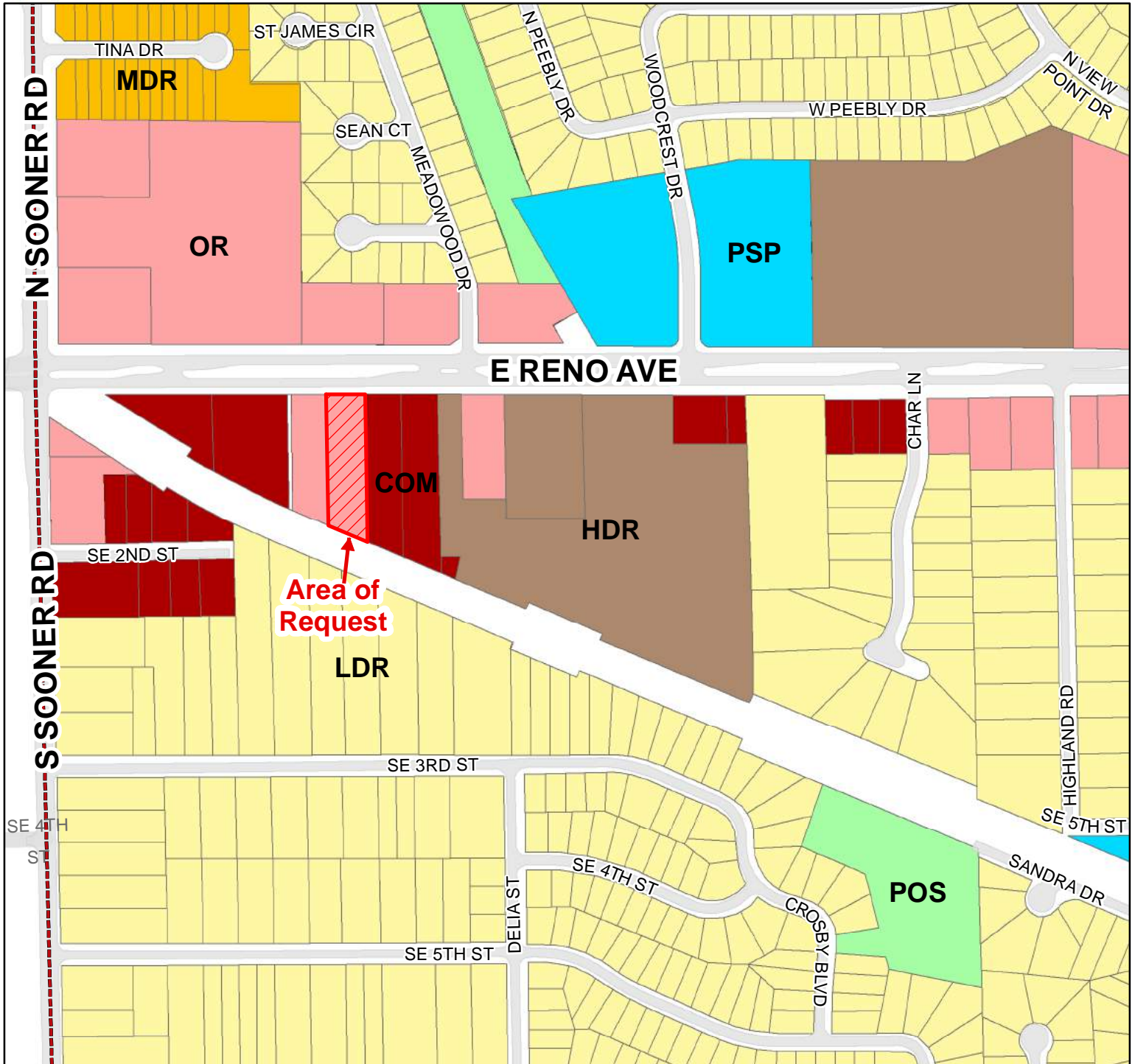
Current Zoning Legend

A-1	I-2 SUP	R-35
A-1 SUP	I-3	R-2F
C-1	O-1	R-MD
C-1 SUP	O-1 SUP	R-MD SUP
C-2	O-2	R-HD
C-3	O-2 SUP	R-HD SUP
C-3 SUP	R-6	R-MH-1
C-4	R-6 SUP	R-MH-2
C-4 SUP	R-8	PUD
I-1	R-10	SPUD
I-2	R-22	HOS
		HOS SUP

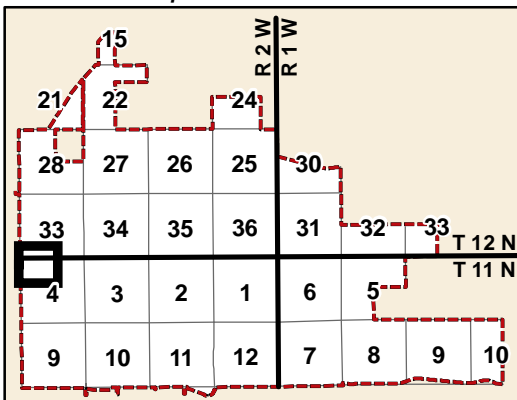
**ZONING MAP FOR  
PC-1993  
(NW/4, Sec. 4, T11N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



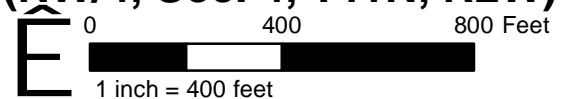
Locator Map



Future Land Use Legend

- Single-Family Detached Residential
- Medium Density Residential
- High Density Residential
- Manufactured Home
- Public/Semi-Public
- Parks/Open Space
- Office/Retail
- Commercial
- Industrial
- Town Center

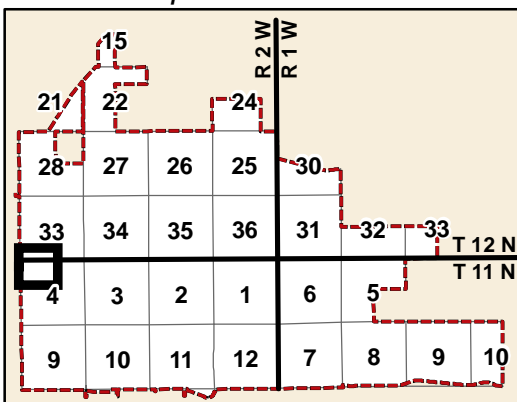
**FUTURE LAND USE  
MAP FOR  
PC-1993  
(NW/4, Sec. 4, T11N, R2W)**



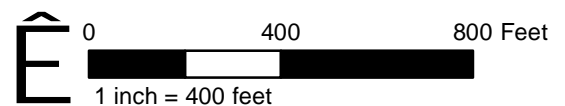
THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



Locator Map



**2017 DOP (AERIAL) VIEW FOR  
PC-1993  
(NW/4, Sec. 4, T11N, R2W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.

RESOLUTION NO. 2019-\_\_\_\_\_

A RESOLUTION AMENDING THE 2008 COMPREHENSIVE PLAN MAP CLASSIFICATION FROM OR, OFFICE/RETAIL TO COMM, COMMERCIAL, FOR THE PROPERTY DESCRIBED IN THIS RESOLUTION WITHIN THE CITY OF MIDWEST CITY, OKLAHOMA.

**WHEREAS**, the 2008 Comprehensive Plan Map of Midwest City, Oklahoma shows the following described property identified as OR, Office/Retail:

Unplatted part of Section Four (4), Township Eleven (11) North, Range Two (2) West, 000 000, PT NW/4 Section 4 11N 2W Beginning 816 ft east of the NW/C NW/4 Thence South 411.32 ft, Southeasterly 120.60 ft, North 459.36 ft, West 110 ft to the Beginning Except the North 50 ft.

**WHEREAS**, it is the desire of the Midwest City Council to amend the classification of the referenced property to Commercial;

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF MIDWEST CITY, OKLAHOMA:**

That the classification of above described property located in Midwest City, Oklahoma is hereby changed to Commercial on the 2008 Comprehensive Plan Map.

**PASSED AND APPROVED** by the Mayor and Council of the City of Midwest City, Oklahoma, this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

CITY OF MIDWEST CITY, OKLAHOMA

ATTEST:

\_\_\_\_\_  
MATTHEW D. DUKES II, Mayor

\_\_\_\_\_  
SARA HANCOCK, City Clerk

**APPROVED** as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
HEATHER POOLE, City Attorney

1 **PC-1993**

2 **ORDINANCE NO. \_\_\_\_\_**

3 **AN ORDINANCE RECLASSIFYING THE ZONING DISTRICT OF THE PROPERTY**  
4 **DESCRIBED IN THIS ORDINANCE TO SPUD, SIMPLIFIED PLANNED UNIT DE-**  
5 **VELOPMENT, AND DIRECTING AMENDMENT OF THE OFFICIAL ZONING DIS-**  
6 **TRICT MAP TO REFLECT THE RECLASSIFICATION OF THE PROPERTY'S ZON-**  
7 **ING DISTRICT; AND PROVIDING FOR REPEALER AND SEVERABILITY**

8 BE IT ORDAINED BY THE COUNCIL OF THE CITY OF MIDWEST CITY, OKLAHOMA:

9 **ORDINANCE**

10 **SECTION 1.** That the zoning district of the following described property is hereby reclassified  
11 to SPUD, Simplified Planned Unit Development, subject to the conditions contained in the PC-  
12 1993 file, and that the official Zoning District Map shall be amended to reflect the reclassifica-  
13 tion of the property's zoning district as specified in this ordinance:

14 Unplatted part of Section Four (4), Township Eleven (11) North, Range Two (2) West,  
15 000 000, PT NW/4 Section 4 11N 2W Beginning 816 ft east of the NW/C NW/4 Thence  
16 South 411.32 ft, Southeasterly 120.60 ft, North 459.36 ft, West 110 ft to the Beginning  
17 Except the North 50 ft.

18 **SECTION 2. REPEALER.** All ordinances or parts of ordinances in conflict herewith are here-  
19 by repealed.

20 **SECTION 3. SEVERABILITY.** If any section, sentence, clause or portion of this ordinance is  
21 for any reason held to be invalid, such decision shall not affect the validity of the remaining por-  
22 tions of the ordinance.

23 PASSED AND APPROVED by the Mayor and Council of the City of Midwest City, Oklahoma,  
24 on the \_\_\_\_\_ day of \_\_\_\_\_, 2019.

25 THE CITY OF MIDWEST CITY, OKLAHOMA

26 ATTEST:

27 \_\_\_\_\_  
28 MATTHEW D. DUKES II, Mayor

29 \_\_\_\_\_  
30 SARA HANCOCK, City Clerk

APPROVED as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
HEATHER POOLE, City Attorney



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

**Date:** May 28, 2019

**Subject:** (PC – 1994) Discussion and consideration of approval of the proposed preliminary plat of Tuscany Ridge Section II, described as a part of the NW/4 of Section 9, T11N, R1W, of the Indian Meridian, Midwest City, OK.

**Executive Summary:** This item is a request to subdivide Lot 10 of the original Tuscany Ridge subdivision and extend the subdivision by adding two (2) new lots as well as an extension of Tuscany Ridge Road to provide access to the new lots. The proposed lots exceed the minimum lot size in the R-6, Single Family Residential zoning district. A public water extension, private street extension and fire hydrant are requirements of this plat. The applicant is requesting a waiver to the requirement for sidewalk and sanitary sewer improvements. Sanitary sewer services are not currently available to the existing lots in Tuscany Ridge. Staff recommends approval of the Tuscany Ridge Section II Preliminary Plat.



**Dates of Hearing:** Planning Commission – May 7, 2019  
City Council – May 28, 2019

**Council Ward:** Ward 6, Jeff Moore

**Owner/Applicant:** Christensen Family

**Engineer:** Cedar Creek Engineering

**Proposed Use:** Four (4) single family residences

**Size:**

The area of request has a frontage along a proposed extension of Tuscany Ridge Road and contains an area of approximately 19.87 acres.

**Zoning Districts:**

Area of Request – PUD, Planned Unit Development

North – PUD, Planned Unit Development

South and East – R-6, Single Family Detached Residential

West – R-6, Single Family Detached Residential and PUD, Planned Unit Development

**Land Use:**

Area of Request – site of one single family residence

North, South, East and West – single family residences

**Municipal Code Citation:**

2.7.1. R-6, Single –Family Detached Residential District

The R-6, Single-Family Detached Residential District is intended for single-family residences on lots of not less than 6,000 square feet in size. This district is estimated to yield a maximum density of 5.1 gross dwelling units per acre (DUA).

Additional uses for the district shall include churches, schools and public parks in logical neighborhood units.

38-18.1. Purpose

The purpose of a Preliminary Plat shall be to determine the general layout of the subdivision, the adequacy of public facilities needed to serve the intended development, and the overall compliance of the land division with applicable requirements of the Subdivision Ordinance.

**History:**

1. This area was zoned R6, Single Family Residential with the adoption of the 1986 Zoning Ordinance and Map.
2. A majority of the property was rezoned to a PUD in February 2005 under PC-1578.
3. A PUD amendment was approved in March 2019 to allow the extension of the existing Tuscany Ridge PUD (PC-1984).
4. The Planning Commission recommended approval of this item May 7, 2019.

**Engineer's Comments:**

Water Supply and Distribution

A six (6) inch public water main is located on the south side of Tuscany Ridge Road in the street right-of-way extending along to the west side of the area of request.

The applicant proposes to construct a public water line extension continuing east along the south side of the proposed road to provide service and fire protection to the new lots.

Improvement plans for the water line extension must be prepared by a registered professional engineer and be submitted to staff for plan review and approval.

Extension of the water supply to serve this property and connection to the public water supply system for domestic service is required as outlined in Municipal Code 43-32.



#### Sanitary Sewer Collection and Disposal

The Tuscany Ridge PUD allows the residents to use individual septic systems to service each property.

The applicant proposes to construct individual systems to service the new lots.

#### Streets and Sidewalks

Access to the area of request is available from Tuscany Ridge Road. Tuscany Ridge Road is classified as a local street in the 2008 Comprehensive Plan. Tuscany Ridge Road is a two (2) lane, 26-foot wide, curbed, asphalt concrete roadway. Current code requires a total street right-of-way width of fifty (50) feet for local roads and presently, Tuscany Ridge Road has fifty (50) feet of right-of-way up to the cul de sac adjacent to the west side of the area of request.

The applicant proposes to construct an extension of the local street, Tuscany Ridge Road, to service the area of request. The proposed street will include a full sized cul de sac to provide turnaround room as per fire department regulations. Sidewalk will not be required as there are none in the subdivision and would provide no connections to another sidewalk.

Improvement plans for the street must be prepared by a registered professional engineer and be submitted to staff for plan review and approval.

#### Drainage and Flood Control, Wetlands, and Sediment Control

Drainage across the area of request is from the west to the east via overland flow. Water also collects in a large farm pond located on the site. Currently, the area of request is developed with a single family residence on a large acreage. Drainage from the site continues north east, joining an unimproved channel that drains further north east through the edge of the Jaycie Place Addition and continuing to the concrete drainage channel that crosses through Sundance Addition.

The applicant proposes the extension of the road and two new residences, which will cause an increase in the impervious area in the subdivision. However, with the new addition encompassing forty acres of property and the addition only adding two new homes, the impact will be minimal. The site plans for the new homes will take advantage of these large undeveloped areas on their own lots to assure that any water runoff will not have an impact on an adjacent property. The proposed road extension will be designed and constructed with slope to accomplish the same result. Any water that is generated by the development will be discharged by a storm water pipe into the on the site farm pond. As required in Municipal Code 13-69, these design elements eliminate any increase to the runoff from the forty acres and the necessity of a detention pond.

The area of request is not affected by flood zone AE (the 100-year floodplain) as shown on the effective Flood Insurance Rate Map (FIRM) number 40109C0330H, dated December 12, 2009.

All potential future development on the proposed tracts must still conform to the applicable requirements of Municipal Code Chapter 13, "Drainage and Flood Control."

Resolution 84-20 requires that developers install and maintain sediment and/or erosion controls in conjunction with their construction activities. Any proposed development must conform to the applicable requirements of Municipal Code Chapter 43, "Erosion Control." Sediment control plans must be submitted to and approved by the city before any land disturbance is done on-site. The developer is responsible for the cleanup of sediment and other debris from drainage pipes, ditches, streets and abutting properties as a result of his activities.

#### Easements and Right-of-Way

The required easements and existing and proposed right of way for the area of request will be dedicated to the city when the final amended plat is filed.

All easements and right of way dedications are to comply with Code Sections 38-41 and 38-44.

#### **Fire Marshal's Comments:**

The property is required to meet and maintain the requirements of Midwest City Ordinances, Section 15.

#### **Staff Comments:**

The purpose of this preliminary plat is to extend the Tuscany Ridge subdivision and create three (3) new lots for single family residential development. The applicant requested to amend the PUD to allow the new lots. The PUD amendment was approved by the City Council in March of 2019.

This preliminary plat proposes water and street extensions. If this preliminary plat is approved, the applicant may move forward in submitting construction plans for the water and street improvements. The required improvements must be installed and accepted by the City prior to submitting a final plat application. The applicant is requesting waivers to the requirements for sidewalks and sanitary sewer services. The existing Tuscany Ridge subdivision was granted these waivers. As there is no sidewalk to connect to and no sanitary sewer currently serving the Tuscany Ridge subdivision, staff recommends approval of these requested waivers.

The proposed lots each exceed the minimum land area as required in the PUD. The proposed lot sizes are as follows:

Lot 10A: 10.76 acres (MOL)

Lot 10B: 1.00 acre (MOL)

Lot 10C: 4.32 acres (MOL)

Lot 10D: 3.79 acres (MOL)

The density for this development is less than one (1) dwelling unit per acre so there is no requirement for Park Land Dedication.

May 28, 2019

Section 38-53.4 of the 2012 Midwest City Subdivision Regulations requires the applicant to submit a Tree Canopy Management Plan with the preliminary plat application. The applicant has provided this plan. The Subdivision Regulations allow developers to preserve trees with two (2) options.

The first option is standard compliance wherein the applicant may only remove trees from proposed street right-of-ways, proposed utility easements and proposed areas for site features required by the Subdivision Regulations. The second option allows the developer to create a cluster development, preserving trees in designated open spaces.

The applicant has chosen to pursue the first option, standard compliance. Under this requirement of the code, the applicant may only remove trees from the proposed right-of-ways, easements, and areas of site features. All other trees on the lot must remain through the entire platting process.

Tuscany Ridge Road is a private street. The applicant is proposing to extend the private road to provide access to the new lots. Although private, the street must meet current city standards regarding street width. As the street is private, the HOA document for Tuscany Ridge must be amended to provide for maintenance of the street extension. A copy of the revised HOA covenants must be submitted with the final plat application.

Since this preliminary plat meets the subdivision regulations, staff recommends approval of the Tuscany Ridge Section II Preliminary Plat subject to these comments.

**Action Required:** Approve or reject the Tuscany Ridge Section II Preliminary Plat located on the property as noted herein, subject to the staff comments and found in the May 28, 2019 agenda packet and made a part of PC- 1994 file.



Billy Harless, AICP  
Community Development Director

KG



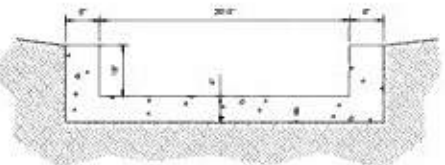
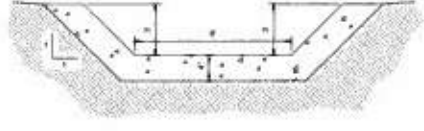
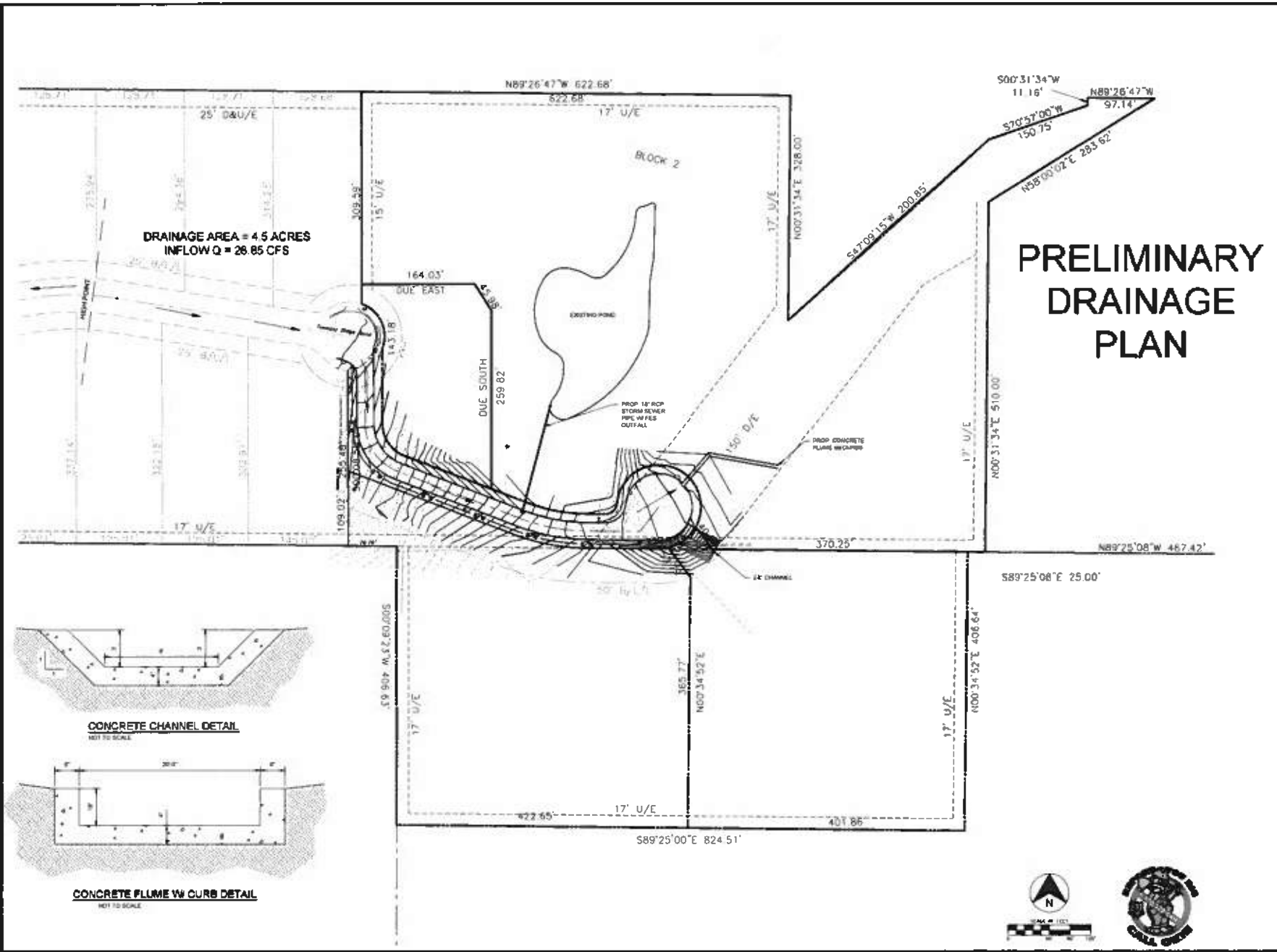
PROJECT  
**TUSCANY RIDGE SECTION II**

MIDWEST CITY, OKLAHOMA  
PROJECT NUMBER: 8004  
DRAWING DATE: 4.2.10  
ISSUE DATE: 4.2.10

MASTER DEVELOPMENT PLAN

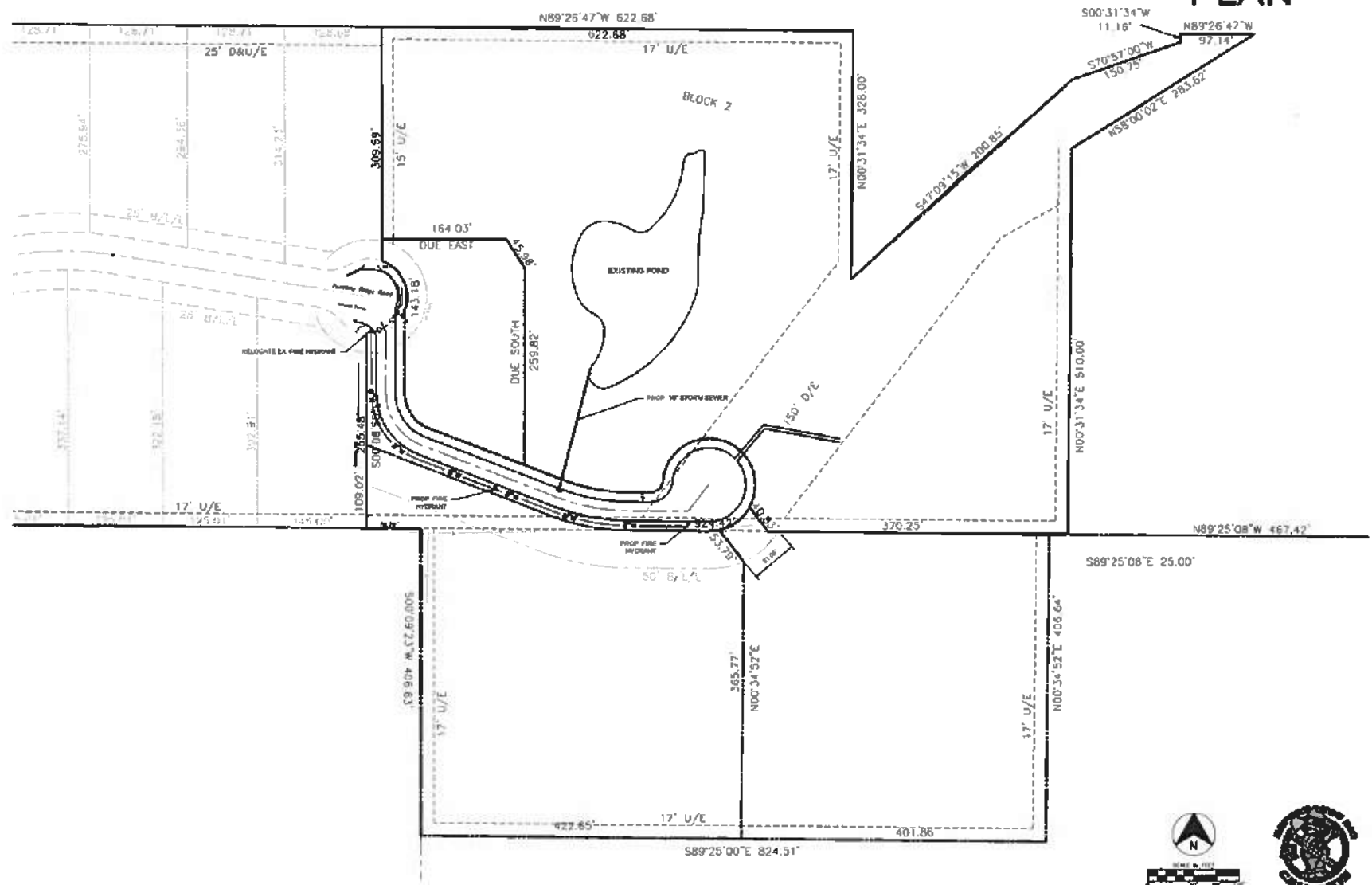
DRAINAGE MAP

DATE: **C2.00**





# PRELIMINARY UTILITY PLAN



## TUSCANY RIDGE SECTION II

MIDWEST CITY, OKLAHOMA

PROJECT NUMBER 18009  
DRAWING DATE 4.2.18  
ISSUE DATE 4.2.18

### MASTER DEVELOPMENT PLAN

REVISION	DATE	BY	CHKD

THIS IS AN UNRECORDED PRELIMINARY PLAN FOR THE PRELIMINARY DEVELOPMENT OF THE PROJECT. IT IS NOT TO BE USED FOR CONSTRUCTION OR RECORDING. ANY CHANGES TO THIS PLAN MUST BE APPROVED BY THE CITY ENGINEER. THE CITY ENGINEER'S OFFICE IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS PLAN.

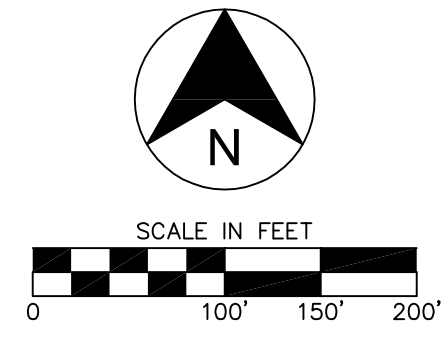
### OVERALL UTILITY PLAN

C1.00



# PRELIMINARY PLAT OF TUSCANY RIDGE SECTION II

A PART OF THE NW/4 OF SECTION 9, T11N, R1W, I.M.  
 MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA

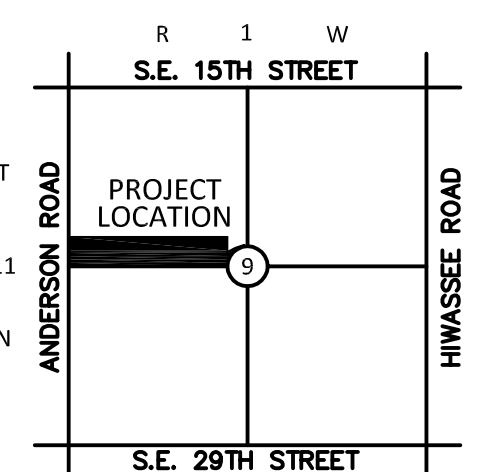


OWNER/SUBDIVIDER:  
 JCH DEVELOPMENT LLC  
 P.O. BOX 30708  
 MIDWEST CITY, OK 73140  
 405-739-0760

SURVEYOR:  
 GOLDEN LAND SURVEYING  
 920 N.W. 139TH PKWY  
 OKLAHOMA CITY, OK 73013  
 405-802-7883

ENGINEER:  
 CEDAR CREEK ENGINEERING  
 P.O. BOX 14534  
 OKLAHOMA CITY, OK 73113  
 405-778-3385

LOCATION MAP:



NOT TO SCALE

PROJECT:

## TUSCANY RIDGE SECTION II

MIDWEST CITY, OK

PROJECT NUMBER: 18068  
 DRAWING DATE: 4.2.19  
 ISSUE DATE: 4.2.19

SEAL:

SUBMITTAL:  
**PRELIMINARY PLAT**

REVISIONS:

MARK	DATE	DESCRIPTION

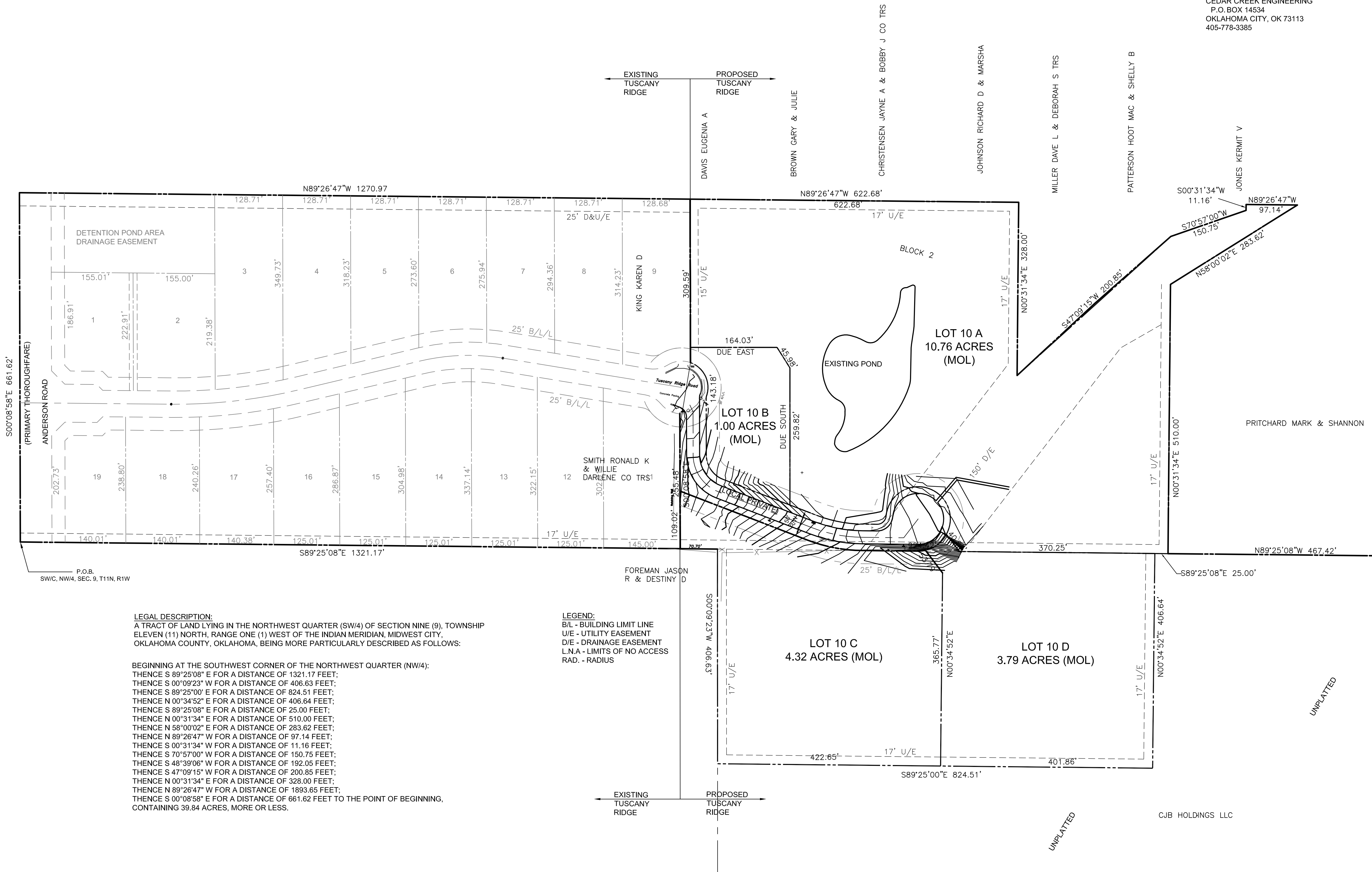
THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF CEDAR CREEK CONSULTING INC. THIS SHEET IS NOT TO BE USED FOR CONSTRUCTION UNLESS THE ISSUE DATE IN THE TITLE BLOCK COINCIDES WITH OR POST DATES THE DRAWING DATE. ANY CHANGES MADE FROM THESE PLANS WITHOUT CONSENT OF CEDAR CREEK CONSULTING INC. ARE UNAUTHORIZED, AND SHALL RELIEVE CEDAR CREEK CONSULTING OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING OUT OF SUCH CHANGES.

DRAWING TITLE:

**PRELIMINARY  
 PLAT**

SHEET:

**C0.00**



**LEGAL DESCRIPTION:**  
 A TRACT OF LAND LYING IN THE NORTHWEST QUARTER (NW/4) OF SECTION NINE (9), TOWNSHIP ELEVEN (11) NORTH, RANGE ONE (1) WEST OF THE INDIAN MERIDIAN, MIDWEST CITY, OKLAHOMA COUNTY, OKLAHOMA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

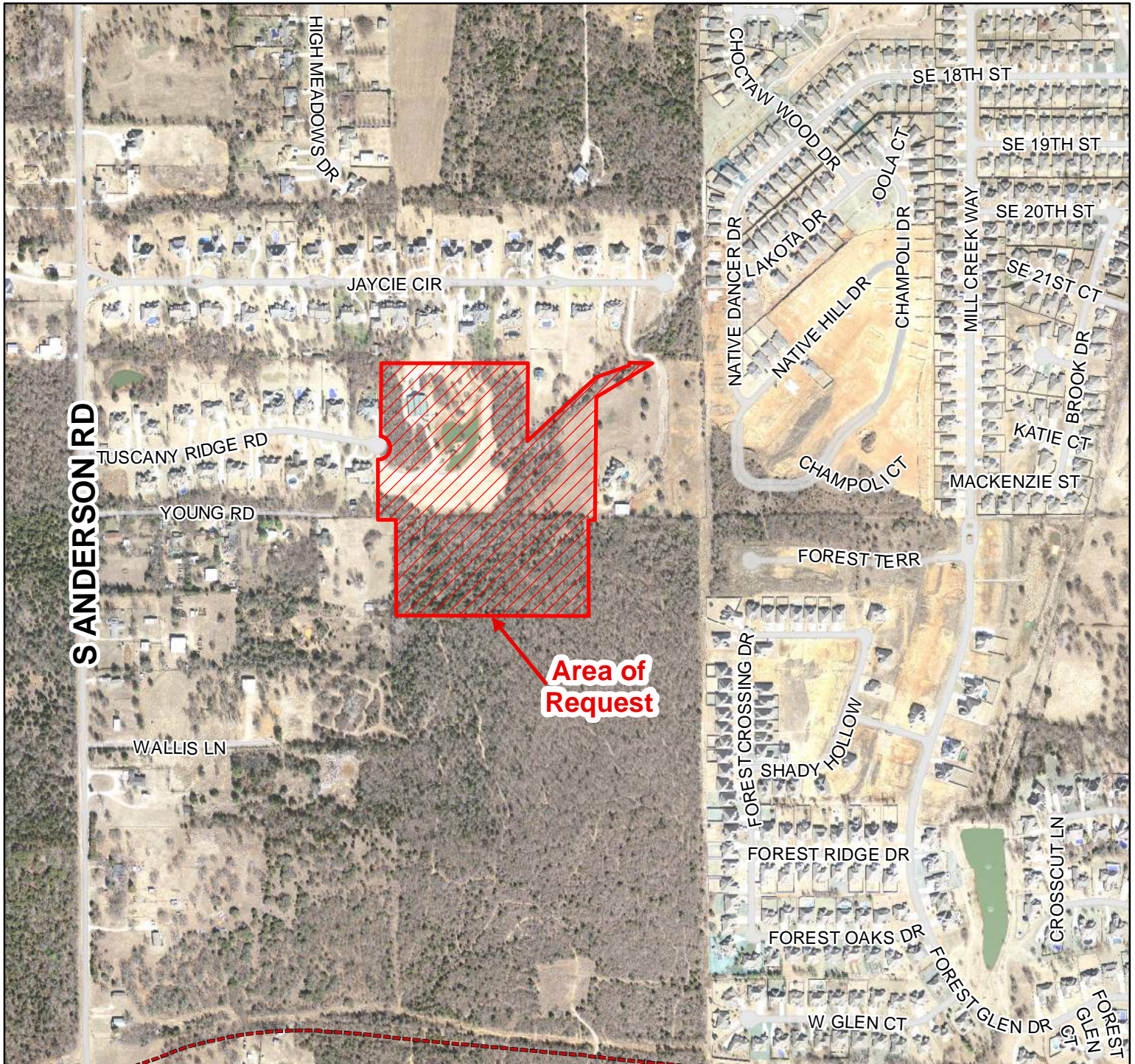
BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER (NW/4):  
 THENCE S 89°25'08" E FOR A DISTANCE OF 1321.17 FEET;  
 THENCE S 00°09'23" W FOR A DISTANCE OF 406.63 FEET;  
 THENCE S 89°25'00" E FOR A DISTANCE OF 824.51 FEET;  
 THENCE N 00°34'52" E FOR A DISTANCE OF 406.64 FEET;  
 THENCE S 89°25'08" E FOR A DISTANCE OF 25.00 FEET;  
 THENCE N 00°31'34" E FOR A DISTANCE OF 510.00 FEET;  
 THENCE N 88°00'02" E FOR A DISTANCE OF 283.62 FEET;  
 THENCE N 89°26'47" W FOR A DISTANCE OF 97.14 FEET;  
 THENCE S 00°31'34" W FOR A DISTANCE OF 11.16 FEET;  
 THENCE S 70°57'00" W FOR A DISTANCE OF 150.75 FEET;  
 THENCE S 48°39'08" W FOR A DISTANCE OF 182.05 FEET;  
 THENCE S 47°09'15" W FOR A DISTANCE OF 200.85 FEET;  
 THENCE N 00°31'34" E FOR A DISTANCE OF 328.00 FEET;  
 THENCE N 89°26'47" W FOR A DISTANCE OF 1893.65 FEET;  
 THENCE S 00°08'58" E FOR A DISTANCE OF 661.62 FEET TO THE POINT OF BEGINNING,  
 CONTAINING 39.84 ACRES, MORE OR LESS.

**LEGEND:**  
 B/L - BUILDING LIMIT LINE  
 U/E - UTILITY EASEMENT  
 D/E - DRAINAGE EASEMENT  
 L.N.A. - LIMITS OF NO ACCESS  
 RAD. - RADIUS

UNPLATTED

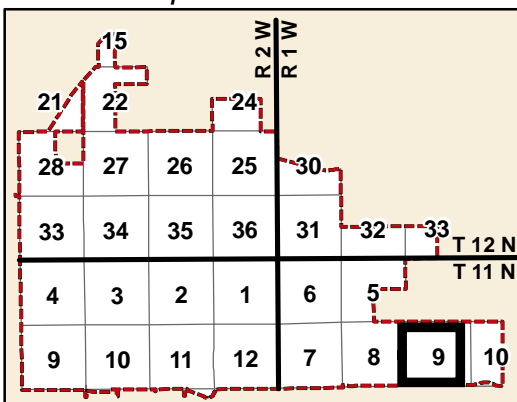
UNPLATTED

UNPLATTED

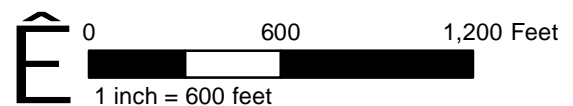


**Area of Request**

Locator Map

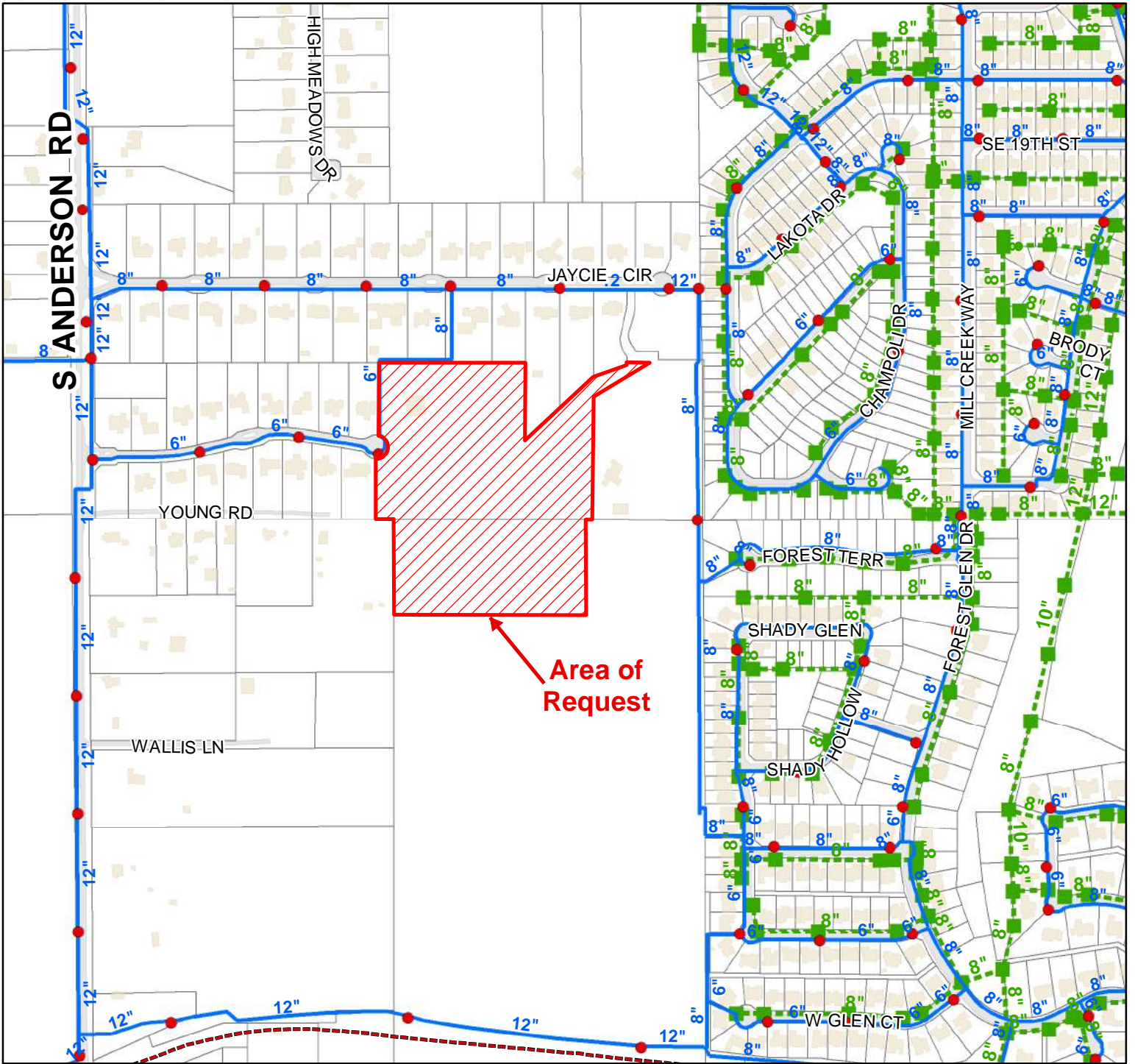


**2017 DOP (AERIAL) VIEW FOR  
PC-1994  
(W/2, Sec. 9, T11N, R1W)**

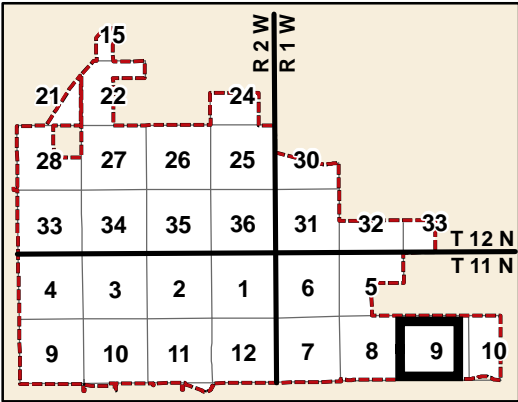


THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.





Locator Map



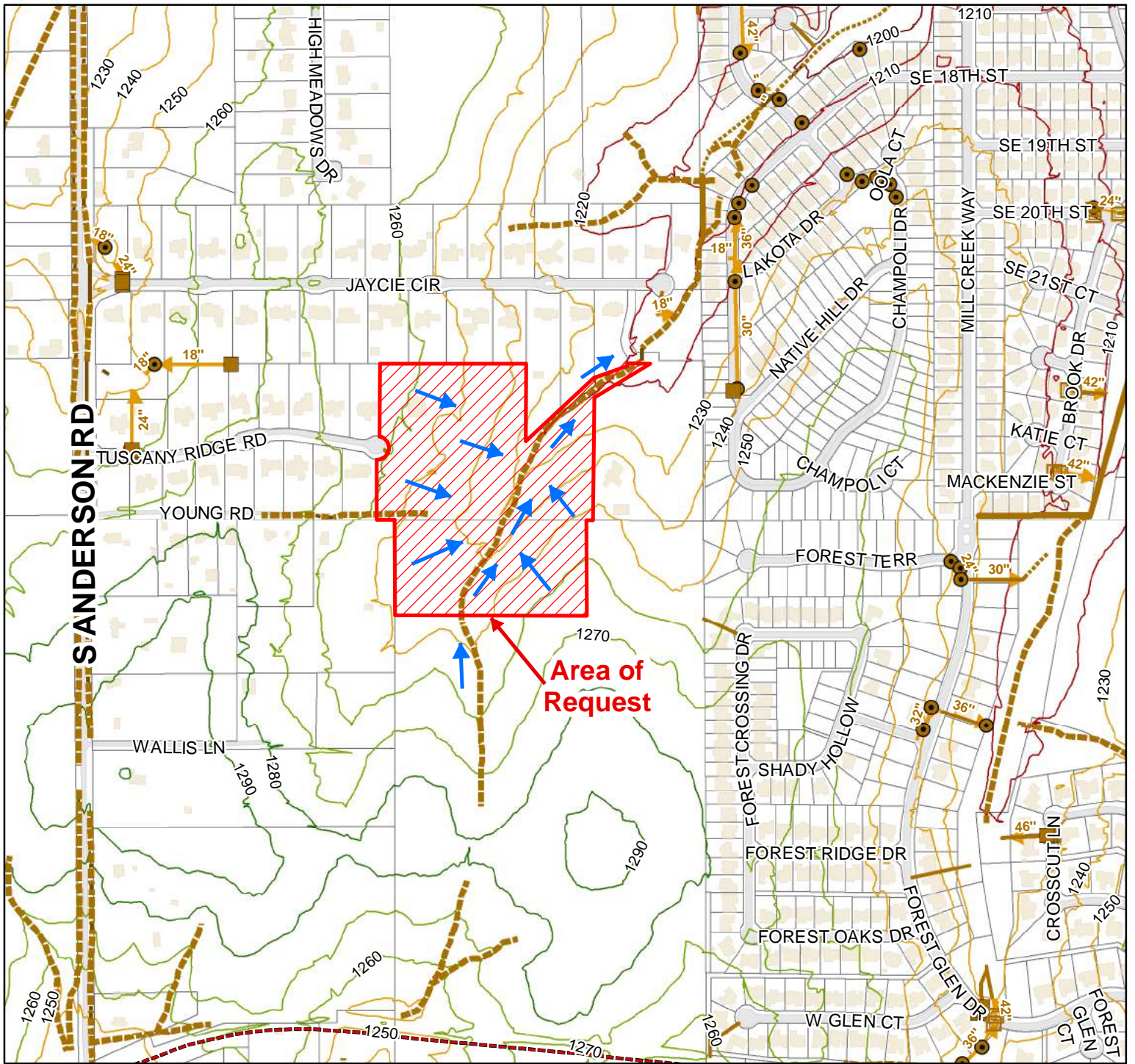
**Water/Sewer Legend**

- (C) Fire Hydrants
- Water Lines
  - (Blue line) Distribution
  - (Pink line) Well
  - (Light blue dashed line) OKC Cross Country
  - (Light purple dashed line) Sooner Utilities
  - (Green dashed line) Thunderbird
  - (Orange dashed line) Unknown
- Sewer Manholes (Red circle)
- Sewer Lines (Green dashed line)

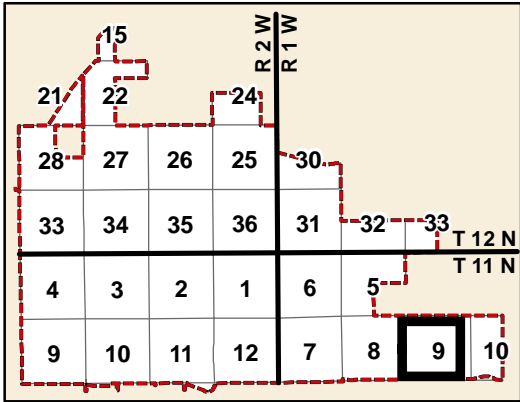
**WATER/SEWER LINE LOCATION MAP FOR PC-1994**

(W/2, Sec. 9, T11N, R1W)

THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



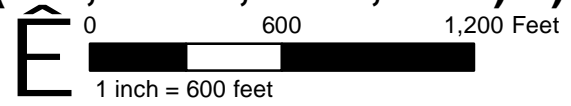
Locator Map



- Drainage Legend**
- Curb Inlets
  - Inlets
  - Junction Box
  - Culverts
  - Flumes
  - Developed Channels
  - Trickle Channels
  - Undeveloped Channels
  - Storm Lines
  - Creeks
- ELEVATION**
- 1166-1204 ft
  - 1204-1228 ft
  - 1228-1250 ft
  - 1250-1278 ft
  - 1278-1324 ft

- 2009 FEMA Floodplains**
- 500-yr floodplain
  - 100-yr floodplain
- 2009 FEMA Floodway**
- FLOODWAY

## DRAINAGE LOCATION MAP FOR PC-1994 (W/2, Sec. 9, T11N, R1W)W



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



AREA OF TREES TO BE REMOVED FOR PUBLIC IMPROVEMENTS

**Legend**

- Sections (>1 :40,000)
- Parcels
- OK County Boundary

1: 2,257



WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
© OpenStreetMap contributors

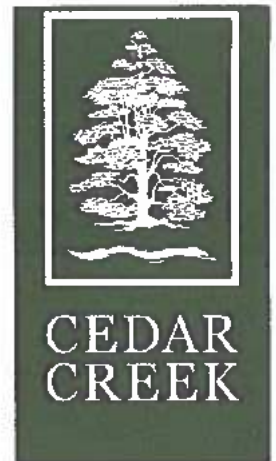
This map is a user-generated static output from an online mapping site and is for reference only. Data layers that appear on this map may not be available. Of otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

**Notes**  
Emer Map Oascription

March 28, 2019

City of Midwest City  
Attn: Kelli Gilles, AICP  
100 N. Midwest Blvd  
Midwest City, OK 73110



**RE: Tuscany Ridge Preliminary Plat**

Mrs. Gilles

On behalf of my client, the Christensen family, I am submitting a preliminary plat request for Tuscany Ridge as discussed previously with you.

As part of this preliminary plat submittal we are requesting a waiver from the following requirements:

- 1) We are requesting a waiver from sidewalk requirements and installation since the original neighborhood does not have sidewalks
- 2) We are requesting a waiver from the sanitary sewer requirements because no sanitary sewer is available and all existing homes are on septic.

I believe you should find everything necessary for the preliminary plat submittal. If I have missed something or you need additional information, please let me know.

Thank you again for your help throughout this process

Sincerely

A handwritten signature in black ink, appearing to read "Jason Emmett", is written over a light blue horizontal line.

Jason Emmett, PE  
Cedar Creek Consulting Inc.  
jemmett@cedarcreekinc.com



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

PC-1994

Applicant: Christensen Family  
 Phone Number: \_\_\_\_\_  
 Address: \_\_\_\_\_

**Preliminary Plat Requirements/Checklist – Planning**

- Lot to be subdivided is less than 5 acres
- Lot to be subdivided has an area of more than 10,000 square feet

38-48.2	<b>Zoning Compliance</b>	
38-48.2	All lots shall conform to zoning district compliance.	X - PUD approved 3/2019
38-48.4	<b>Lot Shape</b>	
38-48.4 (A) (B)	Lots shall generally be rectangular in shape. Flag lots are prohibited. Irregular lots shall meet all width, frontage and setback requirements as required by the zoning ordinance.	X Existing shape of lot 10 is irregular - done before the request
38-48.5	<b>Lot Lines</b>	
38-48.5 (A) (1)	Side lot lines shall be at ninety degree angles or radial to street Right-of-Way lines to the greatest extent possible.	X
38-48.5 (B) (1)	All lot lines shall align along County, school district and other jurisdictional boundary lines.	X
38-48.6	<b>Lot Orientation Restrictions</b>	
38-48.6 (A)	No single-family, two-family or townhome lot shall front onto or have a driveway onto any Arterial Street.	X
38-48.6 (B)	Lots are prohibited from backing to local streets.	X
38-48.7	<b>Limits-of-No-Access – shown on preliminary plat</b>	
38-48.7 (A)(1)	Low Density lots shall not derive access from an Arterial Street.	X
38-48.7 (A)(2)	Lots facing Collector Streets should be minimized to the fullest extent.	NA
38-48.8	<b>Lot Frontages</b>	
38-48.8 (A)(1)	Each lot shall have adequate access to a street by having frontage on a street that is not less than 35' at the street Right-of-Way line. This also applies to lots fronting onto an eyebrow or bulb portion of a cul-de-sac.	X
38-48.8(B)(1)(a)	For single-family, two-family and townhomes, double frontage lots are prohibited from backing or having the side facing onto an Arterial Street without appropriate screening.	NA
38-48.8(B)(1)(b)	Where lots back or side onto an Arterial Street, no driveway access is allowed onto the Arterial Street.	NA
38-48.8(B)(2)	For multifamily and nonresidential lots, if lots have frontage on more than one street, a front building line must be established for each street.	NA
38-48.8(B)(3)	Residential lots should face the front of a similar lot, park or open space.	
38-48.10	<b>Lot and Block Numbering</b>	
38-48.10(A)	All lots within each phase of a development are to be numbered consecutively	X



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

	within each block. Each block shall have alpha or numeric designations.	
38-48.11	<b>Building Lines</b>	
	Building lines along all streets shall be shown on the Preliminary Plats and shall conform with the minimum setbacks for front, side and rear yards as required by the zoning district.	X
38-48.12	<b>Block Requirements</b>	
38-48.12(B)(1)	Blocks for residential uses shall not be longer than 1,800 feet measured along the center line of the block.	X
38-48.12(B)(2)	When a block exceeds 600 feet in length, the Planning Commission may require a dedicated easement not less than 15 feet wide and a paved crosswalk not less than 4 feet wide to provide pedestrian access across the block.	NA
38-48.12(C)(1)	Blocks used for residential purposes should be of sufficient width to allow for two tiers of lots of appropriate depth.	NA
38-48.12(C)(2)	Exceptions to the prescribed block width shall be permitted for blocks adjacent to major streets, railroads or waterways.	NA
38-48.12(C)(3)	Blocks intended for business and industrial use should be of a width suitable for the intended use, with due allowance for off-street parking and loading facilities.	NA
38-48.14	<b>Subdivision Name Requirement</b>	
38-48.14(A)(1)	New subdivisions shall be named so as to prevent conflict or "sound-alike" confusion with names of other subdivisions.	X
38-48.14(A)(2)	Subdivisions with similar names shall be located in proximity to each other.	X
38-49.3	<b>Subdivision Amenities – Where amenities are proposed in conjunction with a development, such amenities shall be reviewed and approved in accordance with the following:</b>	NO amenities required or proposed
38-49.3(A)	Preliminary plans and illustrations, along with a written statement of such concepts, shall be submitted for review and approval with the Preliminary Plat.	NA
38-49.3(B)	Plans for amenities shall then be incorporated into the screening plan and/or landscape plan for submittal as part of the construction plans.	
38-49.3(C)	Lighting plans for all outdoor amenities	
38-49.3(D)	Plans for structural elements shall be sealed by a licensed Professional Engineer and shall be considered for approval by the City.	
38-49.4	<b>Design of Amenities</b>	
38-49.4(A)(1)(a)	Entry features shall be constructed entirely on privately owned property and shall not suspend over a public Right-of-Way.	
38-49.4(A)(1)(b)	Minor elements of an entry feature may be placed within an entry street median upon Plat approval, provided that such street median is platted as a non-buildable lot and dedicated to a HOA for private ownership and maintenance.	
38-49.4(A)(1)(c)	An entry feature having a water pond, fountain or other water feature shall only be allowed if approved by the Planning Commission and City Council during the plat review process.	
38-	No entry feature, other than screening walls or extensions of screening walls,	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

49.4(A)(1)(d)	may be constructed on any portion of a single-family, two-family or townhome	NA										
38-49.4(A)(1)(e)	All such features shall be constructed on lots that are platted as "non-buildable" lots and dedicated to a HOA for private ownership and maintenance.											
38-49.4(A)(2)	Entry features shall not encroach into the visibility triangle or otherwise impair pedestrian or vehicular visibility.											
38-49.4(A)(3)	The maximum height for entry features and structures shall be the maximum height of the governing zoning district as measured from the nearest street or sidewalk grade.											
38-49.4(B)	If private recreation facilities are provided, they shall be centrally located within the overall development to the greatest extent possible.											
38-49.4(C)	All outdoor amenities shall provide appropriate lighting.											
38-49.4(D)	A detention or retention pond shall be considered an amenity if it meets the following design considerations:											
38-49.4(D)(1)	Located between the building and street or completely bounded by streets											
38-49.4(D)(2)	Viewable from public space											
38-49.4(D)(4)	Accessible by patrons											
38-49.4(D)(5)	Seating area, public art or fountain											
38-49.4(D)(6)	One tree or planter at least 16 square feet for every 200 square feet of open space, and be located within or adjacent to the open space.											
38-50.2	<b>Homeowners' Association (HOA) Applicability</b>											
38-50.2(A)	Any one or more of the following elements created as part of a development shall require formation of a HOA prior to recordation of a final plat in order to maintain the amenity or facility:		X -									
38-50.2(A)(1)	Amenity	NA										
38-50.2(A)(2)	100-year Floodplain	NA										
38-50.2(A)(3)	Private streets	X										
38-50.2(A)(4)	Thoroughfare screening	NA										
38-50.2(A)(5)	Detention or retention ponds	NA										
38-50.2(A)(6)	Private park	NA										
38-51.2	<b>Applicability of Parks and Open Space Dedication</b>											
	This shall apply to all residential subdivision plats having a dwelling unit density of greater than one unit per net acre	< 1 DU per acre										
38-51.5(A)	The acreage to be contributed concurrent with the final approval by the City Council of any residential subdivision plat shall be determined by the following formula:	NA										
	<table border="1"> <tr> <td>Two acres</td> <td>X (multiplied by)</td> <td>Each 1,000 persons projected to occupy the fully developed subdivision</td> <td>=</td> <td>Amount of land to be contributed</td> </tr> <tr> <td colspan="5" style="text-align: center;">Which is</td> </tr> </table>	Two acres	X (multiplied by)	Each 1,000 persons projected to occupy the fully developed subdivision	=	Amount of land to be contributed	Which is					
Two acres	X (multiplied by)	Each 1,000 persons projected to occupy the fully developed subdivision	=	Amount of land to be contributed								
Which is												

HOA require with final plat app.



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

	.002 acres	X (multiplied by)	Number of person per dwelling unit	X (multiplied by)	# of dwelling units projected for subdivision	=	Amount of land to be contributed	
<b>38-51.6</b>	<b>Suitability of land</b>							
<b>38-51.6(A)(1)</b>	The dedicated land should form a single parcel or tract of land at least 3 acres in size unless the Parkland Review Committee determines that a smaller tract would be in the public interest.							NA
<b>38-52.3</b>	<b>Design requirements for parks and open space</b>							NA
<b>38-52.3(A)</b>	Parks and open spaces shall be bounded by a street or by other public uses.							
<b>38-52.3(B)(1)</b>	Single-family and two-family residential lots shall be oriented such that they front or side onto parks and open spaces but do not back to them.							
<b>38-52.3(B)(2)</b>	Residential lots shall only be allowed to back onto a park or open space when:							
<b>38-52.3(B)(2)(a)</b>	A trail is provided within the related park or open space.							
<b>38-52.3(B)(2)(b)</b>	The sites physical character does not reasonably accommodate an alternative design or the layout of the subdivision complements the use of the use of park or open space (e.g., lots backing to a golf course.)							
<b>38-52.3(C)(1)</b>	A proposed development adjacent to a park of open space shall not be designed to restrict public visibility or reasonable access from other area developments.							
<b>38-52.3(C)(2)</b>	Street connections to existing or future adjoining subdivisions shall be required to provide reasonable access to parks and open space areas.							
<b>38-52.3(D)(1)</b>	Where a non-residential use must directly abut a park or open space area, the use shall be oriented such that it sides, and does not back onto the park or open space area if at all possible							
<b>38-52.3(D)(2)</b>	Nonresidential uses shall be separated from the park or open space by a minimum 6 foot tall decorative metal fence with an irrigated living screen.							
<b>38-52.3(E)</b>	Alleys should not be designed to encourage their use as a means of vehicular, bike or pedestrian travel to the park.							
<b>38-52.3(F)(1)</b>	Public access into parks and open spaces shall not be less than 50' in width at the public Right-of-Way line, at the street curb, and at any other public access point.							
<b>38-52.3(F)(2)</b>	Such access shall not be part of a residential lot or other private property.							
<b>38-52.8</b>	<b>Hike-and-Bike Trail Requirements</b>							NA
<b>38-52.8(B)</b>	Hike-and-Bike trails, especially those providing access too and along 100-year Floodplains and other open spaces, shall be in accordance with the following design criteria:							
<b>38-52.8(B)(1)</b>	A minimum 30' wide level ground surface shall be provided for a 10' wide public hike-and-bike trail. The 30' wide level ground surface (compliant with ADA) may be provided within and/or outside of the 100-year floodplain.							
<b>38-52.8(B)(2)</b>	The Right-of-Way of a public street may count towards the 30' wide, ADA compliant level ground surface upon approval from the Director of Community Services.							





The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

38-52.8(B)(4)	The hike-and-bike trail shall be designed to minimize visibility blind spots from public streets for public safety purposes.	NA	
38-52.8(C)(1)	The Director of Community Services shall have the authority to determine the placement of a public hike-and-bike trail at the time of the preliminary plat review and approval.		
38-52.8(C)(2)	The location of such trails shall be safe and economical.		
38-52.8(C)(3)	No development shall interrupt future trail routes or otherwise hinder efficient public access to or from an existing or future planned trail.		
38-52.8(D)(1)	The location of trails within developments adjacent to or within a 100-year Floodplain recognized on the Trails Master Plan shall be coordinated with the Director of Community Services and shall be staked in the field by the developer and approved by the Director of Community Services prior to the submittal of a preliminary plat.		
38-52.8(D)(2)	The location of the trail shall be specified on the preliminary plat as the approved location for the hike-and-bike trail, and an easement for such shall be shown on the preliminary plat and final plat for any portions of the trail that traverse private property.		
38-52.8(E)	When development is adjacent to an undeveloped property, a pedestrian access stub-out in conjunction with a street connection to the edge of the development shall be required to allow for future access between developments as indicated on the Trails Master Plan.		
38-53.4	<b>Tree Canopy Management Plan</b>		
38-53.4	A Tree Canopy Management Plan shall be required as part of the preliminary plat. <b>This only applies to sites five acres or larger.</b>		X
38-53.5(B)(1)	The applicant shall prepare a Tree Canopy Management Plan and shall submit the plan as part of the preliminary plat application.		X
38-53.5(B)(2)	Within the Tree Canopy Management Plan, the applicant shall provide the following information:		X
38-53.5(B)(2)(a)	Pre-development tree canopy coverage (as determined by the City)	X	
38-53.5(B)(2)(b)	Post-development tree canopy coverage (as determined by the applicant)	X	
38-53.5(B)(2)(c)	Visual identification of tree canopy to be removed.	X	
38-53.5(C)(1)	Tree Canopy Management Plan shall be reviewed by the Director of Community Development for compliance with all standards.	X	
38-53.5(C)(2)	After reviewing the Tree Canopy Management Plan, the Director of Community Development shall make a recommendation to the Planning Commission and City Council. The Director must act within 30 days of the official filing date of the preliminary plat application.	X	
38-53.6	<b>Tree Preservation Requirements</b>		
38-53.6(A)	Option A (Standard Option) – Only trees in the following areas may be removed:	X	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

38-53.6(A)(1)	The Tree Canopy or any tree located within any street Right-of-Way may be removed.	X
38-53.6(A)(2)	The Tree Canopy or any tree located within any area dedicated for water, wastewater, drainage and other similar infrastructure needs may be removed.	X
38-53.6(A)(3)	The Tree Canopy or any tree located within any area required by the subdivision ordinance for a site feature, such as a screening wall, may be removed.	NA
38-53.6(B)	Option B (Alternative Compliance)	NA
38-53.6(B)(1)	The applicant may elect to develop a site using the Residential Cluster Development option.	
38-53.6(B)(2)	In the design of the Tree Canopy Management Plan, if a Residential Cluster Development Option is used, only the Tree Canopy or trees within the designated open space areas shall be preserved.	
38-53.7	<b>Tree Mitigation Plan – Required if trees are removed prior to approval of a Tree Canopy Management Plan</b>	
38-53.7(B)(2)	Tree Mitigation Requirements:	
38-53.7(B)(2)(a)	The applicant shall calculate the area of Tree Canopy that should have been preserved under Option A or Option B.	
38-53.7(B)(2)(b)	The resulting calculation shall be the amount of Tree Canopy that shall be restored.	
38-53.7(B)(2)(c)	Replacement trees shall be required to cover an area equal to the calculated restoration area.	
38-53.7(B)(2)(d)	The applicant shall calculate the number of replacement trees needed to cover the calculated restoration area.	
38-53.7(B)(2)(e)	In calculating the area for replacement trees, the mature size of replacement trees shall be used.	
38-53.7(B)(2)(f)	In calculating the area for replacement trees, only large trees shall be used.	
38-53.7(B)(2)(g)	Tree Canopy coverage at maturity is to be obtained through the planting of 2.5 inch caliper trees at spacing that will meet the calculated restoration area.	
38-53.7(B)(2)(h)	Replacement trees shall be a minimum 2.5 inch caliper trees.	
38-53.7(B)(2)(i)	Replacement trees shall be planted at spacing that will meet the calculated restoration area.	
38-53.7(B)(2)(j)	The Tree Canopy Management Plan shall show graphically the location of each replacement tree.	
38-53.7(B)(2)(k)	The number of replacement trees shall be shown in a tabular format and indicated the tree species and area of coverage assumptions for each tree species at maturity.	
38-53.7(B)(2)(l)	Replacement trees shall be planted prior to the approval of a final plat.	
38-53.7(B)(3)	Alternative Tree Mitigation Requirements	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 CURRENT PLANNING DIVISION

	<b>Administrative</b>	
	One digital copy of the preliminary plat	X
	Three 24x36 copies of the preliminary plat to scale	X
	Name of subdivision centered at the top of the preliminary plat.	X
	Name of city, county, state, section, township and range centered and printed at the top of the preliminary plat.	X
	Name and address of the owner of record, the subdivider, the owners engineer and the registered surveyor preparing the plat.	X
	Legal description of the property to be subdivided, including the acreage and number of proposed lots in the subdivision.	X
	Key map showing the location of the property to be subdivided referenced to existing or proposed arterial streets or highways.	

**Preliminary Plat Requirements/Checklist - Zoning**

5.14.1	<b>Lot Variety Required (required for areas 5 acres or larger)</b>	X
5.14.1(A)	Applicability – This section only applies to single-family residential developments of 5 acres or larger.	X
5.14.1(B)(1)	15% of lots within a development shall be larger than the minimum lot size. Lots shall be increased at least 20% of the minimum lot size.	X
5.14.1(B)(2)	15% of lots within a development may be smaller than the minimum lot size. Lot sizes shall not be reduced greater than 20% of the minimum lot size.	NA
5.14.1(C)	Single-family lots shall not be smaller than 6,000 square feet.	
5.14.1(D)	Lots of various sizes shall be evenly distributed throughout a development.	X

Additional Notes:



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

Applicant: TAKAY RIOS II  
 Phone Number: \_\_\_\_\_  
 Address: \_\_\_\_\_

**Preliminary Plat Requirements/Checklist - Engineering** PC-1994

The preliminary plat shall be accompanied by a statement signed by the registered engineer preparing the plat that he has, to the best of his ability, designed the subdivision in accordance with the latest subdivision regulations and in accordance with the ordinances and regulations governing the subdivision of land.

<b>38-18</b>	<b>Preliminary Plat:</b>	✓
Administrative	North arrow, scale, date, and site location map	✓
Administrative	The total number of lots	✓
Administrative	The total area of development	✓
Administrative	The location of proposed lots, areas in Acres and Square Feet, and dimensions.	✓
Administrative 38-42.3(b)(3)	The location of property lines, existing easements, buildings, fences, cemeteries or burial grounds, and other existing features within the area to be subdivided and similar facts regarding existing conditions on immediately adjacent property.	✓
Administrative 38-42.3(b)(3)	The location of any natural features such as water courses, water bodies, flood hazard areas, tree masses, steep slopes, or rock outcroppings within the area to be subdivided and similar facts regarding existing conditions on immediately adjacent property.	✓
Administrative 38-42.3(b)(3)	The location, width, and name of all existing or platted streets or other public ways (i.e. railroad and state-owned) within or immediately adjacent to the tract.	✓
Administrative	The location of all existing or abandoned oil or gas wells, oil or gas pipelines and other appurtenances associated with the extraction, production and distribution of petroleum products and all related easements on the site or on immediately adjacent property.	N/A
13-18.2(c)	The applicant shall furnish with the application to the city a current title commitment issued by a title insurance company authorized to do business in Oklahoma, a title opinion letter from an attorney licensed to practice in Oklahoma, or some other acceptable proof of ownership, identifying all persons having an ownership interest in the property subject to the preliminary plat.	✓
Administrative	The legal metes and bounds of the property being developed.	✓
13-69.7(1)	The area of the preliminary drainage plan in acres shown at points where storm water enters and leaves the proposed subdivision, and where drainage channels intersect roadways and at junction points.	✓
13-69.7(3)	The location, size, and type of existing and proposed storm water control facilities including storm sewers, inlets, culverts, swales, channels and retention or detention ponds and areas. The approximate area in acres served by said facilities shall be shown.	✓



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

13-69.7(4)	Special structures such as dams, spillways, dikes or levees.	✓
Administrative	Location of Floodplain if adjacent or within development	N/A
Administrative	Location of Wetlands if adjacent or within development. If so, the developer is required to notify the Army Corp of Engineers.	N/A
Administrative 38-43.3(a)(1)	Show the location and size of water mains.	✓
Administrative 38-43.3(a)(1)	Show the location and size of wastewater mains.	✓
Administrative 38-43.3(a)(2)	Show the location and specifications for fire hydrant systems.	✓
Administrative	Finish floor elevations for all pad sites	✓
Administrative 13-69.7(2)	Drainage arrows on all lots showing the final grading and where the water will drain	✓
Administrative 38-54.3(c)(1) 38-54.3(d)(1) 38-54.4	Required retaining walls and retaining wall easements	N/A
Administrative	Existing contours with intervals not to exceed two (2) feet referenced to a United State Geological Survey or Geodetic Survey bench mark or monument.	✓
Administrative	Show the proposed street layout and right of ways.	✓
38-45.4(c)	All existing arterial streets and such collector and local streets as may be necessary for convenience of traffic circulation and emergency ingress and egress.	✓
38-45.4(d)	All access points to existing roadways and be of the required number.	✓
38-45.4(e)	The development shall have two (2) connections to adjacent properties.	N/A
38-45.4(n)	The names of all new proposed streets.	✓
38-45.4(o)	The development shall not have any proposed cul-de-sacs longer than five hundred (500) feet in length	✓
38-47	The location and size of all proposed pedestrian crosswalks, bike trails, horse trails, or other supplementary movement systems.	N/A
<b>38-18.2(a)(1) 38-44.3(a)(2)</b>	<b>Preliminary stormwater management plan (SWMP)</b>	✓
38-44.3(e)(1)	A digital copy of the preliminary SWMP shall be submitted along with the preliminary plat.	✓
38-44.3(e)(2)	The preliminary SWMP shall be labeled as "Preliminary"	✓
<b>38-44.3(e)(3)</b>	<b>The preliminary SWMP shall be signed, sealed, and dated by the professional engineer (P.E.) or shall contain a statement showing the professional engineer's name and license number and affirming the preliminary SWMP was prepared under the direction of the engineer and that the plan is preliminary</b>	✓



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

38-44.3(b)(3)	If no preliminary drainage plan is required [only upon city engineer's approval, see 38-44.44 (b)(3)]: show existing drainage patterns, runoff coefficients, and the proposed changes to these items (before and after development)	✓
38-44.3(c)	The preliminary SWMP must comply with the Engineering Standards Manual and construction details and the Midwest City Code of Ordinances (e.g. chapters 13 and 43), including control/sediment plans	✓
<b>38-18.2(a)(2)</b> <b>38-44.4(a)(2)</b>	<b>Preliminary drainage plan</b>	✓
13-69.7(1)	The area of the preliminary drainage plan in acres shown at points where storm water enters and leaves the proposed subdivision, and where drainage channels intersect roadways and at junction points.	✓
13-69.7(3)	The location, size, and type of existing and proposed storm water control facilities including storm sewers, inlets, culverts, swales, channels and retention or detention ponds and areas. The approximate area in acres served by said facilities shall be shown.	✓
13-69.7(4)	Special structures such as dams, spillways, dikes or levees.	✓
38-44.4(c)(1)	The preliminary drainage plan shall show the watershed affecting the development and how the runoff from the fully-developed watershed will be conveyed to, through, and from the development.	✓
38-44.4(c)(2)	The preliminary drainage plan must comply with the Engineering Standards Manual and construction details and the Midwest City Code of Ordinances (e.g. chapters 13 and 43)	✓
38-44.4(d)(1)	Three (3) paper copies of the preliminary drainage plan	✓
38-44.4(d)(2)	The preliminary drainage plan shall be labeled as "Preliminary"	✓
38-44.4(d)(3)	The preliminary drainage plan shall be stamped by and dated by the engineer, professional	✓
<b>38-44.5</b>	<b>If the development proposed is adjacent to or within the 100-year floodplain the following are required:</b>	N/A
38-44.5(a)	No Development within a floodway.	
38-44.5(b)	All 100-year floodplains shall be maintained in an open natural condition	
38-44.5(b)(3)(a)	The 100-year floodplain shall be dedicated on the final plat to the city as a single lot or may be owned and maintained by an HOA	
38-44.5(b)(3)(b)	No portion of a single-family or two-family residential lot shall exist within the 100-year floodplain	
38-44.5(b)(3)(c)	A fifteen-foot wide maintenance easement adjacent to the floodway	
38-44.5(b)(3)(e)	All streets adjacent to a 100-year floodplain shall have a minimum ROW width of fifty (50) feet.	
38-44.5(b)(3)(f)(2)	All streets adjacent to a 100-year floodplain shall have a minimum sixty (60) percent of the linear frontage	
38-44.5(b)(3)(f)(3)(a)	Not more than one (1) cul-de-sac in a row adjacent to 100-year floodplain	



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

38-44.5(b)(3)(f)(2)(b)(1)	A minimum fifty (50) percent of an adjacent cul-de-sac bulb shall be open to the 100-year floodplain and no residential lot shall encroach within the area between this line and the major creek.	
38-44.5(b)(3)(f)(2)(b)(2)	An entry monument(s) or feature(s) as well as landscaping shall be provided at the end of the cul-de-sac and a pathway of a minimum twelve (12) feet in width shall be provided to the major creek.	
<b>38-18.2(a)(3)</b> <b>38-43.3</b>	<b>Preliminary utility plan</b>	✓
Administrative	The preliminary utility plan shall show the location and width of all adjacent utility easements	✓
38-38.43.2(2)	Width of all proposed utility easements	✓
38-43.3(a)(1)	The preliminary utility plan shall show the location and size of water mains.	✓
38-43.3(a)(1)	The preliminary utility plan shall show the location and size of wastewater mains.	✓
38-43.3(a)(2)	The preliminary utility plan shall include plans and specifications for fire hydrant systems.	✓
38-43.4(b)	All water and wastewater utilities including connections within the ROW or easements shall be vested to the city.	✓
38-43.4(d)	No utility or service lines shall cross another lot.	✓
38-43.4(e)	Any utility adjacent to non-city government roads shall be constructed outside that ROW and in a separate easement unless agreed upon by non-city owner and Midwest City	✓
<b>38-18.2(a)(5)</b>	<b>Preliminary site development plan</b>	✓
Administrative	Finish floor elevations for all pad sites	
Administrative 13-69.7(2)	Drainage arrows on all lots showing the final grading and where the water will drain (not to drain over more than adjacent lot)	✓
Administrative 38-54.3(c)(1) 38-54.3(d)(1) 38-54.4	Required retaining walls and retaining wall easements	N/A
Administrative	Existing contours with intervals not to exceed two (2) feet referenced to a United State Geological Survey or Geodetic Survey bench mark or monument.	✓
<b>38-18.2(a)(6)</b>	<b>Street layout plan</b>	✓
Administrative	The classification of every street within or adjacent to the development.	✓
38-45.4(b)	The streets within the development shall conform to the city's comprehensive plan.	✓
38-45.4(c)	The proposed street system shall extend all existing arterial streets and such collector and local streets as may be necessary for convenience of traffic circulation and emergency ingress and egress.	✓
38-45.4(d)	The street layout plan shall show all access points to existing roadways and be of the required number.	✓



The City of  
**MIDWEST CITY**  
 COMMUNITY DEVELOPMENT DEPARTMENT  
 ENGINEERING DIVISION

38-45.4(e)	The street layout plan shall have two (2) connections to adjacent properties.	N/A
38-45.4(n)	The street layout plan will have the names of all new proposed streets.	✓
38-45.4(o)	The street layout plan shall not have any proposed cul-de-sacs longer than five hundred (500) feet in length	✓
38-47	The location, size, and easements of all proposed pedestrian crosswalks, bike trails, horse trails, or other supplementary movement systems.	✓
<b>38-18.2 (a) (7)</b>	<b>Street signage and striping plan</b>	N/A
Administrative	Proposed signage of development	N/A
Administrative	Proposed striping if required	N/A
<b>38-18.2 (a) (9)</b>	<b>Other plans</b>	
<b>Engineering Comments and Recommendations:</b>		
<b>Associated Departments (Fire, Stormwater, and Utilities) Comments and Recommendations:</b>		





The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVIS  
Patrick Menefee, City Eng  
CURRENT PLANNING DIVIS  
Kellie Gilles, Mar  
COMPREHENSIVE PLANN  
Petya Stefanoff, Comprehensive Pl  
BUILDING INSPECTION DIVIS  
Christine Brakefield, Building Of  
GIS DIVIS  
Greg Hakman, GIS Coordi

---

**To:** Honorable Mayor and City Council  
**From:** Billy Harless, Community Development Director  
**Date:** May 28, 2019

**Subject:** (PC-1995) Public hearing with discussion and consideration of an ordinance to redistrict from R-6, Single Family Detached Residential to O-2, General Office, for the property described as a part of Lot 1 of Block 2 of the Friendly Acres Addition, addressed as 11126 E. Reno Avenue.

During the May 7, 2019 Planning Commission meeting, a citizen voiced concerns about the drainage crossing on Friendly Road and what impact the proposal may have on it. As of noon on May 8, 2019, staff has:

-Met with the design engineer and discussed diverting the drainage as much as possible away from this crossing to the south. The engineer is going to create two detention basins. A northern drainage basin will be sized as big as possible, and then be released into a new inlet built on Friendly Drive, bypassing the pipe and draining east. This will maximize the amount of water that will no longer use the existing road crossing. A smaller southern basin will still be necessary. The discharge from it will be minimized to reduce flow to the south. Both basins will reduce the water flow utilizing the existing crossing.

-PWA was brought in and has agreed to do what they can east of the pipe crossing to help reduce the backwater issues at the road crossing. All of the road work, grade work, improvements, etc. must take place in the right of way.

-Staff has also contacted the property owner downstream of the crossing east and are attempting to get drainage easement from them, hoping to further what can be done to alleviate water build up in the area. The property owner has responded and are willing to discuss options for the area.

The Planning Commission recommended that this item be brought back to them at the June 4, 2019 meeting in order for the applicant to prepare drainage plans. The sale of the property is supposed to close on June 15. In an effort to keep with the applicant's timeline, the Planning Commission recommended that the item also be tabled to the June 11, 2019 City Council meeting. Staff is in agreement with the Planning Commission's recommendation.

Attached are pictures of the drainage concerns following heavy rain on the evening of May 7, 2019 and morning of May 8, 2019.

A handwritten signature in black ink, appearing to read "Billy Harless". The signature is fluid and cursive, with a long horizontal stroke at the end.

Billy Harless, AICP  
Community Development Director

KG



The City of  
**MIDWEST CITY**  
COMMUNITY DEVELOPMENT DEPARTMENT

Billy Harless, Community Development Director

ENGINEERING DIVISION  
Patrick Menefee, City Engineer  
CURRENT PLANNING DIVISION  
Kellie Gilles, Current Planning Manager  
COMPREHENSIVE PLANNING  
Petya Stefanoff, Comprehensive Planner  
BUILDING INSPECTION DIVISION  
Christine Brakefield, Building Official  
GIS DIVISION  
Greg Hakman, GIS Coordinator

**To:** Honorable Mayor and City Council

**From:** Billy Harless, Community Development Director

**Date:** May 28, 2019

**Subject:** (PC-1995) Public hearing with discussion and consideration of an ordinance to redistrict from R-6, Single Family Detached Residential to O-2, General Office, for the property described as a part of Lot 1 of Block 2 of the Friendly Acres Addition, addressed as 11126 E. Reno Avenue.

**Executive Summary:** This is a request to rezone the property from R-6, Single Family Detached Residential to the O-2 General Office District. The proposed use is a dialysis center. No variances are requested with this application. No public improvements are required with this application, however, half street improvements along Friendly Drive and sidewalk improvements along E. Reno Ave. and Friendly Drive will be requirements of the building permit. The Planning Commission tabled this item to the June 4, 2019 Planning Commission meeting to allow the applicant to address drainage concerns. Staff recommends that this item be tabled to the June 11, 2019 City Council meeting.



**Dates of Hearing:** Planning Commission – May 7, 2019  
City Council – May 28, 2019

**Owner:** J Lou Properties

**Applicant:** Bubba Ingram, Ingram Civil Engineering

**Council Ward:** Ward 3

**Proposed Use:** Physicians Choice Dialysis

**Size:**

The area of request has a frontage of approximately 200' along E.

Reno Ave. and a depth of approximately 260' along Friendly Drive. containing an area of approximately 52,000 square feet or 1.19 acres, more or less.

**Development Proposed by Comprehensive Plan:**

Area of Request – Office Retail (OR)

North, South, and West – Office Retail (OR)

East – Low Density Residential (LDR)

**Zoning Districts:**

Area of Request – R-6, Single Family Detached Residential  
South and East – R-6, Single Family Detached Residential  
North – R-6, Single Family Detached Residential and C-3, Community Commercial  
West – R-6, Single Family Detached Residential and C-3, Community Commercial

**Land Use:**

Area of Request – Vacant  
North and South– Single family residences  
East – Vacant  
West – Vacant and one single family residence

**Municipal Code Citation:**

2.17. O-2, General Office

2.21.1 General Description

This commercial district is intended to provide a location for offices at a higher density than that allowed in the restricted office district.

This district places an emphasis on building location and design in conjunction with landscaping.

This district should be located and designed so that it can be used as a buffer between residential areas and more intense land use activities.

**History:**

1. (PC-296) A Special Use Permit was granted for this property in 1976 to allow a greenhouse. The underlying zoning at that time was R-1, Single Family Residential.
2. The greenhouse is no longer on the property and as such, the Special Use Permit no longer applies.
3. The property was designated as R-6, Single Family Detached Residential with the adoption of the 2010 Zoning Map.
4. The Planning Commission tabled this meeting to the June 4, 2019 Planning Commission meeting.

**Staff Comments:**

**Engineer's report:**

Water Supply and Distribution

A twelve (12) inch public water main is located on the south side of Reno Avenue in the street right-of-way extending along the north side of the area of request. A six (6) inch public water main is located on the west side of Friendly Drive in the street right-of-way extending along the east side of the area of request. Public water mains extend along the full frontage of this property, therefore water line improvements are not required as outlined in Municipal Code 43-32.

This is a rezoning application and during this phase of the development process, setting meters and installing service connections is not required. If this application is approved, connecting to the public water system for service is a building permit requirement and will be done at that time.

#### Sanitary Sewerage Collection and Disposal

An eight (8) inch public sewer main is located on the west side of Friendly Drive in the street right-of-way extending along the east side of the area of request. A public sewer main is available to connect to providing service to this property, therefore sewer line improvements are not required as outlined in Municipal Code 43-109.

This is a rezoning application and during this phase of the development process, installing service connections is not required. If this application is approved, connecting to the public sanitary sewer system for service is a building permit requirement and will be done at that time.

#### Streets and Sidewalks

Access to the area of request is available from Reno Avenue and Friendly Drive. Reno Avenue is classified as a secondary arterial in the 2008 Comprehensive Plan. Reno Avenue is a five (5) lane, 65-foot wide, curbed, asphalt concrete roadway. Current code requires a total street right-of-way width of one hundred (100) feet for a primary arterial and presently, Reno Avenue has one hundred (100) feet of right-of-way adjacent to and parallel to the north side of the area of request. Friendly Drive is classified as a local street in the 2008 Comprehensive Plan. Friendly Drive is a two (2) lane, 22-foot wide, uncurbed, asphalt concrete roadway. Current code requires a total street right-of-way width of fifty (50) feet for local roads and presently, Friendly Drive has fifty (50) feet of right-of-way adjacent to the east side of the area of request

Right of way grants are not required with this application.

Friendly Drive does not meet current code requirements for a local street. This is a rezoning application and during this phase of the development process, constructing half street improvements or installing sidewalk is not required at this time.

As outlined in Municipal Code 37-65, at the time of building permit, half street improvements to Friendly Drive will be required for the full frontage of the area of request. Sidewalk improvements along Reno Avenue and Friendly Drive will also be required with a building permit submittal as outlined in Municipal Code 37-67.

Improvement plans for the street and sidewalks must be prepared by a registered professional engineer and be submitted to staff for plan review and approval.

#### Drainage and Flood Control, Wetlands, and Sediment Control

Drainage across the area of request is via overland flow from the west to the east. Currently, the area of request is undeveloped. None of the area of request is affected by flood zone AE (the 100-year floodplain) as shown on the effective Flood Insurance Rate map (FIRM) number 40109C0330H, dated December 12, 2009.

Drainage and detention improvements are not required with this rezoning application. However, as outlined in Municipal Code 13-69, a drainage study and detention pond design will be required with any building permit submittal.

Improvement plans for the drainage and detention pond must be prepared by a registered professional engineer and be submitted to staff for plan review and approval.

All development on the proposed tracts must conform with the applicable requirements of Municipal Code Chapter 13, "Drainage and Flood Control."

During the May 7, 2019 Planning Commission meeting, a citizen voiced concerns about the drainage crossing on Friendly Road and what impact the proposal may have on it. As of noon on May 8, 2019, staff has:

-Met with the design engineer and discussed diverting the drainage as much as possible away from this crossing to the south. The engineer is going to create two detention basins. A northern drainage basin will be sized as big as possible, and then be released into a new inlet built on Friendly Drive, bypassing the pipe and draining east. This will maximize the amount of water that will no longer use the existing road crossing. A smaller southern basin will still be necessary. The discharge from it will be minimized to reduce flow to the south. Both basins will reduce the water flow utilizing the existing crossing.

-PWA was brought in and has agreed to do what they can east of the pipe crossing to help reduce the backwater issues at the road crossing. All of the road work, grade work, improvements, etc. must take place in the right of way.

-Staff has also contacted the property owner downstream of the crossing east and are attempting to get drainage easement from them, hoping to further what can be done to alleviate water build up in the area. The property owner has responded and are willing to discuss options for the area.

#### Easements and Right-of-Way

No additional rights-of-way and/or easements are required with this application.

#### **Fire Marshal's report:**

The Fire Marshall has reviewed this rezoning request. All provisions of Chapter 15 of the Municipal Code must be met with the application of a building permit.

A fire hydrant is required to be located a maximum of 400 feet from the facility. If no hydrant is available, a hydrant is required to be installed.

#### **Plan Review Comments:**

The applicant is proposing one (1) single story office building. The proposed use is a dialysis center.

The following requirements of the Zoning Ordinance must be met:

- The building must be constructed of 80% masonry materials. The City does not accept EIFS as a masonry product.
- Parking of 1 space per 250 sq. ft. GLA for the first 12,000 sq. ft. of GLA. From 12,001 sq. ft – 48,000 sq. ft. GLA = 1 space per 300 sq. ft. of GLA.

- Minimum aisle width of 26’.
- Minimum parking space size of 9’x18’6”.
- Front setback of 25’ from the right-of-way on E. Reno.
- East side setback of 15’ from the right-of-way on Friendly Drive.
- West side setback of 5’
- Base landscaping of six (6) trees and twelve (12) shrubs plus two (2) trees and two (2) shrubs for every ten (10) parking spaces installed. Landscaping must be in place prior to issuance of a Certificate of Occupancy.
- Maximum lot coverage of 90%
- Signage must meet the requirements of the Sign Ordinance
- Dumpster must be enclosed on three (3) sides by a minimum of 8’ tall masonry walls.

The site plan includes the parcel abutting the area of request to the west. This parcel is currently zoned C-3, Community Commercial. A medical office is an allowed use in the C-3 district. The applicant has stated that this parcel is also being purchased, however, at this time, no development is proposed on this lot. If future development does occur on this lot, it must meet all requirements of the C-3, Community Commercial zoning district.

The applicant is also requesting an access point into the site from Friendly Drive.

Staff sent notices out to all property owners within 300 feet of the area of request. As of this writing, staff has received no calls or letters of protest.

This proposal is consistent with the Comprehensive Plan as the Future Land Use Map shows this parcel as OR, Office Retail.

As noted in the drainage section of this report, an adjacent property owner voiced concerns about drainage at the Planning Commission meeting. The Planning Commission voted to table this item to the June 4, 2019 Planning Commission meeting to allow the applicant time to compile drainage information and submit it to staff for review. In an effort to assist the applicant in staying in line with their June 15 closing date, the Planning Commission recommended that the item be heard at the June 11, 2019 Council meeting with their recommendation included.

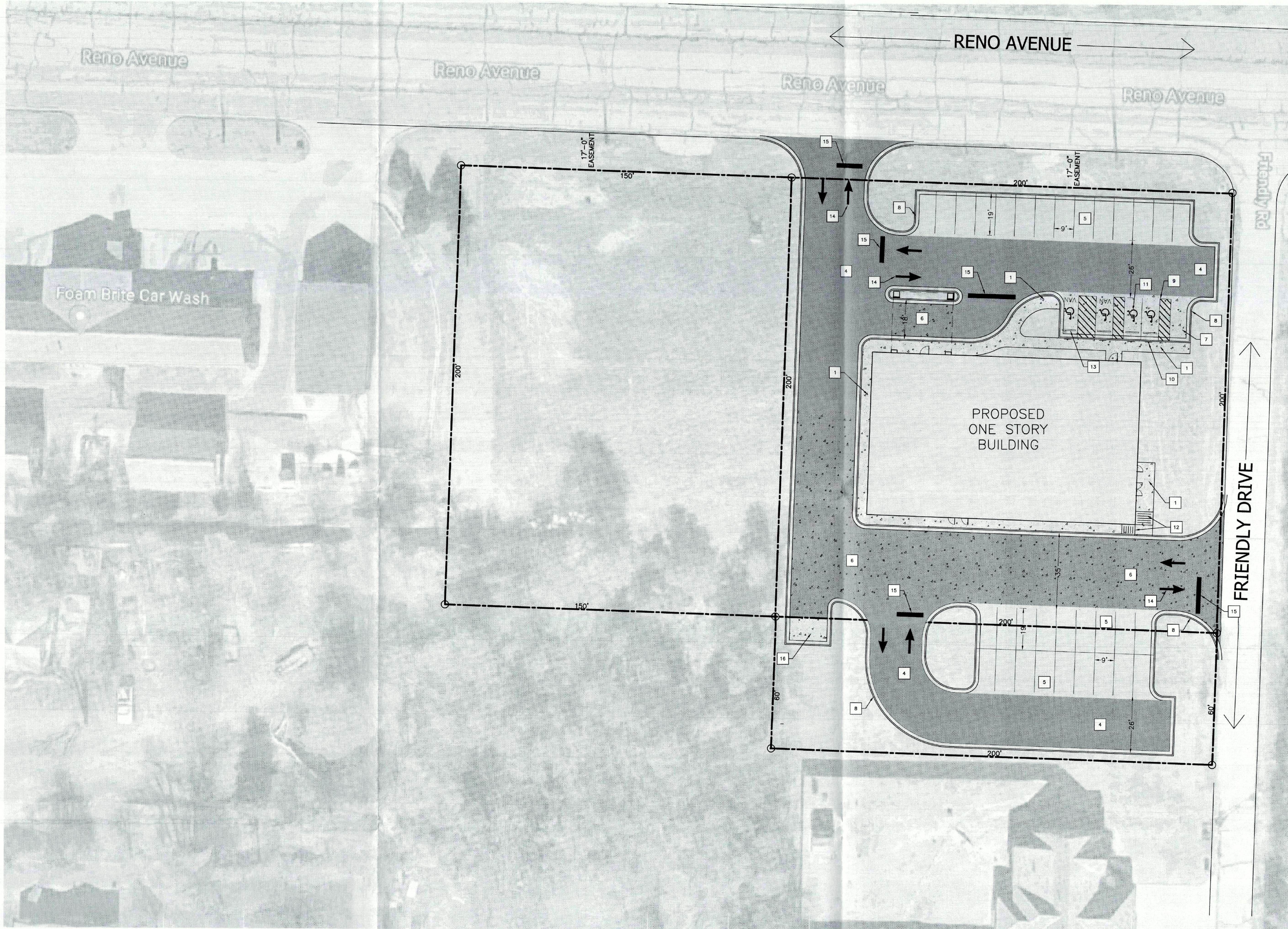
**Action Required:**

Approve or reject the ordinance to redistrict to O-2, General Office for the properties as noted herein, subject to staff's comments as found in the May 8, 2019 agenda packet and made a part of PC-1995 file.



Billy Harless,  
Community Development Director  
KG





PARKING TABLE	
PARKING REQUIRED (1 SPACE PER 250 SQUARE FEET) 0,000/250=36	
STANDARD	35
ACCESSIBLE	1
TOTAL	36
PROPOSED	
STANDARD	33
ACCESSIBLE	4
TOTAL	37



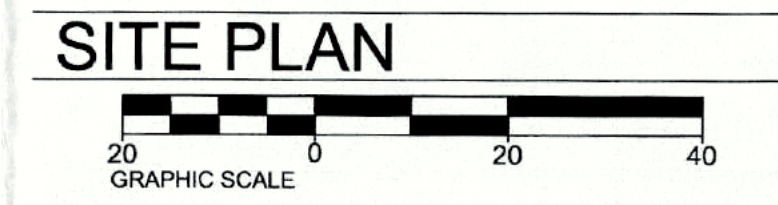
2    3  
 TO BE PERFORMED ON ALL CONCRETE

**GENERAL SITE NOTES**

- SITE LAYOUT FOR PHYSICIAN'S CHOICE BY INGRAM CIVIL ENGINEERING GROUP, LLC, BASED ON SITE SURVEY BY XXX ON X-X-X.
- ORIGINAL TOPOGRAPHICAL INFORMATION IS BASED ON A SURVEY BY XXX ON X-X-X. THE ENGINEER, THE OWNER, OR ANY OF THE OWNER'S CONSULTANTS SHALL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION.
- ALL CIVIL/SITE WORK ELEMENTS INDICATED TO BE CONSTRUCTED ON THE PLANS ARE TO BE BUILT IN STRICT ACCORDANCE WITH THE STANDARDS ADOPTED BY THE CITY OF MIDWEST/OKLAHOMA COUNTY, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL SITE WORK MUST ALSO COMPLY WITH THE CITY OF MIDWEST/OKLAHOMA COUNTY ENVIRONMENTAL REQUIREMENTS AND FEDERAL EPA REQUIREMENTS.
- WRITTEN DIMENSIONS PREVAIL. DO NOT SCALE THESE DRAWINGS. PRINTED DIMENSIONS WHICH ARE OMITTED OR IN CONFLICT SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR REVIEW AND RESPONSE. DIMENSIONS ARE FROM FACE OF CURB / EDGE OF PAVEMENT AND FACE OF BUILDING, UNLESS NOTED OTHERWISE.
- DIMENSIONS LOCATING THE BUILDING IN RELATIONSHIP TO THE PROPERTY LINES HAVE BEEN PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. WHERE POSSIBLE, COORDINATES CAN BE USED TO ESTABLISH PHYSICAL LENGTHS ALONG THE BUILDING PERIMETER. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FROM STRUCTURAL AND ARCHITECTURAL DRAWINGS THE ACTUAL EXTENT OF THE BUILDING ON THE PROPERTY. BUILDING LAYOUT SHALL BE BASED SOLELY ON DIMENSIONAL INFORMATION PROVIDED ON STRUCTURAL AND ARCHITECTURAL DRAWINGS. DISCREPANCIES WHICH IMPACT SITE LAYOUT SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL SITE FEATURES, (BUILDINGS, ROADS, PARKING, PAVES, WALKS, ETC.) AND WILL EMPLOY A LAND SURVEYOR LICENSED TO PRACTICE IN THE PROJECT'S REGION OF CONSTRUCTION TO STAKE OUT AND MAINTAIN ALL REQUIRED CONTROL POINTS THROUGHOUT THE LIFE OF THE PROJECT. THE SURVEYOR SHALL CERTIFY TO THE ENGINEER, IN WRITING, THAT THE LAYOUT IN THE FIELD SUBSTANTIALLY CONFORMS TO THE LAYOUT INDICATED ON THE CONTRACT DOCUMENTS. LAYOUT DISCREPANCIES OR CHANGES SHOULD BE SO NOTED TO THE ENGINEER.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE DAMAGE OR LOSS OF ANY REFERENCE POINTS, MONUMENTS, HUBS, AND STAKED LOT CORNERS DURING THE CONSTRUCTION OF THE WORK AND SHALL BEAR ANY COST ASSOCIATED WITH REPAIR.
- THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS, AND PAY ALL PERMIT FEES. THE CONTRACTOR SHALL CONFORM TO ALL STATE AND LOCAL CODES AND ORDINANCES AND RECEIVE APPROPRIATE APPROVALS WHERE REQUIRED PRIOR TO COMMENCEMENT OF THE WORK.
- MATERIALS AND PROCESSES OF CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. WHILE THE ENGINEER HAS PROVIDED, FOR THE CONVENIENCE OF THE CONTRACTOR, DRAWINGS OUTLINING CERTAIN REQUIRED OSHA MINIMUM SAFETY PRACTICES, THE ENGINEER DOES NOT ACCEPT RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION OR FOR VERIFYING THAT SUCH MEASURES ARE IMPLEMENTED ON SITE. MAINTAINING A SAFE ENVIRONMENT DURING THE PROMULGATION OF THE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR, THE ENGINEER, THE OWNER AND OTHER CONSULTANTS. HAVE NO EXPERTISE, NOR ACCEPT ANY LIABILITY, IMPLIED OR OTHERWISE, FOR MATERIALS AND PROCESSES OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT COMMENCE ANY WORK WHICH IS NOT UNDER THE CONTROL OR OWNERSHIP OF THE OWNER WITHOUT WRITTEN PERMISSION FROM THE PROPERTY'S OWNER OR CONTROLLING INTEREST. WHERE CONTROLLING INTEREST IS A LOCAL, STATE, OR FEDERAL AGENCY, THEN APPROVAL FOR CONSTRUCTION SHALL CONSTITUTE AUTHORITY TO COMMENCE WORK.
- WHERE NOT SPECIFICALLY NOTED OTHERWISE, ALL CONCRETE FINISHES SHALL BE SLIP RESISTANT PER TECHNICAL SPECIFICATIONS.
- ALL ACCESSIBLE PARKING SPACES, INDICATED WITH THE GRAPHIC ACCESSIBLE SYMBOL, DENOTE ACCESSIBLE PARKING SPACES. THESE SPACES ARE DESIGNED TO CONFORM TO ADA AND OKLAHOMA ACCESSIBILITY STANDARD SPECIFICATIONS. ALL INDICATED SPACES SHALL RECEIVE THE PAINTED SYMBOL AND APPROPRIATE IDENTIFICATION SIGNAGE. WHERE REQUIREMENTS ARE DIFFERENT OR IN EXCESS OF THESE, THE CONTRACTOR WILL ALLOW FOR THOSE ADDITIONAL REQUIREMENTS IN HIS PRICE AND PROMPTLY SUBMIT THEM TO THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR USING THE ONE-CALL SYSTEM OR OTHER MEANS TO CONTACT AND VERIFY LOCATIONS OF ALL UTILITIES. THE CONTRACTOR IS FULLY RESPONSIBLE FOR REPAIRS TO DAMAGED UTILITIES.
- THE CONTRACTOR IS TO CONTROL TRAFFIC FLOW DURING TIME OF CONSTRUCTION. ANY AND ALL TRAFFIC CONTROL IMPLEMENTED DURING THIS PROJECT SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL WORK WITHIN PUBLIC RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH CITY OF MIDWEST/OKLAHOMA COUNTY AND OKLAHOMA D.O.T. REGULATIONS.

- SITE NOTES**
- SITE DETAILS**
- CONCRETE SIDEWALK
  - CONCRETE JOINTS
  - CONCRETE JOINT SEALANTS
  - HEAVY DUTY ASPHALT
  - LIGHT DUTY ASPHALT
  - HEAVY DUTY CONCRETE PAVEMENT
  - LIGHT DUTY CONCRETE PAVEMENT
  - CONCRETE CURB AND GUTTER
  - ACCESSIBLE SPACE LAYOUT
  - ACCESSIBLE SIGNS
  - ACCESSIBLE SYMBOL
  - ACCESSIBLE CURB RAMP
  - WHEEL STOP
  - TRAFFIC FLOW ARROWS
  - STOP BAR
  - DUMPSTER PAD WITH ENCLOSURE
  - PIPE BOLLARD

- LEGEND: SITE**
- PROPOSED HC ACCESSIBLE PARKING SPACE (SEE SITE DETAIL)
  - LINEAR DIMENSION
  - PROPOSED CURVE RADIUS DIMENSION
  - PROPOSED SIGN
  - PROPOSED PRECAST WHEEL STOP
  - PROPOSED TRAFFIC ARROW (SEE SITE DETAIL)
  - PROPOSED STOP BAR (SEE SITE DETAIL)
  - PROPOSED HEAVY DUTY ASPHALT PAVEMENT
  - PROPOSED LIGHT DUTY ASPHALT PAVEMENT



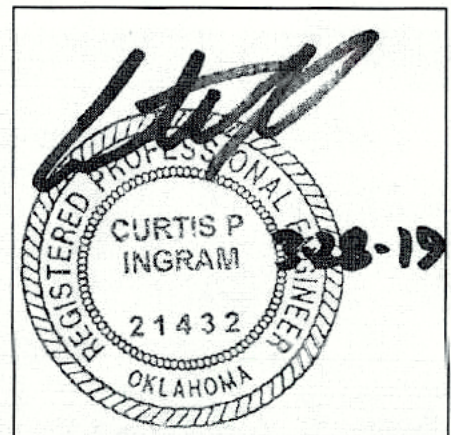
INGRAM CIVIL ENGINEERING GROUP, LLC  
 212 OAKWOOD CIRCLE, SUITE 105  
 BREVARDWOOD, TENNESSEE 37027  
 815.370.7954 OFFICE  
 815.370.1273 FAX  
 STATE LICENSED PROFESSIONAL ENGINEER #24182  
 CURTIS P. INGRAM, P.E.  
 INGRAM CIVIL ENGINEERING GROUP, LLC

RE-ZONING EXHIBIT - NOT FOR CONSTRUCTION

REV #	DATE	REVISION DESCRIPTION

Physicians Choice  
dialysis

Proposed Dialysis Facility for:  
**PHYSICIANS CHOICE DIALYSIS OF  
 MIDWEST CITY, OK**  
 RENO AVENUE  
 MIDWEST CITY, OKLAHOMA 73130



the design group architect  
 main concepts, inc.  
 P.O. Box 1177  
 Groveville, TN 37744  
 (615) 258-1010

These documents prepared by the Architect are the property of the Architect. The Architect shall be deemed the author of drawings, specifications and other documents and will retain all common law, statutory and other reserved rights, in addition to the copyright. Document prepared by the architect are for use solely with respect to this project. These documents shall not be used, copied or related without the specific written consent of the Architect. Any violation of the above rights of the Architect shall be prosecuted to the maximum possible extent within the law.

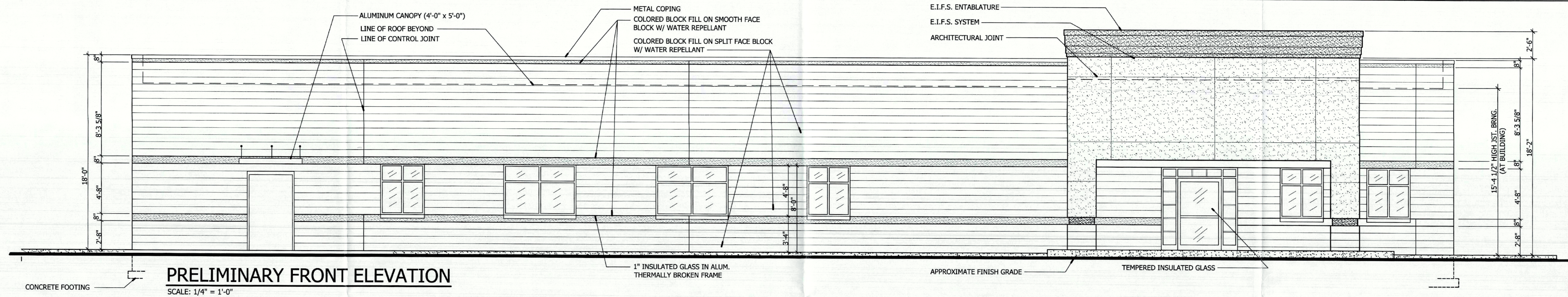
Drafted By: SAS  
 Checked By: CPI  
 Date Drawn: 03/28/19  
 Project #: 181212

SITE PLAN

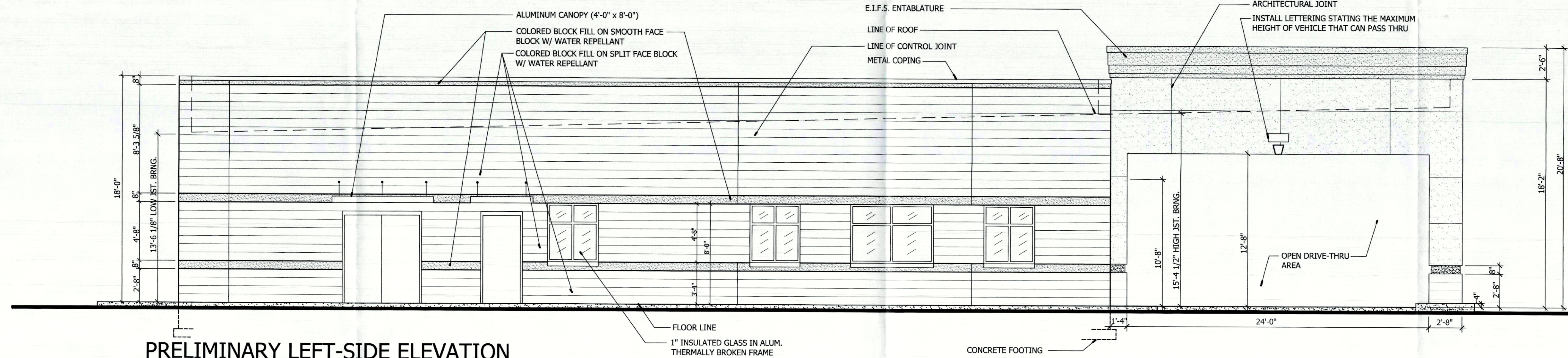
Sheet Name

**C200**

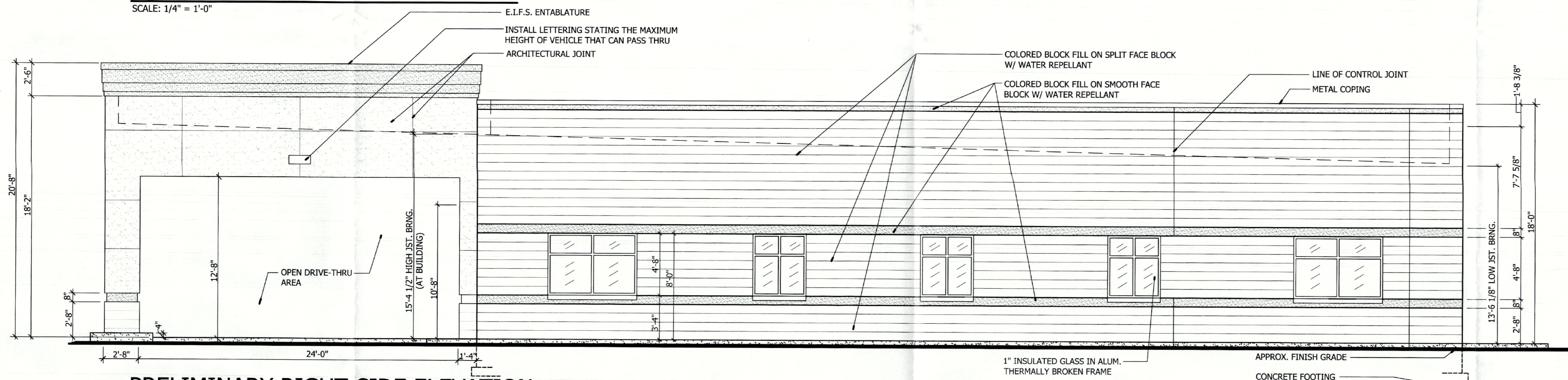
Sheet Number



**PRELIMINARY FRONT ELEVATION**  
SCALE: 1/4" = 1'-0"



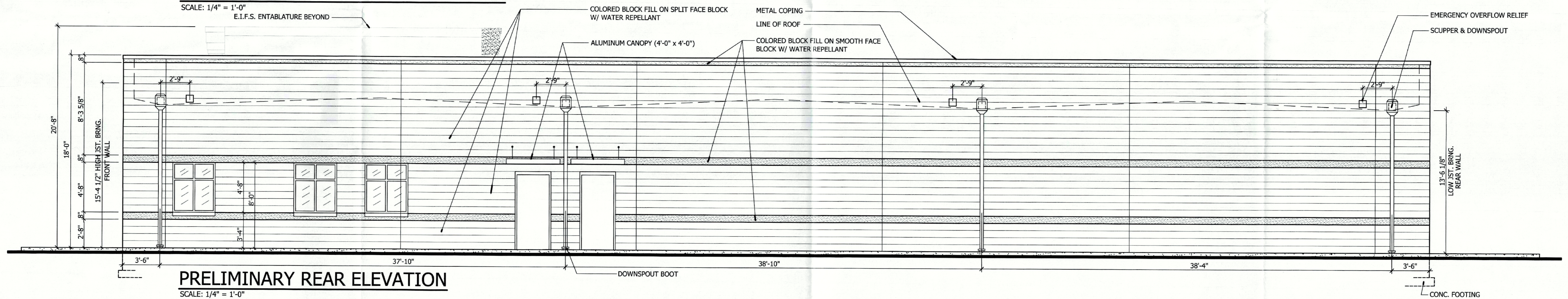
**PRELIMINARY LEFT-SIDE ELEVATION**  
SCALE: 1/4" = 1'-0"



**PRELIMINARY RIGHT-SIDE ELEVATION**  
SCALE: 1/4" = 1'-0"

**EXTERIOR WALL MATERIALS**

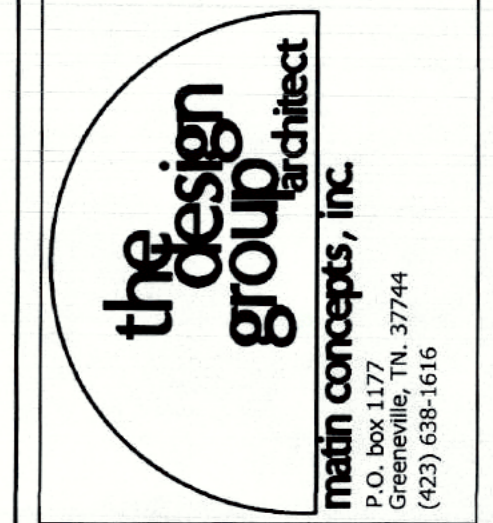
- TOTAL EXTERIOR WALL S.F. = 8,150 S.F.
- MASONRY = 8,150 x 80% MIN. = 6,520 S.F.  
A. EXTERIOR MASONRY ACTUAL S.F. = 7,056 S.F.
- E.I.F.S. = 8,150 x 20% MAX. = 1,630 S.F.  
A. EXTERIOR E.I.F.S. ACTUAL S.F. = 1,094 S.F.



**PRELIMINARY REAR ELEVATION**  
SCALE: 1/4" = 1'-0"

REV #	DATE	REVISION DESCRIPTION

Proposed Medical Facility for:  
**NEW MEDICAL OFFICE BUILDING**  
**MIDWEST CITY, OK**  
RENO AVENUE  
MIDWEST CITY, OKLAHOMA 73130

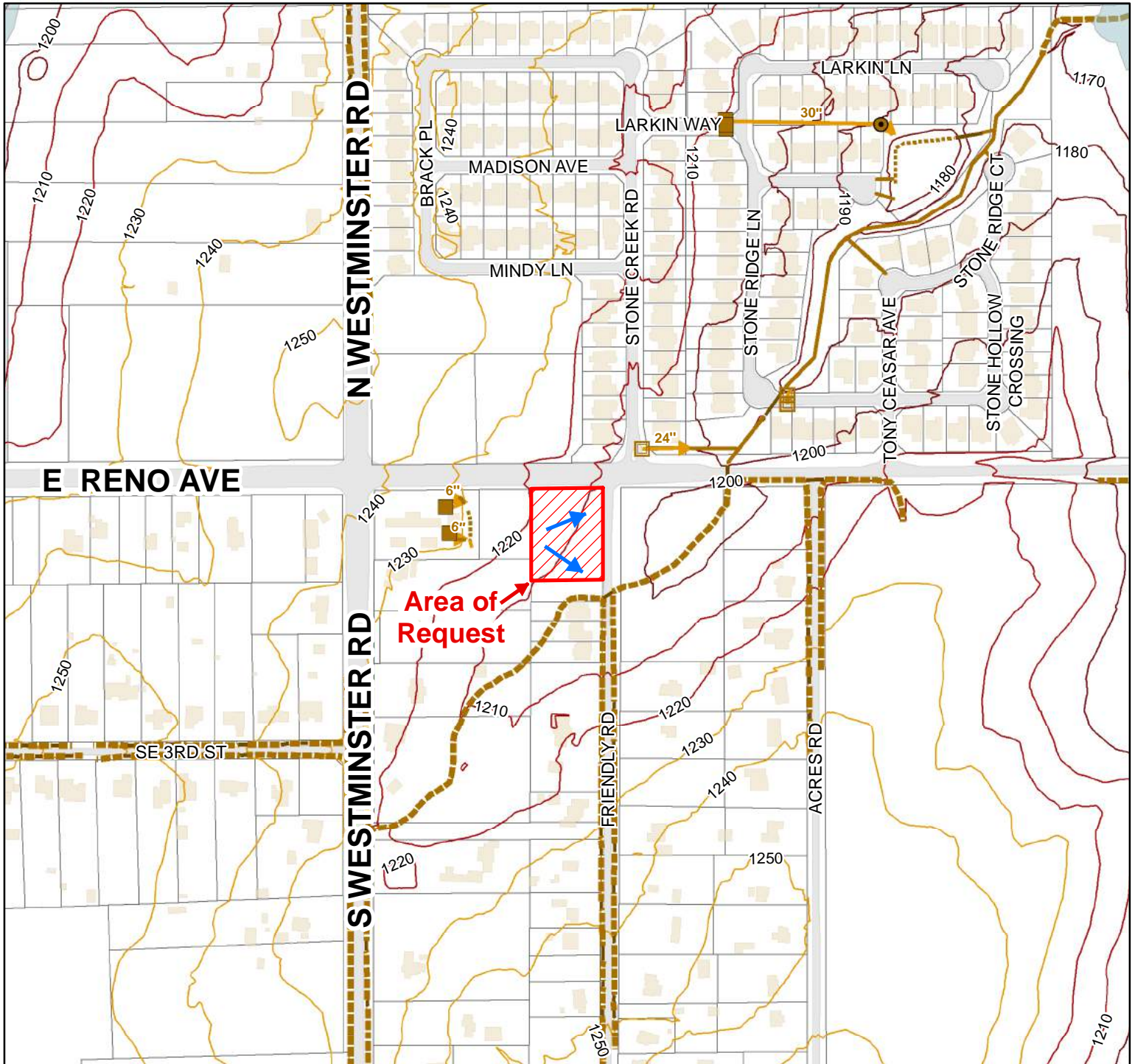


These documents prepared by the Architect are instruments of the Architect's service. Unless otherwise indicated, the Architect shall be deemed the author of drawings, specifications and other documents and will retain all copyright law, liability and other reserved rights, in addition to the copyright. Documents prepared by the Architect are for use solely with respect to this project. These documents shall not be used, copied or related without the specific written consent of the Architect. Any violation of the above rights of the Architect shall be prosecuted to the maximum possible extent within the law.

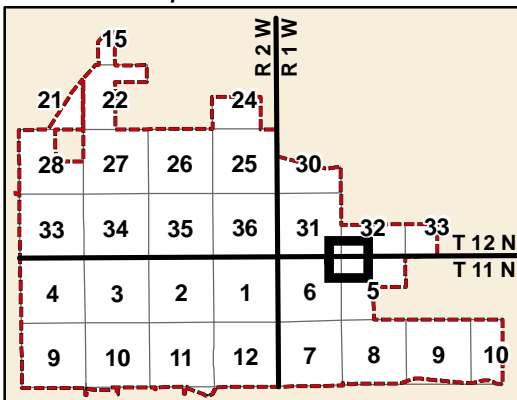
Drafted By: MDM  
Checked By: JRS  
Date Drawn: 03/28/19  
Project #: 181212

**PRELIMINARY EXTERIOR ELEVATIONS**  
SCALE: 1/4" = 1'-0"  
Sheet Name

Sheet Number



Locator Map



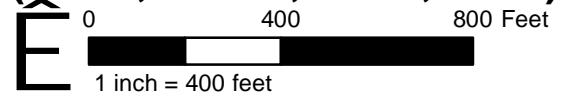
- Drainage Legend**
- Curb Inlets
  - Inlets
  - Junction Box
  - Culverts
  - Flumes
  - Developed Channels
  - Trickle Channels
  - Undeveloped Channels
  - Storm Lines
  - Creeks
- ELEVATION**
- 1166-1204 ft
  - 1204-1228 ft
  - 1228-1250 ft
  - 1250-1278 ft
  - 1278-1324 ft

**2009 FEMA Floodplains**

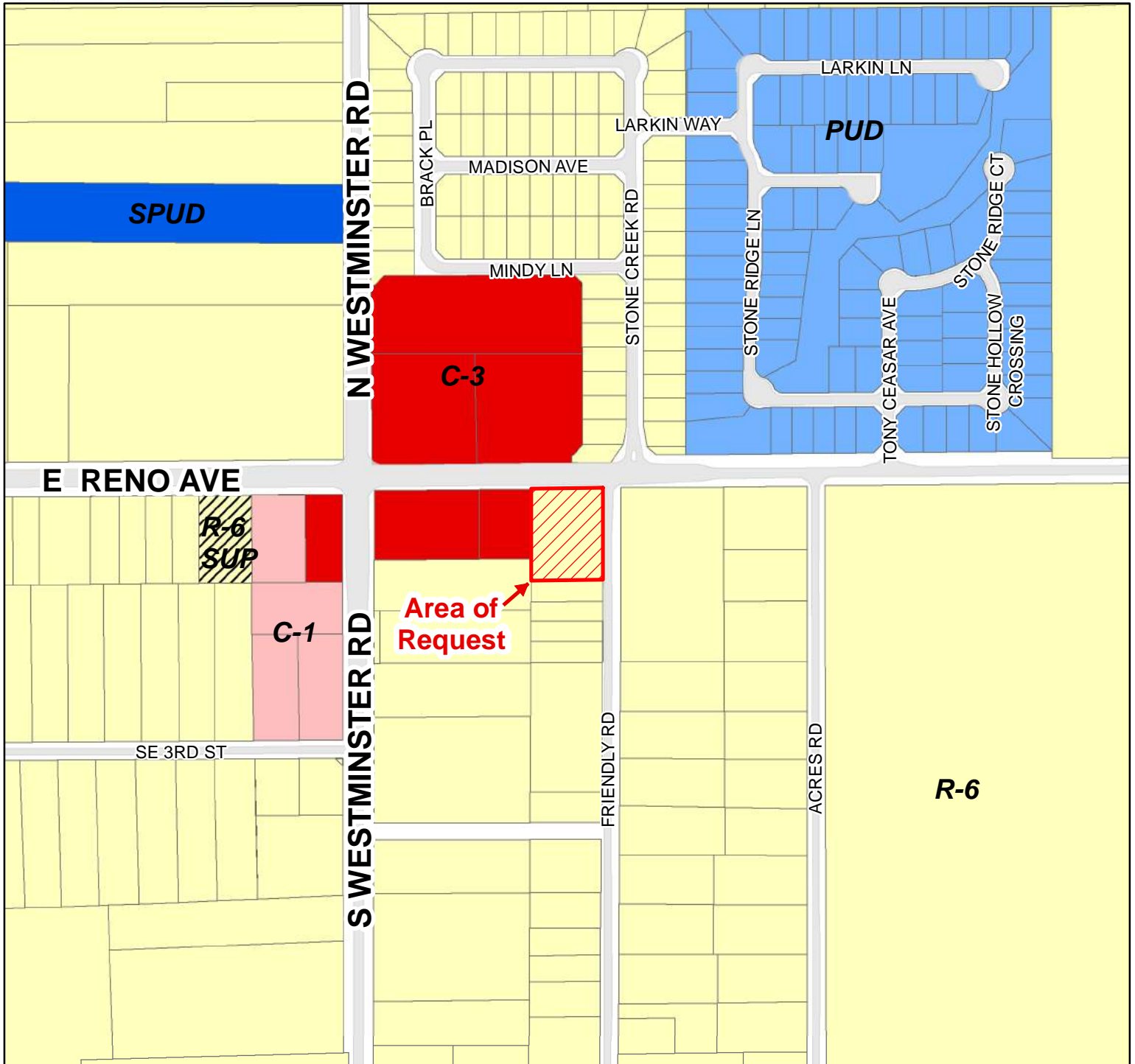
- 500-yr floodplain
- 100-yr floodplain
- 2009 FEMA Floodway
- FLOODWAY

**DRAINAGE  
LOCATION MAP FOR  
PC-1995**

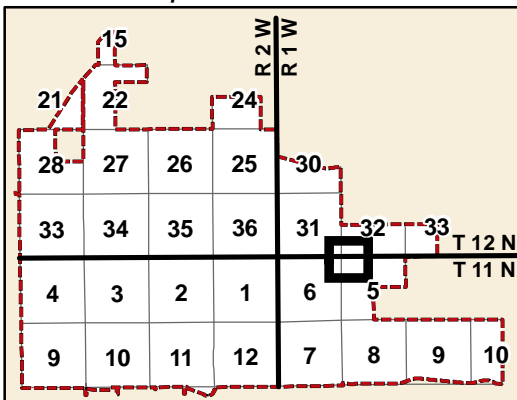
**(NW/4, Sec. 5, T11N, R1W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



Locator Map



Current Zoning Legend

A-1	I-2 SUP	R-35
A-1 SUP	I-3	R-2F
C-1	O-1	R-MD
C-1 SUP	O-1 SUP	R-MD SUP
C-2	O-2	R-HD
C-2 SUP	O-2 SUP	R-HD SUP
C-3	R-6	R-MH-1
C-3 SUP	R-6 SUP	R-MH-2
C-4	R-8	PUD
C-4 SUP	R-10	SPUD
I-1	R-22	HOS
I-2		HOS SUP

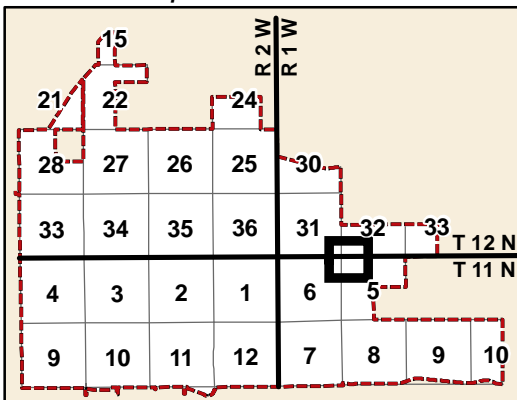
**ZONING MAP FOR  
PC-1995  
(NW/4, Sec. 5, T11N, R1W)**



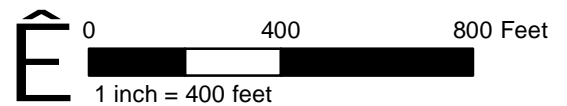
THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



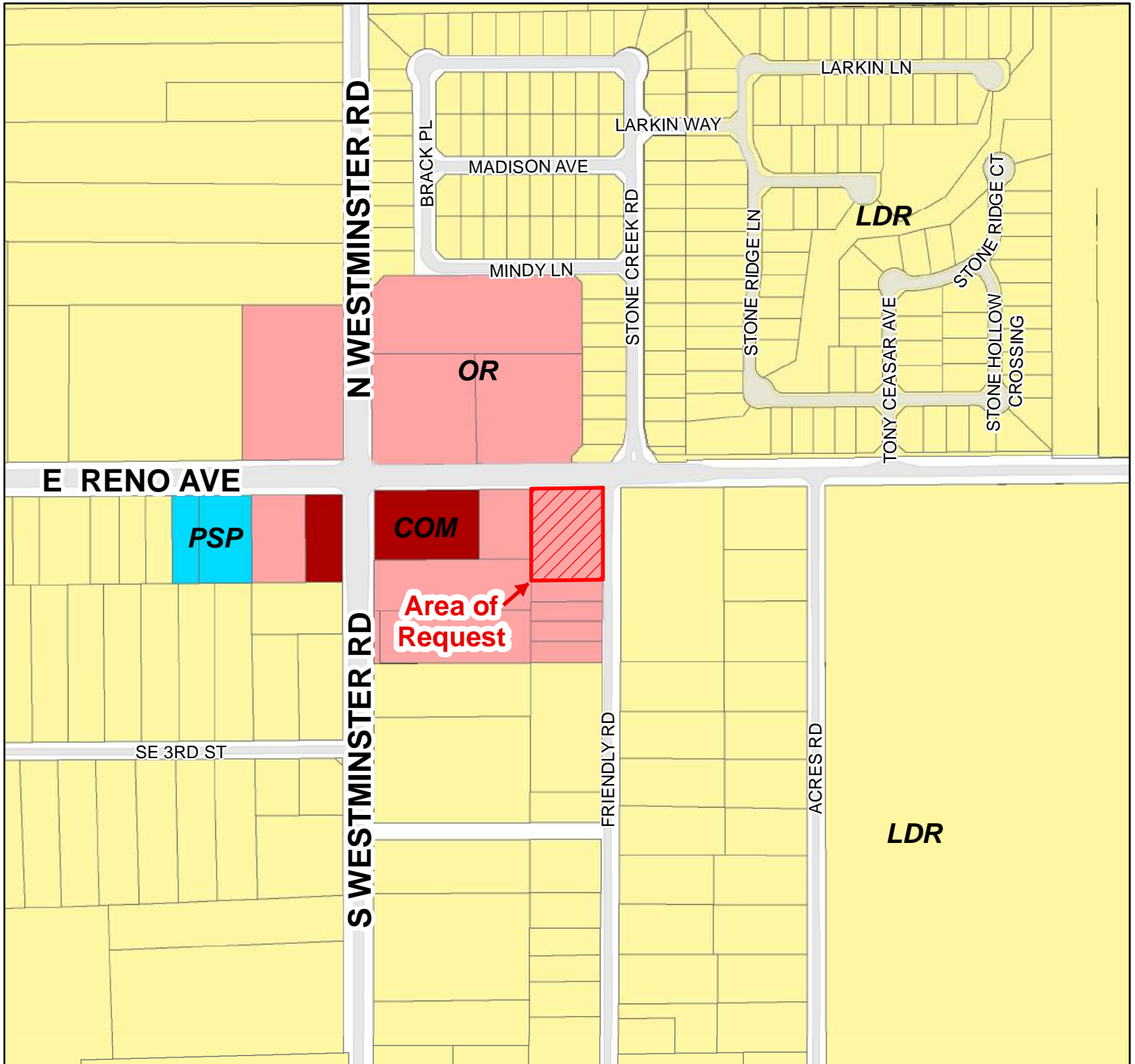
Locator Map



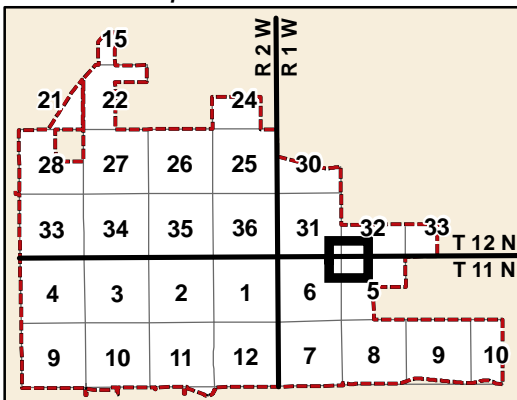
**2017 DOP (AERIAL) VIEW FOR  
PC-1995  
(NW/4, Sec. 5, T11N, R1W)**



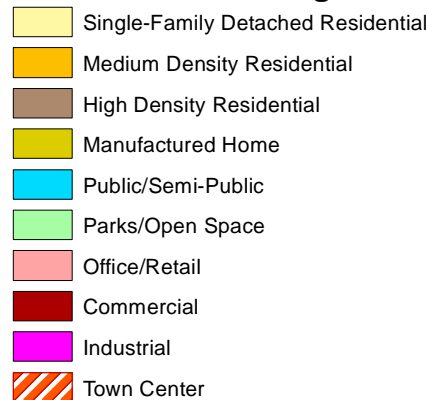
THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.



Locator Map



Future Land Use Legend



**FUTURE LAND USE  
MAP FOR  
PC-1995  
(NW/4, Sec. 5, T11N, R1W)**



THIS MAP IS A GENERAL INFORMATION PUBLIC RESOURCE. THE CITY OF MIDWEST CITY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE AS TO THE CONTENT, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE INFORMATION PROVIDED ON THIS MAP. ANY PARTY'S USE OR RELIANCE ON THIS MAP OR ANY INFORMATION ON IT IS AT THAT PARTY'S OWN RISK AND WITHOUT LIABILITY TO THE CITY OF MIDWEST CITY, ITS OFFICIALS OR ITS EMPLOYEES FOR ANY DISCREPANCIES, ERRORS OR VARIANCES THAT MAY EXIST.









**Police Department**  
100 N. Midwest Blvd.  
Midwest City, OK 73110  
bclabes@midwestcityok.org  
Office: 405-739-1302  
www.midwestcityok.org

### Memorandum

TO: Honorable Mayor and Council

FROM: Brandon Clabes, Chief of Police

DATE: May 28, 2019

SUBJECT: Discussion and consideration to approve an ordinance amending the Midwest City Municipal Code, Chapter 28, Offenses, Section 28-130, Possession of dangerous drugs; Section 28-131, Possession and sale of certain toxins and other drugs prohibited, and Section 28-132, Possession or sale of drug related paraphernalia, and providing for repealer and severability.

---

The proposed amendment to Section 28-130 will fill an enforcement gap created by State Question 780, allowing Midwest City Police Department to charge people with possession of Schedule I and II drugs, possession of which was formerly a felony. Version 2 of 63 O.S. § 2-402(B), makes unauthorized “possession of a controlled dangerous substance a misdemeanor.” That statute also makes it unlawful to sell, market, or label products containing certain stimulants. The amendment also deletes the specific statutory reference to subsection 28 in 63 O.S. § 2-101 as where “practitioner ” is defined.

The proposed amendment to Section 28-131 removes reference to Schedule I, because that is now in 28-130. The amendment clarifies the ordinance prohibits the possession, sale, and distribution of toxic substances, which are not classified in Schedules I-V, and are used or consumed to induce a state of intoxication, hallucination, or a stimulant or depressive effect.

The proposed amendment to Section 28-132 corrects the spelling of “inhaling.”

Staff recommends approval.

---

Brandon Clabes, Chief of Police



1 **Sec. 28-131. Possession and sale of certain toxins and other drugs prohibited.**

2 (a) It shall be unlawful for any person to possess, sell or distribute, or for any person  
3 to inhale or ingest, any compound, liquid or chemical, ~~salt, isomer and salt of isomer~~  
4 ~~prohibited under the Oklahoma Controlled Dangerous Substances Act, 63 O.S. § 2-~~  
5 ~~204, (OCDSA), not already prohibited under section 28-130 above,~~ including but not  
6 limited to, ~~specific substances:~~

7 ~~1. intended to cause~~ prohibited therein, listed and/or defined as opiates, opium  
8 derivatives, any level of a hallucinations; ~~or ogenic substance, any quantity of~~  
9 ~~substances~~

10 ~~2. having a stimulant or depressant effect on the central nervous system,; or~~

11 ~~3. any quantity of a synthetic chemical compounds that is a are~~ cannabinoid  
12 receptor agonists, ~~which may be used or consumed by a person for the purpose~~  
13 of inducing a condition of intoxication, distortion or disturbance of the  
14 auditory, visual or mental processes.

15 (b) Exceptions.

16 (1) The provisions of subsection section 28-131(a) shall not apply to the  
17 possession and use of the substances listed as part of the care or treatment of a  
18 disease, condition or injury by a licensed physician or pursuant to a  
19 prescription of a licensed physician.

20 (2) The provisions of subsection 28-131(a) shall not apply to the possession as  
21 part of a known manufacturing process or industrial operation.

22  
23 **Section 3.** That the Midwest City Municipal Code, Section 28-132, Possession or sale of drug  
24 related paraphernalia, is hereby amended to read as follows:

25  
26 **Sec. 28-132. - Possession or sale of drug related paraphernalia.**

27 (a) "Drug paraphernalia" means all equipment, products and materials of any kind  
28 which are used or intended for use in planting, propagating, cultivating, growing,  
29 harvesting, manufacturing, compounding, converting, producing, processing, preparing,  
30 testing, analyzing, packaging, repackaging, storing, containing, concealing, injecting,  
31 ingesting, ~~inhaling~~ **inhaling** or otherwise introducing into the human body a controlled  
32 dangerous substance in violation of the Oklahoma Uniform Controlled Dangerous  
33 Substance Act, Title 63, O.S., § 2-101 et seq. It includes, but is not limited to:

34 (1) Kits used or intended for use in planting, propagating, cultivating, growing  
35 or harvesting of any species of plant which is a controlled dangerous substance  
36 or from which a controlled dangerous substance can be derived;

37 (2) Kits used or intended for use in manufacturing, compounding, converting,  
38 producing, processing or preparing controlled dangerous substances;  
39 isomerization devices used or intended for use in increasing the potency of any  
40 species of plant which is a controlled dangerous substances;

41 (3) Testing equipment used or intended for use in identifying, or in analyzing  
42 the strength, effectiveness or purity of controlled dangerous substances; scales  
43 and balances used or intended for use in weighing or measuring controlled  
44 dangerous substances;

- 1 (4) Diluents and adulterants, such as quinine hydrochloride, mannitol,  
2 mannite, dextrose and lactose, used or intended for use in cutting controlled  
3 dangerous substances;
- 4 (5) Separation gins and sifters used or intended for use in removing twigs and  
5 seeds from, or in otherwise cleaning or refining, marijuana;
- 6 (6) Blenders, bowls, containers, spoons and mixing devices used or intended  
7 for use in compounding controlled dangerous substances;
- 8 (7) Capsules, balloons, envelopes and other containers used or intended for use  
9 in packaging small quantities of controlled dangerous substances;
- 10 (8) Containers and other objects used or intended for use in parenthetically  
11 injecting controlled dangerous substances into the human body;
- 12 (9) Hypodermic syringes, needles and other objects used or intended for use in  
13 parenthetically injecting controlled dangerous substances into the human body;
- 14 (10) Objects used or intended for use in ingesting, inhaling or otherwise  
15 introducing marijuana, cocaine, hashish or hashish oil into the human body,  
16 such as:

- 17 a. Metal, wooden, acrylic, glass, stone, plastic or ceramic pipes with or  
18 without screens, permanent screens, hashish heads or punctured metal  
19 bowls;
- 20 b. Water pipes;
- 21 c. Carburetion tubes and devices;
- 22 d. Smoking and carburetion masks;
- 23 e. Roach clips: Meaning objects used to hold burning material, such as  
24 a marijuana cigarette, that has become too small or too short to be held  
25 in the hand;
- 26 f. Miniature cocaine spoons and cocaine vials;
- 27 g. Chamber pipes;
- 28 h. Carburetor pipes;
- 29 i. Electric pipes;
- 30 j. Air-driven pipes;
- 31 k. Chillums;
- 32 l. Bongs;
- 33 m. Ice pipes or chillers.

34 (b) In determining whether an object is "drug paraphernalia," consider, in addition to  
35 all other logically relevant factors, the following:

- 36 (1) Statements by an owner or by anyone in control of the object concerning its  
37 use;
- 38 (2) The proximity of the object, in time and space, to a direct violation of the  
39 Uniform Controlled Dangerous Substances Act (63 O.S., § 2-101 et seq.);
- 40 (3) The proximity of the object to controlled dangerous substances;
- 41 (4) The existence of any residue of controlled dangerous substances on the  
42 object;
- 43 (5) Instructions, oral or written, provided with the object which either state  
44 directly or imply that the object is to be used for the consumption of controlled  
45 substances;

- 1 (6) Descriptive materials accompanying the object which explain or depict its  
2 use as an object for the consumption of controlled substances;  
3 (7) The manner in which the object is displayed for sale;  
4 (8) Whether the owner, or anyone in control of the object, is a legitimate  
5 supplier of like or related items to the community, such as a licensed  
6 distributor or dealer of tobacco products;  
7 (9) The existence and scope of legitimate uses for the object in the community.

8 (c) It shall be unlawful for any person to use or possess drug paraphernalia to plant,  
9 propagate, cultivate, grow, harvest, manufacture, compound, convert, produce,  
10 process, prepare, test, analyze, pack, repack, store, contain, conceal, inject, ingest,  
11 inhale or otherwise introduce into the human body a controlled dangerous substance in  
12 violation of the Uniform Controlled Dangerous Substances Act (63 O.S., § 2-101 et  
13 seq.), except those persons holding an unrevoked license in the professions of  
14 podiatry, dentistry, medicine, nursing, optometry, osteopathy, veterinary medicine or  
15 pharmacy.

16 (d) It shall be unlawful for any person to deliver, possess or manufacture drug  
17 paraphernalia knowing it will be used to plant, propagate, cultivate, grow, harvest,  
18 manufacture, compound, convert, produce, process, prepare, test, analyze, pack,  
19 repack, store, contain, conceal, inject, ingest, inhale or otherwise introduce into the  
20 human body a controlled dangerous substance in violation of the Uniform Controlled  
21 Dangerous Substances Act (63 O.S., § 2-101 et seq.).

22 (e) It shall be unlawful for any person to operate a business within the limits of the  
23 city known as, or commonly referred to as, a "head shop," which place of business is  
24 patronized and frequented by narcotic drug addicts and whose merchandise is those  
25 items described in subsection (a) of this section.

26  
27 **Section 4. REPEALER.** All ordinances or parts of ordinances in conflict herewith are hereby  
28 repealed.  
29

30 **Section 5. SEVERABILITY.** If any section, sentence, clause, or portion of this ordinance is for  
31 any reason held to be invalid, such decision shall not affect the validity of the remaining  
32 provisions of the ordinance.  
33

34 PASSED AND APPROVED by the Mayor and the Council of the City of Midwest City,  
35 Oklahoma, this \_\_\_\_\_ day of April, 2019.

36  
37 THE CITY OF MIDWEST CITY, OKLAHOMA  
38

39  
40 ATTEST:

41 \_\_\_\_\_  
42 MATTHEW D. DUKES, II, Mayor

43 \_\_\_\_\_  
44 SARA HANCOCK, City Clerk

45 Approved as to form and legality this \_\_\_\_\_ day of April, 2019.  
46

\_\_\_\_\_  
HEATHER POOLE, City Attorney



1 (a) It shall be unlawful for any person to possess, sell or distribute, or for any person  
2 to inhale or ingest, any compound, liquid or chemical, including but not limited to  
3 substances:

- 4 1. intended to cause hallucinations;
- 5 2. having a stimulant or depressant effect on the central nervous system; or
- 6 3. synthetic chemical compounds that are cannabinoid receptor agonists, used  
7 or consumed by a person for the purpose of inducing a condition of  
8 intoxication, distortion or disturbance of the auditory, visual or mental  
9 processes.

10 (b) Exceptions.

11 (1) The provisions of subsection section 28-131(a) shall not apply to the  
12 possession and use of the substances listed as part of the care or treatment of a  
13 disease, condition or injury by a licensed physician or pursuant to a  
14 prescription of a licensed physician.

15 (2) The provisions of subsection 28-131(a) shall not apply to the possession as  
16 part of a known manufacturing process or industrial operation.

17  
18 **Section 3.** That the Midwest City Municipal Code, Section 28-132, Possession or sale of drug  
19 related paraphernalia, is hereby amended to read as follows:

20  
21 **Sec. 28-132. Possession or sale of drug related paraphernalia.**

22 (a) "Drug paraphernalia" means all equipment, products and materials of any kind  
23 which are used or intended for use in planting, propagating, cultivating, growing,  
24 harvesting, manufacturing, compounding, converting, producing, processing, preparing,  
25 testing, analyzing, packaging, repackaging, storing, containing, concealing, injecting,  
26 ingesting, inhaling or otherwise introducing into the human body a controlled  
27 dangerous substance in violation of the Oklahoma Uniform Controlled Dangerous  
28 Substance Act, Title 63, O.S., § 2-101 et seq. It includes, but is not limited to:

29 (1) Kits used or intended for use in planting, propagating, cultivating, growing  
30 or harvesting of any species of plant which is a controlled dangerous substance  
31 or from which a controlled dangerous substance can be derived;

32 (2) Kits used or intended for use in manufacturing, compounding, converting,  
33 producing, processing or preparing controlled dangerous substances;  
34 isomerization devices used or intended for use in increasing the potency of any  
35 species of plant which is a controlled dangerous substances;

36 (3) Testing equipment used or intended for use in identifying, or in analyzing  
37 the strength, effectiveness or purity of controlled dangerous substances; scales  
38 and balances used or intended for use in weighing or measuring controlled  
39 dangerous substances;

40 (4) Diluents and adulterants, such as quinine hydrochloride, mannitol,  
41 mannite, dextrose and lactose, used or intended for use in cutting controlled  
42 dangerous substances;

43 (5) Separation gins and sifters used or intended for use in removing twigs and  
44 seeds from, or in otherwise cleaning or refining, marijuana;

45 (6) Blenders, bowls, containers, spoons and mixing devices used or intended  
46 for use in compounding controlled dangerous substances;

1 (7) Capsules, balloons, envelopes and other containers used or intended for use  
2 in packaging small quantities of controlled dangerous substances;

3 (8) Containers and other objects used or intended for use in parenthetically  
4 injecting controlled dangerous substances into the human body;

5 (9) Hypodermic syringes, needles and other objects used or intended for use in  
6 parenthetically injecting controlled dangerous substances into the human body;

7 (10) Objects used or intended for use in ingesting, inhaling or otherwise  
8 introducing marijuana, cocaine, hashish or hashish oil into the human body,  
9 such as:

10 a. Metal, wooden, acrylic, glass, stone, plastic or ceramic pipes with or  
11 without screens, permanent screens, hashish heads or punctured metal  
12 bowls;

13 b. Water pipes;

14 c. Carburetion tubes and devices;

15 d. Smoking and carburetion masks;

16 e. Roach clips: Meaning objects used to hold burning material, such as  
17 a marijuana cigarette, that has become too small or too short to be held  
18 in the hand;

19 f. Miniature cocaine spoons and cocaine vials;

20 g. Chamber pipes;

21 h. Carburetor pipes;

22 i. Electric pipes;

23 j. Air-driven pipes;

24 k. Chillums;

25 l. Bongs;

26 m. Ice pipes or chillers.

27 (b) In determining whether an object is "drug paraphernalia," consider, in addition to  
28 all other logically relevant factors, the following:

29 (1) Statements by an owner or by anyone in control of the object concerning its  
30 use;

31 (2) The proximity of the object, in time and space, to a direct violation of the  
32 Uniform Controlled Dangerous Substances Act (63 O.S., § 2-101 et seq.);

33 (3) The proximity of the object to controlled dangerous substances;

34 (4) The existence of any residue of controlled dangerous substances on the  
35 object;

36 (5) Instructions, oral or written, provided with the object which either state  
37 directly or imply that the object is to be used for the consumption of controlled  
38 substances;

39 (6) Descriptive materials accompanying the object which explain or depict its  
40 use as an object for the consumption of controlled substances;

41 (7) The manner in which the object is displayed for sale;

42 (8) Whether the owner, or anyone in control of the object, is a legitimate  
43 supplier of like or related items to the community, such as a licensed  
44 distributor or dealer of tobacco products;

45 (9) The existence and scope of legitimate uses for the object in the community.



1 (c) It shall be unlawful for any person to use or possess drug paraphernalia to plant,  
2 propagate, cultivate, grow, harvest, manufacture, compound, convert, produce,  
3 process, prepare, test, analyze, pack, repack, store, contain, conceal, inject, ingest,  
4 inhale or otherwise introduce into the human body a controlled dangerous substance in  
5 violation of the Uniform Controlled Dangerous Substances Act (63 O.S., § 2-101 et  
6 seq.), except those persons holding an unrevoked license in the professions of  
7 podiatry, dentistry, medicine, nursing, optometry, osteopathy, veterinary medicine or  
8 pharmacy.

9 (d) It shall be unlawful for any person to deliver, possess or manufacture drug  
10 paraphernalia knowing it will be used to plant, propagate, cultivate, grow, harvest,  
11 manufacture, compound, convert, produce, process, prepare, test, analyze, pack,  
12 repack, store, contain, conceal, inject, ingest, inhale or otherwise introduce into the  
13 human body a controlled dangerous substance in violation of the Uniform Controlled  
14 Dangerous Substances Act (63 O.S., § 2-101 et seq.).

15 (e) It shall be unlawful for any person to operate a business within the limits of the  
16 city known as, or commonly referred to as, a "head shop," which place of business is  
17 patronized and frequented by narcotic drug addicts and whose merchandise is those  
18 items described in subsection (a) of this section.

19  
20 **Section 4. REPEALER.** All ordinances or parts of ordinances in conflict herewith are hereby  
21 repealed.  
22

23 **Section 5. SEVERABILITY.** If any section, sentence, clause, or portion of this ordinance is for  
24 any reason held to be invalid, such decision shall not affect the validity of the remaining  
25 provisions of the ordinance.  
26

27 PASSED AND APPROVED by the Mayor and the Council of the City of Midwest City,  
28 Oklahoma, this \_\_\_\_\_ day of April, 2019.

29  
30 THE CITY OF MIDWEST CITY, OKLAHOMA

31  
32  
33  
34 \_\_\_\_\_  
35 MATTHEW D. DUKES, II, Mayor

36 ATTEST:

37  
38 \_\_\_\_\_  
39 SARA HANCOCK, City Clerk

40  
41 Approved as to form and legality this \_\_\_\_\_ day of April, 2019.

42  
43 \_\_\_\_\_  
44 HEATHER POOLE, City Attorney  
45  
46

State Question No. 780, Initiative Pe

The relevant portion is Section 3, so only pages 1 and 2 are provided.

**WARNING**

**IT IS A FELONY FOR ANYONE TO SIGN AN INITIATIVE OR REFERENDUM PETITION WITH ANY NAME OTHER THAN HIS OWN, OR KNOWINGLY TO SIGN HIS NAME MORE THAN ONCE FOR THE MEASURE, OR TO SIGN THE PETITION WHEN HE IS NOT A LEGAL VOTER.**

**INITIATIVE PETITION**

To the Honorable Mary Fallin, Governor of Oklahoma:

We, the undersigned legal voters of the State of Oklahoma, respectfully order that the following proposed law shall be submitted to the legal voters of the State of Oklahoma for their approval or rejection at the regular general election, to be held on the 8th day of November, 2016 (or at a special election as may be called by the Governor), and each for himself says: I have personally signed this petition; I am a legal voter of the State of Oklahoma; my residence or post office are correctly written after my name. The time for filing this petition expires ninety (90) days from \_\_\_\_\_. The question we herewith submit to our fellow voters is:

Shall the following bill be approved?

An Act relating to criminal justice reform for low-level offenses: stating factual findings and intent for the Act; amending 63 O.S. 2011, Section 2-402, relating to offenses involving controlled substances; amending 21 O.S. 2011, Sections 1704, 1705, 1713, 1719.1, 1722, 1731, relating to larceny; amending 21 O.S. 2011, Sections 1451, 1503, 1521, 1541.1, 1541.2, and 1541.3, relating to property offenses involving embezzlement or false pretenses; amending 59 O.S. 2011, Section 1512, relating to pawnbrokers; amending 21 O.S. 2011, Sections 1577, 1578, 1579, and 1621, relating to offenses involving forgery or counterfeiting; repealing 21 O.S. 2011, Section 51.3, related to punishments for second and subsequent offenses; providing for severability; and providing an effective date.

**BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:**

**SECTION 1.** The people of the state of Oklahoma find the fact that Oklahoma has the second-highest overall incarceration rate in the country, and the highest incarceration rate for women, is inconsistent with Oklahoma values, and drains resources away from investments that can do more to promote public safety. Therefore, the people intend, in enacting this initiative measure, to implement criminal justice reforms that: (1) stop wasting taxpayer money keeping people who commit low-level offenses behind bars for years; and (2) saddle fewer people who commit low-level offenses with felony convictions that will follow them through life and prevent them from getting an education or a job.

**SECTION 2.** This act shall be known and may be cited as the "Oklahoma Smart Justice Reform Act."

**SECTION 3. AMENDATORY** 63 O.S. 2011, Section 2-402, last amended by Section 10, Chapter 228, O.S.L. 2012 (63 O.S. Supp. 2012. Section 2-402), is amended to read as follows:

Section 2-402. A. 1. It shall be unlawful for any person knowingly or intentionally to possess a controlled dangerous substance unless such substance was obtained directly, or pursuant to a valid prescription or order from a practitioner, while acting in the course of his or her professional practice, or except as otherwise authorized by this act.

2. It shall be unlawful for any person to purchase any preparation excepted from the provisions of the Uniform Controlled Dangerous Substances Act pursuant to Section 2-313 of

The relevant portion is Section 3,  
so only pages 1 and 2 are provided.

this title in an amount or within a time interval other than that permitted by Section 2-313 of this title.

3. It shall be unlawful for any person or business to sell, market, advertise or label any product containing ephedrine, its salts, optical isomers, or salts of optical isomers, for the indication of stimulation, mental alertness, weight loss, appetite control, muscle development, energy or other indication which is not approved by the pertinent federal OTC Final Monograph, Tentative Final Monograph, or FDA-approved new drug application or its legal equivalent. In determining compliance with this requirement, the following factors shall be considered:

- a. the packaging of the product,
- b. the name of the product, and
- c. the distribution and promotion of the product, including verbal representations made at the point of sale.

B. Any person who violates this section is guilty of a misdemeanor punishable by confinement for not more than one (1) year and by a fine not exceeding One Thousand Dollars (\$1,000.00).

C. Any person convicted of any offense described in this section shall, in addition to any fine imposed, pay a special assessment trauma-care fee of One Hundred Dollars (\$100.00) to be deposited into the Trauma Care Assistance Revolving Fund created in Section 1-2530.9 of this title.

SECTION 4. AMENDATORY 21 O.S. 2011, Section 1704 is amended to read as follows:

Section 1704. Grand larceny is larceny committed in either of the following cases:

1. When the property taken is of value exceeding One Thousand Dollars (\$1,000.00).
2. When such property, although not of value exceeding One Thousand Dollars

(\$1,000.00), is taken from the person of another.

Larceny in other cases is petit larceny.

SECTION 5. AMENDATORY 21 O.S. 2011, Section 1705 is amended to read as follows:

Section 1705. Grand larceny is a felony punishable by imprisonment in the State Penitentiary not exceeding five (5) years if the value of the property is One Thousand Dollars (\$1,000.00) or more and if the value of the property is less than One Thousand Dollars (\$1,000.00) punishable by incarceration in the county jail for not more than one (1) year or by incarceration in the county jail one or more nights or weekends pursuant to Section 991a-2 of Title 22 of the Oklahoma Statutes, at the option of the court, and shall be subject to a fine of not more than Five Thousand Dollars (\$5,000.00) and ordered to provide restitution to the victim as provided in Section 991a of Title 22 of the Oklahoma Statutes.

SECTION 6. AMENDATORY 21 O.S. 2011, Section 1713 is amended to read as follows:

Section 1713. A. Every person who buys or receives, in any manner, upon any consideration, any personal property of any value whatsoever that has been stolen, embezzled, obtained by false pretense or robbery, knowing or having reasonable cause to believe the same to have been stolen, embezzled, obtained by false pretense, or robbery, or who conceals, withholds, or aids in concealing or withholding such property from the owner, shall, if the value of the property is One Thousand Dollars (\$1,000.00) or more be guilty of a felony punishable by imprisonment in the State Penitentiary not to exceed five (5) years, or in the county jail not to exceed one (1) year, or by a fine not to exceed Five Hundred Dollars (\$500.00) or by both such fine and imprisonment. If the value of the property received is less than One Thousand Dollars (\$1,000.00), the person shall be guilty of a misdemeanor and shall be punished by a fine of not more than Five Hundred Dollars (\$500.00) or by imprisonment in the county jail for a term not to exceed six (6) months, or by both such fine and imprisonment.

B. Every person who, without making reasonable inquiry, buys, receives, conceals, withholds, or aids in concealing or withholding any property which has been stolen, embezzled, obtained by false pretense or robbery, or otherwise feloniously obtained, under such circumstances as should cause such person to make reasonable inquiry to ascertain that the person from whom such property was bought or received had the legal right to sell or deliver it



# OKLAHOMA

## State Courts Network

### Title 63. Public Health and Safety

#### Oklahoma Statutes Citationized

#### Title 63. Public Health and Safety

#### Chapter 2 - Uniform Controlled Dangerous Substances Act

#### Article Article 4 - Penalties - Offenses

#### Section 2-402 - Prohibited Acts B - Penalties

Cite as: O.S. §. \_\_\_

---

#### *Multiple Amendments Enacted in 2016*

#### **Version 1 (as amended by Laws 2016, HB 2479, c. 220, § 1, eff. November 1, 2016)**

A. 1. It shall be unlawful for any person knowingly or intentionally to possess a controlled dangerous substance unless such substance was obtained directly, or pursuant to a valid prescription or order from a practitioner, while acting in the course of his or her professional practice, or except as otherwise authorized by this act.

2. It shall be unlawful for any person to purchase any preparation excepted from the provisions of the Uniform Controlled Dangerous Substances Act pursuant to Section 2-313 of this title in an amount or within a time interval other than that permitted by Section 2-313 of this title.

3. It shall be unlawful for any person or business to sell, market, advertise or label any product containing ephedrine, its salts, optical isomers, or salts of optical isomers, for the indication of stimulation, mental alertness, weight loss, appetite control, muscle development, energy or other indication which is not approved by the pertinent federal OTC Final Monograph, Tentative Final Monograph, or FDA-approved new drug application or its legal equivalent. In determining compliance with this requirement, the following factors shall be considered:

- a. the packaging of the product,
- b. the name of the product, and
- c. the distribution and promotion of the product, including verbal representations made at the point of sale.

B. Any person who violates this section with respect to:

1. Any Schedule I or II substance, except marijuana or a substance included in subsection D of Section 2-206 of this title, is guilty of a felony punishable by imprisonment for not more than five (5) years and by a fine not exceeding Five Thousand Dollars (\$5,000.00). A second violation of this section with respect to a Schedule I or II substance, except marijuana or a substance included in subsection D of Section 2-206 of this title, is a felony punishable by imprisonment for not more than ten (10) years and by a fine not exceeding Ten Thousand Dollars (\$10,000.00). A third or subsequent violation of this section with respect to a Schedule I or II substance, except marijuana or a substance included in subsection D of Section 2-206 of this title, is a felony punishable by imprisonment for not less than four (4) years nor more than fifteen (15) years and by a fine not exceeding Ten Thousand Dollars (\$10,000.00);

2. Any Schedule III, IV or V substance, marijuana, a substance included in subsection D of Section 2-206 of this title, or any preparation excepted from the provisions of the Uniform Controlled Dangerous Substances Act is guilty of a misdemeanor punishable by confinement for not more than one (1) year and by a fine not exceeding One Thousand Dollars (\$1,000.00);

3. Any Schedule III, IV or V substance, marijuana, a substance included in subsection D of Section 2-206 of this title, or any preparation excepted from the provisions of the Uniform Controlled Dangerous Substances Act and who, during the period of any court-imposed probationary term or within ten (10) years of the date following the completion of the execution of any sentence or deferred judgment for a violation of this section, commits a second or subsequent violation of this section shall, upon conviction, be guilty of a felony punishable by imprisonment in the custody of the Department of Corrections for not less than one (1) year nor more than five (5) years and by a fine not exceeding Five Thousand Dollars (\$5,000.00); or

4. Any Schedule III, IV or V substance, marijuana, a substance included in subsection D of Section 2-206 of this title, or any preparation excepted from the provisions of the Uniform Controlled Dangerous Substances Act and who, ten (10) or more years following the date of completion of the execution of any sentence or deferred judgment for a violation of this section, commits a second or subsequent violation of this section shall, upon conviction, be guilty of a felony punishable by imprisonment in the custody of the Department of Corrections for not less than one (1) year nor more than five (5) years and by a fine not exceeding Five Thousand Dollars (\$5,000.00).

C. Any person who violates any provision of this section by possessing or purchasing a controlled dangerous substance from any person, in or on, or within one thousand (1,000) feet of the real property comprising a public or private elementary or secondary school, public vocational school, public or private college or university, or other institution of higher education, recreation center or public park, including state parks and recreation areas, or in the presence of any child under twelve (12) years of age, shall be guilty of a felony and punished by:

1. For a first offense, a term of imprisonment, or by the imposition of a fine, or by both, not exceeding twice that authorized by the appropriate provision of this section. In addition, the person shall serve a minimum of fifty percent (50%) of the sentence received prior to becoming eligible for state correctional institution earned credits toward the completion of said sentence; or

2. For a second or subsequent offense, a term of imprisonment not exceeding three times that authorized by the appropriate provision of this section and the person shall serve a minimum of ninety percent (90%) of the sentence received prior to becoming eligible for state correctional institution earned credits toward the completion of said sentence, and imposition of a fine not exceeding Ten Thousand Dollars (\$10,000.00).

D. Any person convicted of any offense described in this section shall, in addition to any fine imposed, pay a special assessment trauma-care fee of One Hundred Dollars (\$100.00) to be deposited into the Trauma Care Assistance Revolving Fund created in Section 1-2530.9 of this title.

**Version 2 (as amended by Section 3, State Question 780, Initiative Petition 404, adopted at election held November 8, 2016, effective July 1, 2017)**

1. It shall be unlawful for any person knowingly or intentionally to possess a controlled dangerous substance unless such substance was obtained directly, or pursuant to a valid prescription or order from a practitioner, while acting in the course of his or her professional practice, or except as otherwise authorized by this act.

2. It shall be unlawful for any person to purchase any preparation excepted from the provisions of the Uniform Controlled Dangerous Substances Act pursuant to Section 2-313 of this title in an amount or within a time interval other than that permitted by Section 2-313 of this title.

3. It shall be unlawful for any person or business to sell, market, advertise or label any product containing ephedrine, its salts, optical isomers, or salts of optical isomers, for the indication of stimulation, mental alertness, weight loss, appetite control, muscle development, energy or other indication which is not approved by the pertinent federal OTC Final Monograph, Tentative Final Monograph, or FDA-approved new drug application or its legal equivalent. In determining compliance with this requirement, the following factors shall be considered:

- a. the packaging of the product,
- b. the name of the product, and
- c. the distribution and promotion of the product, including verbal representations made at the point of sale.

B. Any person who violates this section is guilty of a misdemeanor punishable by confinement for not more than one (1) year and by a fine not exceeding One Thousand Dollars (\$1,000.00).

C. Any person convicted of any offense described in this section shall, in addition to any fine imposed, pay a special assessment trauma-care fee of One Hundred Dollars (\$100.00) to be deposited into the Trauma Care Assistance Revolving Fund created in Section 1-2530.9 of this title.

#### **Historical Data**

Laws 1971, HB 1100, c. 119, § 2-402; Amended by Laws 1972, HB 1546, c. 229, § 5, emerg. eff. April 7, 1972; Amended by Laws 1981, HB 1160, c. 34, § 1, eff. November 1, 1981; Amended by Laws 1984, HB 1708, c. 127, § 6, eff. November 1, 1984; Amended by Laws 1987, HB 1315, c. 138, § 7, emerg. eff. June 19, 1987; Amended by Laws 1992, HB 1969, c. 86, § 2, eff. September 1, 1992; Amended by Laws 1993, SB 56, c. 311, § 1, emerg. eff. June 7, 1993; Amended by Laws 1995, HB 1532, c. 147, § 3, eff. November 1, 1995; Amended by Laws 1997, HB 1213, c. 133, § 530 (eff. date amended to July 1, 1999, by Laws 1998, 1st Extr. Sess., HB 1002, c. 2, §§ 23-26, emerg. eff. June 19, 1998) (superseded document available); Amended by Laws 1999, 1st Extr. Sess., HB 1009, c. 5, § 382, emerg. eff. July 1, 1999 (superseded document available); Amended by Laws 2004, HB 2600, c. 396, § 3, eff. November 1, 2004 (effective date changed to September 1, 2004, by Laws 2004, SB 973, c. 530, § 2, eff. September 1, 2004) (superseded document available); Amended by Laws 2009, HB 1707, c. 306, § 1, eff. November 1, 2009 (superseded document available); Amended by Laws 2012, HB 3052, c. 228, § 10, eff. November 1, 2012 (superseded document available); Amended by Laws 2016, HB 2479, c. 220, § 1, eff. November 1, 2016 (superseded document available); Amended by Section 3, State Question 780, Initiative Petition 404, adopted at election held November 8, 2016, effective July 1, 2017 (superseded document available).

#### **Citationizer® Summary of Documents Citing This Document**

<b>Cite Name</b>	<b>Level</b>	
<b>Oklahoma Court of Criminal Appeals Cases</b>		
<i>Cite</i>	<i>Name</i>	
<i>Level</i>		
<u>2017 OK CR 15, 400 P.3d 887</u>	<u>ASHTON v. STATE</u>	Cited
<u>2018 OK CR 4, 419 P.3d 257</u>	<u>SMITH v. STATE</u>	Cited
<u>2018 OK CR 33, 431 P.3d 985</u>	<u>BIVENS v. STATE</u>	Discussed at Length
<b>Oklahoma Supreme Court Cases</b>		

<b>Cite Name</b>	<b>Level</b>	
<i>Cite</i>	<i>Name</i>	<i>Level</i>
<u>2017 OK 98</u>	<u>STATE ex rel. OKLAHOMA BAR ASSOCIATION v. BOUNDS</u>	<i>Cited</i>

**Citationizer: Table of Authority**

---

**Cite**      **Name Level**

None Found.



NEW BUSINESS/  
PUBLIC DISCUSSION







FURTHER INFORMATION



Notice of regular Midwest City Planning Commission meetings in 2019 was filed for the calendar year with the Midwest City Clerk prior to December 15, 2018 and copies of the agenda for this meeting were posted at City Hall at least 24 hours in advance of the meeting.

## **MINUTES OF MIDWEST CITY PLANNING COMMISSION MEETING**

**May 7, 2019 - 7:00 p.m.**

This regular meeting of the Midwest City Planning Commission was held in the Council Chambers, 100 North Midwest Boulevard, Midwest City, Oklahoma County, Oklahoma, on May 7, 2019 at 7:00 p.m., with the following members present:

Commissioners present: Stan Greil - Chairman  
Russell Smith  
Dee Collins  
Jess Huskey  
Dean Hinton  
Jim Campbell  
Jim Smith

Staff present: Billy Harless, Community Development Director  
Kellie Gilles, Planning Manager  
Patrick Menefee, City Engineer  
Lora Gwartney, Associate Current Planner

The meeting was called to order by Chairman Greil at 7:00 p.m.

**A. CALL TO ORDER**  
**B. MINUTES**

1. Motion was made by Huskey, seconded by Campbell, to approve the minutes of the April 2, 2019 Planning Commission meeting as presented. Voting aye: Hinton Campbell, R.Smith, J. Smith and Huskey. Nay: none. Absent: Collins. Motion carried.

\* Collins arrived at 7:04, just after item B1 was approved.

**C. NEW MATTERS:**

1. **A resolution recognizing Guy Henson, City Manager, who is retiring after 40 years of employment with the City of Midwest City.**

Chairman Greil presented a resolution to Mr. Henson. There was general discussion. A motion was made by R. Smith, seconded by Hinton to recommend approval of this resolution. Voting aye: Collins, Huskey, Campbell, R. Smith, J. Smith, Hinton and Greil. Voting nay: none. Motion carried.

**2 (PC-1992) Discussion and consideration of approval of the proposed preliminary plat of Roller Lot, described as a part of the NW/4 of Section 36, T12N, R2W, addressed as 9401 E. Cardinal Place.**

Staff presented a brief overview of this item. The applicant, Glenn Blumstein of 627 Couch Drive, was present. There was general discussion about this item. A motion was made by Collins, seconded by Hinton, to recommend approval of this item subject to staff comments. Voting aye: Hinton, Campbell, R. Smith, Collins, J. Smith, Huskey and Greil. Nay: none. Motion carried.

**3 (PC-1993) Public hearing with discussion and consideration of an ordinance to redistrict from C-3, Community Commercial to SPUD, Simplified Planned Unit Development, governed by the C-4, General Commercial district, and a resolution to amend the Comprehensive Plan from OR, Office Retail to COMM, Commercial, for the property addressed as 5712 E. Reno Ave.**

Staff presented a brief overview of this item. The applicant, Omar Khatib of 5336 Cobble St., OKC, was present. There was general discussion about this item. A motion was made by Huskey, seconded by Campbell to recommend approval of this item subject to staff comments. Voting aye: Hinton, Campbell, R. Smith, Collins, J. Smith, Greil and Huskey. Nay: none. Motion carried.

**4 (PC-1994) Discussion and consideration of approval of the proposed preliminary plat of Tuscany Ridge Section II, described as a part of the NW/4 of Section 9, T11N, R1W, of the Indian Meridian, Midwest City, OK.**

Staff presented a brief overview of this item. The applicant, Corey Christensen of 10275 Jaycie Cir., was present. There was general discussion about this item. A motion was made by Huskey, seconded by Campbell to recommend approval of this item and the requested waivers subject to staff comments. Voting aye: Hinton, R. Smith, Collins, J. Smith Campbell, Greil and Huskey. Nay: none. Motion carried.

**5 (PC-1995) Public hearing with discussion and consideration of an ordinance to redistrict from R-6, Single Family Detached Residential to O-2, General Office, for the property described as a part of Lot 1 of Block 2 of the Friendly Acres Addition, addressed as 11126 E. Reno Ave.**

Staff presented a brief overview of this item. The applicant, Bubba Ingram of 300 Skyline, Brentwood, TN and the prospective property owner, TJ Carl – Physicians Choice Dialysis, 211 Commerce St, Pottstown, PA, were present. There was general discussion about this item. Arnold Nelson – the owner of property immediately south of the area of request was present. Mr.

Nelson stated that drainage has been an issue in and around his property for years. Staff has made efforts to alleviate the issues but they are still present. Mr. Nelson wanted to ensure that this development would not have an adverse impact on his property and that construction debris would not impact his property. The City Engineer explained that code enforcement and the building inspectors would ensure that any construction debris would be the responsibility of the construction company. The City Engineer acknowledged drainage issues on the area and staff's efforts to address them. He also explained that half street improvements, including curb and gutter, landscaping and on-site detention would be required. Staff has attempted unsuccessfully to work with the property owner to the east of the area of request to make drainage improvements that would help Mr. Nelson's issues. The Community Development Director was unaware of the drainage concerns and recommended tabling the item for one month to allow the applicant to provide additional information regarding detention for the area of request. The applicant stated that the post-development runoff will be less than pre-development runoff. There was discussion about whether a drainage could be addressed as part of a rezoning application. The applicant stated that they are supposed to close on the property on June 15. A motion was made by R. Smith to table the item to a Special Planning Commission meeting prior to the May 28 City Council meeting. There was no second. The motion failed. Commissioner Huskey asked if the item was tabled to the June 4, 2019 Planning Commission meeting, could it be heard by the Council on June 11, 2019, prior to the closing date? The Community Development Director stated that the item will go to the Council on May 28, 2019 as advertised, however, it can be recommended to table to the June 11, 2019 Council meeting in order for the Planning Commission to rehear the item. A motion was made by R. Smith, seconded by Huskey, to recommend that this item be tabled to the June 4, 2019 Planning Commission meeting and June 11, 2019 City Council meeting. Voting aye: Hinton, Campbell, R. Smith, Collins, J. Smith, Greil and Huskey. Nay: none. Motion carried.

#### **6 Discussion of process for developing staff reports.**

Staff presented a brief overview of this item. There was general discussion. No vote was necessary.

**D. COMMISSION DISCUSSION:** There was general discussion among the Commission and staff.

**E. PUBLIC DISCUSSION:** None.

**F. FURTHER INFORMATION:** None

There being no further matters before the Commission, motion to adjourn was made by R. Smith seconded by Huskey. Voting aye: Hinton, Campbell, R. Smith, Collins, J. Smith, Greil and Huskey. Nay: none. Motion carried.

The meeting adjourned at 8:47 p.m.



## MUNICIPAL AUTHORITY AGENDA



The 6:00 PM meetings will be shown live on Channel 20 and streamed live on YouTube.



The recorded video will be available on YouTube and the City's website within 48 hours at [www.youtube@midwestcityok.org](http://www.youtube@midwestcityok.org).



The meeting minutes and video can be found on the City's website in the Agenda Center: <https://midwestcityok.org/AgendaCenter>.



To make a special assistance request, call 739-1215 or email [pmenefee@midwestcityok.org](mailto:pmenefee@midwestcityok.org) no less than 24 hours prior to the start of a meeting. If special assistance is needed during a meeting, call 739-1388.



The Council will go directly into the City meetings down in the Council Chambers of City Hall at 6:00 PM. However, they will informally gather at or after 5:00 PM in the second floor conference room for dinner, but no City Council business will be discussed or acted upon and the room will be open to the public. Meals will only be provided to the City Council and staff.



## **MIDWEST CITY MUNICIPAL AUTHORITY AGENDA**

City Hall - Midwest City Council Chambers, 100 N. Midwest Boulevard

May 28, 2019 - 6:01 PM

- A. **CALL TO ORDER.**
- B. **CONSENT AGENDA.** These items are placed on the Consent Agenda so that Trustees, by unanimous consent, can approve routine agenda items by one motion. If any item proposed does not meet with approval of all Trustees, or members of the audience wish to discuss an item, it will be removed and heard in regular order.
- 1.** Discussion and consideration of approving the minutes of the regular meeting of May 14, 2019 as submitted. (City Clerk - S. Hancock)
  - 2.** Discussion and consideration of accepting the report on the current financial condition of the Sheraton Midwest City Hotel at the Reed Center for the period ending April 30, 2019. (City Manager - T. Lyon)
  - 3.** Discussion and Consideration of approving an amendment to the Sheraton New Build License Agreement – Conversion to Delta Hotels by Marriott and the Midwest City Municipal Authority. (City Manager - T. Lyon)
- C. **NEW BUSINESS/PUBLIC DISCUSSION.** The purpose of the "Public Discussion Section" of the Agenda is for members of the public to speak to the Authority on any Subject not scheduled on the Regular Agenda. The Authority shall make no decision or take any action, except to direct the City Manager to take action, or to schedule the matter for discussion at a later date. Pursuant to the Oklahoma Open Meeting Act, the Authority will not engage in any discussion on the matter until that matter has been placed on an agenda for discussion. **THOSE ADDRESSING THE AUTHORITY ARE REQUESTED TO STATE THEIR NAME AND ADDRESS PRIOR TO SPEAKING TO THE AUTHORITY.**
- D. **ADJOURNMENT.**



CONSENT AGENDA



A notice for the regular Midwest City Municipal Authority was filed for the calendar year with the City Clerk of Midwest City. Public notice of this agenda was accessible at least 24 hours before this meeting at City Hall and on the Midwest City website ([www.midwestcityok.org](http://www.midwestcityok.org)).

### **Midwest City Municipal Authority Minutes**

May 14, 2019 – 6:01 PM

This meeting was held in the Midwest City Council Chamber in City Hall, 100 N. Midwest Boulevard, Midwest City, County of Oklahoma, State of Oklahoma.

Chairman Matt Dukes called the meeting to order at 7:51 PM with the following members present: Trustees Susan Eads, Pat Byrne, Española Bowen, Sean Reed, Christine Allen, and Jeff Moore; and Secretary Sara Hancock, City Attorney Heather Poole, and City Manager Guy Henson. Absent: none.

CONSENT AGENDA. Eads made a motion to approve the Consent Agenda, as submitted, seconded by Byrne. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Chairman Dukes. Nay: none. Absent: none. Motion carried.

1. Discussion and consideration of approving the minutes of the regular meeting of April 23, 2019 as submitted.
2. Discussion and consideration of supplemental budget adjustments to the following fund for FY 2018-2019, increase: Capital Improvement Revenue Bond Fund, revenue/Transfers In (00) \$224,971. Surplus Property Fund, expenses/Surplus Property (26) \$2,500. Water Fund, revenue/Transfers In (00) \$5,278. Capital Improvement Revenue Bond Fund, expenses/Transfers Out (00) \$224,971. Capital Improvement Revenue Bond Fund, revenue/Transfers In (00) \$135,403. Decrease: 2018 G.O. Bonds Municipal Authority Fund, expenses/John Conrad Regional Golf (47) \$81,125.
3. Discussion and consideration of awarding bid and entering into a contract with Midwest Wrecking in the amount of \$5,115.00 for the Demolition Services at 3200 N Air Depot Blvd., Midwest City, Oklahoma.
4. Discussion and consideration of approving and entering into an agreement in the amount of \$12,000 with Dr. Irvin L. Wagner, Professor of Music at University of Oklahoma, for a 50- piece concert band to provide the headliner entertainment in Regional Park as part of the 2019 Tribute to Liberty 4th of July celebration.
5. Discussion and consideration of approving and entering into an agreement with Western Enterprises, Inc. in the amount of \$22,500 to provide a fireworks production for the 4th of July celebration (Tribute to Liberty) at Joe B. Barnes Regional Park on July 4, 2019.
6. Discussion and consideration of approving and entering into an agreement in the amount of \$6,000 with Production Essentials, LLC to provide a sound system and sound system services associated with entertainment in Regional Park as part of the 2019 Tribute to Liberty 4th of July celebration.
7. Discussion and consideration of declaring various items from Line Maintenance, Water Plant and Water Resource Recovery Facility surplus property and authorizing their disposal by sealed bid, public auction, or by other means as necessary.



8. Discussion and consideration of declaring two pieces of equipment from the Sanitation Department surplus property and authorizing their disposal by sealed bid, public auction, or by other means as necessary.

NEW BUSINESS/PUBLIC DISCUSSION.

There was no new business or public discussion.

ADJOURNMENT.

There being no further business, Chairman Dukes closed the meeting at 7:51 PM.

ATTEST:

---

MATT DUKES, Chairman

---

SARA HANCOCK, Secretary



THE CITY OF  
**MIDWEST CITY**

**MEMORANDUM**

TO: Honorable Chairman and Trustees  
Midwest City Municipal Authority

FROM: Tim Lyon, Assistant City Manager

DATE: May 28, 2019

RE: Discussion and consideration of accepting the report on the current financial condition of the Sheraton Midwest City Hotel at the Reed Center for the period ending April 30, 2019.

---

This item is on the agenda at the request of the Authority. Attached to this memorandum is information concerning the status of the Sheraton Midwest City Hotel at the Reed Center.

Any time you have a question concerning the conference center and hotel, please feel free to contact me at 739-1201.

*Tim L. Lyon*

---

Tim Lyon  
Assistant City Manager

Attachment (1)

**SHERATON MIDWEST CITY HOTEL AT THE REED CENTER**

<b>Fiscal Year 2018-2019</b>	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
<b>Revenue</b>												
Budgeted (MTD)	341,442	447,668	431,838	532,961	405,584	317,691	266,291	392,463	591,214	<b>522,635</b>		
Actual (MTD)	384,934	454,587	328,389	590,459	430,083	315,262	168,164	388,910	591,844	<b>437,652</b>		
Budgeted (YTD)	341,442	789,110	1,220,948	1,753,909	2,159,493	2,477,184	2,743,475	3,135,938	3,727,152	<b>4,249,787</b>		
Actual (YTD)	384,934	839,521	1,167,910	1,758,369	2,188,452	2,503,714	2,671,879	3,060,789	3,652,633	<b>4,090,284</b>		
<b>Expenses</b>												
Budgeted (MTD)	418,478	449,923	421,755	478,040	410,232	400,674	351,565	381,945	501,702	<b>469,862</b>		
Actual (MTD)	418,401	431,481	383,381	506,459	399,967	346,444	317,815	355,961	474,876	<b>412,524</b>		
Budgeted (YTD)	418,478	863,401	1,285,156	1,763,196	2,173,428	2,574,102	2,925,667	3,307,612	3,809,314	<b>4,279,176</b>		
Actual (YTD)	418,401	849,882	1,233,263	1,739,721	2,139,688	2,486,132	2,803,947	3,159,907	3,634,783	<b>4,047,307</b>		
<b>Revenue vs. Expenses</b>												
Budgeted (MTD)	(77,036)	2,745	10,083	54,921	(4,648)	(82,983)	(85,274)	10,518	89,512	<b>52,773</b>		
Actual (MTD)	(33,467)	23,106	(54,992)	84,000	30,117	(31,182)	(149,650)	32,950	116,968	<b>25,127</b>		
Budgeted (YTD)	(77,036)	(74,291)	(64,208)	(9,287)	(13,935)	(96,918)	(182,192)	(171,674)	(82,162)	<b>(29,389)</b>		
Actual (YTD)	(33,467)	(10,361)	(65,353)	18,648	48,764	17,582	(132,068)	(99,118)	17,850	<b>42,977</b>		
<b>Key Indicators</b>												
Hotel Room Revenue	243,661	218,190	192,145	252,000	200,126	94,847	104,491	198,527	243,819	<b>297,027</b>		
Food and Banquet Revenue	114,062	191,794	115,059	291,647	183,751	189,707	114,039	161,848	301,906	<b>118,378</b>		

<b>Fiscal Year 2017-2018</b>	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
<b>Revenue</b>												
Budgeted (MTD)	345,872	508,778	430,804	639,312	424,595	308,205	303,680	379,330	547,825	516,519	495,730	425,810
Actual (MTD)	324,600	469,661	409,957	620,373	440,973	298,992	237,909	395,947	529,803	530,409	402,933	502,338
Budgeted (YTD)	372,126	854,650	1,285,454	1,924,766	2,349,361	2,657,566	2,961,246	3,340,576	3,888,401	4,404,920	4,900,650	5,326,460
Actual (YTD)	324,600	794,261	1,204,218	1,824,592	2,265,564	2,564,556	2,802,465	3,198,412	3,728,215	4,258,624	4,661,557	5,163,895
<b>Expenses</b>												
Budgeted (MTD)	345,872	474,833	419,305	526,754	414,341	383,878	389,188	392,180	494,172	482,514	455,507	418,995
Actual (MTD)	398,222	466,528	391,915	410,925	430,597	434,233	326,576	366,587	482,215	465,386	418,445	482,536
Budgeted (YTD)	345,126	846,959	1,266,264	1,793,018	2,207,359	2,591,237	2,980,425	3,372,605	3,866,777	4,349,291	4,804,798	5,223,793
Actual (YTD)	398,222	864,750	1,256,665	1,667,591	2,098,188	2,532,421	2,858,997	3,225,584	3,707,800	4,173,185	4,591,630	5,074,166
<b>Revenue vs. Expenses</b>												
Budgeted (MTD)	(26,254)	33,945	11,499	112,558	10,254	(75,373)	(85,508)	(12,850)	53,653	34,005	40,223	6,815
Actual (MTD)	(73,622)	3,133	18,042	209,448	10,375	(135,242)	(88,666)	29,360	47,587	65,023	(15,512)	19,802
Budgeted (YTD)	(26,254)	7,691	19,190	131,748	142,002	66,329	(19,179)	(32,029)	21,624	55,629	95,852	102,667
Actual (YTD)	(73,622)	(70,489)	(52,447)	157,001	167,376	32,134	(56,532)	(27,172)	20,415	85,439	69,926	89,729



**Assistant City Manager**

100 N. Midwest Boulevard

Midwest City, OK 73110

office 405.739.1201

MEMORANDUM

TO: Honorable Chairman and Trustee

FROM: Tim Lyon, Assistant City Manager

DATE: May 28, 2019

SUBJECT: Discussion and Consideration of approving an amendment to the Sheraton New Build License Agreement – Conversion to Delta Hotels by Marriott and the Midwest City Municipal Authority.

---

Attached is an Amendment to the License Agreement between The Sheraton LLC Franchise Agreement (now Marriott International) and the Midwest City Municipal Authority amending the licensing agreement to convert the Hotel to the Delta Hotels by Marriott. The franchisor (Marriott) will agree to permit such conversion under the terms and conditions set forth in the attached agreement:

- Property Improvement Plan must be completed in 24 months.
- \$75,000 Application Fee.
- Franchisor Legal Fees for conversion costs.
- A new 20 year Franchise term as a Delta Hotel by Marriott.

Staff recommends approval.

If you have any questions, please give me a call at 739-1201.

*Tim L. Lyon*

---

Tim L. Lyon  
Assistant City Manager

Attachment: Contract

**AMENDMENT TO SHERATON NEW BUILD LICENSE AGREEMENT –  
CONVERSION TO DELTA HOTELS BY MARRIOTT**

THIS AMENDMENT TO SHERATON NEW BUILD LICENSE AGREEMENT – CONVERSION TO DELTA HOTELS BY MARRIOTT (this “Amendment”) is made and entered into as of [\_\_\_\_\_], 2019 (the “Amendment Date”), by and between The Sheraton LLC, a Delaware limited liability company (“Franchisor”) and Midwest City Municipal Authority, an Oklahoma public trust formed under 60 Okla. Stat. 176 et seq. (“Franchisee”).

WHEREAS, Franchisor and Franchisee are parties to a Sheraton New Build License Agreement dated December 30, 2003 (as amended, the “Sheraton Agreement”), relating to the Sheraton hotel located at 5750 Will Rogers Road, Midwest City, OK 73110 (the “Hotel”); and

WHEREAS, Franchisor has developed and owns a concept and system for the establishment and operation of hotels under the name Delta Hotels by Marriott; and

WHEREAS, Franchisee wishes to convert the Hotel to a Delta Hotels by Marriott hotel, and Franchisor will agree to permit such conversion on the terms and conditions set forth herein; and

WHEREAS, Franchisor and Franchisee desire to amend the Sheraton Agreement on the terms and conditions stated herein.

NOW, THEREFORE, in consideration of the premises and the undertakings and commitments of each party to the other party set forth herein, the parties agree as follows:

1. CONVERSION REQUIREMENTS.

Franchisee will convert the Hotel to the Delta Hotels by Marriott system (the “Conversion”), subject to the following terms and conditions:

A. Franchisor will authorize the Conversion upon (i) Franchisee’s timely completion, to Franchisor’s satisfaction, of all the items of the Delta Hotels by Marriott brand property improvement plan set forth in Attachment One to Exhibit 1 to this Amendment (the “Delta Conversion PIP”) and the other requirements stated in Exhibit 1 to this Amendment by no later than the date that is 24 months after the Amendment Date (the “PIP Deadline Date”), and (ii) confirmation that Franchisee has taken all other actions required by this Section 1.

B. Franchisee will: (i) give Franchisor at least 60 days’ notice of the date on which the Hotel will be ready for inspection for compliance with the Delta Conversion PIP; (ii) no earlier than 60 days before the PIP Deadline Date, and no later than 30 days before the PIP Deadline Date, request an application to operate the Hotel as a Delta Hotels by Marriott hotel; (iii) promptly complete such application; and (iv) promptly upon receipt of a Delta Hotels by Marriott franchise disclosure document, sign and return an acknowledgment of receipt of same on the prescribed form.

C. Subject to Franchisor’s confirmation of completion of the Delta Conversion PIP, but no later than the date of such confirmation, Franchisee will execute Franchisor’s then-current form of Delta Hotels by Marriott franchise agreement and relevant ancillary agreements, including a guaranty if required by Franchisor (collectively, the “Delta Franchise Agreement”), which Delta Franchise Agreement: (i) will include an application fee of \$75,000 and the then-current other fees and charges under the Delta Hotels by Marriott system; (ii) will be for a term of 20 years; (iii) will not

include an exclusive or protected territory; and (iv) will include items in the Delta Conversion PIP, if any, that remain to be completed and which, with Franchisor's approval, may be completed after the date of the Conversion.

D. Immediately prior to execution of the Delta Franchise Agreement: (i) Franchisee will satisfy all of its accrued monetary obligations to Franchisor and its Affiliates, including an amount equal to a reasonable estimate of fees and expenses not yet invoiced; (ii) there must not be any uncured breach or default by Franchisee under the Sheraton Agreement or under any other agreements related to the Hotel between Franchisee or its Affiliate and Franchisor or its Affiliate; (iii) the Hotel must be in good standing under the Quality Assurance Program (as defined below); and (iv) Franchisee will re-book all existing reservations at the Hotel and inform the then-current guests of the conversion of the Hotel to the Delta Hotels by Marriott system of hotels.

E. In connection with the execution of the Delta Franchise Agreement, Franchisee will (i) pay Franchisor's outside counsel fees and costs incurred for the preparation and negotiation of the Delta Franchise Agreement and related documentation; (ii) certify in writing that Franchisor did not approve, recommend, endorse or comment on any financial projections in connection with the conversion of the Hotel; (iii) pay all conversion fees associated with the re-branding of the Hotel; (iv) deliver evidence to Franchisor of compliance with the then-current insurance requirements for Delta Hotels by Marriott hotels; and (v) execute a termination agreement and general release of any and all claims against Franchisor and its Affiliates, and their respective officers, directors, agents and employees, in form and substance acceptable to Franchisor, terminating the Sheraton Agreement (the "Termination Agreement"), which termination will be effective on the date of the Conversion.

F. If Franchisee timely completes its obligations under this Section 1, Franchisor or its Affiliate will counter-execute the Delta Franchise Agreement and the Termination Agreement. If Franchisee does not timely complete its obligations under this Section 1 (with time being of the essence), Franchisor will have no obligation to issue Franchisee a franchise or license to operate the Hotel as a Delta Hotels by Marriott hotel.

G. Franchisee acknowledges and agrees that if Franchisee fails to satisfy any of the foregoing terms and conditions listed in this Section 1, then Franchisee will be in breach of the Sheraton Agreement and Franchisor will have the right to terminate the Sheraton Agreement pursuant to Section 14.1(b) thereof. Further, Franchisee acknowledges and agrees that, for purposes of calculating liquidated damages if the Sheraton Agreement is terminated based, in whole or in part, on Franchisee's breach of this Amendment, the term of the Delta Franchise Agreement will be included in determining the remaining Term of the Sheraton Agreement.

## 2. FRANCHISEE ACKNOWLEDGMENTS.

A. *EXISTING ACKNOWLEDGEMENTS.* FRANCHISEE HEREBY AFFIRMS THAT AS OF THE AMENDMENT DATE ALL OF THE ACKNOWLEDGMENTS SET FORTH IN THE SHERATON AGREEMENT ARE CORRECT.

B. *NO RELIANCE.* FRANCHISEE ACKNOWLEDGES THAT IT DID NOT RELY ON ANY PROMISES, REPRESENTATIONS OR AGREEMENTS ABOUT FRANCHISOR OR THE LICENSE NOT EXPRESSLY CONTAINED IN THIS AMENDMENT IN MAKING ITS DECISION TO SIGN THIS AMENDMENT. FRANCHISEE FURTHER REPRESENTS AND WARRANTS THAT FRANCHISOR AND ITS REPRESENTATIVES HAVE NOT MADE ANY

PROMISES, REPRESENTATIONS OR AGREEMENTS, ORAL OR WRITTEN, EXCEPT AS EXPRESSLY CONTAINED IN THIS AMENDMENT IN ENTERING THIS AMENDMENT.

C. *BUSINESS RISK.* FRANCHISEE AGREES THAT THE BUSINESS VENTURE CONTEMPLATED BY THIS AMENDMENT INVOLVES SUBSTANTIAL BUSINESS RISK, IS A VENTURE WITH WHICH FRANCHISEE HAS RELEVANT EXPERIENCE, AND ITS SUCCESS IS LARGELY DEPENDENT ON FRANCHISEE'S ABILITY AS AN INDEPENDENT BUSINESS. FRANCHISOR DISCLAIMS THE MAKING OF, AND FRANCHISEE AGREES IT HAS NOT RECEIVED, ANY INFORMATION, WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, AS TO THE POTENTIAL REVENUES, PROFITS OR SUCCESS OF SUCH BUSINESS VENTURE. FRANCHISOR WILL NOT INCUR ANY LIABILITY FOR ANY ERROR, OMISSION OR FAILURE CONCERNING ANY ADVICE, TRAINING OR OTHER ASSISTANCE FOR THE HOTEL PROVIDED TO FRANCHISEE, INCLUDING FINANCING, DESIGN, CONSTRUCTION, RENOVATION OR OPERATIONAL ADVICE.

D. *DISCLOSURE AND NEGOTIATION.* FRANCHISEE ACKNOWLEDGES THAT IT HAS READ AND UNDERSTOOD THE DELTA HOTELS BY MARRIOTT FRANCHISE DISCLOSURE DOCUMENT DATED MARCH 31, 2019 (THE "DISCLOSURE DOCUMENT"), THAT IT HAS HAD SUFFICIENT TIME AND OPPORTUNITY TO CONSULT WITH ITS ADVISORS ABOUT THE POTENTIAL BENEFITS AND RISKS OF ENTERING INTO THIS AMENDMENT, AND FRANCHISEE HAS HAD AN OPPORTUNITY TO NEGOTIATE THIS AMENDMENT.

E. *HOLDING PERIODS.* FRANCHISEE ACKNOWLEDGES THAT IT RECEIVED A COPY OF THIS AMENDMENT, ITS EXHIBITS AND ATTACHMENTS, IF ANY, AND RELATED AGREEMENTS, IF ANY, AT LEAST SEVEN DAYS BEFORE THE DATE ON WHICH THIS AMENDMENT WAS EXECUTED. FRANCHISEE FURTHER ACKNOWLEDGES THAT IT HAS RECEIVED THE DISCLOSURE DOCUMENT AT LEAST 14 DAYS BEFORE THE DATE ON WHICH IT EXECUTED THIS AMENDMENT OR MADE ANY PAYMENT TO FRANCHISOR IN CONNECTION WITH THIS AMENDMENT.

F. *DISCLOSURE EXEMPTION.* NOTWITHSTANDING FRANCHISEE'S ACKNOWLEDGMENTS IN SECTION 2.D AND SECTION 2.E, FRANCHISEE REPRESENTS AND ACKNOWLEDGES THAT THIS FRANCHISE SALE IS FOR MORE THAN \$1,143,100, EXCLUDING THE COST OF UNIMPROVED LAND AND ANY FINANCING RECEIVED FROM FRANCHISOR OR ITS AFFILIATES, AND THUS IS EXEMPTED FROM THE FEDERAL TRADE COMMISSION'S FRANCHISE RULE DISCLOSURE REQUIREMENTS PURSUANT TO 16 CFR 436.8(a)(5)(i).

G. *OUTSIDE COUNSEL FEES.* Franchisee has paid, or will pay within 10 days of receipt of an invoice, up to \$5,000 of Franchisor's outside counsel fees and costs incurred in connection with the review, preparation and negotiation of this Amendment and any amendments and ancillary documents related thereto.

3. INTENTIONALLY OMITTED.

4. RELEASE. Effective as of the Amendment Date, Franchisee and its owners, officers, directors, and Affiliates (the "Franchisee Releasors") for themselves and their successors and all other Persons (as defined below) acting on their behalf or claiming under any of them, release and forever discharge Franchisor, its Affiliates, and their respective current and former officers, directors,

shareholders, partners, employees, predecessors, successors, attorneys, agents, representatives, and assigns (the “Franchisor Releasees”), from any and all suits, claims, controversies, rights, promises, debts, liabilities, demands, obligations, costs, expenses, actions and causes of action of every nature, character, and description, in law or in equity, whether presently known or unknown, vested or contingent, suspected or unsuspected, which any Franchisee Releasor now owns or holds or has at any time heretofore owned or held against any Franchisor Releasee arising under, relating to, or in connection with the Sheraton Agreement and any related agreements, the relationship created thereby, or the Hotel in any respect (collectively, the “Franchisee Released Claims”). The Franchisee Releasors, for themselves and their successors and assigns and all other Persons acting on their behalf or claiming under any of them, covenant not to bring any suit, action, or proceeding, or make any demand or claim of any type, against any Franchisor Releasee relating to or in connection with any Franchisee Released Claims. Nothing in this Section 4 will affect Franchisee’s right to make claims or bring an action for breach of this Amendment. **THE FRANCHISEE RELEASORS, FOR THEMSELVES AND THEIR SUCCESSORS AND ALL OTHER PERSONS ACTING ON THEIR BEHALF OR CLAIMING UNDER ANY OF THEM, WAIVE ANY RIGHTS AND BENEFITS CONFERRED BY ANY APPLICABLE PROVISION OF LAW EXISTING UNDER ANY FEDERAL, STATE OR POLITICAL SUBDIVISION THEREOF WHICH WOULD INVALIDATE ALL OR ANY PORTION OF THE RELEASE CONTAINED HEREIN BECAUSE SUCH RELEASE MAY EXTEND TO CLAIMS WHICH THE FRANCHISEE RELEASORS DO NOT KNOW OR SUSPECT TO EXIST IN THEIR FAVOR AT THE TIME OF EXECUTION OF THIS AMENDMENT.** Any of the Franchisor Releasees may plead or assert the release and covenant not to sue in this Section 4 as a complete defense and bar to any claim brought against any of them in contravention of this Section 4 and, if any such claim is brought against any of them, Franchisee will indemnify, defend and hold harmless any such party from and against any such claim.

5. **CONFIDENTIALITY.** Franchisee acknowledges and agrees that, except for Exhibit 1 to this Amendment, the terms of this Amendment are strictly confidential and Franchisee will not disclose the terms hereof to any Person without the prior consent of Franchisor except (i) as required by law, (ii) as may be necessary to enforce this Amendment in any legal proceedings, or (iii) to those of Franchisee’s managers, members, officers, directors, employees, attorneys, accountants, agents or lenders as is necessary for the operation or financing of the Hotel. It will be a material breach of this Amendment if Franchisee, its managers, members, officers, directors, employees, attorneys, accountants, agents or lenders disclose the such terms to any unauthorized Person without the prior consent of Franchisor, for which breach Franchisor may terminate this Amendment and all rights granted to Franchisee under this Amendment without affording Franchisee any opportunity to cure the breach, effective immediately upon notice to Franchisee.

6. **NOTICES.** All notices, requests, statements and other communications under this Amendment will be: (i) in writing; (ii) delivered by hand with receipt, or by courier service with tracking capability; and (iii) addressed to the address for such party provided in accordance with Section 16 of the Sheraton Agreement, or in either case at any other address designated in writing by the party entitled to receive the notice. Any notice will be deemed received (a) when delivery is received or first refused, if delivered by hand or (b) one day after posting of such notice, if sent via overnight courier.

7. **EFFECT ON FURTHER REQUESTS.** Franchisee will not rely on Franchisor’s consent to the Conversion as set forth in this Amendment as indicative of the position Franchisor will take with respect to any other license or franchise agreements with Franchisee or any of its Affiliates. Franchisee further acknowledges that Franchisor may in the future approve re-brandings for (i) other franchisees of Franchisor and/or (ii) Franchisee and/or its Affiliates on terms and conditions different from those set forth in this Amendment.



8. MISCELLANEOUS. This Amendment (i) sets forth the entire agreement between the parties and fully supersedes any and all prior agreements and understandings (whether written or oral) between the parties and pertaining to the subject matter hereof, (ii) is governed by, and interpreted and construed in accordance with, the laws of the State of Maryland (without regard to its conflicts of law principles), (iii) is not assignable, in whole or in part, by Franchisee to any other Person, without the consent of Franchisor, (iv) will be binding upon and will inure to the benefit of the parties and their permitted successors and assigns, and (v) may be executed in counterparts, all of which taken together will constitute one document. Delivery of an executed signature page to this Amendment by electronic transmission will be effective as delivery of a manually signed counterpart to this Amendment.

9. DEFINED TERMS. Items capitalized but not defined herein have the same meaning as stated in the Sheraton Agreement. For purposes of this Amendment:

“Person” means an individual (and the heirs, executors, administrators or other legal representatives of an individual), a partnership, a joint venture, a firm, a company, a corporation, a governmental department or agency, a trustee, a trust, an unincorporated organization or any other legal entity.

“Quality Assurance Program” means the program that Franchisor uses to monitor guest satisfaction and the operations, facilities and services at Sheraton Hotels.

10. EFFECT ON SHERATON AGREEMENT. On and after the effectiveness of this Amendment, each reference in the Sheraton Agreement to “this Agreement,” “hereunder,” “hereof” or words of like import referring to the Sheraton Agreement, and each reference in any documents relating to the Sheraton Agreement to “the Agreement,” “thereunder,” “thereof” or words of like import referring to the Sheraton Agreement, will mean and be a reference to the Sheraton Agreement as amended by this Amendment. The Sheraton Agreement and any documents relating to the Sheraton Agreement, as specifically amended by this Amendment, are and will continue to be in full force and effect and are hereby in all respects ratified and confirmed. This Amendment does not constitute a waiver of Franchisor’s right to take action with respect to any breach of, or default under, the Sheraton Agreement, and by entering into this Amendment Franchisor does not waive any rights or remedies available to it under the Sheraton Agreement or any other agreement.

11. SURVIVAL. Franchisor’s rights and Franchisee’s obligations under Section 4, Section 5, Section 7, and Section 8 will survive the termination or expiration of this Amendment.

12. SEVERABILITY. If any provision of this Amendment or the application thereof to any Person or circumstance is to any extent held invalid or unenforceable, the remainder of this Amendment and the application of such provision to Persons or circumstances other than those as to which it is held invalid or unenforceable will not be affected thereby, and each provision will be valid and enforceable to the fullest extent permitted by law. Any invalid or unenforceable provision will be replaced with a provision that is valid and enforceable and most nearly reflects the original intent of the invalid or unenforceable provision.

*{Signatures appear on following page.}*

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment to Sheraton New Build License Agreement – Conversion to Delta Hotels by Marriott, under seal, as of the Amendment Date.

FRANCHISOR:

THE SHERATON LLC

By: \_\_\_\_\_ (SEAL)  
Name: Kip W. Vreeland  
Title: Senior Vice President, Full Service Franchising

FRANCHISEE:

MIDWEST CITY MUNICIPAL AUTHORITY

By: \_\_\_\_\_ (SEAL)  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT 1**  
**DELTA HOTELS BY MARRIOTT BRAND PROPERTY IMPROVEMENT PLAN**

In order for the Hotel to operate as a Delta Hotels by Marriott hotel, Franchisee will comply with the requirements of this Exhibit 1.

1. Design Process. Franchisee will: (i) obtain the Design Criteria (defined below) from Franchisor within 10 days of the Amendment Date for the work required by Section 3 of this Exhibit 1 (the “Conversion Work”), (ii) pay to Franchisor its then-current fees in connection with the Conversion Work, and (iii) comply with the following requirements of this Section 1 (the “Design Process”).

A. *Design Team.* Franchisee will retain a qualified registered architect, engineer and interior designer, and based on the nature of the project, Franchisor may require that Franchisee retain other specialty consultants. Franchisee will provide Franchisor the name, address and relevant work experience on similar projects for any such Person that Franchisee proposes to retain, and Franchisor will have 30 days after receipt of such information to notify Franchisee of its election to consent or withhold its consent. Franchisor’s election to consent or withhold its consent will be based on prior experiences with such Person and such Person’s reputation and experience on similar projects. Franchisor may charge its then-current fee for reviewing any interior designer that is not included on Franchisor’s list of recommended interior designers for the Hotel, if any. If Franchisor does not respond to Franchisee within 30 days after Franchisor’s receipt of such information, then Franchisee may retain such Person. Neither Franchisor’s failure to respond nor Franchisor’s consent to the use of such Person will be deemed an endorsement or recommendation by Franchisor. Franchisor is not liable for the unsatisfactory performance of any Person retained by Franchisee.

B. *Submission of Plans.* Franchisee will adapt the Design Criteria to the Hotel and Applicable Law (defined below), including Accessibility Requirements (defined below). Franchisee will prepare and submit Plans (defined below) electronically in the phases and with the detail required by the standards for Delta Hotels by Marriott hotels (the “Delta Standards”). The Plans will not deviate from the Design Criteria unless previously approved by Franchisor, and any such deviations will be clearly designated in a separate document delivered along with the Plans.

C. *Review of Plans.* Franchisor will promptly review the Plans only for compliance with the Design Criteria and any applicable property improvement plan, and to confirm that the number, configuration and location of Guestrooms (defined below) and the size, configuration and location of Public Facilities (defined below) are as previously approved by Franchisor. If Franchisor determines that the Plans do not satisfy such requirements, Franchisor may require changes and Franchisee will deliver revised Plans incorporating such changes. If Franchisor determines that the Plans are incomplete, Franchisor may defer its review of the Plans until it receives complete Plans. Franchisee will not begin the Conversion Work until Franchisor confirms in writing that such Plans comply with such requirements. On receipt of Franchisor’s confirmation, Franchisee will promptly submit the final Plans electronically. Once finalized, the Plans will not be changed without Franchisor’s prior consent. Franchisee will ensure that the renovation of the Hotel is completed in accordance with the Plans.

D. *Compliance with Applicable Law.* Franchisee (and not Franchisor or its Affiliates) is responsible for ensuring that the Plans comply with Applicable Law, including Accessibility Requirements. Franchisor and its Affiliates will have no liability or obligation concerning the means, methods or techniques used in constructing or renovating the Hotel. Franchisee will not reproduce, use or permit the use of any Design Criteria or Plans other than for the Hotel.

2. Property Improvement Plan.

A. *Property Improvement Plan.* Based on a review of the Hotel, the Delta Conversion PIP outlines the renovation requirements for the Hotel to operate as a Delta Hotels by Marriott hotel. All renovations, furniture, fixtures and equipment will conform to the then-current specifications for Delta Hotels by Marriott hotels at the time such work is completed. Completion of the Delta Conversion PIP does not satisfy Franchisee's obligation to renovate the Hotel under Section 6 of the Sheraton Agreement.

B. *Material Change Review.* If any material changes to the Hotel occur after the date of Franchisor's latest inspection of the Hotel for purposes of the preparation of the Delta Conversion PIP, then Franchisor may re-inspect the Hotel ("Material Change Review") and modify the Delta Conversion PIP to address such material changes. Franchisee will complete the modified Delta Conversion PIP, including any additional requirements, to Franchisor's satisfaction. Franchisee and its contractors will cooperate fully with any inspections Franchisor conducts under a Material Change Review.

C. *PIP Deadlines.* Franchisee will perform each item in the Delta Conversion PIP by the date stated in Section 1.A of the Amendment unless otherwise stated in the Delta Conversion PIP with respect to a specific item. Time is of the essence, but the deadlines for completion of items in the Delta Conversion PIP will be equitably extended for any delay caused by acts of nature, terrorism, strikes, war, governmental restrictions or other causes beyond Franchisee's control (excluding for the avoidance of doubt, unavailability of financing). If Franchisee wishes to extend such deadlines, Franchisee will make a written request giving the reasons for the delay. Franchisor may, in its sole discretion, extend such deadlines, but no extension will be granted for more than six months. For any extension (other than ones for which deadlines were equitably extended under the second sentence of this paragraph), Franchisor may require Franchisee to pay its then-current extension fee. The extension fee will be paid to Franchisor with the request for the extension and is nonrefundable unless Franchisor declines to grant the requested extension.

D. *Permits and Certifications.* Franchisee will obtain all permits and certifications required for lawful renovation and operation of the Hotel, including zoning, access, sign, building permits and fire requirements, and if requested, will certify that it has obtained all such permits and certifications.

E. *Compliance.* Franchisee will ensure that the Hotel complies with Applicable Law, the Design Criteria and the Delta Standards, including the fire protection and life safety Delta Standards (even if such Delta Standards exceed local code requirements).

F. *Franchisee's Responsibilities.* Franchisee is responsible for the entire cost of renovating, equipping, supplying and furnishing the Hotel as a Delta Hotels by Marriott hotel. Franchisee will not use any of the Reserve to pay for the Delta Conversion PIP.

G. *Site Visits.* During renovation, Franchisor's representatives may visit the job site at any time to observe the work, and Franchisee, its contractors and subcontractors will cooperate fully with any such site visits. Upon request, Franchisee will submit photos showing the progress of renovation to Franchisor. Franchisor may submit any deficiencies or discrepancies to Franchisee, and Franchisee will promptly correct such items. If any site visits and inspections are necessary to ensure the Hotel complies with the Delta Conversion PIP, Franchisor may charge its then-current fee for the time spent inspecting the Hotel plus Travel Costs (defined below).

H. *Accessibility Certification.* Franchisee will not be deemed to have satisfied the requirements of the Delta Conversion PIP until Franchisee delivers a certification from its architect, licensed professional engineer, or recognized expert consultant on Accessibility Requirements in the form attached to this Exhibit 1 as Attachment Two.

I. *Fire Protection and Life Safety Certification.* Franchisee will not be deemed to have satisfied the requirements of the Delta Conversion PIP until Franchisee has retained Franchisor and paid Franchisor the then-current testing and inspection fee to test and inspect the fire protection and life safety systems of the Hotel, and such testing and inspection verifies the Hotel complies with Franchisor's fire protection and life safety Delta Standards and the fire protection and life safety systems of the Hotel are operational. If the Hotel meets certain criteria determined by Franchisor, instead of retaining Franchisor, Franchisee may deliver a certification in the form attached to this Exhibit 1 as Attachment Three that verifies the Hotel complies with Franchisor's fire protection and life safety Delta Standards and the fire protection and life safety systems of the Hotel are operational. Any such certification must be issued by a third-party licensed fire protection engineer, engineer, or recognized expert consultant on fire and life safety requirements that has been approved by Franchisor. Franchisor may require that such certification be issued by a party that has not participated in the design of the fire protection and life safety systems of the Hotel.

J. *Completion.* Franchisee will not be deemed to have satisfied the requirements of the Delta Conversion PIP until Franchisor has confirmed completion of the Delta Conversion PIP, and Franchisor has granted approval to operate the Hotel as a Delta Hotels by Marriott hotel in a letter agreement signed by Franchisor and Franchisee or its general manager (an "Authorization to Operate"). If Franchisor has given Authorization to Operate but the letter agreement provides for additional construction, upgrading, renovation, or training (the "Additional Work"), Franchisee will be authorized to use the Delta Hotels by Marriott system and identify the Hotel as a Delta Hotels by Marriott hotel only for such time as Franchisee is diligently completing the Additional Work. Failure to timely complete the Additional Work will be a default under the Delta Franchise Agreement. Franchisor may review any Additional Work, and Franchisee must ensure that the Hotel complies with all requirements of Franchisor following such review. Franchisee, its contractors and subcontractors must cooperate fully with any inspections conducted by Franchisor. If any site visits and inspections are necessary to ensure the Hotel complies with the Additional Work requirements, Franchisor may charge its then-current fee for the additional time spent inspecting the Hotel plus Travel Costs. If Franchisor determines an additional test and inspection of the fire protection systems or life safety components of the Hotel is necessary, Franchisor may charge Franchisee its then-current fee for such site visits and inspections.

K. *Promotion.* Without Franchisor's prior approval, Franchisee will not advertise, promote or operate the Hotel as a Delta Hotels by Marriott hotel until the Hotel has been renovated in accordance with this Exhibit 1, as determined by Franchisor in its sole discretion.

4. *Definitions.* For purposes of this Amendment:

"Accessibility Requirements" means the Americans with Disabilities Act and other applicable state laws, codes, and regulations governing public accommodations for persons with disabilities.

"Applicable Law" means applicable national, federal, regional, state or local laws, codes, rules, ordinances, regulations, or other enactments, orders or judgments of any governmental, quasi-governmental or judicial authority, or administrative agency having jurisdiction over the Hotel, Franchisee, Franchisor in its capacity as licensor under the Sheraton Agreement, or the matters that are

the subject of this Agreement, including any Data Protection Laws or any of the above that prohibit unfair, fraudulent or corrupt business practices and related activities, including any such actions or inactions that would constitute a violation of money laundering or terrorist financing laws and regulations

“Case Goods” means furniture and fixtures used in the Hotel such as cabinets, shelves, chests, armoires, chairs, beds, headboards, desks, tables, mirrors, lighting fixtures and similar items.

“Data Protection Laws” means data protection and privacy laws applicable to the Hotel, the Delta Hotels by Marriott system, Franchisor or Franchisee.

“Design Criteria” means those standards for the design of Hotel Improvements and such other information for planning, constructing or renovating and furnishing a Delta Hotels by Marriott hotel.

“Electronic Systems” means all Software, Hardware and all electronic access to Franchisor’s systems and data (including telephone and internet access), licensed or made available to Franchisee, including the Reservation System, the Property Management System, the Yield Management System and any other system required by the Delta Franchise Agreement.

“Guestroom” means each rentable unit in the Hotel consisting of a room, suite or suite of rooms used for overnight guest accommodation, the entrance to which is controlled by the same key; however, adjacent rooms with connecting doors that can be locked and rented as separate units are considered separate Guestrooms.

“Hardware” means all computer hardware and other equipment (including all upgrades and replacements) required for the operation of any Electronic System.

“Hotel Improvements” means the building or buildings containing Guestrooms, Public Facilities, administrative facilities, parking, pools, landscaping, and all other improvements constructed or to be constructed or renovated at the Premises.

“Plans” means construction documents, including a site plan and architectural, mechanical, electrical, civil engineering, plumbing, landscaping and interior design drawings and specifications.

“Property Management System” means all property management systems (including all Software, Hardware and electronic access) designated by Franchisor for use in the front office, back-of-the-office or other operations of Delta Hotels by Marriott hotels.

“Public Facilities” means the lobby areas, meeting rooms, convention or banquet facilities, restaurants, bars, lounges, corridors and other similar facilities at the Hotel.

“Reservation System” means any reservation system designated by Franchisor for Delta Hotels by Marriott hotels (including Software, Hardware and related electronic access).

“Soft Goods” means wall and floor coverings, window treatments, carpeting, bedspreads, lamps, artwork, decorative items, pictures, wall decorations, upholstery, textile, fabric, vinyl and similar items used in the Hotel.

“Software” means all computer software (including all future upgrades and

modifications) and related documentation provided by Franchisor or designated suppliers for the Electronic Systems.

“Travel Costs” means all travel, food and lodging, living, and other out-of-pocket costs.

“Yield Management System” means any yield management system (including all Software, Hardware and electronic access) designated by Franchisor for use by Delta Hotels by Marriott hotels.

*{Remainder of page intentionally left blank.}*

## **ATTACHMENT ONE TO EXHIBIT 1 DELTA CONVERSION PIP**

*All items must be completed within 24 months after the Amendment Date, unless otherwise noted with respect to a particular item.*

All Conversion Work shall be complete and accepted by Franchisor. All Conversion Work is to meet the Delta Standards dated December 2018 and related supplements and guidelines as updated from time to time. All Conversion Work is to be provided to franchisor for review and approval prior to commencement of work.

The Delta Hotels design process starts with a Design Narrative for the property or project, incorporating the design foundations, core values (Pragmatic, Efficient and Seamless) and design elements that underpin the brand's global design strategy – Simple Made Perfect. Franchisee's architect and interior designers provide this first step to establish a framework that will ensure that all design decisions drive an on-strategy guest experience. A Franchisor-recommended interior designer is required and the selection of design firm, Design Narrative, as well as a proposed construction schedule is to be reviewed and approved by Franchisor prior to the designer developing the space planning, design and FF&E selections.

Prior to commencing any work please contact Franchisor (Lisa Plater at 301-300-7361) to setup a kick-off meeting. This meeting will be used to discuss this document's requirements, the design and submittal process as well as a proposed construction schedule. If the Delta Conversion PIP includes Guestroom work, construct model rooms onsite reflecting the Guestroom work outlined in this document. A model room(s) review with Franchisor will be conducted and comments from that review will be incorporated into the final design of the Guestroom package.

### **1.0 Site / Building Exterior**

#### **1.1 Exterior and Signage**

- .1 Refresh the Porte Cochere entry to create a unique sense of arrival at the primary guest entry. Re-concept space to deliver a signature arrival experience that strengthens the Hotel's concept. Replace furniture, plantings, and lighting to strengthen the concept of the Hotel.
- .2 Provide exterior building and site signage. All signage is to be designed and provided by a Franchisor approved sign vendor. Submit signage package to Franchisor for review and comment prior to fabrication.

#### **1.2 Surface Parking & Landscaping**

- .1 Supplement planting concept. Concept to include a combination of year-round and seasonal plantings. Provide lush planters at main Hotel and conference center entries.

### **2.0 Public Spaces**

#### **2.1 General Comments**

- .1 Provide a full renovation that incorporates elements of the Delta public spaces including architectural and decorative lighting, refurbished doors and hardware, wall finishes, and integrated technology. "Public Space" areas are defined as the lobby/registration/elevator landing zone, bar/lounge, F&B outlets areas.



- .2 Remove or re-concept traditional architectural features to align with new contemporary design. Ensure design concept is carried through in all other public spaces.
- .3 Provide a full Case Goods replacement including tables, consoles, credenzas, and community table(s) for social interaction.
- .4 Provide a full Soft Goods replacement including flexible furnishings, pillows, decorative lighting, window treatment, paint and vinyl wallcovering, carpet/pad, artwork, and accessories.
- .5 Paint or stain existing wood surrounds and millwork to bring in contemporary aesthetic.
- .6 Provide lighting that is zoned and dimmable (dimmer to be minimum 4-scene preset system).
- .7 Create an art narrative based on regional identity, local geography, nature, culture etc. Provide artwork and other artifacts reflective of narrative and hotel design concept with accent lighting where appropriate.
- .8 Provide interior graphics package to meet the Delta Standards. Submit graphics package to Franchisor for review and comment prior to fabrication. Note: This applies to all guest facing areas of Hotel including Public Spaces, Food & Beverage, Recreation Facilities, Retail Spaces, Function Spaces and Guest Accommodations.
- .9 Provide Schluter strip that coordinates with new design at all carpet to stone transitions.

## **2.2 Hotel Entrance**

- .1 Replace vestibule wall finishes to coordinate with the lobby.
- .2 Maintain dedicated luggage cart storage and luggage room with new space planning.

## **2.3 Welcome Area**

- .1 Maintain existing Front Desk assembly and location. Refinish to match/coordinate with new public space design esthetic. Ensure all accessibility requirements are met. Concierge services can be made available through the Front Desk. Ensure lobby floor finishes carry through into front desk area.
- .2 Provide a feature statement behind Front Desk Pods with millwork detailing, wall finishes, accent lighting and artwork/artifacts with regional identity
- .3 Upgrade sundry to meet required standards. Refer to "Retail Spaces" section. Vending machines and fridge should not be visible from lobby.

## **2.4 Lobby Lounge**

- .1 Provide a variety of flexible seating areas to support a mixture of social, business and personal activities such as large soft seating and social communal table(s) with power connectivity, dining tables/seating and semi-private seating areas such as a Casual Lounging / Meeting Hub.
- .2 Eliminate existing Business Center Room and implement Business Center functions in lobby with an integrated approach such as a communal table with new state of the art equipment and wireless printing capabilities to meet the Delta Standards. Include additional electrical outlets for guest laptop use.

## **2.5 Elevator Lobby**

- .1 Provide new flooring to coordinate with Guestroom corridors.
- .2 Refinish, paint or stain millwork surrounds to align with contemporary brand aesthetic.

## **2.6 Public Restrooms**

- .1 Provide removable millwork plumbing aprons.
- .2 Restore flooring and grout to like new condition, or replace.

- .3 Remove sheet mirror and fluorescent lighting above vanities and replace with vinyl wallcovering, decorative framed mirrors and a combination of wall sconces and down lights.
- .4 Provide new vinyl wallcovering.
- .5 Recondition and paint all previously painted surfaces.
- .6 Replace acoustic tile with upgraded low-profile, tegular acoustic tile and grid system or gyp ceiling.
- .7 Provide new architectural lighting.

### **3.0 Food & Beverage**

#### **3.1 General Comments**

- .1 Provide a comprehensive new design concept and upgrade to the bar, creating an activated and unique bar experience, differing from the surrounding public areas. Present solution to Franchisor for review and approval.
- .2 Provide a full renovation that incorporates elements of the Delta F&B spaces including ceiling design (provide mix of ceiling heights and materials), wall finishes, architectural lighting, decorative lighting, and integrated technology. Re-concept architectural features to align with new design.
- .3 All lighting to be zoned and dimmable (4 presets).

#### **3.2 Restaurant & Bar**

- .1 Refer to Food & Beverage "General Comments" for typical requirements.
- .2 Provide a full Case Goods replacement including tables, consoles, credenzas and community table(s) for social interaction.
- .3 Provide a full Soft Goods replacement including a variety of seating in each zone combining booths, banquettes, settees freestanding deuces and four tops, decorative lighting, window treatment, wallcoverings and artwork.
- .4 Consider opening up walls around fireplace to increase visibility between bar and lobby.

#### **3.3 Grab & Go**

- .1 Refer to Food & Beverage "General Comments" for typical requirements.
- .2 Provide a Grab & Go outlet with pre-packaged and made to order food/coffee and a casual dining area with a mix of seating and tables. Include millwork counters/storage, product display cases, guest self-serve and service refrigeration, condiment stand and POS. Equipment to include coffee/espresso machines. Present solutions to Franchisor for review and approval.

### **4.0 Recreation Facilities**

#### **4.1 General Comments**

- .1 Refer to Public Spaces "General Comments" for interior graphics requirements.
- .2 Recondition and paint all previously painted surfaces.
- .3 Refinish FOH / BOH doors and door surrounds throughout to like new condition.
- .4 Paint ceiling gypsum board, acoustical ceiling tiles and grids. Replace ACT tiles as required.

#### **4.2 Fitness Center**

- .1 Refer to Recreation Facilities "General Comments" for typical requirements.
- .2 Expand and Renovate existing Fitness Center with space planning to meet Delta's current initiative of approximately 1000 SF minimum. Include areas for cardio, strength and core training with no less than 30 SF of space for flexibility/stability/core mat activities. Provide gym style flooring, storefront doors/frames and hardware, RFID electronic lock with BLE technology, colorful graphics/artwork, mirrored walls, audio system, television, high quality equipment with built in media technology, controlled indoor air, coordinating millwork for amenities, filtered water dispensing station and accessories.
- .3 Remove traditional moldings and refinish walls.
- .4 Examine humidity levels to ensure future damage to millwork and wall finishes does not occur.

#### **4.3 Indoor Pool**

- .1 Refer to Recreation Facilities "General Comments" for typical requirements.
- .2 Replace all pool furniture with an upgraded combination of chairs, tables and chaise lounges.
- .3 Repair and re-grout deck, base and copings to like new condition or replace.
- .4 Repair or replace failing wall tile.
- .5 Recondition and paint all previously painted surfaces.
- .6 Refinish doors and hardware to like new conditions.
- .7 Provide electronic key lock system.
- .8 Replace towel racks with upgraded spa-type towel dispensers/hampers.
- .9 Provide / Replace / Upgrade decorative planters and foliage with mixture of full, lush foliage, floral plantings and accent lighting.
- .10 Replace / Repair water line tile, skimmer, basket devices and copings.
- .11 Examine humidity levels to ensure future damage to wall finishes does not occur.
- .12 Consider filling in whirlpool to acquire additional deck space.
- .13 Replace rusted fixtures at restrooms.

### **5.0 Retail Spaces**

#### **5.1 Sundry**

- .1 Provide a renovation to existing Sundry including vinyl wallcovering, adjustable lighting, millwork (for storage, refrigeration and freezers), modular display system and graphics. Include accent lighting to highlight key products.
- .2 Replace acoustic tile with upgraded low-profile, tegular acoustic tile and grid system.

### **6.0 Function Spaces**

#### **6.1 Meeting Room (Old Restaurant)**

- .1 Provide a full renovation that incorporates all elements of the Delta function spaces including but not limited to ceiling design - creating decorative soffits, walls and wall finishes, wall base and flooring, architectural lighting, re-concept architectural features to align with new design.
- .2 Develop solution to open up room; consider removing newer entry wall.
- .3 Consider expanding room into buffet area. Buffet is not a required brand item.
- .4 Develop solution at double doors to conceal view into meeting room.

- .5 Provide a full Case Goods replacement including tables, consoles, credenzas that support connectivity.
- .6 Provide a full Soft Goods replacement including but not limited to carpet, flexible furnishings, pillows, decorative lighting, window treatment (where applicable), vinyl wallcovering, art and accessories.
- .7 Combine light controls on single dimmer panels. Ensure that lighting controls are zoned and on separate dimmer controls for flexibility to accommodate social gatherings, business meetings and presentations. Re-lamp all architectural lighting throughout. Dimmer to be minimum 4-scene preset system.
- .8 Replace 40-50 banquet chairs primarily used for meeting within the Hotel. Ensure to provide hidden ganging device accessory.
- .9 Provide additional power outlets, USB ports and technology throughout the space.
- .10 Refer to Public Spaces “General Comments” for interior graphics requirements.
- .11 Create an art narrative based on regional identity, local geography, nature, culture etc. Provide artwork and other artifacts reflective of narrative and hotel design concept with accent lighting where appropriate.
- .12 Paint or stain all wood moldings at walls.

## **7.0 Guest Accommodations**

### **7.1 General Comments**

- .1 Quality level in all rooms (materials, fixtures and finishes) is presumed equivalent to quality level in rooms as seen during the Delta Conversion PIP survey. Any lesser quality conditions to be brought up to the quality level as seen during the Delta Conversion PIP survey, as part of required renovations.
- .2 Design and planning to be developed in conjunction with Franchisor’s guidance.
- .3 Provide Delta branded elements throughout all Guestrooms including; greet ledge or beverage ledge according to space restrictions, three coat hooks at Guestroom entry door and amenity shelf within guest bathrooms to keep vanity free and clean of clutter.
- .4 Recondition and paint all previously painted surfaces.
- .5 Refer to Public Spaces “General Comments” for interior graphics requirements.

### **7.2 Typical Guestrooms & Suites**

- .1 Provide a full Case Goods replacement that incorporates all components of the brand design aesthetic including headboard with lighting, nightstands, desk with large work surface and attached luggage bench. Provide additional Case Goods in Suites as required. Note: Platform bed is preferred; box cover with metal base is the minimum requirement.
- .2 Provide a full Soft Goods replacement that incorporates all components of the new brand design aesthetic including carpet/pad, soft seating, pillows, ergonomic desk chair, decorative lighting (to achieve the Delta Standards related to foot candles), window treatment with blackout capabilities and valence, paint / vinyl wallcovering, regionalized artwork and full length mirror. Provide additional furnishings in Suites as required.
- .3 Incorporate Guestroom safe into Case Goods.
- .4 Incorporate Guestroom mini fridge into new Case Goods piece
- .5 Re-paint all doors and trim to align with Delta aesthetic.
- .6 Replace existing armoire piece with new Case Goods piece. Provide long hanging location and concealed iron and ironing board.
- .7 Repair / Refinish / Replace connector door, frame and hardware.
- .8 Provide privacy cover at existing peep-hole and continuous sound seals at entry door.

- .9 Provide stone threshold at the entry and bathroom door.
- .10 Ensure light levels as per the Delta Standards are achieved.
- .11 Provide new electrical and USB ports at the bed-side and desk.
- .12 Provide new electronic lockets throughout Hotel (FOH & BOH); new system to be RFID BLE (Bluetooth Low Energy) technology. Note: This will enable mobile access to Guestrooms.
- .13 Relocate electrical, CATV, telephone and data outlets to accommodate new FF&E layout.
- .14 Provide 55" flat panel, HDTV TVs throughout. Include swivel bracket where required. Provide solution to minimize room to room sound transmission while ensuring wire concealment.
- .15 Provide the new Delta Guestroom Entertainment package. Provide a net connected set-top box from Integrator. Provide an interactive program guide, digital compendium and channel banner. Provide full high-definition line up of programming with a minimum channel lineup as defined by Franchisor is required. Submit system specifications to Franchisor for review and approval.
- .16 Provide new bedding package as per the Delta Standards.
- .17 Assess lifecycle of current mattress and box spring sets; replace as required with the Delta Standards including a decorative box spring cover. Platform bed coordinated with Case Goods is preferred.
- .18 Conceal PTAC wiring.
- .19 Replace commercial door hardware, horizontal push bar, and multiple locksets. Provide a selection that is more residential in design.

### **7.3 Typical Guest Baths & Suite Baths**

- .1 Provide partial renovation that incorporates elements of the Delta guest bathrooms including, but not limited to enhanced architectural and decorative lighting such as an illuminated mirror or wall sconces, wall finishes, vanity base millwork storage for towels and hair dryer that conceals sink base and plumbing, provide wall mounted amenity shelf, illuminated vanity mirror, and accessories.
- .2 Provide new showerheads and controls.
- .3 Consider installing barn doors at bathroom to alleviate toilet and door coordination issues.
- .4 Provide full door jam width stone threshold at bathroom entry. As an alternative, consider tiling the entire Guestroom entry with floor tile to match the bathroom.
- .5 Replace existing vanity apron, stone counter may remain. Provide millwork with storage for towels and hair dryer, to also amplify concealment of sink base and plumbing. Provide coordinating wall mounted amenity shelf.
- .6 Consider frameless, glass enclosed shower with integral solid surface shower pan in 75% of the total Guestrooms including 100% of all king rooms. Relocate wall-mounted mixing valve near shower entry or provide an alternative solution for guest access. Include new shower head, hand held unit and amenity basket.
- .7 Polish cast iron bath tub to like new condition.
- .8 Remove in-wall tissue dispenser where applicable.
- .9 Provide compact fluorescent, recessed and gasket downlight above shower/tub.
- .10 Replace light switches with "rocker" type switches.

### **7.4 Guest Corridor & Elevator Lobbies**

- .1 Replace existing Case Goods with new to align with new design, including seating, side tables and consoles/credenzas at elevator lobby landings.

- .2 Provide a full Soft Goods replacement to include carpet, vinyl wallcovering, accent vinyl wallcovering at door drops, full height 3/4" corner guards that blend with adjacent wall finishes, decorative lighting and wall sconces, artwork, sheer window treatments and decorative cornice at all windows.
- .3 Provide an accent vinyl wallcovering at door drops.
- .4 Recondition and repaint all painted surfaces.
- .5 Repair / Refinish / Replace doors, frames and hardware.
- .6 Paint or stain millwork surrounds at elevator lobbies to coordinate with new design.
- .7 Provide lighting solution that meets a minimum of 10 foot candles.
- .8 Provide wire management at the console table.

#### **7.5 Guest Floor Pantry**

- .1 Reconfigure the existing Guest Lounge into a Pantry; a 24 hour self-serve pantry offering hot and cold grab & go beverages and a selection of complementary retail food items, accessible to Marriott Rewards members. The Pantry is approximately one guestroom bay in size and centrally located for easy guest access and adjacent to service circulation. Requirements include: Storefront key card (RFID) access, telephone, surveillance/CCTV, millwork displays and shelving, countertop with sink and adequate space for self-serve beverages, refrigeration and freezer. Consult with Franchisor for further details.

#### **7.6 Vending**

- .1 Provide concealed/plumbed filtered water dispenser next to ice machine locations for guest use (Brita Hydration Station, Elkay Bottle Filling Station or approved equal). Note: Eliminate 'vending' machine in favor of increased Sundry/Gift Shop sales.
- .2 Provide vinyl wallcovering to match corridor.
- .3 Recondition and paint all previously painted surfaces.
- .4 Provide door with vision panel.
- .5 Replace acoustic tile with upgraded low-profile, tegular acoustic tile and grid system.

#### **7.7 Guest Laundry**

- .1 Replace acoustic tile with upgraded low-profile, tegular acoustic tile and grid system.
- .2 Provide vinyl wallcovering or repaint all previously painted surfaces.
- .3 , Recondition and paint all previously painted surfaces.
- .4 Refinish doors, frames and hardware.
- .5 , Provide new built-in folding table.

### **8.0 Administration & Employee Facilities – no requirements**

### **9.0 Engineering & Maintenance – no requirements**

### **10.0 Food Production**

#### **10.1 General Comments**

- .1 Perform an equipment assessment to determine end of serviceable life for all major and minor pieces of back of house equipment. Implement repair and/or replacement per report findings, recommendations and timing.

## **11.0 Laundry & Housekeeping**

### **11.1 General Comments**

- .1 Perform an equipment assessment to determine end of serviceable life for all major and minor pieces of back of house equipment. Implement repair and/or replacement per report findings, recommendations and timing.

## **12.0 Elevators & Escalators**

### **12.1 Public Elevators**

- .1 Provide updated design for all guest elevator cab interiors to include walls and floors.

## **13.0 Property Systems**

### **13.1 General Comments**

- .1 Ensure PCI (Payment Card Industry) compliance and Marriott International GPNS (Global Property Network Standard) certifications per the Delta Standards.
- .2 Ensure PMS-POS (currently Opera & Micros), data, CCTV & Access Control (security) systems are compliant with the Delta Standards.
- .3 Confirm public space and Guestroom wireless/wiring system is compliant with the Delta Standards. Develop solution to meet performance expectations of public space wi-fi, Guestroom data access, and HDTV package.
- .4 Update existing electronic lockets throughout the Hotel (FOH & BOH) to meet Marriott system standards of RFID BLU.

## **14.0 FIRE PROTECTION AND LIFE SAFETY**

### **14.1 GENERAL**

- .1 The Sheraton Midwest City Hotel at the Reed Conference Center located at 5750 Will Rogers Rd, Midwest City, OK 73110 was surveyed by Craig Luecke on February 12, 2019. This project has been surveyed with the understanding that the work performed in this building meets renovation as defined as refinishing, replacement, bracing, strengthening, or upgrading of existing materials, elements, equipment, or fixtures without involving the reconfiguration of spaces. If any other work in the building is performed, such as reconfiguration, change of use, additions, or upgrades to fire and life safety systems, etc., Franchisor must be contacted for a reassessment of the fire and life safety requirements.
- .2 Property must comply with all standards and requirements as detailed in the Fire and Life Safety Audit listed below regardless of current status of compliance with local codes or previous franchisee guidelines.
- .3 *The items noted below must be completed to meet Franchisor Fire Protection & Life Safety and NFPA Standards within 180 days of the Amendment Date.* The fire protection and life safety systems must be inspected, tested, or otherwise approved by Franchisor for the Delta Conversion PIP completion.

### **14.2 FIRE ALARM**

- .1 Install system type carbon monoxide detectors in all areas with fuel fired appliances. This shall include but not limited to main lobby, restaurant, kitchen, pool mechanical room, and fire pump room. The detector shall have a local sounder, integrated test button, and shall be programmed to initiate a supervisory signal at the fire alarm control panel.
- .2 A new fire alarm panel was recently installed without completing the upgrade to the system detection and alerting devices in the rooms. Currently when a detector reports to the panel from a Guestroom general alarm is sounded. Provide system smoke detectors (smoke sensors) with sounder base in all Guestrooms to meet the following:
  - \*\* Photoelectric type sensor
  - \*\* 85dBA at 10 feet, minimum of 75 dBA "at the pillow"
  - \*\* sound a local alarm only (sound only within the room of incident)
  - \*\* System smoke sensor normal and emergency power is provided by the FACP
  - \*\* In suites, provide smoke sensors in each separate sleeping/living rooms. Multiple sensor sounder bases located within the same suite or unit shall sound at the same time.
  - \*\* Provide a smoke sensor with sounder base and visual strobe in all hearing-impaired and accessible Guestrooms.

Intelligent speaker or speaker strobe devices may be used in the Guestrooms in lieu of sounder bases. These devices must be programmed to activate on a local alarm only, in the room of incident, as well as on a general fire alarm. Suite type rooms must be interconnected.
- .3 Replace the existing Guestroom sleeping area strobe device with a device of the proper candela flash intensity. If the strobe device is mounted within 24 " of the ceiling it must be 177 cd, and if mounted greater than 24" of the ceiling, 110 cd.

### **14.3 LIFE SAFETY**

- .1 Remove storage from the main electric room near the generators. Currently is overloaded wall to wall with office cardboard file boxes against the electrical panels at approximately 7 feet in height.
- .2 Provide stairwell identification signage on all levels including name of stair, floor level, terminus of stair enclosure (top and bottom) and direction to exit discharge.
- .3 Install emergency lighting with battery back-up, or on the emergency generator circuit if available on the exterior of the building at each exit discharge.
- .4 Provide documentation, from a licensed engineering or testing firm, that the emergency generator has been load bank tested and re-certified within 3 years prior to the Amendment Date.
- .5 Install panic hardware to the exit doors on all Guestroom floors leading to the stairwell.
- .6 Install a concrete walkway with a minimum 36" width to the common way (parking lot or another sidewalk) from the North stairwell exterior exit and pool exit. Currently these exits have concrete square pads on the exterior surrounded by drainage areas.
- .7 Reverse the of the 2nd EXIT door in the meeting room in the main Hotel and install panic hardware to this door. Occupancy over 100 requires 2 exits with panic hardware that swing open in the direction of travel to the common way exit.

### **14.4 KITCHEN HOODS**

- .1 Conduct the required inspection and test for the kitchen hood suppression system.

### **14.5 SPRINKLER**

- .1 Install an inspector's test at the remote or most distant area of each fire sprinkler zone. Ensure the test valve is accessible (i.e., not located in a Guestroom). Equip test with a



- hard piped drain to the exterior on ground level or to an interior drain capable of handling full flow. It is recommended the installation should occur in the North stairwell.
- .2 Provide documentation from a licensed sprinkler contractor certifying that the existing concealed cover sprinklers in Guestrooms and Guestroom corridors are quick response type. If they are standard response, replace with quick response sprinklers.
  - .3 Label all sprinkler control valves to include the valve type, function, and area served. The description should correspond with the fire alarm control panel.
  - .4 Provide documentation from a licensed sprinkler contractor for the annual fire pump test in accordance with NFPA 20. The property currently has numerous deficiency tags dated 2017 with no current inspection information.
  - .5 Install permanent FDC (Fire Department Connection) signage above the sprinkler system siamese fire hose connection that uses 6 inch white letters on a red background or as specified by the local authority.
  - .6 Provide documentation from a licensed sprinkler contractor of a successful and approved annual sprinkler system test that has been completed within 12 months prior to the Amendment Date. The property currently has numerous deficiency tags dated 2017 with no current inspection information.

## **15.0 Mechanical Plumbing Electrical**

### **15.1 General Comments**

- .1 Hire a re-commissioning firm to perform an HVAC, electrical and plumbing equipment assessment to determine current condition and end of serviceable life for all major and minor pieces of equipment. Implement any assessment modifications / repair / replacement within the remaining service life for all major MEP equipment; confirm all MEP associated work meets the Delta Standards.
- .2 Moisture concerns observed at pool and restroom. Provide solution to reduce moisture per the Delta Standards.

*{Remainder of page intentionally left blank.}*

**ATTACHMENT TWO  
TO EXHIBIT 1**

**ADA CERTIFICATION**

(to be completed by Franchisee’s licensed architect, engineer, or ADA consultant)

In connection with the [NAME AND LOCATION OF HOTEL] (the “Hotel”), I hereby certify to [FRANCHISEE] and to [FRANCHISOR] that:

**[For an “historic hotel” insert: The Hotel [is eligible for listing in the National Register of Historic Places under the National Historic Preservation Act] [has been designated as historic under State or local law] [is a qualified historic building under the Uniform Federal Accessibility Standards] (an “historic hotel”);]**

I have used professionally reasonable efforts to ensure that the Hotel complies with the requirements of the Americans with Disabilities Act (“ADA”) **[For an “historic hotel” insert: as applicable to an historic hotel]**, and all other related or similar state and local laws, regulations, and other requirements governing public accommodations for persons with disabilities in effect at the time that this certification is made; and

In my professional judgment, the Hotel does in fact comply with such requirements.

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Firm: \_\_\_\_\_

Date: \_\_\_\_\_

**ATTACHMENT THREE  
TO EXHIBIT 1**

**FIRE & LIFE SAFETY CERTIFICATION**

(to be completed by Franchisee’s third-party licensed fire protection engineer, engineer or fire and life safety consultant)

In connection with the [NAME AND LOCATION OF HOTEL] (the “Hotel”), I hereby certify to [FRANCHISEE] and to [FRANCHISOR] that:

I have used professionally reasonable efforts to ensure that the Hotel complies with Marriott International, Inc.’s Fire Protection and Life Safety Standards in effect as of the [DATE THAT REQUIRED COMPLETION OF FIRE LIFE SAFETY ITEMS IS VERIFIED BY INSPECTION] ; and

In my professional judgment, the Hotel does in fact comply with such standards and the fire protection and life safety systems of the Hotel are operational.

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Firm: \_\_\_\_\_

Date: \_\_\_\_\_



NEW BUSINESS/  
PUBLIC DISCUSSION





## MEMORIAL HOSPITAL AUTHORITY AGENDA



The 6:00 PM meetings will be shown live on Channel 20 and streamed live on YouTube.



The recorded video will be available on YouTube and the City's website within 48 hours at [www.youtube@midwestcityok.org](http://www.youtube@midwestcityok.org).



The meeting minutes and video can be found on the City's website in the Agenda Center: <https://midwestcityok.org/AgendaCenter>.



To make a special assistance request, call 739-1215 or email [pmenefee@midwestcityok.org](mailto:pmenefee@midwestcityok.org) no less than 24 hours prior to the start of a meeting. If special assistance is needed during a meeting, call 739-1388.



The Council will go directly into the City meetings down in the Council Chambers of City Hall at 6:00 PM. However, they will informally gather at or after 5:00 PM in the second floor conference room for dinner, but no City Council business will be discussed or acted upon and the room will be open to the public. Meals will only be provided to the City Council and staff.



## **MIDWEST CITY MEMORIAL HOSPITAL AUTHORITY AGENDA**

City Hall - Midwest City Council Chambers, 100 N. Midwest Boulevard

May 28, 2019 - 6:02 PM

- A. **CALL TO ORDER.**
- B. **CONSENT AGENDA.** These items are placed on the Consent Agenda so that the Trustees, by unanimous consent, can approve routine agenda items by one motion. If any item proposed does not meet with approval of all Trustees, or members of the audience wish to discuss an item, it will be removed and heard in regular order.
- 1.** Discussion and consideration of approving the minutes of the regular meeting of May 14, 2019, as submitted. (City Clerk - S. Hancock)
  - 2.** Discussion and consideration of supplemental budget adjustments to the following fund for FY 2018-2019, increase: Sooner Rose TIF Fund, expenses/Hospital Authority (90) \$155,000; expenses/(00) \$1,221. (Finance - C. Barron)
- C. **DISCUSSION ITEM.**
- 1.** Discussion and consideration of action to reallocate assets, change fund managers or make changes in the Statement of Investment Policy, Guidelines and Objectives. (Secretary - S. Hancock)
- D. **NEW BUSINESS/PUBLIC DISCUSSION.** The purpose of the "Public Discussion Section" of the Agenda is for members of the public to speak to the Authority on any Subject not scheduled on the Regular Agenda. The Authority shall make no decision or take any action, except to direct the City Manager to take action, or to schedule the matter for discussion at a later date. Pursuant to the Oklahoma Open Meeting Act, the Authority will not engage in any discussion on the matter until that matter has been placed on an agenda for discussion. **THOSE ADDRESSING THE AUTHORITY ARE REQUESTED TO STATE THEIR NAME AND ADDRESS PRIOR TO SPEAKING TO THE AUTHORITY.**
- E. **ADJOURNMENT.**



CONSENT AGENDA



A notice for the regular Midwest City Memorial Hospital Authority was filed for the calendar year with the City Clerk of Midwest City. Public notice of this agenda was accessible at least 24 hours before this meeting at City Hall and on the Midwest City website (www.midwestcityok.org).

### Midwest City Memorial Hospital Authority Minutes

May 14, 2019 – 6:02 pm

This meeting was held in the Midwest City Council Chambers at City Hall, 100 North Midwest Boulevard, Midwest City, County of Oklahoma, State of Oklahoma.

Chairman Matt Dukes called the meeting to order at 6:16 PM with the following members present: Trustees: Susan Eads, Pat Byrne, Española Bowen, Sean Reed, Christine Allen, and Jeff Moore; and Secretary Sara Hancock, City Attorney Heather Poole, and City Manager Guy Henson. Absent: none.

CONSENT AGENDA. Allen made a motion to approve the Consent Agenda, as submitted, seconded by Eads. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Chairman Dukes. Nay: none. Absent: none. Motion carried.

1. Discussion and consideration of approving the minutes of the regular meeting of April 23, 2019, as submitted.
2. Discussion and consideration of supplemental budget adjustments to the following fund for FY 2018-2019, increase: Hospital Authority Fund, revenue/Transfers In (90) \$39,679; revenue/Investment Interest (90) \$54; expenses/Transfers Out (90) \$39,679. Hospital Authority Fund, expenses/Hospital Authority (90) \$6,308.

### DISCUSSION ITEM.

1. **Discussion and consideration of accepting the Hospital Authority Investment Performance Review for the period ending March 31, 2019 and action to reallocate assets, change fund managers or make changes in the Statement of Investment Policy, Guidelines and Objectives.** Jim Garrels, President of Fiduciary Capital Advisors Inc. spoke with the Council. Reed made a motion to accept the report, seconded by Eads. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore and Chairman Dukes. Nay: none. Absent: none. Motion carried.

### NEW BUSINESS/PUBLIC DISCUSSION.

There was no new business or public discussion.

### ADJOURNMENT.

There being no further business, Chairman Dukes adjourned the meeting at 6:24 PM.

ATTEST:

\_\_\_\_\_  
MATT DUKES, Chairman

\_\_\_\_\_  
SARA HANCOCK, Secretary





***Midwest City Memorial Hospital Authority***

100 North Midwest Boulevard  
Midwest City, Oklahoma 73110  
(405) 739-1207 Fax (405) 739-1208 TDD (405) 739-1359  
E-mail: ghenson@midwestcityok.org

**MEMORANDUM**

TO: Honorable Chairman and Trustees

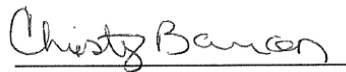
FROM: Christy Barron, Treasurer/Finance Director

DATE: May 28, 2019

SUBJECT: Discussion and consideration of supplemental budget adjustments to the following fund for FY 2018-2019, increase: Sooner Rose TIF Fund, expenses/Hospital Authority (90) \$155,000; expenses/(00) \$1,221.

The supplement is needed to budget principal payment and issuance costs related to TIF 2018 bond.

---



Christy Barron  
Finance Director

# SUPPLEMENTS

**May 28, 2019**

Fund SOONER ROSE TIF (352)		BUDGET AMENDMENT FORM Fiscal Year 2018-2019			
		Estimated Revenue		Budget Appropriations	
<u>Dept Number</u>	<u>Department Name</u>	<u>Increase</u>	<u>Decrease</u>	<u>Increase</u>	<u>Decrease</u>
00				1,221	
90	Hospital Authority			155,000	
		<u>0</u>	<u>0</u>	<u>156,221</u>	<u>0</u>

**Explanation:**  
To budget principal payment and issuance costs related to TIF 2018 bond. Funding to come from fund balance.



DISCUSSION ITEM





Midwest City Memorial Hospital Authority  
100 North Midwest Boulevard  
Midwest City, Oklahoma 73110  
Office (405) 739-1207/Fax (405) 739-1208  
[www.midwestcityok.org](http://www.midwestcityok.org)

## MEMORANDUM

To: Honorable Chairman and Trustees

From: Sara Hancock, Secretary

Date: May 28, 2019

Subject: Discussion and consideration of action to reallocate assets, change fund managers or make changes in the Statement of Investment Policy, Guidelines and Objectives.

---

Jim Garrels, President, Fiduciary Capital Advisors, asked staff to put this item on each agenda in the event the Hospital Authority's investments need to be reallocated, an investment fund manager needs to be changed or changes need to be made to the Statement of Investment Policy on short notice.

Action is at the discretion of the Authority.

*Sara Hancock*

Sara Hancock, Secretary



NEW BUSINESS/  
PUBLIC DISCUSSION





## ECONOMIC DEVELOPMENT AUTHORITY AGENDA



The 6:00 PM meetings will be shown live on Channel 20 and streamed live on YouTube.



The recorded video will be available on YouTube and the City's website within 48 hours at [www.youtube@midwestcityok.org](http://www.youtube@midwestcityok.org).



The meeting minutes and video can be found on the City's website in the Agenda Center: <https://midwestcityok.org/AgendaCenter>.



To make a special assistance request, call 739-1215 or email [pmenefee@midwestcityok.org](mailto:pmenefee@midwestcityok.org) no less than 24 hours prior to the start of a meeting. If special assistance is needed during a meeting, call 739-1388.



The Council will go directly into the City meetings down in the Council Chambers of City Hall at 6:00 PM. However, they will informally gather at or after 5:00 PM in the second floor conference room for dinner, but no City Council business will be discussed or acted upon and the room will be open to the public. Meals will only be provided to the City Council and staff.



## **MIDWEST CITY ECONOMIC DEVELOPMENT AUTHORITY AGENDA**

City Hall - Midwest City Council Chambers, 100 N. Midwest Boulevard

May 28, 2019 - 6:03 PM

A. CALL TO ORDER.

B. DISCUSSION ITEMS.

1. Discussion and consideration of approving the minutes of the special meeting of May 14, 2019, as submitted. (City Clerk - S. Hancock)
2. Discussion and consideration of approving the management representation letter to Grant Thornton LLP and accepting the associated Financial Statements of Sooner Town Center, LLC for calendar year ending December 31, 2018. (G. Henson - City Manager)

C. NEW BUSINESS/PUBLIC DISCUSSION. The purpose of the "Public Discussion Section" of the Agenda is for members of the public to speak to the Economic Development Authority on any Subject not scheduled on the Regular Agenda. The Authority shall make no decision or take any action, except to direct the City Manager to take action, or to schedule the matter for discussion at a later date. Pursuant to the Oklahoma Open Meeting Act, the Authority will not engage in any discussion on the matter until that matter has been placed on an agenda for discussion. **THOSE ADDRESSING THE AUTHORITY ARE REQUESTED TO STATE THEIR NAME AND ADDRESS PRIOR TO SPEAKING TO THE AUTHORITY.**

D. EXECUTIVE SESSION.

1. Discussion and consideration of 1) entering into executive session, as allowed under 25 O.S.307(C)(11), to confer on matters pertaining to economic development, including the transfer of property, financing or the creation of a proposal to entice a business to remain or to locate within the City; and 2) in open session, authorizing the city manager to take action as appropriate based on the discussion in executive session. (Economic Development - R. Coleman)

E. ADJOURNMENT.



DISCUSSION ITEM





Notice for the Midwest City Economic Development Authority meeting was filed for the calendar year with the City Clerk of Midwest City. Public notice of this agenda was accessible at least 24 hours before this meeting at City Hall and on the Midwest City website ([www.midwestcityok.org](http://www.midwestcityok.org)).

Midwest City Economic Development Authority Meeting Minutes

May 14, 2019 – 6:03 PM

This meeting was held in the Midwest City Council Chambers, in City Hall, 100 N. Midwest Boulevard, Midwest City, County of Oklahoma, State of Oklahoma.

Chairman Matt Dukes called the meeting to order at 7:51 PM with the following members present: Trustees: Susan Eads Pat Byrne, Española Bowen, Sean Reed, Christine Allen, and Jeff Moore; and Secretary Sara Hancock, City Attorney Heather Poole, and City Manager Guy Henson. Absent: none.

CONSENT AGENDA. Eads made a motion to approve the consent agenda, as submitted, seconded by Allen. Voting aye: Eads, Byrne, Bowen, Reed, Allen, Moore, and Chairman Dukes. Nay: none. Absent: none. Motion carried.

1. Discussion and consideration of approving the minutes of the special meeting of March 26, 2019, as submitted.
2. Discussion and consideration of approving and entering into an agreement with Western Enterprises, Inc. in the amount of \$22,500 to provide a fireworks production for the 4th of July celebration (Tribute to Liberty) at Joe B. Barnes Regional Park on July 4, 2019.

NEW BUSINESS/PUBLIC DISCUSSION.

There was no new business or public discussion.

ADJOURNMENT.

There being no further business, Chairman Dukes adjourned the meeting at 7:52 PM.

ATTEST:

\_\_\_\_\_  
MATT DUKES, Chairman

\_\_\_\_\_  
SARA HANCOCK, Secretary



**City Manager**  
100 N. Midwest Boulevard  
Midwest City, OK 73110  
office 405.739.1204

## MEMORANDUM

TO: Economic Development Authority Chairman and Trustees

FROM: J. Guy Henson, City Manager

DATE: May 28, 2019

SUBJECT: Discussion and consideration of approving the management representation letter to Grant Thornton LLP and accepting the associated Financial Statements of Sooner Town Center, LLC for calendar year ending December 31, 2018.

Attached for your review and approval is the management representation letter with Grant Thornton LLP and the STC, LLC financial statement for calendar year 2018.

Action is needed so this information can be forward to the bond trustee by May 31, 2019.

A handwritten signature in black ink, reading "J. Guy Henson", is written over a horizontal line. The signature is enclosed in a rectangular box.

J. Guy Henson  
City Manager

Attachments

May 28, 2019

Grant Thornton LLP  
201 S. College St., Suite 2500  
Charlotte, NC 28244

Dear Sir or Madam:

We are providing this letter in connection with your audits of the consolidated financial statements of Sooner Town Center, LLC, (the "Company"), which comprise the consolidated balance sheets as of December 31, 2018 and the related consolidated statements of operations, change in members' deficit, and cash flows for the year then ended, and the related notes to the consolidated financial statements. We understand that your audits were made for the purpose of expressing an opinion as to whether the consolidated financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America ("US GAAP").

We have fulfilled our responsibility, as set out in the terms of the Engagement Letter, for the preparation and fair presentation of the consolidated financial statements in accordance with US GAAP. We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to error or fraud, including programs and controls to prevent and detect fraud.

Certain representations in this letter are described as being limited to matters that are material. Items are considered to be material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of the surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm, to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves, as of May 28, 2019, the following representations made to you during your audits.

1. We have disclosed to you the results of our assessment of the risk that the consolidated financial statements may be materially misstated as a result of fraud. We have no knowledge of fraud or suspected fraud affecting the Company involving:
  - a. Management
  - b. Employees who have significant roles in internal control, or
  - c. Others where the fraud could have a material effect on the consolidated financial statements.
2. We have no knowledge of any allegations of fraud or suspected fraud affecting the Company's consolidated financial statements received in communications from employees, former employees, analysts, regulators, short sellers, or others.
3. There are no known violations or possible violations of, or no known instances of noncompliance or suspected noncompliance with, laws and regulations whose effects should be considered by management when preparing the consolidated financial statements, as a basis for recording a loss contingency or for disclosure.
4. The Company has complied with all aspects of contractual agreements that would have a material effect on the consolidated financial statements in the event of a noncompliance.
5. The Company has no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.

6. We have disclosed to you the identity of the Company's related parties and all related party relationships and transactions of which we are aware. Related party relationships and transactions and related amounts receivable from or payable to related parties (including sales, purchases, loans, transfers, leasing arrangements, and guarantees) have been properly accounted for and disclosed in the consolidated financial statements in accordance with US GAAP.

We understand that "related parties" include (1) affiliates of the Company; (2) entities for which investments in their equity securities would be required to be accounted for by the equity method by the investing entity; (3) trusts for the benefit of employees, such as pension and profit-sharing trusts that are managed by or under the trusteeship of management; (4) principal owners of the Company and members of their immediate families; and (5) management of the Company and members of their immediate families.

Related parties also include (1) other parties with which the Company may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests; and (2) other parties that can significantly influence the management or operating policies of the transacting parties or that have an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests.

7. We are not aware of any pending or threatened litigation, claims, or assessments or unasserted claims or assessments whose effects should be considered by management when preparing the consolidated financial statements and that should be accounted for and disclosed in accordance with US GAAP (ASC 450, *Contingencies*), and we have not consulted legal counsel concerning such litigation, claims, or assessments.
8. The calculation of participation rent for the year ended December 31, 2018 as determined in the supplementary schedules of net operating income, debt service, net cash flow, and subtenant rents are prepared in compliance with the terms as defined in the Midwest City Downtown Redevelopment General Ground Lease (the Agreement). We have read the supplementary schedules and believe the information presented is consistent with and accurately reflects the provisions contained in the Agreement.
9. We believe the information included in the Leases footnote to the consolidated financial statements, which describes the participation rent calculation, is consistent with our understanding of the agreement.
10. We believe the rent expense incurred totaled \$1,224,330 for the year ended December 31, 2018 and is properly recorded in the consolidated statement of operations.
11. Amounts due to Midwest City Memorial Hospital Authority for rent have been properly calculated and accrued in accordance with the terms of the Company's Agreements with the City as of December 31, 2018.
12. The members of the Sooner Town Center, LLC and Sooner Town Center Lowe's, LLC ("STC Lowe's") assigned their interests in STC Lowe's to Sooner Town Center, LLC as of February 28, 2018. The consolidated financial statements represent the consolidated results of Sooner Town Center, LLC, Sooner Town Center III, LLC, and STC Lowe's, LLC.
13. All events subsequent to the date of the consolidated financial statements through the date of this letter and for which US GAAP requires recognition or disclosure have been recognized or disclosed.



Very truly yours,

SOONER TOWN CENTER, LLC

A handwritten signature in blue ink, appearing to read "Robert C. Collett", written over a horizontal line.

Robert C. Collett

Managing Member

A handwritten signature in blue ink, appearing to read "John Cheek", written over a horizontal line.

John Cheek

Consultant to Collett as an agent for Sooner Town Center, LLC

A handwritten signature in blue ink, appearing to read "Katherine Fox", written over a horizontal line.

Katherine Fox

Chief Financial Officer of Collett as an agent for Sooner Town Center, LLC

MIDWEST CITY ECONOMIC DEVELOPMENT AUTHORITY

---

Mathew D. Dukes, II Chairman



Consolidated Financial Statements and Report of  
Independent Certified Public Accountants

**Sooner Town Center, LLC**

December 31, 2018 and 2017

# Table of contents

Report of Independent Certified Public Accountants	1-2
Consolidated financial statements:	
Balance sheets	3
Statements of operations	4
Statements of changes in members' deficit	5
Statements of cash flows	6
Notes to consolidated financial statements	7-13
Supplementary information:	
Schedule I – Net operating income	14
Schedule II – Debt service	15
Schedule III – Net cash flow	16
Schedule IV – Subtenant rents	17

GRANT THORNTON LLP  
201 S College St., Suite 2500  
Charlotte, NC 28244

D +1 704 632 3500  
F +1 704 334 7701

## REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Members of  
Sooner Town Center, LLC

We have audited the accompanying consolidated financial statements of **Sooner Town Center, LLC** (an Oklahoma limited liability company) which comprise the consolidated balance sheets as of December 31, 2018 and 2017, and the related consolidated statements of operations, changes in members' deficit, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

### **Management's responsibility for the financial statements**

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



**Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Sooner Town Center, LLC as of December 31, 2018 and 2017, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

**Supplementary information**

Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The supplementary information included in Schedules I through IV is presented for purposes of additional analysis and is not a required part of the consolidated financial statements. Such supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audits of the consolidated financial statements and certain additional procedures. These additional procedures included comparing and reconciling the information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

GRANT THORNTON LLP (signed manually)

Charlotte, North Carolina  
May 28, 2019

# Consolidated balance sheets

December 31	2018	2017
	\$	\$
<b>Assets</b>		
<b>Real property, at cost:</b>		
Buildings and building improvements	31,202,089	31,128,589
Land improvements and signage	13,217,019	13,217,019
	44,419,108	44,345,608
Less – Accumulated depreciation	(19,406,742)	(17,820,884)
Real property, net	25,012,366	26,524,724
<b>Other assets:</b>		
Cash	918,368	549,601
Restricted cash	5,490,993	998
Accounts receivable	281,351	243,515
Security deposit trust account	49,025	53,286
Deferred rent receivable	556,278	576,000
Deferred charges and other assets, net	1,081,282	1,149,048
Total assets	33,389,663	29,097,172
<b>Liabilities and members' deficit</b>		
<b>Liabilities:</b>		
Unearned rent	141,582	121,122
Notes payable net of deferred loan costs (\$1,957,703 at December 31, 2018 and \$51,880 at December 31, 2017, respectively)	47,197,297	40,010,959
Notes payable - Short term	-	2,000,000
Note payable to members and affiliates	1,000	1,000
Accounts payable and accrued expenses	1,024,110	772,353
Security deposits	49,025	53,286
Total liabilities	48,413,014	42,958,720
<b>Members' deficit</b>	(15,023,351)	(13,861,548)
Total liabilities and members' deficit	33,389,663	29,097,172

The accompanying notes are an integral part of these consolidated financial statements.

# Consolidated statements of operations

For the years ended December 31	2018	2017
	\$	\$
<b>Rental revenues</b>	7,271,633	7,061,767
<b>Operating expenses:</b>		
Common area maintenance	570,318	609,017
Repairs and other operating expenses	1,017,465	44,108
Taxes and insurance	595,992	611,947
Administrative	113,016	416,284
Rent expense	1,224,330	1,181,181
Property management fees	270,935	268,222
Depreciation and amortization	1,946,994	1,933,356
Total operating expenses	5,739,050	5,064,115
<b>Other income (expense):</b>		
Interest income	64,313	6,909
Interest expense	(2,354,314)	(2,481,733)
<b>Net loss</b>	(757,418)	(477,172)

The accompanying notes are an integral part of these consolidated financial statements.

## Consolidated statements of changes in members' deficit

	<b>Total Members' Deficit</b>
	<b>\$</b>
<b>Members' deficit, December 31, 2016</b>	(12,869,573)
Net loss	(477,172)
Distributions	(514,803)
<b>Members' deficit, December 31, 2017</b>	(13,861,548)
Net loss	(757,418)
Distributions	(404,385)
<b>Members' deficit, December 31, 2018</b>	(15,023,351)

The accompanying notes are an integral part of these consolidated financial statements.

# Consolidated statements of cash flows

For the years ended December 31	2018	2017
	\$	\$
<b>Cash flows from operating activities:</b>		
Net loss	(757,418)	(477,172)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation	1,585,858	1,595,053
Amortization	361,136	338,303
Repairs and maintenance funded from lender mandated escrow	(1,300,000)	-
Changes in operating assets and liabilities:		
Accounts receivable	(37,836)	9,381
Note receivable from related party	-	(60,000)
Deferred rent receivable	19,722	17,775
Deferred charges and other assets	(185,558)	(117,678)
Accounts payable and accrued expenses	251,757	182,898
Unearned rent	20,460	60,263
Net cash provided by operating activities	(41,879)	1,548,823
<b>Cash flows from investing activities:</b>		
Additions to buildings and improvements	(73,500)	-
Net cash used in investing activities	(73,500)	-
<b>Cash flows from financing activities:</b>		
Repayments on notes payable	(40,062,839)	(3,017,296)
Cash paid for deferred loan costs	(2,013,635)	(81,825)
Proceeds from note payable	49,155,000	-
Funding to lender mandated escrows	(4,189,995)	-
Short term borrowings on note payable	-	2,113,488
Payments on short term notes payable	(2,000,000)	-
Member distributions	(404,385)	(514,803)
Net cash used in financing activities	484,146	(1,500,436)
<b>Net increase in cash</b>	368,767	48,387
<b>Cash, beginning of year</b>	549,601	501,214
<b>Cash, end of year</b>	918,368	549,601
<b>Supplemental disclosures of cash flow information:</b>		
Cash paid for interest	1,697,354	2,489,745

The accompanying notes are an integral part of these consolidated financial statements.

# Notes to consolidated financial statements

## 1 Summary of Organization and Significant Accounting Policies

### **Organization**

Sooner Town Center, LLC (an Oklahoma limited liability company) (STC) (the Company) was organized in June 2002 for the purpose of acquiring, developing and leasing commercial properties in Oklahoma. STC develops and operates a retail center (the Project) located in Midwest City, Oklahoma (the City). The Project is defined by a redevelopment agreement between the City and STC as authorized by the Oklahoma Local Development Act. Under the terms of the agreement, the City leases the Project land to STC under two ground leases. The City is considered to be a related party for financial reporting purposes. STC is responsible for the design, construction, financing, leasing and management of the Project, all subject to City approval. Income and loss will be allocated to members in accordance with the operating agreement.

In September 2007, STC distributed its interest in the portion of the Project leased to Lowe's to a related party under common control, STC Lowe's, LLC (STC Lowe's). On February 28, 2018, STC Lowe's transferred all interest in the Lowe's project including the Anchor Ground lease (described in Note 3) along with related contracts and improvements back to STC. As a result of the transfer, STC Lowe's has no remaining assets. The STC Lowe's interests transferred were under common control as STC and were recorded at historical costs at the date of the transfer. Accordingly, the financial statements of the Company include the activity and operations of STC Lowe's from January 1, 2017.

On December 31, 2017, the interests of Sooner Town Center III, LLC (STC III) were contributed to STC. STC III is in the same business and geography as STC. The STC III interests contributed were under common control as STC and were recorded at historical costs at the date of the transfer. Accordingly, the financial statements of the Company include the activity and operations of STC III from January 1, 2017.

### **Cash and Cash Equivalents**

The Company classifies highly liquid investments with original maturity dates of three months or less as cash equivalents.

### **Restricted Cash**

The Company maintained restricted cash balances of \$5,490,993 and \$998 as of December 31, 2018 and 2017, respectively. Historically, the balance has consisted of utility deposits of \$998. However, the Company entered into a new debt agreement (described in Note 2) which required additional funds held in escrow.

### **Concentration of Credit Risk**

The Company's operating property is located in Midwest City, Oklahoma. The Company's ability to generate future revenues is dependent upon the economic conditions within this area.

The Company's tenants engage in a wide variety of businesses. One tenant accounted for 10% of total revenue for each of the years ended December 31, 2018 and 2017. No tenant accounted for more than 10% of accounts receivable as of December 31, 2018 or 2017.

The Company maintains its cash in a commercial bank. Substantially all of the Company's cash and cash equivalents are held in noninterest-bearing accounts. Regularly during the year, the Company maintained cash and cash equivalents in accounts in excess of the amount insured by the Federal Deposit Insurance Corporation. The Company's management regularly monitors the financial stability of these financial institutions.

## Revenue Recognition

Rental revenue is generally recognized based on the terms of tenant leases. Rental revenue from leases with scheduled rent increases, incentives or abatements is recognized on a straight-line basis over the noncancelable term of the respective leases. Property operating cost recoveries from tenants for common area maintenance, real estate taxes and other recoverable costs totaled \$1,178,327 and \$1,169,926 for the years ended December 31, 2018 and 2017, respectively, are recognized in the period in which the related expenses are incurred, and are included in rental revenues in the accompanying consolidated statements of operations. Receivables relating to these recoveries totaled \$281,351 and \$243,515 as of December 31, 2018 and 2017, respectively, and are recognized as accounts receivable on the accompanying consolidated balance sheets. Interest income is recognized as it is earned. If it becomes probable a tenant will fail to perform according to the terms of the lease, a loss equal to the accrued rental revenue unlikely to be received from that tenant would be charged to operations.

Rental revenue received in advance from tenants is recognized as unearned rent on the accompanying consolidated balance sheets. Unearned rent as of December 31, 2018 and 2017 was \$141,582 and \$121,122, respectively.

The aggregate excess of rental revenue recognized on a straight-line basis over rents due in accordance with the provisions of the leases was \$556,278 and \$576,000 at December 31, 2018 and 2017, respectively.

The Project consists of 627,117 square feet of retail space and 13 outparcel sites and was completed in 2015. At December 31, 2018, tenants occupying 623,967 square feet and 13 of the outparcel sites were operating under noncancelable leases providing for future minimum rents of \$31,100,383.

Future minimum rents receivable under noncancelable leases for all known tenants at December 31, 2018, are as follows. Most leases have renewal options, which are not included below.

	<b>Amount</b>
	<b>\$</b>
<b>2019</b>	5,788,761
<b>2020</b>	5,430,645
<b>2021</b>	5,080,073
<b>2022</b>	4,075,974
<b>2023</b>	2,523,246
<b>Thereafter</b>	8,201,684
	<b>31,100,383</b>

Rent and receivables are reported at their estimated net realizable value. When necessary, the Company provides an allowance for doubtful accounts based upon a review of outstanding receivables, historical collection information and existing economic conditions. Past due status is based on the contractual terms of the receivables. Rent and receivables are written off based on individual credit evaluation and specific circumstances of the customer. Management has concluded that all of the Company's accounts receivable amounts will be realizable and, accordingly, has not recorded an allowance for doubtful accounts at December 31, 2018 and 2017.

## Real Property

Buildings and building improvements are stated at cost and depreciated using the straight-line method over the estimated useful life of 39 years. Land improvements and signage are depreciated using an accelerated method of depreciation over the useful life of the assets, usually 15 years. Direct and indirect costs that relate to land development and building construction are capitalized. Costs are allocated to Project components by the specific identification method whenever possible. Otherwise, costs are allocated based on square footage or acreage.

Depreciation on real property charged to operations was \$1,585,858 and \$1,595,053 for the years ended December 31, 2018 and 2017, respectively.

Repairs are charged against operations. Renewals and betterments that materially extend the life of an asset are capitalized.

The Company reviews the real property for impairment whenever events or changes in circumstances indicate that the carrying amount of the real property may not be recoverable. Recoverability of the real property is measured by a comparison of the carrying amount of the real property to undiscounted future net cash flows expected to be generated by the real property. If the real property is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the real property exceeds its fair value. No impairment was recognized for the years ended December 31, 2018 and 2017.

### **Deferred Charges and Other Assets**

Deferred charges consist of lease commissions and lease costs, and are stated at cost net of accumulated amortization. At December 31, 2018 and 2017, total deferred charges capitalized were \$4,252,247 and \$4,069,642, respectively, with accumulated amortization of \$3,299,103 and \$3,045,779, respectively. The lease commissions and lease costs are amortized on the straight-line method over the terms of the respective leases. Lease commission and lease costs amortization expense of \$253,324 and \$224,285 is included in depreciation and amortization in the accompanying consolidated statements of operations for the years ended December 31, 2018 and 2017, respectively.

Deferred charges and other assets also include \$128,138 and \$125,185 of prepaid expenses at December 31, 2018 and 2017, respectively.

### **Income Taxes**

The Company is a limited liability company treated as a partnership for federal and state income tax purposes. As a result, the Company's results of operations are included in the income tax returns of its individual members. Accordingly, no provision for federal or state income taxes has been recorded in the accompanying consolidated financial statements.

The Company follows applicable authoritative guidance on accounting for uncertainty in income taxes which, among other things, prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return, and provides guidance on derecognition, classification, interest and penalties, accounting in interim periods and disclosure. The Company has no uncertain tax positions.

### **Use of Accounting Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

### **Recent Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (the FASB) issued ASU No. 2014-09, "Revenue from Contracts with Customers." This new standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. The core principle of the new standard is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In July 2015, the FASB approved a one-year deferral of the revenue recognition standard's effective date for all entities, changing the effective date to fiscal years beginning after December 31, 2018 and interim periods within fiscal years beginning after December 15, 2019. Early application is permitted. The guidance permits the use of



either a retrospective or cumulative effect transition method. The Company has not yet selected a transition method and the Company is evaluating the effect the new standard will have on the financial statements and related disclosures.

Subsequent to the issuance of ASU No. 2014-09, the FASB has issued several ASUs such as ASU No. 2016-08, “Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)”, ASU No. 2016-10, “Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing,” and ASU No. 2016-12, “Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients,” among others. These ASUs do not change the core principle of the guidance stated in ASU No. 2014-09, instead these amendments are intended to clarify and improve operability of certain topics included within the revenue standard. These ASUs will have the same effective date and transition requirements as ASU No. 2014-09. The Company is evaluating the method and impact the adoption of these ASUs will have on the Company’s financial statements and related disclosures.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842).” This new standard was issued to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and increasing disclosures regarding leasing arrangements. The new standard is effective for fiscal years beginning after December 15, 2019 and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted. The new standard requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. The Company is evaluating the effect that the adoption of the new standard will have on the financial statements and related disclosures.

In August 2016, the FASB issued ASU No. 2016-15, “Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments.” This new standard was issued to reduce the existing diversity in practice in financial reporting across all industries by clarifying certain existing principles in ASC 230, Statement of Cash Flows, including providing additional guidance on how and what an entity should consider in determining the classification of certain cash flows. In addition, in November 2016, the FASB issued ASU No. 2016-18, “Statement of Cash Flows (Topic 230), Restricted Cash.” This new standard was issued to clarify certain existing principles in ASC 230, including providing additional guidance related to transfers between cash and restricted cash and how entities present, in their statement of cash flows, the cash receipts and cash payments that directly affect the restricted cash accounts. These new standards are effective for fiscal years beginning after December 15, 2018, and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company is evaluating the effect that the adoption of the new standard will have on the financial statements and related disclosures.

### **Reclassifications**

Certain prior period items reported in the comparative 2017 financial statements have been reclassified to conform to the current period presentation. The reclassifications have no material impact on the members’ deficit or net loss recorded.

## **2 Notes Payable**

Notes payable outstanding at December 31 consisted of:

<b>December 31</b>	<b>2018</b>	<b>2017</b>
	<b>\$</b>	<b>\$</b>
Principal balance	49,155,000	40,062,839
Less unamortized deferred loan costs	(1,957,703)	51,880
<b>Notes payable less unamortized deferred loan costs</b>	<b>47,197,297</b>	<b>40,010,959</b>

On February 28, 2018, the Company entered into a Loan Agreement (the Loan) with the Midwest City Economic Development Authority (MWCEDA) in the amount of \$49,155,000. The MWCEDA is a public trust created for the benefit of the City, for the purpose of issuing Series 2018 Economic Development Revenue Bonds (Bonds), the proceeds of which were used to fund the Loan to the Company. Proceeds of the Loan were used to 1) repay all the Company's existing debt, 2) fund certain reserves defined in the Loan Agreement and 3) pay the cost of issuing the Bonds.

All the Company's assets are pledged to the MWCEDA as collateral for the Loan under a Leasehold Mortgage and Assignment of Rents. Additionally, the City conveyed all Project land and assigned the leases described in Note 3 to the MWCEDA. The MWCEDA in turn pledged the Leasehold Mortgage, Project land and leases as collateral for the Bonds. Payments required under the Loan Agreement mirror the Bonds repayment schedule. The City has provided additional collateral in the form of a guaranty by the Midwest City Municipal Authority, lessee and operator of the City water and sewer systems, of any shortfall in Loan payments. The Company pays the City a Credit Enhancement Fee equal to 0.5% of the outstanding Bonds balance as defined, as compensation for the additional collateral provided by the City.

Loan payment terms specify that the annual payment be an amount sufficient to fund the Bonds repayment schedule, the Credit Enhancement Fee, administrative expenses and maintain certain escrow balances as defined in the Loan Agreement. The Bonds are administered by a Trustee appointed by the MWCEDA. The Trustee provides the Company with an annual payment amount required to fund the Bonds obligation which the Company remits to the Trustee in twelve equal installments. The effective interest rate of the Bonds issued is 4.94% and the Company incurred interest expense of \$1,955,105 in 2018 applicable to the Loan. Interest incurred in 2018 on the previous debt, prior to refinancing, was \$399,209. Scheduled future Bonds principal payments are the following:

	<b>Amount</b>
	<b>\$</b>
<b>2019</b>	795,000
<b>2020</b>	910,000
<b>2021</b>	935,000
<b>2022</b>	965,000
<b>2023</b>	995,000
<b>Thereafter</b>	44,555,000
	<b>49,155,000</b>

Escrow and reserve balances required by the Bonds Indenture total \$5,489,995 at December 31, 2018 and are included in Restricted Cash on the balance sheet.

The Loan Agreement requires, among other things, that the Company maintain a debt Coverage Ratio of 1.20. If this is not achieved, the Company must make additional payments to a Supplemental Reserve fund maintained by the Bonds Trustee. The coverage is tested annually for the twelve months ending January 31, and the Company was in compliance for the January 31, 2019 testing period.

Loan costs consist of various debt issuance costs and are amortized on the straight-line method, which approximates the effective interest method, based on terms of the respective debt agreements. The Company's loan costs total \$2,013,635 and \$841,596 as of December 31, 2018 and 2017, respectively, with accumulated amortization totaling \$55,932 and \$789,716 as of December 31, 2018 and 2017, respectively. Loan cost amortization expense of \$107,812 and \$114,018 is included in depreciation and amortization in the accompanying consolidated statements of operations for the years ended December 31, 2018 and 2017.

### 3 Leases

Sooner Town Center, LLC leases the Project land from the City under two ground leases, designated anchor and general. Both leases have terms commencing on June 1, 2004, with rent commencement on February 12, 2006, and expiring on October 31, 2062. Subsequent to rent commencement, the anchor ground lease rent is \$510,000 annually. The general ground lease provides for three tiers of rent – general ground rent of \$1 per year, preferred rent of \$305,000 annually, payable to the extent of net operating income in excess of debt service as defined in the redevelopment agreement, and participation rent equivalent to 50% of net operating income in excess of debt service remaining after payment of preferred rent. Preferred rent is cumulative after the Project is 50% leased. To the extent that calculated preferred rent payable is less than \$305,000, the difference is accrued and is payable when future net operating income in excess of debt service is sufficient. Participation rent expense totaled \$409,330 and \$366,182 for the years ended December 31, 2018 and 2017, respectively. Total rental expense totaled \$1,224,330 and \$1,181,181 for the years ended December 31, 2018 and 2017, respectively. Rent expense incurred and unpaid totaled \$161,263 and \$156,316 as of December 31, 2018 and 2017, respectively, and is included in accounts payable and accrued expenses on the accompanying consolidated balance sheets.

### 4 Related-party Transactions and Balances

Collett Management, LLC (Collett), an affiliated property management company, provides management and brokerage services to the Company. Collett receives a monthly fee of 4% of gross monthly collections, net of anchor ground lease rent, for providing property management services. Such fees totaled \$270,935 and \$268,222 for the years ended December 31, 2018 and 2017, respectively. Additionally, tenant security deposits are held in a trust account maintained by Collett, consistent with industry practice and regulatory requirements. Amounts due under this arrangement are recognized as security deposit trust account and totaled \$49,025 and \$53,286 as of December 31, 2018 and 2017, respectively. The Company paid nominal amounts for various expense reimbursements to Collett for both years ended December 31, 2018 and 2017.

Sooner Investment Realty (SIR), an affiliated entity, provides leasing services to the Company. The Company paid \$105,509 and \$120,484 in leasing commissions to SIR for the years ended December 31, 2018 and 2017, respectively.

The Company paid \$20,537 and \$35,403 in utilities expense to the City for the years ended December 31, 2018 and 2017, respectively.

The Company subleases part of the Project land to Sooner Town Center II, LLC (STC II), a related party. The lease commenced on July 19, 2012, with rent commencement on October 31, 2012. The lease expires on October 31, 2062, with a five-year renewal option. Annual rent for the first 10 years is \$45,000. The monthly rent amount increases by 10% on the 10<sup>th</sup> anniversary of the commencement date, and every five years thereafter. Straight-line rental income for this lease totaled \$65,609 for the years ended December 31, 2018 and 2017. These amounts are included in the future minimum rents receivable schedule included in Note 1.

As described in Note 2, on February 28, 2018, the Company entered into a Loan Agreement with MWCEDA, a related party. As of December 31, 2018, the Company has an outstanding loan principal balance with MWCEDA of \$49,155,000. The Company incurred interest expense of \$1,955,105 related to this Loan during the year ended December 31, 2018.

5 Subsequent Events

The Company has analyzed its operations subsequent to December 31, 2018 through \_\_\_\_\_, the date the financial statements were available to be issued.

## Supplementary information

# Schedule I – Net operating income

For the years ended December 31	2018
	\$
Rental revenues	7,271,633
Less - Anchor ground lease revenue up to related expense	(510,000)
<b>Rental revenues excluding anchor tenant</b>	<b>6,761,633</b>
Adjustments to cash basis:	
Deferred rent receivable, net	(1,995)
Common area maintenance receivable	(41,465)
Unearned rent	20,460
<b>Gross operating revenue (subtenant rents)</b>	<b>6,738,633</b>
Operating expenses:	
Operating expenses	5,739,049
Less - Anchor tenant rent expense	(510,000)
Plus - Additions to project development costs	256,107
Plus - STC III project development cost funded from cash flow	382,306
<b>Operating expenses, net</b>	<b>5,867,462</b>
Adjustments for non-cash expenses:	
Depreciation and amortization	(1,946,994)
Other adjustments:	
Interest Income	(64,313)
Preferred rent, accrued or paid	(305,000)
Participation rent, accrued or paid	(409,330)
<b>Operating expenses</b>	<b>3,141,825</b>
<b>Net operating income</b>	<b>3,596,808</b>

## Schedule II – Debt service

For the years ended December 31	2018
	\$
<b>Debt service:</b>	
Interest expense on debt	2,354,314
Debt principal payments	377,152
Loan modification expense	9,963
Net change in bond escrows	(268,282)
Total debt service	2,473,147

## Schedule III – Net cash flow

For the years ended December 31	2018
	\$
Net operating income	3,596,808
Less - debt service	(2,473,147)
<b>Net cash flow</b>	<b>1,123,661</b>
Plus - reduction in cash reserve	-
Less - preferred rent	(305,000)
Less - general ground lease	(1)
<b>Net cash flow, after preferred rent and general ground lease</b>	<b>818,660</b>
Participation rent factor	50%
<b>Participation rent</b>	<b>409,330</b>



## Schedule IV – Subtenant rents

<b>For the years ended December 31</b>	<b>2018</b>	
	<b>\$</b>	
Subtenant rents, excluding the anchor ground lease	6,738,633	
Total subtenant rents (cash basis)	6,738,633	



EXECUTIVE SESSION





**Economic Development**  
100 N. Midwest Blvd.  
Midwest City, OK 73110  
rcoleman@midwestcityok.org  
Office: 405-739-1218  
www.midwestcityok.org

MEMORANDUM

TO: Honorable Chairman and Trustees

FROM: Robert Coleman, Economic Development Director

DATE: May 28, 2019

SUBJECT: Discussion and consideration of 1) entering into executive session, as allowed under 25 O.S. § 307(C)(11), to confer on matters pertaining to economic development, including the transfer of property, financing or the creation of a proposal to entice a business to remain or to locate within the City; and 2) in open session, authorizing the city manager to take action as appropriate based on the discussion in executive session.

---

Appropriate information will be dispersed during executive session.

Robert Coleman, Economic Development Director



NEW BUSINESS/  
PUBLIC DISCUSSION

