



**SITE LEGEND**

- PROPERTY LINE
- EASEMENT
- CURB AND GUTTER
- ASPHALT
- OHE EXISTING OVERHEAD ELECTRIC
- UGE EXISTING UNDERGROUND ELECTRIC
- SS EXISTING SANITARY SEWER
- W EXISTING WATER
- GAS EXISTING GAS
- SD EXISTING STORM SEWER
- 699 EXISTING CONTOUR
- EXISTING DRAINAGE PATH
- EXISTING DRAINAGE AREA
- EXISTING FLOW ARROW
- ◆ EX-1 ZONE OF INFLUENCE
- EX-1 DRAINAGE AREA NAME
- 1.31 AC. ACREAGE OF DRAINAGE AREA

**PROPOSED DRAINAGE CALCULATIONS**

AREA NO.	ACRES	RUNOFF COEFF.	Ca	CCaA	TC (min)	I5 (in/hr)	Q5 (cfs)	Notes
A-1	1.54	0.61	1.00	0.94	10	6.00	5.62	DRAINS TO ZOI-1
Total	1.54						5.62	

AREA NO.	ACRES	RUNOFF COEFF.	Ca	CCaA	TC (min)	I10 (in/hr)	Q10 (cfs)	Notes
A-1	1.54	0.61	1.00	0.94	10	6.60	6.18	DRAINS TO ZOI-1
Total	1.54						6.18	

AREA NO.	ACRES	RUNOFF COEFF.	Ca	CCaA	TC (min)	I25 (in/hr)	Q25 (cfs)	Notes
A-1	1.54	0.61	1.10	1.03	10	7.60	7.83	DRAINS TO ZOI-1
Total	1.54						7.83	

AREA NO.	ACRES	RUNOFF COEFF.	Ca	CCaA	TC (min)	I50 (in/hr)	Q50 (cfs)	Notes
A-1	1.54	0.61	1.20	1.12	10	8.40	9.44	DRAINS TO ZOI-1
Total	1.54						9.44	

AREA NO.	ACRES	RUNOFF COEFF.	Ca	CCaA	TC (min)	I100 (in/hr)	Q100 (cfs)	Notes
A-1	1.54	0.61	1.25	1.17	10	9.00	10.54	DRAINS TO ZOI-1
Total	1.54						10.54	

**DRAINAGE SUMMARY TABLE**

Downstream Zone of Influence						
ZOI	SITE CONDITIONS	Q5-YR (cfs)	Q10-YR (cfs)	Q25-YR (cfs)	Q50-YR (cfs)	Q100-YR (cfs)
ZOI-1	PRE-DEVELOPMENT	4.15	4.56	5.78	6.97	7.77
ZOI-1	POST-DEVELOPMENT	5.62	6.18	7.83	9.44	10.54
	DELTA	1.48	1.62	2.06	2.48	2.76
	% INCREASE	35.58%	35.58%	35.58%	35.58%	35.56%

**FLOOD PLAIN NOTE:**  
ACCORDING TO THE INFORMATION SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) "FLOOD INSURANCE RATE MAP" (FIRM), COMMUNITY PANEL NO. 48251C0350J, REVISED DECEMBER 04, 2012, NONE OF THIS PROPERTY APPEARS TO LIE WITHIN THE "SPECIAL FLOOD HAZARD AREA (SFHA)" - AS DEFINED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, FEDERAL INSURANCE ADMINISTRATION, OR THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

NOTE:  
CONTRACTOR TO CALL TEXAS 811 PRIOR TO ANY ON-SITE EXCAVATION. CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES, BOTH THOSE SHOWN AND NOT SHOWN ON THESE PLANS, PRIOR TO BEGINNING ANY CONSTRUCTION/EXCAVATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY. EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON A COMBINATION OF FIELD SURVEY DATA, UTILITY OWNER RECORD DRAWINGS.

REVISIONS

#	REVISION	DATE

DEVELOPER/OWNER:  
ROBERT TATE  
2824 W. 7TH  
STREET/SUITE 100  
FORT WORTH, TX 76107

POST-DEVELOPMENT  
DRAINAGE AREA  
MAP

1.535 ACRES COMMERCIAL  
DEVELOPMENT OUT OF THE  
DAVIS ADDITION  
LOT 32R1, BLOCK 5  
802 E. CRINER STREET  
CITY OF GRANDVIEW  
JOHNSON COUNTY, TEXAS

**HANNA SURVEYING & ENGINEERING LLC.**  
ENGINEERING FIRM NUMBER F-22119  
SURVEYING FIRM NUMBER 10194633  
SAM@HANNA-SE.COM

**HANNA SURVEYING AND ENGINEERING, LLC.**  
11729 E FM 917  
ALBUQUERQUE, TX 76009  
(682) 553-9474

STATE OF TEXAS  
SAMUEL C. HANNA  
109945  
REGISTERED PROFESSIONAL ENGINEER  
AUGUST 14, 2024

ISSUE DATE:  
JUNE 14, 2024

PROJECT NO.:  
23-788

SHEET NUMBER  
C-3.1

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