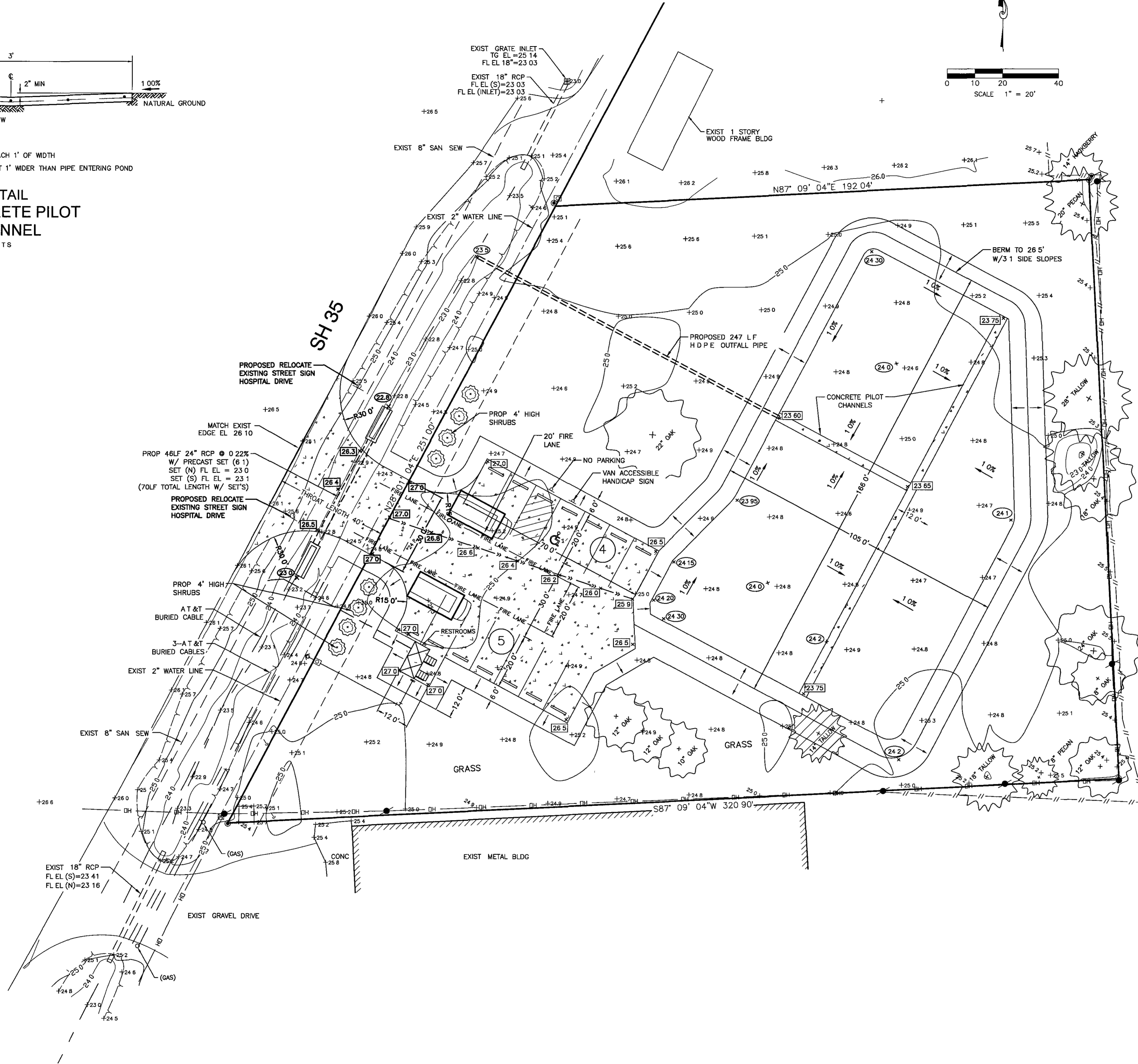


**NOTES**

- 1 1" DEPRESSION FOR EACH 1' OF WIDTH
- 2 WIDTH TO BE AT LEAST 1' WIDER THAN PIPE ENTERING POND

**DETAIL  
4" CONCRETE PILOT  
CHANNEL**

NTS



**DETENTION CALCULATIONS**

**PREDEVELOPMENT FLOW RATE CALCULATION (2-YEAR STORM)**  
 $Q2 = CIA \times 1.00 \text{ PK}$   
 $C = 0.65$   
 $TC = 10 \text{ MIN}$   
 $A = \text{FRONTAGE} \times 150 \text{ FT} = 0.8643 \text{ AC}$   
 $I2 = 5.358 \text{ IN/HR}$   
 $Q2 = 0.65 \times 5.358 \times 0.8643 \times 1.00 \text{ PK} = 3.01 \text{ CFS (RESTRICTOR FLOW)}$

**PROPOSED CONDITION 100-YEAR STORM**  
 $\text{AREA DEVELOPED} = 1.268 \text{ ACRES}$   
 $Q = CIA$   
 $C = 0.45$   
 $TC = 10 \text{ MIN (SEE NCRS EQUATION)}$   
 $I100 = 12.357 \text{ IN/HR}$   
 $Q100 = 0.45 \times 12.357 \times 1.2685 = 7.051 \text{ CFS}$

**DETENTION REQUIRED = 15,202.44 CF = 0.349 AC-FT**

**DETENTION POND INFORMATION**

**POND (GRAVITY POND)**  
 $\text{TOP OF BANK ELEV} = 26.5'$   
 $\text{AREA @ 100-YEAR WSEL} = 25.1' = 14,740.12 \text{ SF}$   
 $\text{FREEBORD} = 1.40'$   
 $\text{TOP OF BANK ELEV} = 24.0'$   
 $\text{AREA AT TOE OF BANK} = 13,476.06 \text{ SF}$   
 $\text{AVERAGE AREA} = 14,108.12 \text{ SF}$   
 $\text{DEPTH} = 1.10'$   
 $\text{STORAGE} = 15,518.93 \text{ CF} = 0.356 \text{ AC-FT}$   
 $\text{DETENTION PROVIDED} = 15,518.93 \text{ CF} = 0.356 \text{ AC-FT}$

**10-YEAR STORAGE CALCULATIONS**

**PREDEVELOPMENT FLOW RATE CALCULATION (2-YEAR STORM)**  
 $Q2 = CIA \times 1.00 \text{ PK}$   
 $C = 0.65$   
 $TC = 10 \text{ MIN}$   
 $A = \text{LF FRONTAGE} \times 150 \text{ FT} = 0.8643 \text{ AC}$   
 $I2 = 5.358 \text{ IN/HR}$   
 $Q2 = 0.65 \times 5.358 \times 0.8643 \times 1.00 \text{ PK} = 3.01 \text{ CFS (RESTRICTOR FLOW)}$

**PROPOSED CONDITION 10-YEAR STORM**  
 $C = 0.45$   
 $TC = 10 \text{ MIN (SEE NCRS EQUATION)}$   
 $I10 = 8.123 \text{ IN/HR}$   
 $A = 1.2685 \text{ ACRES}$   
 $Q10 = 0.45 \times 8.123 \times 1.2685 = 4.637 \text{ CFS}$

**10-YR VOLUME = 5,052.96 CF = 0.116 AC-FT**

NO	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED DR  
 DRAWN CAP  
 CHECKED \_\_\_\_\_  
 DATE 10/28/2022

**B & L**  
**BAKER & LAWSON, INC**  
 ENGINEERS • PLANNERS • SURVEYORS  
 300 E CEDAR ST. ANGLETON, TEXAS 77515  
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 REG NO F-825

STATE OF TEXAS  
 DOUGLAS B ROESLER  
 56739  
 REGISTERED  
 PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Douglas B Roesler P.E. 56739  
 Date 10-28-22

OWNER  
**Mr. JOSE CALZADA**  
**TITAN CONTROLS**  
 20042 FM 523  
 ANGLETON, TEXAS 77515  
 jose.calzada@titan-controls.com

PLAN 1" = 20'  
 PROFILE \_\_\_\_\_  
 HORIZONTAL \_\_\_\_\_  
 VERTICAL \_\_\_\_\_

**TITAN SNOW CRUSH/FOOD TRUCK**  
**EAST MULBERRY (SH 35)**  
**ANGLETON, TEXAS**  
**(1.268 Acre Tract)**

GRADING PLAN  
 &  
 DETENTION POND DETAILS  
 PROJECT NO 14688