Composite Outlet Structure Detailed Report: Composite Outlet E

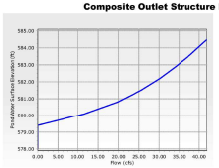
Element Details			
Label	Composite Outlet E	Notes	
Headwater Range			
Headwater Type	Use Pond for Headwater Range	Increment (Headwater)	0.70 ft
Pond Minimum (Headwater)	Basin E 578.00 ft	Maximum (Headwater)	584.50 ft
Spot Elevation (ft)			
Tailwater Setup			
Tailwater Type	Interconnected Ponds	Increment (Tailwater)	0.80 ft
Minimum (Tailwater)	579.74 ft	Maximum (Tailwater)	579.74 ft
Spot Elevation (ft)			
Tailwater Tolerances			
Maximum Iterations	30	Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft	Flow Tolerance (Minimum)	0.001 ft/s
Headwater Tolerance (Maximum)	0.50 ft	Flow Tolerance (Maximum)	10.000 ft/s
Tailwater Tolerance (Minimum)	0.01 ft		
Outlet Structure			
Outlet Structure Type	Orifice	Elevation	578.00 ft

TOTAL WATER TANK WITHIN
LOT = VILLANUEVA ENG • PHASE 3B
STA. 14+04.71 LT, 115.01
EX. CA. CURB INLET
30" CM 0.20% SLOPE
D100 = 49.40 CFS
FL 30" OUT = 576.11
HG = 579.74

Composite Outlet Structure Detailed Report: Composite Outlet E

Outlet Structure			
Flow Direction	Forward Flow Only	Orifice Orientation	Perpendicular Orifice
Number of Openings	1	Datum Elevation	578.00 ft
Orifice Coefficient	0.600	Top Elevation	580.00 ft
Outlet Structure (IDs and Direction)			
Outlet ID	Orifice - 1	Notes	
Downstream ID	Tailwater		
Outlet Structure (Advanced)			
Elevation (On)	0.00 ft	Elevation (Off)	0.00 ft
Outlet Structure (Orifice)			
Orifice Type	Area Orifice	Orifice Area	4.0 ft

Composite Outlet Structure Detailed Report: Composite Outlet E



BASIN DATA

Basin E

<General>			
ID	155	Notes	
Label	Basin E	hyperlinks	<Collection: 0 items>
GIS-IDs			
GIS-ID			
<Geometry>			
Scaled Area	0.008 acres		

Geometry

X (ft)	Y (ft)
46.42	16.78
49.47	30.56
37.32	37.72
26.75	28.37
32.37	15.43

Active Topology			
Is Active?	True		
Infiltration/Inflow & Seepage			
Pond Seepage Method	None		
Inflow (Wet) Collection			
Physical			
Volume Type	Elevation-Area		

Elevation-Area

Elevation (ft)	Area (acres)	Percent Void Space (%)
571.00	0.001	100.0
579.00	0.148	100.0
580.00	0.677	100.0
581.00	1.201	100.0
582.00	1.518	100.0
583.00	1.522	100.0
584.50	1.583	100.0

Simulation Initial Condition			
Initial Elevation Type	Invert		

BASIN DATA (cont.)

Basin E

Results (Engine Parsing)			
Branch	2		
Results (Extended Node)			
Volume	0.0 gal	Freeboard Height	6.5 ft
Depth (Flooding)	-6.50 ft		
Results (Flow)			
Flow (Total In)	0.00 cfs	Local Inflow?	False
Flow (Total Out)	0.00 cfs	Flow (Local from Inflow Collection)	0.00 cfs
Results			
Is Overflowing?	False	Time to Maximum Outflow	12.550 hours
Is Ever Overflowing?	False	Time to Maximum Inflow	12.125 hours
Depth (Node)	0.00 ft	Flow (Out to Links Maximum)	39.11 cfs
Hydraulic Grade	578.00 ft	Flow (Total In Maximum)	138.31 cfs
Time to Maximum Hydraulic Grade	12.525 hours	Flow (Overflow)	0.00 cfs
Hydraulic Grade (Maximum)	582.92 ft	Time to Maximum Storage	12.525 hours
Time to Maximum Overflow	0.000 hours	Storage (Maximum)	1,295,288.9 gal
Flow (Overflow Maximum)	0.00 cfs	Flow (Seepage loss)	0.00 cfs

Calculation Messages

Time (hours)	Message

DRAINAGE AREA DATA

E

<General>			
ID	155	Notes	
Label	E	hyperlinks	<Collection: 0 items>
GIS-IDs			
GIS-ID			
<Geometry>			
Scaled Area	0.029 acres	Area (User Defined)	17.600 acres
Use Scaled Area?	False		

Geometry

X (ft)	Y (ft)
26.55	31.36
33.04	57.68
10.02	71.99
-10.71	54.52
-0.49	29.41

Active Topology			
Is Active?	True		
Catchment			
Outflow Element	Basin E		
Inflow (Wet) Collection			
Rainfall			
Use Local Rainfall?	False		
Runoff			
Runoff Method	Unit Hydrograph	Drying Time	7.0 days
Percent Impervious	0.0 %	Unit Hydrograph Method	SCS Unit Hydrograph
Area Defined By	Single Area	Tc Input Type	Composite Tc
Loss Method	SCS CN	Time of Concentration (Composite)	0.389 hours
SCS CN	93.000	SCS Unit Hydrograph Method	Default Curvilinear
SCS CN (Composite)	93.000		
Tc Data Collection			
TR-55 Sheet Flow			
Hydraulic Length	100.0 ft	Slope	0.025 ft/ft

DRAINAGE AREA DATA (cont.)

E

TR-55 Sheet Flow			
Manning's n	0.240	2Year 24 Hour Depth	4.2 in
TR-55 Shallow Concentrated Flow			
Hydraulic Length	844.0 ft	Slope	0.014 ft/ft
Land Cover	Grassed Waterway		
TR-55 Shallow Concentrated Flow			
Hydraulic Length	646.0 ft	Slope	0.021 ft/ft
Land Cover	Grassed Waterway		
Results (Extended Catchment)			
Precipitation (Cumulative)	0.0 in	Precipitation (Incremental)	0.0 in
Results (Flow)			
Flow (Total Out)	0.00 cfs	Local Inflow?	False
Flow (Total Surface Runoff)	0.00 cfs	Flow (Local from Inflow Collection)	0.00 cfs
Results (Maximum Values)			
Flow (Maximum)	138.31 cfs	Time (Maximum Flow)	12.125 hours
Results			
Area (Unified)	17.600 acres	Volume (Total Runoff)	4,201,134.5 gal

Calculation Messages

Time (hours)	Message

DRAINAGE CRITERIA AND ASSUMPTIONS (SUMMARY)

BASINS	AREA IN ACRES (AC)	CN	TIME OF CONCENTRATION (HOURS)	LAG TIME MIN.
BASIN "A"	5.3AC	90.18	0.16	5.76 MIN.
BASIN "D"	2.0AC	93.00	0.10	3.6 MIN.
BASIN "E"	17.4 AC	93.00	0.389	14.0 MIN.
BASIN "OS1"	11.1 AC	93.0	0.348	12.52 MIN.

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB # 1752575193200
PHONE (972) 717-0191 FAX (972) 717-2178
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103008
LICENSED PROFESSIONAL ENGINEER

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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

COMPOSITE OUTLET STRUCTURE DATA BASIN "E"

JOB 22286.0100
DATE 10/30/2025
SHEET C04.17

Oct 29, 2025 - 11:11am User: Robert
R:\Projects\WILLIAMSBURG\2022 MIDDLE SCHOOL SITE\DESIGN\2023 RBSD MS #4 REV W ELEM ENG 65 stnds Eng RSP.dwg

100 YEAR TIME AND HG DATA

Outfall E

<General>			
ID	157	Hyperlinks	<Collection: 0 items>
Label	Outfal E	Station	0+00 ft
Notes			
GIS-IDs			
GIS-ID			
<Geometry>			
X	53.33 ft	Y	9.52 ft
Active Topology			
Is Active?	True		
Boundary Condition			
Boundary Condition Type	Free Outfall	Tidal Gate?	False
Inflow (Wet) Collection			
Physical			
Update Ground Elevation from Terrain Model?	True	Elevation (tim)	0.00 ft
Elevation (Ground)	0.00 ft	Elevation (.nvert)	0.00 ft
Set Rim to Ground Elevation?	True		
Results (Engine Parsing)			
Branch	8		
Results (Flow)			
Flow (Total Out)	0.00 cfs	Flow (Loca from Inflow Collection)	0.00 cfs
Local Inflow?	False	Volume (Total Outflow)	0.0 ft³
Results (Misc)			
Depth (Structure)	0.00 ft		
Results (System Flow)			
Areal Reduction Factor	(N/A)		
Results			
Depth (Node)	575.59 ft	Time to Maximum Outflow	12.450 hours
Hydraulic Grade	575.59 ft	Time to Maximum Inflow	12.450 hours
Time to Maximum Hydraulic Grade	12.525 hours	Flow (Out to Links Maximum)	22.31 cfs
Hydraulic Grade (Maximum)	577.34 ft	Flow (Total In Maximum)	22.31 cfs

BASIN "E" OUTFALL

100 YEAR TIME AND HG DATA

Outfall D

<General>			
ID	151	Hyperlinks	<Collection: 0 items>
Label	Outfal D	Station	0+00 ft
Notes			
GIS-IDs			
GIS-ID			
<Geometry>			
X	-3.02 ft	Y	-10.87 ft
Active Topology			
Is Active?	True		
Boundary Condition			
Boundary Condition Type	Free Outfall	Tidal Gate?	False
Inflow (Wet) Collection			
Physical			
Update Ground Elevation from Terrain Model?	True	Elevation (Rim)	0.00 ft
Elevation (Ground)	0.00 ft	Elevation (Invert)	0.00 ft
Set Rim to Ground Elevation?	True		
Results (Engine Parsing)			
Branch	7		
Results (Flow)			
Flow (Total Out)	0.00 cfs	Flow (Local from Inflow Collection)	0.00 cfs
Local Inflow?	False	Volume (Total Outflow)	0.0 ga
Results (Misc)			
Depth (Structure)	0.00 ft		
Results (System Flow)			
Areal Reduction Factor	(N/A)		
Results			
Depth (Node)	549.00 ft	Time to Maximum Outflow	12.075 hours
Hydraulic Grade	549.00 ft	Time to Maximum Inflow	12.075 hours
Time to Maximum Hydraulic Grade	12.075 hours	Flow (Out to Links Maximum)	13.99 cfs
Hydraulic Grade (Maximum)	550.26 ft	Flow (Total In Maximum)	13.99 cfs

BASIN "D" OUTFALL

100 YEAR TIME AND HG DATA

OSA to A

<General>			
ID	172	Hyperlinks	<Collection: 0 items>
Label	OSA to A	Station	0+00 ft
Notes			
GIS-IDs			
GIS-ID			
<Geometry>			
X	-72.36 ft	Y	-18.33 ft
Active Topology			
Is Active?	True		
Boundary Condition			
Boundary Condition Type	Boundary Element	Tidal Gate?	False
Boundary Element	Basin A		
Inflow (Wet) Collection			
Physical			
Update Ground Elevation from Terrain Model?	True	Elevation (Rim)	0.00 ft
Elevation (Ground)	0.00 ft	Elevation (Invert)	0.00 ft
Set Rim to Ground Elevation?	True		
Results (Engine Parsing)			
Branch	0		
Results (Flow)			
Flow (Total Out)	0.00 cfs	Flow (Local from Inflow Collection)	0.00 cfs
Local Inflow?	False	Volume (Total Outflow)	0.0 ga
Results (Misc)			
Depth (Structure)	0.00 ft		
Results (System Flow)			
Areal Reduction Factor	(N/A)		
Results			
Depth (Node)	0.00 ft	Time to Maximum Outflow	(N/A) hours
Hydraulic Grade	567.49 ft	Time to Maximum Inflow	(N/A) hours
Time to Maximum Hydraulic Grade	(N/A) hours	Flow (Outfo Links Maximum)	(N/A) cfs

BASIN "OSA" TO "A" OUTFALL

100 YEAR TIME AND HG DATA

Outfall A

<General>			
ID	81	Hyperlinks	<Collection: 0 items>
Label	Outfall A	Station	0+00 ft
Notes			
GIS-IDs			
GIS-ID			
<Geometry>			
X	-45.31 ft	Y	-45.69 ft
Active Topology			
Is Active?	True		
Boundary Condition			
Boundary Condition Type	Free Outfall	Tidal Gate?	False
Inflow (Wet) Collection			
Physical			
Update Ground Elevation from Terrain Model?	False	Elevation (Rim)	0.00 ft
Elevation (Ground)	565.80 ft	Elevation (Invert)	565.80 ft
Set Rim to Ground Elevation?	False		
Results (Engine Parsing)			
Branch	6		
Results (Flow)			
Flow (Total Out)	0.00 cfs	Flow (Local from Inflow Collection)	0.00 cfs
Local Inflow?	False	Volume (Total Outflow)	0.0 gal
Results (Misc)			
Depth (Structure)	0.00 ft		
Results (System Flow)			
Areal Reduction Factor	(N/A)		
Results			
Depth (Node)	0.00 ft	Time to Maximum Outflow	12.100 hours
Hydraulic Grade	565.80 ft	Time to Maximum Inflow	12.100 hours
Time to Maximum Hydraulic Grade	12.125 hours	Flow (Out to Links Maximum)	104.64 cfs
Hydraulic Grade (Maximum)	567.91 ft	Flow (Total In Maximum)	104.64 cfs

BASIN "A" OUTFALL

Table 1.6 Recommended Runoff Coefficient Values

Description of Area	Runoff Coefficients (C)
Lawns:	
Sandy soil, flat, 2%	0.10
Sandy soil, average, 2 - 7%	0.15
Sandy soil, steep, > 7%	0.20
Clay soil, flat, 2%	0.17
Clay soil, average, 2 - 7%	0.22
Clay soil, steep, > 7%	0.35
Agricultural	0.30
Forest	0.15
Streams, Lakes, Water Surfaces	1.00
Business:	
Downtown areas	0.95
Neighborhood areas	0.70
Residential:	
Single Family (1/8 acre lots)	0.65
Single Family (1/4 acre lots)	0.60
Single Family (1/2 acre lots)	0.55
Single Family (1+ acre lots)	0.45
Multi-Family Units, (Light)	0.65
Multi-Family, (Heavy)	0.85
Commercial/Industrial:	
Light areas	0.70
Heavy areas	0.80
Parks, cemeteries	0.25
Playgrounds	0.35
Railroad yard areas	0.40
Streets:	
Asphalt and Concrete	0.95
Brick	0.85
Drives, walks, and roofs	0.95
Grave areas	0.50
Graded or no plant cover:	
Sandy soil, flat, 0 - 5%	0.30
Sandy soil, flat, 5 - 10%	0.40
Clayey soil, flat, 0 - 5%	0.50
Clayey soil, average, 5 - 10%	0.60

Table 3.13 Rockwall County Rainfall Data

	Coefficients	Return Period (Years) 1	2	5	10	25	50	100
	e	0.83417	0.80556	0.79987	0.79563	0.78076	0.76893	0.75652
	b	50.825	53.943	69.378	79.520	87.731	93.466	98.870
	d	10	10	12	13	13	13	13
Hours	Minutes	Rainfall Intensity (inches per hour)						
0.083	5	5.31	6.09	7.19	7.98	9.19	10.13	11.10
	6	5.03	5.78	6.87	7.64	8.81	9.71	10.66
	7	4.78	5.50	6.58	7.33	8.46	9.34	10.25
	8	4.56	5.26	6.32	7.05	8.14	8.99	9.88
	9	4.36	5.03	6.08	6.80	7.85	8.68	9.54
	10	4.18	4.83	5.85	6.56	7.59	8.39	9.22
	11	4.01	4.64	5.65	6.34	7.34	8.12	8.93
	12	3.86	4.47	5.46	6.14	7.11	7.87	8.66
	13	3.72	4.31	5.29	5.95	6.89	7.63	8.41
	14	3.59	4.17	5.12	5.76	6.69	7.41	8.17
0.250	15	3.47	4.03	4.97	5.61	6.51	7.21	7.95
	16	3.36	3.91	4.83	5.46	6.33	7.05	7.74
	17	3.25	3.79	4.69	5.31	6.16	6.84	7.54
	18	3.15	3.68	4.57	5.17	6.01	6.67	7.36
	19	3.06	3.58	4.45	5.05	5.86	6.51	7.18
	20	2.98	3.48	4.34	4.92	5.72	6.35	7.02
	21	2.90	3.39	4.23	4.81	5.59	6.21	6.86
	22	2.82	3.31	4.13	4.70	5.47	6.07	6.71
	23	2.75	3.23	4.04	4.59	5.35	5.94	6.57
	24	2.68	3.15	3.95	4.50	5.23	5.82	6.44
	25	2.62	3.08	3.86	4.40	5.13	5.70	6.31
	26	2.56	3.01	3.78	4.31	5.02	5.59	6.19
	27	2.50	2.94	3.70	4.23	4.92	5.48	6.07
	28	2.44	2.88	3.63	4.14	4.83	5.38	5.96
	29	2.39	2.82	3.56	4.06	4.74	5.28	5.85
0.500	30	2.34	2.76	3.49	3.99	4.65	5.18	5.75
	31	2.29	2.71	3.43	3.92	4.57	5.09	5.65
	32	2.25	2.66	3.36	3.85	4.49	5.01	5.55
	33	2.21	2.61	3.30	3.78	4.42	4.92	5.46
	34	2.16	2.56	3.25	3.72	4.34	4.84	5.37
	35	2.12	2.51	3.19	3.66	4.27	4.76	5.28
	36	2.08	2.47	3.14	3.60	4.20	4.69	5.20
	37	2.05	2.43	3.09	3.54	4.14	4.62	5.13
	38	2.01	2.39	3.04	3.48	4.07	4.55	5.05
	39	1.98	2.35	2.99	3.43	4.01	4.48	4.98
	40	1.94	2.31	2.94	3.38	3.95	4.41	4.90
	41	1.91	2.27	2.90	3.33	3.90	4.35	4.84
	42	1.88	2.24	2.85	3.28	3.84	4.29	4.77
	43	1.85	2.20	2.81	3.23	3.79	4.23	4.70
	44	1.82	2.17	2.77	3.19	3.73	4.17	4.64
0.750	45	1.80	2.14	2.73	3.14	3.68	4.12	4.58
	46	1.77	2.11	2.70	3.10	3.64	4.06	4.52
	47	1.74	2.08	2.66	3.06	3.59	4.01	4.47
	48	1.72	2.05	2.62	3.02	3.54	3.96	4.41
	49	1.69	2.02	2.59	2.98	3.50	3.91	4.36
	50	1.67	1.99	2.56	2.94	3.45	3.86	4.30
	51	1.65	1.97	2.52	2.91	3.41	3.82	4.25
	52	1.63	1.94	2.49	2.87	3.37	3.77	4.20
	53	1.60	1.92	2.46	2.84	3.33	3.73	4.15
	54	1.58	1.90	2.43	2.80	3.29	3.69	4.11
	55	1.56	1.87	2.40	2.77	3.25	3.64	4.06
	56	1.54	1.85	2.37	2.74	3.22	3.60	4.02
	57	1.52	1.82	2.35	2.71	3.18	3.56	3.97
	58	1.50	1.80	2.32	2.68	3.15	3.52	3.93
	59	1.49	1.78	2.29	2.65	3.11	3.49	3.89
1	60	1.47	1.76	2.27	2.62	3.08	3.45	3.85
2	120	0.88	1.07	1.40	1.62	1.93	2.18	2.45
3	180	0.64	0.79	1.03	1.21	1.44	1.63	1.84
6	360	0.37	0.46	0.61	0.72	0.86	0.98	1.12
12	720	0.21	0.27	0.35	0.42	0.51	0.59	0.67
24	1440	0.12	0.15	0.21	0.24	0.30	0.35	0.40

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CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB # 1752575193200
PHONE (972) 717-0151 FAX (972) 717-2176
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103007
LICENSED PROFESSIONAL ENGINEER

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URSULA RAKOW MS NEW PARKING LOT

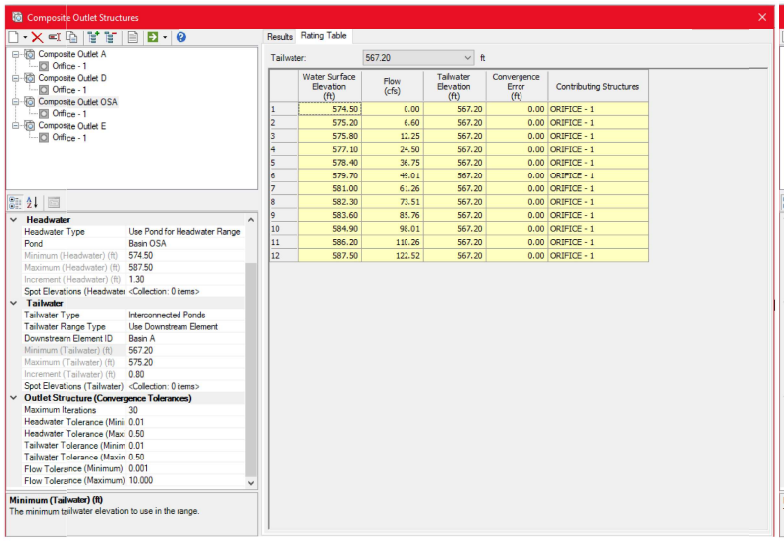
GETTYSBURG BLVD. CITY OF FATE, TX

COMPOSITE DETENTION
MISC. OUTFALLS
ISWM

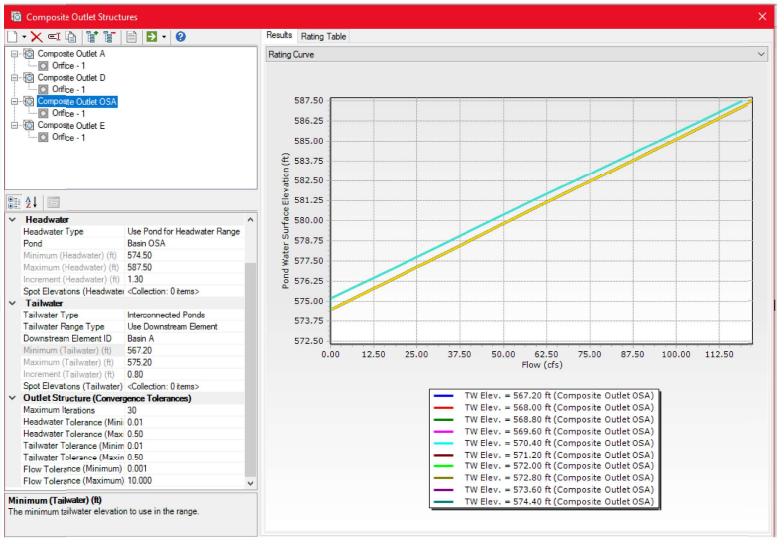
JOB 22286.0100
DATE 10/30/2025
SHEET C04.18

Oct 29, 2025 - 11:12am User: Robert
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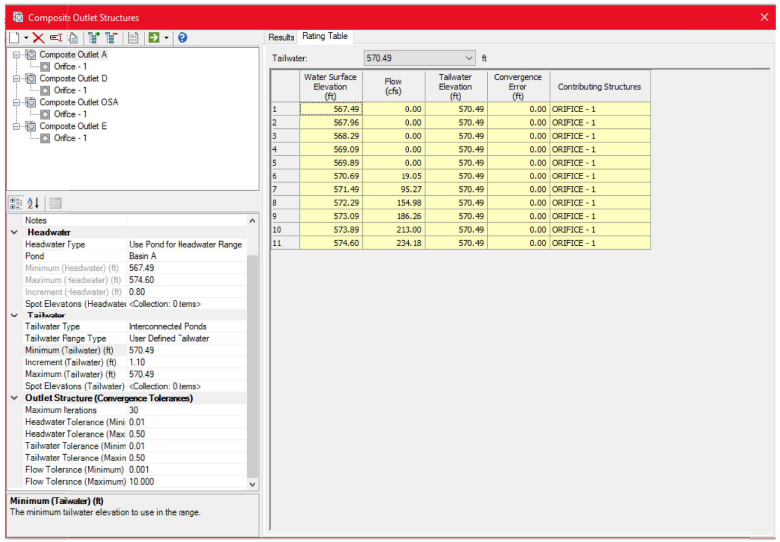
NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT



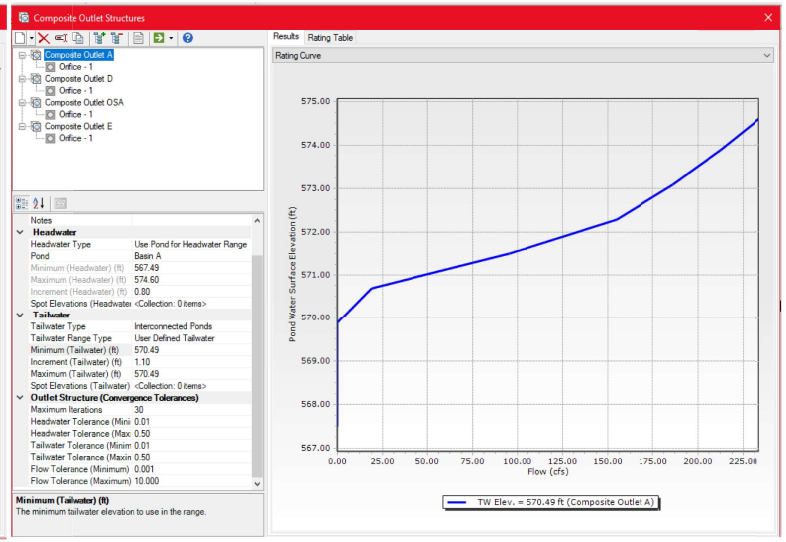
BASIN "OS1" - STAGE DISCHARGE TABLE



BASIN "OS1" - STAGE DISCHARGE GRAPH



BASIN "A" - STAGE DISCHARGE TABLE



BASIN "A" - STAGE DISCHARGE GRAPH

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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REVISIONS

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TEXAS REGISTRATION # F-303 HUB #: 172057100200
PHONE (972) 717-0101 FAX (972) 717-0106
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103739
REGISTERED
PROFESSIONAL
ENGINEER
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URSULA RAKOW MS NEW PARKING LOT

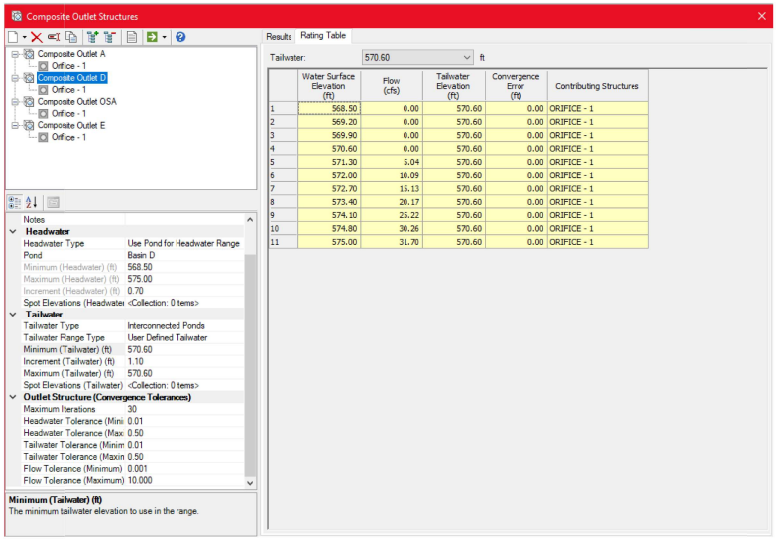
GETTYSBURG BLVD. CITY OF FATE, TX

STAGE DISCHARGE TABLE AND GRAPH "A" AND "OS1"

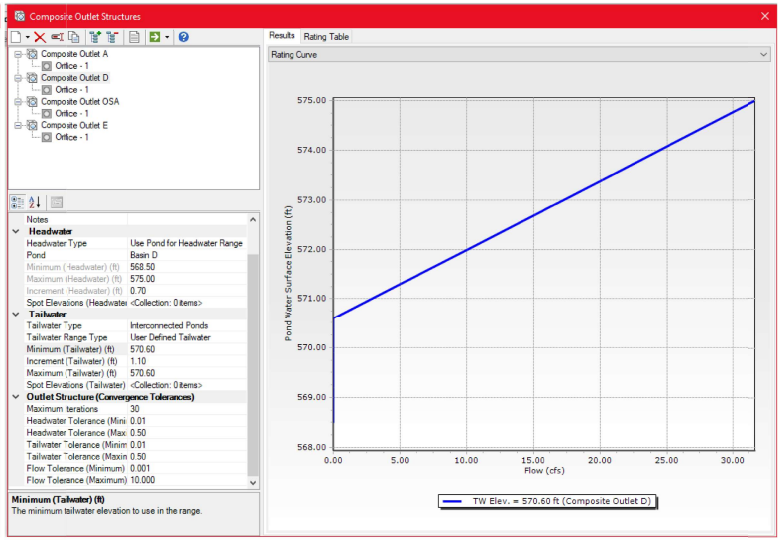
JOB 22286.0100
DATE 10/30/2025
SHEET

C04.20

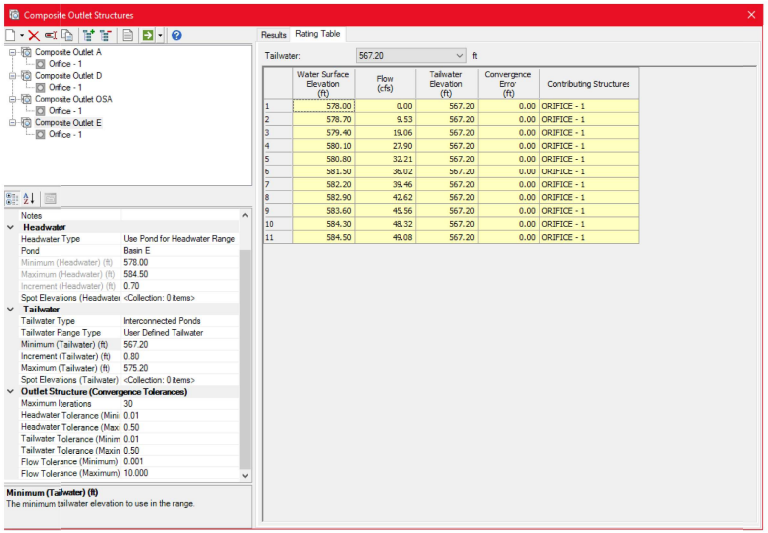
Oct 29, 2025 - 11:12am User: Robert
R:\ROCKED\WILLIAMSBURG\2022 MIDDLE SCHOOL SITE\HOUSE\2023 RSD MS #4 REV W ELEV ENG 85 stalls For RSP.dwg



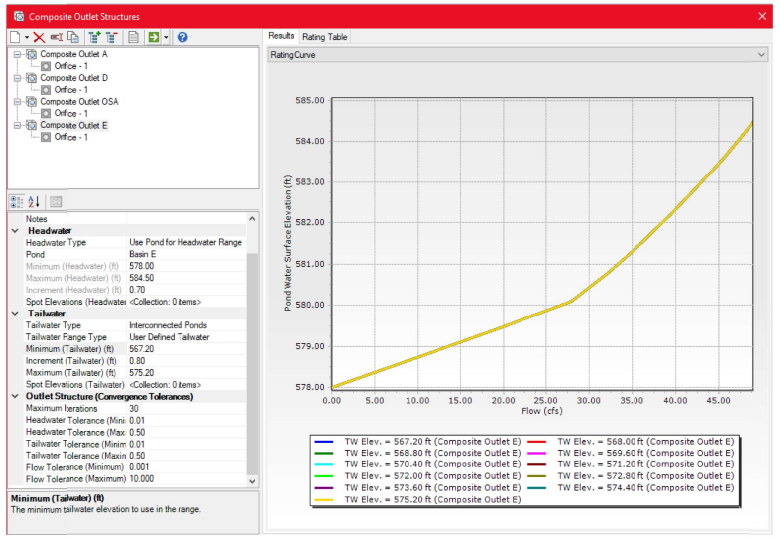
DETENTION BASIN "D" - STAGE DISCHARGE TABLE



DETENTION BASIN "D" - STAGE DISCHARGE GRAPH



DETENTION "E" - STAGE DISCHARGE TABLE



DETENTION "E" - STAGE DISCHARGE GRAPH

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

Oct 29, 2025 - 11:12am User: Robert
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Dallas, TX 75202
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ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB ID: 17207010200
PHONE (972) 717-0101 FAX (972) 717-0106
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103734
LICENSED PROFESSIONAL ENGINEER
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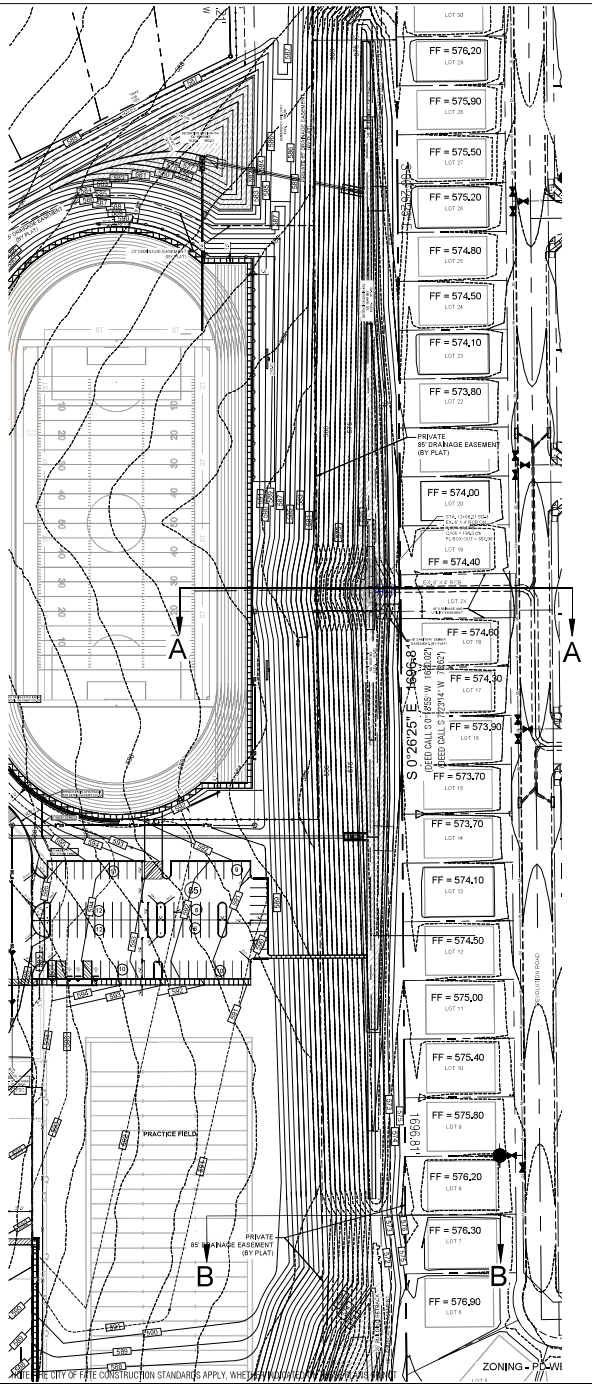
URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

STAGE DISCHARGE TABLE AND GRAPH "D" AND "E"

JOB 22286.0100
DATE 10/30/2025
SHEET

C04.21



0 30 60 120
Scale: 1"=60'

BASIN "A" ELEVATION - AREA - VOLUME - DISCHARGE RATING CURVE

ELEVATION (FT)	AREA (AC)	VOLUME (AC-FT)	PRIMARY "Q" (CFS)	EMERGENY "Q" (CFS)	COMMENTS
567.96	0.5	0	0.0	-	FLOWLINE 6' X 4' RCB (EXISTING)
571.01		0.424	49.3	-	2 YEAR WSEL
571.14	42.4	0.481	61.9	-	5 YEAR WSEL
571.25	0.5	0.531	71.9	-	10 YEAR WSEL
571.39	0.7	0.603	85.5	-	25 YEAR WSEL
571.39	0.7	0.66	95.5	-	50 YEAR WSEL
571.62	1.3	0.73	104.7	-	100 YEAR WSEL
573.33	3.2	1.63	-	157.07	PRIMARY / EMERGENCY SPILLWAY
574.00		3.653	-	-	TOP OF BASIN

* Emergency "Q" assumes primary outley is blocked.Calulatued "Q" orly shown at elevation 573.33 to prove the spillway is able to convey the 100-Year peak flow with at least 6" of Freeboard per criteria.

SEE SHEET C04.20 FOR STAGE DISCHARGE TABLE AND GRAPH

BASIN 'A" DETENTION SUMMARY TABLE - 100 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC- FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
157.07	104.71	571.62	0.730	3.653	142.64

BASIN "A" DETENTION SUMMARY TABLE - 50 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC- FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
137.79	95.51	571.49	0.660	3.653	142.64

BASIN 'A" DETENTION SUMMARY TABLE - 25 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC- FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
119.81	85.51	571.39	0.603	3.653	142.64

BASIN "A" DETENTION SUMMARY TABLE - 10 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC- FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
96.92	71.92	571.25	0.531	3.653	142.64

BASIN "A" DETENTION SUMMARY TABLE - 5 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC- FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
80.8	61.86	571.14	0.481	3.653	142.64

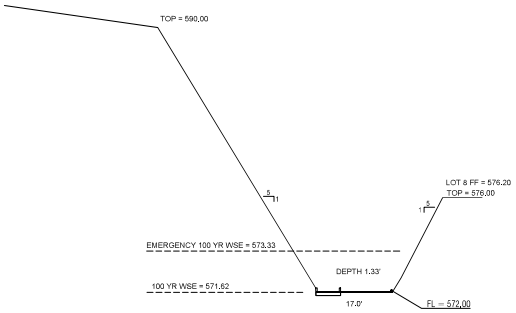
BASIN "A" DETENTION SUMMARY TABLE - 2 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC- FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
61.97	49.34	571.01	0.424	3.653	142.64

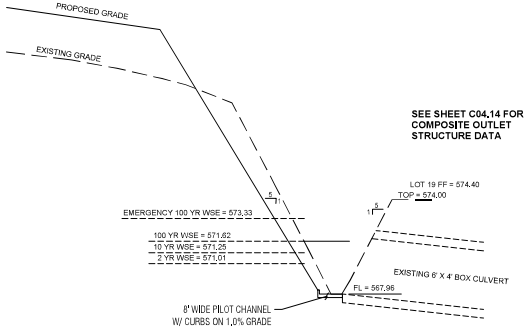
*FLOW TO BASIN IS COMBINED WITH ORTFLOW FROM POND OSA

Elevation-Area-Volume Chart Pond A		
Elevation	Area (Ac)	Incremental Volume (Ac-FT)
567.49	0.000	0.000
568	0.000	0.000
569	0.024	0.009
570	0.186	0.092
571	0.420	0.295
572	0.689	0.549
573	0.972	0.826
574	1.252	1.109
574.6	1.320	0.772
Total Volume		**3.652**

PRIMARY OUTLET "A"	
EXISTING 6' X 4' RCB	
INLET ELEVATION (FT)	567.96
ENTRANCE COEFFICIENT =	0.60
LENGTH (FT) =	115.00
OUTLET ELEVATION (FT) =	0.53
EXIT COEFFICENT (FT) =	0.60
MANNINGS "N" =	0.013
PRIMARY / EMERGENCY SPILLWAY	
CRES" ELEVATION (FT) =	573.33
WIER LENGTH (FT) =	17.0
WIER COEFFICIENT =	0.030



OUTFALL CROSS SECTION B-B
EMERGENCY SPILLWAY



OUTFALL CROSS SECTION A-A

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CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1720570100200
PHONE (972) 717-0101 FAX (972) 717-0106
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103594
LICENSED PROFESSIONAL ENGINEER
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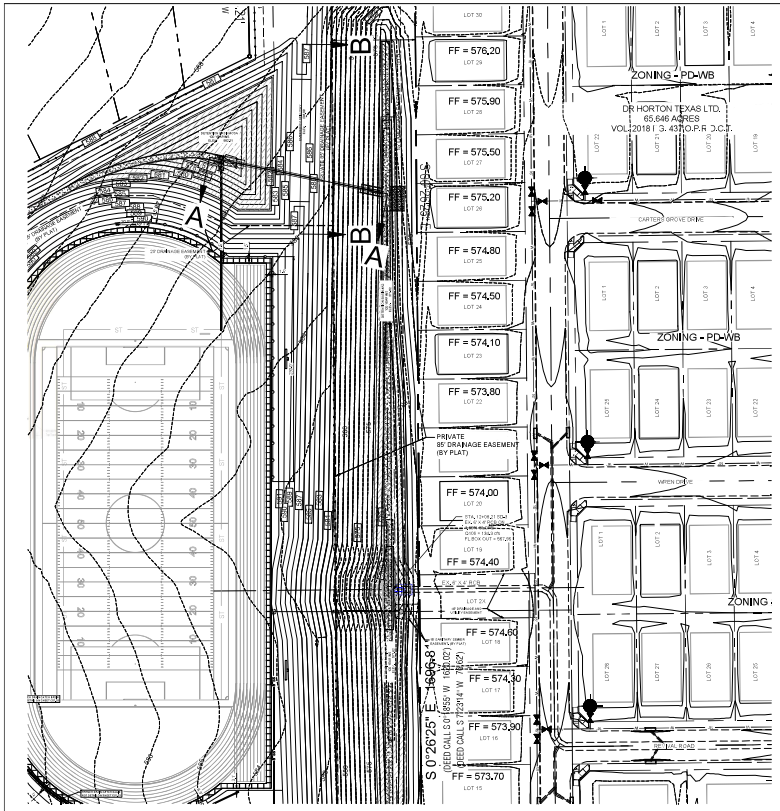
URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

BASIN "A" SECTION AND SUMMARY

JOB 22286.0100
DATE 10/30/2025
SHEET
C04.22

Oct 29, 2025 - 11:13am User: Robert
R:\ROCKED\WILLIAMSBURG\2022 MIDDLE SCHOOL SITE\MUSEUM\2023 RED MS #4 REV W ELEM ENG 85 stalls For RSP.dwg
ALL WORK SHALL COMPLY WITH THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHERE THERE ARE CONFLICTS THE MORE STRINGENT SHALL GOVERN

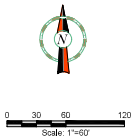


BASIN "OSA" ELEVATION - AREA - VOLUME - DISCHARGE RATING CURVE

ELEVATION (FT)	AREA (AC)	VOLUME (AC-FT)	PRIMARY "Q" (CFS)	EMERGENY "Q" (CFS)	COMMENTS
574.50	0.00	0.000	0.0	-	FLOWLINE 36" RCP
579.89	0.29	0.289	30.07	-	2 YEAR WSEL
580.49	0.05	0.343	42.79	-	5 YEAR WSEL
580.63	0.50	0.397	50.67	-	10 YEAR WSEL
580.97	0.17	0.574	60.97	-	25 YEAR WSEL
582.09	0.29	0.861	71.42	-	50 YEAR WSEL
582.31	0.07	0.929	73.64	-	100 YEAR WSEL
586.42	3.27	4.200	-	99.78	PRIMARY / EMERGENCY SPILLWAY
587.00	0.6	4.759	-	-	TOP OF BASIN

* Emergency "Q" assumes primary outlet is blocked. Calculated "Q" only shown at elevation 576.42 to prove the spillway is able to convey the 100-Year peak flow with at least 6" of Freeboard per criteria.

SEE SHEET C04.20 FOR STAGE DISCHARGE TABLE AND GRAPH



Elevation-Area-Volume Chart Pond OSA		
Elevation	Area (Ac)	Incremental Volume Ac-FT)
574.5	0.000	0.000
575	0.002	0.000
576	0.033	0.014
577	0.056	0.044
578	0.087	0.071
579	0.124	0.105
580	0.169	0.146
581	0.222	0.195
582	0.285	0.253
583	0.389	0.336
584	0.542	0.463
585	0.794	0.664
586	0.944	0.868
587	1.099	1.021
587.5	1.226	0.581
Total Volume		4.761

PRIMARY OUTLET "OSA"	
36" RCP	
INLET ELEVATION (FT)	575.40
ENTRANCE COEFFICIENT =	0.60
LENGTH (FT) =	153.00
OUTLET ELEVATION (FT) =	571.00
EXIT COEFFIECENT (FT) =	0.60
MANNINGS "N" =	0.013
PRIMARY / EMERGENCY SPILLWAY	
CREST ELEVATON (FT) =	586.00
WIER LENGTH (FT) =	125.00
WIER COEFFICIENT =	3.33

BASIN "OSA" DETENTION SUMMARY TABLE - 100 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE C/S *
99.78	73.64	582.31	0.929	4.759	N/A

BASIN "OSA" DETENTION SUMMARY TABLE - 50 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)	PEAK OUTFLOW (ROUTED) (CFS)	PEAK. 50 YR WATER SURFACE ELEVATION	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE C/S *
87.15	71.52	582.09	0.861	4.759	N/A

BASIN "OSA" DETENTION SUMMARY TABLE - 25 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 25 YR WATER SURFACE ELEVATION	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE C/S *
76.15	60.97	580.97	0.574	4.759	N/A

BASIN "OSA" DETENTION SUMMARY TABLE - 10 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 10 YR WATER SURFACE ELEVATION	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE C/S *
61.16	50.67	580.63	0.397	4.759	N/A

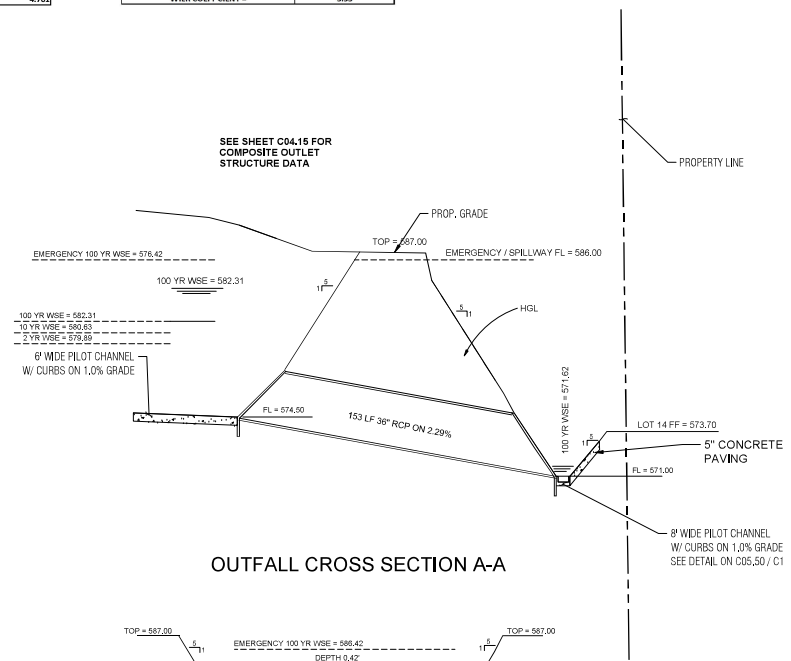
BASIN "OSA" DETENTION SUMMARY TABLE - 5 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 5 YR WATER SURFACE ELEVATION	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE C/S *
51.13	42.79	580.49	0.343	4.759	N/A

BASIN "OSA" DETENTION SUMMARY TABLE - 2 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 2 YR WATER SURFACE ELEVATION	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE C/S *
39.19	30.07	579.89	0.289	4.759	N/A

SEE SHEET C04.15 FOR COMPOSITE OUTLET STRUCTURE DATA



OUTFALL CROSS SECTION A-A

OUTFALL CROSS SECTION B-B
EMERGENCY SPILLWAY

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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ISSUES

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REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1720578100200
PHONE (972) 717-0151 FAX (972) 717-0176
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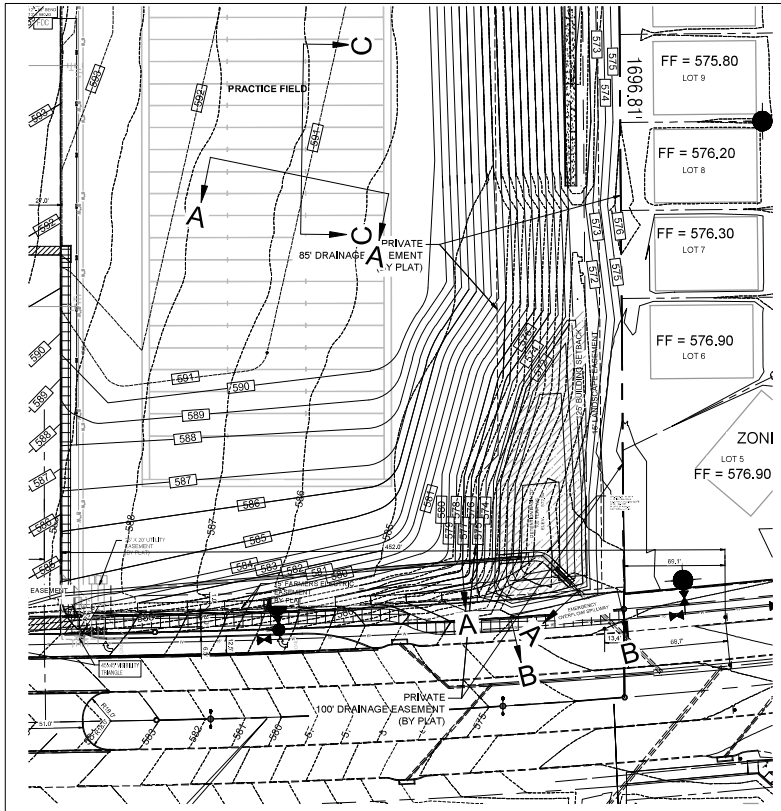
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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

BASIN "OSA" SECTION AND SUMMARY

JOB 22286.0100
DATE 10/30/2025
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C04.23

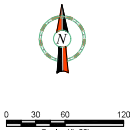


BASIN "D" ELEVATION - AREA - VOLUME - DISCHARGE RATING CURVE

ELEVATION (FT)	AREA (AC)	VOLUME AC-FT)	PRIMARY "Q" (CFS)	EMERGENY "Q" (CFS)	COMMENTS
567.96	0.000	0	0.00	-	FLOWLINE 6' X 4' RCB (EXISTING)
571.40	0.239	0.239	5.84	-	2 YEAR WSEL
571.68	0.043	0.282	7.79	-	5 YEAR WSEL
571.88	0.033	0.315	9.19	-	10 YEAR WSEL
572.14	0.047	0.362	11.08	-	25 YEAR WSEL
572.34	0.038	0.40	12.51	-	50 YEAR WSEL
572.54	0.041	0.441	13.99	-	100 YEAR WSEL
573.80	3.200	0.993	-	181.10	PRIMARY / EMERGENCY SPILLWAY ("A" AND "D")
574.50		1.096	-	-	TOP OF BASIN

* Emergency "Q" assumes primary outlet is blocked. Calulatued "Q" only shown at elevation 573.80 to prove the spillway is able to convey the 100-Year peak flow with at least 6" of Freeboard per criteria.

SEE SHEET C04.21 FOR STAGE DISCHARGE TABLE AND GRAPH



Elevation-Area-Volume Chart Pond D		
Elevation	Area (Ac)	Incremental Volume (Ac-FT)
568.5	0.001	0.000
569	0.035	0.007
570	0.088	0.059
571	0.132	0.109
572	0.180	0.155
573	0.231	0.205
574	0.287	0.258
575	0.216	0.251
Total Volume		1.045

PRIMARY OUTLET "D"	
24" RCP	
INLET ELEVATION (FT)	568.90
ENTRANCE COEFFICIENT =	0.60
LENGTH (FT) =	15.00
OUTLET ELEVATION (FT) =	568.46
EXIT COEFFIECENT (FT) =	0.60
MANNINAGS 'N" =	0.013
PRIMARY / EMERGENCY SPILLWAY	
CREST ELEVATION (FT) =	573.00
WIER LENGTH (FT) =	75.00
WIER COEFFICENT =	3.33

BASIN "D" DETENTION SUMMARY TABLE - 100 YEAR

PEAK INFLOW TO PROPOSID BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE EIEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
24.04	13.39	572.54	0.441	1.096	22.40

BASIN "D" DETENTION SUMMARY TABLE - 50 YEAR

PEAK INFLOW TO PROPOSID BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE EIEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
21.13	12.51	572.34	0.40	1.096	22.40

BASIN "D" DETENTION SUMMARY TABLE - 25 YEAR

PEAK INFLOW TO PROPOSID BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE EIEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
18.4	11.08	572.14	0.362	1.096	22.40

BASIN "D" DETENTION SUMMARY TABLE - 10 YEAR

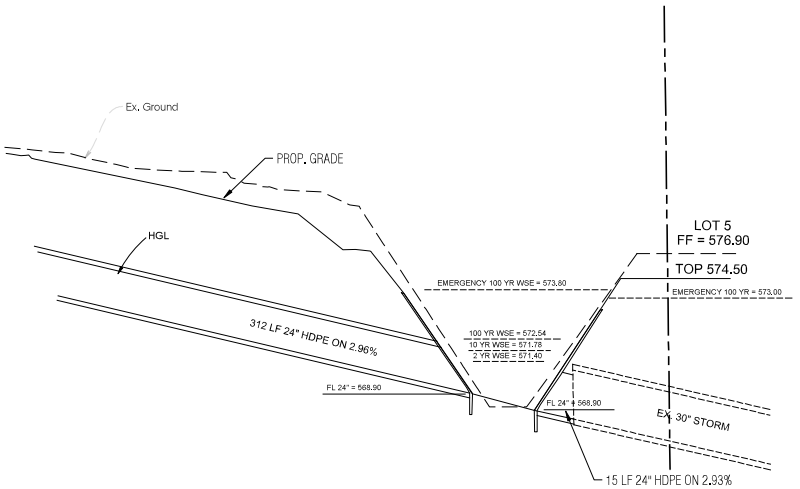
PEAK INFLOW TO PROPOSID BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE EIEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
14.96	9.19	571.88	0.315	1.096	22.40

BASIN "D" DETENTION SUMMARY TABLE - 5 YEAR

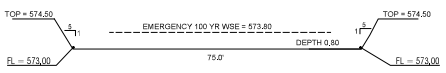
PEAK INFLOW TO PROPOSID BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE EIEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
12.52	7.79	571.68	0.282	1.096	22.40

BASIN "D" DETENTION SUMMARY TABLE - 2 YEAR

PEAK INFLOW TO PROPOSID BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE EIEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
9.68	5.84	571.40	0.239	1.096	22.40



OUTFALL CROSS SECTION A-A



* FOR BOTH DETENTION BASIN "A" (157.07cfs) AND "D" (24.04 cfs)

OUTFALL CROSS SECTION B-B
EMERGENCY SPILLWAY

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1720570100200
PHONE (972) 717-0101 FAX (972) 717-0176
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103743
LICENSED PROFESSIONAL ENGINEER

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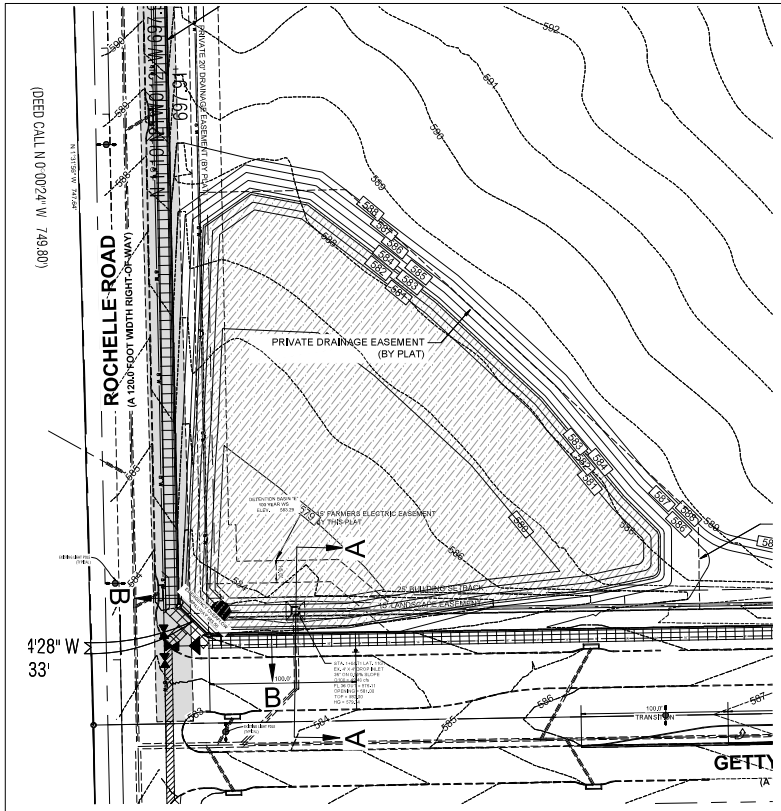
URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

BASIN "D" SECTION AND SUMMARY

JOB 22286.0100
DATE 10/30/2025
SHEET
C04.24

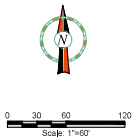
Oct 29, 2025 - 11:14am User: Robert
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BASIN "E" ELEVATION - AREA - VOLUME - DISCHARGE RATING CURVE					
ELEVATION (FT)	AREA (AC)	VOLUME (AC-FT)	PRIMARY "Q" (CFS)	EMERGENV "Q" (CFS)	COMMENTS
576.11	0.000	0	0.0	-	FLOWLINE 36" RCP (EXISTING)
581.10	0.861	0.861	22.3	-	2 YEAR WSEL
581.54	0.484	1.345	61.9	-	5 YEAR WSEL
581.92	0.449	1.794	71.9	-	10 YEAR WSEL
582.45	0.674	2.468	85.5	-	25 YEAR WSEL
582.86	0.552	3.020	95.5	-	50 YEAR WSEL
583.29	0.614	3.634	104.7	-	100 YEAR WSEL
583.93	1.336	4.970	-	138.31	PRIMARY / EMERGENCY SPILLWAY
584.50	1.391	6.361	-	-	TOP OF BASIN

* Emergency "Q" assumes primary outlet is blocked. Calculatuec "Q" only shown at elevation 583.93 to prove the spillway is able to convey the 100-Year peak flow with at least 6" of Freeboard per criteria.

SEE SHEET C04.21 FOR STAGE DISCHARGE TABLE AND GRAPH



Elevation-Area-Volume Chart Pond E		
Elevation	Area (Ac)	Incremental Volume (Ac-FT)
578	0.001	0.000
579	0.148	0.854
580	0.677	0.381
581	1.201	0.827
582	1.312	1.156
583	1.522	1.416
584	1.583	1.552
Total Volume		5.585

PRIMARY OUTLET "E"	
EXISTING 36" RCP	
INLET ELEVATION (FT)	576.11
ENTRANCE COEFFICIENT =	0.60
LENGTH (FT) =	60.00
OUTLET ELEVATION (FT) =	575.81
EXIT COEFFICECENT (FT =	0.60
MANNINGS "N" =	0.013
PRIMARY / EMERGENCY SPILLWAY	
CRIST ELEVATION (FT) =	583.93
WIER LENGTH (FT) =	80.00
WIER COEFFIGENT =	3.33

BASIN "E" DETENTION SUMMARY TABLE - 100 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
138.11	36.23	583.25	3.634	6.361	49.40

BASIN "E" DETENTION SUMMARY TABLE - 50 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
121.13	33.99	582.86	3.020	3.361	49.40

BASIN "E" DETENTION SUMMARY TABLE - 25 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
105.17	31.65	582.45	2.468	6.361	49.40

BASIN "E" DETENTION SUMMARY TABLE - 10 YEAR

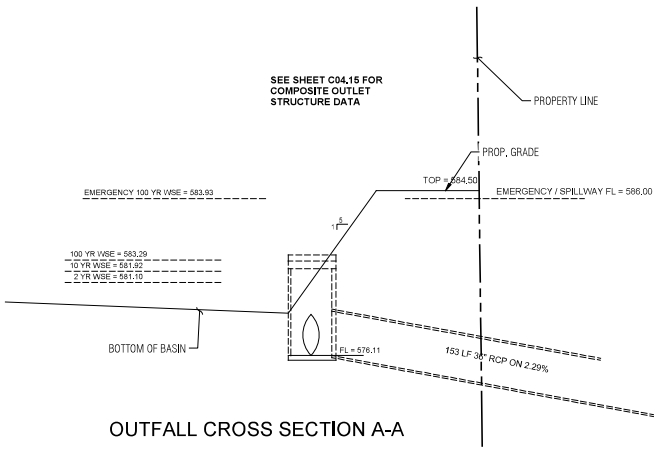
PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
85.55	28.32	581.92	1.794	6.361	49.40

BASIN "E" DETENTION SUMMARY TABLE - 5 YEAR

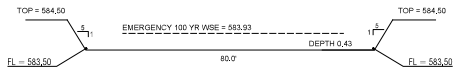
PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
71.53	28.80	581.54	1.345	6.361	49.40

BASIN "E" DETENTION SUMMARY TABLE - 2 YEAR

PEAK INFLOW TO PROPOSED BASIN (CFS)*	PEAK OUTFLOW (ROUTED) (CFS)	PEAK 100 YR WATER SURFACE ELEVATION (FEET)	PEAK STORAGE REQUIRED (AC-FT)	PEAK STORAGE PROVIDED (AC-FT)	EXISTING ALLOWABLE RELEASE CFS
55.55	22.31	581.10	0.861	6.361	49.40



OUTFALL CROSS SECTION A-A



OUTFALL CROSS SECTION B-B
EMERGENCY SPILLWAY

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

Oct 29, 2025 - 11:14am User: Robert
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CORGAN
CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB ID: 1720378192200
PHONE (972) 717-0101 FAX (972) 717-0176
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038



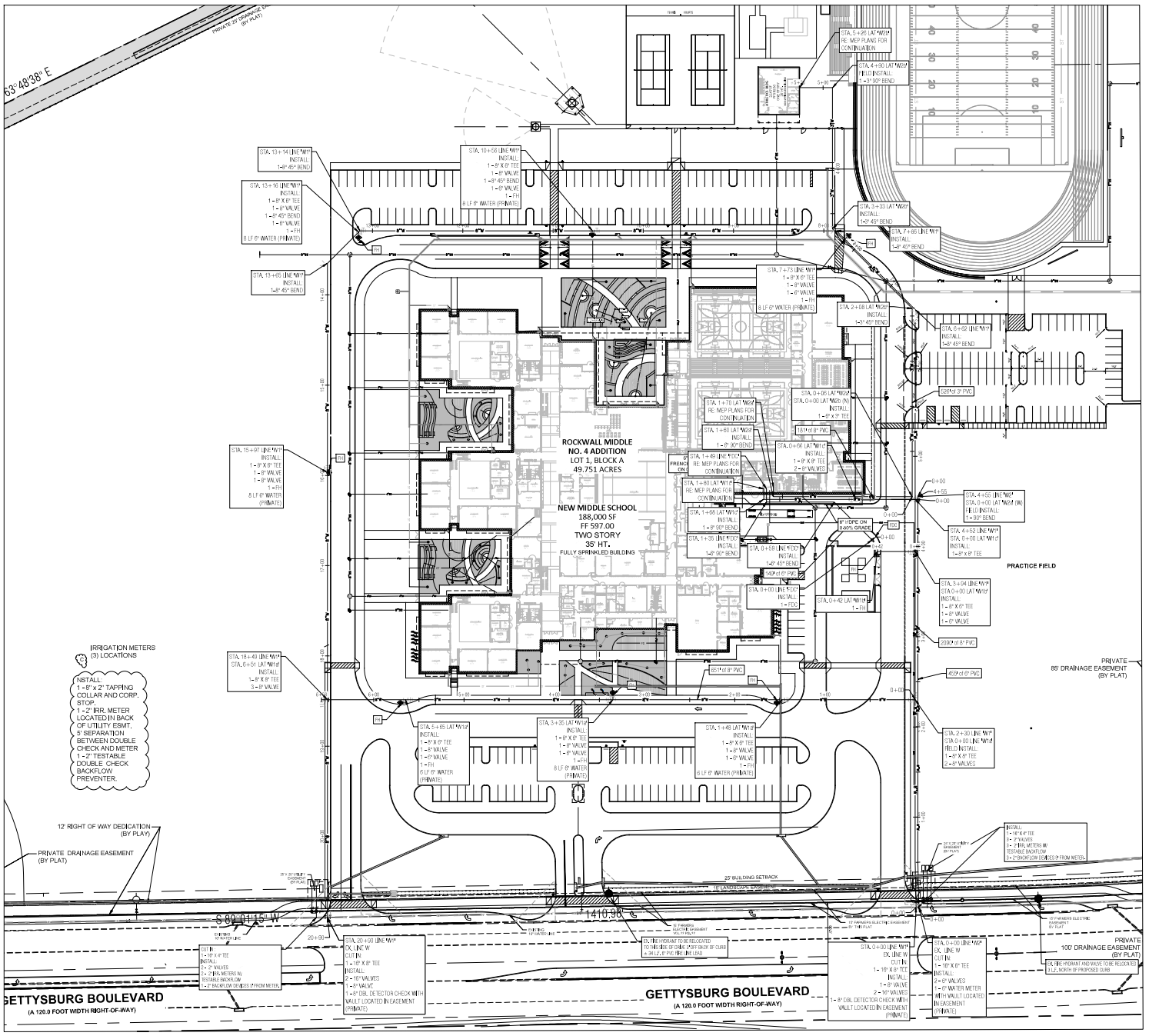
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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

BASIN "E" SECTION AND SUMMARY

JOB 22286.0100
DATE 10/30/2025
SHEET
C04.25



GENERAL WATER NOTES:

1. WATER DISTRIBUTION SYSTEM MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE CITY OF FATE STANDARDS AND NCTCOG 4TH EDITION.
2. CONCRETE BLOCKING SHALL BE INSTALLED AT ALL BENDS, VALVES, AND FIRE HYDRANTS.
3. ALL MAINS SHALL BE BURIED A MINIMUM DEPTH OF 48" BELOW TOP OF ADJACENT CURB OR AS DIRECTED BY THE ENGINEER.
4. WATER PIPE SHALL BE PVC CLASS 200, PVC C-900 (DR 14) FOR SIZES UNDER 18" DIA, WATER PIPE SHALL BE PVC CLASS 235 (DR 18)PVC C-905 FOR SIZES 16" AND OVER IN DIA.
5. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO COMMENCING CONSTRUCTION. DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
6. ALL FIRE HYDRANTS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FATE. CONTRACTOR SHALL NOTIFY FATE FIRE DEPARTMENT PRIOR TO PLACING OF PIPE TO ARRANGE FOR REQUIRED INSPECTIONS. ALL FIRE HYDRANTS SHALL HAVE A MINIMUM CLEARANCE OF 5 FEET FROM BACK OF CURB.
7. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING WATER VALVES PRIOR CONNECTION TO EXISTING WATER SYSTEM.
8. INSTALL BLUE 3M EMS DISKS AT ALL TEES AND BENDS ON WATER LINES. REFERENCE VALVE INSTALLATION DETAIL.
9. INSTALL BLUE EMS DISKS ON WATER LINE EVERY 250', BEND, VALVE, FIRE HYDRANT, AND CONNECTION.
10. ALL VALVES SHALL BE FLANGED.
11. ALL WATER SHALL BE PRIVATE.
12. ALL TEES AND CROSSES SHALL BE INSTALLED PER CITY DETAILS W11.

BENCHMARKS:

BENCHMARK #1:
SPK NAIL IN CENTER OF HUBBARD DRIVE .
N 6985121.0710 E 2586167.9530
ELEVATION=456.02

BENCHMARK #2:
3" ALUMINUM DISK SET IN CONCRETE
N.W. CORNER OF LIFT STATION FENCE.
N 6988281.3710 E 2587591.4880
ELEVATION=524.55

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

Oct 29, 2025 - 11:15am User: Robert
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CORGAN
CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-003 HUB # 1752570193200
PHONE (972) 717-0191 FAX (972) 717-2178
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
3500

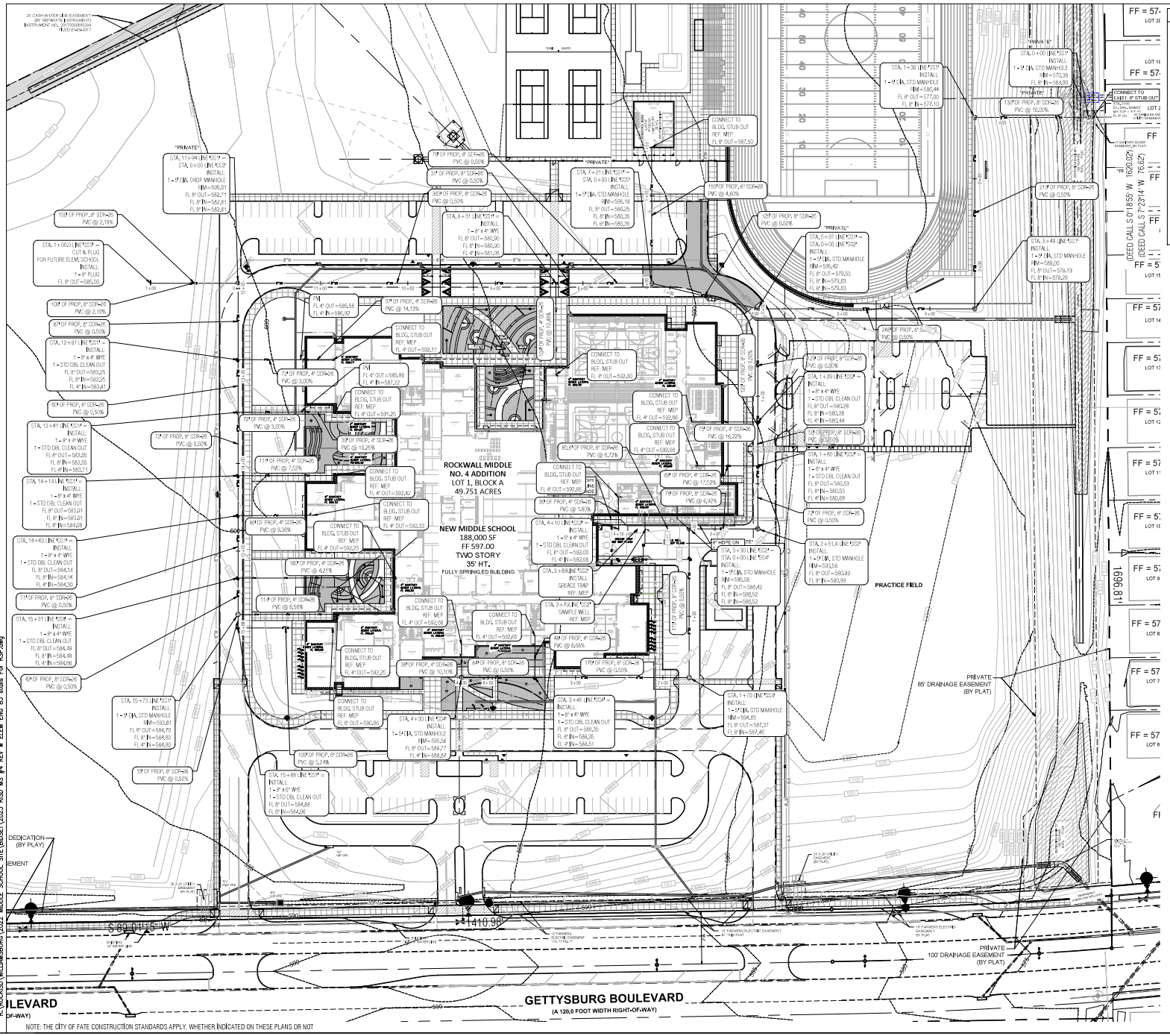
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URSULA RAKOW MS
NEW PARKING LOT

GETTYSBURG BLVD, CITY OF FATE, TX

WATER PLAN

JOB 22286.0100
DATE 10/30/2025
SHEET C05.00



NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

GENERAL SANITARY SEWER NOTES:

1. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND OTHERS WHO MAY HAVE BURIED EQUIPMENT OR PIPELINES IN THE VICINITY OF CONSTRUCTION PRIOR TO COMMENCING CONSTRUCTION. DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
2. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF TIE-IN TO EXISTING SEWER SYSTEM. IF GRADES NEED REVISING DUE TO UNFORESEEN CONFLICTS, CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO LAYING PIPE.
3. UNLESS OTHERWISE REQUIRED, ALL SANITARY SEWER PIPE, MANHOLES, AND RELATED APPURTENANCES SHALL CONFORM TO THE MATERIAL AND CONSTRUCTION SPECIFICATIONS AS SET FORTH IN THE CITY OF FATE STANDARD SPECIFICATIONS.
4. PARTICULAR ATTENTION SHALL BE PAID TO THE INSTALLATION, EMBEDMENT, AND BACKFILL OF SEWER PIPE. ALL EMBEDMENT SHALL CONFORM TO CITY OF FATE CLASS 'B'.
5. SPECIAL CARE SHALL BE TAKEN IN ADHERING TO THOSE SPECIFICATIONS REGARDING PIPE JOINTS, PIPE EMBEDMENT AND TESTING OF INSTALLED WATER AND SANITARY SEWER PIPES.
6. SEWER PIPE SHALL BE PVC SDR 35.
7. SERVICES SHALL BE 4" PVC, SDR 35, AND SHALL BE INSTALLED AS SHOWN.
8. CONTRACTOR SHALL MEET ALL O.S.H.A. REQUIREMENTS REGARDING TRENCH SAFETY IN THE CONSTRUCTION OF THIS SEWER SERVICE.
9. ALL SANITARY SEWER MANHOLES SHALL BE RAVEN EPOXY COATED OR APPROVED EQUAL.
10. CONTRACTOR SHALL INSTALL GREEN EMS DISKS AT EVERY MANHOLE, CLEANOUT AND SERVICE CONNECTION.
11. ALL SANITARY SEWER SHALL BE PRIVATE.

BENCHMARKS:

BENCHMARK #1
SPK NAIL IN CENTER OF HUBBARD DRIVE.
N 6985121.0710 E 2586167.9530
ELEVATION=456.02

BENCHMARK #2:
3" ALUMINUM DISK SET IN CONCRETE
N.W. CORNER OF LIFT STATION FENCE.
N 6988281.3710 E 2587581.4690
ELEVATION=524.55

CORGAN
CORGAN
Dallas, TX 75202
T: 214.748.2000

GLENN ENGINEERING
TEXAS REGISTRATION #: F-3003 HUB #: 1752570193300
PHONE:(972) 717-0191 FAX:(972) 717-0139
4500 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103006
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ISSUES		
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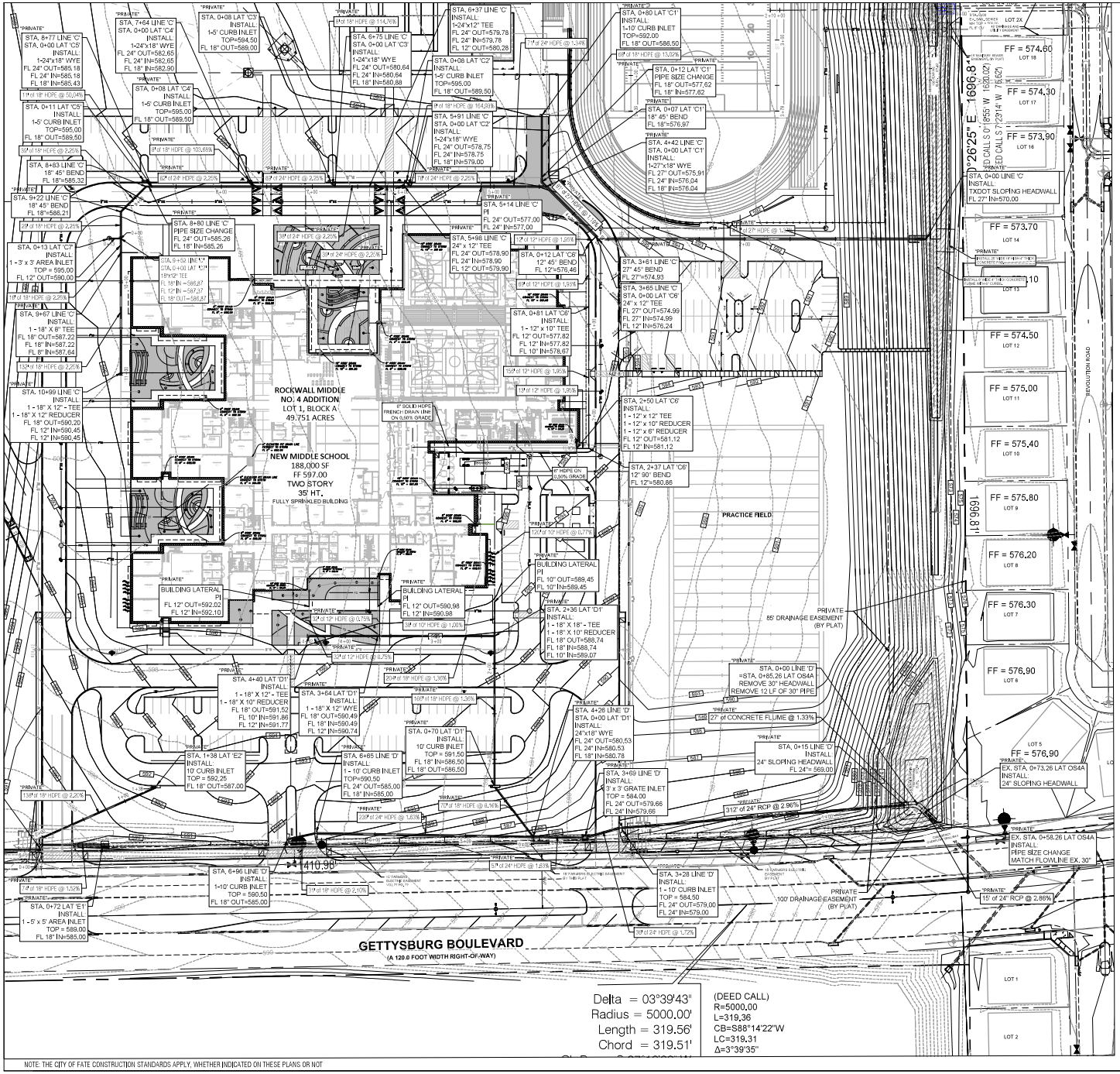
URSULA RAKOW MS
NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

SANITARY SEWER PLAN

JOB 22286.0100
DATE 10/30/2025
SHEET C05.01

Oct 29, 2025 - 11:15am User: Robert
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NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

GENERAL STORM SEWER NOTES:

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS AND CITY OF FATE STANDARDS AND SPECIFICATIONS.
2. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL MAKE CERTAIN THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED, NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
4. IN THE EVENT AN ITEM IS NOT COVERED IN THE CITY OF FATE SPECIFICATIONS, THE ENGINEER'S DESIGN SHALL APPLY.
5. BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO "STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION BARRICADING AND CONSTRUCTION STANDARDS".
6. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION. IN THE EVENT OF ANY CONFLICT AND PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, IMMEDIATELY NOTIFY ENGINEER. MINOR ADJUSTMENTS OF FINISH GRADE TO ACCOMPLISH SPOT DRAINAGE ARE ACCEPTABLE IF NECESSARY, UPON PRIOR APPROVAL OF ENGINEER, PAVING INSTALLED SHALL FLUSH OUT AT ANY JUNCTURE WITH EXISTING PAVING.
7. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION.
8. CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS, RIM ELEVATIONS AND SIZES PRIOR TO CONSTRUCTION.
9. ALL NON RCP DRAIN PIPE SHALL BE PVC SCH 40, ADS OR APPROVED EQUAL.
10. ALL RCP SHALL BE CLASS III.
11. W.E. AS INDICATED ON INLET CALLS INDICATES WATER ELEVATION AT INLET DURING 100 YEAR STORM EVENT.

NOTE:
SEE SHEET MEP SHEET PL 1.1 FOR DOWNSPOUT & ROOF DRAIN LOCATIONS. ALL ROOF DRAINS & DOWNSPOUTS SHALL BE CONNECTED TO STORM SEWER SYSTEM.

NOTE:
ALL STORM SEWER IS CONSIDERED PRIVATE

BENCHMARKS

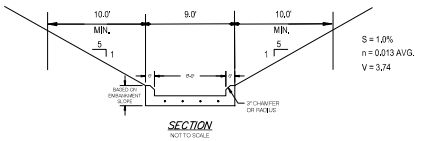
BENCHMARKS:

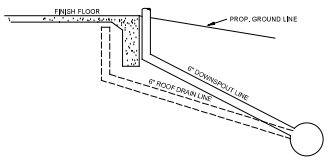
BM #14 – 584.64'
"X" CUT IN CONCRETE ON THE BACK OF CURB IN THE MEDIAN OF CAVALRY CROSSING AND JEFFERSON LANE, SAID POINT BEING ABOUT 25 FEET NORTH FROM THE CENTERLINE OF JEFFERSON LANE AND CAVALRY CROSSING.

BM #15 – 574.45'
"X" CUT IN CONCRETE ON THE BACK OF CURB AT THE SOUTHEAST CORNER OF LOT 1, BLOCK E. POINT ALSO BEING AT THE INTERSECTION OF JAMESTOWN LANE AND DILLARD STREET.

GRAPHIC SCALE 1"=40'
40 0 40 80

TYPICAL SWALE SECTION





DOWNSPOUT DETAIL

NTS

NOTE:
1. AT ALL LOCATIONS OF DOWNSPOUTS AND ROOF DRAINS A 6" PVC PIPE IS TO BE INSTALLED FROM THE 12" PVC LINE TO THE FOUNDATION AND EXTEND UP ABOVE THE FINISH FLOOR ELEVATION. SEE ARCHITECTURAL PLAN FOR THE CONNECTION DETAIL AND THE ROOF PLAN FOR ACTUAL DOWNSPOUT AND ROOF DRAIN LOCATIONS.

CORGAN

CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1752375100000
PHONE (972) 717-0191 FAX (972) 717-0778
4599 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103262
LICENSED PROFESSIONAL ENGINEER

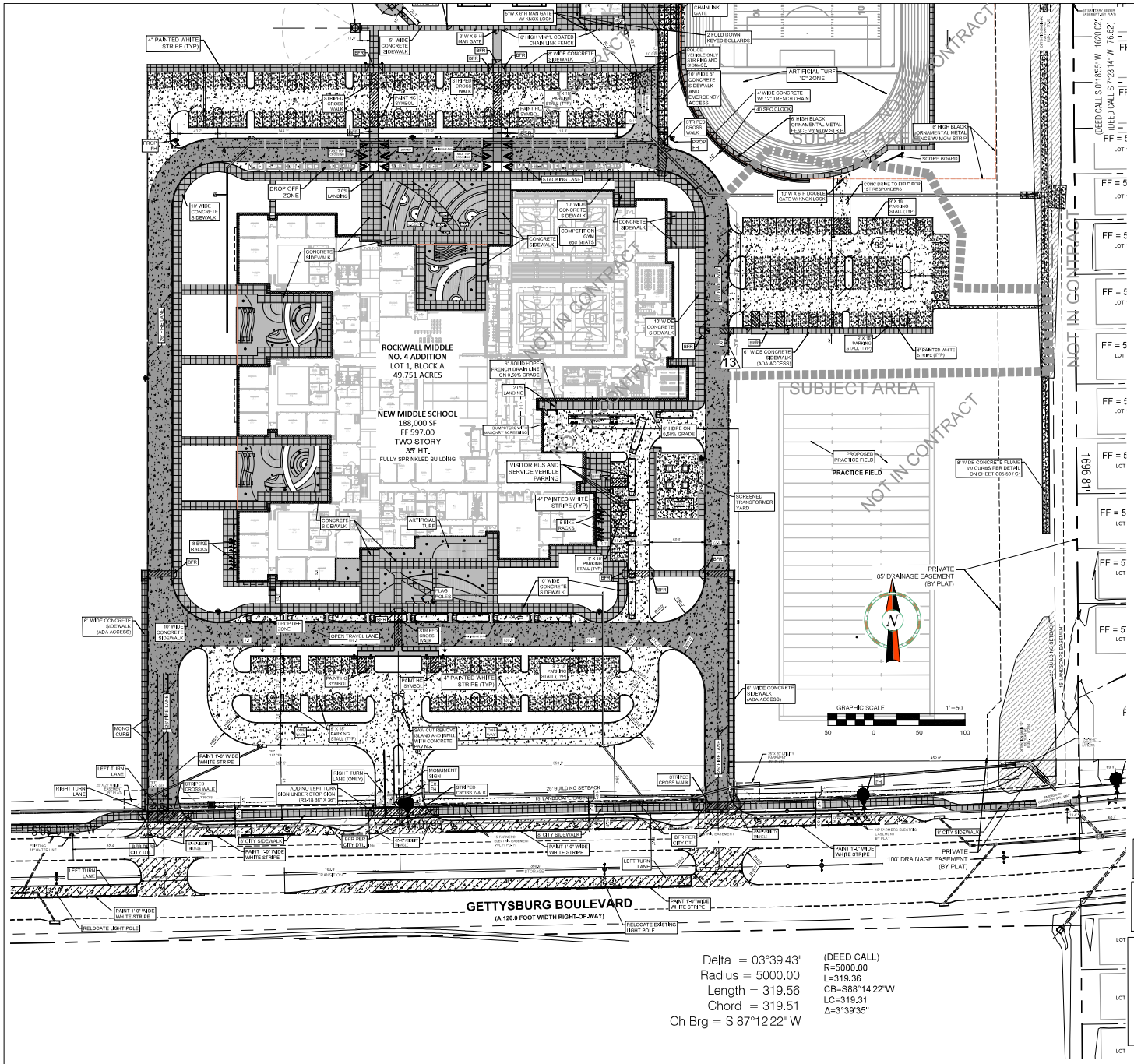
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URSULA RAKOW MS
NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

SOUTH WEST
STORM PLAN

JOB 22286.0100
DATE 10/30/2025
SHEET C05.04



Delta = 03°39'43" (DEED CALL) R=5000.00
Radius = 5000.00' L=319.36
Length = 319.56' CB=S88°14'22"W
Chord = 319.51' LC=319.31
Ch Brg = S 87°12'22" W Δ=3°39'35"

GENERAL PAVING NOTES:

THE INITIAL SOIL TEST AND REPORT BY FUGRO SOUTH, INC., PROJECT NO.2703-1081 AND ANY AND ALL SUBSEQUENT REPORTS PREPARED FOR THIS PROJECT BY FUGRO SOUTH OR BY OTHER FIRM, AGENCY OR ENTITY, EVEN THOUGH NO SPECIFIC REFERENCE TO ANY SUCH REPORTS ARE CONTAINED IN THE PLANS AND/OR SPECIFICATIONS FOR THIS PROJECT, ARE MADE A PART OF THIS PLAN, A COPY CAN BE OBTAINED THROUGH THE ARCHITECT OR ENGINEER.

I. PAVEMENT SUB GRADE FOR A & B, BELOW

THE CLAY SOILS ENCOUNTERED NEAR THE EXISTING GROUND SURFACE WILL PROBABLY CONSTITUTE THE SUB GRADE FOR MOST OF THE PARKING AND DRIVE AREAS, THEREFORE, IT IS RECOMMENDED THAT THESE SOILS BE IMPROVED PRIOR TO CONSTRUCTION OF THE PAVEMENTS

IT IS RECOMMENDED THAT THE EXISTING CLAY SOILS IN DRIVE AND PARKING AREAS BE EXCAVATED TO ACHIEVE FINAL SUB GRADE ELEVATION. THE EXPOSED SURFACE OF THE CLAYS SHOULD BE SCARIFIED TO A DEPTH OF AT LEAST 8 INCHES AND MIXED WITH AN ESTIMATED 7 PERCENT OF HYDRATED LIME (BY DRY UNIT WEIGHT) IN CONFORMANCE WITH TEXAS HIGHWAY DEPARTMENT ITEM 260, ASSUMING AN IN-PLACE UNIT WEIGHT OF 100 PCF FOR THE PAVEMENT SUB GRADE SOILS. THIS PERCENTAGE OF LIME EQUATES TO ABOUT 32 LBS OF LIME PER SQ. YARD OF SUB GRADE TREATED. THE ACTUAL AMOUNT OF LIME REQUIRED SHOULD BE DETERMINED BY ADDITIONAL LABORATORY TESTS. IT IS RECOMMENDED THAT THE LIME STABILIZATION PROCEDURES EXTEND AT LEAST 4 FT. BEYOND THE EDGE OF THE PAVEMENT TO MINIMIZE THE EFFECTS OF SEASONAL SHRINKING UPON THE EXTREME EDGES OF PAVEMENT. THE SOIL-LIME MIXTURE SHOULD THEN BE COMPACTED TO AT LEAST 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698) WITHIN 3 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT. IN ALL AREAS WHERE HYDRATED LIME IS USED TO STABILIZE THE SUB GRADE SOILS, ROUTINE ATTERBERG LIMIT TESTS SHOULD BE PERFORMED TO ASSURE THAT THE RESULTING PLASTICITY INDEX OF THE SOIL-LIME MIXTURE IS AT OR BELOW 15.

THE CLIENT SHOULD BE AWARE THAT MECHANICAL LIME STABILIZATION OF THE PAVEMENT SUB GRADE SOILS WILL NOT PREVENT DEEP SEATED MOVEMENT OF THE UNDERLYING UNTREATED MATERIALS. FUTURE MAINTENANCE OF PAVEMENTS SHOULD BE EXPECTED OVER THE LIFE OF THE STRUCTURE.

II. PAVING

CONCRETE DRIVEWAY APPROACHES SHALL BE A MINIMUM OF 6 INCHES THICK. CONCRETE DRIVEWAY APPROACHES SHALL HAVE A RISE OF NOT LESS THAN 6 INCHES NOR MORE THAN 9 INCHES FROM THE FLOW LINE OF THE GUTTER TO A POINT 10 FEET BEHIND THE FACE OF THE GUTTER. CONCRETE FOR DRIVEWAYS SHALL BE A MINIMUM OF 3,600 PSI, MIN. 6.5 SACK MIX. IN 28 DAYS CONCRETE WITH 3-6 PERCENT ENTRAINED AIR. THE GRADE BELOW THE DRIVEWAY, INCLUDING A FOOT OUTSIDE OF THE OUTER EDGE OF THE DRIVEWAY SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY, AND AS INDICATED IN THE "PAVEMENT SUB GRADE NOTES".

DRIVEWAYS SHALL HAVE CONTRACTION JOINTS NOT MORE THAN 15 FEET APART. BOTH TRANSVERSELY AND LONGITUDINALLY ONE-HALF INCH EXPANSION JOINT SHALL BE PLACED ON THE PROPERTY LINES BETWEEN THE APPROACH AND THE DRIVEWAY. THE JOINTS SHALL BE FILLED WITH PRE MOLDED GRAY BITUMINOUS EXPANSION JOINT FILLER AND SHALL EXTEND THE ENTIRE DEPTH AND LENGTH OF THE SECTIONS.

A. FINISHING SHALL BE AS INDICATED IN SECTION III.

NOTE: NO CONCRETE SHALL BE PLACED FOR PAVING UNTIL THE SUB GRADE REINFORCEMENT PLACEMENT HAS BEEN INSPECTED AND APPROVED BY THE CITY OR STATE (WHICHEVER IS APPLICABLE).

B. PARKING LOTS

PARKING LOT SUB GRADE SHALL BE AS INDICATED IN SECTION I.

PAVING SHALL BE 5" REINFORCED CONCRETE IN LIGHT TRAFFIC AREAS AND 6" REINFORCED CONCRETE IN HEAVY TRAFFIC AREAS 3,600 PSI MIN, 6.5 SACK MIX, IN 28 DAYS CONCRETE WITH 3-6 % ENTRAINED AIR REINFORCED WITH #4 BARS AT 18" O.C.E.W. SUPPORTED WITH PROPER SUPPORT CHAIRS. EXPANSION JOINTS SHALL BE AT 150' MAXIMUM O.C. AND SAW-CUT CONTRACTION JOINTS AT MAXIMUM 15' OC. ALL JOINTS TO BE CLEANED AND FILLED WITH HOT POURED RUBBER (GRAY).

FINISHING SHALL BE AS INDICATED IN SECTION III.

C. ON-SITE SIDEWALKS

CONCRETE SIDEWALKS SHALL BE A WIDTH AS DESIGNATED ON SITE PLAN AND A MINIMUM OF 4 INCHES THICK, CONSTRUCTED OF 3,600 PSI (6.5 SACK), IN 28 DAYS CONCRETE WITH 3-6% ENTRAINED AIR AND REINFORCED WITH #3 BARS AT 18" O.C.E.W. TOOLED CONSTRUCTION JOINTS SHALL BE 5'-0" OC.-ONE-HALF INCH EXPANSION JOINT SHALL BE PLACED EVERY 40 FEET AND WHERE NEW WORK IS CONSTRUCTED ADJACENT TO OTHER CONCRETE WORK (WALLS, FOUNDATION, CURB, ETC.). THE JOINTS SHALL BE FILLED WITH 1/2-INCH PRE MOLDED GRAY BITUMINOUS EXPANSION JOINT FILLER AND SHALL EXTEND THE ENTIRE DEPTH AND WIDTH OF THE CONCRETE SECTION.

FINISH OF SIDEWALKS SHALL BE WITH A BROOM FINISH PER ENGINEER. WALKS SHALL HAVE TOOLED CURB EDGES & TOOLED JOINTS.

III. FINISHING FOR CONCRETE DRIVEWAY, PARKING LOT AND STREET CURBS

THE EXPOSED SURFACES OF DRIVEWAYS AND PARKING LOT SHALL HAVE A MONOLITHIC FINISH BY FLOATING WITH A WOODEN FLAT UNTIL A SLIGHT EXCESS OF SAND APPEARS ON THE SURFACES. IN NO CASE SHALL THE SURFACE BE LEFT SLICK OR WITH A GLOSSY FINISH. EXPOSED SURFACES OF SIDEWALKS SHALL HAVE A MONOLITHIC FINISH BY TRAWLING WITH A STEEL TROWEL AND BRUSHED LIGHTLY WITH AN APPROVED BROOM, THE EDGE OF ALL CONCRETE SHALL BE NEATLY ROUNDED TO THE REQUIRED RADII WITH AN EDGING TOOL.

THE EXPOSED SURFACE OF CURBS AND CURBS WITH GUTTER SHALL BE SHAPED WITH A "MULE" AND BRUSHED WITH A WET BRUSH AT RIGHT ANGLE TO THE LINE OF THE CURB TO PRODUCE A UNIFORM TEXTURED SURFACE. THE EDGES SHALL BE NEATLY ROUNDED OFF TO THE REQUIRED RADII. USE OF GROUT OVER A ROUGH FINISHED TEXTURE WILL NOT BE ALLOWED.

PAVING LEGEND

- (FIRE LANE PAVING) PROPOSED 6" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6" SACK MACHINE FINISH WITH #4 REBARS ON 18" CENTERS EACH WAY OVER 6 INCHES 6% LIME STABILIZED SUBGRADE PER CITY STANDARDS
- PROPOSED 6" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #4 REBARS ON 18" CENTERS EACH WAY OVER 6 INCHES 6% LIME STABILIZED SUBGRADE PER CITY STANDARDS
- PROPOSED 5" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #4 REBARS ON 18" CENTERS EACH WAY OVER 6 INCHES 6% LIME STABILIZED SUBGRADE PER CITY STANDARDS
- PROPOSED 4" REINFORCED CONCRETE SIDEWALK 3,000 P.S.I. 5 SACK MACHINE FINISH WITH #3 REBARS ON 18" CENTERS EACH WAY.
- (PUBLIC STREET PAVING) PROPOSED 7" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #4 REBARS ON 18" CENTERS EACH WAY OVER 6 INCHES 6% LIME STABILIZED SUBGRADE PER CITY STANDARDS
- PROPOSED 8" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #4 REBARS ON 18" CENTERS EACH WAY OVER 8" 8% STABILIZED SUB GRADE COMPACTED TO 95% PROCTOR OR AS APPROVED BY THE CITY

PAVING ALTERNATE: DELETE LIME AS CALL OUT ABOVE AND ADD AN ADDITIONAL 1" CONCRETE TO ALL PAVING DEPTH CALL OUT ABOVE.

NOTE:
NO SAND WILL BE PERMITTED UNDER PAVEMENT.

NOTE:
NO FLY ASH WILL BE PERMITTED

NOTE:
SEE LANDSCAPE PLAN LS 1.01 FOR SLEEVES UNDER ALL PAVING WALKS, DRIVES AND PARKING. SEE M.E.P. PLANS ES 1.01 FOR ALL SLEEVE LOCATIONS FOR LIGHTING.

NOTE:
1. ALL DETENTION FACILITIES SHALL BE INSTALLED AND FUNCTIONAL PER PLANS PRIOR TO ANY PAVING BEING PLACED ON SITE INCLUDING BUILDING FOUNDATION.
2. ALL SIDES, SLOPES AND TOP OF DETENTION BASIN SHALL BE SODDED OR ANCHORED ON SEEDED CURLEX PRIOR TO ANY PAVING BEING PLACED INCLUDING BUILDING FOUNDATION.
3. WHERE SIDEWALKS ARE ABUTTING CURB, SIDEWALK WILL BE DOWELED INTO CURB. SEE DETAIL C06.03

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

CORGAN
CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB # 1752257180200
PHONE (972) 717-0151 FAX (972) 717-0176
4599 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
103962
LICENSED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Mike Glenn, P.E. 103962, on October 30, 2025

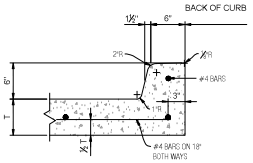
URSULA RAKOW MS
NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

SOUTH PAVING PLAN
REVISED

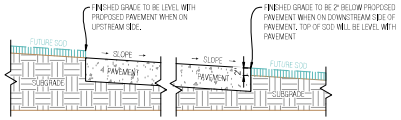
JOB 22286.0100
DATE 10/30/2025
SHEET C06.01

RE: PAVING PLAN FOR PAVEMENT THICKNESS (T)



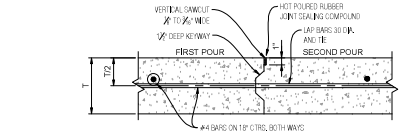
A1 INTEGRAL CURB & GUTTER

NTS

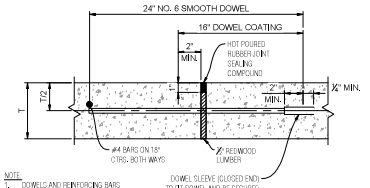


A2 GRADING DETAIL FOR PAVEMENT WITHOUT CURB

NTS

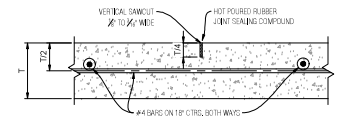


CONSTRUCTION JOINT DETAIL (L)



NOTE
1. DOWELS AND REINFORCING BARS SHALL BE SUPPORTED BY AN APPROVED DEVICE

EXPANSION JOINT DETAIL
MAXIMUM SPACING = 60 FEET



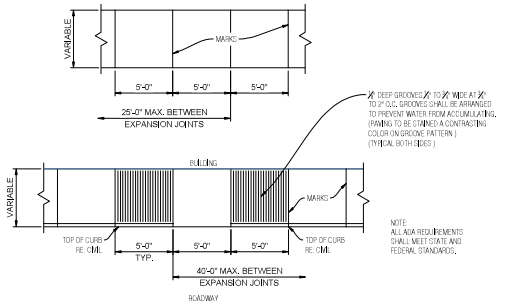
SAWED DUMMY JOINT DETAIL (T)
MAXIMUM SPACING = 15 FEET

USE CITY PAVING JOINT DETAIL WITH N.B.O.W.

B3 PRIVATE JOINT DETAILS

NTS

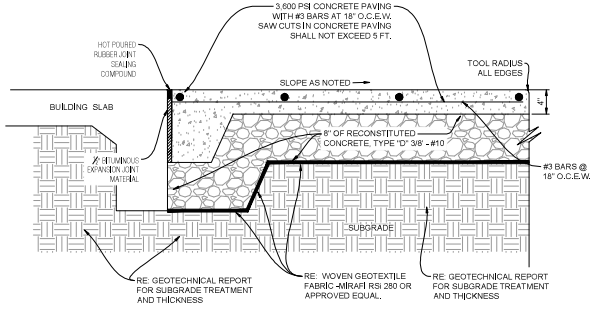
1. AT MARKINGS: THE CONCRETE SHALL BE CUT ⅛" DEEP, FOLLOWED BY GROOVING TOOL.
2. SIDEWALKS ADJACENT TO BUILDING TO BE PLACED ON LIME TREATED SUBGRADE THE SAME AS PAVING. ALL OTHER SIDEWALKS TO BE PLACED OVER 1" MAX. COMPACTED SAND (ITEM 15).



B1 PRIVATE SIDEWALK PLAN

NTS

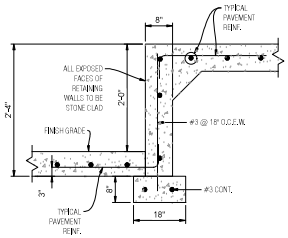
PROPOSED 4" REINFORCED CONCRETE SIDEWALK, 3,600 psi MIN. COMPRESSIVE STRENGTH WITH #3 REBARS ON 18" CENTERS EACH WAY (ON PRIVATE PROPERTY, NO SAND) OVER 8" OF RECONSTITUTED CONCRETE, TYPE "D" 3/8" - #10 WITH , OVER 6" OF SUBGRADE COMPACTED TO A MINIMUM OF 95% OF [*]'S MAXIMUM DRY DENSITY (STANDARD PROCTOR), AT A MOISTURE CONTENT OF AT LEAST +-3 PERCENTAGE POINTS ABOVE OPTIMUM. (PER SOILS REPORT). THE DETAIL APPLIES TO THE 10' ON EITHER SIDE OF STRUCTURAL PORCH.



B2 PRIVATE INTERIOR SIDEWALK TYPICAL SECTION

NTS

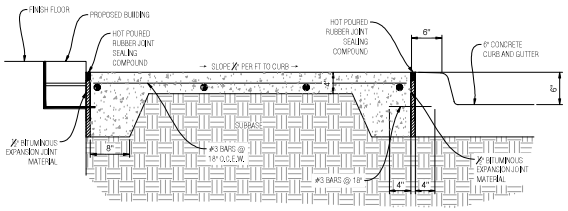
THESE DETAILS ONLY FOR PRIVATE USE. USE CITY DETAILS IN PUBLIC ROW.



C1 TURNDOWN SIDEWALK DETAIL

NTS

ALL SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%



C2 WALK/BUILDING/CURB INTERFACE

NTS

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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Dallas, TX 75202
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ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-003 HUB #: 1752573193300
PHONE (972) 717-2191 FAX (972) 717-2178
4000 PULLER DRIVE, SUITE 220 IRVING, TEXAS 75038



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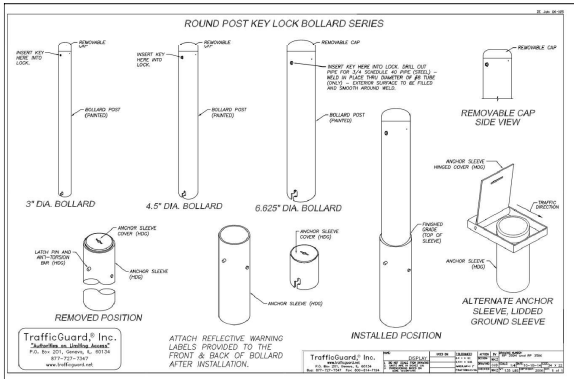
URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD, CITY OF FATE, TX

PRIVATE PAVING DETAILS

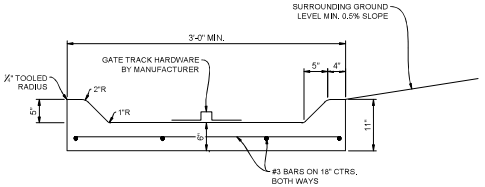
JOB 22286.0100
DATE 10/30/2025
SHEET C06.50

Oct. 29, 2025 - 11:35am User: Robert
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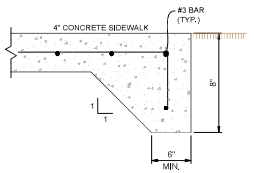
A1 LOCKABLE FOLD DOWN BOLLARD DETAIL

NTS TrafficGuard or APPROVED EQUAL Detail 1 of 3



A2 SLIDING GATE TRACK FOUNDATION

NTS



A3 PLANTER EDGE BEAM

NTS

CONSTRUCTION DATA SCHEDULE RPAS

1. THE DESIGN LOAD IS A STATIC LOAD "P" APPLIED AT 27 INCHES ABOVE GRADE.

2. THE EARTH PRESSURE VALUE IS SHOWN AT DESIGN LOAD AND THE OWNER SHOULD VERIFY THAT THE EARTH IS ADEQUATE TO WITHSTAND THE NOTED EARTH DESIGN PRESSURE.

3. ANCHORAGE SYSTEMS BY OTHERS THAN TRAFFICGUARD,® INC. MAY CAUSE PREMATURE FAILURE OF THE BOLLARD.

NOTE: CONCRETE, FORM, ROCK, PVC DRAIN AND REBAR PROVIDED BY OTHERS										
DESIGN	BOLLARD		EARTH	PIER HT.	VERT. REBAR		HOOP	PIER	FRENCH	PIER
LOAD P	Out Dia.	Ins Dia.	"Q" MAX.	"C" MIN.	LENGTH	QTY	TIES	CONCRETE	DRAIN	"D"
500 #	1.910"	1.620"	992 PSF	42 INCH	38 INCH	3	6 EA.	6 Cu Ft	1.2 CF	8"
1200 #	2.440"	2.064"	1984 PSF	42 INCH	38 INCH	3	6 EA.	6 Cu Ft	1.2 CF	8"
3000 #	3.500"	3.068"	2204 PSF	42 INCH	38 INCH	4	6 EA.	6 Cu Ft	0.5 CF	18"
6000 #	4.500"	4.026"	4408 PSF	42 INCH	38 INCH	4	6 EA.	6 Cu Ft	0.5 CF	18"
6000 #	4.500"	4.026"	2667 PSF	54 INCH	50 INCH	4	7 EA.	8 Cu Ft	0.5 CF	18"
10000#	5.563"	5.047"	4444 PSF	54 INCH	50 INCH	4	7 EA.	8 Cu Ft	0.5 CF	18"
10000#	5.563"	5.047"	3600 PSF	60 INCH	56 INCH	4	8 EA.	9 Cu Ft	0.5 CF	18"
10000#	5.563"	5.047"	2975 PSF	66 INCH	62 INCH	4	8 EA.	10 Cu Ft	0.5 CF	18"
15000#	6.625"	6.065"	3750 PSF	72 INCH	68 INCH	4	9 EA.	11 Cu Ft	0.5 CF	18"
15000#	6.625"	6.065"	3195 PSF	78 INCH	72 INCH	4	9 EA.	12 Cu Ft	0.5 CF	18"
15000#	6.625"	6.065"	3240 PSF	60 INCH	56 INCH	8	8 EA.	25 Cu Ft	1.6 CF	30"
15000#	6.625"	6.065"	3333 PSF	54 INCH	50 INCH	8	7 EA.	32 Cu Ft	1.8 CF	36"

THIS IS A GUIDELINE FOR ESTIMATING, SITE SPECIFIC CONDITIONS SHOULD BE VERIFIED.

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ROUND POST BOLLARD RPAS
ANCHORAGE SYSTEM DETAILS

THIRD ANGLE PROJECTION

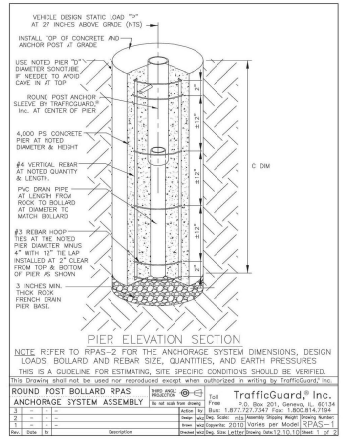
Do not scale from drawing

TrafficGuard,® Inc.
P.O. Box 201, Geneva, IL 60134
Bus: 1.877.727.7347 Fax: 1.800.814.7194

Action by | Design wkd | Drawn wkd | Checked wkd
Drg. Scale: nts | Assembly Shipping Weight | Drawing Number: RPAS-2
Copyright: 2010 | Varies per Model
Drg. Size: Letter | Drawing Date: 12.10.10 | Sheet: 2 of 2

B1 LOCKABLE FOLD DOWN BOLLARD DETAIL

NTS TrafficGuard or APPROVED EQUAL - Detail 2 of 3



NOTE REFER TO RPAS-2 FOR THE ANCHORAGE SYSTEM DIMENSIONS, DESIGN LOADS BOLLARD AND REBAR SIZE, QUANTITIES, AND EARTH PRESSURES

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ROUND POST BOLLARD RPAS
ANCHORAGE SYSTEM ASSEMBLY

THIRD ANGLE PROJECTION

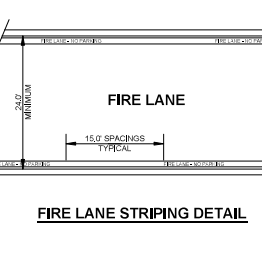
Do not scale from drawing

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Drg. Scale: nts | Assembly Weight | Drawing Number: RPAS-1
Copyright: 2010 | Varies per Model
Drg. Size: Letter | Drawing Date: 12.10.10 | Sheet: 1 of 2

B2 LOCKABLE FOLD DOWN BOLLARD DETAIL

NTS TrafficGuard or APPROVED EQUAL - Detail 3 of 3



FIRE LANE STRIPING DETAIL

STRIPING DETAILS AND SPECIFICATIONS

A. PAINT:

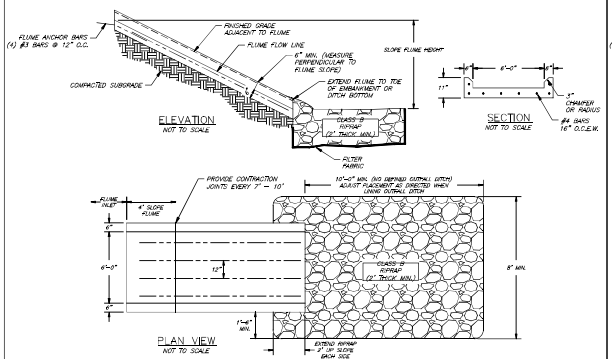
1. STRIPE SHALL BE SIX(6) INCHES WIDE PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT. COLOR SHALL BE "TRAFFIC RED" GILDDEN NO. 83251 OR EQUAL.
2. LETTERS SHALL BE FOUR(4) INCHES HIGH PAINTED WITH AN EXTERIOR ACRYLIC PAINT. COLOR SHALL BE "TRAFFIC WHITE" GILDDEN NO. 563245 OR EQUAL.

B. APPLICATION:

1. STRIPE MAY BE BRUSHED OR SPRAYED, ONE COAT TO FINISH.
2. LETTERS SHALL BE STENCIL FORMED, BRUSH APPLIED AND SPACED AS DETAILED ON THIS SHEET.

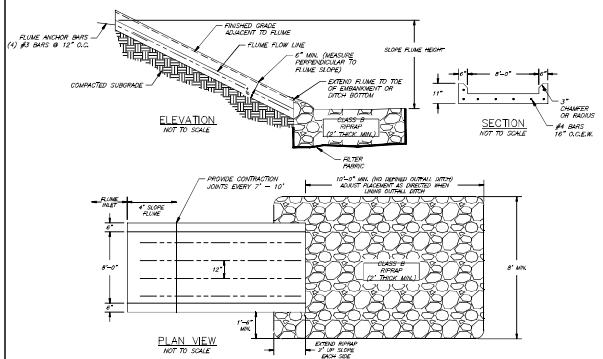
B3 FIRE LANE STRIPING DETAIL

NTS



C1 6' CONCRETE FLUME DETAIL

NTS



C2 8' CONCRETE FLUME DETAIL

NTS

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-003 HUB #: 1752573193300
PHONE (972) 717-0191 FAX: (972) 717-2178
4000 PULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
136059
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URSULA RAKOW MS NEW PARKING LOT

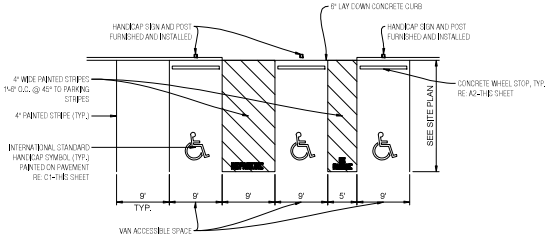
GETTYSBURG BLVD, CITY OF FATE, TX

PRIVATE PAVING DETAILS

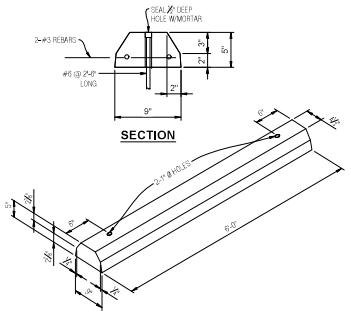
JOB 22286.0100
DATE 10/30/2025
SHEET C06.51

Oct 29, 2025 - 11:36am User: Robert
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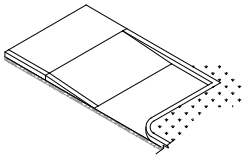
1. PARKING STALL DIMENSIONS TO BE IN ACCORDANCE WITH ADA OR APPROPRIATE GOVERNING AUTHORITIES STANDARDS, WHICHEVER IS MORE RESTRICTIVE.
2. SEE SITE PLAN FOR ADA PARKING LOCATIONS.



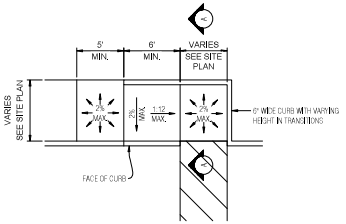
A1	ACCESSIBLE PARKING STALL DETAILS
NTS	



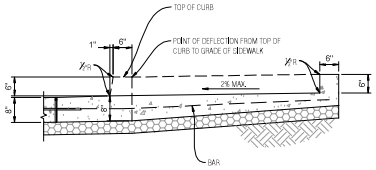
A2	PRECAST CONCRETE WHEEL STOP
NTS	



ISOMETRIC



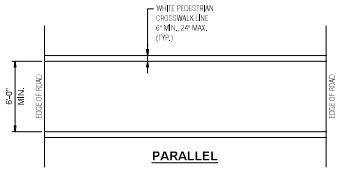
PLAN

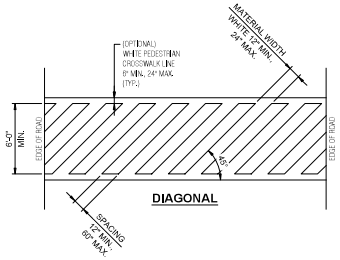


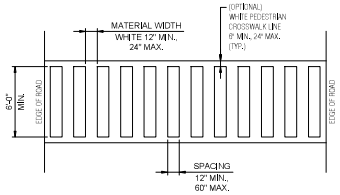
SECTION A-A

B1	PARALLEL CURB RAMP
NTS	

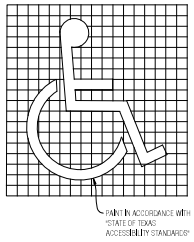
1. CONTRACTOR SHALL PROPERLY RE-ALIGN STOP BARS AND OTHER PAVEMENT MARKERS AS NECESSARY TO INSTALL CROSSWALK.
2. CROSSWALK STRIPES SHALL BE APPLIED IN ACCORDANCE WITH THE CITY OF WAXAHACHIE STANDARDS.





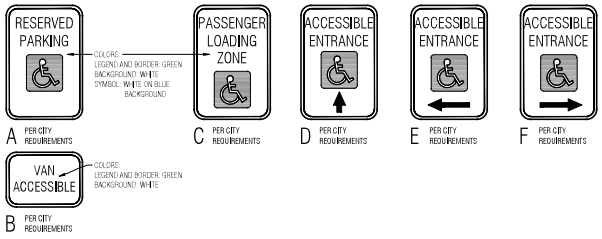


B3	CROSSWALK STRIPING
NTS	

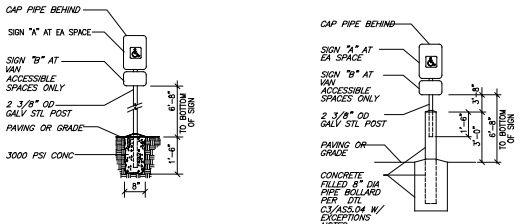


NOTE:
GRID FOR LAYOUT PURPOSES ONLY

C1	ACCESSIBLE SYMBOL DETAIL
NTS	



C2	ACCESSIBLE PARKING SIGN DETAIL
NTS	



C3	SIGN POST DETAILS
NTS	

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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CORGAN
Dallas, TX 75202
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ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1752375193200
PHONE (972) 717-2191 FAX (972) 717-2176
4599 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
105059
LICENSED PROFESSIONAL ENGINEER

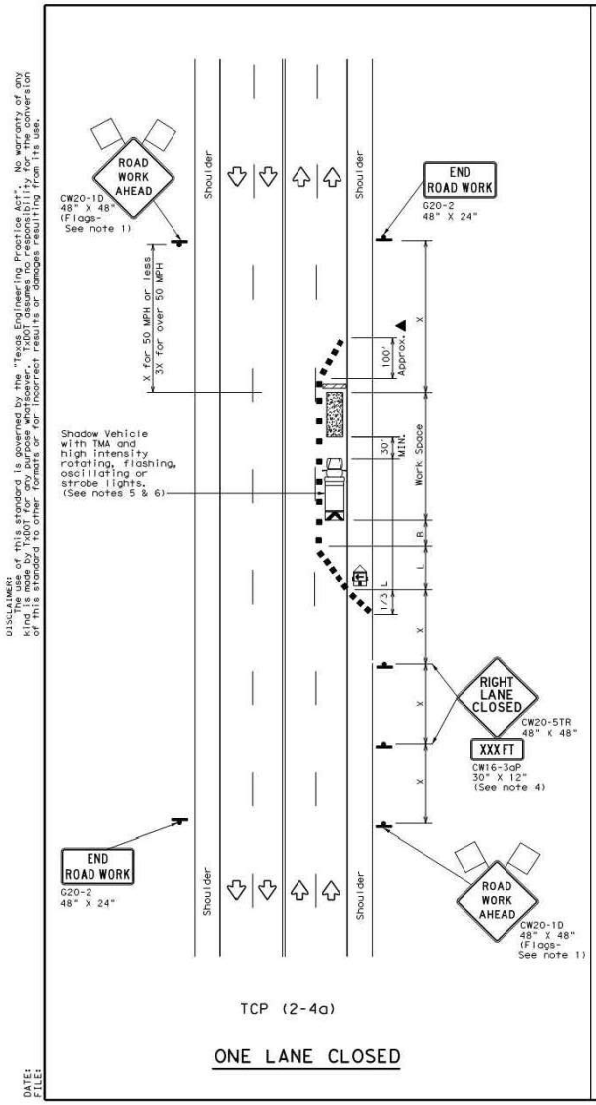
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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

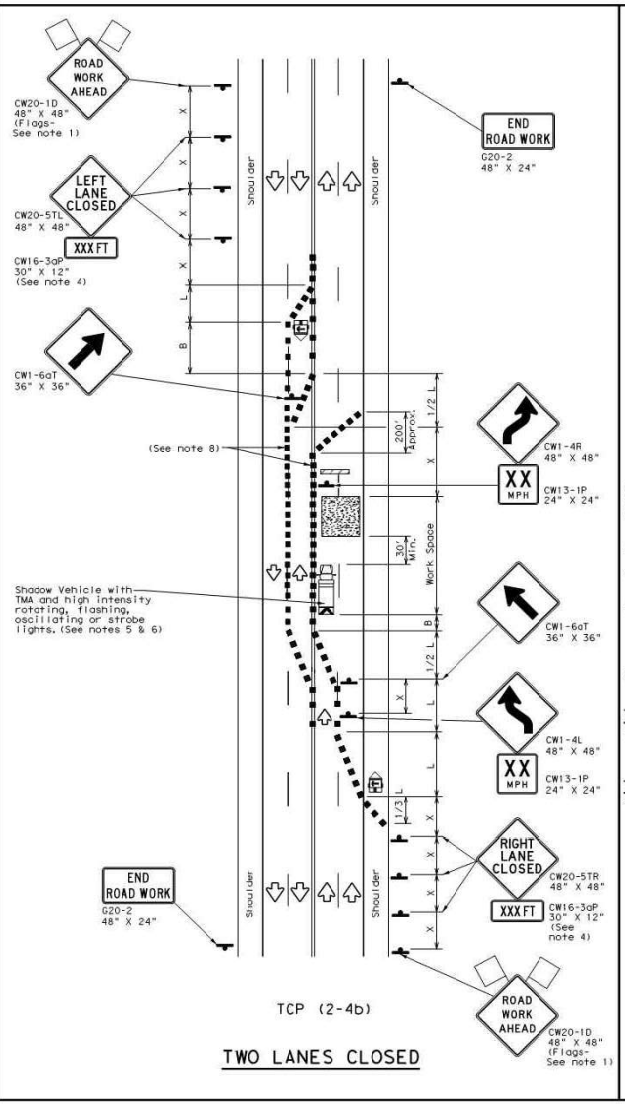
PRIVATE ADA DETAILS

JOB 22286.0100
DATE 10/30/2025
SHEET C06.52



TCP (2-4a)

ONE LANE CLOSED



TCP (2-4b)

TWO LANES CLOSED

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board	M	Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓	✓	

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The downstream taper is optional. When used, it should be 100 feet minimum length per lane.
4. For short term applications, when post mounted signs are not used, the distance legend may be shown on the sign face rather than on a CW16-3aP supplemental plaque.
5. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
6. Additional Shadow Vehicles with TMAs may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-4a)

7. If this TCP is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED"signs shall be used and channelizing devices shall be placed on the centerline to protect the work space from opposing traffic with the arrow board placed in the closed lane near the end of the merging taper.

TCP (2-4b)

8. For shorter durations where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2(S) where S is the speed in mph. This tighter devices spacing is intended for the area of conflicting markings, not the entire work zone.

Texas Department of Transportation — Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
LANE CLOSURES ON MULTILANE CONVENTIONAL ROADS

TCP(2-4)-18

FILE: tcp2-4-18.dgn	DN:	CK:	DW:	CK:
©TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS 8-95 3-03 1-97 2-12 4-98 2-18	DIST	COUNTY		SHEET NO.

TR4

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DATE:
FILE:

NOTE:
CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLAN TO THE CITY OF FATE FOR REVIEW AS ROADWAY CLOSURES ARE REQUIRED.

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

Oct 29, 2025 - 11:38am User: Robert
R:\ROCKISD\WILLIAMSBURG\2022 MIDDLE SCHOOL SITE\BIDSET\PRIVATE DETAILS\2020 Williamsburg-Private Details.dwg

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CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION #: F-930
PHONE (972) 717-5151
4500 FULLER DRIVE, SUITE 220
FAX (972) 717-2176
IRVING, TEXAS 75038

MIKE GLENN
103091
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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

TxDOT TRAFFIC CONTROL PLAN

JOB 22286.0100
DATE 10/30/2025
SHEET C06.53

NOTE THE CITY OF FATE CONSTRUCTION STANDARDS MAY SUPERSEDE THESE PLANS IN PLACES



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THIS SIGN REVISION AT LEFT APPLICABLE ON-SITE ONLY. NOT WITHIN TXDOT R.O.W.

STANDARD PLANS
Texas Department of Transportation
Traffic Operations Division

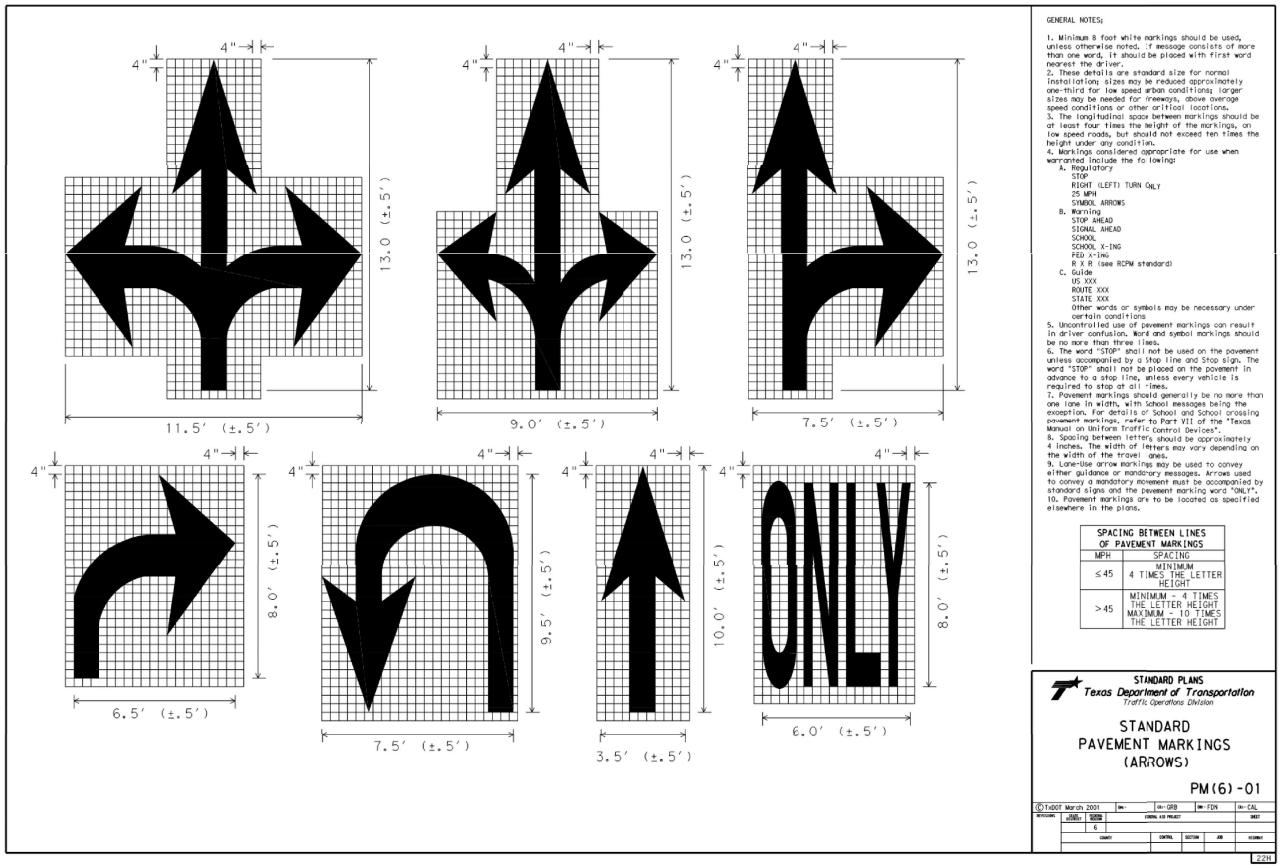
STANDARD
PAVEMENT MARKINGS
(WORDS)

PM(5)-01

© TxDOT March 2001 | DN: | CK: GRB | DW: FDN | CK: CAL

FED.RD. DIV.NO.	STATE	DISTRICT	COUNTY	CONTROL	SECTION	JOB	HIGHWAY	SHEET
6								

226



GENERAL NOTES:

1. Minimum 8 foot white markings should be used, unless otherwise noted. If message consists of more than one word, it should be placed with first word nearest the driver.
2. These details are standard size for normal installations; sizes may be reduced approximately one-third for low speed urban conditions; larger sizes may be needed for freeways, above average speed conditions or other critical locations.
3. The longitudinal space between markings should be at least four times the height of the markings, on low speed roads, but should not exceed ten times the height under any condition.
4. Markings considered appropriate for use when warranted include the following:
   A. Regulatory
      STOP
      RIGHT (LEFT) TURN ONLY
      25 MPH
      SYMBOL ARROWS
   B. Warning
      STOP AHEAD
      SIGNAL AHEAD
      SCHOOL
      SCHOOL X-ING
      PED X-ING
      R X R (see RCPM standard)
   C. Guide
      US XXX
      ROUTE XXX
      STATE XXX
      Other words or symbols may be necessary under certain conditions
5. Uncontrolled use of pavement markings can result in driver confusion. Word and symbol markings should be no more than three lines.
6. The word "STOP" shall not be used on the pavement unless accompanied by a Stop line and Stop sign. The word "STOP" shall not be placed on the pavement in advance to a stop line, unless every vehicle is required to stop at all times.
7. Pavement markings should generally be no more than one lane in width, with School messages being the exception. For details of School and School crossing pavement markings, refer to Part VII of the "Texas Manual on Uniform Traffic Control Devices".
8. Spacing between letters, should be approximately 4 inches. The width of letters may vary depending on the width of the travel lanes.
9. Lane-Use arrow markings may be used to convey either guidance or mandatory messages. Arrows used to convey a mandatory movement must be accompanied by standard signs and the pavement marking word "ONLY".
10. Pavement markings are to be located as specified elsewhere in the plans.

SPACING BETWEEN LINES OF PAVEMENT MARKINGS	
MPH	SPACING
≤45	MINIMUM 4 TIMES THE LETTER HEIGHT
>45	MINIMUM - 4 TIMES THE LETTER HEIGHT MAXIMUM - 10 TIMES THE LETTER HEIGHT

STANDARD PLANS
Texas Department of Transportation
Traffic Operations Division

STANDARD
PAVEMENT MARKINGS
(ARROWS)

PM(6)-01

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FED.RD. DIV.NO.	STATE	DISTRICT	COUNTY	CONTROL	SECTION	JOB	HIGHWAY	SHEET
6								

22H

URSULA RAKOW MS
NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

TxDOT STANDARD
PAVEMENT
MARKINGS

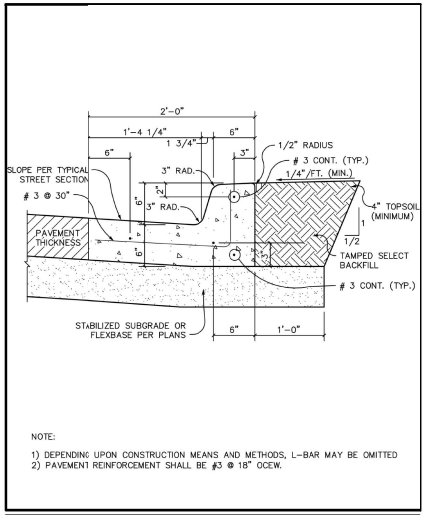
JOB 22286.0100
DATE 10/30/2025
SHEET C06.54

GLENN ENGINEERING
TBPE REG. F-2400
TBPLS REG. 10193750

CORGAN
Dallas, TX 75202
T: 214.748.2000

ISSUES	
1	10/30/25 ISSUE FOR CONSTRUCTION

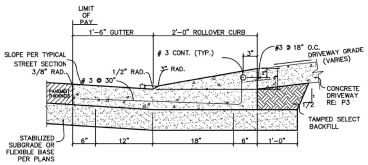
REVISIONS	



NOTE:

1) DEPENDING UPON CONSTRUCTION MEANS AND METHODS, L-BAR MAY BE OMITTED
2) PAVEMENT REINFORCEMENT SHALL BE #3 @ 18" OCEW.

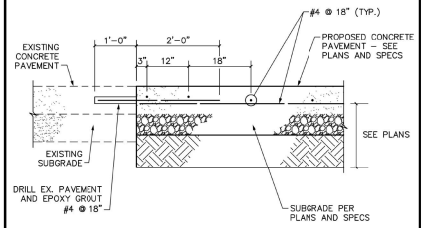
	STANDARD CONSTRUCTION DETAIL	SCALE: 1"=1'-0"
FATE	**6" CONCRETE CURB AND 18" GUTTER**	REVISED: MAY 2019
		P01A



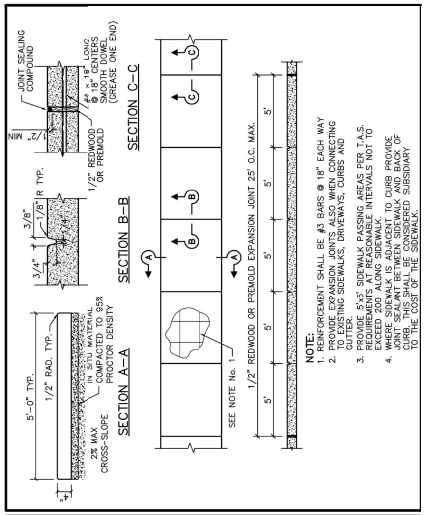
NOTES:

PAVING REINFORCEMENT SHALL BE #3 @ 18 OCEW.

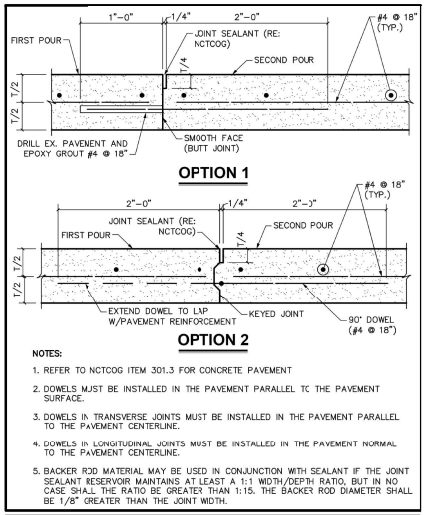
	STANDARD CONSTRUCTION DETAIL	SCALE: 1"=1'-0"
FATE	**6" ROLLED/LAY DOWN CURB**	REVISED: MAY 2019
		P01B



	STANDARD CONSTRUCTION DETAIL	SCALE: 3/4"=1'-0"
FATE	**EXISTING CONCRETE PAVEMENT WIDENING**	REVISED: MAY 2019
		P04



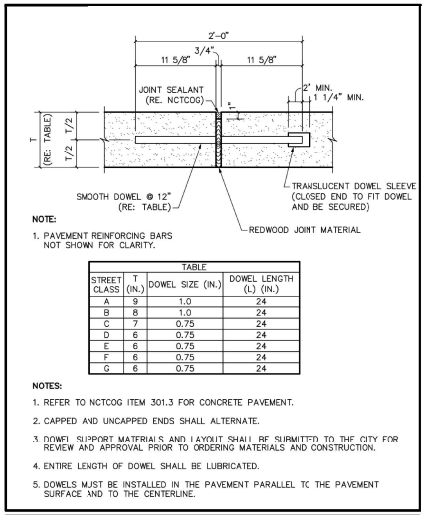
	STANDARD CONSTRUCTION DETAIL	SCALE: 1"=1'-0"
FATE	**CONCRETE SIDEWALK**	REVISED: MAY 2019
		P05



NOTES:

1. REFER TO NCTCOG ITEM 301.3 FOR CONCRETE PAVEMENT
2. DOWELS MUST BE INSTALLED IN THE PAVEMENT PARALLEL TC THE PAVEMENT SURFACE.
3. DOWELS IN TRANSVERSE JOINTS MUST BE INSTALLED IN THE PAVEMENT PARALLEL TO THE PAVEMENT CENTERLINE.
4. DOWELS IN LONGITUDINAL JOINTS MUST BE INSTALLED IN THE PAVEMENT NORMAL TO THE PAVEMENT CENTERLINE.
5. BACKER ROD MATERIAL MAY BE USED IN CONJUNCTION WITH SEALANT IF THE JOINT SEALANT RESERVOIR MAINTAINS AT LEAST A 1:1 WIDTH/DEPTH RATIO, BUT IN NO CASE SHALL THE RATIO BE GREATER THAN 1:15. THE BACKER ROD DIAMETER SHALL BE 1/8" GREATER THAN THE JOINT WIDTH.

	STANDARD CONSTRUCTION DETAIL	SCALE: 1 1/2"=1'-0"
FATE	**CONCRETE PAVEMENT CONSTRUCTION JOINTS**	REVISED: MAY 2019
		P06



NOTE:

1. PAVEMENT REINFORCING BARS NOT SHOWN FOR CLARITY.

TABLE			
STREET CLASS	T (IN.)	DOWEL SIZE (IN.)	DOWEL LENGTH (L) (IN.)
A	9	1.0	24
B	8	1.0	24
C	7	0.75	24
D	6	0.75	24
E	6	0.75	24
F	6	0.75	24
G	6	0.75	24

NOTES:

1. REFER TO NCTCOG ITEM 301.3 FOR CONCRETE PAVEMENT.
2. CAPPED AND UNCAPPED ENDS SHALL ALTERNATE.
3. DOWEL SUPPORT MATERIALS AND LAYOUT SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS AND CONSTRUCTION.
4. ENTIRE LENGTH OF DOWEL SHALL BE LUBRICATED.
5. DOWELS MUST BE INSTALLED IN THE PAVEMENT PARALLEL TC THE PAVEMENT SURFACE AND TO THE CENTERLINE.

	STANDARD CONSTRUCTION DETAIL	SCALE: 1 1/2"=1'-0"
FATE	**CONCRETE PAVEMENT EXPANSION JOINT**	REVISED: MAY 2019
		P07

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1752378193200
PHONE (972) 717-2151 FAX (972) 717-2178
4599 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
PROFESSIONAL ENGINEER

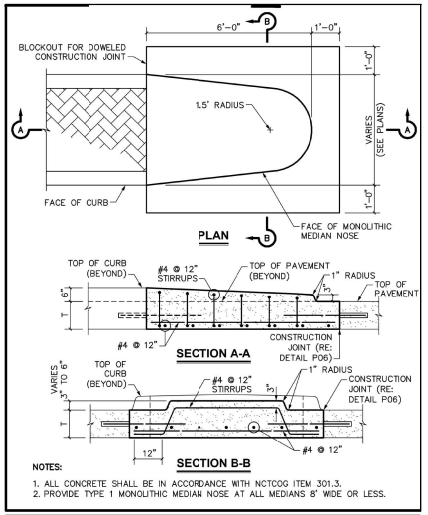
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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

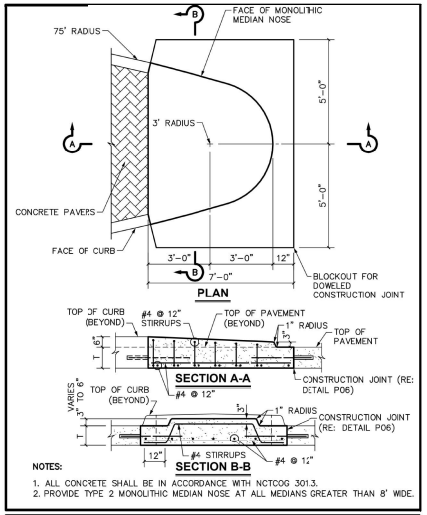
CITY PAVING DETAILS

JOB 22286.0100
DATE 10/30/2025
SHEET C06.55



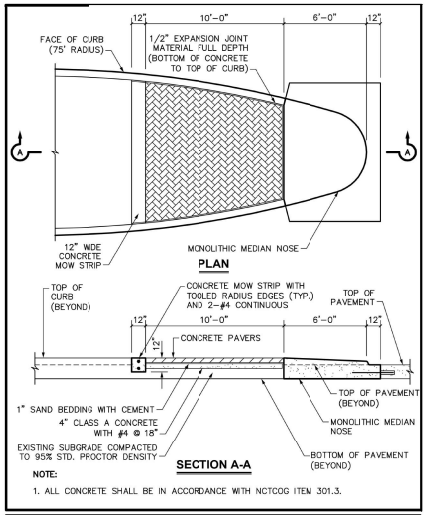
NOTES:
1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH NCTCOG ITEM 301.3.
2. PROVIDE TYPE 1 MONOLITHIC MEDIAN NOSE AT ALL MEDIANS 8' WIDE OR LESS.

	STANDARD CONSTRUCTION DETAIL **MONOLITHIC MEDIAN NOSE TYPE 1**	SCALE: 1/2"=1'-0" REVISED: MAY 2019 P09



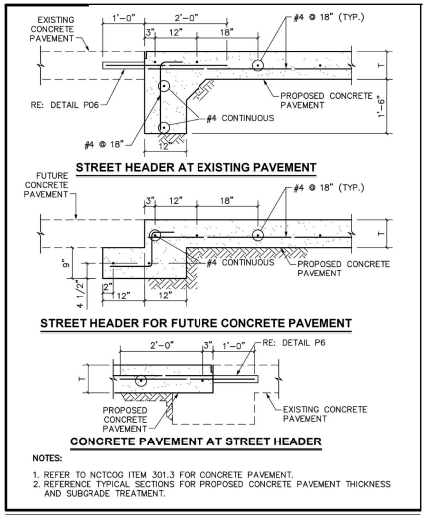
NOTES:
1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH NCTCOG 301.3.
2. PROVIDE TYPE 2 MONOLITHIC MEDIAN NOSE AT ALL MEDIANS GREATER THAN 8' WIDE.

	STANDARD CONSTRUCTION DETAIL **MONOLITHIC MEDIAN NOSE TYPE 2**	SCALE: 3/8"=1'-0" REVISED: MAY 2019 P10



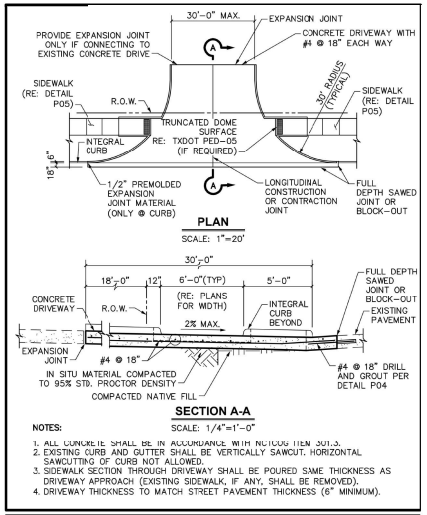
NOTE:
1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH NCTCOG ITEM 301.3.

	STANDARD CONSTRUCTION DETAIL **MEDIAN NOSE WITH PAVERS**	SCALE: 1/4"=1'-0" REVISED: MAY 2019 P12



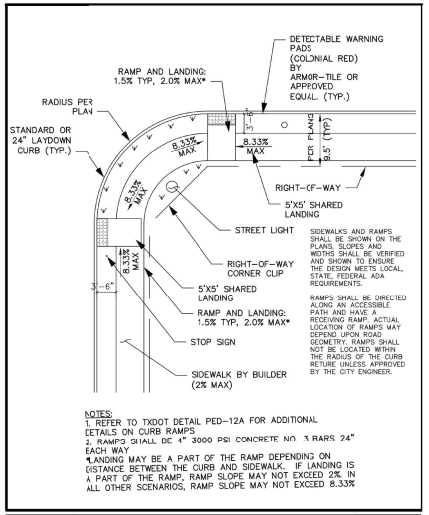
NOTES:
1. REFER TO NCTCOG ITEM 301.3 FOR CONCRETE PAVEMENT.
2. REFERENCE TYPICAL SECTIONS FOR PROPOSED CONCRETE PAVEMENT THICKNESS AND SUBGRADE TREATMENT.

	STANDARD CONSTRUCTION DETAIL **CONCRETE STREET HEADERS**	SCALE: 3/4"=1'-0" REVISED: MAY 2019 P13



NOTES:
1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH NCTCOG ITEM 301.3.
2. EXISTING CURB AND GUTTER SHALL BE VERTICALLY SAWCUT. HORIZONTAL SAWCUTTING OF CURB NOT ALLOWED.
3. SIDEWALK SECTION THROUGH DRIVEWAY SHALL BE POURED SAME THICKNESS AS DRIVEWAY APPROACH (EXISTING SIDEWALK, IF ANY, SHALL BE REMOVED).
4. DRIVEWAY THICKNESS TO MATCH STREET PAVEMENT THICKNESS (6" MINIMUM).

	STANDARD CONSTRUCTION DETAIL **COMMERCIAL DRIVEWAY APPROACH**	SCALE: AS MARKED REVISED: MAY 2019 P14



NOTES:
1. REFER TO TXDOT DETAIL PED-12A FOR ADDITIONAL DETAILS ON CURB RAMPS
2. RAMPS SHALL BE 4" 3000 PSI CONCRETE NO. 3 BARS 24" EACH WAY
*LANDING MAY BE A PART OF THE RAMP DEPENDING ON DISTANCE BETWEEN THE CURB AND SIDEWALK. IF LANDING IS A PART OF THE RAMP, RAMP SLOPE MAY NOT EXCEED 2% IN ALL OTHER SCENARIOS, RAMP SLOPE MAY NOT EXCEED 8.33%

	STANDARD CONSTRUCTION DETAIL **TYPICAL CURB RAMP**	SCALE: N.T.S. REVISED: MAY 2019 P15

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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Dallas, TX 75202
T: 214.748.2000

ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

GLENN ENGINEERING
TEXAS REGISTRATION # F-303 HUB #: 1752251892000
PHONE (972) 717-0151 FAX (972) 717-2178
4599 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

STATE OF TEXAS
MIKE GLENN
105098
LICENSED PROFESSIONAL ENGINEER

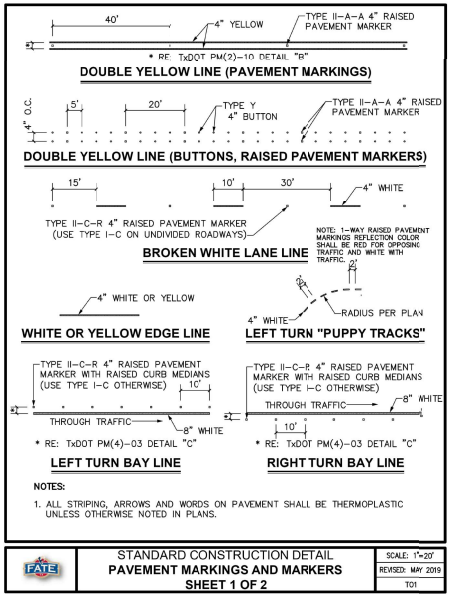
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URSULA RAKOW MS NEW PARKING LOT

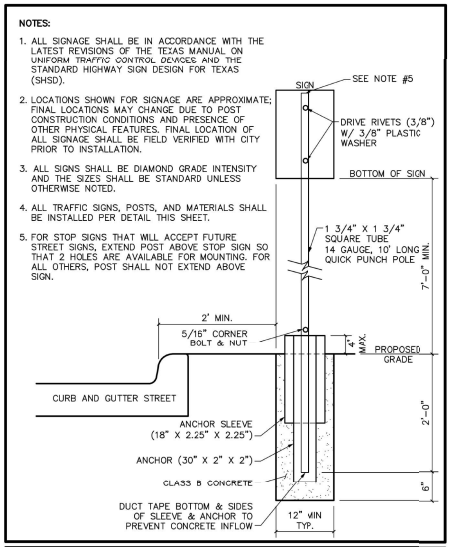
GETTYSBURG BLVD. CITY OF FATE, TX

CITY PAVING DETAILS

JOB 22286.0100
DATE 10/30/2025
SHEET C06.56



	STANDARD CONSTRUCTION DETAIL **PAVEMENT MARKINGS AND MARKERS** **SHEET 1 OF 2**	SCALE: 1"=20' REVISED: MAY 2019 TD1



	STANDARD CONSTRUCTION DETAIL **SIGN POST**	SCALE: 1"=1' REVISED: MAY 2019 TD4

NOTE: THE CITY OF FATE CONSTRUCTION STANDARDS APPLY, WHETHER INDICATED ON THESE PLANS OR NOT

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ISSUES

1	10/30/25	ISSUE FOR CONSTRUCTION

REVISIONS

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TEXAS REGISTRATION # F-303 HUB # 1752375192000
PHONE (972) 717-0151 FAX (972) 717-2176
4599 FULLER DRIVE, SUITE 220 IRVING, TEXAS 75038

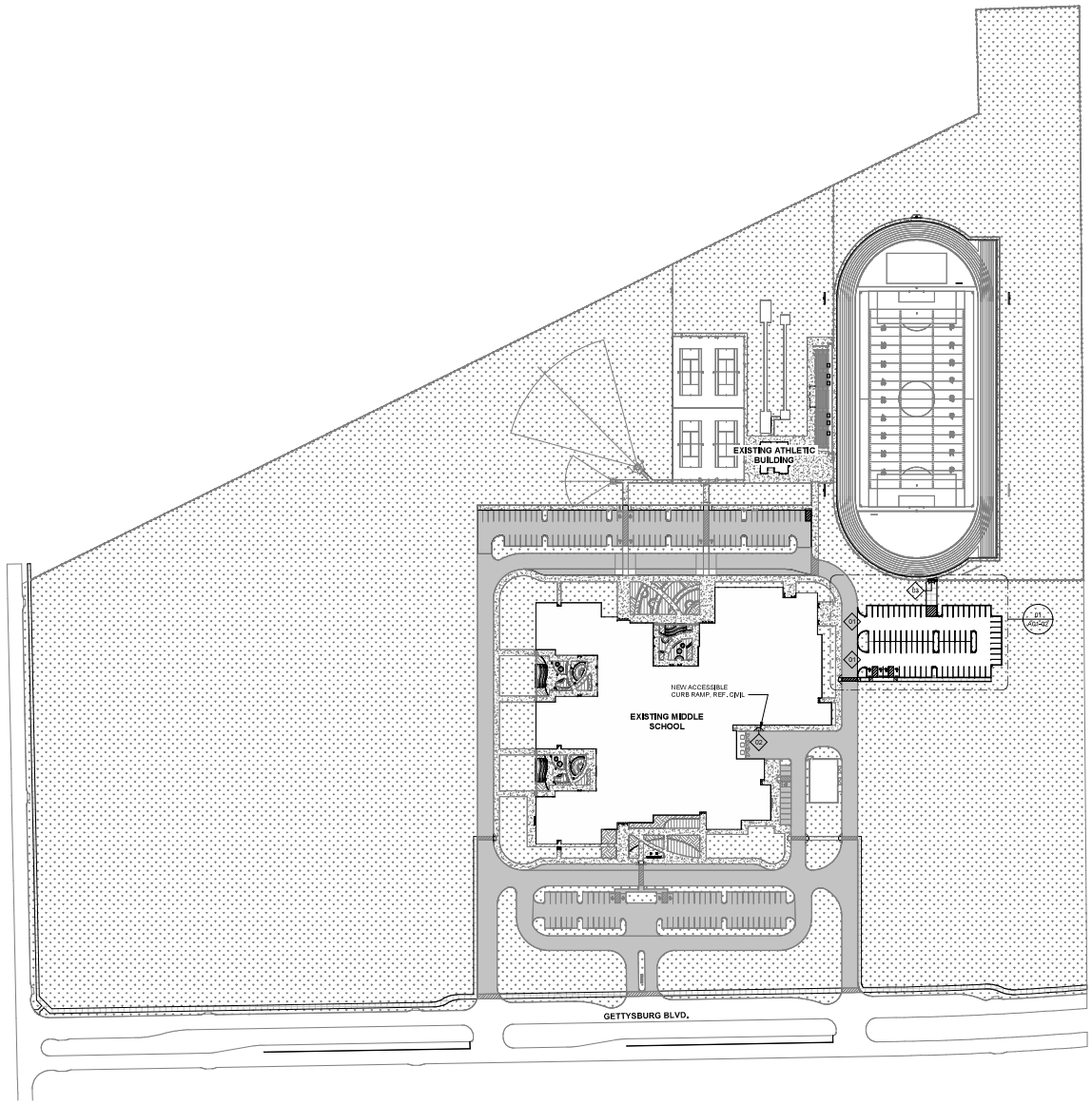
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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

CITY PAVING DETAILS

JOB 22286.0100
DATE 10/30/2025
SHEET C06.57



01 SITE PLAN - OVERALL
1" = 80'-0"

N

GENERAL SITE NOTES

1. FIELD VERIFY EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE BEGINNING WORK.
2. OBTAIN AVAILABLE PLANS DEPICTING EXISTING & PROPOSED UTILITIES PRIOR TO CONSTRUCTION. ANY DAMAGE TO SAID UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. REFER TO C/ML AND MEP DOCUMENTS FOR ADDITIONAL HARDSCAPE, SAW CUTTING, EARTH REMOVAL, TRENCHING AND RELOCATION AND/OR DEMOLITION OF EXISTING UTILITIES UNDER AND ABOVE GROUND,TYP.
4. REFER TO C/ML DRAWINGS FOR COORDINATION WITH EXISTING ROADS AND ACCESSES.
5. REFER TO C/ML DRAWINGS FOR ADDITIONAL SITE TRAFFIC SIGNAGE AND LOCATIONS.
6. REFER TO C/ML FOR PARKING DIMENSIONS & DETECTABLE WARNINGS. PROVIDE DETECTABLE WARNINGS AT CURB RAMP & OTHER LOCATIONS WHERE WALKING SURFACES CROSS OR ADJOIN A VEHICULAR WAY AS PER TAS REQUIREMENTS.
7. ALL ATHLETIC/COMPETITION FIELDS, COURTS, MARKINGS, DIMENSIONS, AND SIZES ARE TO COMPLY WITH THE NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS COURT & FIELD DIAGRAM GUIDES. TYP.
8. SUBMIT SIGNAGE LOCATIONS, MESSAGES, GRAPHICS AND FACE DIRECTIONS TO ARCHITECT PRIOR TO FABRICATION. TYP.
9. ALL DRIVE STRIPING AND DIRECTIONAL ARROWS TO BE REVIEWED IN SUBMITTAL PRIOR TO INSTALL FOR COLORS & DIRECTION.

SITE SIGNAGE NOTES

1. ALL GRAPHIC & SIGNAGE TO BE FABRICATED IN ACCORDANCE WITH THE CITY OF FATE & STATE OF TEXAS STANDARDS. TYP.
2. ALL FIRE LANE STRIPING TO BE IN ACCORDANCE WITH THE CITY OF FATE REQUIREMENTS. TYP.
3. VERIFY SIGNAGE LOCATIONS, MESSAGES, GRAPHICS, & FACE DIRECTIONS WITH ARCHITECT PRIOR TO FABRICATION & INSTALL. TYP.
4. REFER TO C/ML DOCUMENTS FOR SITE TRAFFIC, SIGNAGE & LOCATIONS.
5. REFER TO SITE DETAILS FOR SIGNAGE TYPES

KEYNOTE LEGEND

Key Value	Keynote Text
01	DEMO CURB AND PREP FOR NEW PAVING CONNECTION. REF. C/ML
02	DEMO CURB AND SIDEWALK AS NEEDED FOR NEW ADA RAMP. REF. C/ML
03	DEMO EXISTING MAN GATE AND PORTION OF FENCE AS NEEDED FOR INSTALL OF NEW GATE.

SITE MATERIALS LEGEND

- FENCING W/MOWSTRIP: SEE PLANS FOR FENCE TYPES. REF. SPECS
- GRASS; REF: LANDSCAPE
- NEW LOT PAVING
- EXISTING PAVING
- SIDEWALK, REF C/ML
- EXISTING SIDEWALK

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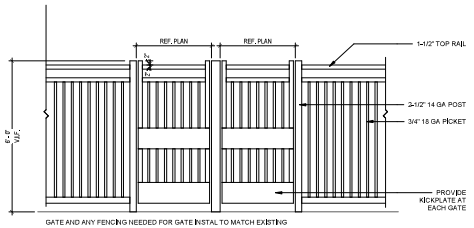
URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

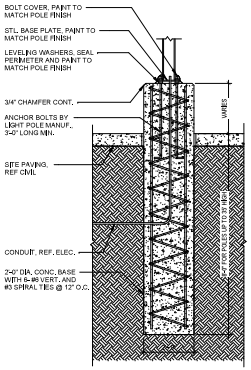
SITE PLAN

JOB 22286.0100
DATE 10/30/2025
SHEET A01-01

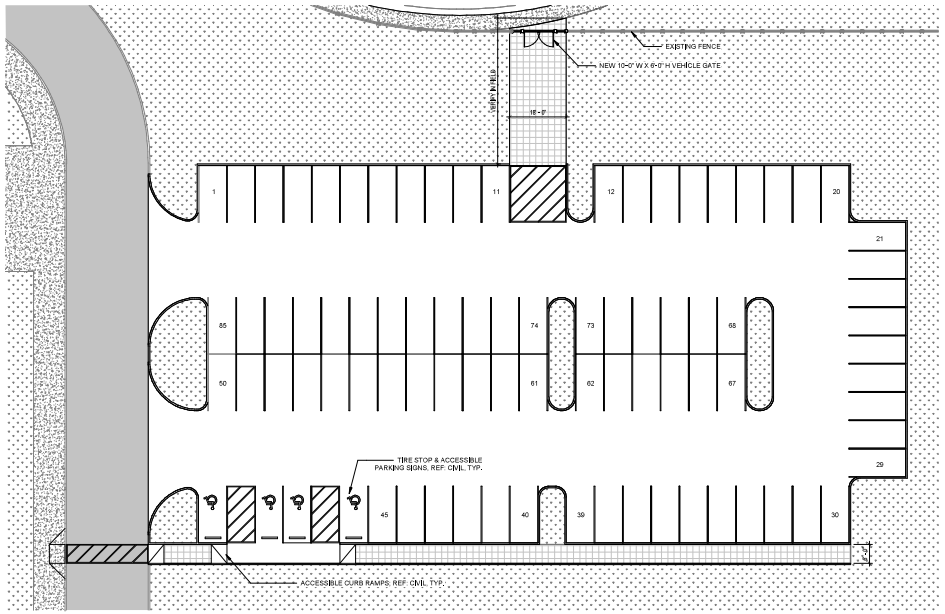
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03 TYPICAL GATE ELEVATION
1/2" = 1'-0"



02 LIGHT POLE BASE
1/2" = 1'-0"



01 ENLARGED SITE PLAN - PARKING LOT ADDITION
1/16" = 1'-0"

GENERAL SITE NOTES

1. FIELD VERIFY EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE BEGINNING WORK.
2. OBTAIN AVAILABLE PLANS DEPICTING EXISTING & PROPOSED UTILITIES PRIOR TO CONSTRUCTION. ANY DAMAGE TO SAID UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. REFER TO CIVIL AND MEP DOCUMENTS FOR ADDITIONAL HARDSCAPE, SAW CUTTING, EARTH REMOVAL, TRENCHING AND RELOCATION AND/OR DEMOLITION OF EXISTING UTILITIES UNDER AND ABOVE GROUND,TYP..
4. REFER TO CIVIL DRAWINGS FOR COORDINATION WITH EXISTING ROADS AND ACCESSES.
5. REFER TO CIVIL DRAWINGS FOR ADDITIONAL SITE TRAFFIC SIGNAGE AND LOCATIONS.
6. REFER TO CIVIL FOR PARKING DIMENSIONS & DETECTABLE WARNINGS, PROVIDE DETECTABLE WARNINGS AT CURB RAMP & OTHER LOCATIONS WHERE WALKING SURFACES CROSS OR ADJOIN A VEHICULAR WAY AS PER TAS REQUIREMENTS.
7. ALL ATHLETIC/COMPETITION FIELDS, COURTS, MARKINGS, DIMENSIONS, AND SIZES ARE TO COMPLY WITH THE NATIONAL FEDERATION OF STATE HIGH SCHOOL ASSOCIATIONS COURT & FIELD DIAGRAM GUIDES, TYP..
8. SUBMIT SIGNAGE LOCATIONS, MESSAGES, GRAPHICS AND FACE DIRECTIONS TO ARCHITECT PRIOR TO FABRICATION, TYP.
9. ALL DRIVE STRIPING AND DIRECTIONAL ARROWS TO BE REVIEWED IN SUBMITTAL PRIOR TO INSTALL FOR COLORS & DIRECTION.

SITE SIGNAGE NOTES

1. ALL GRAPHIC & SIGNAGE TO BE FABRICATED IN ACCORDANCE WITH THE CITY OF FATE & STATE OF TEXAS STANDARDS, TYP.
2. ALL FIRE LANE STRIPING TO BE IN ACCORDANCE WITH THE CITY OF FATE REQUIREMENTS, TYP.
3. VERIFY SIGNAGE LOCATIONS, MESSAGES, GRAPHICS, & FACE DIRECTIONS WITH ARCHITECT PRIOR TO FABRICATION & INSTALL, TYP.
4. REFER TO CIVIL DOCUMENTS FOR SITE TRAFFIC, SIGNAGE & LOCATIONS.
5. REFER TO SITE DETAILS FOR SIGNAGE TYPES

SITE MATERIALS LEGEND

- FENCING W/MOWSTRIP: SEE PLANS FOR FENCE TYPES, REF. SPECS
- GRASS: REF. LANDSCAPE
- NEW LOT PAVING
- EXISTING PAVING
- SIDEWALK, REF CIVIL
- EXISTING SIDEWALK

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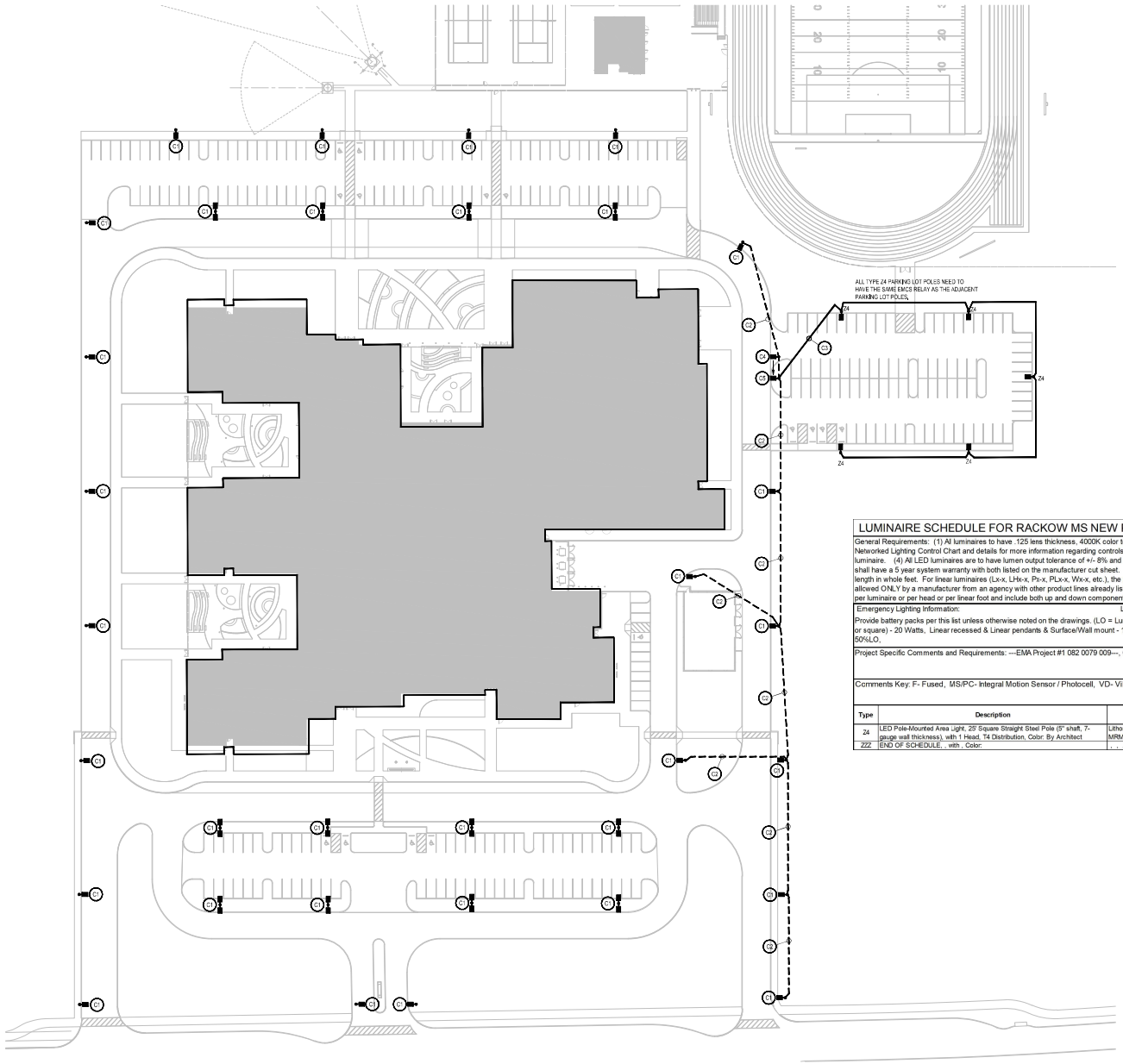
URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

ENLARGED SITE PLANS AND DETAILS

JOB 22286.0100
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SHEET

A01-02



1 ELECTRICAL SITE PLAN
1"=40'-0"

ELECTRICAL SITE GENERAL NOTES
(SOME NOTES MAY NOT BE USED)

1. CONTRACTORS AND SUBCONTRACTORS SHALL VERIFY LOCATION, CONDUCT TEST AND INSPECTIONS, COORDINATE WITH UTILITIES, OWNERS REPRESENTATIVES, AND CHECK FOR ALL UNDERGROUND UTILITIES AND LINES BEFORE DITCHING TAKES PLACE. CONTRACTOR AND SUBCONTRACTORS PERFORMING THESE DUTIES SHALL BE RESPONSIBLE FOR ANY REPAIRS OF CUT OR DAMAGED LINES AND UTILITIES NOT SHOWN ON PLANS.
2. PROVIDE SEPARATE CONTACTORS FOR INDEPENDENT CONTROL OF EXTERIOR LIGHTING CIRCUITS PER LIGHTING CONTROL DETAIL.

ELECTRICAL SITE PLAN NOTES
(SOME NOTES MAY NOT BE USED)

(C1) APPROXIMATE LOCATION OF EXISTING LIGHT POLE TO REMAIN IN PLACE AND OPERATIONAL.

(C2) EXISTING PARKING LOT LIGHTING CIRCUIT TO REMAIN AND BE EXTENDED TO NEW PARKING LOT LIGHTING.

(C3) PROVIDE POWER TO NEW PARKING LOT LIGHTING FROM EXISTING PARKING LOT LIGHTING CIRCUIT. PROVIDE NEW CONDUIT AND WIRING TO MATCH EXISTING CIRCUIT.

(C4) APPROXIMATE LOCATION OF EXISTING LIGHT POLE TO BE RELOCATED. INTERCEPT EXISTING CONDUIT AND WIRING UNDERGROUND TO BE EXTENDED TO NEW LIGHT POLE LOCATION. CAP AND MARK CONDUIT.

(C5) NEW LOCATION OF EXISTING LIGHT POLE. EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED.

LUMINAIRE SCHEDULE FOR RACKOW MS NEW PARKING LOT

Nada F - (903) 581-2677
nfierro@emaengineer.com

General Requirements: (1) All luminaires to have .125 lens thickness, 4000K color temp, 10% THD drivers, 80 CRI or better and be dimmable down to 10% unless otherwise stated. (2) See Networked Lighting Control Chart and details for more information regarding controls (3) Any luminaire that encs in "E" in the drawing set is to be treated as an emergency version of the listed luminaire. (4) All LED luminaires are to have lumen output tolerance of +/- 8% and /A tolerance of +5% / -10%. (5) All submitted luminaires shall have an L70 rating of at least 50k hrs and shall have a 5 year system warranty with both listed on the manufacturer cut sheet. (6) For linear luminaires (Lx, LHx, Px, PLx, Wx, etc.), the number in the Type Mark indicates the linear length in whole feet. For linear luminaires (Lx-x, LHx-x, Px-x, PLx-x, Wx-x, etc.), the numbers in the Type Mark indicates the linear length in feet and inches, unless otherwise noted. (7) Equals allowed ONLY by a manufacturer from an agency with other product lines already listed on this schedule. At least 3 day prior approval from designer required. *Lumen output and VA listed are per luminaire or per head or per linear foot and include both up and down component(if direct and indirect are both specified.

Emergency Lighting Information: Linear Emer Section Layout>>

Provide battery packs per this list unless otherwise noted on the drawings. (LO = Lumen Output) Tolerance shall be +/- 5%. Troffers - 1400lm, Can Lights - 50%LO, High & Low Bays (round or square) - 20 Watts, Linear recessed & Linear pendants & Surface/Wall mount - 1400lm per 4' emergency section, Exterior (building or canopy mounted) - 50%LC, Everything else - 50%LO,

Project Specific Comments and Requirements: ---EMA Project #1 082 0079 009---, Controls to be - IECC 2021 with Reduced Lighting Power additional efficiency package.

Comments Key: F- Fused, MS/PC- Integral Motion Sensor / Photocell, VD- Vibration Damper, - ,

Type	Description	Luminaire Equivalents	Delivered Lumens	Comments	Volts	Watts Max
Z4	LED Pole-Mounted Area Light, 25' Square Straight Steel Pole (5" shaft, 7-gauge wall thickness), with 1 Head, T4 Distribution, Color: By Architect	Lithonia DSX1 LED, Beacon VPS, McGraw Edison GLEON, Gardco P26, LSI MRMLED, , ,	16000	F, MS/PC, VD	480v	150
ZZZ	END OF SCHEDULE, , with , Color:	, , , , , , , ,				

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CATHERINE L. HOLLISTER
103972
LICENSED
PROFESSIONAL
ENGINEER
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URSULA RAKOW MS NEW PARKING LOT

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KEYPLAN

ELECTRICAL SITE PLAN

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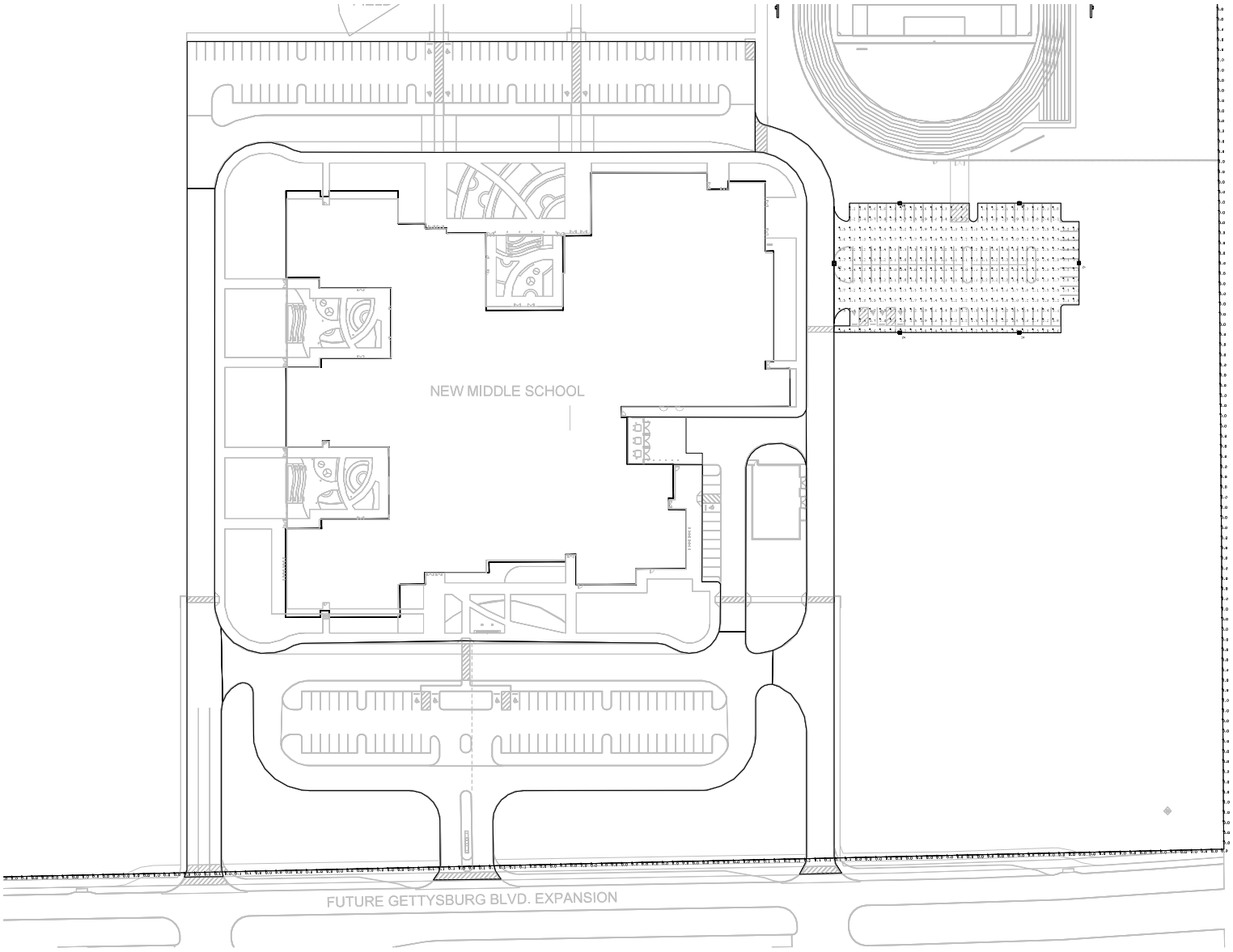
SUBMISSION OF BID WILL BE CONSIDERED ACKNOWLEDGMENT THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS VERIFIED ALL EXISTING JOB CONDITIONS AND INCLUDED ANY NECESSARY MODIFICATION TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND WORKING SYSTEM.

Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	Mounting Height
	5	Z4	Single	DSX1 LED P5 40K T3M MVOLT G1	25

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PLAN EAST PARKING LOT_ Planar	Illuminance	Fc	2.25	5.0	1.1	2.05	4.55
PROPERTY LINE	Illuminance	Fc	0.00	0.2	0.0	N.A.	N.A.

SITE PLAN PHOTOMETRIC CALCULATIONS GENERAL NOTES

1. THESE PLANS ARE ACCURATE AND DESIGNED IN COMPLIANCE WITH AND MEET THE REQUIREMENTS OF THE CITY OF FATE, TEXAS OUTDOOR LIGHTING ORDINANCE IN EFFECT AT THE TIME OF THE SUBMISSION OF PLANS.
2. ALL CALCULATION POINTS SHOWN ARE AT THE GROUND LEVEL, AND ARE MEASURED HORIZONTALLY.
3. LIGHTING CALCULATIONS HAVE BEEN PRODUCED USING AGI32 LIGHTING SOFTWARE BY LIGHTING ANALYSTS, INC.



1 PHOTOMETIC SITE PLAN
1"=40'-0"

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GETTYSBURG BLVD. CITY OF FATE, TX

KEYPLAN

PHOTOMETIC SITE PLAN

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Louisiana Firm Registration No. 54693
www.EMAengineer.com

SUBMISSION OF BID WILL BE CONSIDERED ACKNOWLEDGMENT THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS VERIFIED ALL EXISTING JOB CONDITIONS AND INCLUDED ANY NECESSARY MODIFICATION TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND WORKING SYSTEM.

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Exterior Lighting Controls	Parking Lot and Walkway Lighting	Motion Sensor - 15 minutes	Control - Dim to 50%	Photocell - Req'd.	Schedule - Not Req'd
Provide and install mechanically-held contactors as required in electrical rooms throughout the building to control the exterior lighting in groups as indicated in plan notes and on drawings, to satisfy the requirements of IECC 2021. Provide and install control wiring as required to all contactors throughout the building so that each group of luminaires operates together. On/off control of all exterior luminaires shall be by photocell and Energy Management Control System (EMCS), as specified. See information to the right for dimming control and additional requirements.					

ELECTRICAL LEGEND - LIGHTING SYMBOLS

SYMBOL	DESCRIPTION
	BRANCH CIRCUIT - CONDUIT IN WALL or ABOVE CEILING, INDICATES DEVICES AND EQUIPMENT ON A CIRCUIT. NOT INTENDED TO SHOW ROUTING
	BRANCH CIRCUIT OR FEEDER CONDUIT UNDER FLOOR or UNDERGROUND
	SWITCH WIRE / SWITCH CIRCUIT. TYPICAL CONTROL PER SPACE
	DAYLIGHTING ZONE - REFER TO LIGHTING CONTROL CHART FOR MORE INFORMATION
CL-1,3,5	ARROW INDICATES HOMERUN, TEXT INDICATES PANEL AND CIRCUIT
S_2 : S_3 : S_4	SWITCH LOCATION MOUNTED AT 44" A.F.F. UNLESS NOTED - STANDARD / PROGRAMMABLE : 3-WAY : 4-WAY
S_K : S_{3K} S_{4K}	KEYED SWITCH LOCATION - (SAME AS ABOVE)- KEY OPERATED. PROVIDE 12 EXTRA KEYS FOR OWNER
M_{WM} M_{CM}	MOTION SENSOR CONTROLS. SEE SPECS FOR LOCATION, QUANTITY, COMMISSIONING ETC. (HV = HIGH VOLUME, WM = WALL MOUNT, CM = CORNER MOUNT)
P_{HV} P_{LV}	PHOTOCELL SENSOR CONTROLS, SEE SPECS FOR LOCATION, QUANTITY, COMMISSIONING ETC. (HV = HIGH VOLUME)
	LUMINAIRE, SEE LUMINAIRE SCHEDULE & SPECS FOR MORE INFO, LETTER INDICATES TYPE RECESSED : SURFACE : PENDANT
	EMERGENCY LUMINAIRE - (SAME AS ABOVE) - SWITCHED, WITH BATTERY, GENERATOR OR UPS BACKUP
	CRITICAL BRANCH LUMINAIRE - (SAME AS ABOVE) - SWITCHED, WITH GENERATOR BACKUP MOUNTED AT 7'-6" A.F.F. UNLESS NOTED
	EMERGENCY LUMINAIRE - (SAME AS ABOVE) - NOT SWITCHED, WITH BATTERY, GENERATOR OR UPS BACKUP
	EXIT SIGN - NOT SWITCHED, CONTINUOUSLY LIT. BATTERY OPERATED - CEILING MOUNT : WALL MOUNT
	EXTERIOR LUMINAIRE - SEE LUMINAIRE SCHEDULE FOR MORE INFORMATION

NOTES:
1. SOME SYMBOLS MAY NOT BE USED.
2. ALL DASHED SYMBOLS ARE SAME AS ABOVE BUT EXISTING.
3. ACCESSIBLE DEVICES HIGHEST OPERABLE PART TO BE 48" MAX/MUM/16" MINIMUM A.F.F. - REFER TO ELECTRICAL DETAILS AND ARCHITECTURAL DRAWINGS.
4. SEE LIGHTING CONTROL CHART FOR SWITCH, MOTION SENSOR AND PHOTOCELL INFORMATION AND CONTROL.

LIGHTING GENERAL NOTES
(SOME NOTES MAY NOT BE USED)

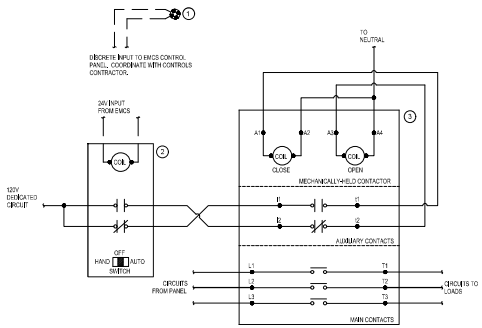
1. VERIFY ALL CEILING HEIGHTS AND TYPES WITH ARCHITECTURAL DRAWINGS BEFORE PROVIDING LUMINAIRES AND WIRING.
2. REFER TO SPECIFICATIONS, LUMINAIRE SCHEDULE AND LIGHTING CONTROL CHART FOR ADDITIONAL REQUIREMENTS AND MORE INFORMATION.
3. WHERE THE CEILING IS MORE THAN THREE FEET BELOW THE BOTTOM CHORD OF THE JOIST, ALL CONDUIT AND CABLING SHALL BE INSTALLED ON A TRAPEZE SUPPORT AS SHOWN ON THE DETAILS. WHERE THE CEILING IS LESS THAN THREE FEET BELOW THE BOTTOM CHORD, ALL CONDUIT AND CABLING SHALL BE INSTALLED ABOVE THE BOTTOM CHORD OF THE JOIST. WHERE NO CEILING IS SCHEDULED, ALL CONDUIT AND CABLING SHALL BE INSTALLED NEAR THE DECK MAINTAINING NEC CLEARANCE.
4. ROUTE CONDUIT IN EXPOSED AREAS PERPENDICULAR OR PARALLEL TO WALLS. ROUTE CONDUIT AS HIGH AS POSSIBLE AND ROUTE CONDUIT RUNS ADJACENT TO EACH OTHER. CONDUIT SHALL BE ORDERLY AND NEAT.

ELECTRICAL GENERAL NOTES
(SOME NOTES MAY NOT BE USED)

BRANCH CIRCUITS
1. PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT. MULTIPLE CIRCUITS SHALL NOT SHARE A COMMON NEUTRAL. NEUTRAL CONDUCTORS SHALL BE SIZED AS LARGE AS THE PHASE CONDUCTORS. NEUTRAL CONDUCTORS SHALL NOT BE SHARED OR BE OF A REDUCED SIZE.
2. WHERE GFCI PROTECTION IS SHOWN ON PLANS OR SCHEDULE OR OTHERWISE REQUIRED BY NEC (210.8 AND 230.85), PROVIDE A GFCI PERMANENT MOUNTED INC BIE DEVICE BY NORTH SHORE SAFETY OR HUBBELL OR LITTELFUSE SHOCK BLOCK IN LIEU OF GFCI PROTECTION AT THE RECEPTACLE OR GFCI PROTECTION AT THE OCPD. THESE PRODUCTS OR SIMILAR WILL TYPICALLY WORK FOR 20A, 30A, 40A, 50A AND 60A AT 120/208V 1PH AND 3PH. PRODUCT MUST BE LISTED FOR THE USE. NOTE: GFCI PROTECTION MUST BE PROVIDED WHERE REQUIRED SO COORDINATE GFCI LIMITATIONS WITH PANEL MANUFACTURER CAREFULLY BEFORE BIDDING.

EQUIPMENT
1. DURING SUBMITTAL PHASE, THIS CONTRACTOR SHALL SUBMIT LAYOUT OF ALL PANELS, SWITCHGEAR, TRANSFORMERS, CONTACTORS, ETC. IN EACH EQUIPMENT ROOM WHERE THIS EQUIPMENT IS LOCATED. ALL LAYOUTS MUST BE DRAWN TO SCALE AND DIMENSIONED.

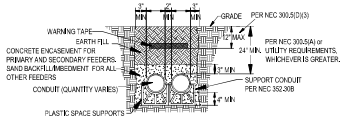
UTILITY
1. THE CONTRACTOR AND SUBCONTRACTORS SHALL COORDINATE WITH ALL UTILITY COMPANIES AND THE OWNER'S REPRESENTATIVE TO DETERMINE THE LOCATION OF ALL EXISTING LINES AND UTILITIES BEFORE DITCHING IS PERFORMED. THE CONTRACTOR AND SUB CONTRACTORS SHALL BE RESPONSIBLE FOR REPAIR OF ANY CUT OR DAMAGED LINES OR UTILITIES THAT ARE NOT SHOWN ON ANY PLANS.



NOTES:
1. PROVIDE SEPARATE CONTACTORS FOR INDEPENDENT CONTROL OF THE FOLLOWING:
   - WALL PACKS
   - SOFFIT LUMINAIRES
   - FLAG POLE LUMINAIRES
   - WALKWAY LUMINAIRES
   - PARKING LOT LUMINAIRES DESIGNATED AS SECURITY LIGHTING
   - EACH INDIVIDUAL PARKING LOT
2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING, CONDUIT, CONTROLS ETC. AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL LOW VOLTAGE CONTROLS WIRING AS CONTROL RELAY.

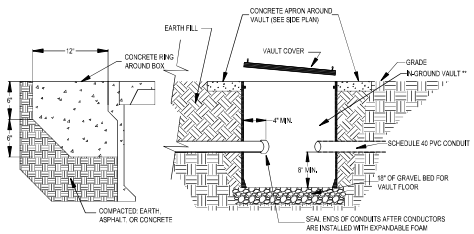
1. PHOTOCELL - 24V, RAINTIGHT, ROOF-MOUNTED, FACING NORTH
2. CONTROL RELAY WITH OVERRIDE SWITCH - 120 V WITH 24V COIL, SPDT, 20A OR AS REQUIRED BY CONTROLS CONTRACTOR (FUNCTIONAL DEVICES INC. #RB2401SBC OR APPROVED EQUAL)
3. MECHANICALLY-HELD LIGHTING CONTACTOR - 480V WITH 120V COILS. 30A, POLE AS REQUIRED

1 EXTERIOR LIGHTING CONTROL BY EMCS
N.T.S.



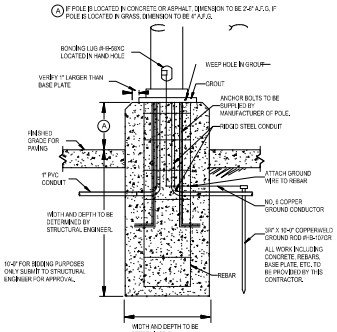
SEE SPECIFICATION SECTION 26 20 00 PART 3 & 26 05 33 FOR MORE INFORMATION.

2 UNDERGROUND CONDUITS
N.T.S.



** IN-GROUND VAULT: CONSTRUCTION SHALL BE FIBERGLASS OR POLYMER-CONCRETE WITH A LOAD RATING APPROPRIATE FOR THE INSTALLED LOCATION. EACH ENCLOSURE SHALL BE AN IN-GROUND VAULT WITH A SURFACE-LEVEL COVER AND GRAVEL FLOOR. THE ENCLOSURE SHOULD BE SIZED FOR THE NUMBER OF CONDUITS AND CONFIGURATION REQUIRED. HATCH COVER SHALL BE SECURED WITH AT LEAST TWO PENTAGONAL-HEAD BOLTS.

3 PULL BOX DETAIL
N.T.S.



SUBMIT POLE BASE DRAWINGS TO STRUCTURAL ENGINEER FOR APPROVAL. COORDINATE EACH POLE WITH STREETS, CURBS AND SIDEWALKS SUCH THAT THE POLE BASE IS AT LEAST 12" AWAY.

4 POLE BASE - 12' - 30'
N.T.S.

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URSULA RAKOW MS NEW PARKING LOT

GETTYSBURG BLVD. CITY OF FATE, TX

KEYPLAN

ELECTRICAL DETAILS, SYMBOLS, & GENERAL NOTES

JOB 22286.0100
DATE 10/30/2025
SHEET EP07-01

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