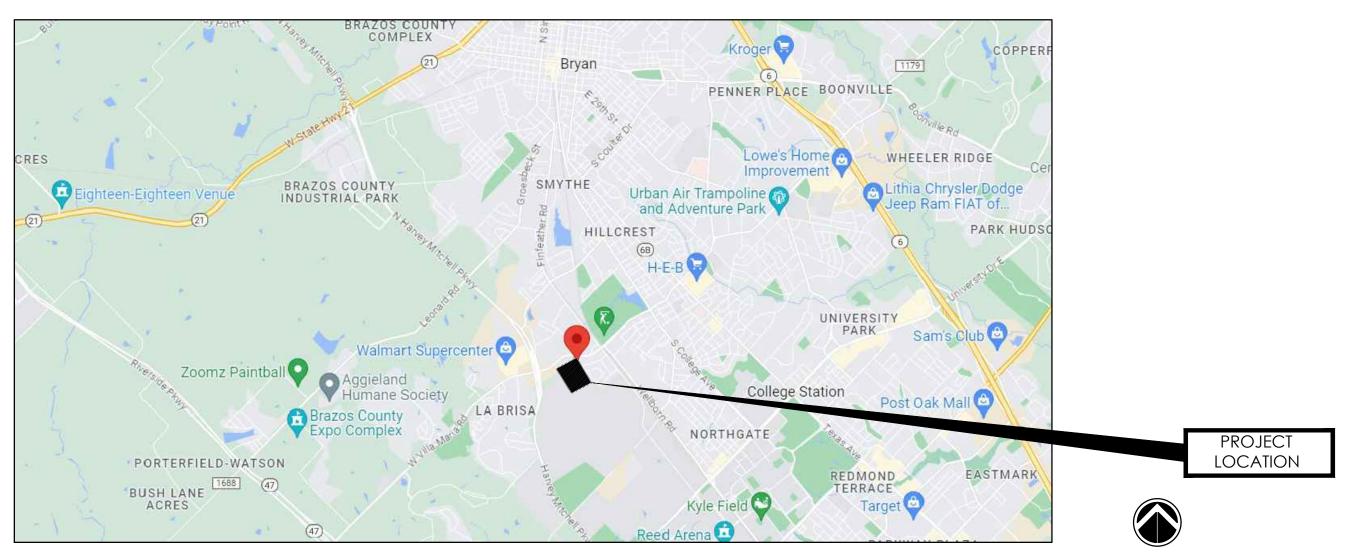
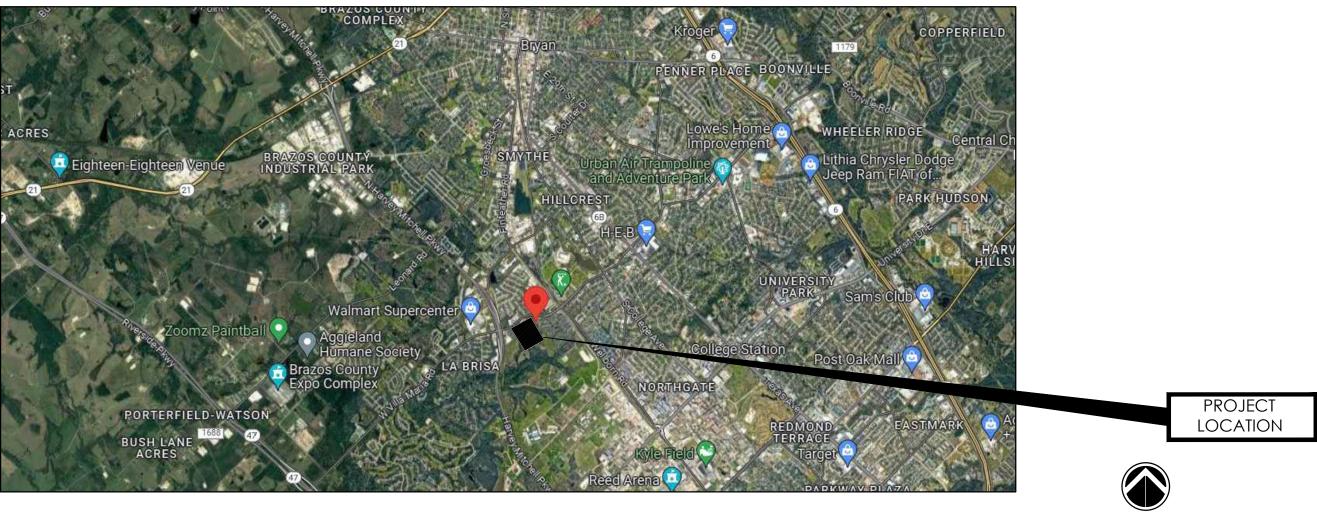
PROPOSED "CONVENIENCE STORE & GAS STATION" LOCATED AT 1001 W VILLA MARIA RD, BRYAN, TX 77801



VICINITY MAP



PROJECT DESCRIPTION

PROJECT NAME : PROPOSED C-STORE & GAS STATION

LOCATION : 1001 W VILLA MARIA RD, BRYAN, TX 77801

PROJECT DESCRIPTION : A GROUND UP CONSTRUCTION OF A ONE STORY

C-STORE BUILDINGS 7,136 SQ.FT

SHEET INDEX

<u>CIVIL</u>

C-0.0	COVER SHEET
C-0.1	TOPOGRAPHIC SURVEY
C-1.0	SITE PLAN
C-2.0	GRADING PLAN
C-2.1	DRAINAGE PLAN
C-2.2	DRAINAGE CALCULATIONS
C-2.3	SITE SECTION
0 0 0	======================================

C-3.0 EROSION AND SEDIMENT CONTROL PLAN

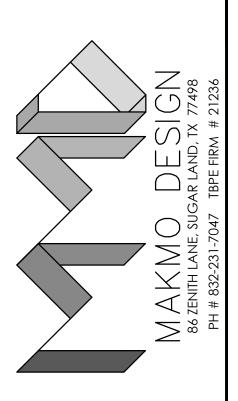
C-4.0 UTILITY PLAN
C-5.0 PAVING PLAN
C-6.0 SITE DETAILS
C-6.1 CONSTRUCTION DETAILS

SWPPP DETAILS

ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET

REVISIONS:

NO. DATE DESCRIPTION



ROPOSED C STORE & GAS STATION LOCATED AT ANY MARIA PRI BRYAN TY 77801

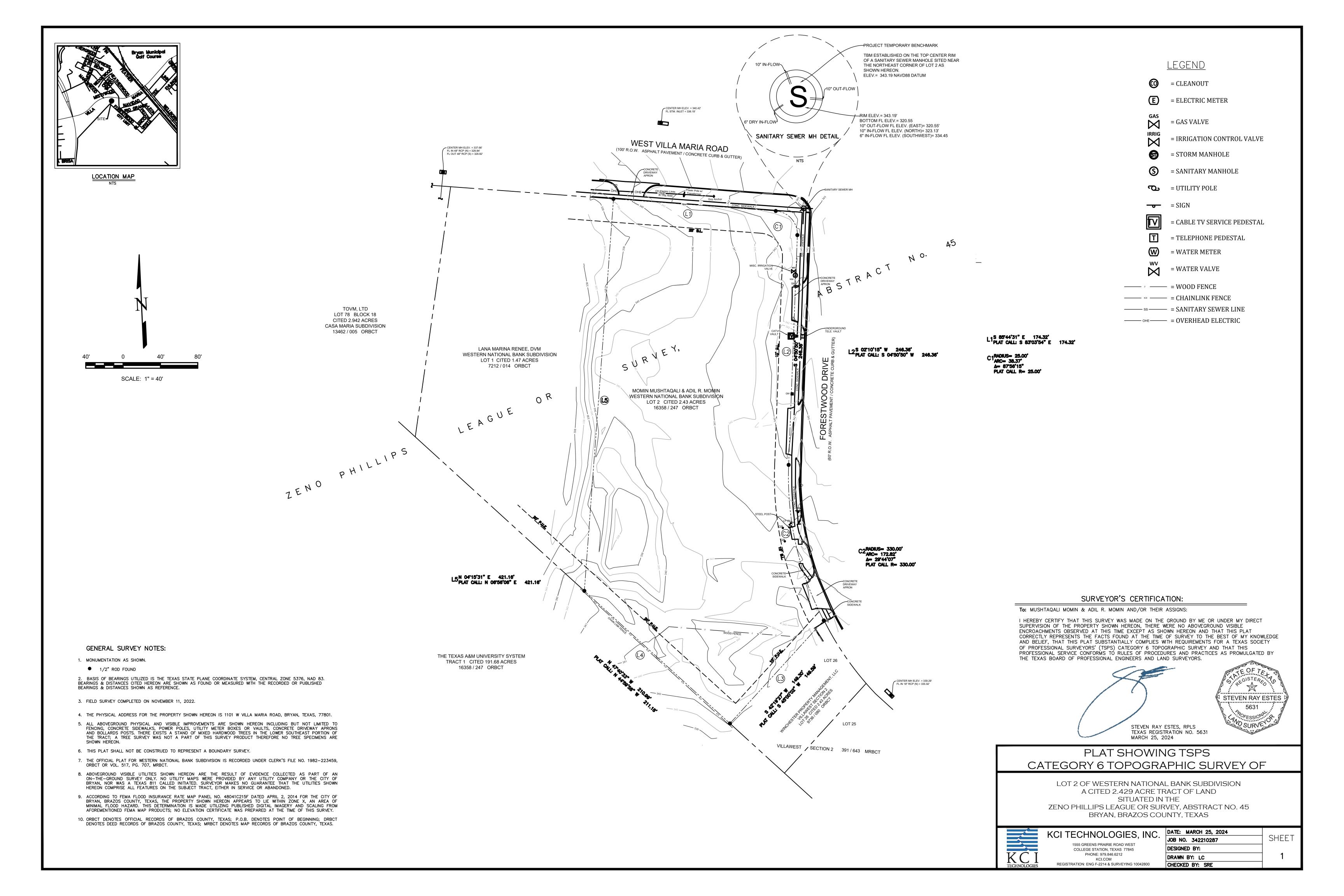


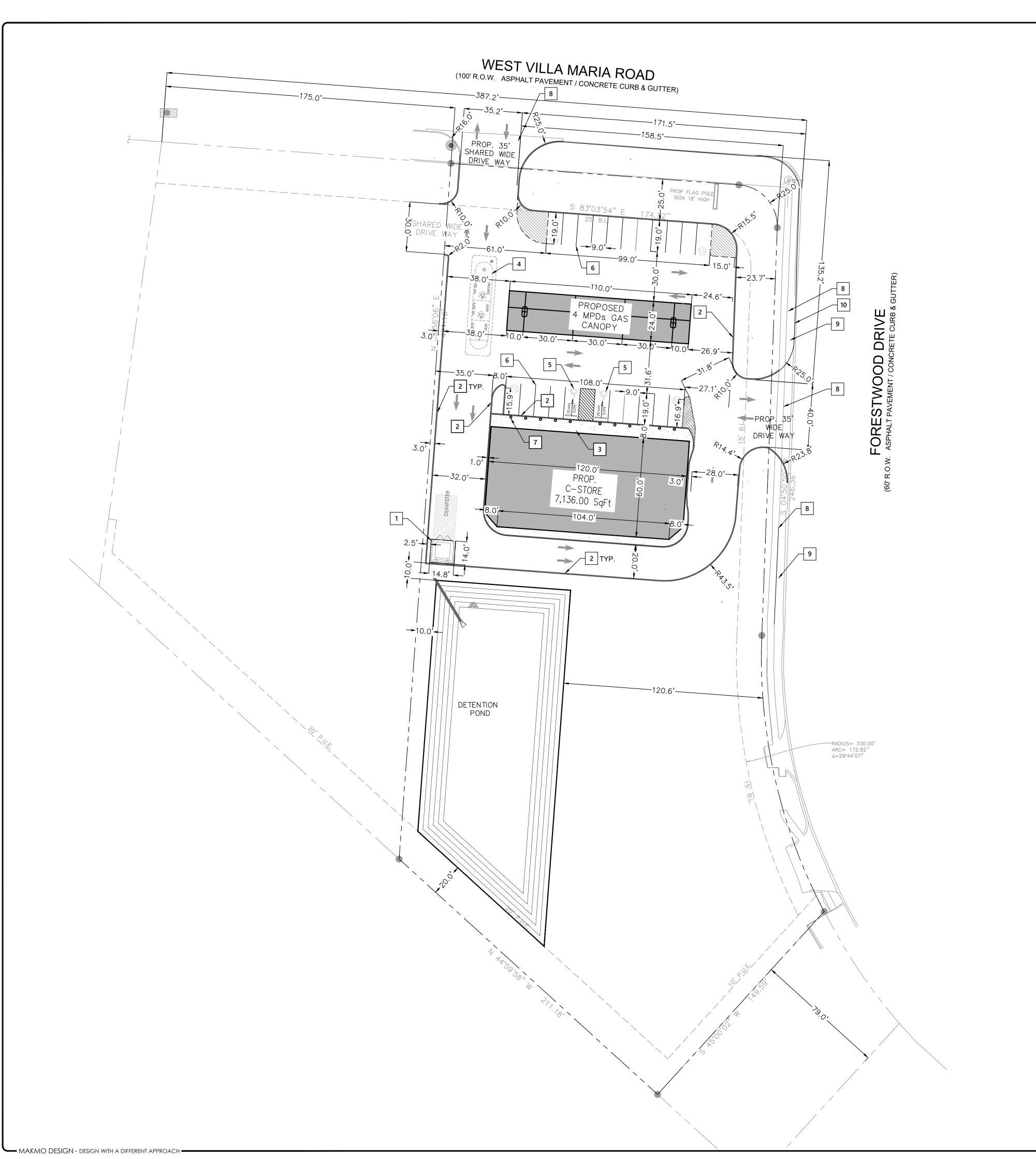
PROJECT NUMBER	23-000
SCALE	N/A
DRAWN BY	R::R
CHECKED BY	A.Z
SHEET TITLE :	

COVER SHEET

DRAWING NUMBER:

C-0.0





1 TRASH ENCLOSURE SEE DETAIL ON SHEET C-6.0.

2 6" CONCRETE CURB SEE DETAIL ON SHEET C-6.0.

3 CONCRETE SIDEWALK SEE DETAIL ON SHEET C-6.0.

4 PROPOSED FUEL TANK BY OTHERS.

5 FOR ADA PARKING DETAIL AND SIGN REFER DETAIL ON SHEET C-5.0.

6 NEW PAVEMENT MARKING FOR PARKING SPACES

7 INSTALL NEW BOLLARDS. SEE DETAIL ON THIS SHEET.

8 REMOVE EX CURB

9 REMOVE EX DRIVEWAY.

10 NEW 6" CONCRETE CURB PER CITY OF BRYAN.

DIMENSION LAYOUT NOTES:

THE CONTRACTOR SHALL LAYOUT AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DIRECTION AND RESOLUTION OF

DISCREPANCIES PRIOR TO PROCEEDING.

- VERIFY LOCATIONS OF ALL SITE IMPROVEMENTS INSTALLED UNDER OTHER SECTIONS. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE ENGINEER FOR INSTRUCTION PRIOR TO COMMENCING WORK.
 - WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.
- WHERE DIMENSIONS ARE CALLED AS "EQUAL", ALL REFERENCED ITEMS SHALL BE SPACED EQUALLY, MEASURED TO THEIR CENTER LINES. ALL DIMENSIONS ARE PERPENDICULAR TO FACE OF BUILDING, WALL OR
- OTHER FIXED SITE IMPROVEMENT AND DIMENSIONS AT CURB ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED. INSTALL ALL INTERSECTING ELEMENTS AT 90 DEGREES TO EACH OTHER

EXPANSION JOINTS:

UNLESS OTHERWISE NOTED.

PROVIDE EXPANSION JOINTS IN ALL CASES WHERE CONCRETE FLATWORK MEETS OTHER STRUCTURES SUCH AS WALLS, CURBS, STEPS & BUILDINGS OR WHERE CONCRETE ABUTS EXISTING CONCRETE PAVING, UTILITY VAULTS, JUNCTION BOXES, ETC. EXPANSION JOINTS REQUIRED AT THESE STRUCTURES MAY NOT BE SHOWN ON THESE DRAWINGS BUT ARE A CONSTRUCTION REQUIREMENT. SEE DETAILS FOR LOCATIONS THAT REQUIRE INSTALLATION OF DOWELS.

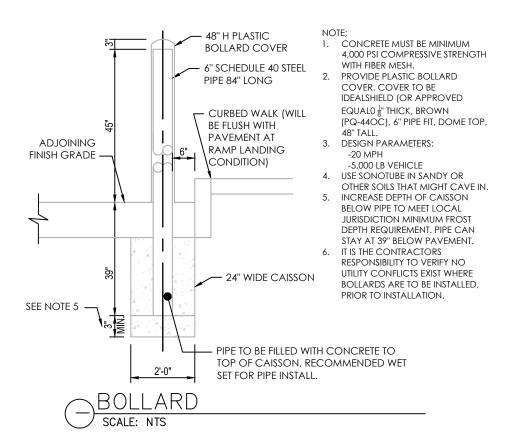
GENERAL NOTES

- LOCATIONS OF THE EXISTING UTILITIES ARE BASED ON RECORDS FROM SAID UTILITY COMPANIES AND ARE HORIZONTALLY FIELD LOCATED ONLY. THE CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL
- LOCATION. CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION.
- CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A
- RESULT OF THIS CONSTRUCTION PROJECT. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF
- ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY. ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN
- ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE MATERIALS AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION. EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH
- PROPOSED GRADE. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER PRIOR TO BEGINNING
- ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO
- PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING. ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW
- TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING. . AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER
- . CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF
- CONSTRUCTION RUNOFF AND SEDIMENT TO ADJACENT PROPERTY AND PUBLIC ROADS.
- 2. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE SYSTEM 13. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED. A COPY OF THE NOTICE OF INTENT SHALL BE PROVIDED TO THE LOCAL MUNICIPAL AUTHORITY.
- 4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE TEXAS ONE-CALL SYSTEM AT 1-800-344-8377 (811) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED. 5. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA
- STANDARDS. VERIFY. 16. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING
- CONSTRUCTION.

7. EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF RECORD.

SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS

ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE







DRAWING NUMBER:

SEAL

DATE:

SCALE

DRAWN BY

CHECKED BY

SHEET TITLE :

C-1.0

PROJECT NUMBER 23-000

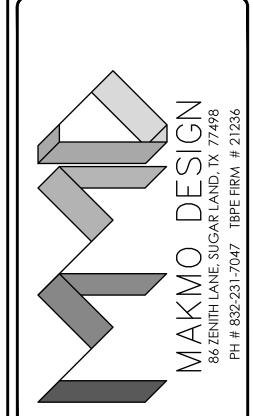
SITE

PLAN

1" = 30'

R:R

A.Z



ISSUE FOR:

BID ONLY

PERMITS SET

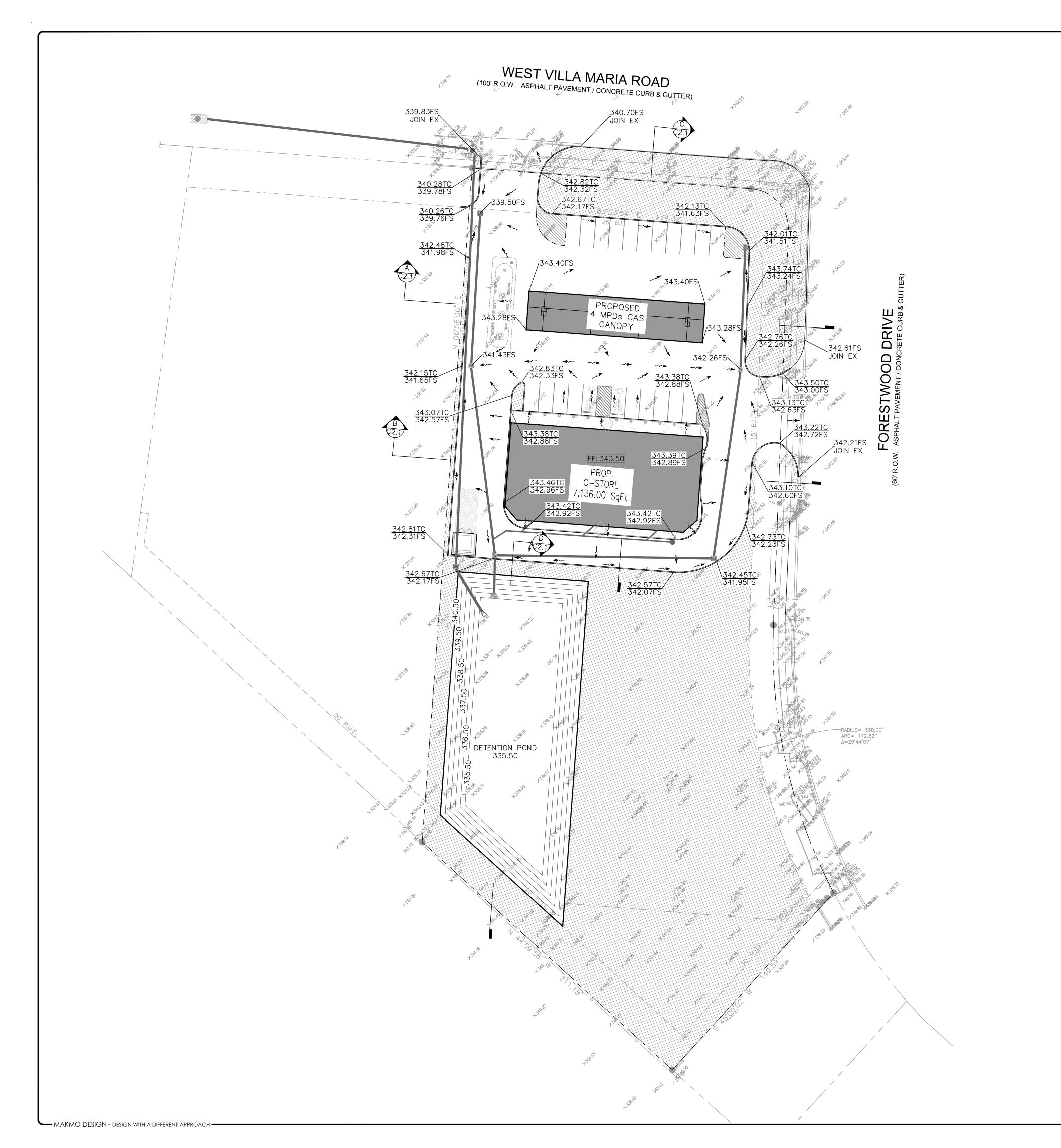
REVISIONS:

FOR INTER REVIEW ONLY

NO. DATE DESCRIPTION

CONSTRUCTION SET

0 00



LEGEND

PROPERTY LINE

STORM DRAIN

+350.25 EX ELEVATIONS

SLOPE ARROW

CATCH BASIN

350.00TC NEW ELEVATIONS 350.50FS GRADING PLAN NOTES

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASE OF THE PROJECT.

THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE OWNER PRIOR TO PLACEMENT.

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

CONSTRUCTION REVIEW. INSPECTION. AND OBSERVATION OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED AS A REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, OR NEAR THE CONSTRUCTION SITE.

THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL PERMITS FROM AUTHORITIES AND REGULATORY AGENCIES HAVING JURISDICTION OVER THIS SITE, AS REQUIRED, PRIOR TO BEGINNING WORK. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH THE

EROSION CONTROL PLAN AND/OR PERMIT. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.

TRAFFIC: MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING EARTH MOVING OPERATIONS.

a. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION.

b. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY OWNER OR AUTHORITIES HAVING JURISDICTION. 10. DO NOT CONDUCT WORK ON ADJOINING PROPERTY UNLESS DIRECTED BY

ENGINEER. . DO NOT COMMENCE EARTH-MOVING OPERATIONS UNTIL TEMPORARY EROSION-AND SEDIMENTATION-CONTROL MEASURES ARE IN PLACE.

. INSTALL DETECTABLE WARNING TAPE ABOVE CONSTRUCTED UTILITIES. DETECTABLE WARNING TAPE IS DEFINED AS: ACID- AND ALKALI-RESISTANT, POLYETHYLENE FILM WARNING TAPE MANUFACTURED FOR MARKING AND IDENTIFYING UNDERGROUND UTILITIES, A MINIMUM OF 6 INCHES WIDE AND 4 MILS THICK, CONTINUOUSLY INSCRIBED WITH A DESCRIPTION OF THE UTILITY, WITH METALLIC CORE ENCASED IN A PROTECTIVE JACKET FOR CORROSION PROTECTION, DETECTABLE BY METAL DETECTOR WHEN TAPE IS BURIED UP TO 30 INCHES DEEP; COLORED AS FOLLOWS:

a. RED: ELECTRIC. b. YELLOW: GAS, OIL, STEAM, AND DANGEROUS MATERIALS.

c. ORANGE: TELEPHONE AND OTHER COMMUNICATIONS d. BLUE: WATER SYSTEMS.

e. GREEN: SEWER SYSTEMS.

13. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTH MOVING OPERATIONS.

4. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS DURING EARTH MOVING OPERATIONS. 5. PROTECT SUBGRADES AND FOUNDATION SOILS FROM FREEZING TEMPERATURES

AND FROST. REMOVE TEMPORARY PROTECTION BEFORE PLACING SUBSEQUENT MATERIALS.

6. IF EXCAVATED MATERIALS INTENDED FOR FILL AND BACKFILL INCLUDE UNSATISFACTORY SOIL MATERIALS AND ROCK, REPLACE WITH SATISFACTORY SOIL MATERIALS.

7. EXCAVATE TO INDICATED ELEVATIONS AND DIMENSIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. IF APPLICABLE, EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORMWORK, FOR INSTALLING SERVICES AND OTHER CONSTRUCTION, AND FOR

a. EXCAVATIONS FOR FOOTINGS AND FOUNDATIONS: DO NOT DISTURB BOTTOM OF EXCAVATION. EXCAVATE BY HAND TO FINAL GRADE JUST BEFORE PLACING CONCRETE REINFORCEMENT. TRIM BOTTOMS TO REQUIRED LINES AND GRADES TO LEAVE SOLID BASE TO RECEIVE OTHER WORK.

b. EXCAVATION FOR UNDERGROUND TANKS, BASINS, AND MECHANICAL OR ELECTRICAL UTILITY STRUCTURES: EXCAVATE TO ELEVATIONS AND DIMENSIONS INDICATED WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. DO NOT DISTURB BOTTOM OF EXCAVATIONS INTENDED AS BEARING SURFACES. 18. EXCAVATIONS AT EDGES OF TREE- AND PLANT-PROTECTION ZONES:

a. EXCAVATE BY HAND TO INDICATED LINES, CROSS SECTIONS, ELEVATIONS, AND SUBGRADES. USE NARROW-TINE SPADING FORKS TO COMB SOIL AND EXPOSE ROOTS. DO NOT BREAK, TEAR, OR CHOP EXPOSED ROOTS. DO NOT USE MECHANICAL EQUIPMENT THAT RIPS, TEARS, OR PULLS ROOTS. O. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF

IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED. a. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.

b. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.

20. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING.

ROOF DRAIN NOTE:

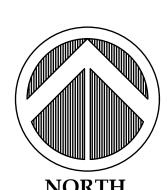
CONTRACTOR TO CONNECT ALL DOWNSPOUTS TO

THE NEAREST UNDERGROUND STORM SEWER

CONTRACTOR TO PROVIDED CONCRETE SPLASH BLOCK FOR EACH ROOF DRAIN NOT CONNECTED DIRECTLY TO STORM SEWER PIPING.



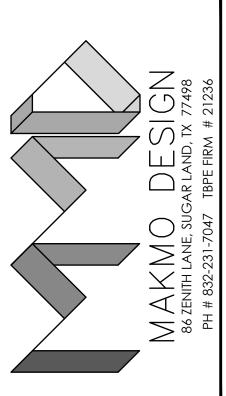
According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map No. 48041C0215F, with the effective date of OCTOBER 16, 2014, the property is located in Flood Zone " x ", Areas determined to be outside of the regulated floodway. All Floodplain information noted in the plat reflects the status per the FEMA FIRM map that is effective at the time that the plat is recorded. Floodplain and Floodway status is subject to change as FEMA FIRM maps are updated.



FOR INTER REVIEW ONLY BID ONLY PERMITS SET CONSTRUCTION SET

REVISIONS: NO. DATE DESCRIPTION

ISSUE FOR:



∞ 国民 00

ASHLEY BICE

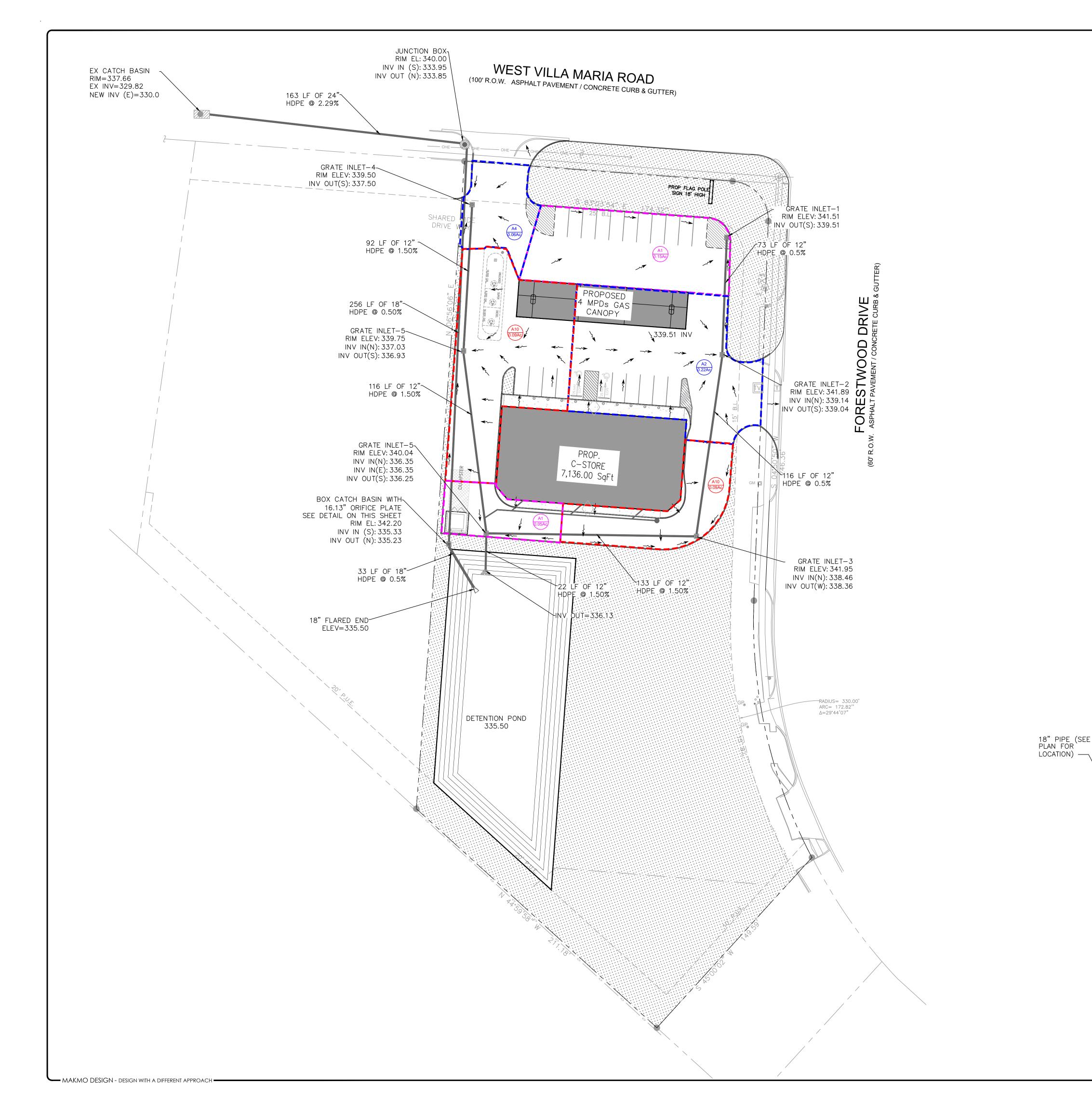
DATE:	
PROJECT NUMBER	23-000
SCALE	1" = 30'
DRAWN BY	R:R
CHECKED BY	A.7

GRADING PLAN

DRAWING NUMBER:

SHEET TITLE :

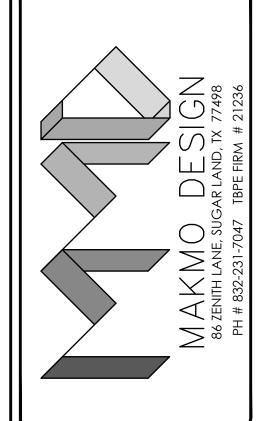
C-2.0



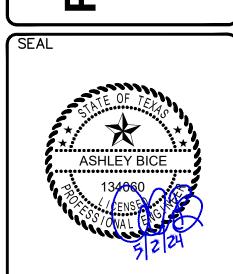
ISSUE FOR: FOR INTER REVIEW ONLY BID ONLY PERMITS SET CONSTRUCTION SET

REVISIONS:

NO. DATE DESCRIPTION



ATION 0 $\widetilde{\mathbf{\infty}}$ RD RD STOF LOCATI PROPOSED 1001



DATE:

18" RCP (SEE PLAN FOR LOCATION)

SEAL EDGES WITH - RUBBER GASKET — OR SIUCONE

_ STEEL GRATE

NON-CORROSIVE ORIFICE -PLATE

SECURE PLATE -TO CB WALL USING A MIN. OF 4-8MM Ø GALVANIZED BOLTS

ORIFICE CONTROL CATCH BASIN DETAIL

PROJECT NUMBER	23-000
SCALE	1'' = 30'
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE :	

DRAINAGE PLAN

DRAWING NUMBER:

C-2.1

RESTRICTOR SIZING	CAI	LCULATIONS	
Q	=	CA *(√2gh)F	
D	=	Q1/2/(2.25*h1/4)	
C (COEFFICIENT OF DISCHARGE)	=	0.80	
MAX. DETENTION DEPTH	=	7.00	Ft
RESTRICTOR	SIZ	ING	
A = TOTAL DRAINAGE AREA	=	2.43	AC
QL1, (OUTFLOW RATE ALLOWED FOR			
LOW FLOW)			
	=	7.28	CFS
HL1, HEAD (WATER SURFACE	=		Ft
DIFFERENTIAL)			
		0.64	Ft
DL, CALCULATED LOW LEVEL	=		Ft
RESTRICTOR SIZE	=	1.3407	Ft
	=	16.09	IN
DL1, PROVIDED LOW FLOW	_		
RESTRICTOR SIZE		16.13	IN
ACTUAL OUTFLOW OF 16.26"			
RESTRICTOR - 100 YR	=	7.28	CFS

POST-DEV. RUNOFF COFF.									
TOTAL CATCHMENT									
AREA	105,798	SQ.FT							
CONCRETE	30,850	C=	0.9						
ROOF	9,776	C=	0.75						
LANDSCAPE	51,555	C=	0.3						
POND	13,617	C=	0.9						
COM. C	0.59								

						9	STORM	SEWE	R CAL	CULAT	ION FO	ORM											
PROJECT: 1001 W	VILLA MARIA F	RD, BETAN, TX	77801													b	d	e	C				
DATE: APRIL, 202	4															86.311	10.7919	0.7141	0.59				
								FOR 100Y	R RAINFA	LL FREQUE	NCY												
4 DE 4	MHOR	INLET	Al	REA							LI	NE			DES	IGN	FLC	OWLINE		FRICTIO N	HEAD LOSS	HGL UP	HGL DOWN
AREA	EDOM	ТО	INCR	TOTAL	REACH	T	I	"CI"	Q	GRADE	SIZE	AREA	"N"	R	V	Q	UPSTREAM	DOWNSTREAM	FALL				
	FROM	10	AC	AC	FEET	MIN	IN/HR		CFS	%	IN	SQFT	VALUE	IN	FPS	CFS			FT	S _F	H _F		
A1	INLET 1	INLET 2	0.15	0.15	73	22.12	7.12	4.2012	0.61	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.51	339.14	0.37	0.000211	0.0154	336.29	336.27
A2	INLET 2	INLET 3	0.22	0.37	116	23.38	6.93	4.0897	1.50	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.04	338.46	0.58	0.001278	0.1482	336.27	336.12
A3	INLET 3	INLET 6	0.09	0.45	133	23.70	6.89	4.0628	1.84	1.50	12	0.7857	0.011	0.25	6.58	5.17	338.36	336.35	2.01	0.001923	0.2558	336.38	336.12
A4	INLET 4	INLET 5	0.06	0.06	92	21.08	7.29	4.2984	0.26	0.50	12	0.7857	0.011	0.25	3.80	2.99	337.50	337.03	0.47	0.000037	0.0034	336.12	336.12
A5	INLET 5	INLET 6	0.20	0.26	116	22.86	7.01	4.1347	1.06	0.50	12	0.7857	0.011	0.25	3.80	2.99	336.93	336.35	0.58	0.000631	0.0732	336.20	336.13
A6	INLET 6	OUTFALL	0.05	0.31	12	23.13	6.97	4.1118	1.27	0.50	12	0.7857	0.011	0.25	3.80	2.99	336.25	336.13	0.12	0.000907	0.0109	336.13	336.12
																				TAILWAT	ER ELEV=	336.12	
							TODA (CELLE	D. C. A. I.	OTH A TE	CONTEC	. D. C											
							TORM	SEWE	R CAL	CULAT	ION FO)KM											
PROJECT: 1001 W	VILLA MARIA F	RD, BETAN, TX	77801													b	d	e	C				
DATE: APRIL, 202	4															76.3373	11.8888	0.7721	0.59				

ECT: 1001 W	VILLA MARIA R	RD, BETAN, TX	77801													b	d	e	C				
E: APRIL, 202	4															76.3373	11.8888	0.7721	0.59				
	FOR 10YR RAINFALL FREQUENCY																						
																				FRICTIO	HEAD	HGL UP	HGL
ADEA	MHOR	INLET	Al	REA							LI	NE			DES	SIGN	FLO	WLINE		N	LOSS	HGL 01	DOWN
AREA	EDOM	ТО	INCR	TOTAL	REACH	T	I	"CI"	Q	GRADE	SIZE	AREA	"N"	R	V	Q	UPSTREAM	DOWNSTREAM	FALL				
	FROM	10	AC	AC	FEET	MIN	IN/HR		CFS	%	IN	SQFT	VALUE	IN	FPS	CFS			FT	S_F	H _F		
A1	INLET 1	INLET 2	0.15	0.15	73	22.12	5.01	2.9583	0.43	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.51	339.14	0.37	0.000105	0.0076	336.02	336.01
A2	INLET 2	INLET 3	0.22	0.37	116	23.38	4.87	2.8762	1.06	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.04	338.46	0.58	0.000632	0.0733	336.01	335.94
A3	INLET 3	INLET 6	0.09	0.45	133	23.70	4.84	2.8563	1.30	1.50	12	0.7857	0.011	0.25	6.58	5.17	338.36	336.35	2.01	0.000951	0.1264	336.07	335.94
A4	INLET 4	INLET 5	0.06	0.06	92	21.08	5.14	3.0299	0.18	0.50	12	0.7857	0.011	0.25	3.80	2.99	337.50	337.03	0.47	0.000018	0.0017	335.94	335.94
A5	INLET 5	INLET 6	0.20	0.26	116	22.86	4.93	2.9093	0.74	0.50	12	0.7857	0.011	0.25	3.80	2.99	336.93	336.35	0.58	0.000312	0.0362	335.98	335.95
A6	INLET 6	OUTFALL	0.05	0.31	12	23.13	4.90	2.8924	0.89	0.50	12	0.7857	0.011	0.25	3.80	2.99	336.25	336.13	0.12	0.000449	0.0054	335.95	335.94
																				TAILWAT	ER ELEV=	335.94	

Post-Deve	lopment Condition				
Drainage Area:	2.43	Ac			
Weighted C:	0.59				
Time of Concentration:					
Flow Length:	453	ft			
Overland (Max 100 ft)					
	Upstream Elev:	342.45			
	Downstream Elev:	341.94			
	Length	Slope	Mannings n	P2 (NOAA Atlas 14)	Tc (Mins)
	100	0.0051	0.013	4.23	2.08
Shallow Concentrated					
	Upstream Elev:	0			
	Downstream Elev:	0			
	Length	Slope	K		Tc (Mins)
	0	#DIV/0!	16.13		#DIV/0!
Channel Flow					
	Upstream Elev:	222.85			
	Downstream Elev:	213.9			
	Length	Slope	Mannings n	Hydraulic Radius	Tc (Mins)
	353	0.025354	0.013	0.3125	0.70004
Tc Total:				3	Mins
			Use	5.00	Mins
Intensity10:	8.84				
Intensity100:	12.40				
Q(25):	12.67	CFS			
Q(100):	17.78	CFS			

PreDevelo	opment Condition				
Drainage Area:	2.43	Ac			
Weighted C:	0.3				
Time of Concentration:					
Flow Length:	250	ft			
Overland (Max 100 ft)					
	Upstream Elev:	342.62			
	Downstream Elev:	340.75			
	Length	Slope	Mannings n	P2 (NOAA Atlas 14)	Tc (Mins)
	100	0.0187	0.15	4.23	8.754179983
Shallow Concentrated					
	Upstream Elev:	340.75			
	Downstream Elev:	338.38			
	Length	Slope	K		Tc (Mins)
	150	0.0158	16.13		1.233039808
Channel Flow	Length	Slope	Mannings n	Hydraulic Radius	Tc (Mins)
	0	0.005	0.013	0.3125	0
Tc Total:				10	Mins
Intensity10:	7.07				
Intensity100:	9.98				
Q(10):	5.15	CFS			
Q(100):	7.28	CFS			

Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

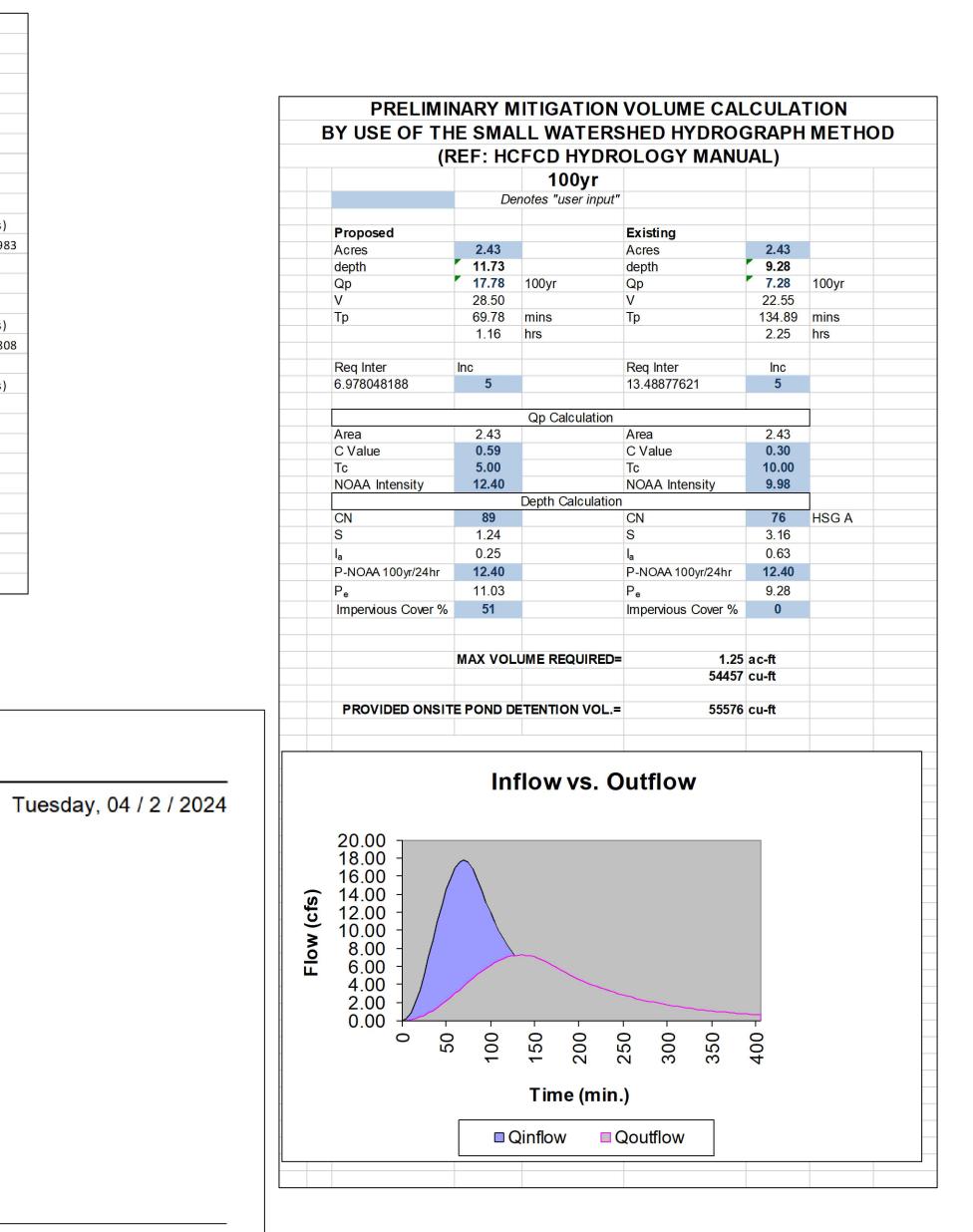
Pond No. 1 - DETENTION POND

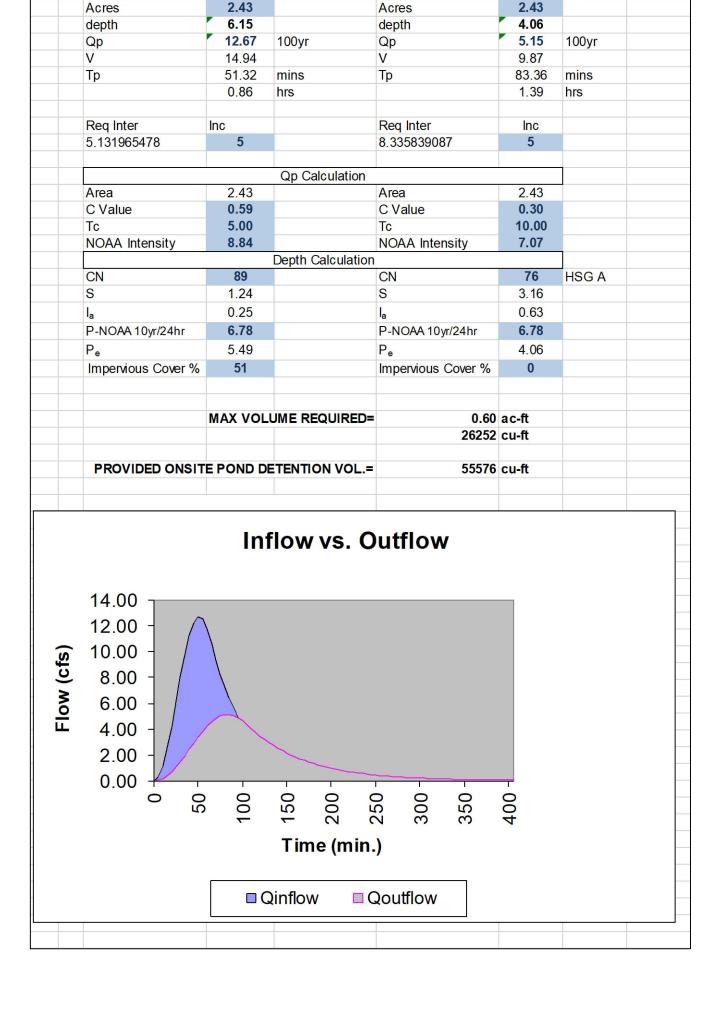
Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 335.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	335.50	7,660	0	0
1.00	336.50	8,948	8,295	8,295
2.00	337.50	10,317	9,623	17,918
3.00	338.50	11,768	11,033	28,952
4.00	339.50	13,301	12,525	41,477
5.00	340.50	14,915	14,099	55,576



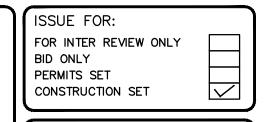


PRELIMINARY MITIGATION VOLUME CALCULATION

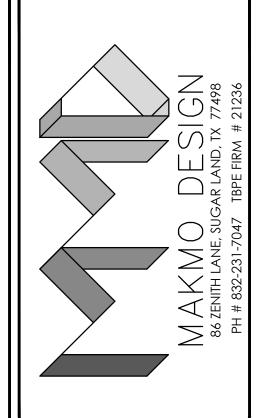
BY USE OF THE SMALL WATERSHED HYDROGRAPH METHOD

(REF: HCFCD HYDROLOGY MANUAL)

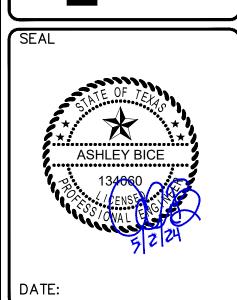
10yr Denotes "user input"



REVISIONS:



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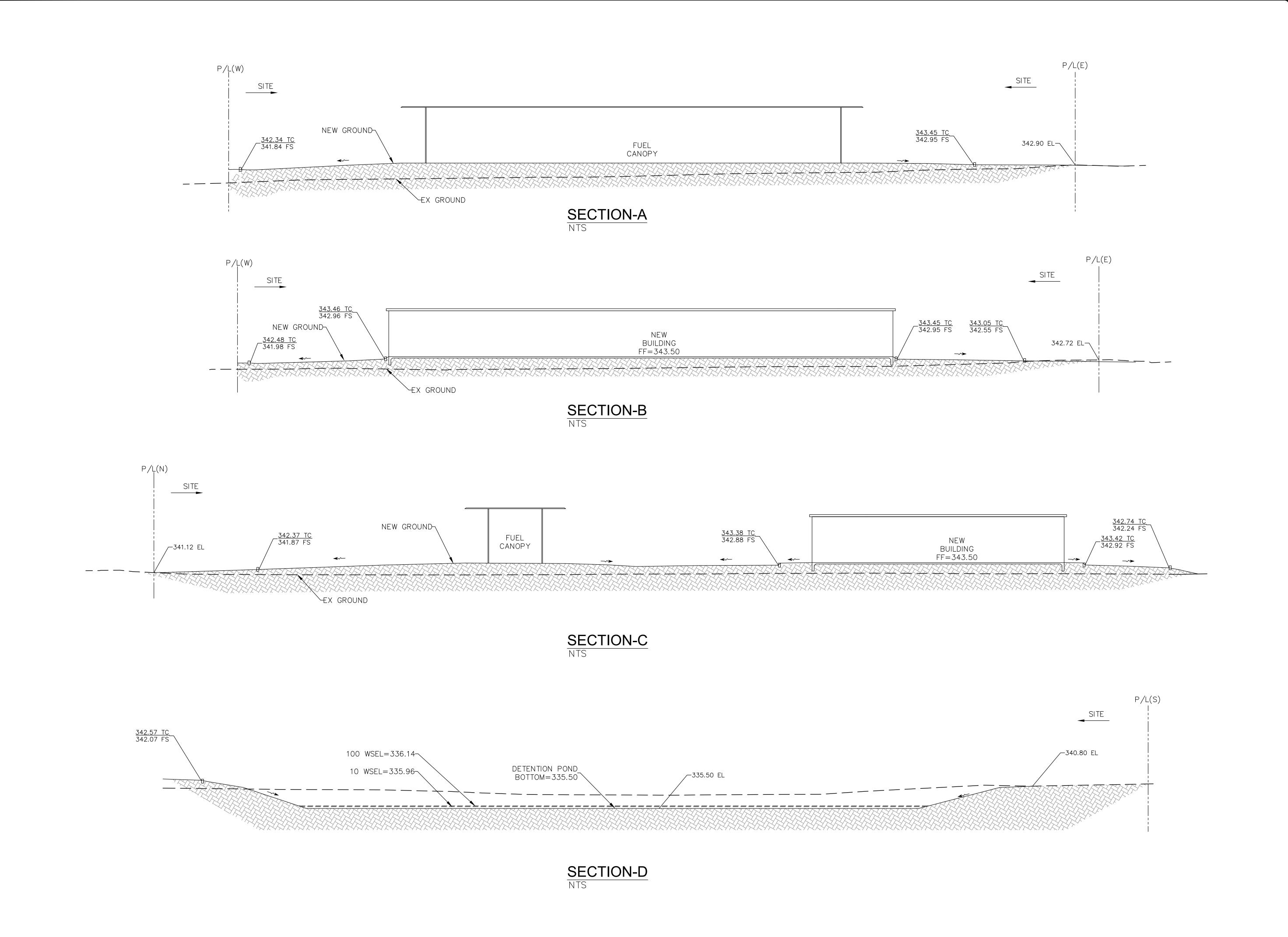


DATE:	
PROJECT NUMBER	23_000
SCALE	
	1" = 30'
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE :	

DRAINAGE CALCULATIONS

DRAWING NUMBER: **C-2.2**

MAKMO DESIGN - DESIGN WITH A DIFFERENT APPROACH —

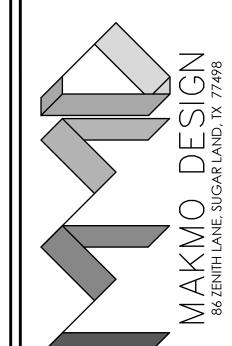


MAKMO DESIGN - DESIGN WITH A DIFFERENT APPROACH —

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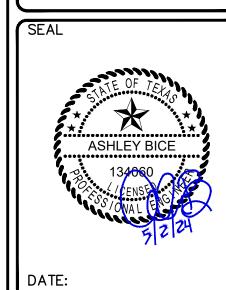
REVISIONS:

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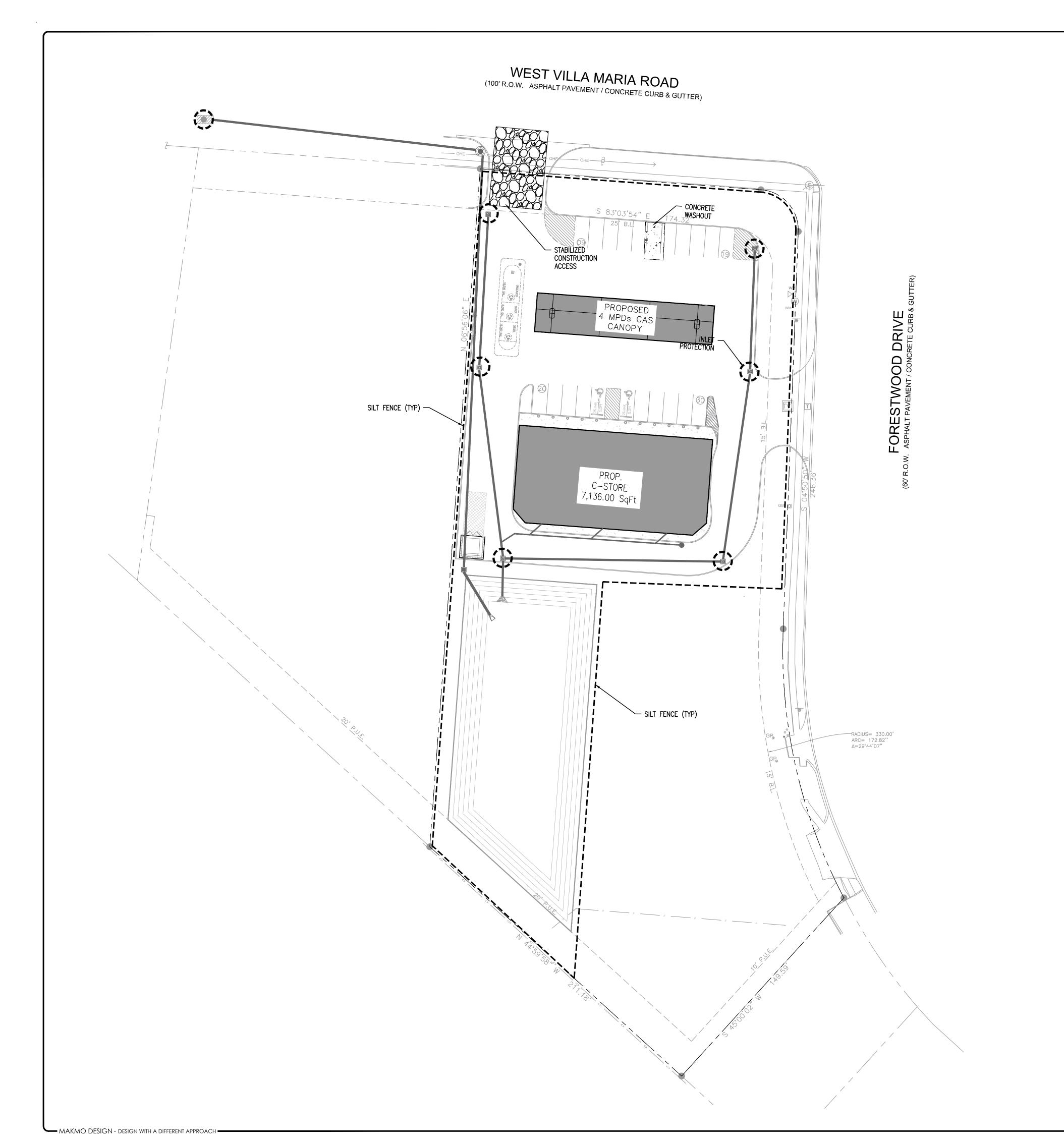


PROJECT NUMBER 23-000 SCALE DRAWN BY R:R CHECKED BY
SHEET TITLE : A.Z

> **SITE SECTIONS**

DRAWING NUMBER:

C-2.3



GENERAL NOTES

- LOCATIONS OF THE EXISTING UTILITIES ARE BASED ON RECORDS FROM SAID UTILITY COMPANIES AND ARE HORIZONTALLY FIELD LOCATED ONLY. THE CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL LOCATION.
- CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION. CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION
- CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE
- MATERIALS AND CONSTRUCTION SPECIFICATIONS, LATEST EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
- CONTRACTOR SHALL NOTIFY PROJECT ENGINEER PRIOR TO BEGINNING WORK. ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL
- ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
- 10. AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER DETAIL.
- CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF CONSTRUCTION RUNOFF AND SEDIMENT TO
- ADJACENT PROPERTY AND PUBLIC ROADS. 2. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE
- 3. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED, A COPY OF THE NOTICE OF INTENT AND CONSTRUCTION SITE NOTICE(S) SHALL BE PROVIDED TO THE LOCAL MUNICIPAL AUTHORITY. CONTRACTOR SHALL POST THE CONSTRUCTION SITE NOTICE(S) IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIROMENTAL QUALITY REQUIREMENTS 14. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN
- ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE TEXAS ONE-CALL SYSTEM AT 1-800-344-8377 (811) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED.
- 15. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA STANDARDS. VERIFY.

EROSION CONTROL LEGEND

INLET PROTECTION BARRIER

(STAGE I & STAGE II)

RIPRAP OUTLET PROTECTION

CONCRETE WASHOUT TRUCK

STABILIZED CONSTRUCTION ENTRANCE

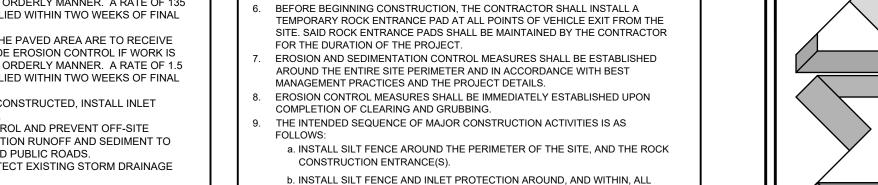
16. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.

SILT FENCE

◆ SURFACE FLOW

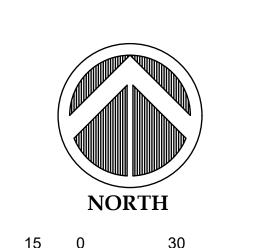
(MIN. 2' FROM BOC)

17. EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF



- STRUCTURES. c. CLEAR AND GRUB.
- d. SURFACE FEATURE REMOVALS.
- e. ROUGH GRADING OF THE SITE. f. STABILIZE DENUDED AREAS AND STOCKPILES.
- g. FINE GRADING OF THE SITE
- h. INSTALL TOPSOIL, COMPOST AND SEED.
- i. REMOVE ACCUMULATED SEDIMENT FROM STRUCTURES.
- i. WHEN ALL CONSTRUCTION ACTIVITIES ARE COMPLETE AND THE SITE IS STABILIZED, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL WITHIN 30-DAYS OF FINAL STABILIZATION.
- THE LOCATION OF THE AREAS NOT TO BE DISTURBED MUST BE IDENTIFIED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC. BEFORE CONSTRUCTION BEGINS. ALL STORM DRAINS AND INLETS MUST BE PROTECTED UNTIL ALL SOURCES OF
- POTENTIAL DISCHARGE ARE STABILIZED. SOLID WASTE MUST BE DISPOSED OF PROPERLY AND COMPLY WITH THE
- GOVERNING AGENCY'S DISPOSAL REQUIREMENTS. 13. EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A
- DEFINED AREA OF THE SITE. THE AREA MUST BE IN A CONTAINED LOCATION WITH A LINER. WASHOUT TO BE REMOVE AND PROPERLY DISPOSED OF FOLLOWING ALL APPLICABLE REGULATIONS. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE ALLOWED TO WASH OFF FRESH CONCRETE IN THE STREET OR IN ANY AREA WHERE THE WASHOUT MATERIAL WILL ENTER A WETLAND OR DRAINAGEWAY. CONCRETE WASHOUT WATER SHALL NOT BE DISCHARGED INTO WATER/STORM SYSTEMS. NO ENGINE DEGREASING IS ALLOWED ON SITE.
- SILT FENCE REQUIRED MAINTENANCE SHALL BE AS FOLLOWS: *WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE FABRIC. THE SEDIMENT MUST BE REMOVED WITHIN 24-HOURS. *REPAIR OR REPLACE DYSFUNCTIONAL SILT FENCE WITHIN 24-HOURS.
- THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL PERMITS FROM AUTHORITIES AND REGULATORY AGENCIES HAVING JURISDICTION OVER THIS SITE, AS REQUIRED, PRIOR TO BEGINNING WORK.
- AFTER CONSTRUCTION BEGINS, SOIL SURFACE STABILIZATION SHALL BE APPLIED WITHIN 7-DAYS TO ALL DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN UNDISTURBED FOR PERIODS LONGER THAN AN ADDITIONAL 21 CALENDAR DAYS.
- WITHIN 7-DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, PERMANENT OR TEMPORARY SOIL SURFACE STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS AND SOIL STOCKPILES.
- ALL DISTURBED GROUND LEFT INACTIVE FOR 7 DAYS OR MORE MUST BE STABILIZED BY SEEDING, SODDING OR MULCHING. TYPE OF SLOPE DAYS TO STABILIZE STEEPER THAN 3:1 7 DAYS 10:1 TO 3:1 7 DAYS FLATTER THAN 10:1 7
- 20. WHEN STABILIZATION MEASURES ARE STOPPED DUE TO SNOW COVER OR ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE SOIL STABILIZATION MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO SURFACE ROUGHENING, TEMPORARY OR PERMANENT VEGETATION, MULCHING, SODDING, LANDSCAPING AND EROSION CONTROL BLANKETS.
- I. STABILIZATION MEASURES TO BE USED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS AND ESTIMATED DURATION OF USE.
- 22. EXISTING TURF OUTSIDE OF THE CONSTRUCTION LIMITS SHALL NOT BE DISTURBED. ANY TURF SHALL BE RE-ESTABLISHED.
- 23. ALL STREETS AND PARKING LOTS ADJACENT TO THE SITE SHALL BE CLEANED AND/OR SWEPT AT THE END OF EACH WORKING DAY. WHEN STABILIZATION MEASURES ARE STOPPED DUE TO SNOW COVER,
- STABILIZATION MEASURES SHALL BE RE-INITIATED AS SOON AS POSSIBLE. STABILIZATION MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO: TEMPORARY OR PERMANENT VEGETATION, MULCHING, SODDING, LANDSCAPING AND EROSION CONTROL BLANKETS.
- TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING THE CONSTRUCTION PHASE AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
- 26. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL PERMANENT REVEGETATION IS ESTABLISHED.
- CONTRACTOR TO LOCATE A CONCRETE WASHOUT AREA ON THE PROJECT SITE PRIOR TO BEGINNING WORK.





EROSION CONTROL NOTES

PLANS FOR MORE REQUIREMENTS.

CONSTRUCTION PHASE OF THE PROJECT.

THE OWNER PRIOR TO PLACEMENT.

ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE A MINIMUM OF 4-INCHES OF

TOPSOIL AND 2-INCHES OF COMPOST (FOR A TOTAL OF 6-INCHES) AND SOD OR

SEED (AS INDICATED) THESE AREAS SHALL BE WATERED BY THE CONTRACTOR

UNTIL THE SOD OR SEED IS GROWING IN A HEALTHY MANNER. SEE LANDSCAPE

PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION

PHASE OF THE PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR

THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE

WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT

INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S

THE DUTY OF THE OWNER (OR OWNER'S REPRESENTATIVE) TO CONDUCT

CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT

SAFETY MEASURES IN, OR NEAR THE CONSTRUCTION SITE.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID

ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE

DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS,

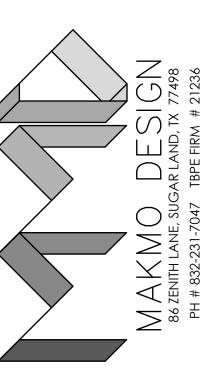
CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND

FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. THESE DEVICES AND THEIR PLACEMENT SHALL BE APPROVED BY

ISSUE FOR: FOR INTER REVIEW ONLY BID ONLY PERMITS SET

CONSTRUCTION SET REVISIONS:

NO. DATE DESCRIPTION



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3/29/2024

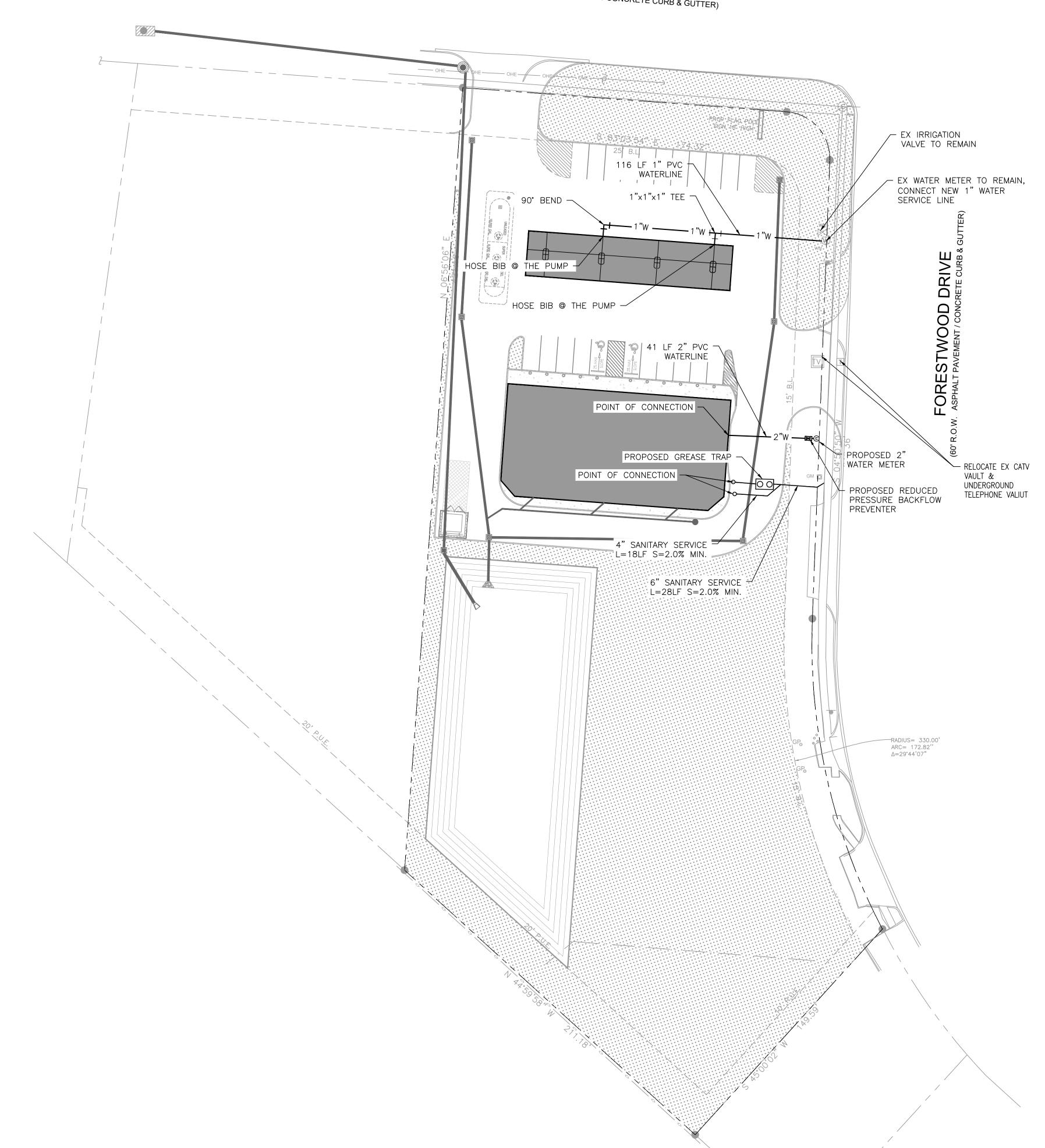
PROJECT NUMBER 23-000 DRAWN BY R:R CHECKED BY A.Z SHEET TITLE :

> **ESC PLAN**

DRAWING NUMBER:

C-3.0

WEST VILLA MARIA ROAD (100' R.O.W. ASPHALT PAVEMENT / CONCRETE CURB & GUTTER)



MAKMO DESIGN - DESIGN WITH A DIFFERENT APPROACH —

SEWER NOTES:

- SANITARY SEWER PIPE TO BE SCH. 40 (PVC) FOR 6" OR LESS AND SDR-35 (PVC) FOR 8" MEETING ASTM SPECIFICATIONS D1785 & D2665 UNLESS OTHÉRWISE NOTED.
 - ALL SEWERS SHALL HAVE CLASS A BEDDING IN ACCORDANCE WITH CITY OF BRYAN.
- ALL SANITARY SEWERS CROSSING ABOVE OR BELOW WATERLINES WITH 6 INCHES TO 9 FEET CLEARANCE SHALL HAVE A 20' JOINT OF 150 PSI AWWA C-900 SDR-18 P.V.C. SANITARY SEWER PIPE CENTERED ON WATERLINE, EXCEPT WHERE DUCTILE IRON PIPE IS USED.
- SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3"-6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM
- PRIVATE SANITARY SEWERS ARE TO BE PRIVATELY OWNED, OPERATED AND MAINTAINED BY SERVICED PROPERTY OWNER.

WATER NOTES:

- WATER MAINS/METER CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF BRYAN FOR WATER MAIN CONSTRUCTION AND MATERIALS AND SPECIFICATION FOR WATER TAPS AND SERVICE. LINES 3/4" THROUGH 2", AND FOR LARGE METERS AND SPRINKLER CONNECTIONS WITH LATEST ADDENDA AND AMENDMENTS THERETO.

THE PIPE TO PROVIDE A COMPACTED ENCASEMENT.

• 11/2" THRU 3" WATER MAIN SHALL BE SCH. 40 PVC PIPE. ALL WATER MAINS SHALL HAVE 6" OF BANK SAND ENVELOPE AND SHALL BE

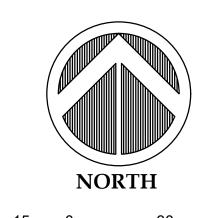
BACKFILLED TO A MINIMUM COMPACTED DEPTH OF 6" OVER THE TOP OF

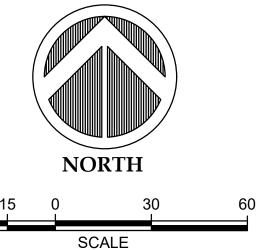
- CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 9' (NINE FEET) AND MINIMUM 2' (TWO FEET) BETWEEN OUTSIDE OF WATERLINES AND OUTSIDE EDGE OF SANITARY SEWER MANHOLES OR
- CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE SPECIFIED IN SPECIFICATION FOR WATER MAIN CONSTRUCTION AND MATERIALS WITH LATEST ADDENDA AND AMENDMENTS
- ALL WATERLINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651
- BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON IRRIGATION WATER METER. CONTRACTOR SHALL INSTALL DEVICE APPROVED FOR USE BY CITY OF BRYAN.

GENERAL NOTES

- LOCATIONS OF THE EXISTING UTILITIES ARE BASED ON RECORDS FROM SAID UTILITY COMPANIES AND ARE HORIZONTALLY FIELD LOCATED ONLY. THE CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL LOCATION.
- CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION.
- CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION PROJECT.
- CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY.
- ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE MATERIALS AND
- CONSTRUCTION SPECIFICATIONS, LATEST EDITION. EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH
- PROPOSED GRADE. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER AND Matagorda COUNTY
- MUD NO. 41 OPERATOR PRIOR TO BEGINNING WORK. ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN
- TWO WEEKS OF FINAL GRADING. ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
- D. AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER
- CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF CONSTRUCTION RUNOFF AND SEDIMENT TO ADJACENT PROPERTY AND PUBLIC ROADS.
- 12. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE SYSTEM 13. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED, A COPY OF THE NOTICE OF INTENT SHALL BE PROVIDED TO THE LOCAL MUNICIPAL
- 14. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE TEXAS ONE-CALL SYSTEM AT 1-800-344-8377 (811) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING
- UTILITIES CAN BE LOCATED. 15. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA
- STANDARDS. VERIFY. 16. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING
- CONSTRUCTION. 7. EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF RECORD.





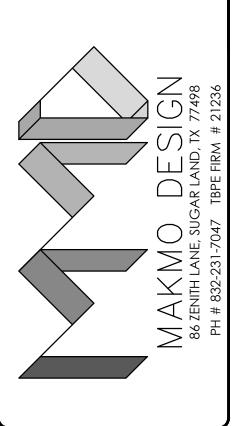


ISSUE FOR:

FOR INTER REVIEW ONLY BID ONLY PERMITS SET CONSTRUCTION SET

REVISIONS:

NO. DATE DESCRIPTION



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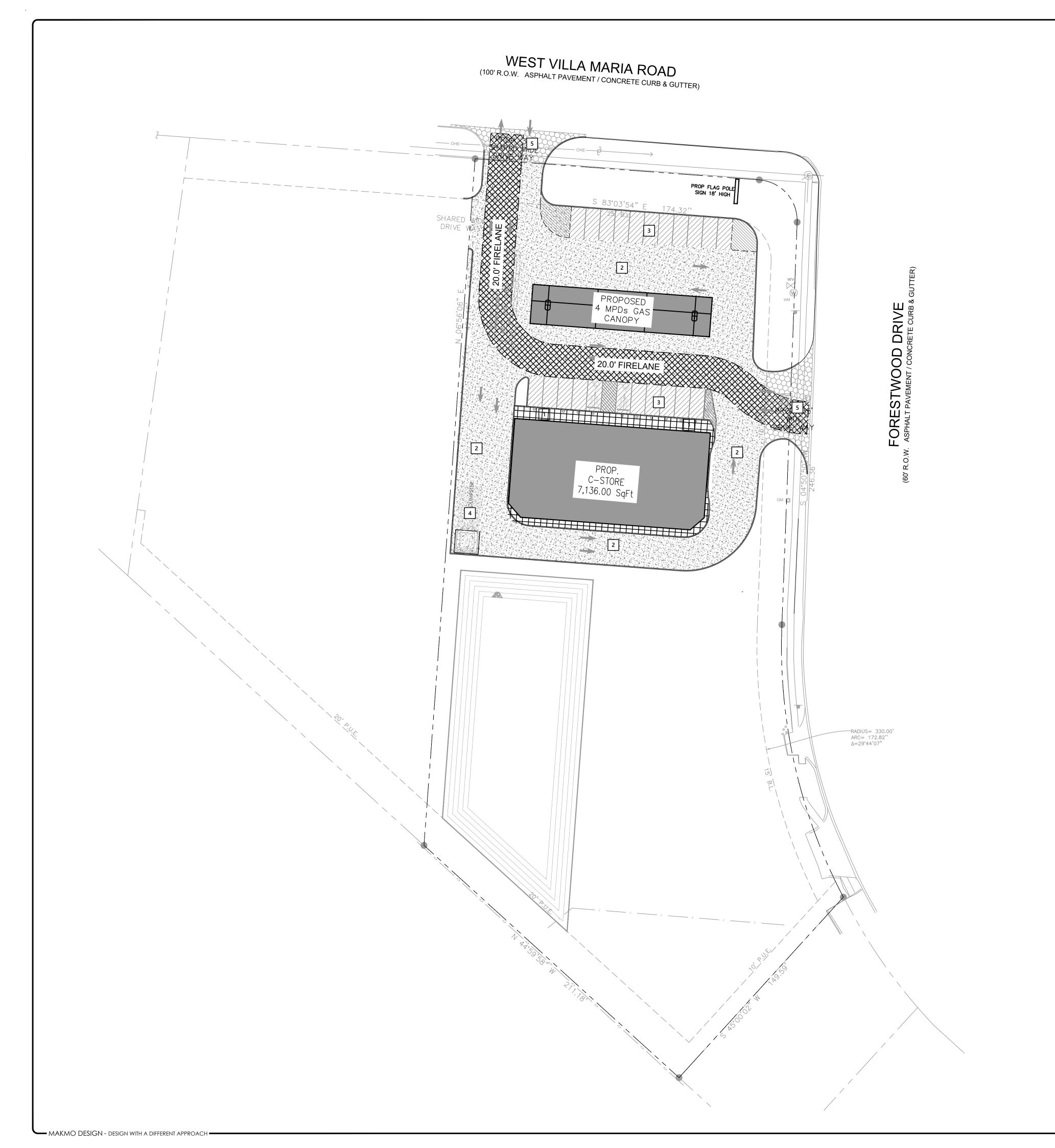


PROJECT NUMBER 23-000 DRAWN BY R:R CHECKED BY A.Z SHEET TITLE :

> **UTILITY PLAN**

DRAWING NUMBER:

C-4.0

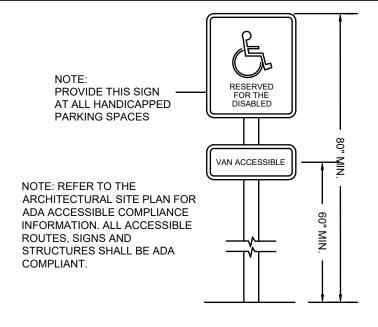


GENERAL NOTES

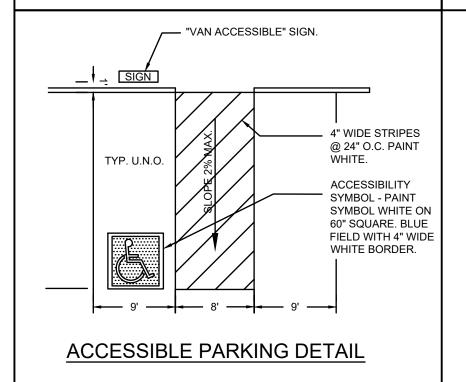
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- CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION. CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF
- REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION
- CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY. ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED
- IN ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE MATERIALS AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION.
- EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO
- MATCH PROPOSED GRADE. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER PRIOR TO BEGINNING WORK.
- ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
- ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
- 10. AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER DETAIL.
- . CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF CONSTRUCTION RUNOFF AND SEDIMENT TO ADJACENT PROPERTY AND PUBLIC ROADS. 2. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE
- SYSTEM 3. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS
- BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED, A COPY OF THE NOTICE OF INTENT SHALL BE PROVIDED TO THE LOCAL MUNICIPAL AUTHORITY.
- ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE TEXAS ONE-CALL SYSTEM AT 1-800-344-8377 (811) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED.

14. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN

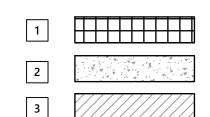
- 5. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA STANDARDS. VERIFY. 6. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
- . EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF RECORD.



ACCESSIBLE PARKING SIGN



LEGEND



(5" WITH #3 BARS @ 18" O.C.) DRIVING PVMT (6" WITH #4 BARS @ 18" O.C.)

PARKING PVMT (6" WITH #4 BARS @ 24" O.C.) DUMPSTER PAD (7" WITH #5 BARS @ 12" O.C.)

SIDEWALK

CONCRETE APRON (8" WITH #4 BARS @ 18" O.C.)

CONCRETE PAVING NOTES:

ALL CONCRETE SHALL BE IN ACCORDANCE TO THE BUILDING CODE REQUIREMENT IN THE ACI 318-95. ALL CONCRETE SHALL MEET THESE MINIMUM SPECIFICATION.

PAVING: CONCRETE STRENGTH: 3500 PSI @ 28 DAYS MAX COARSE AGGREGATE SIZE: 1"

- FORM WORK DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT BE REMOVED UNTIL THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT PLUS APPLIED CONSTRUCTION LOADS.
- CONCRETE PLACEMENT SHALL BE ACCOMPLISHED BY DIRECT CHUTE FROM THE MIXER TRUCK, CRANE AND BUCKET OR BY PUMPING TO ITS FINAL POINT OF DEPOSIT. CONCRETE SHALL NOT BE DUG BY HAND MORE THAN 5 FEET. TO PREVENT EXCESS AND UNCONTROLLED CRACKING, CONTROL JOINTS SHOULD
- BE PROVIDED AT 12' MAX. SPACING IN EACH DIRECTION. CONTROL JOINTS MAY BE SAW CUT, METAL KEYWAY OR OF REMOVABLE STRIP TYPE, EXPANSION JOINT SHALL BE PLACED NO MORE THAN 45' MAX. EXPANSION JOINTS SHALL THEN BE FILLED WITH AN ELASTROMERIC JOINT FILLER MATERIAL. SEE PLAN FOR EXACT LOCATION OF JOINTS. FOR SIDEWALKS, PROVIDE EXPANSION JOINTS @ 20' O.C AND CONTROL JOINTS @ 5' O.C. MAX.

PAVING METHODS:

- 5" CONCRETE PAVING REINFORCED WITH #3 BARS @ 18" O.C.E.W. OVER 6" SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED.
- (SIDEWALK/WALK WAYS)
 6" CONCRETE PAVING REINFORCED WITH #4 BARS @ 24" O.C.E.W. OVER 6" SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (PARKING AREA) 6" CONCRETE PAVING REINFORCED WITH #4 BARS @ 18" O.C.E.W. OVER 6"
- SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (DRIVING ISLE). 7" CONCRETE PAVING REINFORCED WITH #5 BARS @ 12" O.C.E.W. OVER 9"
- SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (DUMPSTER LOCATION) 8" CONCRETE PAVING REINFORCED WITH #4 BARS @ 18" O.C.E.W. OVER 8" LIME
- STABILIZED SUBGRADE, 60' MAX HEADER SPACING, MIN 16" LAP SPLICE (CONCRETE DRIVEWAY APRON)

8" BLACK BASE, 8" STABILIZED LIME SUBGRADE, 2.5-3" TYPE D

REINFORCING STEEL NOTES:

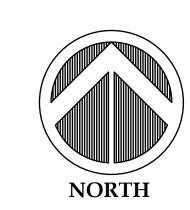
- REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60. BARS SHOULD BE NEW, CLEAN AND FREE OF DIRT, RUST OR OIL. DETAILING AND FABRICATION OF REINFORCING BARS SHALL BE IN ACCORDANCE
- WITH THE MANUAL OF STANDARD PRACTICE, ACI-315-80, UNLESS SHOWN OTHERWISE CONTINUOUS BARS 30 BAR DIAMETERS AT SPLICES, 12" MIN. REINFORCING BARS MAY NOT BE WELDED WITHOUT THE APPROVAL OF THE CIVIL
- PROVIDE NECESSARY TIES AND BAR SUPPORTS AS REQUIRED BY THE MANUAL OF STANDARD PRACTICE, ACI 315-80, CHAPTER-3. BRICK, ROCK OR MASONRY BLOCKS ARE NOT ACCEPTABLE SUPPORTS. CHAIRS AND BOLSTERS FOR DIRECTLY OVER EARTH, POLY SHEETS SHALL BE EQUIPPED WITH BOTTOM
- CONCRETE COVERAGE FOR THE REINFORCING STEEL SHALL COMPLY WITH THE ACI 318-95 CODE, ARTICLE 7.7.1, EXCEPT WHERE STATED SPECIFICALLY

SITE PREPARATION NOTES:

THE CONTRACTOR SHALL FOLLOW THE GUIDELINES SET FORTH WITHIN THE GEOTECHNICAL REPORT FOR SITE PREPARATION AND PAVING AND IS ADVISED TO GET IT SUPERVISED AND/OR INSPECTED WITH THE GEOTECHNICAL FIRM AS REQUIRED. THE MINIMUM SITE COMPACTION UNDER PAVING AND OVER UTILITIES SHALL BE 95% OR HIGHER ON PROCTOR WITH FILL PLACED IN 8" LIFTS. SUBGRADE MUST BE LIME STABILIZED AND REQUIRE 7% HYDRATED LIME BY DRY UNIT WEIGHT. THE STABILIZED CLAYS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY IN A MOISTURE CONTENT RANGE OF -1% TO +4% OF THE SOIL/LIME MIXTURE'S OPTIMUM MOISTURE CONTENT AS DETERMINED BY





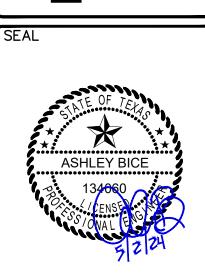


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REVISIONS: NO. DATE DESCRIPTION



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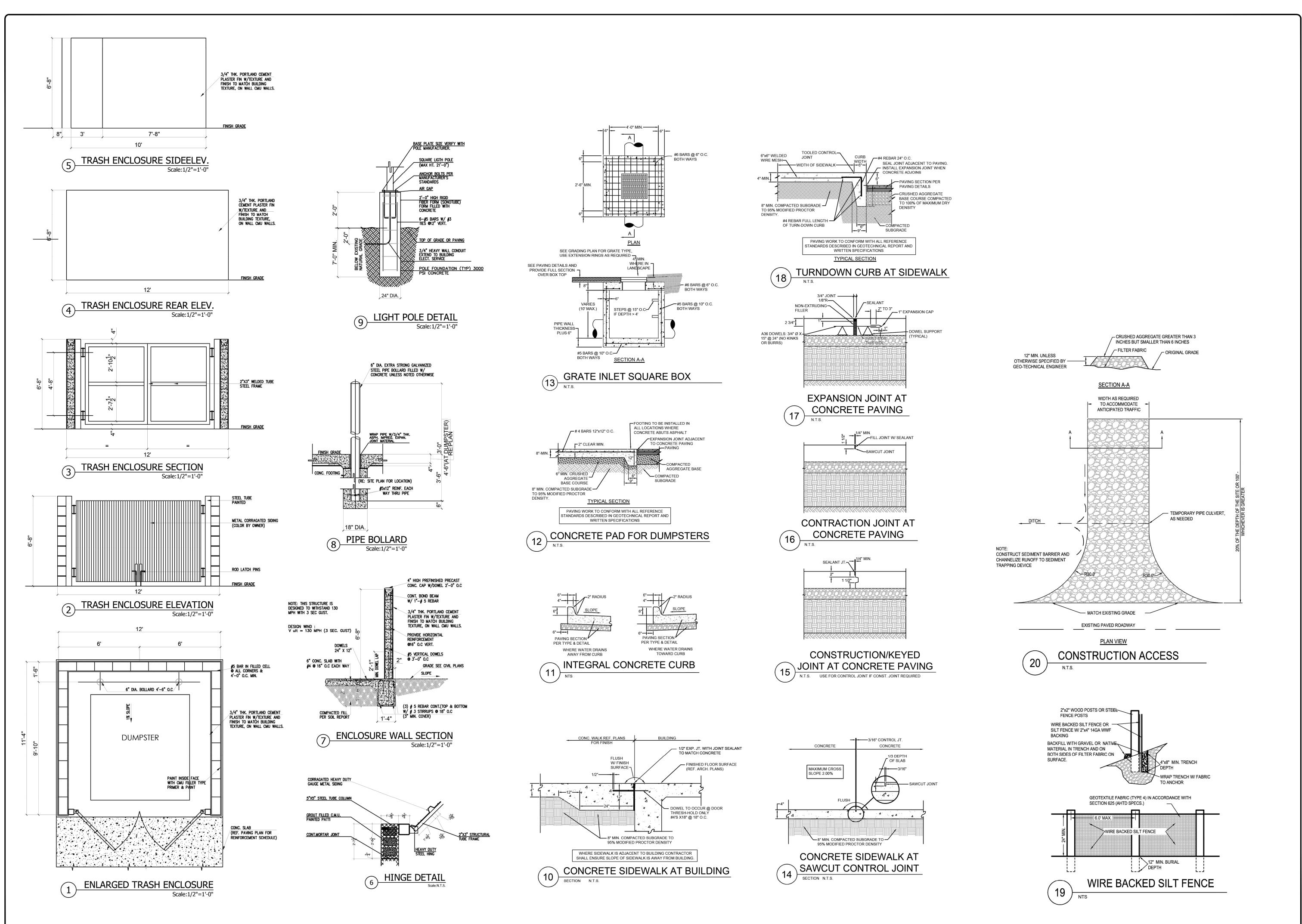


PROJECT NUMBER 23-000 SCALE 1" = 30' DRAWN BY R:R CHECKED BY A.Z SHEET TITLE :

> **PAVING PLAN**

DRAWING NUMBER:

C-5.0



MAKMO DESIGN - DESIGN WITH A DIFFERENT APPROACH

ED C STORE & GAS STATION

LOCATED AT

///LLA MARIA RD, BRYAN, TX 77801

ISSUE FOR:

REVISIONS:

BID ONLY
PERMITS SET
CONSTRUCTION SET

FOR INTER REVIEW ONLY

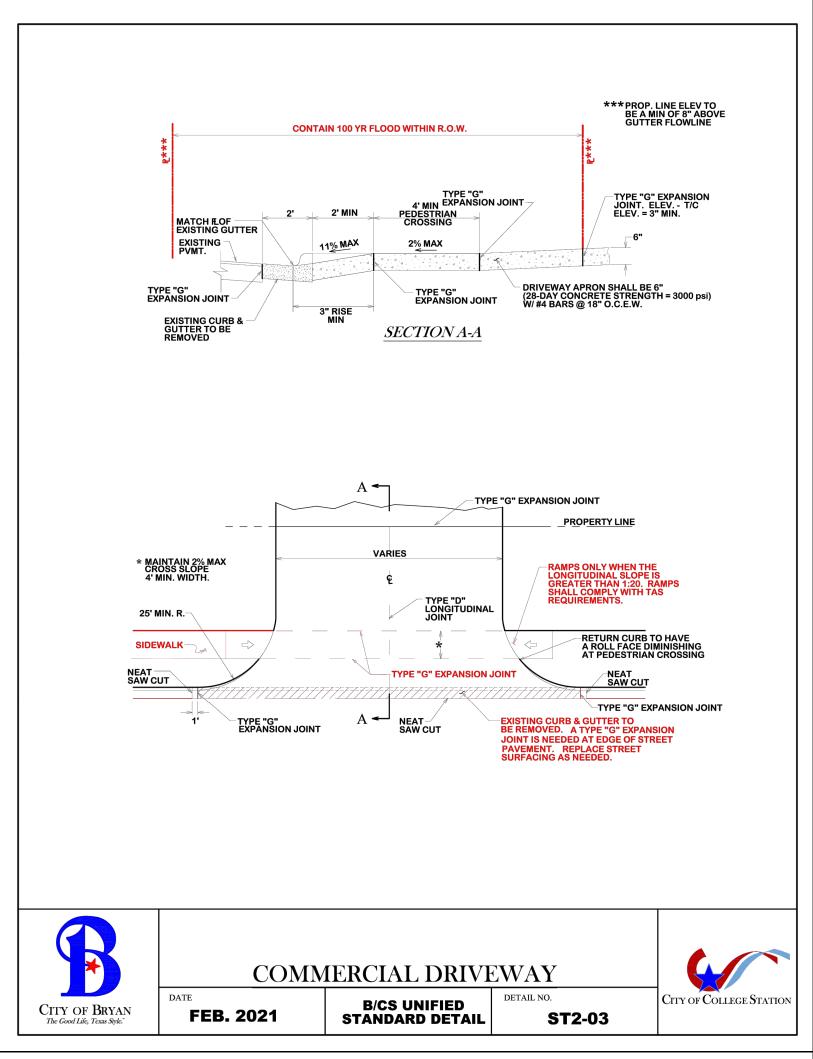
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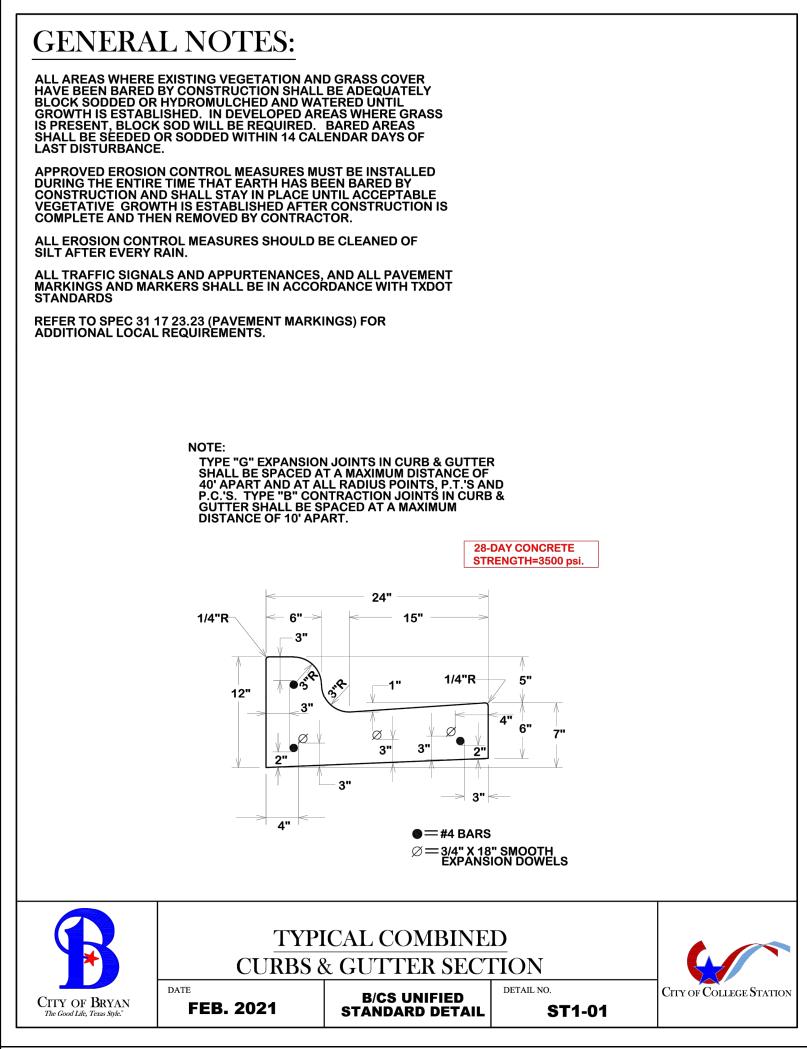
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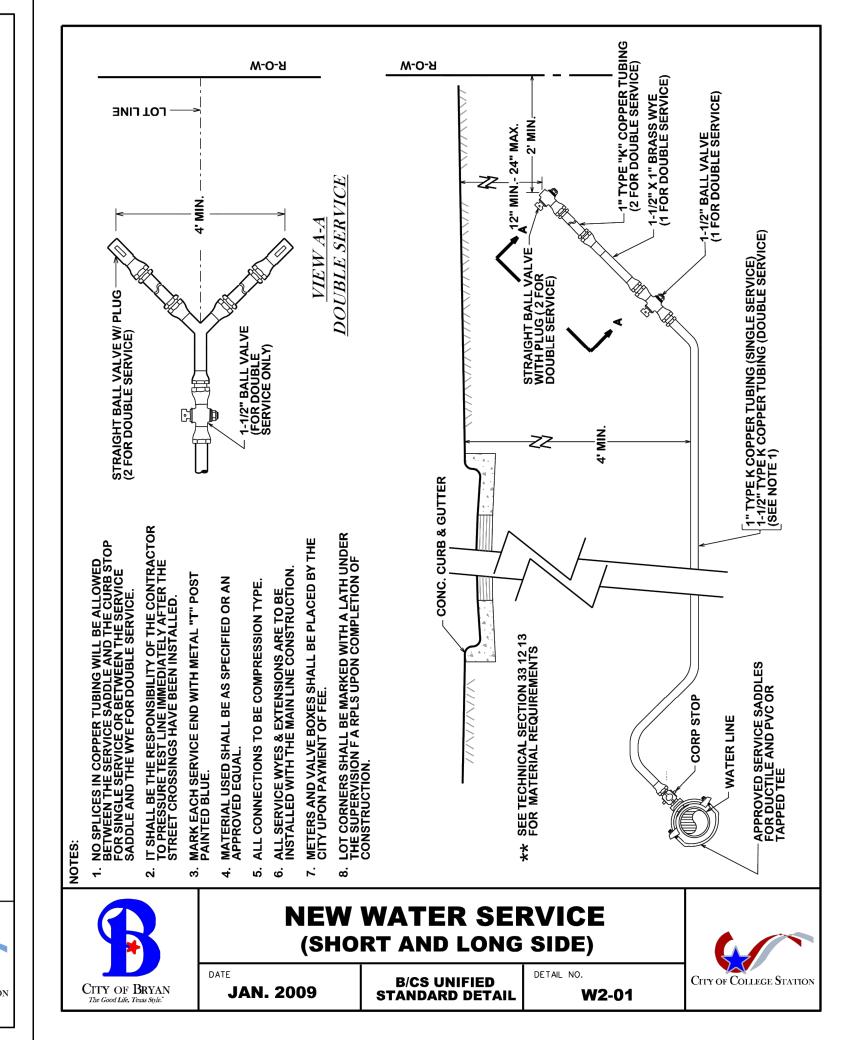
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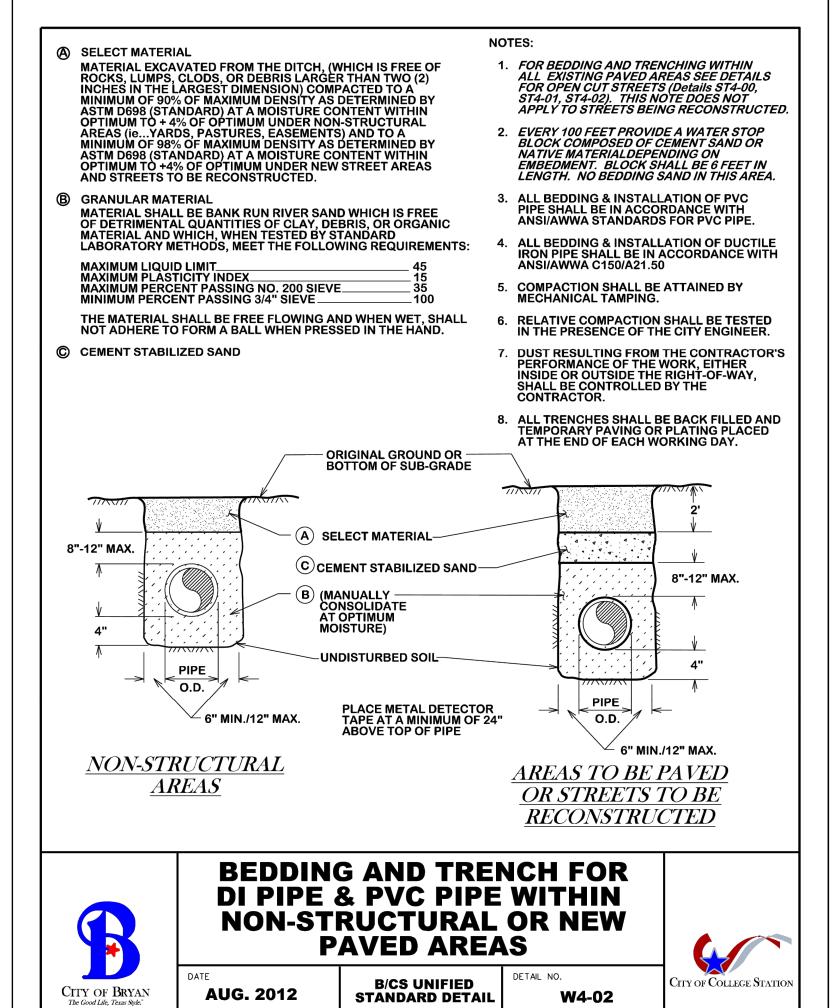
SITE DETAILS

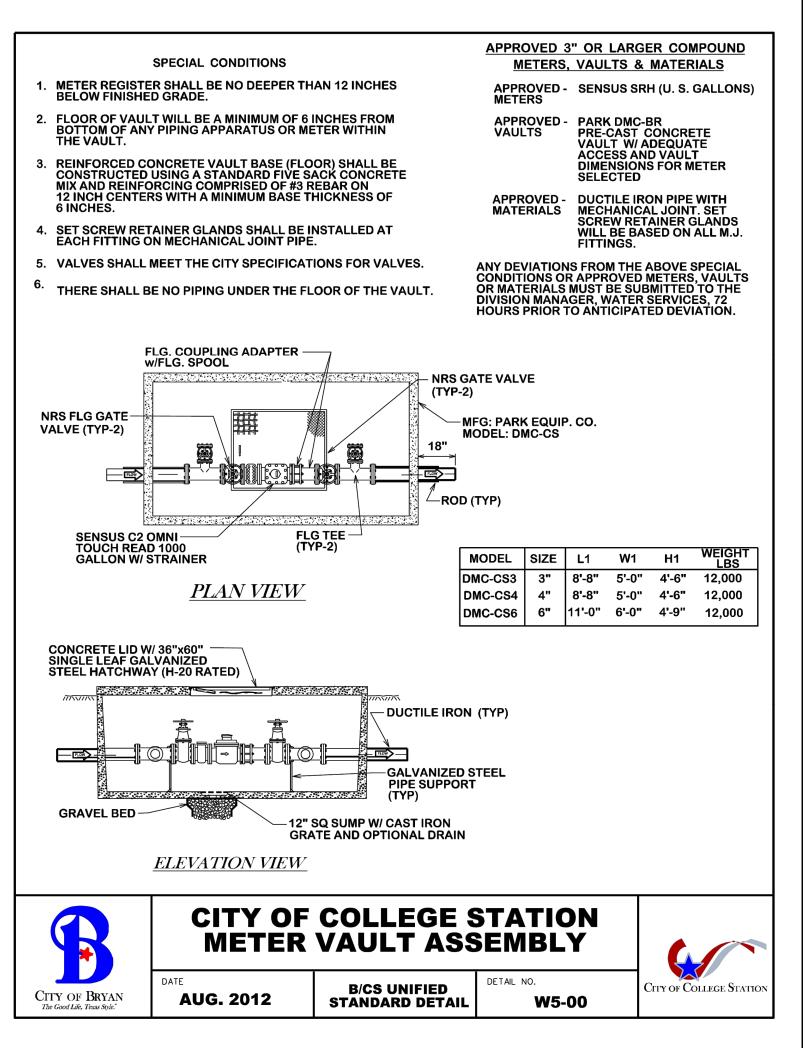
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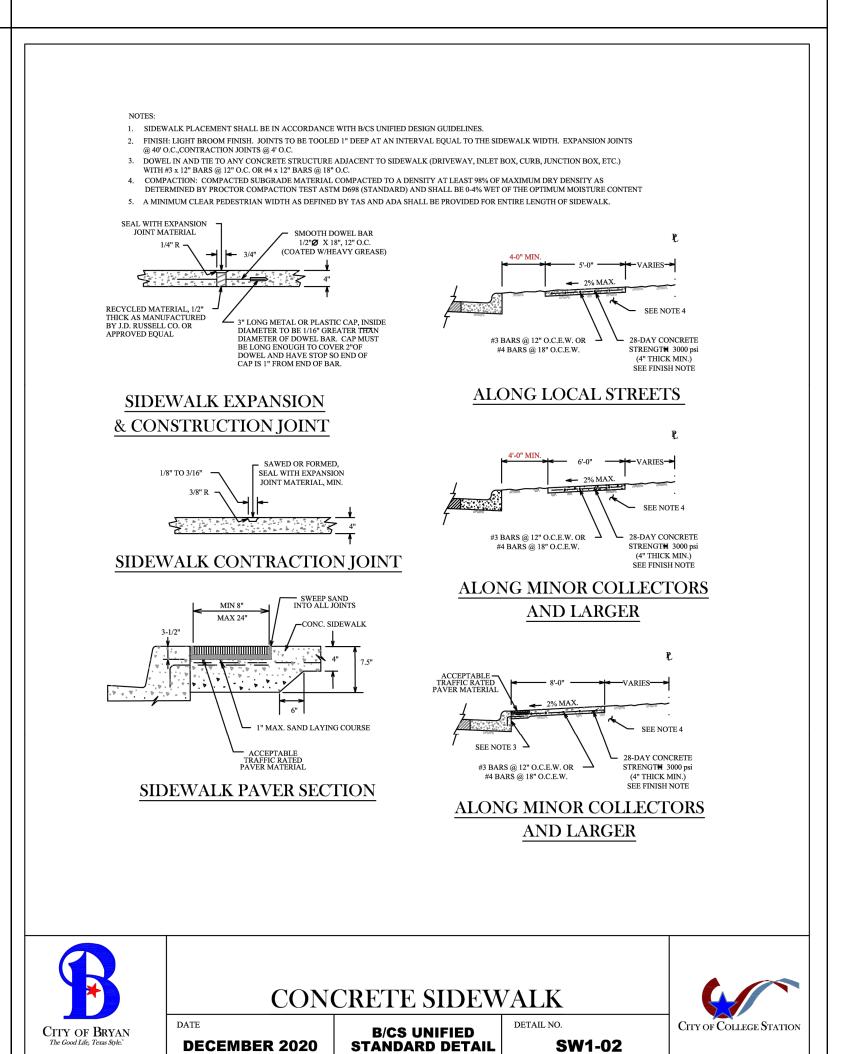


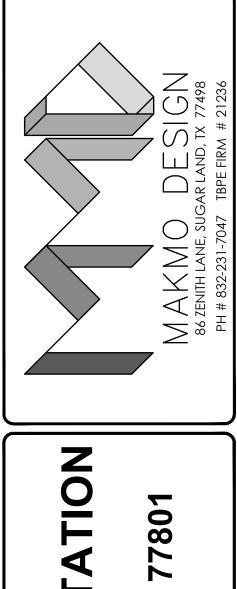












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PROPOSED C STORE & GAS STATION LOCATED AT 1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL

ASHLEY BICE

134060

134060

CENSE

2 24

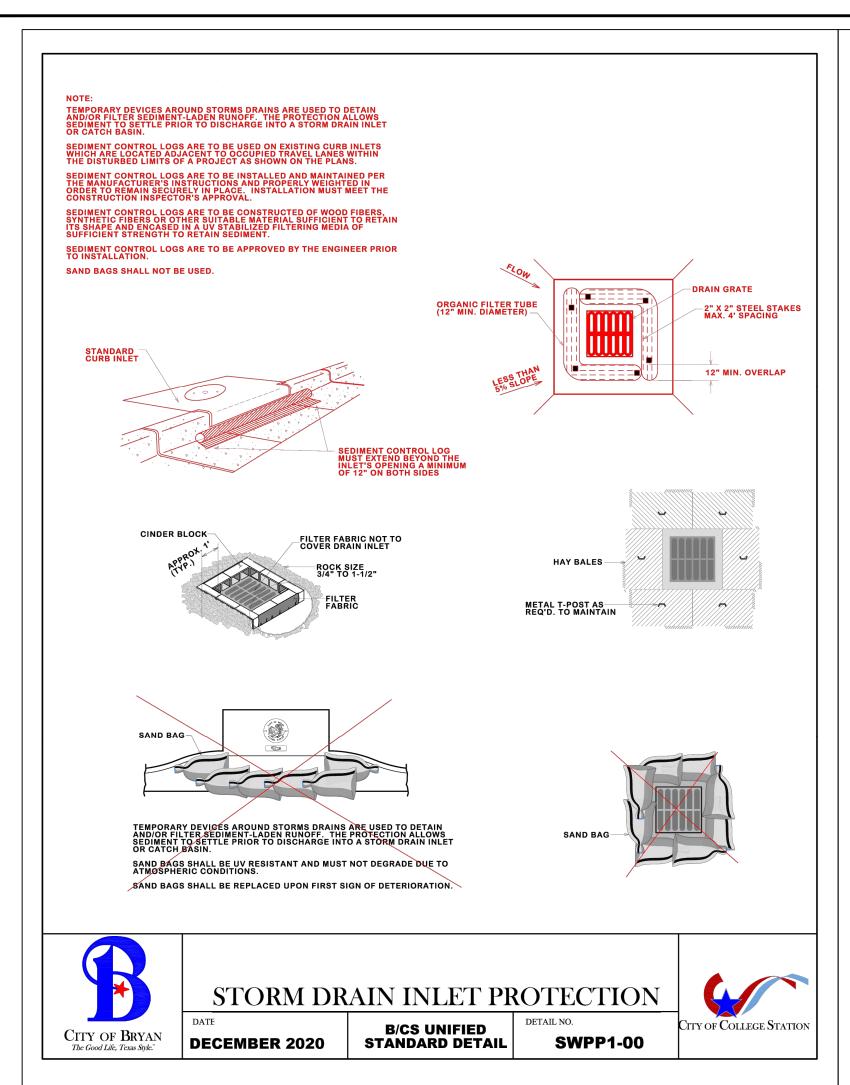
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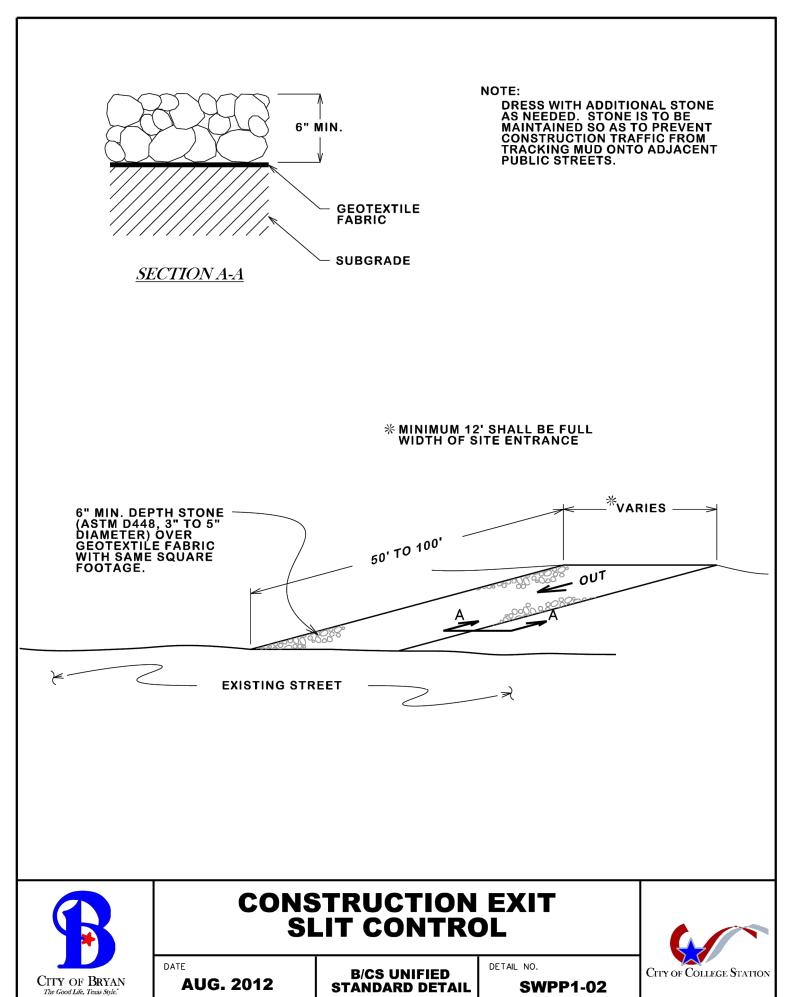
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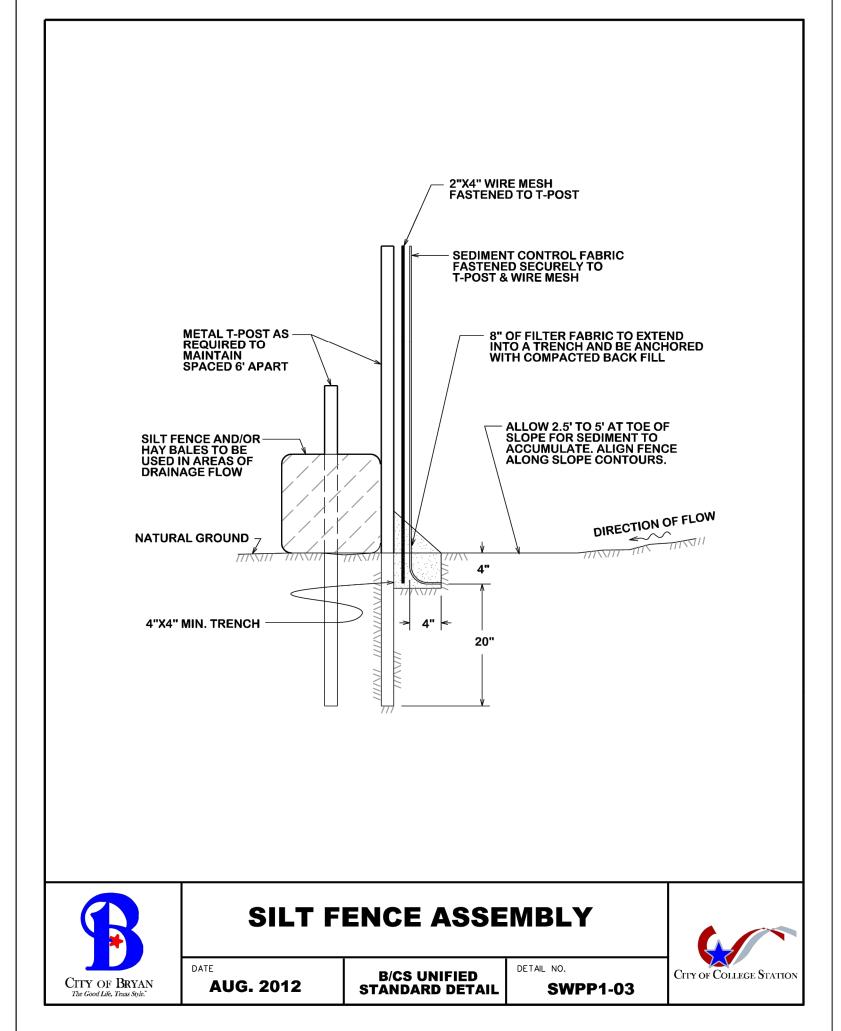
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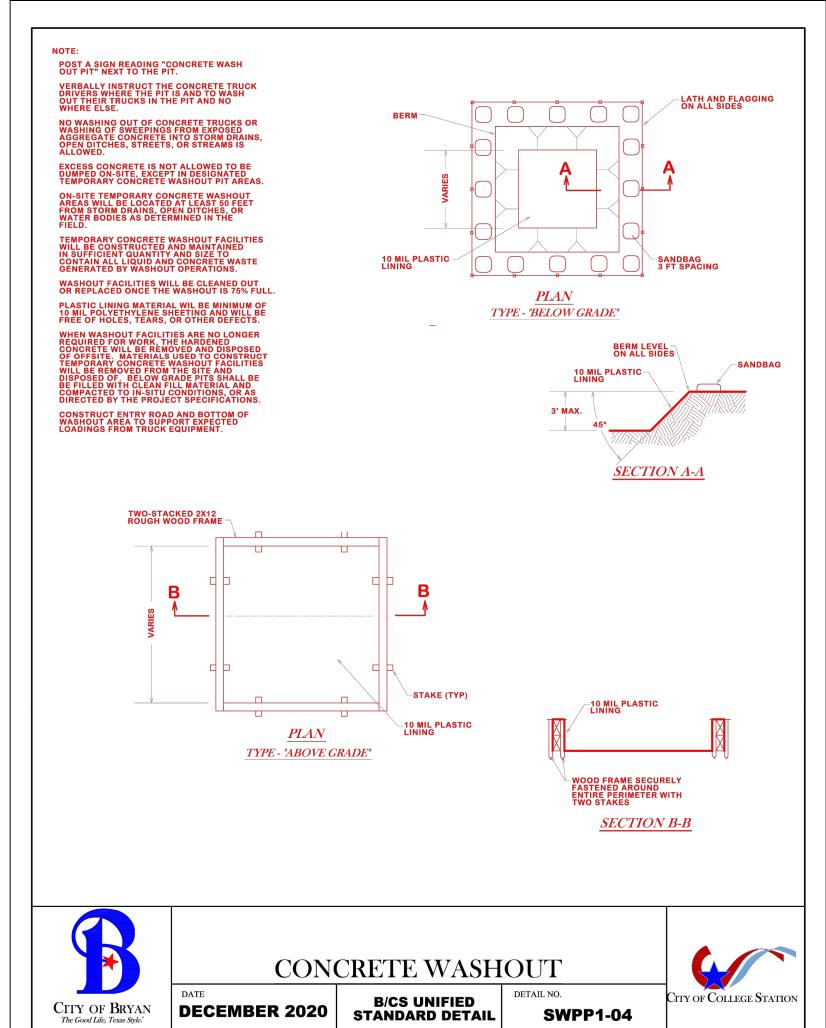
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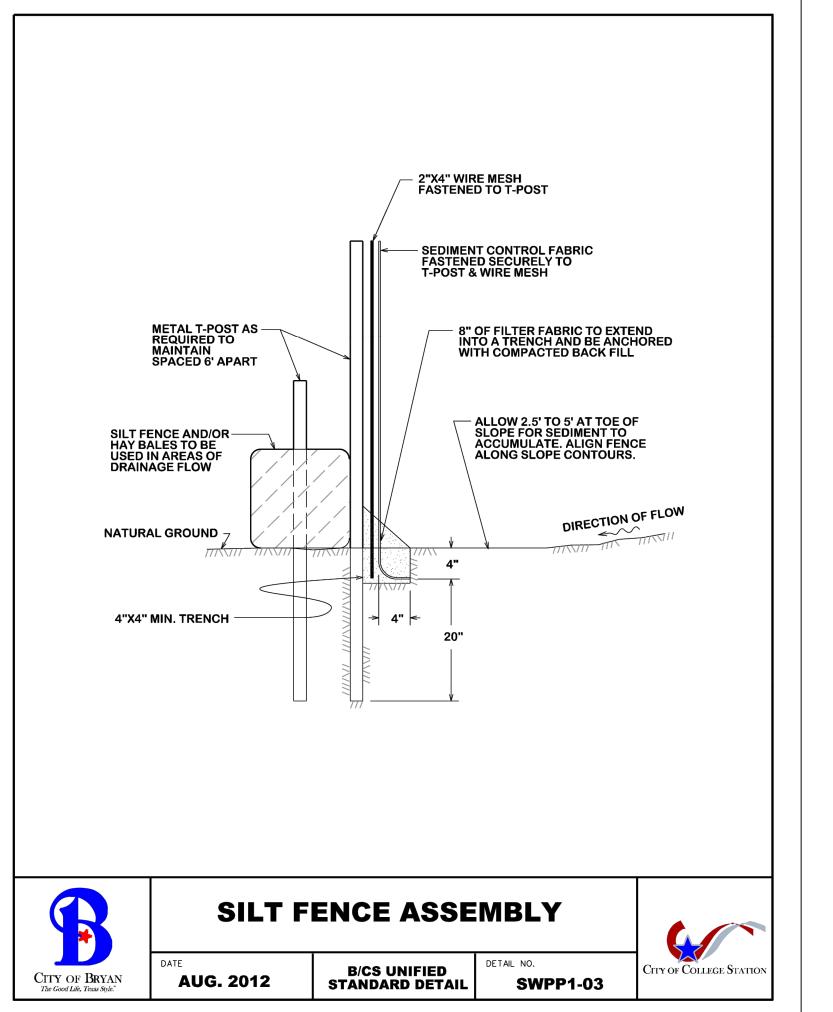
C-6.1













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REVISIONS:

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NO. DATE DESCRIPTION

CONSTRUCTION SET

ASHLEY BICE

PROJECT NUMBER	23-000
SCALE	
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE :	

SWPPP DETAILS

DRAWING NUMBER: C-6.2

MAKMO DESIGN - DESIGN WITH A DIFFERENT APPROACH