

Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Bryan W. Shaw, Ph.D., *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



EXHIBIT "A"

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

August 19, 2009

Mr. Rodney Sylvester  
The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints  
3401 Los Rios Blvd.  
Plano, TX 75074

Re: Edwards Aquifer, Comal County  
NAME OF PROJECT: Bulverde Ward, San Antonio Texas Hill Country Stake; Located along the north and west sides of Stahl Ln, 4,400 ft. north of FM 1863; Bulverde ETJ, Texas  
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer  
EAPP ID No.: 2879.00; Investigation No. 749520; Regulated Entity No. RN105749527

Dear Mr. Sylvester:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the above-referenced project submitted to the San Antonio Regional Office by Dye Enterprises on behalf of The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints on June 11, 2009. Final review of the CZP was completed after additional material was received on July 31, 2009. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan (EAPP). A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

### PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 11.15 acres. It will include the construction of a church building and associated improvements including driveways, parking lots, a pavilion, ground water storage tanks and a pump house. The impervious cover will be 3.70 acres (33.18 percent). According to a letter dated, May 22, 2009, signed by Robert Boyd, P.E., with Comal County, the site in the development is acceptable for the use of on-site sewage facilities.

### PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, an engineered filter strip, extended detention, and engineered filter strips in series with the extended detention basin will be constructed to treat storm water

REPLY TO: REGION 13 • 14250 JUDSON RD. • SAN ANTONIO, TEXAS 78233-4480 • 210-490-3096 • FAX 210-545-4329

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: [www.tceq.state.tx.us](http://www.tceq.state.tx.us)

Printed on recycled paper using soy-based ink

2879.00

Deed Recordation Affidavit  
Contributing Zone Plan

THE STATE OF TEXAS §

County of BEXAR §



200908032175 09/10/2009 08:10:54 AM 1/8

BEFORE ME, the undersigned authority, on this day personally appeared ROD SYLVESTER who, being duly sworn by me, deposes and says:

- (1) That my name is ROD SYLVESTER ON BEHALF OF L.O.S. CHURCH and that I own the real property described below.
- (2) That said real property is subject to an CONTRIBUTING ZONE PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.
- (3) That the CONTRIBUTING ZONE PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on AUGUST 19, 2009

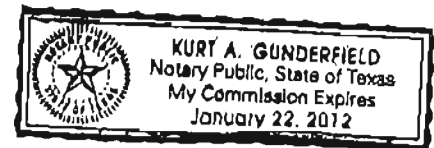
A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

- (4) The said real property is located in COMAL County, Texas, and the legal description of the property is as follows:

Rod Sylvester  
LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this 8 day of SEPT, 2009.

Kurt A. Gunderfield  
NOTARY PUBLIC



THE STATE OF TEXAS §

County of BEXAR §

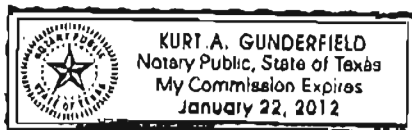
BEFORE ME, the undersigned authority, on this day personally appeared ROD SYLVESTER known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 8 day of SEPT, 2009

Kurt A. Gunderfield  
NOTARY PUBLIC

KURT A GUNDERFIELD  
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 01/22/2012



RECEIVED TCEQ  
SAN ANTONIO  
REGION  
2009 OCT 15 PM 4:15



runoff. These BMPs were designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005). The required total suspended solids (TSS) treatment for this project is 3,321 pounds of TSS generated from the 3.70 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The individual engineered filter strip (north) will treat storm water runoff from the pavilion and sidewalk located on the north side of the earthen swale. This filter strip will extend along the entire contributing area, a slope of less than 20 percent, a minimum width of at least 15 feet and a vegetation cover of at least 80 percent. The contributing area to this filter strip is provided in Table I, below.

There are two watersheds that drain to an extended detention basin on the southern half of the property. One watershed consists of storm water only treated by the extended detention basin (WS 1). The basin is designed in accordance with RG-348 (2005) and will have a clay liner to prevent infiltration of untreated storm water. The second watershed is treated by engineered filter strips and the extended detention basin in series (WS 2). The engineered filter strips meet the requirements of RG-348 (2005) and those described above for the individual filter strip. The extended detention basin, with a TSS removal efficiency of 75 percent requires a total capture volume of 30,997 cubic feet. The BMPs in series, with a TSS removal efficiency of 92.31 percent, requires a total capture volume of 13,224 cubic feet. The total required capture volume from the two watersheds is 44,221 cubic feet. The extended detention basin is designed to hold 71,511 cubic feet.

Table I: BMP Summary					
Watershed		Total Area (ac)	Total Imp. Cover (ac)	Req. TSS Treatment (lb/yr)	Provided TSS Treatment (lb/yr)
Basin (2 watersheds)	WS 1 - ED Basin	4.35	2.54	2,280	2,199
	WS 2 - Series (EFS to ED)	1.45	1.04	934	1,103
Engineered Filter Strip (North)		0.09	0.05	45	45
Uncaptured		0.41	0.07	63	---
Undisturbed Northern Lot		4.85	0.00	---	---
Total		11.15	3.70	3,321	3,347

#### SPECIAL CONDITIONS

- I. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested format (Deed Recordation Affidavit, TCEQ-0625A) that you may use to deed record the approved CZP is enclosed.
- II. The permanent best management practices (BMPs) shall be operational prior to occupancy or public use of any facility within the BMPs watershed.
- III. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.
- IV. As depicted in the approved plan, a portion of the northern part of the site is to remain undisturbed. Regulated activities that disturb the soil and have the potential to pollute the

Edwards Aquifer are not allowed and may require a modification to this approved CZP prior to initiating those activities.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer Protection Plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.
5. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
6. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
7. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

8. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

9. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).
10. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
11. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
12. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.
13. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 5, above.

After Completion of Construction:

14. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

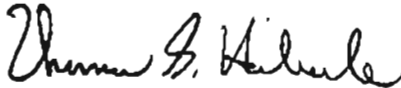
Mr. Rodney Sylvester  
August 19, 2009  
Page 5

EXHIBIT "A"

17. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact Charly Fritz of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4065.

Sincerely,



Mark R. Vickery, P.G.  
Executive Director  
Texas Commission on Environmental Quality

MRV/CBF/eg

Enclosures: Deed Recordation Affidavit, Form TCEQ-0625A  
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. D. Scott Dye, P.E., Dye Enterprises  
Mr. John Nowak, City of Bulverde  
Mr. Thomas Hornseth, P.E., Comal County Engineer  
Ms. Velma Danielson, General Manager, Edwards Aquifer Authority  
TCEQ Central Records, Building F, MC212

# Dye Enterprises

Engineers • Surveyors • Planners

D. Scott Dye, PE, R.P.L.S.

October 13, 2008

Re: LDS Meeting House  
Stahl Lane  
Comal County, Texas

EXHIBIT "B"

## LEGAL DESCRIPTION

**BEING:** an 11.15 acre tract of land out of the F. H. Faigaux Survey No. 578, Comal County, Texas and also being out of a 152.278 acre tract of land conveyed from R.S. Kane and Terri D. Kane to NSHB TX Mabank, LLC by Warranty Deed dated January 18, 2008 and recorded in Doc. #200806002938, Official Public Records of Comal County, Texas; said 152.278 acre tract of land being out of a 155.956 acre tract of land conveyed from Edward P. Lux and wife, Anita Lux to Virgil K. Knowlton and wife, Ida M. Knowlton by General Warranty Deed dated May 20, 1975 and recorded in Volume 227, Page 604, Deed Records of Comal County, Texas; said 11.15 acre tract being more particularly described by metes and bounds as follows:

**BEGINNING:** at a 1/2" steel rebar found on the west right-of-way line of Stahl Lane and the east line of said 152.278 acre tract for the most eastern southeast corner of said 152.278 acre tract;

**THENCE:** S.59°19'00"W., with the said right-of-way line of Stahl Lane and the southeast line of said 152.278 acre tract, a distance of 199.30 feet to a 1/2" steel rebar set with a cap marked "DYE ENT SA TX" for the most southerly southeast corner of said 152.278 acre tract;

**THENCE:** S.88°57'00"W., along the said right-of-way line of Stahl Lane and the south line of said 152.278 acre tract, a distance of 353.36 feet to a 1/4" steel rebar set with a cap marked "DYE ENT SA TX" for the southwest corner of the herein described tract;

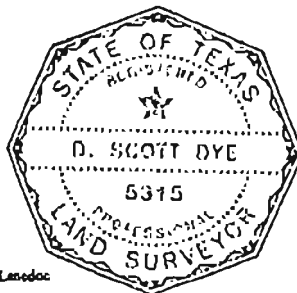
**THENCE:** departing said right-of-way line, upon, over and across said 152.278 acre tract parallel to and one foot from the existing white plastic pasture fence (fence is outside of the herein described tract) the following two courses:

N.07°17'44"E., a distance of 1,090.95 feet to a 1/4" steel rebar set with a cap marked "DYE ENT SA TX" for the northwest corner of the herein described tract; and

S.89°36'01"E., a distance of 394.93 feet to a 1/4" steel rebar set with a cap marked "DYE ENT SA TX" on the said west right-of-way line of Stahl Lane for the northeast corner of the herein described tract;

**THENCE:** S.00°31'00"W., with said right-of-way line and east line of 152.278 acre tract, a distance of 971.23 feet to the **POINT OF BEGINNING** and containing 11.15 acres of land.

Note: The herein referenced General Warranty Deed recorded in Volume 227, Page 604, Deed Records of Comal County, Texas is the basis of bearing for this legal description.



A handwritten signature of D. Scott Dye in black ink.

D. Scott Dye, R.P.L.S. #5315

Z:\2008\080101-00 Stahl Ln (LDS Church)\Legal Description\080101-00 Stahl Lane.doc

4047 Stahl Rd. #3 • San Antonio • Texas 78217  
Phone (210) 599-4123 • Fax (210) 599-4191



This page has been added to comply with the statutory requirement that the clerk shall stamp the recording information at the bottom of the last page.

This page becomes part of the document identified by the file clerk number affixed on preceding pages.

Filed and Recorded  
Official Public Records  
Joy Streater, County Clerk  
Comal County, Texas  
09/10/2009 08:10:54 AM  
CASH TWO  
200906032175



*Joy Streater*

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Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Bryan W. Shaw, Ph.D., *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

June 15, 2009

Mr. Thomas H. Hornseth, P.E.  
Comal County Engineer  
195 David Jonas Drive  
New Braunfels TX 78132-3710

Re: Edwards Aquifer, Comal County  
PROJECT NAME: **Bulverde Ward**, San Antonio Texas Hill Country Stake, located on the north and west sides of Stahl Road, approximately 4,400 feet north of FM 1863, Bulverde, Comal County, Texas  
PLAN TYPE: Application for Exception of a **Water Pollution Abatement Plan (WPAP)** 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program  
EAPP File No.: 2879.00

Dear Mr. Hornseth:

The enclosed Contributing Zone Water Pollution Abatement Plan, received on June 11, 2009 application is being forwarded to you pursuant to the Edwards Aquifer Rules. The Texas Commission on Environmental Quality (TCEQ) is required by 30 TAC Chapter 213 to provide copies of all applications to affected incorporated cities and underground water conservation districts for their comments prior to TCEQ approval.

Please forward your comments to this office by July 10, 2009.

The Texas Commission on Environmental Quality appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact the San Antonio Region Office at (210) 490-3096.

Sincerely

A handwritten signature in blue ink, appearing to read "Lynn M. Bumgardner".

Lynn M. Bumgardner  
Water Section Work Leader  
San Antonio Regional Office

LMB/eg

REPLY TO: REGION 13 • 14250 JUDSON RD. • SAN ANTONIO, TEXAS 78233-4480 • 210-490-3096 • FAX 210-545-4329

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: [www.tceq.state.tx.us](http://www.tceq.state.tx.us)

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2849.00

# **CONTRIBUTING ZONE PLAN**

for

**BULVERDE WARD, SAN ANTONIO TEXAS HILL  
COUNTRY STAKE**

**CITY OF BULVERDE  
COMAL COUNTY, TEXAS**

Prepared by

**Dye Enterprises**

4047 Stahl Rd., Suite #3  
San Antonio, Texas 78217

Ph. (210) 599-4123 Fax (210) 599-4191

**TCEQ-R13**  
JUN 11 2009  
SAN ANTONIO

June 10, 2009

# Dye Enterprises

Engineers • Surveyors • Planners

D. Scott Dye, P.E., R.P.L.S.

June 10, 2009

Ms. Charlyne Fritz  
Environmental Investigator  
Texas Commission on Environmental Quality  
14250 Judson Rd.  
San Antonio, TX 78233-4480

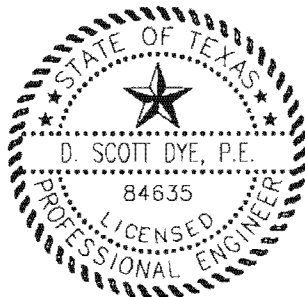
Re: Contributing Zone Application  
The Church of Jesus Christ of Latter-Day Saints  
Bulverde Ward, San Antonio Texas Hill Country Stake  
31355 Stahl Ln., Bulverde, Texas 78163  
Our Job # 08-0101.01

Dear Ms. Fritz:

We are submitting this Contributing Zone Application for your review and approval. We are representing The Church of Jesus Christ of Latter-Day Saints (LDS) with respect to Civil Engineering services for their 11.15-acre property at the above referenced location. The site fronts along the north and west sides of Stahl Ln., approximately 4,400 feet north of FM-1863. The south approximate one-half of the site is to be developed as a Stake Center, having a church building with concrete paved parking area. The remaining north one-half of the site will be used as a baseball field and open recreational area in conjunction with the church. A pavilion will be located near the baseball field.

Utilities will include water from an on-site well and a septic system. There are several water tanks and a pump house to facilitate the well. Applications for approval of the water well and septic system will be submitted under separate cover to the appropriate agencies. Drainage improvements will consist of grass drains, storm pipes, and an extended detention basin. Based on the above, total impervious cover for the site calculates to be 3.70 acres. This is equal to 58.73% of the 6.30-acre drainage area which comprises the southern half of the site.

Attached are the Contributing Zone Application, the required fee, and accompanying documentation. Please do not hesitate to call should you have questions or need anything additional. Thank you.



Sincerely,

A handwritten signature in black ink, appearing to read "D. Scott Dye".

D. Scott Dye, P.E.

cc: Aaron Dahl / Acuform  
Rod Sylvester / LDS South Texas Project Manager

encl:

1 original and four copies of Contributing Zone Application  
1 check in the amount of \$6,500.00 payable to the TCEQ

4047 Stahl Rd., Suite #3 • San Antonio • Texas 78217  
Phone (210) 599-4123 • Fax (210) 599-4191

## **CORE DATA FORM**



TCEQ Use Only

# TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
2. Attachments Describe Any Attachments: (ex. Title V Application, Waste Transporter Application, etc.)		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Contributing Zone Application and documentation		
3. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number (if issued)
CN 601469596		RN

## SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)			
6. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check only one of the following:			
<input type="checkbox"/> Owner	<input type="checkbox"/> Operator	<input type="checkbox"/> Owner & Operator	
<input type="checkbox"/> Occupational Licensee	<input type="checkbox"/> Responsible Party	<input type="checkbox"/> Voluntary Cleanup Applicant	<input type="checkbox"/> Other: _____
7. General Customer Information			
<input type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	<input type="checkbox"/> Change in Regulated Entity Ownership
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State)		<input type="checkbox"/> No Change**	
<b>**If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.</b>			
8. Type of Customer:	<input type="checkbox"/> Corporation	<input type="checkbox"/> Individual	<input type="checkbox"/> Sole Proprietorship- D.B.A
<input type="checkbox"/> City Government	<input type="checkbox"/> County Government	<input type="checkbox"/> Federal Government	<input type="checkbox"/> State Government
<input type="checkbox"/> Other Government	<input type="checkbox"/> General Partnership	<input type="checkbox"/> Limited Partnership	<input type="checkbox"/> Other: _____
9. Customer Legal Name (If an individual, print last name first: ex: Doe, John)		If new Customer, enter previous Customer below	
		End Date:	
10. Mailing Address:			
	City	State	ZIP
11. Country Mailing Information (if outside USA)		12. E-Mail Address (if applicable)	
13. Telephone Number		14. Extension or Code	15. Fax Number (if applicable)
( ) -			( ) -
16. Federal Tax ID (9 digits)	17. TX State Franchise Tax ID (11 digits)	18. DUNS Number (if applicable)	19. TX SOS Filing Number (if applicable)
20. Number of Employees		21. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input type="checkbox"/> Yes <input type="checkbox"/> No	

## SECTION III: Regulated Entity Information

22. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)			
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information <input type="checkbox"/> No Change** (See below)			
<b>**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.</b>			
23. Regulated Entity Name (name of the site where the regulated action is taking place)			
Bulverde Ward, San Antonio Texas Hill Country Stake			

24. Street Address of the Regulated Entity: (No P.O. Boxes)	31355 Stahl Lane (underliverable)						
	City	Bulverde	State	TX	ZIP	78163	ZIP + 4
25. Mailing Address:	3401 Los Rios Blvd.						
	City	Plano	State	TX	ZIP	75074	ZIP + 4 3518
26. E-Mail Address:							
27. Telephone Number		28. Extension or Code		29. Fax Number (if applicable)			
( 972 ) 516-1431				( 972 ) 516-9244			
30. Primary SIC Code (4 digits)		31. Secondary SIC Code (4 digits)		32. Primary NAICS Code (5 or 6 digits)		33. Secondary NAICS Code (5 or 6 digits)	
8661				813110			
34. What is the Primary Business of this entity? (Please do not repeat the SIC or NAICS description.)							
Religious organization							

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	North and west sides of Stahl Ln., approximately 4,400' north of FM-1863.				
36. Nearest City	County	State	Nearest ZIP Code		
Bulverde	Comal	TX	78163		
37. Latitude (N) In Decimal:	29.76075		38. Longitude (W) In Decimal:	98.40980	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	45	38.69	98	24	35.27

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Industrial Hazardous Waste	<input type="checkbox"/> Municipal Solid Waste
<input type="checkbox"/> New Source Review – Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS	<input type="checkbox"/> Sludge
<input type="checkbox"/> Stormwater	<input type="checkbox"/> Title V – Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil	<input type="checkbox"/> Utilities
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

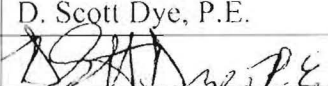
#### SECTION IV: Preparer Information

40. Name:	D. Scott Dye, P.E.	41. Title:	Professional Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
( 210 ) 599-4123		( 210 ) 599-4191	dyeenterprises@satx.rr.com

#### SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Dye Enterprises	Job Title:	Consulting Engineer
Name (In Print):	D. Scott Dye, P.E.	Phone:	( 210 ) 599-4123
Signature:		Date:	6/10/09



# **APPLICATION CHECKLIST**

## Contributing Zone Plan Checklist

- X Contributing Zone Plan Application (*TCEQ-10257*)
  - ATTACHMENT A - Road Map
  - ATTACHMENT B - USGS Quadrangle Map
  - ATTACHMENT C - Project Narrative
  - ATTACHMENT D - Factors Affecting Surface Water Quality
  - ATTACHMENT E - Volume and Character of Stormwater
  - ATTACHMENT F - Suitability Letter from Authorized Agent (if OSSF is proposed)
  - ATTACHMENT G - Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed)
  - ATTACHMENT H - AST Containment Structure Drawings (if AST is proposed)
  - ATTACHMENT I - 20% or Less Impervious Cover Waiver (if project is multi-family residential, a school, or a small business *and* 20% or less impervious cover is proposed for the site)
  - ATTACHMENT J - BMPs for Upgradient Stormwater
  - ATTACHMENT K - BMPs for On-site Stormwater
  - ATTACHMENT L - BMPs for Surface Streams
  - ATTACHMENT M - Construction Plans
  - ATTACHMENT N - Inspection, Maintenance, Repair and Retrofit Plan
  - ATTACHMENT O - Pilot-Scale Field Testing Plan, if BMPs not based on *Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs*
  - ATTACHMENT P - Measures for Minimizing Surface Stream Contamination
- X Storm Water Pollution Prevention Plan (SWPPP)
- X Copy of Notice of Intent (NOI)
- X Agent Authorization Form (*TCEQ-0599*), if application submitted by agent
- X Fee Application Form (*TCEQ-0574*)
- X Check Payable to the "Texas Commission on Environmental Quality"
- X Core Data Form (*TCEQ-10400*)

# **CONTRIBUTING ZONE PLAN APPLICATION**

**Contributing Zone Plan Application**  
for Regulated Activities  
on the Contributing Zone to the Edwards Aquifer  
and Relating to 30 TAC §213.24(1), Effective June 1, 1999

Regulated Entity Name: Bulverde Ward, San Antonio Texas Hill Country Stake  
County: Comal Stream Basin: Cibolo Creek

1. ☒ Regulated activities on this site will disturb at least 5 acres.  
☐ Regulated activities on this site will disturb less than 5 acres and are part of a larger common plan of development or sale with the potential to disturb cumulatively five or more acres.

2. Customer (Applicant):

Contact Person: Rodney Sylvester  
Entity: The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints  
Mailing Address: 3401 Los Rios Blvd.  
City, State: Plano, Texas Zip: 75074  
Telephone: (972) 516-1431 FAX: (972) 516-9244

Agent/Representative (If any):

Contact Person: D. Scott Dye, P.E.  
Entity: Dye Enterprises  
Mailing Address: 4047 Stahl Rd., Suite #3  
City, State: San Antonio, Texas Zip: 78217  
Telephone: (210) 599-4123 FAX: (210) 599-4191

3. ☐ This project is inside the city limits of \_\_\_\_\_.  
☒ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of Bulverde.  
☐ This project is not located within any city's limits or ETJ.

4. The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.  
11.15 acres located along the north and west sides of Stahl Ln., approximately 4,400 feet north of FM-1863.  
\_\_\_\_\_  
\_\_\_\_\_

5. ☒ **ATTACHMENT A - Road Map.** A road map showing directions to and the location of the project site is found as at the end of this form.
6. ☒ **ATTACHMENT B - USGS Quadrangle Map.** A copy of the USGS Quadrangle Map (Scale: 1" = 2000') is found at the end of this form. The map(s) clearly shows:  
☒ Project site boundaries.  
☒ USGS Quadrangle Name(s).

7. ☒ **ATTACHMENT C - Project Narrative.** A detailed narrative description of the proposed project is found at the end of this form.
8. Existing project site conditions are noted below:
- ☐ Existing commercial site
  - ☐ Existing industrial site
  - ☐ Existing residential site
  - ☐ Existing paved and/or unpaved roads
  - ☐ Undeveloped (Cleared)
  - ☒ Undeveloped (Undisturbed/Uncleared)
  - ☐ Other: \_\_\_\_\_

## PROJECT INFORMATION

9. The type of project is:
- ☐ Residential: # of Lots: \_\_\_\_\_
  - ☐ Residential: # of Living Unit Equivalents: \_\_\_\_\_
  - ☐ Commercial
  - ☐ Industrial
  - ☒ Other: Church
10. Total project area (size of site): 11.15 Acres  
Total disturbed area: 7.70 Acres
11. Projected population: Max. capacity = 1,551 (Not permanent)
12. The amount and type of impervious cover expected after construction is complete is shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	28,574	÷ 43,560 =	0.65
Parking	119,869	÷ 43,560 =	2.75
Other paved surfaces	12,890	÷ 43,560 =	0.30
Total Impervious Cover	161,333	÷ 43,560 =	3.70
Total Impervious Cover ÷ Total Acreage x 100 =			33.18%

13. ☒ **ATTACHMENT D - Factors Affecting Surface Water Quality.** A description of factors that could affect surface water quality is found as at the end of this form. If applicable, this should include the location and description of any discharge associated with industrial activity other than construction.
14. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

## FOR ROAD PROJECTS ONLY

Complete questions 15-20 if this application is exclusively for a road project.

N/A

15. Type of project:
- ☐ TXDOT road project.
  - ☐ County road or roads built to county specifications.
  - ☐ City thoroughfare or roads to be dedicated to a municipality.
  - ☐ Street or road providing access to private driveways.
16. Type of pavement or road surface to be used:
- ☐ Concrete
  - ☐ Asphaltic concrete pavement
  - ☐ Other: \_\_\_\_\_
17. Length of Right of Way (R.O.W.): \_\_\_\_\_ feet.  
Width of R.O.W.: \_\_\_\_\_ feet.  
 $L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$
18. Length of pavement area: \_\_\_\_\_ feet.  
Width of pavement area: \_\_\_\_\_ feet.  
 $L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$   
Pavement area \_\_\_\_\_ acres  $\div$  R.O.W. area \_\_\_\_\_ acres  $\times 100 = \text{_____ \%}$  impervious cover.
19. ☐ A rest stop will be included in this project.  
☐ A rest stop will **not** be included in this project.
20. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

## STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

21. ☒ **ATTACHMENT E - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is found at the end of this form. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. The runoff coefficient of the site for both pre-construction and post-construction conditions is included.

## WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

22. Wastewater will be disposed of by:
- ☒ On-Site Sewage Facility (OSSF/Septic Tank):  
**ATTACHMENT F - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's written approval is provided at the end of this form. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities, or it identifies those areas that are not suitable for the use of private sewage facilities. The system will be designed by a licensed professional engineer or a registered sanitarian and installed by a licensed



installer in compliance with 30 TAC §285.

N/A Sewage Collection System (Sewer Lines):  
Wastewater is to be disposed of by conveyance to the (name) treatment plant for treatment and disposal. The treatment facility is: \_\_\_\_\_  
— existing.  
— proposed.

N/A Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

**FOR PERMANENT ABOVEGROUND STORAGE TANKS (ASTs) > 500 GALLONS**

**Complete questions 23-29 if this project includes the installation of AST(s) with volume(s) greater than 500 gallons.**

N/A

23. Tanks and substance stored:

AST Number	Size (Gallons)	Substance to be Stored	Tank Material
1			
2			
3			
4			
5			
Total		x 1.5 = gallons	

24. — The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

— **ATTACHMENT G - Alternative Secondary Containment Methods.** Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are found at the end of this form.

25. Inside dimensions and capacity of containment structure(s):

Length (L) (Ft.)	Width (W) (Ft.)	Height (H) (Ft.)	L x W x H = (Ft <sup>3</sup> )	Gallons
Total				

26. ☐ All piping, hoses, and dispensers will be located inside the containment structure.  
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.  
☐ The piping will be aboveground  
☐ The piping will be underground
27. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of \_\_\_\_\_.
28. **ATTACHMENT H - AST Containment Structure Drawings.** A scaled drawing of the containment structure is found at the end of this form that shows the following:
- ☐ Interior dimensions (length, width, depth and wall and floor thickness).  
☐ Internal drainage to a point convenient for the collection of any spillage.  
☐ Tanks clearly labeled  
☐ Piping clearly labeled  
☐ Dispenser clearly labeled
29. Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.
- ☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.  
☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

## SITE PLAN

**Items 30 through 41 must be included on the Site Plan.**

30. The Site Plan must have a minimum scale of 1" = 400'.  
Site Plan Scale: 1" = 20'.
31. 100-year floodplain boundaries
- ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.  
☒ No part of the project site is located within the 100-year floodplain.
- The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):  
N/A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
32. ☒ The layout of the development is shown with existing and finished contours as appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

- ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
33. ☒ A drainage plan showing all paths of drainage from the site to surface streams.
34. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
35. ☒ Areas of soil disturbance and areas which will not be disturbed.
36. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
37. ☒ Locations where soil stabilization practices are expected to occur.
38. ☐ Surface waters (including wetlands).
39. ☒ Locations where stormwater discharges to surface water.  
There will be no discharges to surface water.
40. ☐ Temporary aboveground storage tank facilities.  
☒ Temporary aboveground storage tank facilities will not be located on this site.
41. ☐ Permanent aboveground storage tank facilities.  
☒ Permanent aboveground storage tank facilities will not be located on this site.

**Permanent best management practices (BMPs) and measures that will be used during and after construction is completed.**

42. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
43. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
- ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.
- ☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is provided below.
- 
- 
44. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

45. N/A Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
- ☐ This site will be used for low density single-family residential development and has 20% or less impervious cover.
  - ☐ This site will be used for low density single-family residential development but has more than 20% impervious cover.
  - ☒ This site will not be used for low density single-family residential development.
46. N/A The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
- ☐ **ATTACHMENT I - 20% or Less Impervious Cover Waiver.** This site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is found at the end of this form.
  - ☐ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
  - ☒ This site will not be used for multi-family residential developments, schools, or small business sites.
47. **ATTACHMENT J - BMPs for Upgradient Stormwater.**
- ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is provided as **ATTACHMENT J** at the end of this form.
  - ☐ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT J** at the end of this form.
  - ☐ If permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT J** at the end of this form.
48. **ATTACHMENT K - BMPs for On-site Stormwater.**
- ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is provided as **ATTACHMENT K** at the end of this form.
  - ☐ If permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including



pollution caused by contaminated stormwater runoff, an explanation is provided as **ATTACHMENT K** at the end of this form.

49. ☒ **ATTACHMENT L - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams is provided at the end of this form.
50. ☒ **ATTACHMENT M - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ Construction Notes, all proposed structural measures, and appropriate details must be shown on the construction plans.
51. ☒ **ATTACHMENT N - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.
52. ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.  
☐ Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.  
☐ **ATTACHMENT O - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.
53. ☒ **ATTACHMENT P - Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is provided at the end of this form. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity which increases erosion that result in water quality degradation.

**Responsibility for maintenance of permanent BMPs and measures after construction is complete.**

54. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
55. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a

multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

#### ADMINISTRATIVE INFORMATION

56.   X   One (1) original and four (4) copies of the complete application has been provided.
57.   X   Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.
58.   X   The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **CONTRIBUTING ZONE PLAN APPLICATION** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

D. Scott Dye, P.E.

Print Name of Customer/Agent



Signature of Customer/Agent

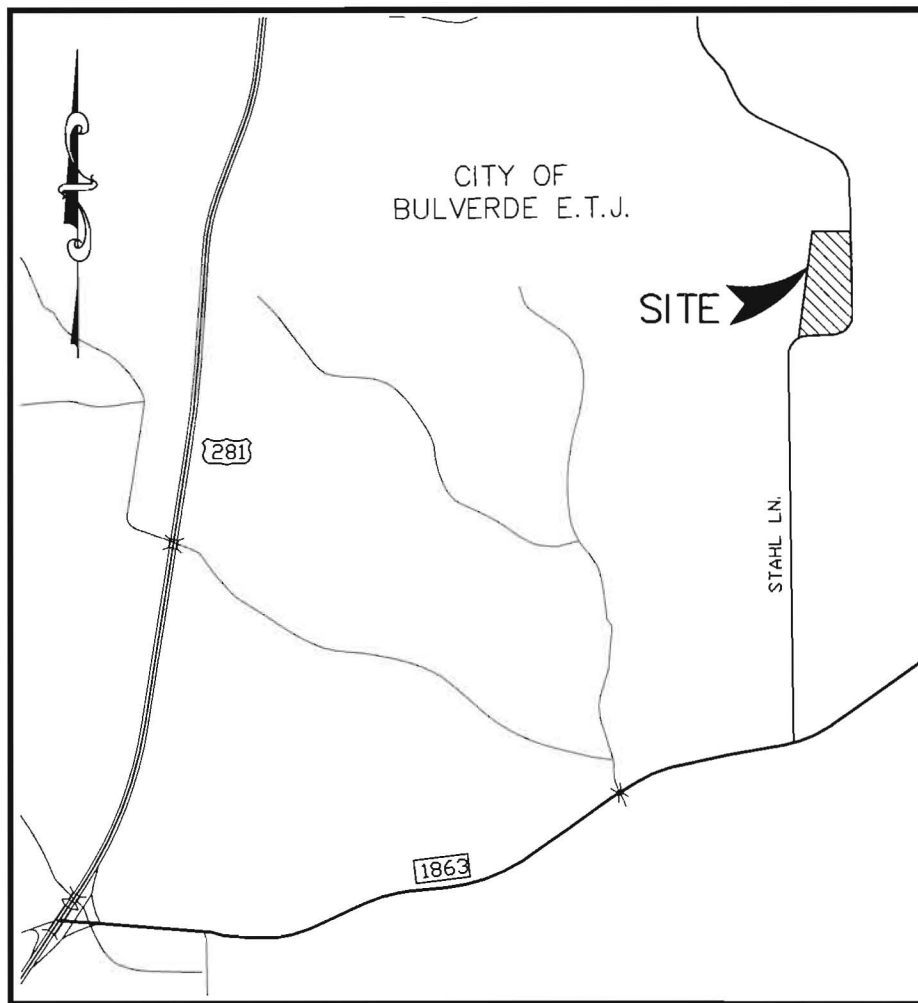
6/10/09  
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282

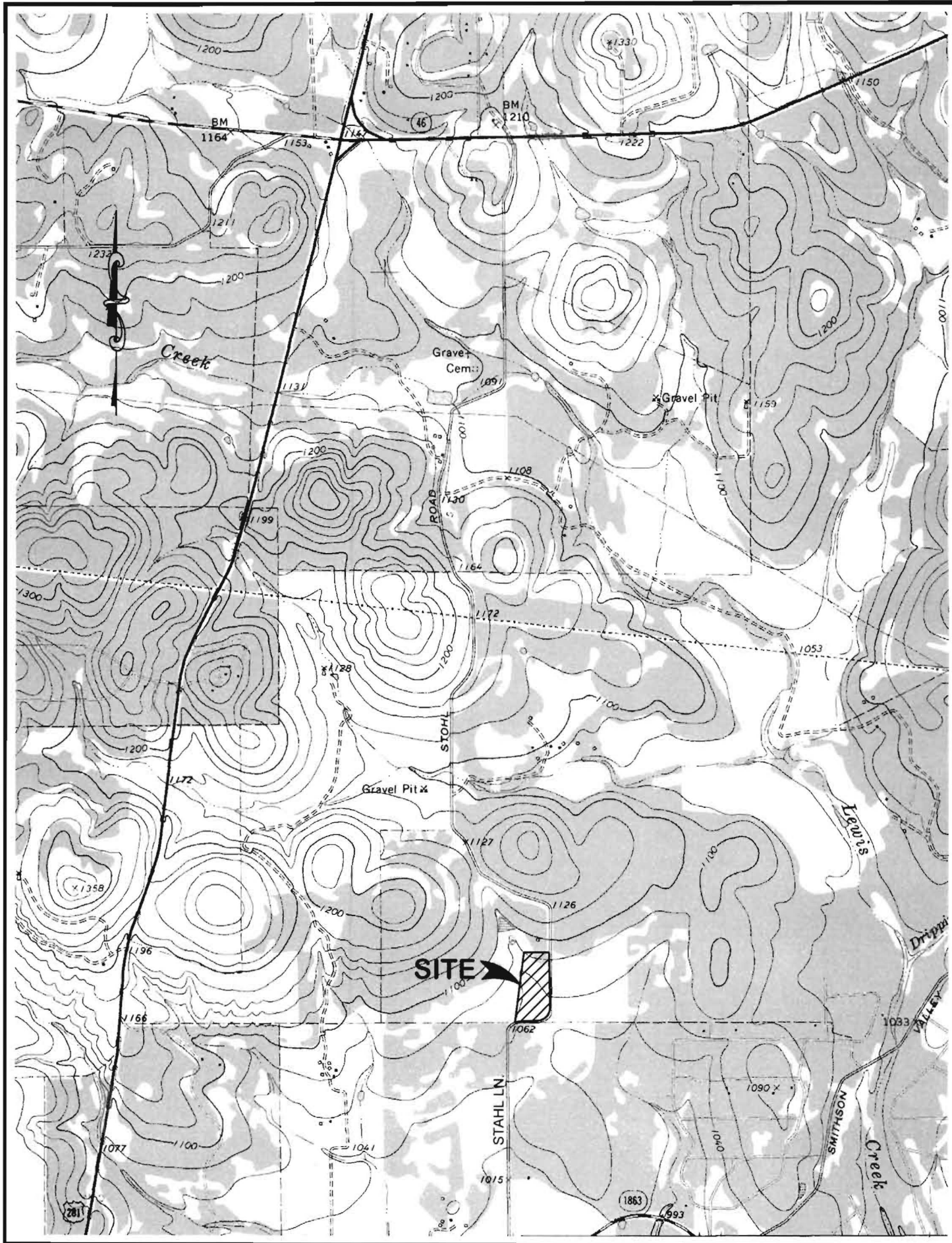


**ATTACHMENT “A”  
ROAD MAP**



LOCATION MAP  
1"=2,000'

**ATTACHMENT “B”**  
**USGS QUADRANGLE MAP**



USGS QUADRANGLE MAP  
ANHALT QUADRANT  
1"=2,000'

## **ATTACHMENT C**

### **PROJECT DESCRIPTION**

The project is a church building and associated improvements situated on an 11.15-acre tract of land. The church building is served by concrete flatwork, concrete paved parking area, and all necessary utilities. Utilities include water from an on-site well and a septic system. There are several water tanks and a pump house to facilitate the well. A pavilion will be located near a proposed baseball field. Drainage improvements will consist of grass drains, storm pipes, and an extended detention basin.

With exception of the baseball field, water well, water plant, and pavilion, the northern portion of the site will remain undeveloped. The remaining southern portion of the site will be improved with the church building and associated improvements, and the extended detention basin. This southern portion of the site represents a drainage area of approximately 6.30 acres. The proposed extended detention basin will serve this drainage area. Runoff from the remaining 4.85 acres to the north of the church building and parking area will be diverted to bypass the extended detention basin.

The vegetative filter strips will treat 1.04 acres in series with the extended detention basin. The pavilion, some paving, and some flatwork will lie outside of the 6.30-acre drainage area. Therefore, the extended detention basin will over-treat an additional area to compensate for these improvements. Based on the above, total impervious cover for the site calculates to be 3.70 acres. This is equal to 58.73% of the 6.30-acre drainage area.

## **ATTACHMENT D**

### **FACTORS AFFECTING SURFACE WATER QUALITY**

Potential sources of pollution that may be expected to affect the quality of stormwater discharges from the construction site include:

- Soil erosion due to the clearing of the site for parking area, buildings, and drainage improvements.
- Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle drippings.
- Miscellaneous trash and litter from construction workers and material wrappings.
- Construction debris.
- Concrete truck washout.

Typical sequences of major activities that disturb soils for projects similar to this one during construction are as follows:

1. Implement Storm Water Pollution Prevention Plan;
2. Clearing of vegetation;
3. Site grading operations;
4. Construction of utility services;
5. Building and parking area construction;
6. Extended detention basin construction;
7. Final site grading and placement of topsoil;
8. Establish vegetation such as grass and other landscaping;
9. Remove temporary pollution controls upon completion of final stabilization;

An estimate of the total area of the site to be disturbed by each activity is given below:

	<u>Area (acres)</u>
Clearing	7.70
Grading	6.04
Utilities	0.03
Buildings	0.64
Parking Areas	2.75
Detention Basin	0.46

It is estimated that the total acreage of the site to be disturbed by this project = 7.70 acres.

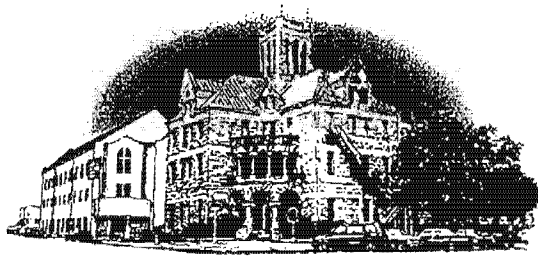
## **ATTACHMENT E**

### **VOLUME AND CHARACTER OF STORMWATER**

Stormwater runoff will increase as the result of this development. For a 25-year storm event, the overall project will increase the runoff from approximately 12.2 cfs to 45.8 cfs. The runoff coefficient for the site changes from approximately 0.39 before development to approximately 0.96 after development. Values are based on the Rational Method using runoff coefficients as per the City of San Antonio Unified Development Code.

**ATTACHMENT “F”  
SUITABILITY LETTER FROM AUTHORIZED  
AGENT**





Comal County  
OFFICE OF COMAL COUNTY ENGINEER

May 22, 2009

Mr. Michael Wiater  
Dye Enterprises  
4047 Stahl Road, Suite 3  
San Antonio, TX 78217

Re: Church of Jesus Christ of Latter-Day Saints On-Site Sewage Facility Suitability  
Letter, within Comal County, Texas

Dear Mr. Wiater:

In accordance with TAC §213.24(8)(B), Comal County has found that the entire referenced site is suitable for the use of private sewage facilities and will meet the requirements for on-site sewage facilities as specified in TAC §285.

If you have any questions or need additional information, please do not hesitate to contact our office.

Sincerely,

Robert Boyd, P.E.  
Comal County Assistant Engineer

cc: Jay Millikin, Comal County Commissioner, Precinct No. 2

## **ATTACHMENT J**

### **BMPs FOR UPGRADIENT STORMWATER**

Upgradient (offsite) stormwater will consist of approximately 5.0-acres of runoff coming from north of the site. This stormwater coupled with approximately 4.85-acres of onsite runoff and 0.45-acres of adjacent offsite driveway runoff will flow south into an interceptor drain that forms the north boundary of the 6.30-acre drainage area. This stormwater will bypass the extended detention basin and discharge across Stahl Ln. via an existing 42" CMP culvert.

## **ATTACHMENT K**

### **BMPs FOR ON-SITE STORMWATER**

Vegetative filter strips (VFS – 85% removal efficiency) will treat singular areas within the site. These vegetative filter strips have been designed in accordance with TCEQ's Technical Guidance Manual (TGM) RG-348 (2005), which indicates a minimum of 80% of the increased TSS load from the entire project must be removed prior to discharge from the site. The vegetative filter strips will be in series with the extended detention basin. The TSS removal for each of the areas being treated with vegetative filter strips were totaled together to achieve the 80% removal for the entire site.

## **ATTACHMENT L**

### **BMPs for Surface Streams**

There are no surface streams on the site. All flows exiting the site discharge from an extended detention basin before flowing into a tributary of Cibolo Creek.

**ATTACHMENT “M”  
CONSTRUCTION PLANS**

The following sections are used to calculate the required water quality volume(s) for the selected BMP.  
The values for BMP Types not selected in cell C53 will show NA.

#### 7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1  
Irrigation area = NA square feet  
NA acres

#### 8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = 31496 cubic feet

#### 9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

##### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet

Minimum sedimentation basin area = NA square feet For minimum water depth of 2 feet

For maximum water depth of 8 feet

##### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet

Minimum sedimentation basin area = NA square feet For minimum water depth of 2 feet

For maximum water depth of 8 feet

#### 10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

#### 11. Wet Basins

Designed as Required in RG-348

Pages 3-68 to 3-71

Required capacity of Permanent Pool = NA cubic feet

Required capacity at WQV Elevation = NA cubic feet

Permanent Pool Capacity is 1.20 times the WQV  
Total Capacity should be the Permanent Pool Capacity plus a second WQV.

#### 12. Constructed Wetlands

Designed as Required in RG-348

Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = NA cubic feet

#### 13. AquaLogic™ Cartridge System

Designed as Required in RG-348

Pages 3-74 to 3-78

##### 13A. AquaLogic™ Cartridge System with maintenance contract \*\*

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>c</sub>) = NA square feet

\*\* 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

##### 13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>c</sub>) = NA square feet

#### 14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = NA cubic feet

### THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

#### 15. Grass Swales

Designed as Required in RG-348

Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 10.00 acres  
Impervious Cover in Drainage Area = 4.00 acres  
Rainfall intensity = i = 1.1 in/hr  
Swale Slope = 0.01 ft/ft  
Side Slope (z) = 3  
Design Water Depth = y = 0.33 ft  
Weighted Runoff Coefficient = C = 0.49

A<sub>cs</sub> = cross-sectional area of flow in Swale = 15.20 sf

P<sub>w</sub> = Wetted Perimeter = 46.71 feet

R<sub>H</sub> = hydraulic radius of flow cross-section = A<sub>cs</sub>/P<sub>w</sub> = 0.33 feet

n = Manning's roughness coefficient = 0.2

##### 15A. Using the Method Described in the RG-348

Manning's Equation:  $Q = \frac{1.49}{n} A_{cs} R_H^{2/3} S^{1/2}$

$y = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy = 44.61$  feet

Q = C IA = 5.43 cfs

The following sections are used to calculate the required water quality volume(s) for the selected BMP.  
The values for BMP Types not selected in cell C53 will show NA.

#### 7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1  
Irrigation area = NA square feet  
NA acres

#### 8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = 31496 cubic feet

#### 9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

##### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet

Minimum sedimentation basin area = NA square feet For minimum water depth of 2 feet

For maximum water depth of 8 feet

##### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet

Minimum sedimentation basin area = NA square feet For minimum water depth of 2 feet

For maximum water depth of 8 feet

#### 10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

#### 11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet

Required capacity at WQV Elevation = NA cubic feet

Permanent Pool Capacity is 1.20 times the WQV  
Total Capacity should be the Permanent Pool Capacity plus a second WQV.

#### 12. Constructed Wetlands

Designed as Required in RG-348

Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = NA cubic feet

#### 13. AquaLogic™ Cartridge System

Designed as Required in RG-348

Pages 3-74 to 3-78

##### 13A. AquaLogic™ Cartridge System with maintenance contract \*\*

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>F</sub>) = NA square feet

\*\* 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

##### 13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>F</sub>) = NA square feet

#### 14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = NA cubic feet

#### THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

#### 15. Grassy Swales

Designed as Required in RG-348

Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 10.00 acres  
Impervious Cover in Drainage Area = 4.00 acres  
Rainfall Intensity = i = 1.1 in/hr  
Swale Slope = 0.01 ft/ft  
Side Slope (z) = 3  
Design Water Depth = y = 0.33 ft  
Weighted Runoff Coefficient = C = 0.49

A<sub>CS</sub> = cross-sectional area of flow in Swale = 15.20 sf

P<sub>w</sub> = Wetted Perimeter = 46.71 feet

R<sub>w</sub> = hydraulic radius of flow cross-section = A<sub>CS</sub>/P<sub>w</sub> = 0.33 feet

n = Manning's roughness coefficient = 0.2

##### 15A. Using the Method Described in the RG-348

Manning's Equation:  $Q = \frac{1.49}{n} A_{CS} R_w^{2/3} S^{1/2}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}}$  = 44.61 feet

Q = C I A = 5.43 cfs

The following sections are used to calculate the required water quality volume(s) for the selected BMP.  
The values for BMP Types not selected in cell C53 will show NA.

#### 7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet  
Irrigation Area Calculations.

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1  
Irrigation area = NA square feet  
NA acres

#### 8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-48 to 3-51

Required Water Quality Volume for extended detention basin = 31496 cubic feet

#### 9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

##### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet  
Minimum filter basin area = NA square feet  
Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet  
Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

##### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet  
Minimum filter basin area = NA square feet  
Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet  
Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

#### 10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

#### 11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet Permanent Pool Capacity is 1.20 times the WQV  
Required capacity at WQV Elevation = NA cubic feet Total Capacity should be the Permanent Pool Capacity plus a second WQV.

#### 12. Constructed Wetlands

Designed as Required in RG-348

Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = NA cubic feet

#### 13. AquaLogic™ Cartridge System

Designed as Required in RG-348

Pages 3-74 to 3-78

##### 13A. AquaLogic™ Cartridge System with maintenance contract \*\*

Required Sedimentation chamber capacity = NA cubic feet  
Filter canisters (FCs) to treat WQV = NA cartridges  
Filter basin area (RIA<sub>c</sub>) = NA square feet

\*\* 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

##### 13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity = NA cubic feet  
Filter canisters (FCs) to treat WQV = NA cartridges  
Filter basin area (RIA<sub>c</sub>) = NA square feet

#### 14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = NA cubic feet

#### THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

#### 15. Grassy Swales

Designed as Required in RG-348

Pages 3-51 to 3-54

##### Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 10.00 acres  
Impervious Cover in Drainage Area = 4.00 acres  
Rainfall intensity = i = 1.1 in/hr  
Swale Slope = 0.01 ft/ft  
Side Slope (z) = 3  
Design Water Depth = y = 0.33 ft  
Weighted Runoff Coefficient = C = 0.49

A<sub>CS</sub> = cross-sectional area of flow in Swale = 15.20 sf  
P<sub>w</sub> = Wetted Perimeter = 48.71 feet  
R<sub>H</sub> = hydraulic radius of flow cross-section = A<sub>CS</sub>/P<sub>w</sub> = 0.33 feet  
n = Manning's roughness coefficient = 0.2

##### 15A. Using the Method Described in the RG-348

Manning's Equation:  $Q = \frac{1.49}{n} A_{CS} R_H^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.07} S^{0.5}} - zy = 44.61$  feet

Q = C i A = 5.43 cfs



The following sections are used to calculate the required water quality volume(s) for the selected BMP.  
The values for BMP Types not selected in cell C53 will show NA.

#### 7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet  
Irrigation Area Calculations:

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1  
Irrigation area = NA square feet  
NA acres

#### 8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

#### 9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

##### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet  
Minimum filter basin area = NA square feet  
Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet  
Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

##### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet  
Minimum filter basin area = NA square feet  
Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet  
Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

#### 10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

#### 11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet Permanent Pool Capacity is 1.20 times the WQV  
Required capacity at WQV Elevation = NA cubic feet Total Capacity should be the Permanent Pool Capacity plus a second WQV.

#### 12. Constructed Wetlands

Designed as Required in RG-348

Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = NA cubic feet

#### 13. AquaLogic™ Cartridge System

Designed as Required in RG-348

Pages 3-74 to 3-78

##### 13A. AquaLogic™ Cartridge System with maintenance contract \*\*

Required Sedimentation chamber capacity = NA cubic feet  
Filter canisters (FCs) to treat WQV = NA cartridges  
Filter basin area (RIA<sub>F</sub>) = NA square feet

\*\* 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

##### 13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity = NA cubic feet  
Filter canisters (FCs) to treat WQV = NA cartridges  
Filter basin area (RIA<sub>F</sub>) = NA square feet

#### 14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = NA cubic feet

THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

#### 15. Grassy Swales

Designed as Required in RG-348

Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 10.00 acres  
Impervious Cover in Drainage Area = 4.00 acres  
Rainfall intensity = i = 1.1 in/hr  
Swale Slope = 0.01 ft/ft  
Side Slope (z) = 3  
Design Water Depth = y = 0.33 ft  
Weighted Runoff Coefficient = C = 0.49

A<sub>CS</sub> = cross-sectional area of flow in Swale = 15.20 sf  
P<sub>w</sub> = Wetted Perimeter = 46.71 feet  
R<sub>w</sub> = hydraulic radius of flow cross-section = A<sub>CS</sub>/P<sub>w</sub> = 0.33 feet  
n = Manning's roughness coefficient = 0.2

##### 15A. Using the Method Described in the RG-348

Manning's Equation:  $Q = \frac{1.49}{n} A_{CS} R_w^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy = 44.61$  feet

Q = C<sub>i</sub>A = 5.43 cfs

The following sections are used to calculate the required water quality volume(s) for the selected BMP.  
The values for BMP Types not selected in cell C53 will show NA.

#### 7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations.

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1  
Irrigation area = NA square feet  
NA acres

#### 8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

#### 9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

##### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

##### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

#### 10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

#### 11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet

Required capacity at WQV Elevation = NA cubic feet Permanent Pool Capacity is 1.20 times the WQV  
Total Capacity should be the Permanent Pool Capacity plus a second WQV.

#### 12. Constructed Wetlands

Designed as Required in RG-348

Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = NA cubic feet

#### 13. AquaLogic™ Cartridge System

Designed as Required in RG-348

Pages 3-74 to 3-78

##### 13A. AquaLogic™ Cartridge System with maintenance contract \*\*

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>F</sub>) = NA square feet

\*\* 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

##### 13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>F</sub>) = NA square feet

#### 14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = NA cubic feet

THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

#### 15. Grassy Swales

Designed as Required in RG-348

Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A = 10.00 acres  
Impervious Cover in Drainage Area = 4.00 acres  
Rainfall intensity = i = 1.1 in/hr  
Swale Slope = 0.01 ft/ft  
Side Slope (z) = 3  
Design Water Depth = y = 0.33 ft  
Weighted Runoff Coefficient = C = 0.49

A<sub>CS</sub> = cross-sectional area of flow in Swale = 15.20 sf

P<sub>w</sub> = Wetted Perimeter = 46.71 feet

R<sub>h</sub> = hydraulic radius of flow cross-section = A<sub>CS</sub>/P<sub>w</sub> = 0.33 feet

n = Manning's roughness coefficient = 0.2

##### 15A. Using the Method Described in the RG-348

Manning's Equation:  $Q = \frac{1.49}{n} A_{CS} R_h^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy = 44.61$  feet

Q = C<sub>i</sub>A = 5.43 cfs

The following sections are used to calculate the required water quality volume(s) for the selected BMP.  
The values for BMP Types not selected in cell C53 will show NA.

#### 7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations.

Soil infiltration/permeability rate = 0.1 in/hr Enter determined permeability rate or assumed value of 0.1  
Irrigation area = NA square feet  
NA acres

#### 8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

#### 9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

##### 9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

##### 9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = NA cubic feet

Minimum filter basin area = NA square feet

Maximum sedimentation basin area = NA square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = NA square feet For maximum water depth of 8 feet

#### 10. Bioretention System

Designed as Required in RG-348

Pages 3-63 to 3-65

Required Water Quality Volume for Bioretention Basin = NA cubic feet

#### 11. Wet Basins

Designed as Required in RG-348

Pages 3-66 to 3-71

Required capacity of Permanent Pool = NA cubic feet

Required capacity at WQV Elevation = NA cubic feet Permanent Pool Capacity is 1.20 times the WQV  
Total Capacity should be the Permanent Pool Capacity plus a second WQV.

#### 12. Constructed Wetlands

Designed as Required in RG-348

Pages 3-71 to 3-73

Required Water Quality Volume for Constructed Wetlands = NA cubic feet

#### 13. AquaLogic™ Cartridge System

Designed as Required in RG-348

Pages 3-74 to 3-78

##### 13A. AquaLogic™ Cartridge System with maintenance contract \*\*

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>F</sub>) = NA square feet

\*\* 2005 Technical Guidance Manual (RG-348) does not exempt the required 20% increase if proof of maintenance contract with AquaLogic™ is provided.

##### 13B. AquaLogic™ Cartridge System without maintenance contract

Required Sedimentation chamber capacity = NA cubic feet

Filter canisters (FCs) to treat WQV = NA cartridges

Filter basin area (RIA<sub>F</sub>) = NA square feet

#### 14. Stormwater Management StormFilter® by CONTECH

Required Water Quality Volume for Contech StormFilter System = NA cubic feet

THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

#### 15. Grassy Swales

Designed as Required in RG-348

Pages 3-51 to 3-54

Design parameters for the swale.

Drainage Area to be Treated by the Swale = A = 10.00 acres  
Impervious Cover in Drainage Area = 4.00 acres  
Rainfall intensity = i = 1.1 in/hr  
Swale Slope = 0.01 ft/ft  
Side Slope (z) = 3  
Design Water Depth = y = 0.33 ft  
Weighted Runoff Coefficient = C = 0.49

A<sub>CS</sub> = cross-sectional area of flow in Swale = 15.20 sf

P<sub>w</sub> = Wetted Perimeter = 46.71 feet

R<sub>m</sub> = hydraulic radius of flow cross-section = A<sub>CS</sub>/P<sub>w</sub> = 0.33 feet

n = Manning's roughness coefficient = 0.2

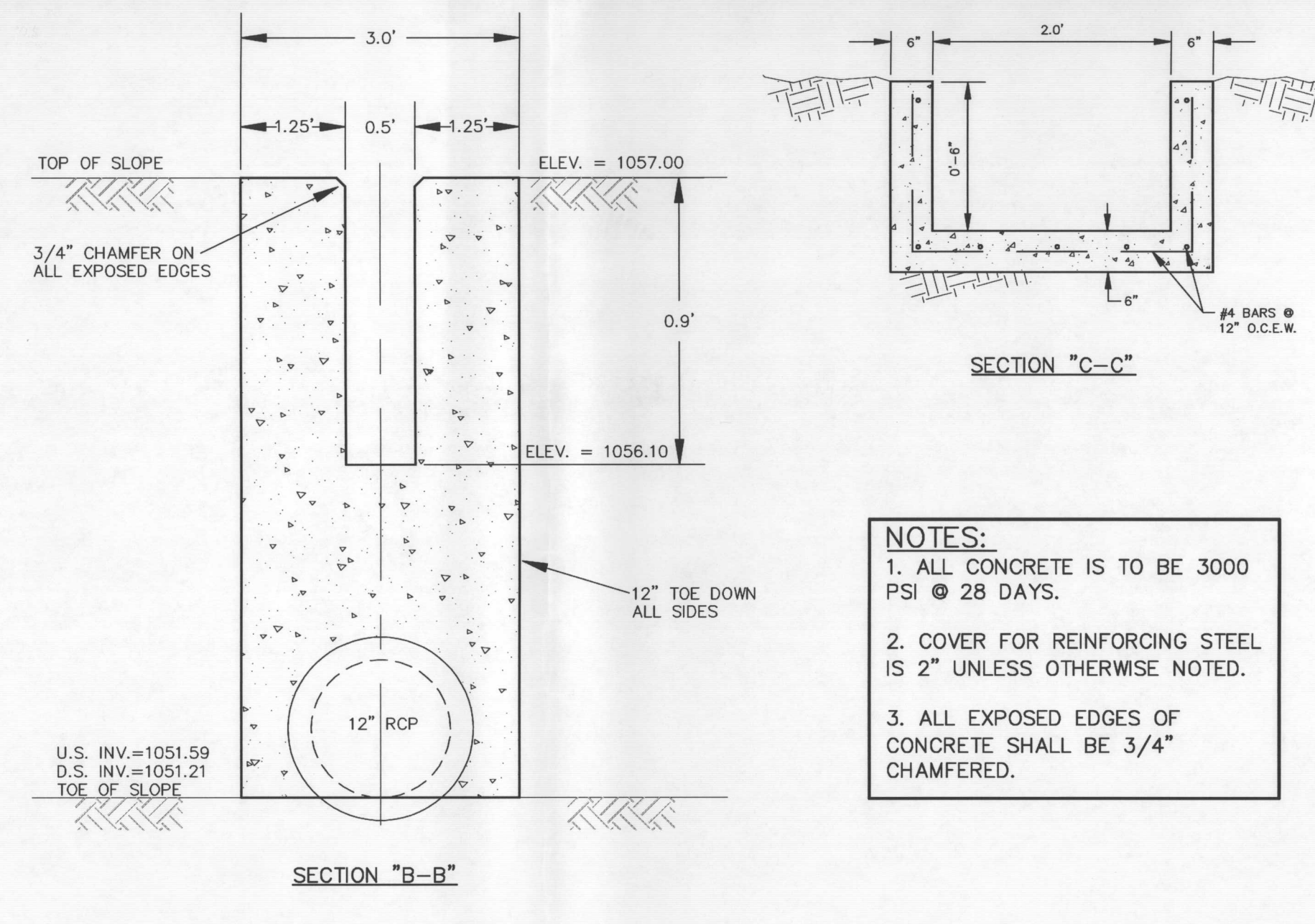
#### 16A. Using the Method Described in the RG-348

Manning's Equation:  $Q = \frac{1.49}{n} A_{CS} R_m^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy = 44.61 \text{ feet}$

$Q = C \cdot I \cdot A = 5.43 \text{ cfs}$

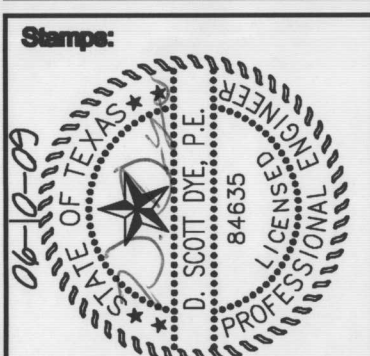




Architect / Engineer

**acufarm**  
ARCHITECTURE

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**BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE**

Project for:

THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS

-	-
-	-
-	-
-	-
-	-
02-JUN-06	REVISION 1
15-MAY-06	100% DOC. SUBMITTAL
24-APR-06	90% DOCUMENT REVIEW
Metric Date (mm)	Description

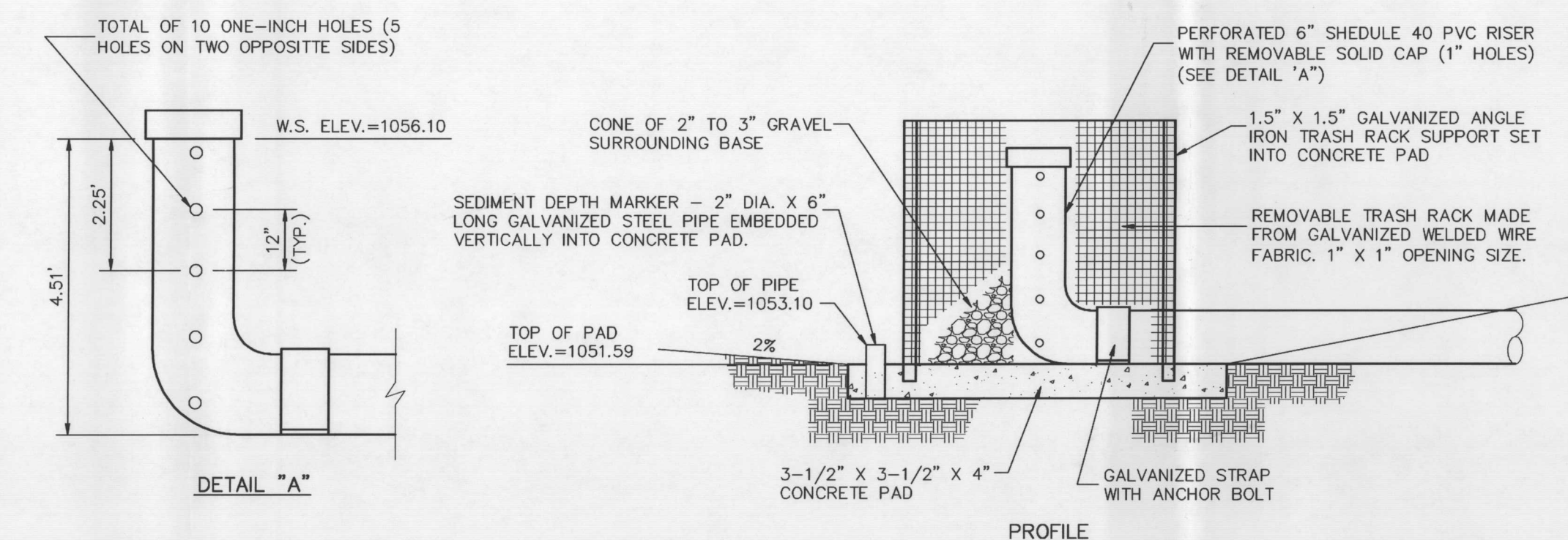
Project Number:  
500-3276

Plan Series:  
LEG-TRA-98-16

Sheet Title

## STORMWATER QUALITY BASIN DETAILS & NOTES

Sheet:



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
WATER POLLUTION ABATEMENT PLAN  
GENERAL CONSTRUCTION NOTES

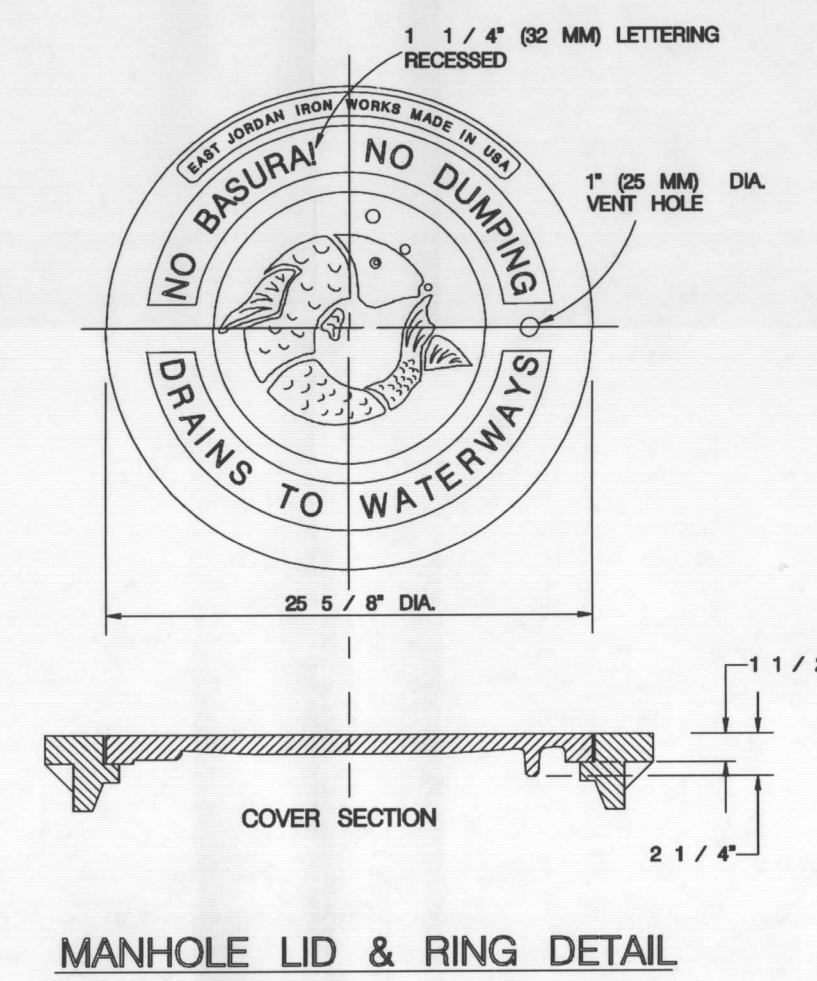
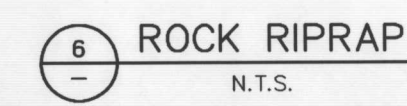
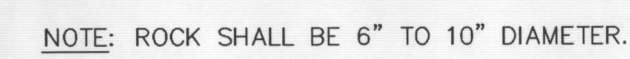
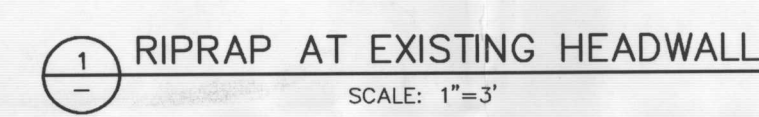
1. WRITTEN CONSTRUCTION ACTIVATION MAP MUST BE SUBMITTED TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN SEVEN (7) HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL BEGIN, THE NAME OF THE APPLICANT, THE PLANNED LOCATION OF THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS FOR PERMITTING OF THE REGULATED ACTIVITY. IF ANY VIOLATIONS OR OTHER PROBLEMS ARE IDENTIFIED, THE CONTRACTORS ARE REQUIRED TO KEEP RECORDS OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES DISCOVERED. THE TCEQ REGIONAL OFFICE WILL INSTRUCT THE APPLICANT AS TO THE SENSITIVE FEATURE MAY BE PROTECTED. UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN ONE FEET OF DOMESTIC, INDUSTRIAL, IRRIGATION, OR PULPER WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
5. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED WATER POLLUTION ABATEMENT PLAN MUST BE FOLLOWED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE COMPLIANCE. IF THE CONTROL CANNOT REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
6. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OUTFALL IMPACTS TO WATER QUALITY (E.G., FUGITIVE SEDIMENT IN STREET BEING WASHED INTO STREET DRAINAGE). SEDIMENT ACCUMULATIONS SHALL BE REMOVED BY HAND OR BY PUMP.
7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMITS STATEMENT MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED-UP DAILY).
9. ALL SPILLS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER EXPOSURE CONTROL OR STORED AT ANOTHER LOCATION. IF A SPILL OCCURS, IT MUST BE REPORTED TO THE TCEQ REGIONAL OFFICE. THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILLED MATERIAL, OR MASS STORAGE OF EXCAVATED MATERIAL, OR SPILLS AT ANOTHER LOCATION.
10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITIES IN THAT PORTION OF THE SITE HAVE TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY WEATHER CONDITIONS, TEMPORARY STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITIES IN THAT PORTION OF THE SITE ARE TEMPORARILY CEASING, TEMPORARY STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. TEMPORARY STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITIES IN THAT PORTION OF THE SITE ARE PERMANENTLY CEASING, TEMPORARY STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. TEMPORARY STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUICL PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
- a. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO POND, DAMS, BERMS, SEWER TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
- b. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF UNDERLYING AQUIFERS
- c. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.
- AUSTIN REGIONAL OFFICE  
2800 S. IH 35, SUITE 100  
AUSTIN, TEXAS 78704-5712  
PHONE (512) 339-2929  
FAX (512) 339-3795
- SAN ANTONIO REGIONAL OFFICE  
14200 JUDSON ROAD  
SAN ANTONIO, TEXAS 78233-4480  
PHONE (210) 540-4036  
FAX (210) 540-4329
- THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

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TCEQ-0592 (REV. 3/15/07)

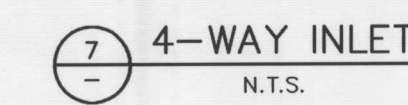
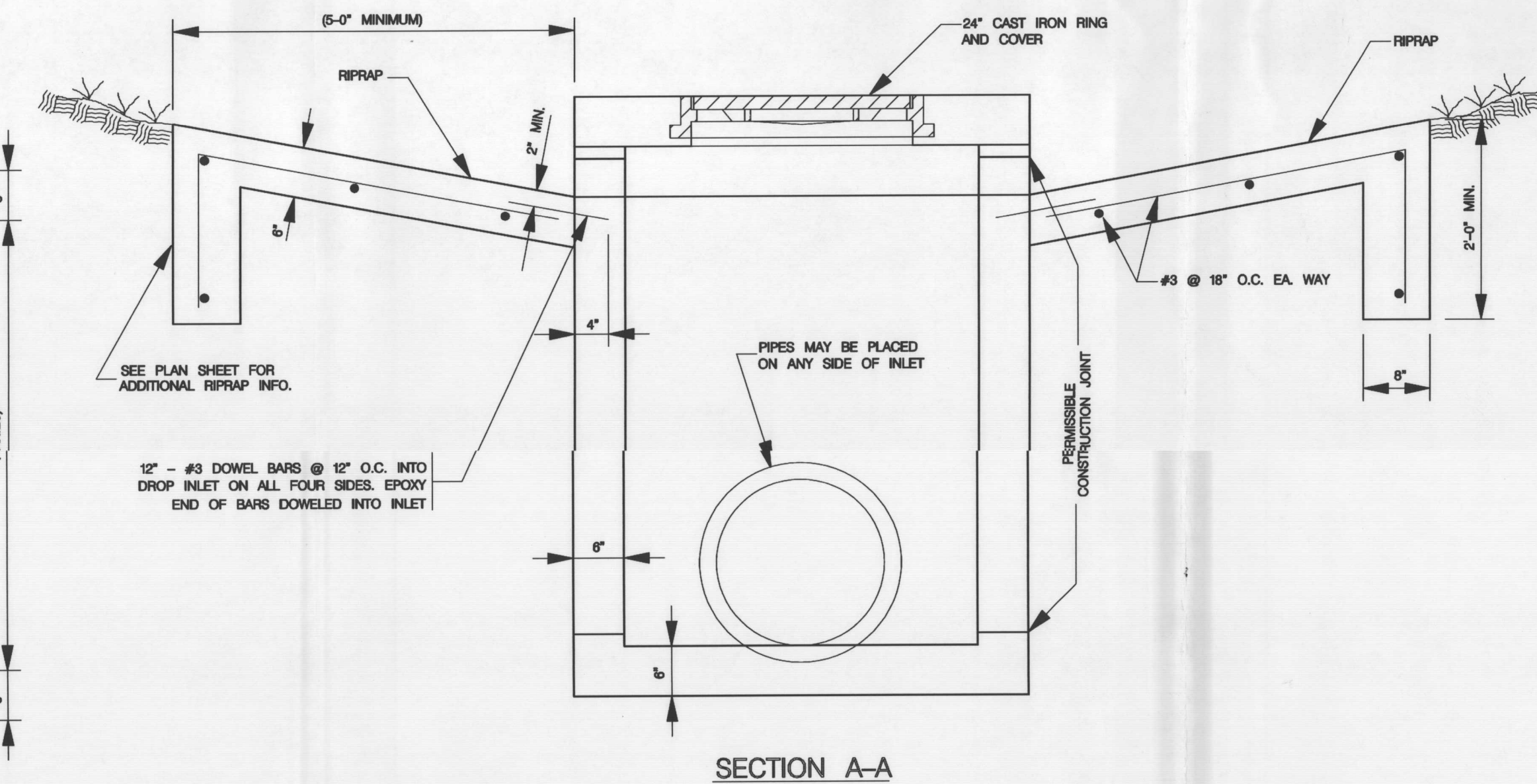
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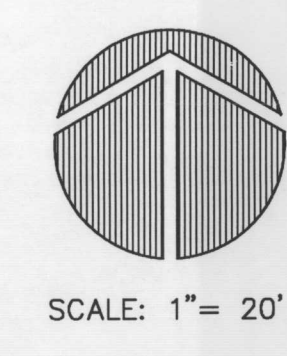
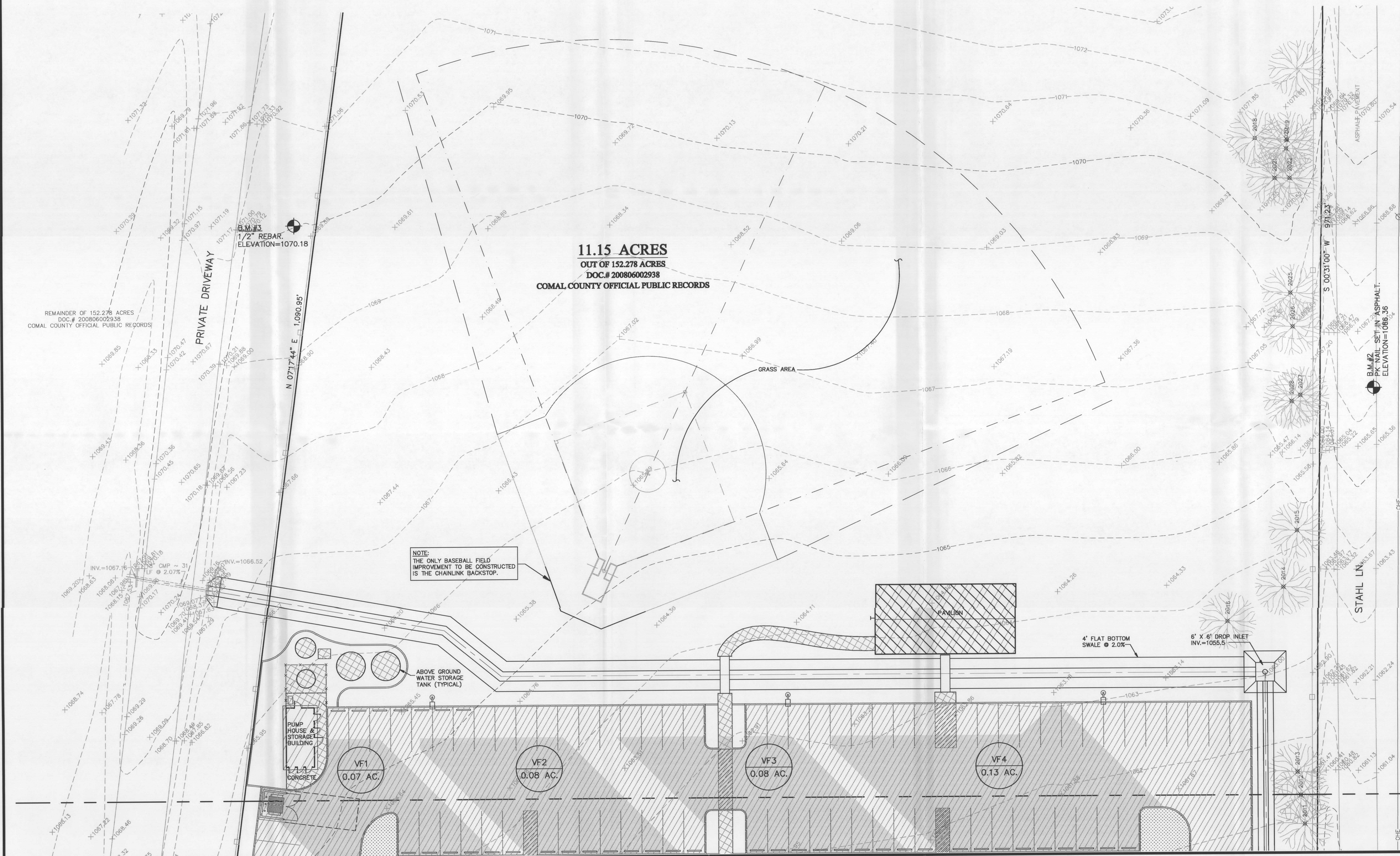


REINFORCING STEEL			
BAR	NO.	SIZE	SPACE
A	18	4	8" +/ -
A 1	10	4	8" +/ -
B	4	4	AS SHOWN
B 1	20	4	8" +/ -
C	12	4	9" +/ -
J	4	4	AS SHOWN

1. ALL BARS INTERCEPTING THE RING AND COVER OPENING AND PIPE OPENINGS. SHALL BE FIELD CUT
2. CONCRETE SHALL BE 3000 PSI IN 28 DAYS.
3. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
4. ALL EXPOSED CORNERS SHALL HAVE 3/4" CHAMFER







- LEGEND**
- PROPERTY CORNER
  - BENCHMARK
  - EXISTING FENCE
  - EXISTING POWER POLE
  - EXISTING OVERHEAD ELECTRIC
  - EXISTING SPOT ELEVATION
  - PROPOSED CONTOUR
  - PROPOSED SPOT ELEVATION
  - DRAINAGE FLOW DIRECTION
  - 6\"/>
  - IMPERVIOUS ROOF
  - IMPERVIOUS PARKING
  - IMPERVIOUS FLATWORK
  - IMPERVIOUS OVERTREATMENT AREA
  - VEGETATIVE FILTER STRIPS
  - VEGETATIVE FILTER STRIP TREATMENT AREA

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  - BM#1, BM#2, AND BM#3 ELEVATIONS ARE BASED ON NAVD 88 DATUM.

MATCHLINE "A-A"

Architect / Engineer

**acuform**  
ARCHITECTURE

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**DYE ENTERPRISES**  
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SAN ANTONIO, TX 78207  
TEL: (210) 594-4127  
FAX: (210) 594-4191

Stamp:

**BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE**  
31555 STAIL LANE  
BULVERDE, TEXAS 78163

Project for:

**THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS**

Revision	Date	Description
1	10-10-09	REVISION 1
2	11-11-09	10% DOC. SUBMITTAL
3	11-11-09	80% DOCUMENT REVIEW

TCEQ-113  
JUN 11 2009  
SAN ANTONIO

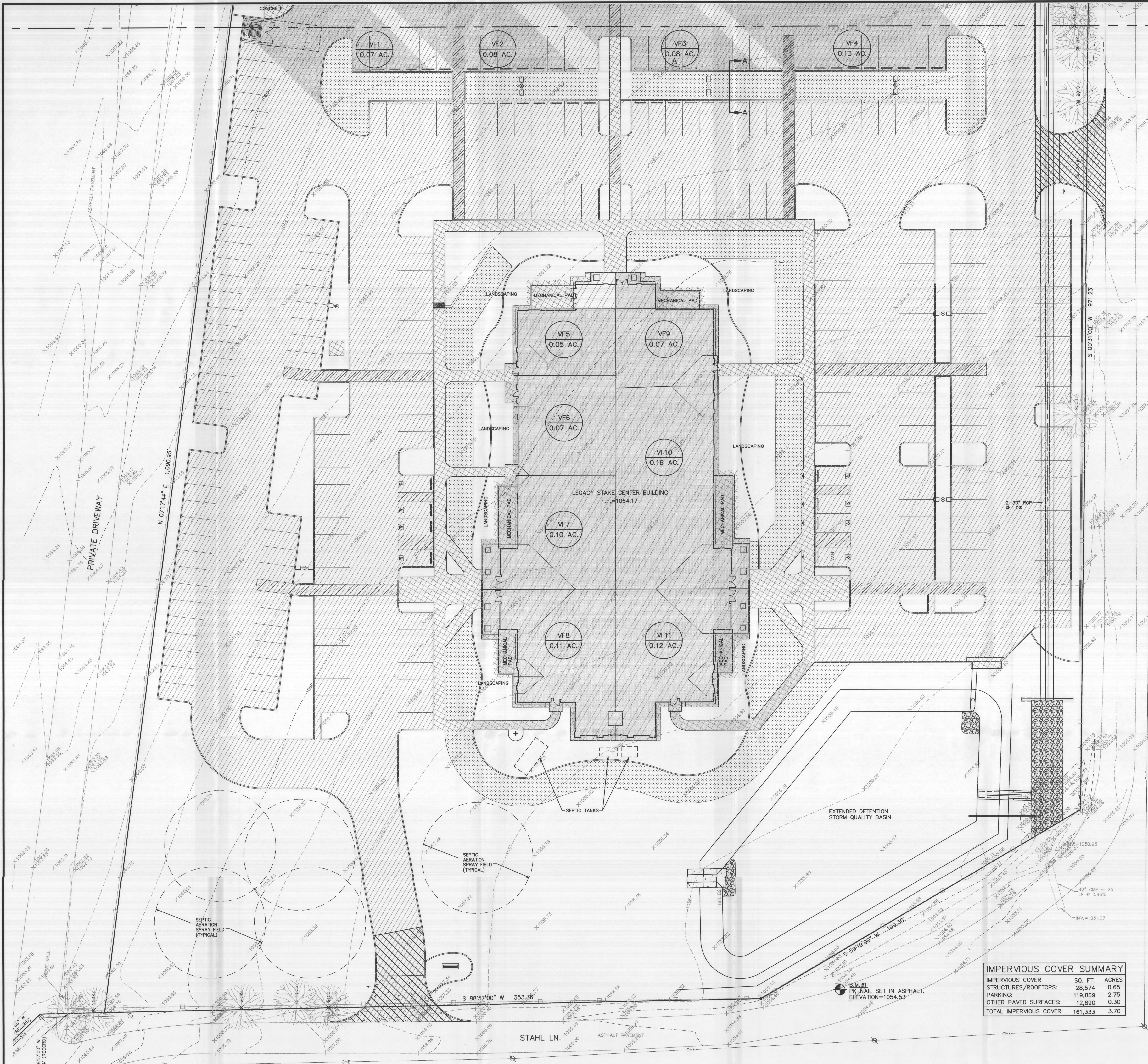
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**500-3276**

Plan Series:  
**LEG-TRA-98-16**

Sheet Title:  
**STORMWATER  
QUALITY  
PLAN**

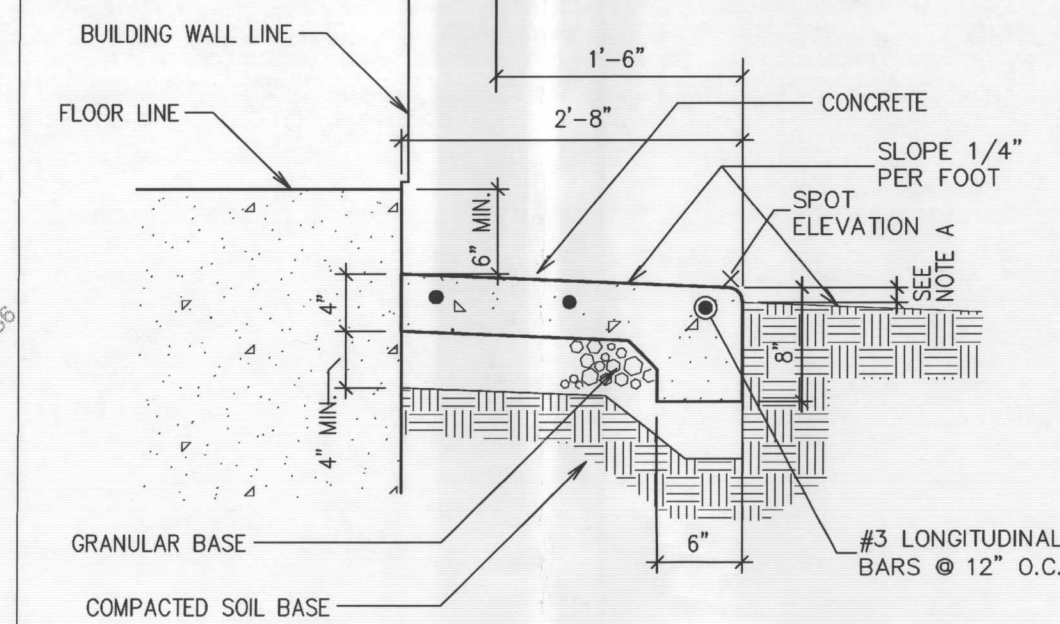
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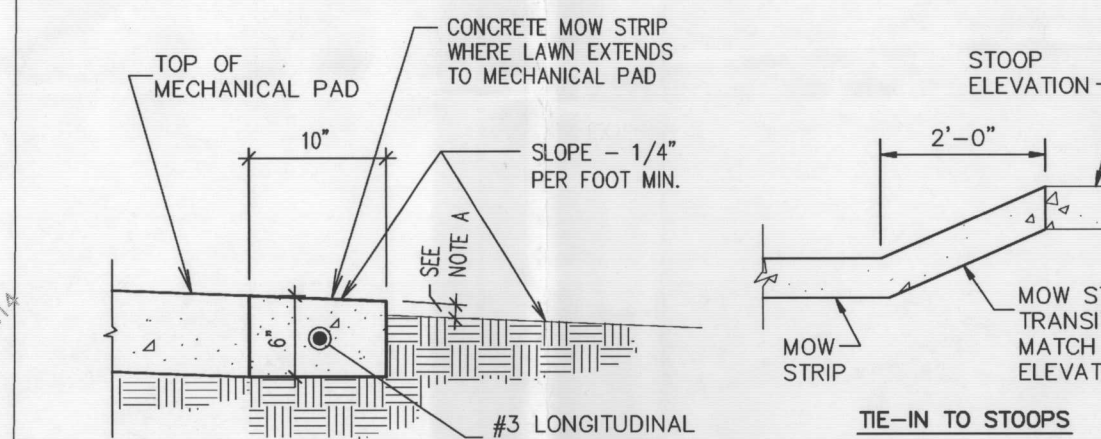


MATCHLINE "A-A"

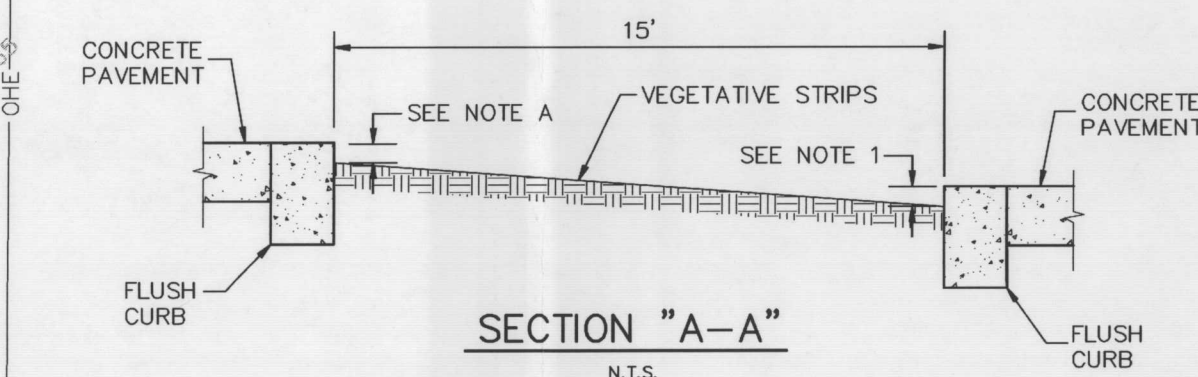
NOTE A:  
1" PRIOR TO SEEDING OR  
PLANTING (2" PRIOR TO SODDING)



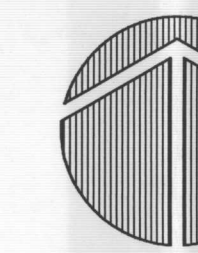
APRON DETAIL  
(ADJACENT TO BUILDING)  
N.T.S.



MOW STRIP DETAIL  
(ADJACENT TO MECHANICAL PADS)  
N.T.S.



SECTION "A-A"  
N.T.S.



SCALE: 1" = 20'

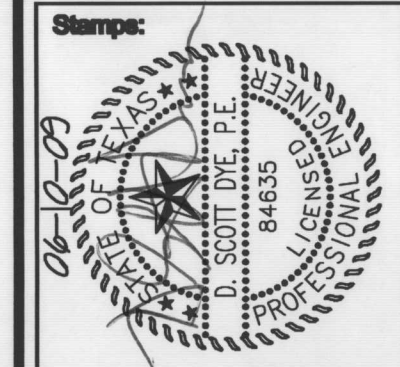
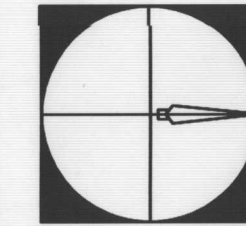
LEGEND

- PROPERTY CORNER
- BENCHMARK
- EXISTING FENCE
- EXISTING POWER POLE
- EXISTING OVERHEAD ELECTRIC
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
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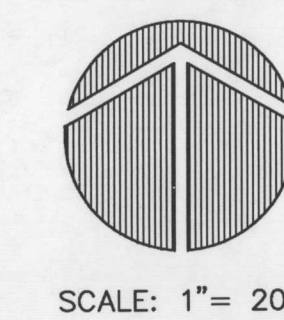
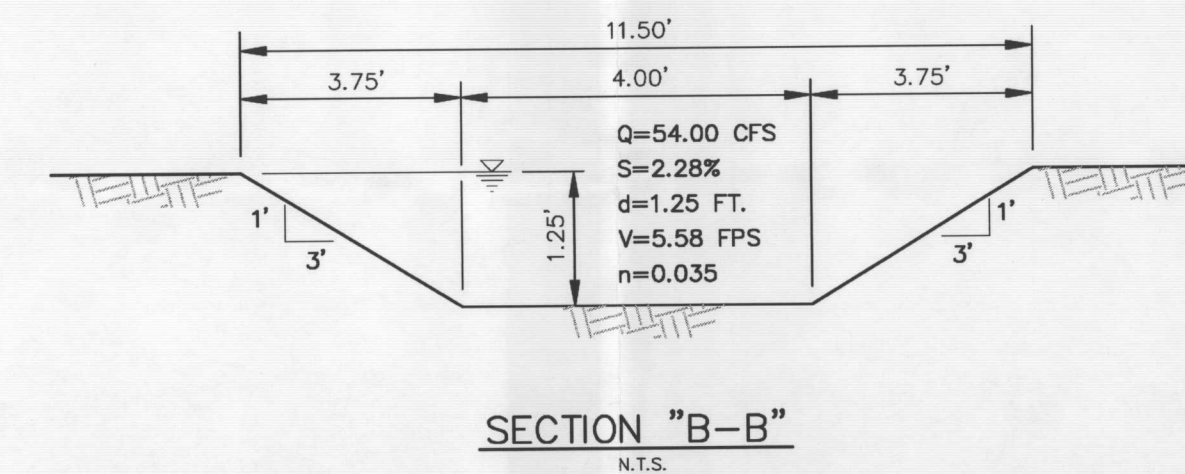
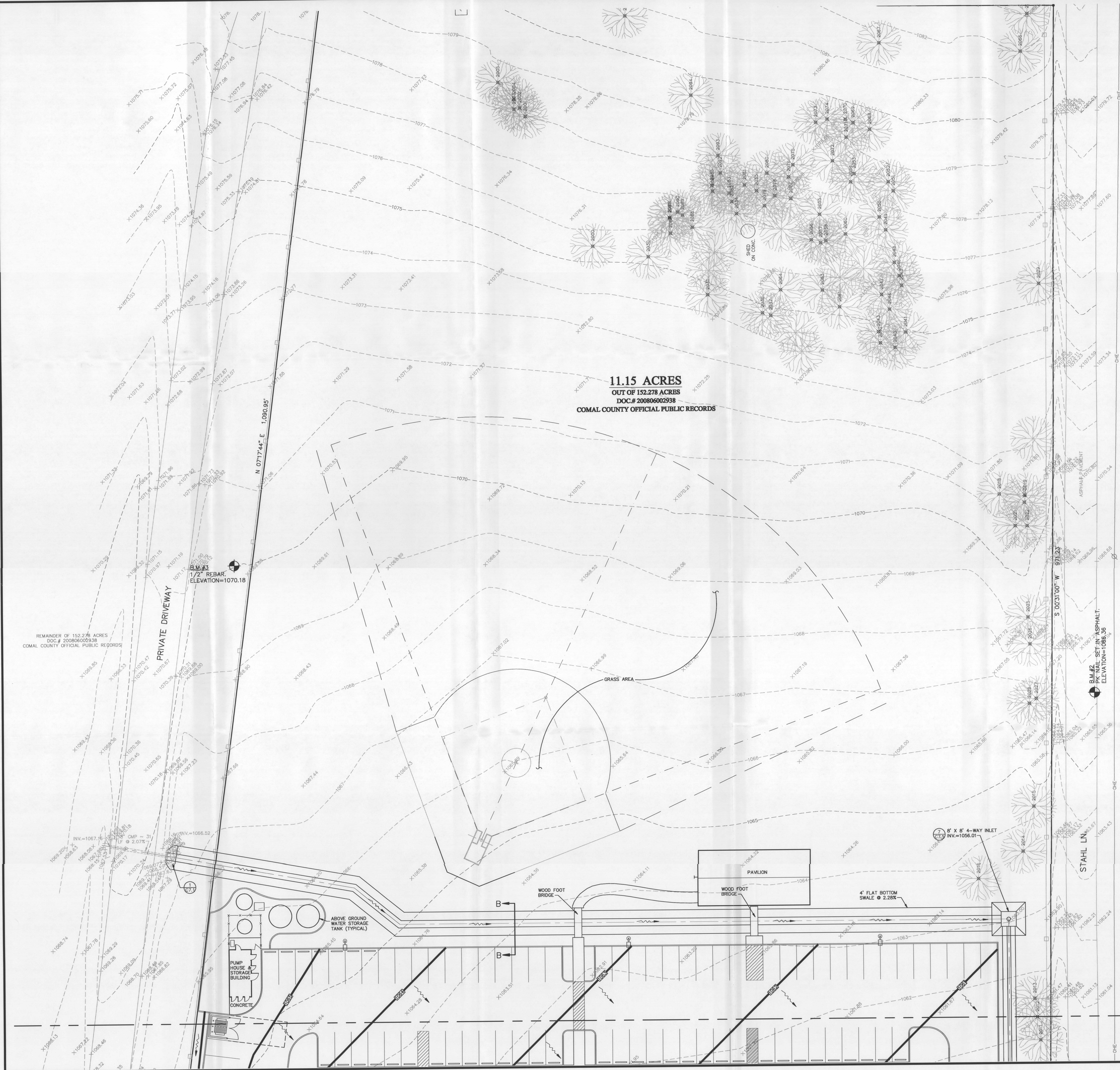
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- BM#1, BM#2, AND BM#3 ELEVATIONS ARE BASED ON NAVD 88 DATUM.

IMPERVIOUS COVER SUMMARY		
IMPERVIOUS COVER	SQ. FT.	ACRES
STRUCTURES/ROOFTOPS:	28,574	0.65
PARKING:	119,869	2.75
OTHER PAVED SURFACES:	12,890	0.30
TOTAL IMPERVIOUS COVER:	161,333	3.70







- LEGEND**
- PROPERTY CORNER
  - BENCHMARK
  - EXISTING FENCE
  - EXISTING POWER POLE
  - EXISTING OVERHEAD ELECTRIC
  - EXISTING SPOT ELEVATION
  - PROPOSED CONTOUR
  - PROPOSED SPOT ELEVATION
  - DRAINAGE FLOW DIRECTION
  - 6\"/>

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MATCHLINE "A-A"

Architect / Engineer:

**acuforn**  
ARCHITECTURE

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SAN ANTONIO, TX 78217  
SAN ANTONIO, TX 78217  
FAX (210) 599-4191

Stamp:

**BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE**

31355 STAHL LANE  
BULVERDE, TEXAS 78163

Project for:

**THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS**

NO.	DATE	REVISION	DESCRIPTION
10	JUN-08	REVISION 1	
15	MAY-08	100% DOC SUBMITTAL	
24	APR-08	80% DOCUMENT REVIEW	

Project Number:  
500-3276

Plan Book:  
LEG-TRA-08-16

Sheet Title:

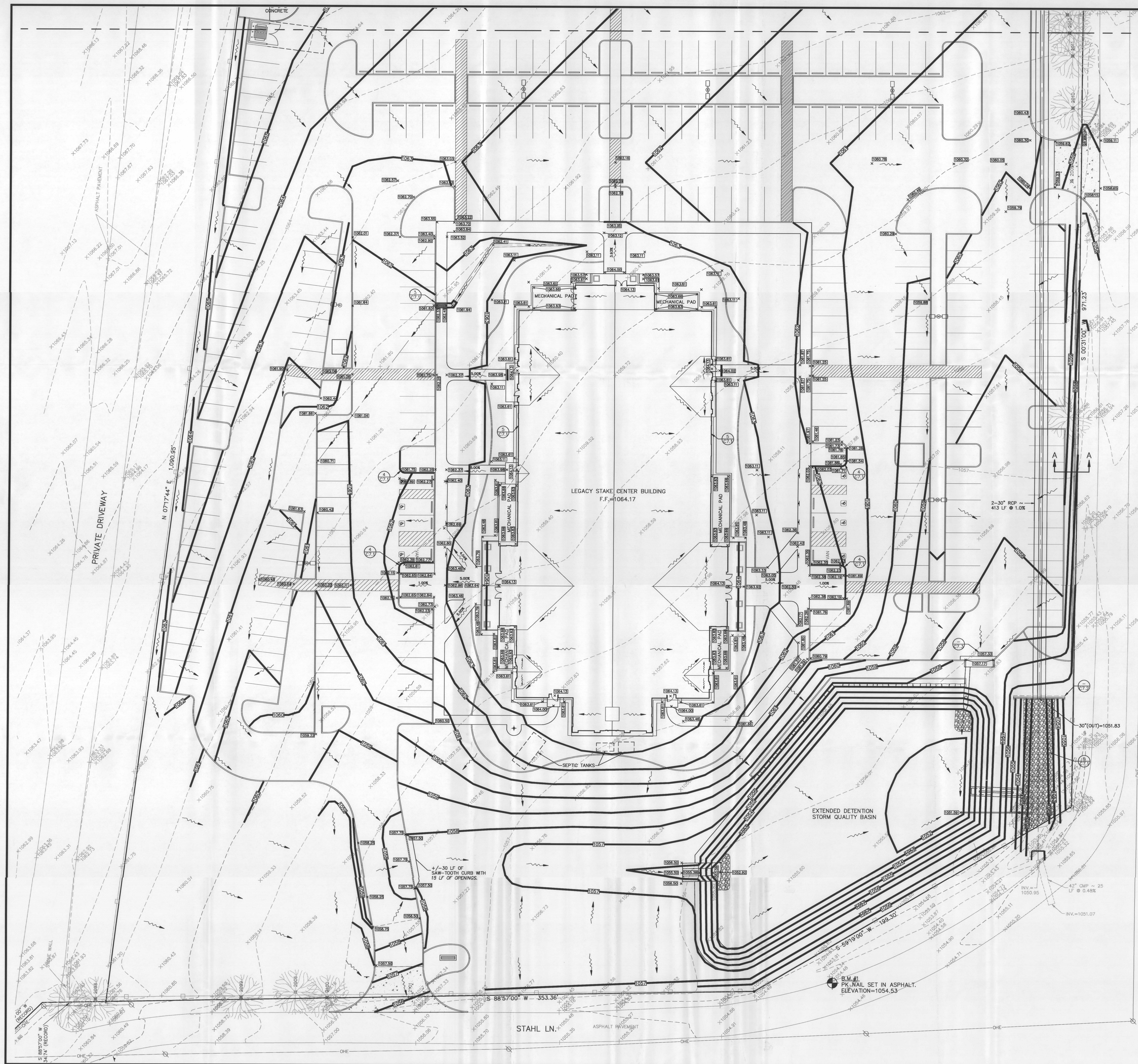
**GRADING &  
DRAINAGE  
PLAN**

Sheet:

**C3.1**

TCEQ-R13  
JUN 11 2008  
SAN ANTONIO

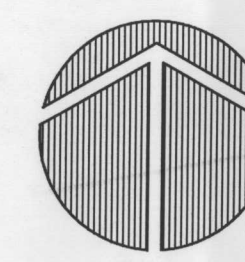




MATCHLINE "A-A"



SECTION "A-A"



SCALE: 1" = 20'

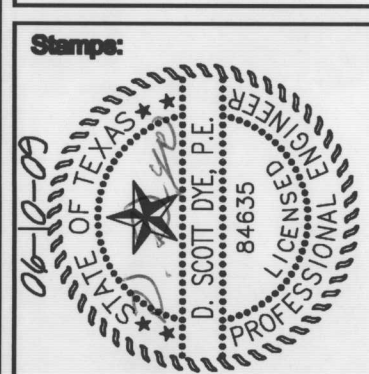
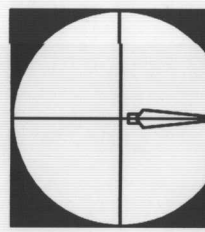
LEGEND

- PROPERTY CORNER
- BENCHMARK
- EXISTING FENCE
- EXISTING POWER POLE
- EXISTING OVERHEAD ELECTRIC
- 1050.0x EXISTING SPOT ELEVATION
- 1050.0x PROPOSED SPOT ELEVATION
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- 6" CONCRETE CURB (U.N.O.)

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6. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL FOUNDATIONS.
7. NO BLASTING IS ALLOWED.
8. TRENCH EXCAVATION PROTECTION - CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S REQUIRED TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES, SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. THE TRENCH EXCAVATION PROTECTION PLAN MUST BE SUBMITTED TO THE PROPER GOVERNING AUTHORITIES BEFORE BEGINNING CONSTRUCTION.
9. BM#1, BM#2, AND BM#3 ELEVATIONS ARE BASED ON NAVD 88 DATUM.

DYB ENTERPRISES  
4047 STABLE RD, SUITE 401  
SAN ANTONIO, TEXAS 78217  
TEL: (210) 599-4123  
FAX: (210) 599-4191



**BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE**  
31955 STAHL LANE  
BULVERDE, TEXAS 78163

Project for:  
**THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS**

Mark	Date (mm/dd/yyyy)	Description
02-JUN-08	REVISION 1	15-MAY-08 100% DOC SUBMITTAL
24-APR-08	80% DOCUMENT REVIEW	

Project Number:  
500-3276  
Plan Number:  
LEG-TRA-98-16

Sheet Title:

**GRADING &  
DRAINAGE  
PLAN**

Sheet:

**C3.0**

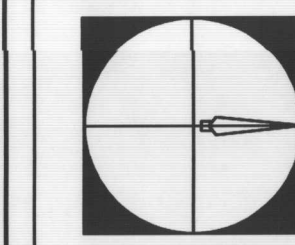
TCEQ-R13  
JUN 11 2008  
SAN ANTONIO





TREE TABLE			TREE TABLE			TREE TABLE		
TREE No.	TREE SIZE	TREE DESCRIPTION	TREE No.	TREE SIZE	TREE DESCRIPTION	TREE No.	TREE SIZE	TREE DESCRIPTION
2000	20", 20", 20", 34"	OAK QUADRUPLT	2036	24"	OAK	2071	8"	OAK
2001	8", 8", 10.5", 13"	OAK QUADRUPLT	2037	7.5"	OAK	2072	11"	HACKBERRY
2002	7.5"	OAK	2040	12"	OAK	2073	18"	OAK
2003	8", 9"	OAK TWIN	2041	13", 9"	OAK TWIN	2074	12"	HACKBERRY
2004	9"	OAK	2042	11"	OAK	2075	9", 9", 9"	OAK
2005	13"	CEDAR	2043	14", 15"	OAK TWIN	2076	10"	OAK
2006	18"	OAK	2044	9"	CEDAR	2077	6.5", 5.5"	OAK TWIN
2007	18"	OAK	2045	6"	OAK	2078	11", 12"	OAK TWIN
2009	15"	OAK	2046	14"	OAK	2079	20"	OAK
2010	12"	OAK	2047	6"	OAK	2080	7"	OAK
2011	15"	OAK	2048	12", 12"	OAK TWIN	2081	12"	OAK
2012	13"	OAK	2049	8"	OAK	2082	9", 9"	OAK TWIN
2013	12"	OAK	2050	14"	OAK	2083	8"	OAK
2014	16"	OAK	2051	6"	PERSIMMON	2084	8"	OAK
2015	17"	OAK	2052	16"	OAK	2085	11"	OAK
2016	32"	OAK	2053	17"	OAK	2086	10.5", 8"	OAK TWIN
2018	17"	OAK	2054	8"	OAK	2087	8"	OAK
2019	14"	OAK	2055	7.5"	OAK	2088	7"	OAK
2020	13"	OAK	2056	6.5"	OAK	2089	7", 8.5"	OAK TWIN
2021	10"	OAK	2057	15"	OAK	2090	6"	OAK
2022	11"	OAK	2058	6.5"	OAK	2091	7"	OAK
2025	8"	OAK	2060	7"	OAK	2092	10", 10", 6"	OAK
2026	9"	OAK	2061	13", 5"	OAK TWIN	2093	8"	BUMELIA
2027	8"	OAK	2063	24"	OAK	2094	39", 15"	OAK TWIN
2028	8"	OAK	2064	24"	OAK	2095	10.5", 12", 14.5"	OAK
2029	18"	OAK	2066	16"	OAK	2096	18"	OAK
2030	15"	OAK	2067	21"	OAK	2098	23"	OAK
2031	7"	PERSIMMON	2068	8"	OAK	2099	25.5"	CEDAR
2034	7"	OAK	2069	6"	OAK	2100	24"	OAK
2035	7.5"	OAK	2070	11.5"	OAK	2101	21"	PINE

TCEQ-R13  
JUN 11 2009  
SAN ANTONIO



BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE  
31955 STAHL LANE  
BULVERDE, TEXAS 78163

Project for:  
THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS

14-MAY-08	100% DOC SUBMITTAL
24-MAY-08	90% DOCUMENT REVIEW
14-JUN-08	Final

Project Number:  
500-5276  
Plan Review:  
LEG-TRA-98-16

Sheet Title:

EXISTING  
CONDITIONS

Sheet:  
C1.0



**ATTACHMENT "N"**  
**INSPECTION, MAINTENANCE, REPAIR AND**  
**RETROFIT PLAN**

## **ATTACHMENT N**

### **Inspection, Maintenance, Repair, and Retrofit Plan**

Frequency of maintenance tasks may vary depending on the amount of rainfall and other weather related conditions. A written record should be kept of inspection results and maintenance performed. A description of maintenance tasks to be performed follows:

#### **Vegetative Filter Strips**

Once a vegetated area is well established, little additional maintenance is generally necessary. The key to establishing a viable vegetated feature is the care and maintenance it receives in the first few months after it is planted. Once established, all vegetated BMPs require some basic maintenance to insure the health of the plants including:

- *Pest Management.* An Integrated Pest Management (IPM) Plan should be developed for vegetated areas. This plan should specify how problem insects and weeds will be controlled with minimal or no use of insecticides and herbicides.
- *Seasonal Mowing and Lawn Care.* If the filter strip is made up of turf grass, it should be mowed as needed to limit vegetation height to 18 inches, using a mulching mower (or removal of clippings). If native grasses are used, the filter may require less frequent mowing, but a minimum of twice annually. Grass clippings and brush debris should not be deposited on vegetated filter strip areas. Regular mowing should also include weed control practices, however herbicide use should be kept to a minimum (Urbonas et al., 1992). Healthy grass can be maintained without using fertilizers because runoff usually contains sufficient nutrients. Irrigation of the site can help assure a dense and healthy vegetative cover.
- *Inspection.* Inspect filter strips at least twice annually for erosion or damage to vegetation; however, additional inspection after periods of heavy runoff is most desirable. The strip should be checked for uniformity of grass cover, debris and litter, and areas of sediment accumulation. More frequent inspections of the grass cover during the first few years after establishment will help to determine if any problems are developing, and to plan for long-term restorative maintenance needs. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.
- *Debris and Litter Removal.* Trash tends to accumulate in vegetated areas, particularly along highways. Any filter strip structures (i.e. level spreaders) should be kept free of obstructions to reduce floatables being flushed downstream, and for aesthetic reasons. The need for this practice is determined through periodic inspection, but should be performed no less than 4 times per year.

- *Sediment Removal.* Sediment removal is not normally required in filter strips, since the vegetation normally grows through it and binds it to the soil. However, sediment may accumulate along the upstream boundary of the strip preventing uniform overland flow. Excess sediment should be removed by hand or with flat-bottomed shovels.
- *Grass Reseeding and Mulching.* A healthy dense grass should be maintained on the filter strip. If areas are eroded, they should be filled, compacted, and reseeded so that the final grade is level. Grass damaged during the sediment removal process should be promptly replaced using the same seed mix used during filter strip establishment. If possible, flow should be diverted from the damaged areas until the grass is firmly established. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Corrective maintenance, such as weeding or replanting should be done more frequently in the first two to three years after installation to ensure stabilization. Dense vegetation may require irrigation immediately after planting, and during particularly dry periods, particularly as the vegetation is initially established.

### Extended Detention Basin

Extended detention basins have moderate to high maintenance requirements, depending on the extent to which future maintenance needs are anticipated during the design stage. Responsibilities for both routine and nonroutine maintenance tasks need to be clearly understood and enforced. If regular maintenance and inspections are not undertaken, the basin will not achieve its intended purposes.

There are many factors that may affect the basin's operation and that should be periodically checked. These factors can include mowing, control of pond vegetation, removal of accumulated bottom sediments, removal of debris from all inflow and outflow structures, unclogging of orifice perforations, and the upkeep of all physical structures that are within the detention pond area. One should conduct periodic inspections and after each significant storm. Remove floatables and correct erosion problems in the pond slopes and bottom. Pay particular attention to the outlet control perforations for signs of clogging. If the orifices are clogged, remove sediment and other debris. The generic aspects that must be considered in the maintenance plan for a detention facility are as follows:

- *Inspections.* Basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the pond is meeting the target detention times. In particular, the extended detention control device should be regularly inspected for evidence of clogging, or conversely, for too rapid a release. If the design drawdown times are exceeded by more than 24 hours, then repairs should be scheduled immediately. The upper stage pilot channel, if any,



and its flow path to the lower stage should be checked for erosion problems. During each inspection, erosion areas inside and downstream of the BMP should be identified and repaired or revegetated immediately.

- *Mowing.* The upper stage, side slopes, embankment, and emergency spillway of an extended detention basin must be mowed regularly to discourage woody growth and control weeds. Grass areas in and around basins should be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. When mowing of grass is performed, a mulching mower should be used, or grass clippings should be caught and removed.
- *Debris and Litter Removal.* Debris and litter will accumulate near the extended detention control device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.
- *Erosion Control.* The pond side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion, although this should not occur often if the soils are properly compacted during construction. Regrading and revegetation may be required to correct the problems. Similarly, the channel connecting an upper stage with a lower stage may periodically need to be replaced or repaired.
- *Structural Repairs and Replacement.* With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. These repairs should include patching of cracked concrete, sealing of voids, and removal of vegetation from cracks and joints. The various inlet/outlet and riser works in a basin will eventually deteriorate and must be replaced. Public works experts have estimated that corrugated metal pipe (CMP) has a useful life of about 25 yr, whereas reinforced concrete barrels and risers may last from 50 to 75 yr.
- *Nuisance Control.* Standing water (not desired in a extended detention basin) or soggy conditions within the lower stage of the basin can create nuisance conditions for nearby residents. Odors, mosquitoes, weeds, and litter are all occasionally perceived to be problems. Most of these problems are generally a sign that regular inspections and maintenance are not being performed (e.g., mowing, debris removal, clearing the outlet control device).
- *Sediment Removal.* When properly designed, dry extended detention basins will accumulate quantities of sediment over time. Sediment accumulation is a serious maintenance concern in extended detention dry ponds for several reasons. First, the sediment gradually reduces available stormwater management storage capacity within



the basin. Second, unlike wet extended detention basins (which have a permanent pool to conceal deposited sediments), sediment accumulation can make dry extended detention basins very unsightly. Third, and perhaps most importantly, sediment tends to accumulate around the control device. Sediment deposition increases the risk that the orifice will become clogged, and gradually reduces storage capacity reserved for pollutant removal. Sediment can also be resuspended if allowed to accumulate over time and escape through the hydraulic control to downstream channels and streams. For these reasons, accumulated sediment needs to be removed from the lower stage when sediment buildup fills 20% of the volume of the basin or at least every 10 years.

### Maintenance Plan Acknowledgement and Agreement

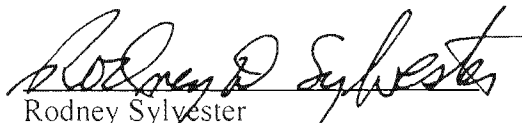
This document has been prepared to provide a description of, and schedule for, the performance of maintenance on permanent pollution abatement measures. Maintenance measures to be performed will depend on what permanent pollution abatement measures are incorporated into this project as described in the Water Pollution Abatement Plan.

It should be noted that the timing and procedures presented herein are general guidelines. Adjustments to the timing and procedures may have to be made depending on project specific characteristics as well as weather related conditions.

Where a project is occupied by the owner, the owner may provide for maintenance with his own skilled forces or contract for recommended maintenance of Permanent Best Managements Practices. Where a project is occupied or leased by a tenant, the owner shall require tenants to contract for such maintenance services either through a lease agreement, property owner's association covenants, or other binding document.

I understand that I am responsible for maintenance of the permanent pollution abatement measures included in this project until such time as the maintenance obligation is either assumed in writing by another entity having ownership, or until control of the property is transferred.

I, the owner/responsible party, have read and understand the requirements of this maintenance plan and schedule.

  
Rodney Sylvester  
South Texas Project Manager

5/29/09  
Date

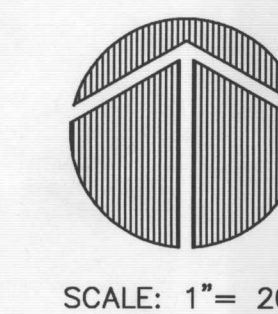
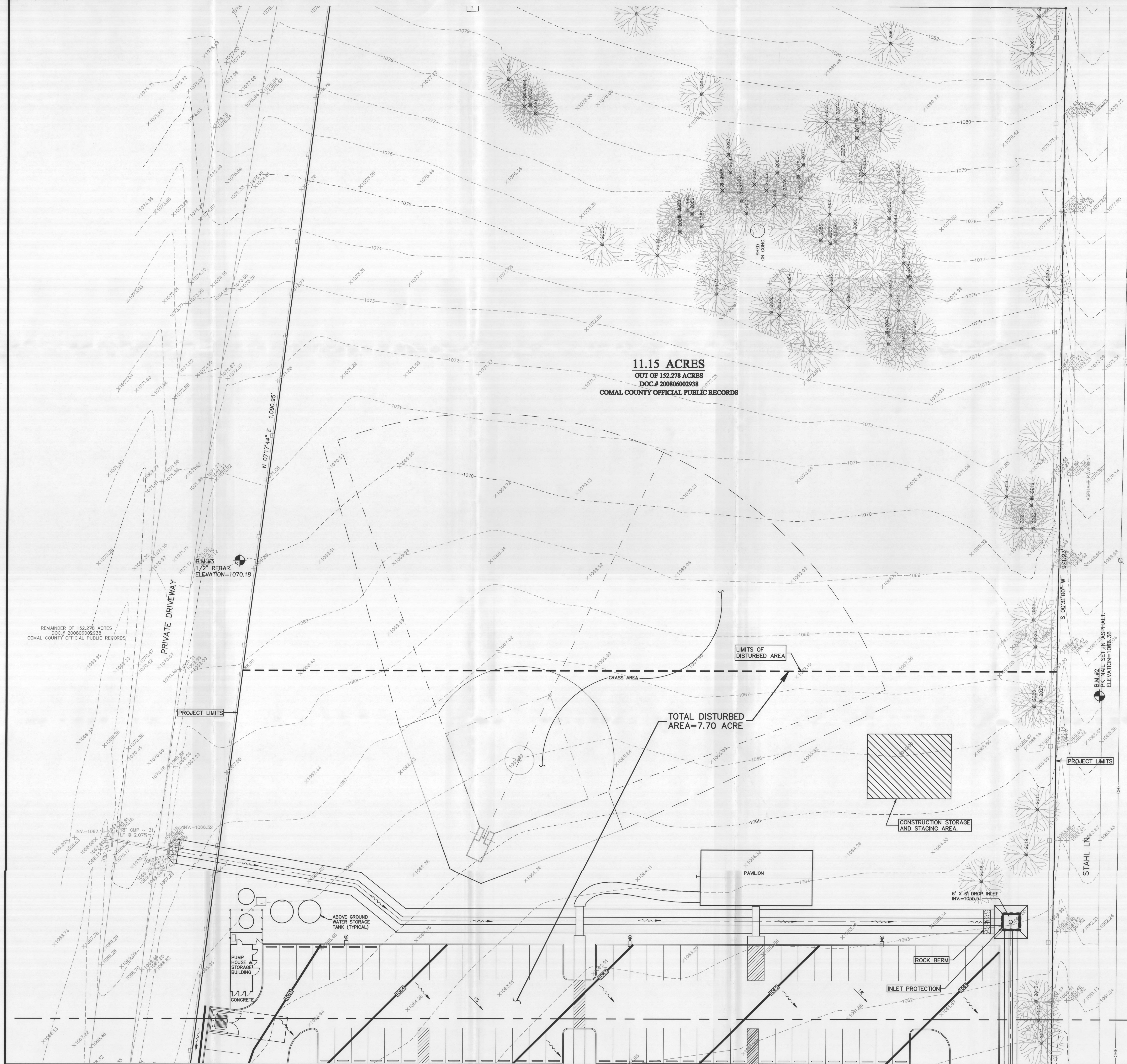
## **ATTACHMENT P**

### **Measures for Minimizing Surface Stream Contamination**

All the flows from the site are conveyed to a tributary of Cibolo Creek by discharging from an extended detention basin. All flows exiting the extended detention basin do not exceed the flows from the site that existed prior to development.

**STORMWATER POLLUTION PREVENTION  
PLAN (SWPPP)**





LEGEND

- PROPERTY CORNER
- BENCHMARK
- EXISTING FENCE
- EXISTING POWER POLE
- EXISTING OVERHEAD ELECTRIC
- EXISTING SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- DRAINAGE FLOW DIRECTION
- 6\"/>
- GRAVEL FILTER BAGS
- CONSTRUCTION STORAGE AND STAGING AREA
- SILT FENCE
- ROCK BERM
- TEMPORARY CONSTRUCTION EXIT
- CONCRETE WASHOUT AREA

GENERAL NOTES:

- THE CONTRACTOR SHALL IMPLEMENT THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) PRIOR TO ANY GROUND DISTURBING ACTIVITY (CLEARING, GRUBBING OR EXCAVATION).
- CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE ALIGNMENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
- ALL DISTURBED AREAS SHALL BE REVEGETATED ACCORDING TO THE LANDSCAPE PLAN.
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED, BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION, WHO SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL, OR BETTER CONDITION, ANY DAMAGE DONE TO EXISTING FENCES, UTILITIES, PAYMENT, CURBS, SHRUBS, BUSHES, DRIVEWAYS, ETC. AT NO COST TO THE OWNER.
- POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. DRAINAGE SHALL BE DIRECTED AWAY FROM ALL FOUNDATIONS.
- TRENCH EXCAVATION PROTECTION - CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S REQUIRED TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES, SHALL PROVIDE FOR ADEQUATE TRENCH SAFETY PROTECTION THAT COMPLY WITH, AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. THE TRENCH EXCAVATION PROTECTION PLAN MUST BE SUBMITTED TO THE PROPER GOVERNING AUTHORITIES BEFORE BEGINNING CONSTRUCTION.
- BM#1, BM#2, AND BM#3 ELEVATIONS ARE BASED ON NAVD 88 DATUM.

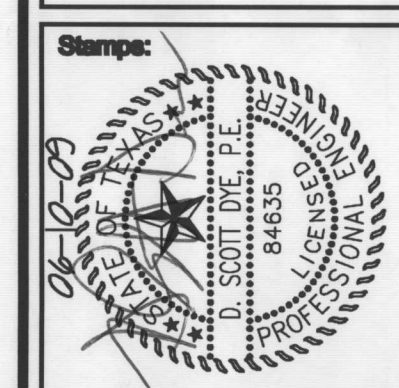
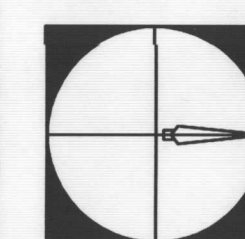
NOTES:

- THIS PLAN IS FOR GENERAL GUIDANCE TO THE CONTRACTOR TO ENSURE THAT SEDIMENT AND OTHER POLLUTANTS ARE CONTAINED ON-SITE. IF THE CONTRACTOR DETERMINES THAT ANOTHER TYPE OF CONTROL IS BETTER AND WILL PROVIDE BETTER CONTAINMENT/PROTECTION THEN HE MAY IMPLEMENT THAT CONTROL PROVIDED THAT HE PROPERLY UPDATES THIS PLAN AND THE STORM WATER POLLUTION PREVENTION PLAN.
- THIS PLAN IS PART OF A STORM WATER POLLUTION PREVENTION PLAN (SWP3) PREPARED IN ACCORDANCE WITH STATE GUIDELINES. THE SWP3 IS A SEPARATE BOOKLET PREPARED SPECIFICALLY FOR THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO THOROUGHLY READ THE SWP3 BEFORE COMMENCING CONSTRUCTION.

TCEQ-R13  
JUN 11 2009  
SAN ANTONIO

MATCHLINE "A-A"

DYE ENTERPRISES  
4407 STATE RD. SUITE #8  
SAN ANTONIO, TEXAS 78217  
TEL: (210) 999-1123  
FAX: (210) 999-1151



BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE  
31355 STAHL LANE  
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Project for:  
THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS

Rev	Date	Description
1	03-JUN-08	ADDENDUM NO. 1
2	03-JUN-08	REVISION 1
3	15-MAY-08	100% DOC. SUBMITTAL
4	24-APR-08	80% DOCUMENT REVIEW

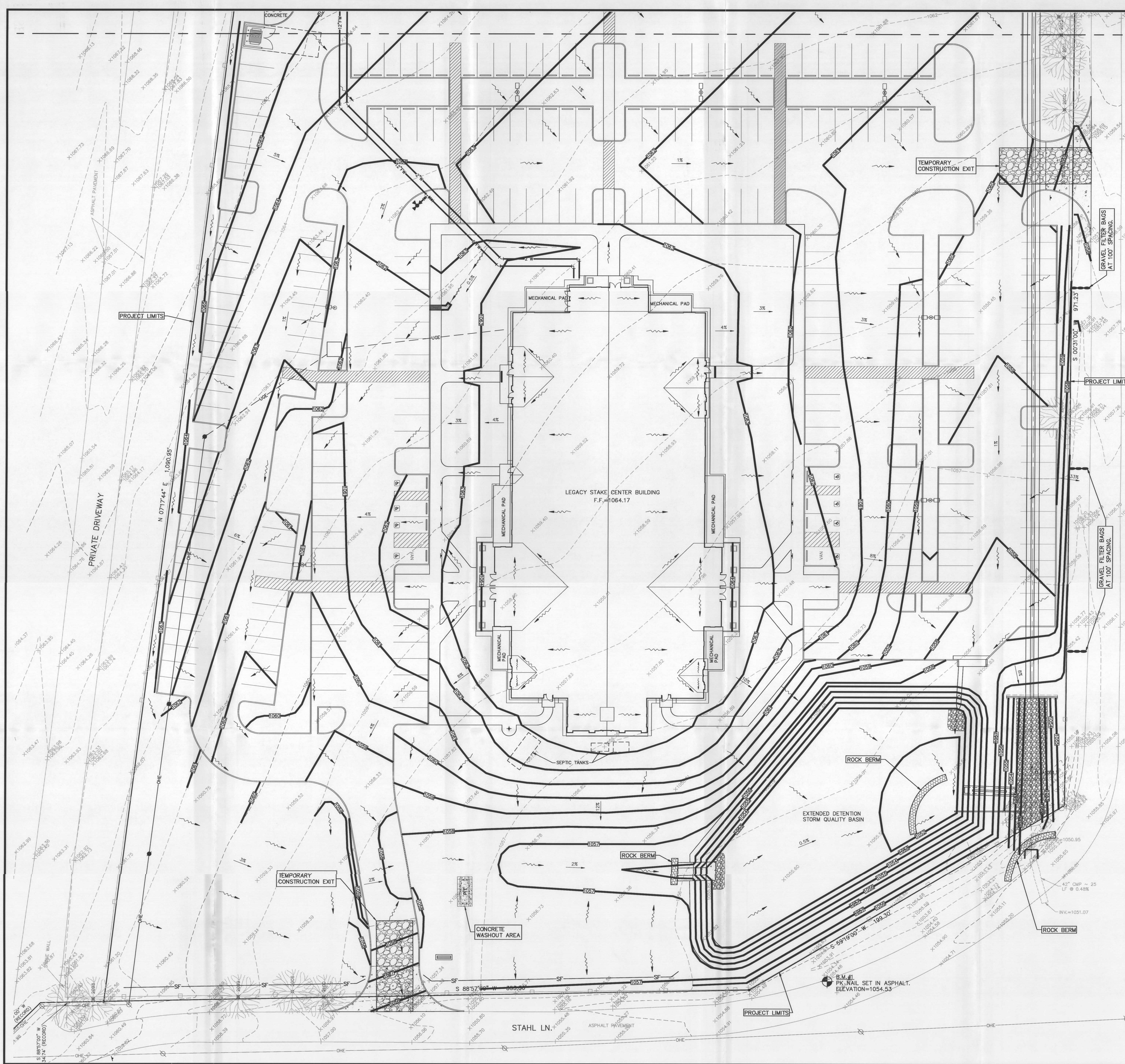
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500-3276  
Plan Status:  
LEG-TRA-98-16

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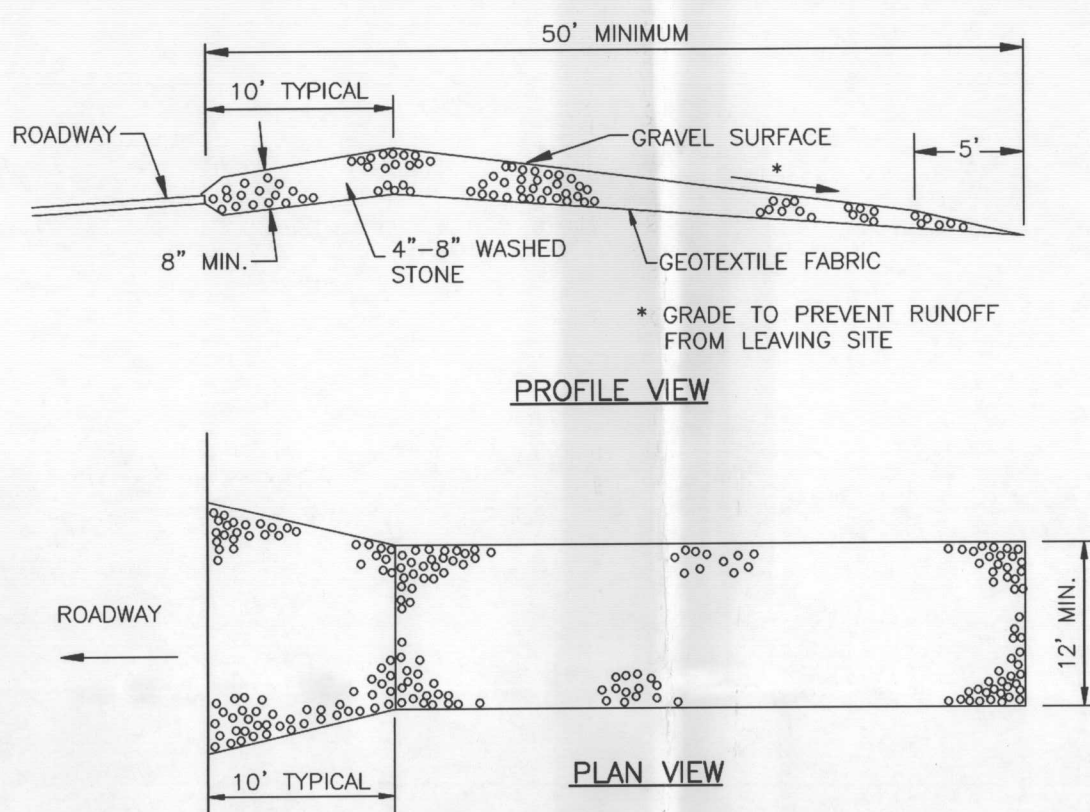
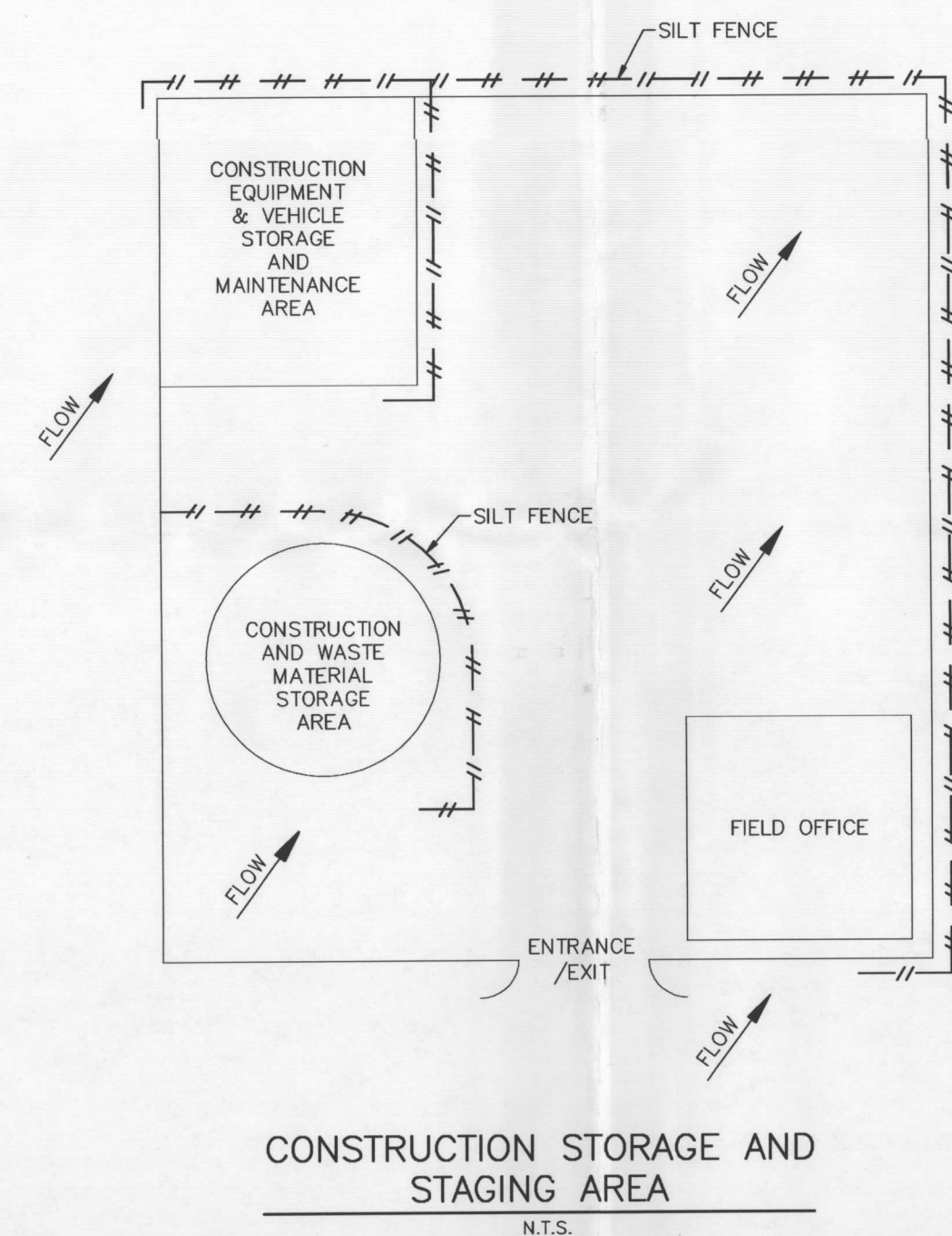
STORMWATER  
POLLUTION  
PREVENTION  
PLAN

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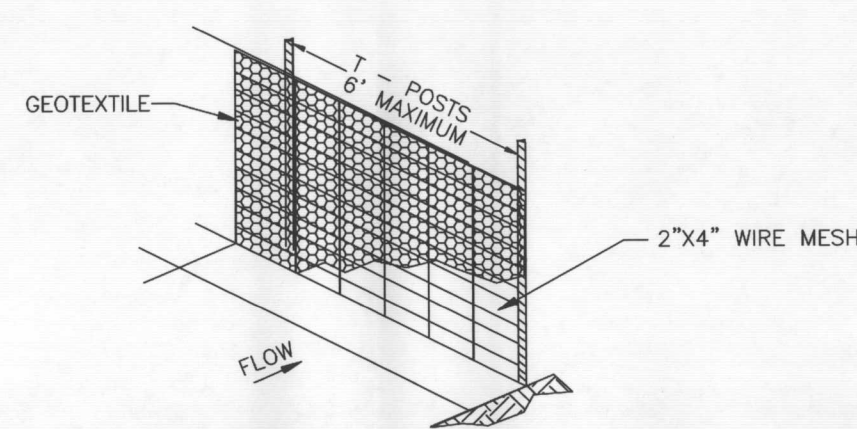
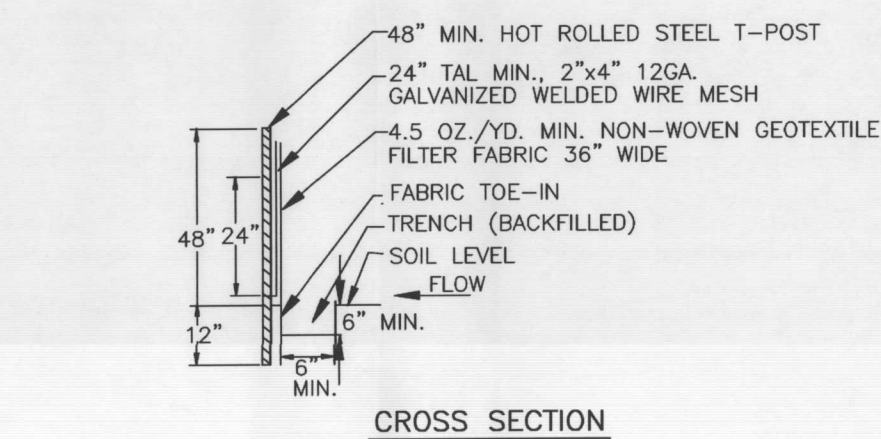






- GENERAL NOTES:
1. STONE SIZE - 4 TO 8 INCH COARSE AGGREGATE.
  2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
  3. THICKNESS - NOT LESS THAN 8 INCHES.
  4. WIDTH - 12' MINIMUM OR FULL WIDTH OF EXISTING ROADWAY, WHICHEVER IS GREATER.
  5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATER COURSE USING APPROVED METHODS.
  6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADWAY MUST BE REMOVED IMMEDIATELY.
  7. DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

TEMPORARY CONSTRUCTION ENTRANCE  
N.T.S.



#### MATERIAL SPECIFICATIONS

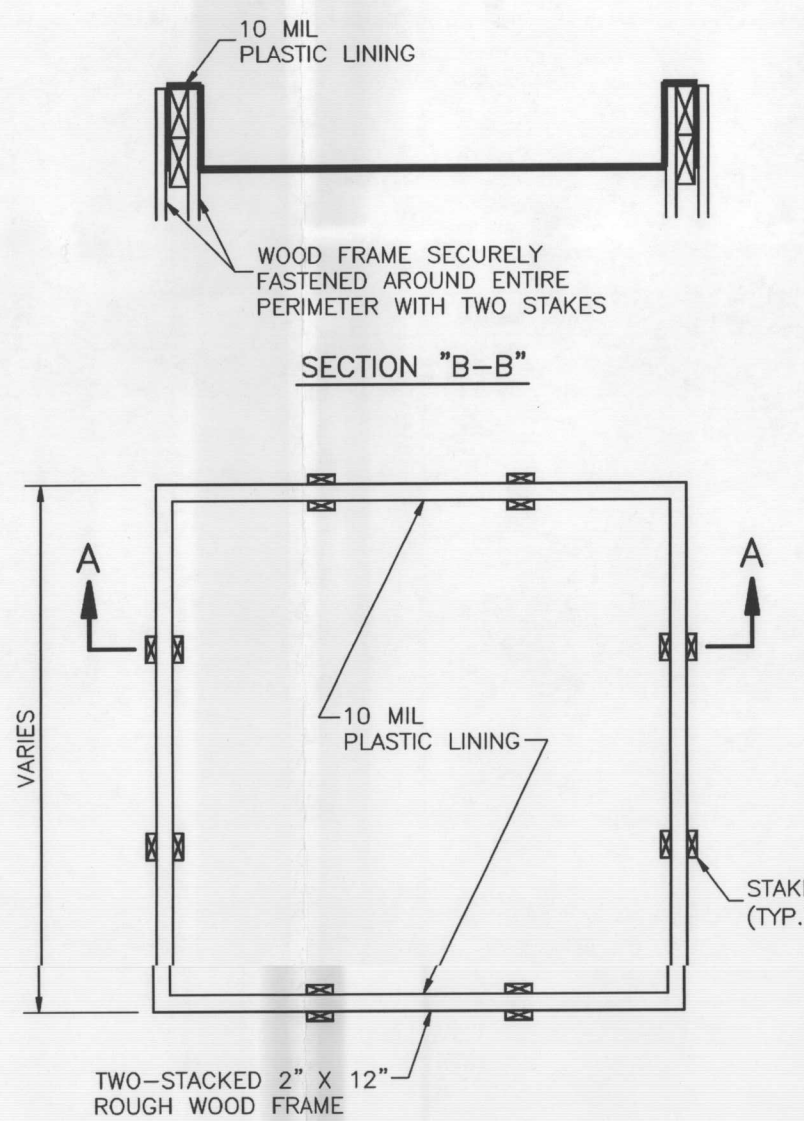
POSTS SHALL BE 48-INCH WIDE HOT ROLLED STEEL, 2" X 4" OPENING, 12 GAUGE GALVANIZED WELDED WIRE FENCE.  
SILT FENCE FABRIC SHALL BE 36-INCH WIDE, NONWOVEN GEOTEXTILE MATERIAL MEETING THE FOLLOWING SPECIFICATIONS:

PROPERTY	TEST METHOD	MINIMUM AVERAGE VALUE
FABRIC WEIGHT (OZ/SY)	ASTM D-3776	4.5
GRAB STRENGTH (LB.)	ASTM-D-4632	100
TRAPAZOID TEAR STR. (LB.)	ASTM-D-4533	40
PUNCTURE RESIST. (LB.)	ASTM-D-4633	45
MULLEN BURST STR. (PSI)	ASTM-3786	190
WATER FLOW RATE (GPM/SF)	ASTM-4491	150
A.O.S. (MM)	ASTM-4751	75/100
UV RESISTANCE (% STRENGTH AT 500 HR)	ASTM-4355	80

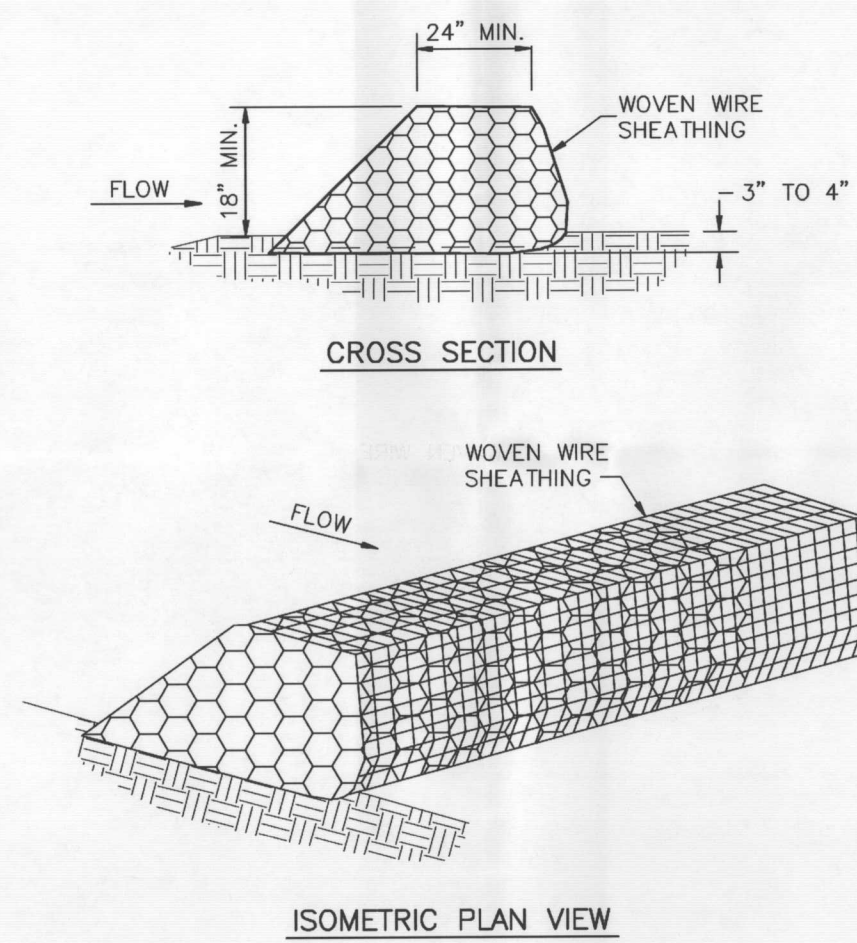
#### INSTALLATION

- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS PLANTS (INCLUDING GRASSES TALLER THAN 2") SO THAT A SMOOTH SURFACE CAN BE UTILIZED FOR ANCHORING THE SKIRT.
- DRIVE THE T-POST AT LEAST 12 INCHES IN TO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T POSTS WITH 11 1/2 GAUGE GALVANIZED T POST CLIPS. THE TOP OF THE WIRE SHOULD BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH SHALL BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE WILL BE INSTALLED IN A TRENCH PLACED ON THE UPHILL SIDE OF THE FENCE IN A DIRECTION TOWARDS THE ANTICIPATED RUNOFF. THE FABRIC SHOULD OVERLAP THE TOP OF THE WIRE BY 1".
- GEOTEXTILE SPICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.

SILT FENCE DETAIL  
N.T.S.

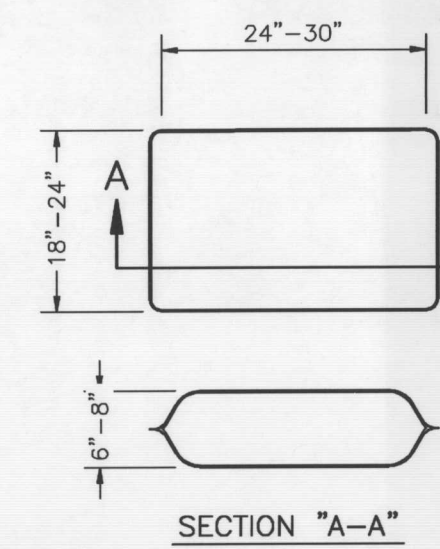


CONCRETE WASHOUT AREA  
(ABOVE GROUND)  
N.T.S.



- NOTES:
1. WOVEN WIRE SHEATHING SHALL BE MINIMUM 20-GAUGE GALVANIZED WIRE MESH AND HAVE A MAXIMUM OPENING OF 1-INCH.
  2. CLEAN, OPEN GRADED 3 TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5 TO 8-INCH DIAMETER ROCKS MAY BE USED.
  3. BERM SIDE SLOPES SHOULD BE 2:1(H:V) OR FLATTER.
  4. ENDS OF WIRE SHEATHING SHALL OVERLAP BY AT LEAST 2 INCHES, AND BE SECURED WITH TIE WIRE.
  5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE, OR AS NEAR AS POSSIBLE. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE.

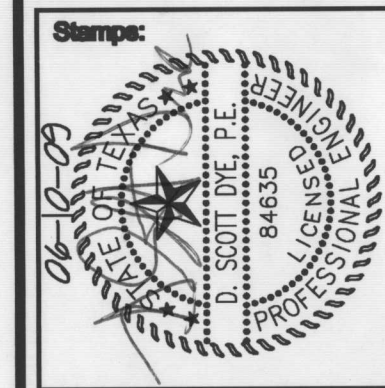
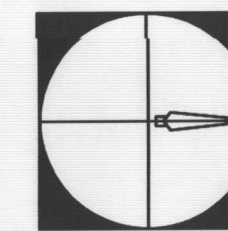
ROCK BERM  
N.T.S.



1. THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN FABRIC, MINIMUM UNIT WEIGHT OF 4 OZ/SY, MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.
2. THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER).

GRAVEL FILTER BAG DETAIL  
N.T.S.

TCEQ-R13  
JUN 11 2009  
SAN ANTONIO



BULVERDE WARD,  
SAN ANTONIO TX  
HILL COUNTRY STAKE  
31955 STABLE LANE  
BULVERDE, TEXAS 78163

Project for:  
THE CHURCH OF  
JESUS CHRIST  
OF LATTER-DAY SAINTS

Rev.	Description	Date
1	15-MAY-08 100% DOC. SUBMITTAL	
2	24-APR-08 90% DOCUMENT REVIEW	

Project Number:  
500-3276  
Plan Series:  
LEG-TRA-98-16

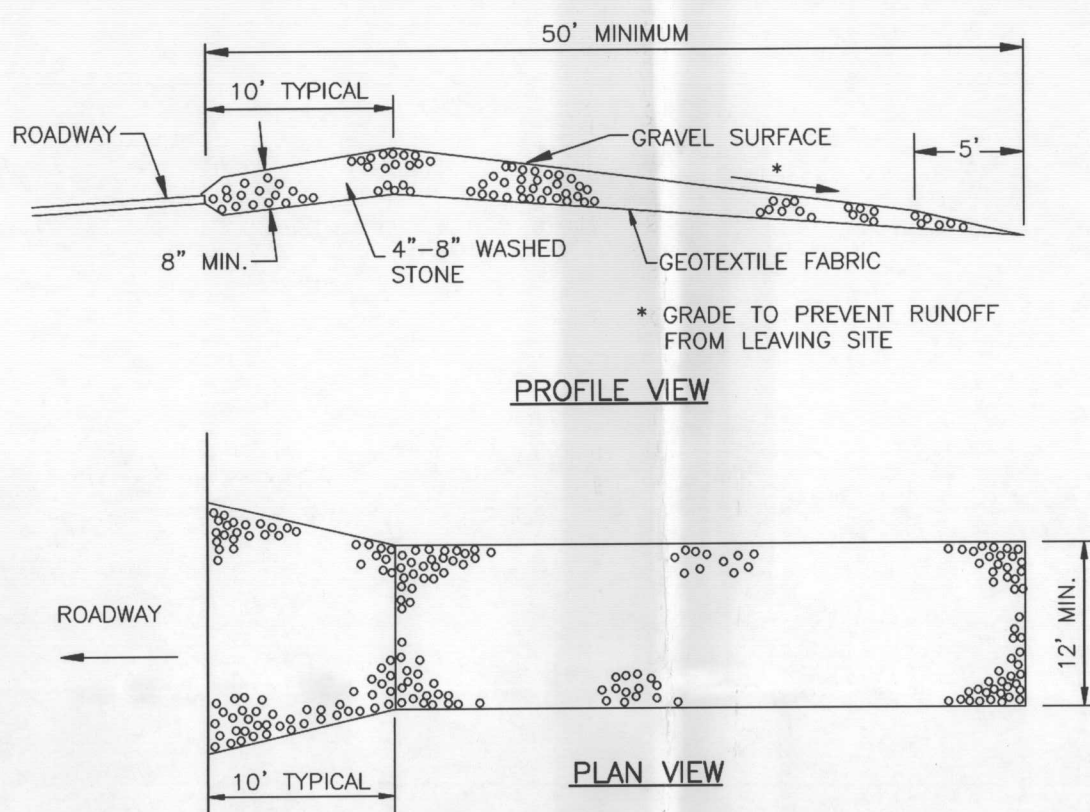
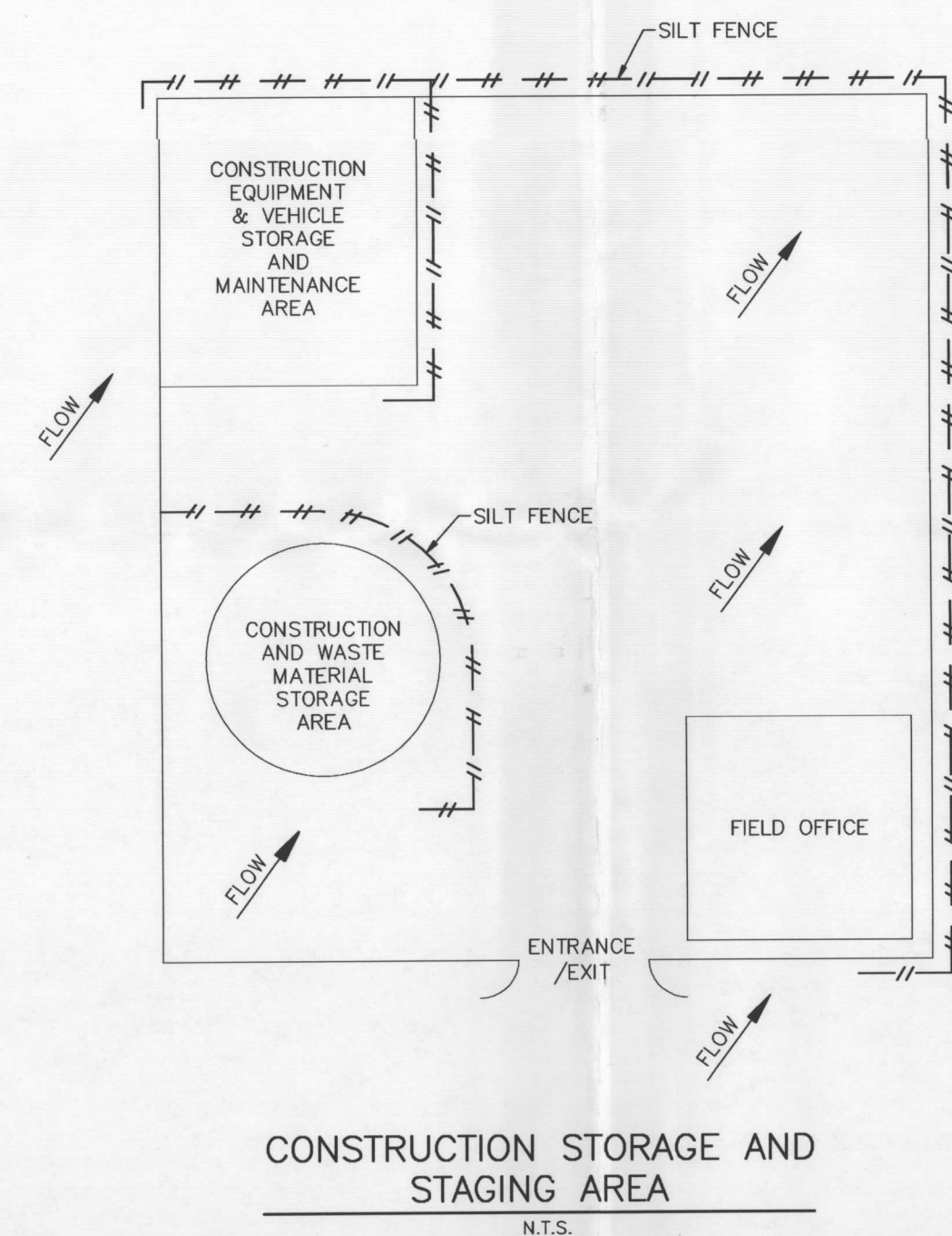
Sheet Title:

STORMWATER  
POLLUTION  
PREVENTION  
DETAILS

Sheet:

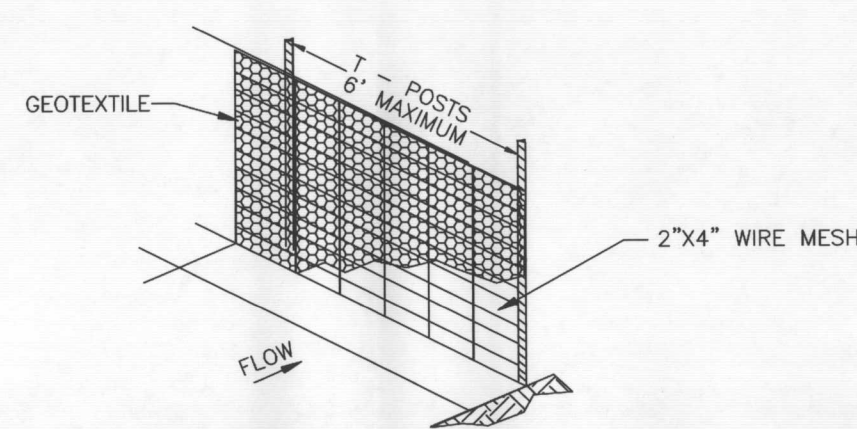
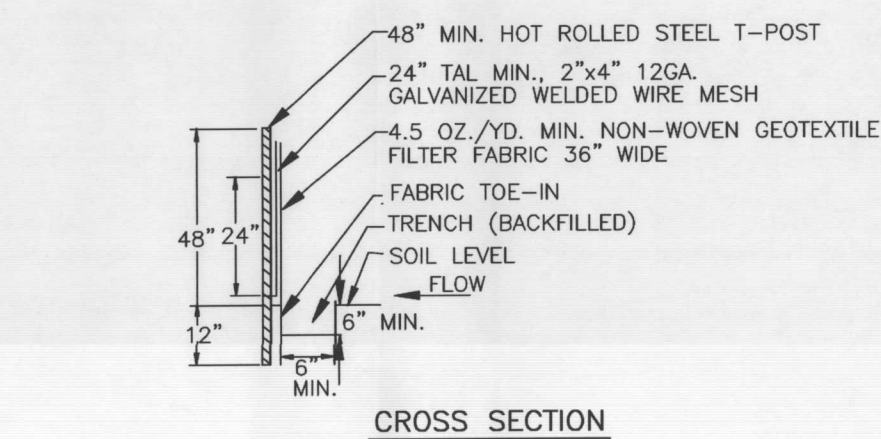
C7.6





- GENERAL NOTES:
1. STONE SIZE - 4 TO 8 INCH COARSE AGGREGATE.
  2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
  3. THICKNESS - NOT LESS THAN 8 INCHES.
  4. WIDTH - 12' MINIMUM OR FULL WIDTH OF EXISTING ROADWAY, WHICHEVER IS GREATER.
  5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATER COURSE USING APPROVED METHODS.
  6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADWAY MUST BE REMOVED IMMEDIATELY.
  7. DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

TEMPORARY CONSTRUCTION ENTRANCE  
N.T.S.



#### MATERIAL SPECIFICATIONS

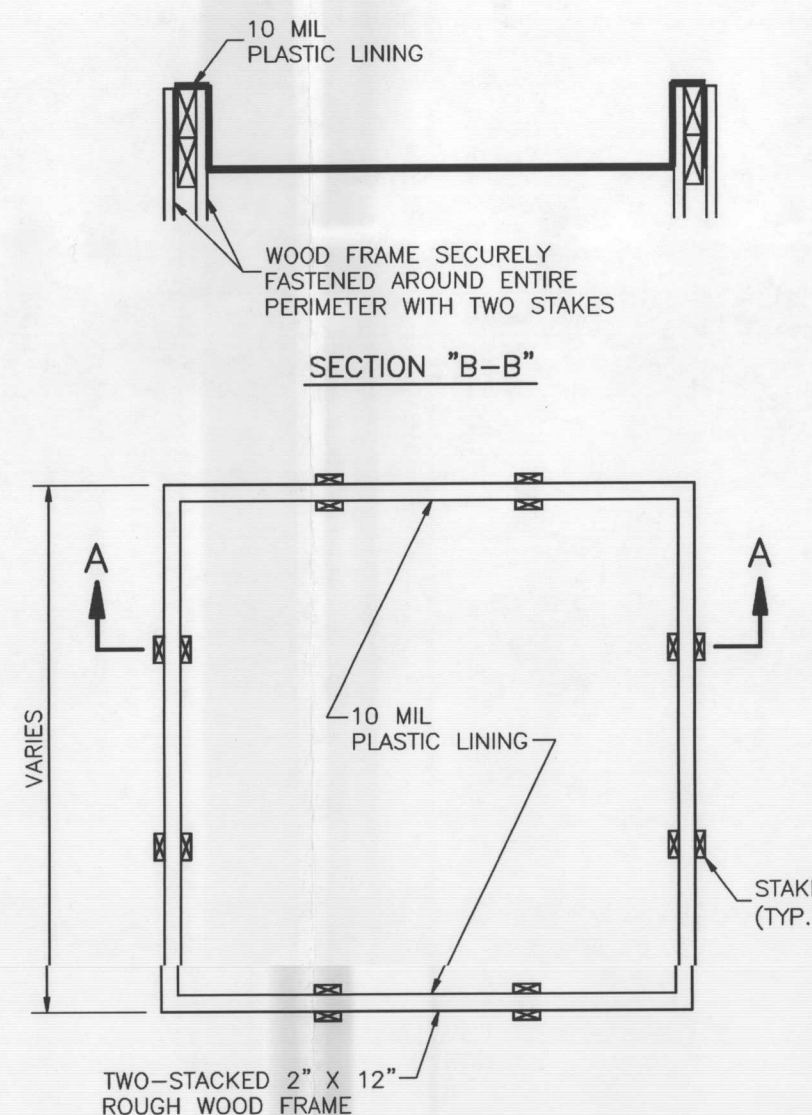
POSTS SHALL BE 48-INCH WIDE HOT ROLLED STEEL, 2" X 4" OPENING, 12 GAUGE GALVANIZED WELDED WIRE FENCE.  
SILT FENCE FABRIC SHALL BE 36-INCH WIDE, NONWOVEN GEOTEXTILE MATERIAL MEETING THE FOLLOWING SPECIFICATIONS:

PROPERTY	TEST METHOD	MINIMUM AVERAGE VALUE
FABRIC WEIGHT (OZ/SY)	ASTM D-3776	4.5
GRAB STRENGTH (LB.)	ASTM-D-4632	100
TRAPAZOID TEAR STR. (LB.)	ASTM-D-4533	40
PUNCTURE RESIST. (LB.)	ASTM-D-4633	45
MULLEN BURST STR. (PSI)	ASTM-3786	190
WATER FLOW RATE (GPM/SF)	ASTM-4491	150
A.O.S. (MM)	ASTM-4751	75/100
UV RESISTANCE (% STRENGTH AT 500 HR)	ASTM-4355	80

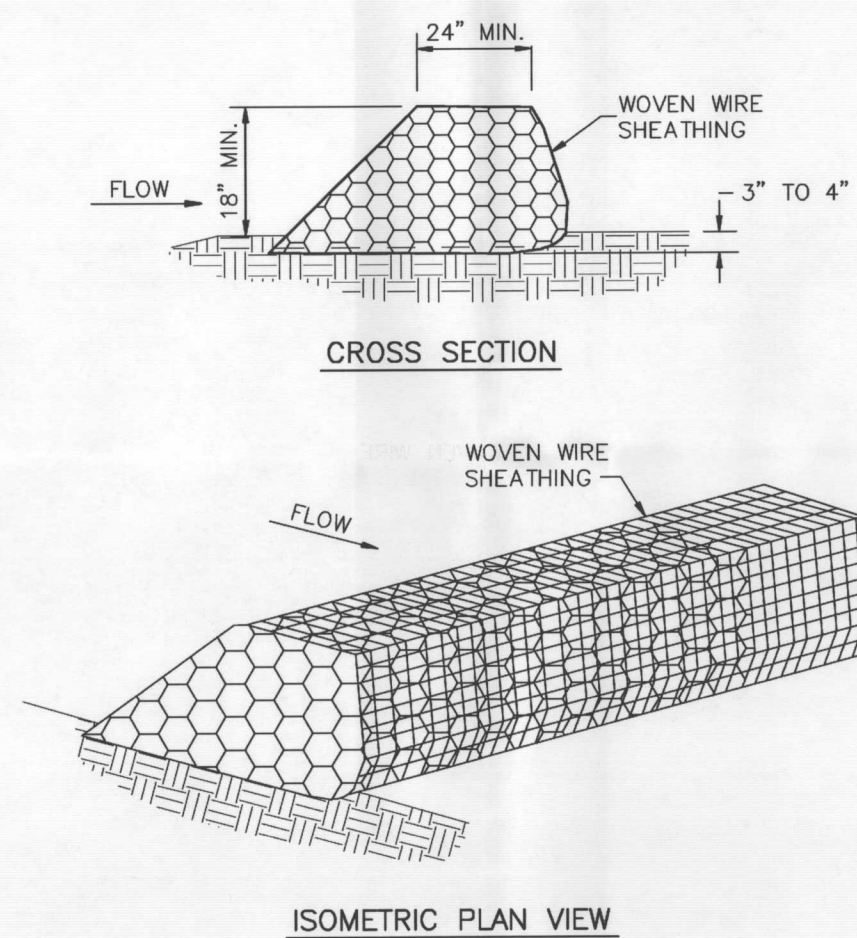
#### INSTALLATION

- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS PLANTS (INCLUDING GRASSES TALLER THAN 2") SO THAT A SMOOTH SURFACE CAN BE UTILIZED FOR ANCHORING THE SKIRT.
- DRIVE THE T-POST AT LEAST 12 INCHES IN TO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T POSTS WITH 11 1/2 GAUGE GALVANIZED T POST CLIPS. THE TOP OF THE WIRE SHOULD BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH SHALL BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE WILL BE INSTALLED IN A TRENCH PLACED ON THE UPHILL SIDE OF THE FENCE IN A DIRECTION TOWARDS THE ANTICIPATED RUNOFF. THE FABRIC SHOULD OVERLAP THE TOP OF THE WIRE BY 1".
- GEOTEXTILE SPICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.

SILT FENCE DETAIL  
N.T.S.

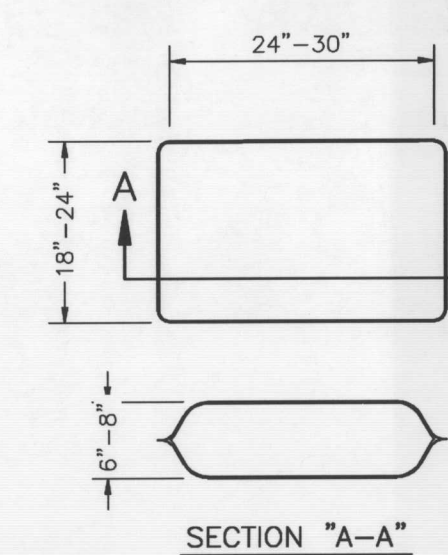


CONCRETE WASHOUT AREA  
(ABOVE GROUND)  
N.T.S.



- NOTES:
1. WOVEN WIRE SHEATHING SHALL BE MINIMUM 20-GAUGE GALVANIZED WIRE MESH AND HAVE A MAXIMUM OPENING OF 1-INCH.
  2. CLEAN, OPEN GRADED 3 TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5 TO 8-INCH DIAMETER ROCKS MAY BE USED.
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ROCK BERM  
N.T.S.

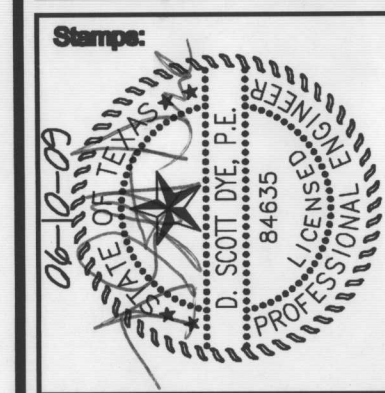
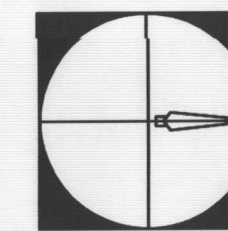


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GRAVEL FILTER BAG DETAIL  
N.T.S.

TCEQ-R13  
JUN 11 2009  
SAN ANTONIO

DYE ENTERPRISES  
4007 STABLE RD., SUITE 68  
SAN ANTONIO, TEXAS 78217  
TEL: (210) 599-4133  
FAX: (210) 599-4131



BULVERDE WARD,  
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Project for:  
THE CHURCH OF  
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Rev.	Description	Date
1	15-MAY-08 100% DOC. SUBMITTAL	
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Project Number:  
500-3276  
Plan Series:  
LEG-TRA-98-16

Sheet Title:

STORMWATER  
POLLUTION  
PREVENTION  
DETAILS

Sheet:  
C7.6



To calculate the flow velocity in the swale:

$$V \text{ (Velocity of Flow in the swale)} = Q/A_{CS} = 0.36 \text{ ft/sec}$$

To calculate the resulting swale length:

$$L = \text{Minimum Swale Length} = V \text{ (ft/sec)} \times 300 \text{ (sec)} = 107.24 \text{ feet}$$

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters must be modified and the solver rerun.

#### 15B. Alternative Method using Excel Solver

Design Q = CiA =	5.43 cfs		
Manning's Equation Q =	5.43 cfs	Error 1 =	0.00
Swale Width =	45.24 ft		

Instructions are provided to the right (green comments).

Flow Velocity	0.36 ft/s
Minimum Length =	107.24 ft

Instructions are provided to the right (blue comments).

Design Width =	45.24 ft		
Design Discharge =	5.43 cfs	Error 2 =	0.00
Design Depth =	0.33 ft		
Flow Velocity =	0.35 cfs		
Minimum Length =	105.81 ft		

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters may be modified and the solver rerun.  
If any of the resulting values still do not meet the design requirement set forth in RG-348, widening the swale bottom value may not be possible.

#### 16. Vegetated Filter Strips

Designed as Required in RG-348

Pages 3-55 to 3-57

There are no calculations required for determining the load or size of vegetative filter strips.  
The 80% removal is provided when the contributing drainage area does not exceed 72 feet (direction of flow) and the sheet flow leaving the impervious cover is directed across 15 feet of engineered filter strips with maximum slope of 20% or across 50 feet of natural vegetation with a maximum slope of 10%. There can be a break in grade as long as no slope exceeds 20%.

If vegetative filter strips are proposed for an interim permanent BMP, they may be sized as described on Page 3-56 of RG-348.

#### 17. Wet Vaults

Designed as Required in RG-348

Pages 3-30 to 3-32 & 3-79

Required Load Removal Based upon Equation 3.3 =	NA	lbs
---	----	-----

First calculate the load removal at 1.1 in/hour

RG-348 Page 3-30 Equation 3.4:  $Q = CiA$

C = runoff coefficient for the drainage area =	0.90	$C = \text{Runoff Coefficient} = 0.546 (IC)^2 + 0.328 (IC) + 0.03$
i = design rainfall intensity =	1.1 in/hour	
A = drainage area in acres =	1 acres	

Q = flow rate in cubic feet per second =	0.99 cubic feet/sec
--	---------------------

RG-348 Page 3-31 Equation 3.5  $V_{CR} = Q/A$

Q = Runoff rate calculated above =	0.99 cubic feet/sec
A = Water surface area in the wet vault =	150 square feet

$V_{CR}$ = Overflow Rate =	0.01 feet/sec
----------------------------	---------------

Percent TSS Removal from Figure 3-1 (RG-348 Page 3-31) =	53 percent
--	------------

Load removed by Wet Vault =	#VALUE! lbs
-----------------------------	-------------

If a bypass occurs at a rainfall intensity of less than 1.1 in/hours  
Calculate the efficiency reduction for the actual rainfall intensity rate

Actual Rainfall Intensity at which Wet Vault bypass Occurs =	0.5 in/hour
--	-------------

Fraction of rainfall treated from Figure 3-2 RG-348 Page 3-32 =	0.75 percent
Efficiency Reduction for Actual Rainfall Intensity =	0.83 percent

Resultant TSS Load removed by Wet Vault =	#VALUE! lbs
---	-------------

#### 18. Permeable Concrete

Designed as Required in RG-348

Pages 3-79 to 3-83

PERMEABLE CONCRETE MAY ONLY BE USED ON THE CONTRIBUTING ZONE

#### 19. BMPs Installed in a Series

Designed as Required in RG-348

Pages 3-32

Michael E. Barrett, Ph.D., P.E. recommended that the coefficient for  $E_3$  be changed from 0.5 to 0.65 on May 3, 2006

$E_{TOT} = [1 - ((1 - E_1) \times (1 - 0.85E_2) \times (1 - 0.25E_3))] \times 100 =$	92.31 percent	NET EFFICIENCY OF THE BMPs IN THE SERIES
--	---------------	--

EFFICIENCY OF FIRST BMP IN THE SERIES = $E_1 =$	85.00 percent
---	---------------

EFFICIENCY OF THE SECOND BMP IN THE SERIES = $E_2 =$	75.00 percent
--	---------------

EFFICIENCY OF THE THIRD BMP IN THE SERIES = $E_3 =$	0.00 percent
---	--------------

THEREFORE, THE NET LOAD REMOVAL WOULD BE:  
( $A_1$  AND  $A_P$  VALUES ARE FROM SECTION 3 ABOVE)

$L_R = E_{TOT} \times P \times (A_1 \times 34.6 \times A_P \times 0.54) =$	2803.70 lbs
--	-------------

**Temporary Stormwater Section**  
for Regulated Activities  
on the Edwards Aquifer Recharge Zone  
and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

REGULATED ENTITY NAME: Bulverde Ward, San Antonio Texas Hill Country Stake

**POTENTIAL SOURCES OF CONTAMINATION**

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:
  - ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.
  - ☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
  - ☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An **Aboveground Storage Tank Facility Plan** application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
  - ☒ Fuels and hazardous substances will not be stored on-site.
2. ☒ **ATTACHMENT A - Spill Response Actions.** A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided at the end of this form.
3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
4. ☒ **ATTACHMENT B - Potential Sources of Contamination.** Describe in an attachment at the end of this form any other activities or processes which may be a potential source of contamination.
  - ☐ There are no other potential sources of contamination.

**SEQUENCE OF CONSTRUCTION**

5. ☐ **ATTACHMENT C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is provided at the end of this form. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.
6. ☐ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Cibolo Creek

**TEMPORARY BEST MANAGEMENT PRACTICES (TBMPs)**

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. **All structural BMPs must be shown**

on the site plan.

7.   X   **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided at the end of this form. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

  X   TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information has been provided in the attachment at the end of this form

- a. A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
- b. A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
- c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
- d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

  N/A   **ATTACHMENT E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature. There will be no temporary sealing of naturally-occurring sensitive features on the site.

9.   X   **ATTACHMENT F - Structural Practices.** Describe the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains has been avoided.

10.   X   **ATTACHMENT G - Drainage Area Map.** A drainage area map is provided at the end of this form to support the following requirements.

- For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
- For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
- For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

— There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

11. N/A **ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure has been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are provided as at the end of this form.
12. X **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repairs, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.
13. X All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. X If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. X Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. X Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

#### SOIL STABILIZATION PRACTICES

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. X **ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is attached at the end of this form.
18. X Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

#### ADMINISTRATIVE INFORMATION

20. X All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. X If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
22. X Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **TEMPORARY STORMWATER SECTION** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

D. Scott Dye, P.E.

Print Name of Customer/Agent

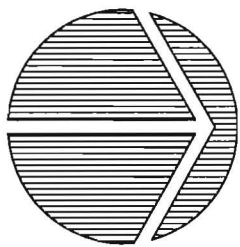


Signature of Customer/Agent

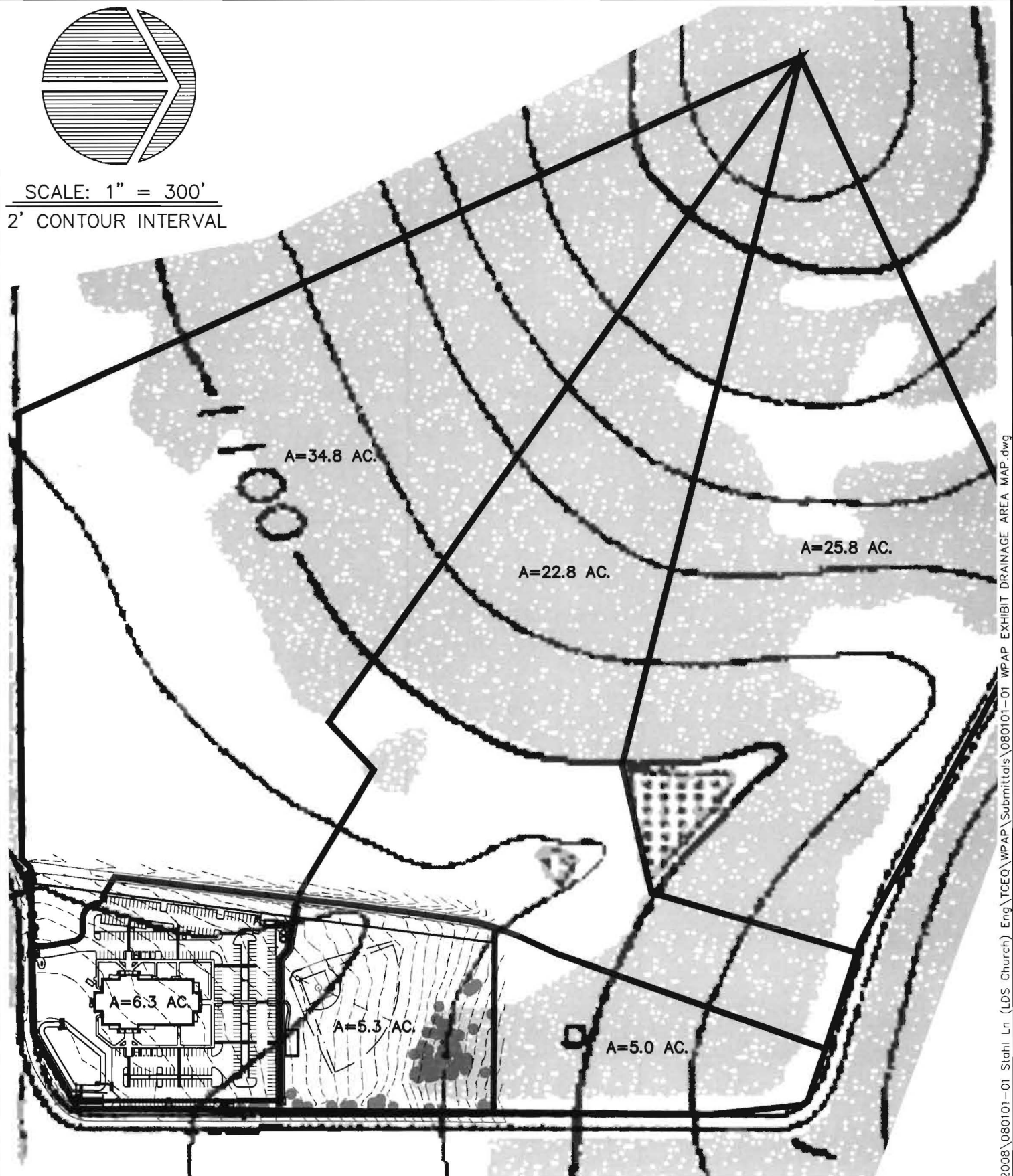
6/10/09  
Date



# **DRAINAGE AREA MAP**



SCALE: 1" = 300'  
2' CONTOUR INTERVAL



Z:\2008\080101-01 Stahl Ln (LDS Church) Eng\TCEQ\WPAP\Submittals\080101-01 WPAP EXHIBIT DRAINAGE AREA MAP.dwg



**DYE ENTERPRISES**  
4047 STAHL RD., SUITE #3  
SAN ANTONIO, TEXAS 78217  
TEL. (210) 599-4123  
FAX (210) 599-4191

USGS TOPO DRAINAGE AREA PLAN  
BULVERDE WARD, SAN ANTONIO TEXAS HILL COUNTRY STAKE  
31355 STAHL LANE  
BULVERDE, COMAL COUNTY, TEXAS

## Temporary Stormwater Section Attachments

2. **ATTACHMENT A - Spill Response Actions.** A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided at the end of this form.

*All hydrocarbons, or other hazardous substances, used during construction are typically in only small quantities. As such, it is anticipated that any spill would not be of a reportable magnitude. Any small spill that may occur would likely be released directly onto the ground and immediately absorbed by the soil. Thus the potential for any spilled hydrocarbons, or other hazardous substances, to travel to a significant recharge feature, or to the drainage easement, is minimal, or does not exist. The Contractor is instructed in the General Notes of the Storm Water Pollution Prevention Plan to immediately remove and properly dispose of any and all soil that does become contaminated. Should a spill of reportable magnitude occur, the TCEQ shall be notified.*

4. **ATTACHMENT B – Potential Sources of Contamination.** Describe in an attachment at the end of this form any other activities or processes which may be a potential source of contamination.

*Potential sources of contamination related to this project are:*

- 1. Soil erosion due to clearing, grubbing, or excavation/embankment for driveways, culverts, utility services, drainage, and buildings;*
- 2. Miscellaneous trash and litter from construction workers and material wrappings;*
- 3. Construction debris;*
- 4. Soil, sand, gravel, rock and excavated material stockpiles;*
- 5. Concrete truck washout.*

5. **ATTACHMENT C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is provided at the end of this form. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

*Typical sequences of major activities that disturb soils for projects similar to this one during construction are as follows:*

- 1. Implement Storm Water Pollution Prevention Plan;*
- 2. Clearing of vegetation;*
- 3. Site grading operations;*
- 4. Construction of drain and storm system;*
- 5. Construction of utility services;*
- 6. Building and parking area construction;*
- 7. Extended detention basin construction;*
- 8. Final site grading and placement of topsoil;*
- 9. Establish vegetation such as grass and other landscaping;*
- 10. Remove temporary pollution controls upon completion of final*



stabilization;

An estimate of the total area of the site to be disturbed by each activity is given below:

	<u>Area (acres)</u>
Clearing	7.70
Grading	6.04
Drain & Storm System	0.27
Utilities	0.03
Buildings	0.64
Parking Areas	2.75
Detention Basin	0.46
Final Grading	2.45

It is estimated that the total acreage of the site to be disturbed by this project = 7.70 acres.

7. **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided at the end of this form. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

*Prior to clearing and grading operations, stabilized construction entrances shall be placed at the exit points from the site onto Stahl Ln., and silt fence and gravel filter bags shall be placed on the downgradient side of all disturbed areas. These controls are to remain in place and maintained throughout construction and until final stabilization is complete.*

9. **ATTACHMENT F - Structural Practices.** Describe the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains has been avoided.

*All disturbed areas will be treated by the Temporary BMPs described in Attachment D.*

11. **ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure has been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are provided as at the end of this form.

*The proposed stormwater quality pond is a permanent BMP which will function as a temporary sediment basin during construction.*

12. **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repair, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

*Reference "Maintenance" and "Inspection of Control Measures" of the "Stormwater Pollution Prevention Plan General Notes"*

*The Owner or General Contractor shall designate a qualified person(s) to inspect pollution control measures every seven calendar days and within 24 hours after a storm event greater than 0.5 inches of rainfall. An inspection report that summarizes the scope of the inspection, names and qualifications of personnel conducting the inspection, date of the inspection, major observations and actions taken as a result of the inspection, shall be recorded and maintained.*

*As a minimum, the inspector shall observe the following: (1) significant disturbed areas for evidence of unchecked erosion, (2) storage areas for evidence of, or potential for, the improper storage of stored onsite materials, (3) structural controls (silt fences, construction entrance) for evidence of failure or excess siltation (over six inches deep), (4) vehicle exit points for evidence of off-site sediment tracking, (5) vehicles for signs of leaking equipment, (6) Litter control - All litter (miscellaneous trash from construction workers, material wrappings, construction material waste and construction debris) shall be picked up and disposed of, (7) Ascertain whether TBMPs are effective.*

*The report shall be submitted to the Owner/Applicant within 24 hours of the inspection. All noted required repairs, maintenance, corrective actions shall be completed and re-inspected within seven calendar days of the original inspection. Based upon the results and recommendations of these inspections, the control measures may be modified as appropriate to improve the measure implemented.*

17. **ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is attached at the end of this form.

*A record of the major grading activities start date and when stabilization measures are initiated shall be documented in the same manner as prescribed for temporary abatement feature inspections.*

*The "Stormwater Pollution Prevention Plan General Notes" state that disturbed areas where construction has been completed, temporarily halted, or no further work is planned within the next 21 days, shall be temporarily stabilized within 14 days of the last activity by some form of seeding or mulching which will provide appropriate and effective results in reducing erosion of the disturbed areas to the extent that is practical.*

*The plans instruct the owner/general contractor that as part of the final*

*grading and site cleanup all disturbed areas are to be revegetated as appropriate to provide effective results in preventing the erosion of these areas. The owner/general contractor shall be responsible for maintaining the stabilization until responsibility can be assumed by the owner.*

## **ATTACHMENT D**

### **FACTORS AFFECTING SURFACE WATER QUALITY**

Potential sources of pollution that may be expected to affect the quality of stormwater discharges from the construction site include:

- Soil erosion due to the clearing of the site for parking area, buildings, and drainage improvements.
- Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle drippings.
- Miscellaneous trash and litter from construction workers and material wrappings.
- Construction debris.
- Concrete truck washout.

**COPY OF NOTICE OF INTENT (NOI)**



**Notice of Intent (NOI) for Storm Water  
Discharges Associated with Construction  
Activity under TPDES General Permit  
(TXR150000)**

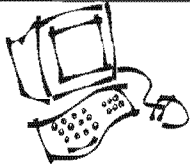
**TCEQ Office Use Only**

Permit No.: TXR15

RN:

CN:

Ref No:



**Sign up now for ePermits NOI at [www6.tceq.state.tx.us/steers](http://www6.tceq.state.tx.us/steers)  
Get Instant Permit Coverage and only pay a \$225 application fee.**

If filing a paper NOI you can pay the application fee on line? Go to [www.tceq.state.tx.us/epay](http://www.tceq.state.tx.us/epay)  
Select Fee Type: GENERAL PERMIT CONSTRUCTION STORM WATER DISCHARGE NOI APPLICATION  
If submitting a paper NOI, coverage under the general permit starts seven (7) days after the date postmarked for delivery to TCEQ.

**IMPORTANT:**

- Use the **INSTRUCTIONS** to fill out each question in this form.
- Use the attached **CUSTOMER CHECKLIST** to make certain all you filled out all required information.
- Incomplete applications **WILL** delay approval or result in **automatic Denial**.

**Renewal of General Permit**

Is this NOI to renew an ACTIVE permit?

- ☐ Yes - What is your permit number? Permit No. TXR15 \_\_\_\_\_
- ☒ No - a permit number will be issued.

**Application Fee if mailing a paper NOI:**

You must pay the \$325 Application Fee to TCEQ for the application to be considered complete.  
Payment and NOI must be mailed to separate addresses. See instructions for correct mailing addresses.

**Provide your payment information below, for us to verify payment of the application fee:**

<input type="checkbox"/> Mailed:	Check/Money Order No.:	Company Name on checking account:
<input type="checkbox"/> EPAY:	Voucher No.:	Is the Payment Voucher copy attached? <input type="checkbox"/> Yes

**A. OPERATOR (applicant)**

1. If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity?  
CN 601469596 (Search Central Registry)

2. What is the Legal Name of the entity (applicant) applying for this permit?  
Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints  
(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

3. What is the name and title of the person signing the application?  
(The person must be an official meeting signatory requirements in TAC 305.43(a).)

Name: Rodney Sylvester	Job Title: South Texas Project Manager
------------------------	--

4. What is the Operator's (applicant) mailing address as recognized by the US Postal Service? (verify at [USPS.com](http://USPS.com))

Address: 3401 Los Rios Blvd.	Suite No./Bldg. No./Mail Code:	
City: Plano	State: Texas	ZIP Code: 75074
Country Mailing Information (if outside USA):	Country Code:	Postal Code:

5. Phone No.: (972) 516-1431 Extension:

6. Fax No.: (972) 516-9244 E-mail Address: [sylvestorrd@ldschurch.org](mailto:sylvestorrd@ldschurch.org)

7. Indicate the type of Customer:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Individual             | <input type="checkbox"/> Sole Proprietorship-D.B.A. | <input type="checkbox"/> Limited Partnership |
| <input checked="" type="checkbox"/> Corporation | <input type="checkbox"/> Federal Government         | <input type="checkbox"/> General Partnership |
| <input type="checkbox"/> State Government       | <input type="checkbox"/> County Government          | <input type="checkbox"/> City Government     |
| <input type="checkbox"/> Other Government       | <input type="checkbox"/> Other (describe):          |  |

8. Independent Operator: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If governmental entity, subsidiary, or part of a larger corporation, check "No".)	
9. Number of Employees: <input type="checkbox"/> 0-20; <input type="checkbox"/> 21-100; <input type="checkbox"/> 101-250; <input checked="" type="checkbox"/> 251-500; or <input type="checkbox"/> 501 or higher	
10. Customer Business Tax and Filing Numbers <i>(This item is not applicable to Individuals, Government, GP or Sole Proprietor.)</i> <b>REQUIRED</b> for Corporations and Limited Partnerships ( Verify the entity's status and filing no. with TX SOS at 512/463-5555 )	
State Franchise Tax ID Number: N/A	Federal Tax ID: 870234341
TX SOS Charter (filing) Number:	DUNS Number (if known):
<b>B. APPLICATION CONTACT</b>	
If TCEQ needs additional information regarding this application, who should be contacted?	
1. Name:	Title: Company:
2. Phone No.: ( )	Extension:
3. Fax No.:	E-mail Address:
<b>C. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE</b>	
1. TCEQ Issued RE Reference Number (RN): <b>RN</b> (Search <u>Central Registry</u> )	
2. Name of Project or Site (the name as known by the community where this facility/project is located): <b>Bulverde Ward, San Antonio Texas Hill Country Stake</b> (example: phase and name of subdivision or name of project that's unique to the site)	
3. Does the site have a physical address? If Yes, complete <b>Section A</b> for a physical address. If No, complete <b>Section B</b> for site location information.	
<b>Section A:</b> Enter the physical address for the site. (verify it with <u>USPS.com</u> or other delivery source)	
Street Number: <b>31355</b>	Street Name: <b>Stahl Ln.</b>
City: <b>Bulverde</b>	ZIP Code: <b>78163</b>
<b>Section B:</b> Enter the site location information.	
If no physical address (Street Number & Street Name), provide a written location access description to the site: (Ex.: phase 1 of Woodland subdivision located 2 miles west from intersection of Hwy 290 & IH35 accessible on Hwy 290 South)	
City where the site is located or nearest city to site:	ZIP Code where site is located:
4. Identify the county where the site is located: <b>Comal</b>	
5. Latitude: <b>29.76075 degrees</b>	Longitude: <b>98.40980 degrees</b>
6. What is the primary business of this entity? In your own words, briefly describe the primary business of the Regulated Entity: (Do not repeat the SIC and NAICS code) <b>Religious organization</b>	
7. What is the mailing address for the regulated entity?	
Is the RE mailing address the same as the Operator? <input type="checkbox"/> Yes, address is the same as Operator <input type="checkbox"/> No, provide the address	
Street Number:	Street Name:
City:	State: ZIP Code:
<b>D. GENERAL CHARACTERISTICS</b>	
1. Is the site located on Indian Country Lands? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – If Yes, do not submit this NOI. Contact EPA, Region VI. If the site is on Indian country lands, you must obtain authorization through EPA, Region VI.	
2. What is the Standard Industrial Classification (SIC) code (see instructions for common codes): (Search <u>Osha.gov</u> )	
Primary: _____	Secondary: _____



3(a) What is the total number of acres disturbed? 7.70

3(b) Is the project site part of a larger common plan of development or sale? ☐ Yes ☒ No

If **Yes**, the total number of acres disturbed can be less than 5 acres.

If **No**, the total number of acres disturbed must be 5 or more. If the total number of acres disturbed is less than 5 then the project site does not qualify for coverage through this Notice of Intent. Coverage will be denied. See the requirements in the general permit for small construction sites.

**4. Discharge Information (all information MUST be provided or the permit will be denied)**

4(a) What is the name of the water body(s) to receive the storm water runoff or potential runoff from the site?  
Cibolo Creek

4(b) What is the segment number(s) of the classified water body(s) that the discharge or potential discharge will eventually reach?

4(c) Are any of the surface water bodies receiving discharges from the construction site on the latest EPA-approved CWA 303(d) list of impaired waters?

☐ Yes ☒ No

If **Yes**, provide the name of the impaired water body(s). \_\_\_\_\_

4(d) Is the discharge into an MS4? ☐ Yes ☒ No

If **Yes**, what is the name of the MS4 Operator? \_\_\_\_\_

Note: The general permit requires you to send a copy of the NOI to the MS4 Operator.

4(e) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer?

☒ Yes ☐ No

If the answer is **Yes**, please note that a copy of the agency approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) must be included or referenced in the Storm Water Pollution Prevention Plan.

**E. CERTIFICATION**

Check "Yes" to the certifications below. **Failure to certify to all items will result in denial.**

- |                              |   |
|------------------------------|---|
| <input type="checkbox"/> Yes | I certify that I have obtained a copy and understand the terms and conditions of the <u>general permit (TXR150000)</u> .  |
| <input type="checkbox"/> Yes | I certify that the full legal name of the entity (Operator) applying for this permit has been provided and is legally authorized to do business in Texas.   |
| <input type="checkbox"/> Yes | I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed.  |
| <input type="checkbox"/> Yes | I certify that a storm water pollution prevention plan has been developed and will be implemented prior to construction, and that is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. |

**Operator Certification:**

I, \_\_\_\_\_  
Typed or printed name (Required & must be legible) \_\_\_\_\_ Title (Required & legible)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(Use blue ink)

## Did you complete everything? Use this checklist to be sure!

Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

Customer GP Notice of Intent Checklist TXR150000	
<input checked="" type="checkbox"/>	This checklist is for use by the operator to ensure a complete application. Missing information may result in denial of coverage under the permit. (See NOI Process description in the Instructions)
<input type="checkbox"/>	<b>Application Fee of \$325.00</b> was mailed separately to TCEQ's Cashiers's Office (separate from the NOI) or the EPAY payment voucher is attached.
<input checked="" type="checkbox"/>	<b>OPERATOR INFORMATION</b> - Confirm each item is complete: <input type="checkbox"/> Customer Number (CN) issued by TCEQ Central Registry <input type="checkbox"/> Legal Name as filed to do business in Texas (Call TX SOS 512/463-5555) <input type="checkbox"/> Name and Title of person signing the application. This person must meet signatory requirements in 30 TAC Section 305.43 <input type="checkbox"/> Operator Mailing Address is complete & verifiable with USPS. <a href="http://www.usps.com">www.usps.com</a> <input type="checkbox"/> Phone Numbers/E-mail Address <input type="checkbox"/> Type of Operator (Entity Type) <input type="checkbox"/> Independent Operator <input type="checkbox"/> Number of Employees <input type="checkbox"/> For Corporations or Limited Partnerships – Tax ID and SOS Filing numbers are REQUIRED
	<b>Application Contact person</b> we can call for questions about this application.
<input checked="" type="checkbox"/>	<b>REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE</b> - Confirm each item is complete: <input type="checkbox"/> Regulated Entity Reference Number (RN) (if site is already regulated by TCEQ) <input type="checkbox"/> Site/Project Name/Regulated Entity <input type="checkbox"/> Site/Project (RE) Physical Address Please do not use a rural route or post office box for a site location <input type="checkbox"/> Or if no physical address, the location information that includes description, zip code and city is listed. <input type="checkbox"/> Latitude and Longitude <a href="http://TCEQ.USGS.Topographic.Map.Viewer">TCEQ USGS Topographic Map Viewer</a> or <a href="http://TerraServer-USA">TerraServer-USA</a> <input type="checkbox"/> Business description <input type="checkbox"/> Site Mailing Address (checked same as operator or complete & verifiable with USPS. <a href="http://www.usps.com">www.usps.com</a> )
<input checked="" type="checkbox"/>	<b>GENERAL CHARACTERISTICS</b> - Confirm each item is complete: <input type="checkbox"/> Indian Country Lands –the facility is not on Indian Country Lands <input type="checkbox"/> Standard Industrial Classification (SIC) code <a href="http://www.osha.gov/oshstats/sicser.html">www.osha.gov/oshstats/sicser.html</a> <input type="checkbox"/> Acres Disturbed is provided and qualifies for coverage through a NOI. <input type="checkbox"/> Common plan of development or for sale? <input type="checkbox"/> Discharge Information: <input type="checkbox"/> receiving water body <input type="checkbox"/> segment number(s) is REQUIRED <input type="checkbox"/> water body on the latest EPA-Approved Clean Water Act 303(d) list of impaired waters <input type="checkbox"/> MS4 Operator <input type="checkbox"/> Edwards Aquifer Rule
<input type="checkbox"/>	<b>CERTIFICATION</b> Certification statements have been checked indicating “Yes” Signature meets 30 Texas Administrative Code (TAC) §305.44 and is original and has been provided for the Operator.

# Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity under TPDES General Permit (TXR150000)

## General Information and Instructions

### GENERAL INFORMATION

Where to Send the Notice of Intent (NOI) and other related forms:

BY REGULAR U.S. MAIL  
Texas Commission on Environmental Quality  
Storm Water Processing Center (MC228)  
P.O. Box 13087  
Austin, TX 78711-3087

BY OVERNIGHT/EXPRESS MAIL  
Texas Commission on Environmental Quality  
Storm Water Processing Center (MC228)  
12100 Park 35 Circle  
Austin, TX 78753

TCEQ Contact list:

Application Processing Questions relating to the status and form requirements:	512/239-3700, 512/245-0130 or <a href="mailto:swpermit@tceq.state.tx.us">swpermit@tceq.state.tx.us</a>
Technical Questions relating to the general permit:	512/239-4671 or <a href="mailto:swgpp@tceq.state.tx.us">swgpp@tceq.state.tx.us</a>
Environmental Law Division:	512/239-0600
Records Management for obtaining copies of forms submitted to TCEQ:	512/239-0900
Information Services for obtaining reports from program data bases (as available):	512/239-DATA (3282)
Financial Administration's Cashier's office:	512/239-0357 or 512/239-0187

Notice of Intent Process:

When your NOI is received by the program, the form will be processed as follows:

1. **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(s) on the form must be verified with the US Postal service as an address receiving regular mail delivery. Never give an overnight/express mailing address.

2. **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.

3. **Acknowledgment of Coverage:** An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.

-or-

**Denial of Coverage:** If the application is too incomplete to process, or the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

#### General Permit (Your Permit)

If filing the NOI through ePermits online application, coverage under the general permit begins the day the NOI is submitted to TCEQ through epermits. **Sign up now for on line NOI at <https://www6.tceq.state.tx.us/steers/>**

If mailing a paper NOI, coverage under the general permit begins **seven (7) days after a completed NOI is postmarked for delivery to the TCEQ**. You should have a copy of your general permit when submitting your application.

You may view and print your permit for which you are seeking coverage, on the TCEQ web site [http://www.tceq.state.tx.us/permitting/water\\_quality/stormwater/TXR15\\_AIR.html](http://www.tceq.state.tx.us/permitting/water_quality/stormwater/TXR15_AIR.html).

#### General Permit Forms

The Notice of Intent (NOI), Notice of Termination (NOT), and Notice of Change (NOC) #20391 with instructions are available in Adobe Acrobat PDF format on the TCEQ web site [http://www.tceq.state.tx.us/permitting/water\\_quality/stormwater/TXR15\\_AIR.html](http://www.tceq.state.tx.us/permitting/water_quality/stormwater/TXR15_AIR.html).

**Sign up now for on line Notice of Termination application at <https://www6.tceq.state.tx.us/steers/>**

#### Change in Operator

An authorization under the general permit is not transferable. If the operator or owner of the regulated entity changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted not later than 10 days prior to the change in Operator status.



**TCEQ Central Registry Core Data Form**

The Core Data Form has been incorporated into this form. **Do not send a core data form to TCEQ.**

After final acknowledgment of coverage under the general permit, the program will assign a Customer Number (CN) and Regulated Entity Number (RN). For Construction Permits, a new RN will be assigned for each Notice of Intent filed with TCEQ, since construction project sites can overlap with other Customers. The RN assigned to your construction project will not be assigned to any other TCEQ authorization.

You can find the information on the Central Registry web site at [www4.tceq.state.tx.us/crpub](http://www4.tceq.state.tx.us/crpub). You can search by the Regulated Entity (RN), Customer Number (CN) or Name (Permittee), or by your permit number under the search field labeled "Additional ID". Capitalize all letters in the permit number.

The Customer (Permittee) is responsible for providing consistent information to the TCEQ, and for updating all CN and RN data for all authorizations as changes occur. For General Permits, a Notice of Change form must be submitted to the program area.

**Application Fees:**

**\$225.00 application fee** if submitting the NOI through ePermits.

**\$325.00 application fee** if submitting a paper NOI for processing.

The application fee is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit.

- Mailed Payments:

DO NOT mail your check with the original Notice of Intent application.

Use the attached Application Fee payment submittal form if mailing the payment. Do not include a copy of the NOI.

**BY REGULAR U.S. MAIL**

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
P.O. Box 13088  
Austin, TX 78711-3088

**BY OVERNIGHT/EXPRESS MAIL**

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
12100 Park 35 Circle  
Austin, TX 78753

- ePAY Electronic Payment:

Go to [www.tceq.state.tx.us/epay](http://www.tceq.state.tx.us/epay)

Select Water Quality, then select the fee category "GENERAL PERMIT CONSTRUCTION STORM WATER DISCHARGE NOI APPLICATION".

You must include a copy of the payment voucher with your NOI. Your NOI will not be considered complete without the payment voucher.

**The Annual Water Quality Fee has been consolidated into the Application Fee effective March 5, 2008. An annual fee will not be assessed and billed to operators on 9/1/2008. This does not relieve the operator of fees due for prior fiscal year assessments.**

The operator will continue to receive an invoice for payment of any past due annual fee. A 5% penalty will be assessed if the payment is received by TCEQ after the due date. Annual fee assessments cannot be waived as long as the authorization under the general permit was active on September 1 of the FY billed.

## INSTRUCTIONS FOR FILLING OUT THE NOI FORM

### A. OPERATOR (As defined in the general permit.)

#### 1. TCEQ Issued Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with "CN," followed by nine digits. **This is not a permit number**, registration number, or license number.

- If this customer has not been assigned a Customer Reference Number, leave the space for the Customer Reference Number blank.
- If this customer has already been assigned this number, enter the operator's Customer Reference Number in the space provided.

#### 2. Legal Name

Provide the legal name of the facility operator, as authorized to do business in Texas. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at 512/463-5555, or go to <http://www.sos.state.tx.us/corp/contact.shtml> for more information related to filing in Texas. If filed in the county where doing business, provide a copy of the legal documents showing the legal name.

#### 3. Name and Title of person signing the Notice of Intent application form. Signature meets 30 Texas Administrative Code (TAC) §305.44

#### 4. Operator Mailing Address

Provide a complete mailing address for receiving mail from the TCEQ. The address must be verifiable with the US Postal Service at [www.usps.com](http://www.usps.com), for regular mail delivery (not overnight express mail). If you find that the address is not verifiable using the USPS web search, please indicate the address is used by the USPS for regular mail delivery.

#### 5. Phone Number

This number should correspond to this customer's mailing address given earlier. Enter the area code and phone number here. Leave "Extension" blank if this customer's phone system lacks this feature.

#### 6. Fax Number and E-mail Address

This number and E-mail address should correspond to operator's mailing address provided earlier. (Optional Information)

#### 7. Type of Entity

Check only one box that identifies the type of entity. Use the descriptions below to identify the appropriate entity type:

Individual is a customer who has not established a business, but conducts an activity that needs to be regulated by the TCEQ.

Sole Proprietorship— D.B.A. is a customer that is owned by only one person and has not been incorporated. This business may:

- be under the person's name
- have its own name ("doing business as," or d.b.a.)
- have any number of employees

Partnership is a customer that is established as a partnership as defined by the Texas Secretary of State's Office.

Corporation the customer meets all of these conditions:

- is a legally incorporated entity under the laws of any state or country
- is recognized as a corporation by the Texas Secretary of State
- has proper operating authority to operate in Texas.

Government- Federal, state, county, or city government (as appropriate)  
the customer is either an agency of one of these levels of government or the governmental body itself.

Other is Estate, Trust, etc.

the customer does not fit one of the above descriptions. Enter a short description of the type of customer in the blank provided.

#### 8. Independent Operator

Check "No" if this customer is a subsidiary, part of a larger company, or is a governmental entity. Otherwise, check "Yes."

#### 9. Number of Employees

Check one box to show the number of employees for this customer's entire company, at all locations. This is not necessarily the number of employees at the site named in the NOI.

#### 10. State Franchise Tax ID Number

Corporations and limited liability companies that operate in Texas are issued a franchise tax identification number. If this customer is a corporation or limited liability company, enter this number here.

#### Federal Tax ID

All businesses, except for some small sole proprietors, individuals, or general partnerships should have a federal taxpayer identification number (TIN). Enter this number here. Use no prefixes, dashes, or hyphens. Sole proprietors, individuals, or general partnerships do not need to provide a federal tax ID.

#### TX SOS Charter (filing) Number

Corporations and Limited Partnerships required to register with the Texas Secretary of State are issued a charter or filing number. You may obtain further information by calling SOS at 512/463-5555 <http://www.sos.state.tx.us/corp/contact.shtml>.

**DUNS Number**

Most businesses have a DUNS (Data Universal Numbering System) number issued by Dun and Bradstreet Corp. If this customer has one, enter it here.

**B. Application Contact**

Provide the name, title and communication information of the person that TCEQ can contact for additional information regarding this application.

**If the application is missing information and there is no contact person to call, the application may be denied.**

**C. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE****1. Regulated Entity Reference Number (RN)**

This is a number issued by TCEQ's Central Registry to sites (a location where a regulated activity occurs) regulated by TCEQ. This is not a permit number, registration number, or license number.

- If this Regulated Entity has not been assigned a Regulated Entity Number, leave this space blank.
- If this customer has been assigned this number, enter the operator's Regulated Entity Number.

**2. Site/Project Name/Regulated Entity**

If the site is already regulated by TCEQ, use the same name as on the existing Regulated Entity Reference Number (RN).

If new, provide the name of the site as known by the public in the area where the site is located. The name you provide on this application will be used in the TCEQ Central Registry as the Regulated Entity.

**3. Site/Project (RE) Physical Address**

**Section A:** Enter the complete physical address of where the site is located. This must be a street number and street name for a complete physical address. This address must be validated through US Postal Service or your local police (911 service) as a valid address. Please confirm this to be a complete and valid address. In some rural areas, new addresses are being assigned to replace rural route addresses.

**Please do not use a rural route or post office box for a site location.**

**Section B:** If a site does not have an actual physical address that includes a street number and street name, then provide a complete written location access description, and the zip code and city where the site is located.

For example: "The site is located 2 miles west from intersection of Hwy 290 & IH35, located on the southwest corner of the Hwy 290 South bound lane." This includes authorizations for construction projects such as highways and subdivision.

**4. Identify the County where the site is located.** If the site covers more than one county, provide the county that is most affected by the authorized activity and list the additional county(s) as secondary.

**5. Latitude and Longitude**

Enter the latitude and longitude of the site in either degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to: [TCEQ USGS Topographic Map Viewer](#), or [TerraServer-USA](#)

**6. Description of Activity Regulated**

In your own words, briefly describe the primary business being conducted at the site. (A description specific to what you are doing that requires this authorization - Do not repeat the SIC Code(s).)

**SITE MAILING ADDRESS**

Provide a complete mailing address to be used by TCEQ for receiving mail at the site. In most cases, the address is the same as the operator. If so, simply place a check mark in the box. If you provide a different address, please verify the address with USPS as instructed above for the operator address.

**D. GENERAL CHARACTERISTICS****1. Indian Country Lands**

If your site is located on Indian Country Lands, the TCEQ does not have authority to process your application. You must obtain authorization through EPA, Region VI, Dallas. Do not submit this form to TCEQ.

Indian Country means (1) all land within the limits of any American Indian reservation under the jurisdiction of the U.S. government, notwithstanding the issuance of any patent, and including rights-of-way running throughout the reservation; (2) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or outside the limits of a State; and (3) all Indian allotments, the Indian titles which have not been extinguished, including rights-of-way running through the same.

Indian Tribe means any Indian Tribe, band, nation, or community recognized by the Secretary of the Interior and exercising substantial governmental duties and powers.

**2. Standard Industrial Classification (SIC) code**

Provide the SIC code that best describes the construction activity being conducted at the site.

Common SIC Codes related to construction activities include: 1521 Construction of Single Family Homes; 1522 Construction of Residential Bldgs. Other than Single Family Homes; 1541 Construction of Industrial Bldgs. and Warehouses; 1542 Construction of Non-residential Bldgs. other than Industrial Bldgs. and Warehouses; 1611 Highway & Street Construction, except Highway Construction; 1622 Bridge, Tunnel, & Elevated Highway Construction; 1623 Water, Sewer, Pipeline & Communications, and Power Line Construction. For help with SIC codes, go to: [www.osha.gov/oshstats/sicser.html](http://www.osha.gov/oshstats/sicser.html)



### 3. Estimated Area of Land Disturbed

3(a). Provide the approximate number of acres that the construction site will disturb.

3(b). Indicate if the site is part of a common plan of development or for sale.

Construction activities that disturb less than one acre, unless they are part of a larger common plan that disturbs more than one acre, do not require permit coverage.

Construction activities that disturb between one and five acres, unless they are part of a common plan that disturbs five acres or more acres, do not require submission of an NOI. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres.

"Disturb" means any clearing, grading, excavating, or other similar activities. If you have any questions about this item, please call the storm water technical staff at (512)239-4671.

### 4. Discharge Information

4 (a). The storm water may be discharged directly to a receiving stream or through a **MS4\*** from your site. It eventually reaches a receiving water body such as a local stream or lake, possibly via a drainage ditch. You must provide the name of the water body that receives the discharge from the site (a local stream or lake).

4 (b). The classified segment number(s) is **REQUIRED** to get coverage. Go to the link to find the segment number of the classified water body where storm water will flow <http://www.tceq.state.tx.us/compliance/monitoring/water/quality/data/wqm/viewer/viewer.html> . Call Water Quality Assessments at 512/239-4671 for further assistance. Another source for segments is: [http://www.tceq.state.tx.us/comm\\_exec/forms\\_pubs/pubs/gi/gi-316/index.html](http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/gi/gi-316/index.html)

4 (c). If any surface water body(s) receiving discharges from the construction site are on the latest EPA-approved CWA § 303(d) list of impaired waters, provide the name(s) of the water body(s).

EPA approved CWA 303d list of impaired waters can be found at: [Texas Water Quality Inventory and 303\(d\) List - Texas Commission on Environmental Quality - www.tceq.state.tx.us](http://www.tceq.state.tx.us)

4 (d). Identify the **MS4\*** Operator name if the storm water discharge is into an MS4.

**\*MS4 is an acronym for Municipal separate storm sewer system. MS4 is defined as** a separate storm sewer system owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, that discharges to water in the state.

**For assistance, you may call the technical staff of the Water Quality Assessment & Standards Section at 512/239-4671.**

### 4 (e). Edwards Aquifer Rule

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer at [http://www.tceq.state.tx.us/compliance/field\\_ops/eapp/viewer.html](http://www.tceq.state.tx.us/compliance/field_ops/eapp/viewer.html).

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin.

The general permit requires the approved Contributing Zone Plan or Water Pollution Abatement Plan to be included as a part of the Storm Water Pollution Prevention Plan. The certification must be answered "Yes" for coverage under the general permit.

### E. CERTIFICATIONS

Failure to indicate "Yes" to ALL of the certification items may result in denial of coverage under the general permit.

The certification must bear an original signature of a person meeting the signatory requirements specified under **30 Texas Administrative Code §305.44**

#### IF YOU ARE A CORPORATION:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(1) (see below). According to this code provision, any corporate representative may sign an NOI or similar form so long as the authority to sign such a document has been delegated to that person in accordance with corporate procedures. By signing the NOI or similar form, you are certifying that such authority has been delegated to you. The TCEQ may request documentation evidencing such authority.

#### IF YOU ARE A MUNICIPALITY OR OTHER GOVERNMENT ENTITY:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(3) (see below). According to this code provision, only a ranking elected official or principal executive officer may sign an NOI or similar form. Persons such as the City Mayor or County Commissioner will be considered ranking elected officials. In order to identify the principal executive officer of your government entity, it may be beneficial to consult your city charter, county or city ordinances, or the Texas statute(s) under which your government entity was formed. An NOI or



similar document that is signed by a government official who is not a ranking elected official or principal executive officer does not conform to §305.44(a)(3). The signatory requirement may not be delegated to a government representative other than those identified in the regulation. By signing the NOI or similar form, you are certifying that you are either a ranking elected official or principal executive officer as required by the administrative code. Documentation demonstrating your position as a ranking elected official or principal executive officer may be requested by the TCEQ.

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the Texas Commission on Environmental Quality's Environmental Law Division at 512/239-0600.

### **30 Texas Administrative Code**

#### **§305.44. Signatories to Applications.**

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

**Texas Commission on Environmental Quality  
General Permit Payment Submittal Form  
\$325 for a paper Construction NOI Application Fee**

Use this form to submit your Application Fee only if you are mailing your payment.

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- Do not mail this form with your NOI form.
- Do not mail this form to the same address as your NOI.

**Mail this form and your check to:**

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
P.O. Box 13088  
Austin, TX 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
12100 Park 35 Circle  
Austin, TX 78753

Fee Code: **GPA**

General Permit: TXR150000

1. Check / Money Order No:

2. Amount of Check/Money Order:

3. Date of Check or Money Order:

4. Name on Check or Money Order:

**5. NOI INFORMATION**

If the check is for more than one NOI, list each Project/Site (RE) Name and Physical Address exactly as provided on the NOI. DO NOT SUBMIT A COPY OF THE NOI WITH THIS FORM AS IT COULD CAUSE DUPLICATE PERMIT ENTRIES.

See Attached List of Sites (If more space is needed, you may attach a list.)

Project/Site (RE) Name:

Project/Site (RE) Physical Address:

**Staple Check In This Space**

# **AGENT AUTHORIZATION FORM**

**Agent Authorization Form**  
For Required Signature  
Edwards Aquifer Protection Program  
Relating to 30 TAC Chapter 213  
Effective June 1, 1999

I Rodney Sylvester  
Print Name

South Texas Project Manager  
Title - Owner/President/Other

of The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints  
Corporation/Partnership/Entity Name

have authorized D. Scott Dye, P.E.  
Print Name of Agent/Engineer

of Dye Enterprises  
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. For applicants who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

Rodney D. Syhstes  
Applicant's Signature

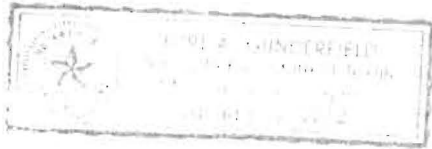
5/29/09  
Date

THE STATE OF TEXAS §

County of BEXAR §

BEFORE ME, the undersigned authority, on this day personally appeared \_\_\_\_\_ known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 29 day of MAY, 2009.



Kurt A. Gunderfield  
NOTARY PUBLIC

KURT A. GUNDERFIELD  
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 01/22/2012

# **FEE APPLICATION FORM**



Texas Commission on Environmental Quality  
Edwards Aquifer Protection Program  
**Application Fee Form**

NAME OF PROPOSED REGULATED ENTITY: Bulverde Ward, San Antonio Texas Hill Country Stake  
REGULATED ENTITY LOCATION: 31355 Stahl Lane, Bulverde, Tx. 78163  
NAME OF CUSTOMER: The Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints  
CONTACT PERSON: Rodney Sylvester PHONE: (210) 488-2976  
(Please Print)

Customer Reference Number (if issued): CN 601469596 (nine digits)

Regulated Entity Reference Number (if issued): RN \_\_\_\_\_ (nine digits)

**Austin Regional Office (3373)** ☐ Hays ☐ Travis ☐ Williamson

**San Antonio Regional Office (3362)** ☐ Bexar ☒ Comal ☐ Medina ☐ Kinney ☐ Uvalde

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to (Check One):

☐ **Austin Regional Office**

☒ **San Antonio Regional Office**

☐ **Mailed to TCEQ:**

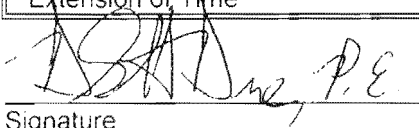
TCEQ – Cashier  
Revenues Section  
Mail Code 214  
P.O. Box 13088  
Austin, TX 78711-3088

☐ **Overnight Delivery to TCEQ:**

TCEQ - Cashier  
12100 Park 35 Circle  
Building A, 3rd Floor  
Austin, TX 78753  
512/239-0347

**Site Location (Check All That Apply):** ☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	Size	Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	11.15 Acres	\$ 6,500.00
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

  
Signature

6/10/07  
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Texas Commission on Environmental Quality  
Edwards Aquifer Protection Program  
**Application Fee Schedule**  
**30 TAC Chapter 213 (effective 05/01/2008)**

**Water Pollution Abatement Plans and Modifications**  
**Contributing Zone Plans and Modifications**

PROJECT	PROJECT AREA IN ACRES	FEE
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1	\$3,000
	1 < 5	\$4,000
	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

**Organized Sewage Collection Systems and Modifications**

PROJECT	COST PER LINEAR FOOT	MINIMUM FEE MAXIMUM FEE
Sewage Collection Systems	\$0.50	\$650 - \$6,500

**Underground and Aboveground Storage Tank System Facility Plans and Modifications**

PROJECT	COST PER TANK OR PIPING SYSTEM	MINIMUM FEE MAXIMUM FEE
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

**Exception Requests**

PROJECT	FEE
Exception Request	\$500

**Extension of Time Requests**

PROJECT	FEE
Extension of Time Request	\$150