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

May 20, 2009

Mr. Joseph M. Rankin
American National Bank
PO Box 1940
Gonzales, Texas 78629

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Sage Capital Bank (Hunters Creek Business Park, Lot 2); Located on the southwest corner of SH 46 and Hunters Village Road; New Braunfels, Texas
TYPE OF PLAN: Request for Modification of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program ID No. 1964.06; Investigation No. 742362; Regulated Entity No. RN105715031

Dear Mr. Rankin:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the request for modification of the approved WPAP for the above-referenced project submitted to the San Antonio Regional Office by HMT Engineering & Surveying on behalf of American National Bank on April 7, 2009. Final review of the WPAP was completed after additional material was received on May 8, 2009, and May 14, 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. 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.*

BACKGROUND

Hunter's Creek Business Park consists of 14 commercial lots on 22.38 acres. Approved projects, impervious cover, permanent BMPs and approval letter dates are summarized in the table below.

EAPP	Lot	Project	Acres	Impervious Cover (acres)	Permanent BMPs	TCEQ Approval Letter
1964.00	NA	Enforcement file	---	---	---	---
1964.01	NA	Sewage Collection System	---	---	---	6/5/06
1964.02	NA	Internal Roads	1.97	1.50	Sand filter basin for streets	7/18/06
1964.03	NA	Un-used	---	---	---	---
1964.04	7	Central Texas Pain Center	0.80	0.40	On-site sand filter	3/11/08
1964.05	3	Wuensch Dental Office	0.72	0.37	On-site sand filter	1/21/09
1964.06	2	Sage Capital Bank	1.50	0.80	On –site Stormceptor and VFS	This letter
Total	---	---	4.99	3.07	---	---

VFS = vegetated filter strip

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 1.50 acres. It will include a branch bank building with drive thru teller lanes, and related parking and sidewalks. The impervious cover will be 0.85 acres (57.00 percent). Project wastewater will be disposed of by conveyance to the existing Gruene Road Water Recycling Center owned by New Braunfels Utilities.

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, a Stormceptor wet vault and a vegetated filter strip, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 718 pounds of TSS generated from the 0.85 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 treatment measures will consist of:

One Stormceptor (model 7200) is produced by Rinker Materials and will follow the specifications provided in the plan sheets. It is designed to treat 471 pounds of TSS from 0.50 acres of impervious cover within a 0.55 acre drainage area. It is also sized to compensate for the treatment of 23 pounds of TSS from 0.026 acres of onsite impervious cover that cannot be captured and treated. The south driveway apron impervious cover (313 square feet) will be captured and treated in the water quality basin for Hunter's Creek Business Park (EAPP 1964.02) approved by TCEQ's letter dated July 17, 2006.

The engineered vegetated filter strip will be constructed to treat 296 pounds of TSS from 0.33 acres of impervious cover within a 0.66 acre drainage area. It is designed in accordance with the 2005 edition of the TCEQ's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices:"

* The engineered vegetated filter strip extends along the entire length of the contributing area;
* The slope does not exceed 20%;

* The minimum dimension of the filter strip (in the direction of flow) is not less than 15 feet;
* The maximum width (in the direction of flow) of the contributing impervious area does not exceed 72 feet;
* The minimum vegetated cover is 80%;
* The contributing area to the filter strip is relatively flat so that runoff is distributed evenly to the vegetated area without the use of a level spreader;
* The vegetated filter strip is free of gullies or rills that can concentrate overland flow.

GEOLOGY

The subject site is Lot 2 of Hunter's Creek Business Park. A Geologic Assessment for the 22.38 acres Hunter's Creek Business Park, dated October 14, 2005, was performed by Boyd Dryer, P.G. According to the Geologic Assessment included with the application, the site is located on the Person Formation, and no sensitive features were noted on Lot 2. The San Antonio Regional Office conducted a site assessment on May 4, 2009 which revealed that the site was as described in the application.

SPECIAL CONDITIONS

I. This modification is subject to all Special and Standard Conditions listed in the WPAP approval letter dated January 18, 2006.

II. All permanent pollution abatement measures shall be operational prior to commencement of business.

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.

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, PST) 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. 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 form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.

5. 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 WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

6. Modification to the activities described in the referenced WPAP 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.

7. 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 date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, 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.

9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

<u>During Construction:</u>

10. During the course of regulated activities related to this project, the applicant or 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.

11. 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. 6, above.

12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery

of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

13. No wells exist on the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.

14. 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 reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

15. 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.

16. 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.

17. 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.

<u>After Completion of Construction:</u>

18. 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.

19. 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. The regulated 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 San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection 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.

21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection 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.

22. 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 John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

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

MRV/JKM/eg

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

cc: Mr. Jeff Moeller, P.E., HMT Engineering & Surveying
Mr. Jim Klein, P.E., City of New Braunfels
Mr. Tom Hornseth, P.E., Comal County
Ms. Velma Danielson, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

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

RECEIVED
APR 13 2009
COUNTY ENGINEER

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 8, 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: Sage Capital Bank, located on the west side of State Highway 46 on Hunters Village Road, New Braunfels, Texas
PLAN TYPE: Application for Approval of a Water Pollution Abatement Plan (WPAP) 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program
EAPP File No.: 1964.06

Dear Mr. Hornseth:

The enclosed WPAP application received on April 8, 2009, 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 May 7, 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

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

LMB/eg

1964.06

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REGION
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TCEQ-R13
APR 07 2009
SAN ANTONIO

RECEIVED
APR 13 2009
COUNTY ENGINEER

WATER POLLUTION ABATEMENT PLAN

FOR

SAGE CAPITAL BANK

PREPARED FOR

Texas Commission on Environmental Quality
Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233
210-490-3096 (office)
210-545-4329 (fax)

PREPARED BY

HMT
ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL

Jeffrey D. Moeller, P.E.
410 N. Seguin St
New Braunfels, TX 78130

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
Exp 3.30.09

Submitted
March 13, 2009
Revised
March 18, 2009
March 30, 2009

109004

Vendor ID	Name	Payment Number	Check Date	Check Number
TEXCOMM	Texas Commission on Environmental	00000000000000051330	3/9/2009	109004

Invoice Number	Date		Amount	Amount Paid	Net Amount Paid
F8477	3/9/2009	F0884771-Permit	$4,000.00	$4,000.00	$4,000.00

F0884771-Permit $4,000.00 $4,000.00 $4,000.00

FROST NATIONAL BANK
HOUSTON, TX 77251

109004

30-9/1140
70

S.L.I. DESIGN, INC.
10200 KATY FREEWAY
HOUSTON, TX 77043
(713) 465-4650

DATE	AMOUNT
3/9/2009	$4,000.00

PAY Four Thousand Dollars And 00 Cents

TO THE ORDER OF
Texas Commission on Environmental Quality
P O Box 13089
Austin TX 78711-3089

AUTHORIZED SIGNATURE

Security Features Included Details on Back.

⑈109004⑈ ⑆114000093⑆ 7040006 25⑈

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Water Pollution Abatement Plan Checklist

"RECEIVED TCEQ"
SAN ANTONIO
REGION

2009 MAR 18 PM 4:42

___ General Information Form (*TCEQ-0587*)
- ATTACHMENT A - Road Map
- ATTACHMENT B - USGS / Edwards Recharge Zone Map
- ATTACHMENT C - Project Description

___ Geologic Assessment Form (*TCEQ-0585*)
- ATTACHMENT A - Geologic Assessment Table (*TCEQ-0585-Table*)
- Comments to the Geologic Assessment Table
- ATTACHMENT B - Soil Profile and Narrative of Soil Units
- ATTACHMENT C - Stratigraphic Column
- ATTACHMENT D - Narrative of Site Specific Geology
- Site Geologic Map(s)
- Table or list for the position of features' latitude/longitude (if mapped using GPS)

___ Water Pollution Abatement Plan Application Form (*TCEQ-0584*)
- ATTACHMENT A - Factors Affecting Water Quality
- ATTACHMENT B - Volume and Character of Stormwater
- ATTACHMENT C - Suitability Letter from Authorized Agent (if OSSF is proposed)
- ATTACHMENT D - Exception to the Required Geologic Assessment (if requesting an exception)
- Site Plan

___ Temporary Stormwater Section (*TCEQ-0602*)
- ATTACHMENT A - Spill Response Actions
- ATTACHMENT B - Potential Sources of Contamination
- ATTACHMENT C - Sequence of Major Activities
- ATTACHMENT D - Temporary Best Management Practices and Measures
- ATTACHMENT E - Request to Temporarily Seal a Feature, if sealing a feature
- ATTACHMENT F - Structural Practices
- ATTACHMENT G - Drainage Area Map
- ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations
- ATTACHMENT I - Inspection and Maintenance for BMPs
- ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices

___ Permanent Stormwater Section (*TCEQ-0600*)
- ATTACHMENT A - 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 B - BMPs for Upgradient Stormwater
- ATTACHMENT C - BMPs for On-site Stormwater
- ATTACHMENT D - BMPs for Surface Streams
- ATTACHMENT E - Request to Seal Features (if sealing a feature)
- ATTACHMENT F - Construction Plans
- ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan
- ATTACHMENT H - Pilot-Scale Field Testing Plan, if BMPs not based on *Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs*
- ATTACHMENT I -Measures for Minimizing Surface Stream Contamination

___ Agent Authorization Form (*TCEQ-0599*), if application submitted by agent

___ Application Fee Form (*TCEQ-0574*)

___ Check Payable to the "Texas Commission on Environmental Quality"

___ Core Data Form (*TCEQ-10400*)

Window on State Government

Susan Combs Texas Comptroller of Public Accounts

Taxable Entity Search Results

Franchise Tax Certification of Account Status

This Certification Not Sufficient for Filings with Secretary of State

Do **not** include a certificate from this Web site as part of a filing with the Secretary of State for dissolution, merger, withdrawal, or conversion. The Secretary of State will reject a filing that uses the certification from this site.

To obtain a certificate that is sufficient for dissolution, merger, or conversion, see Publication 98-336d, Requirements to Dissolve, Merge or Convert a Texas Entity.

Certification of Account Status | Officers And Directors Information

Entity Information:	**AMERICAN NATIONAL BANK** PO BOX 1940 GONZALES, TX 78629-1440
Status:	**IN GOOD STANDING NOT FOR DISSOLUTION OR WITHDRAWAL through May 15, 2009**
Registered Agent:	NORMAN L BURNS 1606 N SARAH DE WITT DRIVE GONZALES, TX 78629
Registered Agent Resignation Date:	
Domicile State:	TX
File Number:	0001830302
SOS Registration Date:	July 12, 1984
Taxpayer Number:	17422789523

RECEIVED TCEQ
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REGION

2009 MAR 31 AM 8:21

WATER POLLUTION ABATEMENT PLAN

FOR

SAGE CAPITAL BANK

PREPARED FOR

Texas Commission on Environmental Quality

Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233
210-490-3096 (office)
210-545-4329 (fax)

PREPARED BY

HMT
ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL

Jeffrey D. Moeller, P.E.
410 N. Seguin St
New Braunfels, TX 78130

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
Exp 3.30.09

Submitted
March 13, 2009
Revised
March 18, 2009
March 30, 2009

RECEIVED
APR 1 3 2009
COUNTY ENGINEER

General Information Form

For Regulated Activities on the
Edwards Aquifer Recharge and Transition Zones
and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B)
Effective June 1, 1999

REGULATED ENTITY NAME: Sage Capital Bank
COUNTY: Comal
STREAM BASIN: Un-named Tributary of Blieders Creek

EDWARDS AQUIFER: _X_ RECHARGE ZONE
___ TRANSITION ZONE

PLAN TYPE: _X_ WPAP __ AST __ EXCEPTION
___ SCS __ UST __ MODIFICATION

CUSTOMER INFORMATION

1. Customer (Applicant):

Contact Person: Joseph M. Rankin
Entity: American National Bank
Mailing Address: P.O. Box 1940
City, State: Gonzales, Texas Zip: 78629
Telephone: (830) 672-8585 FAX: (830) 672-5239
Agent/Representative (If any):

Contact Person: Jeffrey D. Moeller, P.E.
Entity: HMT Engineering & Surveying
Mailing Address: 410 N. Seguin Street
City, State: New Braunfels, Texas Zip: 78130
Telephone: (830) 625-8555 FAX: (830) 625-8556

2. _X_ This project is inside the city limits of New Braunfels.
___ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
___ This project is not located within any city's limits or ETJ.

3. The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

The project site is located on the west side of SH 46 on Hunters Village Rd.

4. _X_ **ATTACHMENT A - ROAD MAP**. A road map showing directions to and the location of the project site is attached at the end of this form.

5. _X_ **ATTACHMENT B - USGS / EDWARDS RECHARGE ZONE MAP**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached behind this sheet. The map(s) should clearly show:

_X_ Project site.

_X_ USGS Quadrangle Name(s).
_X_ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
_X_ Drainage path from the project to the boundary of the Recharge Zone.

6. _X_ Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment. **The TCEQ must be able to inspect the project site or the application will be returned.**

7. _X_ **ATTACHMENT C - PROJECT DESCRIPTION**. Attached at the end of this form is a detailed narrative description of the proposed project.

8. Existing project site conditions are noted below:
   __ Existing commercial site
   __ Existing industrial site
   __ Existing residential site
   __ Existing paved and/or unpaved roads
   _X_ Undeveloped (Cleared)
   __ Undeveloped (Undisturbed/Uncleared)
   __ Other: _____

PROHIBITED ACTIVITIES

9. _X_ I am aware that the following activities are prohibited on the **Recharge Zone** and are not proposed for this project:

   (1) waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
   (2) new feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
   (3) land disposal of Class I wastes, as defined in 30 TAC §335.1;
   (4) the use of sewage holding tanks as parts of organized collection systems; and
   (5) new municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

10. N/A I am aware that the following activities are prohibited on the **Transition Zone** and are not proposed for this project:

   (1) waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
   (2) land disposal of Class I wastes, as defined in 30 TAC §335.1; and
   (3) new municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

ADMINISTRATIVE INFORMATION

11. The fee for the plan(s) is based on:

   _X_ For a Water Pollution Abatement Plan and Modifications, the total acreage of the site where regulated activities will occur.
   __ For an Organized Sewage Collection System Plans and Modifications, the total linear footage of all collection system lines.

__ For a UST Facility Plan or an AST Facility Plan, the total number of tanks or piping systems.
__ A Contributing Zone Plan.
__ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
__ A request for an extension to a previously approved plan.

12. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

__ TCEQ cashier
__ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
_X_ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

13. _X_ Submit one (1) original and three (3) copies of the completed application to the appropriate regional office for distribution by the TCEQ to the local municipality or county, groundwater conservation districts, and the TCEQ's Central Office.

14. _X_ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the executive director.
__ No person shall commence any regulated activity until the Contributing Zone Plan for the activity has been filed with the executive director.

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 **GENERAL INFORMATION FORM** is hereby submitted for TCEQ review. The application was prepared by:

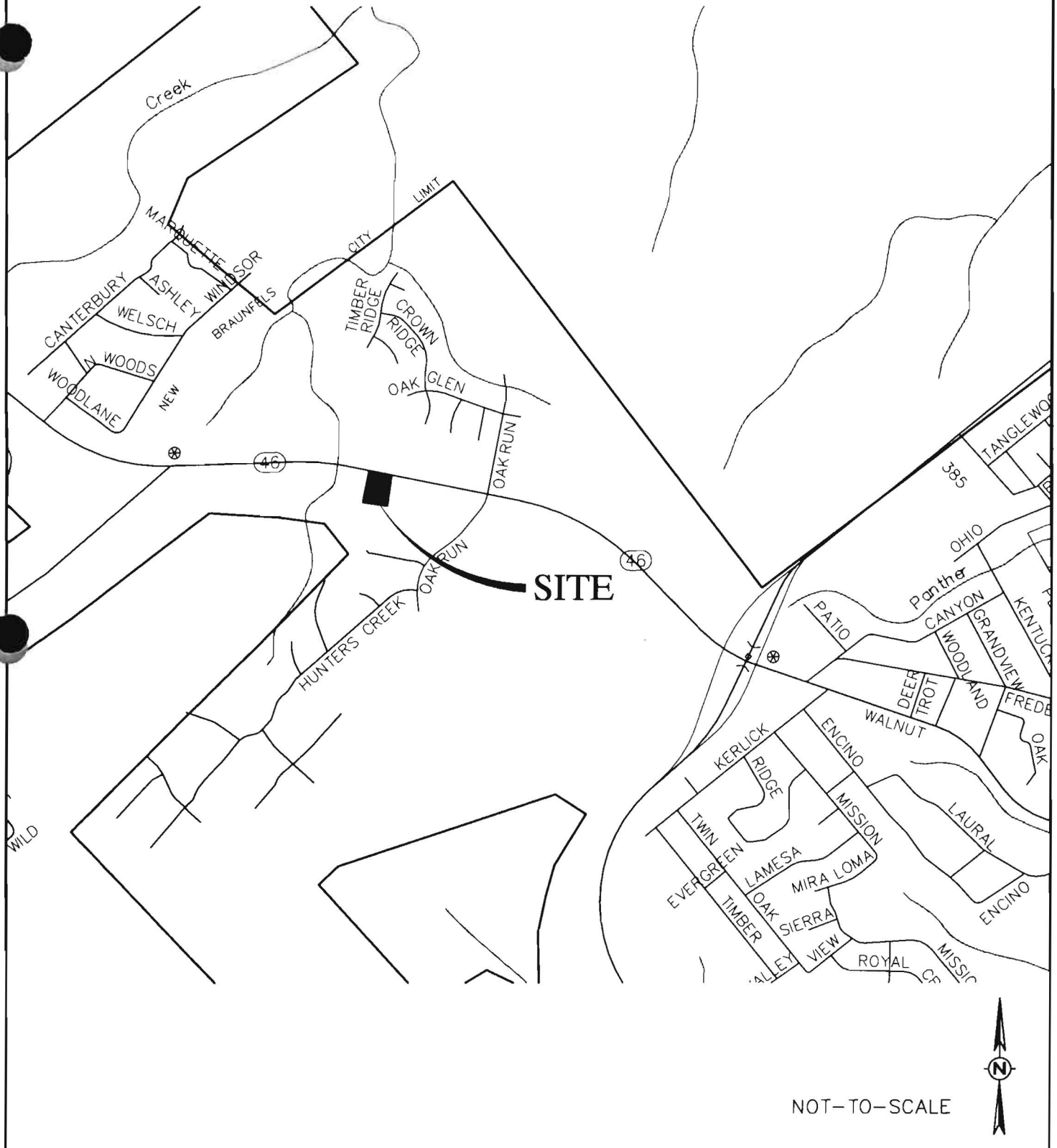
Jeffrey D. Moeller, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent 3/13/09
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



HMT
ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085
PH: (830)625-8555 FAX: (830)625-8556 www.HMTNB.com

LOCATION MAP
SAGE CAPITAL BANK

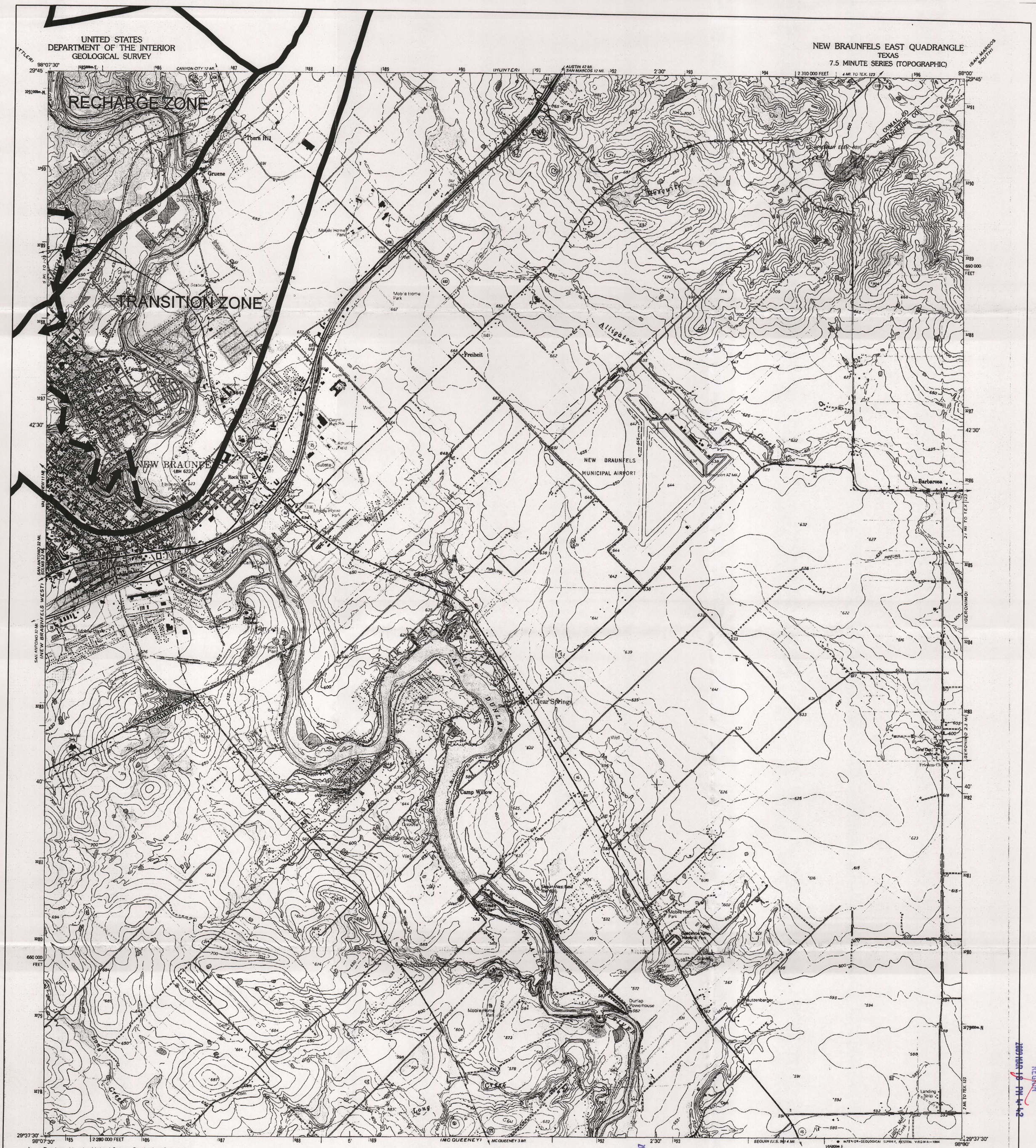
DRAWN BY: JII CHECKED BY: JDM

DATE: 3/2009

SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NEW BRAUNFELS EAST QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)



Produced by the United States Geological Survey in cooperation with the Defense Mapping Agency

Control by USGS and NOS/NOAA and USCE

Compiled from aerial photographs taken 1956. Revisions in purple and woodland compiled from aerial photographs taken 1968 and other sources and has been field checked. Map edited 1994
Conflicts may exist between some updated features and previously mapped contours

North American Datum of 1927 (NAD 27). Projection and 10 000-foot ticks : Texas Coordinate System, south central zone (Lambert Conformal Conic)
Blue 1000-meter Universal Transverse Mercator ticks, zone 14

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

MN
GN
0°28'
8 MILS
6½°
116 MILS

UTM GRID AND 1994 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 KILOMETER

CONTOUR INTERVAL 10 FEET
SUPPLEMENTARY CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

TEXAS
QUADRANGLE LOCATION

2998-414

ROAD CLASSIFICATION

Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route

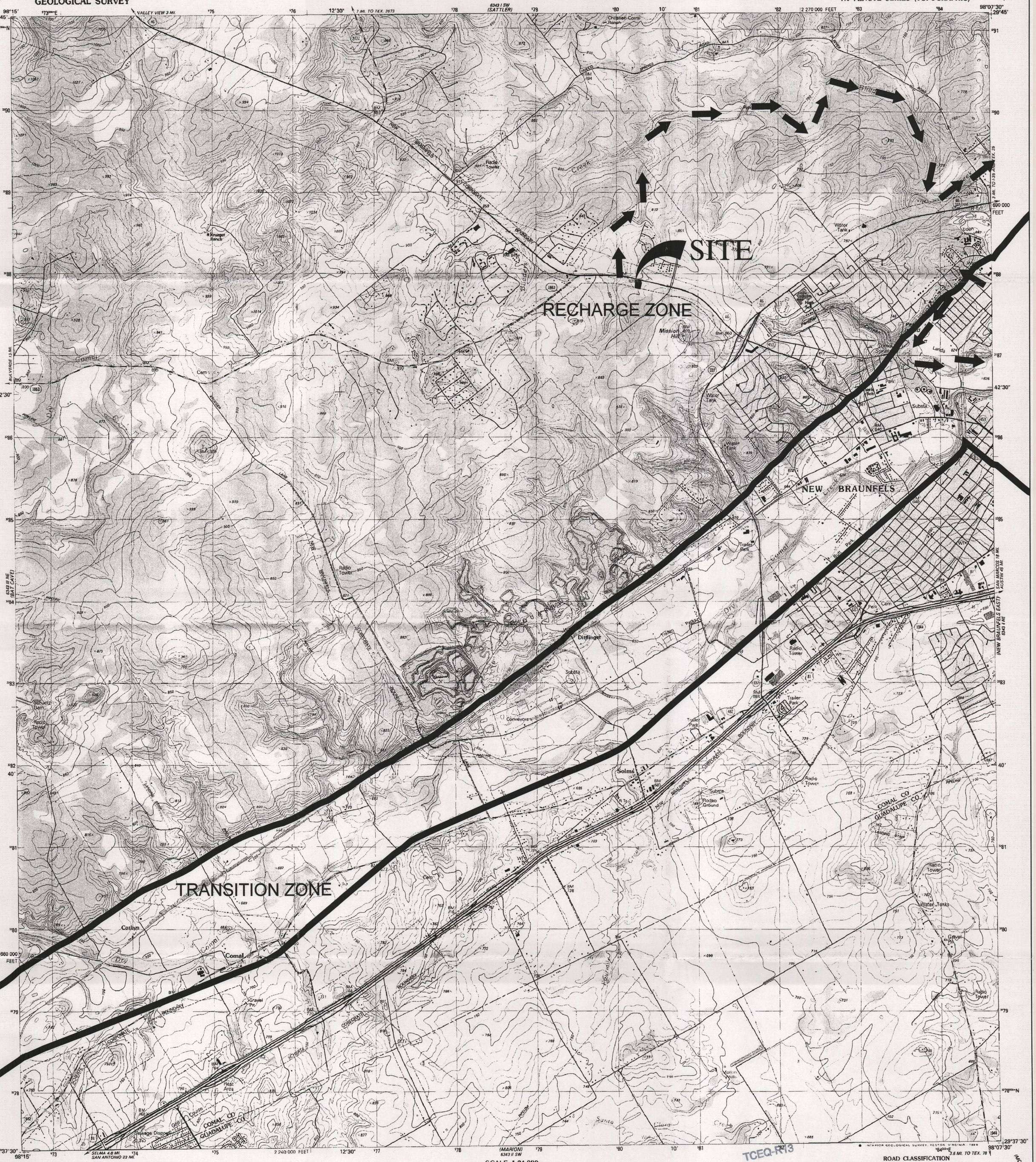
NEW BRAUNFELS EAST, TEX.
29098-F1-TF-024

1958
REVISED 1994
DMA 6343 II NE-SERIES V882

RECEIVED TCEQ SAN ANTONIO REGION 2009 MAR 31 AM 8:22
RECEIVED TCEQ SAN ANTONIO REGION 2009 MAR 18 PM 4:42
TCEQ SAN ANTONIO APR 07 2009

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NEW BRAUNFELS WEST QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)



Produced by the United States Geological Survey
Revised in cooperation with the Texas Water Development Board

Control by USGS, NOS/NOAA, and USCE

Compiled by the Army Map Service by photogrammetric methods from aerial photographs taken 1956. Field checked 1958
Revised from aerial photographs taken 1986. Field checked 1987
Map edited 1988

Projection and 10,000-foot grid ticks: Texas coordinate system, south central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 20 meters south and 28 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence and field lines generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF MAP DIAGRAM IS APPROXIMATE

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

2998-413

ROAD CLASSIFICATION

Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route
U. S. Route
State Route

NEW BRAUNFELS WEST, TEX.
29098-F2-TF-024
1988
DMA 6343 II NW—SERIES V822

TCEQ-R13
APR 07 2009
SAN ANTONIO

"RECEIVED TCEQ"
2009 MAR 18 PM 4:42
SAN ANTONIO
REGION

RECEIVED
APR 13 2009
COUNTY ENGINEER

ATTACHMENT "C"
Project Description

The proposed project site is located on a 1.5 acre lot located within Hunters Creek Business Park. The proposed area to be disturbed is 1.05 acres with 0.80 acres (55%) of proposed impervious cover. The lot is located within the New Braunfels city limits in the south west corner of the intersection of Hunters Village and SH 46. The site is served by New Braunfels Utilities for electric, water and wastewater. The site is currently cleared and there are no any other improvements. A geologic assessment was prepared for this area with the WPAP submittal for Hunters Creek Business Park and that WPAP was approved on June 5, 2006 under TCEQ EAPP file number 1964.01. The same geologic assessment is included with this submittal. There were no sensitive features identified within the limits of this proposed project site.

The proposed use for the project is a branch bank building with teller drive thru lanes. No other planned used are proposed for the site. The bank will have a capacity of 15 employees.

The proposed construction will include minor grading for the parking areas and building pad, small utility service lines and building infrastructure.

According to the Flood Insurance Rate Map No. 4854930005E the site is outside of the flood plain. The entire site drains to an unnamed tributary of Blieders creek. Stormwater runoff will be treated with the Stormceptor® vault system and vegetative filter strips. The Stormceptor® will treat the drainage area with a majority of the proposed impervious cover and the vegetative filter strips will treat the remainder. The two permanent BMP's (Stormceptor® and vegetative filter strips) will ensure the quality of water exiting without adversely affecting the downstream drainage patterns.

The lot lies within the boundary of Hunters Creek Business Park WPAP. The permanent stormwater abatement measures were proposed to treat the roadway (Hunters Village). The Geologic Assessment performed for the hunters Creek Business Park WPAP covered the entire commercial subdivision, including the proposed 1.5 acre lot. Therefore, an independent Geologic Assessment was not performed for this lot.

Geologic Assessment
For Regulated Activities
on The Edwards Aquifer Recharge/transition Zones
and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

REGULATED ENTITY NAME: Hunters Creek Business Park

TYPE OF PROJECT: √ WPAP __ AST __ SCS __ UST

LOCATION OF PROJECT: √ Recharge Zone __ Transition Zone __ Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. √ Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE**.

2. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (*Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A*, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Rumple-Comfort Assoc. (RUD)	C	1.6-3.0

* Soil Group Definitions (Abbreviated)

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

3. √ A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column.

4. √ A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.

5. √ Appropriate **SITE GEOLOGIC MAP(S)** are attached:

The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1" : 400'

Applicant's Site Plan Scale 1" = 50'
Site Geologic Map Scale 1" = 50'
Site Soils Map Scale (if more than 1 soil type) 1" = _____'

6. Method of collecting positional data:

_√_ Global Positioning System (GPS) technology.
_√_ Other method(s).

7. _√_ The project site is shown and labeled on the Site Geologic Map.

8. _√_ Surface geologic units are shown and labeled on the Site Geologic Map.

9. _√_ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
__ Geologic or manmade features were not discovered on the project site during the field investigation.

10. _NA_ The Recharge Zone boundary is shown and labeled, if appropriate.

11. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.):

__ There are ____(#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
__ The wells are not in use and have been properly abandoned.
__ The wells are not in use and will be properly abandoned.
__ The wells are in use and comply with 16 TAC Chapter 76.
_√_ There are no wells or test holes of any kind known to exist on the project site.

ADMINISTRATIVE INFORMATION

12. _√_ One (1) original and three (3) copies of the completed assessment has been provided.

Date(s) Geologic Assessment was performed: 10/14/05
Date(s)

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. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Boyd Dreyer
Print Name of Geologist

512-312-0714
Telephone

512-295-2307
Fax

STATE OF TEXAS
BOYD V. DREYER
Geology
67
LICENSED
PROFESSIONAL GEOSCIENTIST

Signature of Geologist

3/15/06
Date

Representing: GeoConsul
(Name of Company)

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.

Site Specific Geologic Column
Hunters Creek business Park-WPAP
New Braunfels, Texas

Formation	Member	Lithology	Thickness (feet)
Person	Cyclic and marine (undivided)	Mudstone to packstone; miliolid grainstone; chert	80 -100
Person	Leached & collapsed (undivided)	Crystalline limestone, mudstone to grainstone; chert; collapsed breccia	80 - 100
Person	Regional dense	Dense, argillaceous mudstone	20 - 24
Kainer	Grainstone	Grainstone; mudstone to wackestone; chert	50 - 60
Kainer	Kirschberg evaporite	Highly altered crystalline limestone; chalky mudstone; chert	50 - 60
Kainer	Dolomitic	Mudstone to grainstone; crystalline limestone; chert	110 - 130
Kainer	Basal Nodular	Shaly, nodular limestone; mudstone and grainstone	50 - 60
Glen Rose	Upper	Thinly bedded limestone and marl	350 - 500

Geologic Narrative
Hunters Creek Business Park-WPAP
New Braunfels, Texas

The site is underlain by the Person Formation (Kep). The cyclic and marine members (undivided) of the Person Formation are present on the site.

The Edwards Group is about 440 feet thick in Comal County and consists of limestone with chert in the form of nodules, lenses and discontinuous beds. The cyclic and marine members, undivided consist of variably burrowed mudstone, grainstone, and crystalline limestone with chert lenses common. The cyclic member was reportedly eroded prior to the deposition of the Georgetown Formation. The remaining marine member consists of medium to thick beds of mudstone and fossiliferous packstone. The cyclic and marine members (hydrogeologic subdivision II) has moldic and vuggy porosity and permeability associated with fossiliferous zones, and fracture porosity and permeability associated with faulting.

The leached and collapsed members (undivided), which underlie the cyclic and marine members) has vuggy and burrow porosity and permeability assisted with burrowed zones; breccia and cavern porosity and permeability associated with collapsed zones resulting from dissolution of evaporites; and fracture porosity and permeability associated with faulting. The regional dense member, below the leached and collapsed members, has little porosity or permeability except for some fracture porosity and permeability associated with faulting.

A mapped fault with a trend North approximately 40 degrees East lies on the eastern side of the site. The fault is down thrown to the East and is confined to members of the cyclic and marine members (undivided) of the Person Formation. An inferred fault with a trend North approximately 8 degrees East lies along the streambed located at the western edge of the tract. The fault is down thrown to the West with members of the cyclic and marine members (undivided) of the Person Formation exposed on the eastern side and members of the leached and collapsed members (undivided) of the Person Formation exposed on the west side. Evidence of these existence of these faults were not observed during the field investigation.

References

Small, Ted A. and Hanson John A., 1994, Geologic framework and hydrogeologic characteristics of the Edwards aquifer outcrop, Comal County, Texas, U.S. Geological Survey Water-Resources Investigations Report 94-4117, 10 p.

Soils Narrative
Hunters Creek Business Park-WPAP
New Braunfels, Texas

The soil mapped at the site are assigned to the Rumple-Comfort association (RUD). The Rumple Series consists of moderately deep, well drained, undulating clayey and cherty soils on uplands. The soils formed over indurated fractured limestone. Slopes are 1 to 8 percent. A typical soil profile is a follows:

A1 - 0 to 10 inches; dark reddish brown (5YR 3/3) very cherty clay loam, dark reddish brown (5YR 3/2) moist; moderate fine subangular blocky structure; hard, friable; common fine roots; about 35 percent by volume, angular chert fragments mostly 0.5 to 1 inch across; noncalcareous; mildly alkaline; clear smooth boundary.

B21t - 10 to 14 inches; dark reddish brown (2.5YR 3/4) very cherty clay, dark reddish brown (2.5YR 2/4) moist; moderate very fine subangular blocky structure; hard, friable; common fine roots; patchy clay films on peds; about 35 percent by volume, angular chert fragments mostly 0.5 inch to 2 inches across; noncalcareous; mildly alkaline; abrupt irregular boundary.

B22t - 14 to 28 inches; dark reddish brown (2.5YR 3/4) extremely stony clay, dark reddish brown (2.5YR 2/4) moist; few fine roots; about 25 percent by volume, clayey soil material in vertical and horizontal fractures and solution cavities; 75percent limestone cobbles and stones and chert pebbles and cobbles; noncalcareous; mildly alkaline; abrupt wavy boundary.

R - 28 to 36 inches; coarsely fractured indurated limestone with dark reddish brown clay in crevices.

The soils found within 0 to10 inch horizon are classified as a GC, CL, or a SC clay with Liquid Limits ranging from 30 to 40 and Plasticity Indices ranging from 13 to 22. The soils found within 10 to 28 inch horizon are classified as a GC, or a SC clay with Liquid Limits ranging from 41 to 86 and Plasticity Indices ranging from 20 to 60. The Rumple soils have a permeability value which ranges from 0.2 to 0.6 inches per hour.

References

United States Department of Agriculture, 1984, Soil survey of Comal and Hays Counties Texas, Soil Conservation Service., 136 p.

Geologist Comments
Hunters Creek Business Park-WPAP
New Braunfels, Texas

The site is underlain by the Person Formation (Kep). The cyclic and marine members (undivided) of the Person Formation are present on the site.

A mapped fault (Feature 16) with a trend North approximately 40 degrees East lies on the eastern side of the site. The fault is down thrown to the East and is confined to members of the cyclic and marine members (undivided) of the Person Formation. An inferred fault (Feature 15) with a trend North approximately 8 degrees East lies along the streambed located at the western edge of the tract. The fault is down thrown to the West with members of the cyclic and marine members (undivided) of the Person Formation exposed on the eastern side and members of the leached and collapsed members (undivided) of the Person Formation exposed on the west side. Evidence of the existence of these faults was not observed during the field investigation.

Feature 14 is a large closed depression, indicated by topographic contours, which lies along the streambed located on the northwest edge of the site. The large closed depression is created by the Highway 46 road embankment and is not a natural closed depression. The stream drainage passes under the roadway by a concrete culvert. However, within the large depression, stream scour was evident on the upstream side of the culvert adjacent to the roadway and the northwest corner of the site and was noted on the Geologic Assessment Table. The scour is attributed to stream erosion and not a natural collapsed feature. TXDOT has recently re-graded the area along the roadway and the scour may not be as evident as it was at the time of the investigation.

The other features observed at the site were closed depressions created by clearing of trees from the property with the exception of Feature S-2 which was an exposed area of fractured rock,. A description of the features follows:

S-1 N 29E 43.171' W 98E 10.239'
Closed Depression 6' dia. 1' deep, Soil Rock fill, Hillside, Uprooted tree location

S-2 N 29E 43.191' W 98E 10.355'
Fractured Rock with fractures up to 18" wide with soil, organic fill, area 10' wide X 20' long orientated N 30 deg E Hillside

S-3 N 29E 43.078' W 98E 10.225'
Closed Depression 6' dia. 1' deep, Soil Rock fill, Hillside, Uprooted tree location

S-4 N 29E 43.070' W 98E 10.207'
Closed Depression 4' dia. 1' deep, Soil Rock fill, Hillside, Uprooted tree location

S-5 N 29E 43.066' W 98E 10.183'
Closed Depression 6' dia. 1' deep, Soil Rock fill, Hillside, Uprooted tree location

S-6 N 29E 43.055' W 98E 10.143'
Closed Depression 4' dia. 1' deep, Soil fill, Hillside, Uprooted tree location

S-7 N 29E 43.058' W 98E 10.131'
Closed Depression 4' dia. 1' deep, Soil Rock fill, Hillside, Uprooted tree location

S-8 N 29E 43.098' W 98E 10.212'
Closed Depression 6' dia. 1' deep, Soil fill, Hillside, Uprooted tree location

S-9 N 29E 43.106' W 98E 10.209'
Closed Depression 6' dia. 1' deep, Soil fill, Hillside, Uprooted tree location

S-10 N 29E 43.085' W 98E 10.139'
Closed Depression 4' dia. 1' deep, Soil Rock fill, Hillside, Uprooted tree location

S-11 N 29E 43.078' W 98E 10.100'
Closed Depression 6' dia. 1' deep, Soil fill, Hillside, Uprooted tree location

S-12 N 29E 43.083' W 98E 10.104'
Closed Depression 3' dia. 1' deep, Soil fill, Hillside, Uprooted tree location

S-13 N 29E 43.095' W 98E 10.121'
Closed Depression 4' dia. 1' deep, Soil fill, Hillside, Uprooted tree location

S-14 Closed depression created along Highway 46 by construction of the highway

S-15 Mapped inferred fault along drainage path of creek located on western edge of the site. Fault not observed in field. Fault trend N 08E E.

S-16 Mapped fault located on eastern side of the site. Fault no observed in field. Fault trend N 40E E.

Project Site GPS Reference Points:

Southeast Corner of Site	N 29E 43.044' W 98E 10.133'
Northwest Corner of Site	N 29E 43.202' W 98E 10.361'
Highway 46 Benchmark	N 29E 43.193' W 98E 10.315'

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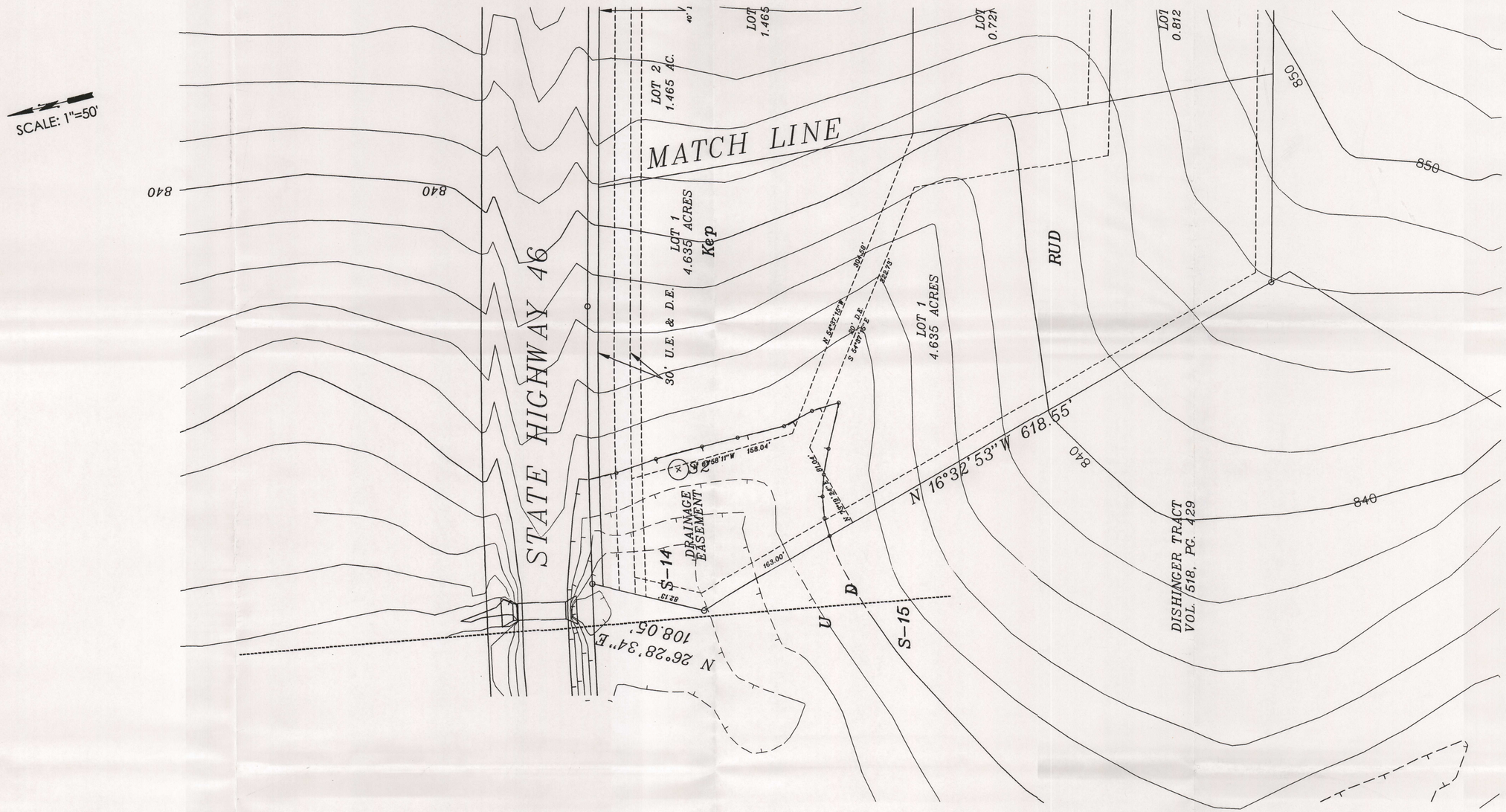
MAR 17 2009



Soils Legend

RUD - Rumple-Comfort Association

Geologic Legend

Kep - Person Formation

U/D Inferred Fault

U/D Fault

S-1 - Feature

GeoConsul Geological and Environmental Consultants	
Project: HUNTERS CREEK BUSINESS PARK-WPAP NEW BRAUNFELS, TEXAS	
Title: GEOLOGIC/SOILS MAP	
Plate No. I	Project No. 05017
Drawn By: BD Date: 3/15/06	Approved By: BD Date:3/15/06

STATE OF TEXAS
BOYD V. DREYER
Geology
67
LICENSED
PROFESSIONAL GEOSCIENTIST

03/15/06

S. CRAIG HOLLMIG, INC.
CONSULTING ENGINEERS - SURVEYORS
410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085
PH: (830)625-8555 • FAX: (830)625-8556 • EMAIL: hollmig@nbtx.com

SITE PLAN
(SHT. 1 OF 2)

DRAWN BY:	CHECKED BY:	DATE:	REVISIONS:
-	-	-	-

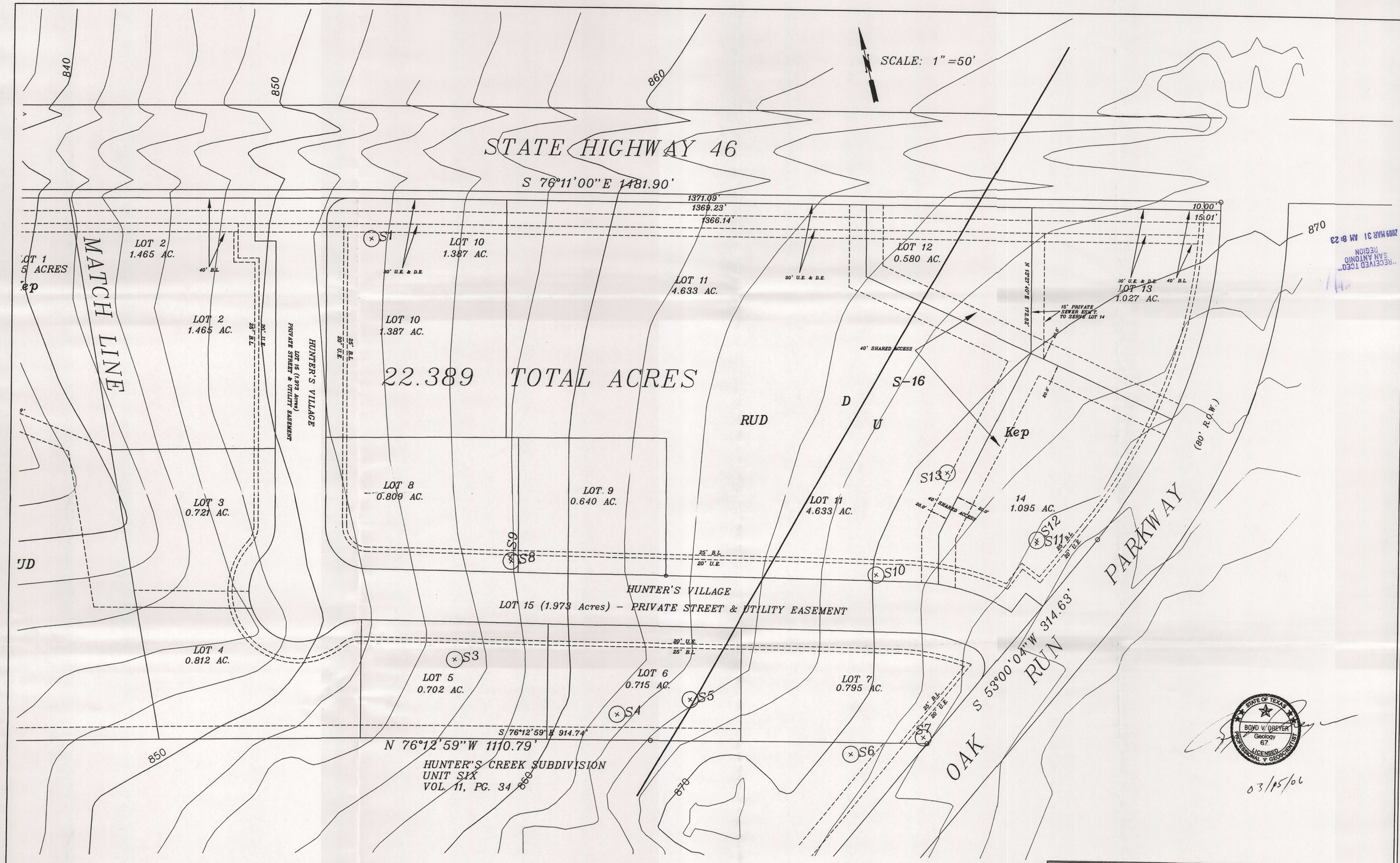
HUNTER'S CREEK
BUSINESS PARK

NEW BRAUNFELS, TEXAS

DWG. NO:

PROJECT

SHEET #



Soils Legend

RUD - Rumple-Comfort Association

Geologic Legend

Kep - Person Formation

U/D Inferred Fault

U/D Fault

S-1 - Feature

GeoConsul Geological and Environmental Consultants	
Project: HUNTERS CREEK BUSINESS PARK-WPAP NEW BRAUNFELS, TEXAS	
Title: GEOLOGIC/SOILS MAP	
Plate No. II	Project No. 05017
Drawn By: BD Date: 3/15/06	Approved By: BD Date:3/15/06

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CONSULTING ENGINEERS - SURVEYORS
410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085
PH: (830)625-8555 • FAX: (830)625-8556 • EMAIL: hollmig@nbtx.com

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SAN ANTONIO REGION
TCEQ-R13 "RECEIVED TCEQ" SAN ANTONIO
2006 MAR 18 PM 4:43

SITE PLAN
(SHT. 2 OF 2)

DATE: -
CHECKED BY: -
DRAWN BY: -

HUNTER'S CREEK
BUSINESS PARK

NEW BRAUNFELS, TEXAS

DWG. NO:

PROJECT

SHEET #

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME Hunters Creek business Park-WPAP

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
5	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOME	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-1	29°43.171'	98°10.239'	CD	5	Kep	6	6	1	None				COF	5	10	10		<1.6		Hillside
S-2	29°°43.191	98°10.355'	SF	20	Kep	20	10	0.5	N30°E	10			OF	8	38	38		<1.6		Hillside
S-3	29°43.078'	98°10.225'	CD	5	Kep	6	6	1	None				COF	5	10	10		<1.6		Hillside
S-4	29°43.070'	98°10.220'	CD	5	Kep	4	4	1	None				COF	5	10	10		<1.6		Hillside
S-5	29°43.068'	98°10.183'	CD	5	Kep	6	6	1	None				COF	5	10	10		<1.6		Hillside
S-6	29°43.075'	98°10.143'	CD	5	Kep	4	4	1	None				OF	5	10	10		<1.6		Hillside
S-7	29°43.058'	98°10.131'	CD	5	Kep	4	4	1	None				COF	5	10	10		<1.6		Hillside
S-8	29°43.098'	98°10.212'	CD	5	Kep	6	6	1	None				OF	5	10	10		<1.6		Hillside
S-9	29°43.106'	98°10.209'	CD	5	Kep	6	6	1	None				OF	5	10	10		<1.6		Hillside
S-10	29°43.085'	98°10.139'	CD	5	Kep	4	4	1	None				COF	5	10	10		<1.6		Hillside
S-11	29¡43.078'	98°10.100'	CD	5	Kep	6	6	1	None				OF	5	10	10		<1.6		Hillside
S-12	29¡43.083'	98°10.104'	CD	5	Kep	3	3	1	None				OF	5	10	10		<1.6		Hillside
S-13	29°43.095'	98°10.121'	CD	5	Kep	4	4	1	None				OF	5	10	10		<1.6		Hillside
S-14			CD	5	Kep	40	40	2	None				COF	10	15	15			>1.6	Streambed
S-15**			F	20	Kep				N8°E											Streambed
S-16**			F	20	Kep				N40°E											Hilltop

* DATUM NAD83 ** Not observed in field investigation

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 03/15/06

STATE OF TEXAS
BOYD V. DREYER
Geology
67
LICENSED
PROFESSIONAL GEOSCIENTIST

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

RECEIVED
APR 13 2009
COUNTY ENGINEER

Water Pollution Abatement Plan Application
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b), Effective June 1, 1999

REGULATED ENTITY NAME: Sage Capital Bank

REGULATED ENTITY INFORMATION

1. The type of project is:
   - ___ Residential: # of Lots: ___
   - ___ Residential: # of Living Unit Equivalents: ___
   - _X_ Commercial
   - ___ Industrial
   - ___ Other: ___

2. Total site acreage (size of property): 1.5 acres

3. Projected population: 0

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops (Residential)	7,400	÷ 43,560 =	0.17 acres
Parking (Driveways)	27,585	÷ 43,560 =	0.63 acres
Other paved surfaces (Streets)		÷ 43,560 =	
Total Impervious Cover	34,985	÷ 43,560 =	0.80 acres
Total Impervious Cover ÷ Total Acreage x 100 =			55%

5. _X_ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. _X_ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. 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.

8. Type of pavement or road surface to be used:
   - ___ Concrete
   - ___ Asphaltic concrete pavement
   - ___ Other: ___

9. Length of Right of Way (R.O.W.): ____ feet.
Width of R.O.W.: ____ feet.
L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
Width of pavement area: ____ feet.
L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre =____ acres.
Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

11. __ A rest stop will be included in this project.
__ A rest stop will **not** be included in this project.

12. __ 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

13. **ATTACHMENT B - 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 provided at the end of this form. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

14. The character and volume of wastewater is shown below:

_100_% Domestic _____ gallons/day
_____% Industrial _____ gallons/day
_____% Commingled _____ gallons/day

TOTAL_____60___ gallons/day

15. Wastewater will be disposed of by:
__**On-Site** Sewage Facility (OSSF/Septic Tank):
ATTACHMENT C - Suitability Letter from Authorized Agent. An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.
__ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

_X_ Sewage Collection System (Sewer Lines):
_X_ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
__ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
__ The SCS was previously submitted on _____.
__ The SCS was submitted with this application.

__ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to executive director approval.

The sewage collection system will convey the wastewater to the Gruene Rd WWTP (name) Treatment Plant. The treatment facility is:

_X_ existing.
__ proposed.

16. _X_ All private service laterals will be inspected as required in 30 TAC §213.5.

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = __50'____'.

18. 100-year floodplain boundaries
__ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
_X_ 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):
FEMA Panel Number 4854930005E Dated 01/05/2006

19. __ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.
_X_ The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
_X_ There are _0_(#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)
__ The wells are not in use and have been properly abandoned.
__ The wells are not in use and will be properly abandoned.
__ The wells are in use and comply with 30 TAC §238.
_X_ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:
__ All **sensitive and possibly sensitive** geologic or manmade features identified in the Geologic Assessment are shown and labeled.
_X_ No **sensitive and possibly sensitive** geologic or manmade features were identified in the Geologic Assessment.
____ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. Geologic or manmade features were found and are shown and labeled.
__ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. No geologic or manmade features were found.

22. _X_ The drainage patterns and approximate slopes anticipated after major grading activities.

23. _X_ Areas of soil disturbance and areas which will not be disturbed.

24. _X_ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. _X_ Locations where soil stabilization practices are expected to occur.

26. _X_ Surface waters (including wetlands).

27. _X_ Locations where stormwater discharges to surface water or sensitive features.
__ There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. _X_ One (1) original and three (3) copies of the completed application have been provided.

29. _X_ Any modification of this WPAP will require TCEQ executive director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

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 **WATER POLLUTION ABATEMENT PLAN APPLICATION FORM** is hereby submitted for TCEQ review and executive director approval. The form was prepared by:

Jeffrey D. Moeller, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

3/13/09
Date

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for 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 of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies 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 encountered during construction. The regulated activities near the sensitive feature may not proceed 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 150 feet of a domestic, industrial, irrigation, or public 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 manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must 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 offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake 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 spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

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 activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, 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 Aquifer 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 ponds, dams, berms, sewage treatment plants, and diversionary structures;

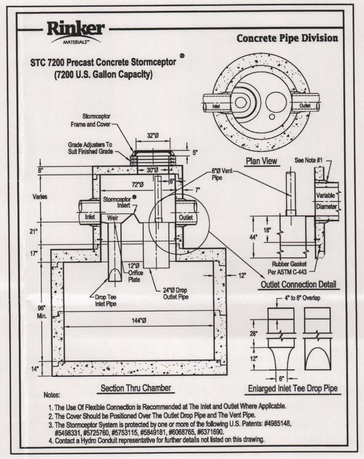
B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

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 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329

SOIL STABILIZATION NOTE

ALL DISTURBED SOILS SHOULD BE SEEDED OR OTHERWISE STABILIZED WITH 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR MORE THAN 21 DAYS.



PROJECT: SAGE CAPITAL BANK

EAPP STORMCEPTOR Compensation Worksheet (Rev. 7/15/08): Use additional sheets for additional catchment areas.

Table I

Effective Area (ac)	Stormceptor Model	Surface Area (ft²)
EA < 0.08	450i	12.57
0.08 < EA < 0.16	900, 1200, 1800	28.27
0.16 < EA < 0.29	2400, 3600	50.27
0.29 < EA < 0.46	4800, 6000	78.54
0.46 < EA < 0.66	7200	113.10
0.66 < EA < 0.92	11,000, 13,000	157.08
0.92 < EA < 1.32	16,000	226.19

Use additional sheets for additional BMPs.
A_I = Impervious Cover
A_P = Pervious Cover
A = Total Area
P = Avg. Annual Rainfall
A_N = Increase in impervious cover (new IC – existing IC)
TSS = L_{M3} = 27.2 x A_N x P

List only the uncaptured area being compensated for in the BMP. TSS compensation for uncaptured areas can be divided up between multiple BMPs.

	BMP Catchment Area A		Uncaptured / Untreated Areas (for compensation in BMP)	
*	A_U =	0.53	A_{U2} =	
	A_P =	0.08	A_{P2} =	
	A_I =	0.61	A_N =	
	A_{NI} =	0.53	A_{NI2} =	
	L_{M3} =	475.7	L_{M3} =	

1 Stormceptor (STC) Model (Actual Catchment Area to the BMP); Use additional sheets as necessary.
Effective Area (EA) = (0.9 x A_U) + (0.03 x A_P)
EA = (0.9 x 0.53) + (0.03 x 0.08) = 0.48 EA
STC Model (from Table 1 to start) 7200 ; Surface area (SA) of model (Table 1) 113.10 ft²
Required TSS Removal for Catchment Area:
L_{M3} = 27.2 x 0.53 A_{NI} x 33 P" = 475.7 #TSS

2 Overflow Rate
V_{of} = (EA x 1.1 in/hr) / Model surface area (SA)
V_{of} = (0.48 x 1.1) / 113.10 = 0.004668 f/s

3 BMP Efficiency (Table 2); If the overflow rate is between two percent efficiencies, use the smaller percent efficiency (round the overflow rate to the larger overflow value). Enter rounded overflow value:
V_{of} = 0.004910 f/s
BMP % = 82 % / 100 = 0.82 BMP Eff.

4 Maximum TSS Removal of BMP: L_{R1}
L_{R1} = (BMP Eff x P) x [(A_U x 34.6) + (A_P x 0.54)]
L_{R1} = (0.82 x 33 ") x [(0.53 x 34.6) + (0.08 x 0.54)] = 497.4 #TSS
TSS Load Credit (L_C) to be counted towards untreated areas = L_{R1} - L_{M3}
L_C = (497.4 #TSS – 475.7 #TSS) = 21.7 #TSS

5 Required TSS Removal for Uncaptured Area L_{M2} = 27.2 x 0 A_{NI2} x 33 " = 0 #TSS

6 Is Sufficient Treatment Available?
If $L_C \geq L_{M2}$; Model size is adequate.
If $L_C < L_{M2}$; Model size is inadequate. Choose a larger model size or redefine the catchment areas. Repeat steps 1 - 6.
21.7 L_C (< or ≥ pick) 0 L_{M2}

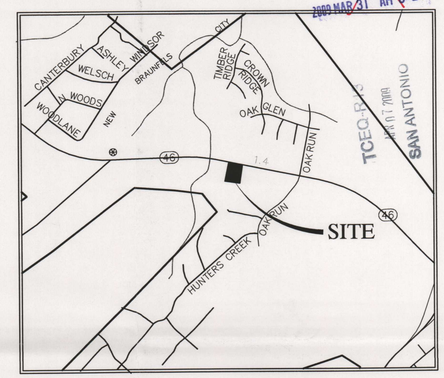
Final Model Size: 7200

7 TSS Treatment by BMP
L_{M3} (step 1) + L_{M2} (step 5) = TSS Treatment by BMP
475.7 #TSS + 0 #TSS = 475.7 #TSS

8 TSS Treatment Summary

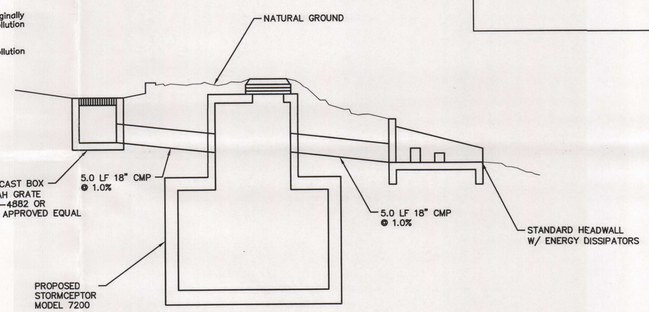
Catchment Area	STC Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_{M3})	TSS Treatment by BMP (lb/yr) (Step 7)
BMP Catchment	7200	0.61	0.53	475.7	475.7
Uncaptured/Untreated	---	0	0	0	0
Total	---	0.61	0.53	475.7	475.7

Stormceptor Worksheet 7/15/2008



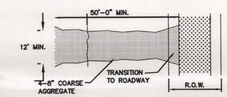
LOCATION MAP

TOTAL LAND AREA	=	1.50 AC
TOTAL DISTURBED AREA	=	1.05 AC
TOTAL IMPERVIOUS AREA	=	0.80 AC
% IMPERVIOUS	=	55%

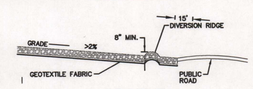


STORM DRAIN PROFILE

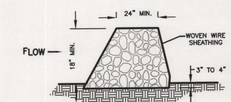
N.T.S.



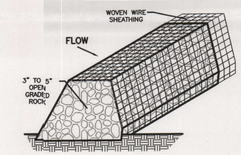
PLAN VIEW



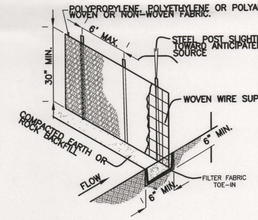
PROFILE



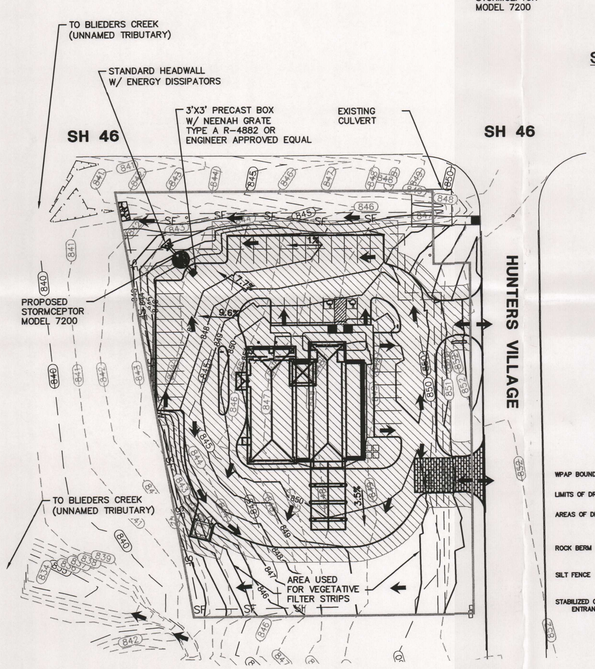
CROSS SECTION



ISOMETRIC PLAN VIEW



SILT FENCE



HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:
(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:
(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:
(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rock should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:
(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:
(1) The entrance should be maintained in a condition, which will prevent tracking or towing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:
(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 – 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 – 8 inch diameters rocks may be used.

Installation:
(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings.

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:
(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:
(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:
(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(5) Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:
(1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

"RECEIVED TCEQ SAN ANTONIO REGION 2009 MAR 31 AM 8:24"

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH:(830)625-8555
FAX:(830)625-8556
JEFFREY D. MOELLER 68588 LICENSED PROFESSIONAL ENGINEER

FOR PERMIT USE ONLY, NOT TO BE USED FOR CONSTRUCTION

WATER POLLUTION ABATEMENT PLAN SITE PLAN

SAGE CAPITAL BANK

AMERICAN NATIONAL BANK
1606 N. SARAH DEWITT DR
GONZALES, TEXAS 78629

DATE: 3/13/09
DRAWN BY: JB
DESIGNED BY: JB
CHECKED BY: JDM
REVIEWED BY: JDM
PROJECT NUMBER: 09016

SHEET 1 1

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Doc\WPAP\NB-09016-WPAP.dwg User: ingolfsj Mar 26, 2009 - 11:47am

ATTACHMENT "A"
Factors Affecting Water Quality

The development will consist of an asphalt parking lot and a structure of approximately 7,400 square feet. This will result in minimal to no pollution from the site. Some pollution may originate from the asphalt streets, automobile wastes, and cleaning chemicals, which may have an effect on surface water by sediments leaving the site after a rainfall event.

ATTACHMENT "B"
Volume and Character of Stormwater

The development of this site will result in a minimal increase in stormwater run-off. Preliminary calculations indicate an approximate increase of 7cfs in a 100 year event due to the proposed improvements. On site detention will not be required due to the proximity of the site to Blieders Creek in accordance with regulations set forth by the City of New Braunfels.

There are 15.37 acres upstream and west of the development that drains towards SH 46 and west through the existing culverts located at the northeast corner of the site. The area is currently undeveloped, and the proposed use is commercial. The ultimate development of the area discharge 59.8 cfs through the culvert during the 100 year storm event. However, this runoff does not co-mingle with the on-site untreated stormwater. The upgradient stormwater will be contained within the existing drainage channel along SH 46. The treatment of the proposed improvements for this upgradient area will be addressed in the WPAPs submitted for those properties. Reference the Drainage Area Map of the Hunters Creek Business Park WPAP(Approved by TCEQ June 5, 2006, EAPP #1964.01) for drainage patterns for the area.

The existing drainage patterns will be altered by the proposed construction. Before any improvements the site drained from east to west. After the proposed improvements half of the site's drainage will run to North into a drainage easement along SH 46 and the other half will discharge into a drainage easement at the southwest corner of the site.

ATTACHMENT "C"
Suitability Letter from Authorized Agent

There is no proposed OSSF.

ATTACHMENT "D"
Exception to the Required Geologic Assessment

No exception will be requested.

RECEIVED
APR 13 2009
COUNTY ENGINEER

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: Sage Capital Bank

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 that 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.
   _X_ Fuels and hazardous substances will not be stored on-site.

2. _X_ **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. _N/A_ 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. _X_ **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. _X_ **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. _X_ 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: Un-named Tributary of Blieders 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.

   ___ **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.

   _X_ 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.

_X_ 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. _N/A_ 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:

Jeffrey D. Moeller, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

3/13/09
Date

ATTACHMENT "A"
Spill Response Actions

Spill Prevention and Control

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill cleanup materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise clean up activities.

(7) Do not bury or wash spills with water.

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMP's.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills immediately.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMP's in this section for specific information.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM.
After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html

Vehicle and Equipment Maintenance

(1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

(4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non- leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

ATTACHMENT "B"
Potential Sources of Contamination

The only potential sources of contamination are construction equipment leaks, re-fueling spills, as well as potential from port-o-lets, and the total suspended solids (TSS) due to the construction activities on-site. There are no other anticipated potential sources of contamination.

ATTACHMENT "C"
Sequence of Major Activities

Stages of Construction:

1. Minor site grading: This includes the removal of organic material and other debris within the proposed parking and building site. Approximate total disturbed area = 1.05 acres
2. Grading: Cutting and filling of the proposed site to prepare the site for parking and foundation construction. Approximate total disturbed are = 1.05 acres.
3. Stormceptor Installation: Stormceptor structure will be installed at the northwest corner of the site, see Permanent Stormwater Section
4. Utility Installation: All primary utility mains have already been installed and are available at the site. Small sewer, water and electrical services will be installed at this time.
5. Finished Grading: Final landscaping, asphalt parking and building infrastructure are installed. Approximate total disturbed area = 1.05 acres

ATTACHMENT "D"
Temporary BMP's and Measures

The following sequence will be followed for installing temporary BMP's:

1. Silt fence will be constructed on the downgradient side of proposed site.
2. A stabilized construction exit will be installed prior to any site work.
3. A rock berm will be installed in the northwest corner of the site, downstream of the existing culvert.

A. The existing roadway along the east property line intercepts upgradient stormwater directs it to an existing sand filtration pond. A stabilized construction exit will be constructed at the entrance of the site on Hunters Village, this will reduce the amount of contaminants leaving the site.

B. Silt fence will be placed on the downgradient side of each proposed improvement to contain pollutants generated from onsite runoff. Soil disturbance will be limited to a minimal distance outside the proposed pavement and building pad. Disturbed areas will be seeded to replace destroyed vegetation. The existing vegetation located downgradient of each proposed improvement will work in conjunction with the silt fence, rock berms, and stabilized construction entrance to prevent pollution of water originating onsite and/or flowing offsite.

C. The proposed silt fences, rock berm, and stabilized construction entrances constructed upgradient of the existing streams will prevent pollutants from entering them as well as the aquifer. According to the Geologic Assessment, there are no sensitive features with the project boundary.

D. There were no sensitive features identified in the Geologic Assessment.

ATTACHMENT "E"
Request to Temporarily Seal a Feature

There will be no request to temporarily seal a feature.

ATTACHMENT "F"
Structural Practices

Rock berms and silt fence will be used to protect disturbed soils and to prevent contamination from leaving the project site.

ATTACHMENT "G"
Drainage Area Map

See Drainage Area Map at the end of this section.

ATTACHMENT "H"
Temporary Sediment Pond Plans and Calculations

There will not be more than 10 acres of disturbed soil in one common drainage area that will occur at one time. Silt fence will be used for small drainage areas. No sediment ponds will be constructed due to the minimal amount of soil disturbance.

ATTACHMENT "I"
Inspection and Maintenance for BMP's

Inspection and Maintenance Plan

The contractor is required to inspect the control and fences at weekly intervals and after any rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance controls and fences shall immediately make any necessary repairs to damaged areas.

Temporary Construction Entrance/Exit: The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. 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 public rights-of-way should be removed immediately by contractor. When necessary, wheels

should be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Silt Fence: Remove sediment when buildup reaches 6 inches. Replace any torn fabric or install a second line of fencing parallel to the torn section. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Rock Berms: For installation in streambeds, additional daily inspections shall be made. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in a approved manner that will not cause any additional siltation. Repair any loose wire sheathing. The berm shall be reshaped as needed during inspection. The berm shall be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc. The rock berm shall be left in place until all upstream areas are stabilized and accumulated silt removed.

TCEQ staff will be allowed full access to the property during construction of the project for inspecting controls and fences and to verify that the accepted plan is being utilized in the field. TCEQ staff has the right to speak with the contractor to verify plan changes and modifications.

Any changes made to the location or type of controls shown on the accepted plans, due to onsite conditions, shall be documented on the site plan that is part of this Water Pollution Abatement Plan. No other changes shall be made unless approved by TCEQ and the Design Engineer. Documentation shall clearly show changes made, date, and person responsible and reason change was made.

Owner's Information:

Owner:	American National Bank
Contact:	Joseph M. Rankin, III
Phone:	(830) 672-8585
Address:	1606 N. Sarah Dewitt Dr. Gonzales, Texas 78269

Design Engineer:

Company: HMT Engineering & Surveying
Contact: Jeffrey D. Moeller, P.E.
Phone: (830) 625-8555
Address: 410 N. Seguin Street
New Braunfels, Texas 78130

Person or Firm Responsible for Erosion/Sedimentation Control Maintenance:

Company: _____
Contact: _____
Phone: _____
Address: _____

Signature of Responsible Party: _____

This portion of the form shall be filled out and signed by the responsible party prior to construction.

ATTACHMENT "J"
Schedule of Interim and Permanent Soil Stabilization Practices

Areas which are disturbed by construction staging and storage areas will be hydro mulched with the appropriate seed mixture. Areas between the edge of pavement and property line will also be hydro mulched. There will be no fill slopes exceeding a 3:1 slope and all fill slopes will be hydro mulched. Installation and acceptable mixtures of hydro mulch are as follows:

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Seed Mixtures:

Dates	Climate	Species	(lb/ac.)
Sept. 1 to Nov. 30	Temporary Cool Season	Tall Fescue	4.0
		Oats	21.0
		Wheats	30.0
		Total	**55.0**
Sept. 1 to Nov. 30	Cool Season Legume	Hairy Vetch	8.0
May 1 to Aug. 31	Temporary Warm Season	Foxtail Millet	30.0

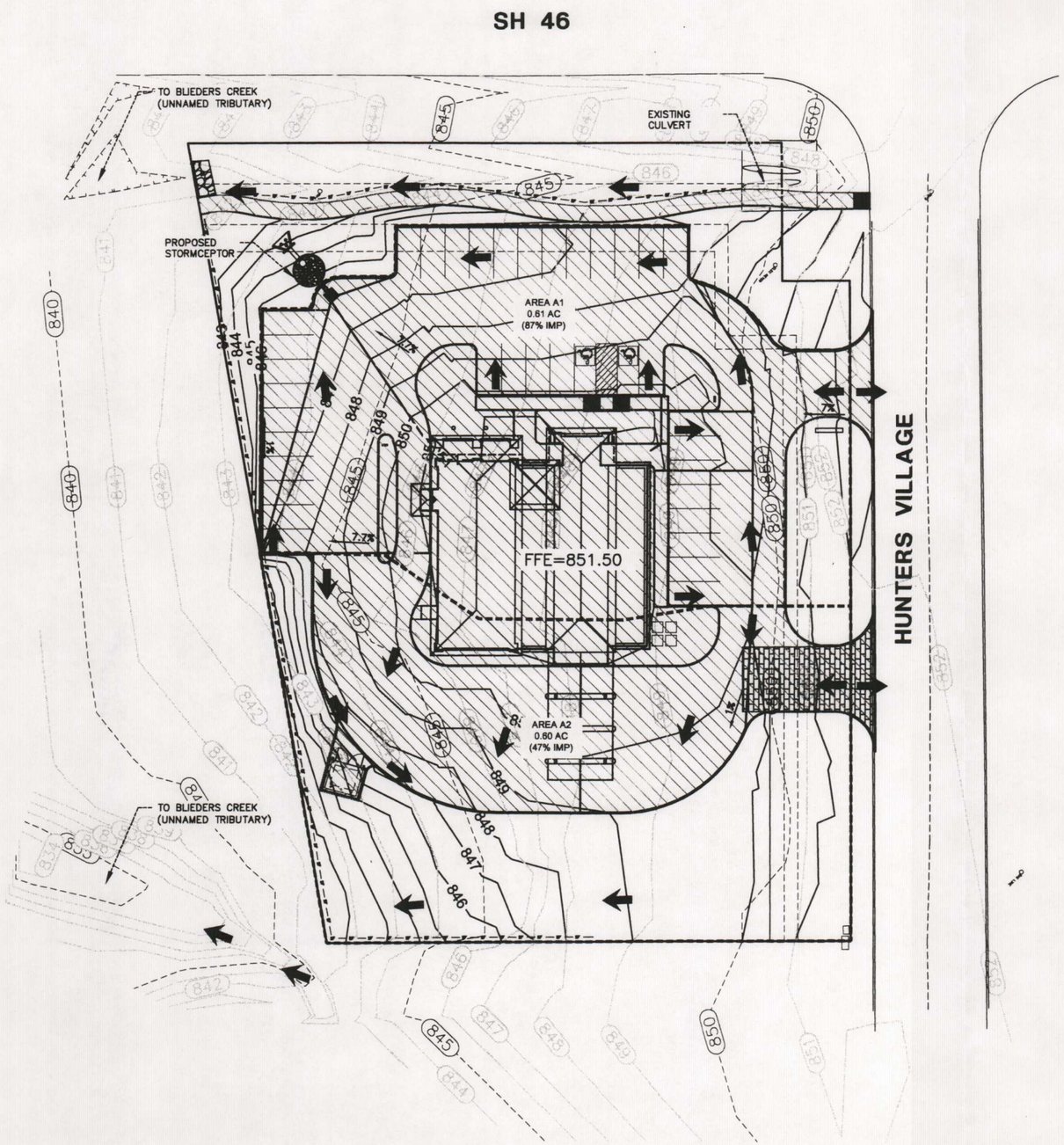
Fertilizer: Fertilizer should be applied at the rate of 40 pounds of nitrogen and 40 pounds of phosphorus per acre, which is equivalent to about 1.0 pounds of nitrogen and phosphorus per 1000 square feet.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.



SCALE: 1" = 50'

LEGEND

LIMITS OF DRAINAGE AREA	
AREAS OF DISTURBANCE	
ROCK BERM	
SILT FENCE	
STABILIZED CONSTRUCTION ENTRANCE/EXIT	

TOTAL LAND AREA	=	1.50 AC
TOTAL DISTURBED AREA	=	1.05 AC
TOTAL IMPERVIOUS AREA	=	0.80 AC
% IMPERVIOUS	=	55%

FOR PERMIT USE ONLY, NOT TO BE USED FOR CONSTRUCTION

JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
3-18-09

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8558

DRAINAGE AREA MAP

SAGE CAPITAL BANK

AMERICAN NATIONAL BANK
1606 N. SARAH DEWITT DR.
GONZALES, TEXAS

DATE: 3/10/09
DRAWN BY: JB
DESIGNED BY: JB
CHECKED BY: JDM
REVIEWED BY: JDM
PROJECT NUMBER: 09016

SHEET 1 OF 1

Drawing No: N:\Projects\American National Bank (Sage) - NB_09016\Doc\WPAP\ANB-090rainage Area.dwg User: Ingallsjl Mar 18, 2009 - 1:40pm

Permanent Stormwater Section
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b)(4)(C), (D)(li), (E), and (5), Effective June 1, 1999

REGULATED ENTITY NAME: Sage Capital Bank

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

1. _X_ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

2. _X_ 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.

   _X_ 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:

   _____

   _____

3. _X_ 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.

4. _X_ 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.
   _X_ This site will not be used for low density single-family residential development.

5. _X_ 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 A - 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.

_X_ 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.

6. **ATTACHMENT B - 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 identified as **ATTACHMENT B** at the end of this form.

_X_ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** 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 B** at the end of this form.

7. **ATTACHMENT C - BMPs for On-site Stormwater.**

_X_ 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 identified as **ATTACHMENT C** 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 C** at the end of this form.

8. _X_ **ATTACHMENT D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is provided at the end of this form. Each feature identified in the Geologic Assessment as "sensitive" has been addressed.

9. _X_ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

_X_ The permanent sealing of or diversion of flow from a naturally-occurring "sensitive" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" or "possibly sensitive" features on this site.

_N/A_ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" or "possibly sensitive" feature, that includes a justification as to why no reasonable and practicable alternative exists, is found at the end of this form. A request and justification has been provided for each feature.

10. _X_ **ATTACHMENT F - 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 man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. _X_ **ATTACHMENT G - 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.

12. _X_ 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 H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. _X_ **ATTACHMENT I -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 increase erosion that results in water quality degradation.

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

14. _X_ 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.

15. _X_ 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.

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 **PERMANENT STORMWATER SECTION** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Jeffrey D. Moeller, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

3/13/09
Date

ATTACHMENT "A"
20% of Less Impervious Cover Waiver

The proposed development is a commercial bank and the 20% Impervious Cover Waiver does not apply. Permanent BMP's will be designed in accordance with TCEQ requirements for the removal of TSS generated by the proposed development.

ATTACHMENT "B"
BMP's for Upgradient Stormwater

There are 15.37 acres upstream and west of the development that drains towards SH 46 and west through the existing culverts located at the northeast corner of the site. The area is currently undeveloped, and the proposed use is commercial. The ultimate development of the area discharge 59.8 cfs through the culvert during the 100 year storm event. However, this runoff does not co-mingle with the on-site untreated stormwater. The upgradient stormwater will be contained within the existing drainage channel along SH 46. The treatment of the proposed improvements for this upgradient area will be addressed in the WPAPs submitted for those properties. Reference the Drainage Area Map of the Hunters Creek Business Park WPAP(Approved by TCEQ June 5, 2006, EAPP #1964.01) for drainage patterns for the area.

The upgradient stormwater intercepted by the Hunters Village drains into the sand filtration basin designed with the Hunters Creek Business Park WPAP(Approved by TCEQ June 5, 2006, EAPP #1964.01). Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "C"
BMP's for On-Site Stormwater

The permanent BMP's used to treat on-site stormwater runoff will be a combination of the Stormceptor® system and vegetative filter strips. Please refer to the Drainage Area Map in the Temporary Stormwater Section for areas of treatment and BMP structures used.

ATTACHMENT "D"
BMP's for Surface Streams

The vegetative filter strips and Stormceptor® system will be installed to prevent pollutants from entering surface streams and ultimately the aquifer. There were no sensitive features identified by the Geologic Assessment.

The natural vegetation located downgradient of proposed improvements will provide additional filtration to help prevent pollution from entering streams, sensitive features and the aquifer.

ATTACHMENT "G"
Inspection, Maintenance, Repair and Retrofit Plan

Stormceptor® Maintenance and Monitoring Procedures

Stormceptor® recommends annual maintenance (1 time per year) of the Stormceptor® System in conjunction with quarterly monitoring (4 times per year). Typical Stormceptor® monitoring is conducted with a dipstick tube equipped with a ball valve (Sludge Judge® or Core Pro®). Pollutant levels will be recorded monthly. When the pollutant levels reach the guideline values indicated in this plan, maintenance is required. Vacuum maintenance will be done on an annual basis **AND/OR** when monitoring indicates high pollutant levels (see Table 1 in Stormceptor® Monitoring section).

Monitoring will be noted on the attached "Stormceptor® Quarterly Monitoring / Maintenance Plan Summary" sheet. All entries must be signed and dated by the property owner or designee.

Stormceptor® maintenance must be documented to include a copy of the applicable vacuum service manifest.

Upon completion of the monthly monitoring and the annual maintenance, the "Stormceptor® Monitoring / Maintenance Plan Summary" sheet and all back-up documentation (to include manifest from vacuum service) must be submitted to the responsible engineer for signature and stamp. This sheet will then be turned in to the responsible agency to verify compliance with the storm water ordinance.

Quarterly Monitoring

Monitoring the Stormceptor® unit requires a dipstick tube equipped with a ball valve (typically a Sludge Judge® or Core Pro®). A normal monitoring scenario requires removal of the manhole cover and lowering the dipstick tube through the oil port into the bottom treatment chamber (see Figure 1). Make sure the dipstick tube goes completely to the bottom. Lift the dipstick tube out of the unit and keep it in a vertical position and read the level of sediment and oils from the gauge on the dipstick. The dipstick gauges are typically labeled with twelve inch increments. Record pollutant levels on your "Stormceptor® Monitoring / Maintenance Plan Summary".

If either pollutants in the dipstick tube (sediments or oils) EXCEED the levels indicated on Table 1, maintenance of the Stormceptor® is required. Please skip to "Stormceptor® Maintenance".

Upon completing the recording of pollutant levels, the dipstick tube is then drained back into the inlet side of the Stormceptor® . This ensures that the pollutants in the dipstick tube do not leave the unit. The owner has completed the first phase of the Stormceptor® storm water compliance program.

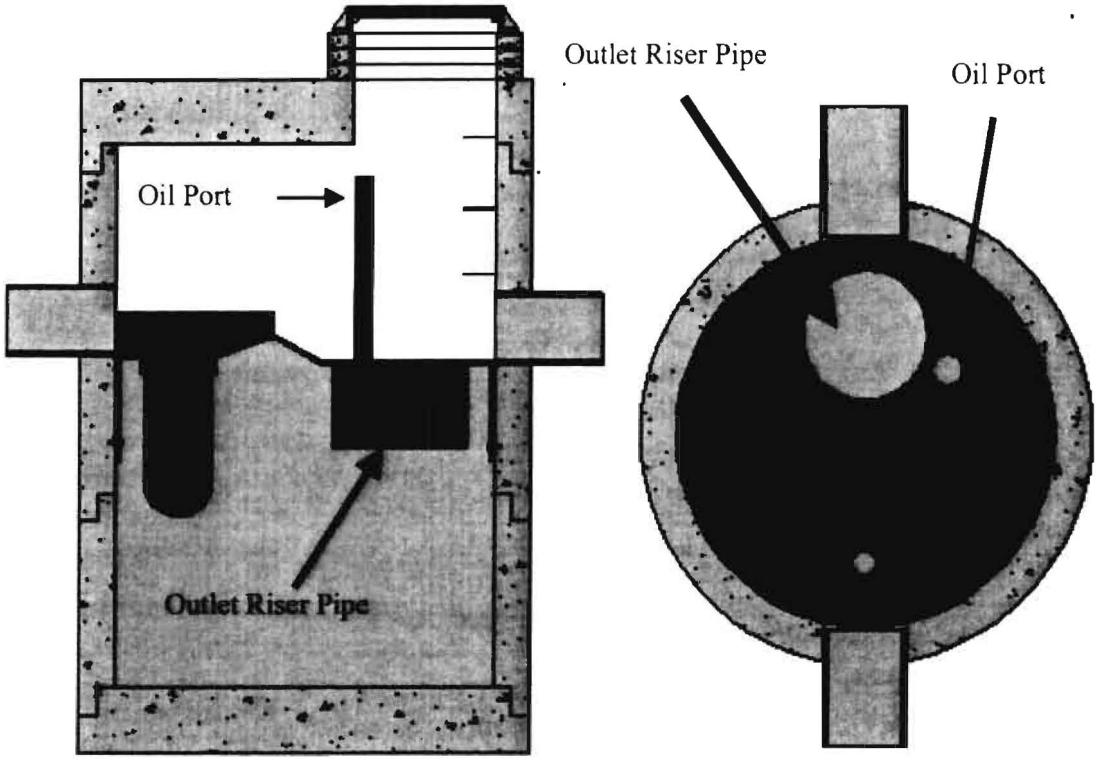


Table 1 – Storm*ceptor*® Maximum Pollutant Levels

Model	Sediment Depth	Oil Depth
STC 450i	8"	12"
STC 900	8"	16"
STC 1200	10"	16"
STC 1200	15"	16"
STC 1800	12"	44"
STC 2400	17"	44"
STC 3600	15"	44"
STC 4800	18"	44"
STC 6000	15"	44"
STC 7200	15"	44"
STC 11000	15" **	44"
STC 13000	18" **	44"
STC 16000	15" **	44"

** Denotes Storm*ceptor*® with two treatment chambers. Pollutant level indicated would be in EACH treatment chamber.

Storm*ceptor*® Maintenance

Maintenance of the Storm*ceptor*® system is required at least once a year or when dictated by the pollutant levels referenced in Table 1. It is imperative that the Storm*ceptor*® be maintained regularly to ensure proper operation of the unit. If the unit reaches the pollutant levels listed in Table 1, the designed effectiveness of the unit will decrease. The Storm*ceptor*® will only operate effectively when the unit is properly maintained..

Maintenance is accomplished when the owner contacts a representative of the Vacuum Service Industry, a well-established sector of the service industry that cleans underground tanks, sewers, and catch basins. Cost to clean the Storm*ceptor*® will vary based on the size of the unit and transportation distances. If you need assistance for cleaning a Storm*ceptor*® unit, please contact your local Rinker Materials representative, or the Storm*ceptor*® Information Line at (800) 909-7763.

Typically, the Vacuum Service representative will maintain the Storm*ceptor*® by first removing the manhole. The vacuum service will first remove the oils through the oil port (refer to Figure 1). If the vacuum cannot remove the oils through the oil port (i.e. the vacuum service hose diameter is larger than the 6" oil port opening) water can be removed through the outlet pipe (refer to Figure 1) until such time that the oils can be removed. Typically, your Vacuum Service representative will recycle the oils at their facility.

Sediments in the Storm*ceptor*® can be removed by inserting the vacuum service hose into the bottom treatment chamber via the outlet pipe (refer to Figure 1). In most areas the sediment, once dewatered at the Vacuum Service facility, can be disposed of in a sanitary landfill. AT NO TIME are the pollutants allowed to be discharged back into the sanitary or storm sewer system.

Once the floatables and sediments have been removed from the Storm*ceptor*®, the unit is required to be filled with clean water to the top of the riser / drop pipe. This completes the maintenance process.

Once maintenance has been completed, document the information on the "Storm*ceptor*® Monitoring / Maintenance Plan Summary" sheet. Attach a copy of the manifest from the applicable vacuum service.

Stormceptor® Monitoring / Maintenance Completion - Summary

Once the "Stormceptor® Monthly Monitoring / Maintenance Plan Summary" has been completed, forward all documentation (including the Vacuum Service manifest) to the Owner to file for future reference

This process must be accomplished every year. This program will also remain in effect as long as required by law.

If any assistance is required, please contact your local Stormceptor® representative or contact the Stormceptor® Information Line at (800) 909-7763.

Stormceptor® Monitoring / Maintenance Plan Summary

Company Name: _____

Company Address: _____

City/State/Zip: _____

Phone: _____

Design Engineer: _____

Engineers Address: _____

City/State/Zip: _____

Phone: _____

Property Owner: _____

*Stormceptor Model _____STC 4800_____

Monitoring / Maintenance Table

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Oil Depth (inches)												
Sediment Depth (inches)												
Completed By:												
Date												

I hereby certify that the monitoring and maintenance of the Stormceptor® unit was completed in accordance with the directions of the Stormceptor® monitoring / maintenance plan.

_____
(Signed by property owner or designee)

** Note – This form must be completed for both chambers of the STC 11000, STC 13000, and STC 16000.

Page 2 - Storm*ceptor*® Monitoring / Maintenance Plan Summary

Upon completion of annual maintenance / monitoring, forward the completed Storm*ceptor*® Monitoring / Maintenance Plan Summary sheet and all applicable documentation to the properties design engineer for approval and stamp.

I, (design engineer), do hereby certify that the information presented before me meets the requirements of the Storm*ceptor*® Monitoring / Maintenance Plan.

_____
Engineers Name

{PE STAMP HERE}

_____
Engineers Signature

_____
Date

Please forward the completed Storm*ceptor*® Monthly Monitoring / Maintenance Plan Summary and all documentation to the appropriate government agency for verification of compliance with the storm water ordinance.

Attachment "G"

Maintenance Plan for Stormceptor STC 7200

Stormceptor Location:	The Stormceptor unit will be located at the northwest corner of the site, approximately 50 feet south of S.H. 46.
Owner:	American National Bank P.O. Box 1940 Gonzales, Texas 78629 Phone: 830-672-8585

I agree that the attached Stormceptor Maintenance and Monitoring Procedures will be implemented to ensure that the proposed system functions as designed.

J.M. Rankin, III

Joseph M Rankin, III
American National Bank

3-29-09
Date

I have reviewed the attached maintenance and monitoring procedures and to the best of my knowledge certify that if they are followed as outlined the Stormceptor unit will function as designed.

Jeffrey D. Moeller, P.E.

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
3.27.09

ATTACHMENT "I"
Measures for Minimizing Surface Stream Contamination

All surface streams will be protected from erosion by not allowing runoff to exceed existing velocities. A portion of the runoff from the proposed development will sheet flow into the vegetative filter strips. The vegetative filter strips will be designed in order to maintain existing runoff velocities prior to leaving the site. The stormwater runoff for the remainder of the property will be concentrated into the Stormceptor® system where the pollutants will be removed. The outfall of the Stormceptor® structure will be designed to restore the runoff to existing velocities prior to entering the existing channel along SH 46.

PROJECT: SAGE CAPITAL BANK

EAPP STORMCEPTOR Compensation Worksheet (Rev. 7/15/08): Use additional sheets for additional catchment areas.

Table 1

Effective Area (ac)	Stormceptor Model	Surface Area (ft^2)
EA < 0.08	450i	12.57
0.08 < EA < 0.16	900, 1200, 1800	28.27
0.16 < EA < 0.29	2400, 3600	50.27
0.29 < EA < 0.46	4800, 6000	78.54
0.46 < EA < 0.66	7200	113.10
0.66 < EA < 0.92	11,000, 13,000	157.08
0.92 < EA ≤ 1.32	16,000	226.19

Use additional sheets for additional BMPs.
A_I = Impervious Cover
A_P = Pervious Cover
A = Total Area
P = Avg. Annual Rainfall
A_N = Increase in impervious cover (new IC – existing IC)
TSS = L_M = 27.2 x A_N x P

List only the uncaptured area being compensated for in the BMP. TSS compensation for uncaptured areas can be divided up between multiple BMPs.

*

BMP Catchment Area A		Uncaptured / Untreated Areas (for compensation in BMP)	
A_{I1} =	0.53	A_{I2} =	
A_{P1} =	0.08	A_{P2} =	
A_1 =	0.61	A_2 =	
A_{N1} =	0.53	A_{N2} =	
L_{M1} =	475.7	L_{M2} =	

1 Stormceptor (STC) Model (Actual Catchment Area to the BMP); Use additional sheets as necessary.
Effective Area (EA) = (0.9 x A_{I1}) + (0.03 x A_{P1})
EA = (0.9 x 0.53) + (0.03 x 0.08) = 0.48 EA

STC Model (from Table 1 to start) 7200; Surface area (SA) of model (Table 1) 113.10 ft^2
Required TSS Removal for Catchment Area:
L_{M1} = 27.2 x 0.53 A_{N1} x .33 P" = 475.7 #TSS

2 Overflow Rate
V_{or} = (EA x 1.1 in/hr) / Model surface area (SA)
V_{or} = (0.48 x 1.1) / 113.10 = 0.004668 f/s

3 BMP Efficiency (Table 2); If the overflow rate is between two percent efficiencies, use the smaller percent efficiency (round the overflow rate to the larger overflow value). Enter rounded overflow value:
V_{or} = 0.004910 f/s

BMP % = 82 % / 100 = 0.82 BMP Eff.

4 Maximum TSS Removal of BMP: L_{R1}
L_{R1} = (BMP Eff x P) x [(A_{I1} x 34.6) + (A_{P1} x 0.54)]
L_{R1} = (0.82 x .33") x [(0.53 x 34.6) + (0.08 x 0.54)] = 497.4 #TSS

TSS Load Credit (L_C) to be counted towards untreated areas = L_{R1} – L_{M1}
L_C = (497.4 #TSS – 475.7 #TSS) = 21.7 #TSS

5 Required TSS Removal for Uncaptured Area L_{M2} = 27.2 x 0 A_{N2} x .33" = 0 #TSS

6 Is Sufficient Treatment Available?
If L_C ≥ L_{M2}; Model size is adequate.
If L_C < L_{M2}; Model size is inadequate. Choose a larger model size or redefine the catchment areas. Repeat steps 1 - 6.
21.7 L_C (<, >, ≥, pick) 0 L_{M2}

Final Model Size: 7200

7 TSS Treatment by BMP
L_{M1} (step 1) + L_{M2} (step 5) = TSS Treatment by BMP
475.7 #TSS + 0 #TSS = 475.7 #TSS

8 TSS Treatment Summary

Catchment Area	STC Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_M)	TSS Treatment by BMP (lb/yr) (Step 7)
BMP Catchment	7200	0.61	0.53	475.7	475
Uncaptured/Untreated	---	0	0	0	0
Total	---	0.61	0.53	475.7	475.7

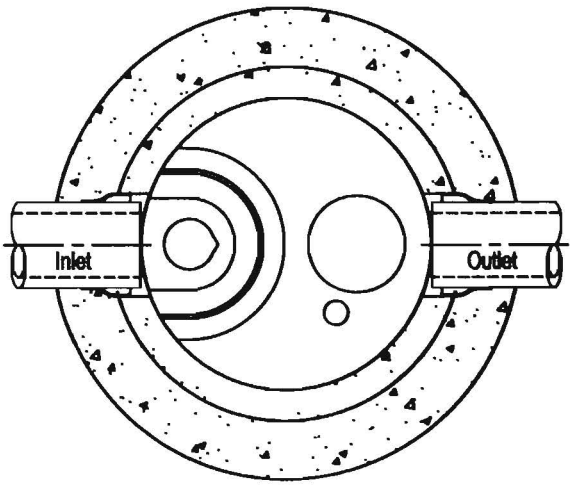
Table 2: Stormceptor BMP Efficiency and Overflow Rate (V_{OR})							
Eff (%)	Overflow (f/s)	Eff (%)	Overflow (f/s)	Eff (%)	Overflow (f/s)	Eff (%)	Overflow (f/s)
40%	0.139000	55%	0.041400	70%	0.013800	85%	0.003560
41%	0.129000	56%	0.039000	71%	0.012900	86%	0.003240
42%	0.119000	57%	0.036500	72%	0.012000	87%	0.002920
43%	0.110000	58%	0.034100	73%	0.011000	89%	0.002280
44%	0.099800	59%	0.031700	74%	0.010100	90%	0.001960
45%	0.090000	60%	0.029200	75%	0.009180	91%	0.001710
46%	0.084300	61%	0.027300	76%	0.008510	92%	0.001460
47%	0.078600	62%	0.025300	77%	0.007830	93%	0.001210
48%	0.072800	63%	0.023300	78%	0.007160	94%	0.000963
49%	0.067100	64%	0.021400	79%	0.006480	95%	0.000713
50%	0.061400	65%	0.019400	80%	0.005810	96%	0.000595
51%	0.057400	66%	0.018300	81%	0.005360	97%	0.000477
52%	0.053400	67%	0.017200	82%	0.004910	98%	0.000358
53%	0.049400	68%	0.016000	83%	0.004460	99%	0.000240
54%	0.045400	69%	0.014900	84%	0.004010	100%	0.000121

Table 3: BMP Summary Table for the Site Complete this table to show the types of BMPs and TSS treatment amounts for the site. Provide additional, as needed.					
BMP Catchment Area	BMP Type or Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_m)	TSS Treatment by BMP (lb/yr)
A					
B					
C					
D					
Uncaptured	---				0
Total	---				

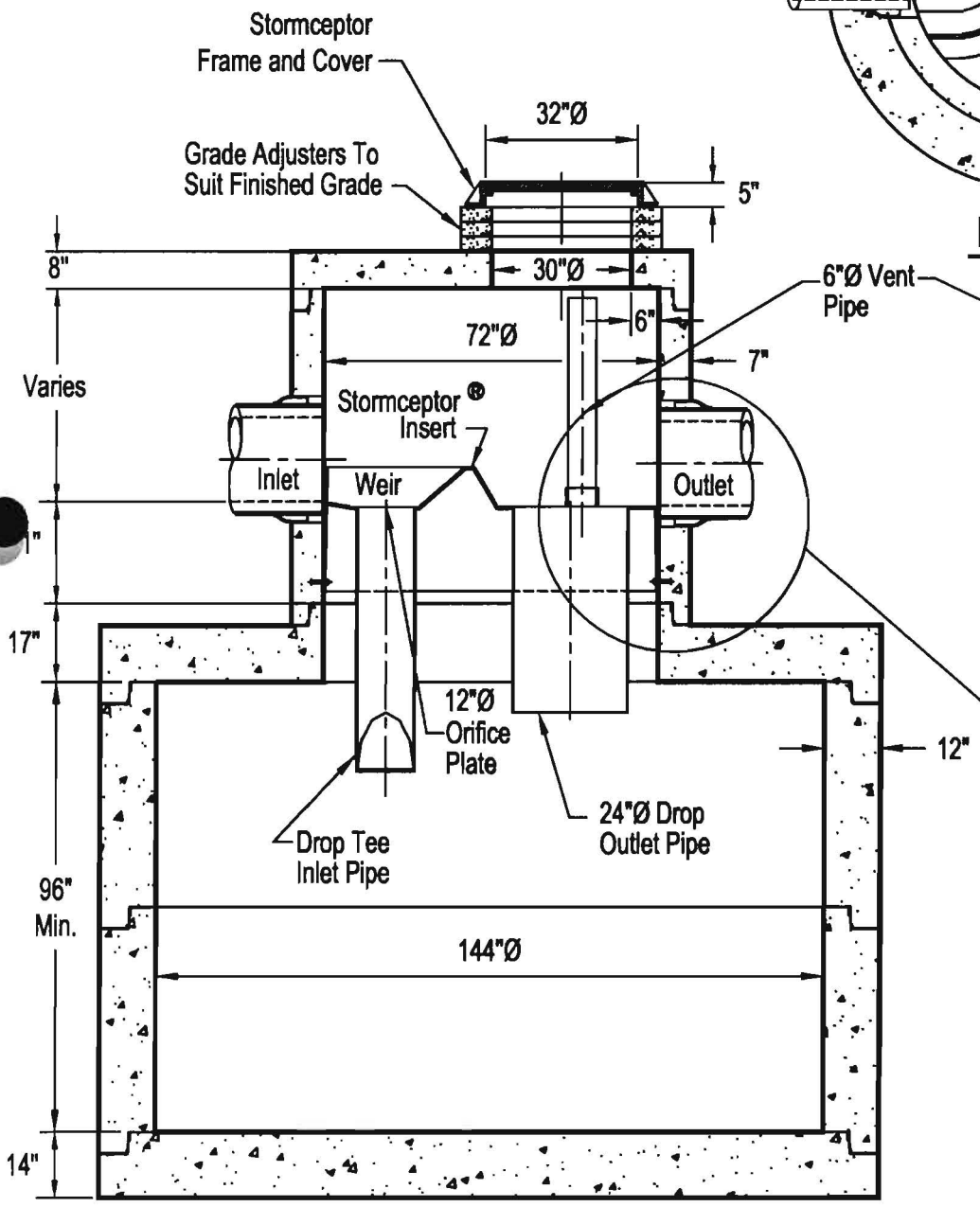
Rinker MATERIALS™

Concrete Pipe Division

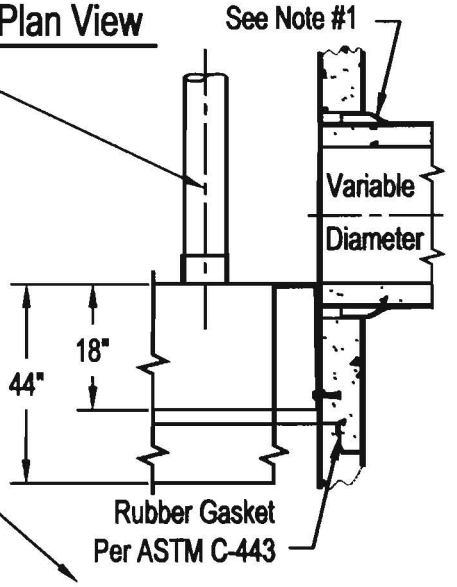
STC 7200 Precast Concrete Stormceptor®
(7200 U.S. Gallon Capacity)



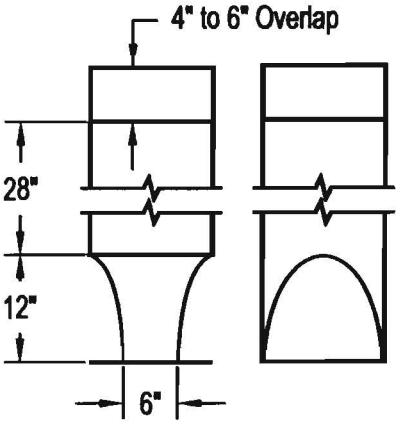
Plan View



Section Thru Chamber



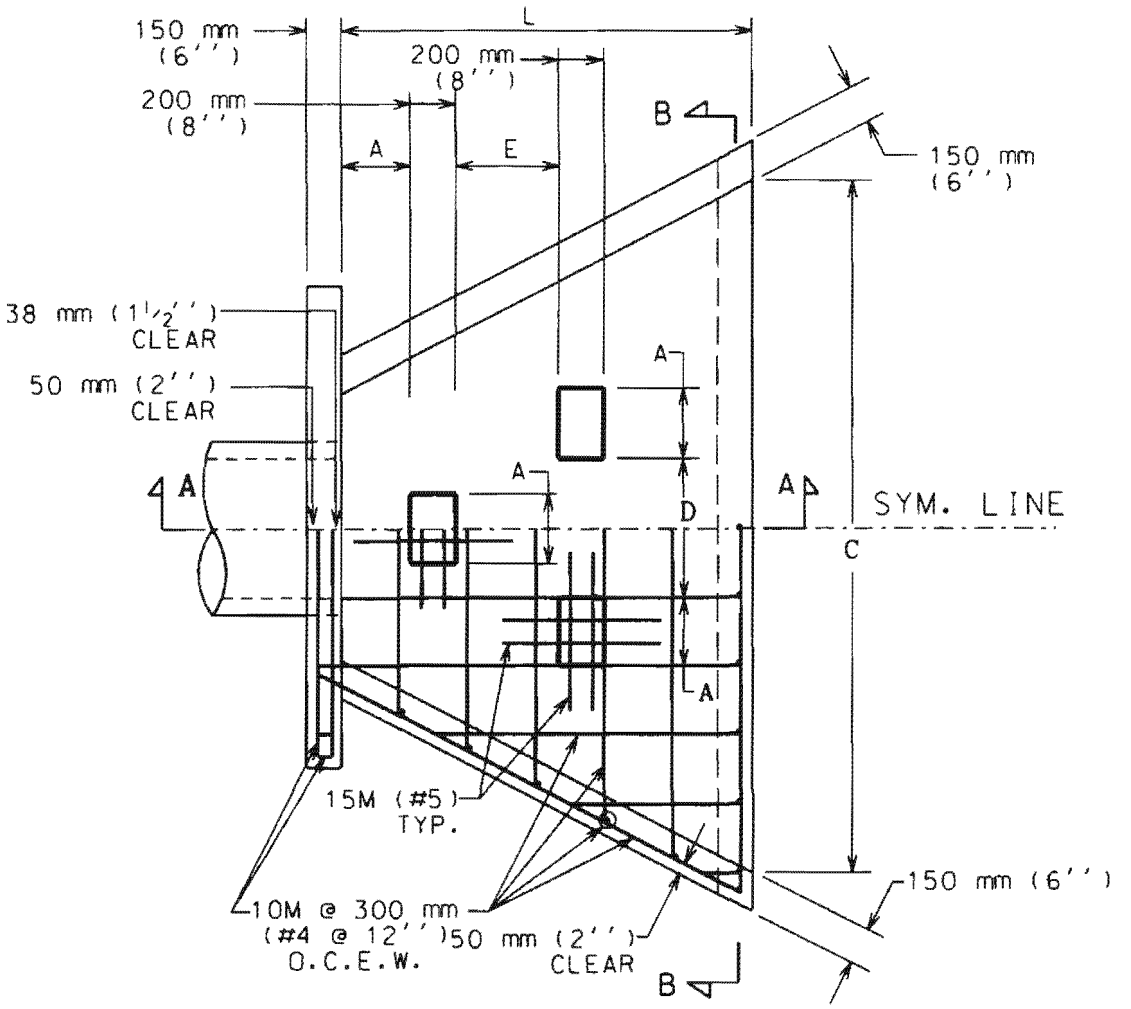
Outlet Connection Detail



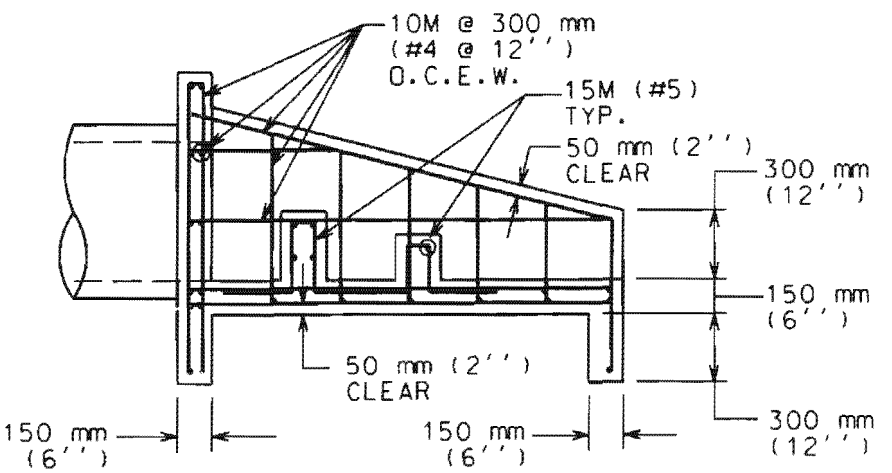
Enlarged Inlet Tee Drop Pipe

Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Vent Pipe.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Hydro Conduit representative for further details not listed on this drawing.

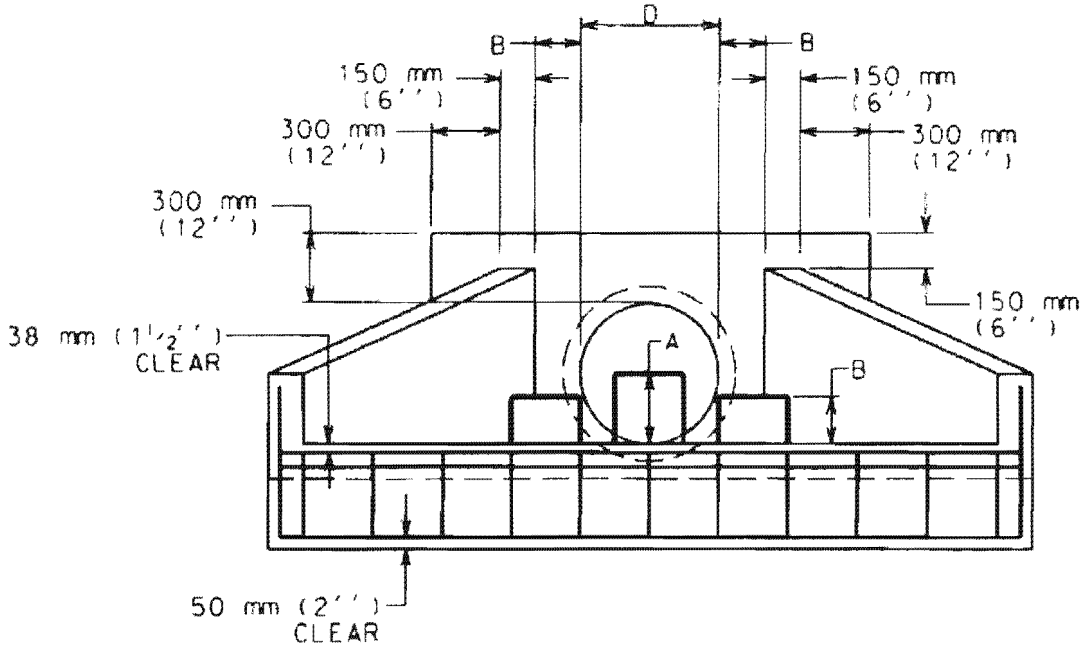


PLAN



SECTION A-A

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
RECORD COPY SIGNED BY BILL GARDNER *08/20/07* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 1 OF 2



SECTION B-B

NOTES:

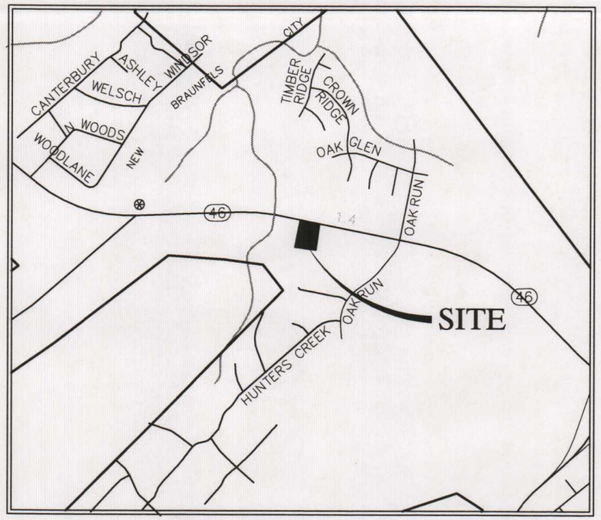
1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S. CONCRETE FOR STURCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

D	457 mm (18'')	533 mm (21'')	610 mm (24'')	685 mm (27'')	765 mm (30'')	838 mm (33'')	914 mm (36'')	1.067 m (42'')	1.219 m (48'')	1.372 m (54'')	1.524 m (60'')
A	225 mm (9'')	250 mm (10'')	300 mm (12'')	350 mm (14'')	375 mm (15'')	400 mm (16'')	450 mm (18'')	525 mm (21'')	600 mm (24'')	675 mm (27'')	750 mm (30'')
B	150 mm (6'')	175 mm (7'')	200 mm (8'')	225 mm (9'')	250 mm (10'')	275 mm (11'')	300 mm (12'')	350 mm (14'')	400 mm (16'')	450 mm (18'')	500 mm (20'')
C	2.29 m (90'')	2.67 m (105'')	3.05 m (120'')	343 m (135'')	3.81 m (150'')	4.19 m (165'')	4.57 m (180'')	5.33 m (210'')	6.10 m (240'')	6.86 m (270'')	7.62 m (300'')
L	1.37 m (54'')	1.60 m (63'')	1.83 m (72'')	2.06 m (81'')	2.29 m (90'')	2.51 m (99'')	2.74 m (108'')	3.20 m (126'')	3.66 m (144'')	4.11 m (162'')	4.57 m (180'')
E	300 mm (12'')	350 mm (14'')	400 mm (16'')	450 mm (18'')	500 mm (20'')	550 mm (22'')	600 mm (24'')	700 mm (28'')	800m (32'')	900 mm (36'')	1000 mm (40'')

DIMENSIONS IN MILLIMETERS, METERS AND (INCHES).

DISCHARGE VELOCITIES GREATER THAN 3 METERS/SECOND (10 fps) REQUIRE ROCK OUTLET PROTECTION.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
RECORD COPY SIGNED BY BILL GARDNER *08/20/07* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 2 OF 2



LOCATION MAP

Sage Capital Bank

Financial Wisdom. Texas Roots.

SHEET INDEX

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HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF JEFFREY D. MOELLER, PE. 88588 ON March 13, 2009 . IT IS NOT TO BE USED FOR PERMITTING, BIDDING, OR CONSTRUCTION PURPOSES.

I, THE UNDERSIGNED JEFFERY D. MOELLER, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS, HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN TO THESE PLANS.

JEFFREY D. MOELLER P.E. REGISTRATION NO. 88588

GENERAL NOTES

1. NOTIFY THE CITY STREET INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION (830) 221-4031.

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS,
TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

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COVER SHEET

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C1.0

Drawing Name: N:\Projects\American National Bank (Copy) - NB_09016\Dwg\NB-09016-Cover.dwg User: ingalls Mar 13, 2009 - 10:58am

GENERAL NOTES:

ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL COMPLY WITH:

A. CURRENT CITY OF NEW BRAUNFELS CONSTRUCTION SPECIFICATIONS AND STANDARDS AS OF THE DATE OF THIS CONTRACT

B. TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES - 1993".

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 1993 TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES." ALONG WITH CURRENT CITY OF SAN ANTONIO AND COMAL COUNTY SPECIFICATIONS. ANY DISCREPANCIES BETWEEN SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES, AND TAXES AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.

ANY EXISTING OFF-SITE IMPROVEMENTS THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER OF THE EXISTING IMPROVEMENT AT THE CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)

WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR CONSENT OF THE OWNER OR ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.

CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100yr FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.

BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE PROVIDING CONTINUOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.

CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.

WHEN MATCHING EXISTING PAVEMENTS, CURBS, DRIVES, AND WALKS, THEY SHALL BE SAW CUT FULL DEPTH AND REMOVED TO ALLOW FOR PROPOSED CONSTRUCTION. IF ANY EXISTING JOINT IS ENCOUNTERED, PRECAUTION SHALL BE TAKEN DURING REMOVAL OF CONCRETE SO AS NOT TO DAMAGE EXISTING DOWELS. ALL EXISTING DOWELS SHALL BE EXPOSED AND CLEANED.

ITEM OF WORK DESIGNATED "BY OTHERS" SHALL NOT BE CONSIDERED PART OF THIS CONTRACT.

ALL "COMPACTED SUBGRADE" SHALL CONSIST OF NATIVE MATERIAL SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES AND COMPACTED TO 95% DENSITY ACCORDING TO DENSITY TEST METHOD TEX-115E OR ACCORDING TO ASTM D-698 AND TESTED BY ASTM D-2922.

ALL "FLEXIBLE BASE" SHALL BE TYPE "A", GRADE 4, ACCORDING TO TxDOT ITEM 247, COMPACTED TO 95% MODIFIED DENSITY AT A MOISTURE CONTENT BETWEEN -2 AND +3 OF OPTIMUM PERCENT MOISTURE ACCORDING TO ASTM D-1557 (MODIFIED PROCTOR) AND TESTED BY ASTM D-2922.

ASPHALT PAVEMENT SHALL BE THE TYPE SPECIFIED ON THE PLANS AND ACCORDING TO TxDOT ITEM 340 "HOT MIX ASPHALT CONCRETE PAVEMENT".

PRIME COAT USING MC-30 AT A RATE OF 0.2 GALLONS PER SQUARE YARD SHALL BE PLACED OVER PREPARED BASE AT LEAST ONE DAY PRIOR TO LAYING ASPHALTIC CONCRETE PAVEMENT. ANY NECESSARY TACK COAT SHALL BE MC-30 AT 0.05 GALLONS PER SQUARE YARD. IT IS REQUIRED THAT BOTH THE PRIME COAT AND THE TACK COAT BE APPLIED AT THE TEMPERATURE SPECIFIED UNDER TxDOT ITEM 300.3.

CONCRETE SHALL BE CLASS "A" ACCORDING TO TxDOT ITEM 421 UNLESS OTHERWISE ON PLANS.

REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO TxDOT ITEM 440. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS EXCEPT WHEN REFERRING TO CLEARANCE.

ALL SAWED JOINTS SHALL BE SAWED WITHIN 24 HOURS OF POURING,

ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER.

ORDINARY COMPACTION CONTROL IS REQUIRED ON THIS PROJECT.

ALL ROLLING FOR COMPACTION OF ASPHALTIC CONCRETE PAVEMENT SHALL BE COMPLETED BEFORE THE MIXTURE TEMPERATURE DROPS BELOW 175 DEG. (F).

ALL FILL MATERIAL SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.

CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS, OFFICES, DIRECTORS, OR CONSULTANTS, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILTY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.

ALL CMP (CORRUGATED METAL PIPE) USED ON THIS PROJECT SHALL HAVE A MANNING'S "n" VALUE OF 0.024., UNLESS OTHERWISE SHOWN ON PLANS.

CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTING PER CURRENT CITY OF NEW BRAUNFELS REQUIREMENTS. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ENGINEER AND OWNER RESERVE THE RIGHT TO HAVE THE CONTRACTOR REMOVE AND REPLACE ANY MATERIAL THAT WAS NOT TESTED OR FAILED TESTING. ALL COST ASSOCIATED WITH THE REMOVAL, REPLACEMENT AND TESTING SHALL BE PAID BY THE CONTRACTOR.

ALL PVC SLEEVES SHALL BE INSTALLED 3" BELOW FINISHED GRADE AND ENDS SHALL BE MARKED SO THAT LOCATIONS OF SLEEVES CAN BE EASILY IDENTIFIED.

DETENTION POND SHALL BE EXCAVATED AND GRADED TO DESIGN ELEVATIONS PRIOR TO ANY INSTALLATION OF UNDERGROUND UTILITIES.

PRE--CONSTRUCTION CONFERENCE IS REQUIRED, ENGINEER WILL ARRANGE SUCH CONFERENCE IN COORDINATION WITH CITY OF NEW BRAUNFELS STREET INSPECTOR. NO CONSTRUCTION MAY BEGIN PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.

EROSION / SEDIMENTATION CONTROL:

AT A MINIMUM, THESE CONTROLS SHALL CONSIST OF ROCK BERMS AND/OR SILT FENCES CONSTRUCTED PARALLEL TO AND DOWN GRADIENT FROM THE TRENCHES. THE ROCK BERM OR SILT FENCES SHALL BE INSTALLED IN A MANNER SUCH THAT ANY RAINFALL RUNOFF SHALL BE FILTERED. HAY BALES SHALL NOT BE USED FOR TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CONTROLS WHEN VEGETATION IS ESTABLISHED AND THE CONSTRUCTION AREA IS STABILIZED {31 TAC 313.5 (c)(12)}. ADDITIONAL PROTECTION MAY BE REQUIRED IF EXCESSIVE SOLIDS ARE BEING DISCHARGED FROM THE SITE.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER/ENGINEER.

PLACEMENT OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION PLANS. ACTUAL LOCATIONS MAY VARY SLIGHTLY FROM THE PLANS, BUT WILL BE VERIFIED BY THE ENGINEER/INSPECTOR IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO INSURE DISTURBANCE OF THE STRUCTURES HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A RAINFALL SHALL BE REMOVED FROM THE SITE OR PLACED IN AN ENGINEER APPROVED DESIGNATED DISPOSAL AREA.

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UTILITIES

LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION, INCLUDING THOSE NOT SHOWN ON THE DRAWINGS.

ANY EXISTING UTILITIES, ON OR OFF THE SITE, THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE RESPECTIVE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AT:

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION

NEW BRAUNFELS UTILITIES (WATER AND SEWER)	(830) 608-8971
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIMEWARNER CABLE	(830) 625-3408
RELIANT ENERGY ENTEX	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	1-800-245-4545

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192(8), GAS COMPANIES MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT THE WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

CONTRACTOR SHALL REFERENCE NEW BRAUNFELS UTILITIES PLANS FOR FINAL ELECTRICAL LINE DESIGNS AND LAYOUT.

SEWER NOTES

1. THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION.
2. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 CENTER POINT ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND GAS VALVES THAT ARE IN THE PROJECT AREAS.
3. ALL 8" GRAVITY SEWER PIPE (MAINS & LATERALS) AND FITTINGS IN THIS PROJECT ARE PVC SDR-26, ASTM D-3034, D-3212, F-477. ALL PRESSURE RATED SEWER PIPE IS PVC AWWA C-900 PIPE. COLORED GREEN.
4. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE PROPERTY LINE AND CAPPED AND SEALED.
5. INITIAL BACKFILL OF SEWER LINES SHALL BE 3/4" TO DUST OR PEA GRAVEL AS PER NBU SPECIFICATIONS.
6. SECONDARY BACKFILL OF SEWER LINES SHALL GENERALLY CONSIST OF MATERIALS REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS, AND TRASH, NO ROCKS OR STONES HAVING ANY DIMENSION LARGER THAN 6 INCHES AT THE LARGEST DIMENSION.
7. ALL SEWER PIPES SHALL HAVE COMPRESSION OR MECHANICAL JOINTS AS PER 31 TAC 313.5 (C) (2) (II).
8. FOR SEWER LINES LESS THAN 24" IN DIAMETER, SELECT INITIAL BACKFILL MATERIAL SHALL BE PLACED IN TWO LIFTS.

A. THE FIRST LIFT SHALL BE SPREAD UNIFORMLY AND SIMULTANEOUSLY ON EACH SIDE AND UNDER THE SHOULDERS OF THE PIPE TO THE MID POINT OF SPRING LINE OF THE PIPE.

B. THE SECOND LIFT SHALL BE PLACED TO A DEPTH AS SHOWN ON THE PIPE BACKFILL DETAIL. FOR PIPES LARGER THAN 24", 12" MAXIMUM LIFTS SHALL BE USED.

9. ALL MANHOLES MUST BE WATER TIGHT. EITHER MONOLITHIC, CAST-IN-PLACE CONCRETE STRUCTURES OR PREFABRICATED MANHOLES SPECIFICALLY APPROVED BY NBU. THE MANHOLES SHALL HAVE WATER TIGHT RINGS AND COVERS, WHEREVER THEY ARE WITHIN THE 100 YEAR FLOODPLAIN, THE MANHOLE COVERS SHALL BE BOLTED. EVERY FOURTH MANHOLE IN SEQUENCE SHALL HAVE AN ALTERNATIVE MEANS OF VENTING [31 TAC 313.5(C)(1) AND 31 TAC 317.2(C)(5)(F)]\
10. ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS ABOVE THE SURROUNDING GROUND, EXCEPT WHEN LOCATED IN PAVED AREAS. IN PAVED AREAS, THE MANHOLE RING SHALL BE FLUSH WITH PAVEMENT.
11. ALL NEW MANHOLES ARE TO HAVE COVERS WITH 32" OPENINGS.
12. SEWER PIPE CONNECTIONS TO PRE-CAST MANHOLES WILL BE COMPRESSION JOINTS OF MECHANICAL "BOOT TYPE" JOINT AS APPROVED BY NBU.
13. SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE.
14. IN AREAS WHERE A NEW SANITARY SEWER MANHOLE IS TO BE CONSTRUCTED OVER AN EXISTING SANITARY SEWER SYSTEM, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO TEST THE EXISTING MANHOLES BEFORE CONSTRUCTION. AFTER PROPOSED MANHOLE HAS BEEN BUILT, THE CONTRACTOR SHALL RE-TEST THE EXISTING SYSTEM TO THE SATISFACTION OF THE CONSTRUCTION INSPECTOR. (NO SEPARATE PAY ITEM).
15. WHERE THE MINIMUM 9 FEET SEPARATION DISTANCE BETWEEN SEWER LINES AND WATER LINES/MAINS CANNOT BE MAINTAINED, THE INSTALLATION OF SEWER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ. THE WASTEWATER LINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC MEETING THE ASTM SPECIFICATION FOR BOTH PIPES AND JOINTS OF 150 PSI AND SHALL BE IN ACCORDANCE WITH 30 TAC 290.44(E)(5).
16. AFTER CONSTRUCTION TESTING WILL BE DONE BY TV CAMERA BY THE CONTRACTOR AND OBSERVED BY THE INSPECTOR OR WATER SYSTEMS ENGINEERING PERSONNEL. AS THE CAMERA IS RUN THROUGH THE LINES (NSPI). ANY ABNORMALITIES FOUND IN THE LINE, SUCH AS BROKEN PIPE OR MISALIGNED JOINTS, MUST BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. CONTRACTOR TO PROVIDE TV TAPES TO CONSTRUCTION INSPECTION FOR REVIEW PRIOR TO FINAL INSPECTION OF THE PROJECT.
17. WATER JETTING THE BACKFILL WITHIN A STREET WILL NOT BE PERMITTED. SANITARY SEWER TRENCHES SUBJECT TO TRAFFIC SHALL CONFORM TO NBU CONNECTION & CONSTRUCTION POLICY MANUAL.
18. NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM COMPLETE INSTALLATION OF THE SANITARY SEWER LINES. THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO.

A. PULL MANDRELL.

B. PERFORM AIR TEST.

19. WHERE REQUIRED, CONCRETE ENCASEMENT SHALL BE PLACED AS SHOWN ON THE STANDARD DETAIL SHEET.
20. A MINIMUM OF 3 FEET OF COVER IS TO BE MAINTAINED OVER THE SANITARY SEWER MAIN AND LATERALS AT SUBGRADE, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
21. SANITARY SEWER MAIN CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WILL REQUIRE SUCCESSFUL TESTING OF THE MANHOLE IN ACCORDANCE WITH NBU CONNECTION & CONSTRUCTION POLICY MANUAL.
22. TCEQ AND EPA REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL PER THE PROJECT PLANS. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY NBU WATER SYSTEMS.
23. ALL MANHOLES NOT WITHIN PAVED STREETS SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER NBU DETAIL DRAWING #329. (NO SEPARATE PAY ITEM)
24. ALL MANHOLES OVER THE EDWARD'S AQUIFER RECHARGE ZONE SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER NBU DETAIL DRAWING #329. (NO SEPARATE PAY ITEM)
25. ALL SEWER SERVICES SHALL HAVE CLEANOUTS INSTALLED AT PROPERTY LINE PER NBU DRAWING #302 AND #303. (NO SEPARATE PAY ITEM)
26. EACH LOT OWNER SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH OF THE SEWER SERVICE STUB OUT, AND DETERMINE THE MINIMUM SERVICEABLE FINISHED FLOOR ELEVATION.
27. VERTICAL SEWER SERVICE STACKS SHALL BE REQUIRED WHERE THE TOP OF THE SEWER MAIN IS AT A DEPTH OF 8 FEET OF GREATER, UNLESS SHOWN OTHERWISE ON PLANS.

DRAINAGE NOTE

FINISHED FLOOR ELEVATIONS

THE ELEVATION OF THE LOWEST FLOOR SHALL BE AT LEAST 10 INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND, UNLESS OTHERWISE NOTED ON THE SUBDIVISION PLAT FOR MORNINGSTAR UNIT 1. THE GROUND SHALL BE SLOPED IN A FASHION SO AS TO DIRECT STORM WATER AWAY FROM THE STRUCTURE. PROPERTIES ADJACENT TO STORM WATER CONVEYANCE STRUCTURES MUST HAVE FLOOR SLAB ELEVATION OR BOTTOM OF FLOOR JOIST A MINIMUM OF ONE FOOT ABOVE THE 100-YEAR WATER FLOW ELEVATION IN THE STRUCTURE. DRIVEWAYS SERVING HOUSES ON THE DOWNHILL SIDE OF THE STREET SHALL HAVE A PROPERLY SIZED CROSS SWALE PREVENTING RUNOFF FROM ENTERING THE GARAGE.

GROUNDWATER

IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, CONTRACTOR, SUBCONTRACTORS, BUILDERS, GEOTECHNICAL ENGINEER, AND PROJECT ENGINEER TO IMMEDIATELY NOTIFY THE OFFICE OF THE CITY ENGINEER IF THE PRESENCE OF GROUNDWATER WITHIN THE PROJECT SITE IS EVIDENT. THE CITY ENGINEER SHALL RESPOND TO THE NOTICE WITHIN TWO (2) BUSINESS DAYS. ALL GROUNDWATER MITIGATION MEASURE IS GRANTED BY THE CITY ENGINEER.

ROADWAY

ALL ROADWAY COMPACTION TESTS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FLEXIBLE BASE OF FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED SIX INCHES (6") COMPACTED. EACH LAYER OF MATERIAL INCLUSIVE OF SUBGRADE, SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TEST SHALL BE DETERMINED BY THE GEOTECHINCAL ENGINEER AND BE APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER WILL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFIACATION STATING THAT THE PLACEMENT OF FLEXIBLE BASE AND FILL MATERIAL, AND SUBGRADE, HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

UTILITY TRENCH COMPACTION

ALL UTILITY TRENCH COMPACTION TEST WITHIN THE STREET PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPERS GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TEST SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

THE CONTRACTOR SHALL NOTIFY THE STREET INSPECTOR AT (830) 660-0211, PRIOR TO THE START OF CONSTRUCTION. A 48-HOUR ADVANCE NOTIFICATION IS REQUIRED.

WATER NOTES:

1. ALL WATER MAINS SHALL BE AWWA C-900, DR-6-18.
2. WATER SERVICES SHALL BE SINGLE 1 INCH COPPER TUBING, UNLESS OTHERWISE INDICATED ON THE PLANS.
3. WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE NBU WATERLINE SPECIFICATIONS.
4. WATER MAINS SHALL HAVE A MINIMUM OF 48 INCHES OF COVER WITHIN THE LIMITS OF THE PROPOSED SUBDIVISION. ALL OFF-SITE WATER MAINS SHALL HAVE A MINIMUM OF 72 INCHES OF COVER.
5. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
6. INITIAL BACKFILL OF WATER LINES SHALL BE 3/4 INCH TO DUST OR PEA GRAVEL AS PER NBU SPECIFICATIONS.
7. SECONDARY BACKFILL OF WATER LINES SHALL GENERALLY CONSIST OF MATERIAL REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS, AND TRASH OR STONES HAVING A DIMENSION LARGER THAN 6 INCHES AT THE LARGEST DIMENSION.
8. ALL IN-LINE VALVES, BENDS AND PLUGS SHALL BE RESTRAINED. RESTRAINT TO BE PROVIDED ON EACH SIDE OF VALVE, FITTING OR ANY REQUIRED JOINT.
9. RESTRAINT LENGTHS SHOWN ON PLANS ARE FOR HORIZONTAL FITTINGS ONLY. CONTRACTOR SHALL DETERMINE ADDITIONAL RESTRAINT LENGTHS REQUIRED FOR VERTICAL FITTINGS BASED ON RESTRAINT LENGTH TABLE LOCATED ON SHEET C3.0.
10. THE WATER MAINS SHALL BE RESTRAINED AT THE LOCATIONS SHOWN ON THE PLANS AND AT ANY FIELD ADDITIONS/MODIFICATIONS INVOLVING THE ADDITION OF VALVES, DEAD ENDS, OR ADDITIONAL/RELOCATED BENDS, THE CONTRACTOR SHALL DETERMINE THE APPROPRIATE RESTRAINT LENGTHS FOR THE WATER MAIN BASED ON THE SITUATION ENCOUNTERED DURING INSTALLATION FOR THOSE INSTANCES WHICH DIFFER FROM THE PLANS. JOINT RESTRAINT LENGTHS STATED ON THE PLANS SHALL BE UNDERSTOOD TO INDICATE THAT ALL JOINTS WITHIN THE STATED DISTANCE FROM THE FITTING, APPURTENANCE, OR POINT OF DEFLECTION SHALL BE RESTRAINED IN ACCORDANCE WITH NBU SPECIFICATIONS. THRUST BLOCKING SHALL ONLY BE USED AT TIE-INS TO EXISTING MAINS AND AT THE DIRECTION OF THE NBU INSPECTOR,
11. PIPE IN CASING SHALL BE FULLY RESTRAINED. LENGTH SHALL NOT BE COUNTED AS PART OF THE RESTRAINED LENGTH SHOWN ON THE PLANS BUT SHALL BE CONSIDERED INDEPENDENT OF THE STATED LENGTHS. CASING SPACERS SHALL BE SUITABLE FOR THE DIAMETER AND TYPE OF PIPE BEING INSTALLED AND SHALL BE BY PIPELINE SEAL AND INSULATOR, INC., OR ADVANCE PRODUCTS AND SYSTEMS, INC., OR ENGINEERED APPROVED EQUAL.
12. CONTRACTOR TO COORDINATE WITH NEW BRAUNFELS UTILITIES (N.B.U.) FOR WATER, SEWER, AND ELECTRICAL SERVICE TO THE SITE.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for 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 of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies 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 encountered during construction. The regulated activities near the sensitive feature may not proceed 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 150 feet of a domestic, industrial, irrigation, or public 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 manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must 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 offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake 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 spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
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 activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, 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 Aquifer 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 ponds, dams, berms, sewage 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 the Edwards Aquifer;

C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704-5712	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLING • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

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GENERAL NOTES

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C2.0

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

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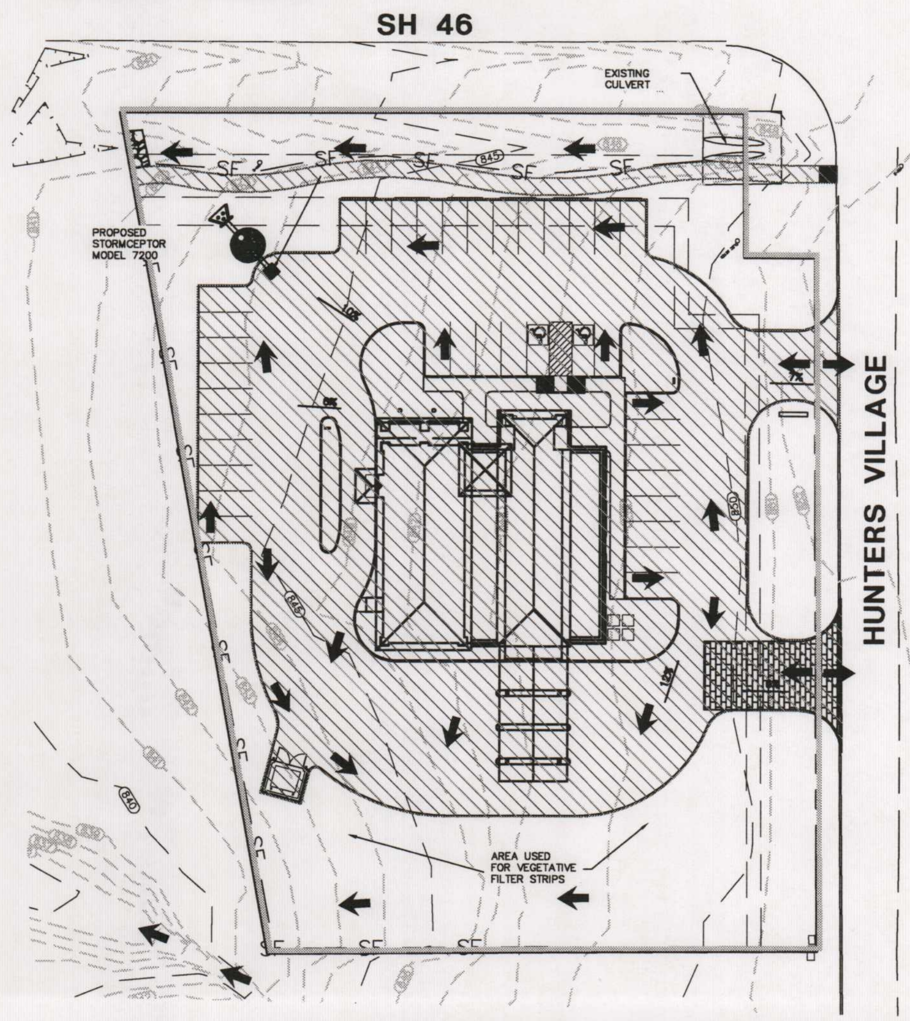

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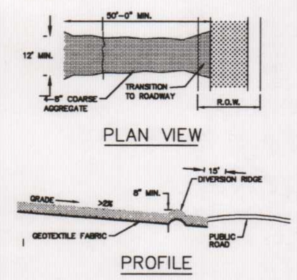
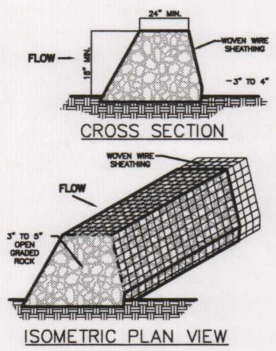
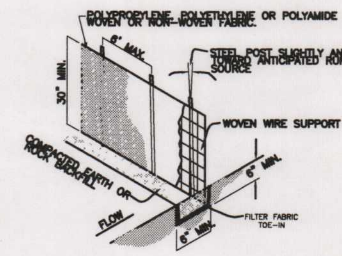
SOIL STABILIZATION NOTE

ALL DISTURBED SOILS SHOULD BE SEEDED OR OTHERWISE STABILIZED WITH 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR MORE THAN 21 DAYS.







HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:

(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rock should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:

(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 - 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 - 8 inch diameters rocks may be used.

Installation:

(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(5) Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:

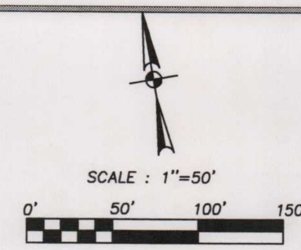
(1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.



LEGEND

- WPAP BOUNDARY
- LIMITS OF DRAINAGE AREA
- AREAS OF DISTURBANCE
- ROCK BERM
- SILT FENCE — SF —
- STABILIZED CONSTRUCTION ENTRANCE/EXIT

NO.	DATE	REVISION	BY

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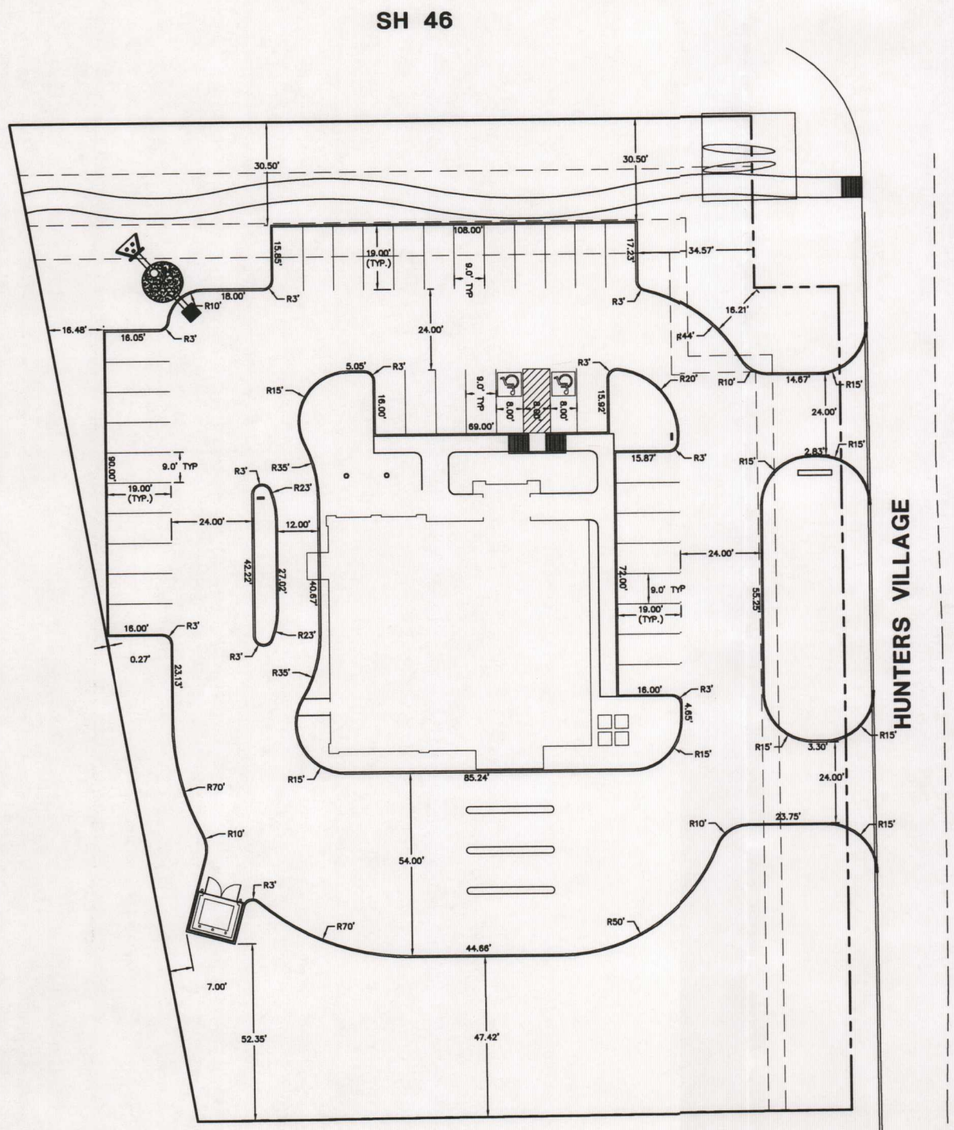
STORMWATER POLLUTION PREVENTION PLAN

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C3.0



LEGEND

- PROPERTY LINE
- EXISTING CURB
- 108.00' PROPOSED CURB
- FIRE LANE
- EASEMENT LINE

SCALE : 1"=20'

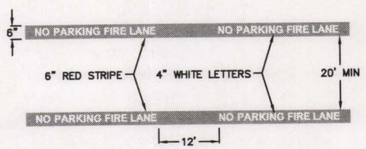
0' 20' 40' 60'

FIRE LANE NOTES:

STRIPING – THE TOP FACE OF ROAD CURBS SHALL BE PAINTED UTILIZING RED TRAFFIC PAINT.

A. IF NO CURBS ARE PRESENT, A SIX INCH (6") WIDE STRIPE PAINGED OF TRAFFIC RED PAINT SHALL BE PAINTED ON THE DRIVING SURFACE TO SHOW THE BOUNDARIES OF THE LANE.

B. THE WORDS "NO PARKING FIRE LANE" SHALL BE SPACED AT A MAXIMUM OF 75 FEET APART, ALONG THE LENGTH OF THE FIRE LANES. SEE ILLUSTRATION BELOW.



PARKING TABLE			
TYPE	CALCULATION	SPACES REQUIRED	SPACES PROVIDED
STANDARD	--------	–	35
ACCESSIBLE	--------	–	2

NOTES FOR DIMENSIONAL CONTROL PLAN

1. THE CONTRACTOR SHALL NOTIFY THE STREET INSPECTOR, MR. KEVIN BOWEN, AT (830)221-4031, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL TEMPORARY EROSION/CONSTRUCTION CONTROL STRUCTURES. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL NOTIFY THE STREET INSPECTOR, MR. KEVIN BOWEN, AT (830)221-4031, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL FORM, STEEL, AND CONCRETE FLATWORK OF ALL DRIVEWAY APPROACHES CONSTRUCTED WITHIN THE CITY RIGHT-OF-WAY. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
3. THE CONTRACTOR SHALL NOTIFY THE STREET INSPECTOR, MR. KEVIN BOWEN, AT (830)221-4031, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL DRAINAGE STRUCTURES AND CHANNELS. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES BEFORE COMMENCING CONSTRUCTION. ANY DAMAGE TO SAID UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY. THESE PLANS MAY NOT SHOW ALL EXISTING UTILITIES.
5. CLIENT IS RESPONSIBLE FOR ANY ADA REVIEW FOR THIS PROJECT.
6. UTILITY ADJUSTMENTS AND RELOCATIONS OTHER THAN THOSE SHOWN HEREON MAY BE INCOUNTERED AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR TO COMPLY WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
8. CONTRACTOR TO MAINTAIN MIN. 1% SLOPE ON ALL ASPHALT PAVING.
9. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL SITE INFORMATION.
10. CUTS AND FILLS MAY NOT BALANCE.
11. CONTRACTOR TO PROVIDE A SWPPP FOR THIS SITE.
12. ALL CURB AND GUTTER SHALL BE 6" CATCH CURB UNLESS OTHERWISE SPECIFIED.
13. ALL DIMENSIONS ARE TO THE FACE OF CURB/EDGE OF PAVEMENT, TO CENTER OF PAVEMENT STRIPING, AND/OR PERPENDICULAR TO THE PROPERTY LINE UNLESS NOTED OTHERWISE ON THE PLANS.
14. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY QUESTIONS OR CONFLICTS ARISE CONCERNING THE INTENT OF THE DIMENSIONS SHOWN NECESSARY TO CONSTRUCT THE PROJECT.
15. ALL CONSTRUCTION SHALL MEET THE CURRENT CITY OF NEW BRAUNFEL'S STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND/OR THE CURRENT NEW BRAUNFELS UTILITIES CONNECTION/CONSTRUCTION POLICIES.
16. ALL STRIPING, TRAFFIC CONTROL AND SIGNAGE SHALL MEET THE REQUIREMENTS OF THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
17. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ALONG ALL PUBLIC STREETS AND SHALL COORDINATE WITH, AND OBTAIN APPROVAL FROM, THE CITY OF NEW BRAUNFELS PRIOR TO CONSTRUCTING IMPROVEMENTS WITHIN THE CITY'S RIGHT-OF-WAY.
18. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES AND SHALL NOTIFY THE RESPECTIVE AGENCIES 48-HOURS IN ADVANCE.
    a. NEW BRAUNFELS UTILITIES 830-629-8400
    b. TIME WARNER CABLE 830-625-3408
    c. ENTEX GAS 830-643-8434
    d. AT&T TELEPHONE 830-303-1333
    e. TEXAS ONE CALL 800-545-4545
19. ALL PROPOSED UTILITY SERVICES ARE DESIGNED BY OTHERS.
20. CONTRACTOR TO REFERENCE LANDSCAPE PLANS FOR PROPOSED LANDSCAPE IMPROVEMENTS.

REFERENCE MEP PLANS FOR UTILITY STUB OUT LOCATIONS FROM BUILDING.

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY O MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES T BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (8), GAS COMPANIES MUST HAVE ACCESS TO GAS VALVE AT ALL TIMES. CONTRACTOR SHALL PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

NO.	DATE	REVISION	BY

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DIMENSION CONTROL

Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 08016

SHEET
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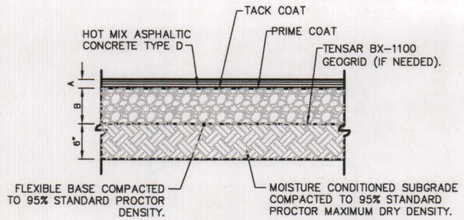
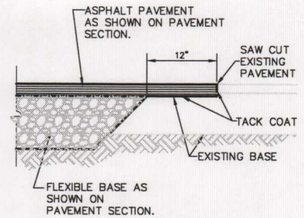
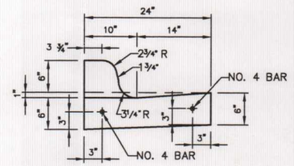


MINIMUM PAVEMENT SECTION REQUIREMENTS			
SUBGRADE MATERIAL	A	B	GEOGRID
CLAY	1.5"	9.5"	YES
CLAYEY GRAVEL	1.5	6.5"	NO

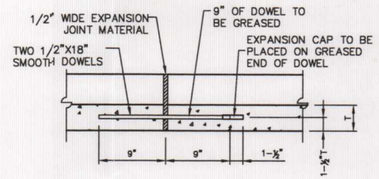
TYPICAL PAVEMENT SECTION
NOT TO SCALE



NEW PAVEMENT TO EXISTING
NOT TO SCALE



CATCH SECTION

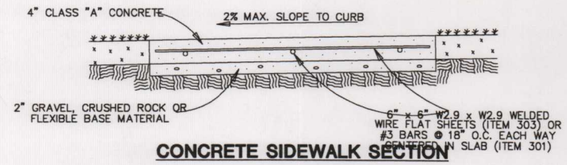


CURB AND GUTTER SECTIONS
NOT TO SCALE

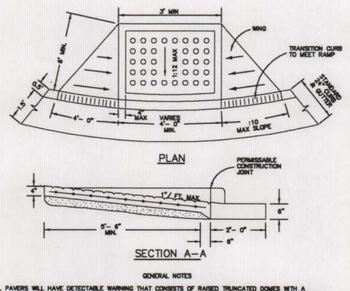
LONGITUDINAL SECTION THRU CURB AND GUTTER SHOWING TYPICAL EXPANSION JOINT DETAILS. REINFORCING STEEL SHALL NOT CROSS EXPANSION JOINTS. STEEL SHALL BE TERMINATED 3" ±1" FROM FACE OF THE JOINT.

NOTES:

1. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 18".
2. CURB AND GUTTER SHALL HAVE FORMED TOOLED OR SAWED CONTRACTION JOINTS AT ±10'. THE DEPTH OF THESE JOINTS SHALL BE SUFFICIENT TO ENSURE CRACKING AT THE JOINTS.
3. CURB OR CURB AND GUTTER SHALL HAVE EXPANSION JOINTS AT POINTS OF CURVATURE, AT INTERVALS NO GREATER THAN 120' AND AT ALL ADJACENT STRUCTURES.
4. UNLESS OTHERWISE SHOWN, TRANSITIONS BETWEEN CURBS OR CURBS AND GUTTER OF DIFFERING CROSS SECTION SHALL BE ACCOMPLISHED OVER A 10' LENGTH OR AS APPROVED BY THE CITY ENGINEER.
5. ALL CONCRETE TO BE CLASS "A" 3000 PSI CONCRETE.
6. ALL EXPOSED CONCRETE SURFACES TO BE BRUSHED SMOOTH AND UNIFORM.



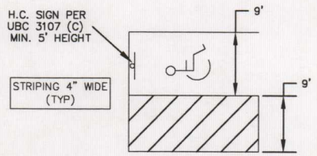
CONCRETE SIDEWALK SECTION
NOT TO SCALE



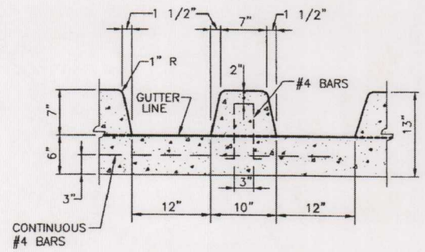
GENERAL NOTES

1. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 23 mm (0.9") A NORMAL HEIGHT OF 5 mm (0.2") AND A NORMAL CENTER TO CENTER SPACING OF 60 mm (2.36") AND SHALL BE CONSTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Ref. ADAAG SECTION 4.29.2) MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. PAVER PATTERN VARIES PER MANUFACTURER'S RECOMMENDATIONS.
2. TYPICAL SIDEWALK WIDTHS AND CURB RADI ARE SHOWN FOR ILLUSTRATION. REFER TO ADA ACCESSIBILITY REQUIREMENTS FOR SIDEWALK WIDTHS, CURB RADI AND CURB BASES.
3. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL PRODUCE A MAXIMUM 1/4" (6mm) JOINT. SHOULD A GAP LARGER THAN 6 mm (1/4") MUST BE APPROVED BY THE PROJECT MANAGER. THE MAXIMUM ALLOWABLE GAP SHALL NOT EXCEED 13 mm (1/2"). SHALL BE SOLID MORTAR FILLED BETWEEN THE BRICK PAVERS AND THE ADJOINING SURFACE UNLESS OTHERWISE INSTRUCTED BY THE PROJECT MANAGER OR CONSTRUCTION INSPECTOR.
4. MORTAR SHALL CONFORM TO ITEM 403.2 (D) /403.2 (E) MORTAR (GROUT). ALL OTHER CONCRETE SHALL CONFORM TO ITEM 403/4035. CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
5. CURB RAMPS WITH RETURNED CURB MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP

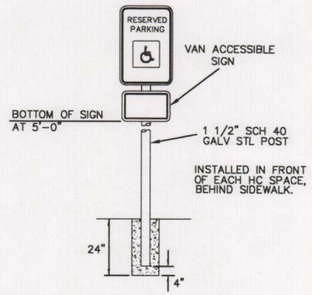
SIDEWALK RAMP WITH DETECTABLE WARNING PAVER
N.T.S



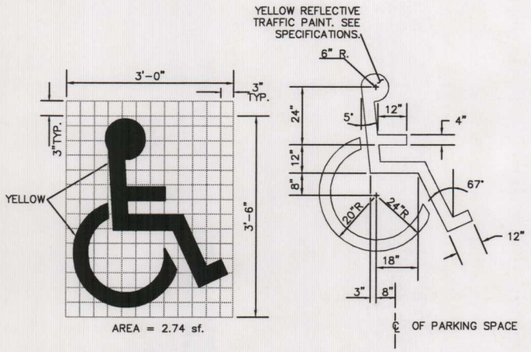
TYPICAL VAN HANDICAPPED PARKING
N.T.S



SAW TOOTH CURB
NOT TO SCALE



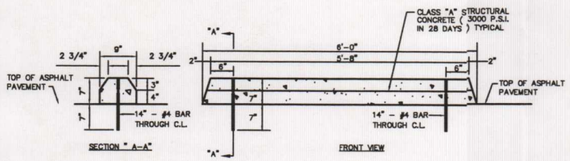
HANDICAPPED SIGN DETAIL
N.T.S



HANDICAPPED STALL MARKING DETAL

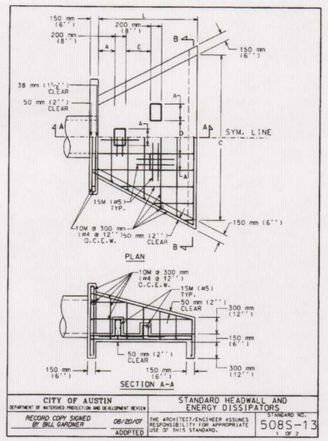
INTERNATIONAL HANDICAPPED SYMBOL

HANDICAPPED SYMBOL DETAIL
N.T.S

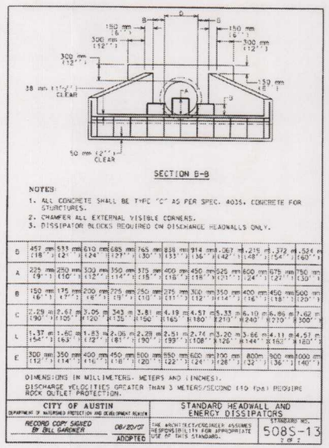


NOTE: SEE DIMENSIONAL CONTROL PLANS FOR LOCATION OF WHEEL STOPS IN PARKING SPACES.

WHEEL STOP DETAIL
N.T.S



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		STANDARD HEADWALL AND ENERGY DISSIPATORS	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER	08/20/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	508S-13 1 OF 2



NOTES:
1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S. CONCRETE FOR STRUCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

D	457 mm (18")	533 mm (21")	610 mm (24")	685 mm (27")	762 mm (30")	838 mm (33")	914 mm (36")	1067 mm (42")	1219 mm (48")	1372 mm (54")	1524 mm (60")														
A	225 mm (9")	250 mm (10")	300 mm (12")	350 mm (14")	375 mm (15")	400 mm (16")	450 mm (18")	525 mm (21")	600 mm (24")	675 mm (27")	750 mm (30")														
B	150 mm (6")	175 mm (7")	200 mm (8")	225 mm (9")	250 mm (10")	275 mm (11")	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")														
C	2.29 m (90")	2.67 m (105")	3.05 m (120")	3.43 m (135")	3.81 m (150")	4.19 m (165")	4.57 m (180")	5.33 m (210")	6.10 m (240")	6.86 m (270")	7.62 m (300")														
L	1.37 m (54")	1.60 m (63")	1.83 m (72")	2.06 m (81")	2.29 m (90")	2.51 m (99")	2.74 m (108")	3.20 m (126")	3.66 m (144")	4.11 m (162")	4.57 m (180")														
E	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")	550 mm (22")	600 mm (24")	700 mm (28")	800m (32")	900 mm (36")	1000 mm (40")														

DIMENSIONS IN MILLIMETERS- METERS AND (INCHES).
DISCHARGE VELOCITIES GREATER THAN 3 METERS/SECOND (10 fps) REQUIRE ROCK OUTLET PROTECTION.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		STANDARD HEADWALL AND ENERGY DISSIPATORS	STANDARD NO.
RECORD COPY SIGNED BY BILL GARDNER	08/20/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	508S-13 2 OF 2

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLAMON • MOEBELLER • TYCHOWSKI
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

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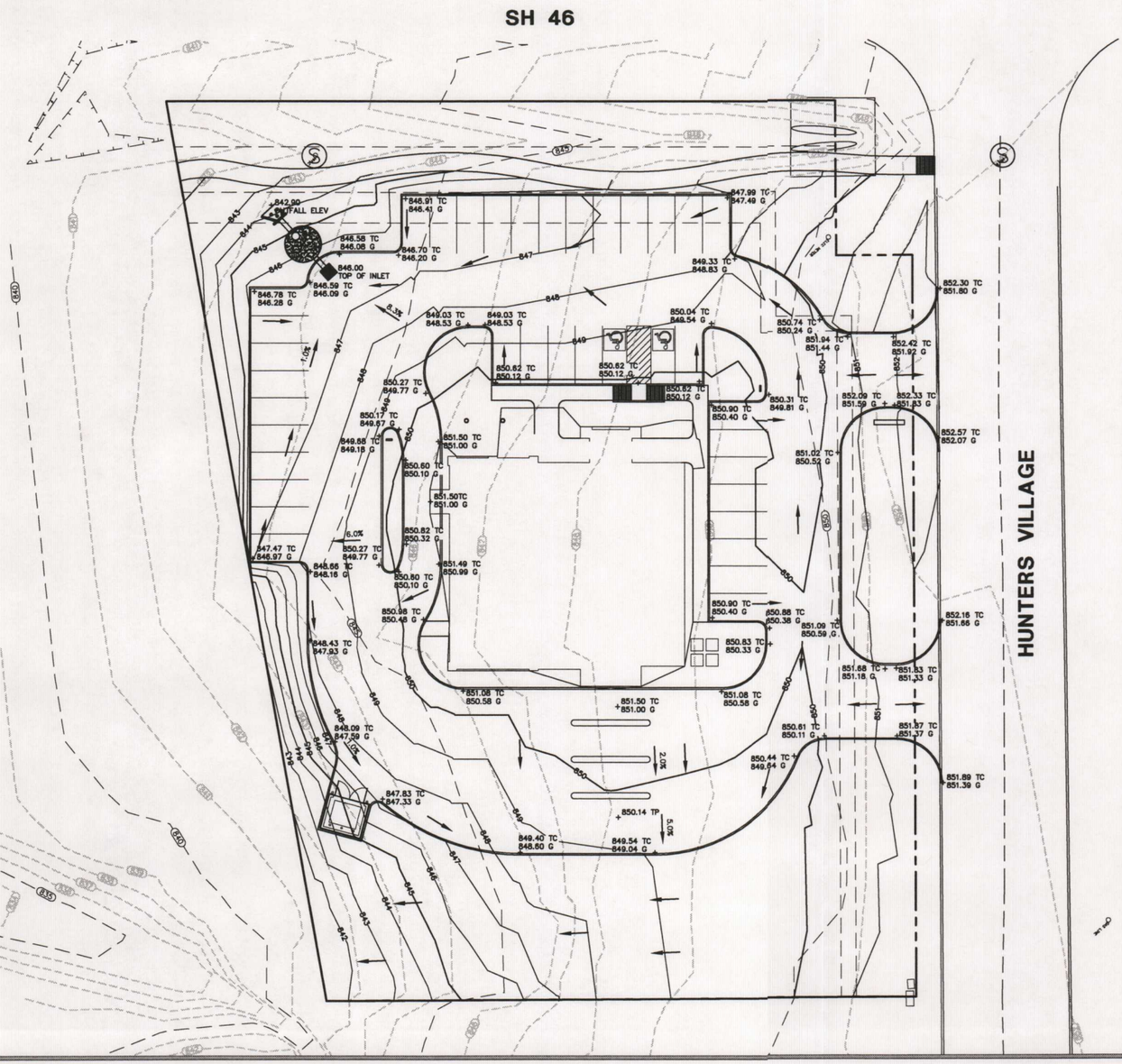
SITE DETAILS

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C5.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Dwg\ANB-09016-Details.dwg User: ingalls\j Mar 13, 2009 - 11:03am



LEGEND

- PROPERTY LINE
- EXISTING CURB
- PROPOSED CURB
- FIRE LANE
- EASEMENT LINE

SCALE : 1"=20'

0' 20' 40' 60'

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLAND • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS,
TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
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GRADING PLAN

Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

REFERENCE MEP PLANS FOR UTILITY STUB OUT LOCATIONS FROM BUILDING.

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY OR MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (8), GAS COMPANIES MUST HAVE ACCESS TO GAS VALVES AT ALL TIMES. CONTRACTOR SHALL PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

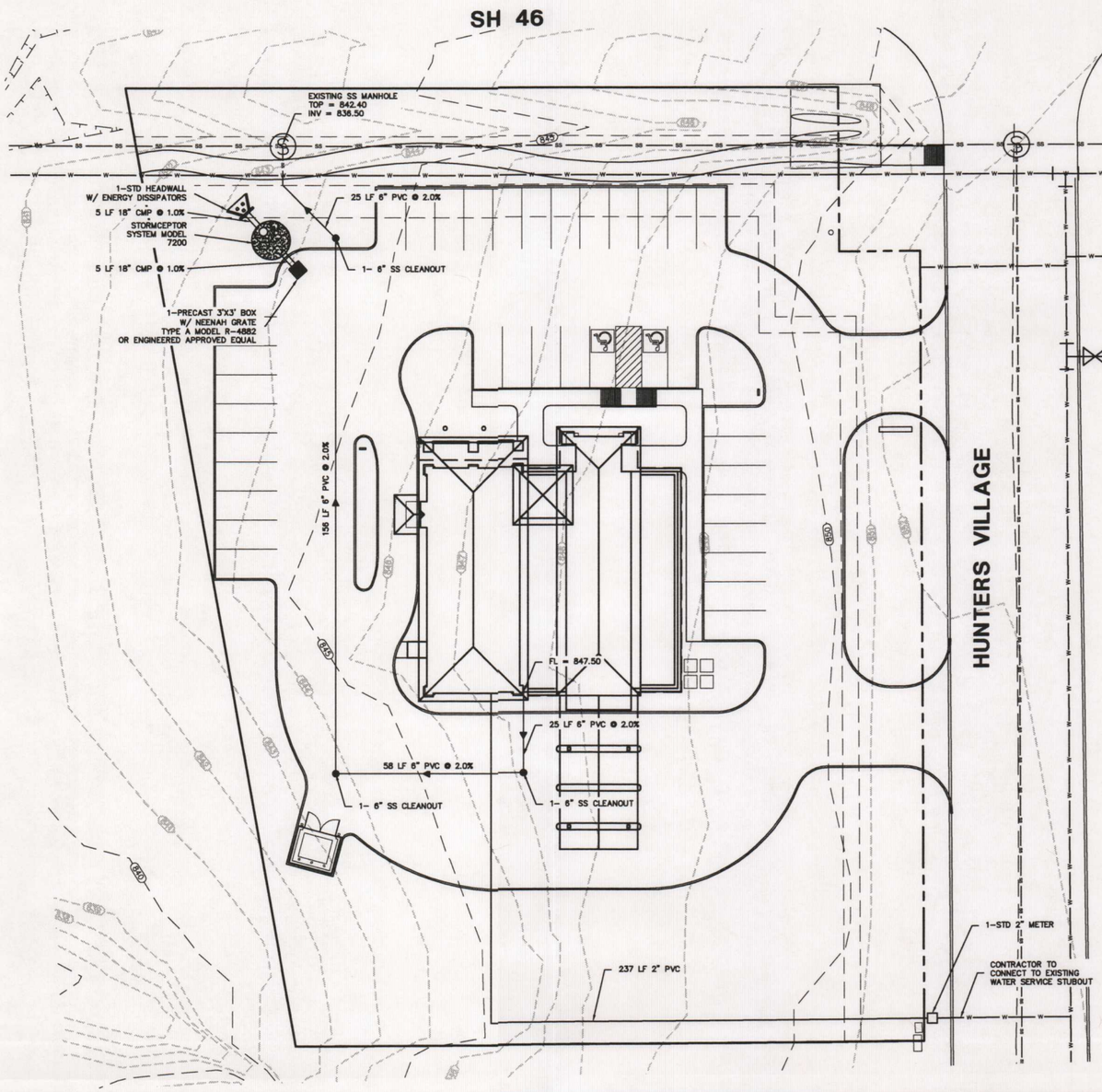
DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C6.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09015\Dwg\ANB-09016-Grad.dwg User: hgalbij Mar 27, 2009 - 4:44pm

GENERAL NOTES

1. CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES, AND TAXES AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.
2. ALL CONSTRUCTION SHALL MEET THE CURRENT CITY OF NEW BRAUNFEL'S STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND/OR THE CURRENT NEW BRAUNFELS UTILITIES CONNECTION/CONSTRUCTION POLICIES.
3. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES AND SHALL NOTIFY THE RESPECTIVE AGENCIES 48-HOURS IN ADVANCE.
   a. NEW BRAUNFELS UTILITIES 830-629-8400
   b. TIME WARNER CABLE 830-625-3408
   c. ENTEX GAS 830-843-8434
   d. AT&T TELEPHONE 830-303-1333
   e. TEXAS ONE CALL 800-545-4545
4. CONTRACTOR IS REQUIRED TO PREPARE A CONSTRUCTION PHASING PLAN DETAILING LIMITS OF CONSTRUCTION FOR EACH PHASE. PHASING PLAN MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR WILL NOT BE ALLOWED TO WORK OUT OF PHASE, UNLESS WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE CITY ENGINEER FOR THE PHASE CHANGE. THIS PLAN MUST INCLUDE TRAFFIC CONTROLS FOR EACH CONSTRUCTION PHASE.
5. CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.
6. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS, OFFICERS, DIRECTORS, OR CONSULTANTS, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.
7. ANY EXISTING OFF-SITE IMPROVEMENTS THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER OF THE EXISTING IMPROVEMENTS AT THE CONTRACTOR'S EXPENSE. (NO SEPARATE PAY).
8. WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE CONSENT OF THE OWNER OR ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
9. ITEMS OF WORK NOTED AS "BY OTHERS" SHALL NOT BE CONSIDERED PART OF THIS CONTRACT.
10. OSHA REGULATIONS PROHIBIT OPERATIONS THAT WILL BRING PERSONS OR EQUIPMENT WITHIN 10 FEET OF AN ENERGIZED LINE. WHERE WORKMEN AND/OR EQUIPMENT HAVE TO WORK CLOSE TO AN ENERGIZED ELECTRICAL LINE, THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL POWER COMPANY INVOLVED AND MAKE WHATEVER ADJUSTMENTS NECESSARY TO ENSURE THE SAFETY OF THOSE WORKMEN.
11. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ALONG ALL PUBLIC STREETS AND SHALL COORDINATE WITH, AND OBTAIN APPROVAL FROM, THE CITY OF NEW BRAUNFELS PRIOR TO CONSTRUCTING IMPROVEMENTS WITHIN THE CITY'S RIGHT-OF-WAY.
12. BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE PROVIDING CONTINUOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.
13. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
14. WHEN MATCHING EXISTING PAVEMENTS, CURBS, DRIVES AND WALKS, THEY SHALL BE SAW CUT FULL DEPTH AND REMOVED TO ALLOW FOR PROPOSED CONSTRUCTION. IF ANY EXISTING JOINT IS ENCOUNTERED, PRECAUTION SHALL BE TAKEN DURING REMOVAL OF CONCRETE SO AS NOT TO DAMAGE EXISTING DOWELS. ALL EXISTING DOWELS SHALL BE EXPOSED AND CLEANED.
15. ALL "COMPACTED SUBGRADE" SHALL CONSIST OF NATIVE MATERIAL SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES AND COMPACTED TO 95% DENSITY ACCORDING TO DENSITY TEST METHOD TEX-115E OR ACCORDING TO ASTM D-698 AND TESTED BY ASTM D-2922.
16. ALL "FLEXIBLE BASE" SHALL BE TYPE "A", GRADE 2, ACCORDING TO TXDOT ITEM 247, COMPACTED TO 95% MODIFIED DENSITY AT A MOISTURE CONTENT BETWEEN -2 AND +3 OF OPTIMUM PERCENT MOISTURE ACCORDING TO ASTM D-1557 (MODIFIED PROCTOR) AND TESTED BY ASTM D-2992.
17. ASPHALTIC CONCRETE PAVEMENT SHALL BE TYPE "D" HOT MIX ASPHALT AS DEFINED IN TXDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, 1993.
18. PRIME COAT PATCH AREAS USING MC-30 AT A RATE OF 0.2 GALLONS PER SQUARE YARD SHALL BE PLACED OVER PREPARED BASE AT LEAST ONE DAY PRIOR TO PLACING ASPHALT STABILIZED BASE. ANY NECESSARY TACK COAT SHALL BE MC-30 AT 0.05 GALLON PER SQUARE YARD. IT IS REQUIRED THAT BOTH THE PRIME COAT AND TACK COAT BE APPLIED AT THE TEMPERATURE SPECIFIED UNDER TXDOT ITEM 300.3.
19. CONCRETE SHALL BE CLASS "A" ACCORDING TO TXDOT ITEM 421, UNLESS NOTED OTHERWISE ON PLANS.
20. REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO TXDOT ITEM 440. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS EXCEPT WHEN REFERRING TO CLEARANCE.
21. ALL SAWED JOINTS SHALL BE SAWED WITHIN 24 HOURS OF POURING.
22. ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER.
23. ORDINARY COMPACTION CONTROL IS REQUIRED ON THIS PROJECT.
24. ALL ROLLING FOR COMPACTION OF ASPHALTIC CONCRETE PAVEMENT SHALL BE COMPLETED BEFORE THE MIXTURE TEMPERATURE DROPS BELOW 175 DEG (F).
25. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO THE CITY ENGINEER.
26. ALL CMP (CORRUGATED METAL PIPE) USED ON THIS PROJECT SHALL BE CONTECH, ULTRA FLO, GALVANIZED METAL PIPE, OR ENGINEER APPROVED EQUAL, HAVING A MANNING'S "N" VALUE OF 0.013 OR LOWER.



SCALE : 1"=20'

0' 20' 40' 60'

LEGEND

PROPERTY LINE	
EXISTING WATER MAIN	—W— W —W—
EXISTING SEWER	—SS— SS —SS—
PROPOSED SEWER SERVICE	
PROPOSED SEWER CLEANOUT	
PROPOSED WATER SERVICE W/ 2" METER	

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY OR MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

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NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
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NEW BRAUNFELS,
TEXAS, 78130
www.HMTNB.com
PH:(830)625-8555
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UTILITY PLAN

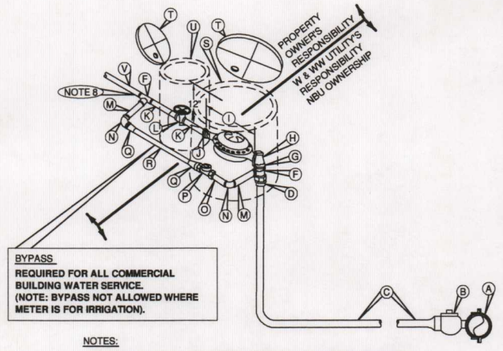
Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C7.0

Drawing Name: K:\Projects\American National Bank (Sage) - NB_090416\Dwg\VAR-09016-Utility.dwg User: ingolfsj Mar 27, 2009 - 4:44pm



NOTES:

1. SERVICE PIPE SHALL BE COPPER TUBE SIZE. IT SHALL BE ANNEALED SEAMLESS TYPE "K" COPPER TUBING MEETING THE CURRENT ASTM B88 STANDARD WITH NO SWEAT OR SOLDERED JOINTS.
2. SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL POLYETHYLENE FILM.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND OR FLUSH WITH PAVEMENT SURFACE.
4. IF TWO METERS ARE INSTALLED WITH A SINGLE SERVICE LINE, THEY SHALL BE INSTALLED IN SEPARATE BOXES WITH PIPING AS SHOWN FROM A TEE. THE COMMON SERVICE LINE TO THE TEE SHALL BE 2" FOR TWO 1-1/2" METERS, OR 4" DUCTILE IRON PIPE FOR TWO 2" METERS. CUT OFF VALVE SHALL BE INSTALLED PRIOR TO TEE.
5. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SPECIFICATIONS.
6. BOX CONSISTENTLY SPACED BEHIND CURB WITH A MAXIMUM OF 12" AND/OR SIDEWALK (6" FROM PROPERTY LINE) AND OUT OF VEHICULAR TRAFFIC AREA.
7. ANGLE STOP PLACED A MAXIMUM OF 4" FROM BACK OF BOX THAT FACES CURB.
8. FOR ALL IRRIGATION OR COMMERCIAL: DUAL CHECK BACKFLOW DEVICE PER BACKFLOW PREVENTION POLICY.

MATERIALS LIST

		METER SIZE 1-1/2"	METER SIZE 2"
A.	SERVICE CLAMP FOR CONNECTION - REQUIRED ON ALL PLASTIC AND ASBESTOS-CEMENT PIPE AND ALL IRON PIPE 12" AND SMALLER.	1-1/2"	2"
B.	CORPORATION STOP - SERVICE PIPE OUTLET.	1-1/2"	2"
C.	SERVICE PIPE.	1-1/2"	2"
D.	COUPLING: SERVICE PIPE TO MALE I.P.T. (COMPRESSION FITTING)	1-1/2"	2"
F.	TEES, BRASS.	1-1/2"x1-1/2"x1"	2"x2"x1"
G.	CLOSE-NIPPLE, BRASS.	1-1/2"	2"
H.	ANGLE METER STOP, FEMALE I.P. THREAD INLET X FLANGE OUTLET.	1-1/2"	2"
I.	WATER METER LENGTH WITH GASKETS.	13-1/2"	17-3/4"
J.	FLANGE, BRASS; FEMALE I.P. THREAD.	1-1/2"	2"
K.	NIPPLES, BRASS.	1-1/2" x 8"	2" x 8"
L.	CUSTOMER'S CUT OFF VALVE.	1-1/2"	2"
M.	NIPPLES, BRASS.	1" x 5"	1" x 5"
N.	90 DEGREE ELBOWS, BRASS.	1"	1"
O.	NIPPLES, BRASS.	1" x 3"	1" x 3"
P.	CURB STOP, BRASS, FEMALE I.P. THREAD BOTH ENDS WITH LOCK NUTS.	1"	1"
Q.	COUPLINGS, BRASS, SERVICE PIPE TO MALE THREAD.	1"	1"
R.	SERVICE PIPE.	1"	1"

S. ROUND OR RECTANGULAR METER BOX - EAST JORDAN IRON WORKS #2 METER BOX, NBU# 89004000003.

T. LID

U. CUSTOMERS CUT-OFF VALVE BOX MAY BE 12" PIECE SDR 26, 6" PVC

V. METAL PIPE, 4' MINIMUM LENGTH.

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING

DRAWN BY: H Shadrock | APPROVED BY:

STANDARD DRAWING: **STANDARD INSTALLATION DETAIL FOR 1-1/2" & 2" METER INSTALLATION SHOWING OPTIONAL BYPASS**

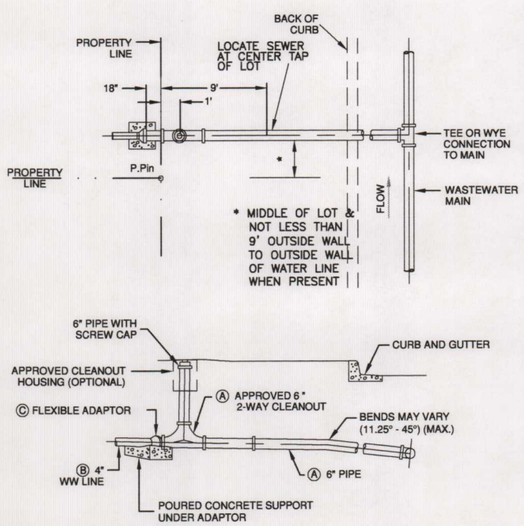
UPDATED: 4-22-03 | SCALE: N.T.S. | SHEET: 1 OF 2 | DRAWING NO. 203

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING

DRAWN BY: H Shadrock | APPROVED BY:

STANDARD DRAWING: **STANDARD INSTALLATION DETAIL FOR 1-1/2" & 2" METER INSTALLATION SHOWING OPTIONAL BYPASS**

UPDATED: 4-22-03 | SCALE: N.T.S. | SHEET: 1 OF 2 | DRAWING NO. 203



NOTES:

Ⓐ TO BE INSTALLED AND INSPECTED DURING SUBDIVISION CONSTRUCTION.

Ⓑ BUILDING INSPECTION DEPARTMENT SHALL INSPECT CUSTOMER'S WASTEWATER LINE, EXCEPT CONNECTION AT TAP.

Ⓒ OUTSIDE CITY, NBU SEWER DEPARTMENT SHALL INSPECT CONNECTION AT TAP.

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING

DRAWN BY: H Shadrock | APPROVED BY:

STANDARD DRAWING: **SINGLE WASTEWATER SERVICE CONNECTION DETAIL**

UPDATED: 4-28-03 | SCALE: N.T.S. | SHEET: 1 OF 2 | DRAWING NO. 302

NOTES:

1. UTILITY CONTRACTOR, DURING SUBDIVISION CONSTRUCTION, INSTALLS WASTEWATER CONNECTION TO MAIN, 6" STUB WITH 6" SERVICE BRANCH WITH 2-WAY CLEANOUT AND RISER FOR CLEANOUTS (CAPPED) AND PLUGS FOR 2-WAY CLEANOUTS AT PROPERTY LINE END. ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SHALL SLOPE DOWNWARD TO MAIN 2%, 1/4 " PER FOOT, MINIMUM TO 45 MAXIMUM. DEPTH OF SERVICE STUB AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER OR DESIGNATED REPRESENTATIVE IF GREATER THAN 4', OTHERWISE, THE INSTALLED DEPTH WILL TYPICALLY BE 4' TO 6'. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45, REFER TO DETAIL DRAWING 301. ALL INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY NEW BRAUNFELS UTILITIES (NBU) CONSTRUCTION INSPECTION PERSONNEL.
2. CUSTOMERS REMOVE PLUGS FROM 2-WAY CLEANOUT, AT PROPERTY LINE, INSTALL MINIMUM 18" LENGTH OF 6" PIPE, INSTALL 4" WASTEWATER LINES [EXTEND 4" PIPE 6" MINIMUM INTO 6" PIPE AND JOINT WITH FLEXIBLE ADAPTOR] AND CAST IN PLACE CONCRETE SUPPORT BLOCK UNDER THE FLEXIBLE ADAPTOR. BLOCK SHALL HAVE MINIMUM DIMENSIONS OF 6" THICK AND 18" WIDE AND EXTEND A MINIMUM OF 6" BEYOND EITHER END OF ADAPTOR. IF WASTEWATER WILL NOT SATISFACTORILY FLOW BY GRAVITY TO SEWER MAIN ADJACENT TO PROPERTY, PUMP EQUIPMENT MUST BE PROVIDED BY THE CUSTOMER AS PART OF CUSTOMER'S WASTEWATER SYSTEM.
3. CUSTOMER IS RESPONSIBLE FOR PIPING SYSTEM UNTIL WASTEWATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO NBU SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIALS. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT 2-WAY CLEANOUTS REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
4. NEW BRAUNFELS UTILITIES (NBU) ACTIVITY IS LIMITED TO INSPECTION OF CONNECTIONS TO NBU'S WASTEWATER SYSTEM. FOR MAINTENANCE PURPOSES, NBU'S RESPONSIBILITY ENDS AT THE CUSTOMER'S WASTEWATER CONNECTION TO THE 2-WAY CLEANOUT.
5. PIPING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY NBU STANDARD SPECIFICATION; MATERIALS SHALL BE AS SPECIFIED; BACKFILL ABOVE THE GRANULAR BEDDING. SERVICE LINES IN THESE AREAS SHALL HAVE A MINIMUM COVER BELOW FINAL STREET GRADE OF 42"; ANY EXCEPTION MUST BE SPECIFICALLY APPROVED BY THE ENGINEER.

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING

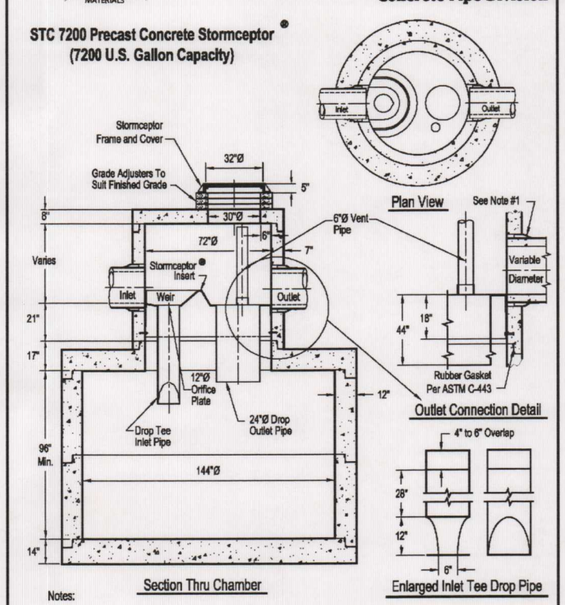
DRAWN BY: H Shadrock | APPROVED BY:

STANDARD DRAWING: **SINGLE WASTEWATER SERVICE CONNECTION DETAIL**

UPDATED: 4-28-03 | SCALE: N.T.S. | SHEET: 2 OF 2 | DRAWING NO. 302

Rinker MATERIALS™ — Concrete Pipe Division

STC 7200 Precast Concrete Stormceptor®
(7200 U.S. Gallon Capacity)



Notes:

1. The Use Of Flexible Connection Is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Vent Pipe.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Hydro Conduit representative for further details not listed on this drawing.

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLUMS • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF JEFFREY D. MOELLER, PE. 88588 ON March 9, 2009. IT IS NOT TO BE USED FOR PERMITTING, BIDDING, OR CONSTRUCTION PURPOSES.

UTILITY DETAILS

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 3/12/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C8.0

Drawing Name: N:\Projects\American National Bank (Sage) – NB_09016\Dwg\ANB-09016-Details.dwg User: ingolfsj Mar 13, 2009 – 11:03am

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

I Joseph M. Rankin, III,
Print Name

President + CEO,
Title - Owner/President/Other

of American National Bank,
Corporation/Partnership/Entity Name

have authorized Jeff Moeller, P.E.
Print Name of Agent/Engineer

of Hollmig Moeller Thornhill, Inc (HMT Engineering & Surveying)
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.

J.M. Rankin, III — 3-9-09

Applicant's Signature — Date

THE STATE OF Texas §

County of Gonzales §

BEFORE ME, the undersigned authority, on this day personally appeared J.M. Rankin, III 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 9th day of March, 2009

Barbara Miller
NOTARY PUBLIC

Barbara Miller
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: BARBARA MILLER NOTARY PUBLIC STATE OF TEXAS My Commission Expires 08-26-2011

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

NAME OF PROPOSED REGULATED ENTITY: Sage Capital Bank
REGULATED ENTITY LOCATION: 2009 W State Highway 46
NAME OF CUSTOMER: American National Bank
CONTACT PERSON: Joseph M. Rankin PHONE: (830) 672-8585
(Please Print)

Customer Reference Number (if issued): CN _____ (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**

☐ **Mailed to TCEQ**:
TCEQ – Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☒ **San Antonio Regional Office**

☐ **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	1.5 Acres	$ 4,000
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 _____ Date 3/13/09

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 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $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

TCEQ

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)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☐ Yes ☐ No

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		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:*

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☐ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☒ Other: FINANCIAL INST.

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* *If new Customer, enter previous Customer below* *End Date:*

AMERICAN NATIONAL BANK

10. Mailing Address: 1606 N. SARAH DEWITT DR.
P.O. BOX 1940

City	GONZALES	State	TX	ZIP	78629	ZIP + 4	1440

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)*
830672-8585		(830 672-5239

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)*
74-2278952	17422789523	N/A	N/A

20. Number of Employees

☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☒ Yes ☐ 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)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☐ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

SAGE CAPITOL BANK

24. Street Address of the Regulated Entity: (No P.O. Boxes)	2009 W. STATE HWY 46							
	City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	3827
25. Mailing Address:	P.O. BOX 1940							
	City	GONZALES	State	TX	ZIP	78629	ZIP + 4	1440
26. E-Mail Address:								

27. Telephone Number	28. Extension or Code	29. Fax Number (if applicable)
(830) 672 8585		(830) 672 5239

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)
6021		522110	

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

FINANCIAL INSTITUTION

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

35. Description to Physical Location:	SITE IS LOCATED IN THE SW CORNER OF THE INTERSECTION OF SH46 AND HUNTERS VILLAGE, NB, TX.

36. Nearest City	County	State	Nearest ZIP Code
NEW BRAUNFELS	COMAL	TX	78132

37. Latitude (N) In Decimal:	29.7200		38. Longitude (W) In Decimal:	98.1683	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
029	43	12	098	10	6

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.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	JEFF MOELLER, P.E.	41. Title:	AUTHORIZED AGENT

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 625 8555	17	(830) 625 8556	JEFFM@HMTNB.COM

SECTION V: Authorized Signature

JM 3/18/09 - added info to #10, 22, 23 & 37

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:	American National Bank	Job Title:	CEO
Name (In Print):	Joseph M. Rankin, III	Phone:	(830) 672 8585
Signature:	J.M. Rankin, III	Date:	3-9-09

COMAL CO.

HMT
ENGINEERING & SURVEYING
HOLLMIG ▪ MOELLER ▪ THORNHILL

TCEQ-R13
APR 14 2009
SAN ANTONIO

May 14, 2009

RECEIVED
MAY 21 2009
COUNTY ENGINEER

Mr. John Mauser
Field Operations Division, Region 13 (San Antonio)
Texas Commission on Environmental Quality
14250 Judson Road
San Antonio, TX 78233-4480

RE: Sage Capital Bank Water Pollution Abatement Plan Application

This letter is in response to the fax received 05/12/09 TCEQ as it pertains to the Sage Capital Bank Water Pollution Abatement Plan Application. The comments received are in italics and our responses are in bold.

1. *Question 10A – Watershed A1 – The site plan indicates that stormwater runoff from the impervious cover of the sidewalk and driveway aprons is not directed to the proposed BMP. The calculations provided do not account for this un-captured and un-treated impervious cover. Revise calculations and BMPs as necessary for treatment of stormwater runoff from drainage area A1.*

   The calculations for the BMPs have been revised to include the un-captured impervious areas due to the sidewalk and north driveway. The south driveway impervious area was accounted for in the WPAP done for the Hunters Creek Business Park.

2. *Question 10B – Watershed A2 – Part 1 – The proposed vegetative filter strip is described as a natural strip which is 15ft wide. RG-348 (2005), Section 3.4.6, Page 3-55 lists a natural vegetative filter strip as being 50 feet wide in the direction of flow, and an engineered vegetated filter strip as 15 feet wide in the direction of flow, and the top edge should be level. It appears that the northwestern quarter of drainage area A2 is directed to the western boundary of the site to a curb, and then directed to the south along the curb across a narrow strip of the vegetated filter, instead of sheet-flowing across the vegetated filter. Based on the plan sheet, the proposed 849 contour directs stormwater flow from the northeastern portion of drainage area A2 to a narrow strip of the vegetated filer, instead of sheet-flowing across the vegetated filter. Revise the vegetated filter strip as necessary to conform to the intended design criteria for treatment of stormwater runoff from drainage area A2.*

   The saw tooth curb and grading of the site within drainage area A2 has been revised to adhere to the design constraints of the engineered vegetative filter strips. The

PROJECT: SAGE CAPITAL BANK

EAPP STORMCEPTOR Compensation Worksheet (Rev. 7/15/08): Use additional sheets for additional catchment areas.

RECEIVED
MAY 21 2009
COUNTY ENGINEER

Table 1

Effective Area (ac)	Stormceptor Model	Surface Area (ft^2)
EA < 0.08	450i	12.57
0.08 < EA < 0.16	900, 1200, 1800	28.27
0.16 < EA < 0.29	2400, 3600	50.27
0.29 < EA < 0.46	4800, 6000	78.54
0.46 < EA < 0.66	7200	113.10
0.66 < EA < 0.92	11,000, 13,000	157.08
0.92 < EA ≤ 1.32	16,000	226.19

Use additional sheets for additional BMPs.
A_I = Impervious Cover
A_P = Pervious Cover
A = Total Area
P = Avg. Annual Rainfall
A_N = Increase in impervious cover (new IC – existing IC)
TSS = L_M = 27.2 x A_N x P

List only the uncaptured area being compensated for in the BMP. TSS compensation for uncaptured areas can be divided up between multiple BMPs.

*

BMP Catchment Area A		Uncaptured / Untreated Areas (for compensation in BMP)	
A_{I1} =	0.50	A_{I2} =	0.026
A_{P1} =	0.05	A_{P2} =	0.23
A_1 =	0.55	A_2 =	0.256
A_{N1} =	0.50	A_{N2} =	0.026
L_{M1} =	448.8	L_{M2} =	23.3

1 Stormceptor (STC) Model (Actual Catchment Area to the BMP); Use additional sheets as necessary.
Effective Area (EA) = (0.9 x A_{I1}) + (0.03 x A_{P1})
EA = (0.9 x 0.50) + (0.03 x 0.05) = 0.45 EA

STC Model (from Table 1 to start) 7200 ; Surface area (SA) of model (Table 1) 113.10 ft^2
Required TSS Removal for Catchment Area:
L_{M1} = 27.2 x 0.50 A_{N1} x 33 P" = 448.8 #TSS

2 Overflow Rate
V_{or} = (EA x 1.1 in/hr) / Model surface area (SA)
V_{or} = (0.45 x 1.1) / 113.10 = 0.004377 f/s

3 BMP Efficiency (Table 2); If the overflow rate is between two percent efficiencies, use the smaller percent efficiency (round the overflow rate to the larger overflow value). Enter rounded overflow value:
V_{or} = 0.004377 f/s

BMP % = 83 % / 100 = 0.83 BMP Eff.

4 Maximum TSS Removal of BMP: L_{R1}
L_{R1} = (BMP Eff x P) x [(A_{I1} x 34.6) + (A_{P1} x 0.54)]
L_{R1} = (0.83 x 33 ") x [(0.50 x 34.6) + (0.05 x 0.54)] = 474.6 #TSS

TSS Load Credit (L_C) to be counted towards untreated areas = L_{R1} – L_{M1}
L_C = (474.6 #TSS – 448.8 #TSS) = 25.8 #TSS

5 Required TSS Removal for Uncaptured Area L_{M2} = 27.2 x 0.026 A_{N2} x 33 " = 23.3 #TSS

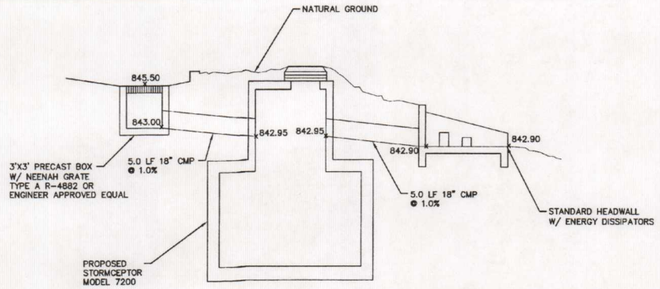
6 Is Sufficient Treatment Available?
If $L_C \geq L_{M2}$; Model size is adequate.
If $L_C < L_{M2}$; Model size is inadequate. Choose a larger model size or redefine the catchment areas. Repeat steps 1 - 6.
25.8 L_C (< , > , ≥, pick) 23.3 L_{M2}

Final Model Size: 7200

7 TSS Treatment by BMP
L_{M1} (step 1) + L_{M2} (step 5) = TSS Treatment by BMP
448.8 #TSS + 23.3 #TSS = 471.2 #TSS

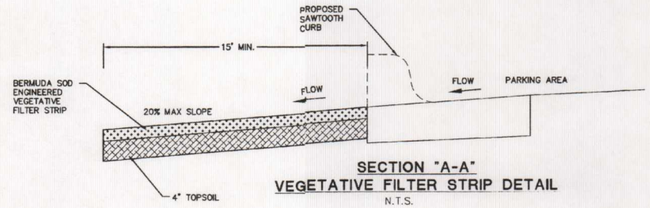
8 TSS Treatment Summary

Catchment Area	STC Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_M)	TSS Treatment by BMP (lb/yr) (Step 7)
BMP Catchment	7200	0.55	0.50	448.8	471.2
Uncaptured/Untreated	---	0.256	0.026	23.3	0
Total	---	0.806	0.526	471.2	471.2



STORM DRAIN PROFILE

N.T.S.



SECTION "A-A"
VEGETATIVE FILTER STRIP DETAIL

N.T.S.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 848.82 TC / 848.32 G — FINISH GRADE SPOT ELEVATION
- DRAINAGE FLOW ARROW
- GRADE BREAK/SWALE
- ENGINEERED VEGETATIVE FILTER STRIPS

SCALE : 1"=20'

0' 20' 40' 60'

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MAY 21 2009
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NO.	DATE	REVISION	BY
2	05/14/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JR
1	03/06/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JR

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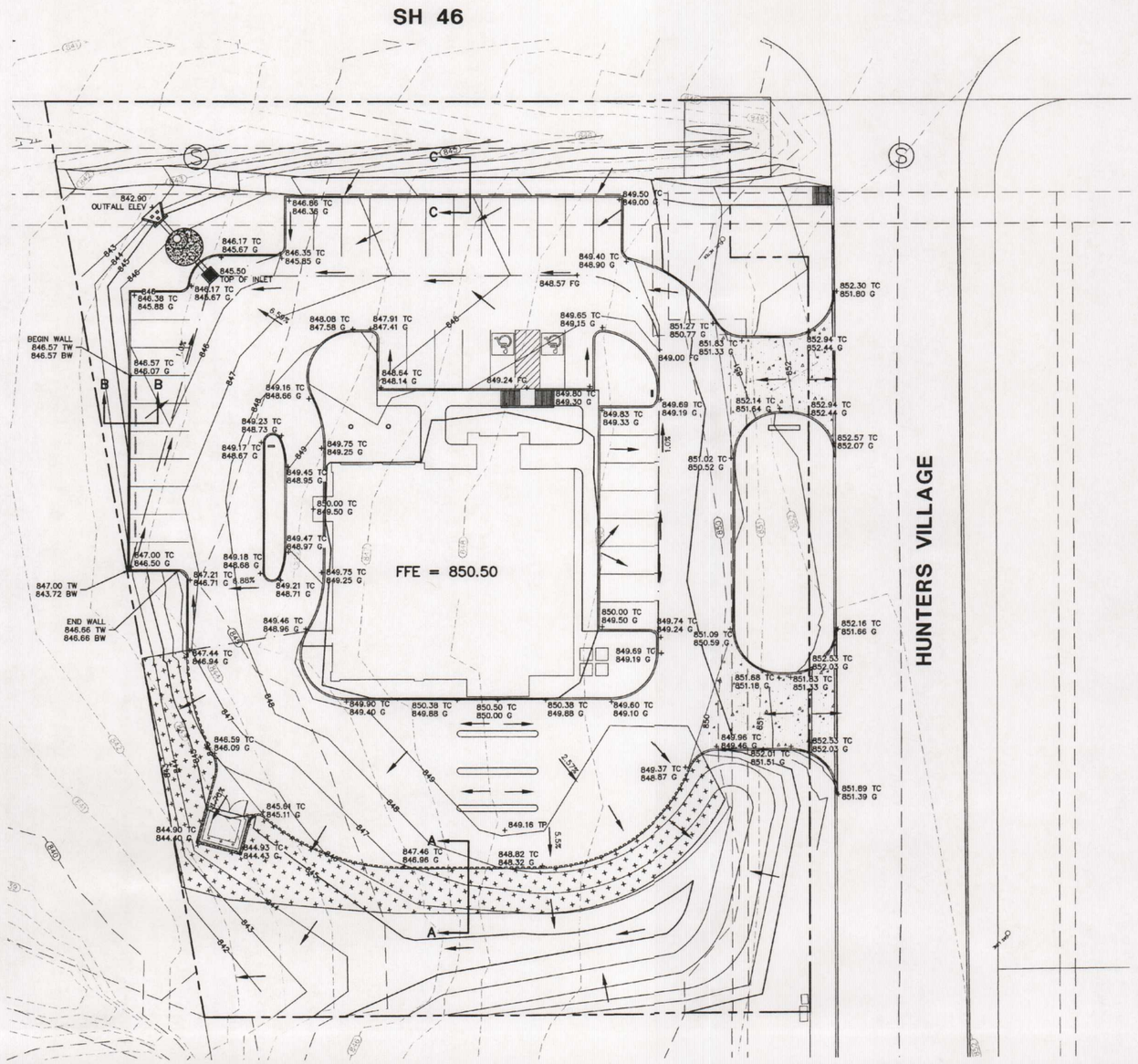
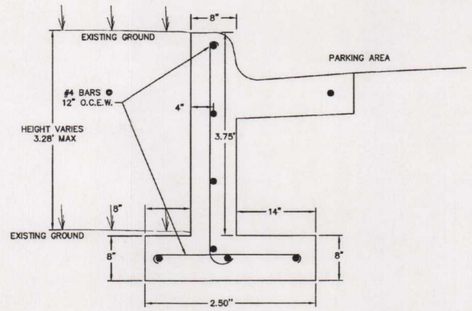
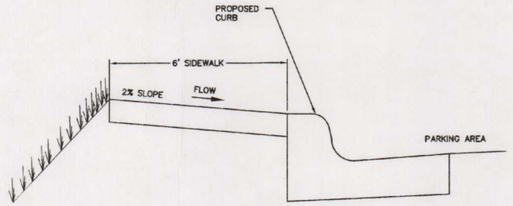
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556





SECTION "B-B"
RETAINING WALL DETAIL

N.T.S.



SECTION "C-C"
SIDEWALK - CURB DETAIL

N.T.S.

REFERENCE MEP PLANS FOR UTILITY STUB OUT LOCATIONS FROM BUILDING.

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY OR MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (B), GAS COMPANIES MUST HAVE ACCESS TO GAS VALVES AT ALL TIMES. CONTRACTOR SHALL PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

GRADING PLAN

Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

DATE: 5/14/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

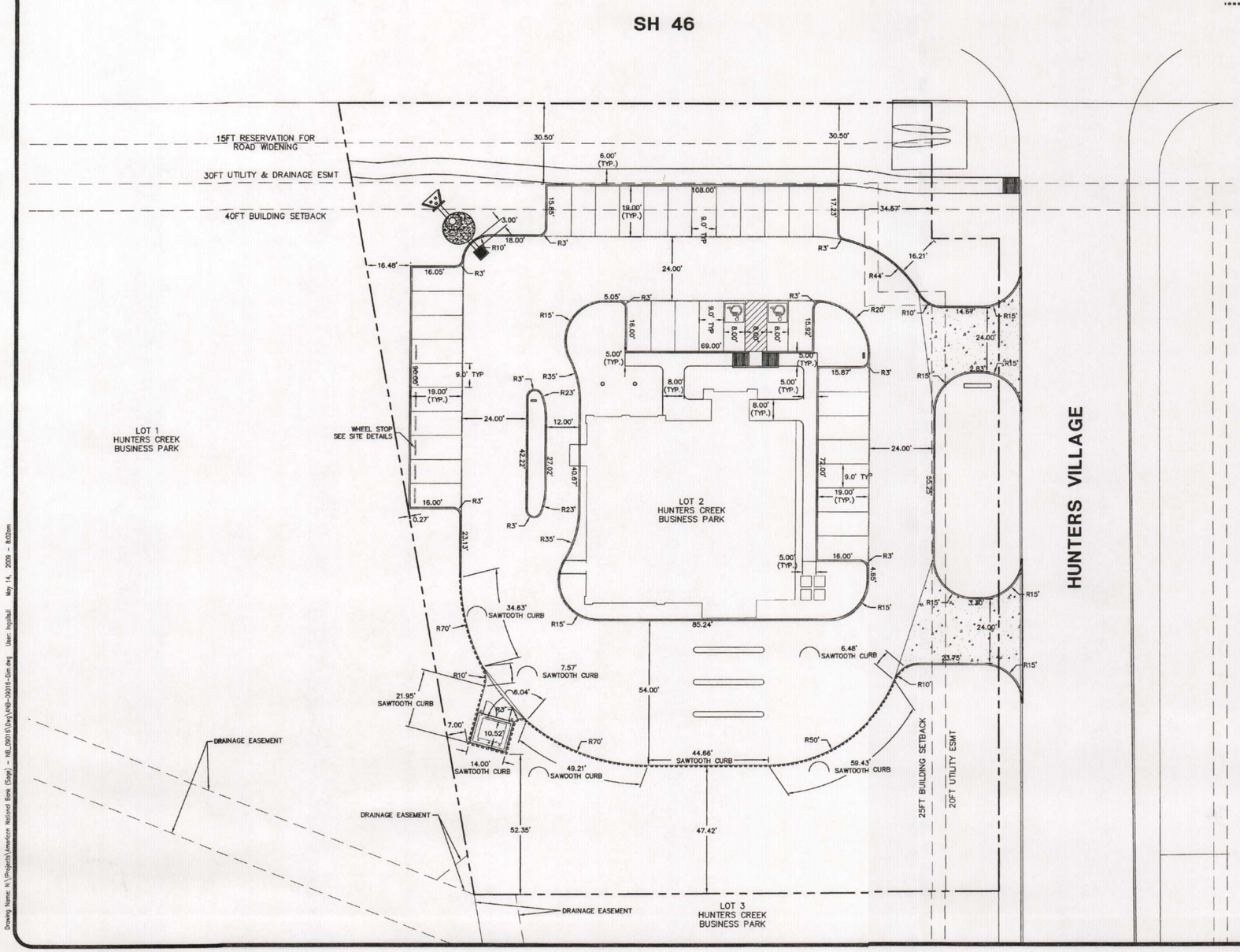
SHEET
C6.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Dwg\NAB-09016-Grad.dwg User: ingalls1 May 14, 2009 - 1:48pm

LEGEND

- PROPERTY LINE
- EXISTING CURB
- PROPOSED CURB
- FIRE LANE
- EASEMENT LINE
- HEAVY DUTY CONCRETE PAVEMENT
- SAWTOOTH CURB

RECEIVED
MAY 21 2009
COUNTY ENGINEER

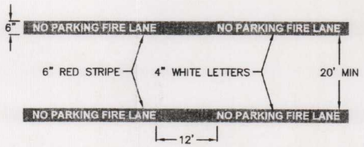


SCALE : 1"=20'

0' 20' 40' 60'

FIRE LANE NOTES:

STRIPING – THE TOP FACE OF ROAD CURBS SHALL BE PAINTED UTILIZING RED TRAFFIC PAINT.
A. IF NO CURBS ARE PRESENT, A SIX INCH (6") WIDE STRIPE PAINGED OF TRAFFIC RED PAINT SHALL BE PAINTED ON THE DRIVING SURFACE TO SHOW THE BOUNDARIES OF THE LANE.
B. THE WORDS "NO PARKING FIRE LANE" SHALL BE SPACED AT A MAXIMUM OF 75 FEET APART, ALONG THE LENGTH OF THE FIRE LANES. SEE ILLUSTRATION BELOW.



NOTES FOR DIMENSIONAL CONTROL PLAN

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEW BRAUNFELS, AT (830) 221-4068, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL TEMPORARY EROSION/CONSTRUCTION CONTROL STRUCTURES. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEW BRAUNFELS, AT (830) 221-4068, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL FORM, STEEL, AND CONCRETE FLATWORK OF ALL DRIVEWAY APPROACHES CONSTRUCTED WITHIN THE CITY RIGHT-OF-WAY. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
3. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEW BRAUNFELS, AT (830) 221-4068, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL DRAINAGE STRUCTURES AND CHANNELS. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES BEFORE COMMENCING CONSTRUCTION. ANY DAMAGE TO SAID UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY. THESE PLANS MAY NOT SHOW ALL EXISTING UTILITIES.
5. CLIENT IS RESPONSIBLE FOR ANY ADA REVIEW FOR THIS PROJECT.
6. UTILITY ADJUSTMENTS AND RELOCATIONS OTHER THAN THOSE SHOWN HEREON MAY BE ENCOUNTERED AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR TO COMPLY WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
8. CONTRACTOR TO MAINTAIN MIN. 1% SLOPE ON ALL CONCRETE PAVING.
9. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL SITE INFORMATION.
10. CUTS AND FILLS MAY NOT BALANCE.
11. CONTRACTOR TO PROVIDE A SWPPP FOR THIS SITE.
12. ALL CURB AND GUTTER SHALL BE 6" CATCH CURB UNLESS OTHERWISE SPECIFIED.
13. ALL DIMENSIONS ARE TO THE FACE OF CURB/EDGE OF PAVEMENT, TO CENTER OF PAVEMENT STRIPING, AND/OR PERPENDICULAR TO THE PROPERTY LINE UNLESS NOTED OTHERWISE ON THE PLANS.
14. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY QUESTIONS OR CONFLICTS ARISE CONCERNING THE INTENT OF THE DIMENSIONS SHOWN NECESSARY TO CONSTRUCT THE PROJECT.
15. ALL CONSTRUCTION SHALL MEET THE CURRENT CITY OF NEW BRAUNFEL'S STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND/OR THE CURRENT NEW BRAUNFELS UTILITIES CONNECTION/CONSTRUCTION POLICIES.
16. ALL STRIPING, TRAFFIC CONTROL AND SIGNAGE SHALL MEET THE REQUIREMENTS OF THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
17. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ALONG ALL PUBLIC STREETS AND SHALL COORDINATE WITH, AND OBTAIN APPROVAL FROM, THE CITY OF NEW BRAUNFELS PRIOR TO CONSTRUCTING IMPROVEMENTS WITHIN THE CITY'S RIGHT-OF-WAY.
18. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES AND SHALL NOTIFY THE RESPECTIVE AGENCIES 48-HOURS IN ADVANCE.
    a. NEW BRAUNFELS UTILITIES 830-629-8400
    b. TIME WARNER CABLE 830-625-3408
    c. ENTEX GAS 830-643-6434
    d. AT&T TELEPHONE 830-303-1333
    e. TEXAS ONE CALL 800-545-4545
19. ALL PROPOSED UTILITY SERVICES ARE DESIGNED BY OTHERS.
20. CONTRACTOR TO REFERENCE LANDSCAPE PLANS FOR PROPOSED LANDSCAPE IMPROVEMENTS.
21. ALL PAVEMENT, UNLESS SPECIFIED AS HEAVY DUTY IS LIGHT DUTY CONCRETE PAVEMENT.

REFERENCE MEP PLANS FOR UTILITY STUB OUT LOCATIONS FROM BUILDING.

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NO.	DATE	REVISION	BY
2	05/14/09	REVISED SAWTOOTH CURB PER TCEQ COMMENTS	JR
1	05/08/09	REVISED SAWTOOTH CURB PER TCEQ COMMENTS	JR

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410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556
JEFFREY D. MOELLER 86569 Licensed PROFESSIONAL ENGINEER

DIMENSION CONTROL

Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

DATE: 5/14/09
DRAWN BY: JR
DESIGNED BY: JR
CHECKED BY: JR
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C4.0

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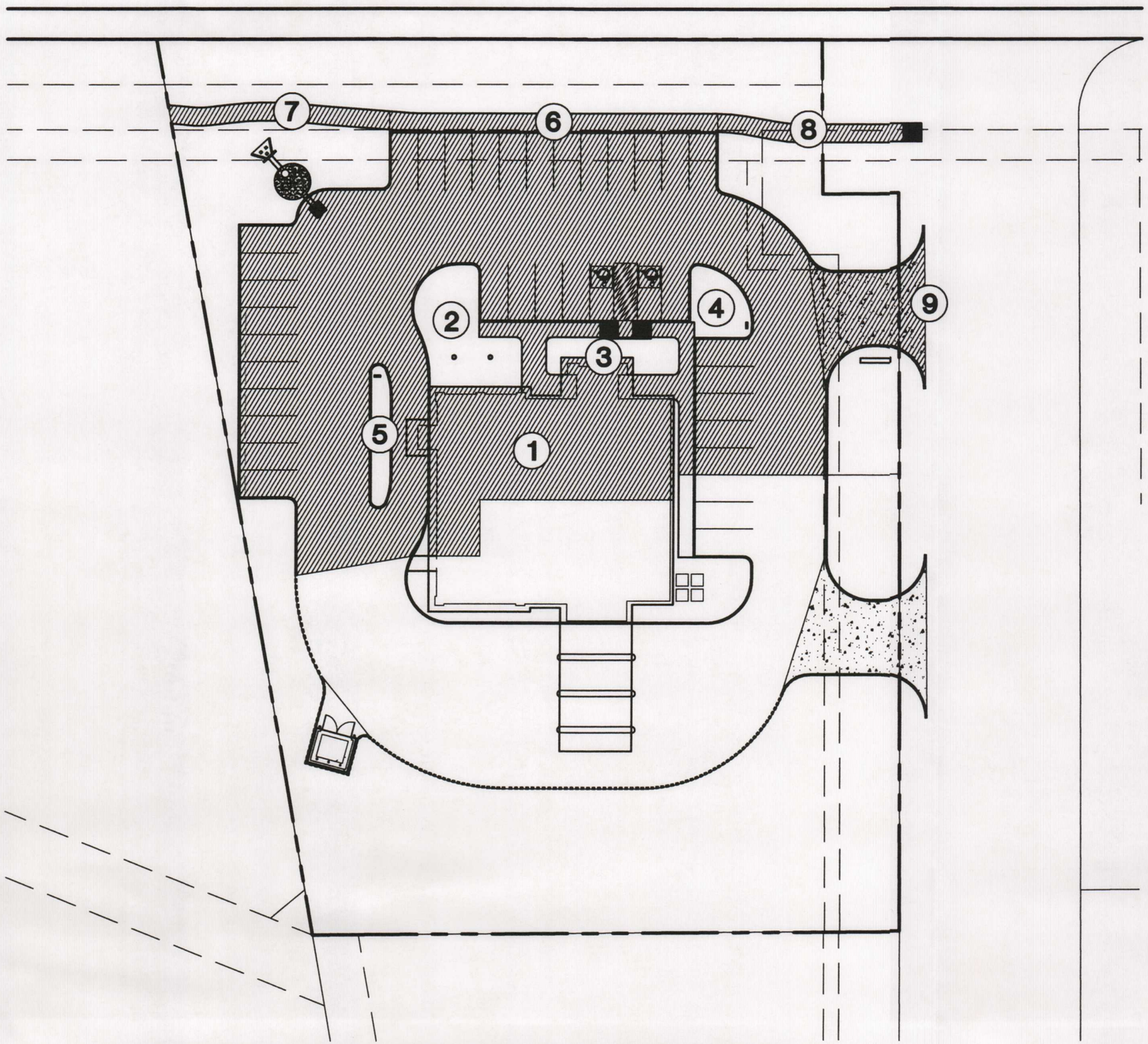

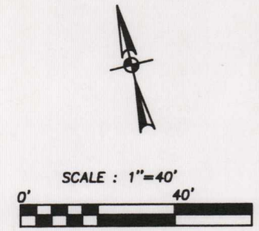

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STORMCEPTER IMPERVIOUS AREA			
AREA ID	DESCRIPTION	AREA (sf)	AREA (ac)
1	OUTER PARKING AREA	23,294	
2	PERVIOUS AREA	988	
3	PERVIOUS AREA	400	
4	PERVIOUS AREA	399	
5	PERVIOUS AREA	288	
6	SIDEWALK	662	
TOTAL CAPTURED		21,881	0.50
7	SIDEWALK	441	
8	SIDEWALK	394	
9	DRIVEWAY	313	
TOTAL UNCAPTURED		1148	0.0260

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HOLLUMB • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTHB.com
PH:(830)625-8555
FAX:(830)625-8556

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF JEFFREY D. MOELLER, PE. 88588 ON May 14, 2009. IT IS NOT TO BE USED FOR PERMITTING, BIDDING, OR CONSTRUCTION PURPOSES.

IMPERVIOUS COVER EXHIBIT

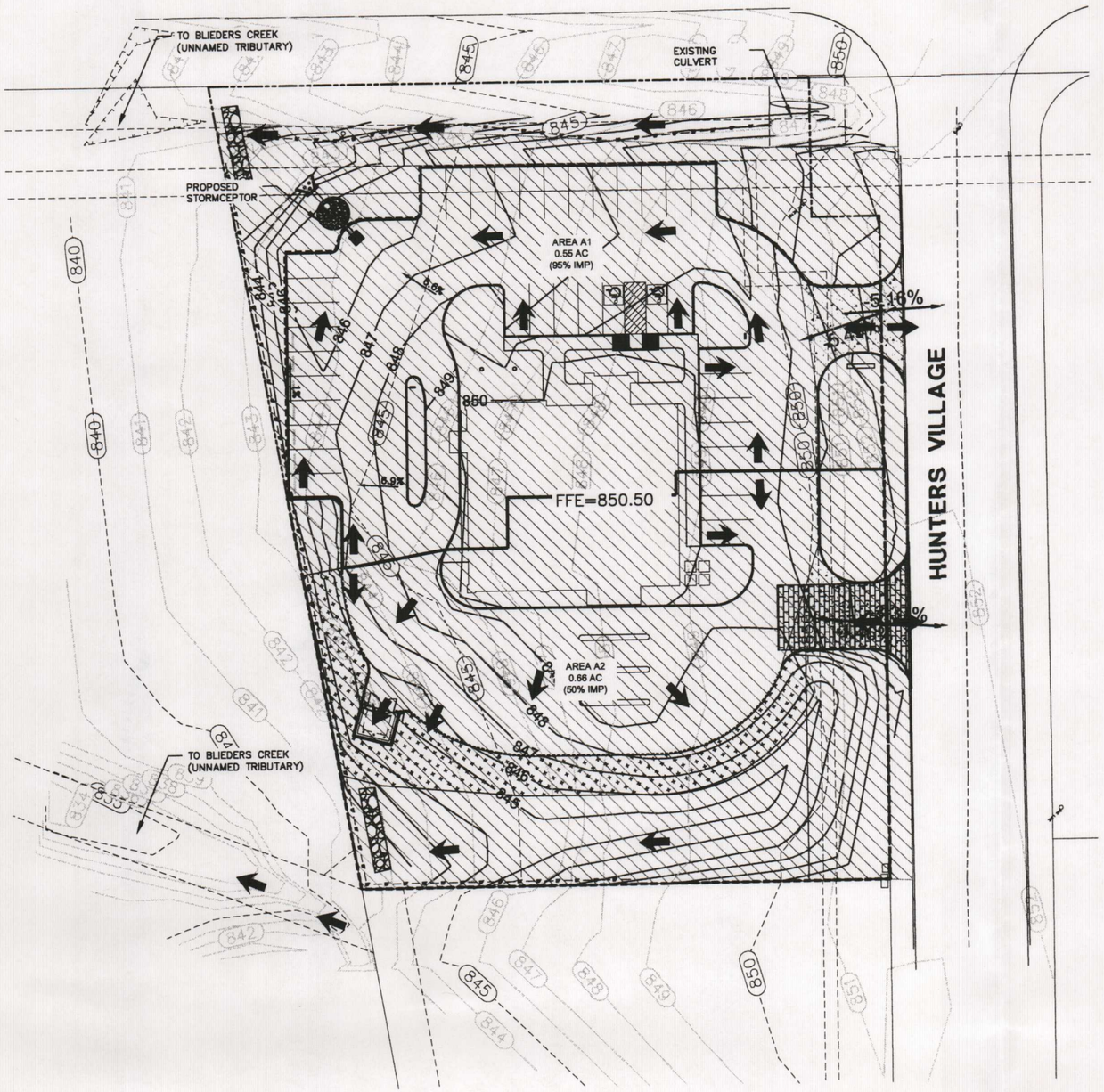
AMERICAN NATIONAL BANK

SLI GROUP, INC
10200 OLD KATY ROAD
HOUSTON, TEXAS

DATE: 5/14/09
DRAWN BY: JD
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER:

SHEET 1 OF 1

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Doc\WPAP\ANB-WPAP-IMP COVER.dwg User: Ingallsjl May 14, 2009 - 12:33pm



SCALE: 1" = 50'

LEGEND

- LIMITS OF DRAINAGE AREA
- AREAS OF DISTURBANCE
- ROCK BERM
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- ENGINEERED VEGETATIVE FILTER STRIPS

TOTAL LAND AREA	=	1.50 AC
TOTAL DISTURBED AREA	=	1.43 AC
TOTAL IMPERVIOUS AREA	=	0.85 AC
% IMPERVIOUS	=	57%

FOR PERMIT USE ONLY, NOT TO BE USED FOR CONSTRUCTION

RECEIVED
MAY 21 2009
COUNTY ENGINEER

NO.	DATE	REVISION	BY

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www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

DRAINAGE AREA MAP

SAGE CAPITAL BANK

AMERICAN NATIONAL BANK
1606 N. SARAH DEWITT DR.
GONZALES, TEXAS

DATE: 3/10/09
DRAWN BY: JB
DESIGNED BY: JB
CHECKED BY: JDM
REVIEWED BY: JDM
PROJECT NUMBER: 09016

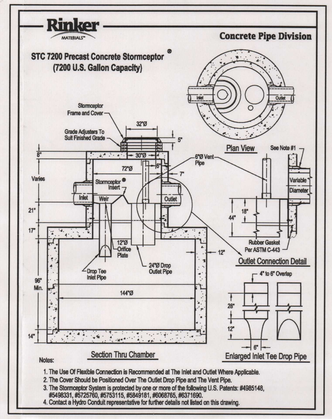
SHEET 1 OF 1

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Doc\WPAP\ANB-09016-Drainage Area.dwg User: IngallsJl May 14, 2009 - 1:26pm

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for 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 of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies 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 encountered during construction. The regulated activities near the sensitive feature may not proceed 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 150 feet of a domestic, industrial, irrigation, or public 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 manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must 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 offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake 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 spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
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 activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, 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 Aquifer 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 ponds, dams, berms, sewage 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 the Edwards Aquifer;
    C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704–5712	San Antonio, Texas 78233–4480
Phone (512) 339–2929	Phone (210) 490–3096
Fax (512) 339–3795	Fax (210) 545–4329



PROJECT: SAGE CAPITAL BANK

EAPP STORMCEPTOR Compensation Worksheet (Rev. 7/15/08): Use additional sheets for additional catchment areas.

Table 1

Effective Area (ac)	Stormceptor Model	Surface Area (ft^2)
EA < 0.08	450i	12.57
0.08 < EA < 0.16	900, 1200, 1800	28.27
0.16 < EA < 0.29	2400, 3600	50.27
0.29 < EA < 0.46	4800, 6000	78.54
0.46 < EA < 0.66	7200	113.10
0.66 < EA < 0.92	11,000, 13,000	157.08
0.92 < EA < 1.32	16,000	226.19

Use additional sheets for additional BMPs.
A_I = Impervious Cover
A_P = Pervious Cover
A = Total Area
P = Avg. Annual Rainfall
A_N = increase in impervious cover (new IC – existing IC)
TSS = L_{M2} = 27.2 x A_N x P

List only the uncaptured area being compensated for in the BMP. TSS compensation for uncaptured areas can be divided up between multiple BMPs.

	BMP Catchment Area A		Uncaptured / Untreated Areas (for compensation in BMP)	
1	A_{U1} =	0.50	A_{U2} =	0.026
	A_{P1} =	0.05	A_{P2} =	0.23
	A_I =	0.55	A_I =	0.256
	A_{N1} =	0.50	A_{N2} =	0.026
	L_{M1} =	448.8	L_{M2} =	23.3

Stormceptor (STC) Model (Actual Catchment Area to the BMP); Use additional sheets as necessary.
Effective Area (EA) = (0.9 x A_I) + (0.03 x A_P)
EA = (0.9 x 0.50) + (0.03 x 0.05) = 0.45 EA

STC Model (from Table 1 to start) 7200 ; Surface area (SA) of model (Table 1) 113.10 ft^2
Required TSS Removal for Catchment Area:
L_{M1} = 27.2 x 0.50 A_{N1} x 33 P" = 448.8 #TSS

2 Overflow Rate
V_o = (EA x 1.1 in/hr) / Model surface area (SA)
V_o = (0.45 x 1.1)/ 113.10 = 0.004377 f/s

3 BMP Efficiency (Table 2); If the overflow rate is between two percent efficiencies, use the smaller percent efficiency (round the overflow rate to the larger overflow value). Enter rounded overflow value:
V_o = 0.004377 f/s

BMP % = 83 % / 100 = 0. 83 BMP Eff.

4 Maximum TSS Removal of BMP: L_{E1}
L_{E1} = (BMP Eff x P) x [(A_{U1} x 34.6) + (A_{P1} x 0.54)]
L_{E1} = (0. 83 x 33 ") x [(0.50 x 34.6) + (0.05 x 0.54)] = 474.6 #TSS

TSS Load Credit (L_C) to be counted towards untreated areas = L_{E1} – L_{M1}
L_C = (474.6 #TSS – 448.8 #TSS) = 25.8 #TSS

5 Required TSS Removal for Uncaptured Area L_{M2}= 27.2 x 0.026 A_{N2} x 33 " = 23.3 #TSS

6 Is Sufficient Treatment Available?
If $L_C \geq L_{M2}$: Model size is adequate.
If $L_C < L_{M2}$: Model size is inadequate. Choose a larger model size or redefine the catchment areas. Repeat steps 1 - 6.
25.8 L_C (< or ≥, pick) 23.3 L_{M2}

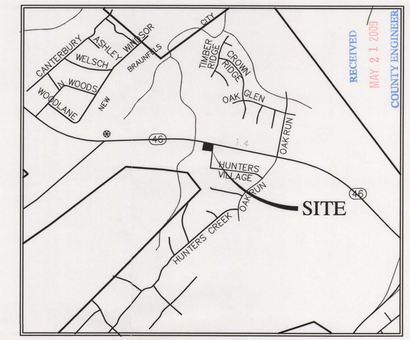
Final Model Size: 7200

7 TSS Treatment by BMP:
L_{M2} (step 1) + L_{M2} (step 5) = TSS Treatment by BMP
448.8 #TSS + 23.3 #TSS = 471.2 #TSS

8 TSS Treatment Summary

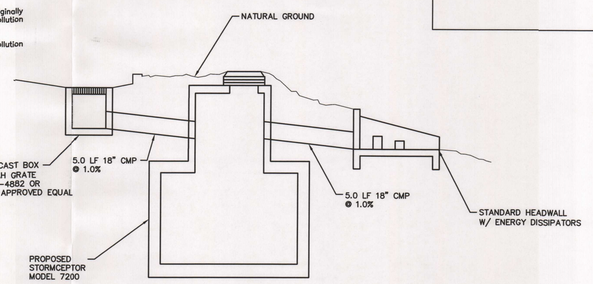
Catchment Area	STC Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_{M2})	TSS Treatment by BMP (lb/yr) (Step 7)
BMP Catchment	7200	0.55	0.50	448.8	471.2
Uncaptured/Untreated	---	0.256	0.026	23.3	0
Total	---	0.806	0.526	471.2	471.2

Stormceptor Worksheet 7/15/2008



LOCATION MAP

TOTAL LAND AREA	=	1.50 AC
TOTAL DISTURBED AREA	=	1.43 AC
TOTAL IMPERVIOUS AREA	=	0.85 AC
% IMPERVIOUS	=	57%

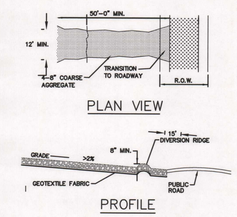


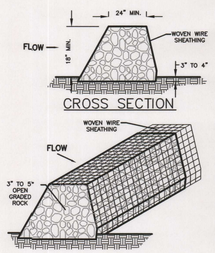
STORM DRAIN PROFILE

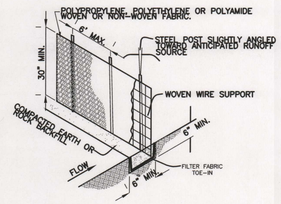
N.T.S.

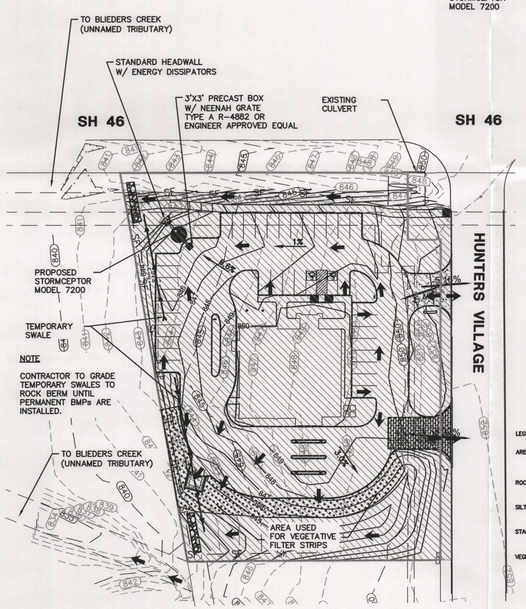
SOIL STABILIZATION NOTE

ALL DISTURBED SOILS SHOULD BE SEEDED OR OTHERWISE STABILIZED WITH 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR MORE THAN 21 DAYS.









HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:
(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:
(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:
(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rock should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:
(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:
(1) The entrance should be maintained in a condition, which will prevent tracking or towing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:
(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 – 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 – 8 inch diameters rocks may be used.

Installation:
(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:
(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, Construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:
(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2' x 4' welded wire, 12 gauge minimum.

Installation:
(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1– foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(5) Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:
(1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction actively. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

NO.	DATE	REVISION	BY
2	05/14/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JII
1	05/08/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JII

HMT ENGINEERING & SURVEYING
HOLLMIG • MCDELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS,
TEXAS, 78130
F-10961
www.HMTNB.com
PH:(830)625-8555
FAX:(830)625-8556

FOR PERMIT USE ONLY, NOT TO BE USED FOR CONSTRUCTION

WATER POLLUTION ABATEMENT PLAN SITE PLAN

SAGE CAPITAL BANK

AMERICAN NATIONAL BANK
1606 N. SARAH DEWITT DR
GONZALES, TEXAS 78629

DATE: 3/13/09
DRAWN BY: JII
DESIGNED BY: JII
CHECKED BY: JDM
REVIEWED BY: JDM
PROJECT NUMBER: 09016

SHEET
1

Comal Co

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May 8, 2009

Mr. John Mauser
Field Operations Division, Region 13 (San Antonio)
Texas Commission on Environmental Quality
14250 Judson Road
San Antonio, TX 78233-4480

RE: Sage Capital Bank Water Pollution Abatement Plan Application

This letter is in response to the fax received 05/05/09 TCEQ as it pertains to the Sage Capital Bank Water Pollution Abatement Plan Application. The comments received are in italics and our responses are in bold.

1. *Form TCEQ-0585-Question 7 – Identify the project location on the site geologic map.*

   The Site Geologic Maps have been updated to show the project location.

2. *Form TCEQ-0584-Question 13 – Include the runoff coefficient of the site for both pre-construction and post-construction conditions.*

   Attachment B of the Water Pollution Abatement Plan Application Section describing the volume and character of stormwater has been revised to include runoff coefficients for pre- and post-construction.

3. *Form TCEQ-0584-Question 17 – Confirm that the WPAP Boundary labeled on the plan sheet is the legal boundary of the site.*

   The WPAP Boundary labeled on plan sheet is the legal boundary of the site, Recorded Replat documentation has been included with resubmittal.

4. *Form TCEQ-0602-Question 5 – Identify when the proposed vegetated filter strip will be constructed.*

   Attachment C of the Temporary Stormwater Section describing the sequence of major activities has been revised to include the schedule of construction for the vegetated filter strips.

5. *Form TCEQ-0602-Question 7 – The Stormwater Pollution Prevention plans sheet provided in the application indicates that more than ¼ acre of disturbed are will be directed to 100 feet of silt fence. Revise as necessary to conform to RG-348, Section 1.4.3.*

   The WPAP site plan and Erosion Control Plans have been revised to incorporate rock berms with temporary drainage swales to intercept the stormwater runoff and direct the flow to the rock berms.

6. *Form TCEQ-0602-Question 12 – Identify the location in the application of the description of documentation procedures and recordkeeping practices for inspection and maintenance of temporary BMPs.*

   This information is located in the last paragraph named Documentation, is located in the Temporary Stormwater Section Attachment I.

7. *Form TCEQ-0600-Question 10A – Watershed A1-Provide the amount of impervious cover created by the proposed sidewalk, and by the portion of the proposed driveway apron not directed to the permanent BMP. Confirm that treatment of stormwater runoff from the sidewalk and the portion of the driveway apron are accounted for in the sizing of the proposed BMP. Revise calculations and BMPs as necessary.*

   The impervious area created by the proposed sidewalk and driveway have been included into the total impervious cover area. The project description, WPAP Site Plan, and Form TCEQ-0584 have been revised.

8. *Form TCEQ-0600-Question 10B – Watershed A2– It is unclear if the proposed vegetative filter strip is to be natural or engineered. Please clarify and show details (width, slope, pavement/filter contact, etc.) appropriate for filter strips designed in accordance with RG-348, (2005), Section 3.4.6. If this information is included in the application, provide its location.*

   The proposed vegetative filter strip is to be a natural vegetative filter strip. The width of the strip is a minimum of 15ft, the maximum slope is 10%, the pavement/filter junction was designed to ensure that the runoff would travel through the strip. See detail on the Grading Plan (C6.0).

9. *Form TCEQ-0600-Question 10C – Watershed A2-Review of the contours and location of the proposed vegetative filter strip indicates that approximately 1/3 of the stormwater runoff from this watershed will not receive sheet flow across the vegetative filter strip. Please provide clarification, or revise, as necessary.*

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The grading and saw tooth curb proposed for the site has been revised to ensure that the stormwater runoff for the entire contributing water shed is under the sheet flow condition as it enters the vegetative filter strip.

10. *Form TCEQ-0600-Question 10D – Watershed A2-If the vegetated filter strip is engineered, update the areas to be disturbed on the Drainage Area Map.*

    The grading has been revised which caused the revision of the drainage areas. See Drainage Area Map.

11. *Form TCEQ-0600-Question 10E – Watershed A2– Provide the amount of impervious cover created by the portion of the proposed driveway apron not directed to the permanent BMP. Confirm that the stormwater runoff from this driveway apron, not directed to the permanent BMP, will receive appropriate treatment.*

    The impervious area created by the proposed driveway has been included into the total impervious cover area. The project description, WPAP Site Plan, and Form TCEQ-0584 have been revised.

12. *Form TCEQ-0600-Question 11 – Provide an inspection, maintenance and repair plan for the proposed vegetated filter strip. If this information is included I the application, provide its location.*

    Attachment G describing the Inspection, Maintenance, Repair and Retrofit Plan has been revised to include information regarding the vegetative filter strips.

Please accept these comments and revisions to the WPAP for the referenced project. If you need additional information or have any questions, please do not hesitate to contact myself or James Ingalls.

Sincerely,

Jeff Moeller, P.E.
Attachments

[illegible] N. Seguin St. ■ New Braunfels, Texas 78130 ■ Phone 830 625 [illegible] ■ Fax 830 625 [illegible] ■ hmtpls.com

WATER POLLUTION ABATEMENT PLAN

FOR

SAGE CAPITAL BANK

PREPARED FOR

Texas Commission on Environmental Quality

Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233
210-490-3096 (office)
210-545-4329 (fax)

PREPARED BY

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Jeffrey D. Moeller, P.E.
410 N. Seguin St
New Braunfels, TX 78130

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
5/8/09

Submitted
March 13, 2009
Revised
March 18, 2009
March 30, 2009
May 8, 2009

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ATTACHMENT "C"
Project Description

The proposed project site is located on a 1.5 acre lot located within Hunters Creek Business Park. The proposed area to be disturbed is 1.43 acres with 0.85 acres (57%) of proposed impervious cover. The lot is located within the New Braunfels city limits in the south west corner of the intersection of Hunters Village and SH 46. The site is served by New Braunfels Utilities for electric, water and wastewater. The site is currently cleared and there are no any other improvements. A geologic assessment was prepared for this area with the WPAP submittal for Hunters Creek Business Park and that WPAP was approved on June 5, 2006 under TCEQ EAPP file number 1964.01. The same geologic assessment is included with this submittal. There were no sensitive features identified within the limits of this proposed project site.

The proposed use for the project is a branch bank building with teller drive thru lanes. No other planned used are proposed for the site. The bank will have a capacity of 15 employees.

The proposed construction will include minor grading for the parking areas and building pad, small utility service lines and building infrastructure.

According to the Flood Insurance Rate Map No. 4854930005E the site is outside of the flood plain. The entire site drains to an unnamed tributary of Blieders creek. Stormwater runoff will be treated with the Stormceptor® vault system and vegetative filter strips. The Stormceptor® will treat the drainage area with a majority of the proposed impervious cover and the vegetative filter strips will treat the remainder. The two permanent BMP's (Stormceptor® and vegetative filter strips) will ensure the quality of water exiting without adversely affecting the downstream drainage patterns.

The lot lies within the boundary of Hunters Creek Business Park WPAP. The permanent stormwater abatement measures were proposed to treat the roadway (Hunters Village). The Geologic Assessment performed for the hunters Creek Business Park WPAP covered the entire commercial subdivision, including the proposed 1.5 acre lot. Therefore, an independent Geologic Assessment was not performed for this lot.

SCALE: 1" =50'

STATE HIGHWAY 46

S 76°11'00"E 1481.90'

1371.09'
1369.23'
1366.14'

10.00'
15.01'

840
850
860
870

MATCH LINE

SITE

LOT 1
5 ACRES
Kep

LOT 2R
1.465 AC.

LOT 2R
1.465 AC.

40' B.L.

20' U.E.
25' B.L.

HUNTER'S VILLAGE
LOT 15 (1.973 Acres)
PRIVATE STREET & UTILITY EASEMENT

S1

30' U.E. & D.E.

LOT 10
1.387 AC.

25' B.L.
20' U.E.

LOT 10
1.387 AC.

22.389 TOTAL ACRES

LOT 11
4.633 AC.

30' U.E. & D.E.

LOT 12
0.580 AC.

N 12°37'40"E
S 12°37'40"E
72.82'

30' U.E. & D.E.
40' B.L.

LOT 13
1.027 AC.

15' PRIVATE
SEWER ESM'T.
TO SERVE LOT 14

40' SHARED ACCESS

S-16

D
U

RUD

Kep

(80' R.O.W.)

S13

40' SHARED ACCESS
30.0'
30.0'

14
1.095 AC.

S12

S11

25' B.L.
20' U.E.

PARKWAY

LOT 3
0.721 AC.

LOT 8
0.809 AC.

LOT 9
0.640 AC.

LOT 11
4.633 AC.

S9

S8

25' B.L.
20' U.E.

S10

HUNTER'S VILLAGE
LOT 15 (1.973 Acres) – PRIVATE STREET & UTILITY EASEMENT

20' U.E.
25' B.L.

LOT 4
0.812 AC.

S3

LOT 5
0.702 AC.

LOT 6
0.715 AC.

S5

S4

LOT 7
0.795 AC.

25' B.L.
20' U.E.

S7

S6

S 53°00'04"W 314.63'

OAK RUN

S 76°12'59"E 914.74'

N 76°12'59"W 1110.79'

HUNTER'S CREEK SUBDIVISION
UNIT SIX
VOL. 11, PG. 34

850
860
870

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Soils Legend

RUD - Rumple-Comfort Association

Geologic Legend

Kep - Person Formation

U/D Inferred Fault

U/D Fault

S-1 - Feature

GeoConsul Geological and Environmental Consultants	
Project: HUNTERS CREEK BUSINESS PARK-WPAP NEW BRAUNFELS, TEXAS	
Title: GEOLOGIC/SOILS MAP	
Plate No. II	Project No. 05017
Drawn By: BD Date: 3/15/06	Approved By: BD Date:3/15/06

S. CRAIG HOLLMIG, INC.
CONSULTING ENGINEERS - SURVEYORS
410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085
PH: (830)625-8555 • FAX: (830)625-8556 • EMAIL: hollmig@nbtx.com

SITE PLAN
(SHT. 2 OF 2)

DATE:	REVISIONS:
-	-

CHECKED BY: -

DRAWN BY: -

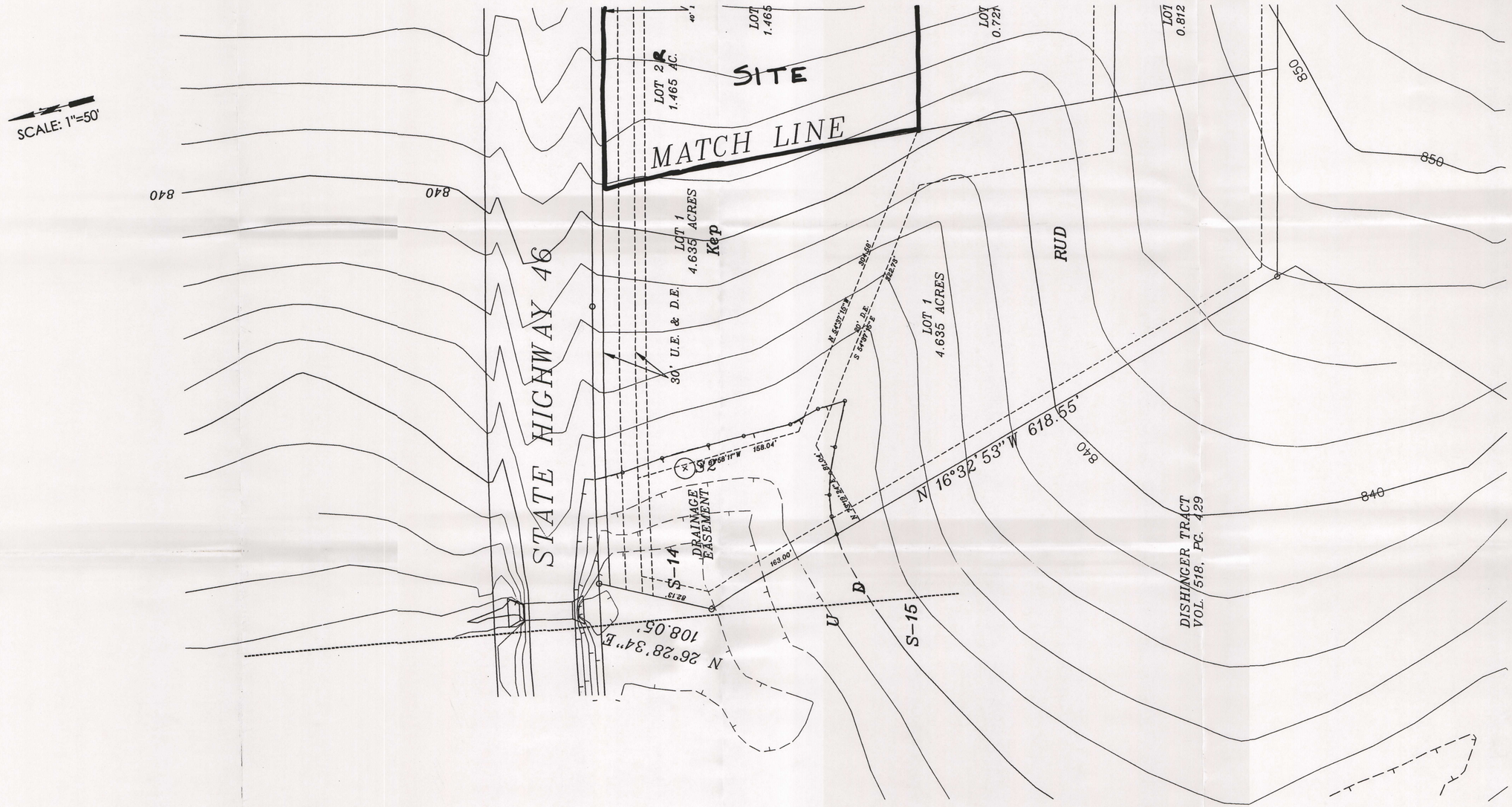
HUNTER'S CREEK
BUSINESS PARK

NEW BRAUNFELS, TEXAS

DWG. NO:

PROJECT

SHEET #



Soils Legend

RUD - Rumple-Comfort Association

Geologic Legend

Kep - Person Formation

U/D Inferred Fault

U/D Fault

S-1 - Feature

GeoConsul Geological and Environmental Consultants	
Project: HUNTERS CREEK BUSINESS PARK-WPAP NEW BRAUNFELS, TEXAS	
Title: GEOLOGIC/SOILS MAP	
Plate No. I	Project No. 05017
Drawn By: BD Date: 3/15/06	Approved By: BD Date:3/15/06

STATE OF TEXAS
BOYD V. DREYER
GEOLOGY
67
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410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085
PH:(830)625-8555 • FAX:(830)625-8556 • EMAIL: hollmig@nbtx.com

SITE PLAN
(SHT. 1 OF 2)

DRAWN BY:	CHECKED BY:	DATE:	REVISIONS:
-	-	-	-

HUNTER'S CREEK
BUSINESS PARK

NEW BRAUNFELS, TEXAS

DWG. NO:

PROJECT

SHEET #

RECEIVED
MAY 13 2009
COUNTY ENGINEER

Water Pollution Abatement Plan Application
for Regulated Activities
on the Edwards Aquifer Recharge Zone
and Relating to 30 TAC §213.5(b), Effective June 1, 1999

REGULATED ENTITY NAME: Sage Capital Bank

REGULATED ENTITY INFORMATION

1. The type of project is:
   - ___ Residential: # of Lots: ___
   - ___ Residential: # of Living Unit Equivalents: ___
   - _X_ Commercial
   - ___ Industrial
   - ___ Other: ___

2. Total site acreage (size of property): 1.5 acres

3. Projected population: 0

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops (Residential)	7,400	÷ 43,560 =	0.17 acres
Parking (Driveways)	28,287	÷ 43,560 =	0.65 acres
Other paved surfaces (Streets)	1,519	÷ 43,560 =	0.03 acres
Total Impervious Cover	37,206	÷ 43,560 =	0.85 acres
Total Impervious Cover ÷ Total Acreage x 100 =			57%

5. _X_ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. _X_ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. 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.

8. Type of pavement or road surface to be used:
   - ___ Concrete
   - ___ Asphaltic concrete pavement
   - ___ Other: ___

9. Length of Right of Way (R.O.W.): ____ feet.
Width of R.O.W.: ____ feet.
L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
Width of pavement area: ____ feet.
L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre =____ acres.
Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

11. __ A rest stop will be included in this project.
__ A rest stop will **not** be included in this project.

12. __ 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

13. **ATTACHMENT B - 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 provided at the end of this form. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

14. The character and volume of wastewater is shown below:

_100_% Domestic _____ gallons/day
_____% Industrial _____ gallons/day
_____% Commingled _____ gallons/day

TOTAL_____60___ gallons/day

15. Wastewater will be disposed of by:
__**On-Site** Sewage Facility (OSSF/Septic Tank):
ATTACHMENT C - Suitability Letter from Authorized Agent. An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.
__ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

_X_ Sewage Collection System (Sewer Lines):
_X_ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
__ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
__ The SCS was previously submitted on _____.
__ The SCS was submitted with this application.

__ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to executive director approval.

The sewage collection system will convey the wastewater to the Gruene Rd WWTP (name) Treatment Plant. The treatment facility is:

_X_ existing.
__ proposed.

16. _X_ All private service laterals will be inspected as required in 30 TAC §213.5.

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = __50'____'.

18. 100-year floodplain boundaries
__ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
_X_ 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):
FEMA Panel Number 4854930005E Dated 01/05/2006

19. __ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.
_X_ The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
_X_ There are _0_(#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)
__ The wells are not in use and have been properly abandoned.
__ The wells are not in use and will be properly abandoned.
__ The wells are in use and comply with 30 TAC §238.
_X_ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:
__ All **sensitive and possibly sensitive** geologic or manmade features identified in the Geologic Assessment are shown and labeled.
_X_ No **sensitive and possibly sensitive** geologic or manmade features were identified in the Geologic Assessment.
____ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. Geologic or manmade features were found and are shown and labeled.
__ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. No geologic or manmade features were found.

22. _X_ The drainage patterns and approximate slopes anticipated after major grading activities.

23. _X_ Areas of soil disturbance and areas which will not be disturbed.

24. _X_ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. _X_ Locations where soil stabilization practices are expected to occur.

26. _X_ Surface waters (including wetlands).

27. _X_ Locations where stormwater discharges to surface water or sensitive features.
__ There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. _X_ One (1) original and three (3) copies of the completed application have been provided.

29. _X_ Any modification of this WPAP will require TCEQ executive director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

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 **WATER POLLUTION ABATEMENT PLAN APPLICATION FORM** is hereby submitted for TCEQ review and executive director approval. The form was prepared by:

Jeffrey D. Moeller, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

5/8/09 (Rev)
Date

ATTACHMENT "A"
Factors Affecting Water Quality

The development will consist of an asphalt parking lot and a structure of approximately 7,400 square feet. This will result in minimal to no pollution from the site. Some pollution may originate from the asphalt streets, automobile wastes, and cleaning chemicals, which may have an effect on surface water by sediments leaving the site after a rainfall event.

ATTACHMENT "B"
Volume and Character of Stormwater

The development of this site will result in a minimal increase in stormwater run-off. The hydrology calculations for existing and proposed conditions are broken out in the tables below. On site detention will not be required due to the proximity of the site to Blieders Creek in accordance with regulations set forth by the City of New Braunfels.

Table 1 - Sage Capital Bank Existing Conditions Hydrology Calculations

Area ID	Area	"C" Value	T_c	I_{10}	I_{100}	Q_{10}	Q_{100}
A1	0.55	0.38	20	5.44	8.51	1.14	2.22
A2	0.66	0.38	20	5.44	8.51	1.37	2.67

Table 2 - Sage Capital Bank Proposed Conditions Hydrology Calculations

Area ID	Area	"C" Value	T_c	I_{10}	I_{100}	Q_{10}	Q_{100}
A1	0.55	0.77	10	7.57	11.90	3.20	6.30
A2	0.66	0.59	10	7.57	11.90	2.95	5.79

There are 15.37 acres upstream and west of the development that drains towards SH 46 and west through the existing culverts located at the northeast corner of the site. The area is currently undeveloped, and the proposed use is commercial. The ultimate development of the area discharge 59.8 cfs through the culvert during the 100 year storm event. However, this runoff does not co-mingle with the on-site untreated stormwater. The upgradient stormwater will be contained within the existing drainage channel along SH 46. The treatment of the proposed improvements for this upgradient area will be addressed in the WPAPs submitted for those properties. Reference the Drainage Area Map of the Hunters Creek Business Park WPAP(Approved by TCEQ June 5, 2006, EAPP #1964.01) for drainage patterns for the area.

The existing drainage patterns will be altered by the proposed construction. Before any improvements the site drained from east to west. After the proposed improvements half

of the site's drainage will run to North into a drainage easement along SH 46 and the other half will discharge into a drainage easement at the southwest corner of the site.

ATTACHMENT "C"
Suitability Letter from Authorized Agent

There is no proposed OSSF.

ATTACHMENT "D"
Exception to the Required Geologic Assessment

No exception will be requested.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for 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 of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies 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 encountered during construction. The regulated activities near the sensitive feature may not proceed 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 150 feet of a domestic, industrial, irrigation, or public 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 manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must 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 offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake 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 spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

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 activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, 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 Aquifer 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 ponds, dams, berms, sewage treatment plants, and diversionary structures;

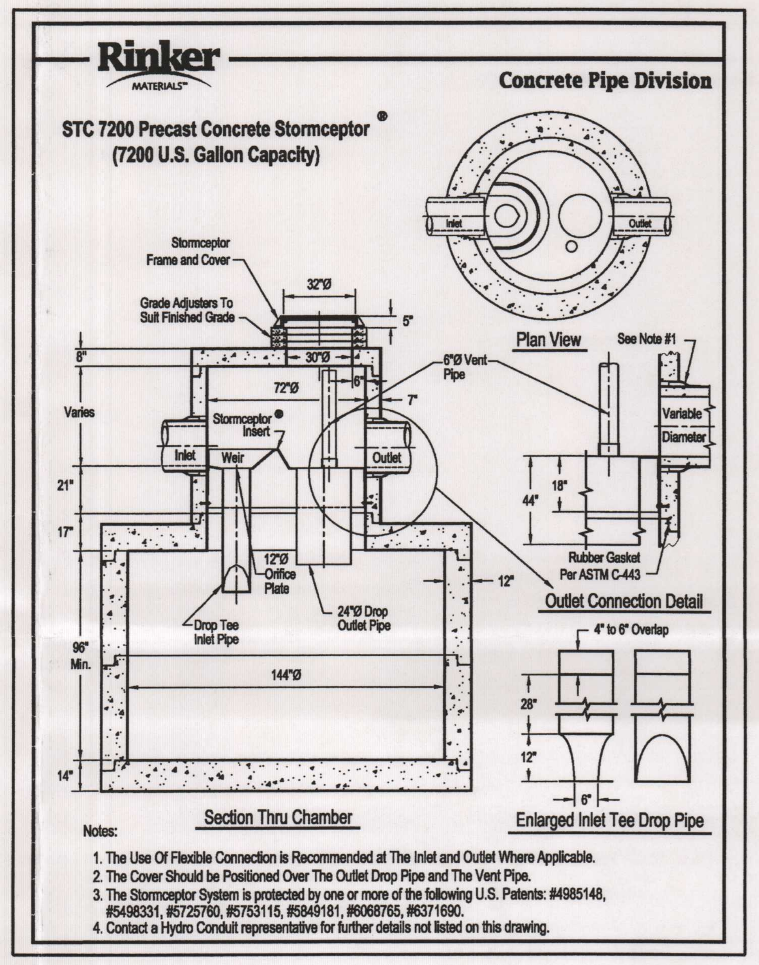
   B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

   C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704-5712	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

SOIL STABILIZATION NOTE

ALL DISTURBED SOILS SHOULD BE SEEDED OR OTHERWISE STABILIZED WITH 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR MORE THAN 21 DAYS.



PROJECT: SAGE CAPITAL BANK

EAPP STORMCEPTOR Compensation Worksheet (Rev. 7/15/08): Use additional sheets for additional catchment areas.

Table 1

Effective Area (ac)	Stormceptor Model	Surface Area (ft²)
EA < 0.08	450i	12.57
0.08 < EA < 0.16	900, 1200, 1800	28.27
0.16 < EA < 0.29	2400, 3600	50.27
0.29 < EA < 0.46	4800, 6000	78.54
0.46 < EA < 0.66	7200	113.10
0.66 < EA < 0.92	11,000, 13,000	157.08
0.92 < EA ≤ 1.32	16,000	226.19

Use additional sheets for additional BMPs.
A_I = Impervious Cover
A_P = Pervious Cover
A = Total Area
P = Avg. Annual Rainfall
A_N = Increase in impervious cover (new IC – existing IC)
TSS = L_M = 27.2 x A_N x P

List only the uncaptured area being compensated for in the BMP. TSS compensation for uncaptured areas can be divided up between multiple BMPs.

*	BMP Catchment Area A		Uncaptured / Untreated Areas (for compensation in BMP)	
	A_{I1} =	0.52	A_{I2} =	
	A_{P1} =	0.03	A_{P2} =	
	A_1 =	0.55	A_2 =	
	A_{N1} =	0.52	A_{N2} =	
	L_{M1} =	466.8	L_{M2} =	

1. Stormceptor (STC) Model (Actual Catchment Area to the BMP); Use additional sheets as necessary.
Effective Area (EA) = (0.9 x A_{I1}) + (0.03 x A_{P1})
EA = (0.9 x 0.52) + (0.03 x 0.03) = 0.47 EA
STC Model (from Table 1 to start) 7200 ; Surface area (SA) of model (Table 1) 113.10 ft²
Required TSS Removal for Catchment Area:
L_{M1} = 27.2 x 0.52 A_{N1} x 33 P" = 466.8 #TSS

2. Overflow Rate
V_{or} = (EA x 1.1 in/hr) / Model surface area (SA)
V_{or} = (0.47 x 1.1) / 113.10 = 0.004571 f/s

3. BMP Efficiency (Table 2); If the overflow rate is between two percent efficiencies, use the smaller percent efficiency (round the overflow rate to the larger overflow value). Enter rounded overflow value:
V_{or} = 0.004571 f/s
BMP % = 82 % / 100 = 0. 82 BMP Eff.

4. Maximum TSS Removal of BMP: L_{R1}
L_{R1} = (BMP Eff x P) x [(A_{I1} x 34.6) + (A_{P1} x 0.54)]
L_{R1} = (0. 82 x 33 ") x [(0.52 x 34.6) + (0.03 x 0.54)] = 487.3 #TSS
TSS Load Credit (L_C) to be counted towards untreated areas = L_{R1} – L_{M1}
L_C = (487.3 #TSS – 466.8 #TSS) = 20.5 #TSS

5. Required TSS Removal for Uncaptured Area L_{M2} = 27.2 x 0 A_{N2} x 33 " = 0 #TSS

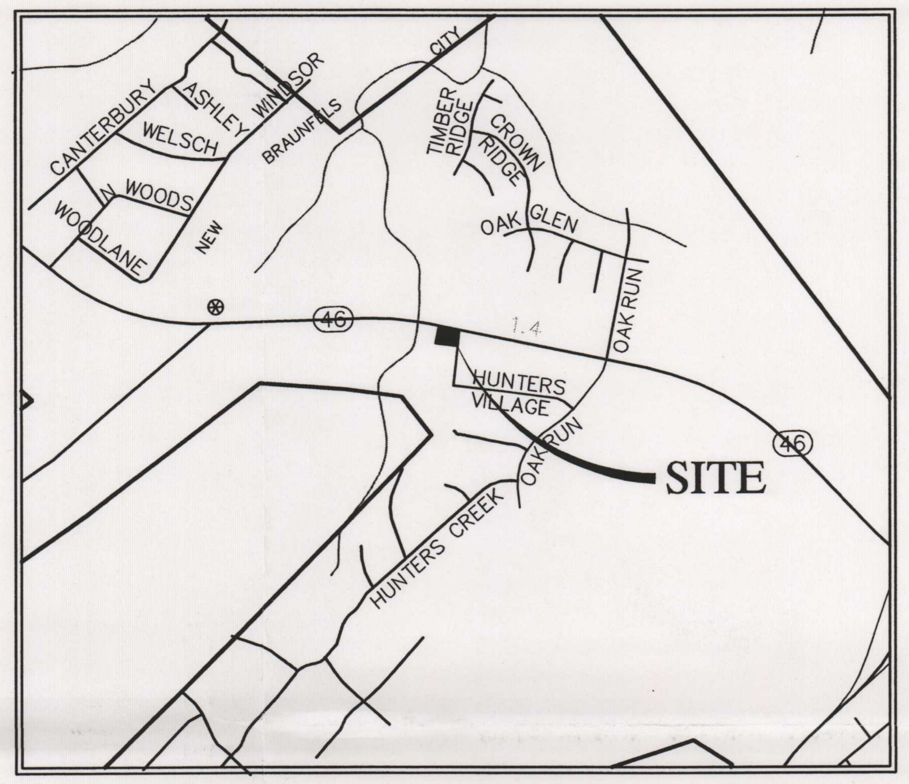
6. Is Sufficient Treatment Available?
If $L_C \geq L_{M2}$; Model size is adequate.
If $L_C < L_{M2}$; Model size is inadequate. Choose a larger model size or redefine the catchment areas. Repeat steps 1 - 6.
20.5 L_C (<, (>), ≥, pick) 0 L_{M2}
Final Model Size: 7200 .

7. TSS Treatment by BMP
L_{M1} (step 1) + L_{M2} (step 5) = TSS Treatment by BMP
466.8 #TSS + 0 #TSS = 466.8 #TSS

8. TSS Treatment Summary

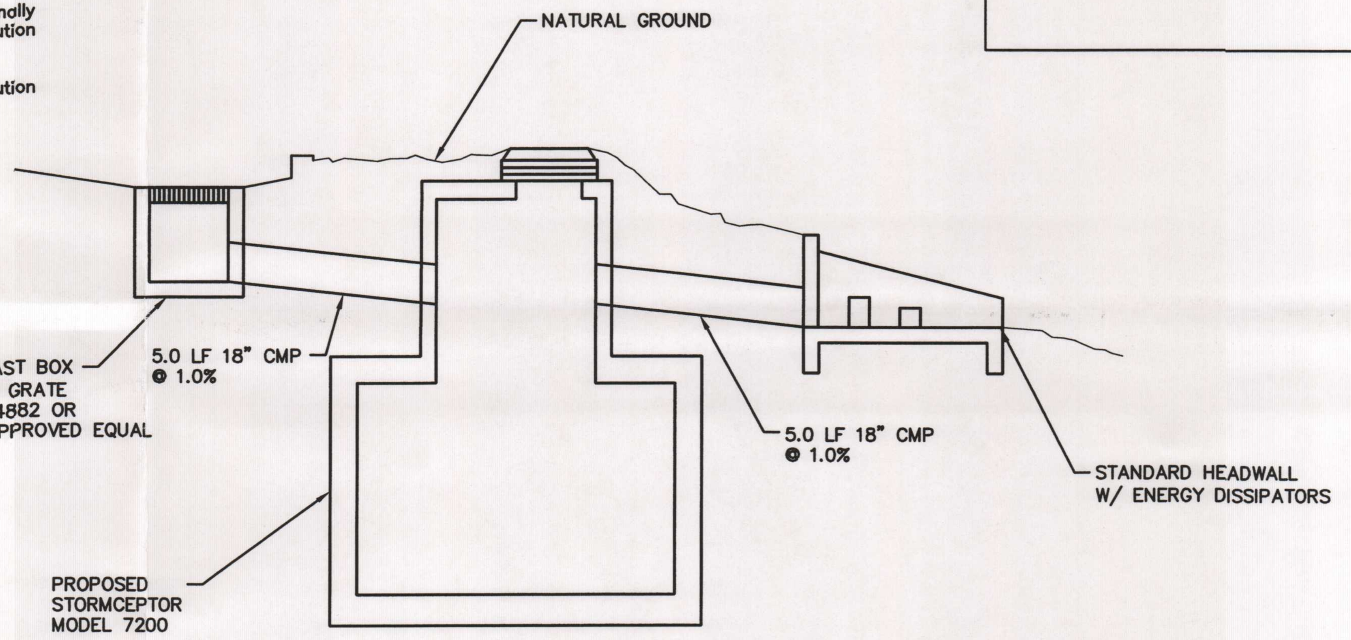
Catchment Area	STC Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_M)	TSS Treatment by BMP (lb/yr) (Step 7)
BMP Catchment	7200	0.55	0.52	466.8	466.8
Uncaptured/Untreated	---	0	0	0	0
Total	---	0.55	0.52	466.8	466.8

Stormceptor Worksheet 7/15/2008



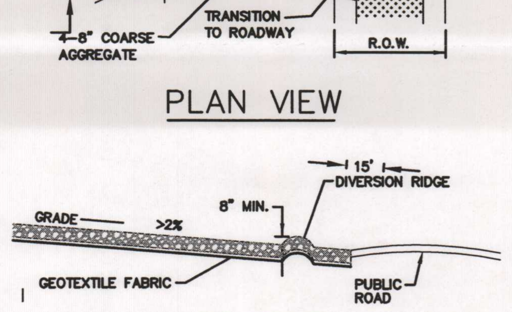
LOCATION MAP

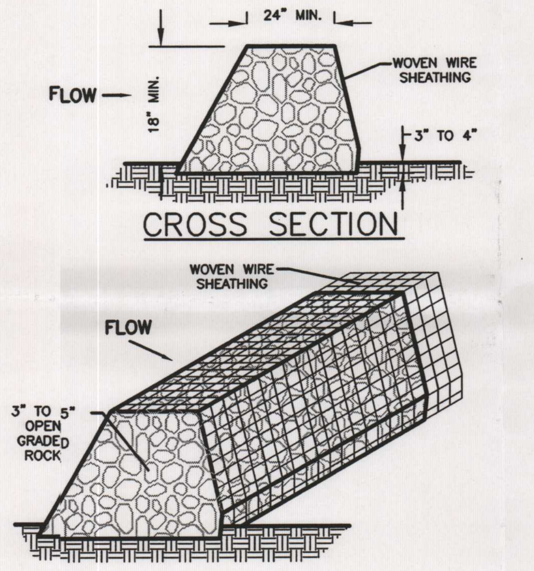
TOTAL LAND AREA	=	1.50 AC
TOTAL DISTURBED AREA	=	1.43 AC
TOTAL IMPERVIOUS AREA	=	0.85 AC
% IMPERVIOUS	=	57%

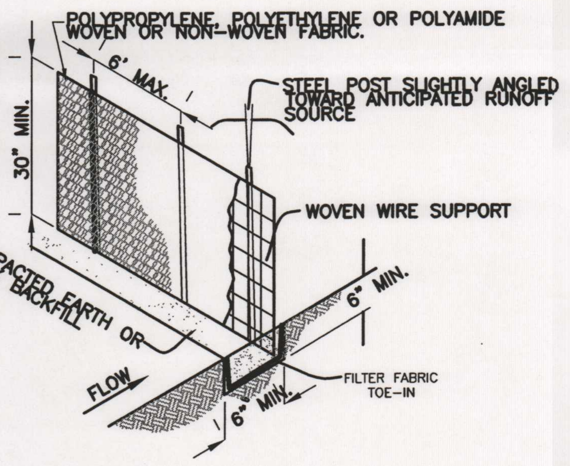


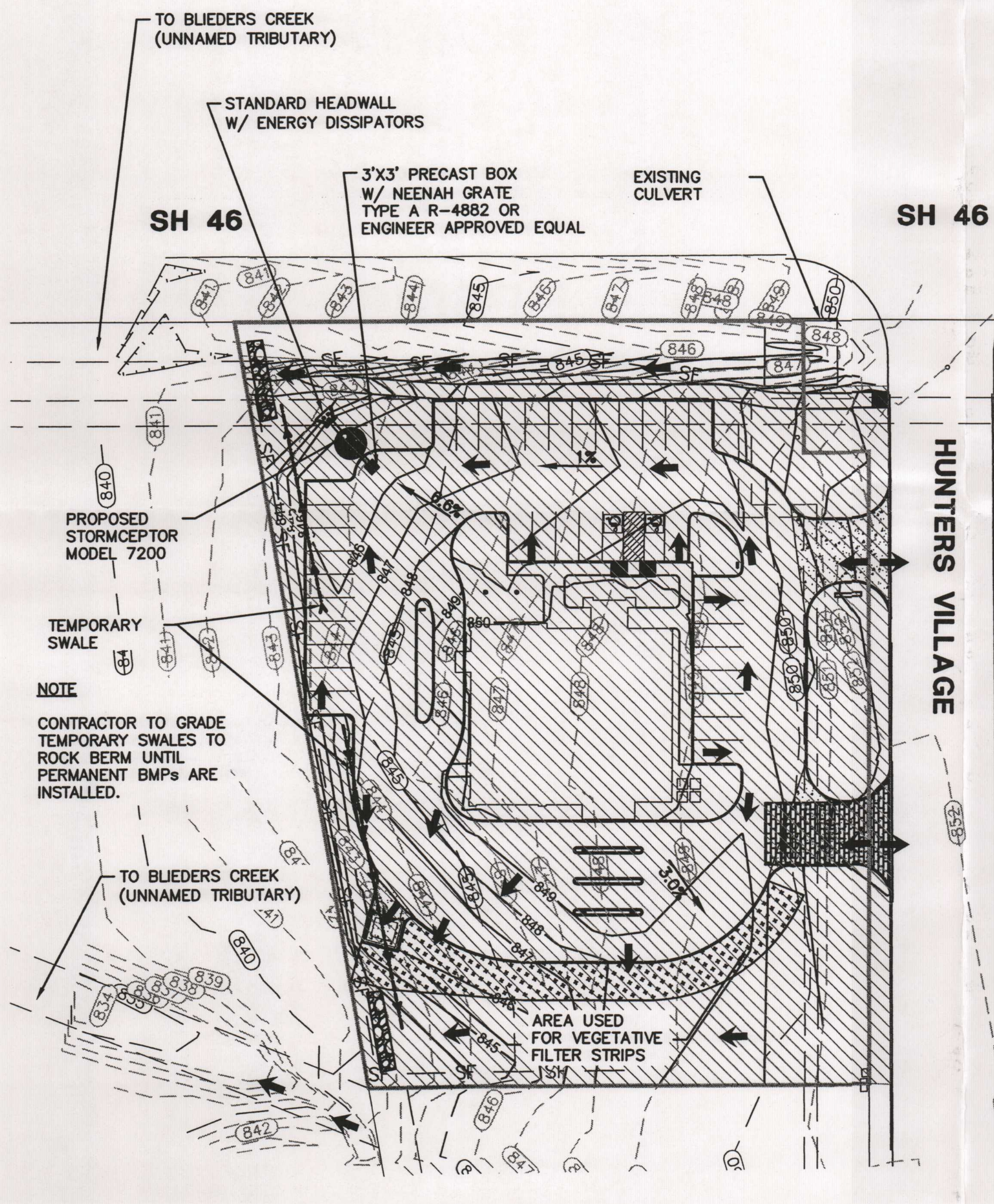
STORM DRAIN PROFILE

N.T.S.



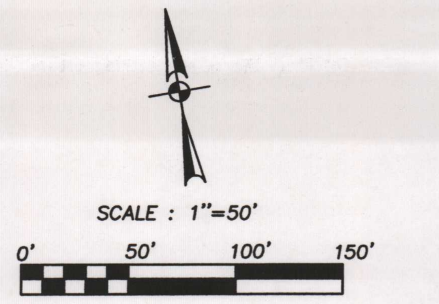






NOTE

CONTRACTOR TO GRADE TEMPORARY SWALES TO ROCK BERM UNTIL PERMANENT BMPs ARE INSTALLED.



LEGEND

- LEGAL BOUNDARY
- AREAS OF DISTURBANCE
- ROCK BERM
- SILT FENCE — SF —
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- VEGETATIVE FILTER STRIPS

HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:

(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:

(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 – 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 – 8 inch diameters rocks may be used.

Installation:

(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(5) Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:

(1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

NO.	DATE	REVISION	BY
1	05/08/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JII

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED PROFESSIONAL ENGINEER
5/8/09

FOR PERMIT USE ONLY, NOT TO BE USED FOR CONSTRUCTION

WATER POLLUTION ABATEMENT PLAN SITE PLAN

SAGE CAPITAL BANK

AMERICAN NATIONAL BANK
1606 N. SARAH DEWITT DR
GONZALES, TEXAS 78629

RECEIVED TCEQ SAN ANTONIO REGION
2009 MAY -8 PM 2:46

RECEIVED MAY 13 2009 COUNTY ENGINEER

DATE: 3/13/09
DRAWN BY: JII
DESIGNED BY: JII
CHECKED BY: JDM
REVIEWED BY: JDM
PROJECT NUMBER: 09016

SHEET
1
1

Drawing Name: N:\!Projects\American National Bank (Sage) - NB_09016\Doc\WPAP\ANB-09016-WPAP.dwg User: ingallsji May 08, 2009 - 8:48am

RECEIVED
MAY 13 2009
COUNTY ENGINEER

ATTACHMENT "A"
Spill Response Actions

Spill Prevention and Control

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill cleanup materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise clean up activities.

(7) Do not bury or wash spills with water.

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMP's.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills immediately.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMP's in this section for specific information.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM.
After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html

Vehicle and Equipment Maintenance

(1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

(4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non- leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

ATTACHMENT "B"
Potential Sources of Contamination

The only potential sources of contamination are construction equipment leaks, re-fueling spills, as well as potential from port-o-lets, and the total suspended solids (TSS) due to the construction activities on-site. There are no other anticipated potential sources of contamination.

ATTACHMENT "C"
Sequence of Major Activities

Stages of Construction:

1. Minor site grading: This includes the removal of organic material and other debris within the proposed parking and building site. Approximate total disturbed area = 1.43 acres
2. Grading: Cutting and filling of the proposed site to prepare the site for parking and foundation construction. Approximate total disturbed are = 1.43 acres.
3. Stormceptor Installation: Stormceptor structure will be installed at the northwest corner of the site, see Permanent Stormwater Section
4. Utility Installation: All primary utility mains have already been installed and are available at the site. Small sewer, water and electrical services will be installed at this time.
5. Finished Grading: Final landscaping, asphalt parking and building infrastructure are installed. Approximate total disturbed area = 1.43 acres
6. Natural Vegetative Filter Strip Installation – Upon completion of the pavement areas and final grading, the natural vegetative filter strips are installed, see Permanent Stormwater Section.

ATTACHMENT "D"
Temporary BMP's and Measures

The following sequence will be followed for installing temporary BMP's:

1. Silt fence will be constructed on the downgradient side of proposed site.
2. A stabilized construction exit will be installed prior to any site work.
3. A rock berm will be installed in the northwest corner of the site, downstream of the existing culvert.

A. The existing roadway along the east property line intercepts upgradient stormwater directs it to an existing sand filtration pond. A stabilized construction exit will be constructed at the entrance of the site on Hunters Village, this will reduce the amount of contaminants leaving the site.

B. Silt fence will be placed on the downgradient side of each proposed improvement to contain pollutants generated from onsite runoff. Soil disturbance will be limited to a minimal distance outside the proposed pavement and building pad. Disturbed areas will be seeded to replace destroyed vegetation. The existing vegetation located downgradient of each proposed

improvement will work in conjunction with the silt fence, rock berms, and stabilized construction entrance to prevent pollution of water originating onsite and/or flowing offsite.

C. The proposed silt fences, rock berm, and stabilized construction entrances constructed upgradient of the existing streams will prevent pollutants from entering them as well as the aquifer. According to the Geologic Assessment, there are no sensitive features with the project boundary.

D. There were no sensitive features identified in the Geologic Assessment.

ATTACHMENT "E"
Request to Temporarily Seal a Feature

There will be no request to temporarily seal a feature.

ATTACHMENT "F"
Structural Practices

Rock berms and silt fence will be used to protect disturbed soils and to prevent contamination from leaving the project site.

ATTACHMENT "G"
Drainage Area Map

See Drainage Area Map at the end of this section.

ATTACHMENT "H"
Temporary Sediment Pond Plans and Calculations

There will not be more than 10 acres of disturbed soil in one common drainage area that will occur at one time. Silt fence will be used for small drainage areas. No sediment ponds will be constructed due to the minimal amount of soil disturbance.

ATTACHMENT "I"
Inspection and Maintenance for BMP's

Inspection and Maintenance Plan

The contractor is required to inspect the control and fences at weekly intervals and after any rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance controls and fences shall immediately make any necessary repairs to damaged areas.

Temporary Construction Entrance/Exit: The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. 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 public rights-of-way should be removed immediately by contractor. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Silt Fence: Remove sediment when buildup reaches 6 inches. Replace any torn fabric or install a second line of fencing parallel to the torn section. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Rock Berms: For installation in streambeds, additional daily inspections shall be made. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation. Repair any loose wire sheathing. The berm shall be reshaped as needed during inspection. The berm shall be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc. The rock berm shall be left in place until all upstream areas are stabilized and accumulated silt removed.

TCEQ staff will be allowed full access to the property during construction of the project for inspecting controls and fences and to verify that the accepted plan is being utilized in the field. TCEQ staff has the right to speak with the contractor to verify plan changes and modifications.

Documentation: All scheduled inspection and maintenance measures made to the temporary BMPs must be documented clearly on the WPAP Site Plan showing inspection/maintenance measures performed, date, and person responsible for inspection and maintenance. Any changes made to the location or type of controls shown on the accepted plans, due to onsite conditions, shall be documented on the site plan that is part of this Water Pollution Abatement Plan. No other changes shall be made unless approved by TCEQ and the Design Engineer. Documentation shall clearly show changes made, date, and person responsible and reason change was made.

Owner's Information:

Owner:	American National Bank
Contact:	Joseph M. Rankin, III
Phone:	(830) 672-8585
Address:	1606 N. Sarah Dewitt Dr. Gonzales, Texas 78269

Design Engineer:

Company: HMT Engineering & Surveying
Contact: Jeffrey D. Moeller, P.E.
Phone: (830) 625-8555
Address: 410 N. Seguin Street
New Braunfels, Texas 78130

Person or Firm Responsible for Erosion/Sedimentation Control Maintenance:

Company: _____
Contact: _____
Phone: _____
Address: _____

Signature of Responsible Party: _____

This portion of the form shall be filled out and signed by the responsible party prior to construction.

ATTACHMENT "J"
Schedule of Interim and Permanent Soil Stabilization Practices

Areas which are disturbed by construction staging and storage areas will be hydro mulched with the appropriate seed mixture. Areas between the edge of pavement and property line will also be hydro mulched. There will be no fill slopes exceeding a 3:1 slope and all fill slopes will be hydro mulched. Installation and acceptable mixtures of hydro mulch are as follows:

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Seed Mixtures:

Dates	Climate	Species	(lb/ac.)
Sept. 1 to Nov. 30	Temporary Cool Season	Tall Fescue	4.0
		Oats	21.0
		Wheats	30.0
		Total	**55.0**
Sept. 1 to Nov. 30	Cool Season Legume	Hairy Vetch	8.0
May 1 to Aug. 31	Temporary Warm Season	Foxtail Millet	30.0

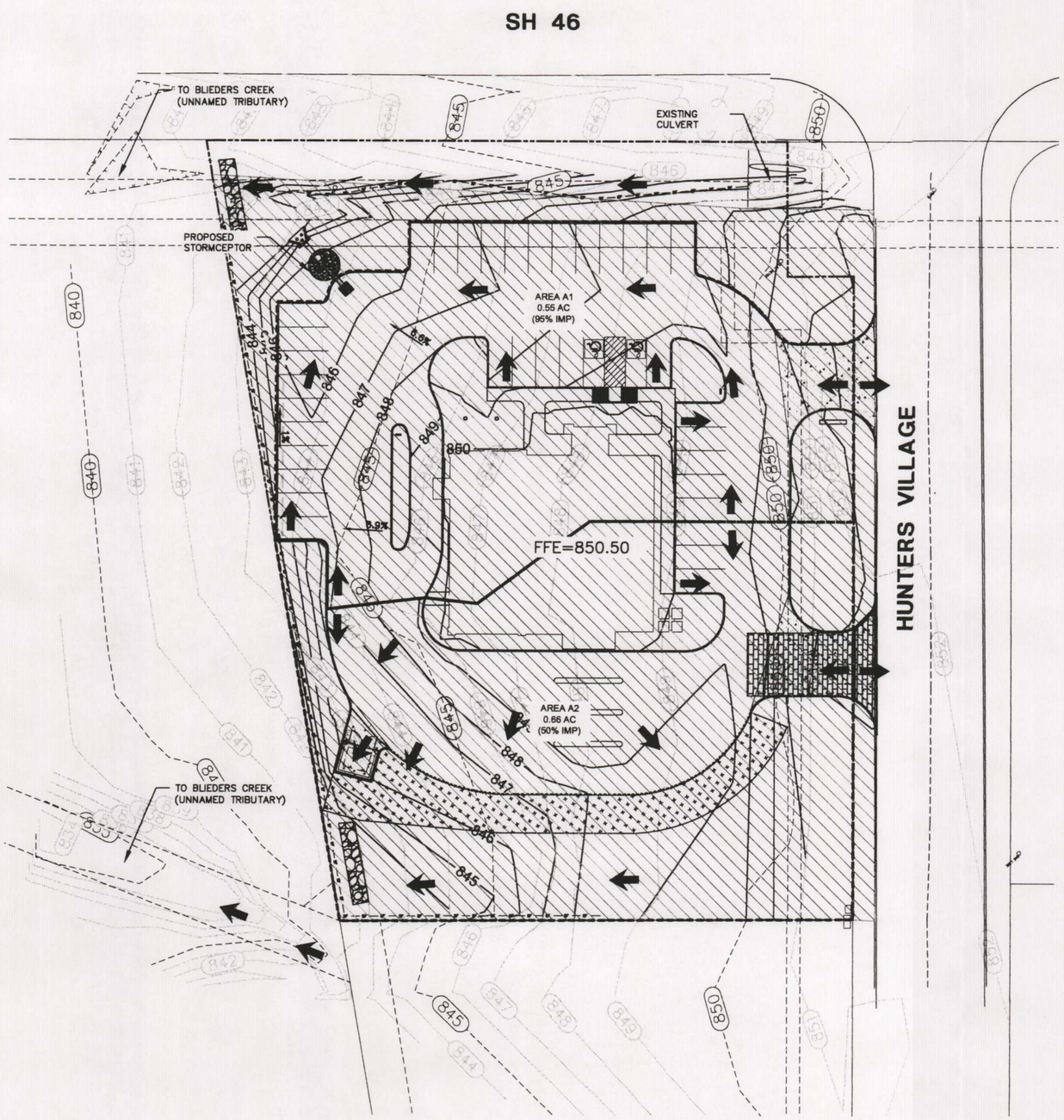
Fertilizer: Fertilizer should be applied at the rate of 40 pounds of nitrogen and 40 pounds of phosphorus per acre, which is equivalent to about 1.0 pounds of nitrogen and phosphorus per 1000 square feet.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.



SCALE: 1" = 50'

LEGEND

LIMITS OF DRAINAGE AREA	
AREAS OF DISTURBANCE	
ROCK BERM	
SILT FENCE	
STABILIZED CONSTRUCTION ENTRANCE/EXIT	
NATURAL VEGETATIVE FILTER STRIPS	

TOTAL LAND AREA	=	1.50 AC
TOTAL DISTURBED AREA	=	1.43 AC
TOTAL IMPERVIOUS AREA	=	0.85 AC
% IMPERVIOUS	=	57%

FOR PERMIT USE ONLY, NOT TO BE USED FOR CONSTRUCTION

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NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MCDELLER • THOMPSELL
410 N. SEGUIN ST
NEW BRAUNFELS,
TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

DRAINAGE AREA MAP

SAGE CAPITAL BANK

AMERICAN NATIONAL BANK
1606 N. SARAH DEWITT DR.
GONZALES, TEXAS

DATE: 3/10/09
DRAWN BY: JB
DESIGNED BY: JB
CHECKED BY: JDM
REVIEWED BY: JDM
PROJECT NUMBER: 09016

SHEET 1 OF 1

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Doc\WPAP\ANB-09016-Drainage Area.dwg User: ingallsji May 08, 2009 - 7:49am

PROJECT: SAGE CAPITAL BANK

EAPP STORMCEPTOR Compensation Worksheet (Rev. 7/15/08): Use additional sheets for additional catchment areas.

Table 1

Effective Area (ac)	Stormceptor Model	Surface Area (ft^2)
EA < 0.08	450i	12.57
0.08 < EA < 0.16	900, 1200, 1800	28.27
0.16 < EA < 0.29	2400, 3600	50.27
0.29 < EA < 0.46	4800, 6000	78.54
0.46 < EA < 0.66	7200	113.10
0.66 < EA < 0.92	11,000, 13,000	157.08
0.92 < EA ≤ 1.32	16,000	226.19

Use additional sheets for additional BMPs.
A_I = Impervious Cover
A_P = Pervious Cover
A = Total Area
P = Avg. Annual Rainfall
A_N = Increase in impervious cover (new IC – existing IC)
TSS = L_M = 27.2 x A_N x P

List only the uncaptured area being compensated for in the BMP. TSS compensation for uncaptured areas can be divided up between multiple BMPs.

*	BMP Catchment Area A		Uncaptured / Untreated Areas (for compensation in BMP)	
	A_{I1} =	0.52	A_{I2} =	
	A_{P1} =	0.03	A_{P2} =	
	A_1 =	0.55	A_2 =	
	A_{N1} =	0.52	A_{N2} =	
	L_{M1} =	466.8	L_{M2} =	

1 Stormceptor (STC) Model (Actual Catchment Area to the BMP); Use additional sheets as necessary.
Effective Area (EA) = (0.9 x A_{I1}) + (0.03 x A_{P1})
EA = (0.9 x 0.52) + (0.03 x 0.03) = 0.47 EA

STC Model (from Table 1 to start) 7200 ; Surface area (SA) of model (Table 1) 113.10 ft^2
Required TSS Removal for Catchment Area:
L_{M1} = 27.2 x 0.52 A_{N1} x 33 P" = 466.8 #TSS

2 Overflow Rate
V_{or} = (EA x 1.1 in/hr) / Model surface area (SA)
V_{or} = (0.47 x 1.1) / 113.10 = 0. 004571 f/s

3 BMP Efficiency (Table 2); If the overflow rate is between two percent efficiencies, use the smaller percent efficiency (round the overflow rate to the larger overflow value). Enter rounded overflow value:
V_{or} = 0.004571 f/s

BMP % = 82 % / 100 = 0. 82 BMP Eff.

4 Maximum TSS Removal of BMP: L_{RI}
L_{RI} = (BMP Eff x P) x [(A_{I1} x 34.6) + (A_{P1} x 0.54)]
L_{RI} = (0. 82 x 33 ") x [(0.52 x 34.6) + (0.03 x 0.54)] = 487.3 #TSS

TSS Load Credit (L_C) to be counted towards untreated areas = L_{RI} – L_{MI}
L_C = (487.3 #TSS – 466.8 #TSS) = 20.5 #TSS

5 Required TSS Removal for Uncaptured Area L_{M2} = 27.2 x 0 A_{N2} x 33 " = 0 #TSS

6 Is Sufficient Treatment Available?
If $L_C \geq L_{M2}$; Model size is adequate.
If $L_C < L_{M2}$; Model size is inadequate. Choose a larger model size or redefine the catchment areas. Repeat steps 1 - 6.
20.5 L_C (< , > , ≥, pick) 0 L_{M2}

Final Model Size: 7200 ,

7 TSS Treatment by BMP
L_{M1} (step 1) + L_{M2} (step 5) = TSS Treatment by BMP
466.8 #TSS + 0 #TSS = 466.8 #TSS

8 TSS Treatment Summary

Catchment Area	STC Model	Total Drainage Area (ac)	Impervious Cover (ac)	Calculated TSS Removal (lb/yr) (L_M)	TSS Treatment by BMP (lb/yr) (Step 7)
BMP Catchment	7200	0.55	0.52	466.8	466.8
Uncaptured/Untreated	---	0	0	0	0
Total	---	0.55	0.52	466.8	466.8

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Vegetative Filter Strips Maintenance and Monitoring Procedures

- *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.

ATTACHMENT "I"
Measures for Minimizing Surface Stream Contamination

All surface streams will be protected from erosion by not allowing runoff to exceed existing velocities. A portion of the runoff from the proposed development will sheet flow into the vegetative filter strips. The vegetative filter strips will be designed in order to maintain existing runoff velocities prior to leaving the site. The stormwater runoff for the remainder of the property will be concentrated into the Stormceptor® system where the pollutants will be removed. The outfall of the Stormceptor® structure will be designed to restore the runoff to existing velocities prior to entering the existing channel along SH 46.

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Attachment "G"

Maintenance Plan for Vegetative Filter Strips

Stormceptor Location:	The vegetative filter strips will be located along the south and southwest edges of the site.
Owner:	American National Bank P.O. Box 1940 Gonzales, Texas 78629 Phone: 830-672-8585

I agree that the attached Vegetative Filter Maintenance and Monitoring Procedures will be implemented to ensure that the proposed BMP functions as designed.

J.M. Rankin, III

Joseph M Rankin, III
American National Bank

5-7-09

Date

I have reviewed the attached maintenance and monitoring procedures and to the best of my knowledge certify that if they are followed as outlined the vegetative filter strips will function as designed.

Jeffrey D. Moeller, P.E.

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
5/8/09

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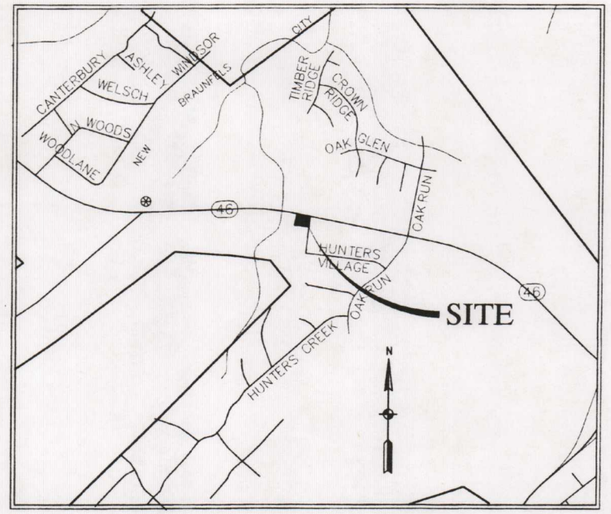

LOCATION MAP

NOT TO SCALE

Sage Capital Bank

Financial Wisdom. Texas Roots.

PREPARED FOR
SLI GROUP
10200 KATY FREEWAY
HOUSTON, TX 77043

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SHEET INDEX

SHEET TITLE	SHEET
COVER SHEET	C1.0
GENERAL NOTES	C2.0
EROSION CONTROL PLAN	C3.0
DIMENSION CONTROL	C4.0
SITE DETAILS	C5.0
GRADING PLAN	C6.0
UTILITY PLAN	C7.0
UTILITY DETAILS	C8.0

HMT
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I, THE UNDERSIGNED JEFFERY D. MOELLER, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS, HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN TO THESE PLANS.

JEFFREY D. MOELLER P.E. REGISTRATION NO. 88588

GENERAL NOTES:

1. NOTIFY THE CITY STREET INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION (830) 221-4031.

NO.	DATE	REVISION	BY
1	05/08/09	REVISED LOCATION MAP PER CITY COMMENT	JB

HMT ENGINEERING & SURVEYING
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NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER

COVER SHEET

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 5/8/09
DRAWN BY: JB
DESIGNED BY: JB
CHECKED BY: JB
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C1.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Dwg\NB-09016-Cover.dwg User: jrgafay May 08, 2009 - 8:45am

GENERAL NOTES:

ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL COMPLY WITH:

A. CURRENT CITY OF NEW BRAUNFELS CONSTRUCTION SPECIFICATIONS AND STANDARDS AS OF THE DATE OF THIS CONTRACT

B. TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES - 1993".

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 1993 TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES." ALONG WITH CURRENT CITY OF SAN ANTONIO AND COMAL COUNTY SPECIFICATIONS. ANY DISCREPANCIES BETWEEN SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES, AND TAXES AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.

ANY EXISTING OFF-SITE IMPROVEMENTS THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER OF THE EXISTING IMPROVEMENT AT THE CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)

WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR CONSENT OF THE OWNER OR ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.

CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100yr FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.

BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE PROVIDING CONTINUOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.

CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.

WHEN MATCHING EXISTING PAVEMENTS, CURBS, DRIVES, AND WALKS, THEY SHALL BE SAW CUT FULL DEPTH AND REMOVED TO ALLOW FOR PROPOSED CONSTRUCTION. IF ANY EXISTING JOINT IS ENCOUNTERED, PRECAUTION SHALL BE TAKEN DURING REMOVAL OF CONCRETE SO AS NOT TO DAMAGE EXISTING DOWELS. ALL EXISTING DOWELS SHALL BE EXPOSED AND CLEANED.

ITEM OF WORK DESIGNATED "BY OTHERS" SHALL NOT BE CONSIDERED PART OF THIS CONTRACT.

ALL "COMPACTED SUBGRADE" SHALL CONSIST OF NATIVE MATERIAL SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES AND COMPACTED TO 95% DENSITY ACCORDING TO DENSITY TEST METHOD TEX-115E OR ACCORDING TO ASTM D-698 AND TESTED BY ASTM D-2922.

ALL "FLEXIBLE BASE" SHALL BE TYPE "A", GRADE 4, ACCORDING TO TxDOT ITEM 247, COMPACTED TO 95% MODIFIED DENSITY AT A MOISTURE CONTENT BETWEEN -2 AND +3 OF OPTIMUM PERCENT MOISTURE ACCORDING TO ASTM D-1557 (MODIFIED PROCTOR) AND TESTED BY ASTM D-2922.

ASPHALT PAVEMENT SHALL BE THE TYPE SPECIFIED ON THE PLANS AND ACCORDING TO TxDOT ITEM 340 "HOT MIX ASPHALT CONCRETE PAVEMENT".

PRIME COAT USING MC-30 AT A RATE OF 0.2 GALLONS PER SQUARE YARD SHALL BE PLACED OVER PREPARED BASE AT LEAST ONE DAY PRIOR TO LAYING ASPHALTIC CONCRETE PAVEMENT. ANY NECESSARY TACK COAT SHALL BE MC-30 AT 0.05 GALLONS PER SQUARE YARD. IT IS REQUIRED THAT BOTH THE PRIME COAT AND THE TACK COAT BE APPLIED AT THE TEMPERATURE SPECIFIED UNDER TxDOT ITEM 300.3.

CONCRETE SHALL BE CLASS "A" ACCORDING TO TxDOT ITEM 421 UNLESS OTHERWISE ON PLANS.

REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO TxDOT ITEM 440. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS EXCEPT WHEN REFERRING TO CLEARANCE.

ALL SAWED JOINTS SHALL BE SAWED WITHIN 24 HOURS OF POURING.

ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER.

ORDINARY COMPACTION CONTROL IS REQUIRED ON THIS PROJECT.

ALL ROLLING FOR COMPACTION OF ASPHALTIC CONCRETE PAVEMENT SHALL BE COMPLETED BEFORE THE MIXTURE TEMPERATURE DROPS BELOW 175 DEG. (F).

ALL FILL MATERIAL SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.

CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS, OFFICES, DIRECTORS, OR CONSULTANTS, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILTY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.

ALL CMP (CORRUGATED METAL PIPE) USED ON THIS PROJECT SHALL HAVE A MANNING'S "n" VALUE OF 0.024., UNLESS OTHERWISE SHOWN ON PLANS.

CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTING PER CURRENT CITY OF NEW BRAUNFELS REQUIREMENTS. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ENGINEER AND OWNER RESERVE THE RIGHT TO HAVE THE CONTRACTOR REMOVE AND REPLACE ANY MATERIAL THAT WAS NOT TESTED OR FAILED TESTING. ALL COST ASSOCIATED WITH THE REMOVAL, REPLACEMENT AND TESTING SHALL BE PAID BY THE CONTRACTOR.

ALL PVC SLEEVES SHALL BE INSTALLED 3" BELOW FINISHED GRADE AND ENDS SHALL BE MARKED SO THAT LOCATIONS OF SLEEVES CAN BE EASILY IDENTIFIED.

DETENTION POND SHALL BE EXCAVATED AND GRADED TO DESIGN ELEVATIONS PRIOR TO ANY INSTALLATION OF UNDERGROUND UTILITIES.

PRE--CONSTRUCTION CONFERENCE IS REQUIRED, ENGINEER WILL ARRANGE SUCH CONFERENCE IN COORDINATION WITH CITY OF NEW BRAUNFELS STREET INSPECTOR. NO CONSTRUCTION MAY BEGIN PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.

EROSION / SEDIMENTATION CONTROL:

AT A MINIMUM, THESE CONTROLS SHALL CONSIST OF ROCK BERMS AND/OR SILT FENCES CONSTRUCTED PARALLEL TO AND DOWN GRADIENT FROM THE TRENCHES. THE ROCK BERM OR SILT FENCES SHALL BE INSTALLED IN A MANNER SUCH THAT ANY RAINFALL RUNOFF SHALL BE FILTERED. HAY BALES SHALL NOT BE USED FOR TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CONTROLS WHEN VEGETATION IS ESTABLISHED AND THE CONSTRUCTION AREA IS STABILIZED {31 TAC 313.5 (c)(12)}. ADDITIONAL PROTECTION MAY BE REQUIRED IF EXCESSIVE SOLIDS ARE BEING DISCHARGED FROM THE SITE.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER/ENGINEER.

PLACEMENT OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION PLANS. ACTUAL LOCATIONS MAY VARY SLIGHTLY FROM THE PLANS, BUT WILL BE VERIFIED BY THE ENGINEER/INSPECTOR IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO INSURE DISTURBANCE OF THE STRUCTURES HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A RAINFALL SHALL BE REMOVED FROM THE SITE OR PLACED IN AN ENGINEER APPROVED DESIGNATED DISPOSAL AREA.

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Dwg\ANB-09016-Notes.dwg User: inguilsji Apr 23, 2009 - 7:18pm

UTILITIES

LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION, INCLUDING THOSE NOT SHOWN ON THE DRAWINGS.

ANY EXISTING UTILITIES, ON OR OFF THE SITE, THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE RESPECTIVE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AT:

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION

NEW BRAUNFELS UTILITIES (WATER AND SEWER)	(830) 608-8971
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIMEWARNER CABLE	(830) 625-3408
RELIANT ENERGY ENTEX	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	1-800-245-4545

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192(8), GAS COMPANIES MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT THE WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

CONTRACTOR SHALL REFERENCE NEW BRAUNFELS UTILITIES PLANS FOR FINAL ELECTRICAL LINE DESIGNS AND LAYOUT.

SEWER NOTES

1. THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING SANITARY SEWERS AT ALL TIMES DURING CONSTRUCTION.
2. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181 CENTER POINT ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND GAS VALVES THAT ARE IN THE PROJECT AREAS.
3. ALL 8" GRAVITY SEWER PIPE (MAINS & LATERALS) AND FITTINGS IN THIS PROJECT ARE PVC SDR-26, ASTM D-3034, D-3212, F-477. ALL PRESSURE RATED SEWER PIPE IS PVC AWWA C-900 PIPE. COLORED GREEN.
4. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE PROPERTY LINE AND CAPPED AND SEALED.
5. INITIAL BACKFILL OF SEWER LINES SHALL BE 3/4" TO DUST OR PEA GRAVEL AS PER NBU SPECIFICATIONS.
6. SECONDARY BACKFILL OF SEWER LINES SHALL GENERALLY CONSIST OF MATERIALS REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS, AND TRASH, NO ROCKS OR STONES HAVING ANY DIMENSION LARGER THAN 6 INCHES AT THE LARGEST DIMENSION.
7. ALL SEWER PIPES SHALL HAVE COMPRESSION OR MECHANICAL JOINTS AS PER 31 TAC 313.5 (C) (2) (II).
8. FOR SEWER LINES LESS THAN 24" IN DIAMETER, SELECT INITIAL BACKFILL MATERIAL SHALL BE PLACED IN TWO LIFTS.

A. THE FIRST LIFT SHALL BE SPREAD UNIFORMLY AND SIMULTANEOUSLY ON EACH SIDE AND UNDER THE SHOULDERS OF THE PIPE TO THE MID POINT OF SPRING LINE OF THE PIPE.

B. THE SECOND LIFT SHALL BE PLACED TO A DEPTH AS SHOWN ON THE PIPE BACKFILL DETAIL. FOR PIPES LARGER THAN 24", 12" MAXIMUM LIFTS SHALL BE USED.

9. ALL MANHOLES MUST BE WATER TIGHT. EITHER MONOLITHIC, CAST-IN-PLACE CONCRETE STRUCTURES OR PREFABRICATED MANHOLES SPECIFICALLY APPROVED BY NBU. THE MANHOLES SHALL HAVE WATER TIGHT RINGS AND COVERS, WHEREVER THEY ARE WITHIN THE 100 YEAR FLOODPLAIN, THE MANHOLE COVERS SHALL BE BOLTED. EVERY FOURTH MANHOLE IN SEQUENCE SHALL HAVE AN ALTERNATIVE MEANS OF VENTING [31 TAC 313.5(C)(1) AND 31 TAC 317.2(C)(5)(F)].\
10. ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS ABOVE THE SURROUNDING GROUND, EXCEPT WHEN LOCATED IN PAVED AREAS. IN PAVED AREAS, THE MANHOLE RING SHALL BE FLUSH WITH PAVEMENT.
11. ALL NEW MANHOLES ARE TO HAVE COVERS WITH 32" OPENINGS.
12. SEWER PIPE CONNECTIONS TO PRE-CAST MANHOLES WILL BE COMPRESSION JOINTS OF MECHANICAL "BOOT TYPE" JOINT AS APPROVED BY NBU.
13. SEWER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE.
14. IN AREAS WHERE A NEW SANITARY SEWER MANHOLE IS TO BE CONSTRUCTED OVER AN EXISTING SANITARY SEWER SYSTEM, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO TEST THE EXISTING MANHOLES BEFORE CONSTRUCTION. AFTER PROPOSED MANHOLE HAS BEEN BUILT, THE CONTRACTOR SHALL RE-TEST THE EXISTING SYSTEM TO THE SATISFACTION OF THE CONSTRUCTION INSPECTOR. (NO SEPARATE PAY ITEM).
15. WHERE THE MINIMUM 9 FEET SEPARATION DISTANCE BETWEEN SEWER LINES AND WATER LINES/MAINS CANNOT BE MAINTAINED, THE INSTALLATION OF SEWER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ. THE WASTEWATER LINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC MEETING THE ASTM SPECIFICATION FOR BOTH PIPES AND JOINTS OF 150 PSI AND SHALL BE IN ACCORDANCE WITH 30 TAC 290.44(E)(5).
16. AFTER CONSTRUCTION TESTING WILL BE DONE BY TV CAMERA BY THE CONTRACTOR AND OBSERVED BY THE INSPECTOR OR WATER SYSTEMS ENGINEERING PERSONNEL. AS THE CAMERA IS RUN THROUGH THE LINES (NSPI). ANY ABNORMALITIES FOUND IN THE LINE, SUCH AS BROKEN PIPE OR MISALIGNED JOINTS, MUST BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. CONTRACTOR TO PROVIDE TV TAPES TO CONSTRUCTION INSPECTION FOR REVIEW PRIOR TO FINAL INSPECTION OF THE PROJECT.
17. WATER JETTING THE BACKFILL WITHIN A STREET WILL NOT BE PERMITTED. SANITARY SEWER TRENCHES SUBJECT TO TRAFFIC SHALL CONFORM TO NBU CONNECTION & CONSTRUCTION POLICY MANUAL.
18. NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM COMPLETE INSTALLATION OF THE SANITARY SEWER LINES. THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO.

A. PULL MANDRELL.

B. PERFORM AIR TEST.

19. WHERE REQUIRED, CONCRETE ENCASEMENT SHALL BE PLACED AS SHOWN ON THE STANDARD DETAIL SHEET.
20. A MINIMUM OF 3 FEET OF COVER IS TO BE MAINTAINED OVER THE SANITARY SEWER MAIN AND LATERALS AT SUBGRADE, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
21. SANITARY SEWER MAIN CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WILL REQUIRE SUCCESSFUL TESTING OF THE MANHOLE IN ACCORDANCE WITH NBU CONNECTION & CONSTRUCTION POLICY MANUAL.
22. TCEQ AND EPA REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF SEWER COLLECTION SYSTEMS. CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL PER THE PROJECT PLANS. ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY NBU WATER SYSTEMS.
23. ALL MANHOLES NOT WITHIN PAVED STREETS SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER NBU DETAIL DRAWING #329. (NO SEPARATE PAY ITEM)
24. ALL MANHOLES OVER THE EDWARD'S AQUIFER RECHARGE ZONE SHALL HAVE LOCKING CONCRETE COLLAR TO SECURE RING AND COVER TO MANHOLE CONE PER NBU DETAIL DRAWING #329. (NO SEPARATE PAY ITEM)
25. ALL SEWER SERVICES SHALL HAVE CLEANOUTS INSTALLED AT PROPERTY LINE PER NBU DRAWING #302 AND #303. (NO SEPARATE PAY ITEM)
26. EACH LOT OWNER SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH OF THE SEWER SERVICE STUB OUT, AND DETERMINE THE MINIMUM SERVICEABLE FINISHED FLOOR ELEVATION.
27. VERTICAL SEWER SERVICE STACKS SHALL BE REQUIRED WHERE THE TOP OF THE SEWER MAIN IS AT A DEPTH OF 8 FEET OF GREATER, UNLESS SHOWN OTHERWISE ON PLANS.

DRAINAGE NOTE

FINISHED FLOOR ELEVATIONS
THE ELEVATION OF THE LOWEST FLOOR SHALL BE AT LEAST 10 INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND, UNLESS OTHERWISE NOTED ON THE SUBDIVISION PLAT FOR MORNINGSTAR UNIT 1. THE GROUND SHALL BE SLOPED IN A FASHION SO AS TO DIRECT STORM WATER AWAY FROM THE STRUCTURE. PROPERTIES ADJACENT TO STORM WATER CONVEYANCE STRUCTURES MUST HAVE FLOOR SLAB ELEVATION OR BOTTOM OF FLOOR JOIST A MINIMUM OF ONE FOOT ABOVE THE 100-YEAR WATER FLOW ELEVATION IN THE STRUCTURE. DRIVEWAYS SERVING HOUSES ON THE DOWNHILL SIDE OF THE STREET SHALL HAVE A PROPERLY SIZED CROSS SWALE PREVENTING RUNOFF FROM ENTERING THE GARAGE.

GROUNDWATER
IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, CONTRACTOR, SUBCONTRACTORS, BUILDERS, GEOTECHNICAL ENGINEER, AND PROJECT ENGINEER TO IMMEDIATELY NOTIFY THE OFFICE OF THE CITY ENGINEER IF THE PRESENCE OF GROUNDWATER WITHIN THE PROJECT SITE IS EVIDENT. THE CITY ENGINEER SHALL RESPOND TO THE NOTICE WITHIN TWO (2) BUSINESS DAYS. ALL GROUNDWATER MITIGATION MEASURE IS GRANTED BY THE CITY ENGINEER.

ROADWAY

ALL ROADWAY COMPACTION TESTS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FLEXIBLE BASE OF FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED SIX INCHES (6") COMPACTED. EACH LAYER OF MATERIAL INCLUSIVE OF SUBGRADE, SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TEST SHALL BE DETERMINED BY THE GEOTECHINCAL ENGINEER AND BE APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER WILL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFIACATION STATING THAT THE PLACEMENT OF FLEXIBLE BASE AND FILL MATERIAL, AND SUBGRADE, HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

UTILITY TRENCH COMPACTION

ALL UTILITY TRENCH COMPACTION TEST WITHIN THE STREET PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPERS GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TEST SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

THE CONTRACTOR SHALL NOTIFY THE STREET INSPECTOR AT (830) 660-0211, PRIOR TO THE START OF CONSTRUCTION. A 48-HOUR ADVANCE NOTIFICATION IS REQUIRED.

WATER NOTES:

1. ALL WATER MAINS SHALL BE AWWA C-900, DR-6-18.
2. WATER SERVICES SHALL BE SINGLE 1 INCH COPPER TUBING, UNLESS OTHERWISE INDICATED ON THE PLANS.
3. WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE NBU WATERLINE SPECIFICATIONS.
4. WATER MAINS SHALL HAVE A MINIMUM OF 48 INCHES OF COVER WITHIN THE LIMITS OF THE PROPOSED SUBDIVISION. ALL OFF-SITE WATER MAINS SHALL HAVE A MINIMUM OF 72 INCHES OF COVER.
5. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
6. INITIAL BACKFILL OF WATER LINES SHALL BE 3/4 INCH TO DUST OR PEA GRAVEL AS PER NBU SPECIFICATIONS.
7. SECONDARY BACKFILL OF WATER LINES SHALL GENERALLY CONSIST OF MATERIAL REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS, AND TRASH OR STONES HAVING A DIMENSION LARGER THAN 6 INCHES AT THE LARGEST DIMENSION.
8. ALL IN-LINE VALVES, BENDS AND PLUGS SHALL BE RESTRAINED. RESTRAINT TO BE PROVIDED ON EACH SIDE OF VALVE, FITTING OR ANY REQUIRED JOINT.
9. RESTRAINT LENGTHS SHOWN ON PLANS ARE FOR HORIZONTAL FITTINGS ONLY. CONTRACTOR SHALL DETERMINE ADDITIONAL RESTRAINT LENGTHS REQUIRED FOR VERTICAL FITTINGS BASED ON RESTRAINT LENGTH TABLE LOCATED ON SHEET C3.0.
10. THE WATER MAINS SHALL BE RESTRAINED AT THE LOCATIONS SHOWN ON THE PLANS AND AT ANY FIELD ADDITIONS/MODIFICATIONS INVOLVING THE ADDITION OF VALVES, DEAD ENDS, OR ADDITIONAL/RELOCATED BENDS, THE CONTRACTOR SHALL DETERMINE THE APPROPRIATE RESTRAINT LENGTHS FOR THE WATER MAIN BASED ON THE SITUATION ENCOUNTERED DURING INSTALLATION FOR THOSE INSTANCES WHICH DIFFER FROM THE PLANS. JOINT RESTRAINT LENGTHS STATED ON THE PLANS SHALL BE UNDERSTOOD TO INDICATE THAT ALL JOINTS WITHIN THE STATED DISTANCE FROM THE FITTING, APPURTENANCE, OR POINT OF DEFLECTION SHALL BE RESTRAINED IN ACCORDANCE WITH NBU SPECIFICATIONS. THRUST BLOCKING SHALL ONLY BE USED AT TIE-INS TO EXISTING MAINS AND AT THE DIRECTION OF THE NBU INSPECTOR,
11. PIPE IN CASING SHALL BE FULLY RESTRAINED. LENGTH SHALL NOT BE COUNTED AS PART OF THE RESTRAINED LENGTH SHOWN ON THE PLANS BUT SHALL BE CONSIDERED INDEPENDENT OF THE STATED LENGTHS. CASING SPACERS SHALL BE SUITABLE FOR THE DIAMETER AND TYPE OF PIPE BEING INSTALLED AND SHALL BE BY PIPELINE SEAL AND INSULATOR, INC., OR ADVANCE PRODUCTS AND SYSTEMS, INC., OR ENGINEERED APPROVED EQUAL.
12. CONTRACTOR TO COORDINATE WITH NEW BRAUNFELS UTILITIES (N.B.U.) FOR WATER, SEWER, AND ELECTRICAL SERVICE TO THE SITE.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for 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 of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies 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 encountered during construction. The regulated activities near the sensitive feature may not proceed 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 150 feet of a domestic, industrial, irrigation, or public 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 manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must 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 offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake 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 spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
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 activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, 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 Aquifer 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 ponds, dams, berms, sewage 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 the Edwards Aquifer;

C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704-5712	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

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HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED PROFESSIONAL ENGINEER
4/24/09

GENERAL NOTES

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 4/23/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C2.0

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

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4. No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

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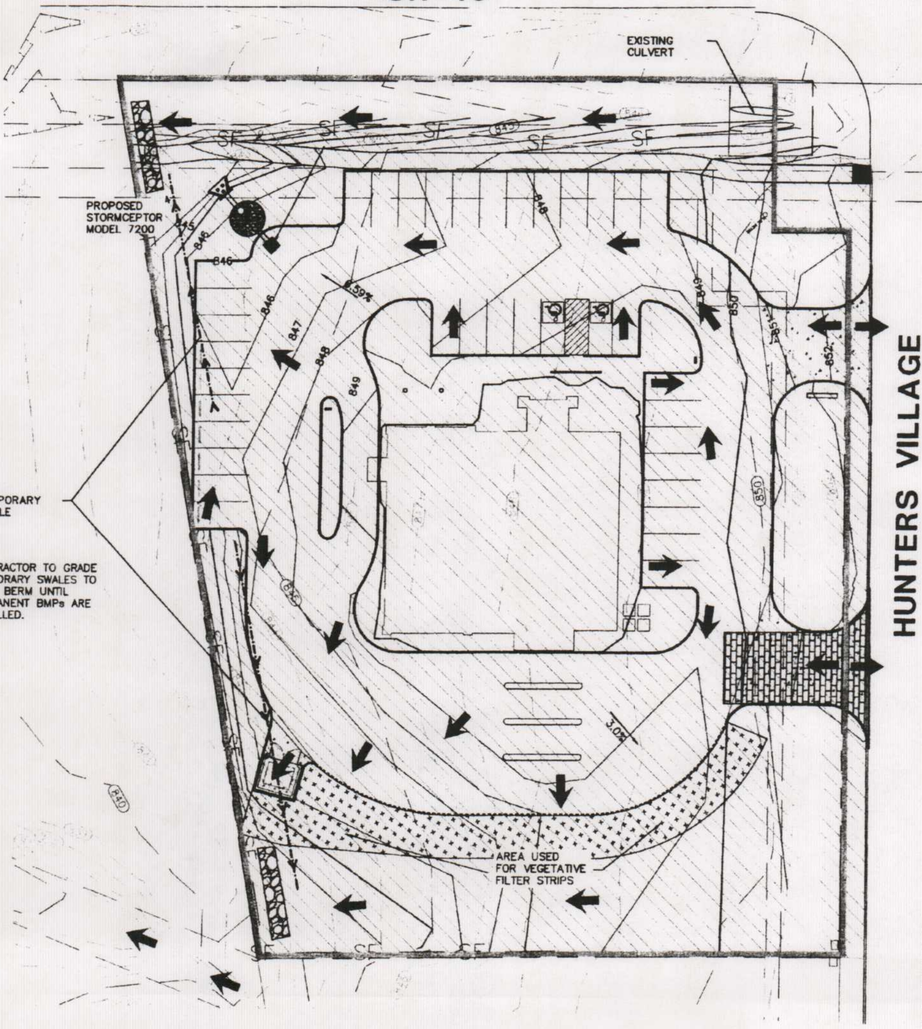
Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704-5712	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

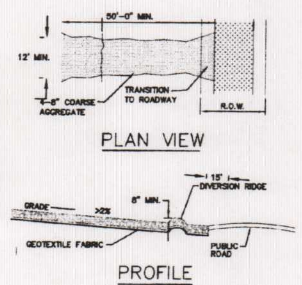


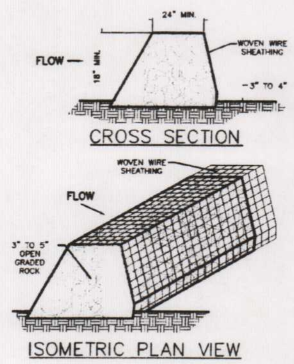
NOTE

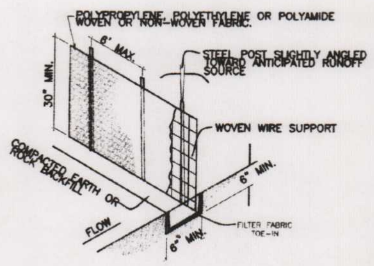
CONTRACTOR TO GRADE TEMPORARY SWALES TO ROCK BERM UNTIL PERMANENT BMPs ARE INSTALLED.

SOIL STABILIZATION NOTE

ALL DISTURBED SOILS SHOULD BE SEEDED OR OTHERWISE STABILIZED WITH 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR MORE THAN 21 DAYS.







HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:

(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:

(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 – 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 – 8 inch diameters rocks may be used.

Installation:

(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(5) Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:

(1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

SCALE : 1"=50'

0' 50' 100' 150'

LEGEND

LEGAL BOUNDARY

LIMITS OF DRAINAGE AREA

AREAS OF DISTURBANCE

ROCK BERM

SILT FENCE — SF —

STABILIZED CONSTRUCTION ENTRANCE/EXIT

VEGETATIVE FILTER STRIPS

NO.	DATE	REVISION	BY
1	05/08/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JI

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED PROFESSIONAL ENGINEER
5/8/09

RECEIVED
MAY 13 2009
COUNTY ENGINEER

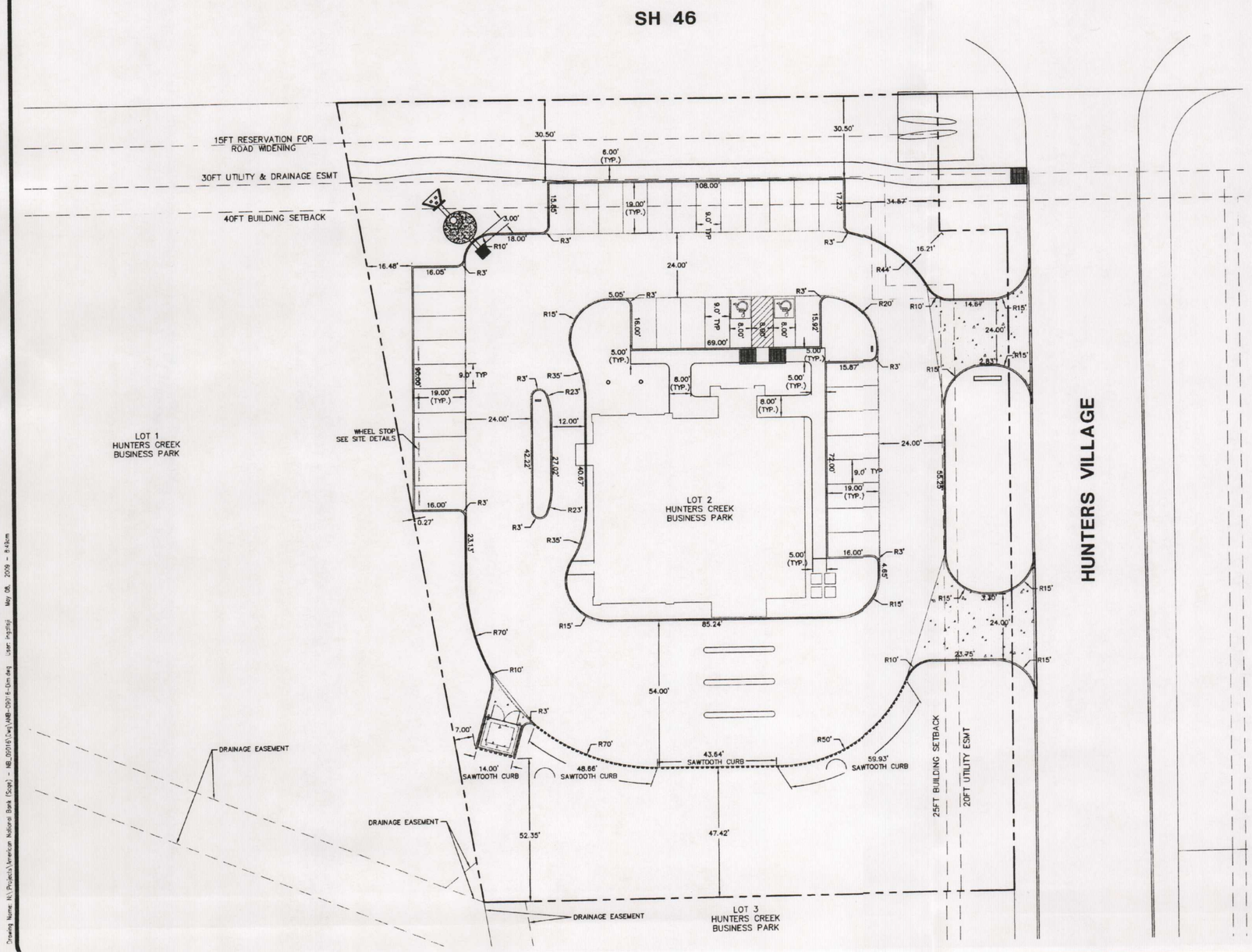
EROSION CONTROL PLAN

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 5/8/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C3.0

Drawing Name: N:\ Projects\American National Bank (Sage) - NB_09016\Dwg\ANB-09016-Erosion.dwg User: ingallsji May 08, 2009 - 8:40am



LEGEND

- PROPERTY LINE
- EXISTING CURB
- PROPOSED CURB
- FIRE LANE
- EASEMENT LINE
- HEAVY DUTY CONCRETE PAVEMENT
- SAWTOOTH CURB

RECEIVED
MAY 1 3 2009
COUNTY ENGINEER

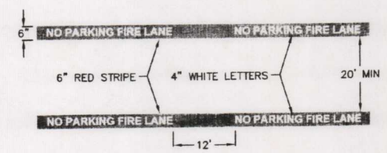
NO.	DATE	REVISION	BY
1	05/08/09	REVISED SAWTOOTH CURB PER TCEQ COMMENTS	JR

SCALE : 1"=20'

0' 20' 40' 60'

FIRE LANE NOTES:

STRIPING – THE TOP FACE OF ROAD CURBS SHALL BE PAINTED UTILIZING RED TRAFFIC PAINT.
A. IF NO CURBS ARE PRESENT, A SIX INCH (6") WIDE STRIPE PAINGED OF TRAFFIC RED PAINT SHALL BE PAINTED ON THE DRIVING SURFACE TO SHOW THE BOUNDARIES OF THE LANE.
B. THE WORDS "NO PARKING FIRE LANE" SHALL BE SPACED AT A MAXIMUM OF 75 FEET APART, ALONG THE LENGTH OF THE FIRE LANES.
SEE ILLUSTRATION BELOW.



NOTES FOR DIMENSIONAL CONTROL PLAN

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEW BRAUNFELS, AT (830) 221-4068, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL TEMPORARY EROSION/CONSTRUCTION CONTROL STRUCTURES. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEW BRAUNFELS, AT (830) 221-4068, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL FORM, STEEL, AND CONCRETE FLATWORK OF ALL DRIVEWAY APPROACHES CONSTRUCTED WITHIN THE CITY RIGHT-OF-WAY. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
3. THE CONTRACTOR SHALL NOTIFY THE CITY OF NEW BRAUNFELS, AT (830) 221-4068, TO SET AN ONSITE APPOINTMENT TO INSPECT ALL DRAINAGE STRUCTURES AND CHANNELS. A 48 HOUR ADVANCE NOTIFICATION IS REQUIRED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES BEFORE COMMENCING CONSTRUCTION. ANY DAMAGE TO SAID UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY. THESE PLANS MAY NOT SHOW ALL EXISTING UTILITIES.
5. CLIENT IS RESPONSIBLE FOR ANY ADA REVIEW FOR THIS PROJECT.
6. UTILITY ADJUSTMENTS AND RELOCATIONS OTHER THAN THOSE SHOWN HEREON MAY BE ENCOUNTERED AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR TO COMPLY WITH ALL CITY, STATE AND FEDERAL REGULATIONS.
8. CONTRACTOR TO MAINTAIN MIN. 1% SLOPE ON ALL CONCRETE PAVING.
9. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL SITE INFORMATION.
10. CUTS AND FILLS MAY NOT BALANCE.
11. CONTRACTOR TO PROVIDE A SWPPP FOR THIS SITE.
12. ALL CURB AND GUTTER SHALL BE 6" CATCH CURB UNLESS OTHERWISE SPECIFIED.
13. ALL DIMENSIONS ARE TO THE FACE OF CURB/EDGE OF PAVEMENT, TO CENTER OF PAVEMENT STRIPING, AND/OR PERPENDICULAR TO THE PROPERTY LINE UNLESS NOTED OTHERWISE ON THE PLANS.
14. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY QUESTIONS OR CONFLICTS ARISE CONCERNING THE INTENT OF THE DIMENSIONS SHOWN NECESSARY TO CONSTRUCT THE PROJECT.
15. ALL CONSTRUCTION SHALL MEET THE CURRENT CITY OF NEW BRAUNFEL'S STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND/OR THE CURRENT NEW BRAUNFELS UTILITIES CONNECTION/CONSTRUCTION POLICIES.
16. ALL STRIPING, TRAFFIC CONTROL AND SIGNAGE SHALL MEET THE REQUIREMENTS OF THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
17. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ALONG ALL PUBLIC STREETS AND SHALL COORDINATE WITH, AND OBTAIN APPROVAL FROM, THE CITY OF NEW BRAUNFELS PRIOR TO CONSTRUCTING IMPROVEMENTS WITHIN THE CITY'S RIGHT-OF-WAY.
18. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES AND SHALL NOTIFY THE RESPECTIVE AGENCIES 48-HOURS IN ADVANCE.
    a. NEW BRAUNFELS UTILITIES 830-629-8400
    b. TIME WARNER CABLE 830-625-3408
    c. ENTEX GAS 830-643-6434
    d. AT&T TELEPHONE 830-303-1333
    e. TEXAS ONE CALL 800-545-4545
19. ALL PROPOSED UTILITY SERVICES ARE DESIGNED BY OTHERS.
20. CONTRACTOR TO REFERENCE LANDSCAPE PLANS FOR PROPOSED LANDSCAPE IMPROVEMENTS.
21. ALL PAVEMENT, UNLESS SPECIFIED AS HEAVY DUTY IS LIGHT DUTY CONCRETE PAVEMENT.

REFERENCE MEP PLANS FOR UTILITY STUB OUT LOCATIONS FROM BUILDING.

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY O MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES T BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (B), GAS COMPANIES MUST HAVE ACCESS TO GAS VALVE AT ALL TIMES. CONTRACTOR SHALL PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS,
TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
5/8/09

DIMENSION CONTROL

Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

DATE: 5/8/09
DRAWN BY: JR
DESIGNED BY: JR
CHECKED BY: JR
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C4.0

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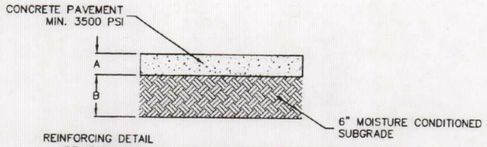


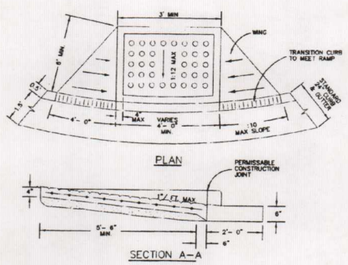
REINFORCING DETAIL

- REINFORCING STEEL–#4 @ 12" EACH WAY PLACED D/3 FROM TOP OF SLAB
- CONSTRUCTION JOINT DOWELS–1" DIAMETER, 18" LONG @ 12" OC LUBRICATED BOTH SIDES @ MID DEPTH
- MAXIMUM CONTROL JOINT SPACING–15'
- CONTROL JOINT DEPTH–D/4 FROM TOP
- MIN. 28 DAY COMPRESSIVE STRENGTH–3,500 PSI

RIGID CONCRETE PAVEMENT SECTION

NOT TO SCALE

MINIMUM PAVEMENT SECTION REQUIREMENTS		
TRAFFIC TYPE	A	B
LIGHT DUTY	5.5"	6"
HEAVY DUTY	7"	6"

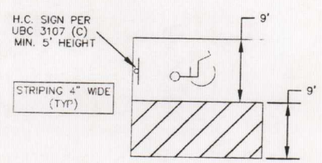


GENERAL NOTES

1. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 23 mm (0.9") A NORMAL HEIGHT OF 5 mm (0.2") AND A NORMAL CENTER TO CENTER SPACING OF 60 mm (2.35") AND SHALL BE CONSTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Ref. ADAAG SECTION 4.29.2) MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. PAVER PATTERN VARIES PER MANUFACTURE'S RECOMMENDATIONS.
2. TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION. REFER TO ADA ACCESSIBILITY REQUIREMENTS FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASE.
3. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 6 mm (1/4") JOINT SIZE. GAPS LARGER THAN 6 mm (1/4") MUST BE APPROVED BY THE PROJECT MANAGER OR CONSTRUCTION INSPECTOR. GAPS GREATER THAN 6 mm (1/4") MUST BE SOLID MORTAR FILLED BETWEEN THE BRICK PAVERS AND THE ADJOINING SURFACE UNLESS OTHERWISE INSTRUCTED BY THE PROJECT MANAGER OR CONSTRUCTION INSPECTOR.
4. MORTAR SHALL CONFORM TO ITEM 403.2 (6) /A035.2 (6) MORTAR (GROUT). ALL OTHER CONCRETE SHALL CONFORM TO ITEM 403/A035. CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
5. CURB RAMPS, WITH RETURNED CURB MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

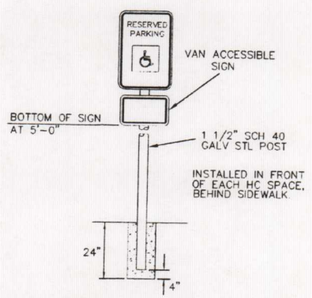
SIDEWALK RAMP WITH DETECTABLE WARNING PAVER

N.T.S



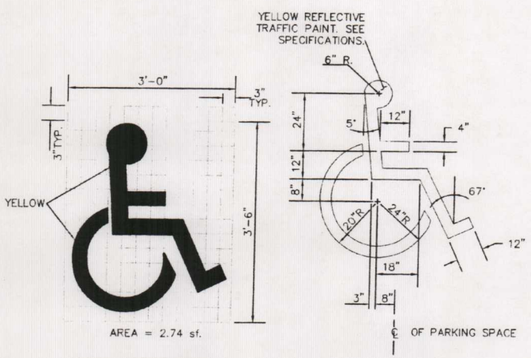
TYPICAL VAN HANDICAPPED PARKING

N.T.S



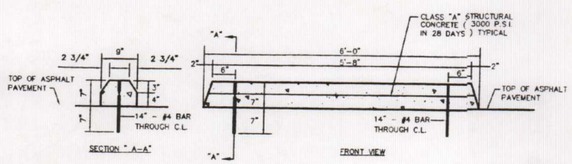
HANDICAPPED SIGN DETAIL

N.T.S



HANDICAPPED SYMBOL DETAIL

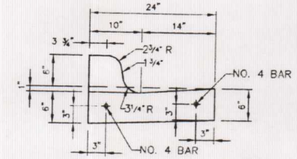
N.T.S



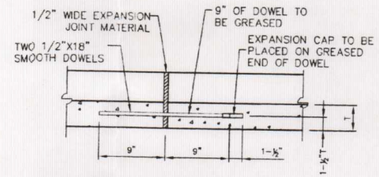
NOTE: SEE DIMENSIONAL CONTROL PLANS FOR LOCATION OF WHEEL STOPS IN PARKING SPACES.

WHEEL STOP DETAIL

N.T.S



CATCH SECTION



CURB AND GUTTER SECTIONS

NOT TO SCALE

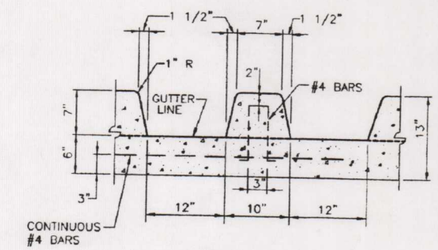
LONGITUDINAL SECTION THRU CURB AND GUTTER SHOWING TYPICAL EXPANSION JOINT DETAILS. REINFORCING STEEL SHALL NOT CROSS EXPANSION JOINTS. STEEL SHALL BE TERMINATED 3" ±1" FROM FACE OF THE JOINT.

NOTES:

1. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 18".
2. CURB AND GUTTER SHALL HAVE FORMED TOOLED OR SAWED CONTRACTION JOINTS AT ±10'. THE DEPTH OF THESE JOINTS SHALL BE SUFFICIENT TO ENSURE CRACKING AT THE JOINTS.
3. CURB OR CURB AND GUTTER SHALL HAVE EXPANSION JOINTS AT POINTS OF CURVATURE, AT INTERVALS NO GREATER THAN 120' AND AT ALL ADJACENT STRUCTURES.
4. UNLESS OTHERWISE SHOWN, TRANSITIONS BETWEEN CURBS OR CURBS AND GUTTER OF DIFFERING CROSS SECTION SHALL BE ACCOMPLISHED OVER A 10' LENGTH OR AS APPROVED BY THE CITY ENGINEER.
5. ALL CONCRETE TO BE CLASS "A" 3000 PSI CONCRETE.
6. ALL EXPOSED CONCRETE SURFACES TO BE BRUSHED SMOOTH AND UNIFORM.

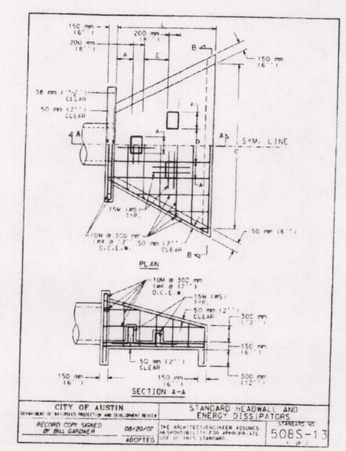
CONCRETE SIDEWALK SECTION

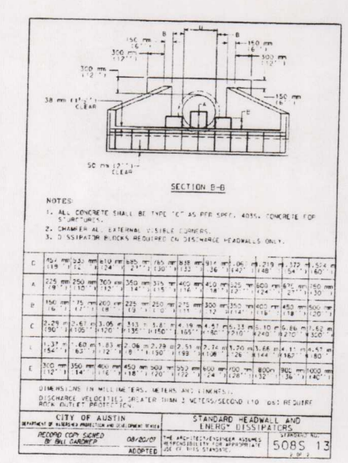
NOT TO SCALE



SAW TOOTH CURB

NOT TO SCALE





RECEIVED
MAY 13 2009
COUNTY ENGINEER

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MCELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS,
TEXAS, 78130
www.HMTNB.com
PH: (830)625–8555
FAX: (830)625–8556

4-24-09

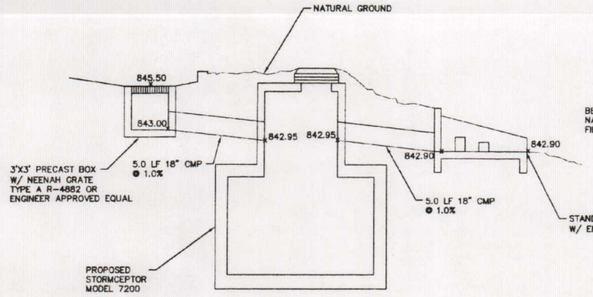
SITE DETAILS

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 4/23/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JM
REVIEWED BY: JM
PROJECT NUMBER: 09016

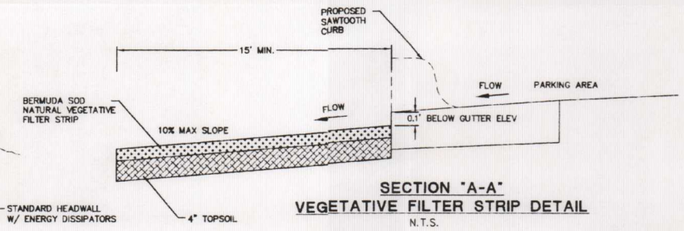
SHEET
C5.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Dwg\NB-09016-Details.dwg User: hopkisi Apr 23, 2009 - 7:27pm



STORM DRAIN PROFILE

N.T.S.



SECTION "A-A"
VEGETATIVE FILTER STRIP DETAIL

N.T.S.

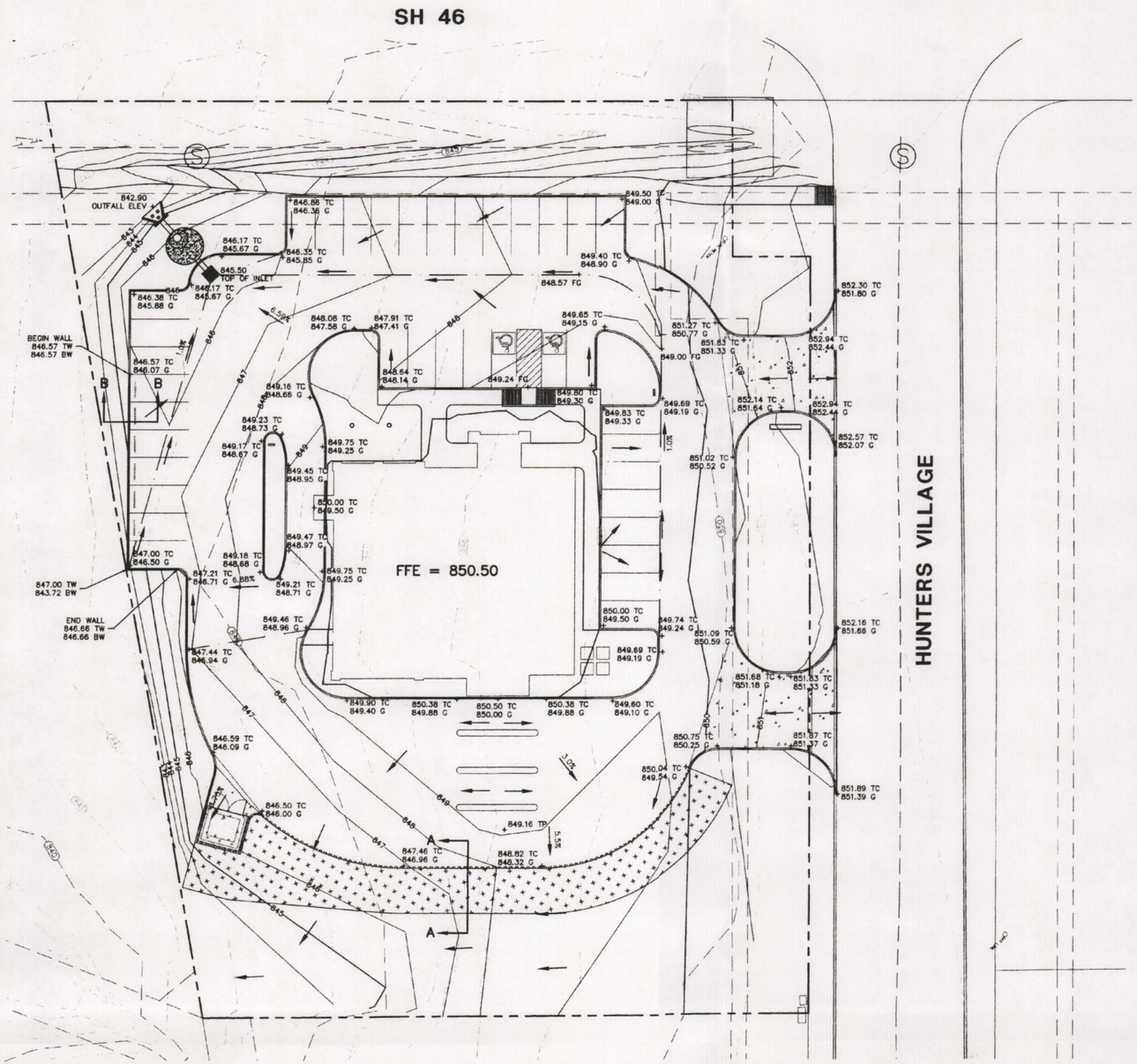
LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 848.82 TC / 848.32 G — FINISH GRADE SPOT ELEVATION
- DRAINAGE FLOW ARROW
- GRADE BREAK/SWALE
- NATURAL VEGETATIVE FILTER STRIPS

RECEIVED
MAY 13 2009
COUNTY ENGINEER

NO.	DATE	REVISION	BY
1	05/08/09	REVISED GRADING AND SAWTOOTH CURB PER TCEQ COMMENTS	JR

HMT ENGINEERING & SURVEYING
HOLLMIG • MCELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556



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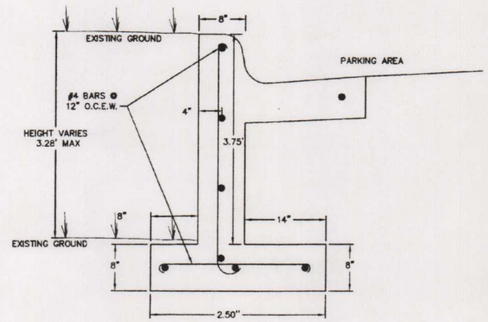
0' 20' 40' 60'



SECTION "B-B"
RETAINING WALL DETAIL

N.T.S.

REFERENCE MEP PLANS FOR UTILITY STUB OUT LOCATIONS FROM BUILDING.

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY OR MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (B), GAS COMPANIES MUST HAVE ACCESS TO GAS VALVES AT ALL TIMES. CONTRACTOR SHALL PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

GRADING PLAN

Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

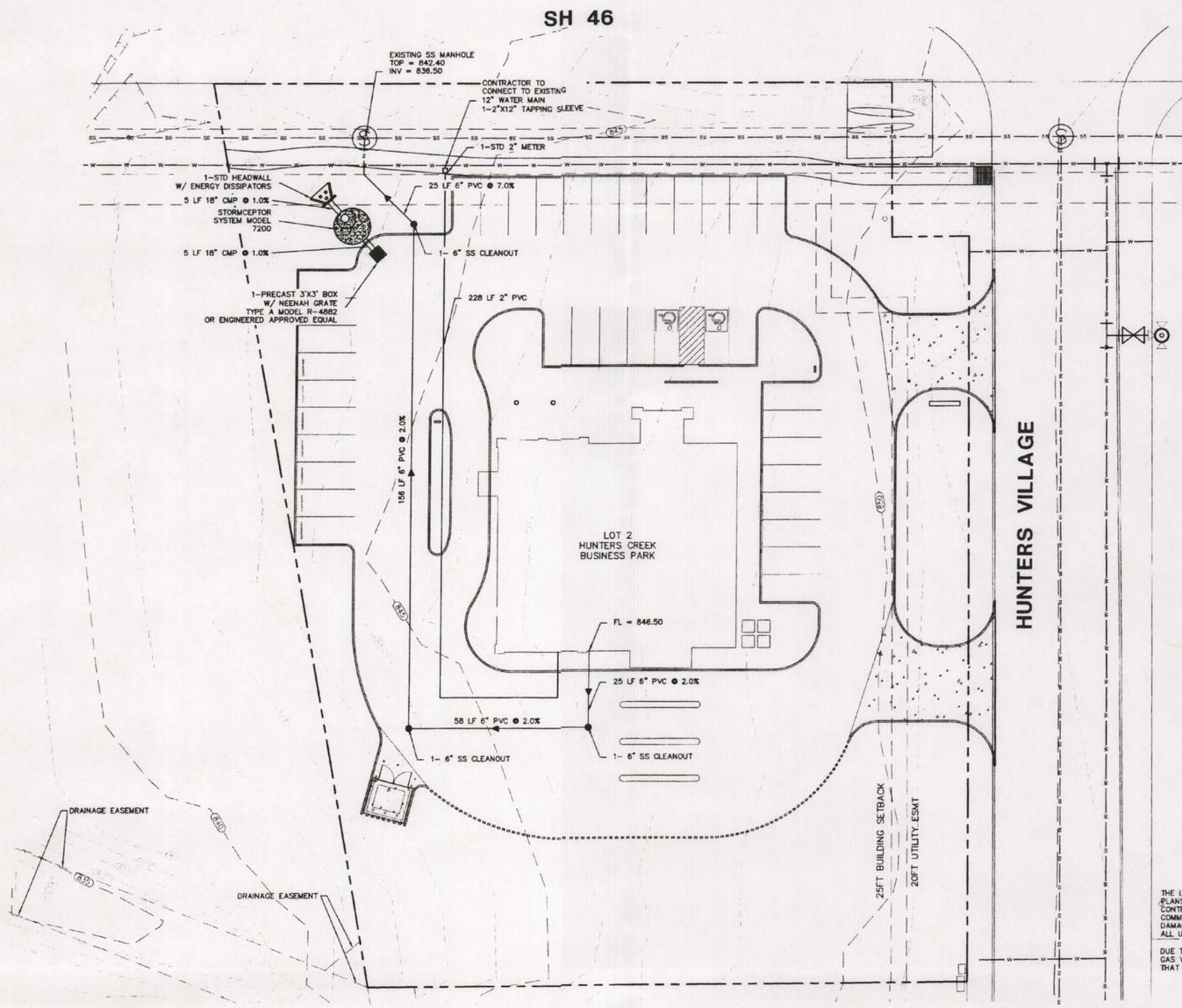
DATE: 5/8/09
DRAWN BY: JR
DESIGNED BY: JR
CHECKED BY: JR
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C6.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB_09016\Dwg\NB-09016-Grd.dwg User: jrgafiki May 08, 2009 - 8:42am

GENERAL NOTES

1. CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES, AND TAXES AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.
2. ALL CONSTRUCTION SHALL MEET THE CURRENT CITY OF NEW BRAUNFEL'S STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND/OR THE CURRENT NEW BRAUNFELS UTILITIES CONNECTION/CONSTRUCTION POLICIES.
3. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH THE RESPECTIVE UTILITY COMPANIES AND SHALL NOTIFY THE RESPECTIVE AGENCIES 48-HOURS IN ADVANCE.
   a. NEW BRAUNFELS UTILITIES 830-629-8400
   b. TIME WARNER CABLE 830-625-3408
   c. ENTEX GAS 830-643-6434
   d. AT&T TELEPHONE 830-303-1333
   e. TEXAS ONE CALL 800-545-4545
4. CONTRACTOR IS REQUIRED TO PREPARE A CONSTRUCTION PHASING PLAN DETAILING LIMITS OF CONSTRUCTION FOR EACH PHASE. PHASING PLAN MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR WILL NOT BE ALLOWED TO WORK OUT OF PHASE, UNLESS WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE CITY ENGINEER FOR THE PHASE CHANGE. THIS PLAN MUST INCLUDE TRAFFIC CONTROLS FOR EACH CONSTRUCTION PHASE.
5. CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.
6. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS, OFFICERS, DIRECTORS, OR CONSULTANTS, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.
7. ANY EXISTING OFF-SITE IMPROVEMENTS THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER OF THE EXISTING IMPROVEMENTS AT THE CONTRACTOR'S EXPENSE. (NO SEPARATE PAY).
8. WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR THE CONSENT OF THE OWNER OR ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.
9. ITEMS OF WORK NOTED AS "BY OTHERS" SHALL NOT BE CONSIDERED PART OF THIS CONTRACT.
10. OSHA REGULATIONS PROHIBIT OPERATIONS THAT WILL BRING PERSONS OR EQUIPMENT WITHIN 10 FEET OF AN ENERGIZED LINE. WHERE WORKMEN AND/OR EQUIPMENT HAVE TO WORK CLOSE TO AN ENERGIZED ELECTRICAL LINE, THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL POWER COMPANY INVOLVED AND MAKE WHATEVER ADJUSTMENTS NECESSARY TO ENSURE THE SAFETY OF THOSE WORKMEN.
11. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ALONG ALL PUBLIC STREETS AND SHALL COORDINATE WITH, AND OBTAIN APPROVAL FROM, THE CITY OF NEW BRAUNFELS PRIOR TO CONSTRUCTING IMPROVEMENTS WITHIN THE CITY'S RIGHT-OF-WAY.
12. BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE PROVIDING CONTINUOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.
13. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
14. WHEN MATCHING EXISTING PAVEMENTS, CURBS, DRIVES AND WALKS, THEY SHALL BE SAW CUT FULL DEPTH AND REMOVED TO ALLOW FOR PROPOSED CONSTRUCTION. IF ANY EXISTING JOINT IS ENCOUNTERED, PRECAUTION SHALL BE TAKEN DURING REMOVAL OF CONCRETE SO AS NOT TO DAMAGE EXISTING DOWELS. ALL EXISTING DOWELS SHALL BE EXPOSED AND CLEANED.
15. ALL "COMPACTED SUBGRADE" SHALL CONSIST OF NATIVE MATERIAL SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES AND COMPACTED TO 95% DENSITY ACCORDING TO DENSITY TEST METHOD TEX-115E OR ACCORDING TO ASTM D-698 AND TESTED BY ASTM D-2922.
16. ALL "FLEXIBLE BASE" SHALL BE TYPE "A", GRADE 2, ACCORDING TO TXDOT ITEM 247, COMPACTED TO 95% MODIFIED DENSITY AT A MOISTURE CONTENT BETWEEN -2 AND +3 OF OPTIMUM PERCENT MOISTURE ACCORDING TO ASTM D-1557 (MODIFIED PROCTOR) AND TESTED BY ASTM D-2992.
17. ASPHALTIC CONCRETE PAVEMENT SHALL BE TYPE "D" HOT MIX ASPHALT AS DEFINED IN TXDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, 1993.
18. PRIME COAT PATCH AREAS USING MC-30 AT A RATE OF 0.2 GALLONS PER SQUARE YARD SHALL BE PLACED OVER PREPARED BASE AT LEAST ONE DAY PRIOR TO PLACING ASPHALT STABILIZED BASE. ANY NECESSARY TACK COAT SHALL BE MC-30 AT 0.05 GALLON PER SQUARE YARD. IT IS REQUIRED THAT BOTH THE PRIME COAT AND TACK COAT BE APPLIED AT THE TEMPERATURE SPECIFIED UNDER TXDOT ITEM 300.3.
19. CONCRETE SHALL BE CLASS "A" ACCORDING TO TXDOT ITEM 421, UNLESS NOTED OTHERWISE ON PLANS.
20. REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO TXDOT ITEM 440. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS EXCEPT WHEN REFERRING TO CLEARANCE.
21. ALL SAWED JOINTS SHALL BE SAWED WITHIN 24 HOURS OF POURING.
22. ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER.
23. ORDINARY COMPACTION CONTROL IS REQUIRED ON THIS PROJECT.
24. ALL ROLLING FOR COMPACTION OF ASPHALTIC CONCRETE PAVEMENT SHALL BE COMPLETED BEFORE THE MIXTURE TEMPERATURE DROPS BELOW 175 DEG (F).
25. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO THE CITY ENGINEER.
26. ALL CMP (CORRUGATED METAL PIPE) USED ON THIS PROJECT SHALL BE CONTECH, ULTRA FLO, GALVANIZED METAL PIPE, OR ENGINEER APPROVED EQUAL, HAVING A MANNING'S "N" VALUE OF 0.013 OR LOWER.



SCALE : 1"=20'

0' 20' 40' 60'

LEGEND

PROPERTY LINE	
EXISTING WATER MAIN	
EXISTING SEWER	
PROPOSED SEWER SERVICE	
PROPOSED SEWER CLEANOUT	
PROPOSED WATER SERVICE W/ 2" METER	

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THESE PLANS MAY OR MAY NOT SHOW ALL OF THE EXISTING UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL LOCATE ALL UTILITIES TO DETERMINE THEIR EXACT LOCATION BEFORE COMMENCING WORK. THE CONTACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (8), GAS COMPANIES MUST HAVE ACCESS TO GAS VALVES AT ALL TIMES. CONTRACTOR SHALL PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

NO.	DATE	REVISION	BY
1	05/08/09	REVISED SANITARY SEWER SERVICE	JR

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
F-10961
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS
JEFFREY D. MOELLER
88588
LICENSED
PROFESSIONAL ENGINEER
5-8-09

UTILITY PLAN

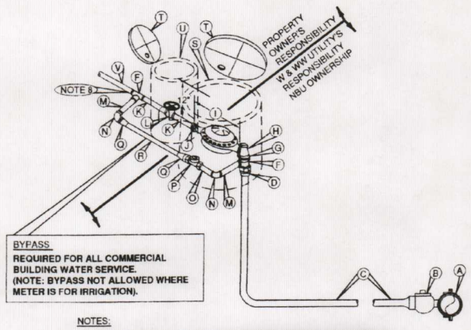
Sage Capital Bank
Financial Wisdom. Texas Roots.

New Braunfels, Texas

DATE: 5/8/09
DRAWN BY: JR
DESIGNED BY: JR
CHECKED BY: JR
REVIEWED BY: JM
PROJECT NUMBER: 080.16

SHEET
C7.0

Drawing Name: N:\Projects\Jennings National Bank (Sage) - NB (0016)\Dwg\NB-(0016)-UtilityPlan User: jrgallup May 08, 2009 - 8:47am



BYPASS:
REQUIRED FOR ALL COMMERCIAL BUILDING WATER SERVICE.
(NOTE: BYPASS NOT ALLOWED WHERE METER IS FOR IRRIGATION).

NOTES:

1. SERVICE PIPE SHALL BE COPPER TUBE SIZE. IT SHALL BE ANNEALED SEAMLESS TYPE "K" COPPER TUBING MEETING THE CURRENT ASTM B88 STANDARD WITH NO SWEAT OR SOLDERED JOINTS.
2. SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL POLYETHYLENE FILM.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND OR FLUSH WITH PAVEMENT SURFACE.
4. IF TWO METERS ARE INSTALLED WITH A SINGLE SERVICE LINE, THEY SHALL BE INSTALLED IN SEPARATE BOXES WITH PIPING AS SHOWN FROM A TEE. THE COMMON SERVICE LINE TO THE TEE SHALL BE 2" FOR TWO 1-1/2" METERS, OR 4" DUCTILE IRON PIPE FOR TWO 2" METERS. CUT OFF VALVE SHALL BE INSTALLED PRIOR TO TEE.
5. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SPECIFICATIONS.
6. BOX CONSISTENTLY SPACED BEHIND CURB WITH A MAXIMUM OF 12" AND/OR SIDEWALK (6" FROM PROPERTY LINE) AND OUT OF VEHICULAR TRAFFIC AREA.
7. ANGLE STOP PLACED A MAXIMUM OF 4" FROM BACK OF BOX THAT FACES CURB.
8. FOR ALL IRRIGATION OR COMMERCIAL: DUAL CHECK BACKFLOW DEVICE PER BACKFLOW PREVENTION POLICY.

MATERIALS LIST

	METER SIZE 1-1/2"	METER SIZE 2"
A. SERVICE CLAMP FOR CONNECTION - REQUIRED ON ALL PLASTIC AND ASBESTOS-CEMENT PIPE AND ALL IRON PIPE 12" AND SMALLER.	1-1/2"	2"
B. CORPORATION STOP - SERVICE PIPE OUTLET.	1-1/2"	2"
C. SERVICE PIPE.	1-1/2"	2"
D. COUPLING: SERVICE PIPE TO MALE I.P.T. (COMPRESSION FITTING)	1-1/2"	2"
F. TEES, BRASS.	1-1/2"x1-1/2"x1"	2"x2"x1"
G. CLOSE-NIPPLE, BRASS.	1-1/2"	2"
H. ANGLE METER STOP, FEMALE I.P. THREAD INLET X FLANGE OUTLET.	1-1/2"	2"
I. WATER METER LENGTH WITH GASKETS.	13-1/2"	17-3/4"
J. FLANGE, BRASS; FEMALE I.P. THREAD.	1-1/2"	2"
K. NIPPLES, BRASS.	1-1/2" x 8"	2" x 8"
L. CUSTOMER'S CUT OFF VALVE.	1-1/2"	2"
M. NIPPLES, BRASS.	1" x 5"	1" x 5"
N. 90 DEGREE ELBOWS, BRASS.	1"	1"
O. NIPPLES, BRASS.	1" x 3"	1" x 3"
P. CURB STOP, BRASS, FEMALE I.P. THREAD BOTH ENDS WITH LOCK NUTS.	1"	1"
Q. COUPLINGS, BRASS, SERVICE PIPE TO MALE THREAD.	1"	1"
R. SERVICE PIPE.	1"	1"

S. ROUND OR RECTANGULAR METER BOX - EAST JORDAN IRON WORKS #2 METER BOX, NBU# 89004000003.

T. LID

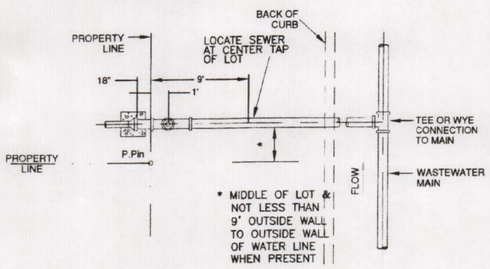
U. CUSTOMERS CUT-OFF VALVE BOX MAY BE 12" PIECE SDR 26, 6" PVC

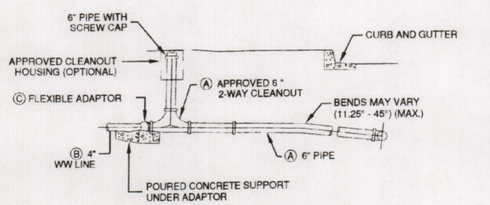
V. METAL PIPE, 4' MINIMUM LENGTH.

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING

DRAWN BY: H Shedrock — APPROVED BY:
STANDARD DRAWING: STANDARD INSTALLATION DETAIL FOR 1-1/2" & 2" METER INSTALLATION SHOWING OPTIONAL BYPASS
UPDATED: 4-22-03 | SCALE: N.T.S. | SHEET: 1 OF 2 | DRAWING NO.: 203

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING
DRAWN BY: H Shedrock — APPROVED BY:
STANDARD DRAWING: STANDARD INSTALLATION DETAIL FOR 1-1/2" & 2" METER INSTALLATION SHOWING OPTIONAL BYPASS
UPDATED: 4-22-03 | SCALE: N.T.S. | SHEET: 1 OF 2 | DRAWING NO.: 203





NOTES:

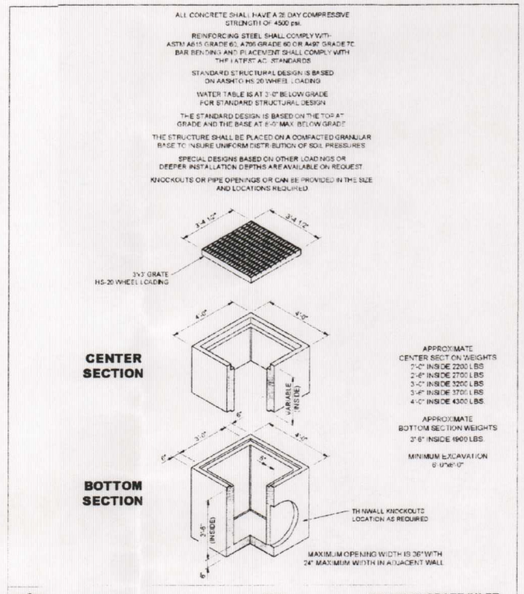
Ⓐ TO BE INSTALLED AND INSPECTED DURING SUBDIVISION CONSTRUCTION.
Ⓑ BUILDING INSPECTION DEPARTMENT SHALL INSPECT CUSTOMER'S WASTEWATER LINE. EXCEPT CONNECTION AT TAP.
Ⓒ OUTSIDE CITY. NBU SEWER DEPARTMENT SHALL INSPECT CONNECTION AT TAP.

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING
DRAWN BY: H Shedrock — APPROVED BY:
STANDARD DRAWING: SINGLE WASTEWATER SERVICE CONNECTION DETAIL
UPDATED: 4-28-03 | SCALE: N.T.S. | SHEET: 1 OF 2 | DRAWING NO.: 302

NOTES:

1. UTILITY CONTRACTOR, DURING SUBDIVISION CONSTRUCTION, INSTALLS WASTEWATER CONNECTION TO MAIN, 6" STUB WITH 6" SERVICE BRANCH WITH 2-WAY CLEANOUT AND RISER FOR CLEANOUTS (CAPPED) AND PLUGS FOR 2-WAY CLEANOUTS AT PROPERTY LINE END. ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SHALL SLOPE DOWNWARD TO MAIN 2%, 1/4 " PER FOOT, MINIMUM TO 45 MAXIMUM. DEPTH OF SERVICE STUB AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER OR DESIGNATED REPRESENTATIVE IF GREATER THAN 4', OTHERWISE, THE INSTALLED DEPTH WILL TYPICALLY BE 4' TO 6'. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45, REFER TO DETAIL DRAWING 301. ALL INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY NEW BRAUNFELS UTILITIES (NBU) CONSTRUCTION INSPECTION PERSONNEL.
2. CUSTOMERS REMOVE PLUGS FROM 2-WAY CLEANOUT, AT PROPERTY LINE, INSTALL MINIMUM 18" LENGTH OF 6" PIPE, INSTALL 4" WASTEWATER LINES (EXTEND 4" PIPE 6" MINIMUM INTO 6" PIPE AND JOINT WITH FLEXIBLE ADAPTOR) AND CAST IN PLACE CONCRETE SUPPORT BLOCK UNDER THE FLEXIBLE ADAPTOR. BLOCK SHALL HAVE MINIMUM DIMENSIONS OF 6" THICK AND 18" WIDE AND EXTEND A MINIMUM OF 6" BEYOND EITHER END OF ADAPTOR. IF WASTEWATER WILL NOT SATISFACTORILY FLOW BY GRAVITY TO SEWER MAIN ADJACENT TO PROPERTY, PUMP EQUIPMENT MUST BE PROVIDED BY THE CUSTOMER AS PART OF CUSTOMER'S WASTEWATER SYSTEM.
3. CUSTOMER IS RESPONSIBLE FOR PIPING SYSTEM UNTIL WASTEWATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO NBU SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIALS. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT 2-WAY CLEANOUTS REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
4. NEW BRAUNFELS UTILITIES (NBU) ACTIVITY IS LIMITED TO INSPECTION OF CONNECTIONS TO NBU'S WASTEWATER SYSTEM. FOR MAINTENANCE PURPOSES, NBU'S RESPONSIBILITY ENDS AT THE CUSTOMER'S WASTEWATER CONNECTION TO THE 2-WAY CLEANOUT.
5. PIPING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY NBU STANDARD SPECIFICATION; MATERIALS SHALL BE AS SPECIFIED; BACKFILL ABOVE THE GRANULAR BEDDING. SERVICE LINES IN THESE AREAS SHALL HAVE A MINIMUM COVER BELOW FINAL STREET GRADE OF 42"; ANY EXCEPTION MUST BE SPECIFICALLY APPROVED BY THE ENGINEER.

NBU — NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING
DRAWN BY: H Shedrock — APPROVED BY:
STANDARD DRAWING: SINGLE WASTEWATER SERVICE CONNECTION DETAIL
UPDATED: 4-28-03 | SCALE: N.T.S. | SHEET: 2 OF 2 | DRAWING NO.: 302



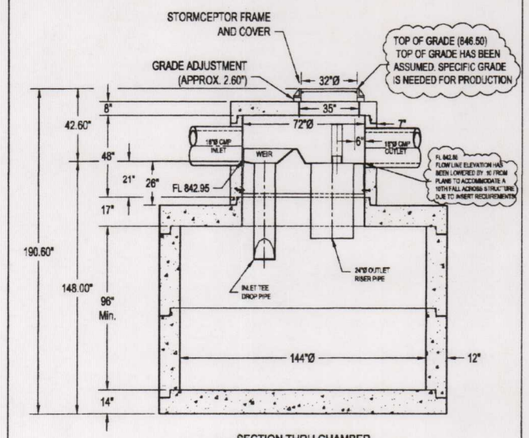
Stormceptor®

Rinker Materials

STC 7200 Precast Concrete Stormceptor (7200 US Gallon Capacity)
PROJECT: SAGE CAPITAL BANK
LOCATION: NEW BRAUNFELS, TEXAS

DR. BY: M. DARLING
CK. BY:
DATE: APRIL 10, 2009
SCALE: N.T.S.
DWG.# A270-CE-910

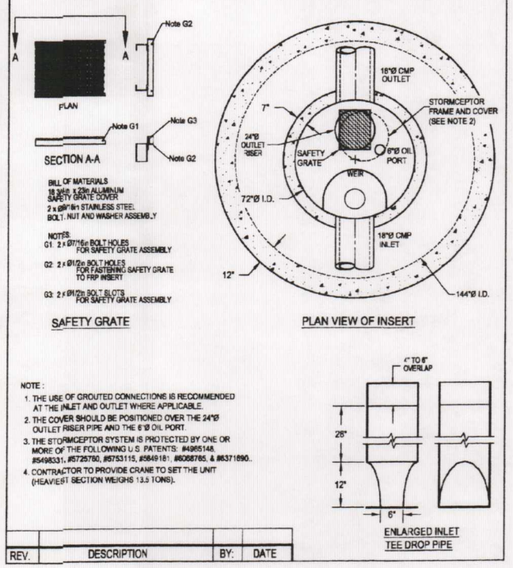
(SHEET 1 OF 3)



SECTION THRU CHAMBER

*SAFETY GRATE NOT SHOWN FOR CLARITY

REV.	DESCRIPTION	BY:	DATE



REV.	DESCRIPTION	BY:	DATE

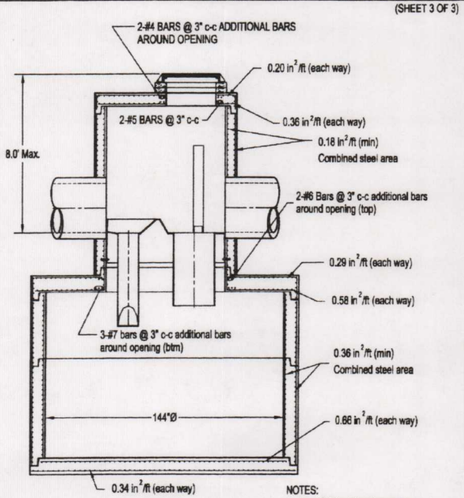
Stormceptor®

Rinker Materials

STC 7200 Precast Concrete Stormceptor (7200 US Gallon Capacity)
PROJECT: SAGE CAPITAL BANK
LOCATION: NEW BRAUNFELS, TEXAS

DR. BY: M. DARLING
CK. BY:
DATE: APRIL 10, 2009
SCALE: N.T.S.
DWG.# A270-CE-910

(SHEET 3 OF 3)



REINFORCEMENT DETAIL

NOTES:
1) f'c = 4,000 psi for all concrete
2) fy = 60,000 psi for all steel
3) 1" clear cover over all reinforcement
4) HS-20 live load
5) Designed for maximum inlet invert depth of 8.0' below grade.

REV.	DESCRIPTION	BY:	DATE

NO.	DATE	REVISION	BY

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST
NEW BRAUNFELS, TEXAS, 78130
www.HMTNB.com
PH: (830)625-8555
FAX: (830)625-8556

STATE OF TEXAS — JEFFREY D. MOELLER — 66588 — LICENSED PROFESSIONAL ENGINEER — 4/23/09

UTILITY DETAILS

Sage Capital Bank
Financial Wisdom. Texas Roots.
New Braunfels, Texas

DATE: 4/23/09
DRAWN BY: JI
DESIGNED BY: JI
CHECKED BY: JI
REVIEWED BY: JM
PROJECT NUMBER: 09016

SHEET
C8.0

Drawing Name: N:\Projects\American National Bank (Sage) - NB 09016\Dwg\NB-09016-Details.dwg User: mcphile Apr 23, 2009 - 7:27pm