

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Zak Covar, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 18, 2014

Dr. Eric Miller
Central Texas Pain Center
213 Hunter's Village
New Braunfels, Texas 78132

Re: Edwards Aquifer, Comal County

Name of Project: **Central Texas Pain Center**; Located at 213 Hunter's Village; New Braunfels, Texas

Type of Plan: Request for Technical Clarification of an Approved **Water Pollution Abatement Plan**; 30 Texas Administrative Code (TAC) Chapter 213, Edwards Aquifer

Regulated Entity No.: RN105390595; Investigation No. 1173913; Additional ID No. 13-08010401

Dear Dr. Miller:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the request for approval of a Technical Clarification of the approved WPAP for the above-referenced project submitted to the San Antonio Regional Office by HMT Engineering & Surveying on behalf of Central Texas Pain Center on March 6, 2014. Final review of the Technical Clarification was completed after additional material was received on June 2, 2014. The proposed request includes a slight increase (140 square feet) of impervious cover to construct an office addition. The increase of impervious cover has been compensated for when the site was constructed with a lesser amount of impervious cover than what was approved by the TCEQ on March 11, 2008. Since the addition of new impervious cover brings the total of impervious cover on-site to 0.3956 acres where the approved impervious cover was 0.40 acres, your Technical Clarification request is **approved**.

If you have any questions or require additional information, please contact Michael Isley, P.E. of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210-403-4057.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Jones".

Todd Jones, Water Section Work Leader
San Antonio Region Office
Texas Commission on Environmental Quality

TJ/MI/eg

cc: Mr. Tom Cunanan, HMT Engineering & Surveying
Mr. James Klein, P.E., City of New Braunfels
Mr. Roland Ruiz, Edwards Aquifer Authority
Mr. Thomas Hornseth, P.E., Comal County Engineer



CIVIL ENGINEERING & CONSULTING SERVICES

- RESIDENTIAL DEVELOPMENT
- SITE DEVELOPMENT
- PUBLIC WORKS
- UTILITIES

June 24, 2014

Mr. Michael Isley, P.E.
TCEQ San Antonio Regional Office – Region 13
14250 Judson Rd.
San Antonio, Texas 78233-4480

RECEIVED

JUL 02 2014

Re: Response to TCEQ Comments dated June 23, 2014
Edwards Aquifer, Comal County
NAME OF PROJECT: Hunter's Creek Business Park, Lot 11B2; Located on the north side of Hunter's Village, approximately 150 feet northwest of the intersection of Hunter's Village and Oak Run Parkway; New Braunfels, Texas.
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan; 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer;
Additional ID No. 13-14052001; Investigation No. 1172139; RN107296733;

COUNTY ENGINEER

Dear Mr. Isley,

Pawelek & Moy, Inc. (P&M) has addressed the comments by the TCEQ dated June 23, 2014 for the above mentioned project. P&M has taken the following actions with regards to the comments:

<u>Comment</u>	<u>Response</u>
----------------	-----------------

- | | |
|---|---|
| 1 | A wet well/sump pump detail has been added to S1 with notes taken from the provisions for the alarm and wet well found in TGM (RG-348) 3.4.3. |
| 2 | The proposed curb for this area is a flush curb which will allow runoff from the parking area to sheet flow onto the EVFS. The flush curb has been labeled. |
| 3 | The gabion wall height has been modified to match the height of the water quality volume. |

Please call if you have questions regarding these responses. Thank you for your assistance.

Sincerely,

Daryl D. Pawelek, P.E.

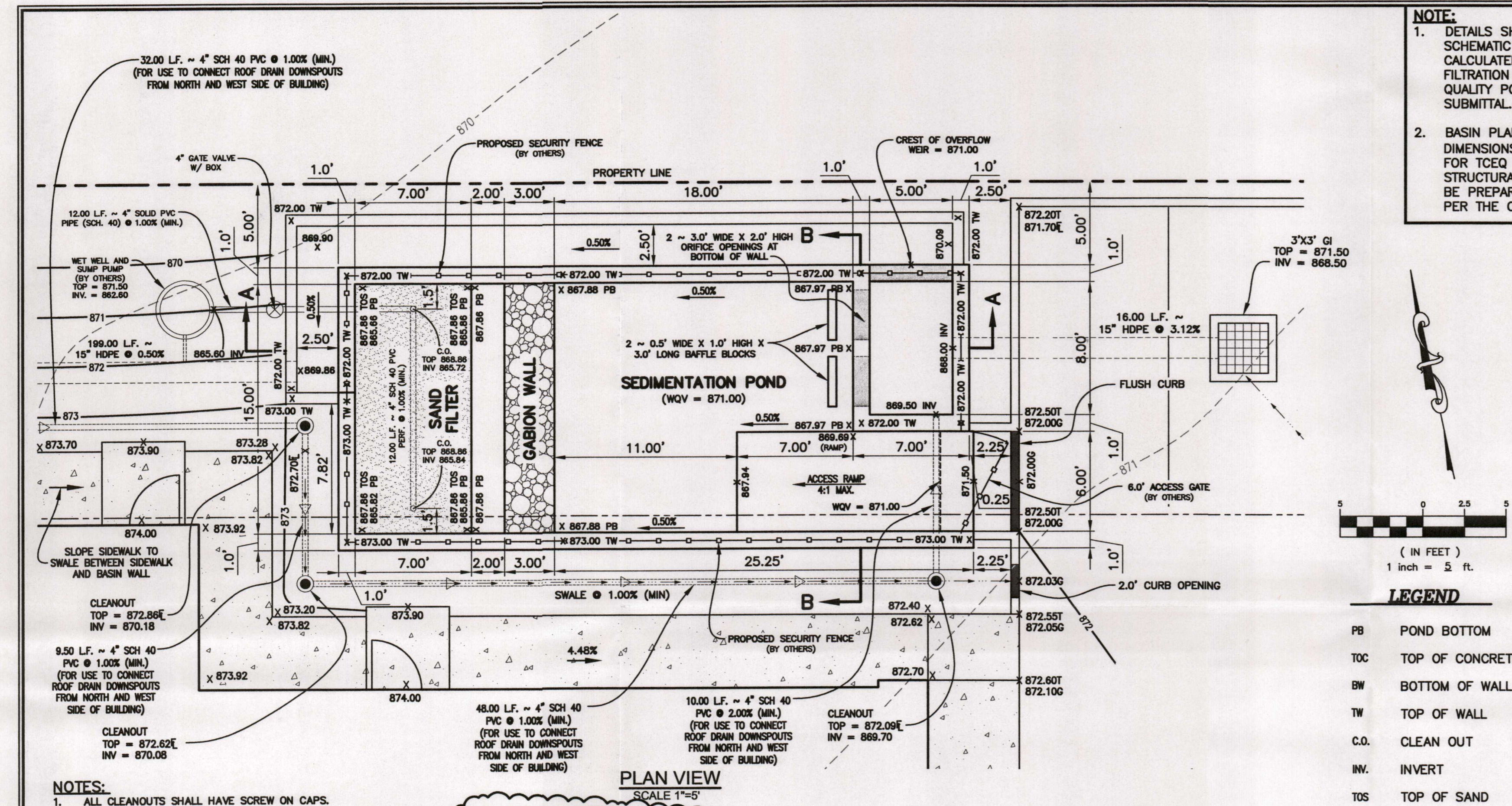
Attachments:

- Revised S1
- Revised P-1

cc: Mr. Johnny Friesenhahn – T&F Contruction Co.

F:\1401.02 - HUNTERS CREEK LOT 11B2\DWG\TCEQ\TCEQ COMMENTS REC'D 6-23-14\TCEQRESPONSELETTER-06-23-14.DOC

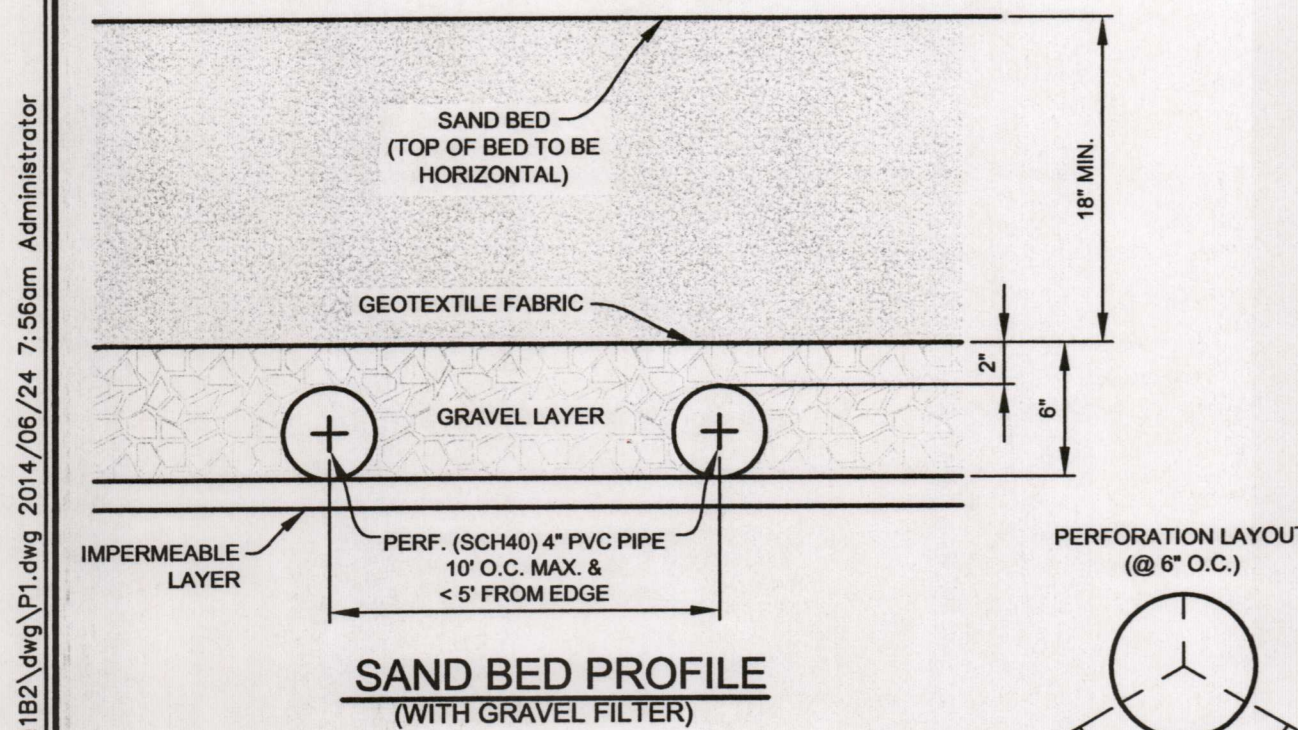
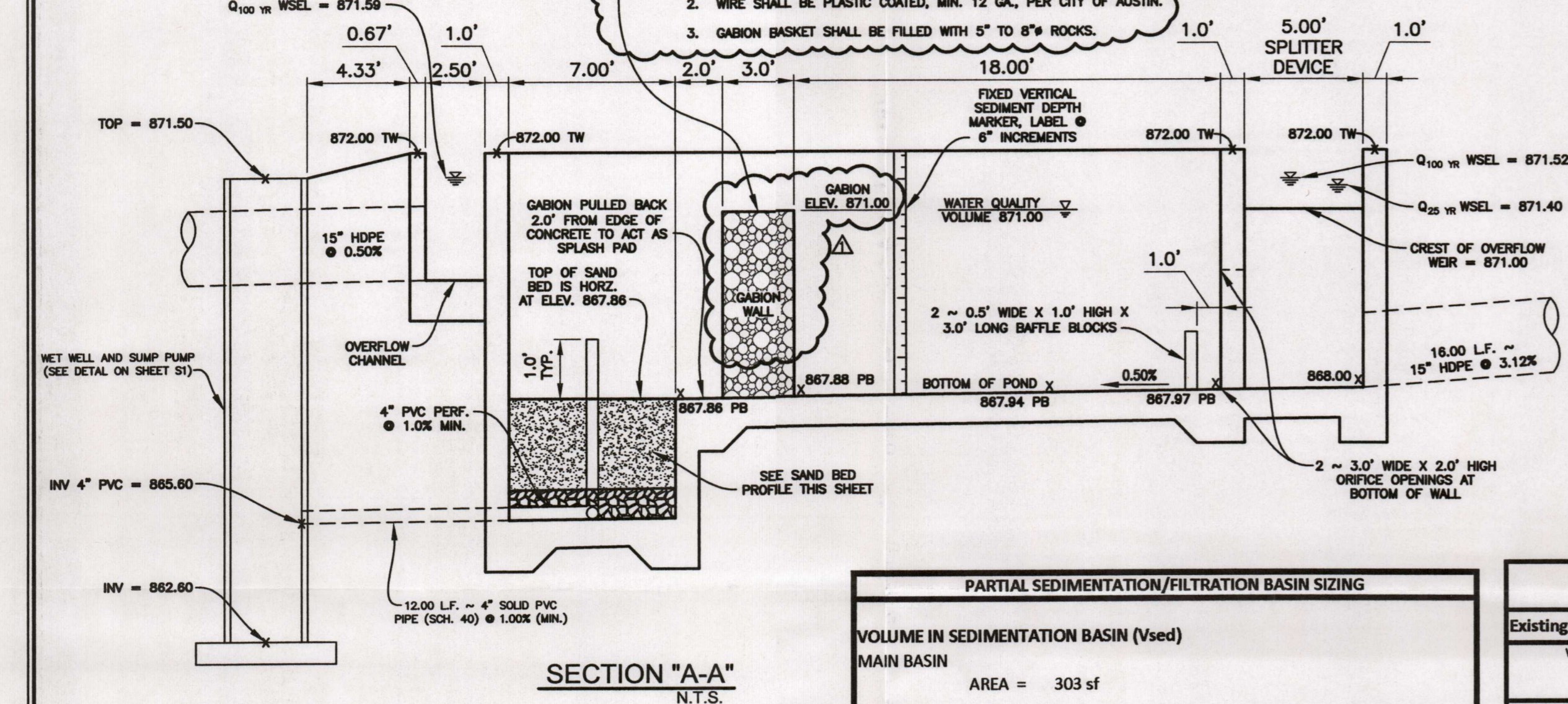
RECEIVED TCEQ
SAN ANTONIO
REGION
2014 JUN 24 PM 4:40



- NOTES:**
- ALL CLEANOUTS SHALL HAVE SCREW ON CAPS.
 - WHEN SEDIMENT ACCUMULATES TO DEPTH OF 6" OR GREATER, THE SEDIMENT SHALL BE REMOVED.

GABION NOTES:

- GABION WALL SHALL BE 3' WIDE X 3.12' TALL X 15' LONG.
- WIRE SHALL BE PLASTIC COATED, MIN. 12 GA, PER CITY OF AUSTIN.
- GABION BASKET SHALL BE FILLED WITH 5" TO 6" ROCKS.



SAND BED WITH GRAVEL FILTER NOTES:
THE TOP LAYER IS TO BE A MINIMUM OF EIGHTEEN (18) INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPOND WITH ASTM C-33 CONCRETE SAND (SMALLER SAND SIZE IS NOT ACCEPTABLE). UNDER THE SAND SHALL BE A LAYER OF ONE-HALF (0.5) TO ONE AND ONE-HALF (1.5) INCH DIAMETER WASHED, ROUNDED, RIVER GRAVEL WHICH PROVIDES A MINIMUM OF TWO (2) INCHES OF COVER OVER THE TOP OF THE UNDERDRAIN LATERAL PIPES. THE SAND AND GRAVEL MUST BE SEPARATED BY A LAYER OF GEOTEXTILE FABRIC MEETING THE SPECIFICATIONS LISTED IN TABLE 3.6 GEOTEXTILE FABRIC SPECIFICATIONS (COA, 1997). THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS LISTED IN TABLE 3.6 TAKEN FROM THE TNRCC TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES, JUNE 1999.

PARTIAL SEDIMENTATION/FILTRATION BASIN SIZING	
VOLUME IN SEDIMENTATION BASIN (V_{sed})	
MAIN BASIN	AREA = 303 sf
DEPTH =	Varies: 871.00 - 867.97 = 3.03'
	871.00 - 867.86 = 3.14'
	Average Depth = 3.09'
ACCESS RAMP	
LENGTH =	12.24' (to WQ elev.)
WIDTH =	6'
DEPTH =	Varies: 871.00 - 871.00 = 0'
	871.00 - 867.94 = 3.06'
	Average Depth = 1.53'
V _{sed} = V _{main basin} + V _{access ramp}	
V _{sed} = (303 sf x 3.09') + (12.24' x 6' x 1.53')	
V_{sed} = 1,048.63 cf	
VOLUME IN SAND FILTER BASIN (V_{sf})	
SAND FILTER	LENGTH = 7'
	WIDTH = 15'
DEPTH =	871.00 - 867.86 = 3.14'
V _{sf} = (7' x 15' x 3.14')	
V_{sf} = 329.70 cf	
Asf = 105 sf	
105 sf > 103 sf	
Note: 103 sf	
Includes 20% Increase	
V _{sf} = (7' x 15' x 3.14')	
V_{sf} = 329.70 cf	
THEREFORE, WATER QUALITY VOLUME (WQV) PROVIDED = V _{sed} + V _{sf}	
WQV = 1,378.33 cf (design) > 1,264 cf (required) O.K.	

HUNTERS CREEK BUSINESS PARK LOT 11B2 0.655 ACRE SITE										
Existing Impervious Cover(Permitted with Previously Approved WPAP Hunters Creek Lot 14 - EAPP No: 2888.00)										
Watershed Area	Existing Permanent BMP	Drainage Area (Acres)	Existing Imp. Cover (Acres)	Comments						
**Offsite A3	Existing Vortech on Hunters Creek Lot 14	0.096	0.079	This Existing Impervious Cover is included in the calculations as offsite area draining to the BMP						
***Onsite A2	Existing Vortech on Hunters Creek Lot 14	0.396	0.058	This Existing Impervious Cover is included in the TSS Load Removal Calculations for the Basin A2 as predeveloped impervious cover						
***Onsite D1	Existing Vortech on Hunters Creek Lot 14	0.020	0.015	This Existing Impervious Cover is included in the TSS Load Removal Calculations for the Basin D1 as predeveloped impervious cover and post-developed impervious cover since there is no change						

Partial Sedimentation and Filtration Basin Summary(On-Site)										
Watershed Area	Permanent BMP Partial Sedimentation and Filtration Basin	Drainage Area (Acres)	Existing Imp. Cover (Acres)	Proposed Imp. Cover (Acres)	Calc. Min. Capture Volume (cf)	Capture Volume Provided (cf)	Calc. Min. Filter Area (sf)	Filter Area Provided (sf)	Target TSS Removal (lb/yr)	TSS Removal Provided (lb/yr)
*A2	Basin A2	0.396	0.058	0.336	1,264	1,378	86	105	250	250
***Uncaptured Area 'A1'	Not Required	0.026	0.000	0.000	----	----	----	----	0	0
***Uncaptured Area 'B'	Not Required	0.057	0.000	0.000	----	----	----	----	0	0
***Uncaptured Area 'D1'	Not Required	0.020	0.015	0.015	----	----	----	----	0	0
Sub-Total - Basin A	----	0.499	0.073	0.351	----	----	----	----	250	250

Engineered Vegetative Filter Strips										
Watershed Area	Permanent BMP	Drainage Area (Acres)	Existing Imp. Cover (Acres)	Proposed Imp. Cover (Acres)	Calc. Min. Capture Volume (cf)	Capture Volume Provided (cf)	Calc. Min. Filter Area (sf)	Filter Area Provided (sf)	Target TSS Removal (lb/yr)	TSS Removal Provided (lb/yr)
C	Vegetative Filter Strips	0.156	0.000	0.104	----	----	----	----	93	93
Sub-Total - Vegetative Filter Strips	----	0.156	0.000	0.104	----	----	----	----	93	93
Total		0.655	0.073	0.455					343	343

- Notes:**
- Includes existing paving per previously approved WPAP for Hunters Creek Lot 14; EAPP No. 2888.00
 - Area 'A3' is an Off-Site Area included in offsite area draining to BMP on spreadsheet
 - Drainage Areas 'A1', 'B' and 'D' that are to remain without impervious cover or do not increase impervious and will exit the site uncaptured

Texas Commission on Environmental Quality
TSS Removal Calculations 04-20-2009

Project Name: Hunters Creek BP Lot 11B2
Date Prepared: 4/16/2014

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell. Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348. Characters shown in red are data entry fields. Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project:		Calculations from RG-348	Pages 3-27 to 3-30
where:		L _W TOTAL PROJECT = Required TSS removal resulting from the proposed development = 80% of increased load	
Site Data: Determine Required Load Removal Based on the Entire Project		County =	
Total project area included in plan =		0.655	
Predevelopment impervious area within the limits of the plan =		0.073	
Total post-development impervious area within the limits of the plan =		0.455	
Total post-development impervious cover fraction =		0.675	
P =		33	
L _W TOTAL PROJECT =		343	
The values entered in these fields should be for the total project area.		Number of drainage basins / outfalls areas leaving the plan area =	
		5	
2. Drainage Basin Parameters (This information should be provided for each basin):		Drainage Basin/Outfall Area No. =	
		1	
		A2(BASIN)	
		Total drainage basin/outfall area =	
		0.396	
		Predevelopment impervious area within drainage basin/outfall area =	
		0.058	
		Post-development impervious area within drainage basin/outfall area =	
		0.336	
		Post-development impervious fraction within drainage basin/outfall area =	
		0.848	
		L _W THIS BASIN =	
		250	
		Proposed BMP = Sand Filter	
		Removal efficiency =	
		89	
		percent	

3. Indicate the proposed BMP Code for this basin.		Proposed BMP = Sand Filter	
		Removal efficiency =	
		89	
		percent	
4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.		RG-348 Page 3-33 Equation 3.7: L _R = (BMP efficiency) x P x (A _i x 34.6 + A _p x 0.54)	
where:		A _i = Total On-Site drainage area in the BMP catchment area	
		A _p = Impervious area proposed in the BMP catchment area	
		A _p = Pervious area remaining in the BMP catchment area	
		L _R = TSS Load removed from this catchment area by the proposed BMP	
		A _i =	
		0.396	
		A _p =	
		0.336	
		A _p =	
		0.060	
		L _R =	
		342	
		lbs	
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area		Desired L _W THIS BASIN =	
		250	
		F =	
		0.73	
6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.		Calculations from RG-348	
		Pages 3-34 to 3-36	
		Rainfall Depth =	
		0.86	
		Post Development Runoff Coefficient =	
		0.69	
		On-site Water Quality Volume =	
		857	
		cubic feet	
		Off-site area draining to BMP =	
		0.096	
		Off-site impervious cover draining to BMP =	
		0.079	
		Impervious fraction of off-site area =	
		0.82	
		Off-site Runoff Coefficient =	
		0.66	
		Off-site Water Quality Volume =	
		197	
		cubic feet	
		Storage for Sediment =	
		211	
		cubic feet	
		Total Capture Volume (required water quality volume(s) x 1.20) =	
		1264	
		cubic feet	
		The following sections are used to calculate the required water quality volume(s) for the selected BMP. The values for BMP Types not selected in cell C45 will show NA.	
9. Filter area for Sand Filters		Designed as Required in RG-348	
		Pages 3-58 to 3-63	
NOT USED		9A. Full Sedimentation and Filtration System	
		Water Quality Volume for sedimentation basin =	
		1264	
		cubic feet	
		Minimum filter basin area =	
		48	
		square feet	
		Maximum sedimentation basin area =	
		428	
		square feet	
		Minimum sedimentation basin area =	
		107	
		square feet	
		For minimum water depth of 2 feet	
		For maximum water depth of 8 feet	
USED		9B. Partial Sedimentation and Filtration System	
		Water Quality Volume for combined basins =	
		1264	
		cubic feet	
		1378 cf (PROVIDED)	
		Minimum filter basin area =	
		86	
		square feet	
		X 1.20 = 103 sf (105 sf PROVIDED)	
		Maximum sedimentation basin area =	
		343	
		square feet	
		Minimum sedimentation basin area =	
		21	
		square feet	
		For minimum water depth of 2 feet	
		For maximum water depth of 8 feet	

**PERMANENT POLLUTION
ABATEMENT PLAN**

FOR

HUNTER'S CREEK BUSINESS PARK LOT 11B2 - MEDICAL OFFICE
NEW BRAUNFELS, TEXAS

REVISIONS

DATE	DESCRIPTION	REVISED PER TCEQ COMMENTS
06/23/14		06/23/14
DRAWN BY: D.G. III		
CHECKED BY: D.D.P.		
DATE: JUNE 2014		
JOB NO.: 1401.02		
P-1		

PM
PAWELEK & MOY, INC.
CIVIL ENGINEERING & CONSULTING SERVICES
130 W. JAHN STREET
NEW BRAUNFELS, TX 78130
TEL: (830) 639-2563
FIRM No. F-9862

STATE OF TEXAS
CIVIL ENGINEER
DARYL PAWELEK
No. 1401.02

F:\1401.02 - Hunters Creek Lot 11B2.dwg 2014/06/24 9:46am Administrator

NOTES:

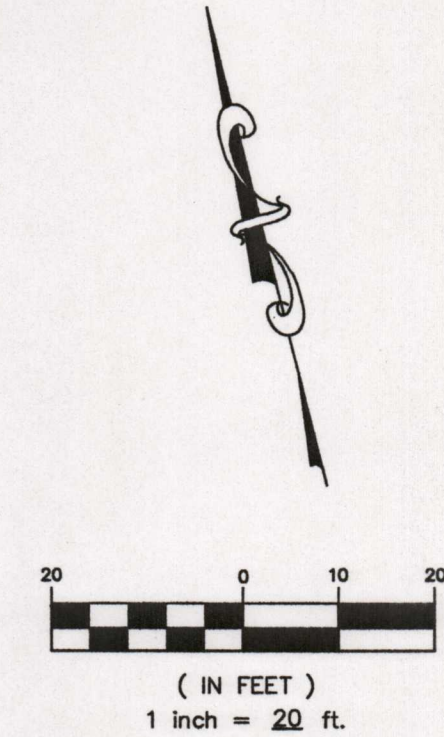
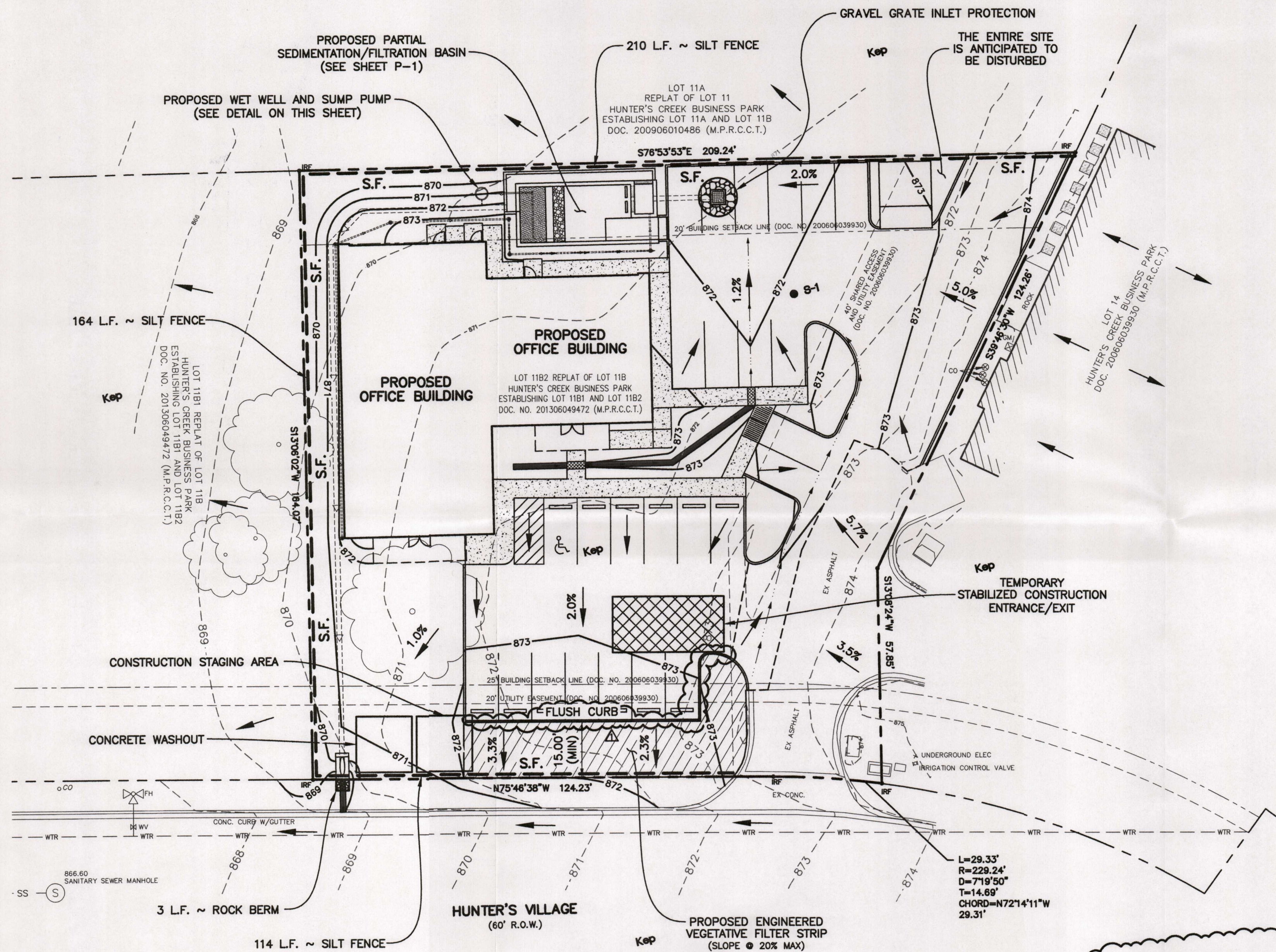
- SEE DRAINAGE AREA MAP SHEET D-1 FOR OVERALL DRAINAGE AREAS.

SOIL STABILIZATION NOTE:

IN ALL AREAS TO BE DISTURBED OUTSIDE OF THE LIMITS OF THE BUILDING, PAVING, SIDEWALKS, LANDSCAPING, ETC., AND FOR THE ENGINEERED VEGETATIVE FILTER STRIP, VEGETATIVE STABILIZATION IN ACCORDANCE WITH RG-348 COMPLYING WITH THE EDWARDS AQUIFER RULES, ITEM 1.3.8-TEMPORARY VEGETATION, ITEM 1.3.9-BLANKETS AND MATTING, ITEM 1.3.10-HYDRAULIC MULCH AND/OR ITEM 1.3.11 SOD SHALL BE IMPLEMENTED. THE AREAS TO BE VEGETATED SHALL BE WATERED SUFFICIENTLY TO ESTABLISH 70% STABILIZATION.

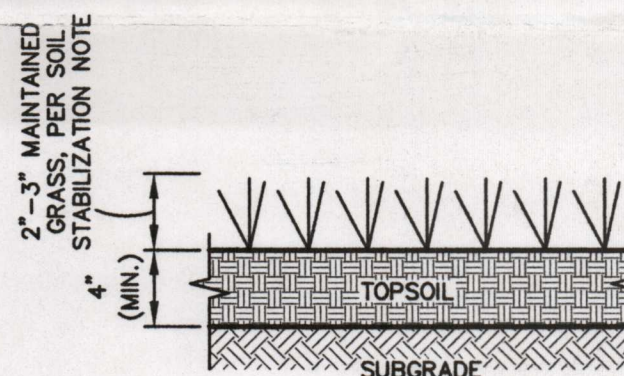
FLOODPLAIN NOTE:

ACCORDING TO FEMA FIRM MAP PANEL No. 48091C0435F, EFFECTIVE DATE 9/2/2009, THE PROJECT SITE LIES OUTSIDE THE 100 YR FLOODPLAIN.



LEGEND

- S.F. SILT FENCE
- TEMPORARY STABILIZED CONSTRUCTION ENTRANCE/EXIT
- ROCK BERM
- GRAVEL GRATE INLET PROTECTION
- CONCRETE WASHOUT
- EXISTING FLOW DIRECTION
- 100- - - - - EXISTING CONTOURS
- 100- - - - - PROPOSED CONTOURS
- - - - - PROPERTY LINE (WPAP PHASE LIMITS)
- S-# POTENTIAL RECHARGE FEATURE (PRF)
- Kep EDWARDS PERSON LIMESTONE



ENGINEERED VEGETATIVE FILTER STRIP DETAIL N.T.S.

IMPERVIOUS COVER SUMMARY

IMPERVIOUS COVER OF PROJECT SITE	Sq. Ft.	Sq. Ft./Acre	Acre
STRUCTURES/ROOFTOPS	4,944	+ 43,560 =	0.113
PAVING/DRIVES/SIDEWALKS	14,892	+ 43,560 =	0.342
TOTAL IMPERVIOUS COVER	19,836	+ 43,560 =	0.455
TOTAL IMPERVIOUS COVER ÷ TOTAL ACREAGE x 100 = 69.47 %			

TOTAL PROJECT SITE ACREAGE = 0.655 Ac.



SITE PLAN FOR HUNTER'S CREEK BUSINESS PARK LOT 11B2 - MEDICAL OFFICE NEW BRAUNFELS, TEXAS

REVISIONS

DATE	DESCRIPTION
06/23/14	REVISED PER TCEO COMMENTS - 06/23/14

DRAWN BY: D.G. III

CHECKED BY: D.D.P.

DATE: MAY 2014

JOB NO.: 1401.02



410 N. Seguin Ave.
New Braunfels, TX 78130
HMTNB.COM
830.625.8555 • FAX: 830.625.8556
TBPE FIRM F-10961

May 30, 2014

Mr. Michael Isley, P.E.
Texas Commission on Environmental Quality, Region 13
14250 Judson Road
San Antonio, Texas 78233-4480

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JUN 05 2014

COUNTY ENGINEER

RE: **Central Texas Pain Center;**
Program ID No. 1964.04; Regulated Entity No. RN105390595
Notification for Building Extension

Dear Mr. Isley,

This letter is to supplement the March 4, 2014 notification to TCEQ in reference to the additional 140 square feet of office space to the existing building of the Central Texas Pain Center. The March 11, 2008 WPAP letter showed that the site was approved for a total of 0.40 acres impervious cover.

Since its approval, the owner constructed a total of 0.3926 acres of impervious cover. Enclosed is an exhibit of the existing impervious cover of the site. Shown also on the exhibit are areas that remained pervious since the WPAP was approved. The additional 140 square feet of office space will bring the total impervious cover to 0.3956 acres.

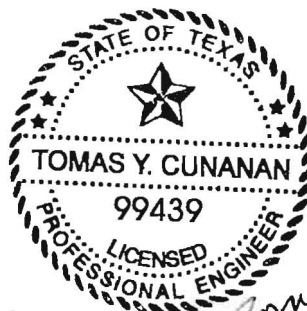
Based from the attached calculations, the existing impervious cover generates a TSS load of 352.43 pounds. The additional 140 square feet building extension will generate an additional 2.89 lbs. of TSS loading. The total impervious cover of the site with the additional 140 sq. ft. will generate a TSS loading of 355.32 lbs. The new TSS loading is less than the TSS loading stated in the approved WPAP (359 pounds).

Please accept this letter as an addendum to the existing approved WPAP. Enclosed are calculations for existing and proposed TSS calculations; Exhibit of the existing impervious cover and a grading plan of the proposed building addition for your reference.

Thank you very much.

Tom Cunanan, PE
Project Engineer

Cc: Shawn Kaarlsen and Associates
Dr. Eric Miller, Central Texas Pain Center



Tom Cunanan
5/30/2014

Texas Commission on Environmental Quality

TSS Removal Calculations

Project: **Central Texas Pain Center-Existing Condition**
Watershed: **XX**

Input By User
 Automatically Calculated Variables

Job No.:
Date: 5/5/2014

1. Required Load Reduction

$$L_m = 27.2(A_n \times P)$$

where:

L_m = Required TSS removal
 A_n = Net increase in impervious area for site
 P = Average annual precipitation, inches

Site Data:

County = **Comal**
Basin watershed area = **0.79** acres
Predevelopment impervious area = **0.00** acres
Post-development impervious area = **0.3926** acres
Postdevelopment impervious fraction = **0.49**
 P = **33** inches

L_m = **352.43** lbs ← **0.00** lbs included for overtreatment of uncaptured area

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JUN 05 2014

COUNTY ENGINEER

2. Select BMP

Proposed BMP = **SF** abbreviation
Removal efficiency = **89** percent

AC= Aqualogic Cartridge Filter
BR= Bioretention
CW= Constructed Wetland
RI= Retention / Irrigation
SF= Sand Filter
WB= Wet Basin

3. Calculate TSS Load Removed by BMPs

$$LR = (\text{BMP efficiency}) \times P \times (A_i \times 34.6 + A_p \times 0.54)$$

where:

LR = TSS Load removed by BMP
 A_i = Impervious area of BMP catchment
 A_p = Pervious area of BMP catchment

A_i = **0.39** acres
 A_p = **0.40** acres
 L_r = **405.38** lbs

4. Calculate Fraction of Annual to Treat

F = **0.87** **OK**

5. Calculate Capture Volume

Rainfall Depth = **1.44** inches
Post Development Runoff Coefficient = **0.35**
Runoff Volume = **1,472** cubic feet
Storage for Sediment = **294**

Total Capture Volume **1,766** cubic feet

6. SAND AREA REQUIRED

A_f = $WQV/10$ (for systems combining filtration and sedimentation in a single basin)
 A_f = $WQV/18$ (for systems combining filtration and sedimentation in a separate basins)

Required Sand Area **177** square feet

☒ Check if Partial Sedimentation Is Used

Required Sand Area **98** square feet

☐ Check if Full Sedimentation Is Used

Texas Commission on Environmental Quality

TSS Removal Calculations

Project: **Central Texas Pain Center-Proposed**
Watershed: **XX**

Input By User
 Automatically Calculated Variables

Job No.:
Date: 5/5/2014

1. Required Load Reduction

$$L_m = 27.2(A_n \times P)$$

where:

L_m = Required TSS removal
 A_n = Net increase in impervious area for site
 P = Average annual precipitation, inches

Site Data:

County =

Comal

Basin watershed area =

0.79

acres

Predevelopment impervious area =

0.00

acres

Post-development impervious area =

0.3959

acres

Postdevelopment impervious fraction =

0.50

P =

33

inches

L_m =

355.32

lbs

← 0.00

lbs included for overtreatment of uncaptured area

RECEIVED

JUN 05 2014

COUNTY ENGINEER

2. Select BMP

Proposed BMP = **SF** abbreviation
Removal efficiency = **89** percent

AC= Aqualogic Cartridge Filter
BR= Bioretention
CW= Constructed Wetland
RI= Retention / Irrigation
SF= Sand Filter
WB= Wet Basin

3. Calculate TSS Load Removed by BMPs

$$LR = (\text{BMP efficiency}) \times P \times (A_i \times 34.6 + A_p \times 0.54)$$

where:

LR = TSS Load removed by BMP
 A_i = Impervious area of BMP catchment
 A_p = Pervious area of BMP catchment

A_i =

0.40

acres

A_p =

0.40

acres

L_r =

408.59

lbs

4. Calculate Fraction of Annual to Treat

F = **0.87** **OK**

5. Calculate Capture Volume

Rainfall Depth = **1.44** inches
Post Development Runoff Coefficient = **0.36**
Runoff Volume = **1,481** cubic feet
Storage for Sediment = **296**

Total Capture Volume **1,777** cubic feet

6. SAND AREA REQUIRED

A_f = $WQV/10$ (for systems combining filtration and sedimentation in a single basin)
 A_f = $WQV/18$ (for systems combining filtration and sedimentation in a separate basins)






Required Sand Area **178** square feet

☒ Check if Partial Sedimentation Is Used

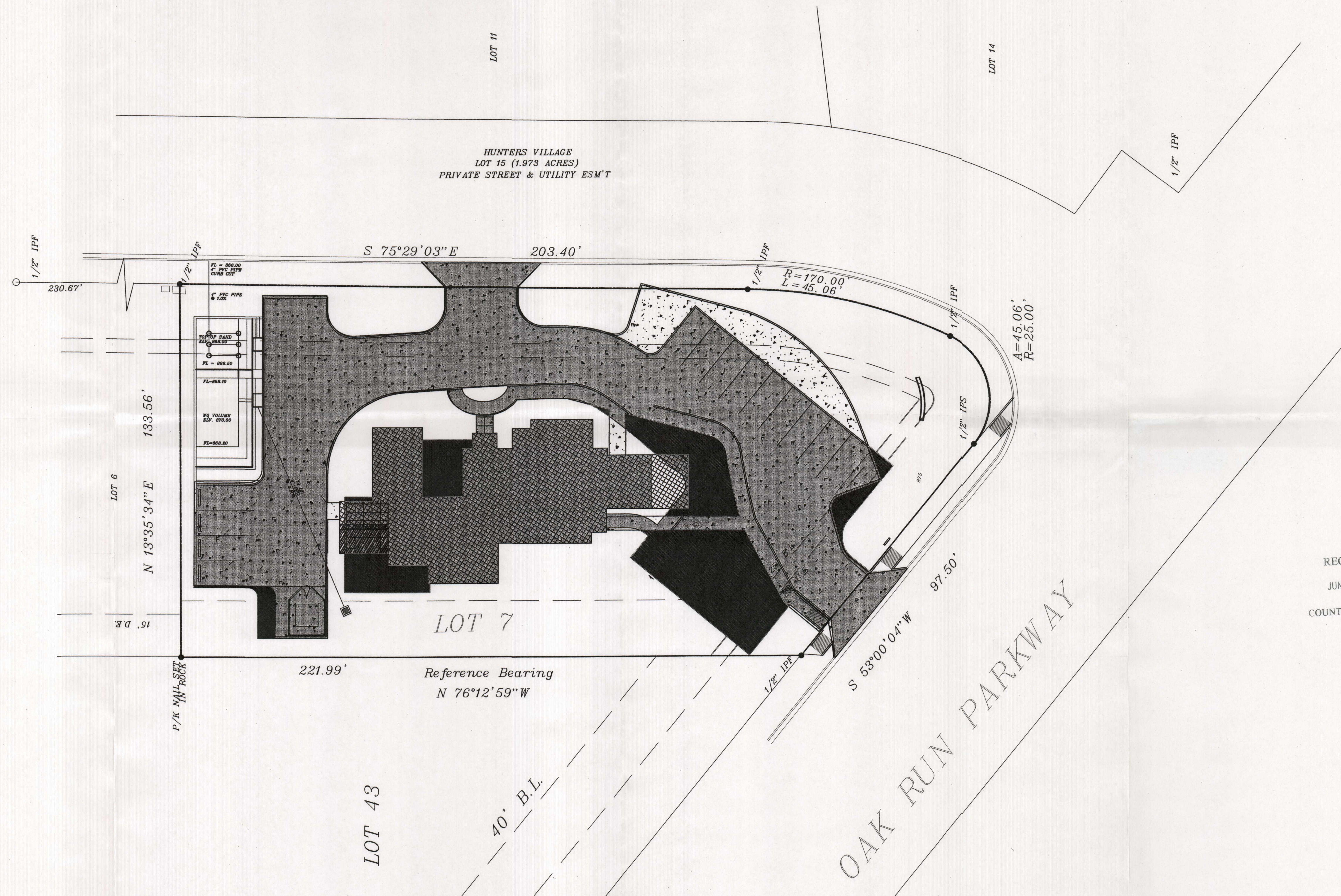
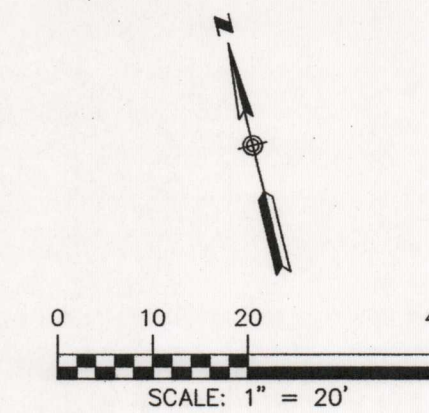
Required Sand Area **99** square feet

☐ Check if Full Sedimentation Is Used

LEGEND

	EXISTING BUILDING
	EXISTING PARKING LOT/FLAT WORK
	PROPOSED ADDITION
	ORIGINAL DESIGN
	AREA NOT BUILT

AREA				
	EXISTING (SQUARE FEET)	EXISTING (ACRE)	PROPOSED ADDITION (SQUARE FEET)	PROPOSED ADDITION (ACRE)
EXISTING BUILDING	4,297.41 SF	0.0987 AC	4,297.41 SF	0.0987 AC
EXISTING PARKING/FLAT WORK	12,806.02 SF	0.2940 AC	12,806.02 SF	0.2940 AC
PROPOSED ADDITION	0 SF	0 AC	140 SF	0.0032 AC
TOTAL IMPERVIOUS COVER	17,103.40 SF	0.3926 AC	17243.4 SF	0.3959 AC



RECEIVED
JUN 05 2014
COUNTY ENGINEER

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



HMT
ENGINEERING & SURVEYING

TCEQ AREA EXHIBIT

CIVIL SITE CONSTRUCTION PLANS

**CENTRAL TEXAS PAIN CENTER
BUILDING ADDITION**

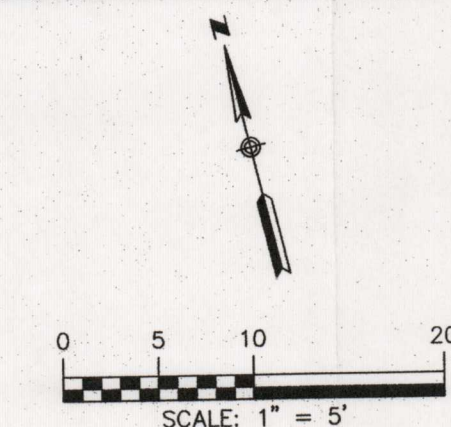
DR. ERIC MILLER
213 HUNTERS VILLAGE
NEW BRAUNFELS, TEXAS 78132

DATE: MAY 2014
DRAWN BY: GJM
DESIGNED BY: TYC
CHECKED BY: TYC

SHEET
2
OF

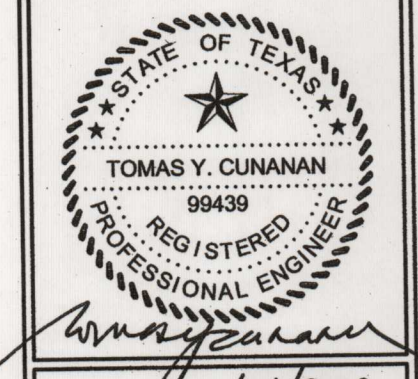
PROJECT NO.: 083.002.101

Drawing Name: N:_Project\083 - Shawn Korman\083.002 - Dr. Building Addition\083.002.101 - WPAP Analysis\Engineering\Construction Plans\083.002.101.dwg User: jorntm Mar 04, 2014 - 5:10pm



- LEGEND**
- 700 — EXISTING CONTOURS
 - 700 — PROPOSED CONTOURS
 - B.L. BUILDING SETBACK LINE
 - U.E. UTILITY EASEMENT
 - D.E. DRAINAGE EASEMENT
 - DRAINAGE FLOW DIRECTION
 - TP=871.00 TOP OF PAVEMENT
 - NG=870.80 NATURAL GROUND
 - TC=871.75 TOP OF CURB
 - TP=871.25 TOP OF PAVEMENT

410 N. SEGUN AVE.
NEW BRAUNFELS,
TEXAS, 78130
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GRADING PLAN

CIVIL SITE CONSTRUCTION PLANS

CENTRAL TEXAS PAIN CENTER
BUILDING ADDITION

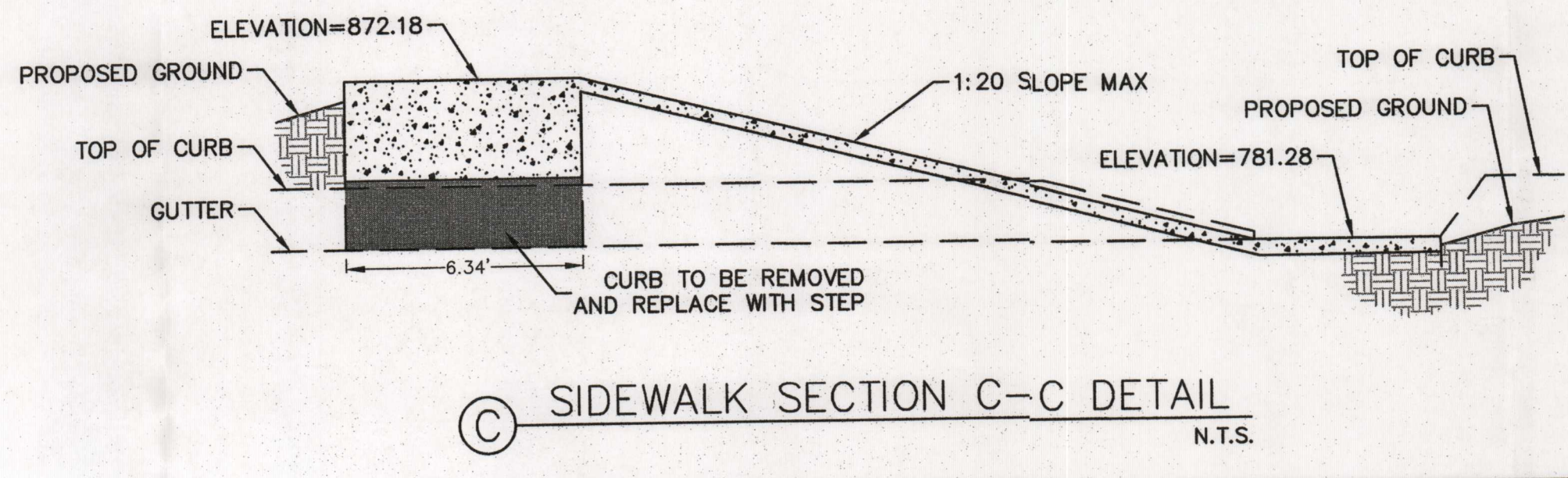
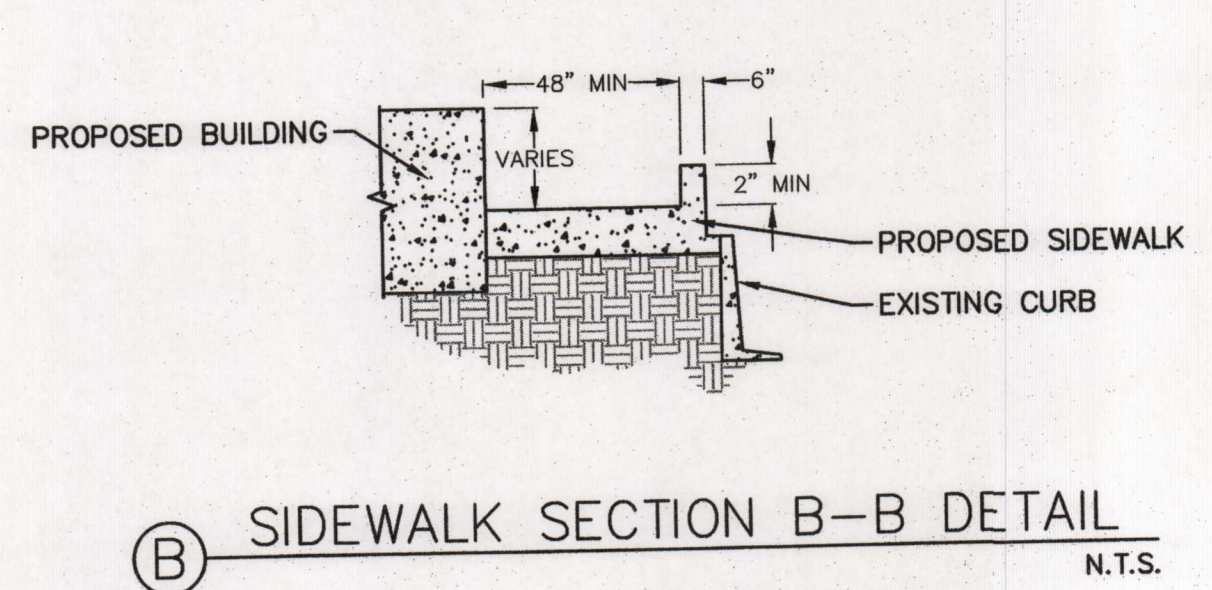
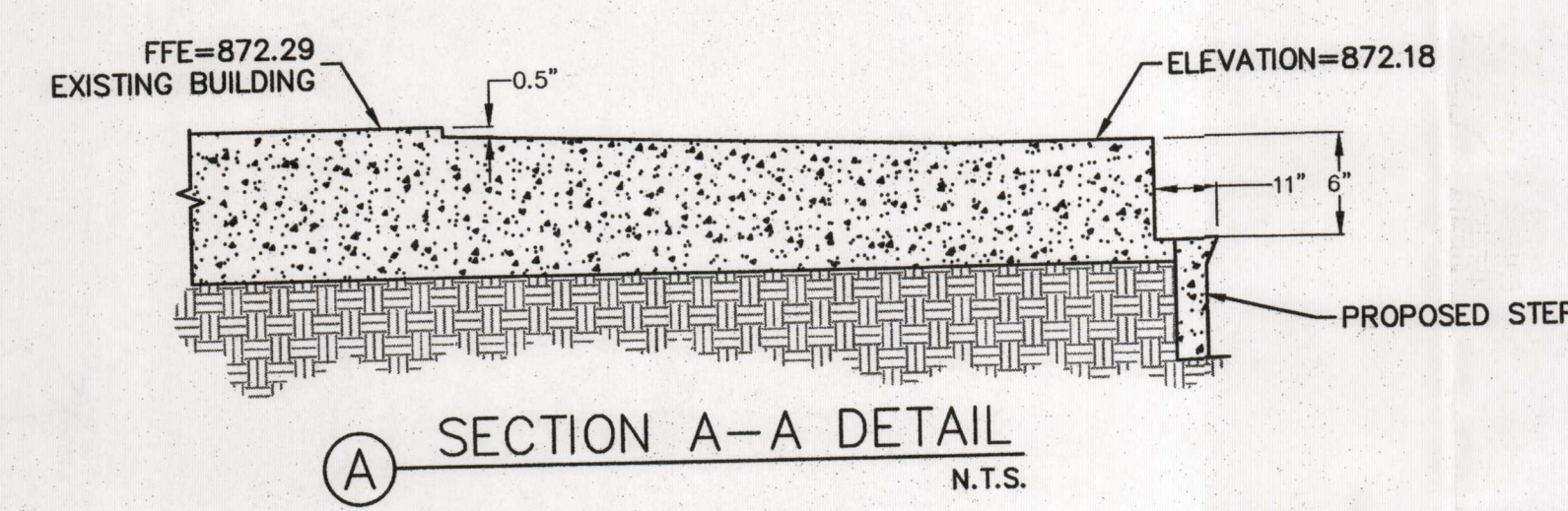
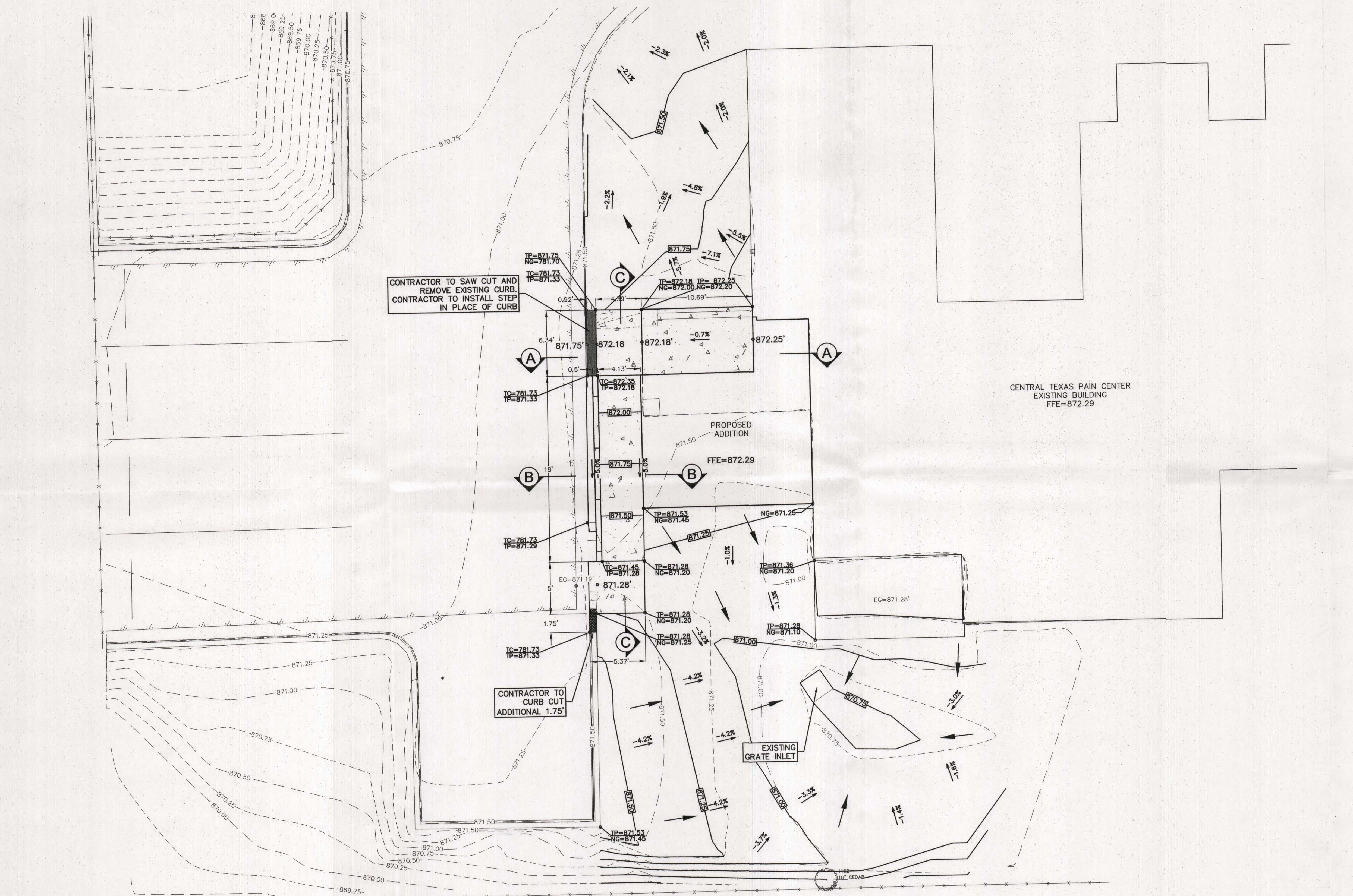
DR. ERIC MILLER
213 HUNTERS VILLAGE
NEW BRAUNFELS, TEXAS 78132

DATE: MO YR	DRAWN BY: GJM	DESIGNED BY: GJM	CHECKED BY: TYC	REVIEWED BY: SWH	PROJECT NO.: 083.002.101
-------------	---------------	------------------	-----------------	------------------	--------------------------

SHEET
4
OF 4

REFER TO THE COVER SHEET
FOR BENCHMARK INFORMATION.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24 HOURS PRIOR TO COMMENCING CONSTRUCTION.





CIVIL ENGINEERING & CONSULTING SERVICES

- RESIDENTIAL DEVELOPMENT
- SITE DEVELOPMENT
- PUBLIC WORKS
- UTILITIES

May 21, 2014

RECEIVED

Ms. Monica Reyes
TCEQ San Antonio Regional Office – Region 13
14250 Judson Rd.
San Antonio, Texas 78233-4480

MAY 30 2014

COUNTY ENGINEER

Re: Response to TCEQ Comments dated May 20, 2014
Edwards Aquifer, Comal County
NAME OF PROJECT: Star Canyon Wastewater Treatment Facility; Located on FM 2722, 3.5 miles north of State Highway 46 on the left side; Texas.
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP);
30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer;
Investigation No. 1139269; Regulated Entity No. RN106386972; Additional ID No. 13-14040301

RECEIVED TCEQ
SAN ANTONIO
REGION

2014 MAY 21 PM 4:35

Dear Ms. Reyes,
Pawelek & Moy, Inc. (P&M) has addressed the comments by the TCEQ dated May 20, 2014 for the above mentioned project. P&M has taken the following actions with regards to the comments:

General Information Form (TCEQ-0587) Comments:

<u>Comment</u>	<u>Response</u>
----------------	-----------------

- | | |
|---|--|
| 1 | A revised USGS map at a scale of 1"=2000' with legible contours is enclosed. |
|---|--|

Temporary Stormwater Section (TCEQ-0602) Comments:

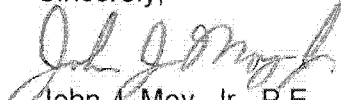
- | | |
|---|---|
| 2 | Regarding Attachment I: Silt Fence – the following note has been added:
"When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill". |
| 3 | Regarding Attachment I: Construction Entrance/Exit - the following note has been added to note #1:
"This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment". |

Permanent Stormwater Section (TCEQ-0600) Comments:

- 4 Regarding the 20% or less impervious cover waiver:
 A letter from the owner is enclosed confirming that LBC Partners, Ltd. is
 considered a small business.

Please call if you have questions regarding these responses. Thank you for your assistance.

Sincerely,



John J. Moy, Jr., P.E.

Attachments:

- Revised USGS map
- Revised Attachment I – Inspection and Maintenance for BMP's
- Small Business confirmation letter from owner

cc: Mr. Stephen Sallman – LBC Partners, Ltd.

FA1210.02 - STAR CANYON\DWG\WPAPITCEQCOMMENTS\TCEQRESPONSELETTER-05-21-14.DOC

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MAY 30 2014

COUNTY ENGINEER

12. **Attachment I – Inspection and Maintenance for BMP's**

MAY 30 2014

A. Rock Berm Inspection and Maintenance Guidelines:

COUNTY ENGINEER

- 1) Inspection shall be made weekly and after each rainfall by the contractor.
- 2) All debris and sediment shall be removed when buildup reaches 6 inches and this accumulated debris/sediment shall be disposed in an approved site and in a manner as to not introduce additional siltation.
- 3) Any loose wire sheathing shall be repaired.
- 4) During the inspection, the berm shall be reshaped as needed.
- 5) The berm shall be replaced when the structure does not function as intended due to silt accumulation, construction traffic, etc.
- 6) The rock berm shall be left in place until all upstream disturbed areas are stabilized and the accumulated silt has been removed.

B. Silt Fence Inspection and Maintenance Guidelines:

- 1) Inspection shall be made weekly and after each rainfall by the contractor.
- 2) All sediment shall be removed when buildup reaches 6 inches.
- 3) Any torn fabric shall be replaced or a new line of fencing shall be installed parallel to the torn section.
- 4) Replace or repair areas of silt fence that have been damaged due to construction activity, vehicular access, etc. and if the silt fence is located in an area of high construction traffic, relocate to an area that will provide equal protection but will not obstruct vehicular movements.
- 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.

D. Temporary Construction Entrance/Exit:

- 1) The entrance shall be maintained in a way that will prevent tracking of sediment onto the public right-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) Any sediment dropped, spilled, washed or tracked on to the public right of way shall be immediately removed by the contractor.
- 3) When applicable, wheels shall be washed to removed sediment prior to exiting the construction site.
- 4) When washing is required it shall be performed in an area that is stabilized/protected to prevent sediment from entering any public right of ways, streams or sensitive areas.

LBC Partners, Ltd.
4925 Greenville Avenue, Suite 1020
Dallas, TX 75206

May 20, 2014

TCEQ San Antonio Regional Office – Region 13
Attn: Ms. Monica Reyes
14250 Judson Rd.
San Antonio, Texas 78233-4480

Ref: Star Canyon Wastewater Treatment Facility WPAP

Dear Ms. Reyes,

Please be advised that LBC Partners, Ltd. is considered a small business according to the Government Code definition. LBC Partners, Ltd. is a “for profit” entity, independently owned and operated, and has fewer than 100 employees.

Please contact me should you require additional information.

Sincerely,

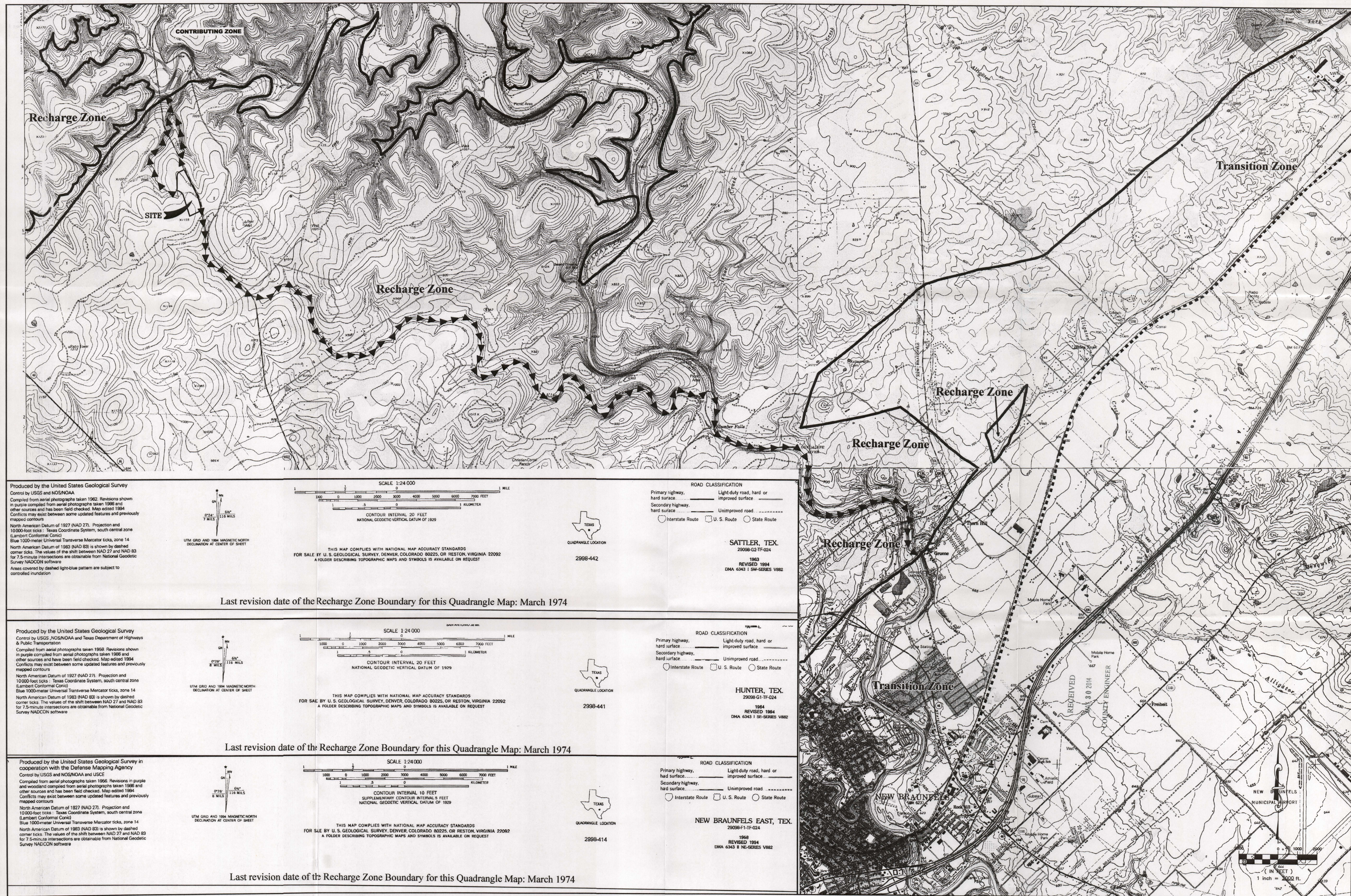


Stephen L. Sallman
Manager

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MAY 30 2014

COUNTY ENGINEER



S. CRAIG HOLLMIG, INC.
CONSULTING ENGINEERS - SURVEYORS
410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085

TEXAS SOCIETY OF PROFESSIONAL ENGINEERS
AMERICAN SOCIETY OF CIVIL ENGINEERS

TEXAS SURVEYORS ASSOCIATION
TELEPHONE: (830) 625-8550 FAX: (830) 625-8556

WATER SYSTEMS • SEWER SYSTEMS • SUBDIVISIONS • LAND PLANNING • STREETS • SURVEYING

March 5, 2008

Texas Commission on Environmental Quality
Lynn M. Bumguardner
Region 13
14250 Judson Rd.
San Antonio, Texas 78233-4480

RECEIVED
SAN ANTONIO
REGION
2008 MAR -5 PM 2:42

RECEIVED
APR 23 2008
TY ENGINEER

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: Central Texas Pain Center; Located south of SH 46, at the southwestern corner of Oak Run Parkway and Hunter Village; New Braunfels, Texas
TYPE OF PLAN: Request for the modification of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer; Edwards Aquifer Protection Program ID No. 1964.04; Investigation No. 614383; Regulated Entity No. RN105390595

Dear Ms. Bumguardner:

This letter is in reference to your letter to me dated February 28, 2008. Let me address your comments relating to the application:

1. Please see the revised site plan. We have raised the bypass curb inlet to a higher elevation to prevent stormwater from entering into this inlet until the pond is full and backs up slightly into the parking lot. We have provided more spot elevations and a detail to show that the parking lot will act as a weir. We apologize for the confusion regarding the previous comments. There is no designated parking spot in the area directly in front of the bypass inlet. This is not a high traffic area. Therefore, there is limited opportunity for contaminants to enter the bypass inlet. The pond was increased in size to account for this area and the driveway apron area on Oak Run Parkway, as you can see in the revised calculations.
2. We have now included finished contours for the site. Please keep in mind that the bottom portion of the site including the pond and parking is contained by a vertical retaining wall.

Page 2: TCEQ Letter
March 5, 2008

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APR 23 2008
COUNTY ENGINEER

3. Please see the revised water quality calculations per your discussion with Mr. Brian L. Merriman from my office. We have revised the calculations to show the effects of the small area of the Oak Run Parkway apron and the small area in front of the bypass inlet that will not go into the pond. The revised calculations show that an additional capture volume was required. We have enlarged the water quality pond to account for the additional treatment as required.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Hollmig', with a long horizontal flourish extending to the right.

S. Craig Hollmig, P.E.

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 28, 2008

RECEIVED

APR 23 2008

COUNTY ENGINEER

Mr. S. Craig Hollmig, P.E.
S. Craig Hollmig, Inc.
401 N. Seguin Street
New Braunfels, Texas 78130

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Central Texas Pain Center; Located south of SH 46, at the southwestern corner of Oak Run Parkway and Hunter Village; New Braunfels, Texas
TYPE OF PLAN: Request for the Modification of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer; Edwards Aquifer Protection Program ID No. 1964.04; Investigation No. 614383; Regulated Entity No. RN105390595

Dear Mr. Hollmig:

We are in receipt of the additional information you have submitted on the above-referenced project for the WPAP modification and are in the process of technically reviewing the additional information. Before we can proceed with our review, the following comments relating to the application must be addressed.

1. It is unclear how stormwater runoff from the northwestern portion of the site, next to the basin, will drain into the basin. It appears that stormwater from the uncaptured area will flow into the bypass inlet and therefore bypass treatment (see Attachment A). Please address this issue and amend site plan and/or calculations as necessary.
2. To better evaluate the directional flow of stormwater to the basin, please amend Sheet C4 to include finished contours.
3. It appears that the driveway apron, located on Oak Run Parkway, is an uncaptured area and was not accounted for in the calculations (see Attachment B). Please amend site plan and calculations as necessary.

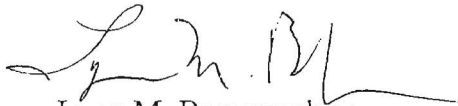
We ask that you submit one original and four copies of the amended materials to supplement the WPAP modification to this office by no later than **7 days from the date of this letter** to avoid denial of the plan. If the response to this notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application will be denied unless you provide written notification that the application is being withdrawn. Please note that the

Mr. S. Craig Hollmig, P.E.
February 28, 2008
Page 2

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APR 23 2008
COUNTY ENGINEER

application fee will be forfeited if the plan is not withdrawn. If you have any questions or require additional information, please contact Javier Anguiano of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4019.

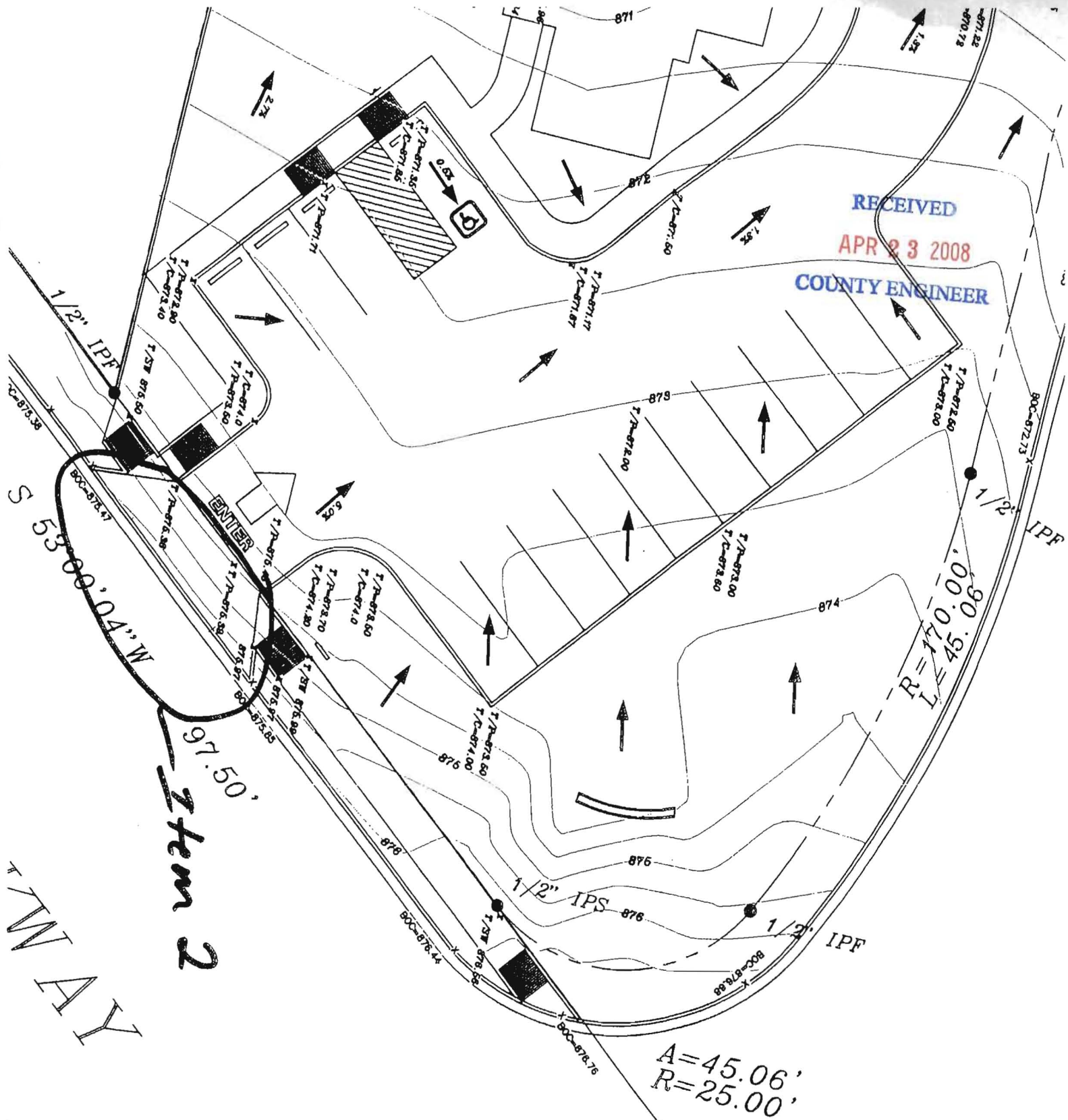
Sincerely,



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

LMB/JA/eg

fc: Dr. Eric Miller, Central Texas Pain Center, Fax Number (830) 627-3803
S. Craig Hollmig, P.E., S. Craig Hollmig, Inc., Fax Number (830) 625-8556



Attachment B

Texas Commission on Environmental Quality

TSS Removal Calculations 02-20-2008

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Additional information is provided for cells with a red triangle in the upper right corner
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will

1. The Required Load Reduction for the total project:

Calculations from RG-348

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

L_M TOTAL PROJECT = Required TSS removal result

A_N = Net increase in impervious area

P = Average annual precipitation

Site Data: Determine Required Load Removal Based on the Entire Project

County =	comal	
Total project area included in plan *	0.80	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	0.40	acres
Total post-development impervious cover fraction *	0.50	
P =	33	inches

L_M TOTAL PROJECT = 359 lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = ?

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. =	?	
Total drainage basin/outfall area =	0.79	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.39	acres
Post-development impervious fraction within drainage basin/outfall area =	0.49	
L_M THIS BASIN =	350	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	sf	abbreviation
Removal efficiency =	89	percent

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REGION

2008 MAR -5 PM 2:55

ATTACHMENT "F"
PERMANENT STORMWATER SECTION
2 of 3

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4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_i \times 3$

where:

A_C = Total On-Site drainage area

A_i = Impervious area proposed in

A_p = Pervious area remaining in tl

L_R = TSS Load removed from this

A_C = 0.79 acres

A_i = 0.39 acres

A_p = 0.40 acres

L_R = 403 lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M \text{ THIS BASIN}}$ = 359 lbs.

F = 0.89

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Rainfall Depth = 1.60 inches

Post Development Runoff Coefficient = 0.35

On-site Water Quality Volume = 1624 cubic feet

Calculations from RG-348

Off-site area draining to BMP = 0.00 acres

Off-site Impervious cover draining to BMP = 0.00 acres

Impervious fraction of off-site area = 0

Off-site Runoff Coefficient = 0.00

Off-site Water Quality Volume = 0 cubic feet

Storage for Sediment = 325

ATTACHMENT "F"
PERMANENT STORMWATER SECTION
3 of 3

Total Capture Volume (required water quality volume(s) x 1.20) = **1949** cubic feet
The following sections are used to calculate the required water quality volume(s) for the selected BMF
The values for BMP Types not selected in cell C53 will show NA.

7. Retention/Irrigation System

Designed as Required in RG

Required Water Quality Volume for retention basin = **NA** cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = **0.1** in/hr
Irrigation area = **NA** square feet
NA acres

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8. Extended Detention Basin System

Designed as Required in RG

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

9. Filter area for Sand Filters

Designed as Required in RG

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **1949** cubic feet
Minimum filter basin area = **90** square feet
Maximum sedimentation basin area = **812** square feet
Minimum sedimentation basin area = **203** square feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = **1949** cubic feet
Minimum filter basin area = **162** square feet
Maximum sedimentation basin area = **650** square feet
Minimum sedimentation basin area = **41** square feet

10. Bioretention System

Designed as Required in RG

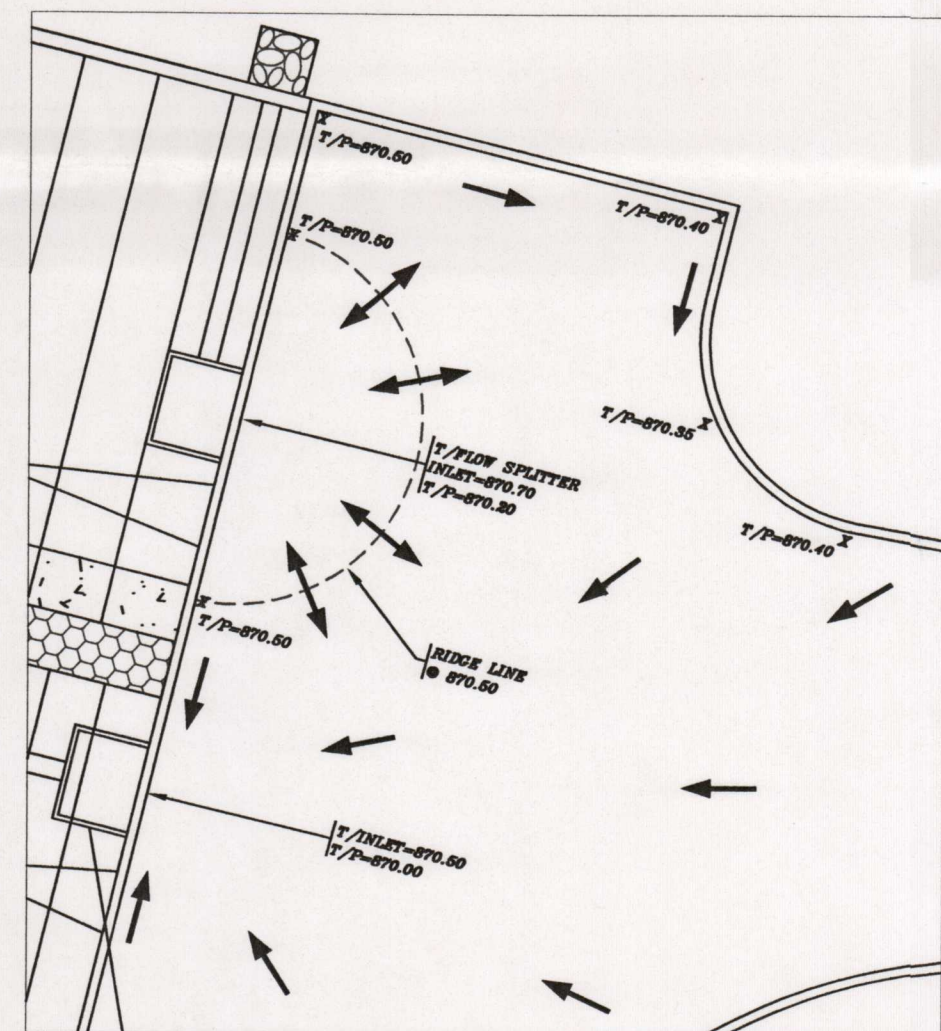
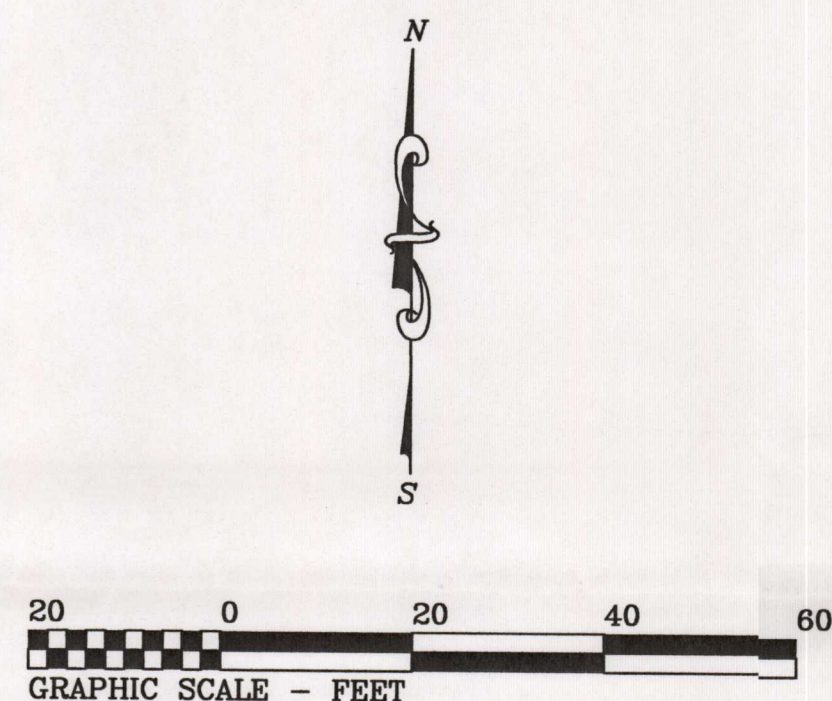
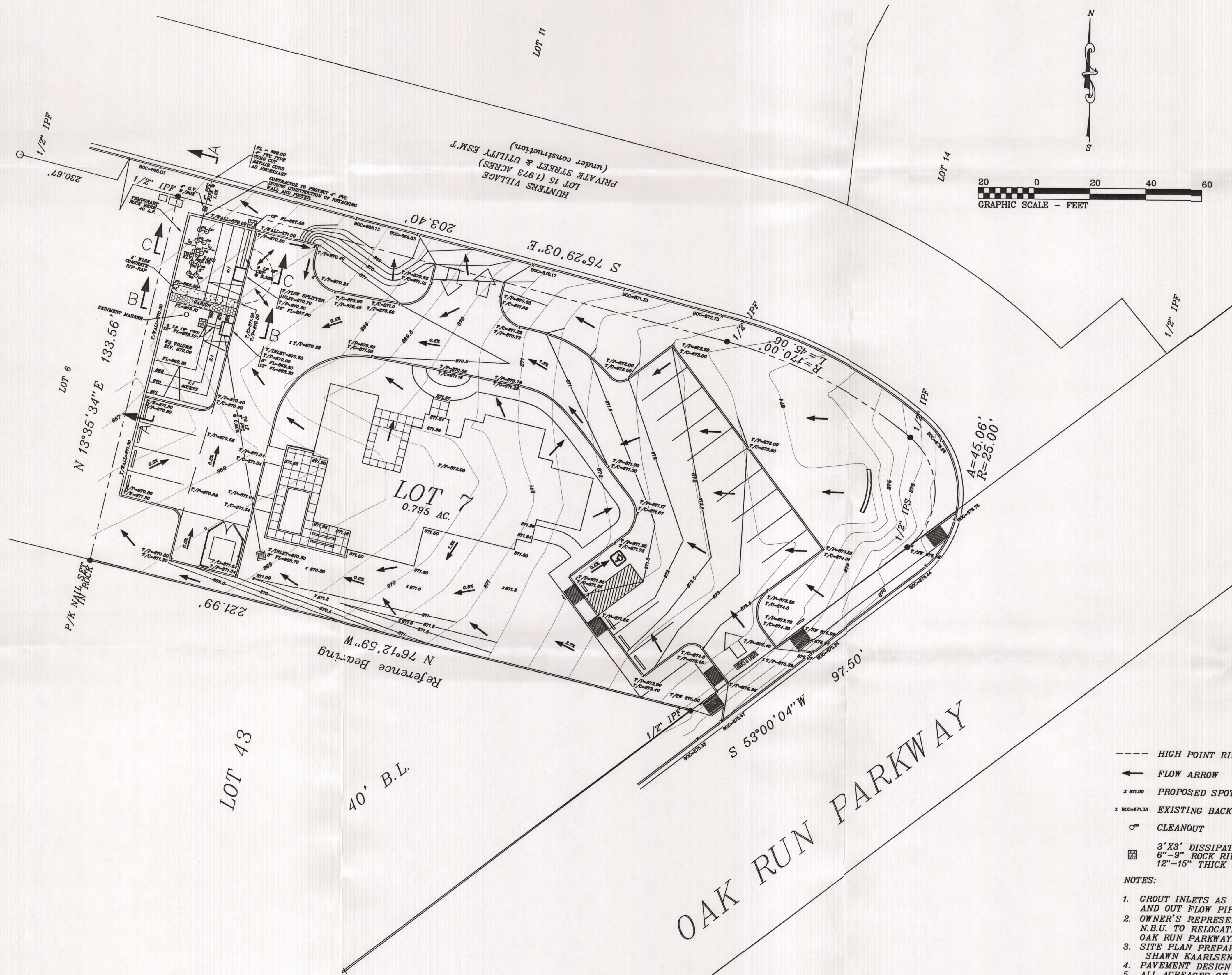
Required Water Quality Volume for Bioretention Basin = **NA** cubic feet

11. Wet Basins

Designed as Required in RG

Required capacity of Permanent Pool = **NA** cubic feet
Required capacity at WQV Elevation = **NA** cubic feet





FLOW SPLITTER INLET
GRADING DETAIL
SCALE: 1"=10'

- HIGH POINT RIDGE LINE
- ← FLOW ARROW
- x 871.00 PROPOSED SPOT ELEVATION
- x 800-871.33 EXISTING BACK OF CURB ELEVATION
- o CLEANOUT
- 3'x3' DISSIPATION AREA
- 6"-9" ROCK RIP-RAP
- 12"-15" THICK

NOTES:

1. GROUT INLETS AS NEEDED TO MEET DESIGNED IN AND OUT FLOW PIPE INVERTS.
2. OWNER'S REPRESENTATIVE TO COORDINATE WITH N.B.U. TO RELOCATE POWER POLE NEAR DRIVEWAY TO OAK RUN PARKWAY.
3. SITE PLAN PREPARED BY: SHAWN KAARSEN AND ASSOCIATES
4. PAVEMENT DESIGN BY OTHERS
5. ALL ACREAGES OF THIS SITE TO BE DISTURBED.
6. ALL PERVIOUS ACREAGE TO BE REVEGETATED FOLLOWING CONSTRUCTION.

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SAN ANTONIO
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2008 MAR -5 PM 2:56

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S. CRAIG HOLLMIG, INC.
CONSULTING ENGINEERS - SURVEYORS
410 N. SEGUIN STREET
NEW BRAUNFELS, TX
78130-5085
PH: (830) 625-8555
FAX: (830) 625-8556
engr@hollmiginc.com

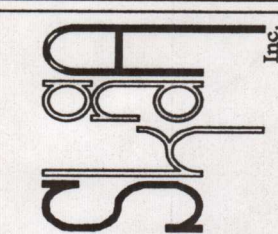


CENTRAL TEXAS PAIN CENTER
213 HUNTERS VILLAGE
NEW BRAUNFELS, TEXAS

GRADING
PLAN

Shawn Kaarsen and Associates
Architecture & Construction
Services

12274 Bandera Road
Suite 215
Helotes, TX 78023
Ph: 210.695.5716
Fm: 561.626.5634
Em: SKA@skarch.com



Project No.: 0709024

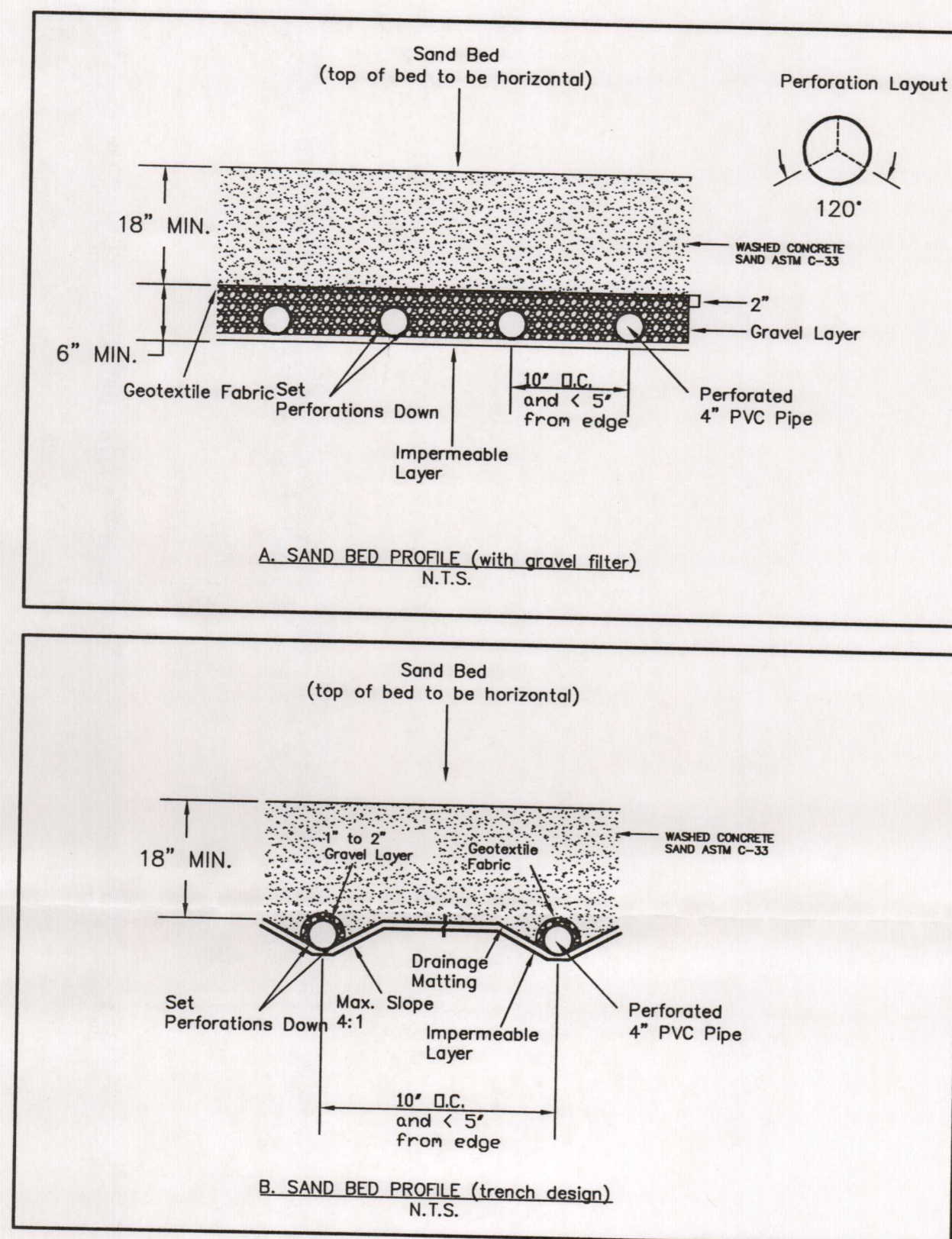
Drwn. By: NVA

Chkd By: SAK

Date Issued: 12/19/2007

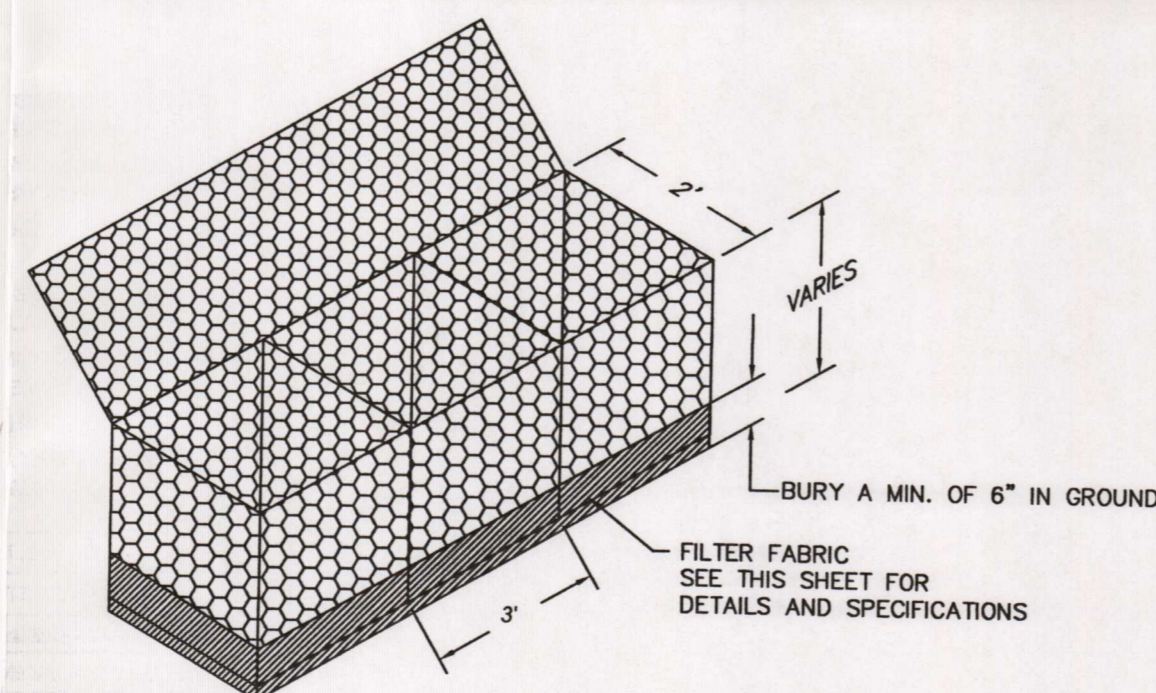
Revisions:

C4

Table 3-1 Clay Liner Specifications (COA, 2004)

Property	Test Method	Unit	Specification
Permeability	ASTM D-2434	cm/sec	1×10^{-6}
Plasticity Index of Clay	ASTM D-423 & D-424	%	Not less than 15
Liquid Limit of Clay	ASTM D-2216	%	Not less than 30
Clay Particles Passing	ASTM D-422	%	Not less than 30
Clay Compaction	ASTM D-2216	%	95% of Standard Proctor Density

CLAY LINER SHALL BE A MINIMUM OF 12" THICK.

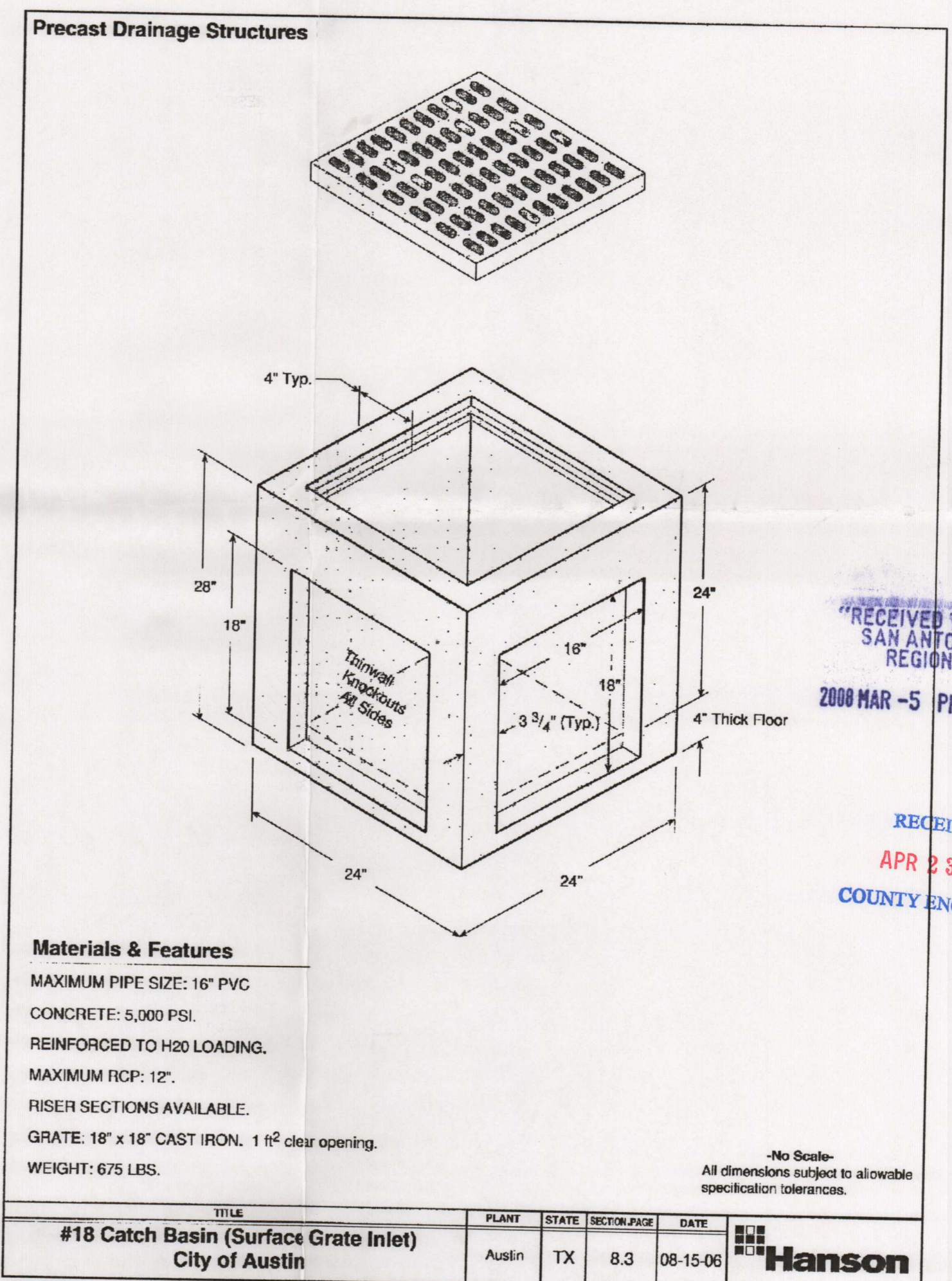
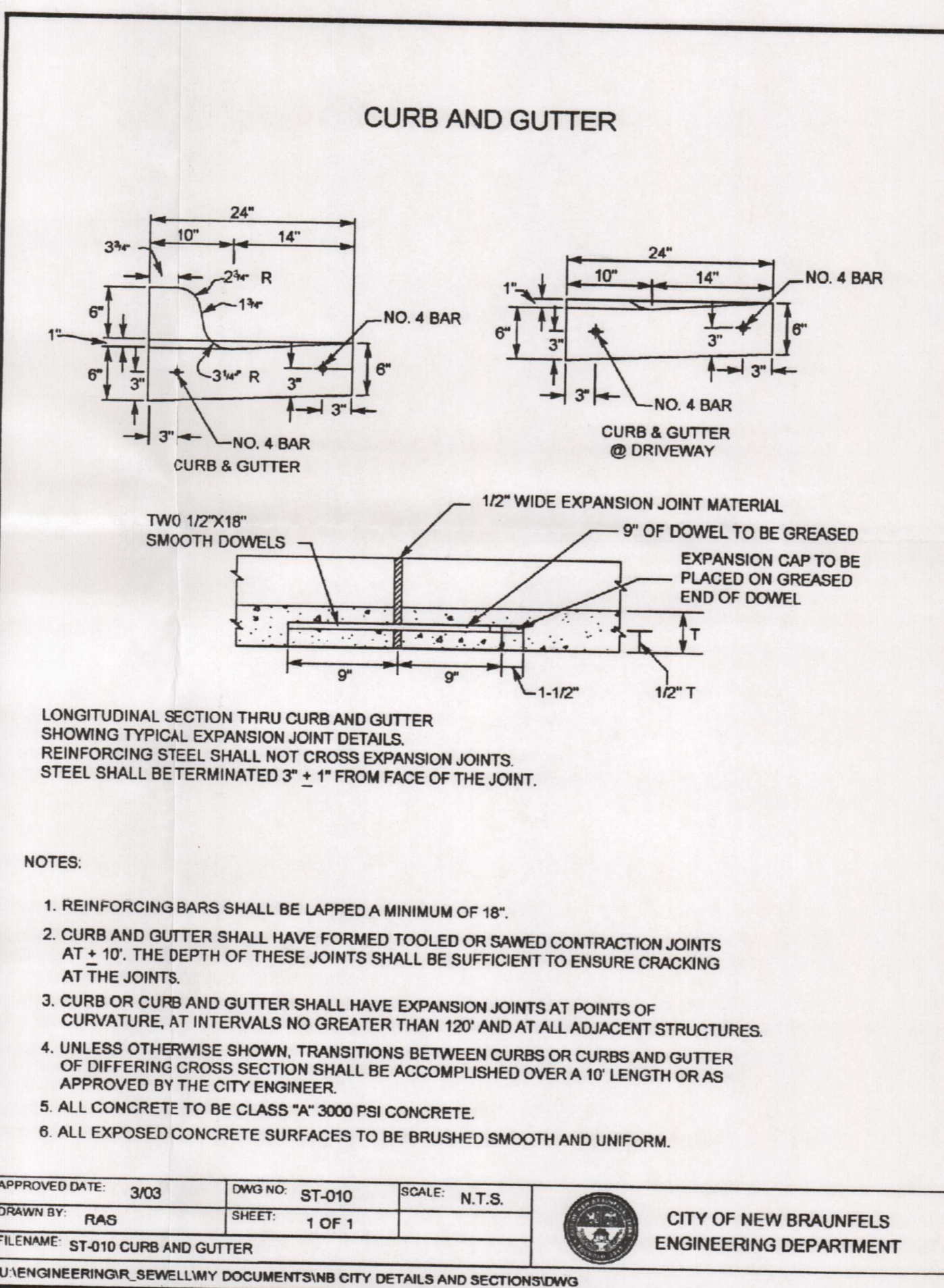
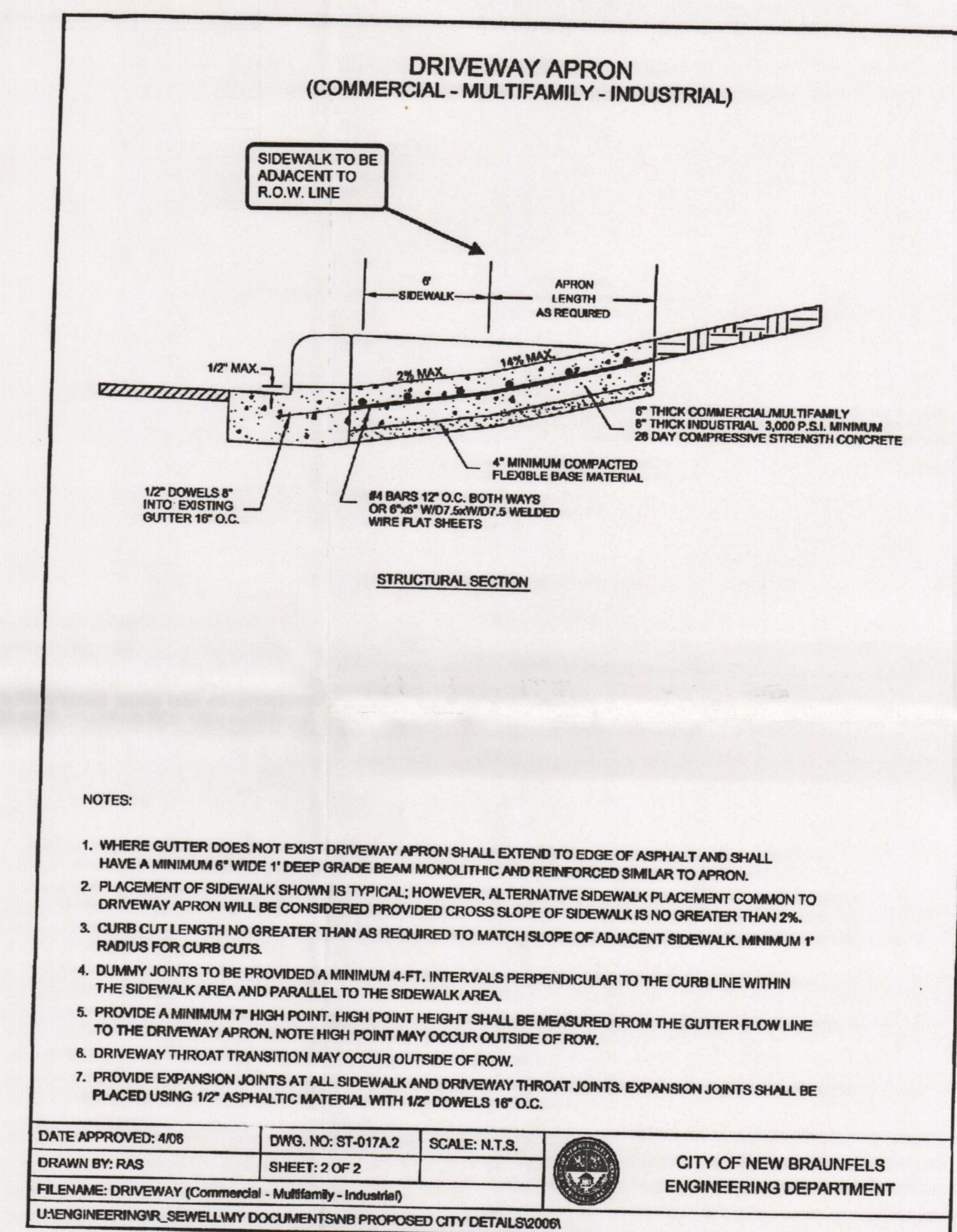
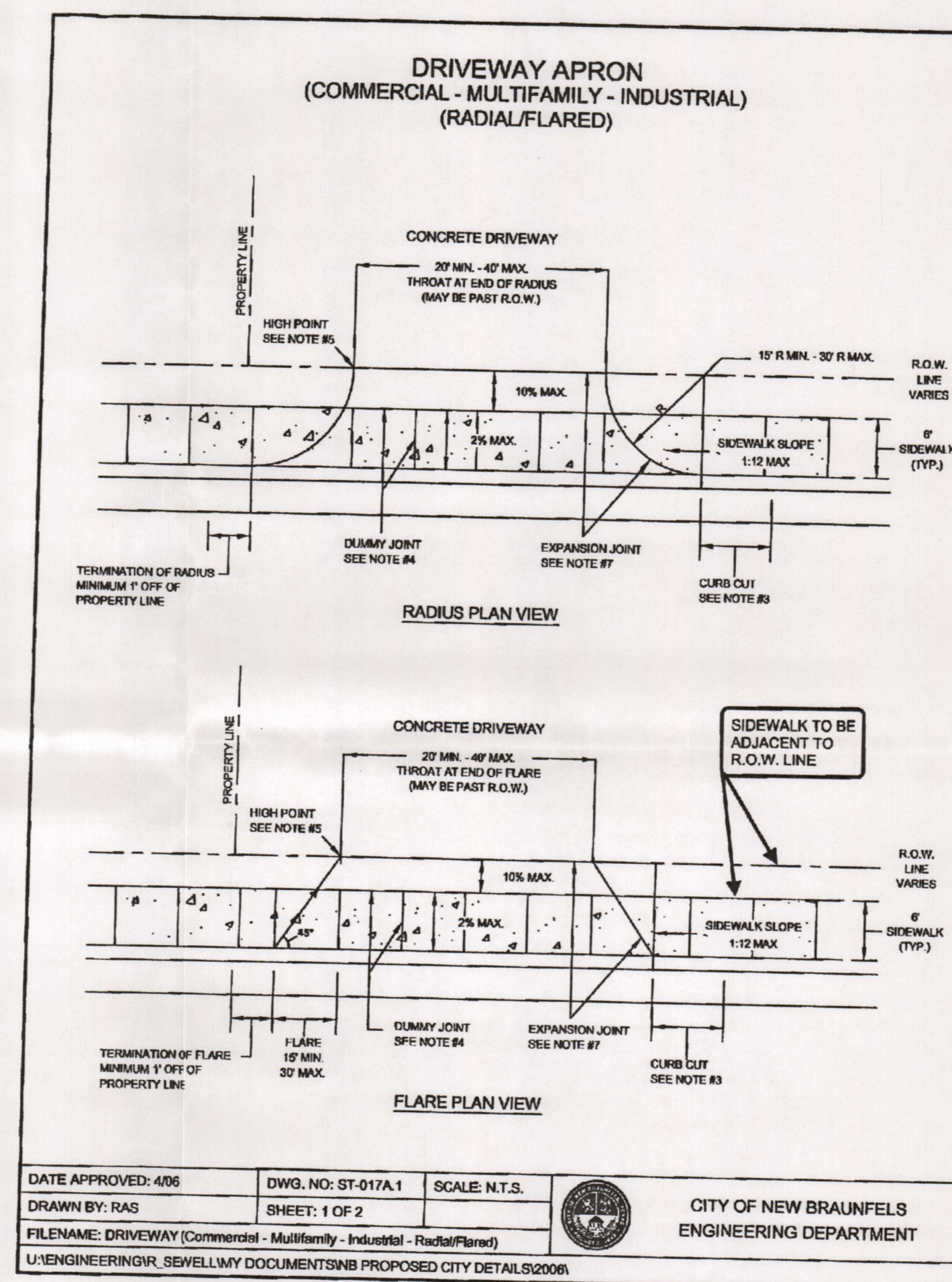
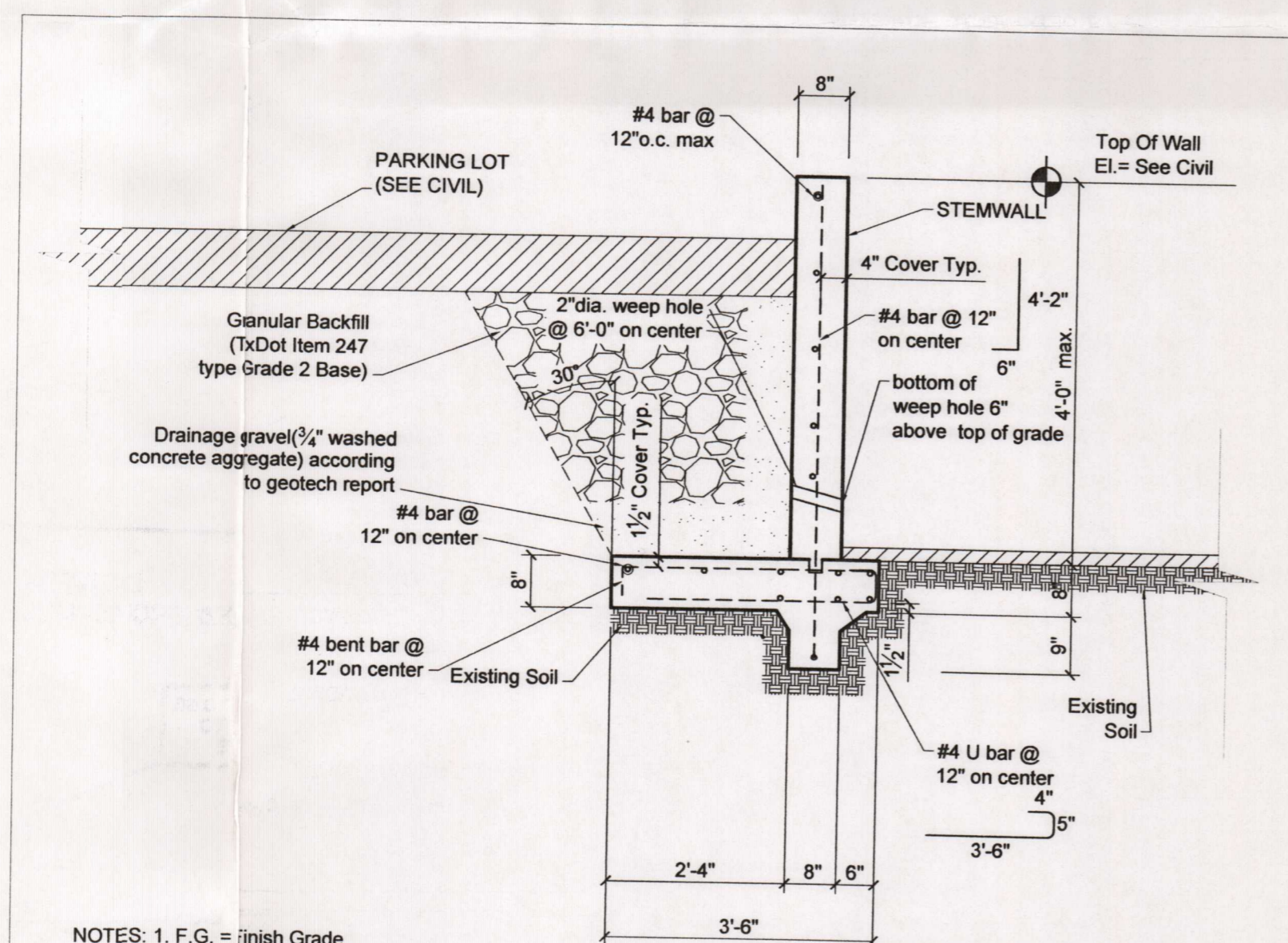
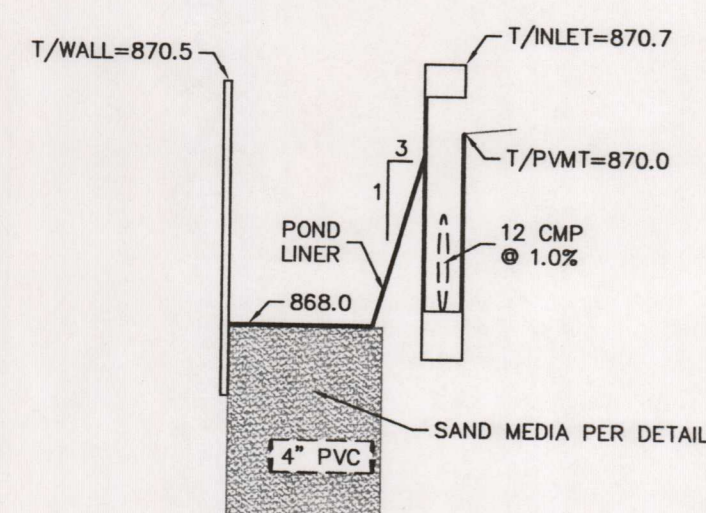
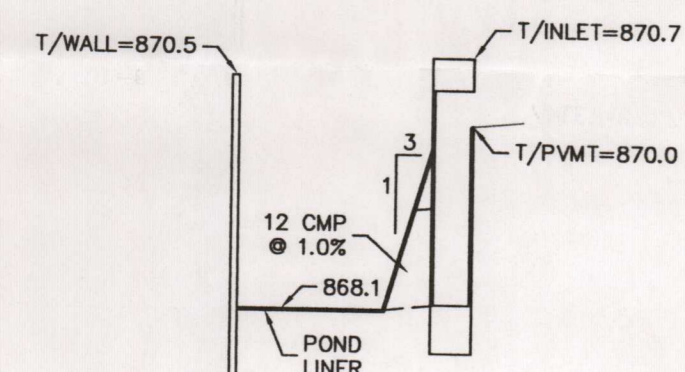
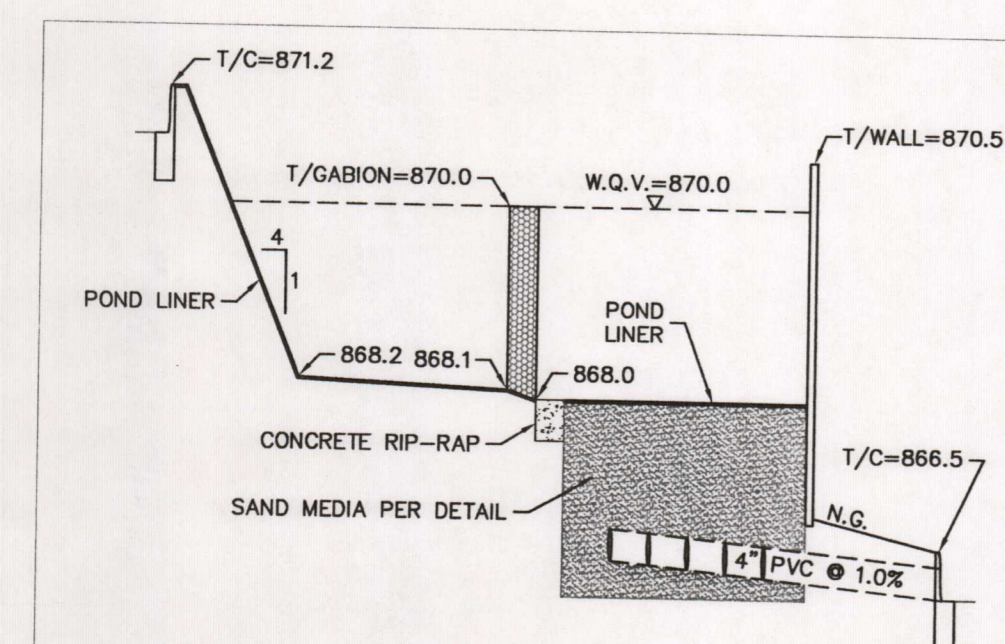


1. STONE

STONE FILL MATERIAL SHALL CONSIST OF HARD, DURABLE, CLEAN STONE OF THE SIZE INDICATED, 6 TO 9 INCHES IN SIZE OR AS APPROVED BY THE ENGINEER AND THE SIZE RESISTANT TO THE ACTION OF AIR AND WATER AND SUITABLE IN ALL RESPECTS FOR THE PURPOSE INTENDED.
2. WIRE CONTAINERS

WIRE MESH SHALL CONSIST OF PLASTIC COATED (P.V.C.) GALVANIZED WIRE 0.120 INCH IN DIAMETER MINIMUM AND SHALL EQUAL OR EXCEED FEDERAL SPECIFICATION GG-W-4616, CLASS 3 UNLESS OTHERWISE INDICATED. OPENING OF THE MESH SHALL NOT EXCEED APPROXIMATELY 4 INCHES IN THE LONGEST DIMENSION. THE WIRE MESH IS TO BE FABRICATED IN SUCH MANNER AS TO BE NON-WEAVING AND CONNECTED TOGETHER BY WELDING OR BY THE SAME TYPE AND SIZE AS THE BASKETS AND SHALL BE SUPPLIED IN SUFFICIENT QUANTITY FOR COMPLETELY FASTENING ALL EDGES OF THE GABION AND DIAPHRAGMS.
3. FILTER FABRIC

FILTER FABRIC SHALL BE NON-BIODEGRADABLE ULTRAVIOLET STABILIZED, INERT TO MOST SOIL CHEMICALS, UNAFFECTED BY MOISTURE WHICH ALLOWS WATER TO PASS THROUGH WHILE RETAINING SOIL PARTICLES AND SHALL CONFORM TO ITEM NO. 620, "FILTER FABRIC".



S. CRAIG HOLLMIG, INC.
CONSULTING ENGINEERS - SURVEYORS
410 N. SEGUIN STREET
NEW BRAUNFELS, TEXAS 78130-5085

RECEIVED
APR 23 2008
COUNTY ENGINEER

TEXAS SOCIETY OF PROFESSIONAL ENGINEERS
AMERICAN SOCIETY OF CIVIL ENGINEERS

TEXAS SURVEYORS ASSOCIATION
TELEPHONE: (830) 625-8555 • FAX: (830) 625-8556

WATER SYSTEMS • SEWER SYSTEMS • SUBDIVISIONS • LAND PLANNING • STREETS • SURVEYING

March 10, 2008

Texas Commission on Environmental Quality
Lynn M. Bumguardner
Region 13
14250 Judson Rd.
San Antonio, Texas 78233-4480

RECEIVED TCEQ
SAN ANTONIO
REGION
2008 MAR 10 PM 12:53

Re: Edwards Aquifer, Comal County


NAME OF PROJECT: Central Texas Pain Center; Located south of SH 46, at the southwestern corner of Oak Run Parkway and Hunter Village; New Braunfels, Texas
TYPE OF PLAN: Request for the modification of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer; Edwards Aquifer Protection Program ID No. 1964.04; Investigation No. 614383; Regulated Entity No. RN105390595

Dear Ms. Bumguardner:

This letter is in reference to telephone conversations between Brian M. Merriman and Javier Anguiano. Let me address his comments relating to the application:

1. Enclosed is updated Sheet C5 to correct the detail for the sand bed profile.
2. The acreage of un-captured area in front of the bypass inlet is 0.0046 acres and the area of the driveway apron is 0.0054 acres. This is a total of 0.01 acres as shown as a deduction in what is going to the pond in the previously provided calculations.
3. In addition, the total water quality volume provided is 2,024 cubic feet as designed, compared to 1,949 as required by the calculations. The total sand filter area provided is 295 square feet as designed, compared to 162 as required.

Sincerely,


S. Craig Hollmig, P.E.

Javier Anguiano - Central Texas Pain Center-request for add. info.

From: Javier Anguiano
To: Craig Hollmig
Date: 3/7/2008 1:43 PM
Subject: Central Texas Pain Center-request for add. info.
CC: Brian Merriman

Craig,

Sorry but I need a couple more pieces of info and one correction.

Correction needed:

- On Sheet C5, in reference to the detail windows for the WQ basin, Sections A-A & C-C, the pond liner is shown on top of the filter media instead of the bottom. Please correct.

Additional Info:

- On Sheet C5 two types of sand bed profiles are given. Choose one or provide elevations for both in order to confirm the WQV elevation. If both profiles are proposed as an option to the contractor then a special condition of approval will be added to have the engineer certify which sand bed profile was ultimately used for completion of the basin.
- Confirm the size of the area, in acres, of the two uncaptured areas in order to properly evaluate the calculations.

Unfortunately the clock is running on this, so if you can get the response to me by sometime next week that will be great and I'll be working on the approval letter.

Also, I need the one original and **four** copies; you do not have to provide a whole revised application submittal, just the requested amendments.

Thank you all for your hard work,

Javier Anguiano
Environmental Investigator
TCEQ San Antonio Region Office
14250 Judson Rd.
San Antonio, TX 78233
(210) 403-4019

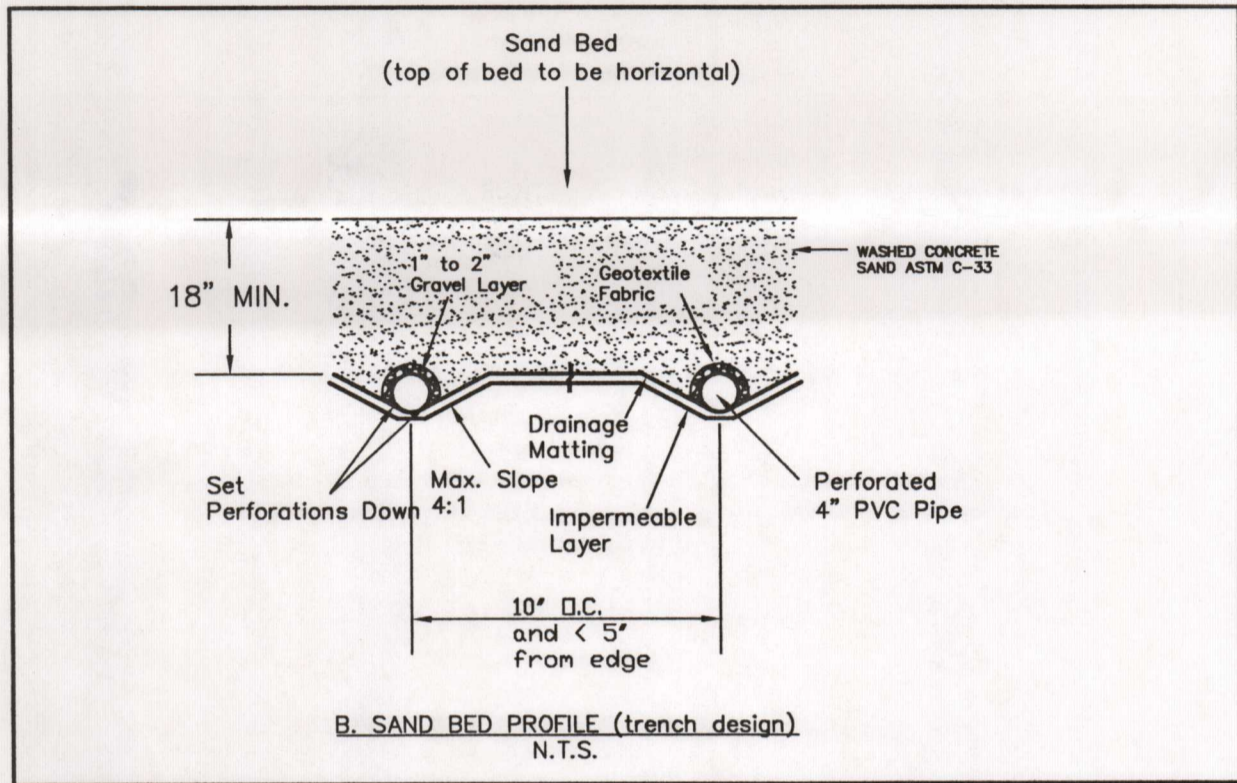


Figure 3-1 Schematic of Sand Bed Profile

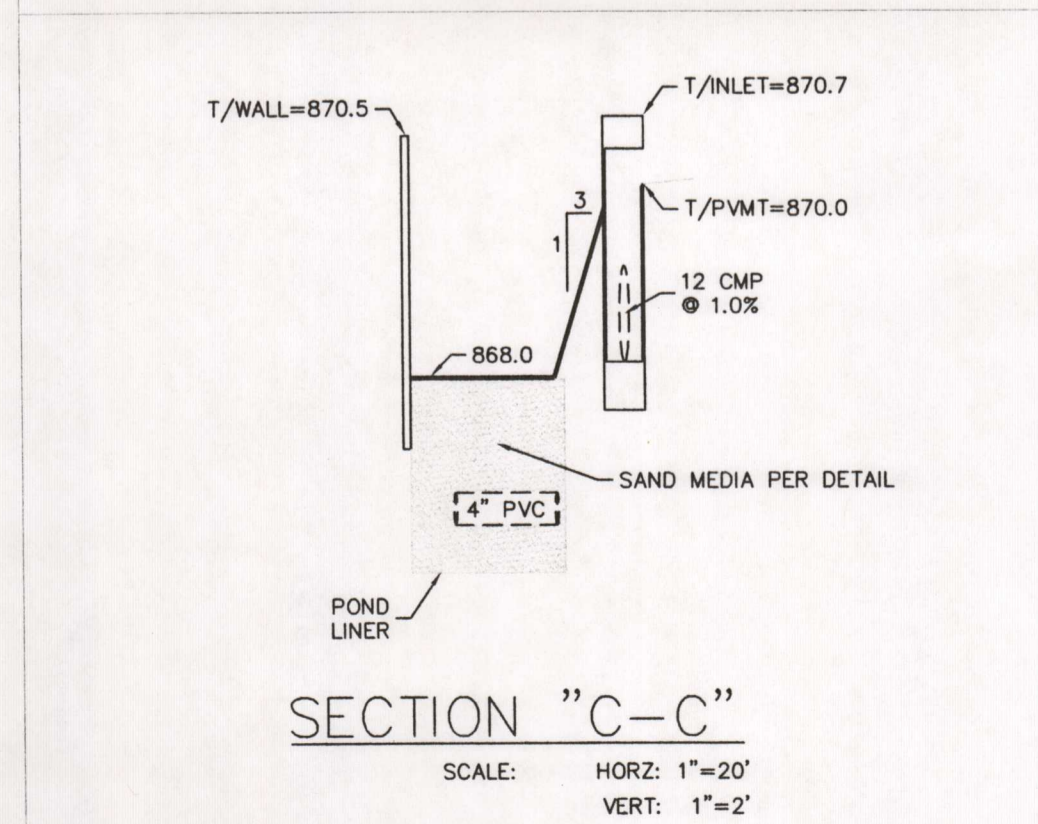
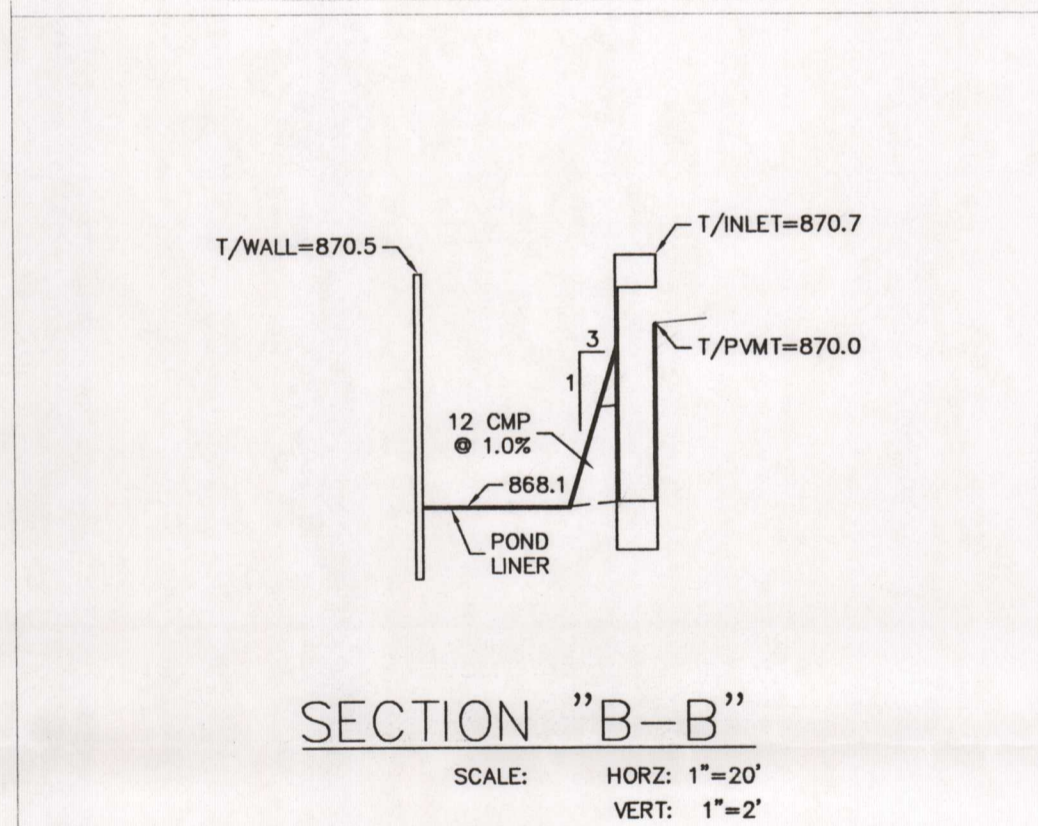
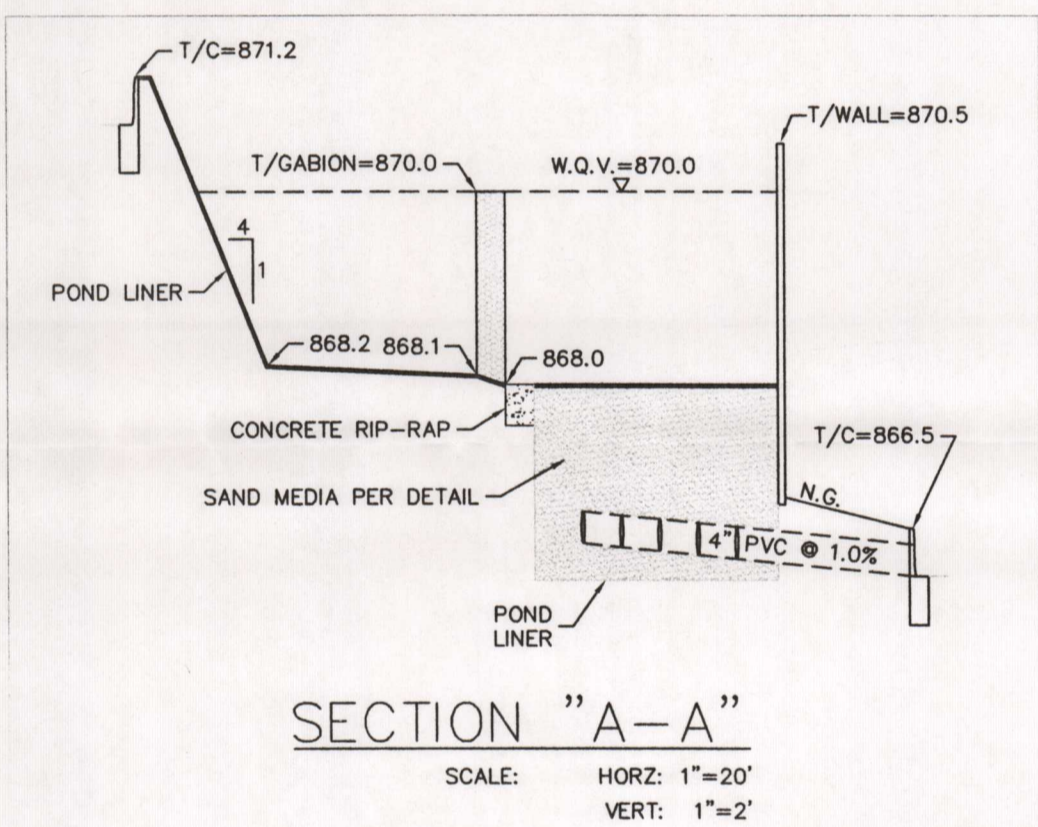


Table 3-1 Clay Liner Specifications (COA,2004)

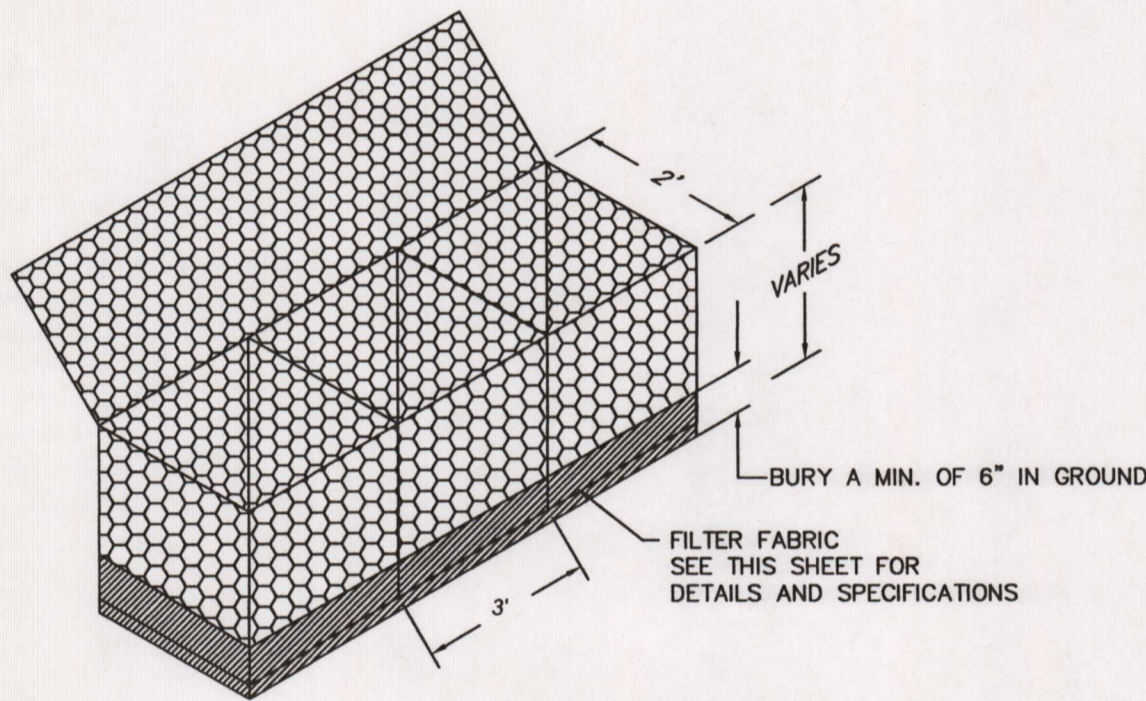
Property	Test Method	Unit	Specification
Permeability	ASTM D-2434	cm/sec	1×10^{-6}
Plasticity Index of Clay	ASTM D-423 & D-424	%	Not less than 15
Liquid Limit of Clay	ASTM D-2216	%	Not less than 30
Clay Particles Passing	ASTM D-422	%	Not less than 30
Clay Compaction	ASTM D-2216	%	95% of Standard Proctor Density

CLAY LINER SHALL BE A MINIMUM OF 12\"/>

Table 3-2 Fabric Specifications (COA,2004)

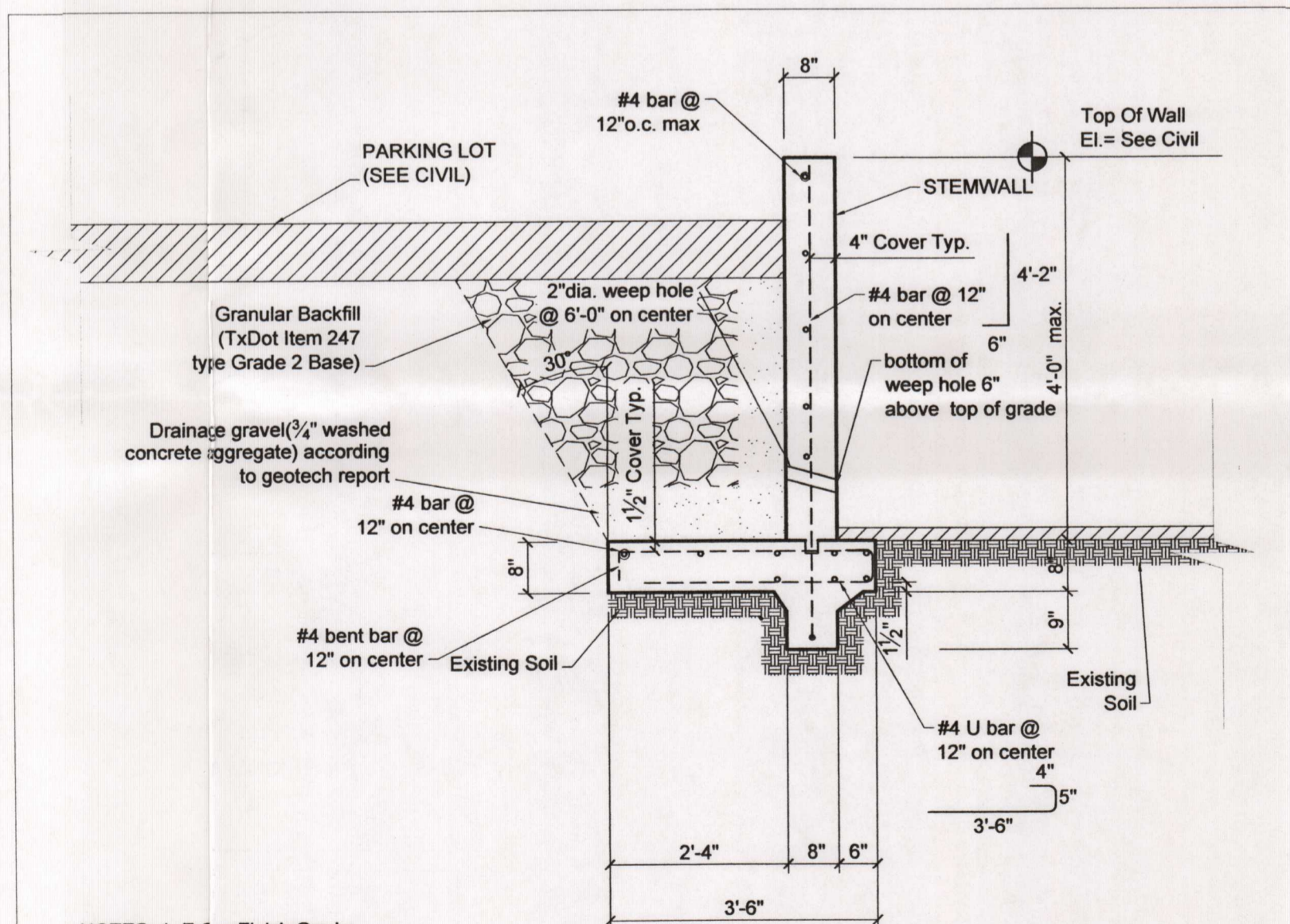
Property	Test Method	Unit	Specification
Unit Weight		oz/yd ²	8
Filtration Rate		in/sec	0.08
Puncture Strength	ASTM D-751*	lb	125
Mullen Burst Strength	ASTM D-751	psi	400
Tensile Strength	ASTM D-1682	lb	200
Equiv. Opening Size	US Standard Sieve	No.	80

NOTE: ALL CLEANOUTS TO BE SCREW TYPE.



GABION BASKET DETAIL
SCALE: NTS

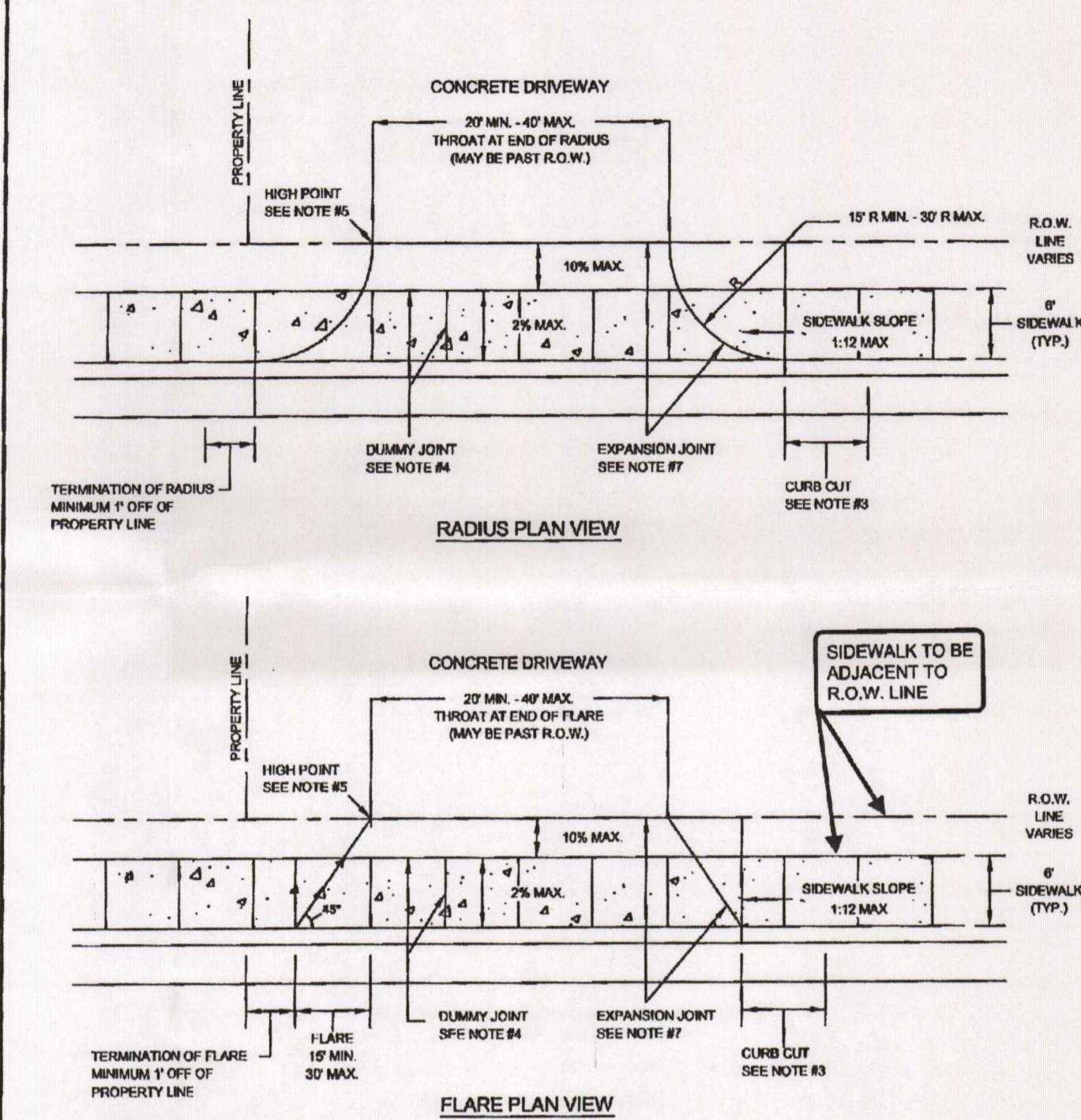
1. STONE
STONE FILL MATERIAL SHALL CONSIST OF HARD, DURABLE, CLEAN STONE OF THE SIZE INDICATED, 6 TO 9 INCHES IN SIZE OR AS APPROVED BY THE ENGINEER AND RESISTANT TO THE ACTION OF AIR AND WATER AND SUITABLE IN ALL RESPECTS FOR THE PURPOSE INTENDED.
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NOTES: 1. F.C. = Finish Grade

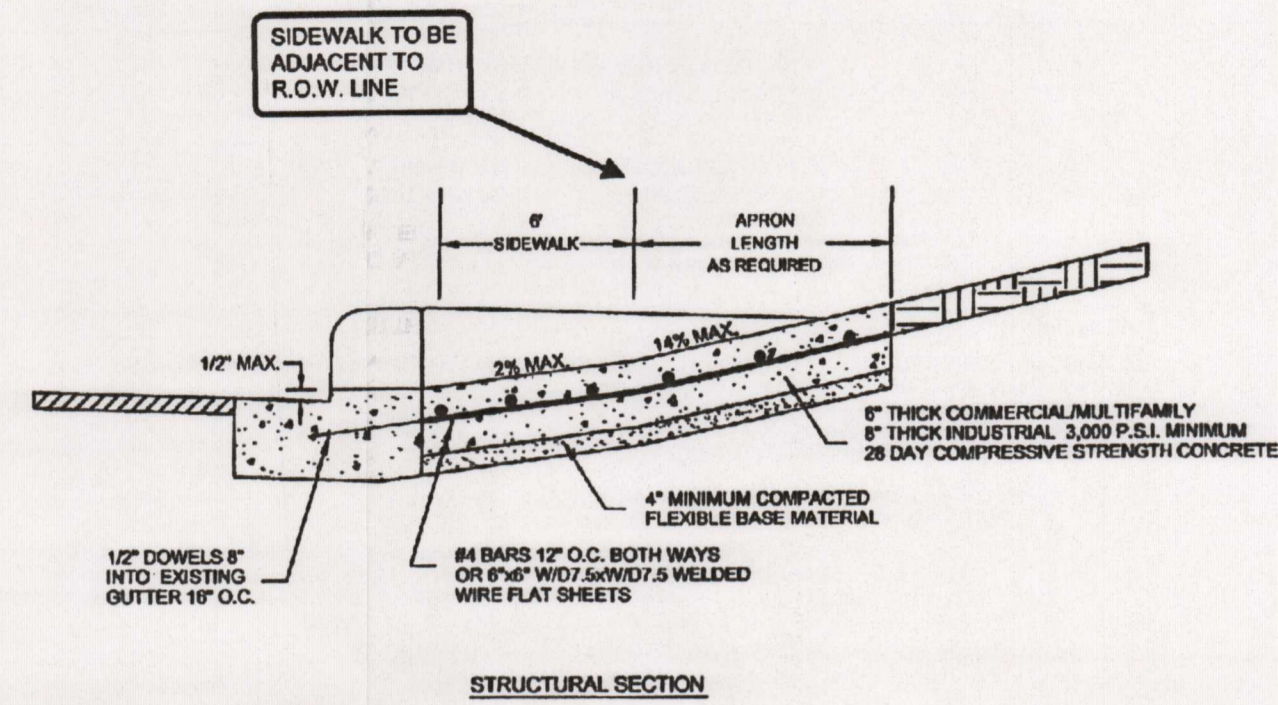
1- RETAINING AT PARKING LOT
SCALE: 1/2\"/>

DRIVEWAY APRON (COMMERCIAL - MULTIFAMILY - INDUSTRIAL) (RADIAL/FLARED)



DATE APPROVED: 4/06 DWG. NO: ST-017A.1 SCALE: N.T.S. CITY OF NEW BRAUNFELS ENGINEERING DEPARTMENT
DRAWN BY: RAS SHEET: 1 OF 2
FILENAME: DRIVEWAY (Commercial - Multifamily - Industrial - Radial/Flared)
U:\ENGINEERING\SEWELLMY DOCUMENTS\NB PROPOSED CITY DETAILS\2006\

DRIVEWAY APRON (COMMERCIAL - MULTIFAMILY - INDUSTRIAL)

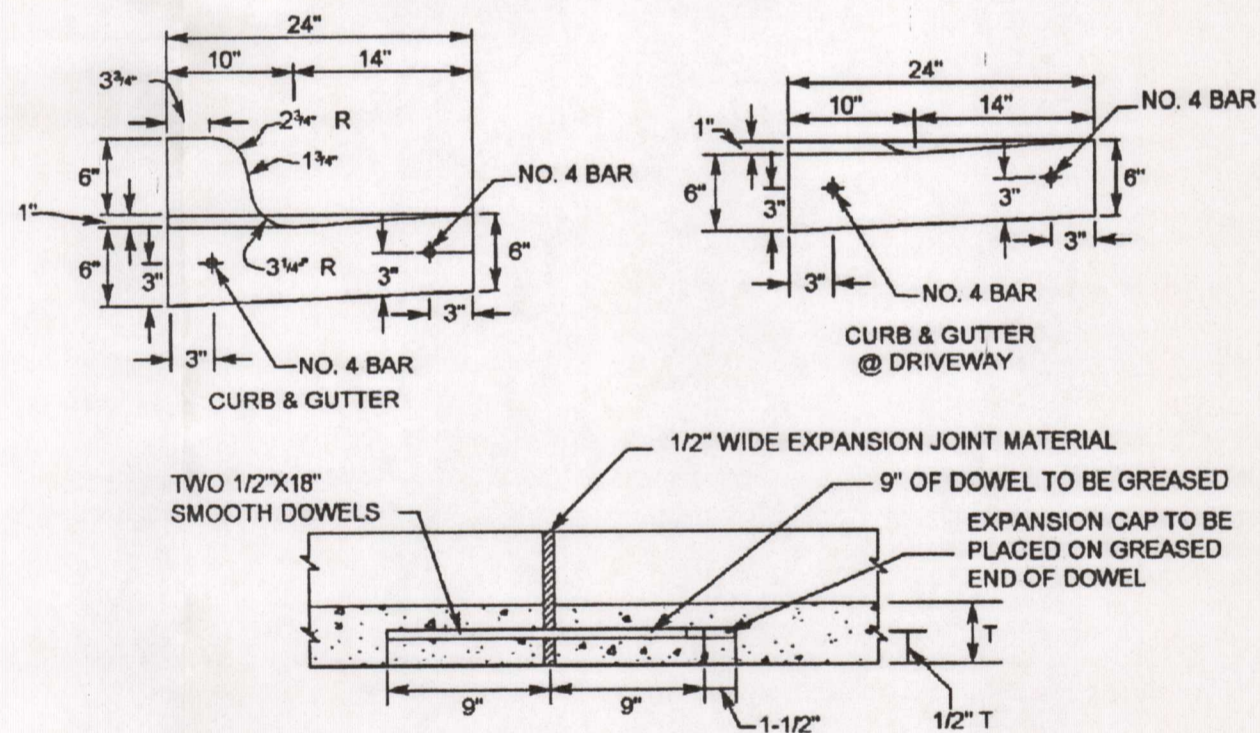


NOTES:

1. WHERE GUTTER DOES NOT EXIST DRIVEWAY APRON SHALL EXTEND TO EDGE OF ASPHALT AND SHALL HAVE A MINIMUM 6\"/>

DATE APPROVED: 4/06 DWG. NO: ST-017A.2 SCALE: N.T.S. CITY OF NEW BRAUNFELS ENGINEERING DEPARTMENT
DRAWN BY: RAS SHEET: 2 OF 2
FILENAME: DRIVEWAY (Commercial - Multifamily - Industrial)
U:\ENGINEERING\SEWELLMY DOCUMENTS\NB PROPOSED CITY DETAILS\2006\

CURB AND GUTTER



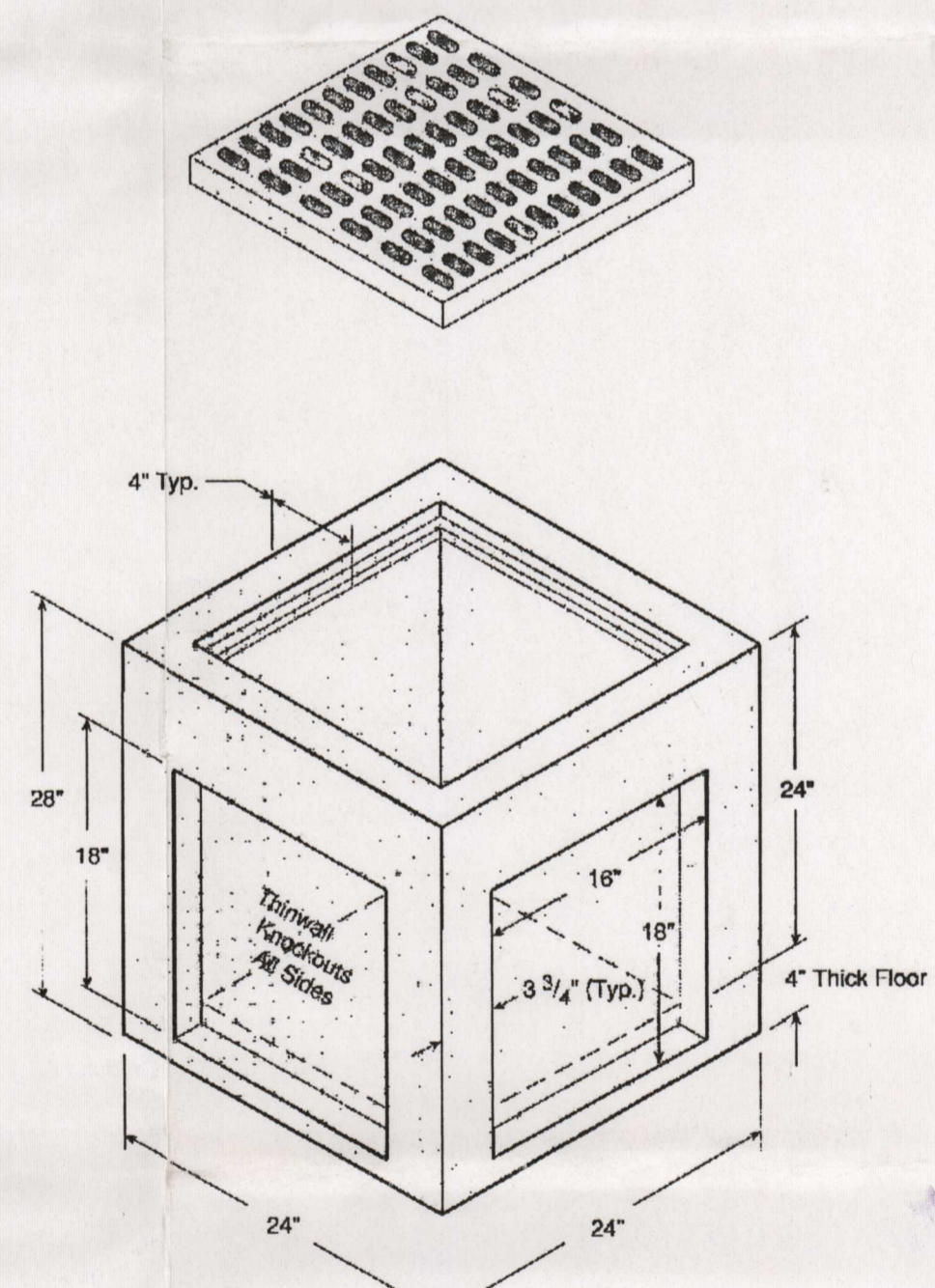
LONGITUDINAL SECTION THRU CURB AND GUTTER SHOWING TYPICAL EXPANSION JOINT DETAILS. REINFORCING STEEL SHALL NOT CROSS EXPANSION JOINTS. STEEL SHALL BE TERMINATED 3\"/>

NOTES:

1. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 18\"/>

APPROVED DATE: 3/03 DWG NO: ST-010 SCALE: N.T.S. CITY OF NEW BRAUNFELS ENGINEERING DEPARTMENT
DRAWN BY: RAS SHEET: 1 OF 1
FILENAME: ST-010 CURB AND GUTTER
U:\ENGINEERING\SEWELLMY DOCUMENTS\NB CITY DETAILS AND SECTIONS\DWG

Precast Drainage Structures



Materials & Features

MAXIMUM PIPE SIZE: 16\"/>

#18 Catch Basin (Surface Grate Inlet)
City of Austin

Buddy Garcia, *Chairman*

Larry R. Seward, *Commissioner*
Bryan W. Shaw, *P.H.D., Commissioner*

Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 11, 2008

Dr. Eric Miller

Central Texas Pain Center
10411 Oak Forest Way
New Braunfels, Texas 78130

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: Central Texas Pain Center; Located south of SH 46, at the southwest corner of Oakrun Parkway and Hunter Village; 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. 1964.04; Investigation No. 614383; Regulated Entity No. RN105390595 (A.K.A. Hunter's Creek Business Park; EAPP No. 1964.02; RN104590567)

Dear Dr. Miller:

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 S. Craig Hollmig, Inc. on behalf of Central Texas Pain Center on January 4, 2008. Final review of the WPAP was completed after additional material was received on February 22, 2008, March 5, 2008, and March 10, 2008. 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

By letter dated July 18, 2006, approval was granted for the construction of a 1.5 acre street, drainage, and water and wastewater utilities for 14 lots within the 22.38 acre Hunter's Business Park (EAPP No. 1964.02). As a term of approval, the development of these lots would be addressed with a separate WPAP. This modification is for development of the 0.8 acre Lot 7 within the Hunter's Creek Business Park.

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 0.8 acres. It will include a new medical office building, associated parking and driveways. The impervious cover will be 0.40 acres.

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

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: www.tceq.state.tx.us

Approved for Release by the Texas Commission on Environmental Quality

Dr. Eric Miller
March 11, 2008
Page 2

(50%). Project wastewater will be disposed of by conveyance to the existing Gruene Wastewater Treatment Plant owned by the 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, sedimentation/filtration basin 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 359 pounds of TSS generated from the 0.8 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The following table provides a summary of the site's permanent pollution abatement measures.

Water-shed & Basin	Total Area (acres)	Imp. Cover (acres)	Calc. Run-Off Depth (in)	Calc. Min. Capture Volume (ft ³)	Design Capture Volume (ft ³)	Calc. Min. Filter Area (ft ²)	Design Filter Area (ft ²)	Target TSS Removal (lb/yr)	Designed TSS Removal (lb/yr)
A	0.79	0.39	1.60	1,949	2,024	162	295	350	359
Uncapt.B	0.0046	0.0046	----	----	----	----	----	4	----
Uncapt.C	0.0054	0.0054	----	----	----	----	----	5	----
Total	0.80	0.40	----	----	----	----	----	359	359

The filtration system for the basin will consist of:

1. 295 ft² of sand, which is 18 inches thick,
2. an underdrain piping system covered with a 2 inch gravel layer and a geotextile membrane, and
3. an impervious clay liner.

GEOLOGY

The original geologic assessment from the original WPAP application, approved by letter dated July 18, 2006, was included with the application. One closed depression (S-7) was reported on southeast corner of Lot 7. It was assessed as not sensitive because it was described as an uprooted tree. The San Antonio Regional Office did not conduct a site assessment.

SPECIAL CONDITIONS

- I. The holder of the approved Edwards Aquifer WPAP must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the application.
- II. This modification is subject to all Special and Standard Conditions listed in the WPAP approval letter dated July 18, 2006. (DATE)
- III. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.
- IV. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management

Dr. Eric Miller
March 11, 2008
Page 3

practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

- V. 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.
- VI. 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.
- VII. For any future modification to this WPAP, including lot development, the owner/developer must submit a revised and updated overall site plan of the entire Hunter's Business Park to the San Antonio Regional Office of the TCEQ which includes the boundaries of each lot, and Edwards Aquifer Protection Program file number. The following information should be clearly labeled or drawn on the overall site plan: existing and proposed lot names and boundaries, Edwards Aquifer Protection Program file number, and existing and proposed permanent BMPs.

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.

Prior to Commencement of Construction:

2. 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.
3. 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.
4. 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.
5. 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.
6. 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

Dr. Eric Miller
March 11, 2008
Page 4

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.

7. 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.

During Construction:

8. 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.
9. 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.
10. Zero wells exist on 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.
11. 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.
12. 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.
13. 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.

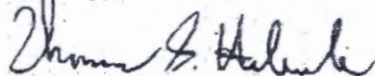
Dr. Eric Miller
March 11, 2008
Page 5

After Completion of Construction:

14. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. 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.
16. 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.
17. 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.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact Javier Anguiano of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4019.

Sincerely,



Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

GS/JA/eg

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

cc: S. Craig Hollmig, P.E., S. Craig Hollmig, Inc.
Mr. James Klein, P.E., City of New Braunfels
Mr. Tom Hornseth, P.E., Comal County
Ms. Velma Reyes Danielson, Edwards Aquifer Authority
TCEQ Central Records, MC 212