TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 26, 2006

Mr. Jeff Kuempel
H.L. Chapman Pipeline Construction, Inc.
32610 North Highway 281
Bulverde, TX 78163-3188

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: H.L. Chapman Pipeline Construction, Inc.; Located at 32610 North Highway 281, in the City of Bulverde
TYPE OF PLAN: Request for Approval of a Contributing Zone Plan Application (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer, Edwards Aquifer Protection Program ID No. 2482.00, Investigation No: 487989, Regulated Entity No. RN104893284

Dear Mr. Kuempel:

The Contributing Zone Plan application for the referenced project was submitted to the San Antonio Regional Office by Gomez-Garcia & Associates, Inc., on behalf of H.L. Chapman Pipeline Construction, Inc. on February 21, 2006. Final review of the CZP submittal was completed after additional material was received on July 05, 2006 and July 19, 2006. 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 Contributing Zone 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% of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed project will have an area of 20.1 acres. The proposed development will include the following: a single-wide office trailer (1,200 sf), a double-wide office trailer (2,200 sf), a future building (4,500 sf), a storage container (5,000 sf) , a storage container (2,500 sf), and an AST storage facility (3,000 sf). The structures and rooftops represent a total of 18,400 square feet of impervious cover (per details provided on overall site plan). Associated parking, driveways and sidewalks represent an addition 565,408.8 square feet of impervious cover. The impervious cover for this project will be 13.96 (69.5 percent). Project wastewater will be disposed of by conveyance to the existing on-site sewage facility.

The proposed project will house 8 aboveground storage tanks (ASTs) on-site. AST details are provided in the table below:

AST	Gallons	Contents of Tank	Tank Material
1	30,000	off-road diesel	Steel
2	10,000	off-road diesel	Steel
3	10,000	on-road diesel	Steel
4	1,000	hydraulic oil	Steel
5	500	motor oil	Steel
6	500	gear oil	Steel
7	200	anti-freeze	Steel
8	500	used oil	Steel
Total	52,700		

All tanks will be housed under a roofed concrete containment structure. The containment structure has been designed to capture one and one-half times the cumulative storage capacity of all systems. A storage capacity of 79,050 is required. As designed, the containment structure will have a capacity to hold 96,342 gallons and shall have the following dimensions: 56 ft. in length X 46 ft. in width X 5 ft. in height. All associated piping, hoses, and dispensers will be aboveground and will be located within the containment structure.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent pollution of stormwater runoff originating on-site or up-gradient of the site and potentially flowing across and off the site after construction, two BMP systems will be utilized. The individual treatment measures will consist of a vegetative filter strip (VFS) and a sand filtration basin (SFB) to treat drainage areas A and B. Vegetative filter strips will be used to treat the impervious cover withing drainage area B. Permanent pollution abatement measures are detailed in the chart below:

Drainage area A = the area treated by the sand filtration basin (SFB)
Drainage area B = the area not treated by sand filtration basin. This area is to remain undisturbed with the exception of gravel drive. Said drive will be treated with Engineered Vegetative Filter Strips.

Drainage Area/ Watershed	Total Area (acres)	On-site Watershed (acres)	Off-site Imp. Cover (acres)	On-site Imp. Cover (acres)	Calc. Min. Capture Volume (ft^3)	Design Capture Volume (ft^3)	Calc. Min. Filter Area (ft^2)	Design Filter Area (ft^2)	Target TSS Load Removal (lb/yr)	Design TSSLoad Removal (lb/yr)
A(SFB)	15.25	15.25	0	13.82	69877	70560	6988	17640	10885	12788
B	4.85	4.85	0	0.143	n/a	n/a	n/a	n/a	114	114
Total	20.1	20.1	0	13.963	69877	70560	6988	17640	10885	12902

Vegetative Filter Strips are to be installed to treat run-off associated from the gravel drive located at the north site entrance. The Vegetative Filter Strips are designed in accordance with the 2005 edition of the TCEQ's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices.

All stormwater generated up-gradient from the site is to be by-passed by an interceptor channel and will not contribute to the capture volume of the basin.

The approved measures are presented to meet the required 80 percent removal of the increased load in total suspended solids caused by the project.

SPECIAL CONDITIONS

1. The owner of the proposed facility shall assure that the storage tank system is installed, operated, and maintained in full compliance with the applicable provisions of 30 TAC §213.5 and 30 TAC Chapter 334, and all local, state, and federal regulations.

2. AST containment structures shall be in place prior to the receipt of regulated substances.

3. The exterior of all tanks will be inspected monthly for defects or damage. A written log will be kept of the monthly inspections.

4. All sediment and or media removed from the sedimentation/filtration basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

5. All Permanent Pollution Abatement measures must be installed and operational before any further work is done on this site. Permanent BMP work is to be completed prior to any new construction or improvement to the aboveground storage tanks, buildings, or roads on this regulated site.

6. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

7. For any future modifications to any of the permanent BMPs on this site, the summary tables in this letter must be updated and included in the application. It is the responsibility of the applicant to maintain this information and keep it current.

8. 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, TNRCC-0625) that you may use to record the approval is enclosed.

9. 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.

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code and the Texas Health and Safety Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project until all regulated activities are completed.

3. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

4. The applicant must provide written notification of intent to commence construction of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.

5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

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

7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

8. 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.

9. 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.

After Completion of Construction:

10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

11. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

14. 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 Amy Burroughs of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4073.

Sincerely,

Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

GS/AEB/eg
Enclosure(s): Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

fc/cc: Mr. Alejandro R. Gomez, Gomez-Garcia & Associates, Inc.
Mr. Richard Parker, City of Bulverde
Mr. Tom Hornseth, Comal County
Mr. Robert J. Potts, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

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10. Owners of permanent BMPs and measures must insure that the BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

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12. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

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14. 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 Amy Burroughs of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4073.

Sincerely,

Richard Garcia

Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

GS/AEB/eg
Enclosure(s): Change in Responsibility for Maintenance on Permanent BMPs-Form TCEQ-10263

fc/cc: Mr. Alejandro R. Gomez, Gomez-Garcia & Associates, Inc.
Mr. Richard Parker, City of Bulverde
Mr. Tom Hornseth, Comal County
Mr. Robert J. Potts, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

CONTRIBUTING ZONE PLAN

FOR

H. L. CHAPMAN PIPELINE CONSTRUCTION, INC.
32610 NORTH HIGHWAY 281
BULVERDE, TEXAS 78163

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

Regulated Entity Name: H. L. Chapman Pipeline Construction, Inc.
County: Comal Stream Basin: Guadalupe River

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

2. Customer (Applicant):

Contact Person: Jeff Kuempel
Entity: H. L. Chapman Pipeline Construction, Inc
Mailing Address: 32610 North Highway 281
City, State: Bulverde, Texas Zip: 78163
Telephone: (830) 438-8019 FAX: (830) 438-4923

Agent/Representative (If any):

Contact Person: Alejandro R. Gomez, PE
Title: President
Entity: Gomez-Garcia & Associates, Inc.
Mailing Address: 9033 Aero, Ste. 114
City, State: San Antonio, Texas Zip: 78217
Telephone: (210) 832-9608 FAX: (210) 832-9615

3. X This project is inside the city limits of Bulverde.
__ 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.

4. The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.
The project site is located at 32610 North US 281, approximately 1.5 miles south of Texas 46 On the east side of 281

5. X **ATTACHMENT A - Road Map.** A road map showing directions to and the location of the project site is found as at the end of this form.

6. X **ATTACHMENT B - USGS Quadrangle Map.** A copy of the a USGS Quadrangle Map (Scale: 1" = 2000') is found at the end of this form. The map(s) clearly shows:
__ Project site boundaries.
__ USGS Quadrangle Name(s).

7. X **ATTACHMENT C - Project Narrative.** A detailed narrative description of the proposed project is found at the end of this form.

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

PROJECT INFORMATION

9. The type of project is:
   - ___ Residential: # of Lots: ____
   - ___ Residential: # of Living Unit Equivalents: ____
   - X Commercial
   - ___ Industrial
   - ___ Other: _____

10. Total project area (size of site): 20.1 Acres
    Total disturbed area: 13.82 Acres

11. Projected population: NA

12. The amount and type of impervious cover expected after construction is complete is shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	36,600	÷ 43,560 =	0.84
Parking	565,408.8	÷ 43,560 =	12.98
Other paved surfaces		÷ 43,560 =	
Total Impervious Cover		÷ 43,560 =	13.82
Total Impervious Cover ÷ Total Acreage x 100 =			68.8 %

13. X **ATTACHMENT D - Factors Affecting Surface Water Quality.** A description of factors that could affect surface water quality is found as at the end of this form. If applicable, this should included the location and description of any discharge associated with industrial activity other than construction.

14. X Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 15-20 if this application is exclusively for a road project.

15. Type of project:
   - ___ TXDOT road project.
   - ___ County road or roads built to county specifications.

__ City thoroughfare or roads to be dedicated to a municipality.
__ Street or road providing access to private driveways.

16. Type of pavement or road surface to be used:

__ Concrete
__ Asphaltic concrete pavement
__ Other: _____

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

18. 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.

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

20. __ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

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

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

22. Wastewater will be disposed of by:

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

__ Sewage Collection System (Sewer Lines):
Wastewater is to be disposed of by conveyance to the _____ _____ (name) treatment plant for treatment and disposal. The treatment facility is :
__ existing.
__ proposed.

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

FOR PERMANENT ABOVEGROUND STORAGE TANKS (ASTs) > 500 GALLONS
Complete questions 23-29 if this project includes the installation of AST(s) with volume(s) greater than 500 gallons.

23. Tanks and substance stored:**SEE ATTACHED TANK SCHEDULE BEHIND THIS PAGE.**

AST Number	Size (Gallons)	Substance to be Stored	Tank Material
1			
2			
3			
4			
5			
Total	52,700	x 1.5 = 79,050	gallons

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

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

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

Length (L) (Ft.)	Width (W) (Ft.)	Height (H) (Ft.)	L x W x H = (Ft^3)	Gallons
56	46	5	12,880	96,342.4
		Total		96,342.4

26. __ All piping, hoses, and dispensers will be located inside the containment structure.
X Some of the piping to dispensers or equipment will extend outside the containment structure.
X The piping will be aboveground
__ The piping will be underground

27. X The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of _ Concrete _____.

PROPOSED ABOVEGROUND STORAGE TANKS

AST NUMBER	SIZE (GALLONS)	SUBSTANCE TO BE STORED	TANK MATERIAL
1	30,000	OFF-ROAD DIESEL	STEEL
2	10,000	OFF-ROAD DIESEL	STEEL
3	10,000	ON-ROAD DIESEL	STEEL
4	1,000	HYDRAULIC OIL	STEEL
5	500	MOTOR OIL	STEEL
6	500	GEAR OIL	STEEL
7	200	ANTI-FREEZE	STEEL
8	500	USED OIL	STEEL
TOTAL »	52,700	X 1.5 = 79,050	GALLONS

28. **ATTACHMENT H - AST Containment Structure Drawings.** A scaled drawing of the containment structure is found at the end of this form that shows the following:

X Interior dimensions (length, width, depth and wall and floor thickness).
X Internal drainage to a point convenient for the collection of any spillage.
X Tanks clearly labeled
X Piping clearly labeled
X Dispenser clearly labeled

29. Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

X In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.
__ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

SITE PLAN

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

30. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = 50.0 '.

31. 100-year floodplain boundaries

__ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
X No part of the project site is located within the 100-year floodplain.

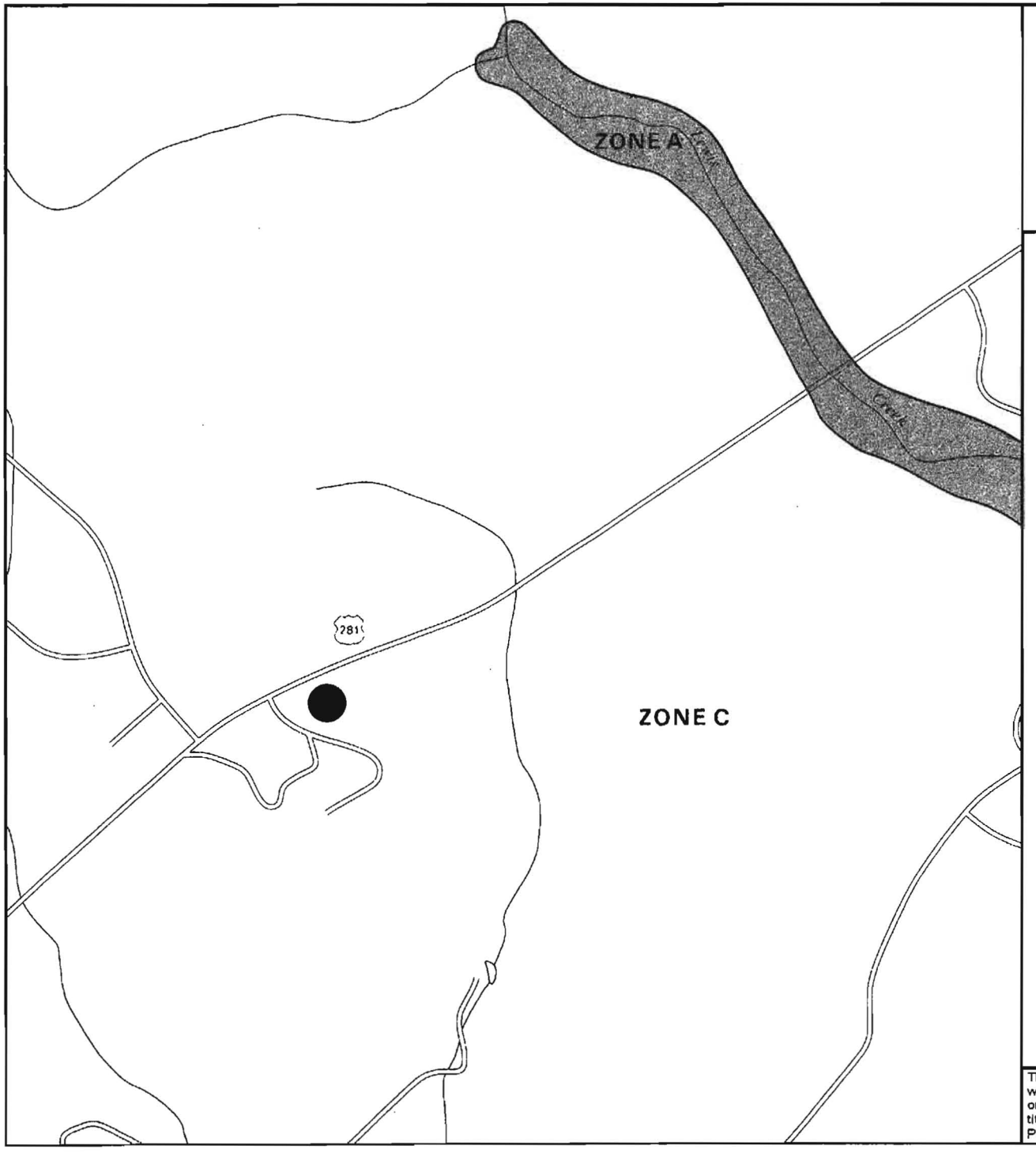
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):

FEMA FIRM Community-Panel Number 485463 0035 C
Map Revised September 29, 1986 - see attached map

32. X The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
__ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

33. X A drainage plan showing all paths of drainage from the site to surface streams.

34. X The drainage patterns and approximate slopes anticipated after major grading activities.



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

COMAL COUNTY, TEXAS
UNINCORPORATED AREAS

PANEL 35 OF 130
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
485463 0035 C

MAP REVISED:
SEPTEMBER 29, 1986

Federal Emergency Management Agency

35. X Areas of soil disturbance and areas which will not be disturbed.

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

37. X Locations where soil stabilization practices are expected to occur.

38. X Surface waters (including wetlands).

39. __ Locations where stormwater discharges to surface water.
X There will be no discharges to surface water.

40. __ Temporary aboveground storage tank facilities.
X Temporary aboveground storage tank facilities will not be located on this site.

41. X Permanent aboveground storage tank facilities.
__ Permanent aboveground storage tank facilities will not be located on this site.

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

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

43. 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

_____
_____
_____
_____
_____

44. 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.

45. __ 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.

46. __ The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

__ **ATTACHMENT I - 20% or Less Impervious Cover Waiver.** This site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is found at the end of this form.

__ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

X This site will not be used for multi-family residential developments, schools, or small business sites.

47. **ATTACHMENT J - BMPs for Upgradient Stormwater.**

__ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is provided as **ATTACHMENT J** at the end of this form.

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

X If permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT J** at the end of this form.

48. **ATTACHMENT K - BMPs for On-site Stormwater.**

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 provided as **ATTACHMENT K** at the end of this form.

__ If permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, an explanation is provided as **ATTACHMENT K** at the end of this form.

49. X **ATTACHMENT L - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams is provided at the end of this form.

50. X **ATTACHMENT M - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct

supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ Construction Notes, all proposed structural measures, and appropriate details must be shown on the construction plans.

51. X **ATTACHMENT N - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

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

53. X **ATTACHMENT P - Measures for Minimizing Surface Stream Contamination.** A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is provided at the end of this form. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity which increase erosion that results in water quality degradation.

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

54. 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.

55. 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.

ADMINISTRATIVE INFORMATION

56. X One (1) original and three (3) copies of the complete application has been provided.

57. X Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

58. X The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

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

Alejandro R. Gomez, PE
Print Name of Customer/Agent

Signature of Customer/Agent

Date 1/09/06

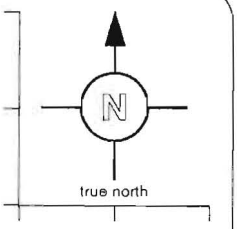
If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

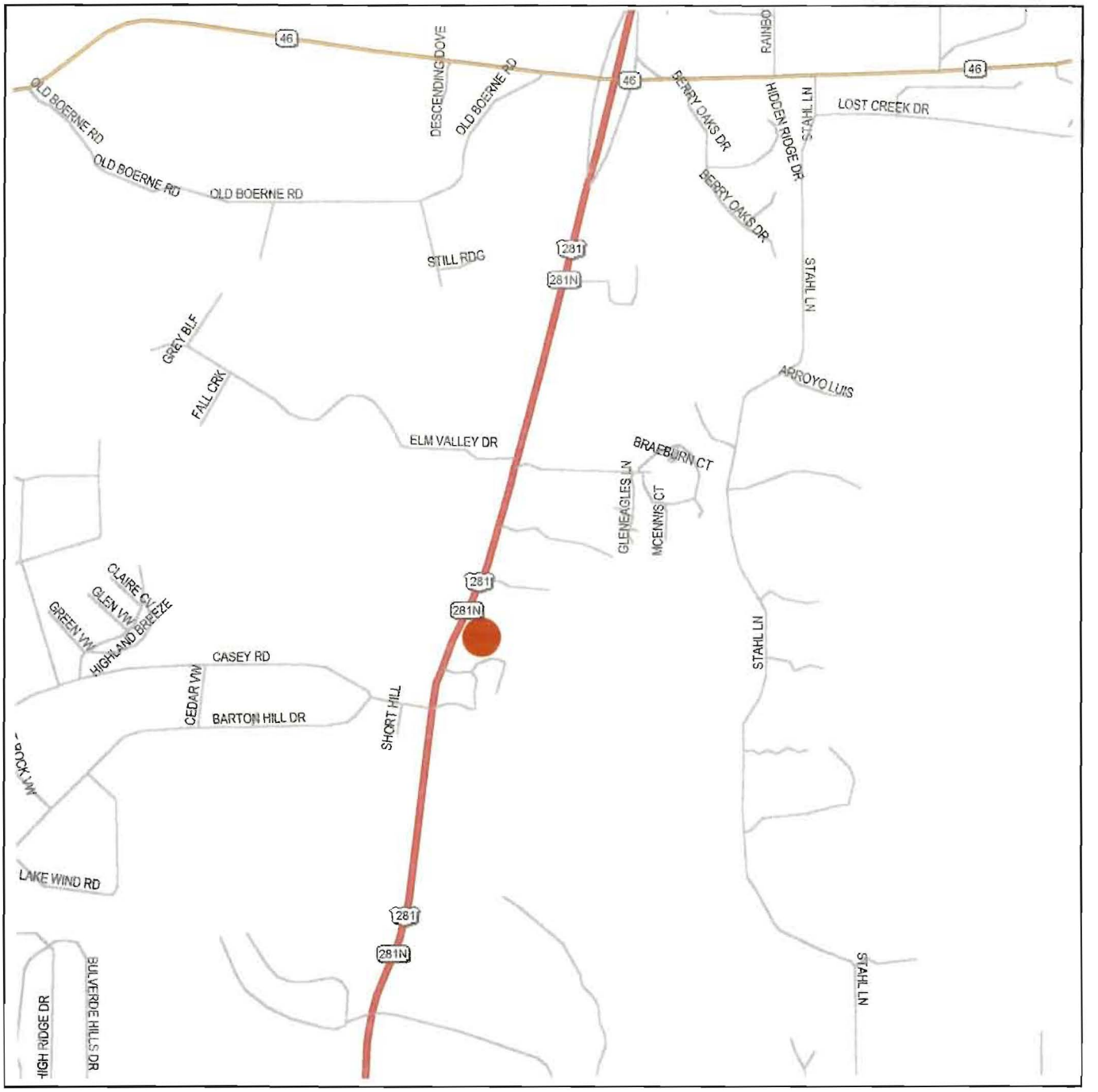
Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

reproduced from:
"STREET ATLAS USA"

Prepared by the
DeLORME STREET ATLAS USA
DATE: 2004
SCALE - NONE

center of subject site





H.L. CHAPMAN
32610 N. HIGHWAY 281
BULVERDE, TEXAS 78163

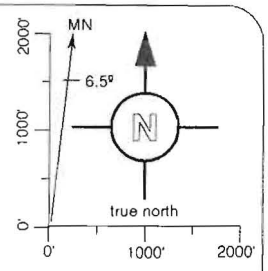
ATTACHMENT "A"
ROAD
MAP

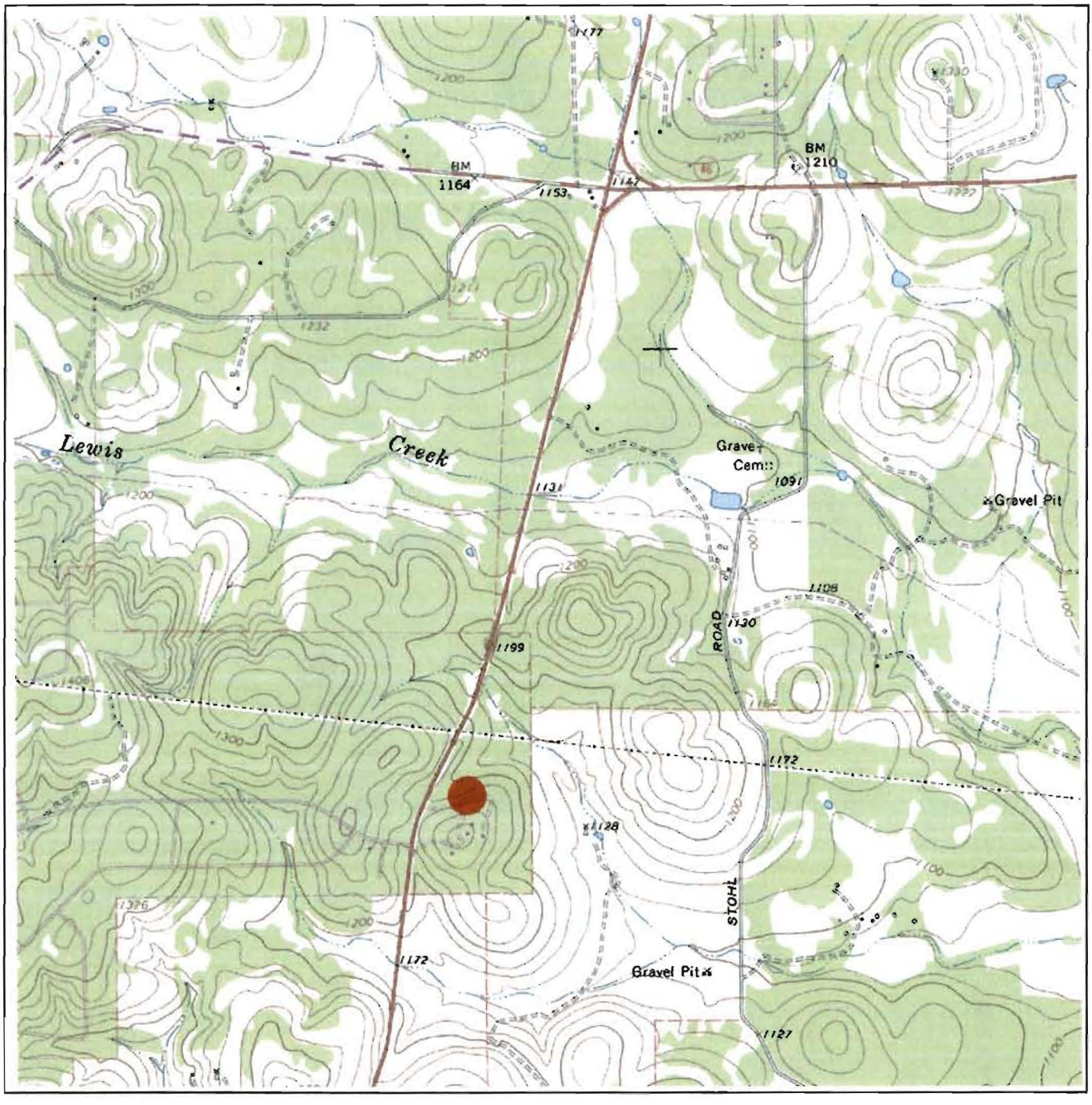
EXTRA ENVIRONMENTAL, INC. - *RCAS00037*

reproduced from:
ANHALT QUADRANGLE MAP-1964, PR 1973
TEXAS--BEXAR COUNTY
7.5 minute USGS series
CONTOUR INTERVAL 20 FEET

LOCATION
(LAT: 29° 46' 32.67" N; LONG: 98° 25' 29.60" W)

SITE ELEVATION= 1200' above mean sea level





H.L. CHAPMAN
32610 N. HIGHWAY 281
BULVERDE, TEXAS 78163

ATTACHMENT "B"
USGS
LOCATION MAP

EXTRA ENVIRONMENTAL, INC. - *RCAS00037*

ATTACHEMENT C –
PROJECT DESCRIPTION

The H.L. Chapman project is located at 32610 North Hwy. 281, Bulverde, Texas 78163. It is situated at the east side of Hwy 281 North between Casey Rd. and Elm Valley. The entire site drains into a natural low located at the east boundary line of the tract. The site (20.1 ac) is located in the Edwards Aquifer Contributing Zone.

The existing conditions of the tract included a single wide and a double-wide trailer with gravel driveways and ground slopes exceeding 14% of slope. These steep slopes generated high stormwater velocities (8-10 feet per second). The pre-existing "C" was 0.53.

The proposed project is a construction yard. The site consists of 6.28 acres of pervious cover, 12.98 acres of compacted base, and 0.84 ac (36,600 sq.ft.) of office buildings, storage, flatwork, and AST. The impervious cover for the entire site is 68.8%. These conditions result in a "C" value of 0.66.

The permanent BMP's shall be constructed and maintained by the owner. The permanent BMP's proposed is a sedimentation/ filtration system and existing vegetated strips. The system was designed by the TCEQ "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices" - June 2005.

ATTACHEMENT D

FACTORS AFFECTING WATER QUALITY

Potential Sources of Pollutants During and After Construction

1. Soil erosion due to grubbing, or excavation for BMP's
2. Oil, grease fuel and hydraulic fluid contamination from construction equipment and vehicle drippings.
3. Miscellaneous trash and debris from construction and material wrappings.
4. Construction debris
5. Traffic related pollutants from service vehicles and equipment
6. Pesticides, herbicides and fertilizers.
7. The AST will have a roof over it so no stormwater will mix with in the AST chamber. If any stormwater in the AST containment is captured, it will be vacuumed and hauled of to an approved site for disposal.

ATTACHEMENT E

VOLUME AND CHARACTER OF STORMWATER

The H.L. Chapman project is located at 32610 North Hwy. 281, Bulverde, Texas 78163. It is situated at the east side of Hwy 281 North between Casey Rd. and Elm Valley. The entire site drains into an unnamed tributary to the Lewis Creek. The site is located in the Edwards Aquifer Contributing Zone.

The existing conditions of the tract included a single wide and a double-wide trailer with gravel driveways and ground slopes exceeding 14% of slope. These steep slopes generated high stormwater velocities (5 feet per second). The existing "C" is 0.53.

The proposed project is construction yard. The site consists of 6.28 acres of pervious cover, 12.98 acres of compacted base, and 0.84 ac (36,600 sq.ft.) of office buildings, storage and AST. The impervious cover for the entire site is 68.8%.. These conditions result in a "C" value of 0.66. with velocities of less than 6.0 ft/sec.

The proposed contributing watershed for the onsite runoff will flow east towards the proposed sedimentation/filtration basin before being discharged into the existing natural low. The stormwater runoff for the entire site is as follows.

EXISITING CONDITIONS

Point No.	Parameters			Calculated Flows		
	Area (ac)	C	Tc. (min.)	Q5 (cfs)	Q25 (cfs)	Q100 (cfs)
1	20.1	0.53	20	48.6	62.4	75.5

PROPOSED CONDITIONS

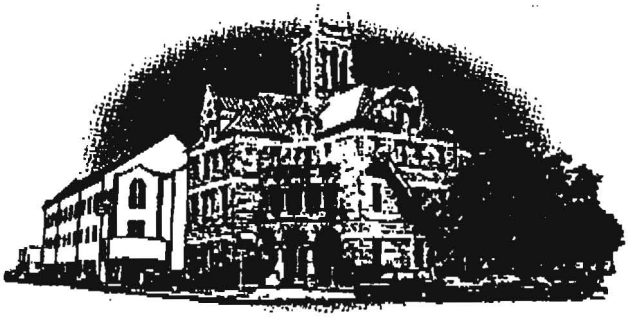
Point No.	Parameters			Calculated Flows		
	Area (ac)	C	Tc. (min.)	Q5 (cfs)	Q25 (cfs)	Q100 (cfs)
1	20.1	0.66	29	50.8	67.4	82.3

ATTACHMENT F

ON-SITE SEWAGE FACILITY

Copy of Comal County permit is attached behind this sheet.

DATE	PERMIT#
3/4/99	79796



Comal County

OFFICE OF COMAL COUNTY ENGINEER

LICENSE TO OPERATE A PRIVATE SEWAGE FACILITY

OWNER(L)	FIRST	SUBDIVISION NAME		
Klement / Putz	Jon & Patty / Richard & Suzanne			
STREET	UNIT	BLOCK	LOT	ACRES/TRACT
32610 Highway 281 North				9.830 & 10.548 Acres

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Natural Resource Conservation Commission.

The license grants permission to operate the facility. It does not guarantee successful operation. It is the responsibility of the owner to maintain and operate the facility in a satisfactory manner.

Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. It may be transferred by the holder to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

THE FACILITY IS LICENSED FOR

☐ SINGLE FAMILY RESIDENCE	SQUARE FEET OF DWELLING
☒ INSTITUTION	TYPE OF BUSINESS/INSTITUTION: Retail Nursery

THE FACILITY CONSISTS OF

SYSTEM TYPE	SYSTEM DESCRIPTION	
Standard	Septic Tank & ET Drainfield	
GALLON TANK	SQUARE FEET ABSORPTION AREA	SWITCHING VALVE?YES/N
750	1792	Yes

SPECIAL CONDITIONS

INSPECTOR	ENVIRONMENTAL HEALTH COORDINATOR

195 David Jonas Drive • New Braunfels, Texas 78132-3760 • (830) 608-2090 FAX (830) 608-2009

* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * * *

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

PRINT CLEARLY COMPLETING ALL INFORMATION

79796

DATE: 1 PERMIT#:

PROPERTY OWNERS NAME: Jon & Patty Klement, Richard & Suzanne Putz PHONE#: (210) 573-4092

ADDRESS:
32610 HWY 281 NORTH
BULVERDE, TX

RECEIVED
FEB 04 1999
ENVIRONMENTAL HEALTH

DESCRIPTION OF PROPERTY:

SUBDIVISION: 9.830 ac out of the E. Koch survey No. 770 A-884

STREET NAME: 32610 Hwy 281 North UNIT: LOT: BLK:

IF NOT IN A SUBDIVISION GIVE NAME OF ROAD/HWY: 1 1/2 miles South of 46 on east side of 281 ACREAGE:

LOT MUST BE MARKED ON SITE AND A LOCATION MAP ATTACHED WITH THIS APPLICATION. IS PROOF OF OWNERSHIP ATTACHED? CCRA transmission line on north property boundary

Plume Homes on East side of property

IS PROPERTY LOCATED OVER THE EDWARDS RECHARGE ZONE? NO IF YES, SITE EVALUATION & PLANNING MATERIALS MUST BE COMPLETED BY A REGISTERED SANITARIAN OR PROFESSIONAL ENGINEER.

Texas 2

TYPE OF DEVELOPMENT:

_____ SINGLE FAMILY RESIDENCE _____ TOTAL SQR. FT. OF DWELLING _____ GALLONS PER DAY

✓ COMMERCIAL TYPE OF BUSINESS/INSTITUTION: RETAIL NURSERY

8 employees NUMBER OF OCCUPANTS 144 GALLONS PER DAY
15 customers per day

SITES GENERATING MORE THAN 5000 GALLONS PER DAY ARE REQUIRED TO OBTAIN PERMITTING THROUGH THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION.

SOURCE OF WATER: PUBLIC _____ PRIVATE ✓

PLANNING MATERIALS & SITE EVALUATION AS REQUIRED COMPLETED BY: STEPHEN ALAN MANGOLD, P.E.

SYSTEM TYPE: STANDARD (SEE TABLE IX ON NEXT PAGE)

SYSTEM DESCRIPTION: Septic TANK AND DRAIN FIELD (SEE TABLE IX ON NEXT PAGE)

SIZE OF SEPTIC SYSTEM REQUIRED BASED ON PLANNING MATERIALS & SITE EVALUATION:

TANK SIZE 750 GALLONS ABSORPTION/APPLICATION AREA 720 SQR. FT.

ARE WATER SAVING DEVICES BEING UTILIZED? ✓ YES _____ NO

INSTALLERS NAME: ANDERSON BACKHOE SERVICES

I CERTIFY THAT THE COMPLETED APPLICATION AND ALL ADDITIONAL INFORMATION SUBMITTED DOES NOT CONTAIN ANY FALSE INFORMATION AND DOES NOT CONCEAL ANY MATERIAL FACTS. AUTHORIZATION IS HEREBY GIVEN TO THE PERMITTING AUTHORITY AND DESIGNATED AGENTS TO ENTER UPON THE ABOVE DESCRIBED PROPERTY FOR THE PURPOSE OF SITE/SOIL EVALUATION AND INSPECTION OF PRIVATE SEWAGE FACILITIES. I ALSO UNDERSTAND THAT A PERMIT OF AUTHORIZATION TO CONSTRUCT WILL NOT BE ISSUED UNTIL THE FLOOD PLAIN ADMINISTRATOR HAS APPROVED AND RELEASED THE DEVELOPMENT PERMIT FOR THIS PROPERTY.

PRELIMINARY COPY

R E Putz

SIGNATURE OF OWNER OR APPOINTED AGENT IF SIGNED BY AGENT GIVE ADDRESS & PHONE NUMBER

195 DAVID JONAS DRIVE, NEW BRAUNFELS, TEXAS 78132-3760 * (830)608-2094 FAX (830)608-2009

79796

SITE EVALUATION AND CALCULATIONS

RECEIVED

FEB 04 1999

ENVIRONMENTAL HEALTH

Site Evaluation:

Soil Texture	Clay Loam
Soil Structure:	Blocky
Soil Depth:	4 feet minimum
Restrictive Horizon:	None encountered
Groundwater:	None encountered
Topography:	More than 2% slope on site of drainfield
Determination:	Site was determined to have a Class III soil. Further the site has sufficient soil depth and topography for the installation of a standard soil absorption system.

Calculations:

Soil class: Class III Ra = 0.2 gallons / sq. ft. / day

32

Drainfield is designed for an office building w/o food service ~~w/ 8 employees & 15 customer uses per day at 5 gal. / person /day. A safety factor of 1.25 will be applied.~~

180

Q = 1.25 (23 x 5) = ~~144 gpd.~~ 212

For Q = 144 gallons / day: Use 750 gallon septic tank, min.

1060

A = Q / Ra, A =(144 gallons / day)/(0.2 gal. / sq. ft. / day) = ~~720 sq.~~ ft. minimum

W = width of excavation, W = 4 feet.

L = A / (W+2), L = (720) / (4 + 2) = 120 ft. minimum

Install 120 ft. of 4 ft. wide excavation for office building.

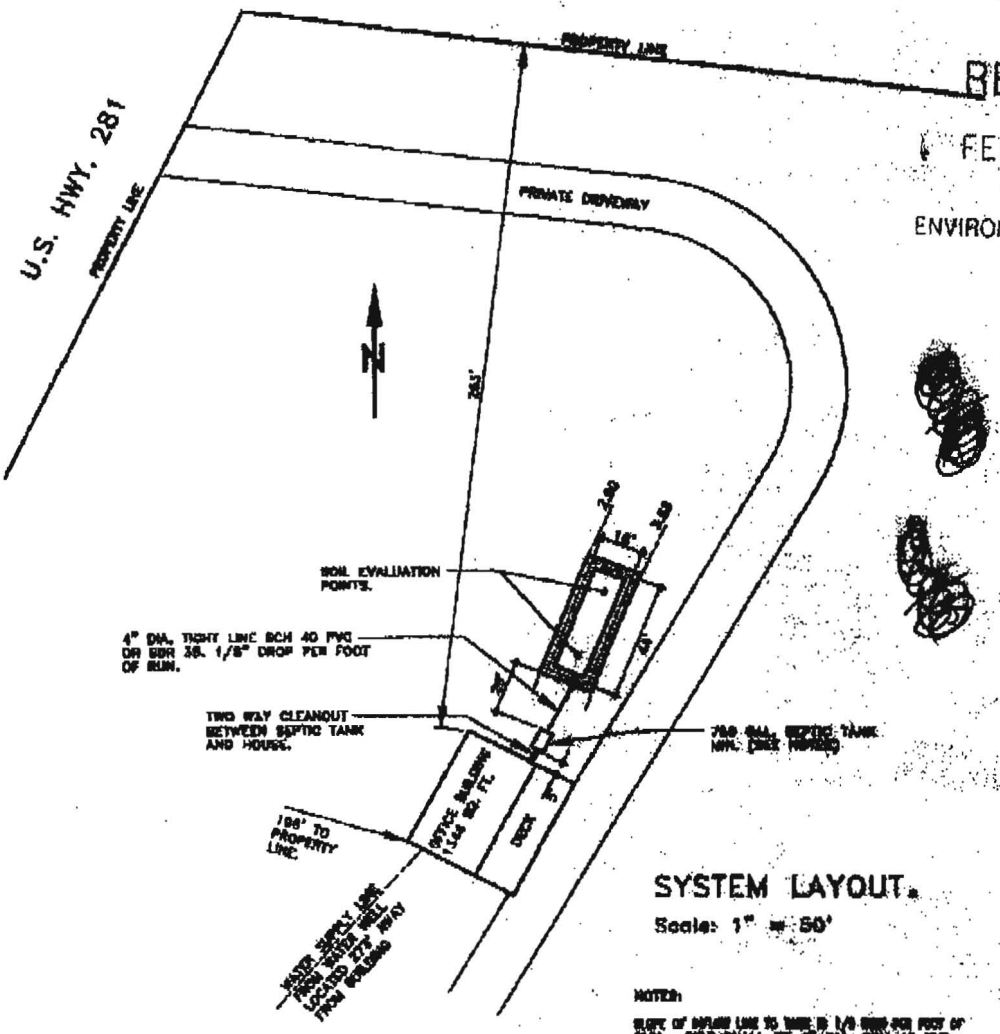
Owner Dicky Putz **Location** 32610 Hwy. 281 North Bulverde, TX	**Drawn by:** Stephen A. Mangold **Drawing No.** 100-1461	STATE OF TEXAS Alan Mangold 1/30/99
MANGOLD Engineering Company 5596 CR 5710 Devine, TX 78016 Phone: (830) 931-2896	**Date:** 1/30/99 **Scale:** None **Sheet** 1 **of** 5	PRELIMINARY

79796

RECEIVED

FEB 04 1999

ENVIRONMENTAL HEALTH



SYSTEM LAYOUT.

Scale: 1" = 50'

NOTES:

* Septic tank must be a minimum of 50' from any private water well.
Closest distance from any part of drainfield to private water well must be 100' minimum.
Minimum separation distance between drainfield and septic tank is 5'.
Minimum setback of drainfield from property lines is 5'.
Minimum separation distance between septic tank or drainfield and water supply lines is 10'.

ENGINEERS CERTIFICATION: I hereby certify that to the best of my knowledge, this sewage facility is not located within the boundaries of the Edward's Aquifer Recharge Area.

Owner Dicky Putz	Drawn by: Stephen A. Mangold
Location See sheet #1	Drawing No. 100-1461

MANGOLD Engineering Company
5595 CR 5710
Devine, TX 78016
Phone: (830) 931-2898

Date: 2/2/99
Scale: Noted
Sheet 2 of 5

STATE OF TEXAS
87456
2/2/99

* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * * *

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

PRINT CLEARLY COMPLETING ALL INFORMATION

79796

DATE: 1 PERMIT#:

PROPERTY OWNERS NAME: Jon & Patty Klement, Richard & Suzanne Putz PHONE#: (210) 573-4092 mobile (210) 573-4092

ADDRESS: ~~32610 Hwy 281 North~~ PO Box 383 RECEIVED FAX #(210) 523-1382

Bulverde, Tx 78163

ENVIRONMENTAL HEALTH

DESCRIPTION OF PROPERTY:

SUBDIVISION: 9.830 ac out of the E. Koch Survey No. 970 A-884

STREET NAME: 32610 Hwy 281 North UNIT: LOT: BLK:

IF NOT IN A SUBDIVISION GIVE NAME OF ROAD/HWY: 1/2 Miles South of 46 on east side of 281 ACREAGE:

LOT MUST BE MARKED ON SITE AND A LOCATION MAP ATTACHED WITH THIS APPLICATION. IS PROOF OF OWNERSHIP ATTACHED?

CCPA Transmission line on north property boundary Pine Homes on East side of property

IS PROPERTY LOCATED OVER THE EDWARDS RECHARGE ZONE? No IF YES, SITE EVALUATION & PLANNING MATERIALS MUST BE COMPLETED BY A REGISTERED SANITARIAN OR PROFESSIONAL ENGINEER.

TYPE OF DEVELOPMENT:

___ SINGLE FAMILY RESIDENCE ___ TOTAL SQR. FT. OF DWELLING ___ GALLONS PER DAY

✓ COMMERCIAL TYPE OF BUSINESS/INSTITUTION Retail Nursery

8 NUMBER OF OCCUPANTS 144 GALLONS PER DAY

SITES GENERATING MORE THAN 5000 GALLONS PER DAY ARE REQUIRED TO OBTAIN PERMITTING THROUGH THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION.

SOURCE OF WATER: PUBLIC___ PRIVATE ✓

PLANNING MATERIALS & SITE EVALUATION AS REQUIRED COMPLETED BY: Stephen Alan Mangold, P.E.

SYSTEM TYPE: Standard (SEE TABLE IX ON NEXT PAGE)

SYSTEM DESCRIPTION: Septic Tank and Drain Field (SEE TABLE IX ON NEXT PAGE)

SIZE OF SEPTIC SYSTEM REQUIRED BASED ON PLANNING MATERIALS & SITE EVALUATION:

TANK SIZE 750 GALLONS ABSORPTION/APPLICATION AREA 720 SQR. FT

ARE WATER SAVING DEVICES BEING UTILIZED? ✓ YES ___ NO

INSTALLERS NAME: Anderson Backhoe Services

I CERTIFY THAT THE COMPLETED APPLICATION AND ALL ADDITIONAL INFORMATION SUBMITTED DOES NOT CONTAIN ANY FALSE INFORMATION AND DOES NOT CONCEAL ANY MATERIAL FACTS. AUTHORIZATION IS HEREBY GIVEN TO THE PERMITTING AUTHORITY AND DESIGNATED AGENTS TO ENTER UPON THE ABOVE DESCRIBED PROPERTY FOR THE PURPOSE OF SITE/SOIL EVALUATION AND INSPECTION OF PRIVATE SEWAGE FACILITIES. I ALSO UNDERSTAND THAT A PERMIT OF AUTHORIZATION TO CONSTRUCT WILL NOT BE ISSUED UNTIL THE FLOOD PLAIN ADMINISTRATOR HAS APPROVED AND RELEASED THE DEVELOPMENT PERMIT FOR THIS PROPERTY.

SIGNATURE OF OWNER OR APPOINTED AGENT

IF SIGNED BY AGENT GIVE ADDRESS & PHONE NUMBER

DATE OF APPLICATION	PERMIT NUMBER	DATE OF PERMIT APPROVAL	DATE OF FLOOD PLAIN APPROVAL
2/04/99	7979	2-15-99	2-8-99

LOCATION: 32610 Hwy ~~218~~ North 281 North

SYSTEM TYPE/DESCRIPTION: Standard

AFFIDAVIT TO THE PUBLIC REQUIRED ON SURFACE APPLICATION & ET SYSTEMS
SERVICE AGREEMENT REQUIRED FOR SYSTEMS UTILIZING AEROBIC TREATMENT

AFFIDAVIT RECEIVED ✓ SERVICE AGREEMENT RECEIVED ______

owner will contact Margold

****

INFORMATION FROM PRELIMINARY ON-SITE INSPECTION:

DATE OF PRELIMINARY ON-SITE INSPECTION: ✓ 2-9-99

CHECK HERE INDICATING DESIGN MEETS TNRCC REQUIREMENTS: ______

LIST DEFICIENCIES IN PLANNING MATERIALS WHICH DO NOT MEET TNRCC RULES: (BE SPECIFIC & EXPLAIN FINDINGS IN DETAIL)
(CHECK OFF WHEN REQUIRED INFORMATION IS RECEIVED)

1. ✓ As per site evaluators required information,
2. give horizons, texture and soil structures
3. for each.
4. ✓ Re evaluate 2nd horizon's structure
5. & texture
6. ✓ Skirt drain is required to divert seasonal
7. groundwater seepage around OSSF (A)
8. X ✓ Customers should be rated as "Parks/per person" (without bathhouses) or Previous water
10. usage records from previous location (public restrooms) / Scale does not match design

NOTES OR CONCERNS:

1. ✓ Excavations were drilled & soil structure
2. smeared. Excavations are seeping
3. at this time as is cut out for
4. mobile - Owner agreed & will want skirt drain to keep standard OSSF

HO not in agreement

****

INSTALLATION INSPECTION INFORMATION:

DATE OF S-1 25 Feb 99 DATE OF S-2 3 March 99 4 Mar 99 DATE OF S-3

INSTALLERS NAME: Anderson

150 TANK SIZE(S)

CHECK HERE IF DIVERTER VALVE IS USED? ✓

1792 SQ.FT. ABSORPTION/APPLICATION AREA

INSPECTED BY: [signature]

DATE OF FINAL INSPECTION ______

ENTERED IN SUMMARY SHEET ______

COMAL COUNTY FLOOD PLAIN DEVELOPMENT PERMIT APPLICATION

PERMIT NO 79796 79796

DATE: 4 FEBRUARY 1999

APPLICANT: RICHARD E. PUTZ, SR. PHONE #: (210) 573-4092

MAILING ADDRESS: PO BOX 383

BULVERDE, TX 78163

LEGAL DESCRIPTION OF PROERTY LOCATION: (ATTACH RECORDED DOCUMENT & VICINITY MAP) 9.830 ac. out of the L. Koch Survey No. 970, A-884 & 10.548 acres out of ElCoco Survey No. 970, A-884.

NATURE OF PROPOSED CONSTRUCTION: 4/8 B-2

RECEIVED
FEB 04 1999
ENVIRONMENTAL HEALTH

___ RESIDENTIAL _✓_ NON-RESIDENTIAL ___ PLACEMENT OF FILL

___ ALTERATION OF NATURAL WATERWAY OR WATER COURSE

___ OTHER (SPECIFY)

COST OF NEW CONSTRUCTION		COST OF SUBSTANTIAL IMPROVEMENTS
___ HOUSE $	O	___ RESIDENTIAL $
___ MOBILE $ 40,000	R	___ NON-RESIDENTIAL $
___ COMMERCIAL $		___ COMMERCIAL $
___ OTHER $		___ OTHER $

Tracts created prior to Jan 1, 99 see Vol 352 pg 262 & 352 pg 264

APPLICANT WILL PROVIDE PLANS AND SPECIFICATIONS OF THE PROPOSED CONSTRUCTION

****FOR OFFICE USE ONLY****

ARE PROPOSED BUILDINGS LOCATED IN A SPECIAL FLOOD HAZARD AREA? NO

IS A WATER POLLUTION ABATEMENT PLAN REQUIRED? YES ___ NO ✓

EXEMPTION CERTIFICATE

THE ABOVE NAMED APPLICANT HAS APPLIED FOR A DEVELOPMENT PERMIT.

THE APPLICATION HAS BEEN REVIEWED BY THE COUNTY ADMINISTRATOR AND IT IS HIS DETERMINATION THAT THE PROPOSED DEVELOPMENT IS NOT WITHIN AN IDENTIFIED FLOOD PLAIN OF COMAL COUNTY.

THIS CERTIFICATE EXEMPTS THE APPLICANT FROM DEVELOPMENT STANDARDS REQUIRED BY COMAL COUNTY FLOOD PLAIN MANAGEMENT REGULATIONS. WORK IS HEREBY AUTHORIZED TO PROCEED ON THE ABOVE.

THE COUNTY ADMINISTRATOR HAS REVIEWED THE PLANS AND SPECIFICATIONS OF THE PROPOSED DEVELOPMENT AND DESIRES TO MAKE THE FOLLOWING RECOMMENDATIONS FOR DEVELOPMENT OR DESIGN ALTERATIONS:

WARNING

THE FLOOD HAZARD BOUNDARY MAPS AND OTHER FLOOD DATA USED BY THE COUNTY ADMINISTRATOR IN EVALUATING FLOOD HAZARDS TO PROPOSED DEVELOPMENTS ARE CONSIDERED REASONABLE AND ACCURATAE FOR REGULATORY PURPOSES AND ARE BASED ON THE BEST SCIENTIFIC AND ENGINEERING DATA. ON RARE OCCATIONS, GREATER FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS EXEMPTION CERTIFICATE DOES NOT IMPLY THAT DEVELOPMENTS OUTSIDE THE IDENTIFIED AREAS OF SPECIAL FLOOD HAZARD WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ISSUANCE OF THIS EXEMPTION CERTIFICATE SHALL NOT CREATE LIABILITY ON THE PART OF COMAL COUNTY IN THE EVENT FLOODING OR FLOOD DAMAGE DOES OCCUR.

R E Putz Jr
ACKNOWLEDGEMENT OF WARNING BY APPLICANT/AGENT

DATE: 4 FEBRUARY 1999

Janine E Ellington - CFM
COUNTY ADMINISTRATOR

DATE: 2-8-99

OFFICE OF COMAL COUNTY ENGINEER
PERMIT OF AUTHORIZATION TO CONSTRUCT
ON SITE SEWAGE FACILITY
MINIMUM REQUIRED SIZES FOR SEPTIC SYSTEM
PERMIT VALID FOR ONE YEAR FROM DATE ISSUED

PERMIT MONT	PERMIT DAY	PERMIT YEAR
February	25	1999

☐ SINGLE FAMILY RESIDENCE ☒ INSTITUTION ☐ REMODEL PERMIT

PERMIT#	OWNER(L)	FIRST
79796	Klement / Putz	Jon & Patty / Richard &

DEVELOPMENT	STREET
	32610 Highway 281 North

UNIT	BLOCK	LOT	TRACT/ACRES
			9.830 & 10.548

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN:

TANK SIZE	ABSORPTION AREA REQUIRED
750	~~720~~ 1792

SYSTEM TYPE	SYSTEM DESCRIPTION

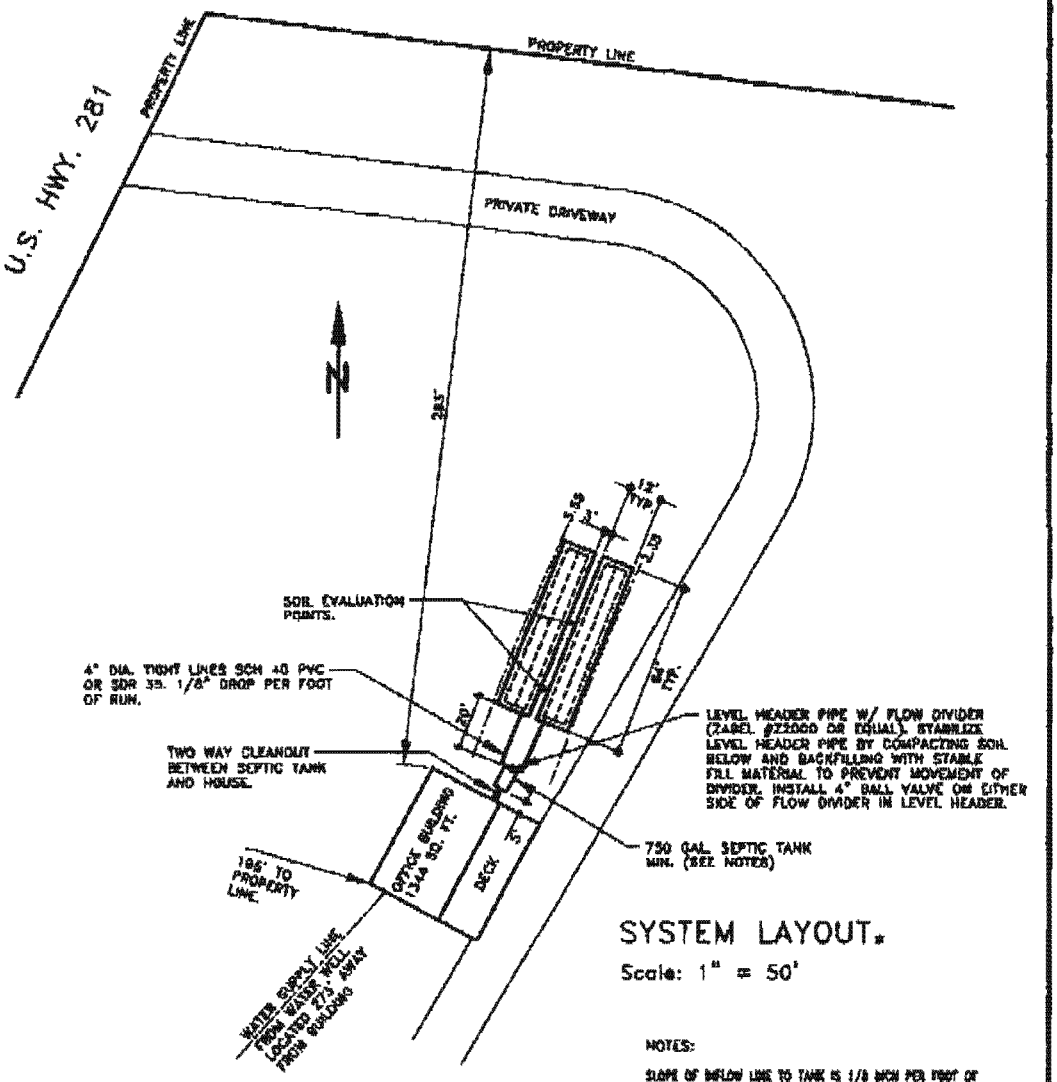
Special Requirements

THIS PERMIT GIVES PERMISSION FOR THE CONSTRUCTION OF THE ABOVE REFERENCED ON SITE SEWAGE FACILITY TO COMMENCE. INSTALLATION MUST BE COMPLETED BY AN INSTALLER HOLDING A VALID REGISTRATION CARD FROM THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION (TNRCC). INSTALLATION AND INSPECTION MUST COMPLY WITH CURRENT TNRCC AND COMAL COUNTY REQUIREMENTS. CALL (830) 608-2094 TO SCHEDULE INSPECTIONS.

REVISED
3796

RECEIVED

ENVIRONMENTAL HEALTH



SYSTEM LAYOUT*

Scale: 1" = 50'

NOTES:

SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT OF RUN. PIPE SHALL BE 4" DIA. SCH 40 PVC.

PERFORATED PIPE TO BE LAID ON LEVEL OR SLIGHT DOWNWARD SLOPE FROM INLET, NOT MORE THAN 4" PER 100' OF LENGTH.

SEPTIC TANK MUST BE WATERTIGHT & CONSTRUCTED OF REINFORCED CONCRETE, WITH 750 GAL. TOTAL CAPACITY, MINIMUM.

SINGLE TANK OR TWO TANK SYSTEM MAY BE USED. THE FIRST TANK OR COMPARTMENT MUST BE 1/3 TO 2/3 OF THE TOTAL VOLUME OF BOTH TANKS OR COMPARTMENTS.

DRAINFIELD WILL BE INSPECTED BY COMAL COUNTY INSPECTOR IN ACCORDANCE WITH CURRENT COMAL COUNTY INSPECTION PROCEDURES.

* Septic tank must be a minimum of 50' from any private water well.
Closest distance from any part of drainfield to private water well must be 100' minimum.
Minimum separation distance between drainfield and septic tank is 5'.
Minimum setback of drainfield from property lines is 5'.
Minimum separation distance between septic tank or drainfield and water supply lines is 10'.

ENGINEERS CERTIFICATION: I hereby certify that to the best of my knowledge, this sewage facility is not located within the boundaries of the Edward's Aquifer Recharge Area.

Owner Dicky Putz	Drawn by: Stephen A. Mangold
Location See sheet #1	Drawing No. 100-1461A

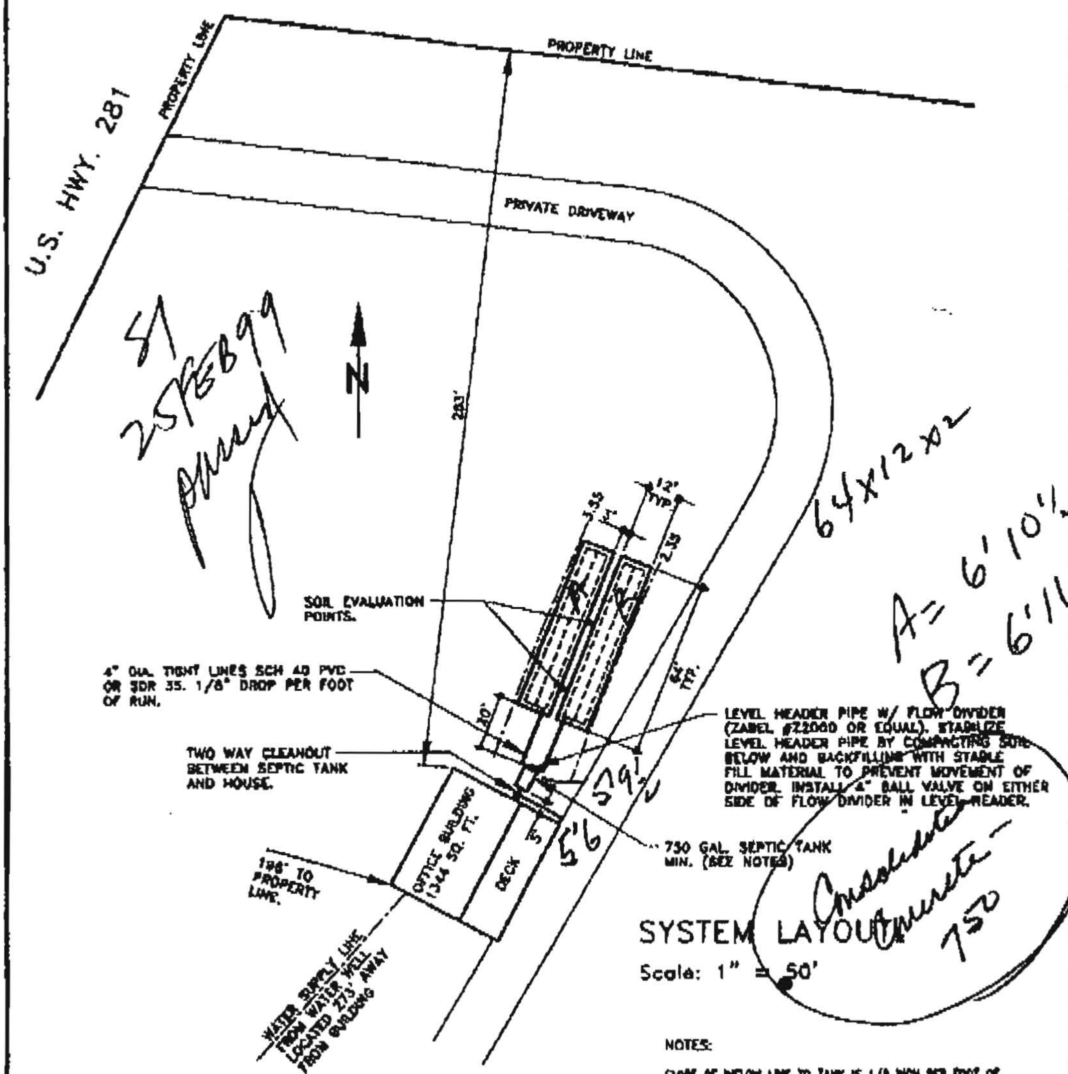
MANGOLD Engineering Company
5586 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 2/21/99
Scale: Noted
Sheet 2 of 3

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

REVISED

RECEIVED
FEB 22 1999
ENVIRONMENTAL HEALTH



SYSTEM LAYOUT
Scale: 1" = 50'

NOTES:

SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT OF RUN. PIPE SHALL BE 4" DIA. SCH 40 PVC.

PERFORATED PIPE TO BE LAID ON LEVEL OR SLIGHT DOWNWARD SLOPE FROM INLET. NOT MORE THAN 4" PER 100' OF LENGTH.

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DRAINFIELD WILL BE INSPECTED BY COMAL COUNTY INSPECTOR IN ACCORDANCE WITH CURRENT COMAL COUNTY INSPECTION PROCEDURES.

52
3Mar99
passed

* Septic tank must be a minimum of 50' from any private water well.
Closest distance from any part of drainfield to private water well must be 100' minimum.
Minimum separation distance between drainfield and septic tank is 5'.
Minimum setback of drainfield from property lines is 5'.
Minimum separation distance between septic tank or drainfield and water supply lines is 10'.

Bed A=5'9½
B=5'9½

ENGINEERS CERTIFICATION; I hereby certify that to the best of my knowledge, this sewage facility is not located within the boundaries of the Edward's Aquifer Recharge Area.

Owner Dicky Putz **Location** See sheet #1	**Drawn by:** Stephen A. Mangold **Drawing No.** 100-1461A
MANGOLD Engineering Company 5596 CR 5710 Devine, TX 78016 Phone: (830) 931-2896	**Date:** 2/21/99 **Scale:** Noted **Sheet** 2 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

SITE EVALUATION AND CALCULATIONS

REVISED 9794

Site Evaluation:

RECEIVED

FEB 22 1999

ENVIRONMENTAL HEALTH

Soil Texture	Clay loam
Soil Structure:	Blocky
Soil Depth:	Approx. 2.5 feet
Restrictive Horizon:	Rock horizon encountered at approx. 2.5 feet
Groundwater:	None encountered
Topography:	More than 2% slope on site of drainfield
Determination:	Site was determined to have a Class III soil. A rock restrictive horizon was encountered at approx. 2.5 feet. Two ET beds will be designed for this site.

Calculations:

Soil class: Class III

Drainfield is designed for an office building w/o food service w/ 8 employees & 15 customer uses per day at 5 gal. / person / day. A safety factor of 1.25 will be applied.
Q = 1.25 (23 x 5) = 144 gpd

For Q = 144 gallons / day : Use 750 gallon septic tank, min.

ET Bed design: Ret = 0.15 inches / day Value used for San Antonio area.

A = 1.6Q / Ret, A = 1.6(144 gallons / day) / (0.15 inches / day) = **1536 sq. ft. minimum**

W = width of excavation, W = 12 feet

L = 0.5(1536) / 12 = **64 feet**

Install two equally sized ET beds 12' x 64' each, connected w/ flow divider and control valving for office building.

Owner Dicky Putz	**Drawn by:** Stephen A. Mangold
Location 32610 Hwy. 281 North Bulverde, TX	**Drawing No.** 100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2898

Date: 2/21/99
Scale: None
Sheet 1 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

REVISED
5796

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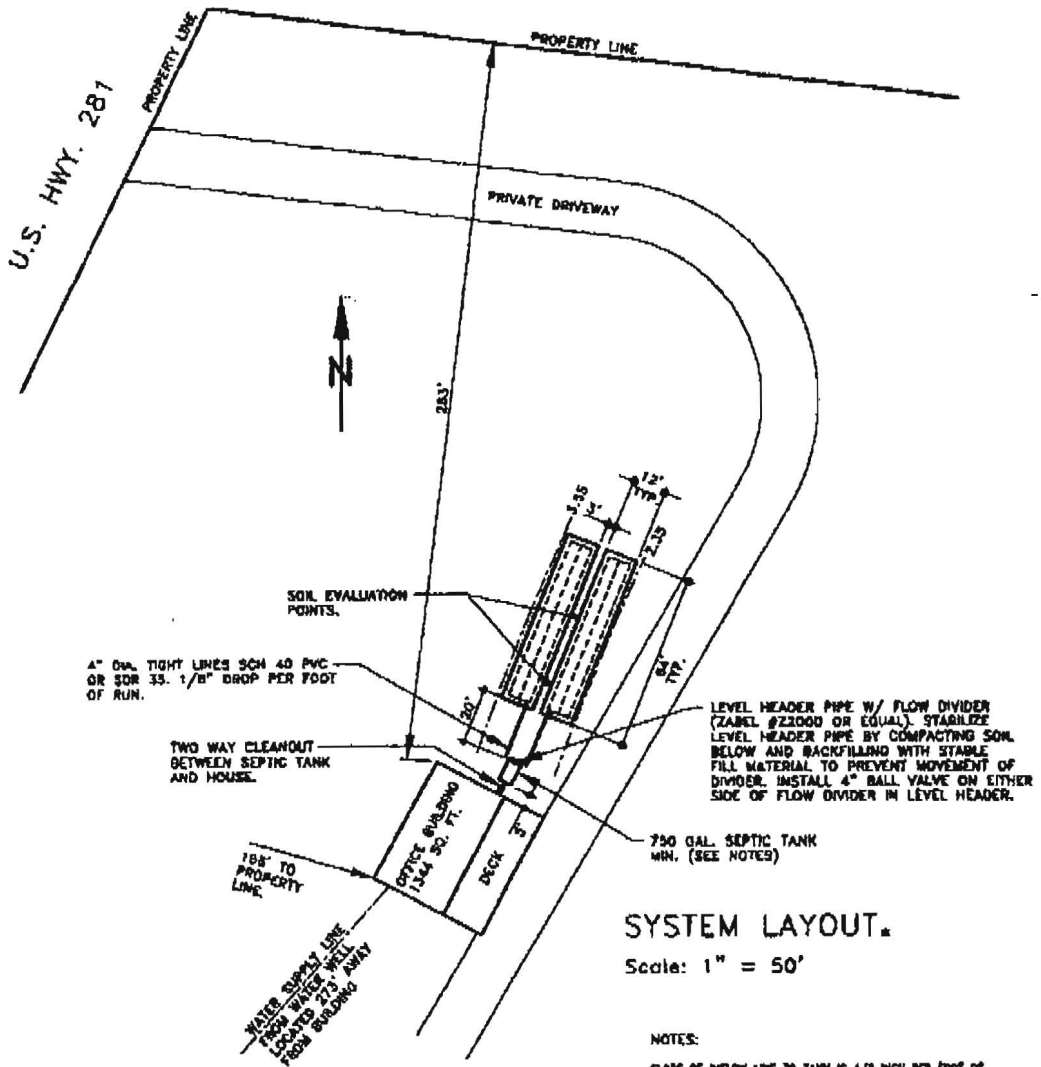
FEB 22 1999
ENVIRONMENTAL HEALTH



SYSTEM LAYOUT.

Scale: 1" = 50'

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DRAINFIELD WILL BE INSPECTED BY COMAL COUNTY INSPECTOR IN ACCORDANCE WITH CURRENT COMAL COUNTY INSPECTION PROCEDURES.

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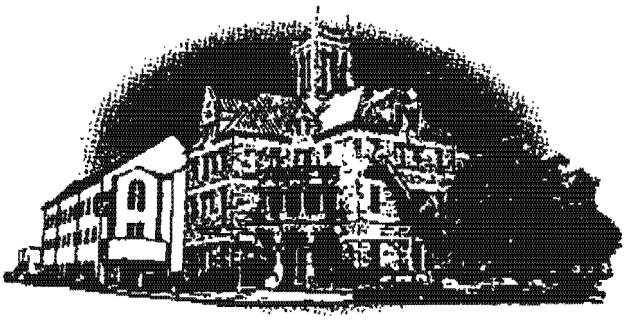
Owner Dicky Putz	**Drawn by:** Stephen A. Mangold
Location See sheet #1	**Drawing No.** 100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 2/21/99
Scale: Noted
Sheet 2 of 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99



Comal County

OFFICE OF COMAL COUNTY ENGINEER

February 23, 1999

Jon & Patty Klement / Richard & Suzanne Putz
P.O. Box 383
Bulverde, Texas 78163

Re: 9.830 & 10.548 Acres; 32610 Highway 281 North, Permit #79796,
Application for Permit To Construct On-Site Sewage Facility & License To Operate

Dear Mr. & Mrs. Klement, & Mrs. & Mrs. Putz,

We received a revision for the referenced permit application on February 22, 1999. Before a permit to construct can be re-issued for the new design the following information is required:

1. Enclosed Affidavit To The Public form must be completed, signature notarized, recorded at the Comal County Clerk's Office, and a copy supplied to our office.

The required information may be faxed to our office.

Sincerely,

Brenda J. Ritzen
Environmental Health Coordinator

195 David Jonas Drive • New Braunfels, Texas 78132-3760 • (830) 608-2090 FAX (830) 608-2009

AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL
STATE OF TEXAS

Before me, the undersigned authority, on this day personally appeared _____ _____,being duly sworn, upon oath state that he/she is the owner of record of that certain tract or parcel of land lying and being situated in Comal County, Texas, and being more particularly described as follows:

The undersigned further state that he/she is installing an Evapotranspiration septic system designed to accommodate the requirement for a residence using 144 gallons per day. Any buyer or transferee is hereby notified of the design limits of this system.

_____
Property Owner

WITNESS MY HAND on this _____ day of _____, 1999

_____
Notary Public, State of Texas

My Commission expires: _____
Notary's printed name: _____

DOC# 9906004763

79796

1C

AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL
STATE OF TEXAS

Before me, the undersigned authority, on this day personally appeared Richard E. Fitz, JR., being duly sworn, upon oath state that he/she is the owner of record of that certain tract or parcel of land lying and being situated in Comal County, Texas, and being more particularly described as follows:

10.548 AC., AND 9.830 Kocll Survey 5970 A884

The undersigned further state that he/she is installing an Evapotranspiration septic system designed to accommodate the requirement for a residence using 144 gallons per day. Any buyer or transferee is hereby notified of the design limits of this system.

Richard E Fitz Jr.
Property Owner

WITNESS MY HAND on this 25th day of February, 1999

Verna Lee Batey
Notary Public, State of Texas

VERNA LEE BATEY
MY COMMISSION EXPIRES
July 31, 1999

My Commission expires: July 31 1999
Notary's printed name: VERNA LEE BATEY

STATE OF TEXAS
COUNTY OF COMAL
This is to certify that this document was FILED and RECORDED in the Official Public Records of Comal County, Texas on the date and time stamped thereon.
Joy Streater
COUNTY CLERK
COMAL COUNTY, TEXAS

Doc# 9906004763
Pages: 1
Date : 02-25-1999
Time : 10:08:50 A.M.
Filed & Recorded in
Official Records
of COMAL County, TX.
JOY STREATER
COUNTY CLERK
Rec. $ 9.00

DOC# 9906004763

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

FAX TRANSMITTAL COVER SHEET

NUMBER OF PAGES INCLUDING THIS PAGE 6

DATE/TIME 2/21/99

ATTENTION: TOM HORNSETH, P.E.

FROM: STEVE MANGOLD

FAX #: (830) 608-2009

REMARKS:

Tom,

Here is a revision of the system for Dickey Putz. When the installer started digging, he hit a restrictive horizon which did not show up in the test holes. I have therefore changed the design to an ET system. No water is present in any of the new excavation. If you have any questions, please call.

Steve Mangold

SITE EVALUATION AND CALCULATIONS

Site Evaluation:

Soil Texture	Clay loam
Soil Structure:	Blocky
Soil Depth:	Approx. 2.5 feet
Restrictive Horizon:	Rock horizon encountered at approx. 2.5 feet
Groundwater:	None encountered
Topography:	More than 2% slope on site of drainfield
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For Q = 144 gallons / day : Use 750 gallon septic tank, *min.*

ET Bed design: Ret = 0.15 inches / day Value used for San Antonio area.

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W = width of excavation, W = 12 feet

L = 0.5(1536) / 12 = **64 feet**

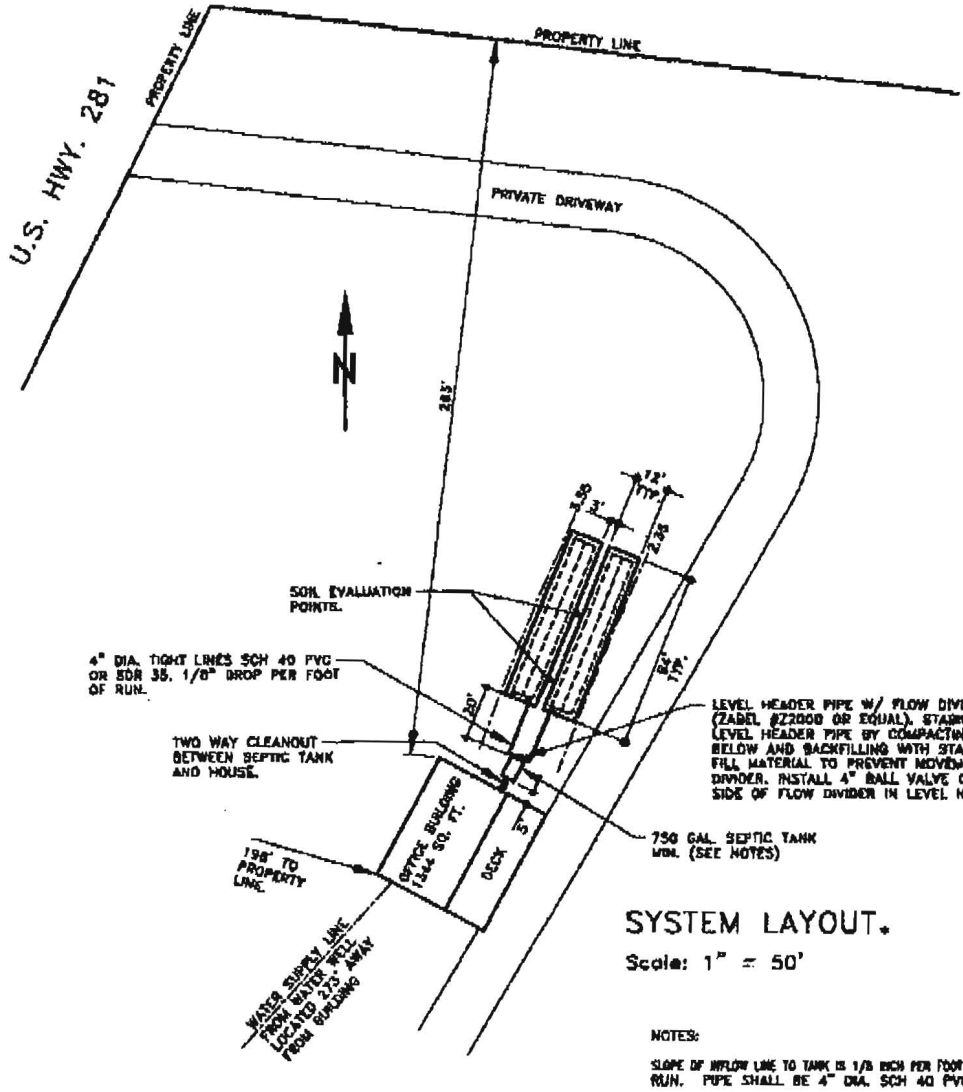
Install two equally sized ET beds 12' x 64' each, connected w/ flow divider and control valving for office building.

Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	32610 Hwy. 281 North Bulverde, TX	**Drawing No.**	100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 2/21/99
Scale: None
Sheet 1 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99



SYSTEM LAYOUT.

Scale: 1" = 50'

NOTES:

SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT OF RUN. PIPE SHALL BE 4" DIA. SCH 40 PVC.

PERFORATED PIPE TO BE LAID ON LEVEL OR SLIGHT DOWNWARD SLOPE FROM INLET, NOT MORE THAN 4" PER 100' OF LENGTH.

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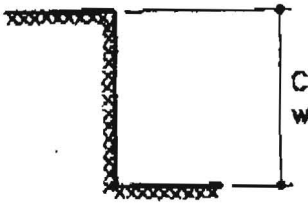
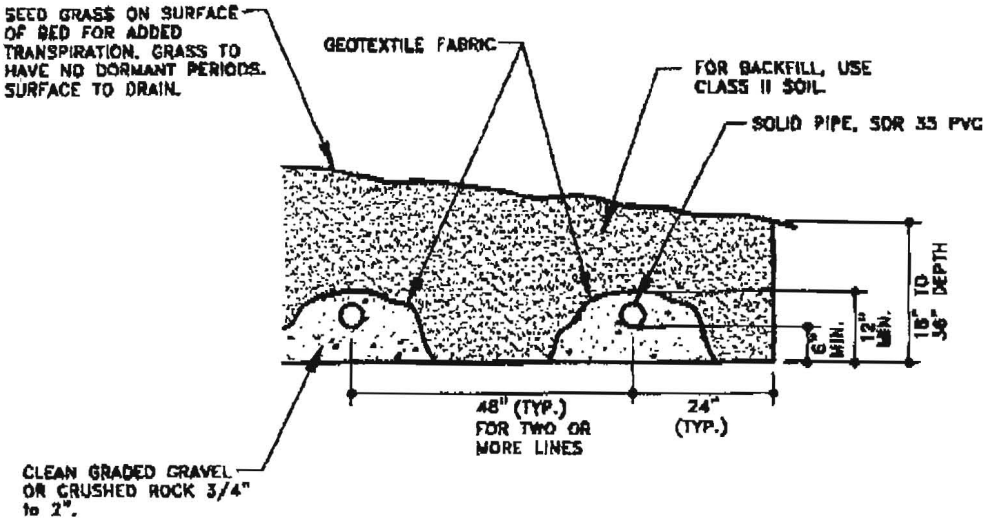
ENGINEERS CERTIFICATION: I hereby certify that to the best of my knowledge, this sewage facility is not located within the boundaries of the Edward's Aquifer Recharge Area.

Owner Dicky Putz	Drawn by: Stephen A. Mangold	STATE OF TEXAS ★ Stephen Alan Mangold 57956 REGISTERED PROFESSIONAL ENGINEER 2/21/99
Location See sheet #1	Drawing No. 100-1461A	
MANGOLD Engineering Company 5586 CR 5710 Devine, TX 78016 Phone: (830) 931-2896	Date: 2/21/99 Scale: Noted Sheet 2 of 5	



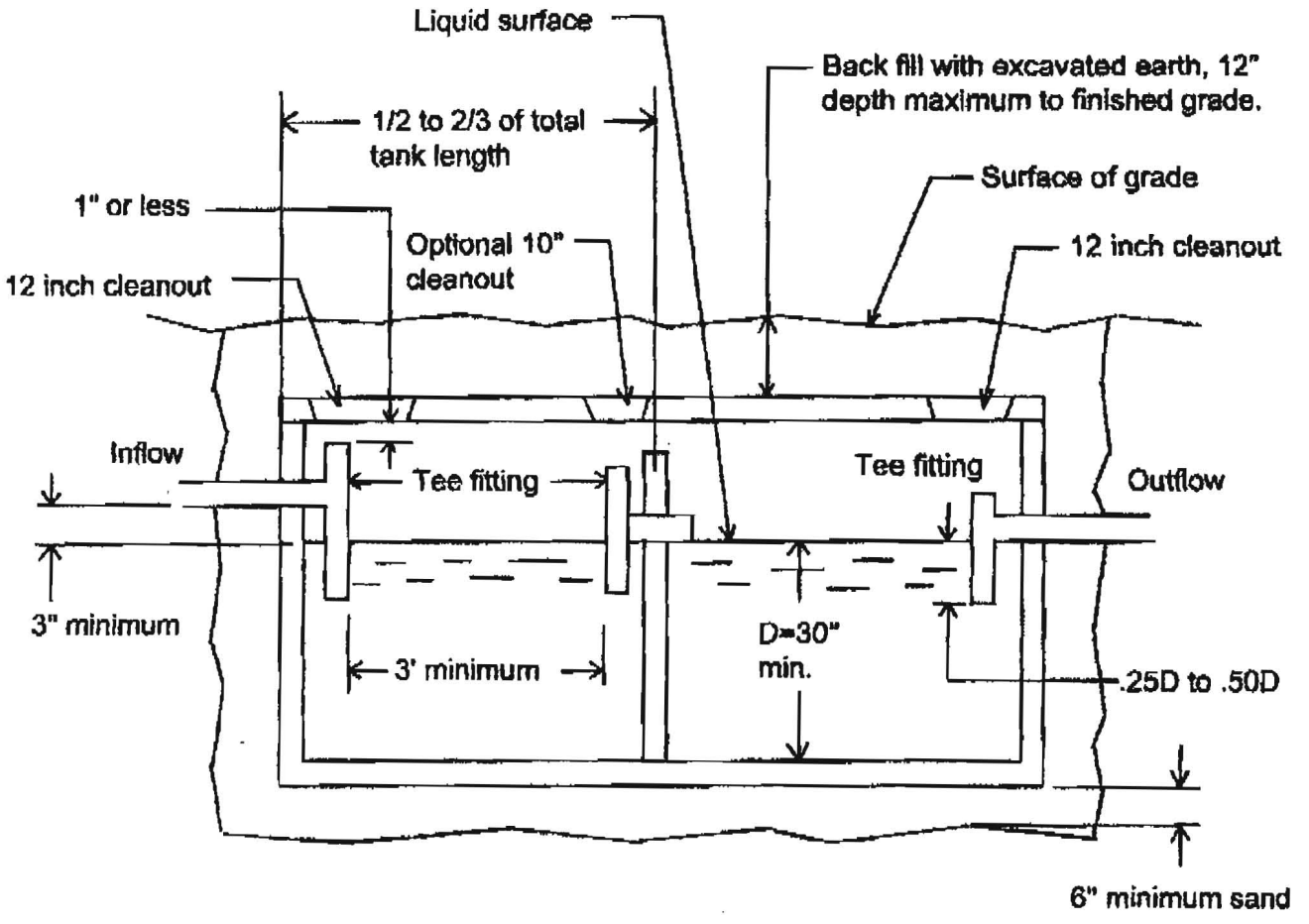
Clay loam and small rock to 30"
w/ rock restrictive horizon below.

SOIL PROFILE



ET BED DETAIL

Owner Dicky Putz	**Drawn by:** Stephen A. Mangold	STATE OF TEXAS Stephen Alan Mangold 57956 REGISTERED PROFESSIONAL ENGINEER 2/21/99
Location See sheet #1	**Drawing No.** 100-1461A	
MANGOLD Engineering Company 5596 CR 5710 Devine, TX 78016 Phone: (830) 931-2896	**Date:** 2/21/99 **Scale:** None **Sheet** 3 of 5	



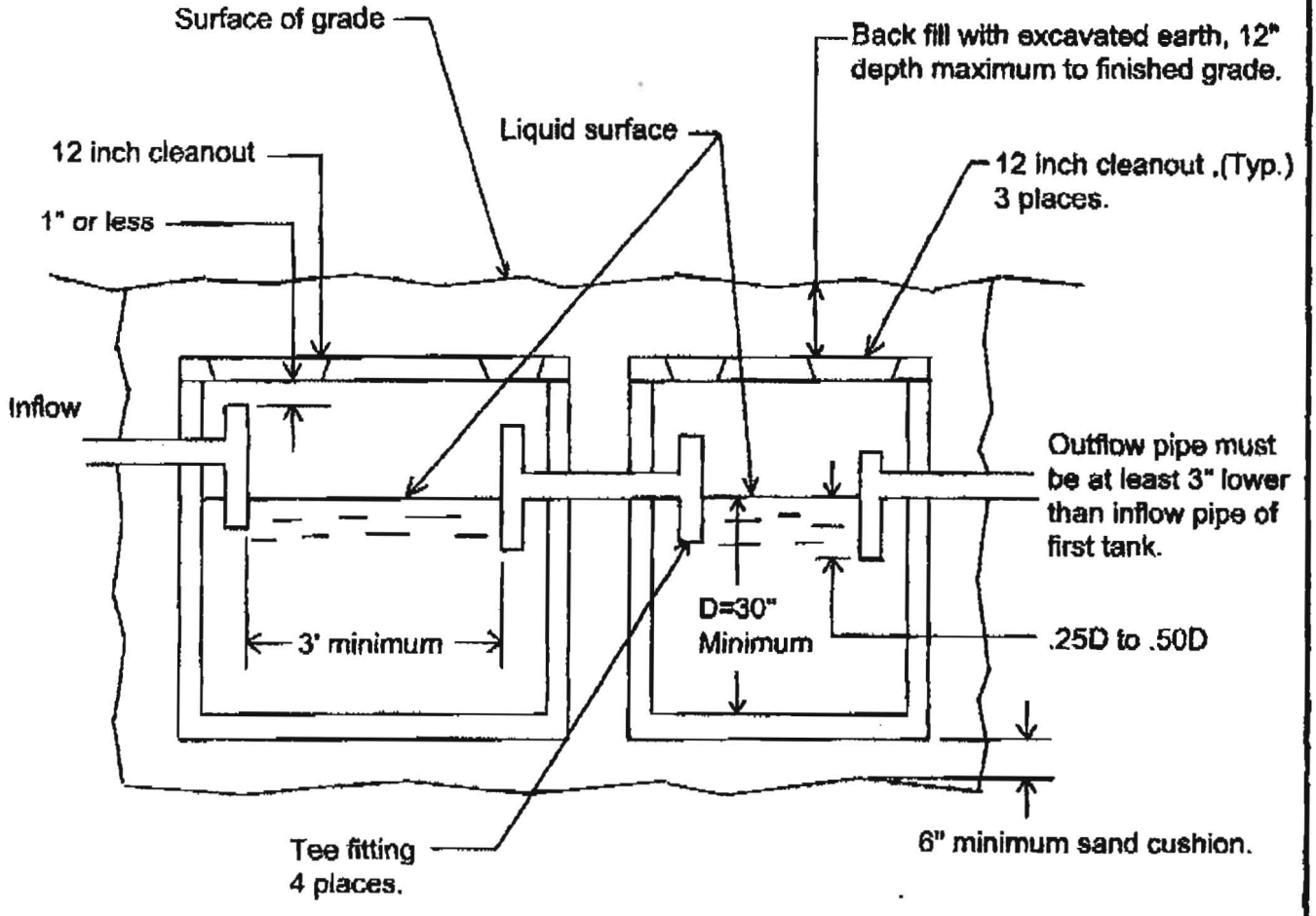
TWO COMPARTMENT TANK

Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	See sheet #1	**Drawing No.**	100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 2/21/99
Scale: None
Sheet 4 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99



TWO TANK SYSTEM

Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	See sheet #1	**Drawing No.**	100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 2/21/99
Scale: None
Sheet 5 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

OFFICE OF COMAL COUNTY ENGINEER
PERMIT OF AUTHORIZATION TO CONSTRUCT
ON SITE SEWAGE FACILITY
MINIMUM REQUIRED SIZES FOR SEPTIC SYSTEM
PERMIT VALID FOR ONE YEAR FROM DATE ISSUED

PERMIT MONT	PERMIT DAY	PERMIT YEAR
February	25	1999

☐ SINGLE FAMILY RESIDENCE ☒ INSTITUTION ☐ REMODEL PERMIT

PERMIT#	OWNER(L)	FIRST
79796	Klement / Putz	Jon & Patty / Richard &

DEVELOPMENT	STREET
	32610 Highway 281 North

UNIT	BLOCK	LOT	TRACT/ACRES
			9.830 & 10.548

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN:

TANK SIZE	ABSORPTION AREA REQUIRED
750	720

SYSTEM TYPE	SYSTEM DESCRIPTION

Special Requirements

THIS PERMIT GIVES PERMISSION FOR THE CONSTRUCTION OF THE ABOVE REFERENCED ON SITE SEWAGE FACILITY TO COMMENCE. INSTALLATION MUST BE COMPLETED BY AN INSTALLER HOLDING A VALID REGISTRATION CARD FROM THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION (TNRCC). INSTALLATION AND INSPECTION MUST COMPLY WITH CURRENT TNRCC AND COMAL COUNTY REQUIREMENTS. CALL (830) 608-2094 TO SCHEDULE INSPECTIONS.

SITE EVALUATION AND CALCULATIONS REVISED 9794

RECEIVED

ENVIRONMENTAL HEALTH

Site Evaluation:

Soil Texture	Clay loam
Soil Structure:	Blocky
Soil Depth:	Approx. 2.5 feet
Restrictive Horizon:	Rock horizon encountered at approx. 2.5 feet
Groundwater:	None encountered
Topography:	More than 2% slope on site of drainfield
Determination:	Site was determined to have a Class III soil. A rock restrictive horizon was encountered at approx. 2.5 feet. Two ET beds will be designed for this site.

Calculations:

Soil class: Class III

Drainfield is designed for an office building w/o food service w/ 8 employees & 15 customer uses per day at 5 gal. / person / day. A safety factor of 1.25 will be applied. Q = 1.25 (23 x 5) = 144 gpd

For Q = 144 gallons / day : Use 750 gallon septic tank, min.

ET Bed design: Ret = 0.15 inches / day Value used for San Antonio area.

A = 1.6Q / Ret, A = 1.6(144 gallons / day) / (0.15 inches / day) = **1536 sq. ft. minimum**

W = width of excavation, W = 12 feet

L = 0.5(1536) / 12 = **64 feet**

Install two equally sized ET beds 12' x 64' each, connected w/ flow divider and control valving for office building.

Owner Dicky Putz

Location 32610 Hwy. 281 North, Bulverde, TX

Drawn by: Stephen A. Mangold

Drawing No. 100-1461A

MANGOLD Engineering Company
5598 CR 5710
Devine, TX 78016
Phone: (830) 931-2898

Date: 2/21/99

Scale: None

Sheet 1 of 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

79796

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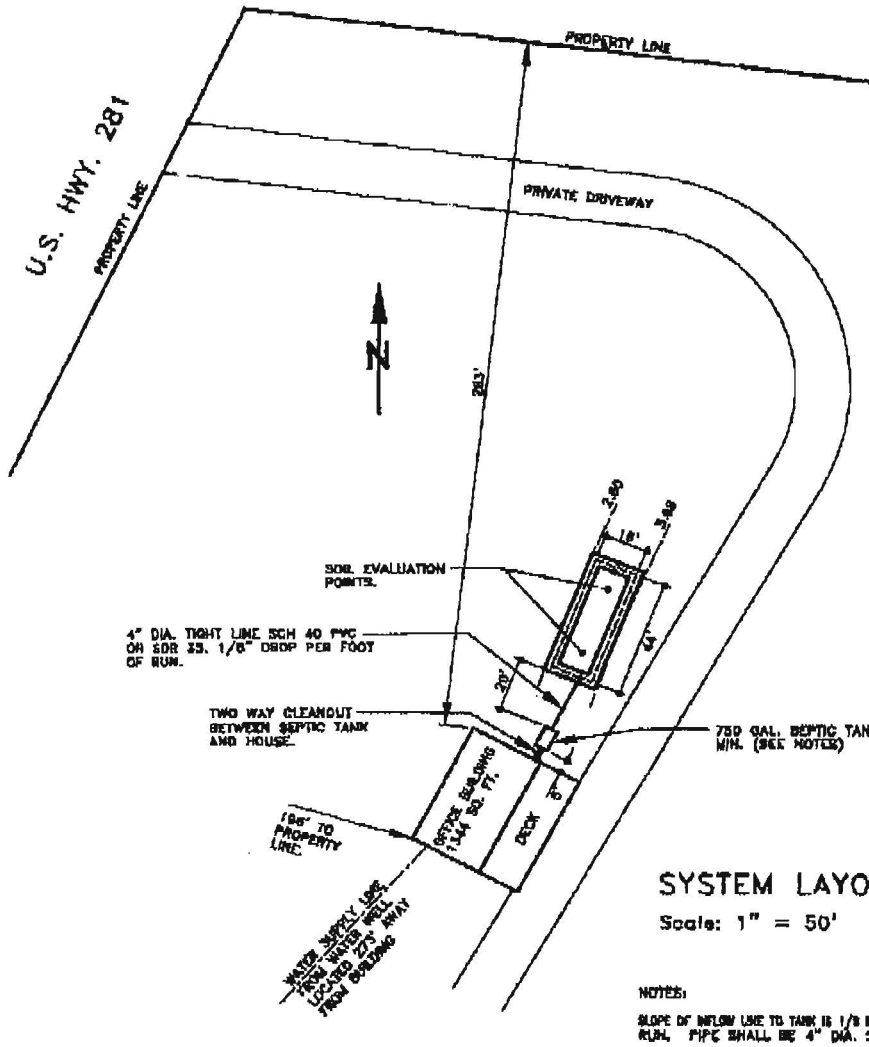
ENVIRONMENTAL HEALTH



SYSTEM LAYOUT.

Scale: 1" = 50'

NOTES:

SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT OF RUN. PIPE SHALL BE 4" DIA. SCH 40 PVC.

PERFORATED PIPE TO BE LAID ON LEVEL OR SLIGHT DOWNWARD SLOPE FROM INLET, NOT MORE THAN 4" PER 100' OF LENGTH.

SEPTIC TANK MUST BE WATERTIGHT & CONSTRUCTED OF REINFORCED CONCRETE, WITH 750 GAL. TOTAL CAPACITY, MINIMUM.

SINGLE TANK OR TWO TANK SYSTEM MAY BE USED. THE FIRST TANK OR COMPARTMENT MUST BE 1/2 TO 2/3 OF THE TOTAL VOLUME OF BOTH TANKS OR COMPARTMENTS.

DRAINFIELD WILL BE INSPECTED BY COMAL COUNTY INSPECTOR IN ACCORDANCE WITH CURRENT COMAL COUNTY INSPECTION PROCEDURES.

* Septic tank must be a minimum of 50' from any private water well.
Closest distance from any part of drainfield to private water well must be 100' minimum.
Minimum separation distance between drainfield and septic tank is 5'.
Minimum setback of drainfield from property lines is 5'.
Minimum separation distance between septic tank or drainfield and water supply lines is 10'.

ENGINEERS CERTIFICATION: I hereby certify that to the best of my knowledge, this sewage facility is not located within the boundaries of the Edward's Aquifer Recharge Area.

Owner Dicky Putz	Drawn by: Stephen A. Mangold
Location See sheet #1	Drawing No. 100-1461

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 1/30/99

Scale: Noted

Sheet 2 of 5

STATE OF TEXAS
Stephen Alan Mangold
57956
LICENSED PROFESSIONAL ENGINEER

2/2/99

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

FAX TRANSMITTAL COVER SHEET

NUMBER OF PAGES INCLUDING THIS PAGE 6

DATE/TIME 2/21/99

ATTENTION: TOM HORNSETH, P.E.

FROM: STEVE MANGOLD

FAX #: (830) 608-2009

REMARKS:

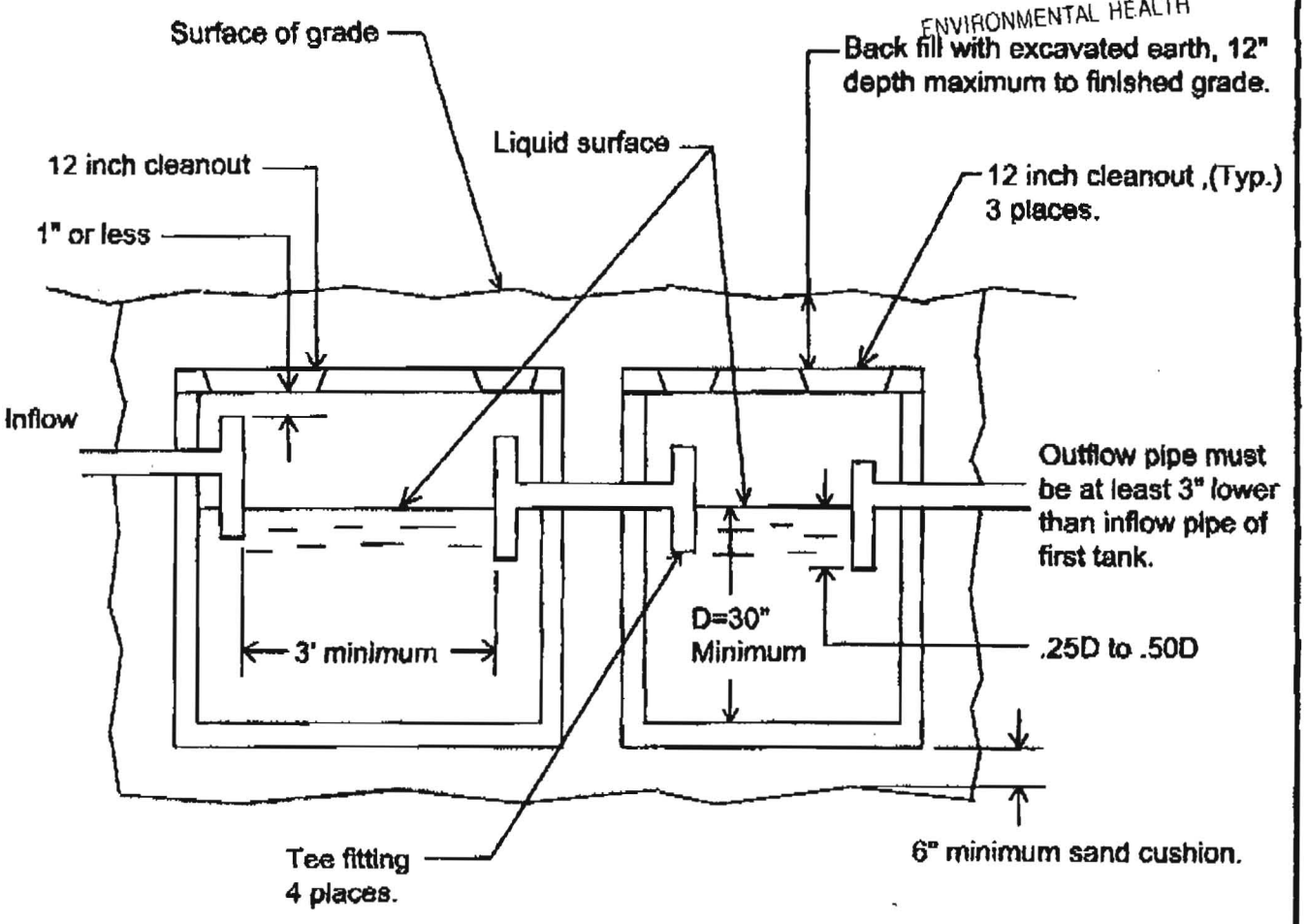
Tom,

Here is a revision of the system for Dickey Putz. When the installer started digging, he hit a restrictive horizon which did not show up in the test holes. I have therefore changed the design to an ET system. No water is present in any of the new excavation. If you have any questions, please call.

Steve Mangold

REVISED
2/9/96
RECEIVED

ENVIRONMENTAL HEALTH



TWO TANK SYSTEM

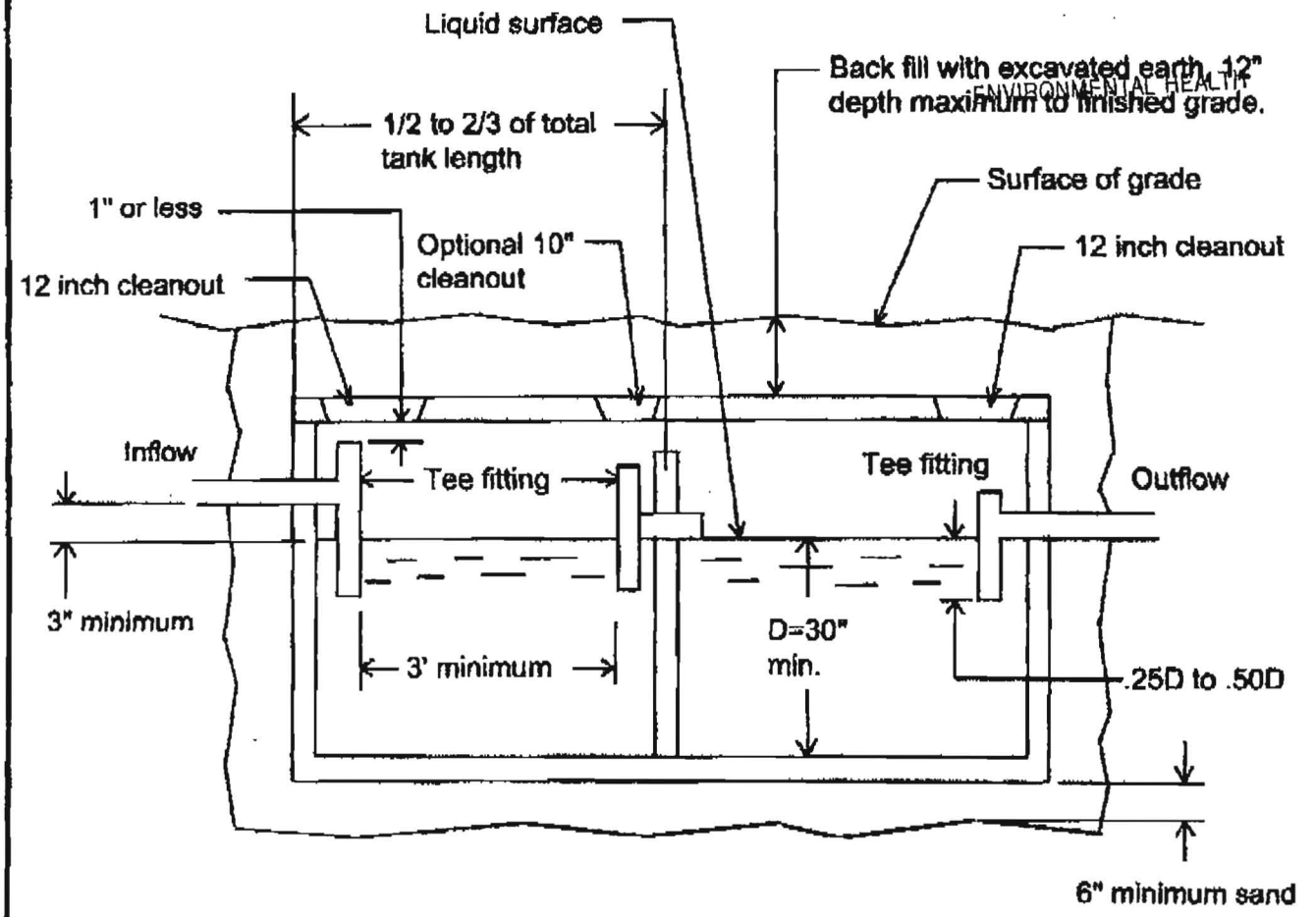
Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	See sheet #1	**Drawing No.**	100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 2/21/99
Scale: None
Sheet 5 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

REVISED
4/96
RECEIVED
ENVIRONMENTAL HEALTH



TWO COMPARTMENT TANK

Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	See sheet #1	**Drawing No.**	100-1461A

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

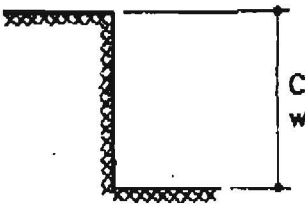
Date: 2/21/99
Scale: None
Sheet 4 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/21/99

REVISED 9/96

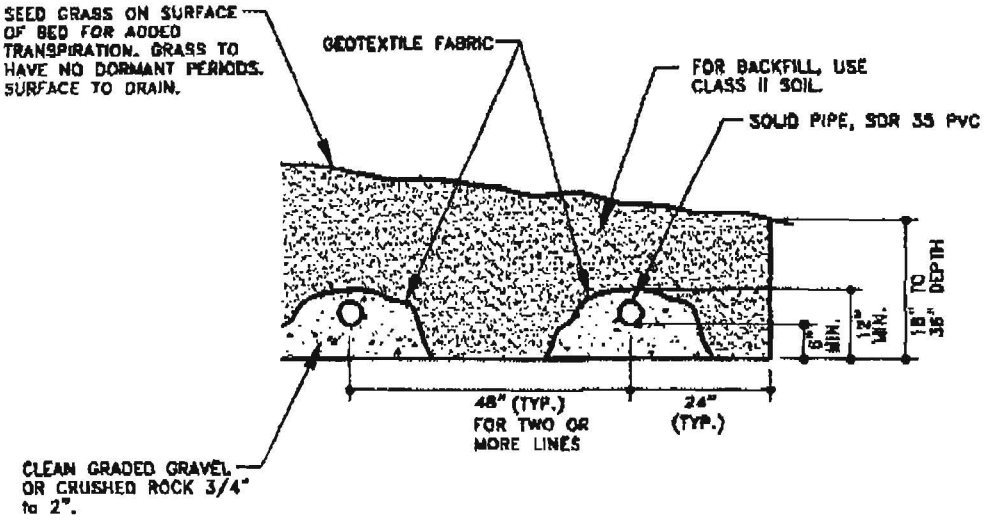
RECEIVED

ENVIRONMENTAL HEALTH



Clay loam and small rock to 30" w/ rock restrictive horizon below.

SOIL PROFILE



ET BED DETAIL

Owner Dicky Putz	**Drawn by:** Stephen A. Mangold	Stephen Alan Mangold 57956 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS 2/21/99
Location See sheet #1	**Drawing No.** 100-1461A	
MANGOLD Engineering Company 5596 CR 5710 Devine, TX 78016 Phone: (830) 931-2896	**Date:** 2/21/99 **Scale:** None **Sheet** 3 of 5	

OFFICE OF COMAL COUNTY ENGINEER
PERMIT OF AUTHORIZATION TO CONSTRUCT
ON SITE SEWAGE FACILITY
MINIMUM REQUIRED SIZES FOR SEPTIC SYSTEM
PERMIT VALID FOR ONE YEAR FROM DATE ISSUED

PERMIT MONT	PERMIT DAY	PERMIT YEAR
February	15	1999

☐ SINGLE FAMILY RESIDENCE ☒ INSTITUTION ☐ REMODEL PERMIT

PERMIT#	OWNER(L)	FIRST
79796	Klement / Putz	Jon & Patty / Richard &

DEVELOPMENT	STREET
	32610 Highway 281 North

UNIT	BLOCK	LOT	TRACT/ACRES
			9.830 & 10.548

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN:

TANK SIZE	ABSORPTION AREA REQUIRED
750	720

SYSTEM TYPE	SYSTEM DESCRIPTION

Special Requirements

THIS PERMIT GIVES PERMISSION FOR THE CONSTRUCTION OF THE ABOVE REFERENCED ON SITE SEWAGE FACILITY TO COMMENCE. INSTALLATION MUST BE COMPLETED BY AN INSTALLER HOLDING A VALID REGISTRATION CARD FROM THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION (TNRCC). INSTALLATION AND INSPECTION MUST COMPLY WITH CURRENT TNRCC AND COMAL COUNTY REQUIREMENTS. CALL (830) 608-2094 TO SCHEDULE INSPECTIONS.

79796

SITE EVALUATION AND CALCULATIONS

RECEIVED

FEB 04 1999

ENVIRONMENTAL HEALTH

Site Evaluation:

Soil Texture	Clay Loam
Soil Structure:	Blocky
Soil Depth:	4 feet minimum
Restrictive Horizon:	None encountered
Groundwater:	None encountered
Topography:	More than 2% slope on site of drainfield
Determination:	Site was determined to have a Class III soil. Further the site has sufficient soil depth and topography for the installation of a standard soil absorption system.

Calculations:

Soil class: Class III Ra = 0.2 gallons / sq. ft. / day

Drainfield is designed for an office building w/o food service w/ 8 employees & 15 customer uses per day at 5 gal. / person /day. A safety factor of 1.25 will be applied.

Q = 1.25 (23 x 5) = 144 gpd.

For Q = 144 gallons / day: Use 750 gallon septic tank, min.

A = Q / Ra, A =(144 gallons / day)/(0.2 gal. / sq. ft. / day) = **720 sq. ft. minimum**

W = width of excavation, W = 4 feet

L = A / (W+2), L = (720) / (4 + 2) = **120 ft. minimum**

Install 120 ft. of 4 ft. wide excavation for office building.

Owner Dicky Putz

Location 32610 Hwy. 281 North Bulverde, TX

Drawn by: Stephen A. Mangold

Drawing No. 100-1461

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 1/30/99

Scale: None

Sheet 1 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
LICENSED PROFESSIONAL ENGINEER
1/30/99

79796

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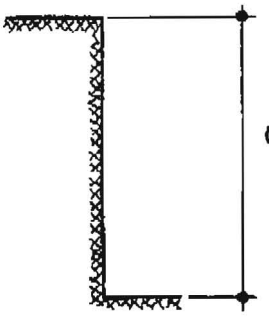
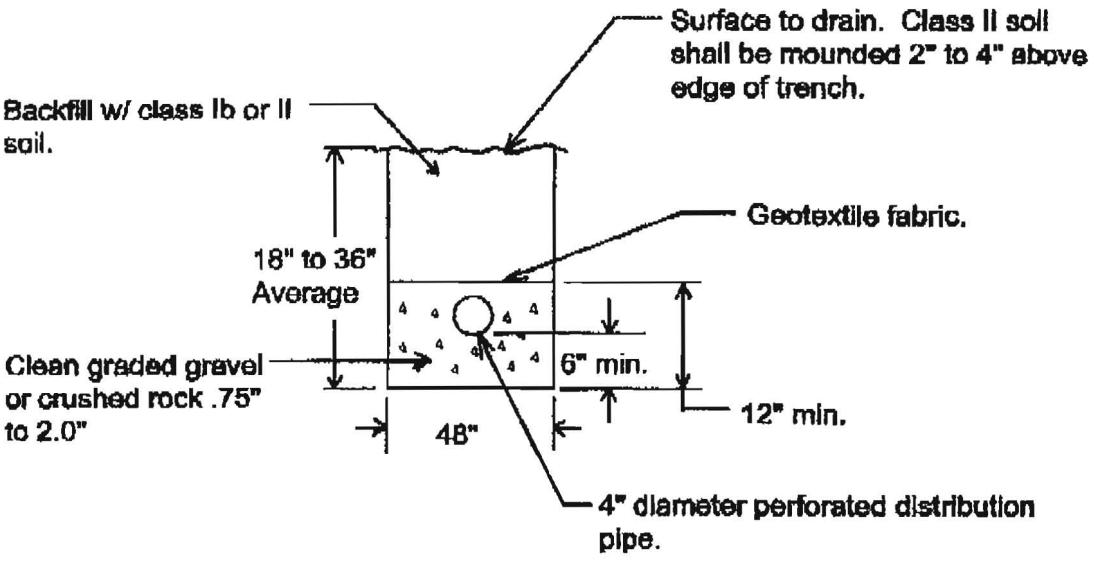
FEB 04 [illegible]

ENVIRONMENTAL HEALTH



Clay loam & small rock to 48".

SOIL PROFILE



TRENCH DETAIL

Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	See sheet #1	**Drawing No.**	100-1461

MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 1/30/99

Scale: None

Sheet 3 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
2/2/99

79796

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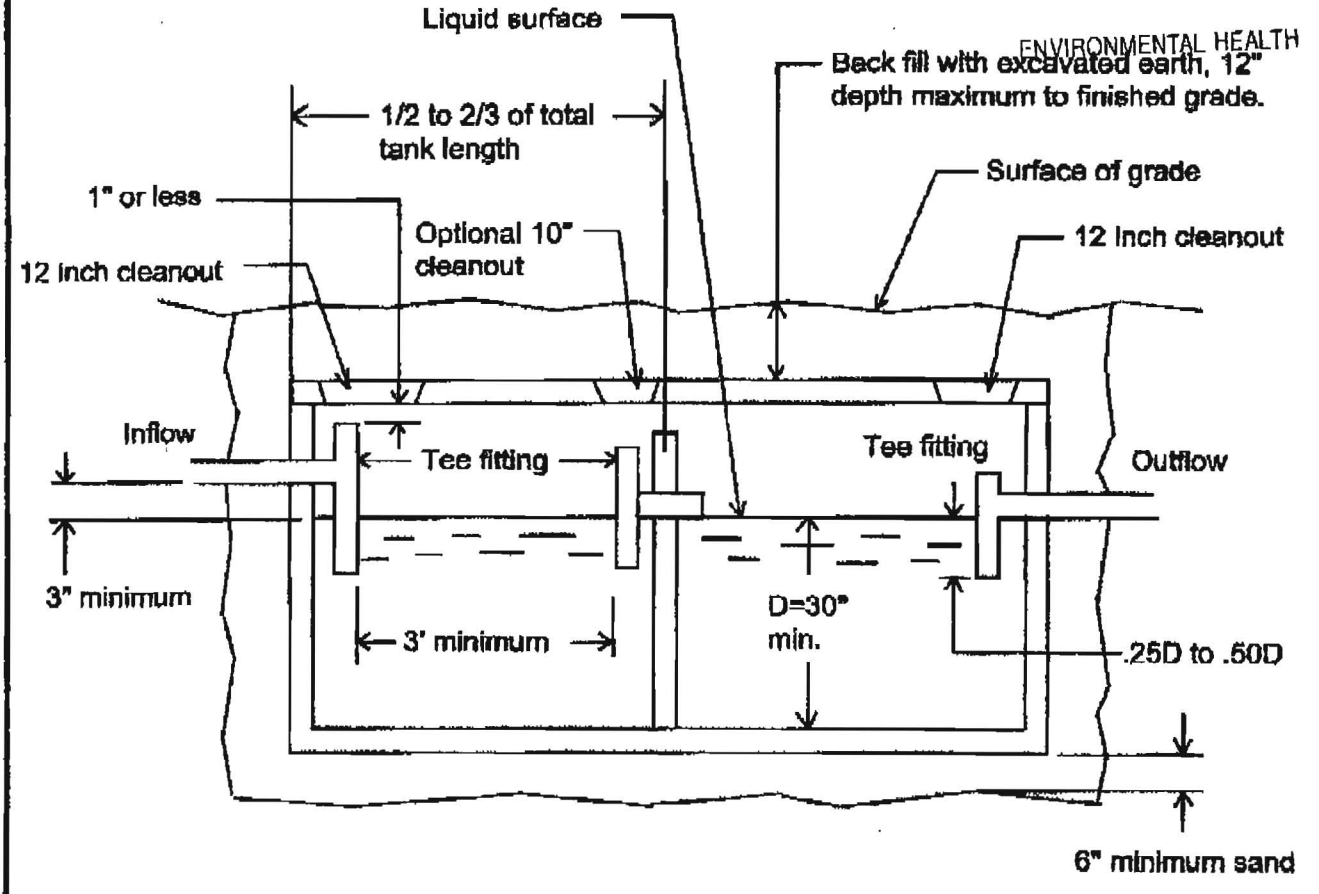
FEB 04 '99

ENVIRONMENTAL HEALTH



TWO COMPARTMENT TANK

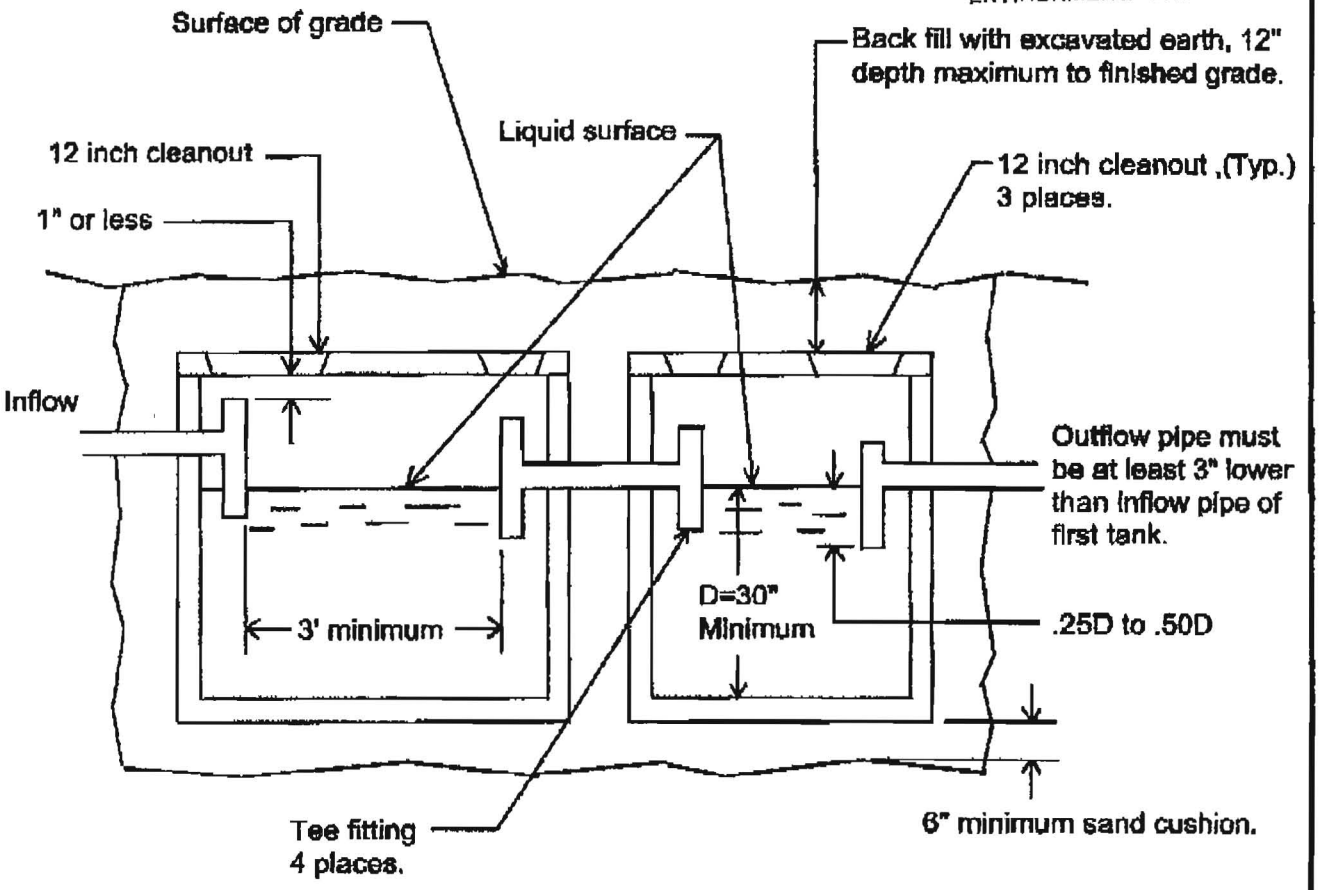
Owner Dicky Putz		**Drawn by:** Stephen A. Mangold	
Location See sheet #1		**Drawing No.** 100-1461	
MANGOLD Engineering Company 5596 CR 5710 Devine, TX 78016 Phone: (830) 931-2896		**Date:** 1/30/99 **Scale:** None **Sheet** 4 of 5	STATE OF TEXAS Stephen Alan Mangold 57956 REGISTERED PROFESSIONAL ENGINEER 1/30/99

79796

RECEIVED

FEB 04 1999

ENVIRONMENTAL HEALTH



TWO TANK SYSTEM

Owner	Dicky Putz	**Drawn by:**	Stephen A. Mangold
Location	See sheet #1	**Drawing No.**	100-1461

MANGOLD Engineering Company
6696 CR 5710
Devine, TX 78016
Phone: (830) 931-2896

Date: 1/30/99
Scale: None
Sheet 5 **of** 5

STATE OF TEXAS
Stephen Alan Mangold
57956
REGISTERED PROFESSIONAL ENGINEER
1/30/99

2-4-44- Owner covered excavations when I left site (has small child)

- What do you want resolved?

- called Mangold - we disagree on soil structure findings - Mr. Mangold feels no matter what soil structure is - if there is no standing water - he lets go - th... is not the teaching of ~~AHJA~~ THREE (Design will make their call on customers nee... & satisfaction > this does not make the call correct.) > my opinion

hw Nothing resolved

ATTACHMENT G

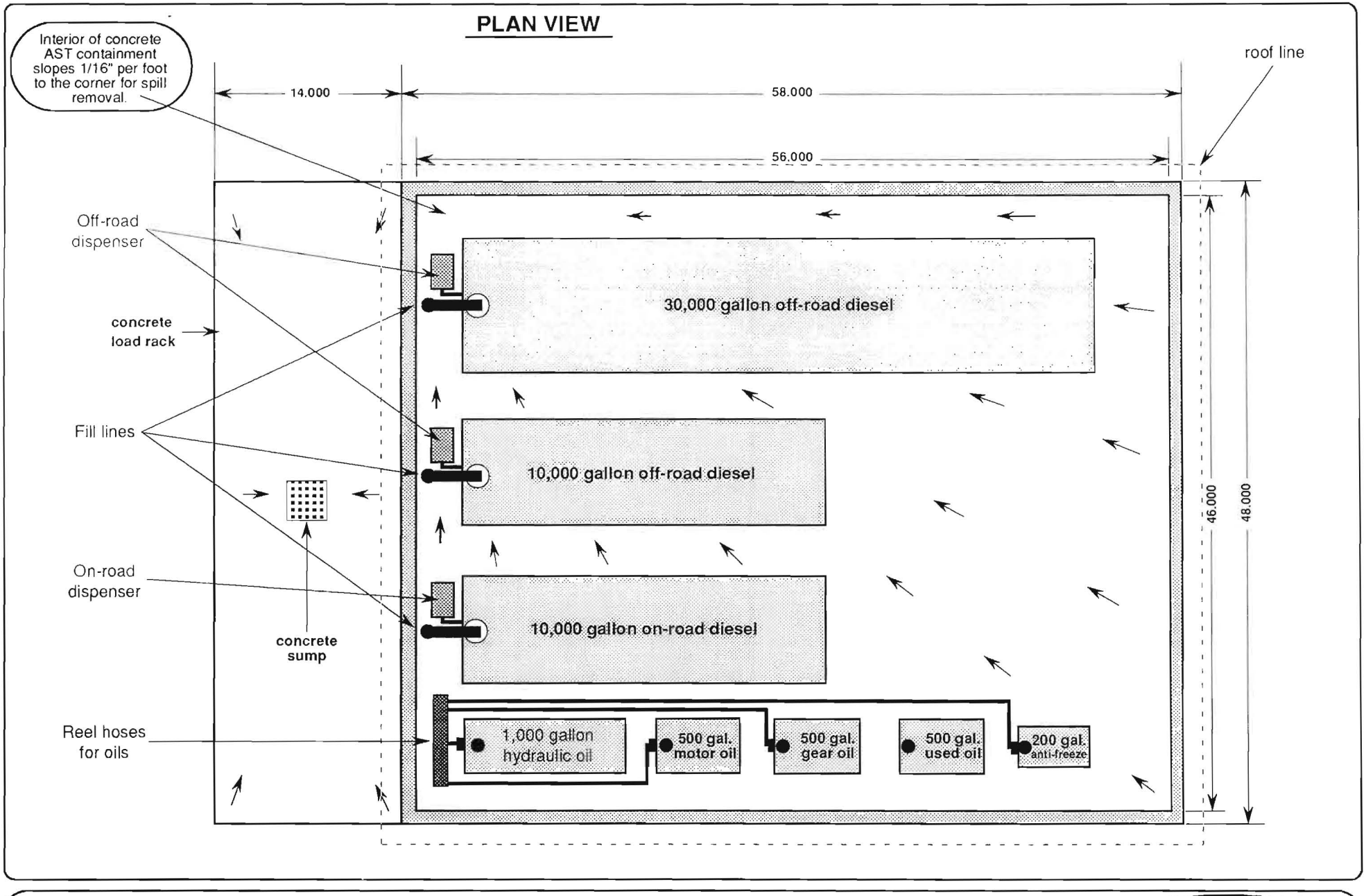
ALTERNATIVE SECONDARY CONTAINMENT METHODS

Not applicable - tanks will be in concrete secondary containment.

ATTACHMENT H

AST CONTAINMENT STRUCTURE DRAWINGS

Secondary containment drawings are attached behind this sheet.



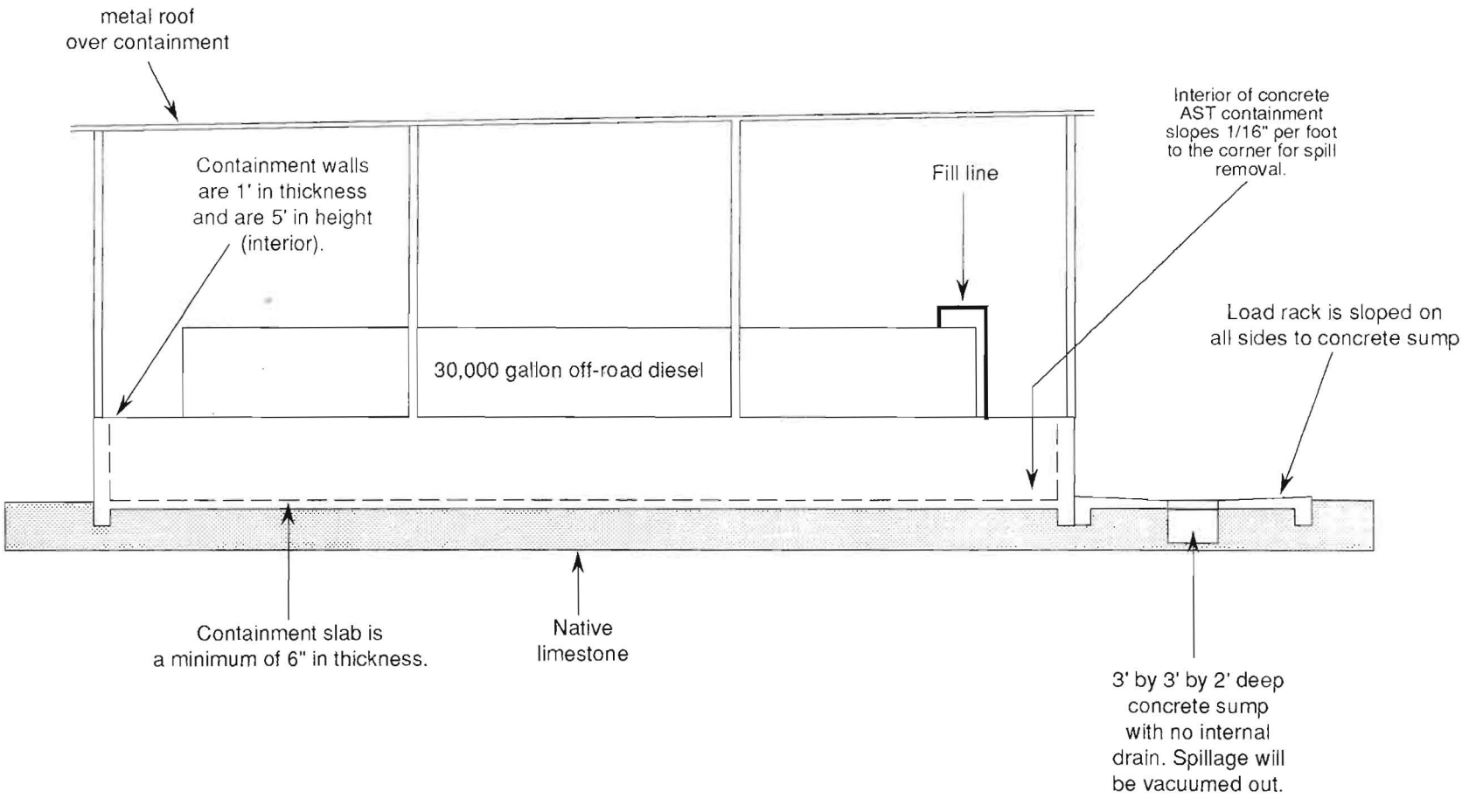
H.L. CHAPMAN
US 281 NORTH
BULVERDE, TEXAS

ATTACHMENT H

AST SECONDARY CONTAINMENT
Scale: 1" = 10'

EXTRA ENVIRONMENTAL, INC. - RCAS00037

SIDE ELEVATION



H.L. CHAPMAN
US 281 NORTH
BULVERDE, TEXAS

ATTACHMENT H
AST SECONDARY CONTAINMENT
Scale: 1" = 10'

EXTRA ENVIRONMENTAL, INC. - RCAS00037

ATTACHEMENT I

20% OR LESS IMPERVIOUS COVER WAIVER

This attachment does not apply to this submittal. The site will exceed 20% impervious cover and will not be used for multifamily residential developments, schools or small business site.

ATTACHEMENT J

BMP's FOR UPGRADIENT STORMWATER

No significant stormwater is generated upgradient of the site. The site is located on the side of a hill.

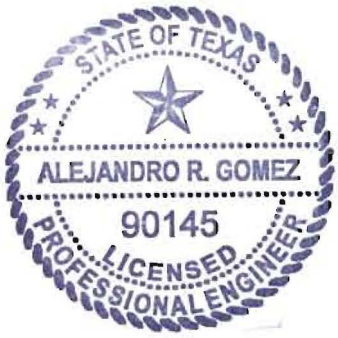
ATTACHEMENT K

BMP's FOR ON-SITE STORMWATER

The following pages titled: TSS REMOVAL CALCULATIONS" have been completed to meet the requirements of the TCEQ as stated in the "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices" - June 2005. See calculations to follow. The AST will have a roof over it so no stormwater will mix with in the AST chamber. If any stormwater in the AST containment is captured, it will be vacuumed and hauled of to an approved site for disposal.

1-9-06

Alejandro R. Gómez, P.E.
Serial No. 90145



Texas Commission on Environmental Quality

TSS Removal Calculations

Project: ***H.L. Chapman***
Date Prepared: 1/8/2006

1. Required Load Reduction:

$$Lm = 27.2(AN \times P)$$

where:

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

Site Data:		
County =	**comal**	
Total site area =	**20.10**	acres
Predevelopment impervious area =	**0.00**	acres
Post-development impervious area =	**13.82**	acres
Postdevelopment impervious fraction	**0.69**	
P =	**33**	inches

Lm = **12404.832** lbs.

2. Select BMP

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

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
Ai = Impervious area of BMP catchment
Ap = Pervious area of BMP catchment

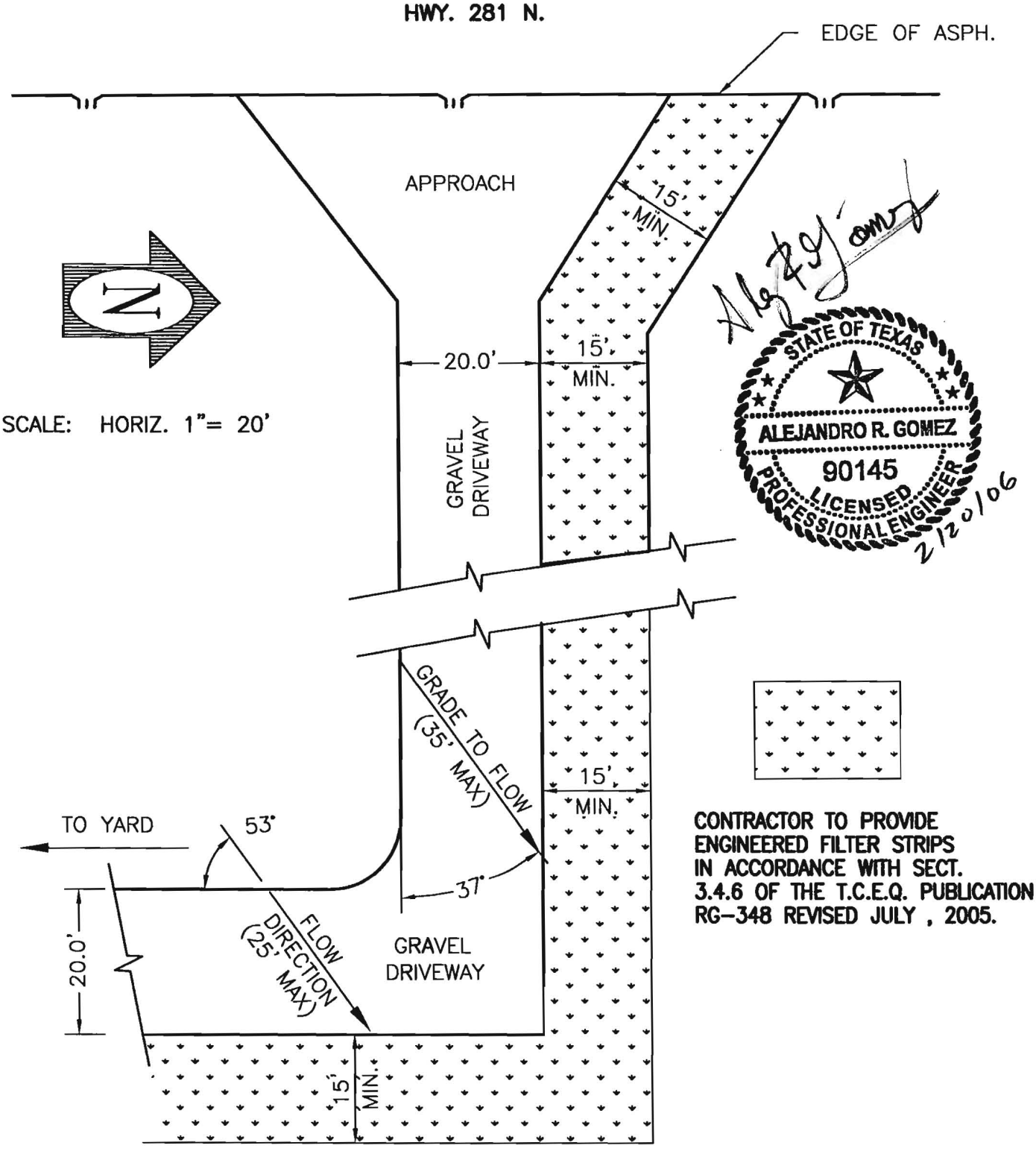
Ai =	13.82	acres
Ap =	0.00	acres
Lr =	**14043.91**	lbs

4. Calculate Fraction of Annual to Treat

F = **0.88**

5. Calculate Capture Volume

Rainfall Depth =	**1.50**	inches
Post Development Runoff Coefficient =	**0.49**	
Runoff Volume =	**37133**	cubic feet
Storage for Sediment=	**7427**	
Total Capture Volume	**44560**	cubic feet



GRAVEL DRIVEWAY AT NORTH ENTRANCE

ATTACHEMENT L

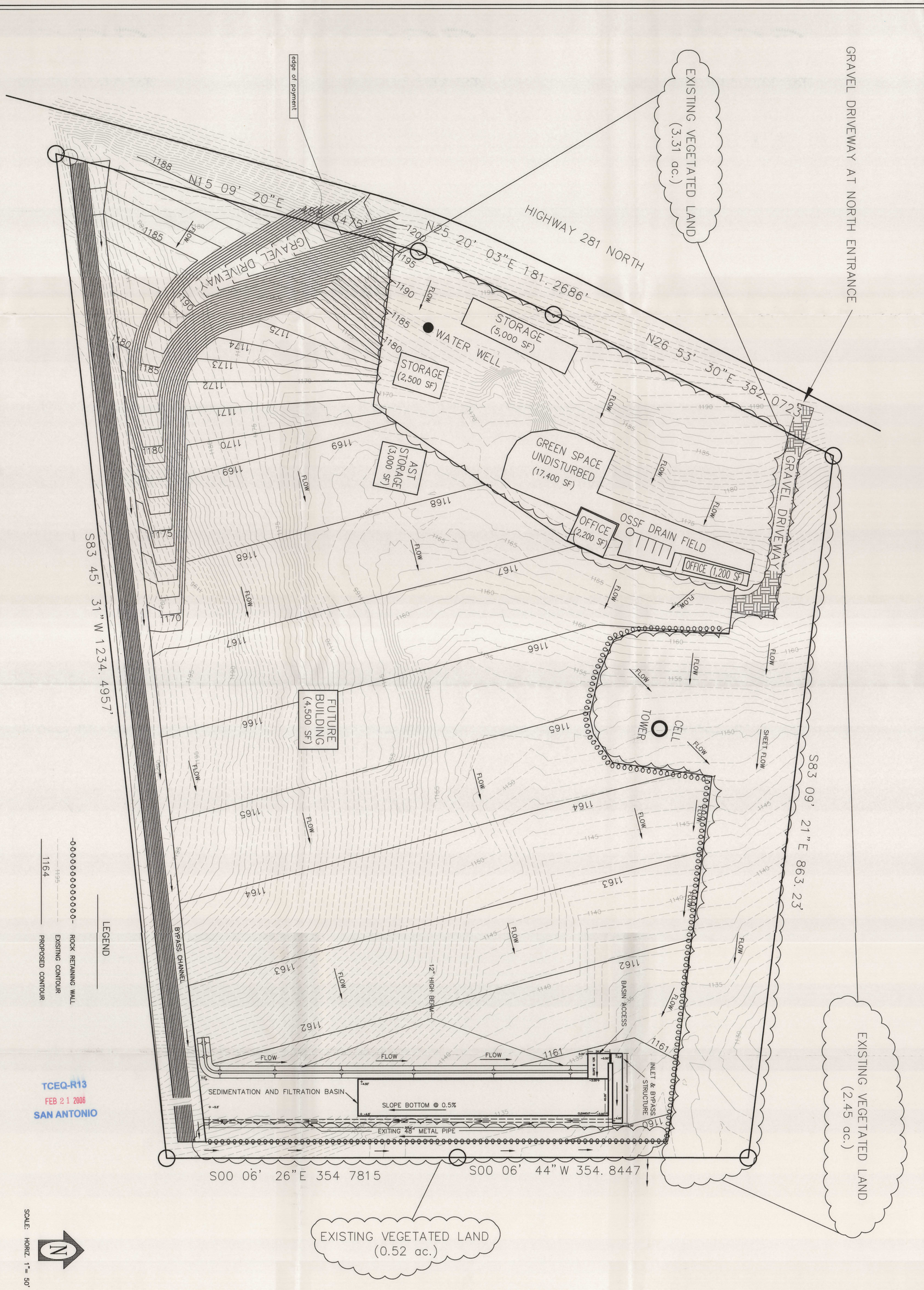
BMP's FOR SURFACE STREAMS

The stormwater for the project will be handled by a sedimentation/filtration basin. A geological assessment was not required for the project since it is located over the Contributing Zone. No surface streams on site.

ATTACHEMENT M

CONSTRUCTION PLANS

Construction plans for the BMP's for the site are on the following pages.



SHEET _____ OF _____

PROJECT ENGINEER:

GOMEZ-GARCIA & ASSOCIATES, INC.

9033 AERO, SUITE 114, SAN ANTONIO, TEXAS 78217
(210) 832-9608 – (210) 832-9615 FAX

OVERALL SITE PLAN

H.L. CHAPMAN SITE

DESIGN A.R.G./J.T.D.
DRAWN J.T.D.
CHECKED A.R.G.
DATE JAN. 2005
JOB NO. 007007
FILE drainage_map

STATE OF TEXAS
ALEJANDRO R. GOMEZ
90145
LICENSED
PROFESSIONAL ENGINEER

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

1. Written construction notification must be given to the appropriate TNRCC 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 TNRCC 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 TNRCC 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 TNRCC 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 TNRCC 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
1921 Cedar Bend, Suite 150
Austin, Texas 78758-5336
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

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TSS Removal Calculations — Project: **H.L. Chapman** — Date Prepared: 1/8/2006

1. Required Load Reduction:

Lm = 27.2(An x P)

where:
- Lm = Required TSS removal
- An = Net increase in impervious area for site
- P = Average annual precipitation, inches

Site Data:

County =	comal	
Total site area =	20.10	acres
Predevelopment impervious area =	0.00	acres
Post-development impervious area =	13.82	acres
Postdevelopment impervious fraction	0.69	
P =	33	inches
Lm =	12404.832	lbs.

2. Select BMP

Proposed BMP =	sf	abbreviation
Removal efficiency =	89	percent

3. Calculate TSS Load Removed by BMPs

LR = (BMP efficiency) x P x (A_i x 34.6 + A_p x 0.54)

where:
- LR = TSS Load removed by BMP
- Ai = Impervious area of BMP catchment
- Ap = Pervious area of BMP catchment

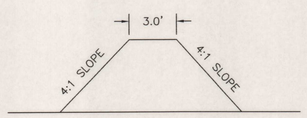
Ai =	13.82	acres
Ap =	0.00	acres
Lr =	14043.91	lbs

4. Calculate Fraction of Annual to Treat

F = 0.88

5. Calculate Capture Volume

Rainfall Depth =	1.50	inches
Post Development Runoff Coefficient =	0.49	
Runoff Volume =	37133	cubic feet
Storage for Sediment=	7427	
Total Capture Volume	44560	cubic feet



12" BERM

WASHED CONCRETE SAND PROPERTIES

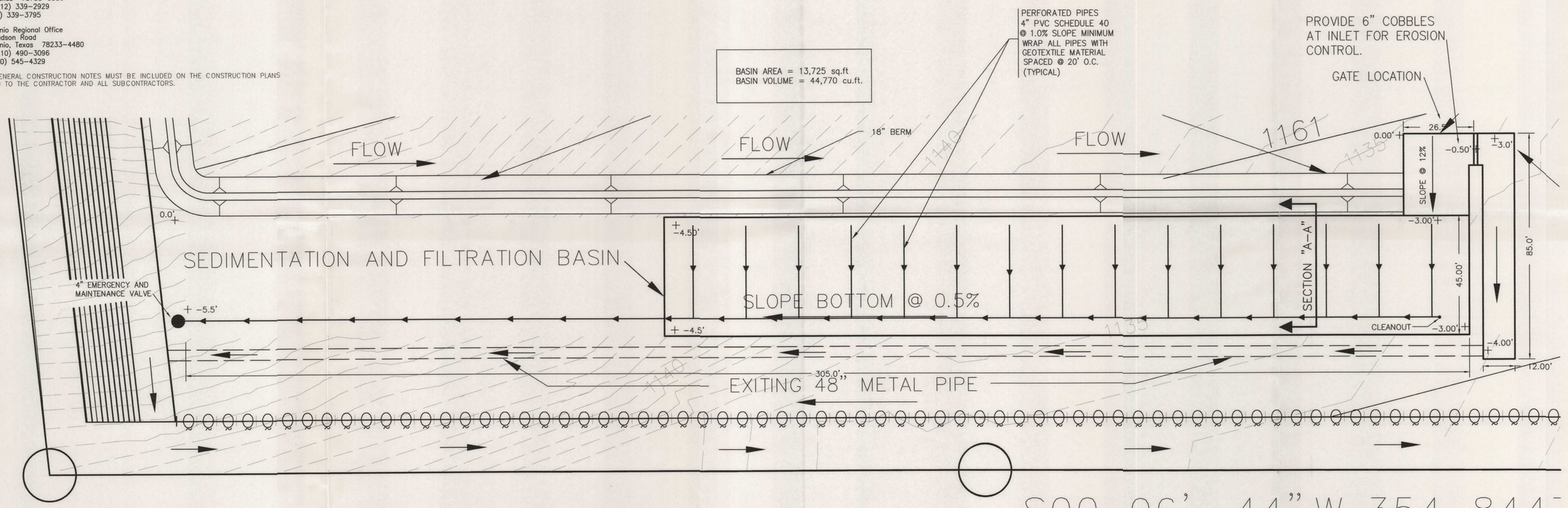
SIEVE	SIZE	%PASSING
#100	150 micron	0-10%
# 75	200 micron	0< 1%
# 50	300 micron	10-30%
# 30	600 micron	25-60%
# 16	1.18 mm	50-85%
# 8	2.36 mm	80-100%
# 4	4.75 mm	95-100%
3/8"	9.53 mm	100%

THE GEOTEXTILE FABRIC (FOR PROTECTION OF GEOMEMBRANE) SHOULD MEET THE FOLLOWING SPECIFICATIONS:

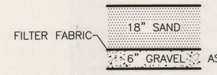
PROPERTY	TEST METHOD	UNIT	SPECIFICATION
MATERIAL	NONWOVEN GEOTEXTILE FABRIC		
UNIT WIEGHT		OZ/SQ.YD.	8 (min.)
FILTRATION RATE		IN/SEC	0.08 (min.)
PUNCTURE STRENGTH	ASTM D-751 (MODIFIED)	LB.	125 (min.)
MULLEN BURST STRENGTH	ASTM D-751	PSI	400 (min.)
TENSILE STRENGTH	ASTM D-1682	LB.	300 (min.)
EQUIV. OPENING SIZE	US STANDARD SIEVE	No.	80 (min.)

REQUIRED BASIN AREA = 44,560 sq.ft / 10 = 4,456 sq.ft.

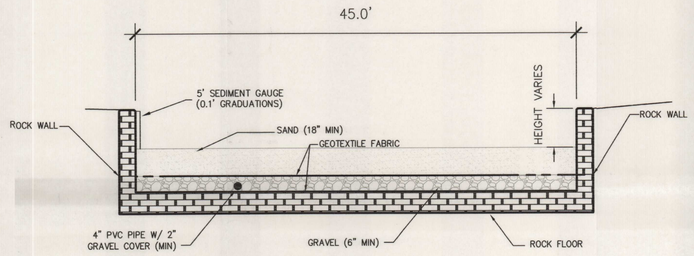
BASIN AREA = 13,725 sq.ft
BASIN VOLUME = 44,770 cu.ft.



SCALE: HORIZ. 1"= 20'



SECTION



SECTION "A-A"

CONTRACTOR SHALL FENCE THE PERIMETER OF THE BASIN AND INSTALL A 15' ACCESS GATE AS SHOWN. FENCE SHALL BE 4.0' HIGH MINIMUM.

TCEQ-R13
FEB 2 1 2006
SAN ANTONIO

DESIGN A.R.G./J.T.D.
DRAWN J.T.D.
CHECKED A.R.G.
DATE DEC. 2005
JOB NO.
FILE

ENLARGED BASIN PLAN AND DETAILS
H.L. CHAPMAN SITE

PROJECT ENGINEER:
GOMEZ-GARCIA & ASSOCIATES, INC.
9033 AERO, SUITE 114, SAN ANTONIO, TEXAS 78217
(210) 832-9608 - (210) 832-9615 FAX

SHEET
OF

ATTACHEMENT N

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

There are structural BMP's for this site.

The recommended maintenance plan for san filter system is as follows:

- Inspections: the BMP facilities must be inspected at least twice a year (once during or immediately following wet weather.
- Sediment removal: remove sediment from the inlet structure and sedimentation chamber when sediment buildup fills the 20% volume allocated for sediment accumulation, or when the proper function of the structure is impaired. Sediment should be cleared from the inlet once a year and the basin every five years. Silt accumulation should be removed when it has reached a depth of about 0.5 inches or the drainage time has increased to more than 48 hours.
- Media replacement: this more extensive maintenance of filter media is required when the draw down time exceed the target time of 48 hours.
- Debris and litter removal: when debris and litter accumulate near the sedimentation basin outlet devise and should be removed during regular mowing operations and inspections.
- Filter underdrain: Clean underdrain piping network to remove any sediment buildup every two years.
- Mowing: mow grass areas (if any) in and around the sand filters. This shall be done at least twice annually to limit vegetation height to 18 inches.

Signature of Owner or Responsible Party — Date: 1-5-6

Alejandro R. Gómez, P.E — Date: 1-9-06

STATE OF TEXAS
ALEJANDRO R. GOMEZ
90145
LICENSED
PROFESSIONAL ENGINEER

ATTACHMENT N (con't)

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

The recommended maintenance plan for vegetative filter strips are as follows:

- *Pest Management.* An Integrated Pest Management Plan shall be developed using minimal or no use of insecticides and herbicides. Trained and certified individuals shall be used for application of chemicals.
- *Seasonal Mowing and Lawn Care.* Vegetative Filter Strips should be mowed to limit the vegetation to 12 inches. Native grass swales should be mowed twice annually. Grass clippings shall not be deposited in the swales.
- *Inspection.* The vegetative filter strips shall be inspected twice annually for erosion or damage to vegetation. Additional inspections shall be performed following heavy rainfalls.
- *Debris and Litter Removal.* The vegetative filter strips shall remain free of debris to reduce floatable items from being flushed downstream. The vegetative filter strips shall be inspected for debris at least four times annually.
- *Sediment Removal.* Sediment accumulating near culverts and in channels needs to be removed when they build up to 3 inches at any spot, or cover vegetation. Excess sediment should be removed by hand or flat-bottom shovels.
- *Grass Reseeding and Mulching.* Areas that are eroded and damaged shall be filled, compacted and reseeded so that the final grade is level.

I J. M. Kuempel for H.L. Chapman Pipeline Construction, Inc., agree to maintain the BMP according to the above recommended maintenance plan.

Inspection Reports

Name & Qualification of Inspector: _____

Date of Inspection: _____

Inspectors shall observe the following items on each inspection:

- The integrity of the inlet structure
- Control measures outlined in the construction plans for the permanent BMP
- Litter and debris in/on the permanent BMP.
- Sediment accumulation in the sedimentation basin.

Inspectors shall denote if any corrective actions are required and when the action was completed.

Major Observations:

Corrective Actions Required:

Corrective Actions Performed:

_____

Signature **Date**

ATTACHEMENT O

PILOT SCALE FIELD TESTING PLAN

This attachment does not apply to this submittal. The TCEQ Technical Guidance Manual (TGM) was implemented; therefore, a Pilot-Scale Field Testing Plan is not required.

ATTACHEMENT P

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

The project will install a sedimentation/filtration basin to treat pluvial runoff from impervious surfaces. Existing vegetation and Vegetated strips will also be used for treatment. The treated runoff ultimately discharges into the Lewis Creek with velocities of less than 6.0 feet per second. This velocity will not create any erosion.

Manning Pipe Calculator

48" Steel Pipe
(BYPASS)

Given Input Data:

Shape	Circular
Solving for	Flowrate
Diameter	48.0000 in
Depth	48.0000 in
Slope	0.0016 ft/ft
Manning's n	0.0150

Computed Results:

Flowrate	49.7963 cfs
Area	12.5664 ft2
Wetted Area	12.5664 ft2
Wetted Perimeter	150.7964 in
Perimeter	150.7964 in
Velocity	3.9627 fps
Hydraulic Radius	12.0000 in
Percent Full	100.0000 %
Full flow Flowrate	49.7963 cfs
Full flow velocity	3.9627 fps

STORM WATER POLLUTION PREVENTION PLAN

FOR

H.L. CHAPMAN EQUIPMENT YARD
32610 N. US281
BULVERDE, TX 78163

Prepared by:

HALLENBERGER ENGINEERING, L.C.

206 E. Ramsey
San Antonio, Texas 78216
(210) 349-6571
fax (210) 349-1549
August 2002

JEFFREY MCKINNIE, P.E.

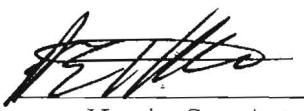
TABLE OF CONTENTS

STORM WATER POLLUTION PREVENTION PLAN

H.L. CHAPMAN EQUIPMENT YARD

OWNERS CERTIFICATION

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



Eugene Harris, San Antonio Area Superintendent
August 2002

STORM WATER POLLUTION PREVENTION PLAN

H.L. CHAPMAN EQUIPMENT YARD

ENGINEER'S CERTIFICATION

I hereby certify that this Storm Water Pollution Prevention Plan has been prepared in accordance with good engineering practices.

Jeffrey McKinnie, P.E.
Licensed Professional Engineer
State of Texas, No. 89393
August 2002

STORM WATER POLLUTION PREVENTION PLAN

H.L. CHAPMAN EQUIPMENT YARD

CONTRACTOR'S CERTIFICATION

I certify under penalty of law that I have read and understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with construction activity from the construction site identified as part of this certification. I understand that I am responsible for ensuring the pollution controls are in place and in good repair.

Printed Name	Signature	Title & Company Name	Date

Record of Construction Activities
Dates of:

Major Grading	Construction Temporarily Ceased	Construction Permanently Ceased	Stabilization Measures Initiated

INSPECTION REPORTS

Inspector/Date	Qualifications	Measures/Areas Inspected	Conditions	Changes to SWPPP

I. INTRODUCTION:

The Storm Water Pollution Prevention Plan (SWPPP) is the construction document required for the installation of pollution control methods and sediment retention for the construction of H.L. Chapman Equipment Yard. These requirements are as set forth by the Environmental Protection Agency (EPA) in accordance with the National Pollutant Discharge Elimination System (NPDES) requirements.

The SWPPP consists of an erosion control plan along with an accompanying report that outlines the methods that will be employed to reduce pollution at the construction site.

This report will also inform the Contractor of the procedures for each storm water management measure that will be implemented. It will clarify the certifications that must be signed by the Contractor and sub-contractors prior to and at the termination of construction.

II. PROJECT INFORMATION

A. Owner: H.L. Chapman Pipeline Construction, Inc.
c/o Eugene Harris
32610 N US281
Bulverde, TX 78163
(830) 438-8019

B. Design Engineer: Hallenberger Engineering, L.C.
c/o Jeffrey McKinnie, P.E.
206 E. Ramsey
San Antonio, TX 78216
(210) 349-6571

C. Contractor H.L. Chapman Pipeline Construction, Inc.
c/o Eugene Harris
32610 N US281
Bulverde, TX 78163
(830) 438-8019

D. General Location of Project: The project is located in Comal County on the east side of US 281 approximately 1.5 miles south of the Texas 46 intersection. (Exhibit A)

E. Latitude: 29° 40' 38" Longitude: 98° 25' 28"

F. Nature of Project: The project is approximately 20 acres and will be used as an equipment yard for a rock trenching and milling business. The material gained by milling down a hillside will be used to fill a ravine and create a level area for storing large construction equipment.

G. Sequence of Major Activities: The contractor is required to keep a copy of the schedule of work, or major sequence of major activities, to be performed on site during construction.

H. Size of Area to be Disturbed by Construction: 20 acres

I. The runoff coefficients are listed on the Site Plan (Exhibit D).

J. Name of Receiving Waters: The entire site drains into a tributary of Lewis Creek.

III. EXISTING SITE CONDITIONS

Initial visit to the site showed that project was near completion; therefore pre-developed conditions cannot be described for this section.

IV. HAZARDOUS MATERIALS TO BE USED ON-SITE:

The only hazardous materials anticipated on the project site are the fluids used to operate construction equipment. After construction, petroleum based fuels will be stored on site with containers that meet standards set forth by the TNRCC and will have proper spill prevention and containment controls.

Should a hazardous material be spilled, the following measures should be taken:

1. Notify National Response Center at (800) 424-8802.
2. Notify the following authorities in writing within 14 days:
    a) Environmental Protection Agency (EPA)
    b) San Antonio Water System – Source Water & Watershed Protection Department
3. Notify the Texas Natural Resource Conservation Commission (TNRCC) within 24 hours of a spill greater than 25 gallons.
4. Modify the pollution prevention plan to include:
    a) The date of release
    b) Circumstances leading to the release.
    c) Steps taken to prevent reoccurrence of the release.

V. EROSION AND SEDIMENTATION CONTROLS:

The requirements for erosion and sediment controls for construction activities have three goals: (1) to divert upslope water around disturbed areas; (2) to limit the exposure of disturbed areas to the shortest duration possible; and, (3) to remove sediment from storm water before it leaves the site. Erosion and sediment controls include both stabilization practices and structural practices.

Erosion and sediment control devices must be able to function as designed when controlling the peak run-off resulting from the two (2)-year, 24-hour storm. All upgradient run-off is diverted around the site through the existing and proposed storm sewer system. Re-routing this water during construction is not required.

A. **Non-Structural Controls**
The site plan will ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Stabilization practices may include temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protection of trees.

B. **Structural Controls**
Structural controls are necessary because the grass stabilization controls cannot be employed at areas of the site that are continually disturbed. Options for such controls include silt fences, earth dikes, drainage walls, check dams, subsurface drains, sediment traps, rock outlet protection, soil retaining systems, gabions, and temporary or permanent sedimentation basins.

C. **Maintenance of Controls**
Erosion and sediment controls can become ineffective if they are damaged or improperly maintained. Maintenance of controls has been identified as a major part of effective erosion and sediment control programs. Procedures must provide that specified areas on the site are inspected by qualified personnel provided by the discharger at least once every seven-calendar days and within 24 hours after any storm event greater than 0.5 inches. Disturbed areas and areas used for storage of materials that are exposed to precipitation must be inspected for evidence of, or the potential for, pollutants entering the run-off from the site. Erosion and sediment control measures identified in the plan must be observed to ensure that they are operating correctly.

D. **Construction Waste Disposal**
All construction wastes will be disposed of at an off-site location in accordance with current Comal County regulations.

VI. MAINTENANCE AND INSPECTION PROCEDURES

A. Maintenance

1. Pre-construction Conference
At the discretion of the local jurisdiction and prior to the start of construction, a pre-construction conference involving the owner, engineer, architect (if applicable), and

general contractor should be held. At this meeting issues concerning erosion control design, methods of waste disposal, project phasing and potential stabilization problems should be discussed along with other general construction topics.

2. Submit Notice of Intent

The NPDES Notice of Intent (NOI) shall be filed prior to the Contractor moving onto the site. The NOI shall be submitted to the EPA along with the copy to the local jurisdiction, if applicable. Forty- eight (48) hours after submitting the NOI to the EPA, the Contractor may move onto the site and begin implementing the SWPPP (Exhibit 2).

2. Install Erosion Control Devices

Prior to the beginning of construction at the site, structural erosion control must be installed and inspected. These controls shall be installed in accordance with the SWPPP.

4. Inspection and Approval

The Engineer, and any other local agency with jurisdiction as applicable, will inspect the erosion control devices after installation to ensure proper installation with respect to the SWPPP. If necessary, the SWPPP representative will be required to make modifications to the SWPPP to resolve construction problems or other obvious deficiencies associated with the controls. Upon acceptance of the controls, the Contractor shall be granted a notice to proceed with construction. If the controls appear to be ineffective due to site conditions, installation or improper design, modification to the installation or design will be required prior to granting a notice to proceed.

5. Proceed with Construction

While construction is underway, the following activities will be ongoing:

a. Intercept Sediment Flow

The control systems shall operate as designed intercepting sediment flow for the designed flow without structural or operational failures for the design storm. Surrounding areas of the site shall be inspected regularly to determine evidence of soil loss from the site. If significant amounts of sediment are detected outside the controlled disturbed area, re-design of the erosion and sediment control system will be required along with cleanup of the soil material outside the controls.

The Engineer, or any other local agency with jurisdiction as applicable, shall inspect the structural control devices on an as needed basis and after significant rainfall events (>0.5 inches) to determine the effectiveness of the system, the general conditions of the system and the adherence to the SWPPP requirements for the site. The SWPPP representative shall ensure that the systems are in good working order on a weekly basis and after significant rainfall (> 0.5 inches) in addition to other construction inspection. The SWPPP documents shall remain on-site at all times for review. Any adjustments to the plan shall be documented as part of the SWPPP within 72 hours of the modification.

b. Modify Controls as Required

As construction progresses, modification may be required to the erosion control systems due to phasing or changes in the distributed areas of the site. These modifications must be included in the original, approved SWPPP for the site.

If it is determined that the existing system is severely inadequate or significant modifications are required due to construction, a modified SWPPP will be required within 72 hours of the notice to the Contractor, The modified SWPPP will be subject to the same review and approval procedures as the original SWPPP.

c. Maintain Erosion Control Systems

As construction proceeds maintenance of the erosion control systems becomes critical to the proper operation of the controls. Maintenance requirements for each of the controls are included in the drawing. All systems should be inspected regularly for integrity in addition to inspection after significant storm events, The Contractor and Owner shall be responsible for maintaining the erosion control systems to function as described in the SWPPP.

In the event that controls are not properly maintained, the Contractor will receive a verbal notification of a violation. If the deficiencies are not corrected after multiple warnings (as defined in the Construction inspection section), construction inspection and associated approvals by the local jurisdiction will cease until the systems are corrected.

Stockpiles of erodible materials such as topsoil must be stabilized through vegetative or structural means or stored on-site, such that run-off from the stockpile is treated prior to leaving the site. For example, a stockpile of topsoil can be located outside the construction area as long as the downstream side of the stockpile utilizes silt fence to intercept silt run-off from the stockpile.

If during the course of the project construction activities are halted for a period of 30 days or longer, the Owner shall implement permanent stabilization on the site. During the 30-day period, the Owner or Contractor shall maintain all measures of the SWPPP.

d. Permanently Stabilize Site

Upon completion of the project, the site shall be permanently stabilized in accordance with the SWPPP and landscaping plans prior to removing temporary sediment control devices. In cases of unsuitable weather for establishment of vegetation, measures such as erosion control matting, mulching, etc., can be used to reduce erosion, or an agreement with the Engineer can be established. In this context, stabilization shall be defined as a minimum 90 percent density of vegetation with no bare areas larger than 20 square feet, or other suitable means of permanent stabilization such as gabions, pavement, or other armor-type covering.

6. Permanent Stabilization Inspection

Upon completion of construction and the installation of permanent erosion control methods, the Engineer or Owner will perform a final erosion control inspection as part of acceptance of the project. In the event that the permanent erosion control is inadequate due to improper design or installation, the permanent erosion control measures must be corrected or re-designed to function properly.

7. Remove Temporary Stabilization

Upon acceptance of the permanent erosion control methods, the Contractor shall remove the temporary erosion control devices. If installation of the permanent devices requires the removal of the temporary devices, approval of the permanent controls shall be secured for each sub-basin within one week of removal of temporary controls. At no time shall an area be left unprotected by either temporary or permanent controls for more than 2 weeks.

8. Submit Notice of Termination

A Notice of Termination (NOT) shall be submitted by the SWPPP representative to the regional office of the EPA, in connection with completion of the project. A copy of the NOT shall also be submitted to the local jurisdiction (Exhibit 3).

9. Completion of Project

Upon completion of the project, maintenance of the permanent erosion control systems is the responsibility of the property owner.

B. Inspections

An SWPPP will be required for any tracts subject to the requirements of the NPDES general permit for the region. At a minimum, this includes all construction sites by either public or private entities in which a platted area of 5 acres or more of the site, or other site as designated by the local jurisdiction, is disturbed by the construction operation. After August 1993, the local jurisdiction in Municipal Storm Sewer System (MS4)-permitted areas will be responsible for enforcing the SWPPP controls as defined in this section. Other areas outside MS4- permitted systems will be monitored by the EPA.

Before starting construction, Contractor will submit the Notice of Intent (NOI) (Exhibit 2). In addition, the Contractor shall appoint an SWPPP representative who serves as primary point of contact to address issues relating to the SWPPP. It will be the representative's responsibility to coordinate the efforts of the Engineer and the Contractor in the event of deficiencies in the design or installation of the control devices.

1. Construction Inspection

Unlike many aspects of construction, sediment and erosion control methods are dynamic, changing activities that rely not only on the original design but also maintenance of the system after it is in place. Maintenance includes the removal of sediment buildup as well as repair and replacement of the controls as they deteriorate. The following sections outline the key procedures and criteria involved with the inspection of control devices.

2. Pre-construction Conference

Upon completion and approval of the SWPPP, a pre-construction conference between the Design Engineer, Contractor, public works engineer and construction inspector shall be held at the discretion of the local jurisdiction to establish procedures for different aspects of the construction activity. The following issues for erosion control may need resolution as part of this meeting:

a. Schedule for installation and removal of erosion control devices.
b. Phasing of construction activities and the potential impact on erosion control devices in the SWPPP.
c. Review procedures for evaluating the effectiveness of erosion control devices and the Contractor's, the Owner's and the Design Engineer's responsibilities in correcting deficiencies in the systems.
d. Review the procedures for issuance of warnings for noncompliance of erosion control procedures.

3. Initial Inspection

Prior to the beginning of construction, the Contractor will install erosion control measures as deigned in the SWPPP. These controls will be inspected within 48 hours after the Contractor notifies the appropriate local jurisdiction in writing that the controls are in place and comply with the SWPPP. If no response is received from the local jurisdiction in the 48-hour time frame it will be assumed that the controls have been installed properly and construction can proceed. The initial inspection will focus on the following.

a. Are the controls installed in accordance with the design requirements of the SWPPP?

4. Inspection Frequency

Inspection Frequency for erosion control devices depends on the weather conditions at the site. Inspection of other pollution control measures can be performed on a regular basis as part of regular construction inspection procedures. The local jurisdiction shall inspect the controls after each rainfall of 0.5 inches or greater to determine the adequacy of the controls.

5. Erosion Control Inspection

Erosion control system must be inspected on a regular basis to determine the following:

a. Is the system, as installed, effective?

The erosion and control systems shall be designed to meet the requirements of this manual. The effectiveness of the system shall be based on the presence of silt behind or within control devices, the presence of silt downstream of the site and signs of erosion in stabilized areas after a storm event. The system will be deemed ineffective if:

1. Silt is present outside the control area
2. Structural controls are breached or fail under storm events of minor (less than design storm) intensity;
3. Rills and gullies are present in stabilized slopes;
4. Evidence of silt buildup in downstream storm sewers and drainage ways is apparent;
5. Controls are not maintained in accordance with design guidelines.

The installation shall conform to the SWPPP. If the system, as constructed, does not reflect the design as shown in the SWPPP the Contractor shall, within a 48-hour period, adjust the control systems to agree with the SWPPP or the inspector shall issue a written notice of noncompliance. If the system is not corrected within 48 hours to meet the requirements of the SWPPP after the issuance of the notice of noncompliance, a cease-work-order shall be issued in accordance with "Enforcement" below.

If the system is installed in accordance with the SWPPP but is deemed ineffective by the construction inspector, the erosion and sediment control representatives will be required to submit a revised SWPPP within 72 hours, which will be implemented within 48 hours of the submission of the revised SWPPP. This revised SWPPP will be subject to the same review procedures as the original SWPPP.

b. Have drainage patterns changed?

If the site has undergone grading operations significant enough to change the drainage patterns, adjustments to the structural controls will likely be required to address this change. The inspector shall determine the extent of the drainage patterns changes, if the changes are addressed in the SWPPP and if modifications to the erosion and sediment controls are required to address this change.

c. Are structural controls installed properly?

The SWPPP shall include details or references to allow for the proper construction of structural or vegetative erosion and sediment control services. The inspector shall ensure that these systems are installed in the proper locations according to the SWPPP.

The Contractor shall provide manufacturers' documentation on filter fabric, erosion control matting, see-content-certification and other supporting data a required to prove conformance with the design documents. These documents along with the SWPPP, shall be maintained on the construction site at all times for review by inspection personnel, the general public, or the EPA.

d. Are areas stabilized as quickly as possible after completion of construction activities in an area?

Inactive construction areas are defined as areas in which no construction activity will occur for a period of 30 days or longer. Inactive construction areas which have been disturbed will require stabilization through the use of vegetation, mulch, erosion control matting or structural methods within 7 calendar days from the last construction activity in the area. At all times prior to stabilization, inactive construction areas will be considered undisturbed areas, eliminating the contribution of sediment to the erosion control devices.

6. Maintenance

Maintenance of the erosion and sediment control devices is one of the most critical, as well as potentially the most expensive part of an effective erosion control plan. The Contractor is responsible for the proper maintenance of the erosion control devices as specified in the design criteria. Improperly maintained erosion control shall be considered a noncompliance violation, subject to the penalties listed below. Repeated (more than three) noncompliance violations due to improper or inadequate maintenance will be grounds for issuance of a "red tag". stopping work on the site until compliance is achieved.

The Contractor shall inspect the site on a weekly basis and after any storm of 0.5 inches or greater to determine maintenance requirements and general conditions of the installed systems. The local jurisdiction shall inspect the site on an as needed basis to determine the effectiveness of the maintenance performed on the systems. The following lists the primary maintenance tasks to be performed on a regular basis. All maintenance related to a storm event should be completed within 48 hours of the storm event.

a. Removal of silt from barriers and sedimentation devices;
b. Replacement or repair of worm or damaged geotextile fabric;
c. Repair or replacement of damaged structural controls;
d. Seeding or mulching of damaged stabilized areas;
e. Additional controls for chemical or fuels not addressed in the SWPPP;
f. Other control maintenance as defined in the design guidelines in this manual or party of the approved SWPPP.

7. SWPPP

Unanticipated changes may occur during construction which affect the SWPPP, such as schedule changes, phasing changes, staging area modification, off-site drainage impacts and repeated failures of designed controls. It is the Contractor's responsibility to make these changes known and to initiate revisions to the SWPPP in a timely fashion. Significant modifications to the erosion and sediment control systems shall not be made without the approval of a revised SWPPP reflecting the changes to the erosion and control system not documented as part of the SWPPP review, requires documentation to be sent to the design engineer responsible for the design as well as the local jurisdiction. Significant plan revisions will be subject to the same requirements as the original SWPPP. During the preparation and review of the modified SWPPP, construction may continue with temporary modifications to the erosion and sediment control devices agreed upon in the field by the Design Engineer, the Contractor and the inspector.

Revisions to the SWPPP are also required when the properly installed systems are ineffective in the prevention of pollution transport off the site. This may be due to unforeseen site conditions or construction techniques that adversely affect the system as designed. If, in the opinion of the construction inspector, the systems are install according to the approved SWPPP, but are still ineffective modifications will be required to the SWPPP to improve the system to an acceptable efficiency. The Contractor\Design

Engineer will have 7 calendar days from the notice of system inadequacy to correct the SWPPP and impiement the revised control measures. Construction may proceed during this 7-day adjustment time. After 7 days, if the revisions have not been implemented, a noncompliance notice will be issued to the Contractor.

8. Final Inspection

Upon written notice of construction to the city by the Contractor, an inspection will be scheduled to determine the acceptability of the permanent site stabilization. This final inspection will be conducted by the construction inspector, with the Contractor and if desired, the design engineer present. Acceptable permanent site stabilization shall be defined as:

a. All Permanent controls as defined in the SWPPP shall be in place and in good operating order.
b. Vegetation shall be in place and established with a minimum 90 percent density and a maximum bare area of 20 square feet.
c. Vegetation on sloped areas 9including stream banks) shall be free of rills and gullies.
d. If necessary, a maintenance manual for all erosion control systems requiring maintenance will be prepared and available for city use/review.

9. Penalties for Noncompliance

The following procedures shall be used in the event that ineffective or poorly maintained erosion and sediment control systems or waste management are present on site after the initial approval of the system.

a. Notice of Noncompliance

The Contractor shall be notified verbally by the construction inspector that ineffective or poorly maintained erosion and sediment control systems or waste management are present on site after the initial approval of the system. The Contractor shall note warning in records if a deficiency is present. At the option of the Contractor, the design engineer will be notified or the deficiency to explain the design and the effectiveness of the technique used. The inspector shall notify the Contractor within 24 hours of the final decision as to the effectiveness of the design based on the discussion with the design engineer.

b. Second Notice of Noncompliance

If, in the opinion of the construction inspector, the system is still inadequate and the deficiency has not been corrected to the inspectors satisfaction within 72 hours of the notice of noncompliance, a written notice of noncompliance will be issued and delivered to the Contractor (or responsible party as specified in the SWPPP).

c. Red Tag of Project

If, in the opinion of the construction inspector, the system is still inadequate 72 hours after the second notice of noncompliance, a "red tag" will be issued for the project. This red tag serves as a cease-of-construction order, halting all construction-related inspections and approvals at the site. This red tag shall be in effect until the construction inspector determines that the SWPPP requirements have been met by the Contractor and the erosion and sedimentation control systems are effectively controlling sediment transport.

10. At Project Completion

Upon completion of the project, or, if the Contractor leaves the site before the completion of construction, a final inspection of the site will be preformed to determine if the site has been properly and permanently stabilized. The acceptance of the infrastructure by the Owner will be dependent on the acceptance of the permanent stabilization.

Conditional acceptance can be secured through an agreement with the local jurisdiction in the event that weather conditions seriously undermine establishment of vegetation. This agreement will stipulate conditions for limited acceptance in addition to establishing time limits for vegetation of the site.

If the site is deemed not stabilized and no activity occurs within six (6) months to correct the situation, the fiscal security will be obtained and used to properly stabilize the site.

PART III – CONSTRUCTION SPECIFICATIONS

1.4.3 Silt Fence

A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. When properly used, silt fences can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond, allowing heavier solids to settle out. If not properly installed, silt fences are not likely to be effective. A schematic illustration of a silt fence is shown in Figure 1.26.

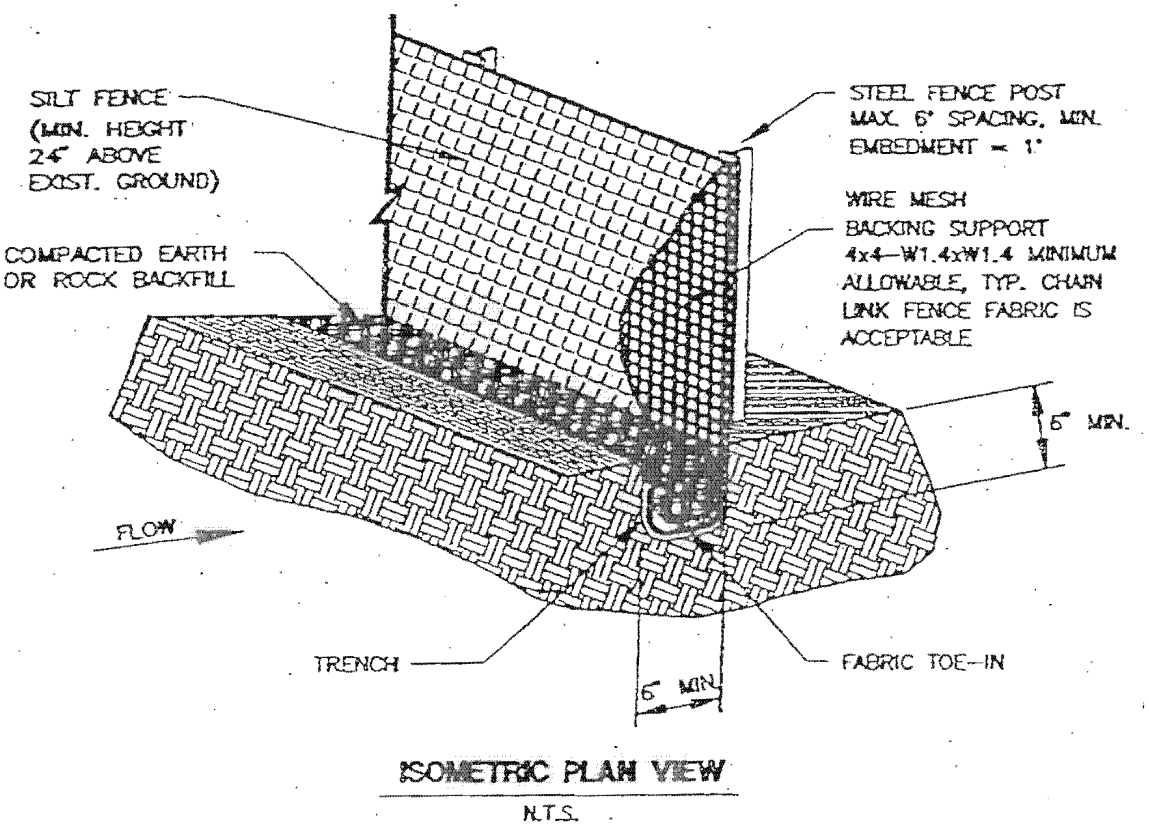


Figure 1.26 Schematic of a Silt Fence Installation (NCTCOG, 1993b)

The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow.

Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

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/in^2, 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 Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft^2, 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 perpendicular 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.

Common Trouble Points:

(1) Fence not installed along the contour causing water to concentrate and flow over the fence.

(2) Fabric not seated securely to ground (runoff passing under fence)

(3) Fence not installed perpendicular to flow line (runoff escaping around sides)

(4) Fence treating too large an area, or excessive channel flow (runoff overtops or collapses fence)

Inspection and Maintenance Guidelines:

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

(2) Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.

(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.

1.4.6 Rock Berms

The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 5 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than silt fences, particularly for fine particles, but are able to withstand higher flows than a silt fence. As such, rock berms are often used in areas of channel flows (ditches, gullies, etc.). Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

Materials:

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

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

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.

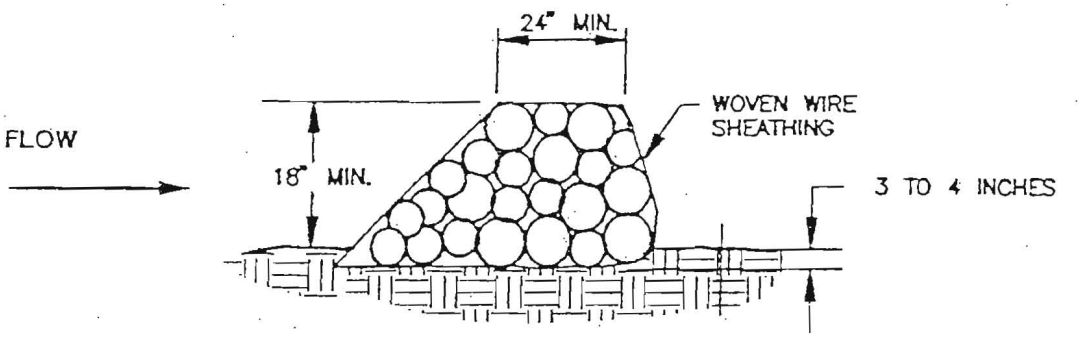
(2) Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H:V) or flatter.

(3) Place the rock along the sheathing as shown in the diagram (Figure 1.29), to a height not less than 18".

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

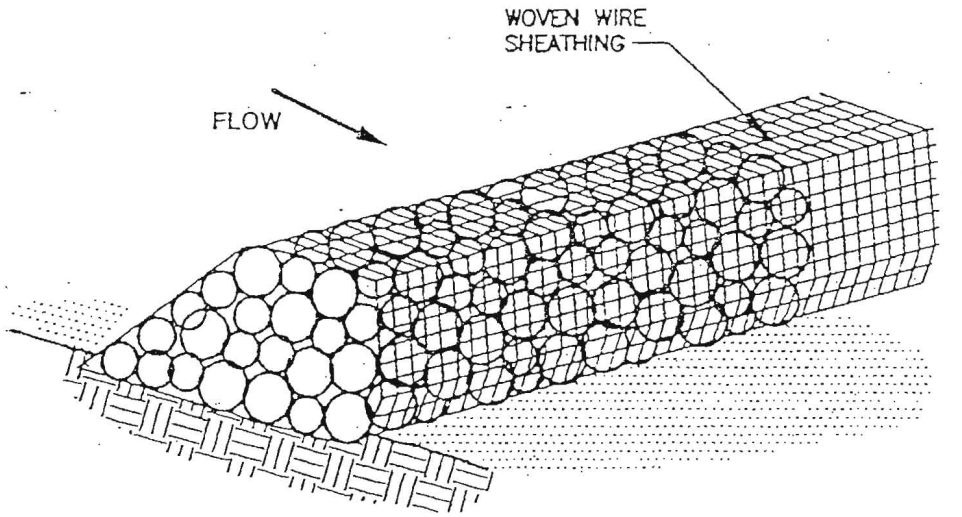
(5) Berm should be built along the contour at zero percent grade or as near as possible.

(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.



CROSS SECTION

N.T.S.



ISOMETRIC PLAN VIEW

N.T.S.

Figure 1.29 Schematic Diagram of a Rock Berm (NCTCOG, 1993)

Common Trouble Points:

(1) Insufficient berm height or length (runoff quickly escapes over top or around sides of berm)

(2) Berm not installed perpendicular to flow line (runoff escaping around one side)

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.

(2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt of in an approved manner.

(3) Repair any loose wire sheathing.

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

(5) The berm should be replaced when the 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.

EPA NPDES Storm Water Program

The following information is posted in compliance with Part IV.B.2. of the NPDES Region 6 Storm Water Construction General Permit [63 Fed. Reg. 36502]. This form should be posted in a conspicuous place accessible by the public at the entrance of the facility. All parties that either individually, or taken together, meet the definition of "operator," must be permitted. Each party should complete a separate form at the construction facility. Each of these parties must have separate and distinct NPDES permit numbers (e.g. a separate permit is typically needed for each Owner/Developer, General Contractor, and/or Builder). If you do not know your NPDES Permit Number, contact the NOI Processing Center at (301)495-4145. EPA's Region 6 storm water hotline phone number is (800)245-6510. If you have mailed your NOI application form and have not received a permit number, you must post a copy of the NOI application form next to this document until you receive your permit number. This form was prepared as an example and it is not a required form for use with the permit. This information may be displayed in alternative form or formats within guidelines set forth in the permit. Additional information regarding the NPDES Region 6 storm water program may be found on the Internet at http://www.epa.gov/region6/sw/. Any person with a complaint about the operation of this facility in regards to this permit should contact EPA Region 6 at (214)665-7595.

Permit Number	
Contact Name	
Contact Phone	
Project Description	
SWPPP Location (Only necessary if the site is inactive or does not have an on-site location to store the plan.)	

Revision 3, March 25, 1999

EXHIBIT A

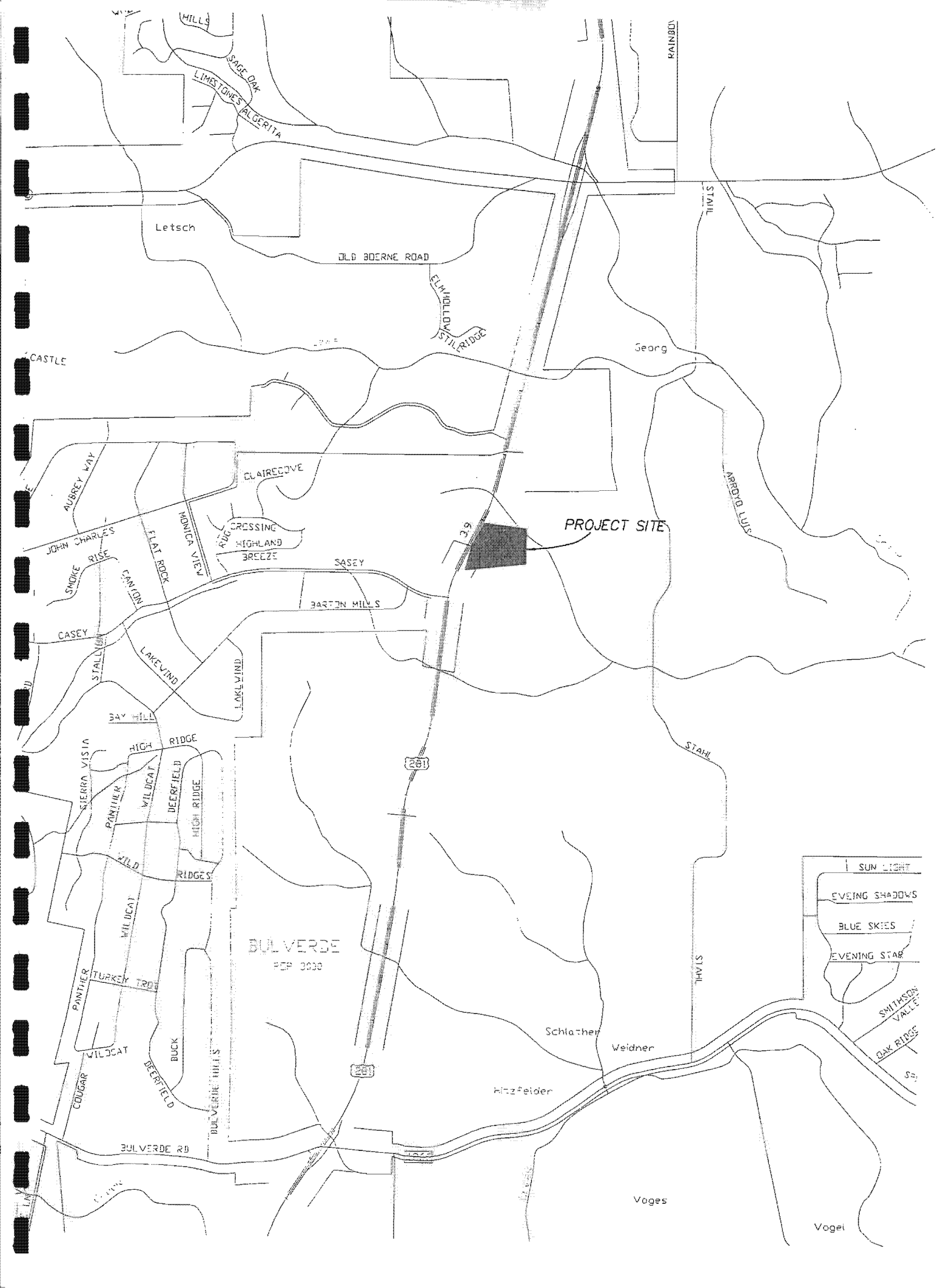
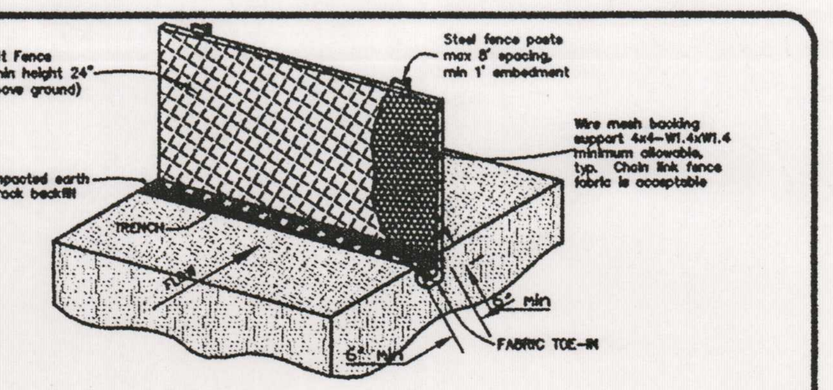

SAGE OAK
LIMESTONE
ALGERITA
Letsch
OLD BOERNE ROAD
ELM HOLLOW
STILRIDGE
CASTLE
Georg
STAIL
RAINBO
AUBREY WAY
CLAIRECOVE
JOHN CHARLES
SMOKE RISE
CANYON
FLAT ROCK
MONICA VIEW
RIDGE CROSSING
HIGHLAND BREEZE
PROJECT SITE
ARROYO LUIS
SASEY
BARTON MILLS
CASEY
STALLION
LAKEVIND
BAY HILL
HIGH RIDGE
SIERRA VISTA
PANTHER
WILDCAT
DEERFIELD
HIGH RIDGE
WILD RIDGES
BULVERDE
POP 3000
TURKEY TROT
BUCK
BULVERDE HILLS
COUGAR
281
STAHL
SUN LIGHT
EVEING SHADOWS
BLUE SKIES
EVENING STAR
SMITHSON VALLEY
OAK RIDGE
Schlather
Weidner
Hitzfelder
BULVERDE RD
Voges
Vogel

EXHIBIT B

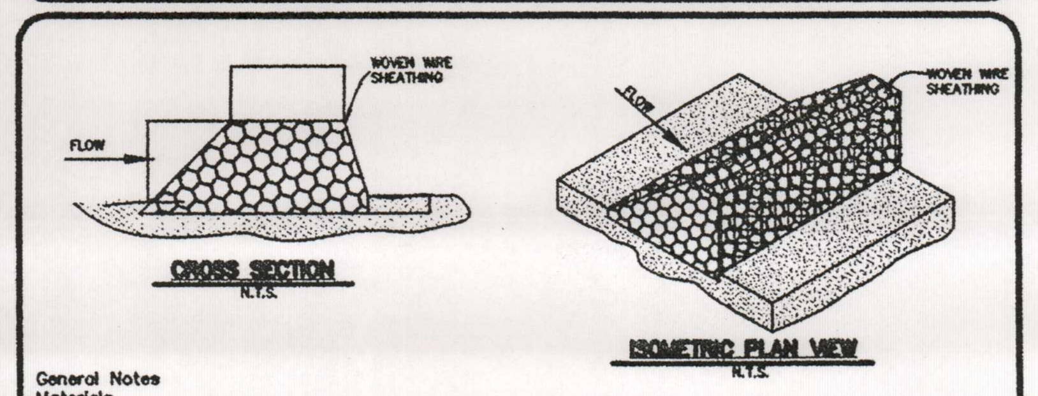


General Notes
Materials
1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/sq in, ultraviolet stability exceeding 70%, and minimum apparent 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 Y-bar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/sq ft, and Brindell hardness exceeding 140.
3) Woven wire backing to support the fabric should be galvanized 2"x4" 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 one 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 1/4 acre per 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 perpendicular 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 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 site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance
1) Inspect all fencing weekly, and after any rainfall.
2) Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.
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 fencing 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.

SILT FENCE DETAIL



General Notes
Materials
1) The berm structure should be secured with a woven wire sheathing having maximum opening of 1 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.
2) Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rock may be used.

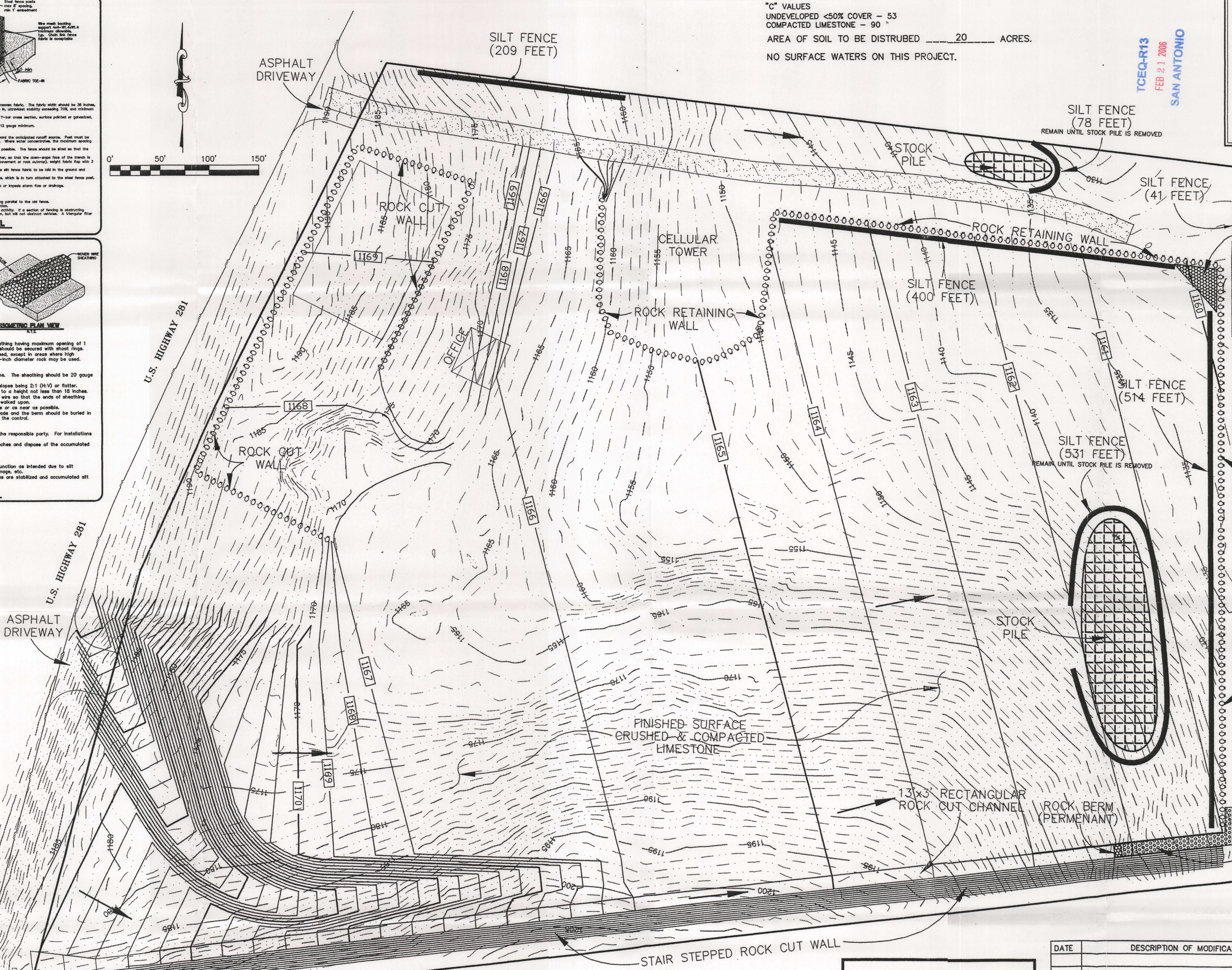
Installation
1) Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20 gauge woven wire mesh with 1 inch openings.
2) Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H:V) or flatter.
3) Place the rock along the sheathing as shown in the diagram to a height not less than 18 inches.
4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of sheathing overlap 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
1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner.
3) Repair any loose wire sheathing.
4) The berm should be reshaped as needed during inspection.
5) The berm should be replaced when the 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.

ROCK BERMS

"C" VALUES
UNDEVELOPED <50% COVER - 53
COMPACTED LIMESTONE - 90
AREA OF SOIL TO BE DISTRUBED ____20____ ACRES.
NO SURFACE WATERS ON THIS PROJECT.

TCEQ-R13
FEB 21 2006
SAN ANTONIO



ROCK BERM W/ ROCK DRAIN (PERMANENT)
ROCK BERM
SILT FENCE (196 FEET)
ROCK RETAINING WALL
SILT FENCE (237 FEET)
PLACE 6"-10" ROCKS IN CONCRETE GROUT FROM ROCK BERM TO 25' BEYOND TURN IN CHANNEL.

LEGEND

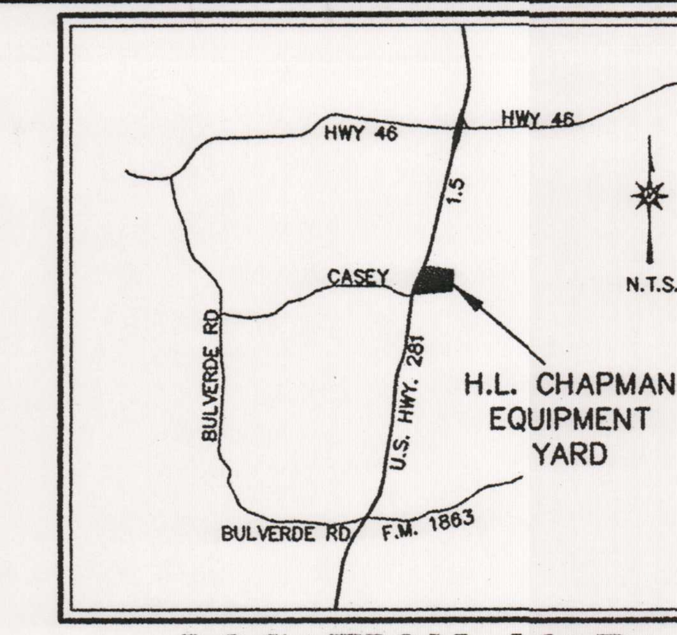
- SILT FENCE
- ROCK BERM
- STABILIZED CONSTRUCTION EXIT
- DRAINAGE ARROW
- 890 PROPOSED CONTOUR

NOTE:
SITE WILL BE SPRAYED WITH COHEREX FOR DUST CONTROL.

DATE	DESCRIPTION OF MODIFICATION	INT

ERZD

LOCATION MAP



JOB No. 02-140

HALLENBERGER ENGINEERING, L.C.
CONSULTING ENGINEERS & SURVEYORS
206 E. RAMSEY
SAN ANTONIO, TEXAS 78216
(210) 349-6571

DATE: AUG. 28, 2002
DESIGNED BY: J.A.M.
DRAWN BY: Z.L.B.
CHECKED BY: C.R.H.
SCALE: 1" = 50'
FILE NAME: 140SWPPP.DWG

STATE OF TEXAS
JEFFREY MCKINNIE
89393
LICENSED
PROFESSIONAL ENGINEER
8-30-02

REVISIONS

NO.	DATE	DESCRIPTION	BY

STORWATER POLLUTION PREVENTION PLAN (SWPPP) H. L. CHAPMAN EQUIPMENT YARD

SWPPP
SHEET 1 OF 1

THIS FORM REPLACES PREVIOUS FORM 3510-6 (8-98)
See Reverse for Instructions

Form Approved. OMB No. 2040-0188

NPDES FORM

EPA

United States Environmental Protection Agency
Washington, DC 20460

Notice of Intent (NOI) for Storm Water Discharges Associated with CONSTRUCTION ACTIVITY Under a NPDES General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a NPDES permit issued for storm water discharges associated with construction activity in the State/Indian Country Land identified in Section II of this form. Submission of this Notice of Intent also constitutes notice that the party identified in Section I of this form meets the eligibility requirements in Part I.B. of the general permit (including those related to protection of endangered species determined through the procedures in Addendum A of the general permit), understands that continued authorization to discharge is contingent on maintaining permit eligibility, and that implementation of the Storm Water Pollution Prevention Plan required under Part IV of the general permit will begin at the time the permittee commences work on the construction project identified in Secion II below. IN ORDER TO OBTAIN AUTHORIZATION, ALL INFORMATION REQUESTED MUST BE INCLUDED ON THIS FORM. SEE INSTRUCTIONS ON BACK OF FORM.

I. Owner/Operator (Applicant) Information

Name: Phone:

Address: Status of Owner/Operator: P

City: State: Zip Code:

II. Project/Site Information

Is the facility located on Indian Country Lands? Yes ☐ No ☐

Project Name:

Project Address/Location:

City: State: Zip Code:

Latitude: Longitude: County:

Has the Storm Water Pollution Prevention Plan (SWPPP) been prepared? Yes ☐ No ☐

Optional: Address of location of SWPPP for viewing ☐ Address in Section I above ☐ Address in Section II above ☐ Other address (if known) below:

SWPPP Address: Phone:

City: State: Zip Code:

Name of Receiving Water:

Month Day Year — Estimated Construction Start Date

Month Day Year — Estimated Completion Date

Estimate of area to be disturbed (to nearest acre):

Estimate of Likelihood of Discharge (choose only one):

1. ☐ Unlikely
2. ☐ Once per month
3. ☐ Once per week
4. ☐ Once per day
5. ☐ Continual

Based on instruction provided in Addendum A of the permit, are there any listed endangered or threatened species, or designated critical habitat in the project area?

Yes ☐ No ☐

I have satisfied permit eligibility with regard to protection of endangered species through the indicated section of Part I.B.3.e.(2) of the permit (check one or more boxes):

(a) ☐ (b) ☐ (c) ☐ (d) ☐

III. Certification

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

Print Name: Date:

Signature: _____

EXHIBIT C

THIS FORM REPLACES PREVIOUS FORM 3510-7 (8-92)

Please See Instructions Before Completing This Form

Form Approved. OMB No. 2040-0086
Approval expires: 8-31-98

NPDES FORM

United States Environmental Protection Agency
Washington, DC 20460

Notice of Termination (NOT) of Coverage Under a NPDES General Permit for Storm Water Discharges Associated with Industrial Activity

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with industrial activity under the NPDES program. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. Permit Information

NPDES Storm Water General Permit Number: _____

Check Here if You are No Longer the Operator of the Facility: ☐

Check Here if the Storm Water Discharge is Being Terminated: ☐

II. Facility Operator Information

Name: _____ Phone: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

III. Facility/Site Location Information

Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Latitude: _____ Longitude: _____ Quarter: _____ Section: _____ Township: _____ Range: _____

IV. Certification

I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by a NPDES general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

Print Name: _____ Date: _____

Signature: _____

Instructions for Completing Notice of Termination (NOT) Form

Who May File a Notice of Termination (NOT) Form

Permittees who are presently covered under an EPA-issued National Pollutant Discharge Elimination System (NPDES) General Permit (including the 1995 Multi-Sector Permit) for Storm Water Dicharges Associated with Industrial Activity may submit a Notice of Termination (NOT) form when their facilities no longer have any storm water discharges associated with industrial activity as defined in the storm water regulations at 40 CFR 122.26(b)(14), or when they are no longer the operator of the facilities.

For construction activities, elimination of all storm water discharges associated with industrial activity occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with industrial activity from the construction site that are authorized by a NPDES general permit have otherwise been eliminated. Final stabilization means that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

Where to File NOT Form

NOTs sent regular mail:
Stormwater Notice of Termination (4203M)
USEPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

NOTs sent overnight/express:
Stormwater Notice of Termination
US EPA East building, Rm. 7329
1201 Constitution Avenue, NW
Washington, D.C. 20004
(202) 564-9537

Completing the Form

Type or print, using upper-case letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, telephone or write the Notice of Intent Processing Center at (703) 931-3230.

EXHIBIT D

THIS FORM REPLACES PREVIOUS FORM 3510-6 (8-98)
See Reverse for Instructions

Form Approved. OMB No. 2040-0188

NPDES FORM

EPA

United States Environmental Protection Agency
Washington, DC 20460

Notice of Intent (NOI) for Storm Water Discharges Associated with CONSTRUCTION ACTIVITY Under a NPDES General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a NPDES permit issued for storm water discharges associated with construction activity in the State/Indian Country Land identified in Section II of this form. Submission of this Notice of Intent also constitutes notice that the party identified in Section I of this form meets the eligibility requirements in Part I.B. of the general permit (including those related to protection of endangered species determined through the procedures in Addendum A of the general permit), understands that continued authorization to discharge is contingent on maintaining permit eligibility, and that implementation of the Storm Water Pollution Prevention Plan required under Part IV of the general permit will begin at the time the permittee commences work on the construction project identified in Section II below. IN ORDER TO OBTAIN AUTHORIZATION, ALL INFORMATION REQUESTED MUST BE INCLUDED ON THIS FORM. SEE INSTRUCTIONS ON BACK OF FORM.

I. Owner/Operator (Applicant) Information

Name: HL CHAPMAN PIPELINE CONST CO Phone: 8304380019

Address: 32610 N HWY 281 Status of Owner/Operator: P

City: BULVERDE State: TX Zip Code: 78163-

II. Project/Site Information

Is the facility located on Indian Country Lands? Yes ☐ No ☑

Project Name: HL CHAPMAN CONST OFFICE & SHOP

Project Address/Location: 32610 N HWY 281

City: BULVERDE State: TX Zip Code: 78163-

Latitude: 29°46'32" Longitude: 98°25'30" County: COMAL

Has the Storm Water Pollution Prevention Plan (SWPPP) been prepared? Yes ☑ No ☐

Optional: Address of location of SWPPP for viewing ☑ Address in Section I above ☐ Address in Section II above ☐ Other address (if known) below:

SWPPP Address: Phone:

City: State: Zip Code: -

Name of Receiving Water: CLYDE JOHNSON RANCH

08/01/2001 (Month Day Year) Estimated Construction Start Date

07/01/2002 (Month Day Year) Estimated Completion Date

Estimate of area to be disturbed (to nearest acre): 20

Estimate of Likelihood of Discharge (choose only one):

1. ☑ Unlikely
2. ☐ Once per month
3. ☐ Once per week
4. ☐ Once per day
5. ☐ Continual

Based on instruction provided in Addendum A of the permit, are there any listed endangered or threatened species, or designated critical habitat in the project area?

Yes ☐ No ☑

I have satisfied permit eligibility with regard to protection of endangered species through the indicated section of Part I.B.3.e.(2) of the permit (check one or more boxes):

(a) ☑ (b) ☐ (c) ☐ (d) ☐

III. Certification

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

Print Name: ALBERT EUGENE HARRIS Date: 03/15/02

Signature: [signature]

EPA Form 3510-9 replaced 3510-6 (8-98)

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

I Harold L. Chapman, Jr.,
Print Name

Title - Owner/President/Other

of H. L. Chapman Pipeline Construction, Inc.
Corporation/Partnership/Entity Name

have authorized Joseph S. Moulder
Print Name of Agent/Engineer

of Extra Environmental, Inc
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 Natural Resource Conservation Commission (TNRCC) 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 TNRCC's approval letter. The TNRCC is authorized to assess administrative penalties of up to $10,000 per day per violation.

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

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TNRCC cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. For applicants who are not the property owner, but who have the right to control and possess and control the property, additional authorization is required from the owner.

Harold L Chapman
Applicant's Signature

Date 11-18-05

THE STATE OF TEXAS §

County of WILLIAMSON §

BEFORE ME, the undersigned authority, on this day personally appeared HAROLD L. CHAPMAN JR. 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 18th day of NOVEMBER, 2005.

Allana K. Menasoff
NOTARY PUBLIC

ALLANA K. MENASOFF
Typed or Printed Name of Notary

6-9-09
MY COMMISSION EXPIRES:

ALLANA K. MENASOFF
MY COMMISSION EXPIRES
June 9, 2009

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

I Harold L. Chapman Jr. ,
Print Name

Title - Owner/President/Other

of H.L. Chapman Pipeline Construction, Inc.
Corporation/Partnership/Entity Name

have authorized Alejandro R. Gomez, PE
Print Name of Agent/Engineer

of Gomez-Garcia & Associates, Inc
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 Natural Resource Conservation Commission (TNRCC) 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 TNRCC's approval letter. The TNRCC is authorized to assess administrative penalties of up to $10,000 per day per violation.

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4. For applicants who are not the property owner, but who have the right to control and possess and control the property, additional authorization is required from the owner.

Applicant's Signature Date

THE STATE OF TEXAS §

County of WILLIAMSON §

BEFORE ME, the undersigned authority, on this day personally appeared HAROLD L. CHAPMAN JR 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 18th day of NOVEMBER, 2005.

NOTARY PUBLIC

ALLANA K. MENASOFF

Typed or Printed Name of Notary

6-9-09

MY COMMISSION EXPIRES:

ALLANA K. MENASOFF
MY COMMISSION EXPIRES
June 9, 2009

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

NAME OF PROPOSED REGULATED ENTITY: H. L. Chapman Pipeline Construction, Inc.
REGULATED ENTITY LOCATION: 32610 North Highway 281 Bulverde, (Comal County) Texas 78163
NAME OF CUSTOMER: H. L. Chapman Pipeline Construction, Inc.
CONTACT PERSON: Jeff Kuempel PHONE: (830) 438-8019
(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
X Comal
☐ Kinney
☐ Medina
☐ 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):**

X **SAN ANTONIO REGIONAL OFFICE**

☐ **AUSTIN REGIONAL OFFICE**

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

☐ **Overnight Delivery to TCEQ:**
TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-0347

Check one:

X **Contributing Zone Plan - Fee Due $250**

☐ **Modification of a Previously Approved Contributing Zone Plan - Fee Due $250**

☐ **Extension of Time Request - Fee Due $100**

Signature _____ Date 1-9-06

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.

TCEQ Core Data Form

TCEQ Use Only

If you have questions on how to fill out this form or about our Central Registry, please contact us at 512-239-5175.

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.

SECTION I: General Information

1. Reason for Submission *Example: new wastewater permit; IHW registration; change in customer information; etc.*

New Contributing Zone Plan

2. Attachments				**Describe Any Attachments:** *(ex: Title V Application, Waste Transporter Application, etc.)*
X	**YES**		**NO**	Contributing Zone Plan package

3. Customer Reference Number-*if issued*				**4. Regulated Entity Reference Number-*if issued***		
CN		***(9 digits)***		**RN**		***(9 digits)***

SECTION II: Customer Information

5. Customer Role *(Proposed or Actual)* -- As It Relates to the Regulated Entity Listed on This Form

Please check one of the following:		X	Owner		Operator		Owner and Operator
	Occupational Licensee		Volunteer Cleanup Applicant				Other
TCEQ Use Only			**Superfund**		**PST**		**Respondent**

6. General Customer Information

X	New Customer		Change to Customer Information
	Change in Regulated Entity Ownership		No Change *

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

7. Type of Customer:					
	Individual		Sole Proprietorship - D.B.A.		
	Partnership	X	Corporation,		Federal Government
	State Government		County Government		City Government
	Other Government		Other: Limited		

8. Customer Name *(If an individual, please print last name first)*	*If new name, enter previous name:*
H.L. Chapman Pipeline Construction, Inc.	

9. Mailing Address:	9250 FM 2243			
	City	**State**	**ZIP**	**ZIP + 4**
	Leander	Texas	78641	

10. Country Mailing Information *if outside USA*	**11. E-Mail Address *if applicable***

12. Telephone Number	**13. Extension or Code**	**14. Fax Number *if applicable***
512-259-7662		512-259-7870

15. Federal Tax ID *(9 digits)*	**16. State Franchise Tax ID Number** *if applicable*	**17. DUNS Number** *if applicable* ***(9 digits)***
76-0598341	1-76-0598341-4	06-310-0978

18. Number of Employees										**19. Independently Owned and Operated?**			
	0-20		**21-100**		**101-250**	X	**251-500**		**501 and higher**	X	**Yes**		**No**

SECTION III: Regulated Entity Information

20. General Regulated Entity Information

X	New Regulated Entity		Change to Regulated Entity Information		No Change*

*If "No Change" and Section I is complete, skip to Section IV - Preparer Information.

21. Regulated Entity Name *(If an individual, please print last name first)*				
H. L. Chapman Pipeline Construction, Inc.				
22. Street Address (No PO Boxes)	32610 North Highway 281			
	City	**State**	**ZIP**	**ZIP + 4**
	Bulverde	Texas	78163	
23. Mailing Address	32610 North Highway 281			
	City	**State**	**ZIP**	**ZIP + 4**
	Bulverde	Texas	78163	
24. E-Mail Address:				

25. Telephone Number	26. Extension or Code	27. Fax Number *if applicable*
(830) 438-8019		(830) 438-4923

28. Primary SIC Code (4 digits)	29. Secondary SIC Code (4 digits)	30. Primary NAICS Code (5 or 6 digits)	31. Secondary NAICS Code (5 or 6 digits)
1623	1629	237110	237120

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

Pipeline construction

Questions 33 - 37 address geographic location. Please refer to the instructions for applicability.

33. County	Comal

34. Description of Physical Location

1 Mile south of Highway 46 and US 281, on east side of highway.

35. Nearest City	State	Nearest Zip
Bulverde	Texas	78163

36. Latitude (N)			*37. Longitude (W)*		
Degrees	***Minutes***	***Seconds***	***Degrees***	***Minutes***	***Seconds***
29	46	32.67	98	25	29.60

38. TCEQ Programs In Which This Regulated Entity Participates *Not all programs have been listed. Please add to this list as needed. If you don't know or are unsure, please mark "Unknown".* If you know a permit or registration # for this entity, please write it below the program."

	Animal Feeding Operation	X	Petroleum Storage Tank		Water Rights
	Title V - Air		Wastewater Permit	X	Edwards Aquifer
	Industrial & Hazardous Waste		Water Districts		
	Municipal Solid Waste		Water Utilities		Unknown
	New Source Review - Air		Licensing - TYPE(s)		

Section IV: Preparer Information

39. Name	40. Title
Joseph S. Moulder	Project Manager

41. Telephone Number	42. Extension or Code	43. Fax Number *if applicable*
210 829 7137		210 829 8271

44. E-mail Address:	jsmoulder@mail2texas.com