



Environmental Services, Inc.

**BIRD'S NEST AIRPORT
MITIGATION PLAN
MANOR, TRAVIS COUNTY, TEXAS
HJN 080015 EA
CoA CASE #SP-2008-0117D**

PREPARED FOR:

**TRAVIS COUNTY FIELD, LLC
BROOKSHIRE, TEXAS**

PREPARED BY:

**HORIZON ENVIRONMENTAL SERVICES, INC.
AUSTIN, TEXAS**

25 JULY 2008

CORPORATE HEADQUARTERS

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Certified DBE/SBE

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1.0 INTRODUCTION

On behalf of our client, Travis County Field, LLC (TCF), Horizon Environmental Services, Inc. (Horizon) has conducted an environmental assessment of the subject site (Figure 1, Appendix A) to identify any critical environmental features (CEFs) as defined by the City of Austin (CoA) proposed for modification during the construction of a new runway and associated structures on the Bird's Nest Airport. Horizon personnel conducted a site visit of the entire project area and an impact assessment of proposed project plans to determine if activities would adversely affect any CEFs. The purpose of the field visit was to identify all CEFs on and within 150 feet of the project area. A review of the proposed project plans indicates that the proposed runway construction will impact an upland manmade stock pond that exhibits a wetland fringe and would be classified as a wetland CEF by the CoA. This area is identified as CEF 2 on Figure 1. Additionally, the typical 150-foot buffer area that is associated with CEFs will be encroached upon along the western site boundary where CEF 1, an upland manmade stock pond that exhibits a wetland fringe, is located. Finally, it was determined on follow-up site visits with CoA personnel that an approximately 1-acre area within the 150-foot CEF buffer just west of CEF #3, an upland manmade stock pond that exhibits a wetland fringe, had experienced the temporary placement of spoil within a native grassland area that was previously dominated by bushy bluestem (*Andropogon glomeratus*).

The proposed project plans include the complete fill of the pond area and re-grading of portions of the typical 150-foot buffer area that is associated with CEF 2. Areas along the northern portion of the buffer area not planned for improvements will remain in their natural state.

TABLE 1 – SUMMARY OF PROJECT IMPACTS TO CEFs

CEF	Type of Impact	Area (square feet)
CEF 1	Buffer area encroachment	53,143
CEF 2	Fill of wetland CEF and re-grade buffer	172,824
CEF 3	Placement of fill material	41,312

2.0 PROPOSED MITIGATION FOR IMPACTS TO CEFs

Three types of mitigation are being proposed for the impacts associated with the 3 on-site CEFs. The typical 150-foot buffer area that is associated with CEF 1 will be encroached upon along the western site boundary where CEF 1 is located. This will involve the reduction of the CEF buffer along the eastern side of the CEF to approximately 50 feet as allowed by administrative variance and coordinated with Mr. Andrew Clamman of the CoA Watershed Protection Department. Mitigation for this encroachment will be provided through the manipulation of the uniform 150-foot buffer area so that the exact amount of buffer area that is encroached upon will be provided as additional buffer area along the northeast portion of the buffer. The new CEF buffer area, while no longer being a uniform 150-foot will still encompass the exact same amount of acreage.

The second form of mitigation will include the creation of a native grassland along the southern boundary of the site to compensate for the impacts associated with CEF 2 as

described previously. This area was chosen due to the natural topographic drainage area that flows through the western portion of the site as well as its close proximity to an unnamed tributary of Wilbarger Creek just to the south of the mitigation area. The mitigation area will encompass a total of at least 172,824 square feet (4.0 acres) in order to provide a 1:1 mitigation ratio for the impacts associated with CEF 2.

Finally, the third form of mitigation will involve the reclamation of the native grassland area identified above that has been impacted within the buffer area of CEF 3. This reclamation effort will involve the removal of the temporary spoil disposal piles located within the 41,312-square-foot (1.0-acre) area, return of this area to natural contours, and re-vegetation as described in the planting plan below.

3.0 PLANTING PLAN

The 4.0-acre native grassland will be seeded with species identified in the CoA Native Grassland Seeding For General Permit Projects (Appendix B) and will follow the CoA 609 S Specifications (Appendix C) for seed bed preparation and watering. Additionally, 50 shrubs per acre for a total of 200 shrubs will be planted randomly throughout the 4.0-acre mitigation area as requested by Mr. Clamman of CoA. The shrubs will be placed so as to take advantage of the natural hydrologic flow that follows the topographic grade along the western half of the mitigation area in a north-south orientation. Upon determination of shrub availability at the time of planting, an experienced botanist familiar with the hydrologic needs of different native species will determine the best placement area for the different species. As an example, button bush (*Cephalanthus occidentalis*), which requires a wetter environment than most shrub species, would be placed in the lowest areas of the natural topographic grade, while twisted-leaf yucca (*Yucca rupicola*) would be placed at the higher elevations. At least 5 species from the shrub species list provided in Appendix D will be utilized with no more than 25% of any one species comprising the total. All shrubs will be 1 gallon or larger.

The 1.0 acre native grassland associated with CEF 3 will be seeded with species identified in the CoA Native Grassland Seeding For General Permit Projects (Appendix B) and will follow the CoA 609 S Specifications (Appendix C) for seed bed preparation and watering. Additionally, bushy bluestem bare root plugs will be planted randomly at a 2:1 ratio of that required for 1-gallon plants in the 609 S Specifications. This equates to approximately 400 bare root plugs that will be planted randomly throughout the 1.0-acre mitigation area.

4.0 MINIMUM ACCEPTABLE PLANT SURVIVAL RATE

A temporary irrigation system will likely be utilized in the 1.0-acre restoration area associated with CEF 3. At this time, it appears that a temporary pump and sprinkler system utilizing water from the pond will be the most efficient. Due to the lack of readily accessible water in the area of the 4.0-acre mitigation area, a water truck with distribution hose will likely be utilized to irrigate the 4.0-acre mitigation area. The planting will be deemed successful if 80% aerial coverage of herbaceous species and 70% of shrub species survival are achieved at the end of the second growing season. If the success criteria have not been achieved, additional seeding or planting will be completed, as deemed necessary, to achieve stated goals. One additional end-of-growing-season monitoring event will be conducted for a total of 3 monitoring events.

5.0 CRITERIA FOR MINIMUM MITIGATION PLAN SUCCESS

TCF shall be ultimately responsible for maintaining the created and restored mitigation areas until such time as the TCF provides documentation to, and receives verification from, the CoA that areas within the mitigation area have met the minimum acceptable plant survival rate criteria. The construction contractor will be required to establish and irrigate this mitigation area until established and will also provide a bond assuring survivability of the planted shrub and grass species.

6.0 COMPLIANCE REPORTING

TCF shall establish and implement a self-monitoring program that includes the following actions:

- a. designation, in writing, of a responsible party to coordinate with the CoA concerning on-site inspections and compliance with permit conditions; and
- b. implementation of a reporting program that shall include annual written compliance reports to the CoA, due October 1 each year, beginning in October 2009. The responsible party shall include in each report any schedule changes and a summary of all activities that occurred during the reporting period, including demonstration of compliance with the permit conditions and documentation of the progress and/or completion of all authorized work, including mitigation activities. Each report shall address whether mitigation areas are re-vegetating adequately and not suffering erosion damage. The responsible party shall detail in the first report the pre-construction conditions of the project area. The responsible party shall include in each report: photographs, maps, and a description of the success of the mitigation areas. Compliance reports are required even if no work is conducted during the reporting period. TCF shall submit annual compliance reports for the first 3 monitoring events or until the CoA verifies that the TCF has successfully completed all compensatory mitigation plan requirements, the mitigation areas have met the performance standards, and all authorized construction activities have been either completed or deleted from the project.
- c. The permittee shall notify the CoA of the schedule of activities for each phase of the project at least 15 days prior to the start of soil-disturbing activities.

7.0 NOTICE OF RESTRICTION

In order to assure protection of the 2 mitigation areas, plat notes will be clearly stated on all construction plans designating these areas as mitigation areas that are not to be impacted and a notice of restriction will be placed on the mitigation areas that state: 1) the notice of restricted mitigation area be dedicated in perpetuity; 2) the notice of restriction cannot be modified without prior written authorization from the CoA; and 3) improvements within the mitigation area are limited to pervious pedestrian paths and associated benches and must receive prior written authorization from the CoA. A copy of the notice of restriction will be provided to CoA within 30 days of filing and final approval with Travis County. Short-term management and planting of the mitigation area will be provided by the TCF. Long-term management of the mitigation area will also be provided by the TCF. In the event of transfer of ownership of the development area and mitigation site, management of the mitigation area will be the responsibility of the transferee.

Additionally, 5-strand barbed wire fencing and no-mowing signs will be placed around the 4.0-acre newly created mitigation area to prevent non-authorized mowing; and no-mowing signs will be placed in a clearly visible area around the periphery of the CEF buffer associated with CEF 3. These restrictive measures are clearly outlined on Sheet 26 (Mitigation Site Plan) of the construction plans attached in Appendix A. The signs to be placed on the boundary of the mitigation areas and fence will be metal signs sized at least 18" by 24" stating:

RESTRICTED AREA

wetland mitigation and
water quality vegetative filter area

NO MOWING

NO LIVESTOCK

NO MOTORIZED VEHICLES

APPENDIX A
SITE FINDINGS MAP AND MITIGATION SITE PLAN



MAP SOURCE: CAPCOG, 2006.

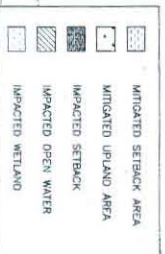


0 500 1,000
Feet

Horizon
Environmental Services, Inc.

FIGURE 1
SITE FINDINGS MAP
BIRDS NEST AIRPORT
CAMERON ROAD AND STATE HIGHWAY 130
AUSTIN, TRAVIS COUNTY, TEXAS

NOTE:
1. THE CONTRACTOR SHALL CALL ONE CALL CENTER (472-2822) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EXCAVATIONS OR STREET ROW.
2. ALL CITY EXCAVATIONS SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN CONSTRUCTION NOTES. SEE GENERAL CONSTRUCTION NOTES.
3. FOR CLARITY, PROPOSED CONTOURS NOT SHOWN ON THIS PLAN.



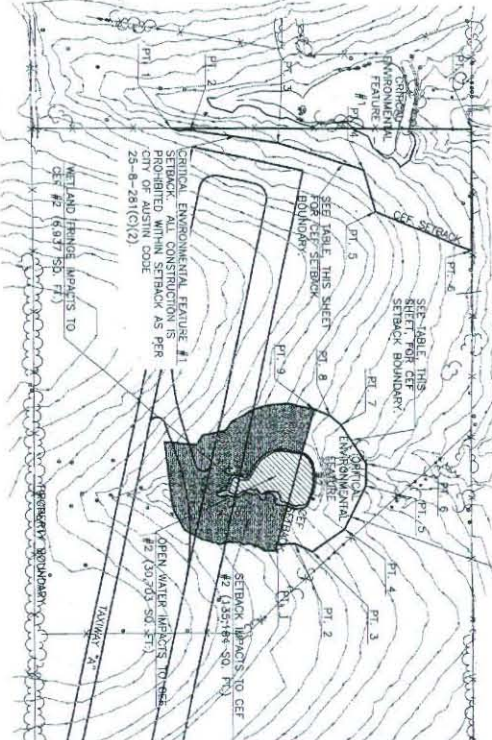
CENTERLINE OF CREEK
CRITICAL ENVIRONMENTAL FEATURE #1 SETBACK
ALL CONSTRUCTION SHALL BE SETBACK FROM THE CENTERLINE OF CREEK AS PER CITY OF AUSTIN CODE 25-8-281(C)(2).

CRITICAL ENVIRONMENTAL FEATURE #1 SETBACK	BOUNDARY
PT. 1	N=10121035.933 E=3165236.556
PT. 2	N=10121088.399 E=3168273.936
PT. 3	N=10121328.043 E=3166447.819
PT. 4	N=10121533.933 E=3166657.397
PT. 5	N=10121502.458 E=3166797.038
PT. 6	N=10121728.797 E=3167000.195
PT. 7	N=10121916.346 E=3166708.623

CRITICAL ENVIRONMENTAL FEATURE #3 SETBACK	BOUNDARY
PT. 1	N=10118014.175 E=3169752.578
PT. 2	N=10118105.642 E=3169751.829
PT. 3	N=10118223.256 E=3169221.602
PT. 4	N=10118226.274 E=3169472.989
PT. 5	N=10118194.935 E=3169344.827
PT. 6	N=10118130.593 E=3169280.282
PT. 7	N=10118053.261 E=3169225.468
PT. 8	N=10117942.602 E=3169110.996
PT. 9	N=10117654.647 E=3168052.564
PT. 10	N=10117611.240 E=3168067.717
PT. 11	N=10117411.390 E=3168188.015
PT. 12	N=10117223.237 E=3168407.729

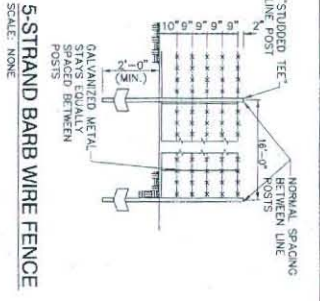


ALL RESPONSIBILITY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER. THE CITY OF AUSTIN MUST BE NOTIFIED OF ANY CHANGES TO THE WORK OF THE ENGINEER.
REVIEWED BY:
FOR DIRECTOR OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT



CRITICAL ENVIRONMENTAL FEATURE #2 SETBACK	BOUNDARY
PT. 1	N=10120702.785 E=3167613.2888
PT. 2	N=10120756.263 E=3167038.975
PT. 3	N=10120795.667 E=3167068.705
PT. 4	N=10120944.073 E=3167673.226
PT. 5	N=1012090.938 E=3167586.404
PT. 6	N=10121086.731 E=3167515.316
PT. 7	N=10121074.450 E=3167362.146
PT. 8	N=10121057.481 E=3167319.744
PT. 9	N=10121000.519 E=3167275.410

CRITICAL ENVIRONMENTAL FEATURE #3 SETBACK	BOUNDARY
PT. 1	N=10118014.175 E=3169752.578
PT. 2	N=10118105.642 E=3169751.829
PT. 3	N=10118223.256 E=3169221.602
PT. 4	N=10118226.274 E=3169472.989
PT. 5	N=10118194.935 E=3169344.827
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PT. 9	N=10117654.647 E=3168052.564
PT. 10	N=10117611.240 E=3168067.717
PT. 11	N=10117411.390 E=3168188.015
PT. 12	N=10117223.237 E=3168407.729



NOTES:
1. USE FIVE (5) CLIPS WITH EACH POST.
2. WITH WHITE END DIFFERENT THAN SHOWN.
3. ANCHORS MAY BE OF DIFFERENT THAN SHOWN.

CITY OF AUSTIN
CASE NUMBER:
SP-2008-0117D
"STUDDUED TEE" LINE POST
SCALE: NONE

INSTALL 1.588 L.F. OF 4" HIGH 5-STRAND BARBED WIRE FENCING WITH SIGNAGE PER THE CITY OF AUSTIN ENVIRONMENTAL REQUIREMENTS.
MITIGATED SETBACK
TWO BLIND FENCING UPWARDS CONSERVATION AREA
UPLAND AREA BOUNDARY
N = 10118845.844
E = 3167736.35
FENCE CORNER
N = 1011881.221
E = 3167580.862
UPLAND AREA BOUNDARY
N = 10118503.313
E = 3167669.645
UPLAND AREA BOUNDARY
N = 10118503.313
E = 3167416.553
MITIGATED UPLANDS CONSERVATION AREA INCLUDES ALL IMPACTED AREAS AROUND CEF #1, 2 AND 3. TOTAL AREA USED FOR MITIGATION IS 172.824 SQ. FT. AREA SHALL BE REVEGETED AND REPLANTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR BURS. THESE PLANTING SHALL INCLUDE SO PLANTED AREAS SHALL BE IRRIGATED UNTIL ESTABLISHED.

REMOVE SPILL AREA FROM THE #3 SETBACK DISTURBED AREA REPLANTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR BURS. BURS/BLUESYSTEM WILL BE PLANTED WITH ONE ROW PLUS 41.312 SQ. FT. DISTURBED AREA.

UPLAND AREA BOUNDARY
N = 10118845.844
E = 3167736.35
FENCE CORNER
N = 1011881.221
E = 3167580.862
UPLAND AREA BOUNDARY
N = 10118503.313
E = 3167669.645
UPLAND AREA BOUNDARY
N = 10118503.313
E = 3167416.553
UPLAND AREA BOUNDARY
N = 1011844.251
E = 3168407.450
UPLAND AREA BOUNDARY
N = 1018244.103
E = 3168107.422
END CONSTRUCTION OF 4" HIGH 5-STRAND BARBED WIRE FENCING PER CITY OF AUSTIN ENVIRONMENTAL REQUIREMENTS.

INSTALL: NO MORE AREA SIGNS MOUNTED TO POSTS EXCEPT PERMITTED ON CEF #3 SETBACK SEE TABLE FOR CEF #3 SETBACK BOUNDARY.
CRITICAL ENVIRONMENTAL FEATURE #3 SETBACK
ALL CONSTRUCTION IS PROHIBITED WITHIN SETBACK AS PER CITY OF AUSTIN CODE 25-8-281(C)(2). SEE MITIGATION SITE PLAN FOR COORDINATES OF SETBACK BOUNDARIES.

APPENDIX B

COA NATIVE GRASSLAND SEEDING FOR GENERAL PERMIT PROJECTS

NATIVE GRASSLAND SEEDING FOR GENERAL PERMIT PROJECTS

PREPARATION

- Rough up area to create good seed - soil contact.
- Hydromulch area with the following mix:

NATIVE GRASSES

- .25 lbs/1000 square feet *Buchloe dactyloides* (Buffalo Grass)
- .20 lbs/1000 square feet *Elymus canadensis* (Prairie or Canada Wild Rye)
- .15 lbs/1000 square feet *Bouteloua curtipendula* (Sideoats Grama)
- .15 lbs/1000 square feet *Letochloa dubia* (Green Sprangletop)
- .25 lbs/1000 square feet *Tripsacum dactyloides* (Eastern Gamagrass)
- .15 lbs/1000 square feet *Aristida purpurea* (Purple Three-Awn)
- .20 lbs/1000 square feet *Bouteloua gracilis* (Blue Grama)
- .15 lbs/1000 square feet *Sorghastrum nutans* (Indian Grass)
- .20 lbs/1000 square feet *Schizachyrium scoparium* (Little Bluestem)
- .10 lbs/1000 square feet *Panicum virgatum* (Switchgrass)
- .20 lbs/1000 square feet *Andropogon glomeratus* or *Andropogon gerardii*
(Bushy Bluestem preferred, or Big Bluestem)

TOTAL: 2 LBS/1000 SQUARE FEET

TEMPORARY COVER CROP

- .5 lbs/1000 square feet *Triticum aestivum* (Wheat)
- .5 lbs/1000 square feet *Avena sativa* (Oats)

TOTAL: 1 LBS/1000 SQUARE FEET

WILDFLOWERS

- .05 lbs/1000 square feet *Rudbeckia hirta* (Black-Eyed Susan)
- .05 lbs/1000 square feet *Desmanthus illinoensis* (Bundleflower)
- .10 lbs/1000 square feet *Salvia coccinea* (Scarlet Sage)
- .05 lbs/1000 square feet *Oenothera speciosa* (Pink Evening Primrose)
- .05 lbs/1000 square feet *Phlox drummondii* (Phlox)
- .05 lbs/1000 square feet *Coreopsis tinctoria* (Coreopsis)
- .05 lbs/1000 square feet *Thelesperma filifolium* (Greenthread)
- .05 lbs/1000 square feet *Petalostemum purpurea* (Purple Prairie Clover)
- .05 lbs/1000 square feet *Engelmannia pinnatifida* (Cutleaf Daisy)
- .10 lbs/1000 square feet *Cassia fasciculata* (Partridge Pea)
- .10 lbs/1000 square feet *Gaillardia pulchella* (Indian Blanket)
- .15 lbs/1000 square feet *Lupinus texensis* (Bluebonnet)
- .05 lbs/1000 square feet *Rudbeckia amplexicaulis* (Clasping Coneflower)
- .10 lbs/1000 square feet *Amblyolepis setigera* (Huisache Daisy)

TOTAL: 1 LBS/1000 SQUARE FEET

OVERALL TOTAL GRASS, COVER, AND WILDFLOWER MIX: 4 LBS./1000 SQ. FT.

APPENDIX C
COA 609 S SPECIFICATIONS

609S.1 Description

This item shall govern the preparation of a seeding and planting area to the lines and grades indicated on the Drawings. This may include seedbed preparation, sowing of seeds, planting of rooted plants, watering, hydromulch, compost and other management practices, as indicated in the Drawings or as directed by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, inch-pound units are given preference with SI units shown within parentheses.

609S.2 Submittals

The submittal requirements for this specification item shall include:

- A. Identification of the species, source, mixture and rate of application of the seeding.
- B. Type of mulch or compost.
- C. Watering frequency and amount.
- D. Type of management practices.

609S.3. Materials

- A. The seed furnished shall be of the previous season's crop and the date of analysis shown on each bag shall be within twelve months of the time of delivery to the project. Each variety of seed shall be furnished and delivered in separate bags or containers. A sample of each variety of seed shall be furnished for analysis and testing when directed by the Engineer or designated representative.

The amount of seed planted per 1000 square feet (93 square meters) shall be of the type specified in section 609S.5.

- B. Water shall be clean and free of industrial wastes and other substances harmful to the growth of grass in the area irrigated.
- C. Top soil shall be a blend of 75% sterile silty clay loam and 25% (by volume) compost.
 - 1. The silty clay loam shall be from a native deposit in an area where all native composted topsoil has been removed. The loam shall have a plasticity index (PI) between 9 and 16.
 - 2. The compost shall be Dillo Dirt or an equal approved by the Engineer or designated representative. Dillo dirt is composted sewage sludge as manufactured by the City of Austin Water and Wastewater Department.
- D. A least toxic, integrated pest management (IPM) shall be used to control weeds. A written request for approval of weed control product(s) and/or materials shall be submitted to the City of Austin IPM program coordinator (974-2550) for approval.
- E. Rooted plants must be healthy and free of pests. The root system should be well established and in proportion to the top growth.

609S.4 Construction Methods

- A. General.

The Contractor shall limit preparation to areas that will be immediately seeded. All noxious weeds shall be eliminated by application of a herbicide and/or by physical removal (by the roots) prior to and/or during the seeding operation. The following list of plants are considered noxious weeds:

Table 1: Weed List

Weed Type	Botanical Name	Common Name
Herb	Ambrosia spp.	Ragweed
Grass	Bothriochloa ischaemum	K.R. Bluestem
Grass	Bromus unioloides	Rescue Grass
Herb	Cenchrus spp.	Sandbur
Herb	Cnidoscolus texanus	Bull Nettle
Herb	Convolvulus spp.	Bindweed
Grass	Cynodon dactylon	Bermudagrass*
Herb	Cyperus esculentus	Yellow Nutsedge (Nut-grass)
Herb	Cyperus rotundus	Purple Nutsedge (Nut-grass)
Grass	Digitaria spp.	Crab Grass
Herb	Medicago sp.	Bur-Clover
Grass	Paspalum dilatatum	Dallis Grass
Grass	Sorghum halapense	Johnson Grass
Herb	Torilis arvensis	Beggar's-tick
Vine	Toxicodendron radicans	Poison Ivy
Herb	Urtica spp.	Stinging Nettle

B. Seed Bed Preparation.

After the designated areas have been rough graded, a suitable seedbed shall be prepared. In areas where cut or fill is required, a minimum of 6 inches (150 mm) of topsoil (see Section 609S.3.C) shall be placed or existing soil (that is not infested with weeds or weed rootstock) stockpiled over the entire planting area.

In areas with no soil disturbance, the weeds shall be eliminated and a minimum of 2 inches (50 mm) of topsoil, if none currently exists, shall be placed. An even seedbed shall be prepared with limited irregularities, lumps or soil clods and the surface shall be raked to facilitate seed to soil contact.

C. Watering.

All watering shall comply with City of Austin Land Development Code requirements. Seeded areas shall immediately be watered with a minimum of 5 gallons of water per square yard (22.5 liters of water per square meter) or as needed and in the manner and quantity as directed by the Engineer or designated representative.

Watering applications shall insure that the seedbed is maintained in a moist condition favorable for the growth of grass. Watering shall continue until minimum coverage is achieved and accepted by the Engineer or designated representative. Watering may be postponed immediately after a 1/2 inch (12.5 mm) or greater rainfall on the site but shall be resumed before the soil dries out.

609S.5 Native Grassland Seeding and Planting

All areas require both seed and rooted plants. Seeding and planting shall be performed in accordance with the requirements hereinafter described. The optimum depth for seeding shall be from 1/16 inch (1 1/2 millimeters) to 1/8 inch (3 millimeters). Seed shall be applied by a method that achieves consistent distribution and proper seed to soil contact (i.e. hand broadcasting, hydromulch, or drill method). Mulching is not required.

Species substitution, when necessary due to availability, shall be approved by the Engineer or designated representative. Only native species adapted for the designated environmental conditions shall be allowed as substitutes. Shorter growing natives such as Buffalograss should be sodded around manholes or other structures requiring higher visibility for access.

The plants included in the following warm season lists (Tables 2, 3 and 4) may be installed during any time of the year. However, if the native grassland is being installed during the cool season (November 1 to February 15), the seeds listed in Native Wildflower Species List (Table 5) shall be installed in addition to the warm season plant list.

The seed and rooted plant mixtures shall be applied to areas greater than 10,000 square feet (930 square meters) in accordance with appropriate 'growing environments' (Upland Full Sun-Table 2, Upland Shade-Dappled-Table 3 and Facultative Moderate to High Moisture-Table 4).

Table 2. Upland Species, Full Sun Areas

Common Name	Botanical Name	Application rate lbs/1000 sq. ft. (kg/100 sq. m.)	Rooted Plants Size & Spacing
Buffalo Grass	<i>Buchloe dactyloides</i>	0.3 (1.5)	1 piece '609' sod @ 10' (3m) ctrs.
Blue Grama	<i>Bouteloua gracilis</i>	0.2 (1.0)	
Green Srrangletop	<i>Leptochloa dubia</i>	0.3 (1.5)	
Indian Grass	<i>Sorghastrum nutans</i>	0.2 (1.0)	1 gal @ 10 ft.' (3m) ctrs
Little Bluestem	<i>Schizachyrium scoparium</i>	0.2 (1.0)	
Prairie Wild Rye	<i>Elymus canadensis</i>	0.2 (1.0)	
Purple Threeawn	<i>Aristida purpurea</i>	0.2 (1.0)	Not required
Sideoats Grama	<i>Bouteloua curtipendula</i>	0.2 (1.0)	
Winter Grass*	<i>Stipa leucotrica</i>	0.2 (1.0)	
Oats**	<i>Avena sativa</i>	0.2 (1.0)	
Wheat**	<i>Triticum aestivum</i>	0.3 (1.5)	
Native Wildflowers	5 Species From Table 5.	0.5 (2.5)	
TOTAL ***		Winter: 3.0 (14.6) Summer: 2.5 (12.2)	Rooted Climax Species. Any one or mixed @ 10 ft. (3 m) ctrs.

* If unavailable replace with additional Prairie Wild Rye.

** Plant only between Oct. 1 and Jan. 31. Non-persistent winter cover crop for erosion control

*** Any unavailable species can be substituted with the same quantity of another species from the list or another native species approved by the Engineer or designated representative. For example Big Muhly could be substituted for other climax species.

Table 3. Upland Species, Shade-Dappled Light Areas

Common Name	Succession Status	Botanical Name	Application Rate lbs/1000 sq. ft. (kg/100 sq. m.)	Rooted Plants Size & Spacing
Cedar Sedge*	climax	<i>Carex planostachys</i>	Not required	1 gal. @ 10' (3m) ctrs.
Inland Seaoats	climax	<i>Chasmanthium latifolium</i>	0.5 (2.5)	
Prairie Wild Rye	pioneer	<i>Elymus canadensis</i>	0.5 (2.5)	
Sideoats Grama	mid	<i>Bouteloua curtipendula</i>	0.5 (2.5)	1 gal. @ 10' (3m) ctrs.
Winter Grass**	Pioneer	<i>Stipa leucotrica</i>	0.5 (2.5)	
Oats***	Non native	<i>Avena sativa</i>	0.2 (1.0)	
Wheat***	Non native	<i>Triticum aestivum</i>	0.3 (1.5)	Not required
Native Wildflowers		5 Shade Tolerant Species from Table 5****	0.5 (2.5)	
TOTAL *****			Winter: 3.0 (14.6) Summer: 2.5 (12.2)	Rooted Climax Species. Any One or Mix @ 10' (3m) ctrs.

* If unavailable replace with rooted Sideoats Grama.

** If unavailable replace with additional Prairie Wild Rye.

*** Plant only between Oct. 1 and Jan. 31. Non-persistent winter cover crop for erosion control

**** See 'Growing Environment' column in Table 5 - Native Wildflower Species for species that thrive in shade or dappled light.

***** Any unavailable species can be substituted with the same quantity of another species from the list or another native species approved by the Engineer or designated representative.

Table 4. Facultative Species, Moderate – High Moisture Areas

Common Name	Succession Status	Botanical Name	Application rate lbs/1000 sq. ft. (kg/100 sq. m.)	Rooted Plants Size & Spacing
Big Bluestem	climax	Andropogon gerardii	0.2 (1.0)	1 gal. @ 10' (3m) ctrs
Big Muhly (Lindheimers)	climax	Muhlenbergia lindheimeri	0.2 (1.0)	
Bushy Bluestem	climax	Andropogon glomeratus	0.2 (1.0)	
Eastern Gama Grass	climax	Tripsacum dactyloides	0.3 (1.5)	
Indian Grass	climax	Sorghastrum nutans	0.2 (1.0)	
Inland Seaoats	climax	Chasmanthium latifolium	0.3 (1.5)	
Prairie Wild Rye	Pioneer	Elymus canadensis	0.3 (1.5)	Not required
Sand Lovegrass	climax	Eragrostis trichodes	0.2 (1.0)	
Switchgrass	Pioneer-climax	Panicum virgatum	0.1 (0.5)	1 gal. @ 10' (3m) ctrs
Oats*	Non native	Avena sativa	0.2 (1.0)	Not required
Wheat*	Non native	Triticum aestivum	0.3 (1.5)	
Native Wildflowers**		5 Facultative Species From Table 5***	0.5 (2.5)	
TOTAL****			winter: 3.0 (14.6) summer: 2.5 (12.2)	Rooted Climax Species Any 1 or Mix @ 10' (3m) ctrs.

* Plant only between Oct. 1 and Jan. 31. Non-persistent winter cover crop for erosion control

** Select species whose seeds germinate at the appropriate time of year (see 'Growing Environment' column of Native Wildflower Species List for indication of Fall and/or Spring seeding).

*** See 'Growing Environment' column of Native Wildflower Species List to select species that thrive in moist habitat (facultative).

**** Any unavailable species can be substituted with the same quantity of another species from the Native Wildflower Species List or another native species approved by the Engineer or designated representative.

Table 5. Native Wildflower Species

Common Name	Botanical Name	Growing Environment*	Seeding**	Value
Basketflower	Centaurea americana	Facultative, Full sun	Fall	Annual, Prolific tall bloomer (2- 5 ft.[.6-1.5 m]) Birds, Butterflies,
Bluebonnet	Lupinus texensis	Upland, Full sun	Fall	Annual blue bloom, N-fixing legume
Black-Eyed Susan	Rudbeckia hirta	Facultative, Shade tolerant	Fall-Spring	Annual yellow bloom, Butterflies
Bundleflower (Illinois)	Desmanthus illinoensis	Facultative, Shade tolerant	Fall-Spring	Perennial, Butterflies, Birds
Butterfly Weed	Asclepias tuberosa	Upland, Shade tolerant	Fall-Spring	Perennial, Fiery-orange, Butterflies
Camphor Weed	Heterotheca latifolia	Upland, Full sun	Fall	Annual, pioneer, insect and deer resistant
Clover (Purple Prairie)	Petalostemum purpurea	Facultative, Full sun	Fall-Spring	Perennial, N-fixing legume, Pioneer, Birds, Butterflies
Clover (White Prairie)	Petalostemum candidum	Facultative, Full sun	Fall-Spring	Perennial, N-fixing legume, Pioneer, Birds
Coneflower (Clasping)	Rudbeckia amplexicaulis	Facultative, Full sun	Fall	Annual, Prolific bloomer, Easy to grow
Coreopsis (Lanceleaf)	Coreopsis lanceolata	Upland, Shade tolerant	Fall	Perennial, Insect resistant, Butterflies

Table 5. Native Wildflower Species (Continued)

Common Name	Botanical Name	Growing Environment*	Seeding**	Value
Coreopsis (Plains)	Coreopsis tinctoria	Facultative, Full sun	Fall	Annual, Butterflies
Cutleaf Daisy	Engelmannia pinnatifida	Upland, Shade tolerant	Fall-Spring	Perennial, Butterflies, Bees, Attracts deer
Gayfeather (Blazing Star)	Liatris mucronata	Upland, Full sun	Spring	Perennial, Pioneer Butterflies, Hummingbird, Deep rooted
Golden Groundsel	Senecio obovatus	Facultative, Shade tolerant	Fall	Perennial
Goldenrod	Solidago altissima	Facultative	Spring	Perennial yellow bloom, Tall (3' to 6' {0.9 to 1.8 m})
Greenthread	Thelesperma filifolium	Upland, Full sun	Fall-Spring	Perennial, Pioneer, Butterfly larvae, Birds
Huisache Daisy	Amblyolepis setigera	Upland, Full sun	Fall	Annual, Prolific yellow bloomer, Butterflies
Indian Blanket	Gaillardia pulchella	Upland, Full sun	Fall	Annual, Deer resistant, Butterfly larva, Prolific
Indian Paintbrush	Castilleja indivisa	Upland, Full sun	Fall	Annual grass companion, Butterflies, Hummingbirds
Lazy Daisy	Aphanostephus sp.	Facultative, Full sun	Fall	Annual early spring bloomer
Lemon Mint	Mondarda citriodora	Facultative, Full sun	Fall	Hummingbirds, Butterfly, deer & insect resistant
Mexican Hat	Ratibda columnaris	Upland, Full sun	Fall	Perennial, Prolific, Deer resistant, Butterflies
Partridge Pea	Cassia fasciculata	Upland, Full sun	Fall-Spring	Annual, Legume, Birds, Butterflies, Heat tolerant
Phlox (Drummond)	Phlox drummondii	Upland, Shade tolerant	Fall	Annual, Prolific
Pink Evening Primrose	Oenothera speciosa	Upland, Full sun	Fall	Perennial, Prolific, Semi-evergreen, Butterflies
Purple Coneflower	Echinacea purpurea	Upland, Shade Tolerant	Fall	Perennial, Prolific, Butterflies, Pioneer
Sage (Mealy Blue)	Salvia farinacea	Upland, Full sun	Fall	Perennial, Xeric, Pioneer, Hummingbirds, Butterflies, Deer resistant
Sage (Scarlet)	Salvia coccinea	Facultative, Shade tolerant	Fall-Spring	Perennial, Hummingbirds, Butterfly larvae, Deer resistant
Scrambled Eggs	Corydalis curvisiliqua	Facultative, Full sun	Fall-Spring	Annual, Pioneer, Birds, Easy to grow
Standing Cypress	Ipomopsis rubra	Upland, Shade tolerant	Fall-Spring	Biennial, Red flowers, Butterflies, Hummingbirds
Sunflower (Common)	Helianthus annuus	Facultative, Full sun	Fall-Spring	Annual yellow bloom, Birds
Sunflower (Maximilian)	Helianthus maximiliani	Facultative, Full sun	Spring	Perennial, Prolific
Texas Yellow Star	Lindheimera texana	Upland, Full sun	Fall-Spring	Annual, Prolific yellow bloomer
Verbena (Prairie)	Verbena bipinnatifida	Facultative, Full sun	Fall-Spring	Perennial, Pioneer, Butterflies, Deer resistant
Winecup	Callirhoe involucrata	Upland, Shade tolerant	Fall	Perennial, Beautiful wine color

* Shade tolerant shall mean a maximum of half-day of shade, or dappled sunlight all day.

** Spring seeding shall mean the time period between March 1 and June 1. Fall seeding shall mean the time period between September 1 and November 1

For areas less than or equal to 10,000 square feet (930 square meters) the following shall apply:

1. Upland Species, Full Sun Areas.

Sod Buffalograss in a checkerboard fashion with corners of sod touching. One or a mix of other native grass climax species shall be planted in the center of each open space between the checkerboarded Buffalograss. As a second option any of the full sun tolerant rooted climax species shall be rooted at a minimum spacing of 3' (0.9 m) on center. In either option the seed application rate shall remain the quantity prescribed in Table 2.

2. Upland Species, Shade-Dappled Light Areas.

Shade tolerant rooted climax species shall be rooted at a minimum spacing of 3' (0.9 m) on center. The seed application rate shall remain the quantity prescribed in Table 3.

3. Facultative Species, Moderate to High Moisture Areas.

Facultative rooted climax species shall be rooted at a minimum spacing of 3' (0.9 m) on center. The seed application rate shall remain the quantity prescribed in Table 4.

609S.6 Management Practices

Weeds, as defined in the Weed List (Table 1), shall be controlled in the most efficient manner possible. The timing of weed control may occur prior to soil disturbance, just before the installation of seed, and/or during the period of grassland establishment. Weed control shall be introduced at one or all of these times, so that the greatest control is achieved. The preferred method of control is to remove weeds, either by physical or mechanical means, when the site is conducive (e.g. when the ground is moist) to this approach.

The entire root system of perennial weeds shall be removed to prevent re-sprouting. Weeds may be controlled with an approved contact, systemic herbicide, provided the product is used with appropriate care and is applied in accordance with label instructions and the following guidelines:

1. Herbicide shall not be applied when the wind is greater than 8 mph (12.9 kph),
2. Herbicide shall not be applied when rainfall is expected within 24 hours,
3. Herbicide shall not contact surface water, i.e. creeks, rivers, and lakes,
4. Herbicide shall not contact desirable vegetation (a wicking method shall be used, if necessary, to accurately contact target weed only during application).

The Engineer or designated representative shall be consulted to determine appropriate weed control management when weeds are located in an environmentally sensitive location (e.g. near water or adjacent to a critical environmental feature).

609S.7 Measurement

Work and acceptable material for "Native Grasslands for Erosion Control" will be measured by the square yard (square meter: 1 square meter equals 1.196 square yards) or by the acre (hectare: 1 hectare equals 2.471 acres), complete in place, with a minimum of 65 percent coverage with no bare areas exceeding 32 square feet (3 square meters) and a 1 1/2 inch (40 millimeters) stand of grass. Bare areas shall be reprepared and reseeded as required by the Engineer or designated representative in order to develop an acceptable stand of grass.

609S.8 Payment

The work performed and materials furnished and measured will be paid for at the unit bid price for "Native Grasslands For Erosion Control" of the method specified on the Drawings.

The unit bid price shall include full compensation for furnishing all materials, including all topsoil, water, seed, or fertilizer or mulch and for performing all operations necessary to complete the work.

Payment will be made under one or more of the following pay items:

Pay Item No. 609S-A: Topsoil and Seedbed Preparation	Per Square Yard.
Pay Item No. 609S-B: Topsoil and Seedbed Preparation	Per Acre.
Pay Item No. 609S-C: Native Grassland Seeding and Planting	Per Square Yard.
Pay Item No. 609S-D: Native Grassland Seeding and Planting	Per Acre.
Pay Item No. 609S-E: Watering	Per Square Yard
Pay Item No. 609S-F: Watering	Per Acre
Pay Item No. 609S-G: Management Practices	Per Square Yard
Pay Item No. 609S-H: Management Practices	Per Acre

End

<i>SPECIFIC</i> CROSS REFERENCE MATERIALS
Specification Item 609S "Native Grasslands for Erosion Control"

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 130S	Borrow
Item No. 606S	Fertilizer

<i>RELATED</i> CROSS REFERENCE MATERIALS

City of Austin Standard Specifications

<u>Designation</u>	<u>Description</u>
Item No. 601S	Salvaging and Placing Topsoil
Item No. 602S	Sodding for Erosion Control
Item No. 604S	Seeding (Non-Native) for Erosion Control
Item No. 605S	Soil Retention Blanket
Item No. 607S	Slope Stabilization
Item No. 608S	Planting

City of Austin Standards (Details)

<u>Standard No.</u>	<u>Description</u>
627S-1	Grass Lined Swale
62S7-2	Grass Lined Swale W/ Stone Center
633S-1	Landgrading

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

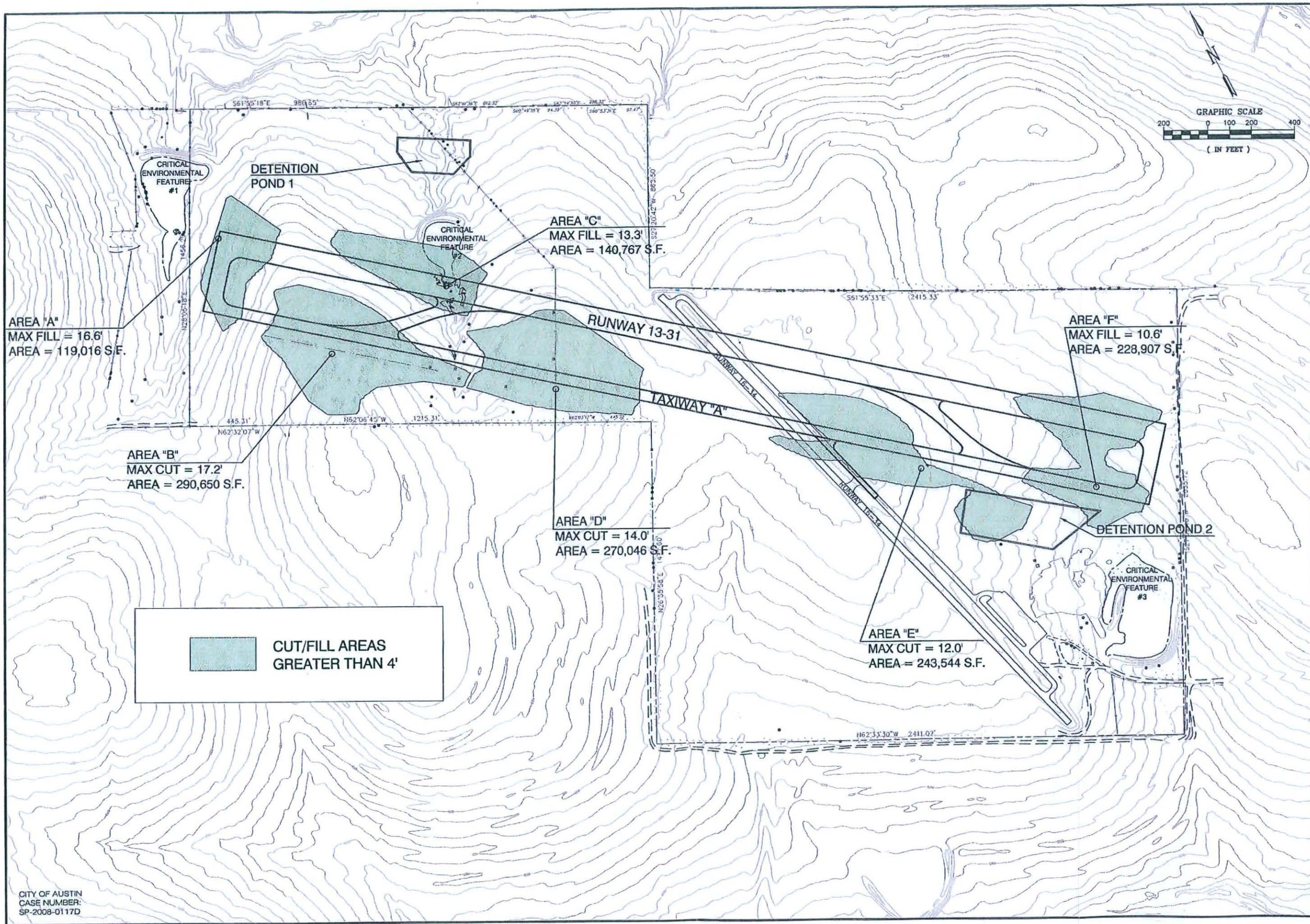
<u>Designation</u>	<u>Description</u>
Item No. 160	Furnishing and Placing Topsoil
Item No. 162	Sodding for Erosion Control
Item No. 164	Seeding for Erosion Control
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket
Item No. 180	Wildflower Seeding
Item No. 192	Roadside Planting and Establishment

APPENDIX D
SHRUB SPECIES LIST

SELECTED SHRUB SPECIES TO BE UTILIZED IN 4.0-ACRE MITIGATION AREA

Common Name	Scientific Name	Moisture Requirement	Deer resistance
Button bush	<i>Cephananthus occidentalis</i>	medium to high	moderately resistant
Possumhaw holly	<i>Ilex decidua</i>	low to medium	moderately resistant
Evergreen sumac	<i>Rhus virens</i>	low	moderately resistant
Mexican buckeye	<i>Unganadia speciosa</i>	low	moderately resistant
Carolina buckthorn	<i>Rhamnus caroliniana</i>	low	moderately resistant
Wooly butterfly bush	<i>Buddleja marrubiiifolia</i>	low	moderately resistant
Cenizo (Texas sage)	<i>Leucophyllum frutescens</i>	low	moderately resistant
Flameleaf sumac	<i>Rhus lanceolata</i>	very low	moderately resistant
Flame acanthus	<i>Anisacanthus quadrifidus var wrightii</i>	very low	very resistant
Agarita	<i>Berberis trifoliolata</i>	very low	very resistant
Texas mountain laurel	<i>Sophora secundiflora</i>	very low	very resistant
Mexican redbud	<i>Cercis canadensis var mexicana</i>	very low	moderately resistant
Anacacho orchid	<i>Bauhinia congesta</i>	very low	very resistant
Desert willow	<i>Chilopsis linearis</i>	very low	moderately resistant
Texas persimmon	<i>Diospyros texana</i>	very low	moderately resistant

Subject to availability. Substitutions may be made with CoA approval.



CITY OF AUSTIN
CASE NUMBER:
SP-2008-0117D



REV.	DATE	DESCRIPTION	BY	APPROVED

GARVER ENGINEERS
1088 EAST MILLS AP ROAD, FAYETTEVILLE, AR 72703, (479) 627-9100

BIRD'S NEST AIRPORT
15012 FUCHS GROVE ROAD
MANOR, TX 78653

STAGE I CONSTRUCTION

CUT/FILL
EXHIBIT

Job No.: 07057490
Date: JUNE, 2008
Designed by: JBC
Drawn by: JBC

Sheet Number

EHB

NOTE:

Backup for Wildflower Commons PUD
was in the July 16, 2008 Packet.

This item will probably receive a written
request for a postponement or
withdrawal.



ITEM FOR ENVIRONMENTAL BOARD AGENDA

BOARD MEETING

DATE REQUESTED: August 6, 2008

NAME & NUMBER OF PROJECT: Leander ISD Ribelin Ranch Development
SP-2007-0543CX (Revision One)

NAME OF APPLICANT OR ORGANIZATION: Leander ISD
(Tom Glenn: 512-434-5250)

LOCATION: 9700 McNeil Drive

PROJECT FILING DATE: May 13, 2008

WPDR/ENVIRONMENTAL STAFF/CASE MANAGER: Javier V. Delgado, 974-7648
Javier.delgado@ci.austin.tx.us

WATERSHED: West Bull Creek (Water Supply Suburban)
Drinking Water Protection Zone

ORDINANCE: Inter-local Agreement between the City of Austin and the
Leander Independent School District

REQUEST: Variance requests are as follows:
1. From LDC Section 25-8-342: To allow fill greater than four feet of depth, not to exceed 23 feet
2. From LDC Section 25-8-302: Construction on Slopes Greater than 15%, not to exceed an area of 909 sq. feet

STAFF RECOMMENDATION: Recommended with conditions

REASONS FOR RECOMMENDATION: Findings of fact have been met.



MEMORANDUM

TO: Betty Baker, Chairperson
Members of the Planning Commission

FROM: Javier V. Delgado,
Watershed Protection and Development Review Dept.

DATE: August 19, 2008

SUBJECT: Leander Independent School District Ribelin Ranch development

Description of Property

The Leander Independent School District Ribelin Ranch development is located at the intersection of McNeil Drive and Ribelin Ranch Road. The total acreage of the development is 111.8 acres. The proposed site plan for the development will include a middle school, high school, sports fields, a football stadium, associated parking areas for those facilities just mentioned, site utility improvements, and drainage/water quality facilities as required (See exhibit A). The site plan will be phased with the middle school construction being the initial phase (approved in June 2008). The site is located in the West Bull Creek watershed, which is a Water Supply Suburban watershed (Drinking Water Protection Zone). The site was previously undeveloped and is zoned PUD (Ribelin Ranch Planned Unit Development). The development is subject to the inter-local agreement between the City of Austin and the Leander Independent School District (L.I.S.D.). The site and is located within the limited purposed jurisdiction of the City of Austin.

Existing Topography and Soil Characteristics

The Ribelin Ranch property is located on the Jollyville Plateau. The vast majority site is in the uplands area in slope categories ranging from 0-15%. A high percentage of this area is within the sub-slope category of 10-15%. The site is divided into two major drainage areas by a ridge through the middle of the site. A City of Austin public water supply main runs through the site along this ridge. There are canyon heads lying to the north and east of the property. The soils are classified within Brackett and Tarrant associates.

Vegetation/Critical Environmental Features/ Endangered Species

The project is located in a mostly undeveloped heavily wooded area that has been used for grazing cattle. The existing vegetation includes various types of oak trees, ashe junipers and cedar elms trees. There are a variety of shrubs and under-story brush as well.

There have not been any critical environmental features identified within the 111.8 acres being developed. There are two canyon heads existing along the eastern portion of the LISD Ribelin Ranch development. Several rim rocks, springs, sinkholes, and endangered species (golden cheek warbler, Jollyville salamander, several karst invertebrates) habitat are located in the canyons themselves. LISD has secured a 10a permit from the U.S. Fish and Wildlife Service in regard to the taking of warbler habitat in specific areas. LISD has donated the canyon head areas to the Balcones Canyonlands Conservation Preserve which is overseen by Travis County as a part of their 10a permit (See exhibit B). ERM Staff has been involved in the review of the development applications for this project.

Variance Requests

1. From LDC Section 25-8-342: To allow fill up to twenty-three feet of depth

The fill variance is being requested for the proposed football stadium, which would require up to a maximum 23 feet of fill (See exhibit C). The fill will be structural contained

2. From LDC Section 25-8-302: Construction on Slopes not to exceed 908 square feet in slopes greater than 15%

The applicant has proposed to construct a softball field over an area of 908 square feet that is in excess of 15%. The slopes greater than 15% make up 0.1% of the total area of the site (See exhibit D). This area will structural be contained.

Staff recommends these variances with conditions.

Conditions:

1. The fill used for this variance must be from on-site excavation from the Ribelin ranch development (Lot 7). The any off-site fill (if needed) must comply with criteria established per TCEQ Pollution Attenuation Plan criteria (includes backfill load certification, material is essentially insoluble, etc.)
2. The site will comply with regular code landscaping requirements for parking areas.
3. Provide an IPM plan.
4. Utilize Hill Country native species for landscaping and tree replacement.
5. Enhanced erosion controls (includes mulch logs/ socks).
6. Eliminate any additional parking above what is required by the inter-local agreement.

Similar cases with granted variances to Cut/fill variances in West Bull/Bull Creek

1. Case: Concordia University Campus (SP-2007-0231C (R1))
Recommended by the EV Board on April 2, 2008
Vote: 6-0-0-1-0
Conditions: provide IPM plan for maintenance of ball field, utilize all Hill Country native species for landscaping and tree replacement; provide twice the amount of private common open space than required by code; have a professional geologist monitor the pond and lift station excavations.

2. Case: Wal-Mart at Rock Harbour (SPC-04-0048C)
Recommended by EV Board on 03/16/2005
Vote : consent (6-1-0-1)
Conditions: all cuts greater than 4-feet must be structurally contained; all disturbed and landscaped areas be re-vegetated with native seeding; provide an IPM plan; forbid the use of coal tar base sealants, provide rooftop rainwater harvesting; if void is encountered, work must stop with 50-feet of possible CEF.

Similar cases with granted variances to Construction on Slopes in West Bull/Bull Creek

1. Case: Potter Dentistry (SPC-04-0022A)
Recommended by the EV Board on 11-17-2004
Vote: 5-0-0-2
Conditions: all cut/fills to be structurally contained, provide IPM plan, all tree replacement to be Class One trees, container grown from native seed; all COA required landscaping to utilize grow green native or adapted material; prohibit the use of coal tar based asphalt sealants,

If you have any questions or need additional information, please contact;
Javier V. Delgado - 974-7648 / javier.delgado@ci.austin.tx.us

Javier V. Delgado, Development Services Process Coordinator
Watershed Protection and Development Review Department

Environmental Lead


Ingrid McDonald

Environmental Officer


Patrick Murphy



**Watershed Protection and Development Review Department
Staff Recommendations Concerning Required Findings
Water Quality Variances**

Application Name:	Leander Independent School District Ribelin Ranch development
Application Case No:	SP-2007-0543CX (R1)
Code Reference:	LDC Section 25-8-302
Variance Request:	Construct a ball field on slopes greater than 15%, not to exceed an area 909 sq. feet

A. Land Use Commission variance determinations from Chapter 25-8, Subchapter A – Water Quality of the City Code:

1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development.

Yes – There have been several developments in the area that have been allowed to construct on slopes greater than 15% with the appropriate conditions.

2. The variance:

- a) Is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance;

Yes – The area of slope greater than 15% slope is less than 1,000 square feet and isolated from any other area greater than 15%.

- b) Is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property;

Yes – Due to the area of slope greater than 15%. Construction of this slope does not cause any adverse impacts and has been allowed in the other developments.

- c) Does not create a significant probability of harmful environmental consequences; and

Yes – The applicant has agreed to landscaping requirements for parking lots, incorporated existing trees into the parking areas as possible and providing an IPM for the entire development

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

Yes – The applicant is meeting current code for water quality and providing an IPM.

B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-393 (Water Quality Transition Zone), Section 25-8-423 (Water Quality Transition Zone), Section 25-8-453 (Water Quality Transition Zone), or Article 7, Division 1 (Critical Water Quality Zone Restrictions): *Not applicable.*

1. The above criteria for granting a variance are met;
2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and
3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

Reviewer Name: **Javier V. Delgado**

Reviewer Signature: _____

Date:

July 30, 2008

Staff may recommend approval of a variance after answering all applicable determinations in the affirmative (YES).



**Watershed Protection and Development Review Department
Staff Recommendations Concerning Required Findings
Water Quality Variances**

Application Name:	Leander Independent School District Ribelin Ranch development
Application Case No:	SP-2007-0543CX (R1)
Code Reference:	LDC Section 25-8-342
Variance Request:	Allow fill greater than eight feet, not to exceed 23 feet

A. Land Use Commission variance determinations from Chapter 25-8, Subchapter A – Water Quality of the City Code:

1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development.

Yes – There have been several developments in the area that have been allowed to exceed the cut/fill limit with the appropriate conditions.

2. The variance:

- a) Is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance;

Yes – Due to the topography of the Hill Country, a fill variance would be needed on any portion of this site for the stadium. The applicant is providing an IPM and compiling with more stringent landscape than is required per the inter-local agreement.

- b) Is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property;

Yes – the creation of the stadium requires a significant amount of fill like the Concordia ball field (18 feet).

- c) Does not create a significant probability of harmful environmental consequences; and

Yes – The applicant has agreed to landscaping requirements for parking lots, incorporated existing trees into the parking areas as possible and providing an IPM for the entire development.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

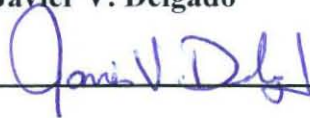
Yes – The applicant is meeting current code for water quality and providing an IPM.

B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-393 (Water Quality Transition Zone), Section 25-8-423 (Water Quality Transition Zone), Section 25-8-453 (Water Quality Transition Zone), or Article 7, Division 1 (Critical Water Quality Zone Restrictions): *Not applicable.*

1. The above criteria for granting a variance are met;
2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and
3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

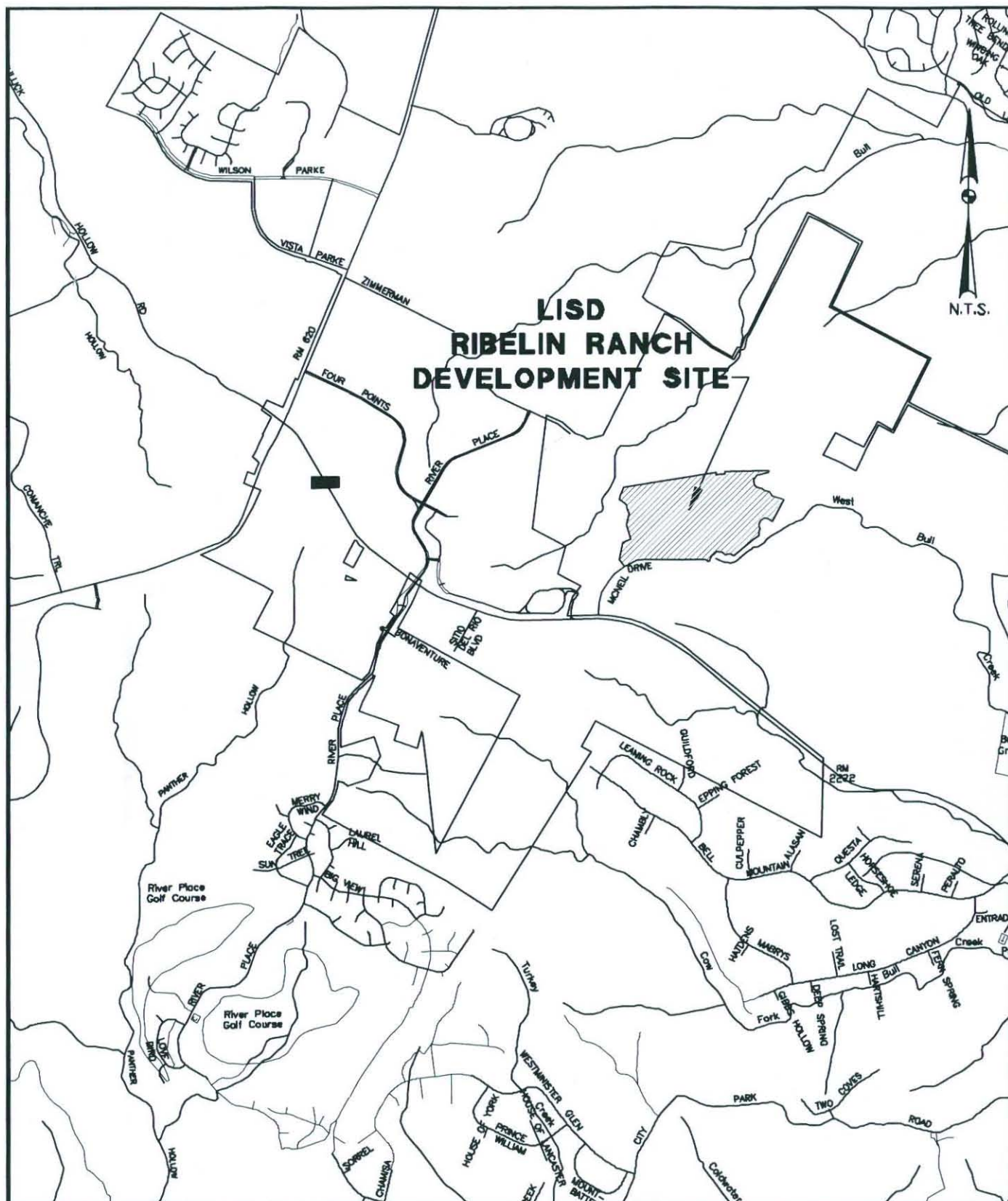
Reviewer Name: **Javier V. Delgado**

Reviewer Signature: _____



Date: **July 28, 2008**

Staff may recommend approval of a variance after answering all applicable determinations in the affirmative (YES).

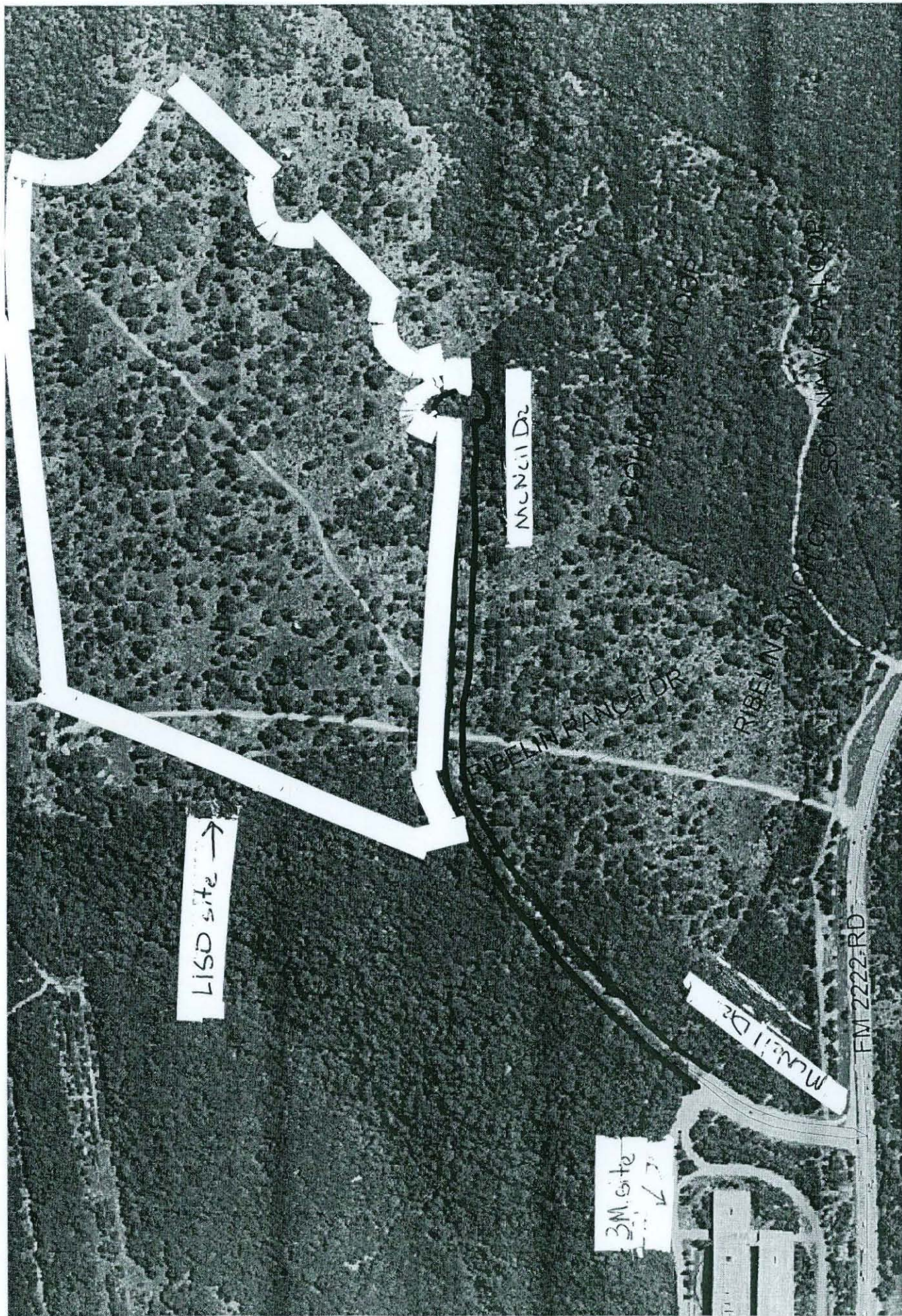


**L.I.S.D.
RIBELIN RANCH DEVELOPMENT
SITE LOCATION MAP**

JOB No. 441663.00

Driving Directions

Take MOPAC to the RM 2222 exit. Turn west on 2222 and continue west, past Loop 360. McNeil Drive is located off 2222 approximately 4.5 miles past Loop 360. Turn right onto McNeil Drive, the LISD school site begins about a half mile from the intersection of 2222 (this portion of McNeil is being constructed).





An employee-owned company

May 12, 2008
Updated: 28 July 2008

Mr. Javier Delgado, Case Manager
Watershed Protection and Development Protection Department
City of Austin
505 Barton Springs Road
Austin, Texas 78704

RE: Leander Independent School District Ribelin Ranch Development
Phase Four Stadium
Consolidated Administrative Site Plan Submittal – Revision No. 1
City of Austin File No. SP-2007-0543CX
Environmental Variance Requests
PBS&J Project No. 044166300

Mr. Delgado:

On behalf of our client, Leander Independent School District, PBS&J requests a variance for Phase Four of the Leander ISD Ribelin Ranch Development.

- I. Inter-local Agreement Section 5.8 (d): This section of the inter-local restricts the amount of cut or fill greater than eight feet in the uplands zone.

Justification:

The constraints of the Leander ISD Ribelin site limit the placement of the full spectrum of building and facilities that are necessary for the required service to the student body, faculty, and staff. The constraints of the large footprints of the stadium and its mandated grading layout coupled with the unique slope conditions of the site result in the need to exceed both cut and fill constraints in the proposed stadium area and throughout the site. We have labored to remain within the cut-fill requirements (regular and administrative variance) for the whole site, but the topography on which the stadium (MSL 965 – 1004 over an approximate 11-acre footprint) is situated prevents us from maintaining cut-fill conditions under 8-feet. The Findings-of-Fact is included as Attachment A. The extents of the cut and fill exceeding 8 feet are shown on the attached Attachment B. The runoff and drainage conditions will remain unchanged and no water quality zone or features are affected by this request.

We thank you for your time and effort in this matter and would appreciate your favorable review and consideration of this request for a variance from Section 30-5-341/342. Please call me at 342-3481 if you have any questions or require any further detail for the review of this variance.

Sincerely,

Jeffrey Scott, P.E.

Mr. Javier Delgado, Case Manager
City of Austin WPDR
July 28, 2008
Page 2

Senior Project Engineer

Attachments

cc: Mark McNeal - PBS&J
Jimmy Disler -- LISD
Steve Berry - LISD
Main Files 6.1.2.

K:\Projects\D444\LISD\Ribelin Ranch\Site Plan Applications\RSC-HS5-RST_Phases 2-3-4





An employee-owned company

May 12, 2008

Updated: 28 July 2008

Mr. Javier Delgado, Case Manager
Watershed Protection and Development Protection Department
City of Austin
505 Barton Springs Road
Austin, Texas 78704

RE: Leander Independent School District Ribelin Ranch Development
Phase Three - High School No. 5
Phase Four - Stadium
Consolidated Administrative Site Plan Submittal - Revision No. 1
City of Austin File No. SP-2007-0543CX
Environmental Variance Requests
PBS&J Project No. 044166300

Mr. Delgado:

On behalf of our client, Leander Independent School District, PBS&J requests a variance for Phases Three and Four of the Leander ISD Ribelin Ranch Development.

- I. Inter-local Agreement Section 5.9 - This section of the Inter-Local Agreement addresses construction of building or parking areas on existing ground slopes over 15%.

Explanations:

Phase Three - High School 5:

Please refer to Slope Map Sheet 102 of 202.

Please refer to Q-2 Table on Site Plan Sheet 104 of 202.

There are two separate areas where proposed impervious cover lies over existing slopes between 25-35% and on existing slopes over 35%. One is at the roadway adjacent to the northeastern-most practice field and the other is near the southeast entrance to the southern of two high school buildings. The proposed impervious cover over these existing slopes over 25% does require a variance. However, we suggest that this very small area of slope over 25% is an isolated slope and not part of a larger feature. For this reason we request that this area be excluded from the requirements of this section of the Code and therefore will not require a variance. If a variance is required we ask that it be granted administratively.

Phase Four - Stadium:

Please refer to Slope Map Sheet 165 of 191.

Please refer to Q-2 Table on Site Plan Sheet 166 of 191.

There are two separate areas where proposed impervious cover lies over existing slopes between 25-35% and on existing slopes over 35%. Both of these are in the concrete sidewalks surrounding the


Mr. Javier Delgado, Case Manager
City of Austin WPDR
July 28, 2008
Page 2

football stadium on the northwest side of the field. The proposed impervious cover over these existing slopes over 25% does require a variance. However, we suggest that this very small area of slope over 25% is an isolated slope and not part of a larger feature. For this reason we request that this area be excluded from the requirements of this section of the Code and therefore will not require a variance. If a variance is required we ask that it be granted administratively.

The runoff and drainage conditions will remain unchanged and no water quality zone or features are affected by this request.

We thank you for your time and effort in this matter and would appreciate your favorable review and consideration of this request for a variance from Section 30-5-302. Please call me at 342-3481 if you have any questions or require any further detail for the review of this variance.

Sincerely,



Jeffrey Scott, P.E.
Senior Project Engineer

Attachments

cc: Mark McNeal - PBS&J
Jimmy Disler - LISD
Steve Berry - LISD
Main Files 6.1.2.

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PBSJ

[illegible]

PROJECT NO. ----

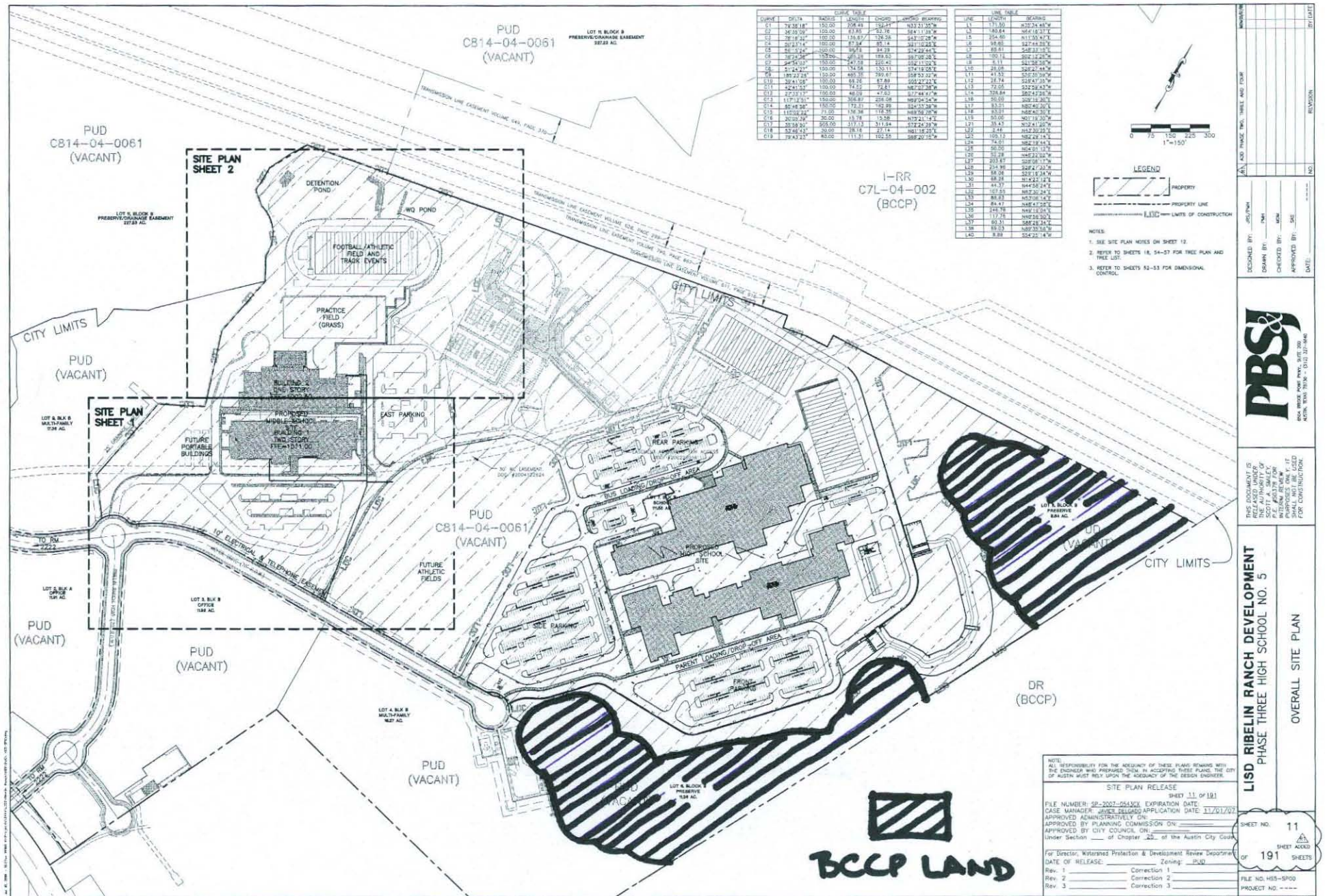


EXHIBIT B

Area of Slope (Greater Titan)
15%. (909 sq. Foot Area)

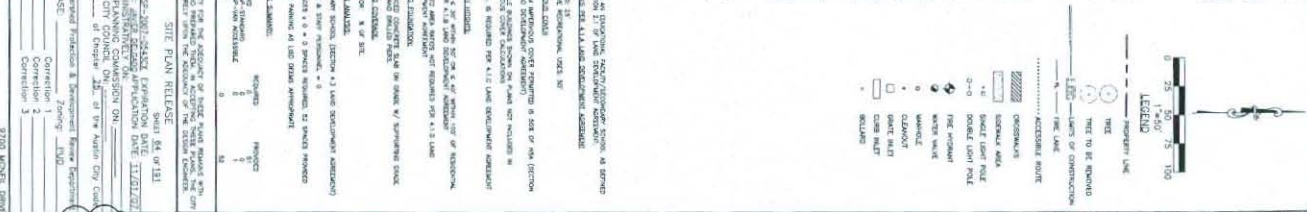


EXHIBIT D

PBSJ
6504 BRIDGE POINT PKWY., SUITE 200
AUSTIN, TEXAS 78730 • (512) 327-6640

Service Extension Request (Water) Vaught Ranch Road (SER #2768)

1) Will future development be required to comply with current code?

Yes, future development will be required to comply with the Water Supply Suburban Watershed requirements for West Bull Creek.

2) Does the requested service result in more intense development than would be possible absent the service?

No, the applicant could drill a well to meet their water needs and therefore a water service would not result in more intense development, i.e. they could develop the site at 18% impervious cover with or without service from the city. It should be noted that prior to the extension of FM 2222's right-of-way that the applicant would not have had to make a service extension request from Austin's water utility.

3) Is the site in an area in which we are encouraging development?

The Vaught Ranch Road development is located in West Bull Creek, which is in the Drinking Water Protection Zone. Watershed regulations for this area can limit the intensity of a development but do not necessarily discourage development. Austin's Land Development Code does however provide financial incentives (cost reimbursement or participation) for water and wastewater infrastructure development in the Desired Development Zone, which in effect can encourage development in the DDZ.

4) Would centralized service solve known or potential environmental problems?

Yes, depending on local geologic conditions, centralized water service can limit groundwater contamination associated with poorly or improperly cased groundwater wells. Poorly or improperly cased wells may provide conduits for pollutants to enter groundwater.

5) Is serving the area consistent with long term service area and annexation goals?

Yes, the Vaught Ranch Road site could be annexed as early as 2009. SER applicants are required to request annexation from the City of Austin as a condition of service. According to staff in the Neighborhood Planning and Zoning Department the site is not slated for annexation in 2008; however, it could be annexed as early as 2009. At present, the site forms a doughnut hole: properties immediately to the north, east and west are either full or limited purpose annexation.

Service Extension Request (Wastewater) Vaught Ranch Road (#2769)

1) Will future development be required to comply with current code?

Yes, future development will be required to comply with the Water Supply Suburban Watershed requirements for West Bull Creek.

2) Does the requested service result in more intense development than would be possible absent the service?

No, the applicant could meet their wastewater needs using an onsite system and therefore wastewater service would not result in more intense development, i.e. they could develop the site at 18% impervious cover with or without service from the city.

3) Is the site in an area in which we are encouraging development?

The Vaught Ranch Road development is located in West Bull Creek, which is in the Drinking Water Protection Zone. Watershed regulations for this area can limit the intensity of a development but do not necessarily discourage development. Austin's Land Development Code does however provide financial incentives (cost reimbursement or participation) for water and wastewater infrastructure development in the Desired Development Zone, which in effect can encourage development in the DDZ.

4) Would centralized service solve known or potential environmental problems?

Yes, centralized wastewater service can limit surface or subsurface water contamination from poorly designed or maintained onsite systems.

5) Is serving the area consistent with long term service area and annexation goals?

Yes, the Vaught Ranch Road site could be annexed as early as 2009. SER applicants are required to request annexation from the City of Austin as a condition of service. According to staff in the Neighborhood Planning and Zoning Department the site is not slated for annexation in 2008; however, it could be annexed as early as 2009. At present, the site forms a doughnut hole: properties immediately to the north, east and west are either full or limited purpose annexation.



MEMORANDUM

TO: City of Austin Environmental Board Members

FROM: Pat Murphy, Assistant Director
City of Austin Environmental Officer
Watershed Protection and Development Review Department

DATE: July 31, 2008

SUBJECT: Vaught Ranch Road
Water and Wastewater Service Extension Request (SER #2768 & #2769)

After reviewing the applicant's request for water and wastewater service from the Austin Water Utility, we recommend granting the applicant's request for service. I have enclosed Austin Water Utility's water and wastewater service maps and staff's evaluation of the proposed extensions for your review. Staff will brief the board at next Wednesday's meeting and the applicant will be available to address your questions or comments. In the meantime, do not hesitate to call me or Robert Botto (974-2187) with your questions or comments.

Sincerely,

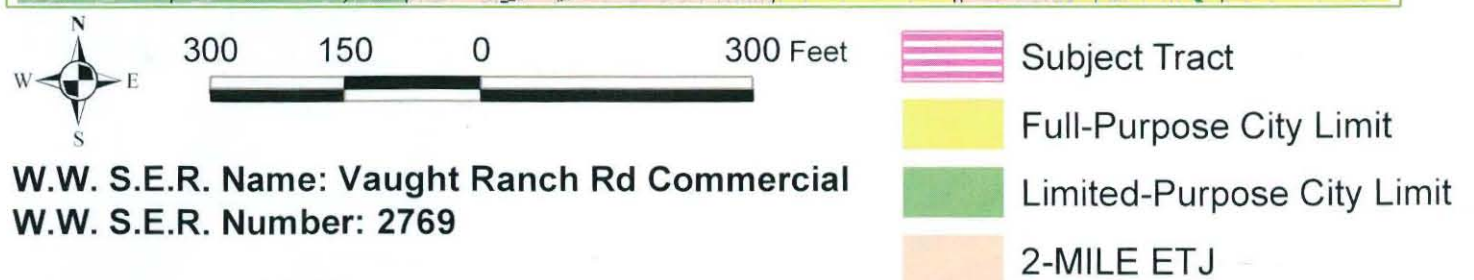
A handwritten signature in blue ink, appearing to read "Pat Murphy", is written over the typed name.

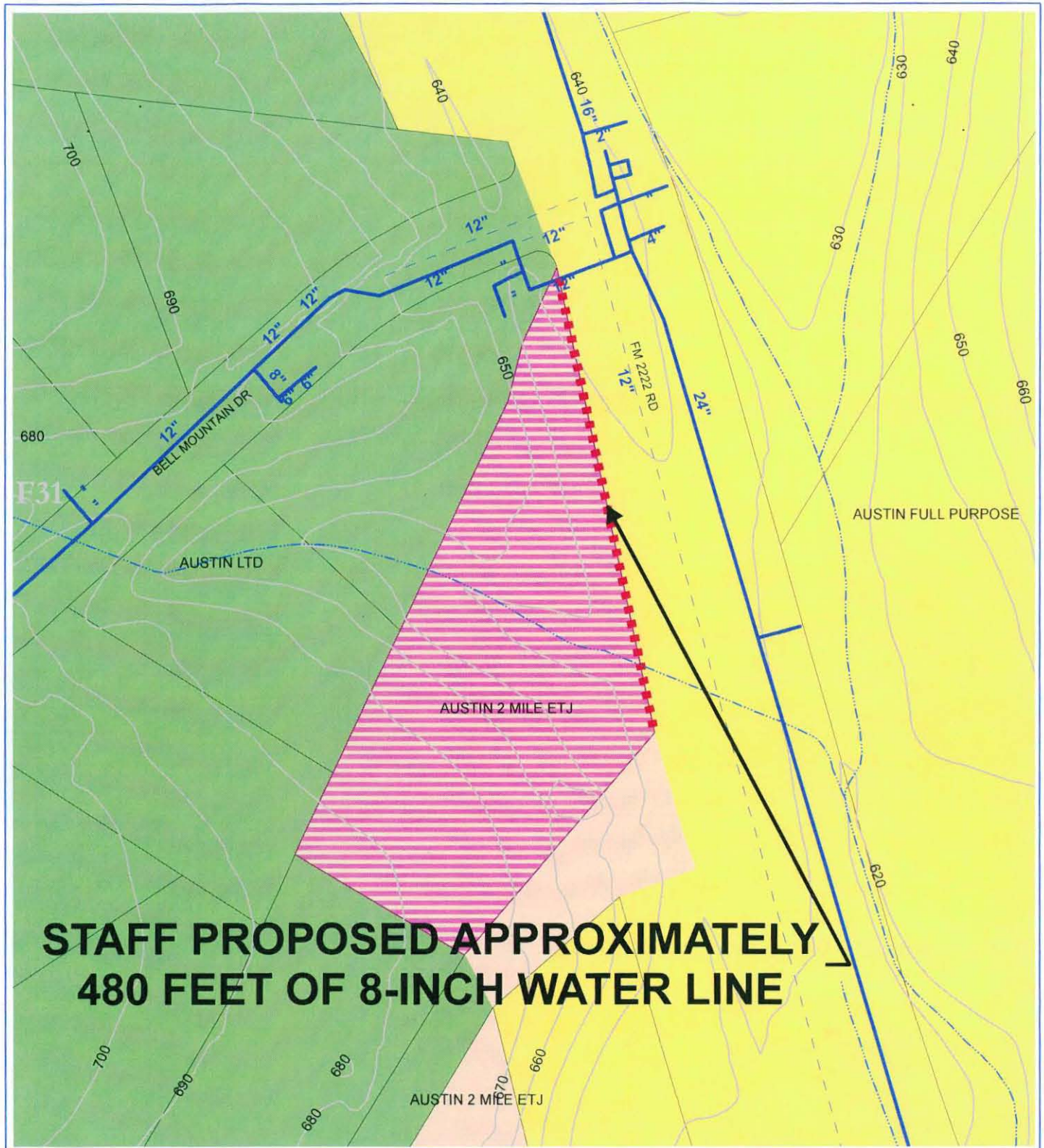
Pat Murphy
City of Austin Environmental Officer
Watershed Protection and Development Review Department

PM:rb

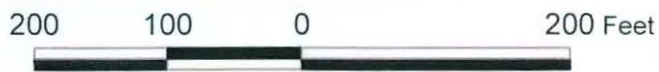
Attachments

cc: Austin Water Utility





**STAFF PROPOSED APPROXIMATELY
480 FEET OF 8-INCH WATER LINE**



W. S.E.R. Name: Vaught Ranch Rd Commercial
W. S.E.R. Number: 2768

-  **Subject Tract**
-  **Full-Purpose City Limit**
-  **Limited-Purpose City Limit**
-  **2-Mile ETJ**