APPENDIX III SPECIFICATIONS FOR PAVING AND DRAINAGE IMPROVEMENTS

SPECIFICATIONS FOR PAVING AND DRAINAGE IMPROVEMENTS HAYS COUNTY, TEXAS

EXCAVATION AND SUBGRADE PREPARATION

- **1.01 DESCRIPTION** The work to be performed under this specification will consist of excavation and grading necessary for the preparation of the road-bed subgrade and roadside and drainage ditches, and shall include the removal and satisfactory disposal of all trees, shrubs, brush, rock and other debris within the right-of-way being cleared.
- 1.02 CONSTRUCTION METHODS After the site of the work has been properly cleared, the excavation and grading may proceed in conformity with the plans and specifications, and as directed by the Road Director. When required by the plans and specifications, selected materials from the excavation shall be utilized to improve the road-bed, in which case the work shall be performed in such manner and sequence that suitable materials may be selected, removed separately and deposited in the roadway within the limits and to the required elevations. If unsuitable subgrade material is encountered, this material shall be excavated to a depth as required by the Road Director and suitable material from the project used to construct the roadbed. Care shall be exercised so as not to disturb the natural ground below the compacted subgrade limits except for the construction of structures, or when so ordered by the Road Director. The finished grades, slopes and edges of the excavation shall be backfilled where necessary, using select materials thoroughly compacted and dressed off uniformly in a neat and workmanlike manner. The Contractor shall at all times make ample provisions for completely and readily draining the subgrades and excavation.
- EMBANKMENT Embankments or fills shall be constructed at the locations and to the lines and grades indicated on the drawings, or as established. Materials placed in fills shall be free from all vegetable matter, trash and frozen materials, and stone having a maximum dimension greater than six inches. Fills shall be formed of excavated materials placed in successive layers of such widths and lengths as are suited to the sprinkling and compaction method utilized. Embankments shall be constructed in layers not exceeding six inches in thickness after compaction. The Contractor shall add moisture to or shall dry by aeration, each layer as may be necessary to meet the requirements of this specification for compaction. The addition of moisture to or drying by aeration of, each layer, shall be accompanied with thorough mixing so as to bring all material in each layer to a uniform moisture content. Compaction shall be accomplished with tamping rollers, discs, and pneumatic rollers of approved design. Tamping rollers shall be used except for the final rolling of the completed fill which shall be accomplished by rubber-tired rollers. The rollers, unless otherwise directed, shall be operated at a speed between two and three miles per hour. All soft areas that develop under construction operations shall be scarified, aerated or moistened as required, and compacted to the full depth required to obtain the specified density for each layer. Portions of embankments which are too near adjacent walls, pavements or other fixed objects to permit use of the above specified rolling equipment for compacting, and other portions which the roller cannot reach for any reason, shall be thoroughly compacted by tamping in two-inch layers with mechanical tampers or other equipment as approved by the Road Director. The degree of compaction for such portions of the embankments shall be equivalent to that obtained by sprinkling and rolling as specified for other respective portions of the embankment. Any damage to adjacent walls, pavements or other fixed objects, shall be replaced or repaired at the expense of the Contractor. All road subgrade and embankments shall be compacted to a minimum density of ninety-five percent (95%) AASHO T-99, Method D.
- **1.04 MAINTENANCE OF THE FINISHED SUBGRADE** The finished subgrade shall be maintained to the proper grade, cross section and density by the Contractor until subbase or base material is placed thereon. All such maintenance, including recompacting necessary as a result of precipitation or excessive drying out, shall be the responsibility of the Contractor. All construction traffic shall be uniformly distributed over the subgrade.
- **1.05 INSPECTION** Prior to the installation of the base material, the compacted subgrade shall be inspected by the Road Director. The owner or his agent shall notify the Road Director or his agent twenty-four (24) hours prior to the time when the inspection is needed.

FLEXIBLE BASE

- **2.01 DESCRIPTION** This item shall consist of a foundation course for the asphaltic concrete or other paving, and shall be composed of crushed limestone material constructed as herein specified in one or more courses in conformity with the typical sections shown on the plans and to the lines and grades established.
- **2.02 MATERIALS** The flexible base shall be constructed of crushed limestone material from an approved source. The material shall consist of durable stone particles mixed with an approved binding material, meeting the following requirements:

Retained on 1 3/4" sieve 5% to 10% Retained on #4 sieve 30% to 75% Retained on #40 sieve 60% to 85%

The material passing the #40 sieve shall be known as "soil binder" and shall meet the following requirements:

Liquid limit shall not exceed 40

Plasticity index shall not exceed 12

The base material proposed to be used shall be tested by an approved soils testing laboratory and the results of the test shall be submitted to the Road Director prior to use of the material.

- **CONSTRUCTION METHODS** 2.03 The base material shall be placed on the prepared subgrade in uniform courses with the compacted thickness to be no more than 7 inches nor less than 3 inches. Material deposited on the subgrade shall be spread and shaped the same day unless otherwise directed by the Road Director. The course shall then be sprinkled as required and rolled as directed until a uniform compaction is secured. Through this entire operation, the shape of the course shall be maintained by blading and the surface, upon completion, shall be smooth and in conformance with the typical sections shown on the plans and to the established lines and grades. All irregularities, depressions or weak spots which develop shall be corrected immediately by scarifying the area affected, adding suitable material as required, and reshaping and recompacting by sprinkling and rolling. Material excavated in preparation of the subgrade may be utilized in the construction of adjacent shoulders and slopes or otherwise disposed of as directed, and any additional material required for the completion of the shoulders and slopes shall be secured from approved sources designated by the Road Director. Each course of base shall be compacted to a minimum density of 100 percent (100%), according to TxDot Test Method Tex-113-E. After final compaction, a field density test shall be required at intervals no less than 300 feet, at locations representative of the entire road base. Intermediate points will be tested if required by the Road Director. The cost of these tests shall be borne by the Subdivider.
- **2.04 THICKNESS CONTROL** The thickness of the compacted flexible base may vary from a maximum of 1/2 inches less than specified to a maximum of 1 inch more than specified. Deviations not within this tolerance shall be corrected.

2.05 MINIMUM STANDARDS FOR PRIVATE ROADS BASE REQUIREMENT

Roads that are intended to be privately maintained may be constructed of compacted flexible base material with a minimum width as shown on Table 7.3. The base course shall have a thickness of not less than six inches (6") after compaction for streets constructed on subgrade material with a Plasticity Index less than thirty (30). The base course shall have a thickness of not less than eight inches (8") after compaction for streets constructed on subgrade material with a Plasticity Index greater than thirty (30), but less than forty-five (45). In the event that the Plasticity Index of the subgrade exceeds forty-five (45), the flexible base course shall not be less than 10 inches (10" thick after compaction.

2.06 INSPECTION Prior to the installation of the paving, the compacted base material shall be inspected by the Road Director. The Owner or his agent shall notify the Road Director or his agent twenty-four (24) hours prior to the time when the inspection is needed.

TWO COURSE SURFACE TREATMENT

3.01 DESCRIPTION This item shall consist of a wearing surface composed of two applications of asphaltic material, each covered with aggregate constructed on the prepared base course as herein specified and in accordance with the details shown on the plans. All specifications in this item shall be in conformance with the Texas Highway Department Standard Specifications for Construction of Highways, Streets, and Bridges, herein referred to as TxDot 1993 Highway Standards.

Two course surface treatment shall not be applied when the air temperature is below 60oF, or when it is anticipated that the air temperature will fall below 50oF within the (10) days following application. Air temperature shall be taken in the shade and away from artificial heat. Asphaltic material shall not be placed when general weather conditions, in the opinion of the Road Director, are not suitable.

3.02 MATERIALS

Aggregate:

Aggregates are to be composed of sound and durable particles of gravel, crushed gravel, crushed stone, crushed slag, or natural limestone rock asphalt. These materials shall contain not more than one percent (1%) by weight of organic matter other than native bitumen, clays, loam or pebbles coated therewith and shall not contain more than five percent (5%) by weight of any combination of slate, shale, or soft particles of sandstone when tested in accordance with Test Method TEX-217-F. The per cent of wear on natural limestone rock asphalt as determined by Test Method TEX-410-A shall be made on that portion of the material retained on the No. 4 sieve, having naturally impregnated asphalt content of less than one percent (1%).

When tested by Test Method TEX-200-F the percent by weight shall be as follows:

CLASS B: TYPE B

Grade 3 Retained on 3/4" sieves 0

Retained on 5/8" sieves 0-2

Retained on 1/2" sieves 20-25

Retained on 3/8" sieves 85-100

Retained on 1/4" sieves 95-100

Retained on No. 10 sieves 99-100

Application Rate - Min 1 cy covers 80 sy, (1:80), max 1 cy covers 100 sy, (1:100).

Grade 4 Retained on 5/8" sieves 0

Retained on 1/2" sieves 0-2

Retained on 3/8" sieves 20-35

Retained on No. 4 sieves 95-100

Retained on No. 10 sieves 99-100

Application Rate-Min. 1 cy covers 90 sy, (1:90), max 1 cy covers 110 sy, (1:110).

Asphaltic Materials:

Asphaltic materials shall be AC-5 Asphaltic Cement or HFRS-2 High Float Anoionic Emulsion as specified by item 300 of TxDot 1993 Standard Specifications. Application temperature for AC-5 shall be between 275oF - 325oF and for HFRS-2 shall be between 110oF - 150oF. Rate of application shall be 0.35 - 0.45 gallons per square yard for the first course and 0.25-0.35 gallons per square yard for the second course. HFRS-2, if used, shall be applied at the upper end of these application rates.

3.03 CONSTRUCTION METHODS The area to be treated shall be cleaned of dirt, dust, or other deleterious matter by sweeping or other approved methods. If it is found necessary by the Road Director, the surface shall be lightly sprinkled just prior to the first application of asphaltic material.

Asphaltic material of the type and grade shown on the plans for the first course shall be applied on the clean surface by an approved type of self-propelled pressure distributor so operated as to distribute the material in the quantity specified, evenly and smoothly, under a pressure necessary for proper distribution. The Contractor shall provide all necessary facilities for determining the temperature of the asphaltic material in all of the heating equipment and in the distributor, for determining the rate at which it is applied, and for securing uniformity at the junction of two distributor loads. The distributor shall have been recently calibrated and the Road Director shall be furnished an accurate and satisfactory record of such calibration. After beginning work, should the yield of the asphalt material appear to be in error, the distributor shall be recalibrated in a manner satisfactory to the Road Director before proceeding with the work.

Asphaltic material for each course may be applied for the full width of the surface treatment in one application, unless the width exceeds twenty-six feet (26'). No traffic or hauling will be permitted over the freshly applied asphaltic material until immediate covering is assured.

Aggregate, of the type and grade shown on the plans for the first course, shall be immediately and uniformly applied and spread by an approved self-propelled continuous feed aggregate spreader, unless otherwise shown on the plans or authorized by the Road Director in writing. The aggregate shall be applied at the approximate rates indicated on the plans and as directed by the Road Director. The Contractor shall be responsible for the maintenance of the surface of the first course until the second course is applied.

The entire surface shall be broomed, bladed or raked as required by the road Director and shall be thoroughly rolled with power rollers, self-propelled type, weighing not less than 6 tons nor more than 12 tons. All wheels shall be flat.

In lieu of the rolling equipment specified, the Contractor may, upon written permission from the Road Director, operate other compacting equipment that will produce equivalent relative compaction in the same period of time as the specified equipment. If the substituted compaction equipment fails to produce the desired compaction within the same period as would be expected of the specified equipment, as determined by the Road Director, its use shall be discontinued.

Rollers shall be maintained in good repair and operating condition and shall be approved by the Road Director.

The second course shall consist of asphaltic material and aggregate of the type and grade indicated on the plans for the second course. The asphaltic material and aggregate for this second course shall be applied and covered in the manner specified for the first application. The surface shall then be broomed, bladed or raked as required by the Road Director and thoroughly rolled as specified for the first course. Asphaltic materials and aggregates for both courses shall be applied at the approximate rates indicated on the plans and as directed by the Road Director. The Contractor shall be responsible for the maintenance of the surface until the work is accepted by the Road Director.

The Contractor shall be responsible for the proper preparation of all stockpile area before aggregates are placed thereon, including leveling and cleaning of debris necessary for the protection of the aggregate to prevent any contamination thereof.

All storage tanks, piping, retorts, booster tanks and distributors used in storing or handling asphaltic materials shall be kept clean and in good operating condition at all times and they shall be operated in such manner that there will be no contamination of the asphaltic material with foreign material. It shall be the responsibility of the Contractor to provide and maintain in good working order a recording thermometer at the storage heating utility at all times.

The Road Director will select the temperature of application based on the temperature-viscosity relationship that will permit application of the asphalt within the limits recommended in the Item, "Asphalt's Oils, Emulsions." The recommended range for the viscosity of the asphalt is 50 seconds to 60 seconds, Saybolt Furol. The Contractor shall apply the asphalt at a temperature within 15oF of the temperature selected.

HOT ASPHALTIC CONCRETE PAVEMENT

4.01 DESCRIPTION This item shall consist of a surface course to be composed of a compacted mixture of aggregate and asphaltic material to be constructed on the previously completed base as herein specified, and in accordance with the details shown on the plans. All specifications in this item are in accordance with theTxDot 1993 Standard Specifications for Construction of Highways, Streets, Bridges, herein referred to as TxDot 1993 Standard Specifications.

4.02 MATERIALS Pavement shall meet the requirements of the TxDot 1993 Standard Specifications for item 340, Hot Mix Asphaltic Concrete Pavement (Class A), Type "D" as follows:

Type "D" (Fine Graded Surface Course):

	Per Cent by Weight	
Passing 1/2" Sieve	100	
Passing 3/8" Sieve	95 to 100	
Passing 3/8" sieve, Retained on No. 4 Sieve	20 to 50	
TOTAL REMAINING ON NO. 10 SIEVE	50 to 70	
Passing No. 10 sieve, Retained on No. 40 Sieve	0 to 30	
Passing No. 40 sieve, retained on No. 80 Sieve	4 to 25	
Passing No. 80 sieve, retained on No. 200 Sieve	3 to 25	
Passing No. 200 Sieve	1 to 8	

The asphaltic material shall form from 4.0 to 8.0 per cent of the mixture by weight unless specified otherwise on the plans.

Asphalt for the pavement mixture shall be asphalt cement (AC-5 or AC-10) which shall meet the requirements of the TxDot 1993 Standard Specifications, for item 300.

The asphalt materials for tack coat shall meet the requirements for cut back asphalt, RC-250. Asphalt for prime coat shall be MC-30 or SS-1. All asphalt materials shall meet the requirements of TxDot 1993 Standard Specifications, Item 300.

The Coarse and Fine Aggregates shall meet the requirements of the TxDot 1993 Standard Specifications, Section 340.2.

4.03 CONSTRUCTION METHODS Before the asphaltic concrete is placed, the surface on which the mixture is to be placed shall be thoroughly cleaned and the prime coat of MC-30 or tack coat of RC-2, or both, applied as directed with approved sprayer at the rate of 0.10 gallons minimum per square yard of surface.

The asphaltic concrete mixture, heated and prepared as specified, shall be hauled to the project in tight vehicles previously cleaned of all foreign material. The mixture shall be at a temperature of 200oF to 235oF when laid. The Road Director will determine the lowest temperature and a variance of 30oF upward will be allowed. It shall be spread into place with an approved mechanical finishing machine to the compacted depth shown on plans. Minimum thickness standard for Hot Mix Asphaltic Cement, if selected, to be not less than one and one-half inches (1 1/2") after compaction.

The finishing machine shall be of the screeding and/or tamping type.

While still hot, as soon as it will bear the roller without undue displacement or hair cracking, the surface shall first be compressed thoroughly and uniformly with acceptable power-driven three wheel or tandem rollers weighing from 8 to 10 tons. Subsequent compression shall be obtained by starting at the sides and rolling longitudinally toward the center of the pavement, over-lapping on successive trips by at least one-half (1/2)

of the width of the rear wheels. Alternate trips of the roller shall be slightly different in lengths. Rolling shall be continued until no further compression can be obtained and all roller marks are eliminated. To prevent adhesions of the surfacing mixture to the roller, the wheels shall be kept properly moistened with water, but excess of water will not be permitted. The final rolling shall be done with a tandem roller. A double coverage with an approved pneumatic roller shall be used on the asphaltic concrete surface after flat wheel and tandem rolling has been completed.

Along curbs, headers and similar structures, and at all places not accessible to the roller, the mixture shall be compacted thoroughly with a lightly oiled hand tamp.

The completed surface, when tested with a ten (10) foot straight-edge laid parallel to the centerline of the roadway, shall have a maximum ordinate measured from the face of the straight-edge not to exceed one-eighth (1/8) inch at any point.

Approved templates shall be furnished by the Contractor for checking subgrade and finished sections. The templates shall be of such strength and rigidity that if the support is transferred to the center there will not be a deflection of more than one-eighth inch (1/8").

4.04 EQUIPMENT Mixing plants that will not continuously produce a mixture meeting all the requirements of this specification will not be accepted.

Mixing plants may be either the weight-batching type or the continuous mixing type. Both types of plants shall be equipped with satisfactory conveyors, power units, aggregates handling equipment, hot aggregate screens and bins and dust collectors and shall consist of the following essential pieces of equipment.

The Cold Aggregates Bin and the Proportioning Device, Dryer, Screens, Aggregate Weight Box and Batching Scales, Mixer, Asphalt Storage and Heating Devices, Asphalt Measuring Devices, and Truck Scales if used, shall be of the type to adequately supply materials within the tolerances set out in these specifications.

The aggregate shall be separated into at least three bins for Type 3 as specified herein. Bin No. 1 will contain aggregates of which 90 to 100 per cent by weight will pass the No. 10 sieve. Bin No.2 will contain aggregates of which at least 85 per cent by weight will be of such size as to pass the 1/4 inch sieve and be retained on the No. 10 sieve. Bin No.3 will contain aggregates of which 85 per cent by weight will be such size as to pass the 1/2 inch sieve and be retained on the No. 4 sieve.

4.05 TESTING The Contractor, at his expense, shall employ a commercial testing laboratory approved by the Road Director to conduct the required material checks and design the mix. During the production of the plant mix, the Contractor will provide, at his expense, continuous inspection and testing at the plant by a commercial testing laboratory approved by the Road Director. Minimum in place density should reach 90 percent (90%).

DRAINAGE FACILITIES

- **5.01 DESCRIPTION** This item shall govern the furnishing of all drainage culvert pipe, concrete headwalls, and reflector post as shown on the Plans and herein specified, and installing the same as designated on the Plans or by the Road Director in conformity with the lines and grades given.
- **5.02 MATERIALS** The culvert pipe shall be of size, length, and gauge as shown on the plans. Corrugated galvanized metal pipe shall be as specified by item 460 of the TxDot 1993 Standard Specifications. Reinforced concrete pipe shall be as specified by Item 464 of the same. All pipe shall be new and unused and shall not have been damaged by handling or shipping.

Reflector posts shall be 1 1/2 inch schedule 20, galvanized steel posts equipped with 3 inch amber reflectors. The length of the post shall be adequate to place the reflector assembly 48 inches above the centerline elevation of the street and anchor the post approximately 48 inches into the ground.

Concrete headwalls and/or rip-rap shall be constructed of 3000 psi, five sack, concrete meeting the requirements of Item 421 of TxDot 1993 Standard Specifications reinforced with deformed bars or wire mesh meeting the requirements of Item 440 of same. All headwalls and/or rip-rap shall be of the dimensions and in the locations shown on the plans.

5.03 CONSTRUCTION METHODS Culvert pipe shall be installed to the lines and grades shown on the Plan or as specified by the Road Director. The pipe shall be bedded along its complete length and the backfill around the pipe shall be compacted. The installation of all culvert pipes shall be in general conformance with the appropriate sections of the TxDot 1993 Standard Specifications. All culvert pipes located at street intersections shall be provided with reflector posts. The reflector post shall be equipped with one reflector facing in each direction of traffic flow. Reflector posts shall be provided on the ends of the concrete headwalls or rip-rap as shown on the Plans. The concrete headwalls or rip-rap shall be of the dimensions and at the locations shown on the plans. The headwalls shall be formed on their exposed surfaces, which shall be grouted and broom finished upon removal of the forms.

CHANNEL EXCAVATION

- **6.01 DESCRIPTION** Channel Excavation shall consist of required excavation for all channels, the removal and proper utilization or disposal of all excavated materials, and constructing, shaping and finishing of all earthwork involved in conformity with the required lines, grades and typical cross sections and in accordance with the specifications and requirements herein outlined.
- **6.02 CLASSIFICATION** All Channel Excavation will be Unclassified. Unclassified Channel Excavation shall include all materials encountered regardless of their nature or the manner in which they are removed.
- **6.03 CONSTRUCTION METHODS** All suitable materials removed from the excavation shall be used, insofar as practicable, in the formation of embankments as required, or shall be otherwise utilized or satisfactorily disposed of as indicated on plans, or as directed, and completed work shall conform to the established alignment, grades and cross sections. During construction, the channel shall be kept drained, insofar as practicable, and the work shall be prosecuted in a neat and workmanlike manner.

Unsuitable channel excavation, or excavation in excess of that needed for construction, shall be known as "Waste" and shall become the property of the Contractor to be disposed of by him.

Channel Excavation shall include the removal and replacement of all fence lines crossing the channels and the installation of gates and water gaps as shown on the plans.

All channels and that area adjacent to them which has been disturbed by construction equipment shall be seeded with Bermuda grass at the rate of eight pounds per acre (8 lb/ac). Seeding shall conform to item 164 of the TxDot 1993 Standard Specifications.

MISCELLANEOUS

7.01 SIGNAGE Street name signs, traffic control signs, speed limit signs, etc., shall all conform to the requirements of the TxDot 1993 Standard Specifications and the "Uniform Manual of Traffic Control Devices".

For all developments proposing new street construction, the developer's engineer shall provide - as part of the construction plans - a narrative statement in recordable format, to be recorded with the final plat, listing the type and location of all proposed signs for directing and controlling traffic.

7.02 COMPLETION CERTIFICATE At the time a final inspection and release of performance security is requested, the design engineer shall prove a complete set of "as-built" construction drawings and shall certify that all road and drainage construction has been completed in substantial accordance with previously approved plans and specifications, except as noted. No performance security will be released without this exhibit.

Average Daily Traffic (one-way trips)**	Not more than 100	101-1000	1001-2500	2501-5000	5001-15000	More than 15000
Functional Classification	Country Lane	Local Street	Minor Collector	Major Collector	Minor Arterial	Major Arterial
Design Speed	25 mph	25 mph	35 mph	45 mph	55 mph	•
Number of Lanes	2	2	2	2	4	All elements
ROW Width	50'	60'	60'	70'	100'	Including
Width of Traveled way	18'	20'	22'	24'	48'	geometric
Width of Shoulders	2'	4'	5'	6'	8'	layout and
Minimum Centerline Radius	200'	300'	375'	675'	975'	cross-section
Minimum Tangent Length between Reverse Curves or Compound Curves	50'	100'	150'	300'	500'	shall be approved
Minimum Radius for Edge of Pavement at Intersections	25'	25'	25'	25'	25'	by the
Intersection Street Angle	80-100	80-100	80-100	80-100	80-100	Road Director
Maximum Grade:	11%	11%	10%	9%	8%	on a case-by-case
Minimum Street Centerline Offect at Adjacent Intersections	125'	125'	125'	125'	125'	basis.
Minimum Stopping Sight Distance	175'	175'	250'	350'	550'	
Minimum Intersection Sight Distance	250'	250'	350'	450'	550'	
Ditch Foreslope Grade	4:01	4:01	5:01	5:01	6:01	
Ditch Backslope Grade	3:01	3:01	4:01	4:01	4:01	
Minimum Cul-de-sac ROW Radius	65'	70'	70'	70'	70'	
Minimum Cul-de-sac Pavement Radius	35'	45'	45'	45'		
Notes:						
1) Any deviation from these standards must be the subject of an approved variance.						
2) Lots that are restricted by plat note to one single-family residence shall be presumed to generate 10 one-way trips per day. Average daily traffic for all other lots shall be determined on a case-by-case basis by the Road Director.						
3) Occasional short runs between intersections may exceed the amounts shown, but maximum grades through intersections may not exceed the amounts shown.						
4) The entire side ditch shall be contained entirely within the road right-of-way or a dedicated drainage easement. Guardrails shall be designed in accordance with						
current TXDOT standards.		ay or a acareare	a aramage eacement			
5) No cul-de-sac shall have a cross slope that exc	ceeds 6 percent.					
6) Revegetation of disturbed areas within new roa		d.				
required whereever ditch depth exceeds 8'-0" from edge of shoulder to bottom of ditch on Country Lanes and Local streets, 6'-0" from edge						
of shoulder to bottom of ditch on Minor Collectors, and 4'-0" from edge of shoulder to bottom of ditch on Major Collectors and Minor Arterials.						
Individual driveway entrances, if not shown on the						ommercial
driveways or curb cuts is 150ft. Safety-end treatm						
7) All design standards may be modified on a cas			ending upon topogra	phy and other pertin	ent features. This	is to include
possible wider ROWs when designed backslopes will not fit within standard ROW.						
8) Utility construction and design, if intended to be underground, shall comply with USDOT utility guide. The design and installation of utilities needs to be coordinated						
with the Hays County Road Dept.						
9) No road and drainage construction may begin until a set of construction and drainage plans have been approved by the County Road Department.						
10) Seventy-Two (72) hours before construction is	s to begin a preconstruction	on meeting is requ	uired to be held. Con	tact the County Road	d Department for s	cheduling .
Information.						