

APPENDIX B
DESIGN CRITERIA

PROJECT DESIGN CRITERIA

PARKS HIGHWAY, Lucus Rd to Church Rd

170000

ELEMENT	VALUE	SOURCE
Construction Classification	New Construction	
Design Functional Classification	Rural Interstate	ADOT&PF Design Designation
Design Year	2030	ADOT&PF Design Designation
AADT Current Study (2005) Construction Year (2010) Design Year (2030)	21,615 24,763 42,660	ADOT&PF Design Designation
Design Hourly Volume (DHV)	10%	ADOT&PF Design Designation
Directional Split (%D)	65/35	ADOT&PF Design Designation
Trucks (%T)	4% RV, 8% Trucks	ADOT&PF Design Designation
Equiv. Single Axle Load (ESAL)		ADOT&PF Design Designation
Pavement Design Year		PCM, Sec. 1180.3.2
Design Vehicle	AASHTO WB-67	ADOT&PF Design Designation
Design Speed, Terrain	50 mph, Level	PGDHS, pg. 507
Stopping Sight Distance Passing Sight Distance	425 ft 1835 ft	PGDHS, pg. 112 PGDHS, pg. 124
Maximum Allowable Grade Minimum Allowable Grade	4.0% 0.3%	PGDHS, pg. 510 PGDHS, pg. 242
Minimum Radius of Curvature	835 ft, e=6%	PGDHS, pg. 159
Minimum K-Value for Vertical Curves	Crest: 84 Sag: 96	PGDHS, pg. 274 PGDHS, pg. 280
Number of Roadways	1 - 4 Lane w/ Center TWLT	ADOT&PF
Width of Traveled Way	12.0 ft	PGDHS, pg. 508
Width of Shoulder	8.0 ft	PGDHS, pg. 508
Surface Treatment	Hot Mix Asphalt Concrete	PCM, Sec. 1180.3.1
Side Slope Ratios	Fore: 4H:1V Back: 2H:1V	PCM, Table 1130-2 PCM, Table 1130-2
Degree of Access Control	None	PCM, Sec. 1120.2.4
Median Treatment	None	
Illumination:	Continuous	
Curb Usage and Type	At Intersections	
Bicycle Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Pedestrian Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Miscellaneous Criteria	Clear zone: 24-28 ft	PCM Table 1130-2

Proposed By:


Consultant Designer

10/1/07
Date

Recommended By: _____

Design Project Manager

Date

Accepted By: _____

Regional Preconstruction Engineer

Date

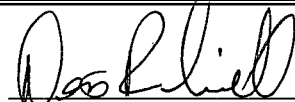
PROJECT DESIGN CRITERIA

PARKS HIGHWAY, Church Rd to Pittman Rd

170000

ELEMENT	VALUE	SOURCE
Construction Classification	New Construction	
Design Functional Classification	Rural Interstate	ADOT&PF Design Designation
Design Year	2030	ADOT&PF Design Designation
AADT Current Study (2005)	16,522	ADOT&PF
Construction Year (2010)	18,832	
Design Year (2030)	31,784	
Design Hourly Volume (DHV)	10%	ADOT&PF Design Designation
Directional Split (%D)	60/40	ADOT&PF Design Designation
Trucks (%T)	4% RV, 8% Trucks	ADOT&PF Design Designation
Equiv. Single Axle Load (ESAL)		ADOT&PF Design Designation
Pavement Design Year		PCM, Sec. 1180.3.2
Design Vehicle	AASHTO WB-67	ADOT&PF Design Designation
Design Speed, Terrain	60 mph, Level	PGDHS, pg. 507
Stopping Sight Distance	570 ft	PGDHS, pg. 112
Passing Sight Distance	2135 ft	PGDHS, pg. 124
Maximum Allowable Grade	4.0%	PGDHS, pg. 510
Minimum Allowable Grade	0.3%	PGDHS, pg. 242
Minimum Radius of Curvature	1340 ft, e=6%	PGDHS, pg. 159
Minimum K-Value for Vertical Curves	Crest: 151 Sag: 136	PGDHS, pg. 274 PGDHS, pg. 280
Number of Roadways	1 - 4 Lane Divided	ADOT&PF
Width of Traveled Way	12.0 ft	PGDHS, pg. 508
Width of Shoulder	4.0 ft inside / 8.0 ft outside	PGDHS, pg. 508
Surface Treatment	Hot Mix Asphalt Concrete	PCM, Sec. 1180.3.1
Side Slope Ratios	Fore: 4H:1V Back: 2H:1V	PCM, Table 1130-2 PCM, Table 1130-2
Degree of Access Control	None / Limited	PCM, Sec. 1120.2.4
Median Treatment	30-42 ft Depressed	
Illumination:	Continuous	
Curb Usage and Type	At Intersections	
Bicycle Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Pedestrian Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Miscellaneous Criteria	Clear zone: 30 ft	PCM, Table 1130-2

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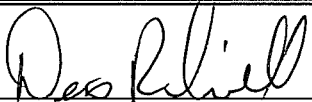
PROJECT DESIGN CRITERIA

PARKS HIGHWAY, Pittman Rd to Big Lake Cutoff

170000

ELEMENT	VALUE	SOURCE
Construction Classification	New Construction	
Design Functional Classification	Rural Interstate	ADOT&PF Design Designation
Design Year	2030	ADOT&PF Design Designation
AADT Current Study (2005)	10,608	ADOT&PF
Construction Year (2010)	12,409	
Design Year (2030)	23,240	
Design Hourly Volume (DHV)	10%	ADOT&PF Design Designation
Directional Split (%D)	60/40	ADOT&PF Design Designation
Trucks (%T)	4% RV, 8% Trucks	ADOT&PF Design Designation
Equiv. Single Axle Load (ESAL)		ADOT&PF Design Designation
Pavement Design Year		PCM, Sec. 1180.3.2
Design Vehicle	AASHTO WB-67	ADOT&PF Design Designation
Design Speed, Terrain	60 mph, Level	PGDHS, pg. 507
Stopping Sight Distance	570 ft	PGDHS, pg. 112
Passing Sight Distance	2135 ft	PGDHS, pg. 124
Maximum Allowable Grade	4.0%	PGDHS, pg. 510
Minimum Allowable Grade	0.3%	PGDHS, pg. 242
Minimum Radius of Curvature	1340 ft, e=6%	PGDHS, pg. 159
Minimum K-Value for Vertical Curves	Crest: 151 Sag: 136	PGDHS, pg. 274 PGDHS, pg. 280
Number of Roadways	1 - 4 Lane Divided	ADOT&PF
Width of Traveled Way	12.0 ft	PGDHS, pg. 508
Width of Shoulder	4.0 ft inside / 8.0 ft outside	PGDHS, pg. 508
Surface Treatment	Hot Mix Asphalt Concrete	PCM, Sec. 1180.3.1
Side Slope Ratios	Fore: 4H:1V Back: 2H:1V	PCM, Table 1130-2 PCM, Table 1130-2
Degree of Access Control	None / Limited	PCM, Sec. 1120.2.4
Median Treatment	42 ft Depressed	
Illumination:	Continuous	
Curb Usage and Type	At Intersections	
Bicycle Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Pedestrian Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Miscellaneous Criteria	Clear zone: 30 ft	PCM, Table 1130-2

Proposed By: _____


 Consultant Designer

10/1/07
 Date

Recommended By: _____

Design Project Manager

Date

Accepted By: _____

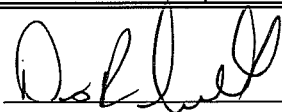
Regional Preconstruction Engineer

Date

PROJECT DESIGN CRITERIA

Frontage Roads

ELEMENT	VALUE	SOURCE
Construction Classification	New Construction	
Design Functional Classification	Local Rural	ADOT&PF Design Designation
Design Year		ADOT&PF Design Designation
AADT Current Study (2005) Design Year (2030)	400-1500	ADOT&PF
Design Hourly Volume (DHV)		ADOT&PF Design Designation
Directional Split (%D)		ADOT&PF Design Designation
Trucks (%T)		ADOT&PF Design Designation
Equiv. Single Axle Load (ESAL)		ADOT&PF Design Designation
Pavement Design Year		PCM, Sec. 1180.3.2
Design Vehicle	AASHTO WB-67	ADOT&PF Design Designation
Design Speed, Terrain	40 mph, Level	PGDHS, pg. 385
Stopping Sight Distance Passing Sight Distance	305 ft 1470 ft	PGDHS, pg. 112 PGDHS, pg. 124
Maximum Allowable Grade Minimum Allowable Grade	7.0% 0.3%	PGDHS, pg. 386 PGDHS, pg. 242
Minimum Radius of Curvature	510 ft, e=6%	PGDHS, pg. 159
Minimum K-Value for Vertical Curves	Crest: 44 Sag: 64	PGDHS, pg. 274 PGDHS, pg. 280
Number of Roadways	1 - 2 lane	ADOT&PF
Width of Traveled Way	11.0 ft	PGDHS, pg. 388
Width of Shoulder	5.0 ft	PGDHS, pg. 388
Surface Treatment	Hot Mix Asphalt Concrete	PCM, Sec. 1180.3.1
Side Slope Ratios	Fore: 4H:1V Back: 2H:1V	PCM, Table 1130-2 PCM, Table 1130-2
Degree of Access Control	None	PCM, Sec. 1120.2.4
Median Treatment	None	
Illumination:	None	
Curb Usage and Type	None	
Bicycle Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Pedestrian Provisions	10' Multiple Use Pathway	PCM, Sec. 1210.4.3
Miscellaneous Criteria	Clear zone: 12 ft	PCM, Table 1130-2

Proposed By:  10/1/07
 Consultant Designer Date

Recommended By: _____ Accepted By: _____
 Design Project Manager Date Regional Preconstruction Engineer Date