Flexible Pavement Design Analysis						
PI Number	0012722	County(s)	Chatham			
Project Number	PI 0012722	PI 0012722 Design Name SR 21 and Ramps Pull Depth				
Project Description	SR 21 From SR 30 to I-95 Including Diverging Diamond Interchange					

Traffic Data (AADTs are one-way)						Miscellaneous Dat	
Initial Design Year	2015	Initial AADT, VPD	23,665	24 Hour Truck %	15.00	Lanes in one direction	3
Final Design Year	2035	Final AADT, VPD	31,905	SU Truck %	9.00	Curb & Gutter/Barrier	No
		Mean AADT, VPD	27,785	MU Truck %	6.00		

国民党的政策等是共享的		Design Data	电影		
Lane Distribution Factor (%)	70.00	Soil Support Value	3.50	Single Unit ESAL	0.40
Terminal Serviceability Index 2.50		Regional Factor	1.70	Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.00	Calculated 18-KIP ESAL	0.84
Non-Standard Value Comment					

	国内 以上国际信息	Design Loading (Calc	culated 18-KIP ESAL)	ELIMINES A
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
27.785	70.00	Single Unit Truck	9.00	0.40	701
21,165		Multi Unit Truck	6.00	1.50	1,751
				Total Daily ESALs	2,452
			Total	Design Period ESALs	17,899,600

Proposed Flexible Full Depth Pavement Structure							
Course	Material	Thickness (inches)	Structural Coefficient	Structurai Value			
Course 1	12.5 mm SMA	2.00	0.4400	0.88			
Course 2	19 mm Superpave, Polymer Modified	2.00	0.4400	0.88			
	25 mm Chromoso	0.50	0.4400	0.22			
Course 3	25 mm Superpave	5.50	0.3000	1.65			
Course 4	Graded Aggregate Base	12.00	0.1600	1.92			
Required SN 6.07 Proposed pavement is 8.61% Underdesigned Propo				5.55			

Design Remarks	Full Depth throughout the project

Prepared By	Lim Baker	1/30/2015 9:27 AM
	Kim Balter, PE - Project Engineer	Date
Recommended By	Contract	02/01/145
Approved By	Consultant Design Phase Leader - Andrew Hoenig	Date 2/3/7015
	State Bayoment Engineer	Date

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Flexible Pavement Design Analysis								
PI Number	0012722	0012722 County(s) Chatham						
Project Number	PI 0012722	Design Name	SR 21 and Ramps Overlay					
Project Description	SR 21 From SR 30 to I-95 Including Diverging Diamond Interchange							

以 所以 1000年		raffic Data (AADT's	are one-wa	y)	建筑。	Miscellaneous Data	The stand
Initial Design Year	2015	Initial AADT, VPD	23,665	24 Hour Truck %	15.00	Lanes in one direction	3
Final Design Year	2035	Final AADT, VPD	31,905	SU Truck %	9.00	Curb & Gutter/Barrier	No
	-	Mean AADT, VPD	27,785	MU Truck %	6.00	Milling Depth (inches)	1.00

TELEVISION OF THE PERSON OF TH		Design Data	F. Sules		Canada S
Lane Distribution Factor (%)	70.00	Soil Support Value	3.50	Single Unit ESAL	0.40
Terminal Serviceability Index	2.50	Regional Factor		Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.00	Calculated 18-KIP ESAL	0.84
Non-Standard Value Comment					

調整作用計劃。	地灣 外部 加速	Design Loading (Calc	ulated 18-KIP ESAL		
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
27,785	70.00	Single Unit Truck	9.00	0.40	701
21,763	70.00	Multi Unit Truck	6.00	1.50	1,751
				Total Daily ESALs	2,452
			Total	Design Period ESALs	17,899,600

Proposed Flexible Overlay Pavement Structure						
Course		Material	Thickness (inches)	Structural Coefficient	Structural Value	
Overlay 1	12.5 mm SMA		2.00	0.4400	0.88	
Overlay 2	19 mm Superpave, P	olymer Modified	2.00	0.4400	0.88	
Existing 1	Asphaltic Concrete		11.00	0.3000	3.30	
Required SN	6.07	Proposed pavement is 1	6.68% Underdesigned	Proposed SN	5.06	

Design Remarks	Overlay for SR 21 and Ramps - Variable mill with 1" open graded crack relief with overlay
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Prepared By	Lun Baker	1/30/2015 9:27 AM
Recommended By	Om Baher, PE - Project Engineer	Date 07/01/2015
Approved By	Consultant Design Phase Leader - Andrew Hvenig	Date 2/3/2015
	State Pavement Rogineer	Date

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	Flexib	le Pavement Desig	gn Analysis
PI Number	0012722	County(s)	Chatham
Project Number	PI 0012722	Design Name	DDI Overlay
Project Description	SR 21 From SR 30 to I-	95 Including Diverging Diam	ond Interchange

A. 其下的数据。 40字	于中国	raffic Data (AADTs	are one-wa	y)		Miscellaneous Dat	B
Initial Design Year	2015	Initial AADT, VPD	23,665	24 Hour Truck %	15.00	Lanes in one direction	3
Final Design Year	2035	Final AADT, VPD	31,905	SU Truck %	9.00	Curb & Gutter/Barrier	No
		Mean AADT, VPD	27,785	MU Truck %	6.00	Milling Depth (inches)	5.00

Lane Distribution Factor (%)	70.00	Soil Support Value	3.50	Single Unit ESAL	0.40
Terminal Serviceability Index 2.50		Regional Factor	1.70	Multiple Unit ESAL	1.50
		User Defined 18-KIP ESAL	0.00	Calculated 18-KIP ESAL	0.84

在特別的 因為	经建筑。相对能	Design Loading (Calc	ulated 18-KIP ESAL		
Mean AADT, VPD	LDF (%)	Vehicle Type	Volume (%)	ESAL Factor	Daily ESAL
27,785	70.00	Single Unit Truck	9.00	0.40	701
		Multi Unit Truck	6.00	1.50	1,751
				Total Daily ESALs	2,452
			Total	Design Period ESALs	17,899,600

	。	Proposed Flexible Ove	erlay Pavement Structure	阿加州	
Course		Material	Thickness (inches)	Structural Coefficient	Structural Value
Overlay 1	12.5 mm SMA		2.00	0.4400	0.88
Overlay 2	19 mm Superpave, Po	lymer Modified	2.00	0.4400	0.88
Existing 1	Asphaltic Concrete		7.00	0.3000	2.10
Required SN	6.07	Proposed pavement is	36.44% Underdesigned	Proposed SN	3.86

Design Remarks Overlay for SR 21 within DDI - Variable mill with 1" open graded crack relief and 4" overlay
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Prepared By	Um Baker	1/30/2015 9:27 AM
	Kim Baker, PE - Project Engineer	Date
Recommended By	alpened	02/01/2015
	Consultant Design Phase Leader - Andrew Hoening	Date
Approved By		2/3/2015
	State Payement Engineer	Date

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