

SAN ANTONIO UPDATE04

TYPE D MIX [PG 70-22 + LIMESTONE]

Summary of Mix-Modifications and Lab Test Results

Item	Original Design	Modification# 1	Modification# 2	Modification# 3
Aggregate-blend	23% D-rock + 37% F-rock + 25% Man. Sand + 15% Field Sand	50% D-rock + 10% F-rock + 25% Man. Sand + 15% Field Sand	25% D-rock + 35% F-rock + 25% Man. Sand + 5% Field Sand + 10% RAP	25% D-rock + 35% F-rock + 25% Man. Sand + 5% Field Sand + 10% RAP
RAP	None	None	10% RAP	10% RAP
OAC	5.1% @ 96.5% TGC density	4.6% @ 97% TGC density	5.1% @ 97% TGC density	5.4% @ 97.5% TGC density
Hamburg results	Failed @ 12 300 Passes	Failed @ 14 700 Passes	7.6 mm @ 15 000 Passes	Failed @ 12 900 Passes
OT results	67 cycles	44 cycles	54 cycles	105 cycles

Summary of Water Absorption Test Results

Aggregate/Material	Water Absorption Capacity (WAC)	Comment
C-rock	2.4%	
D-rock	2.4%	
F-rock	2.6%	
RAP (coarse)	1.2%	Tested out of curiosity!!!
1) High absorption = WAC > 2%; (2) Intermediate absorption = $1.0\% \leq WAC \leq 2.0\%$; (3) Low absorption = WAC < 1.0%		