Leg	lend	
•	Arrow representing the solution to a design flaw.	
	Arrow representing the old location of a design flaw or feature.	
•	Arrow representing temporary negative design flaws or features that are planned to be deleted from a future project. Usually used as a temporary replacement to an even worse design flaw.	d
	Arrow representing design flaw involving no forced merges.	
•	Arrow representing a design flaw involving forced merges.	
	Arrow representing a design flaw involving a level 4 bottleneck.	
	Freeway center divider line.	Re
	Match line represents the limits of project segments or individual plot documents.	de
	Elevated accident hazard.	
HF #	Design flaw is mentioned on the Houston Freeways website by concern number. (www.HoustonFreeways.com)	

Present proposed design	The MaX lanes are jammed in to the freeway median causing the reduction of shoulders for both MaX lanes and main lanes. It has also sacrificed several necessary auxiliary lanes for segment 2, which fights against the purpose of this project. Several accidents may occur due to the reduction of shoulders and lack of auxiliary lanes. Because past mistakes are being repeated on this project segment (and segment 1), the traffic problem will also be repeated, rendering the whole project segment another waste of money, until it gets fixed.	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{}\\ \end{array}{}\\ \end{array}{}\\ \end{array}{}\\ \end{array}{}\\ \end{array}{}\\ \end{array}{}\\ \end{array}{}$
Recommended alternative design	The elevated structure separates the MaX lanes from the main lanes, giving more room for full 12' shoulders on both sides of main lanes and 4' to 10' shoulders for the MaX lanes. Enough room will also be available to introduce the necessary auxiliary lanes for all the onramps. With the potential park above the main lane tunnel, the piers can be decorated with plants (shown as a grid) similar to Mexico City's Vertical Gardens as well as adding light shows, improving the appearance of the elevated structure. This alternative design may be more expensive, but it will ensure that the traffic problem will be no longer, making the money spent on this project worth it	Image: State of the state



Main lanes		MaX lanes		Frontage
No merges	× FAIL	No merges	× FAIL	No merges
Adequate lane balance	× FAIL	Adequate lane balance	× FAIL	Adequate lane bala
Sufficient merge zones	× FAIL	Sufficient merge zones	N/A	Sufficient merge zor
				Diagon pote that any mar

Please note that any merge zone coming from U-turns are not counted as the U-turn should have a yield.

Main lanes		MaX lanes		Frontage	
No merges	✓ PASS	No merges	× FAIL	No merges	
Adequate lane balance	~ PASS	Adequate lane balance	~ PASS	Adequate lane balan	
Sufficient merge zones	✓ PASS	Sufficient merge zones	✓ PASS	Sufficient merge zon	

coming from U-turns are not counted as the U-turn should have a yield.

## Comments and Recommended Modifications On Present Proposed Configuration For I-45, Segments 1 & 2



With the demolition of several businesses and building -7 years of construction headaches, and the spending of sev oillion Dollars, can't the freeway be at least well designed? The design flaws currently on the present proposed configuration will overall cancel out the whole purpose of this huge project, making the project not worth the resources that will be put into it. Take a look at US 290 (northbound between I-610 and Beltway 8) and I-45 Gulf (both sides between Beltway 8 and Bay Area Blvd), both of those freeways were well designed to which by the time the final lane configuration was put into use, the daily traffic backups were completely put to an end ever since. If we could design this freeway well just like the ones mentioned, the daily traffic backups can also completely be a thing of the past for I-45. But with the current design flaws on this project, 1-45 may instead become an eternal *distressway* for decades to come and a waste of money. The modification of the design for this project may make it more expensive, but it will be money put into good use. And yes, most other freeway expansions hav failed due to repeated mistakes in the design, but there is still one last chance for the city of Houston to truly have the best freeways in the US (if not the world), by completely getting rid of those flaws, putting the traffic problem to an end. So PLEASE, just design it correctly.