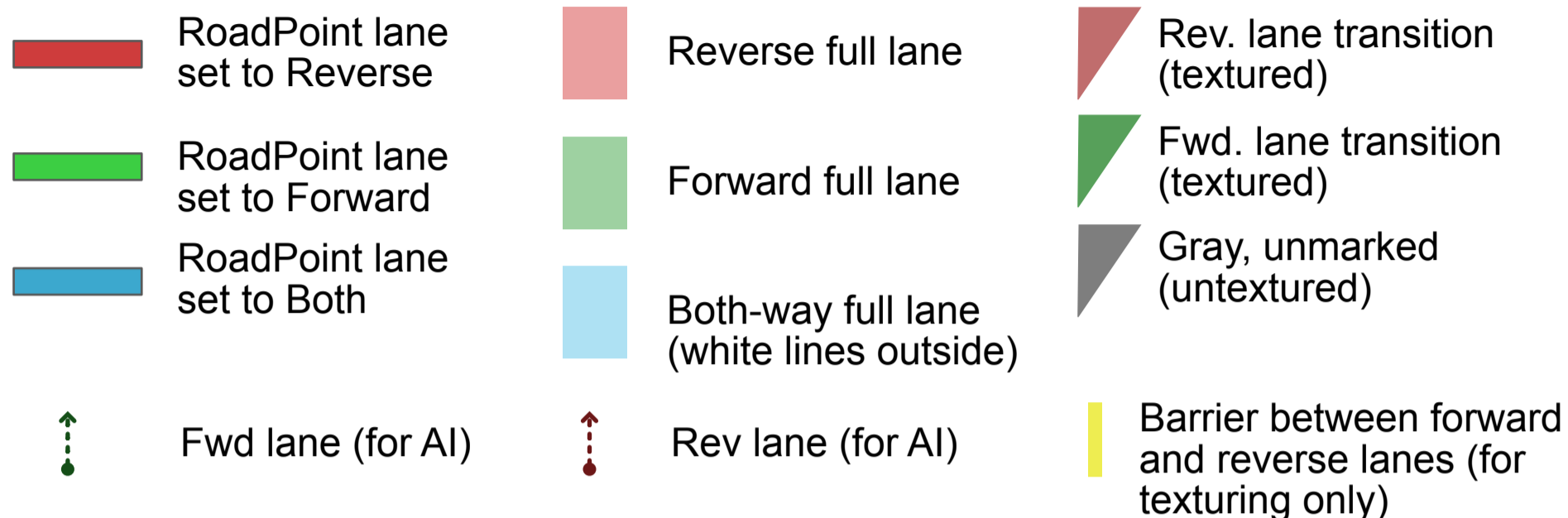


Road Generator

Lane transition texture + model reference

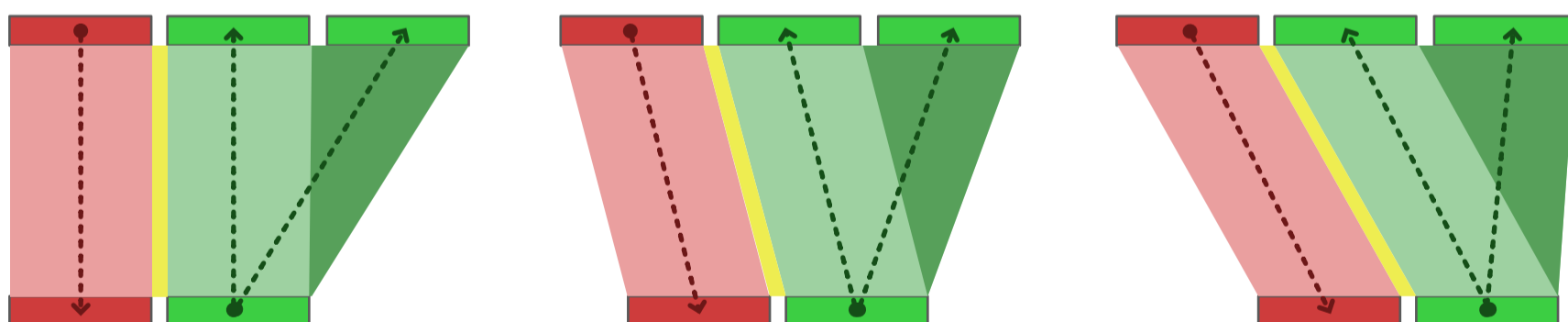
Legend



Notes

This reference is just to show what lanes should be matched from one RoadPoint to the next. There is no intentional meaning to the *alignment* of lanes vertically, as that is determined ultimately by the position of the RoadPoints in space, and whether "align to center" is enabled.

Below are examples of diagrams which are all functionally to be treated as the same, as the only difference is where the according RoadPoint is positioned.



In the end, the point is that the RoadSegment class should be able to look at the sequence of Lane Directions of two RoadPoints, and based on that alone, come up with all of the scenarios outlined in this document, both for geometry as well as for auto texturing.

For displayed AI lanes, start or end points may be shifted slightly for visibility. Assume in practice, any AI Lane will start and end exactly in the middle of the RoadPoint's Lane.

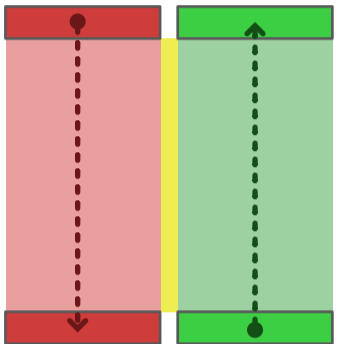
Road Generator

Lane transition texture + model reference

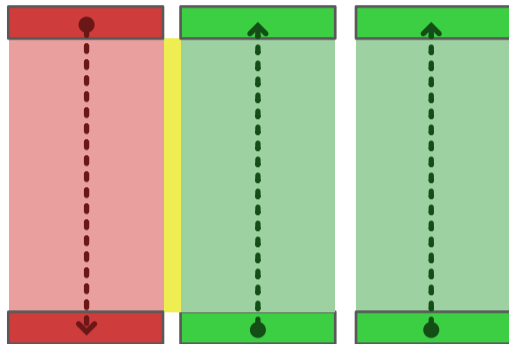
Legal / allowed configurations

Reference of configurations to support auto-texturing.

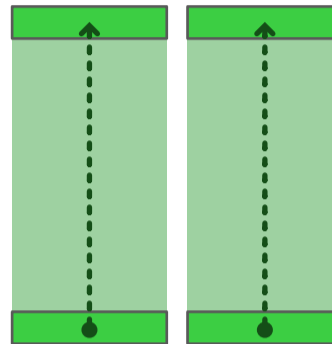
1.a Simple 2-way street



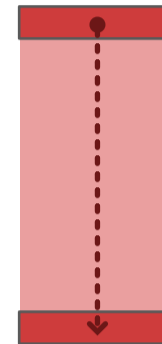
1.b 1:2 lane



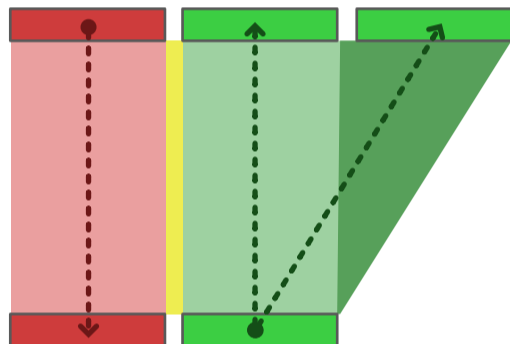
1.c Fwd. or Rev. only (N lanes)



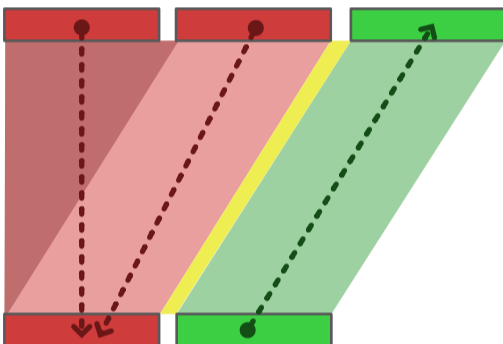
1.d Fwd. or Rev. only (1 lane)



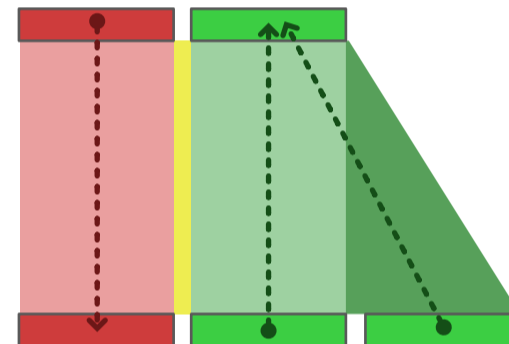
1.e Adding fwd lane on the right



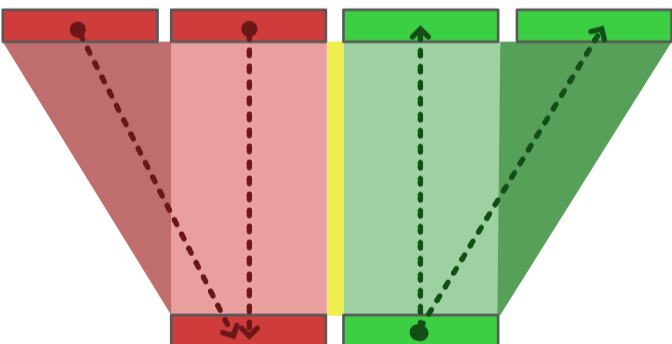
1.f Adding rev lane on the left



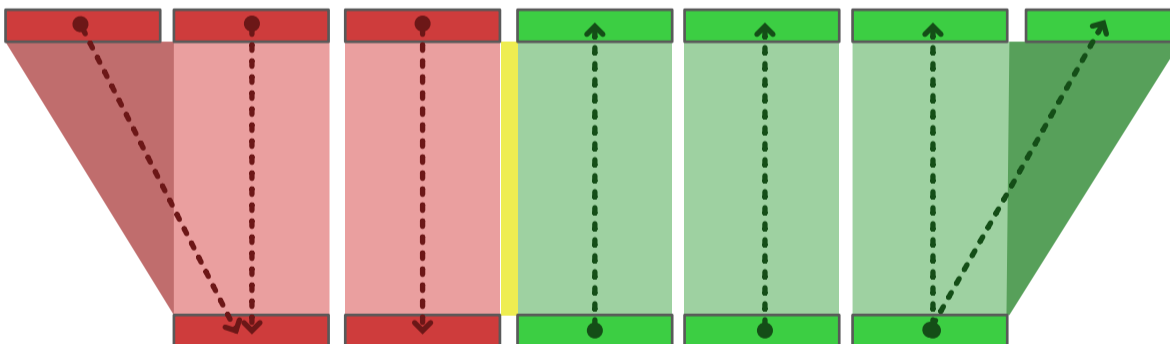
1.g Removing fwd lane on the right



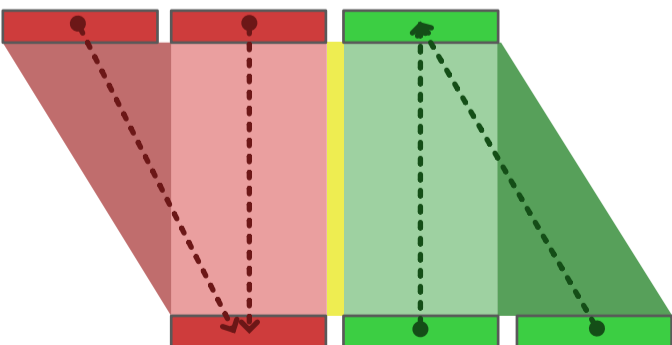
1.h Adding lanes to both sides



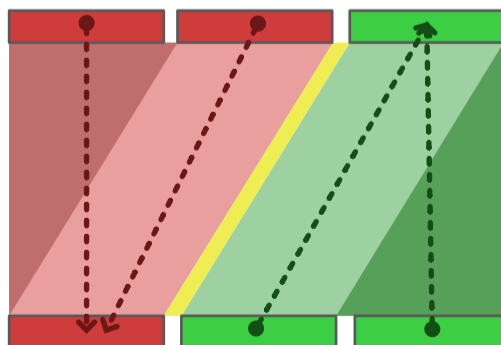
1.i Adding lanes to both sides with multiple middle lanes



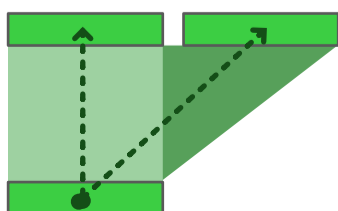
1.j Adding a lane one side, removing on another



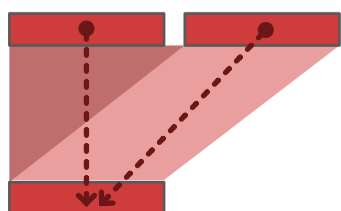
1.k Reminder: this is the same scenario as at left, with the bottom RoadPoint translated left (or, with "center align" turned off)



1.L Adding a single lane, fwd only: Assume added to the "slow" side.



1.m Adding a single lane, rev only, Assume added to the "slow" side.



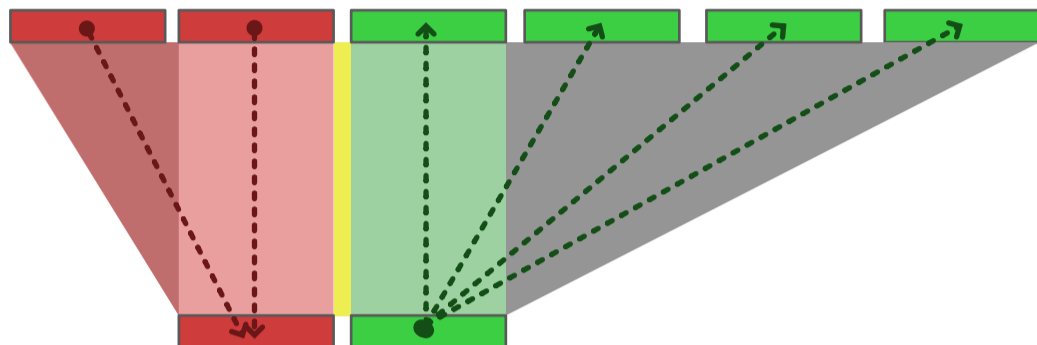
Road Generator

Lane transition texture + model reference

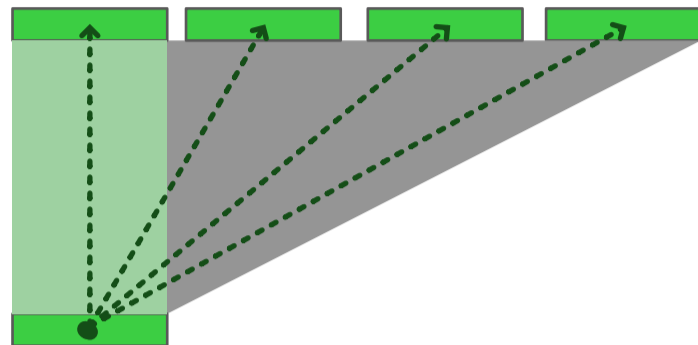
Legal / allowed configurations (continued)

Reference of configurations to support auto-texturing.

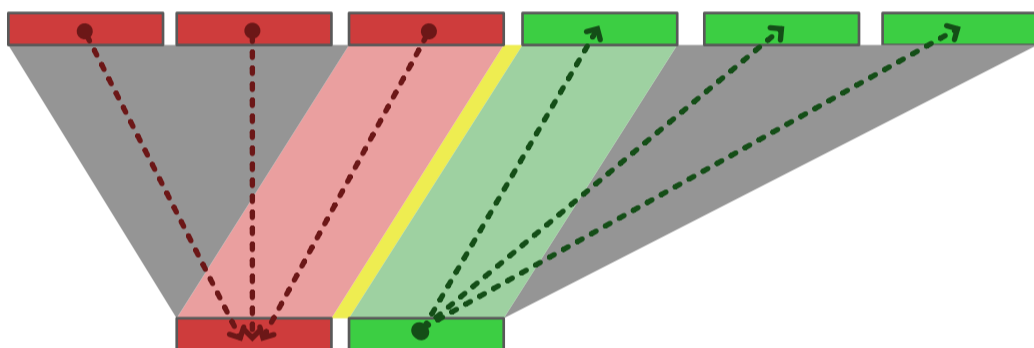
2.a Expanding to many lanes: texture one lane, unmark others



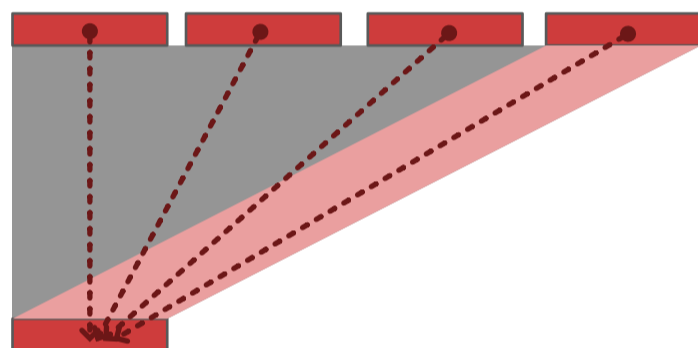
2.b Single direction one to many: assume lanes added to the outside



2.c Excess lanes on both sides, finding best matching middle lines



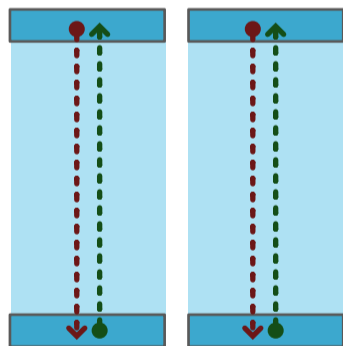
2.d Rev. direction one to many: assume lanes added to the outside



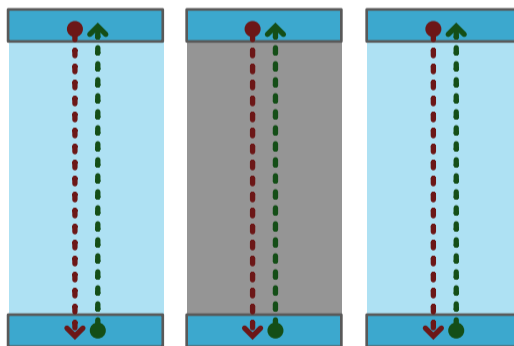
2.e Single both-way lane (white lines both sides)



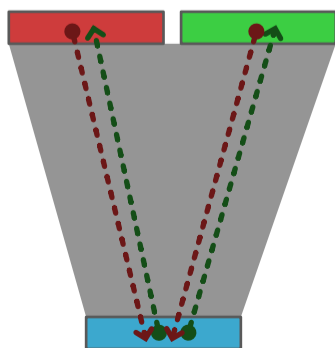
2.f Two both-way lane (white lines outside only)



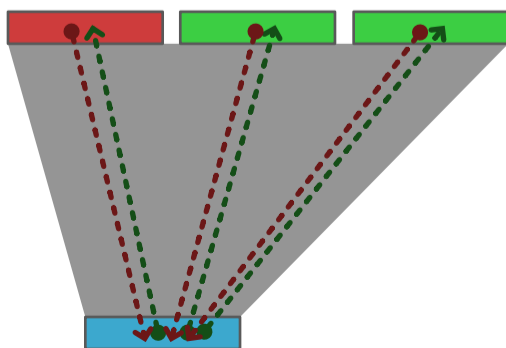
2.g Three both-way lane (white lines outside only)



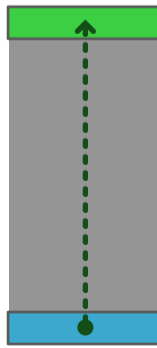
2.h Both-way to two way (e.g. one-lane bridge transition to road)



2.i Both-way to more lanes (e.g. one-lane bridge transition to road)



2.j Both to fwd; technically valid, though a weird situation



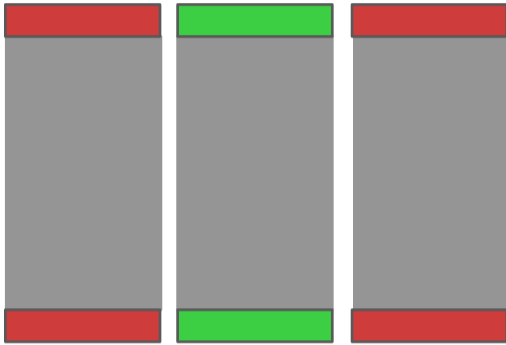
Road Generator

Lane transition texture + model reference

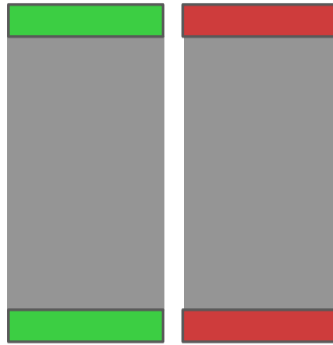
Illegal, non textured scenarios

These examples cannot be textured, and won't have a way to align AI lanes from one side to the other.

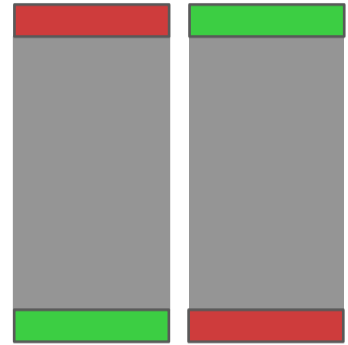
3.a Multiple changes of direction



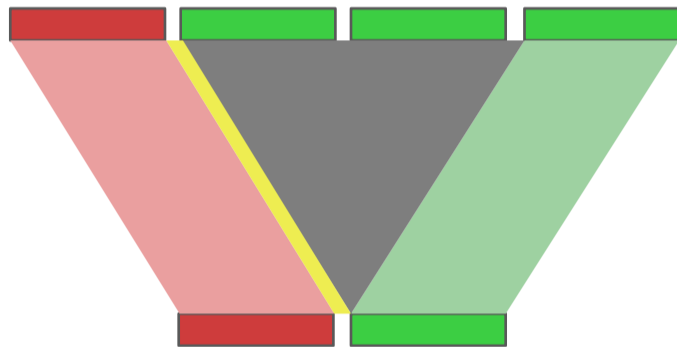
3.b Fwd on the left side.
Note: On runtime, the "meaning" of fwd / rev can be adjusted, to support driving on left side of road



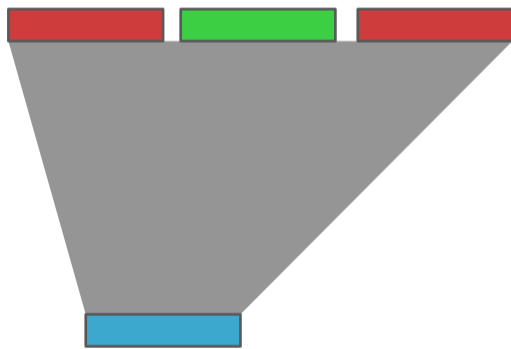
3.c Flipping order



3.d Under the hood: lane transitions on the inside are not supported, in this scenario it would be on the outside



3.e Both lane to multi-changing direction



3.f Two way's mixed with directional lanes

