

Semantic-Drive "Scenario DNA"

1. ODD & Physics

- Weather (Rain/Fog)
- Time of Day
- Lighting (Glare)
- Surface Friction
- **Sensor Integrity
(Droplets/Flare)**

2. Map Topology

- Scene Type
- Lane Config
- Traffic Controls
- **Map Divergence
(Driveable Area Status)**

3. Agent Dynamics

- VRU Status
- Lead Vehicle
- Adjacent Vehicle
- **Intent/Behavior
(Hesitant/Aggressive)**

4. Causal Logic

- Primary Challenge
- Blocking Factor
- **Ego-Action
(Nudge/Yield/Stop)**

Risk: 0-10