The percentage of existing on road route has strategic cycling corridor

```
[30] filtered_df = df[
        (df['type'] == 'On Road') &
        (df['status'] == 'Existing') &
        (df['strategic_cycling_corridor'] == 'Yes')
    ]
    count_on_exist_yes = len(filtered_df)
    print("Number of Exisitng On Road has Strategic Cycling Corridor:", count_on_exist_yes)
```

Number of Exisitng On Road has Yes Strategic Cycling Corridor: 4441

```
filtered_df = df[
        (df['type'] == 'On Road') &
        (df['status'] == 'Existing')
    ]
    count_on_exist = len(filtered_df)
    print("Number of the overal Exisitng On Road:", count_on_exist)
```

Number of the overal Exisitng On Road: 16269

```
[58] percentage_on_exist = count_on_exist_yes /  count_on_exist  * 100
    print("Percentage of Existing On Road has Strategic Cycling Corridor:", percentage_on_exist, "%")
```

Percentage of Existing On Road has Strategic Cycling Corridor: 27.297313909889976 %

The percentage of proposed on road route has strategic cycling corridor

```
[61] filtered_df = df[
        (df['type'] == 'On Road') &
        (df['status'] == 'Proposed') &
        (df['strategic_cycling_corridor'] == 'Yes')
    ]
    filtered_df.head()
    count_on_prop_yes = len(filtered_df)
    print("Number of Proposed On Road has Strategic Cycling Corridor:", count_on_prop_yes)
```

Number of Proposed On Road has Strategic Cycling Corridor in Overall: 4600

```
filtered_df = df[
        (df['type'] == 'On Road') &
        (df['status'] == 'Proposed')
    ]
    count_on_prop = len(filtered_df)
    print("Number of the overall Proposed On Road:", count_on_prop)
```

Number of Proposed On Road has No Strategic Cycling Corridor: 16864

```
[63] percentage_on_prop = (count_on_prop_yes / count_on_prop) * 100
    print("Percentage of Proposed On Road has Strategic Cycling Corridor:", percentage_on_prop, "%")
```

Percentage of Proposed On Road has Strategic Cycling Corridor in Overall: 27.277039848197344 %

The percentage of existing off road route has strategic cycling corridor

```
[37] filtered_df = df[
        (df['type'] == 'Off Road') &
        (df['status'] == 'Existing') &
        (df['strategic_cycling_corridor'] == 'Yes')
    ]
    filtered_df.head()
    count_off_exist_yes = len(filtered_df)
    print("Number of Exisitng Off Road has Strategic Cycling Corridor:", count_off_exist_yes)
```

Number of Exisitng Off Road has Strategic Cycling Corridor: 2283

```
filtered_df = df[
        (df['type'] == 'Off Road') &
        (df['status'] == 'Existing')
    ]
    filtered_df.head()
    count_off_exist = len(filtered_df)
    print("Number of the Overall Exisitng Off Road", count_off_exist)
```

Number of Exisitng Off Road has No Strategic Cycling Corridor: 4596

```
[68] percentage_off_exist = (count_off_exist_yes / count_off_exist) * 100
    print("Percentage of Existing Off Road has Strategic Cycling Corridor:", percentage_off_exist, "%")
```

Percentage of Existing Off Road has Strategic Cycling Corridor: 49.67362924281984 %

The percentage of proposed off road route has strategic cycling corridor

```python
filtered_df = df[
    (df['type'] == 'Off Road') &
    (df['status'] == 'Proposed') &
    (df['strategic_cycling_corridor'] == 'Yes')
]
filtered_df.head()
count_off_prop_yes = len(filtered_df)
print("Number of Proposed On Road has Strategic Cycling Corridor:", count_off_prop_yes)
```

Number of Proposed On Road has Strategic Cycling Corridor: 553

+ Code   + Text

```python
[69] filtered_df = df[
    (df['type'] == 'Off Road') &
    (df['status'] == 'Proposed')
]
filtered_df.head()
count_off_prop = len(filtered_df)
print("Number of the Overall Proposed Off Road:", count_off_prop)
```

Number of the Overall Proposed Off Road: 1629

```python
[70] percentage_off_prop = (count_off_prop_yes / count_off_prop) * 100
print("Percentage of Proposed Off Road has Strategic Cycling Corridor:", percentage_off_prop, "%")
```

Percentage of Proposed Off Road has Strategic Cycling Corridor: 33.94720687538367 %

Insight:

Combine into a table for Strategic Cycling Corridor

```python
per_exist = percentage_on_exist + percentage_off_exist
per_prop = percentage_on_prop + percentage_off_prop
scc_df = pd.DataFrame({
    'Percentage Existing (%)': [per_exist],
    'Percentage Proposed (%)': [per_prop]
})
scc_df
```

	Percentage Existing (%)	Percentage Proposed (%)
0	76.970943	61.224247

- Based on that table, the insight of data about Strategic Cycling Corridor is clear that the government is decreasing the strategic to implement more Corridor in the Victoria routes
- This challenges the proposed solution of promote cycling. Because based on the following data insights, the main cause of the bicycle accident is collision, and underneath of it is the crash of the other vehicle hit the bicycle. So come to the conclusion that most of the cause accidents for cycling is the bicycle infrastructure is not safe enough.
- In conclude, the innovative strategy for urban planner and policymaker is to promote cycling by increasing the cycling corridor in the routes (KPI recommended is Gain 80% of the Proposed Cycling Corridor)
- This can lead to a creative public policy solution of infrastructure modification that is (SMART goal) "Acquire and develop 80% of the Proposed Cycling Corridor in Victoria within 2 years to enhance sustainable transportation options in line with the state's strategic objectives."