







#### mobility outcomes

in response to planning commission

- ✓ summarize traffic study
- ✓ respond to Aug 11 questions
- ✓ transit-ready development

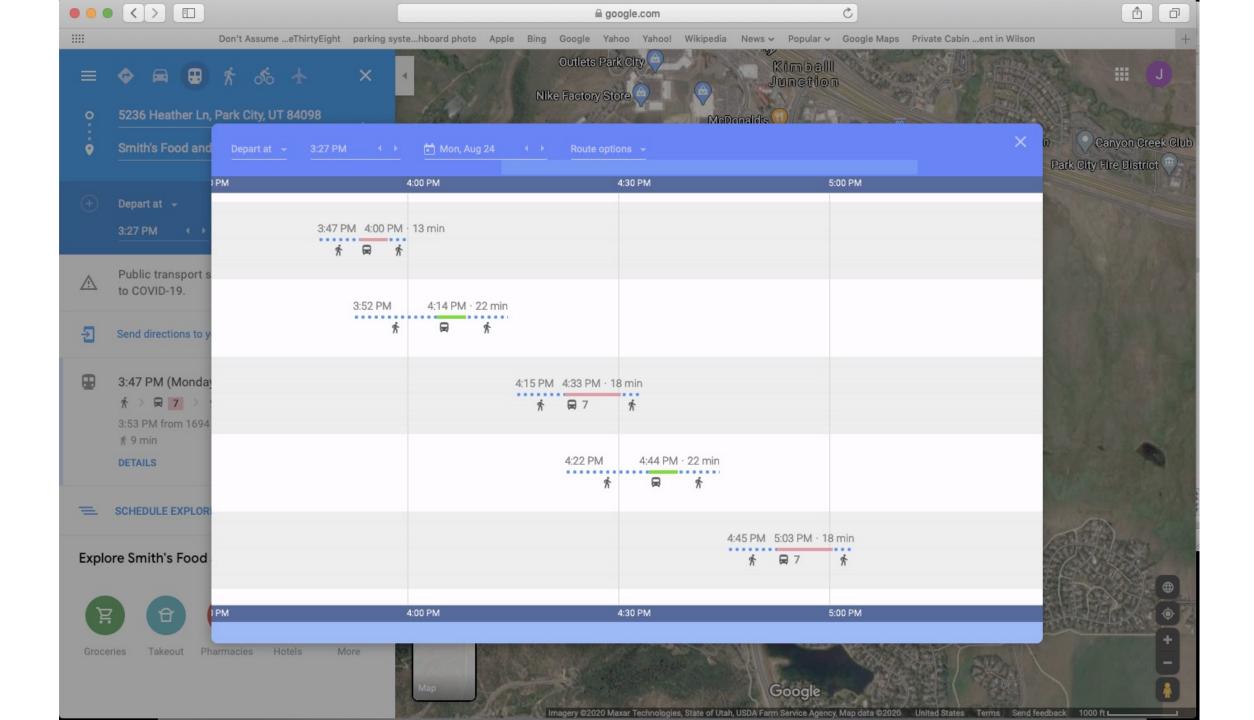




84 acres160 dwelling units0.13 square miles10 intersections

- 1.9 dwelling units/acre
- 0 commercial mixed use
- walk score: 4
- grocery: 1.6 mi
- walk to transit: 18 min
- 77 intersections/sq. mi.
- ✓ 3 network connections
- 2 dead ends (> 350')





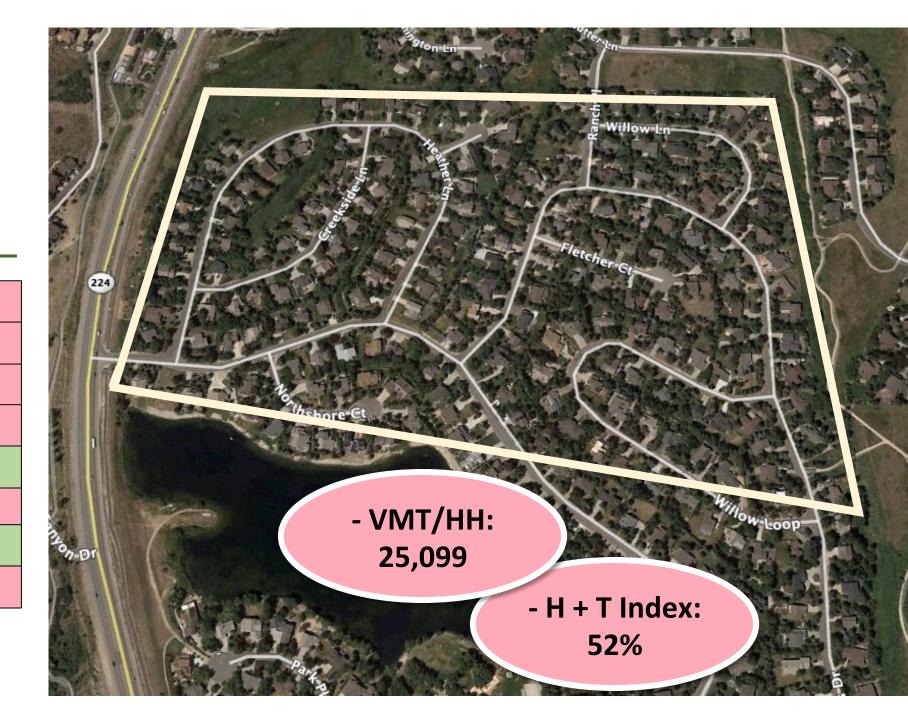
84 acres160 dwelling units0.13 square miles10 intersections

- 1.9 dwelling units/acre
- 0 commercial mixed use
- walk score: 4
- grocery: 1.6 mi
- walk to transit: 18 min
- 77 intersections/sq. mi.
- ✓ 3 network connections
- 2 dead ends (> 350')



84 acres160 dwelling units0.13 square miles10 intersections

- 1.9 dwelling units/acre
- 0 commercial mixed use
- walk score: 4
- grocery: 1.6 mi
- walk to transit: 3 min
- 77 intersections/sq. mi.
- ✓ 3 network connections
- 2 dead ends (> 350')



### traffic study

- results
  - hourly traffic
  - seasonal traffic
  - comparison without transit
  - trip generation by land use

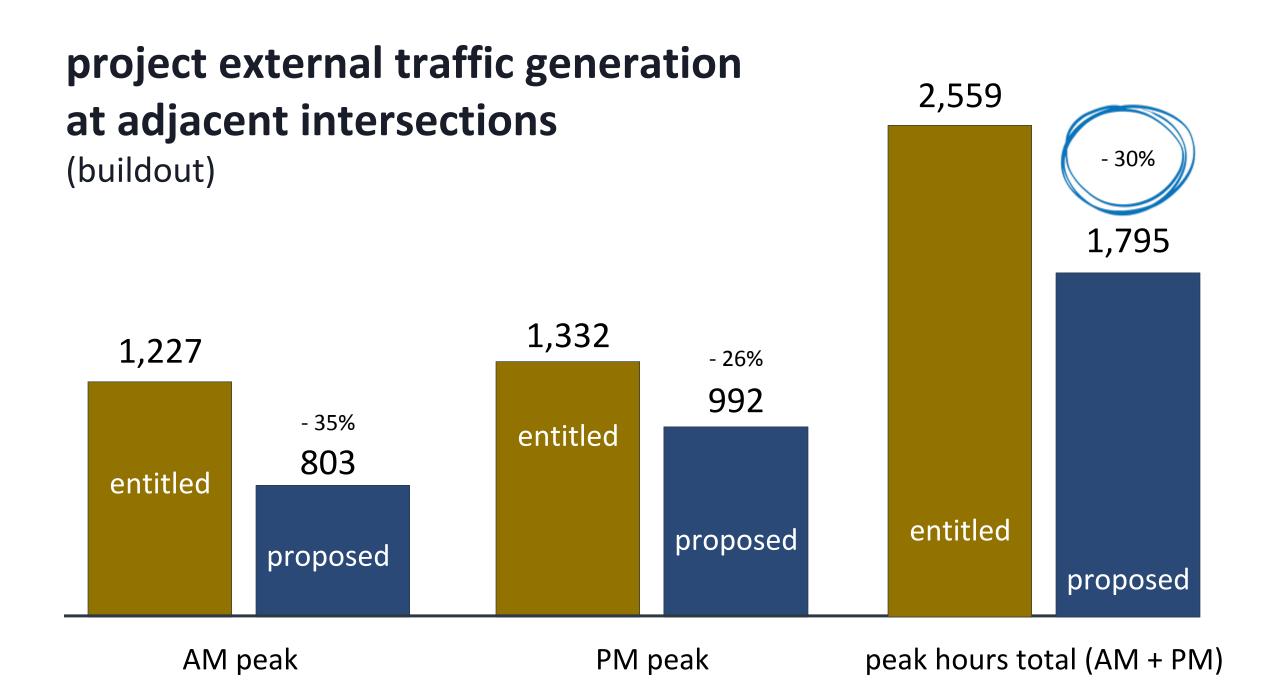
#### **Traffic Impact Study**

Prepared for:

Dakota Pacific Real Estate

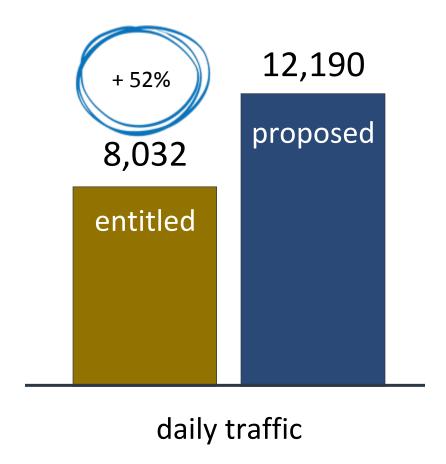
August 2020

FEHR PEERS



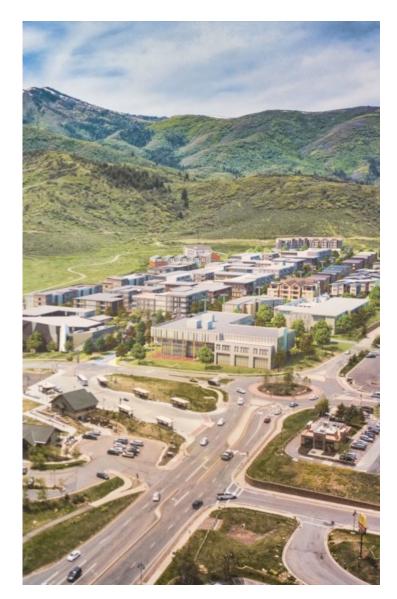
# project external traffic generation at adjacent intersections

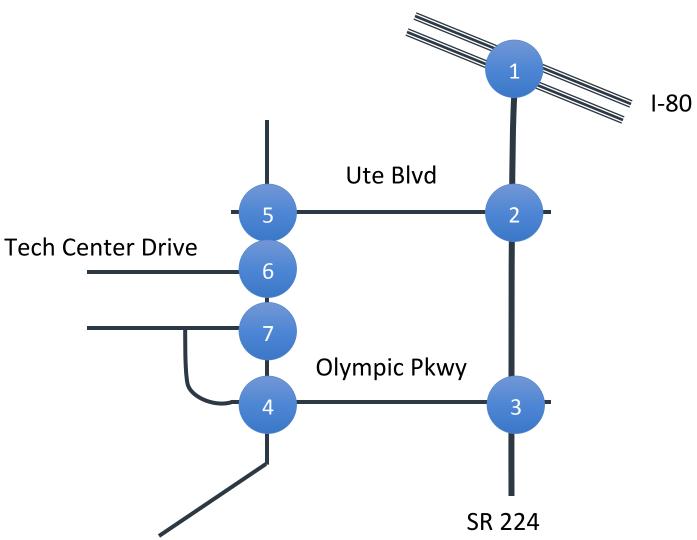
(buildout)



(note change in scale from previous slide)

#### intersection analysis | level of service





#### existing peak hour conditions | intersection level of service \*

|             |                                    | AM | PM |
|-------------|------------------------------------|----|----|
| interchange | 1. SR 224 / I-80 ramps             | D  | C  |
| signal      | 2. SR 224 / Ute Blvd               | В  | E  |
| signal      | 3. SR 224 / Olympic Pkwy           | A  | C  |
| roundabout  | 4. Landmark Drive / Olympic Pkwy   | В  | В  |
| roundabout  | 5. Landmark Drive / Ute Blvd       | В  | C  |
| stop sign   | 6. Landmark Drive / Tech Center Dr | В  | C  |

<sup>\*</sup> based on 2019 traffic counts

#### 2028 peak hour conditions | without project

|             |                                    | AM | PM |
|-------------|------------------------------------|----|----|
| interchange | 1. SR 224 / I-80 ramps             | E  | C  |
| signal      | 2. SR 224 / Ute Blvd               | В  | F  |
| signal      | 3. SR 224 / Olympic Pkwy           | С  | C  |
| roundabout  | 4. Landmark Drive / Olympic Pkwy   | В  | С  |
| roundabout  | 5. Landmark Drive / Ute Blvd       | В  | С  |
| stop sign   | 6. Landmark Drive / Tech Center Dr | В  | С  |

#### 2028 peak hour conditions | with project

|             |                                    | AM | PM |
|-------------|------------------------------------|----|----|
| interchange | 1. SR 224 / I-80 ramps             | E  | C  |
| signal      | 2. SR 224 / Ute Blvd               | В  | F  |
| signal      | 3. SR 224 / Olympic Pkwy           | С  | C  |
| roundabout  | 4. Landmark Drive / Olympic Pkwy   | В  | C  |
| roundabout  | 5. Landmark Drive / Ute Blvd       | В  | C  |
| stop sign   | 6. Landmark Drive / Tech Center Dr | С  | D  |
| stop sign   | 7. Landmark Drive / unnamed        | В  | В  |

#### existing peak hour conditions | intersection level of service \*

AM PM

stop sign

Kilby Rd/Powderwood Rd.

В

С



<sup>\*</sup> based on 2019 traffic counts

#### 2028 peak hour conditions | with project

 $\mathsf{AM}$ 

PM

stop sign

Kilby Rd/Powderwood Rd.



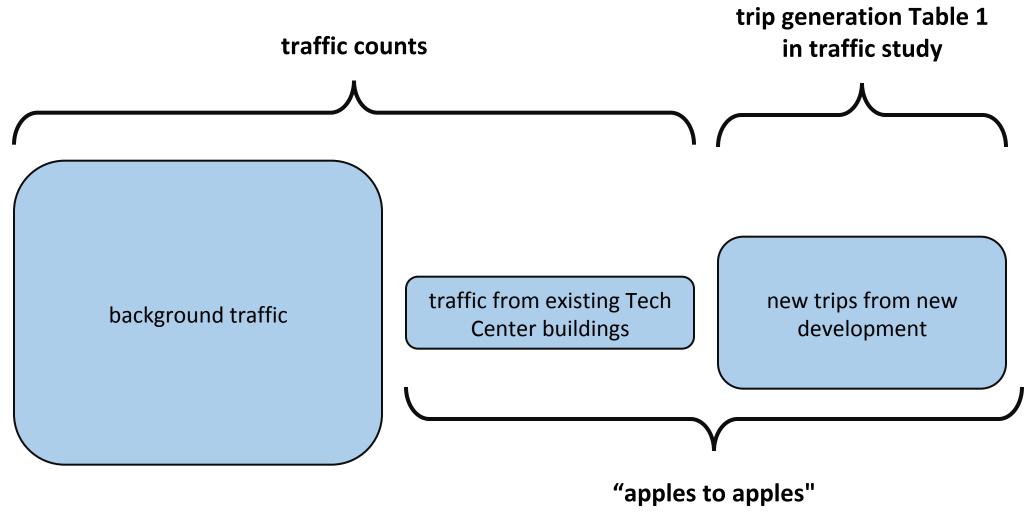




#### key qualifying details

- different frames for trip generation ("apples-to-apples")
- traffic growth since 2007
- changes in trip generation rates (ITE manual)

#### "apples to apples" trip generation



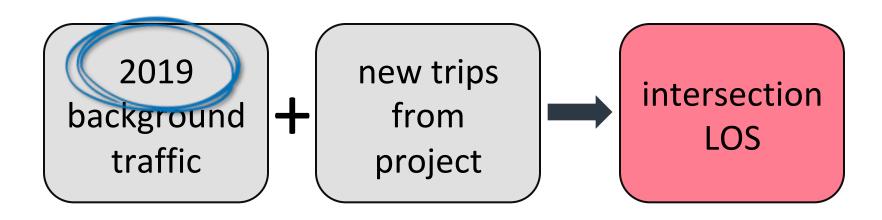
trip generation

#### traffic growth since 2007

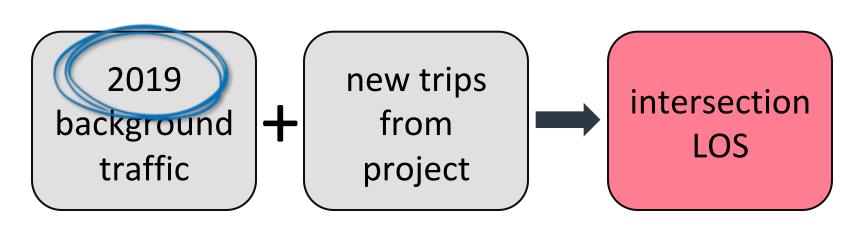
Tech 2007 new trips intersection background from Center LOS traffic project **DPRE** 2019 new trips intersection from background proposal LOS traffic project

#### perspective

Tech Center



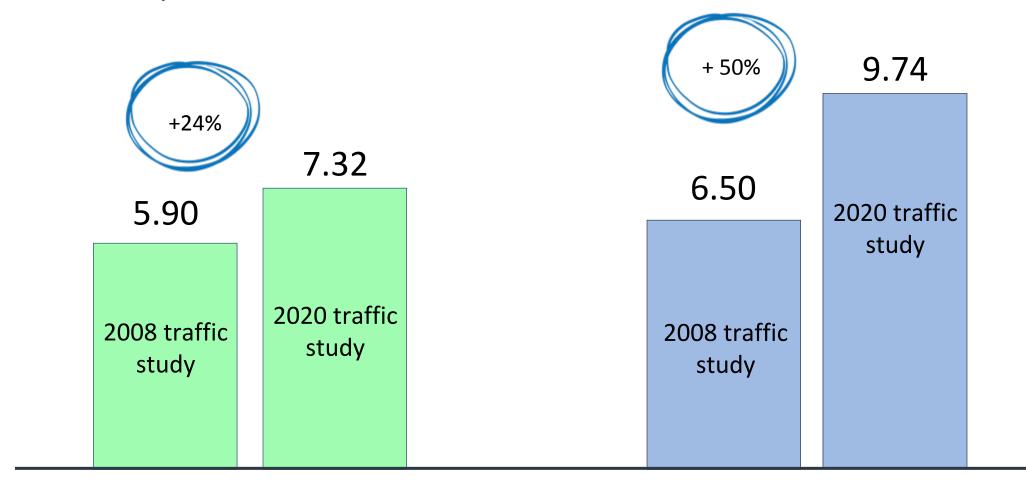
DPRE proposal



changes in trip generation rates

(2008 - 2020)

2008 traffic study: 7<sup>th</sup> edition ITE Manual 2020 traffic study: 10<sup>th</sup> edition ITE Manual

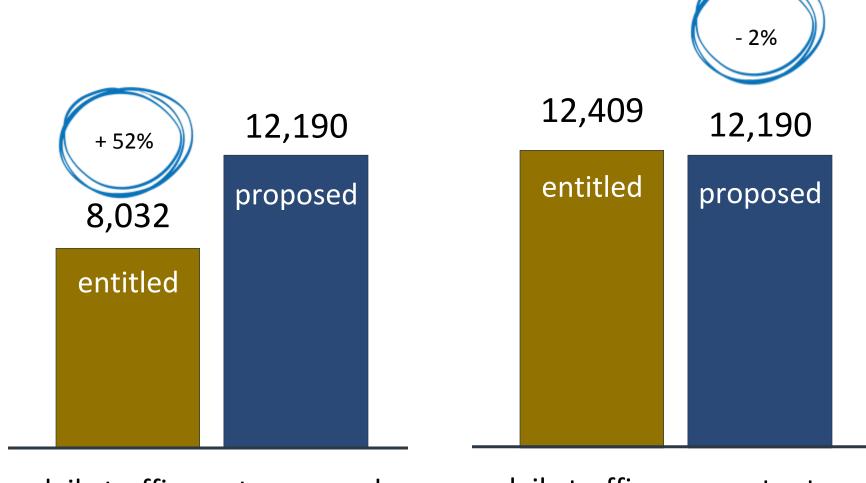


residential vehicle trips per dwelling unit

office vehicle trips per square foot

# project external traffic generation at adjacent intersections

(buildout)



daily traffic – rates as used

daily traffic – current rates

## traffic study

- results
- hourly traffic
  - seasonal traffic
  - comparison without transit
  - trip generation by land use



Prepared for:

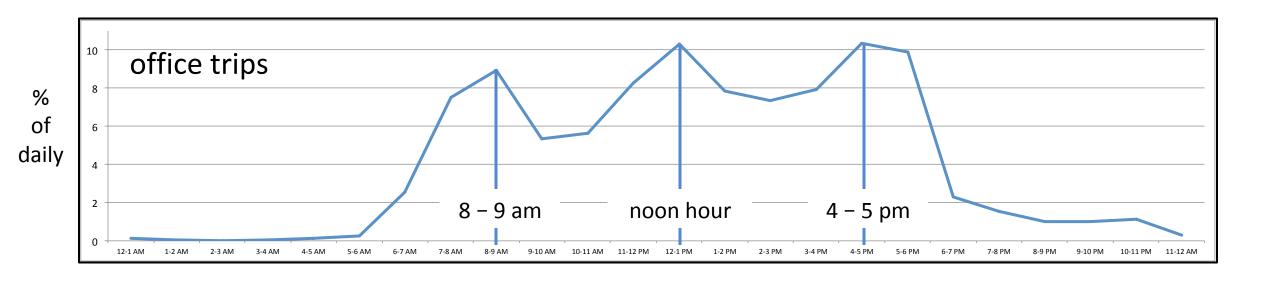
Dakota Pacific Real Estate

August 2020

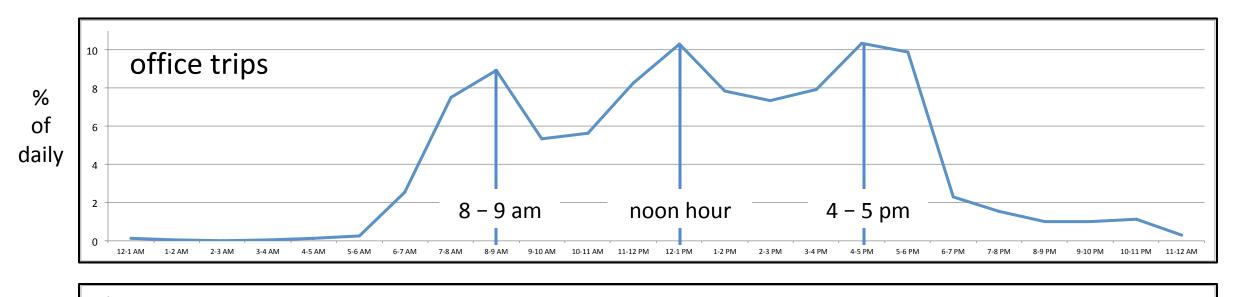
UT19-215

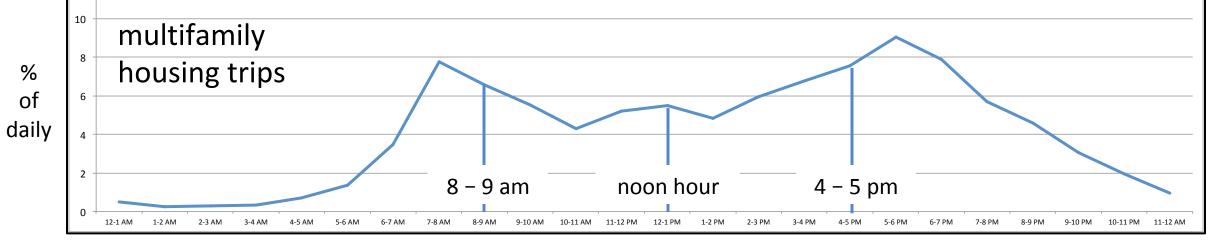
FEHR PEERS

#### **traffic study** | time of day comparison



#### **traffic study** | time of day comparison





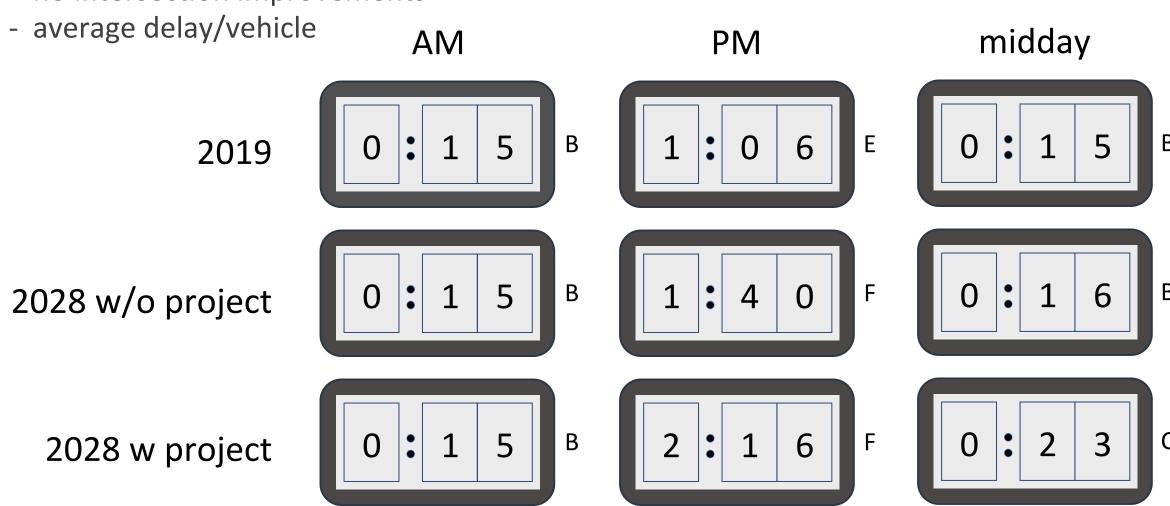
#### traffic study | SR 224 & Ute Boulevard





#### time of day traffic delay | SR 224 & Ute Blvd

- no intersection improvements



## traffic study

- results
- hourly traffic
- seasonal traffic
  - comparison without transit
  - trip generation by land use

#### Traffic Impact Study

Prepared for:

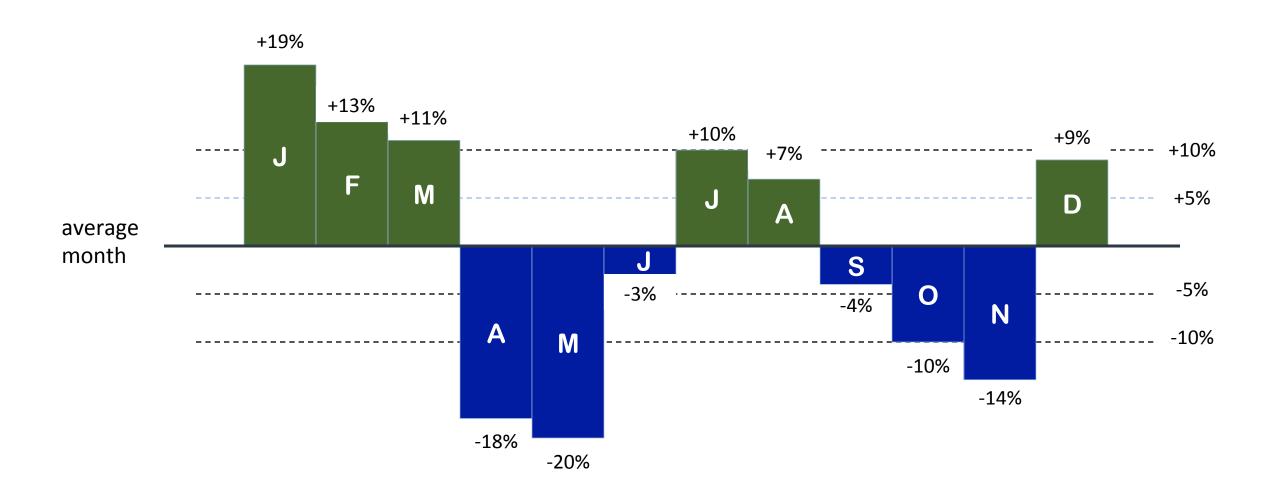
Dakota Pacific Real Estate

August 2020

UT19-215

FEHR PEERS

#### monthly traffic | SR 224



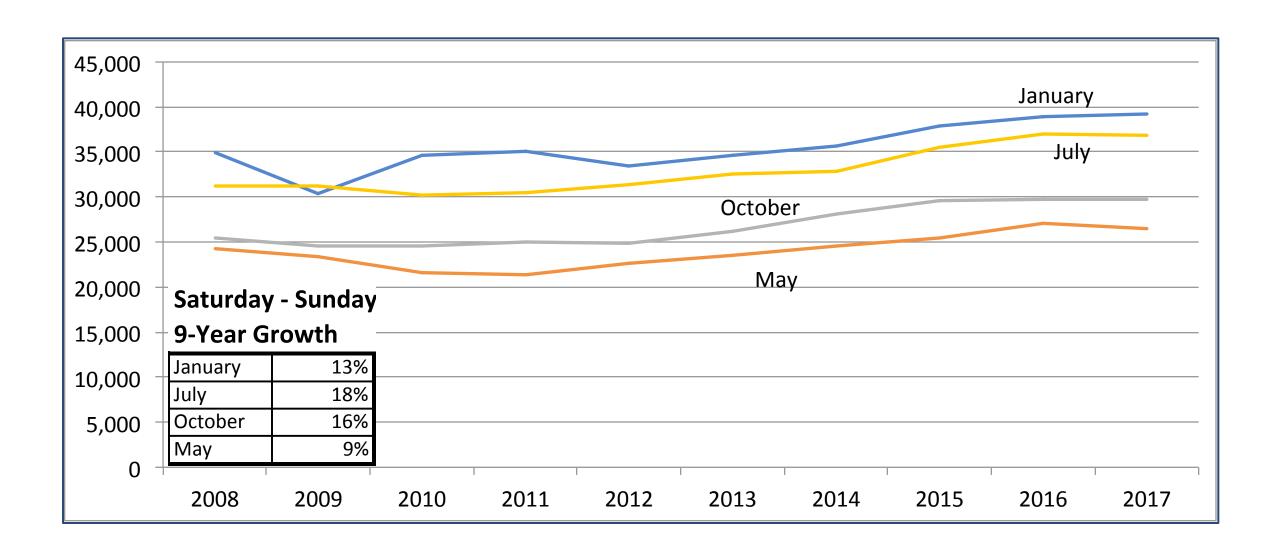
#### average vs peak winter traffic | SR 224 & Ute Blvd

peak winter average - no intersection improvements - average delay/vehicle month month - AM peak hour В 2019 В 2028 w/o project 3 2028 w project В

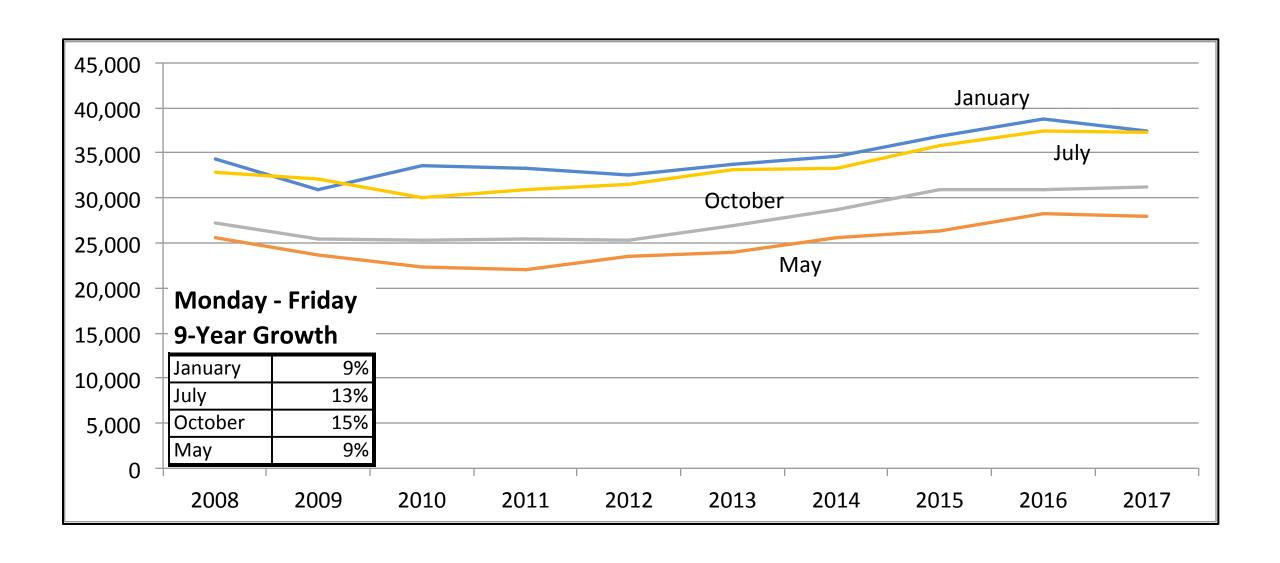
#### average vs peak winter traffic | SR 224 & Ute Blvd

peak winter average - no intersection improvements - average delay/vehicle month month PM peak hour 2019 2028 w/o project 2028 w project

#### seasonal traffic growth | Saturday - Sunday



#### seasonal traffic growth | Monday - Friday



#### winter maintenance plan | snow removal & storage



## traffic study

- results
- hourly traffic
- seasonal traffic
- comparison without transit
  - trip generation by land use

#### Traffic Impact Study

Prepared for:

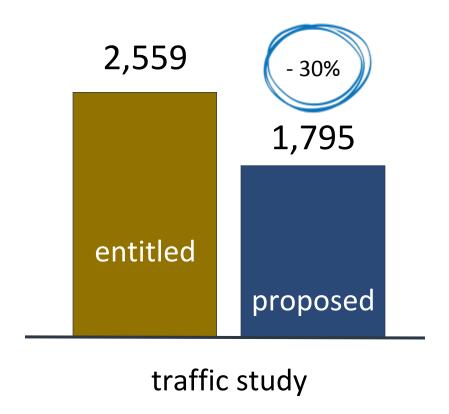
Dakota Pacific Real Estate

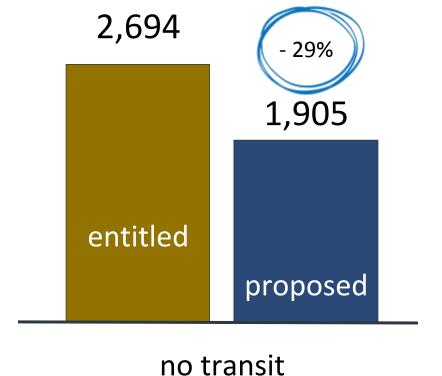
August 2020

UT19-215

FEHR PEERS

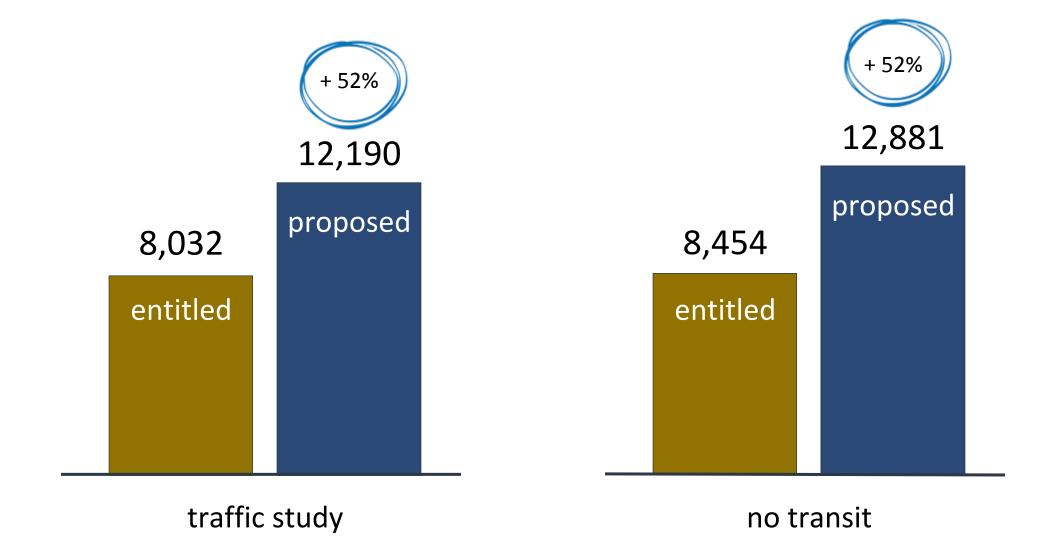
#### effect of transit on trip generation — peak hours (AM + PM)





#### effect of transit on trip generation — daily traffic

(note change in scale from previous slide)



### traffic study

- results
- hourly traffic
- seasonal traffic
- comparison without transit
- trip generation by land use

#### **Traffic Impact Study**

Prepared for:

Dakota Pacific Real Estate

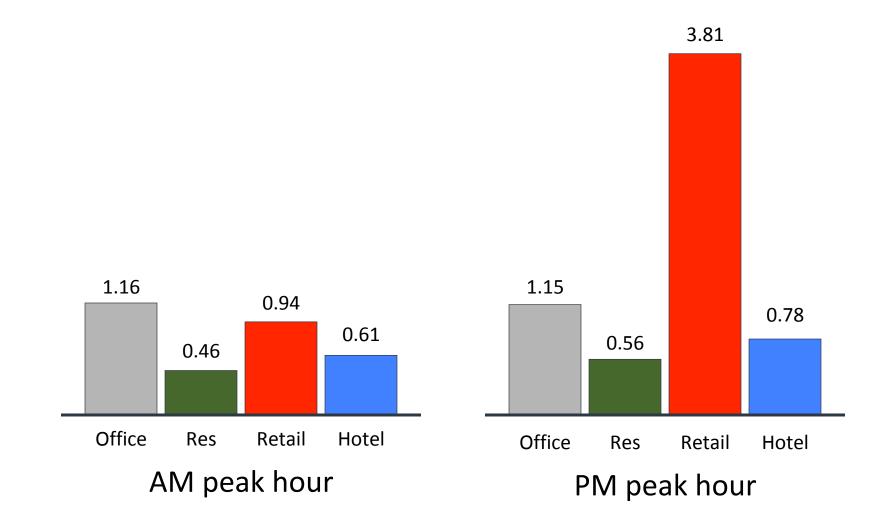
August 2020

UT19-2154

FEHR PEERS

#### trip generation by land use

raw trips — no internal capture or mode share



#### "transit-ready development"







opportunity to plan transit & development together +

"transit-oriented development" principles

"transit-ready development"

#### transit-ready development

#### high capacity transit mode continuum

express bus service BRT - bus rapid transit















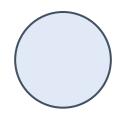


#### transit-ready development

development occurs at and around stations



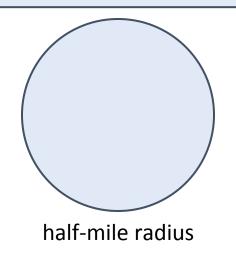
## transit-oriented zone



quarter-mile radius



## transit-influence zone



#### transit-ready development

#### transit station

- hub multimodal network
- safe walk access
- universal accessibility
- safe bicycle access, incl. trails
- J plazas, squares, parks
- wayfinding
- **a**menities
  - o shade, weather
  - seating
  - o coffee, pushcarts

#### neighborhood

- horizontal land use mix

- ✓ narrow streets
- nearby residential buildings
- buildings address streets
- plazas, squares, parks

#### transportation

- fixed route, scheduled bus

- safe bicycle network, incl. trails
- regional highway access
- **d** convenience parking
- park 'n ride parking
- space management
- safe flow patterns

















## additional slides for Q & A