

DATE: April 26, 2021
 TO: Barry Manning, Senior Planner, City of Portland Bureau of Planning and Sustainability
 FROM: Tyler Bump and Michelle Anderson, ECONorthwest
 SUBJECT: MP2H – East Side Summary Results

Streetcar Alignment Options Analysis Approach

This technical memorandum summarizes market feasible development outcomes of four potential streetcar alignments that would extend from the current A/B Loop in the Central Eastside and the Lloyd District to the Hollywood Transit Center. While the Northwest District tasks of the Montgomery Park to Hollywood Transit and Land Use Development Study evaluated the impact of land use changes adjacent to a potential streetcar extension from the NS Line, this analysis only evaluated development outcomes from the introduction of potential streetcar alignments and not from land use changes. The intent of this analysis is to provide the Bureau of Planning and Sustainability and the Bureau of Transportation with summary results that indicate the amount of new housing, jobs, and other development outcomes by each alignment to understand how alignment decisions could impact development outcomes and generate future ridership.

All four potential streetcar alignments are currently served by varying levels of transit service across a variety of transit types including streetcar along the existing inner eastside alignments, frequent bus service, and light rail transit via the red line, blue line, and green line. To account for varying levels of existing transit access across all parcels evaluated in the study area, and to isolate the impacts of a new transit premium associated with the streetcar extension, ECONorthwest conducted spatial analyses to estimate the distance of each parcel within the study areas to both existing transit stations (i.e., - frequent bus service, MAX light rail, and existing streetcar) and the four proposed streetcar alignments.

Exhibit 1. Existing Transit Lines Adjacent to Future Potential Streetcar Alignments

| | A1: Burnside/Couch to Sandy Blvd | A2: Stark/Washington to Sandy Blvd | B: Irving St to Sandy Blvd | C: Broadway/ Weidler |
|--------------------|--|--|-------------------------------|----------------------------|
| Non-Frequent Bus | Line 19, 66 | Line 19, 66 | Line 19, 66 | Lines 17, 66, 70, 77 |
| Frequent Bus | Line 6, 12, 20, 75 | Line 6, 12, 75 | Line 12, 75 | Lines 6, 8, 12, 20, 75 |
| Streetcar | A and B loop | A and B loop | A and B loop | A and B loop |
| Light Rail Transit | Lines green, blue, and red | Lines green, blue, and red | Lines green, blue, and red | Lines green, blue, and red |

ECONorthwest incorporated the existing transit access in the analysis to ensure that any price premiums associated with the new streetcar alignments does not overstate the rents and sales prices possible for new development. The market observations that informed the rent and price

assumptions in the development feasibility model already incorporate various price premiums, given that the study area is already well served by transit.

To isolate the impact of the new alignment options, we subtracted the premium of any existing transit that was proximate to a parcel for frequent bus, MAX light rail, and streetcar. We did this based on a linear distance decay function and assumed that parcels directly adjacent to a transit station received the maximum transit premium associated with the respective transit, and parcels farther away received a lower transit premium. This approach, and the transit premiums used, was informed by an extensive literature review of transit impacts on rent and sales prices for both residential and commercial development. Subtracting the transit premiums associated with existing transit stations from the rent and price assumptions, allowed us to arrive at new base rent and sales price assumption for all parcels in the study area. Using this new base rent, we then calculated a transit premium for the new streetcar alignments. After arriving at a rent assumption that included the premium associated with the new streetcar, we took the maximum of that rent and the existing rent assumption, inclusive of the premium from existing transit, to inform the parcel-level pro forma analysis.

Exhibit 2. Transit Premium Assumptions Used in MapCraft Analysis

| Transit Type | Use | Rent / Price Impact | Estimated Maximum Distance of Impacts* |
|--------------|--------------------------------|---------------------|--|
| Bus | Single family, Townhome, Condo | 1% | ½ mile |
| | Multifamily | 2% | 1 mile |
| | Retail | 6% | ¾ mile |
| | Office | 6% | ½ mile |
| Light Rail | Single family, Townhome, Condo | 15% | ½ mile |
| | Multifamily | 6% | 1 mile |
| | Retail | 7% | ¾ mile |
| | Office | 10% | ½ mile |
| Streetcar | Single family, Townhome, Condo | 9% | ½ mile |
| | Multifamily | 20% | 1 mile |
| | Retail | 20% | ¾ mile |
| | Office | 14% | ½ mile |

Source: ECONorthwest analysis of literature, March 2020.

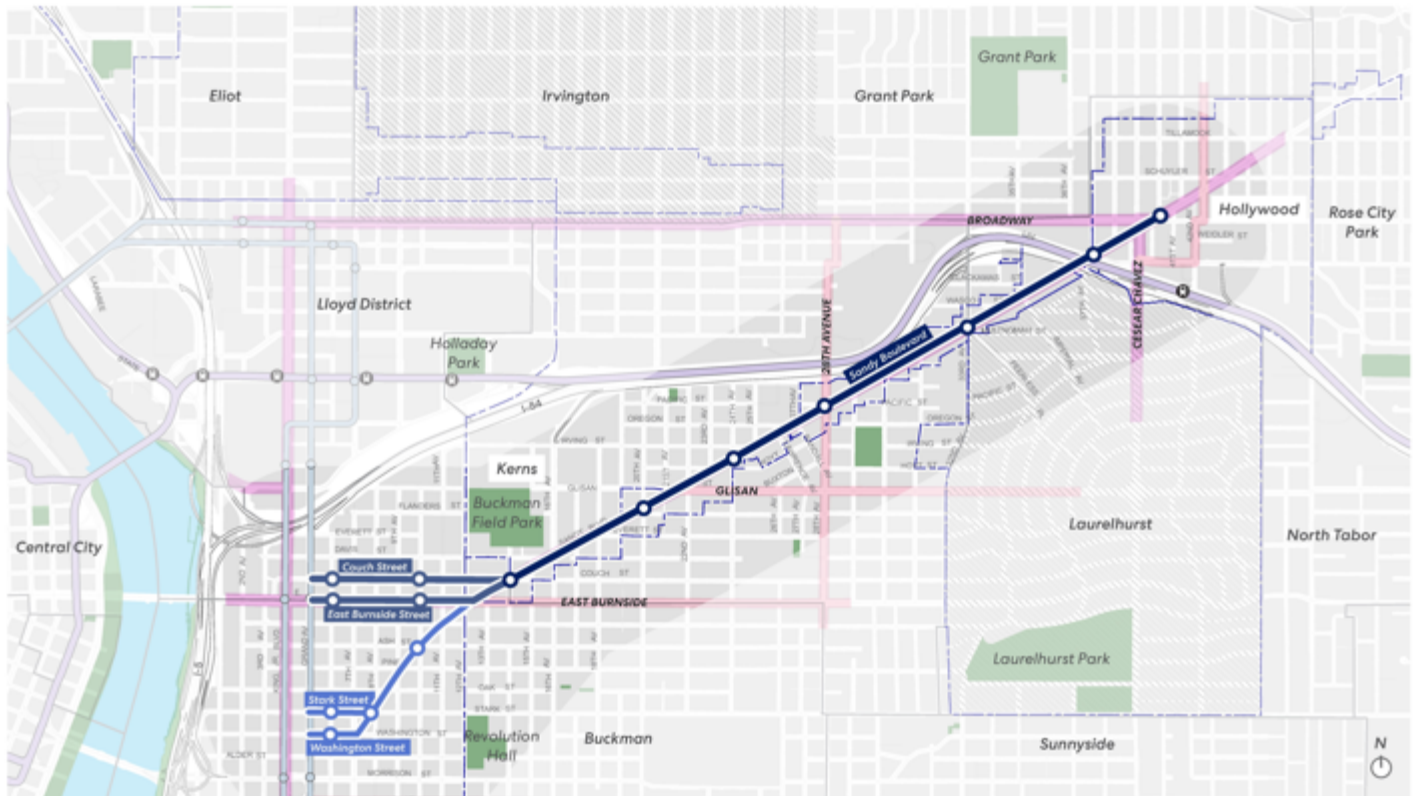
* This analysis only applied transit premiums to parcels within the ¼ mile study area boundaries.

ECONorthwest utilized MapCraft labs to run financial pro formas to test development feasibility and summarize potential development outcomes under existing zoning within ¼ mile of each potential streetcar alignment identified in Exhibit 2. This pro forma analysis identifies market feasible development for projects that have a positive residual land value (RLV) after subtracting the Multnomah County Assessor’s estimates of real market value on each parcel and assuming current estimates of leases or sales, the cost to build as well as operate the building, and the investment returns needed to attract capital for the project.

We used RLV to identify the prototypical development with the highest value for each site in the study area. This reflects the likely market conditions where land will sell to whichever developer is able to pay the highest price. The RLV analysis is an estimate of the feasibility for the market to produce housing and commercial space – it is used to compare policy and investment choices but does not produce a precise answer for every site due to variations in property conditions and property owner decisions. It is best to use these results to understand the direction and scale of policy and investment choices relative to desired outcomes (e.g., more housing units or jobs under different potential alignment scenarios). The outputs of this analysis are not intended to be a final recommendation, but to help ground future recommendations and policy decisions in the context of market realities and how private investment decisions are made.

Additionally, this analysis relies heavily on recent development trends and observed development within and around the study area. The near and mid-term impacts of COVID-19 on investment in residential and commercial development are unclear but will affect how and when the scenarios evaluated in this analysis might be realized. This is especially true for some of the larger sites above four acres in the study area that would require a phased development approach or more sensitivity to post-COVID market dynamics and broader Portland market residential and commercial absorption trends.

Exhibit 3. Alignments A1 and A2: Burnside/Couch and Stark/Washington to Sandy Boulevard



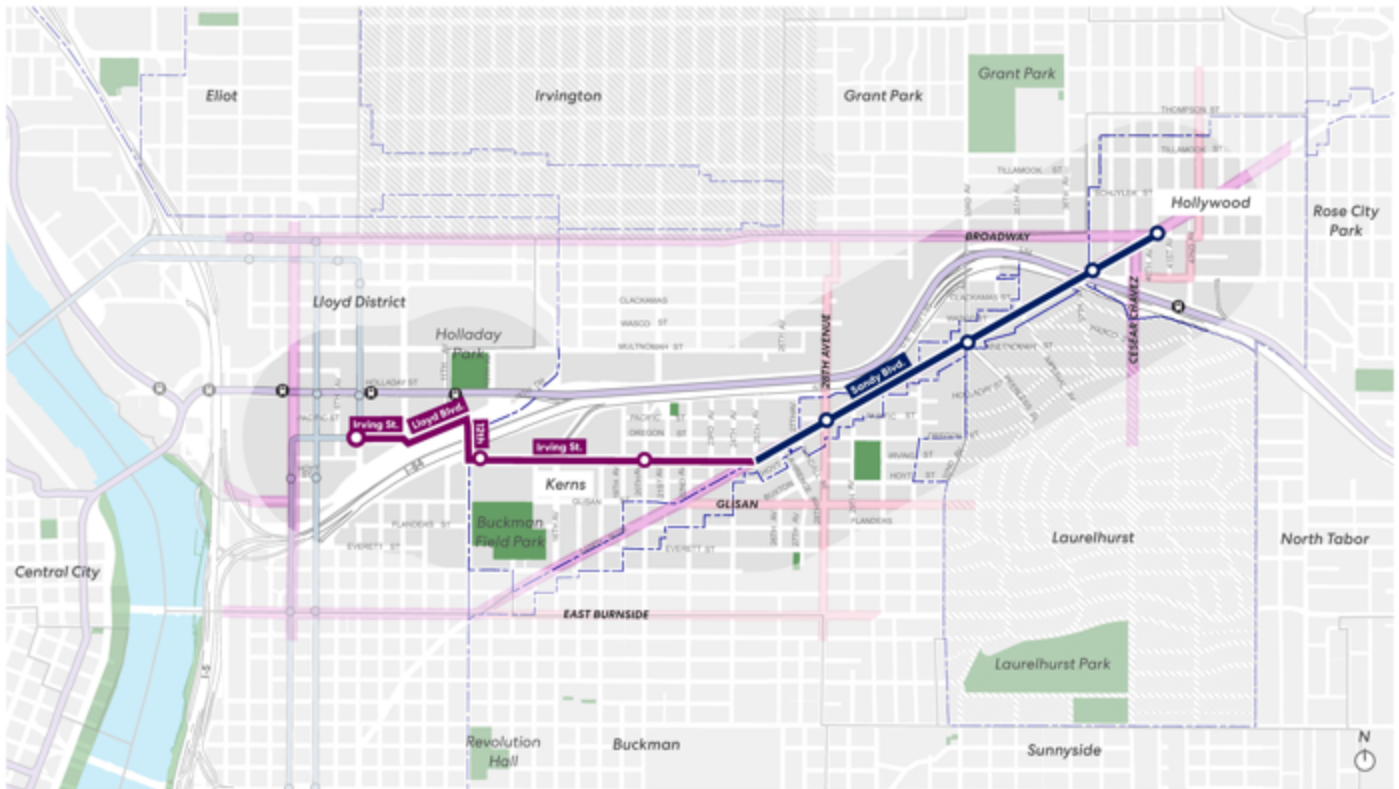
Neighborhood and Planning Context

Legend

- Proposed Streetcar Alignment
- Existing Streetcar Alignment
- Existing Max
- Civic Corridor
- Neighborhood Corridor
- Plan District
- Existing Park
- Historic/Conservation District
- Neighborhood

Source: Perkins&Will

Exhibit 4. Alignment B: Irving Street to Sandy Boulevard



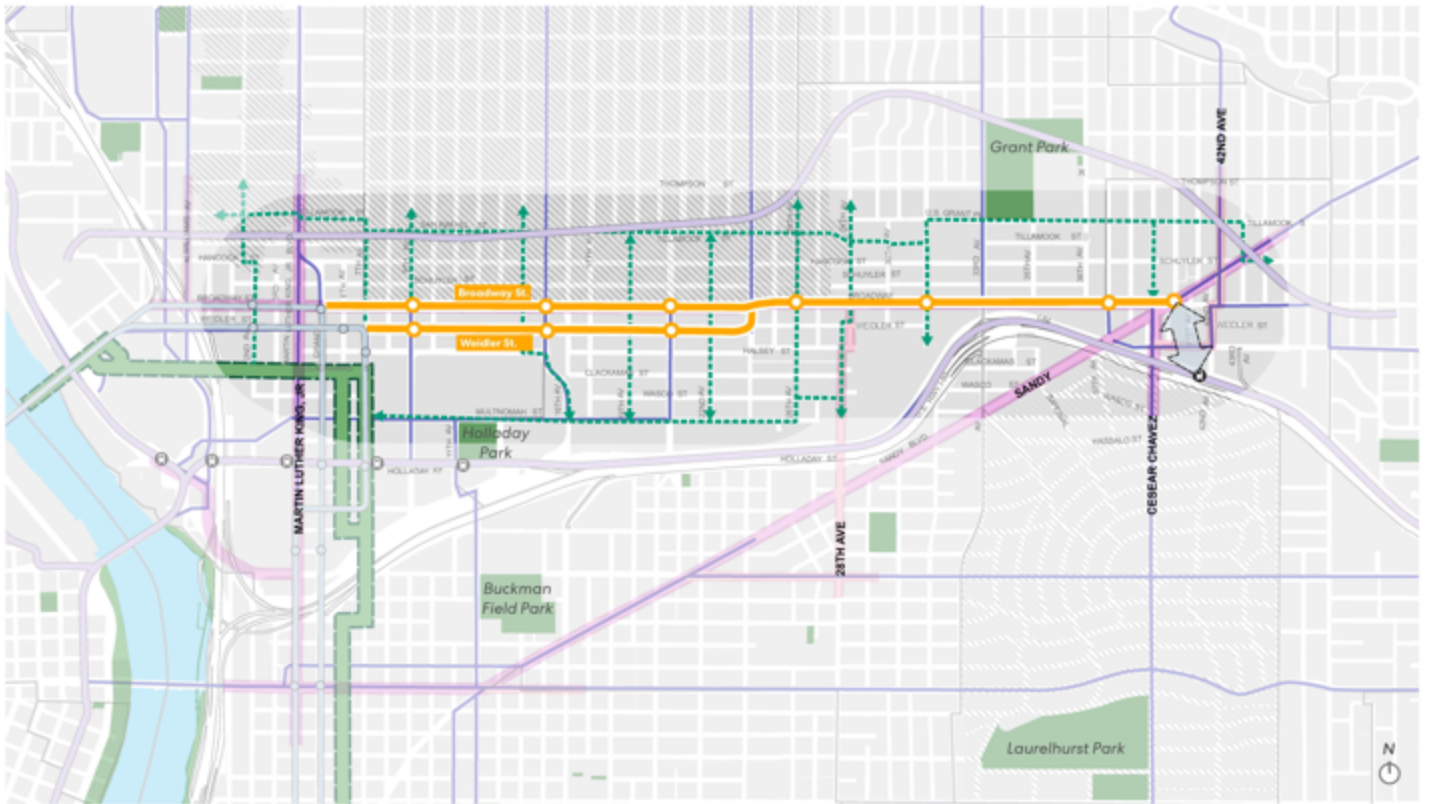
Neighborhood and Planning Context

Legend

- Proposed Streetcar Alignment
- Existing Streetcar Alignment
- Existing Max
- Civic Corridor
- Neighborhood Corridor
- Plan District
- Existing Park
- Historic/Conservation District
- Neighborhood

Source: Perkins&Will

Exhibit 5. Alignment C: Broadway/Weidler



Transportation Connection

Legend

- Civic Corridor
- Neighborhood Corridor
- - - - - City Greenway/Bikeway
- - - - - TriMet Bus Lines
- The Green Loop
- ⬅ ➡ Seamless Transit Connection

Source: Perkins&Will

Alignment Summary Results

This analysis indicates that between 11,600 and 17,400 residential units are possible between the potential alignment options evaluated. Additionally, there could be between 1,700 and 8,000 new jobs added between the potential alignment options. The Sandy Boulevard alignment alternatives are likely to result in the most amount of residential development within ¼ mile of new streetcar service while the Irving Street and Broadway/Weidler alignment options result in fewer residential units but more potential jobs, primarily from higher density office development on larger sites.

The summary results in Exhibit 5 highlight policy tradeoffs associated with the alignment options and should also be considered within the broader context of market demand for various scales of development under each option.

Exhibit 6. Development Outcomes Summary by Alignment

| | A1 – Burnside/Couch to Sandy Boulevard | A2 – Stark/Washington to Sandy Boulevard | B – Irving St to Sandy Boulevard | C – Broadway / Weidler |
|--------------------------|--|--|--|---------------------------|
| Office Jobs | 1,355 | 1,083 | 7,283 | 3,547 |
| Industrial Jobs | 50 | 14 | 402 | 168 |
| Retail / Restaurant Jobs | 598 | 620 | 676 | 555 |
| Total Jobs | 2,003 | 1,718 | 8,361 | 4,270 |
| Market Rate Units | 15,446 | 16,195 | 14,485 | 11,035 |
| Affordable Units | 1,127 | 1,185 | 1,112 | 580 |

Alignment A - Sandy Boulevard

Both potential alternatives for Alignment A yield some of the highest development outcomes of all the scenarios evaluated. Both alternatives for the Sandy Boulevard alignment indicate that development is likely to be more dispersed and incremental throughout the corridor based on more typical lot configurations, despite the diagonal orientation of Sandy Boulevard, than in the other alignment options that are more heavily weighted towards larger site redevelopment. Additionally, development outcomes under the Sandy Boulevard alignment alternatives indicate a wider range of physical development outcomes that are possible compared to other scenarios because of a broader mix of zoning designations within the ¼ mile study area boundary that includes mixed use zones, multi-dwelling zones, single dwelling zones, CX, and EX zones.

Alignment A1 – Burnside/Couch

Alignment option A1 indicates that this alignment would see both residential and commercial development that could support future ridership. Analysis results for Alignment A1 indicate that around 16,600 new residential units and 2,000 new jobs could be possible. Alignment A1 generates almost as many new residential units than Alignment A2 but generates almost 300 more jobs.

Alignment A2 – Stark/Washington

Alignment option A2 indicates that this alignment would see both residential and commercial development that could support future ridership. Analysis results for Alignment A1 indicate that around 17,400 new residential units and 1,700 new jobs could be possible. Alignment A2 generates slightly more housing units but also slightly less jobs than Alignment A2.

Alignment B - Irving Street to Sandy Boulevard

Alignment B results indicate that this alignment could see about 1,800 fewer housing units than the Alignment A2 but far more jobs than any of the other alignment options. Alignment B performs well for the potential job results due to the potential redevelopment of two key sites; the Lloyd Cinema site and the Lloyd Plaza office building site that is bounded by NE 12th Avenue, NE Irving, Interstate 84, and the east bound I-84 onramp at NE 16th Avenue. Both of these sites have high existing development allowances under current CX (Central Commercial) zoning with lower existing land values that could support redevelopment.

While Alignment B indicates that higher density office redevelopment could occur on these sites, these sites range from five acres in size in the case of the Lloyd Cinema site to 7.5 acres for the Lloyd Plaza site. The scale and intensity of potential development on these two sites account for most of the total jobs generated under this alignment. On both sites, 8-story creative office buildings are identified as the most feasible development type. These two sites alone represent nearly 14 acres of land that is potentially redevelopable, or the equivalent of 14 Downtown Portland blocks. The rate of potential office development on these two sites is limited by market demand and the ability for new office development to be absorbed within the market.

Also, the uncertainty of office demand in these two locations that have seen limited new office development nearby is further impacted by the uncertainty of post-COVID office demand on these sites. While Alignment B indicates large of amounts of job creation, for jobs to be realized on these sites the property owners would need to be in a position to make decisions of redevelopment and the office market will need to be strong enough to absorb substantial new office supply in these locations.

While residential development is an allowed use on these larger sites and residential development could be feasible in these locations in the long term, current estimated land values are high enough that residential development on these sites is challenging given current achievable rents in the area. While residential development could be feasible in the future, current achievable residential rents and condo prices are not high enough to overcome development costs and estimated land costs on these sites.

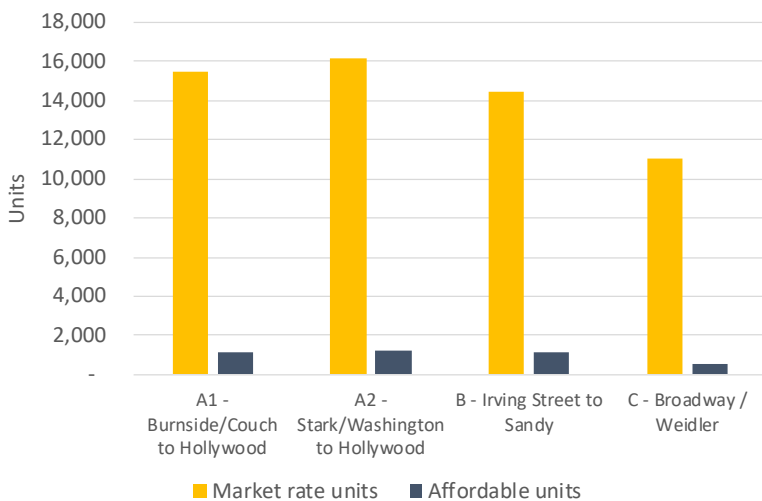
Alignment C - Broadway / Weidler

Alignment C results in the least number of residential units of all the alignments evaluated. Residential development outcomes in Alignment C occur predominantly on larger sites such as the Fred Meyer site, larger auto-oriented commercial sites east of NE 33rd Avenue along Broadway, and medium format grocery sites closer to the Hollywood Transit Center. While some of these sites have less uncertainty than larger development sites in Alignment B, many of these sites have existing tenants that are likely in longer term leases which would make

development more likely to occur more in a longer-term timeline. There is also some medium scale development that could occur on parcels along the Broadway/Weidler couplet as well as in the multi-dwelling zoned areas north of Broadway but that are also subject to historic resource regulations in accordance with the Irving Historic District designation.

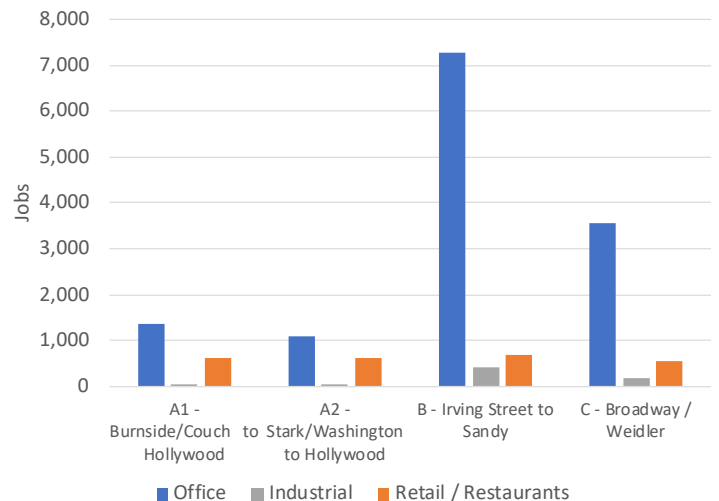
Alignment C also results in the second highest number of total jobs of all the alignments evaluated. However, Alignment C realizes job outcomes in similar ways to Alignment B where the job outcomes are the result of a small number sites where dense office development could happen on larger sites. The Lloyd Cinema site that is identified as a high job generator in Alignment B also falls within the ¼ mile study area of Alignment C and accounts for a large share of the total job allocation under this scenario. Additionally, Alignment C results in redevelopment of some surface parking lots that are located adjacent to the former Sears store at the Lloyd Center Mall where higher density office is indicated as the most feasible development type. It is unlikely that these portions of the Lloyd Center Mall would develop individually in the near to mid-term without strategic development strategy for the entirety of the mall site.

Exhibit 7. Residential Units by Alignment Option



Source: ECONorthwest

Exhibit 8. Jobs by Alignment Option



Source: ECONorthwest