

Appendix FEIR-4

Economic Considerations Memorandum

To: Stephanie Eyestone-Jones (Eyestone Environmental)

From: Brian Glodney¹

Re: Economic Considerations Regarding Project Objectives And Alternatives To The TVC Project

Date: August 15, 2023

Project Objectives

A studio is an operating business. While it is comprised of real property, an operating studio requires personnel, ancillary services, and industry and customer expertise that differentiates it from more traditional real estate asset classes.

Historically, studio lots have largely been owned and operated by production companies. The lots, whose names are synonymous with Hollywood such as Universal, Warner Brothers, and Paramount, are also among the industry's leading content creators. These companies understand the business of production, which equips them to operate the entertainment ecosystems they occupy.

However, many legacy studios, including Television City, were originally built at the dawn of the motion picture/television business. Not only have monumental advancements in technology rendered these sound stages unsuitable for modern production customers, but such technological advancements also stimulated dramatic changes in the way content is created.

This evolution has forced studio lots to adapt to continue to meet the needs of its customers. For example, the advent of virtual production technology enables content creators to reproduce scenery that

¹ Mr. Glodney is an Executive Vice President with Hackman Capital Partners, the applicant for the TVC Project. Mr. Glodney's resume is included in Attachment A to this memorandum along with the resumes of the executive team at MBS, which is a subsidiary of Hackman Capital Partners experienced in the design and operation of studios throughout the world.

previously could only be captured on-location. This technology allows productions to remain at the studio rather than leave to shoot on-location. This is advantageous for productions, as shooting on-location is costly and time consuming while allowing production crews and talent the ability to stay at home and avoiding significant disruption to their own and their family members daily lives, and advantageous for the studio in its appeal to large, blockbuster production customers. Another example of a technological shift is the proliferation of fiber connectivity and digital editing. In an earlier era, reels of film were packaged and physically transported to editing rooms, where clippings littered the floor until a finished product was assembled. Today, shots captured on connected camera equipment are immediately uploaded to the cloud, transmitted to computers across the studio, and immediately molded into the content we consume.

To capitalize on these dynamic new production tools, studios must provide the infrastructure to support these technological advancements as well as the physical space to accommodate this technology and the personnel involved in the production process. Accordingly, legacy studios are requesting updates to their programmatic make-up to meet new industry demands. In just the last decade, nine (9) legacy studios, including Burbank Studios, Culver Studios, Sony Pictures, the Studios at Paramount, Sunset Bronson Studios, Sunset Gower Studios, Sunset Las Palmas, NBC Universal, and Warner Bros Ranch, have applied for permits to expand and modernize their facilities in response to this trend (not including Television City or the Fox Studio lot which are currently being processed for planning approvals).

To meet the needs of modern content creators, it is critical for the studio to provide the right mix of integrated uses, namely, sound stages, production support, production office, and general office, as well as the technological infrastructure to connect these spaces. These uses exist in a balance with one another and must be provided proportionately. If, for example, sound stages were provided without the other on-site uses needed for

production or in quantities that do not comport with the manner in which productions operate, content creators will seek alternative facilities that can provide the integrated mix of uses necessary to accommodate their production process. Similarly, if the mix of integrated uses are provided but on a smaller scale than proposed for the TVC Project, then the number of major production companies that could utilize the studio would be limited.

Under those scenarios, the TVC Project would not meet a number of Project objectives, such as “creating a wide range of entertainment jobs,” “keeping production jobs in Los Angeles,” and “providing for maximum opportunity for productions to be filmed in the region.” Not meeting those objectives would, in turn, compromise the Project’s core objective of preserving Television City as a world-class studio. Given the demonstrated demand by major production companies for state-of-the-art studio facilities in Los Angeles, the Project objectives are only attainable if the Project provides the requisite mix of integrated production uses at the studio by creating (as stated in another Project objective) a “fully integrated and cohesive master planned site” that “provides an expandable, flexible and operationally seamless production ecosystem that is able to respond to evolving market demands, support content creation, and maximize studio production capabilities.”

Alternatives to the Project

Alternative versions of the Project were evaluated in the Draft EIR, and other alternatives to the Project were proposed by members of the public in their comments on the Draft EIR. For a number of reasons, those alternatives would not achieve one of the Project’s primary objectives of developing a “fully integrated and cohesive master planned” production studio.

Alternative 5

The Draft EIR evaluated an alternative that would not construct subterranean parking garages but would instead construct above-ground parking structures on the western property line along Fairfax Avenue (referred to as Alternative 5 in the Draft EIR). New sound stages would be built on top of those parking structures. Also, new basecamp facilities would be sited at ground level and higher instead of siting the basecamps below grade as proposed by the Project.

Alternative 5 would cause a number of operational challenges that would prevent the development of a “cohesive” studio facility. First, in today’s market, producers of movies and television shows want to use multiple stages instead of just a single stage as was the case years ago. In the case of single-camera shows, or one-hour dramas, having multiple, linked stages allows filming to occur in one stage, while set-up, break-down, and storage of sets, lighting, and miscellaneous equipment may occur in the other without impacting production activities. Motion pictures, typically, require larger, more elaborate sets, as well as “shots” that necessitate wider frames, which require stage sizes of 30,000 square feet or more. The ability to have multiple, linked stages allows two 18,000 square foot stages to be combined, creating an overall production footprint of 36,000 square feet. Integrated use of multiple stages can only be achieved if the stages are located on the same level. Locating some stages on top of above-ground parking structures while other stages are located at ground level would not allow producers to easily use multiple stages for their productions.

Second, the sound stages that would be sited on top of the above-ground parking structures would have to be designed to withstand the noise and vibration caused by the trucks using the parking structure to make deliveries to the stages throughout the day. In addition, the stages and garages would need to be built with additional fire and life safety features. While all of these building features can be constructed, the cost to do so

would be substantial. In fact, our company is not aware of any studio facility in Southern California or in our company's portfolio of studios where the stages are sited on top of above-ground parking garages.

Finally, this alternative would substantially slow down the delivery of goods and services to the production stages. That delay would be caused by the vehicles having to slowly travel through the above-ground parking structure up to the stages located on top of the parking structures, instead of simply driving on roads on ground level to the stages also located at ground level.

For these reasons, Alternative 5 would not achieve the objective of developing a fully integrated and cohesive studio facility, nor the Project objective of "providing maximum opportunity for productions to be filmed in the region through the continued use and expansion of the Project Site as a major studio" facility.

Alternatives That Would Be Smaller Than The Proposed Project

The Draft EIR evaluated an alternative (Alternative 3) that would be 25% smaller than the proposed Project. Also, some people who commented on the Draft EIR proposed a 50% smaller project, or a project with a reduced floor area ratio (FAR) of 1.0 or 1.2 instead of the 1.75 FAR proposed for the Project. However, such smaller sized projects would not achieve the objective of being "able to respond to evolving market demands, support content creation, and maximize studio production capabilities." As confirmed by the report prepared by Deloitte in October 2022 called *Physical Production Studios in LA, London, and Toronto How the demand for original content is driving shortage of supply of physical production space in production hubs*, there is currently de minimis unused studio production space in Los Angeles County. In the studio production industry, an occupancy rate of approximately 90% for sound stages is considered full occupancy. The entertainment industry typically experiences large-scale production hiatuses for two weeks during the summer and two weeks during the winter holiday. These four weeks represent approximately 10% of the year, which is why 90% occupancy is

considered full occupancy. As reported in the Deloitte study, studios in Los Angeles “are still operating at near 100% capacity with wait lists four to five film productions deep for soundstage spaces” and “to meet the booming demand, supply would need to more than double in Los Angeles County.” (Refer to pages 7 and 9 of the Deloitte report, which is attached to this report as Attachment C.) This imbalance between demand and supply, which includes all known studio development projects in the City, illustrates the need to build additional sound stages to meet the desire to locate production in Los Angeles.

Reducing the size of the Project will not only limit the total sound stages on lot but also reduce the number of new sound stages that can be developed. Many producers of today’s films and television shows want stages that are 18,000 square feet (sf) in size with clearance height of 45 feet or more. This clear height allows productions the flexibility to, for example, hang lighting and equipment from the structural grid without impacting production spaces within view of the camera, to build multi-story facades and sets, and to accommodate mezzanine and upper level seating for live-audience shows. There are no stages at that size currently at the Project Site. Accordingly, the Project proposes 10 new stages at that size, and a number of those new stages will be paired so they can be physically expanded so two stages can be used as one stage to accommodate larger production requirements. Limiting the size of the Project would greatly reduce the number of new, larger stages.

Finally, reducing the number of stages, which will limit the number of productions, will also reduce the ancillary services that our studio can provide to the producers of film and shows. Such ancillary services include lighting & grip rentals, provision of storage, mill space, and post-production and editing facilities, as well as other stage management personnel and services. Reduction in those ancillary services reduces the income stream to the studio, which further reduces the financial viability of a smaller sized project.

Buffer Zone Alternatives

Some commentors on the Draft EIR proposed alternatives to the Project that would create “buffer” zones between the studio and adjacent uses. In evaluating those alternatives, it is important to keep in mind the physical constraints already imposed on development of the studio site attributable to the historic designation of the Primary Studio Complex (designated as HCM No. 1167). That complex is located generally in the center of the Project Site and is made up of two attached buildings – the Service Building on the east and the Studio Building on the west. The HCM designation for the Primary Studio Complex restricts development within the Viewshed Restoration Area in front of the Primary Studio Complex, which is defined in the adopted HCM findings as extending approximately 430 linear feet along Beverly Boulevard from 7811 Beverly Boulevard on the west to Genesee Avenue on the east and extending southward toward the Primary Studio Complex. The Primary Studio Complex and the Viewshed Restoration Area cover approximately 5.3 acres (over 20% of the Project Site). Those development restrictions on that portion of the Project Site increases the need to maximize development on the remainder of the Project Site in order to meet the Project objective of meeting the “existing and unmet and anticipated future demands of the entertainment industry” for production facilities.

One commentor proposed a 700-foot buffer between the studio site and the adjacent uses on the eastern property line. Such a 700-foot buffer is depicted in Attachment B to this report. That 700-foot buffer would prevent development of approximately 2/3 of the Project Site, which would eliminate all new sound stages other than those located along Fairfax Avenue, three production support/office buildings, one general office building, and an above grade parking structure. It should be noted that the existing HCM, the east stages, and various production office and support facilities all fall within the 700-foot buffer.

Other commentators proposed buffer zones of 80 feet and 100 feet along the eastern property line. Those buffer zones are depicted in additional figures included in Attachment B to this report. Those proposed buffer areas would preclude development of approximately 1.5 to 2 acres of the Project Site as well as affect existing uses on the studio property. Also, those buffer zone alternatives would (1) eliminate two new stages, which effectively means four new stages because each new stage would be paired with another new stage to meet production demands, (2) reduce the size of the floor plates of the production offices, which would make those production offices inefficient due to the resulting vastly undersized floorplates, less than the typical 18,000 square foot floorplate, and (3) add to the mass and height of new buildings located on the western portion of the Project Site to account for the loss of new development in the buffer zone areas.

Thus, these project alternatives that call for large buffer areas would preclude achieving a number of Project objectives, including the overarching objective of developing a “fully integrated and cohesive master planned site” that “provides an expandable, flexible and operationally seamless production ecosystem that is able to respond to evolving market demands, support content creation, and maximize studio production capabilities.”

Attachment A

Brian Glodney is an Executive Vice President at Hackman Capital Partners (HCP), a privately-held, vertically-integrated real estate investment and operating company, based in Los Angeles, California. HCP is focused on the redevelopment and development of studio properties around the globe. Hackman Capital Partners has emerged as the world's largest film and television studio platform—acquiring, developing, operating and servicing independent studio properties in many of the industry's top production markets. Hackman Capital's portfolio of 19 studios includes more than 130 active sound stages and over 60 stages in development, across North America, the UK and Ireland.

At Hackman Capital Partners since 2018, Brian oversees the development of studio properties across the United States, Canada, the UK, and Ireland. Brian is engaged from acquisition through delivery and is responsible for development feasibility and planning analysis, identifying and creating of project teams, securing entitlement and environmental clearances, and leading the design and engineering of HCP's portfolio of studios. Brian's HCP experience spans numerous studio projects and includes; Raleigh Studios, The Culver Studios, Television City, Radford Studio Center, Kaufman Astoria Studios, Silvercup Studios, Second Line Studios, Manhattan Beach Media Campus, Eastbrook Studios, Basin Media Studios, Greystones Studios, and Ardmore Studios.

Prior to joining Hackman Capital Partners, Brian was a Design Director and Southwest Regional Leader at Gensler, Los Angeles, a global design consultancy. At Gensler for nearly twelve years, Brian's guided the design of over 100 million square feet across the globe ranging from urban infill mixed-use properties to sports-anchored entertainment districts and media production studios. Brian's Gensler experience spans numerous studio projects and includes; Sunset Bronson, Sunset Gower, Plymouth Rock Studios, Albuquerque Studios, Fox Studios

Brian received his undergraduate degree in City and Regional Planning with a Minor in Sustainable Environments from California Polytechnic State University. San Luis Obispo, and a Masters in Urban Design from the University of Newcastle upon Tyne, United Kingdom. He has won numerous design awards, including professional recognitions bridging AIA, APA, and ASLA and was named as a Top 40 Under 40 by ENR California in 2017.



RICHARD J. NELSON – President & CEO

Richard Nelson is the founder, President & CEO of the MBS Group, a Hackman Capital Partners (HCP) company and the largest provider of studio real estate, management and equipment services in the United States, exclusively servicing over 300 soundstages across more than 40 campuses in 6 countries.

Richard joined MBS Media Campus (then Manhattan Beach Studios) in March 2004 to manage the Company's California studio operations. In 2013 he formed the management company MBS3 as part of a restructuring to consolidate the MBS Media Campus and the newly re-branded MBS Equipment Company, with its four U.S. locations, to bring the company's growing entertainment portfolio under one management group.

Today, Richard oversees the MBS Group's global operations which consists of the management and consulting division MBS3, the studio real estate, including MBS Media Campus, Television City Studios, and The Culver Studios, MBS Equipment Company North America, Pinewood MBS Lighting UK and MBS Europe. In addition, Richard has led the MBS Group to become a leader in film and television equipment technology through its MBS Innovation Co. (MBSi). Richard's expertise, knowledge and industry relationships provide the company's foundation, and his focus on teamwork, dedication and excellence drive the company's exceptional culture.

Prior to creating the MBS Group, Richard Nelson served as Executive Vice President of Raleigh Studios where he oversaw all Raleigh Studios operations worldwide. Before Raleigh, Richard was the Executive Vice President of the Comweb Group overseeing operations and the marketing of the Comweb Group's five member companies to the U.S. Entertainment Industry and Canadian production markets. Under the Comweb Group's umbrella, Richard also served as President of William F. White International (USA), Inc., providing lighting and grip, as well as management services, to Los Angeles Center Studios, Downey Studios, The Lot, and Playa Vista Studios.

Richard also spent over 20 years with Paramount Pictures, serving as Executive Vice President for the Studio Group. His responsibilities included managing Paramount's Hollywood production facilities. On the 65-acre full-service studio lot, Richard oversaw operations of 32 sound stages, 750,000 sq. ft. of production office space, two large construction mills, and the 15-acre New York Street Back-lot. Richard managed the 25 departments comprising Paramount's Back-lot Operations Group, including set construction, special effects, paint, set lighting, grip, transportation, property, costume, and post-production. Richard also created a Paramount subsidiary called Paramount Production Support Inc (PPSI) that supplied Production Services throughout North America. PPSI's major operations were located in Los Angeles, New York, Vancouver, Toronto and Wilmington, North Carolina, creating a model for a global approach to physical production.

In addition to Richard's many professional accomplishments he is also diligent about giving back to the community. He has worked with many organizations including the Motion Picture Health and Welfare Fund, the American Heart Association, Camp Laurel, The Sunshine Kids, Big Brothers & Big Sisters and the Hollywood Chamber of Commerce.





JEREMY HARITON - EVP, Chief Operating Officer

Jeremy Hariton is Chief Operating Officer of The MBS Group. The MBS Group is the umbrella company that encompasses MBS3, the management and studio development and consulting division, MBS Media Campus, the Studio in Manhattan Beach, and Burbank based MBS Equipment Company, and Pinewood MBS Lighting in the UK. He oversees the Group's day to day operations across all verticals including studio facilities, global equipment rental and sales, consulting and new business development.

Prior to joining the MBS Group, Jeremy had a successful studio development consultancy which was instrumental in the development, operations, sales and marketing of Atlanta Film Studios, a 75,000 square foot production facility owned by Paulding County, Georgia, just outside of Atlanta as well as performing consulting, development and design work for public and private clients around the world.

Before his time spent in the independent consulting arena, Jeremy played a key role in the development, design and operational set-up of Albuquerque Studios, an eight stage, \$91 million production facility in Albuquerque, New Mexico currently owned by Netflix. After construction of the facility, Jeremy served as Sr. VP of the Studio and was tasked with selling and marketing the facility worldwide. He oversaw all studio operations and related production deals for a full complement of services including stage and office rentals, production equipment rentals and other ancillary support services from pre-production through wrap. Before his work in New Mexico, Jeremy was also part of the acquisition and turnaround of The Culver Studios, 14-acre independent film studio in Culver City, California.

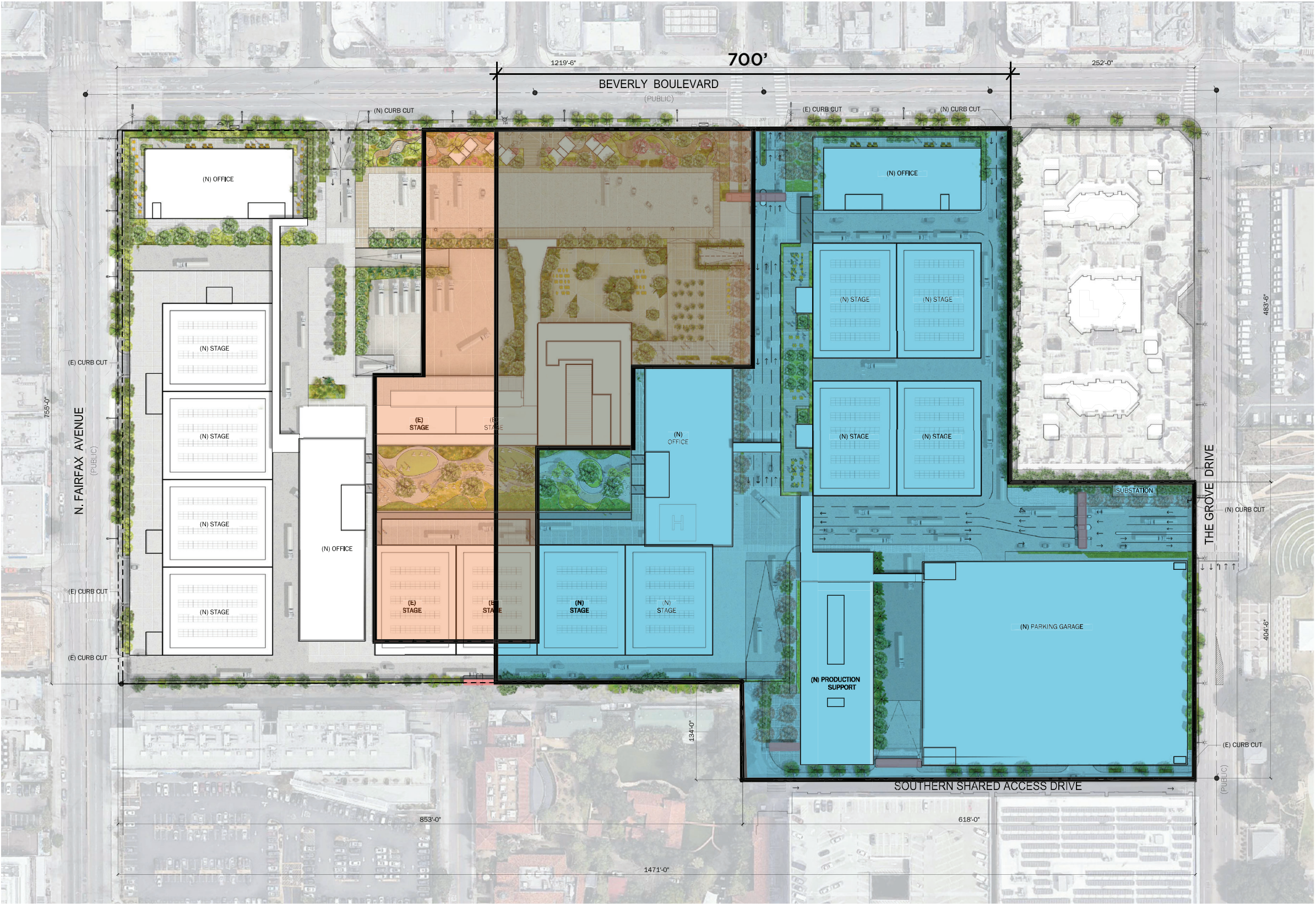
Prior to beginning his career in studio facility development, management and sales, Jeremy managed planning and business development for regional finance directors in 9 European territories and over 35 licensees for Paramount Pictures Home Entertainment International. Focused heavily on business planning and development, he worked in domestic and international film distribution and acquisition, facilitating the acquisition of major theatrical titles and film slates for release on DVD. Over his career, he has also worked in various backlot and studio finance functions not only at Paramount Pictures but Universal Studios as well.

A native of Southern California, Jeremy represents the fourth generation of his family in the motion picture industry. He earned his Bachelor's degree in Business Administration from the Haas School of Business at the University of California, Berkeley.



Attachment B

700-Foot Buffer to Eastern Property Line





LEGEND

- CURRENT SITE: 1,071,011 sf (24.5 ACRES)**
- SHARED EASTERN PROPERTY LINE SETBACKS:**
- 700' - 679,647 sf / 15.5 Acres**
(391,364 sf / 9 Acres Remaining)
 - HCM and VIEWSHED - 232,120 sf (5.3 Acres)**
(838,891 sf / 19.2 Acres Remaining)

100-Foot Buffer to Eastern Property Line



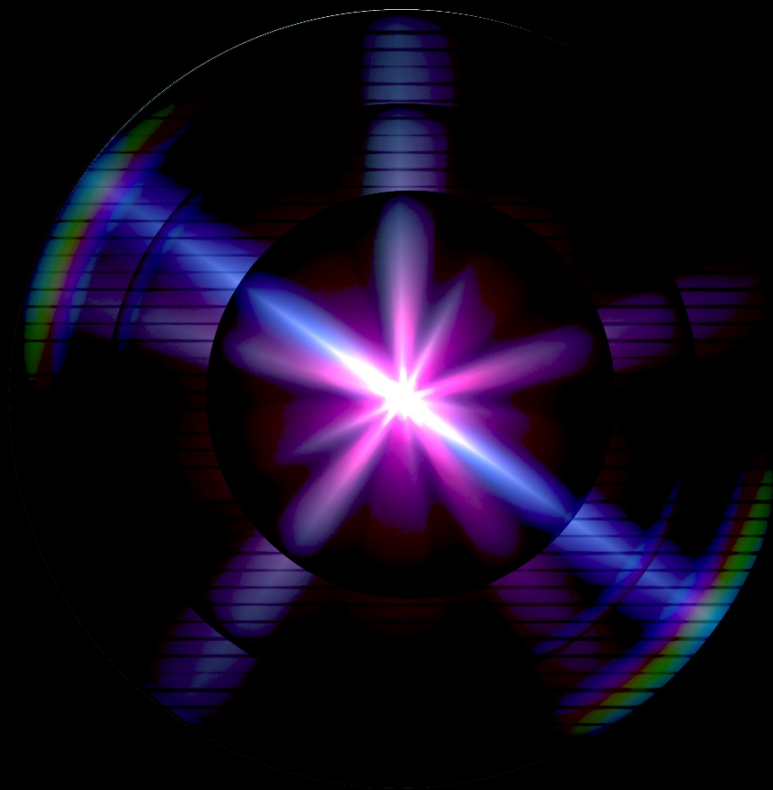
LEGEND

- CURRENT SITE: 1,071,011 sf (24.5 ACRES)**
- SHARED EASTERN PROPERTY LINE SETBACKS:**
-  **100' - 83,513 sf (1.9 Acres)**
(987,498 sf / 22.6 Acres Remaining)
 -  **HCM and VIEWSHED - 232,120 sf (5.3 Acres)**
(838,891 sf / 19.2 Acres Remaining)

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HCM and VIEWSHED -
232,120 sf (5.3 Acres)
(838,891 sf / 19.2 Acres Remaining)

Attachment C



Physical Production Studios in LA, London, and Toronto

How the demand for original content is driving shortage of supply of physical production space in production hubs



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Introduction

In our previous [studio production space case study](#), we focused on how demand for production space in New York City (NYC) is outpacing supply and how to get ahead of this challenge. In this media and entertainment market assessment, we determined that demand for production space at NYC soundstages will continue to outpace NYC supply through at least 2024 and provided key findings that could be applied to other filming locations and leveraged by content creators, real estate investors, and production facility operators. Based on the response to that paper, we expanded our methodology to understand the supply and demand dynamics of three other large English-speaking production hubs: Los Angeles, Toronto, and London.

In the 15th edition of [Deloitte's digital media trends survey](#), we noted that watching TV and movies is consumers' favorite entertainment option, presenting a sizable market that has drawn in an array of competitors using original content to differentiate. The proliferation of content creation, particularly by a growing number of streaming platforms, has resulted in companies requiring more studio production space to film content. However, over the past few years, soundstage supply in major production hubs was nearing capacity, and capacity constraints have been further exacerbated due to pent up demand from COVID-19 shutdowns and multi-year leases to reserve stages.

Through our media and entertainment market assessment, including interviews with industry experts, we determined that demand for production space at soundstages is continuing to outpace supply in LA, Toronto, and London and have provided some key findings that can be applied to other global filming locations and leveraged by content creators¹ and real estate investors.

¹ Content creators are defined as major studios, streaming companies, mini-majors, independent studios, and traditional episodic programs

Growing demand for content and its impact on the global content creation landscape

Insatiable demand for content and the desire of traditional media companies to monetize digital distribution of content is leading to a rise in streaming services.

Consumers are demanding more and more original content leading to continued growth in the global production studio market with 57% of all current U.S. streaming consumers (and 71% of millennials, ages 22-35) saying they subscribed to streaming video services to access original content.ⁱⁱ

Competition is heating up between legacy media companies and streaming players and is made evident by the heavy investment in original content and product offerings. Spend on streaming services and software is projected to reach a record of \$112 billion in 2021, an 11% growth over 2020, according to Consumer Technology Association projections, following 31% growth from 2019 to 2020.ⁱⁱⁱ This investment in content, specifically from streaming players, is a primary driver for growth in global screen production expenditure, which was \$177B in 2019 prior to COVID-19.^{iv} The US is the leading originator and undertaker of global screen production expenditure with Canada and the UK being the primary beneficiaries from cross-country spend on production. Together, these three countries made up 63% of global screen production in 2019, with the US contributing 40% and the UK and Canada at 12% and 11% respectively.^v

The high spend on production is driving up demand for studio soundstages and resulting in a shortage of space in major production hubs as content creators rely on these spaces to meet their needs for content production.

Spotlight on 2021 Streaming Launches:

Even with over 15 streaming services in the market, new offerings continue to emerge from major companies with deep pockets who will likely continue to drive up spend on content creation to compete for customers.

Early 2021 Launches:

- **Discovery+** launched with content from its media library including HGTV, Food Network, TLC, Animal Planet, OWN, Discovery, Discovery+ Originals, Investigation Discovery, Magnolia Network, A&E, Lifetime, History, Trvl, DIY Network, Science Channel, and The Dodoⁱ
- **Paramount+** launched in July 2020 in the US and parts of Latin America in March 2021 with additional global launches into mid-2021, including new original content to complement the Viacom CBS library

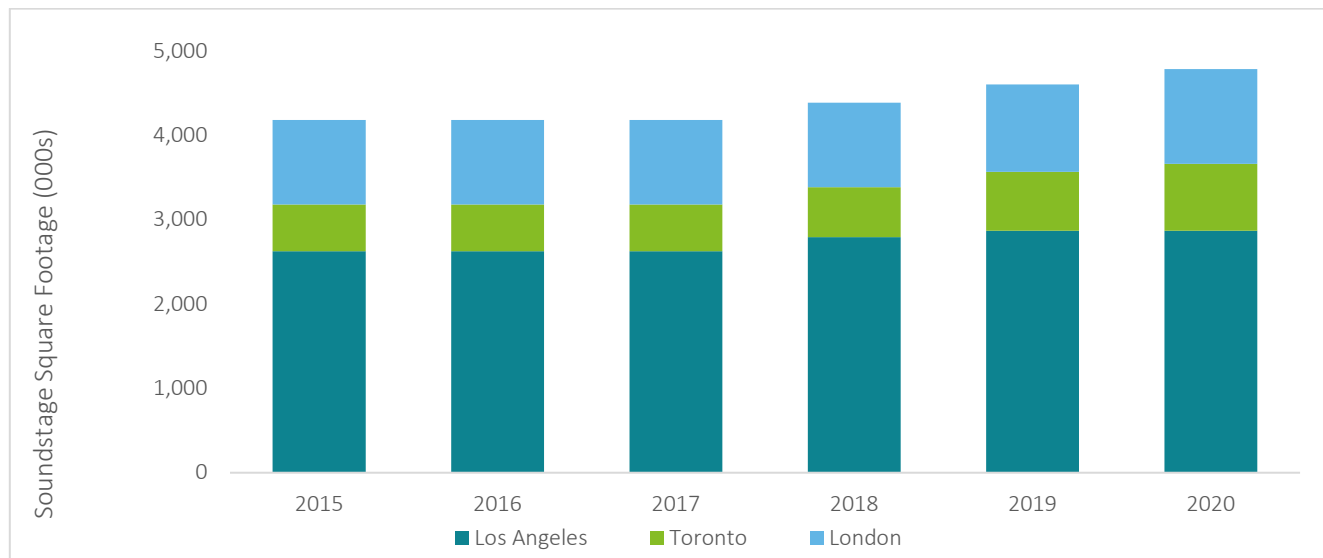
Trends impacting supply and demand dynamics for production studio space

We identified three trends that are driving the race for production space:

1. Continued shortage of soundstage space

Streaming players and traditional media companies are rapidly booking up soundstages to produce more content. While demand has increased, supply has remained relatively stable across the three major production hubs we analyzed: Los Angeles, Toronto, and London (**Image 1**). This has resulted in record high soundstage capacity rates over the past few years. According to Carl Muhlstein, International Director at JLL, in 2017 “Soundstages have historically run at a utilization rate of about 70%. Today, many are running at close to 100%.”^{vi}

Image 1: Supply of soundstage square feet in Los Angeles, Toronto, and London^{vii}



Note: Supply includes purpose-built facilities or converted facilities up to par with purpose-build standards that have enough soundstage square footage to meet production needs. Reported market square footage numbers are higher as they include a broader competitive set (e.g., FilmLA excludes non-dedicated production facilities like exhibition halls across all cities, and in LA excludes facilities that do not have a single stage that is greater than 3K sq. ft.) Analysis was focused on top tier facilities most attractive to content creators from major streaming companies and major studios.

In the last three years, growth had been accelerating, primarily in London and Toronto (2-3% and 7-8% 2015-2020 CAGR respectively) as content creators looked to these markets to support their production needs. The lack of purpose-built facilities had resulted in creators filming in warehouses or alternative locations.

Purpose-built facilities: What are they and why are they in demand?

Production can take place in a variety of places:

- on-location (typically outdoors and normally requiring permitting)
- on a soundstage (controlled set indoors), and
- on a backlot (large, open space typically next to a soundstage building located on the studio's property).

Each of these places enable different creative needs, with a soundstage offering the most control and flexibility to change the appearance of the location.

Soundstages can exist either at purpose-built production facilities or in warehouse-type facilities, where purpose-built facilities can charge higher rates and are preferred options for prominent content creators.

“As soon as better stages open up, productions will leave. If there's availability at [premier] stages, productions will leave the warehouse.”

– Former Operator and Producer

So, what is a purpose-built facility, and why is it so attractive?

Purpose-built facilities offer more amenities and conveniences that save time when filming there. Amenities include the physical aspects of the facility including soundstage, non-soundstage space, parking, and equipment. The following are considered optimal and expected in a purpose-built facility and are areas where content creators sometimes make sacrifices when filming in a warehouse^{viii}:

- Soundstage space: Flexible space and ability to join two or more stages, soundproofing, at least 18,000 of square footage, ideally 35' height to grid, and access to a backlot
- Non-soundstage space: Access to offices, mill space, makeup and hair rooms, private corridors, talent suites, and post-production workspace
- Accessible Loading Areas: Drive up access for trucks for loading and unloading equipment
- Equipment: HVAC, significant power amps, lighting, etc.
- Parking: Access to parking both for top talent as well as production crew vans
- Support services: Responsive, on-site operators to support filming needs

Not having these amenities can increase time to film or limit ability to implement a creative vision, and therefore larger productions with the budget to support a top tier soundstage seek out these facilities.

“It's all about the support rooms when renting a production facility. If I can get makeup and hair, offices, private corridors—especially with COVID—a converted warehouse is fine. There is ideal and then there is compromise, which is more common in warehouses.”

*– Glenn S. Gainor
Head of Physical
Production Amazon
Original Movies at
Amazon Studios*

2. Long-term leases further exacerbate the race for space

Due to an explosion of originally produced content, many content creators have been signing long-term leases at production facilities to ensure on-demand soundstage availability. These agreements have been successful for content creators as leases provide them with a consistent supply of stage space and enable them to eliminate the financial risk that comes with building or owning their own space.^{ix} These leases initially began in Los Angeles with Netflix renting out space at Sunset Bronson in 2016^x, followed by Amazon Studios renting out space at Culver Studios in 2018.^{xi}

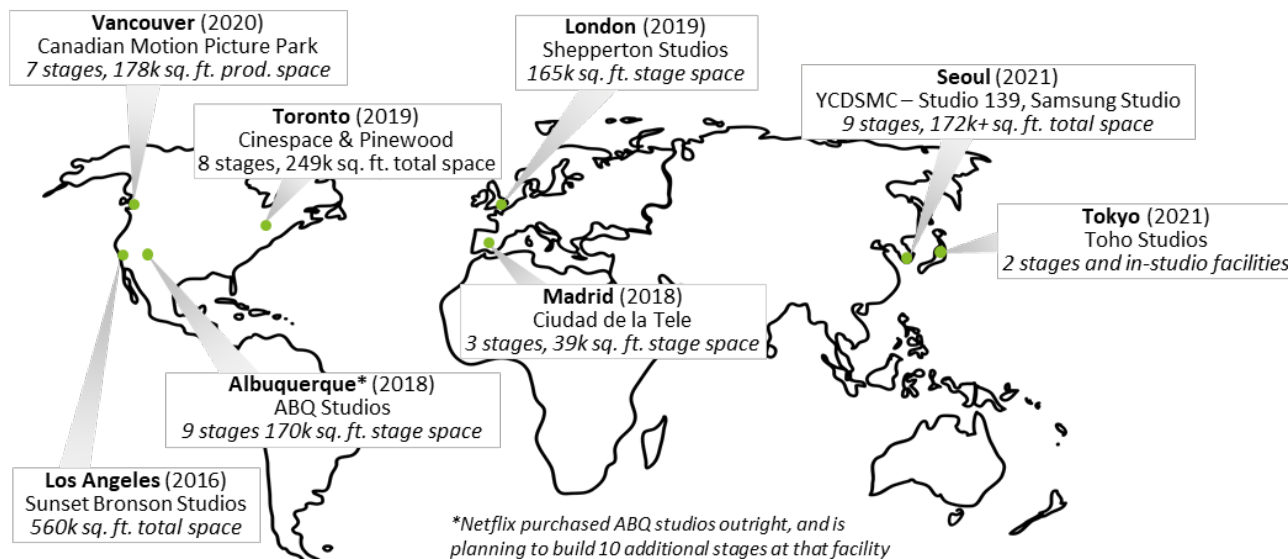
The long-term lease trend has expanded globally as content creators pursue additional locations with availability for long-term leases outside of traditional production hubs. Although this has been an ideal arrangement for content creators who have secured space, it has locked up a large amount of stage space, making it even harder for other productions to find space.

Case Study: Netflix locks up long-term leases globally

Netflix set the precedent for creating production hubs by entering its first long-term rental agreement in 2016 in Los Angeles.^{xii} After seeing success with this model, Netflix expanded its long-term lease footprint across the globe, starting with other locations in North America, followed by Europe, and most recently entering the Asian market in Seoul and Tokyo (Image 2). These long-term leases account for 50+ soundstages that Netflix can use to accommodate its growing pipeline of projects.

Additionally, Netflix is expanding its footprint in NYC. Netflix leased 161K sq. ft. of space in Brooklyn, where they are building 6 brand new soundstages, while also expanding their offices in Manhattan with a 100K sq. ft. corporate office in Flatiron.^{xiii} While NYC is unique in that Netflix is taking on ownership of the expansion, the preference appears to be long-term leases of existing studios.

Image 2: Netflix Long-Term Lease Footprint^{xiv, xv, xvi, xvii, xviii, xix, xx, xxi}



Other companies may continue to follow suit:

- **Disney:** In 2019, the Walt Disney Co. struck a long-term deal with Pinewood Studios in London to rent out nearly all their stages, backlots, and other production spaces beginning in 2020.^{xxii} Pinewood Studios has the largest amount of soundstage space in London, so Disney's lease significantly reduces the amount of available soundstage space in London, putting additional pressure on an already at-capacity production market
- **Apple TV+:** In early 2020, Apple TV+ signed a long-term deal to lease 90K sq. ft. of production space at Kaufman Astoria Studios in Queens, NY. The lease includes 35K sq. ft. of soundstage space, 40K sq. ft. of production space, and 15K sq. ft. of office space^{xxiii}

If other content creators continue to follow suit, supply will be further constrained and expansions outside of typical filming locations may be required. More investment will be required to expand studio space to meet growing demand or content creators may have to film in less popular markets to meet their budget.

3. Influx of investment to meet rising demand for production studio space

There has been a significant uptick in investment activity in major production hubs:

- Studios focus on maximizing space to take advantage of high demand
- Investors recognize the attractiveness of the studio production market due to higher rates per square foot than other industries and a means to diversify their real estate portfolios especially amid the decline in office space demand as a result of working from home due to COVID-19

Several top stages have been acquired by private equity firms, such as Hackman Capital and Blackstone, as these firms see the value in a "booming industry in which supply is highly constricted."^{xxiv} The level of activity and mode of entry varies across LA, Toronto, and London, as they are dependent on the landscape of the market.

Across the three production hubs, an additional 1.36M square feet of soundstage supply has been announced and could become available by 2023^{xxv}, representing an increase of 28% from 2020 supply, driven by a 77% increase in London, and 46% growth in Toronto. Additional details for each city can be found in the city-specific sections later in this paper.

Methodology to assess each market

Market Assessment: We determined market attractiveness to content creators in each market by expanding upon the criteria evaluated in our initial methodology (cost savings, proximity to talent, and creative needs). The comprehensive set of evaluation criteria allowed us to provide a more granular assessment of the market and included industry scale, talent ecosystem, tax incentives, production cost, creative needs, tech innovation, regulations, accessibility, and COVID-19 resilience. Los Angeles, Toronto, and London are all attractive places to shoot from a content-creator perspective; however, each market is attractive for different reasons and has unique considerations due to their nuanced landscape.

Supply and Demand Dynamics: To quantify supply and demand for soundstage square footage in each market, we conducted an analysis of historical data and content spend forecasts to project square footage demand.

Historical supply was focused on top-tier, purpose-built facilities or converted facilities on par with purpose-built standards. Additionally, stages were only included if the facility's total soundstage space is greater than 30K sq. ft. and the individual stage is greater than 15K sq. ft., as industry experts indicated these dimensions are optimal for filming. We then assessed how that supply compares to the current projected demand for each market.

Demand for soundstage space was focused on productions most likely to use the premier soundstages in our supply set. These productions were defined as those created by larger studios as well as smaller studios with a reputation for producing high-quality content.

We continue to believe demand for soundstage space will increase significantly once physical production fully reopens in order to overcome the delays in content creation due to COVID-19. While production bubbles and safety protocols have enabled filming to start, there is still significant pent up demand from delays, causing a spike in demand through 2022 and growing at a more stable rate through 2025.

Major production hub market assessment

Major production hubs offer a variety of benefits to content creators, but the most important criteria are typically size and availability of soundstage space, talent ecosystem, and tax incentives to offset high production costs.

LA—The Industry Incumbent

LA is Hollywood, the production center of the world. LA has the largest number of soundstages and amount of soundstage space of any city in the world, but studios are still operating at near 100% capacity with waitlists 4-5 productions deep for soundstage space.^{xxvi, xxvii} Despite the constrained supply, LA has struggled to increase its supply of soundstages to accommodate demand due to the already saturated 30-Mile Studio Zone (TMZ)², which dictates union pay rates. Shooting outside the TMZ is considered “on location” and carries additional costs (sometimes significant) for the production.

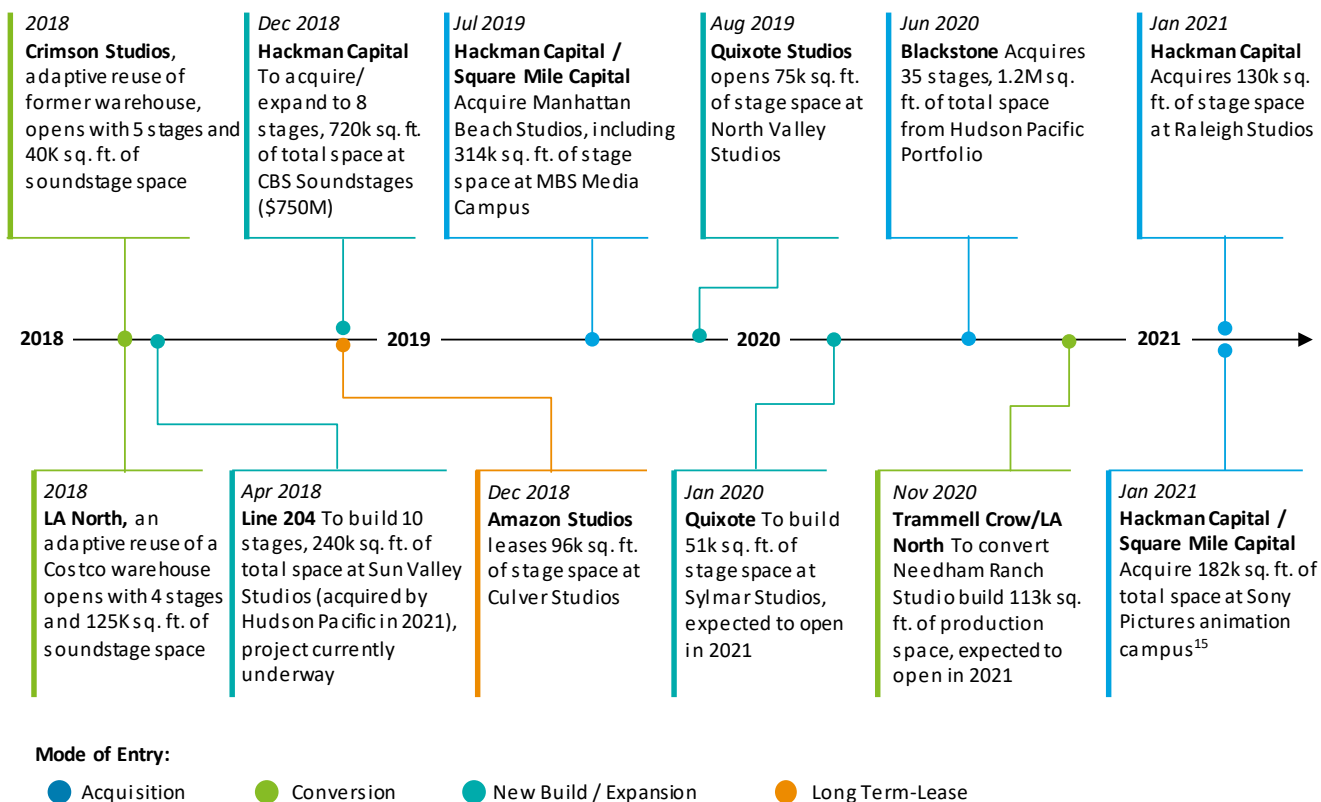
Aside from the industry being heavily regulated by unions driving up talent costs, studio rates are expensive in LA. These high production costs can sometimes be offset by tax incentives, but tax incentives are offered through an application process that is not guaranteed, and if granted, are not as generous as that of many other hubs.^{xxviii} Although LA is an expensive city to film in, it is home to the best infrastructure and largest talent pool (both above and below the line talent) in the world—two of the most important factors for nearly any production—continuing to make it an attractive place to film.

Investment Activity: Investments in LA have predominantly been acquisitions of existing facilities or conversions of warehouses rather than new development of large purpose-built complexes due to limited available space in the TMZ. Traditional investment firms have been the driving force behind most deals in LA. **(Image 3)**

Did you know?

Production crews are divided by “above the line” and “below the line” to organize film budgets. **Above the line** typically includes the director, executive producers, screenwriters, casting directors, and in front of camera talent. **Below the line** refers to the positions responsible for the day-to-day work of making a film or show from pre- to post-production. Jobs typically below the line include line producers, lighting crew members, camera crew members, costume designers, hair and makeup crew, and more.

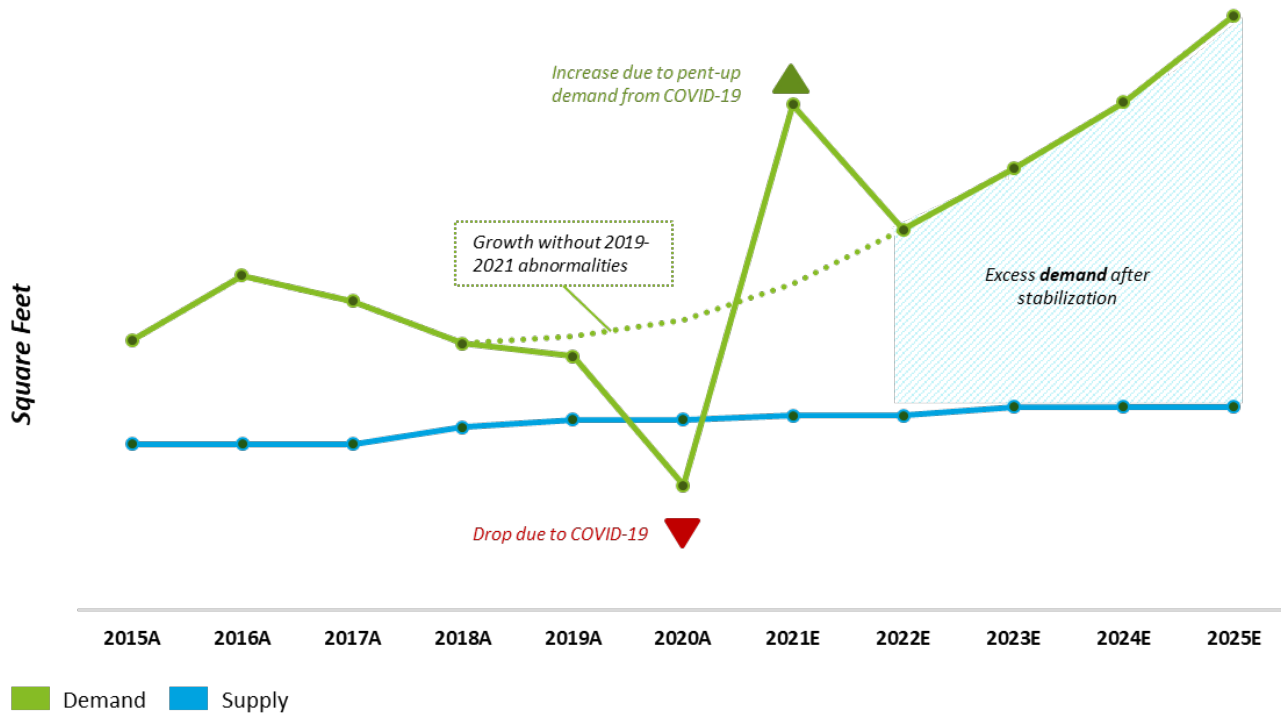
² Thirty Mile Zones (aka “TMZ”, “Studio Zones”) are regions defined and used by labor unions; beyond the zone, talent and crew are considered to be filming “on-location,” incurring a wide range of additional production costs, including costs for crew travel and meals. According to the California Film Commission (film.ca.gov/locations/la-studio-zones), LA’s Studio Zone is centered on the intersection of La Cienega and Beverly, but different unions may define their zones slightly differently. Building new soundstages within the TMZ can be challenging due to a shortage of industrial real estate, increasing demand, and increasing prices.

Image 3: Los Angeles Investment Activity (2018-2021) ^{xxix, xxx, xxxi, xxxii, xxxiii, xxxiv, xxxv, xxxvi, xxxvii}

Due to space constraints, a Greenfield strategy is unlikely; however, there may be opportunities for conversion or to acquire or invest in existing studios, as demonstrated by recent deals.

While investment activity has increased in LA in the past few years, the new additions, conversions, and expansions have not been enough to keep up with demand for space. Historical utilization rates were at 95% and research suggests capacity is near 100% with long waitlists for space.^{xxxviii} Based on our analysis of supply pipeline and projected demand needs across films and episodic content, we anticipate demand for soundstage space will significantly outpace supply in LA through 2025 (Image 4).

Image 4: Total Soundstage Square Feet Supply and Demand—Los Angeles^{xxxix}



Note: Dip in 2019 due to pandemic-driven delays to release dates for content filmed in 2019 reducing the number of productions recorded in Nielsen Gracenote as many productions were not tagged in the database until release

- Projected supply will only increase available space by 4% relative to existing supply. To meet the booming demand, supply would need to more than double in Los Angeles county.
- Due to the previously highlighted TMZ implications, many content creators will need to film in different markets or shift production timelines if they cannot secure leases.

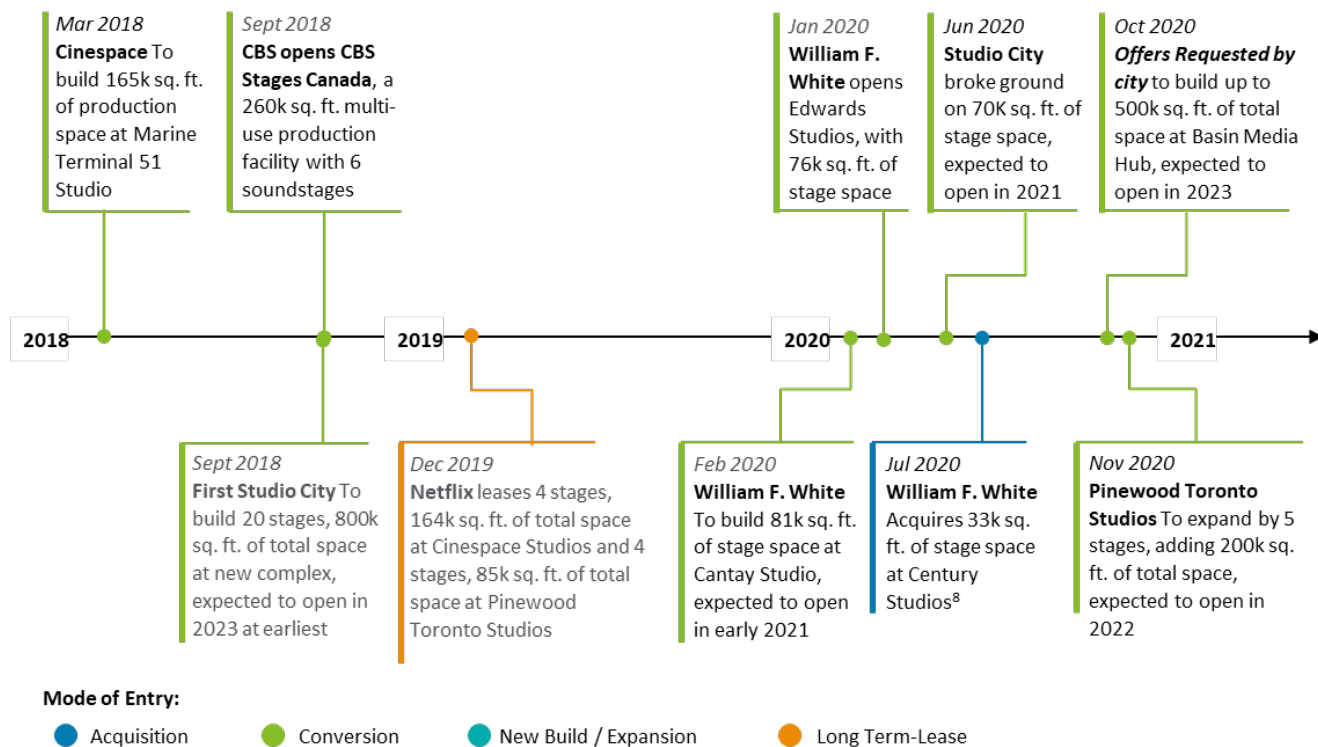
Toronto—The Emerging Hub

Toronto is well positioned for growth. Although Toronto has less soundstage space than Los Angeles and London, demand has been rapidly increasing as content creators see Toronto as an attractive place to shoot because of its affordability and creative needs flexibility. Toronto offers some of the most meaningful tax credits of any major production hub, combined with a favorable exchange rate for American productions and limited upward pressure on costs from unions.^{xi} Additionally, the look and feel of Toronto can effectively be used for location shooting for nearly any North American city, especially NYC.

These strong benefits have led to higher demand than Toronto can currently meet, forcing them to turn away millions of dollars in projects. As a result, city officials have publicly prioritized expansion of the city's film industry, with the mayor visiting Hollywood in 2019 to appeal to LA-based talent and operators and the city reserving land in the Port Lands district for a new production facility.^{xii} Toronto is also becoming a hub for tech innovation: known for strong post-production, animation, and visual effects (VFX) talent. Due to Toronto's strength in production technology innovation coupled with the city's commitment to the industry, some experts believe Toronto is one potential future of the industry.

Investment Activity: Toronto has seen varying types of investments (**Image 5**), but they have been dominated by expansions and new builds since Toronto still has the land for new studio space within city limits and in the suburbs.

Image 5: Toronto Investment Activity (2018-2021)^{xlii, xliii, xliv, xlv, xlvi, xlvii, xlviii}

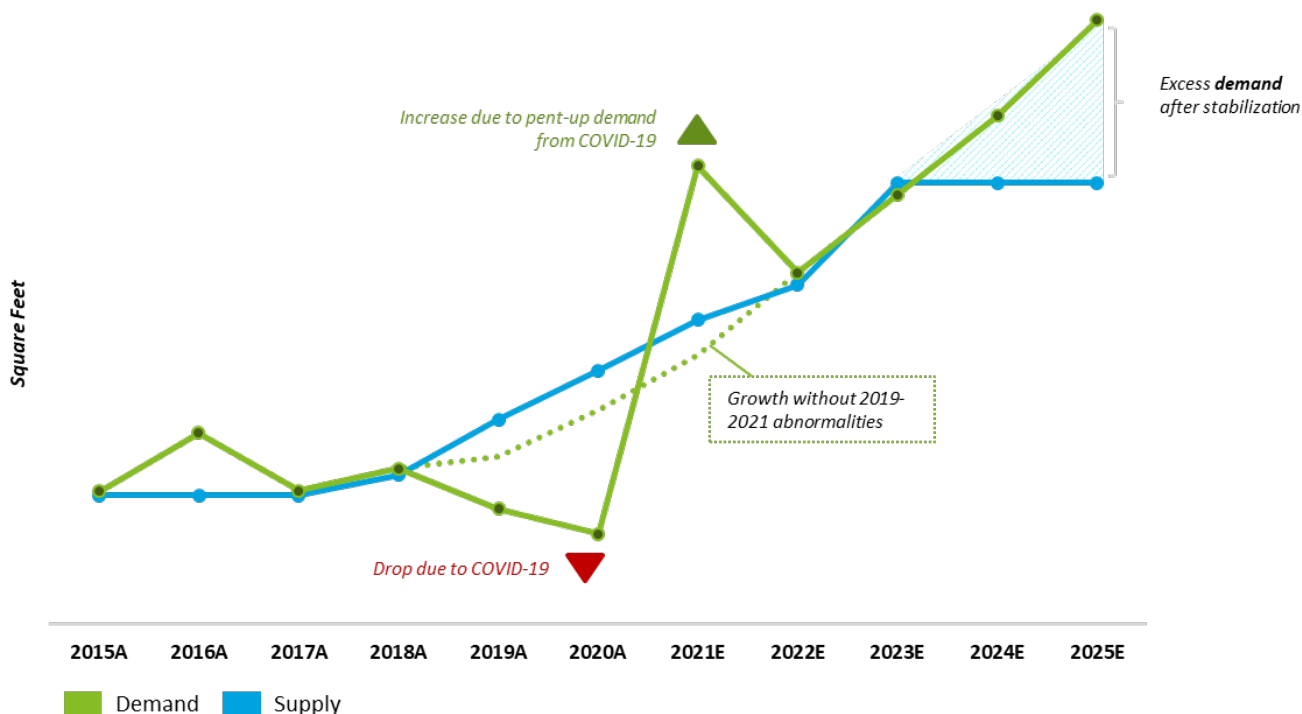


Conversions, expansions, and Greenfield strategies are all plausible in Toronto; the city is actively courting new entrants and has commissioned a plot of land for studio build. However, competition for space from last-mile logistics companies is high.

As a newer production hub relative to LA and London, Toronto's investment activity has been focused on new builds and expansions. As a result, supply is projected to almost double from 2018 to 2021.^{xlix} The substantial increase is primarily driven by the government's dedication to make studio production expansion a priority.

Similar to LA, utilization rates were ~95% on average over the past five years, driven by streaming growth and partially driven by easier Visa access relative to the US for non-US and non-Canadian talent looking to film in North America. Based on extensive efforts to bolster on-set safety measures and COVID testing, occupancy rates have returned to pre-pandemic levels, and we anticipate demand for soundstage space will outpace supply in Toronto through 2025 (**Image 6**).

Image 6: Total Soundstage Square Feet Supply and Demand—Toronto¹



Note: Dip in 2019 due to pandemic-driven delays to release dates for content filmed in 2019 reducing the number of productions recorded in Nielsen Gracenote as many productions were not tagged in the database until release

- Even with the 46% increase in supply, an additional 27% of existing supply would be needed to meet the growing demand for production space through 2025.
- When supply increased in 2018, utilization moved in lockstep, suggesting that creators would snap up available space as soon as it came available.
- Given the projected excess demand in 2024 and 2025, we anticipate if new supply becomes available, content creators will utilize the space.

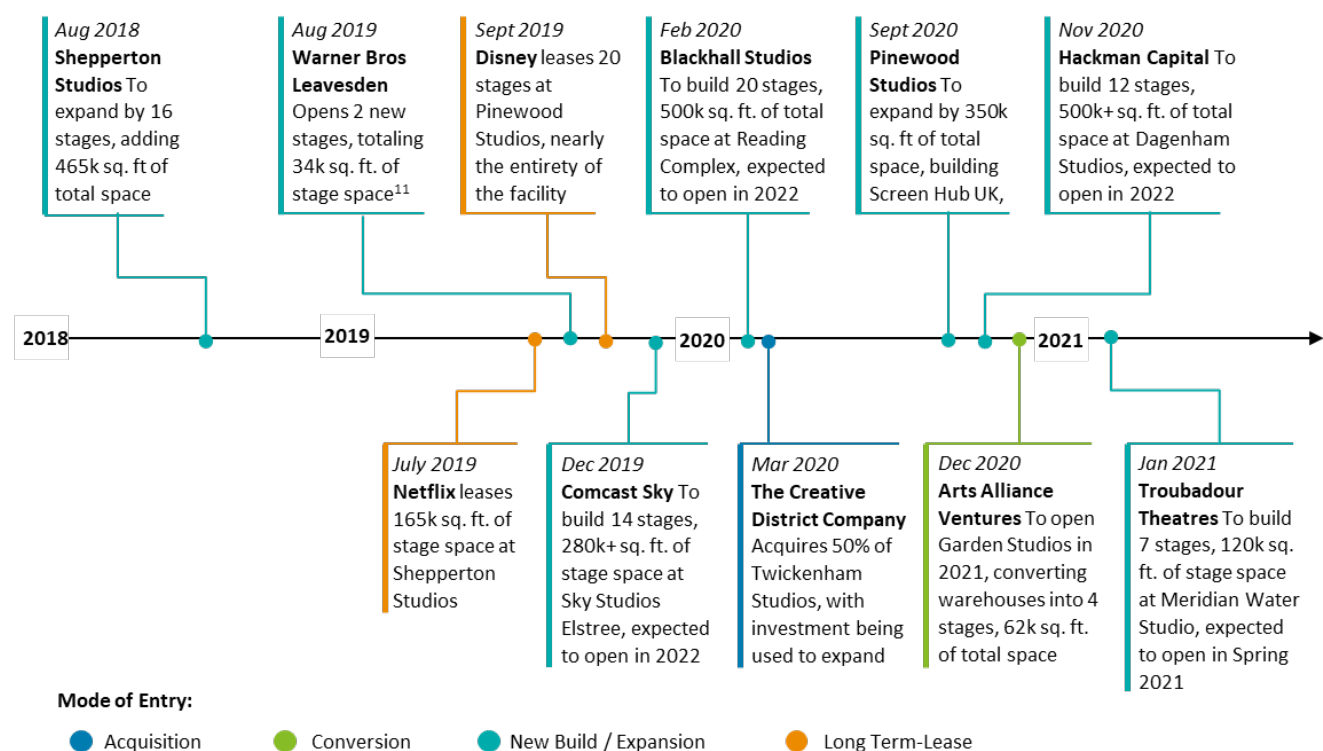
London—The “Hollywood of the Rest of the World”

London benefits as the primary English-speaking production hub outside of North America. Although London is an expensive city with an unfavorable exchange rate for American productions, these high production costs are offset by generous tax incentives.^{li,lii} Additionally, London has the second largest below the line talent base in the world, which enables cost savings on crew, as it is one of the only non-US cities where you can staff the entire crew locally.

The market has been able to easily expand outwards, as major existing studios (e.g., Shepperton, Pinewood) are located on the outskirts of London, where real estate is less saturated and more affordable. This has set the precedent for several recently announced studio complexes farther away from London city-center. Moving forward, London is well positioned to continue expanding, as the industry has demonstrated resilience through COVID-19, reaching ~90-95% of pre-pandemic production activity levels by the end of 2020.^{liii}

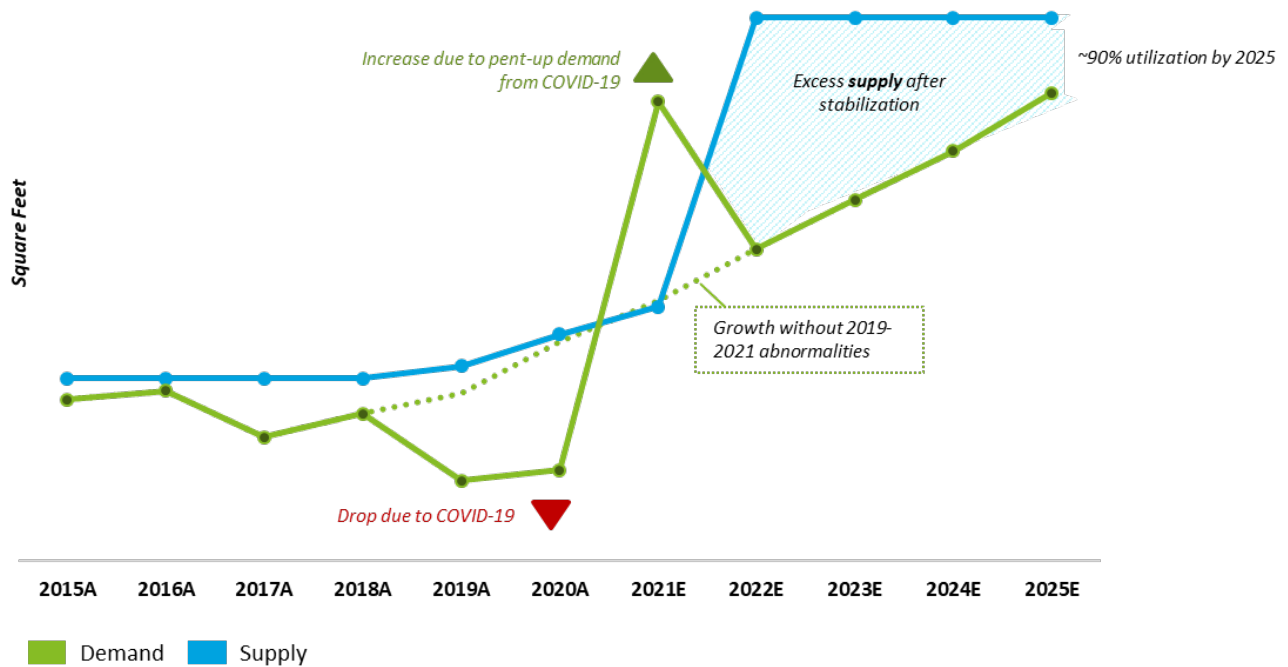
There has been a tremendous amount of investment in the London market over the past couple of years (**Image 7**), in part due to “UK commercial real estate firms waking up to the opportunity of studio space,” according to a London film expert.^{xviii}

Image 7: London Investment Activity (2018-2021) ^{liv, lv, lvi, lvii, lviii, lix, lx, lxi, lxii, lxiii}



Normalization of building on the city’s outskirts makes a Greenfield strategy or conversion most plausible; many studios in the city are in dense areas that restrict expansion opportunities.

London has had the largest influx in investment activity of the three cities we analyzed. With a 77% projected increase in production space through 2025, London’s supply will pace with the growing demand (**Image 8**).

Image 8: Total Soundstage Square Feet Supply and Demand—London^{lxiv}

Note: Dip in 2019 due to pandemic-driven delays to release dates for content filmed in 2019 reducing the number of productions recorded in Nielsen Gracenote as many productions were not tagged in the database until release

- Historical utilization rates in London averaged ~87% the past five years, with a lower rate than its peer cities primarily driven by a temporary dip as a result of the Brexit vote in June 2016 that drove away productions due to uncertainty of industry impact; demand rebounded the following year as it became clear the impact would be negligible (e.g., commitment to tax incentives).
- Based on our analysis, we anticipate utilization rates should be at 90% by 2025, with a spike in demand in 2021 due to pent up demand from COVID.
- However, unless content creation accelerates more drastically, supply is pacing with demand and additional new expansions may lead to lower utilization rates across studios.

Comparison of major production hubs

Each market is attractive for different reasons and has unique considerations due to their nuanced landscapes:

- LA has the largest number of stages, square footage, and talent pool (384, 5.2M, and 198K respectively), strong tech innovation, and is well suited to form production bubbles for COVID precautions. However, there is limited opportunity to expand within the TMZ and production costs are high due to unions and limited tax incentives.
- Toronto is an affordable production location with significant tax credits, a large virtual production hub, and the ability to mimic backdrops of North American cities, especially NYC. However, there is limited below the line talent, which increases cost of production to fly talent in and production studios are competing with last-mile logistic companies for space. While Toronto has a smaller set of film industry workers, the city is investing in upskilling programs to meet the need from content creators.
- London has a strong talent ecosystem (56K film industry workers) and strong tax incentives offset the higher production costs due to unfavorable exchange rates and travel costs for US-based productions. However, while there are expansion opportunities outside of the city-center, a large influx of new soundstage space may mean fewer additional stages are required to meet demand.

Call to action for content creators

Content creators should secure spaces in advance to overcome competition for space. Competition will likely be heightened especially in the near term due to pent-up demand to create content. Additionally, soundstage space may increase in cost as more facilities are renting out space at the publicized rate, rather than providing historically negotiated discounts.^{lxv}

In our analysis of NYC last year, we determined that it will be important for content creators to have strategies in place to overcome constrained supply. This recommendation holds true across all three hubs, but especially in Los Angeles and Toronto where demand will exceed supply for the near future.

The time to act is now: As more content creators continue to tie up space with long-term deals, supply will likely become even more constrained.

In Los Angeles, content creators who do not have long-term leases or own their own studios should consider working with real estate developers to develop new soundstages to increase supply. Even Netflix and the major studios will need more than their own space and could benefit from new supply coming available.

In Toronto, like New York, content creators should either secure long-term leases with new facilities being built or working with a facility operator to build the studio to meet unique specifications and requirements needed for production.

In London, with Pinewood and Shepperton, the two largest facilities, locking in long-term leases with Netflix and Disney+, other major players should consider securing long-term leases with new facilities being built to ensure ample space. Investment in new build will likely be unattractive for content creators since it is a significant investment in an expensive market already seeing meaningful expansion.

Considerations for investors

In our previous [studio production space case study](#), we focused on Calls to Action for investors. The primary recommendations for investors considering additions and expansions of production spaces were:

- Understand what amenities content creators care about to determine differentiators and build facilities in line with what productions care about
- Consider partnering with existing operators to ease market entrance since relationships within the industry and a strong reputation are critical

For this analysis, we expanded our focus to highlight considerations for investors once they decide they want to enter the market.

We identified three primary criteria when considering investment feasibility for entering the studio production market: 1) Mode of Entry, 2) Investment Activity, and 3) Competition for Similar Properties

Mode of Entry: An investor or studio operator can choose from the following methods:

- Conversion: Converting an existing structure to a production facility
- Greenfield: Developing a new, purpose-built facility
- Expansion / Upgrade: Investing in upgrade of an existing studio facility (new stages OR upgrade of existing facilities)
- Acquisition: Purchase an existing facility, without the need to conduct major renovations or expansion; where there are lots of family owned businesses an acquisition strategy could be more plausible

The preferred mode of entry will vary based on market-specific nuances and investor considerations. It will be important to understand government incentives and restrictions on expansions—such as union zones. When identifying opportunities geographically, investors should consider the building itself and its location. A new studio should aim for flexible stages with at least 18,000 square feet per stage, ideally at least 35' ceilings, and take into consideration travel time from city center, proximity to airports, and avoidance of loud locations, such as being under flight paths or near industrial parks, that may disturb shooting.

“A fully soundproofed stage is ESSENTIAL for an efficient production...the cost of delaying filming by one day due to a plane flying overhead is more than what you'd save by using a non-soundproofed warehouse.”

– UK studio production market expert



Investment Activity: As we laid out earlier, major production hubs, especially Toronto and London, are seeing an influx of investment, and as more soundstage supply is built, excess demand is reduced. Investors should consider projected supply and demand when assessing investment opportunities to identify gaps in supply.

Competition for Similar Property: Many investors interested in the production studio space face competition for space from other booming industries, especially data centers and last mile logistics companies investing in [urban fulfillment centers](#). High competition may lead to higher property prices and it will be important to work with city officials who want a diverse economy and view production as a highly attractive market for their city.

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