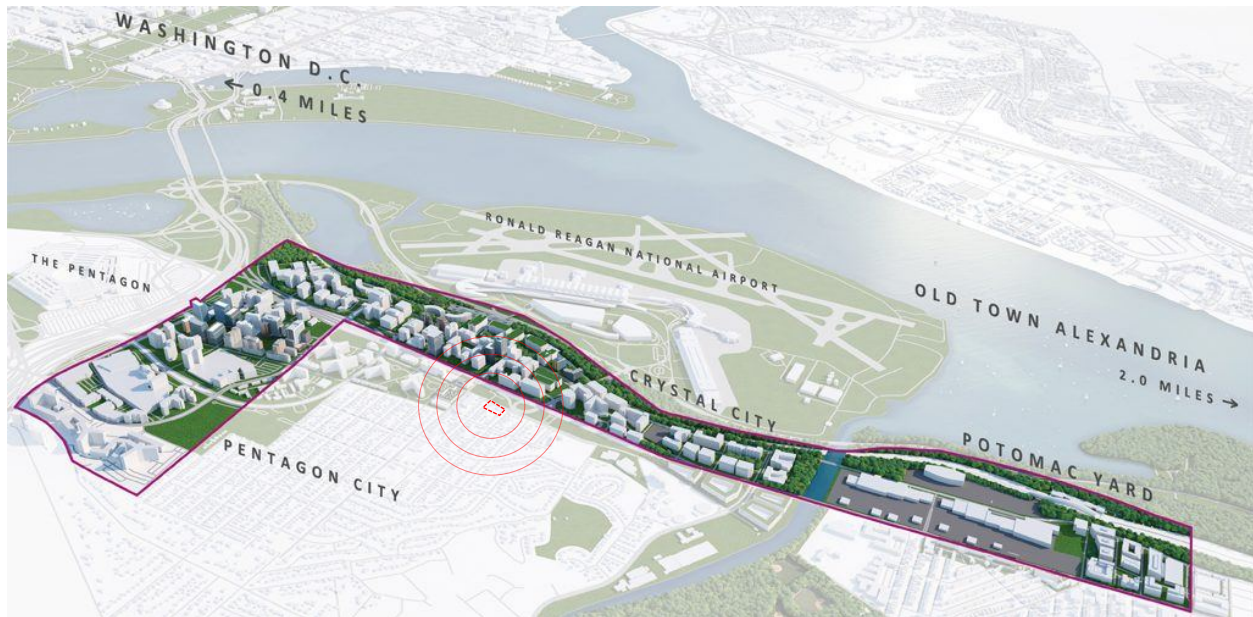


PLAN 5250: Real Estate Practice Studio: Considering Crystal City 4 Credits

University of Virginia School of Architecture | Campbell Hall 108 | Fall 2019 | Fri 9:30 – 12:30
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Course Description

In September 2017, Amazon, the Seattle-based second largest private employer in America, announced plans to create one or more satellite headquarters (“HQ2”), launching a competition among cities. Domestic municipalities and foreign governments were invited to offer tax breaks, publicly owned land, infrastructure development and other economic incentives to capture the 50,000k+ jobs and \$5b in construction spending promised by Amazon in connection with this proposed expansion. Ultimately, following an offer including \$573 million in tax breaks, \$23 million in cash, and other incentives, Amazon declared its intention to select Arlington Virginia as its new home, and pledged to construct a new neighborhood called “National Landing” in an area that presently includes Crystal City and neighboring lands.

You are in the enviable position of being the long-time owner a series of lots, currently improved with single-family homes, that are adjacent to National Landing. As such, you are uniquely positioned to leverage the proposed HQ2 expansion (both financially and otherwise) by proposing a new development plan for your property. What do you do? Should you buy your neighbor’s property to create a larger development parcel, and, if so, what should you pay for the land? Clearly, the proximity of your property to this large urban project merits a greater density than what is currently on site, but what do you offer the city in return for more favorable zoning? Do you propose uses for the site that target the affluent white-collar workers that will surely be drawn to the area

following amazon's investment, or do create a project aimed at allowing current residents to remain in the area? What are the important design considerations here? And how do you pay for it all?!

This studio will seek to equip you to evaluate these questions and take positions on these issues through a guided practice studio that stimulates the early stages of real estate development project conceptualization and refinement. Over the course of the semester, you will gain an understanding of how to value land and how to leverage entitlements processes to improve that value; how to crystalize a real estate investment thesis and articulate your approach through the development of a business plan and investment brief; how to develop a schematic building design that arises from and enhances your social, urbanistic, and investment objectives, and how to conduct basic real estate financial analysis to support your positions, assumptions and design approach. The course will culminate in presentations by student teams to an "Investment Committee" of diverse stakeholders who must select whether to finance your project...or not.

Pedagogy

Undertaking a real estate development project, understood primarily as an investment activity, also requires speculation on the future of places while providing a unique ability to influence what they become. In this course, you will contend with the myriad issues attendant in proposing a new development in a rapidly gentrifying area, such as:

- How does one anticipate the future market conditions (demand, rents, property values, etc.) in a place undergoing rapid change?
- How does one propose a responsible development that serves the existing community while being responsive to the needs and requirements of new and future inhabitants?
- How can a project of significant density integrate itself into surrounding areas with varying scales of development?
- How can one craft a more robust and supportive relationship between the physical design of the project and the investment strategy that underlies it?
- How can building design contribute positively to the City despite the hierarchical constraints of market forces and commercial requirements.
- How can public support and incentives be leveraged to improve the social equity of development projects?
- What creative uses might be proposed and how can one make arguments for their financial viability?

Through this process, students will gain a greater understanding of (1) the real estate development process, (2) real estate acquisition underwriting and site analysis, (3) issues and opportunities of land assemblage, (4) the impact of market forces on built form, (4) project conceptualization and positioning, (5) real estate market analysis, and (6) development business plan and investment brief formation.

Course Structure

Module 1: Acquisition and Entitlements Phase (Weeks 1-5). The first module of the course will explore the creation of value through analysis, zoning, land assemblage, and entitlements processes. The module will begin with the entire class working cooperatively to analyze the project site through various lenses. Students will then break into teams, and develop unique proposals for the site, working towards a petition to City Officials (the “Zoning Submission”) to entitle the proposed projects. Projects will propose a density greater than as-of-right, and will need to justify that the proposed uses, design features, economic impacts and other attributes of the project are of sufficient public benefit to justify the proposed density.

Module 2: Project Conceptualization (Weeks 5-9). The second module of the course will focus on the programmatic, financial, and positioning refinement of the project scheme, culminating in the creation of a business plan for the proposed development. The business plan will include (1) an overall project narrative, (2) a clearly articulated design and program strategy in both narrative and diagram form, (3) a market analysis defining the target user for the project and positioning the project competitively against other offerings, (4) preliminary financial information including a project budget, proposed sources and uses, and Project Revenue/ P&L Statement.

Module 3: Project Refinement (Weeks 10-15). The final module of the course will cover the design refinement of the development proposals and the refinement of the project financing plan and profitability. Teams will elaborate on their design proposals to include additional schematic refinement of architectural ideas; core and circulation elements; structure; cladding and fenestration; program offering, etc. Teams will also contend on how to represent their projects using conventional drawing, diagrams, rendering, etc. in order to show how the salient design ideas support the project plan.

Expectations and Evaluation

Students are expected to attend each class, complete all assignments, and contribute to all discussions. In addition, Students will be encouraged to attend a Saturday field trip to visit the project site in Arlington.

Grading is based on:

- Attendance, participation, and assignments (30%)
- Zoning Submission (20%)
- Business Plan Submission (20%)
- Investment Brief Submission (40%)

Syllabus

Week 1: Course Introduction, Site introduction, Team Formation

Readings for week 2:

Plan for Supertall Tower Looming Over Lower East Side Is Halted, for Now, in The New York Times August 2, 2019 .

(<https://www.nytimes.com/2019/08/02/nyregion/lower-east-side-two-bridges-development.html>)

How a Garden for the Poor Became a Playground for the Rich, in The New York Times, October 18th 2018.

(<https://www.nytimes.com/interactive/2018/10/18/nyregion/new-york-city-inequality-gentrification.html>)

Amazon HQ2 Is Upending Northern Virginia's Already Unstable Housing Market in The New York Times, July 10, 2019

(<https://www.nytimes.com/2019/07/10/us/politics/amazon-housing-northern-virginia.html>)

National Landing Website (<https://nationallanding.com/>)

Crystal City Sector Plan (https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/5/2014/03/sprc_Jul3012_SectorPlan_CrystalCityPO.pdf)

Amazon in Arlington website (<https://www.arlingtonva.us/amazon/>)

Assignment for week 2: Analysis of Proposed Project Site. Each team of students will undertake analysis of the Subject Properties (the Site) through multiple lenses:

- Infrastructure Analysis - identify and analyze demand drivers, employment centers, transportation nodes. Document distance to site and key facts and figures for each
- Competitive Set Analysis – prepare a dossier of new developments being planned in the area
- Amazon Analysis: Identify the proposed extents of the amazon development, its timetable, the key players
- Political Analysis: Review zoning and other regulatory apparatuses that govern the site,
- Demographic Analysis: construct profiles for key constituent groups that live and work near the subject property; review indicators of how this might change in the short term and speculate on same.
- Market Analysis: prevailing rents, occupancy rates, cap rates, etc. for all potential uses (retail, office, rental housing, for sale housing, hotel, parking).

Week 2: Project Site Analysis Presentations and Discussions

First Half: Discussion of Readings and Course Themes

Second Half: Present Findings from Analysis Assignment

Reading Assignment for Week 3: Zoning Text, Comprehensive Plan and other regulatory instruments governing as-of-right development of the site.

Project Assignment for Week 3: Development of Site Analysis

Week 3: As-Of-Right Zoning: Maps, Text, Zoning Analysis

First Half: Present Findings from Analysis Assignment

Second Half: Review of Zoning for Subject Property and discussion of key terms (net vs. gross vs. zoning area; setbacks and street wall, contextual vs tower zoning, floor area bonuses, inclusionary/quality housing etc.). Review residential vs. commercial floor area measuring standards.

Reading Assignment for Week 4: Site Appraisal

Project Assignment for Week r: Provide a Zoning Analysis for the subject property including:

- One paragraph zoning narrative summarizing the regulatory intent of the prevailing zoning
- Zoning Analysis Chart indicating allowable uses, height and bulk regulations, open space requirements, eligible bonuses, etc.
- Massing Diagrams for an As-of-Right scheme under (a) residential use and (b) commercial use
- Corresponding floor area chart for both the residential and commercial scenarios

Week 4: As-Is Land Valuation, Basic Real Estate Financial Modeling

First Half: Real Estate Appraisal – review three methods of determining land value through appraisal (Sales Comparison Approach, Cost Approach, Income Approach)

Second Half: Basic Real Estate Acquisition Underwriting: Land Residual Analysis, Highest and Best Use Analysis – develop basic underwriting model in class.

Reading Assignment for Week 5: Willis, Carrol. Form Follows Finance.

Assignment: Prepare a land valuation for the site under its existing zoning and use in excel, utilizing both residual land value approach and income approach.

SITE VISIT SATURDAY, SEPTEMBER 20th

Week 5: Project Use Selection and Back-Of-The-Envelope Real Estate Scenario Analysis

First Half: Review Development Financial Models

Second Half: Review basic real estate financial modeling tools: Assumptions, Sources and Uses, Single-Period Cash Flows, Returns

Reading Assignment for Week 6: TBD

Project Assignment for Week 6: Evaluate potential development programs for your site. You must analyze at least three uses, one of which must be either market rate housing (for-sale, rental, or both), and one of which must be a use of your choosing oriented toward the existing community of your choosing. Prepare a Financial Model in excel (assumptions, sources and uses, 5-year discounted cash flows) to evaluate potential returns from at least 3 uses (or use combinations) allowed under the zoning.

Week 6: Added Value through Entitlements: Discussion of Entitlements Process and Rezoning Analysis

First Half: Review Program Scenario Analyses.

Second Half: Discussion of Entitlement Processes - Review of the Case Study Project. Discussion of public benefits (tax revenue, job creation, housing creation and retention, public space, public institutions, etc.)

Project Assignment for week 7: Select a development program for your project and develop a massing model and financial model for your chosen uses at a density greater than the as-of-right density. Note any deviations from the as-of-right regulatory requirements in a comparison

chart. Create a narrative of public benefits that your project brings to the local community.

Week 7: Zoning Petition Form and Structure

First Half: Presentation of final development programs

Second Half: Review template and deliverables for Zoning Petition

Project assignment for week 8: Using the materials assembled in weeks 1-7, prepare a comprehensive zoning petition for presentation to Arlington City Officials and counsel.

Week 8: Zoning Petition Presentations in Arlington

Week 9: Added Value Through Assemblage

First 1/3: Interim Review Feedback

Second 2/3: Assemblage discussion: Review adjacent available for purchase

Assignment: Students must prepare a sealed bid for each potential assemblage site (individually) and for all of the assemblage sites. The bids must include 'back of the envelope' financial analysis to justify the bid price. The instructors will review the bids and award the sites to the highest bidders. (in this way the sites will become somewhat different).

Week 10: Market Analysis

Assignment: Create a market analysis for the proposed development:

- Collect publicly accessible market reports for each proposed use
- Define Target Market. In a narrative, speculate as to the taste and preferences of these users, what do they value and why.
- Define a competitive set for the project of at least three (3) projects that were recently completed and three (3) projects currently under construction. For each project, compare the project positioning relative to the subject property.

Week 11: Project Positioning and Returns

Assignment: Create a project positioning narrative indicating your proposed levels of expenditure and anticipated returns for each use within your project. Note any design features to be included within the project in order to achieve the intended positioning. Situate your

proposed offering among other competing offerings. Develop a stacking plan.

Week 12: Creating a Business Plan: Project Team, Budget, Schedule Development, Returns

Assignment for Week 13: Develop your Business Plan Submission as a PowerPoint document.

Week 13: Business Plan Presentations to “Executives”

Week 14: Feedback on Investment Brief Presentations and review of Investment Brief. Review Project Design and Design Development.

Assignment for week 15: Develop Project Design Narrative and Brief.

Week 15: Project Design Development: massing, circulation, core, structural systems, distribution of uses.

Assignment for week 16: Create plans, sections, diagrams, and other graphic materials to describe your project.

Week 16: Capital Markets and Financial Structuring

Final: Prepare an Investment Brief for the Project