

**The Real Estate Development Matrix Revisited  
An Update**

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<b>Development Matrix</b>	<b>1. Land Banking</b>	<b>2. Land Packaging</b>	<b>3. Land Development</b>	<b>4. Building Development</b>	<b>5. Building Operations</b>	<b>6. Building Renovation</b>	<b>7. Property Redevelopment</b>
<b>I.</b> Acquisition	I. 1.	I. 2.	I. 3.	I. 4.	I.5.	I. 6.	I.7.
<b>II.</b> Financing	II.1.	II.2.	II.3.	II.4.	II.5.	II.6.	II.7.
<b>III.</b> Market Studies & Marketing Strategies	III.1.	III.2.	III.3.	III.4.	III.5.	III.6.	III.7.
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<http://realestatedevelopmentmatrix.com/>

## I. Background

### History

Four years ago, I presented a seven-stage/ eight- task Real Estate Development Matrix at an ARES meeting in St. Petersburg, Florida.<sup>1</sup> This Matrix was based on a four-stage model that James Graaskamp presented at a land investment seminar<sup>2</sup> in Columbus, Ohio forty-three years ago

For the last 40 years, I have been trying to explain the Real Estate Development Process to students, professionals, zoning commissions, city councils, neighborhood associations, and investment committees. While everyone “knows” about the real estate development process, there is substantial confusion among the discussants because they reflect so many different points of view. The Real Estate Development Matrix reflects my best effort to summarize and organize these discussions about real estate development.

In the 2012 AREAS paper, I laid out the need for the Development Matrix and briefly described the seven-stage Real Estate Development Process as (the x-axis of the Matrix) as well as the eight Development Tasks (the y-axis of the Matrix). I concluded with the “Next Steps”:

1. To provide conceptual explanations for the 56 cells, as well as
2. to provide specific example of various property types in each cell, and finally

<sup>1</sup> [http://dankohlhepp.com/uploads/3/0/6/8/3068213/ares\\_dev\\_matrix\\_-\\_may\\_19.pdf](http://dankohlhepp.com/uploads/3/0/6/8/3068213/ares_dev_matrix_-_may_19.pdf)

<sup>2</sup> James A. Graaskamp Collection of Teaching Materials. V. Industry Seminars and Speeches Sponsored by Other Universities. 10. “Land Investment Seminar,” sponsored by R.E. Educational Services, Inc., Columbus, OH, December 1, 1973 at the Christopher Inn. 2 Stephen P. Jarchow editor, "The Fundamentals of Real

3. to expand the discussion using a wiki book format so that specific examples could be provided by professionals throughout the Real Estate Development Process.

Over the last four years, I have expanded the conceptual definitions and explanations of the matrix cells, but I have not yet included examples of each cell. My attempt to expand the matrix into a wiki book framework<sup>3</sup> so that real estate students and professionals can input specific examples has not been successful.

In December 2015, another website was launched to explain the Real Estate Development Matrix and to enable a more interactive discussion of the Matrix.<sup>4</sup>

### Alternative Views of Real Estate Knowledge

The Real Estate Development Matrix has always been proffered as a multidisciplinary project, which represents the working environment that the real estate developer operates in every day. As such, it presents an organizational framework for real estate knowledge. However, this view is contrary to the four-quadrant model of core real estate knowledge used by many business schools, which can be expanded to six quadrants when development is introduced conceptually as shown in Figures 1 and 2 respectively.

Figure 1

Core Real Estate Knowledge (4 Quadrants)		
	Equity	Debt
Product Market	Properties: <ul style="list-style-type: none"><li>•Office</li><li>•Retail</li><li>•Hotel</li><li>• ...</li></ul>	Mortgages: <ul style="list-style-type: none"><li>•Fixed Term</li><li>•Adjustable Rate</li><li>•Graduated Payments</li><li>• ...</li></ul>
Secondary Market	Securities: <ul style="list-style-type: none"><li>•Equity REITs</li><li>•MLPs</li><li>•CREFs</li><li>• ...</li></ul>	Securities: <ul style="list-style-type: none"><li>•MBSs</li><li>•Mortgage REITs</li><li>•Covered Bonds</li><li>• ...</li></ul>

<sup>3</sup> <http://jhuesjrealestateprogram.pbworks.com/w/page/51965103/FrontPage>

<sup>4</sup> <http://realestatedevelopmentmatrix.com/>

Figure 2

Core Real Estate Knowledge (6 Quadrants)		
	Equity	Debt
Development Market	Land: • Feasibility Studies • Development Plan	Process: • Loan Underwriting
Product Market	Properties: • Office • Retail • Hotel • ...	Mortgages: • Fixed Term • Adjustable Rate • Graduated Payments • ...
Secondary Market	Securities: • Equity REITs • MLPs • CREFs • ...	Securities: • MBSs • Mortgage REITs • Covered Bonds • ...

In these four- and six quadrant models, real estate knowledge is defined in terms of the capital structure of the real estate investment. However in the Real Estate Development Matrix, the required capital (debt and equity) is viewed as a constraint to be met or task to be accomplished, rather than as the definitive characteristic of the real estate develop process

### Real Estate Development is Broadly Defined

In the Real Estate Development Matrix, real estate development is defined as any activity that adds value to a project<sup>5</sup>. Consequently, Building Operations is included as a stage of development because the building operator attempts to add value to the property by leasing the property, keeping accurate records of the operating and financial history of the project, and using low-cost capital. By including Building Operations, probably the longest time period in the process, the Real Estate Development Process is holistically defined to include the entire physical and economic lifecycle of a real estate project.

<sup>5</sup> WEBSTER'S NEW UNIVERSAL UNABRIDGED DICTIONARY DELUXE SECOND EDITION gives numerous definitions of the word "develop":

Develop, verb transitive

- To cause to grow gradually in some way to cause to become gradually fuller, larger, better, etc.
- To expand, as a business
- To bring into activity, as an idea
- To unfold gradually, as a bud
- To explain more clearly, to enlarge upon

Develop, verb intransitive

- To come into being or activity
- To become fuller, better, larger, etc.

The Real Estate Development Process is also defined as a “value-added” process<sup>6</sup> so that as funds are being spent in each stage of development to accomplish certain tasks, economic value is being added. The developer’s goal in each stage is to capture the spread between the cost to accomplish the tasks and the “added value” that is being created.

## II. The Seven Stages in the Real Estate Development Process in Words and Pictures

The Real Estate Development Process can be described in words and pictures. The words are simple:

### **Stage 1: Land Banking**

Land Bankers acquire or hold undeveloped or “raw” land that they believe will become attractive for future development through general and broad market trends.

### **Stage 2: Land Packaging**

Land Packagers buy the raw land from passive land bankers and then proactively improve the value of the land through conceptual land planning, zoning changes, financing schemes, or other “paper enhancements or infrastructure” like title insurance, accurate surveys, or environmental studies.

### **Stage 3: Land Development**

Land Developers buy the land with the paper infrastructure from the Land Packagers and then improve the land, typically with “horizontal infrastructure,” so it can be sold as finished building pads to Building Developers.

### **Stage 4: Building Development**

Building Developers buy the finished, building-ready pads from the Land Developers and then complete the vertical development by constructing the building improvements.

### **Stage 5: Operating Stage**

Building Operators lease up the completed properties, manage the properties, and develop accurate operating histories, so the completed properties can be sold to other Building Operators during their economic lives or sold to Building Renovators at the end of their economic lives.

### **Stage 6: Renovation Stage**

Property Renovators buy the property with substantial economic and/or physical depreciation and create value by curing these deficiencies and then selling the “renovated” properties to other Building Operators or operating the buildings until the properties are ready for redevelopment.

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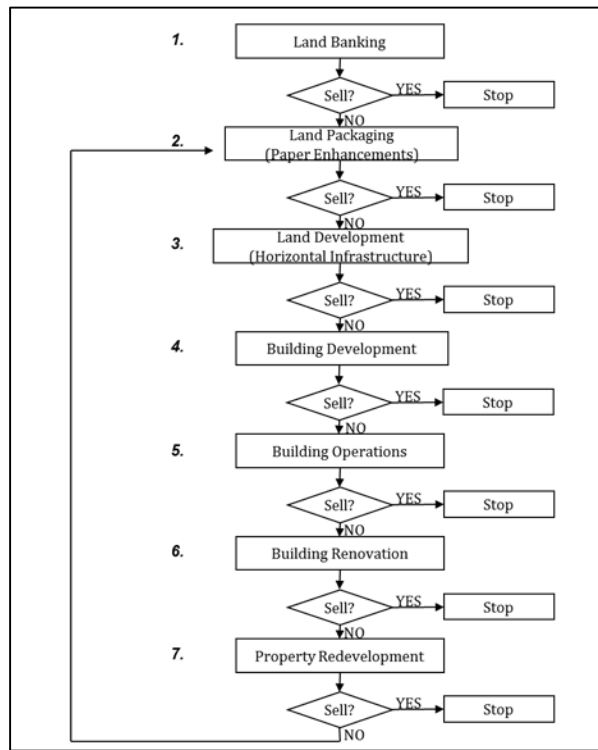
<sup>6</sup> The term “Value added” in the context of the Real Estate Development Matrix refers to the marginal value that is defined as the total value of the project less the total cost of the project. It does not refer to the riskiness of the project, which is a typology used by an institutional real estate investor that refers to “core, value-added, and opportunity” investment categories.

### Stage 7: Redevelopment Stage

Property Redevelopers buy or acquire properties with such serious physical or functional deficiencies that the improvements must be torn down and/or redeveloped for other uses. This essentially begins the Real Estate Development Process all over again; the Redeveloper sells the property to the Land Re-Packager.

However, the Real Estate Development Process can also be described diagrammatically. Each of following diagrams show the same process, but from a different perspectives.

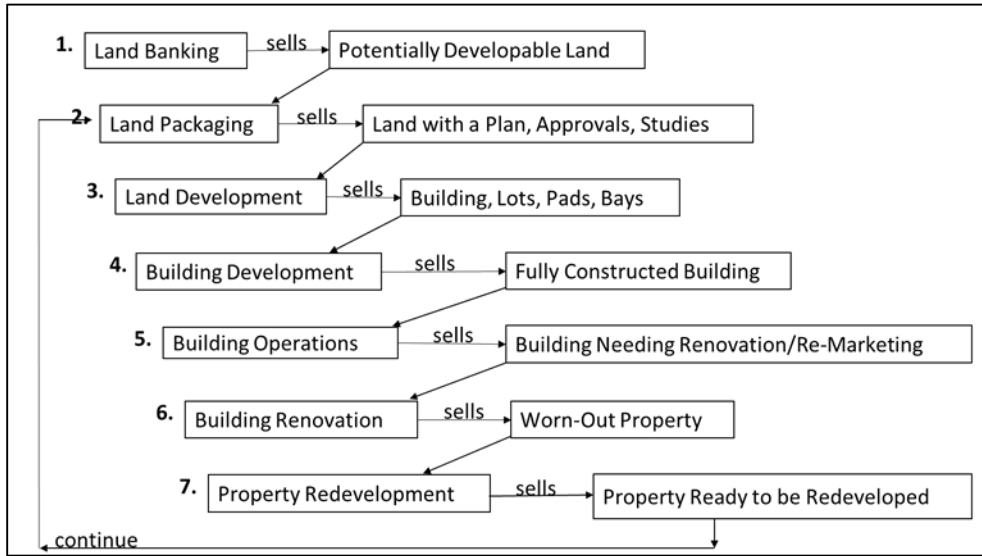
Figure 3



The Schematic Diagram shown in Figure 3 demonstrates how the developer in each stage determines whether to sell the enhanced property and monetize the created value or continue to the next stage of development.

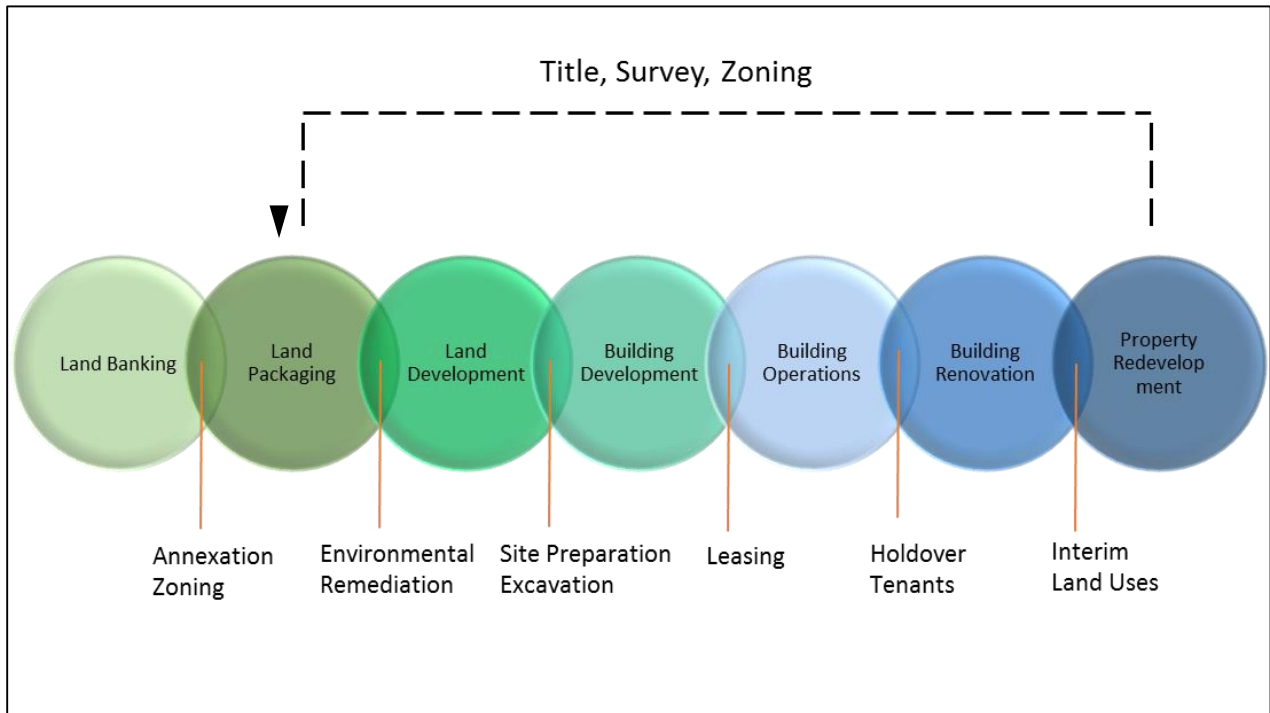


Figure 4



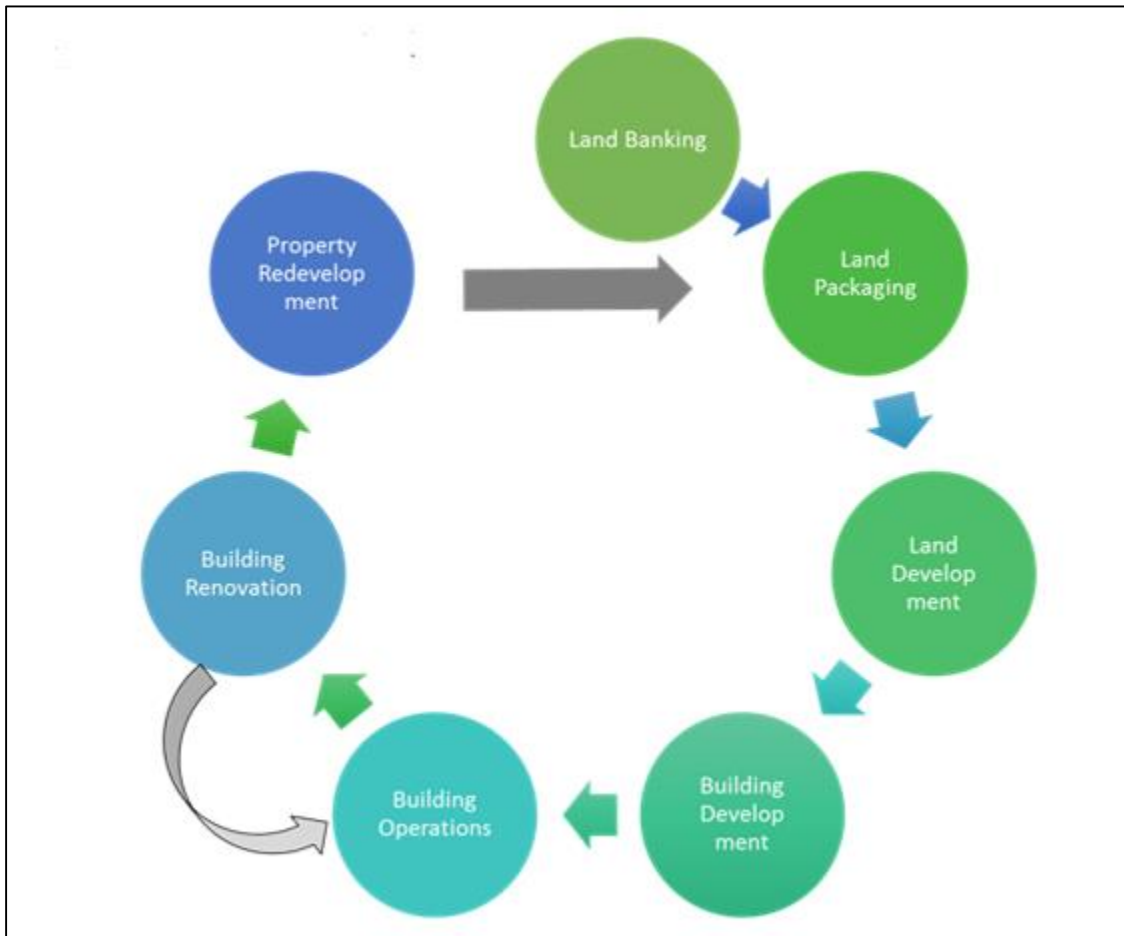
The Box Diagram shown in Figure 4 illustrates how the developer in every stage buys one thing and sells another. This can be thought of as a production process to create value in each stage.

Figure 5



The Venn Diagram shown in Figure 5 shows that each stage of development spills over or overlaps with the other adjacent stages. These stages are not as neat and discrete as depicted in the Schematic or Box Diagrams.

Figure 6



The Circle Diagram in Figure 6 shows the circular nature of the Real Estate Development Process as both the Land Banker and the Property Redeveloper go to the Land Packaging Stage. Also the Circle Diagram demonstrates the feedback loop for the Building Renovator to sell the property back to the Building Operator or forward to the Property Redeveloper.

### III. Conceptual Issues in the Seven Stage Real Estate Development Process

In explaining the Stages of development in the Real Estate Development Matrix, several conceptual issues have been encountered.

#### Issue 1. Who is a Land Banker?

Is every farmer or forester really a Land Banker? The determination of the highest and best use of the site is critical to answer this question. If the highest and best use of the site is clearly not farming or forestry, then these activities are really interim uses that the developer employs to minimize the holding costs of the property. The gray area is when the existing use is the

highest and best use, but changing market conditions may alter this determination in the “investible future.”

### **Issue 2. Doesn't Land Banking occur in other stages of development?**

For example, the Land Packager may acquire a large tract of land from the Land Banker, but decides to only rezone part of the tract. In this case, the developer would be both a Land Packager and a Land Banker.

More problematic is the Land Developer who buys a large tract of zoned and permitted land and decides to develop it several phases. This case is similar to a Building Developer who buys several building-ready pads and decides to develop them sequentially over time. In both cases, these are not Land Bankers in the Matrix sense, but rather developers who have difficult and tricky financing tasks to hold the additional parcels until they are ready for development. The danger of this strategy was evident in the Great Recession when the market collapse caused developers to sell excess land at very low prices.

### **Issue 3. Is Land Packaging really a stage of development?**

Land packaging probably creates more value compared to the cost of packaging than any other stage. It is also the highest risk stage of development because of the uncertainty regarding the outcome and timing of the Land Packaging process. There are special skills and talents that are required to gain public and political approvals, as well as to determine which issues need to be researched and defined to create value for the Land Developer. It is true that every stage of development requires approvals and permits of some kind. However, the Land Packager is changing the legal use of the site, as well as the Land Developers' and public's perceptions of the site.

### **Issue 4. Why is Building Operation considered a stage of development?**

Building Operations is a labor intensive activity that can add value or lose value. The Building Operator adds value by leasing the property to credible tenants with valid leases, as well as by keeping accurate records of the building operations and expenses. By reducing the perceived market risks, the Building Operator increases the value the property. Also, the Building Operator can increase value by accessing lower cost capital, both debt and equity. This may mean refinancing the property or selling to new equity investors, but this is how value is realized.

### **Issue 5. When does a Building Operator become a Building Renovator?**

The Building Operator becomes a Building Renovator when the size of the tenant improvement project requires building permits because the size of the project exceeds the certain thresholds. This an imprecise or fuzzy definition because if a building remodeling project is big enough, it becomes a renovation. Whether an improvement to the property is a large remodeling job or a building renovation is not a critical definition--as long as the Building Operator or the Building Renovator is adding value to the property.

**Issue 6. How often can the renovated property be sold back to a Building Operator?**

The renovated property can be sold back to Building Operator as long as the Renovator can find a willing and ready Building Operator. This circular process may last for decades. However at some point, no Building Operators can be found to buy the building, renovated or not, so the property is sold to a Property Redeveloper.

**Issue 7. What is the difference between the Building Renovation Stage and the Property Redevelopment Stage?**

There are two major differences between these two stages. First, the Building Renovator is very active in constructing the new renovations while the Property Redeveloper is passively holding the property with interim uses until it is ready to be rezoned for an alternative use.

Second, the Building Renovator keeps the property in its current use, i.e. residential stays residential, retail stays retail. However, the Property Redeveloper anticipates and plans for the use of the property to change, i.e. a warehouse becomes loft apartments or a shopping mall becomes a mixed-use project. This is why the Property Developer needs the Land Packager to take over and initiate the necessary zoning changes.

**Issue 8. Why are so many Property Redevelopers really public agencies?**

Many times old, worn-out properties are abandoned so that local municipalities acquire the properties because of unpaid back taxes. The municipalities or states transfer the control of these properties to redevelopment agencies. In a similar manner, state or federal governments may acquire properties for nonpayment of taxes. While each redevelopment authority or agency has its own mission statement, the goal is to transfer the property to the private sector for re-use, which usually requires zoning changes of some kind.

**Issue 9. How is the Property Redevelopment Stage different from the Land Banking Stage?**

Land Banking usually involves “green fields” while Property Renovation usually involves “brown fields.” That is, redevelopment properties have a history of non-agricultural land uses, which can cause special problems (and opportunities) for future development.

**Issue 10. What is a Master Developer?**

Master Developers usually are defined by government agencies who want a private developer to be the Land Packager, Land Developer, Building Developer, and Building Operator. These are unrealistic expectations that cause tension, friction, and unfulfilled expectations.

However, mixed-use developments require a Master Developer to direct, control, balance, and referee the development of multiple uses on a site, each with special needs and concerns. Product-specific developers (such as apartment developers) are important to mixed-use developers, but the success of the overall development must be considered when the needs of each product type are considered in the context of the overall development.

## **IV. Eight Task Groups in the Real Estate Development Matrix**

The tasks that need to be accomplished in each stage of development can be divided into eight major categories. These categories may overlap, and the distinctions may be fuzzy and blurred. However, it is important to note that each stage begins with the Acquisition Tasks and ends with the Disposition Tasks. The other tasks are not done in any particular order and many are done simultaneously because the tasks are often dependent on each other. For example, critical approvals or permits cannot be obtained until the environmental issues are resolved.

The importance and order of the other tasks depends on the project under consideration or undertaken. Many tasks are done simultaneously and are redone depending on the outcome of other tasks. (Many developers complain of Attention Deficit Disorder as they move from one taste of task to another.)

Briefly the Tasks are described as follows:

1. **Acquisition:** Should the project be acquired and how? Sub-tasks:
  1. Feasibility studies
  2. Underwriting requirements
  3. Contract negotiations
  4. Due diligence reviews
  5. Closing conditions
2. **Financing:** Who should finance the project and how? Sub-tasks:
  1. Financial projections
  2. Financial management and reporting
  3. Capital formation and accumulation
3. **Market Studies and Strategies:** What are the market conditions and how can the market opportunities be exploited? Sub-tasks:
  1. Site Level Strategies
  2. Projected Market Conditions
  3. Market Strategies
  4. Promotion and Advertising
4. **Environmental Tasks:** What are the environmental concerns and how should they be addressed? Subtasks
  1. Phase I, II, and III Studies
  2. Certifications
  3. Atmospheric, surface, and sub-surface conditions
  4. Cultural and Historic Conditions

5. **Approvals and Permits:** What approvals and permits are needed and how should they be obtained? Sub-tasks:
  1. Realize and accept the natural tension that occurs during this process.
  2. Communicate with and understand the various individuals and agencies involved.
  3. Expect, and prepare for, the worst: delays, loss of confidentiality, and solicitation.
  4. Evaluate approvals and permits required at all public levels: federal, state, regional, municipal, and private.
6. **Physical Improvements:** What are the required physical improvements and who and when should they be designed, engineered, constructed, and operated? Sub-tasks:
  1. Planning and design
  2. Engineering
  3. Construction
  4. Maintenance
7. **Transportation and Accessibility:** What are the transportation and accessibility issues and how should they be addressed? (Location, Location, Location) Sub-tasks:
  1. Off-Site: Transportation
  2. On-Site: Accessibility
  3. On & Off – Site: Construction
  4. On & Off – Site: Maintenance
8. **Sales and Dispositions:** How should the value created in this stage of development be captured, sold, or rolled forward? Sub-tasks:
  1. Seller due diligence
  2. Marketing
  3. Sales contract(s)
  4. Development agreements
  5. Closing

The tasks are numbered for identification, not in order of execution or importance, except that, each stage of development must begin with Acquisition Tasks and end with Disposition Tasks.

## V. Development Task Issues

**Issue 1. Aren't the Acquisition Tasks and Disposition Tasks just two sides of the same coin?**

Absolutely, the Acquisition and Disposition Tasks are two sides of the same coin, except that the perspective of the acquirer (buyer) is usually focused on a different stage of development from the perspective of the disposer (seller). Perspective is everything

**Issue 2. Don't the nature and importance of the task depend on the stage of development?**

The nature and importance of the task are defined by the stage of development as well as the product type.

**Issue 3. Are there real-life example of these Tasks for each stage of development?**

Examples for each stage of development are not available yet, but they are currently being sought after and refined. These examples will be first placed in the website Matrix and then in the Handbook as Part III.

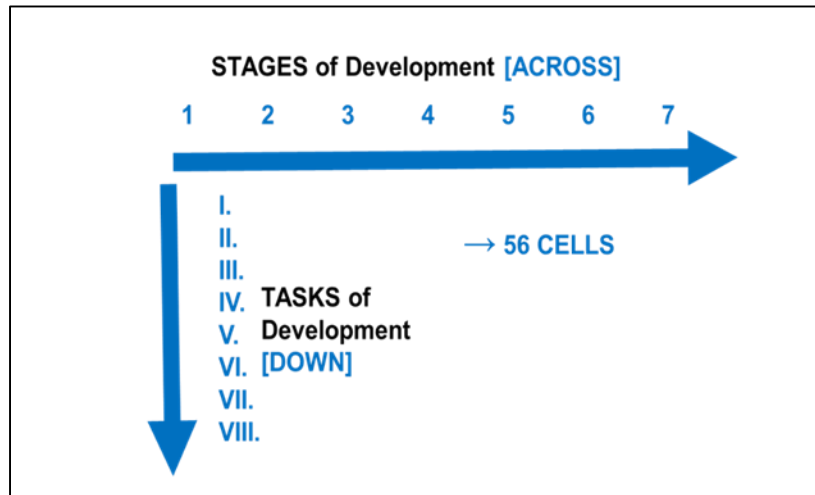
**Issue 4. Why are there eight Tasks Groups rather than seven or nine?**

Each set of Tasks require very different skill sets. However, there is nothing absolute about the number eight. Every set of Tasks requires certain permits and/ approvals, but I made the Approvals and Permits a separate Task Group because the critical nature of these Approval and Permits. If developers can't get the required Permits and Approvals, they are out of business. It's that simple, and each stage of development needs different permits and approvals.

The Transportation and Accessibility Task Group may be unusual except that the critical tasks require on-site and off-site analysis, as well as the integration of new infrastructure improvement with existing (and usually old) infrastructure improvements. Consequently several public-private partnerships are required. The private-public partnerships may be formally defined and documented or casual and informal working relationships. However, they are necessary for success.

## VI. The Real Estate Development Matrix

Figure 7



When the seven Stages of real estate development are placed on a horizontal axis, and the eight categories of Tasks of development are placed on the vertical axis, we create the **Real Estate Development Matrix** which lays out the "work space" for the real estate development activities into 56 cells.

Figure 8

<b>Development Matrix</b>	1. Land Banking	2. Land Packaging	3. Land Development	4. Building Development	5. Building Operations	6. Building Renovation	7. Property Redevelopment
<b>I.</b> Acquisition	I. 1.	I. 2.	I. 3.	I. 4.	I.5.	I. 6.	I.7
<b>II.</b> Financing	II.1.	II.2.	II.3.	II.4.	II.5.	II.6.	II.7.
<b>III.</b> Market Studies & Marketing Strategies	III.1.	III.2.	III.3.	III.4.	III.5.	III.6.	III.7.
<b>IV.</b> Environmental Studies	IV.1.	IV.2.	IV.3.	IV.4.	IV.5.	IV.6.	IV.7.
<b>V.</b> Approvals and Permits	V.1.	V.2.	V.3.	V.4.	V.5.	V.6.	V.7
<b>VI.</b> Physical Improvements	VI.1.	VI.2.	VI.3.	VI.4.	VI.5.	VI.6.	VI.7.
<b>VII.</b> Transportation/Accessibility	VII.1.	VII.2.	VII.3.	VII.4.	VII.5.	VII.6.	VII.7.
<b>VIII.</b> Sales and Disposition	VIII.1.	VIII.2.	VIII.3.	VIII.4	VIII.5.	VIII.6.	VIII.7.

As Figure 8 illustrates, the individual cells in the Development Matrix can be identified using Arabic Numbers for the Development Stages across the rows and Roman Numerals for the Development Tasks down the columns as identifiers. For example, Cell I.1. contains



the **Acquisition Tasks** in the **Land Banking Stage**; Cell III. 4. contains the **Marketing Tasks** in the **Building Development Stage**, and so on.

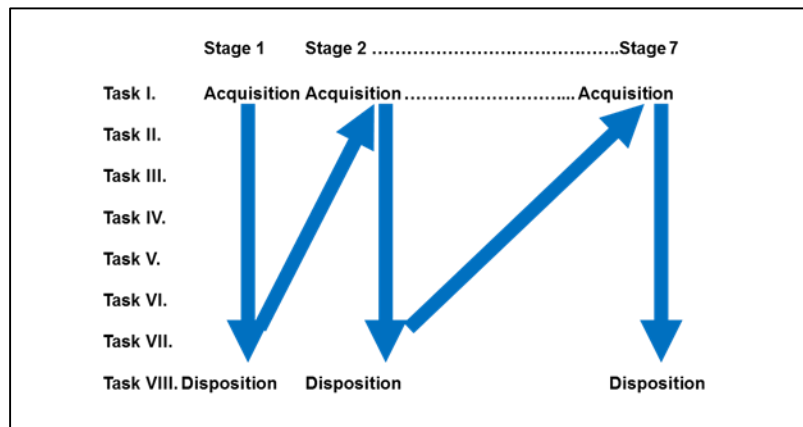
Not all cells have the same importance in every stage, but all of the cells must be addressed in one way or the other. Ignoring or overlooking cells can lead to mistakes, errors, and ultimately an unsuccessful real estate development project.

Developers create value in each stage of development by completing the Tasks for that stage. Each stage requires different skills to complete the Tasks, and no one person can do everything. Hence, different development teams are formed for each stage of development.

It is important to note that in each cell three things happen:

1. Expenditures are made.
2. Risks are taken.
3. Value is created or destroyed.

Figure 9

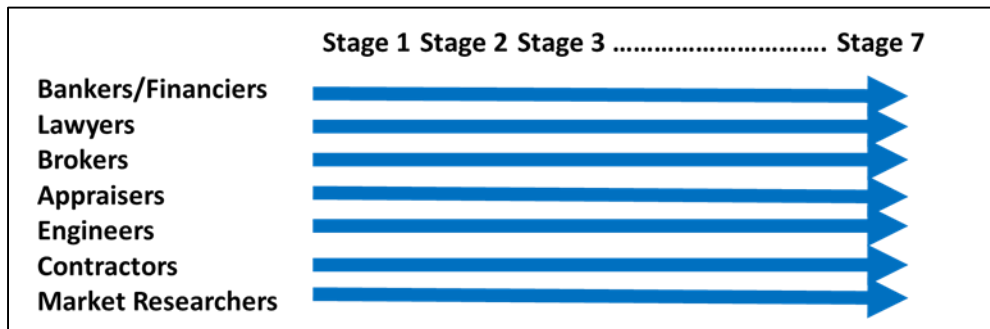


The Developers work down the columns of the **Matrix**. They can't go to the next **Stage of Development** until all the **Development Tasks** of the current stage are completed. Each **Stage** begins with the **Acquisition Tasks** and ends with the **Disposition Tasks**. (See Figure 9) In between, **Tasks** are done in various orders, usually simultaneously, as the **Tasks** are all related to each other. For example, you can't get a building permit until the environmental studies have been done and the plans and specifications have been completed. Real estate development is a great example of multi-tasking.

The **Disposition Tasks** may lead the developer to the decision not to sell the property and instead continue on to the next **Stage of Development**. Through the **Disposition Tasks**, the

developer is well aware of the value that they have created, as well as the tasks that are required for the next stage of development. Even if developers decide to continue to the next **Stage of Development** and put the created economic value at risk, they must assemble a new team of professionals to accomplish the **Tasks** for the next **Stage** and hopefully create additional value. Sometimes this works; sometimes it doesn't.

Figure 10



Many times real estate service providers (professionals) ask, "Where do we belong in the Real Estate Development Matrix?" The answer is everywhere! Professionals generally specialize in one **Task** category and work across the various **Stages** of the **Process** (see Exhibit M.4).

However, it should be noted that different types of professionals are used in the various stages of development. For example, the best land broker used in the **Land Banking Stage** would not be used in the **Building Development Stage**, whereas the best leasing agents and building brokers would be used by the developer. Also, the building contractor in **the Building Development Stage** would probably not have the necessary skills for the construction required in the **Building Renovation Stage**.

## VII. NAIOP Commercial Real Estate Organization Project: 2015

Granite Road, LLC, has developed two courses for NAIOP based on the Real Estate Development Matrix. Each course has eight, two-hour sessions that would be delivered live online.

### Essential Development Principles (EDP)

This survey course examines the seven Stages of real estate development at an introductory level. Session one discusses the conceptual issues of defining real estate and the theoretical issues of measuring value. Starting in Session 2, each session provides a brief overview of the essentials of each Stage by outlining what happens (how value is created), key players, critical tasks, controllable costs, and major risks of each stage. Several examples of the particular Stage

are reviewed to apply those principles to real-world examples. Finally, a Special Skills section is presented at the end of each module. These special skills teach students how to perform basic calculations to analyze real estate value and to better understand value creation throughout the development process

This course has been delivered once in 2015, and a second presentation has begun in February 2016.

### **Advanced Development Practices (ADP)**

This survey course is a sequel to the Essential Development Principles course and builds on the concept of the Real Estate Development Matrix where the seven Stages of Real Estate Development are combined with the eight Tasks required in each stage to produce a 56-cell matrix.

This course focuses on the eight Tasks in each Stage of the Real Estate Development Process. It broadly describes the Tasks and the subtasks from a developer's point of view. Students are not expected to be experts in all of these Tasks, but they are expected to understand and appreciate what needs to happen for a successful development, i.e. one that creates value in excess of the costs needed to create value. Each Task is illustrated with two real-world examples.

Students are permitted to take these courses in either order.

## **VIII. CCIM Institute Project: 2016**

The CCIM Institute plans to create a Development Specialty Track using the Real Estate Development Matrix as the conceptual model. The Track would include a 2 ½ -day live workshop focusing on the overall Matrix, eight online modules focusing on the each Task-cell of development, and a 2-day live capstone seminar.

### **2 ½ day Live Workshop**

- Day 1 – Seven- Stage Real Estate Development Process
- Day 2 – Eight Development Tasks
- Day 3 - Case Studies (1/2 day)

### **Eight Online Modules (8 hours each)**

- 2 hours synchronous (Virtual Session)
- 2 hours asynchronous (Assignments/Homework)
- 2 hours synchronous (Virtual session)
- 2 hours asynchronous(Assignments/Homework)

Each module will begin with an overview of a Task Group and its subtasks. Then the discussion will focus on how each Task is performed in each Stage of development (56 Cells). There will be real -world

examples for each cell, as well as case studies to help the students apply the concepts and problem-solving skills.

### 2-day Live Capstone Seminar

- Team case analysis
- Team case presentations

Students will be permitted to take the 2 ½ -day, live workshop and online modules in any order, but they cannot take the Capstone Seminar until all of the 2 1/2 –day workshops and all online modules have been completed.

## IX. Evaluation of the Real Estate Development Matrix

### As a Descriptive Model

As a descriptive model, the Matrix helps participants in the Real Estate Development Process discuss the challenges facing the successful conception, construction, and operation of a project:

- Where are we now?
- Where are we going?
- How will we get there?

The Real Estate Development Matrix has been very useful in public meetings and private investment committees to help articulate the challenges and risks that the developer, investor, and communities face going forward.

### As a Normative Model

As a normative model, the Matrix emphasizes the decision-making process used when evaluating the commencement (acquisition) and ending (disposition) of a project. Specific questions must be address:

- What tasks have to be done?
- Who can do them?
- What if we fail?
- Does the “Spread” justify the risk?

Too many developers expect to “do the whole thing” and invariable encounter problems for which they are not prepared. Understanding when and how value is created is critical to determine when and how “to take the money off the table,” so to speak.

### As a Predictive Model

Looking backwards, the Matrix seems to reflect what has occurred and explains why developers succeeded or failed. However looking forward, the Great Recession has caused a pause or resetting of the development process. Because of the financial market collapse, many developers have been forced to liquidate projects because of the immediate need for cash. Clearly, the real estate enterprise could not support the capital structure of the project.

However, because of the low prices of land, many building developers and building operators with cash entered into the land development business. Whether or not these ventures succeed will be determined as the market recovery continues and then turns again.

### **As a Pedagogical Tool**

The multidisciplinary nature of the Matrix makes it difficult to fit into a graduate business school program. However, professional organizations and their members with varied backgrounds and career aspirations seem to embrace the Matrix as a tool to help them better understand the Real Estate Development Process.

### **As a Student Advisory Tool**

We have used the Matrix to ask students where they see themselves now, in three years, and in seven years. The follow-up discussions have been fascinating.

## **X. Building and Maintaining the Website:**

<http://realestatedevelopmentmatrix.com/>

After constructing the wiki-format website, I attempted to build a new website to address earlier shortcomings and increase the user responses. A major improvement in the new website was the innovative use of directional arrows to allow the users to move more intuitively through the Matrix. The new website also uses several tabs to explain how to use the Matrix, as well as providing a stand-alone description of the Real Estate Development Process and the product-type third dimension that effectively forms the real estate development box.

A Handbook is included in the new website that provides a more comprehensive description of the Real Estate Development Matrix. This Handbook will also be useful for professionals looking for a simpler description of the Matrix. Finally, the Handbook can be printed, so a hard copy of the Matrix is available for those preferring a traditional, reading experience.

## **XI. Next Steps**

Clearly, the next steps begin with addressing the shortcomings and deficiencies of the new website:

- Increase responsiveness to reader comments,
- Include more real world examples,
- Complete the Handbook,
- Use website statistics to improve the site effectiveness, and
- Evaluate the usefulness and the merits of a blog-like feature on the website.

Another goal looking forward is to record a series of 5 to 10 minutes videos, each describing a “special skill” that is needed in the real estate development process. This goal is part of Norm Miller’s “spotted owl project,” which is aimed at aimed at delaying the extinction of real estate professors.

