REPORT:

CITY OF FITCHBURG, WISCONSIN
NORTH MCGAW PARK NEIGHBORHOOD PLANNING

NEIGHBORHOOD DESIGN WORKSHOP

EXECUTIVE SUMMARY

The City of Fitchburg initiated a planning process for the North McGaw Neighborhood, located between U.S. Highway 14 on the east, and the Fitchburg Technology Campus on the west, and between the City's southern Urban Service Area (USA) boundary on the north, and the double circuit 138 KV lines and a tributary of Swan Creek to the south. The purpose of the neighborhood plan is to determine, what if any, areas within the identified North McGaw Neighborhood are suitable for urban expansion. For the planning process the City formed a Steering Committee and hired a planning consulting firm.

To supplement the neighborhood planning process, the City commissioned the Neighborhood Design Center to facilitate a neighborhood modeling workshop for members of the the North McGaw Neighborhood Plan Steering Committee. The purpose of the neighborhood modeling workshop was to increase the capacity of Steering Committee members to apply neighborhood design principles and concepts to guide the neighborhood planning process to meet City of Fitchburg land use goals and objectives.

Fitchburg developed land use goals to achieve growth through balanced neighborhoods that include an integration of compatible uses, a mix of residential densities, and a mix of uses. The Neighborhood Modeling Workshop provided educational resources and group exercises to assist Steering Committee members to create neighborhood designs that meet those city land use goals.

A handbook - *Great Neighborhoods: How to Bring Them Home* - and a PowerPoint presentation provided background information about neighborhood design principles. Two group exercises, a site assessment and a modeling exercise, engaged Steering Committee members and other members of the public to apply the principles to site conditions and model developments. Participants used aerial photographs and wooden blocks to assess conditions. They used wooden models to design developments consistent with City land use goals.The models were photographed and data recorded for number of units and allocations of land uses. The final portion of the workshop examined potential impacts - fiscal, transportation, water, sewer, employment, and commercial - for a hypothetical allocation of land uses for the entire McGaw neighborhood.

Through the ModelBlock exercise, North McGaw Neighborhood Steering Committee members demonstrated knowledge of neighborhood design principles. They applied these principles to create neighborhood site designs that achieved minimum densities of seven dwelling units per residential acre, a mix of housing types, a mix of uses, and an inter-connected networks of streets. Their increased understanding of how neighborhoods can be designed to achieve compact, balanced neighborhoods will increase their ability to critically examine, evaluate, and discuss neighborhood plan concepts generated during the North McGaw Neighborhood planning process. The impact assessment provided information and a methodology that will enable Committee members to assess a broad range of impacts of various neighborhood development patterns.

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INTRODUCTION

The City of Fitchburg initiated a neighborhood planning process to plan for the development of the North McGaw Neighborhood. In August 2007 the City amended Appendix H to the current General Land Use Plan to divide the McGaw neighborhood into two study areas, a north and a south area. On March 19 the City issued a Request for Proposals from firms to prepare a detailed neighborhood plan for the North McGaw Neighborhood.

Figure A: North McGaw Neighborhood

The purpose of the neighborhood plan is to determine, what if any, areas within the identified North McGaw Neighborhood are suitable for urban expansion based on orderly growth, service availability, transportation, land use, soil capacity, natural resources, and other appropriate planning factors.

The resulting neighborhood plan will be consistent with the Capital Area Regional Planning Commission's (CARPC) Future Urban Development (FUDA) requirements. The FUDA process designates areas suitable for inclusion in Urban Service Areas (USAs), which are approved by CARPC. The City established the North McGaw Neighborhood Steering Committee, comprised of City officials, neighborhood residents, business interests, and land owners to guide the neighborhood planning.

The City commissioned the Neighborhood Design Center, Inc. (NDC) to supplement the neighborhood planning for the North McGaw Neighborhood. The NDC was hired to conduct a neighborhood design workshop for the North McGaw Neighborhood Steering Committee. The purpose of the neighborhood design workshop was to educate Steering Committee members about neighborhood design principles, and to provide design guidance to the planning consultants and the neighborhood planning process.

FITCHBURG DEVELOPMENT POLICIES

The City of Fitchburg drafted policies to guide future land use development in their draft Comprehensive Plan. The draft land use element of the Comprehensive Plan sets a goal to limit urban expansion to 75 acres per year, through planning and administration of land use regulations. The policies of the draft Plan call for new urban growth at a minimum density of seven dwelling units per net residential acre (net of public right-of-way and open spaces). It also calls for growth in the form of "balanced" neighborhoods. It describes balanced neighborhoods as including:

- An integration of compatible uses;
- A mix of residential densities - low density, medium density, and high density will be encouraged; and
- Mix use areas that include commercial, business, and residential units in higher density areas, to promote live-work areas and offer day to day needs within a local neighborhood.

NEIGHBORHOOD DESIGN WORKSHOP

The NDC conducted the neighborhood design workshop on May 22 to provide guidance to the neighborhood planning process. Educational resources and workshop exercises were provided to North McGaw Neighborhood Steering Committee members. The resources communicated neighborhood design principles, and exercises created design parameters to guide the North McGaw Neighborhood planning.

Resources: Resources provided as part of the design workshop included a book and a PowerPoint presentation.

- The NDC mailed each Steering Committee member a copy of the book**, *Great Neighborhoods: How to Bring them Home*.** The *Great Neighborhood* book was developed by the Dane County Better Urban Infill Development (BUILD) Program and 1000 Friends of Wisconsin, with funding from Madison Gas & Electric and the Madison Community Foundation. It describes the elements that come together to create compact, diverse, and walkable neighborhoods.

- The NDC also presented a **PowerPoint presentation** during the workshop about neighborhood design principles. The workshop discussed the components of "balanced" neighborhoods: housing choices for diverse families and households (mix of housing types) that are located close to public and semi-public spaces, commerce, recreation, and civic and cultural activities (mix of uses); which encourages walking, bicycling and social interaction (function).

The mix of housing types and uses in close proximity enable densities that reduce automobile travel and emissions - as long as the density is designed with a network of inter-connected and pedestrian/bicycle-friendly streets and attractive and accessible public spaces. In addition, neighborhoods connected to adjacent development through connected streets and paths, and to transit services creates transportation choices in and out of the neighborhood. And neighborhoods designed to protect the historical hydrological systems, and protect and integrate habitats, help to preserve the natural environment.

Figure B: Slide from Workshop Presentation

DESIGN EXERCISES

The **design exercises** of the workshop included a site assessment and a neighborhood modeling exercise.

Site Assessment Exercise
The purpose of the site assessment exercise was to identify the features and characteristics of the N. McGaw Neighborhood site that will affect the development of the neighborhood. Workshop participants divided into two groups to identify, by marking on an aerial photograph of the North McGaw Neighborhood, the following:

- neighborhood context;
- neighborhood assets and issues;
- existing and planned infrastructure; and
- possible phasing of development.

Participants identified the following neighborhood features and characteristics:

<u>Existing & Planned Developments</u>

- Civic Center at Lacy Road and Research Park Drive
- Quarry Hill neighborhood
- Waterford Glen development
- Green Tech Village to the north of Lacy Road and between Syene Road and Highway 14
- Parcel to be developed along the north side of Lacy Road immediately to the north and east of Waterford Glen

- Business park expansion on the western portion of the neighborhood

Infrastructure

- Water and sewer lines, extending south from existing lines
- Arterial or collector road connecting Nobel Drive across the neighborhood, dipping south and then heading north to connect with Lacy Road
- Railroad line parallel to Syene Road
- Stormwater basin needed at northeast corner of the neighborhood
- Planned bicycle paths and routes

Parks, Open Spaces, and Natural Features

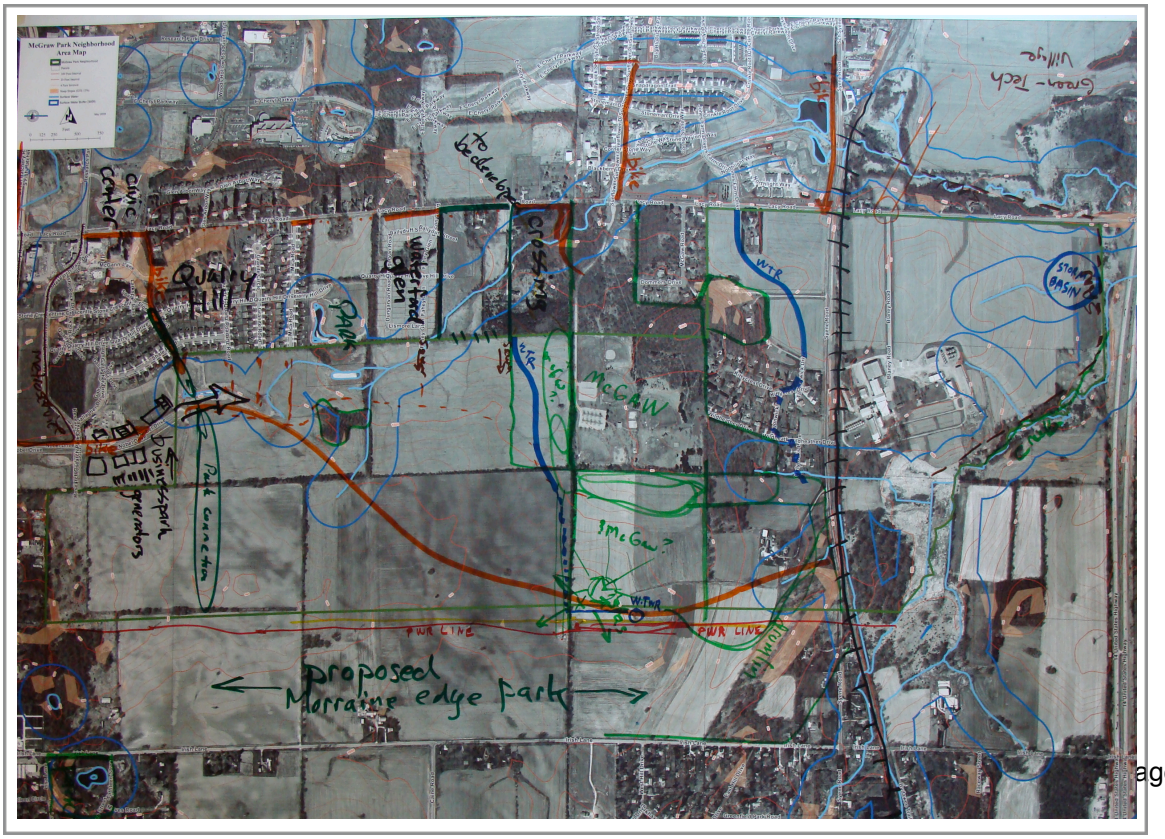
- Park next to Quarry Hill park
- McGaw Park, existing and planned expansion to south and east
- Power line along the southern boundary of the site
- Proposed Moraine Edge Park along the southern boundary of the neighborhood
- Possible Park connection from Nobel Drive south to the proposed Moraine Edge Park
- Drumlin to the south and east

Other Features

- Views to the south
- Noise impacts of Highway 14

The features identified are depicted on the aerial photographs below (Figure C).

Figure C: Maps Marked (2) During Site Assessment

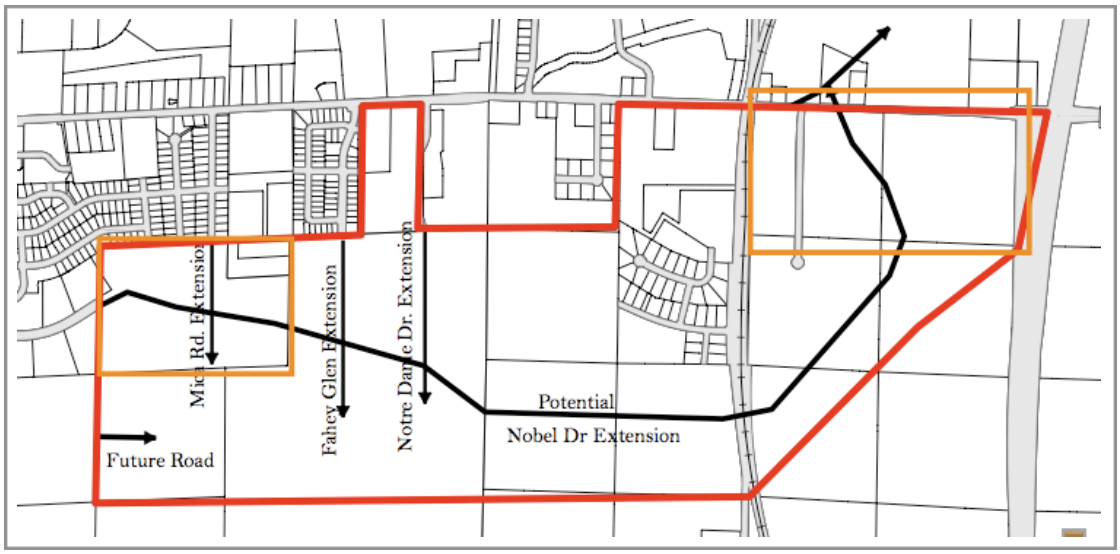


Model Block Exercise

During the ModelBlock exercise, participants arranged wooden blocks representing a variety of building types on an aerial photograph to create neighborhood developments for two selected portions of the North McGaw Neighborhood. The aerial photograph and the wooden blocks are produced at a scale of one inch equals 40 feet.

The two sections of the neighborhood were selected based on review of neighborhood planning documents, a walking tour of the North McGaw Neighborhood, and input from City staff. They included a 60-acre site on the northwestern portion of the neighborhood, adjacent to the Technology Campus; and a 80-acre site of the northeastern portion of the neighborhood. Figure D below shows the sites selected (outlined in orange).

Figure D: ModelBlock Exercise Sites (Orange)



The objective of the exercise was to create a *hypothetical* neighborhood development with the characteristics below, that represent City of Fitchburg land use goals:

- Target density: 7 dwelling units per residential acre
- Mix of development types: commercial (employment, retail, service), residential, park and open space, civic.
- Mix of housing types: large single family, small single family, town house, apartment.
- Interconnected street network
- Walkable destinations - try to locate destinations within quarter to half mile walking distance

The neighborhood developments created by participants were not intended to serve as specific neighborhood plans, but to guide future plans prepared as part of the North McGaw Neighborhood planning process. Outside the scope of the workshop were aspects of environmental sustainability such as preserving natural water systems by incorporating on-site infiltration, and green building. While the ModelBlock exercise did not address these environmental issues, the Steering Committee and neighborhood planning should address them with the intent of creating a sustainable neighborhood.

The exercise steps were:

- Make site observations
- Designate open space corridors & networks
- Designate primary street network
- Designate neighborhood “center”
- Designate employment center (if different)

- Designate land uses
- Designate blocks
- Place buildings
- Record site plan information

Northeast ModelBlock Site

The Northeastern ModelBlock site was bounded by U.S. Highway 14 on the east, Lacy Road to the north, Syene Road to the west, and the unnamed south tributary to Swan Creek. Participants identified the planned commuter rail station in the planned Technology Campus immediately to the North. They also identified an arterial road planned to travel north-south along the western portion of the site. A 1/2 mile pedestrian distance from the planned commuter rail station overlapping with the planned arterial road comprised the mixed-use center of the neighborhood (see Figure F). East of the mixed-use center, participants placed houses, decreasing in density as the distance from the center increased.

Figure E: Northeast ModelBlock Exercise Site

Figure E shows the site looking east from the railroad tracks, identified as a commuter rail line. The mixed use **neighborhood center** is in the foreground along the main arterial through the site, and within a half-mile of the anticipated commuter rail station to the north of the site (to the left in picture) in the Green Tech Village neighborhood. A **civic use** is a prominent feature of the neighborhood center, shown with a vertical projection.

The civic **terminates the view** looking west down down a neighborhood street. A bicycle path and greenway run parallel to the railroad line. Open space is shown in the northwest corner of the site. East of the neighborhood center are residential homes, in decreasing density with distance from the center. The buildings along the north edge of the site (left in the picture) are apartment buildings that border Lacy Road. They serve to buffer the neighborhood from the traffic along Lacy Road, which will likely be widened in the future as development progresses along it.

Figure F: Northeast ModelBlock Exercise Site looking northwest

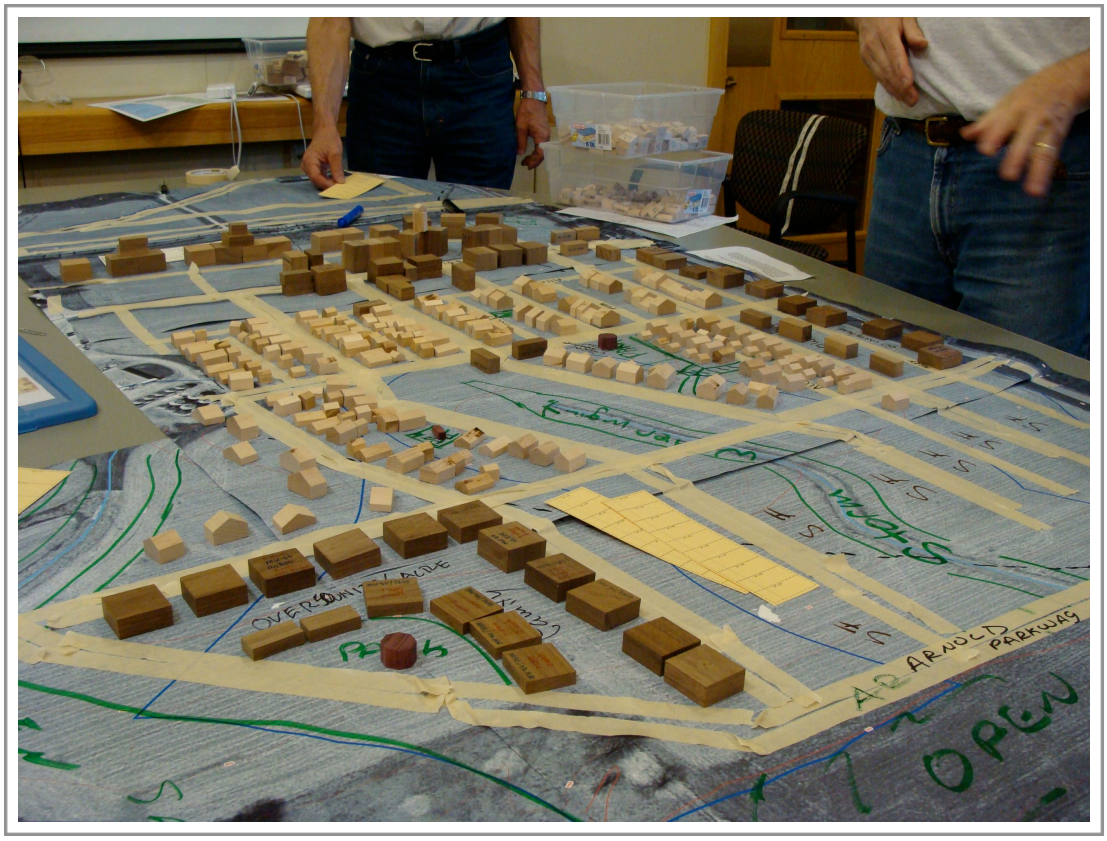


Figure F above shows the site from the southeast corner, looking northwest. The neighborhood center is at the upper end of the picture. Closest in view is a set of multi-family buildings oriented around a park. To the west of the multi-family are homes at lower density. The bottom right (eastern edge of site) is open space to buffer noise from Highway 14 and to protect the steep slopes along the creek. The center for open space and storm water is identified in green in Fig F. Running east-west through the middle portion of the site, from "Arnold Parkway" to about the middle of the site, is a stormwater and open space feature.

Figure G: Northeast Site-Neighborhood Center - close views

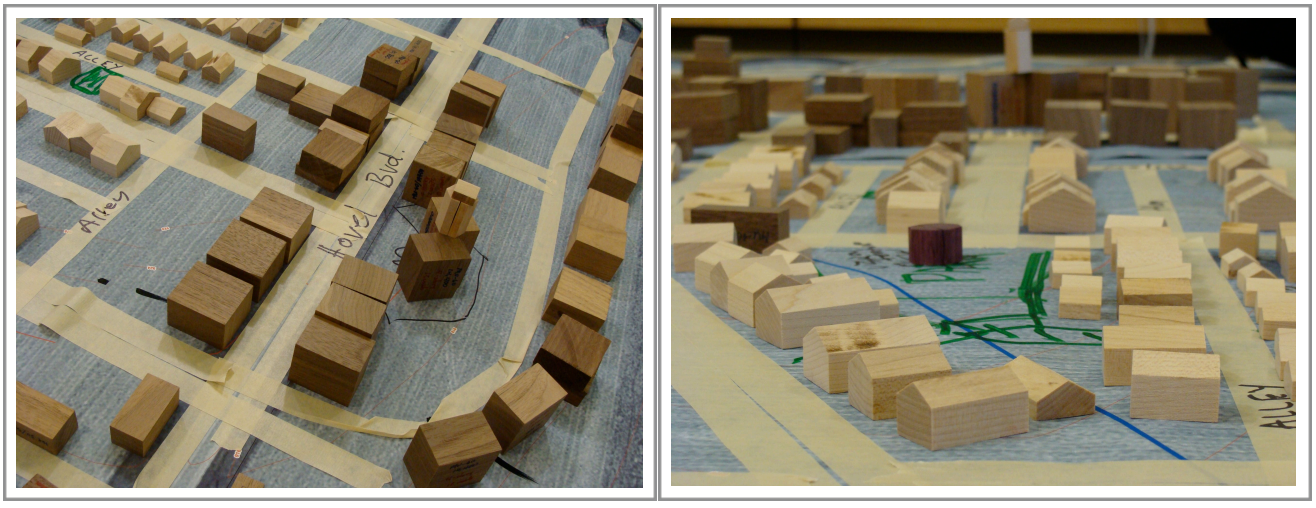
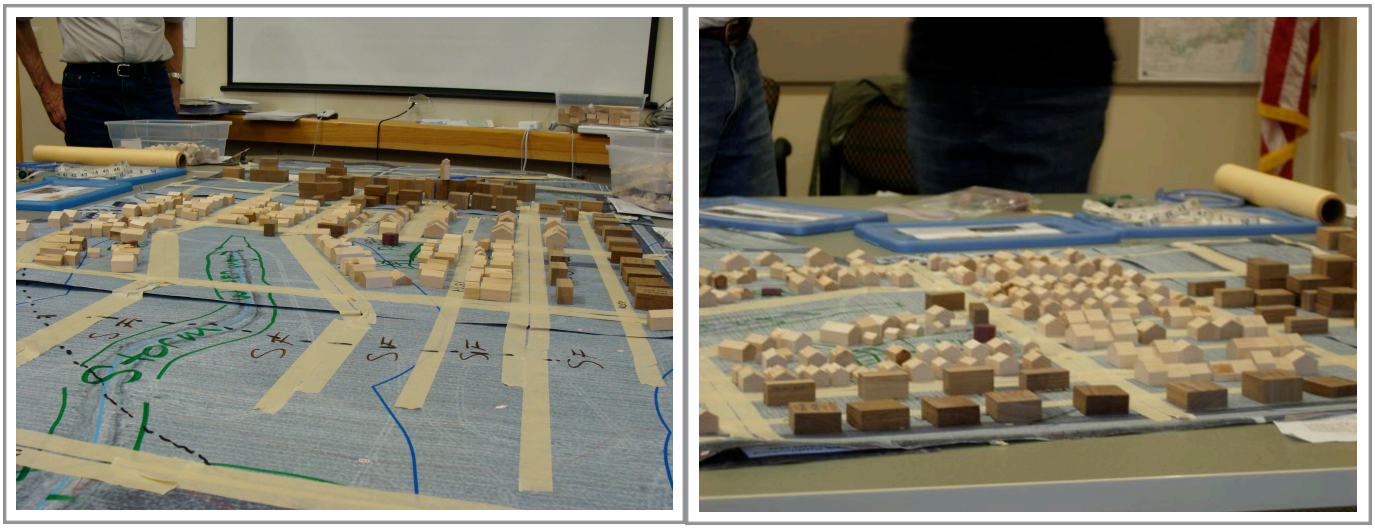


Figure G above shows a closer view of the smaller neighborhood park at the center of the block (right) and a close view of the neighborhood center. The neighborhood park provides accessible green space close to homes. Figure H shows views of the site looking west (left) and south (right). The images show block sizes ranging from about 600 feet long (H-left, foreground), about 480 feet (H-right image, left portion), and about 320 feet (H-right, right portion of image). The depth of the blocks are about 240 feet. The blocks show houses facing the street and garages in back accessed by **alleys**. The streets are arranged in an interconnected network.

Figure H: Northeast Site-Neighborhood Center - west and south views



Following the neighborhood design for the site, information was collected regarding dwelling units, acreages of different uses, and mix of uses and walkability. Table 1 below shows the data for the site. Note that acreages are estimates based on measurements of the model.

Table 1: Northeast Site- Site Data

Land Use	Acres	Percent	Units	Units/Acre
Residential	54.4	44%	763	14.0
Mixed Use	23.1	19%		
Open Space	45.2	37%		
Total	*122.7*	*100%*		

Note that acreages are estimates based on measurements of the model. Right of Way is not included in the estimates.

Mix of uses on the site:

- Small lot single-family residential
- Large lot single-family residential
- Multi-family residential
- Commercial
- Civic Use
- Employment
- Park
- Natural Area

Walkability

Total units within ¼ mile of:

Neighborhood Center	90%
Civic use 1-Neighborhood Center	100%
Civic use 2-Neighborhood Park (center)	100%
Neighborhood Park	100%
Employment	
Other	

In summary, the workshop participants met the objectives of the ModelBlock exercise in creating a compact, diverse and walkable neighborhood. The average density, representing a range of housing types and densities within the site, was twice as high as the objective.

Western ModelBlock Site

The western ModelBlock site consisted of the parcel immediately to the east of the Fitchburg Technology Campus, and to the south of residential homes between Lacy Road and the northern boundary of the McGaw Neighborhood. The eastern and southern boundaries of the site are marked by tree lines that correspond to parcel lot lines.

Workshop participants identified a key issue with this site as the planned expansion of the Fitchburg Technology Campus eastward into much, if not all of the site. Participants noted that some concept plans have already been developed by some parties for the site. It was agreed that, since the purpose of the exercise was to produce a hypothetical neighborhood model, the specific neighborhood design created by participants would not drive the future neighborhood plan.

Given the expansion onto the site by the Fitchburg Technology Campus, one issue to address with the neighborhood plan was how to buffer the impacts (such as noise, traffic, visual) of the Campus for the existing and planned residences, while creating opportunities for residents to walk or bike to nearby jobs at the campus.

Figure I below shows the site looking towards the east. The building in the lower left (northwestern) corner represents an existing building in the Technology Campus. The image shows the extension of Nobel Drive through the site, as a boulevard type of street. Future Technology Campus buildings are located along and to the south of Nobel Drive. Each block represents 3,600 s.f. building footprints in 2- and 3-story buildings. Groupings of blocks represent technology buildings, ranging in size from approximately 40,000 s.f. to 100,000 s.f. The Technology Park includes areas designated in red for structured parking. The form of the employment district is that of a business park with single-uses in a larger district oriented for automobile-only access.

Figure I: West Site-Neighborhood Center - looking east

Residential uses follow a density gradient, with small single-family detached homes along the northern edge of the site, adjacent to the existing residences (generally single-family detached homes in about 60 feet wide lots). Apartment buildings are located between the row houses and the commercial buildings.

Figure I also shows a stormwater greenway running west to east. The greenway serves as an open space amenity, as a buffer between the commercial and residential uses (to the north), and to channel stormwater run-off towards a retention pond toward the eastern end of the site.

Figure J shows the site looking towards the southeast. Single-family detached homes on lots about 36 feet wide face a new street along the northern edge of the site, which connects to extensions of existing streets. Garages are to the rear accessed by an alley. Two story, 8-unit apartment buildings face a semi-circular street (drawn not taped) that frames a small park and open space area. Parking could potentially be below grade and on-street. Three-story apartment buildings are located behind the two-story buildings across the stormwater, open space corridor.

Figure J: West Site-Neighborhood Center - looking southeast

Behind the three-story buildings a mixed-use neighborhood center is located. It includes an L-shaped building with approximately 10,000 s.f. of retail on the first floor, and 24 units of housing on the second and third floors. Rowhouses are located along a street that curves between the stand of trees and the stormwater feature.

Toward the rear of the picture, marked with a green marker, an existing stand of trees is indicated for preservation. A stormwater detention area is shown along the left edge of the picture. Along upper portion of the picture (eastern edge of the site) are single family detached homes along a new north-south street.

Site Design Outcomes

Table 2: West Site- Site Data

Land Use	Acres	Percent	Units	Units/Acre
Residential	16.2	27%	300	18.5
Mixed Use	1.3	2%		
Employment	25.7	43%		
Open Space	17	28%		
Total	*60.2*	*100%*		

Note that acreages are estimates based on measurements of the model. Right of Way is not included in the estimates.

Mix of uses on the site:

Small lot single-family residential	Employment
Large lot single-family residential	Park
Multi-family residential	Natural Area
Commercial	

Walkability

Total units within ¼ mile of:

Neighborhood Center	100%
Neighborhood Park	100%
Employment	100%
Other	

The development shows a relatively high density. The number of apartment buildings, row houses and mixed use buildings, on a small portion of the overall site account for the high density. The density reflects the proximity to the Technology Campus and the appropriateness of larger multi-family buildings adjacent to larger commercial uses, transitioning towards medium density along the site edges.

Employment uses represents the largest portion of the site (43%), reflecting the anticipated demand for technology business space. Residential uses make up 27 percent of the total site and open space comprises 28 percent, consisting of the greenway, the stormwater pond, the woodlands, the tree-lines and the neighborhood park. The data also indicates a very walkable neighborhood, with a wide mix of uses, and all of the uses within a quarter mile circle.

A few main themes emerge from the site design. One is the transition from the employment use to the existing residential area. The transition was accomplished by a gradient of density decreasing from the employment to the existing residential to the north, and by using the stormwater/open space corridor as a buffer, as well as an amenity. Second, the placement of the mixed-use neighborhood center in the middle of the site enables it to serve both the employment district and the residential areas. A third theme is the design of streets and lots to preserve the natural features (the woodlands) and to enhance the value of housing adjacent to the woodlands.

The site design met most of the workshop objectives. Densities exceeded the targeted minimum of 7 units per acre. The design included a mix of housing types and mix of uses within a quarter-mile radius. The street network, however, lacks sufficient connectivity to enable easy walks between the uses. Natural barriers (stormwater corridor, woodlands) and the arterial street present obstacles to greater connectivity. One approach to enhance connectivity would be to add a pedestrian and bicycle trail network throughout the site. Another approach would be to introduce additional north-south streets to the design.

The employment district, as a larger, single-use district with buildings oriented inward also reduces connectivity and reduces walking and bicycling to and from workplaces as an option. An alternative design to increase walkability would be to add an internal network of streets to the

employment district, orient the buildings towards the streets with parking to the rear and side, and add some commercial uses to the site, along the arterial and at key intersections for more walkable destinations. This design of business park is evident in other portions of the City of Fitchburg.

Impact Analysis

The final portion of the workshop examined the potential impacts of a hypothetical buildout for the entire North McGaw Neighborhood. The purpose of the impact analysis was to identify the potential fiscal, transportation, sewer, water, and employment (public and private) impacts of possible developments, and to identify the potential amount of commercial space that the neighborhood could support. Workshop participants allocated numbers of acres to a range of land use categories. The spreadsheet used various multipliers (based on countywide averages) to estimate fiscal impacts. Tables 3-6 show a summary of the development impacts, and the full spreadsheet is shown in Appendix A.

Table 3: Development Impacts for Hypothetical Land Use Allocation in North McGaw Neighborhood (Taxes, Trips, Sewage, Water)

Land Use	Acres	Percent	Property Tax Generated	Trips Generated per Day	Sewage Generated (Gallons/Day)	Water use (Gallons/ Day)
One-family	90	17	$2,159,820	3,456	28,800	203,400
Two-family	10	2	373,815	630	7,200	50,850
Multi-family	35	6	1,162,980	2,772	33,600	289,380
Mixed Use	100	18	3,322,800	42,920	139,500	895,700
Commercial	50	9	646,100	17,500	21,750	34,450
Industrial	0	0	0.00	0	0	0
Business Park	70	13	323,050	9,800	70,000	63,280
Public Park	50	9	0	80	100	6,700
Open Space	125	23	0	0	0	0
School/Institutional	15	3	0	375	6,000	14,460
Total	**545**	**100**	**$7,988,565**	**77,533**	**306,950**	**1,558,220**

Workshop participants allocated 135 acres (25%) of the neighborhood to residential uses. The table assumes residential densities of 4 units per acre for single-family, 8 units/acre (2-family), and 12 units/acre for multi-family and mixed use. Twenty two percent of the area (120 acres) was

allocated to commercial and business park. Mixed use, at 100 acres (18%) shows the largest impacts or a category, with $3,322,800 in property taxes generated, 42,920 trips per day, 139,500 gallons per day of sewage, and 895,700 gallons per day of water consumption.

Table 4: City Fiscal Impacts for Hypothetical Land Use Allocation in North McGaw Neighborhood

	Amount
Total City budget	$14,329,040
Budget per capita	$562
New neighborhood taxes per capita	$512

Table 4 identifies the taxes generated compared to the City budget per capita. The development would generate $512 per year in new taxes per capita, while the City budget allocates $562 per capita. The hypothetical development would thus generate about $50 per capita less in taxes than the City allocates. This shortfall could be improved by higher priced homes (table assumes average values of $325,000, $224,000, $150,000 and $150,000 for one-family, two-family, multi-family, and mixed-use, respectively). The net fiscal impact could also be improved by shifting more land to commercial or business park (with impacts on the jobs to housing balance) or to increasing the amount of single-family homes which have higher values (but negatively impacting the school budget). The City fiscal impact is important, but one of many considerations.

Table 5: Commercial Potential for Hypothetical Land Use Allocation in North McGaw Neighborhood

	Amount
Average household expenditures on retail & services	$23,350
Average sales per square foot	$264
Households in trade area	2,400
Sales generated in trade area	$56,040,000
Percent of expenditures captured by neighborhood	25%
Sales captured in neighborhood	$14,010,000
Commercial area required	53,068

Table 5 estimates the amount of commercial land that would be required to satisfy the retail and service expenditures of households in the trade area. The total sales generated in the trade area, based on average household expenditures and size of trade area, is $56,040,000. Of this amount, it is estimated that the neighborhood would capture about 25% of those sales, or $14,010,000. At an average of $264 expenditure per square foot, 53,068 of commercial space would be required to satisfy this level of expenditure. This amount of commercial space is about two of what the retail industry calls Convenience Centers. Convenience Centers range from 10,000 to 30,000 square feet, have an average trade area of 1 square mile, must be located along a major road, and are often anchored by specialty food stores or pharmacies.

Table 5: Development Impacts for Hypothetical Land Use Allocation in North McGaw Neighborhood (Employment & Public Workers)

	Amount
Number of new public safety staff required	10
Number of new other city workers required	23.5
Available workforce from neighborhood	2,900
Number of jobs created	4,125
Ratio of jobs per available worker	1.42

Table 5 shows the public employment that the neighborhood will require, the workforce generated, and jobs created. A total of 33.5 new city workers will be required, including 10 new public safety staff. The neighborhood will generate 4,125 new jobs but 2,900 new workers.

CONCLUSIONS

Through the ModelBlock exercise, North McGaw Neighborhood Steering Committee members demonstrated knowledge of neighborhood design principles. They applied these principles to create neighborhood site designs that achieved minimum densities of seven dwelling units per residential acre, a mix of housing types, a mix of uses, and an inter-connected networks of streets. Their increased understanding of how neighborhoods can be designed to achieve compact, balanced neighborhoods will increase their ability to critically examine, evaluate, and discuss neighborhood plan concepts generated during the North McGaw Neighborhood planning process. The impact assessment provided information and a methodology that will enable Committee members to assess a broad range of impacts of various neighborhood development patterns.

FITCHBURG-N. MCGAW NEIGHBORHOOD DESIGN WORKSHOP - APPENDIX A

Neighborhood Development Impact Assessment Worksheet

Project Title	McGaw Neighborhood Block Exercise
Community	City of Fitchburg, Wisconsin
Date Prepared	May 22, 2008

	One Family	Two Family	Multifamily	Mixed Use	Commercial	Industrial	Business Park	Public Parks	Open Space	Schools and Institutional
Acres designated for each type of land use	90.0	10.0	35.0	100.0	50.0	0.0	70.0	50.0	125.0	15.0
Total acres in neighborhood	545.0									
Enter the number of residential units per acre	4	9	12	12						
Total residential units by land use	360	90	420	1,200						
Total new housing units	2,070									
Housing units per residential acre (gross)	8.81									
Average persons per housing unit	2.75	2.00	1.90	1.90						4,248
Average students per housing unit	0.65	0.33	0.15	0.15						506

	One Family	Two Family	Multifamily	Mixed Use	Commercial	Industrial	Business Park	Public Parks	Open Space	Schools and Institutional
Average assessed value per unit	$325,000	$225,000	$150,000	$150,000						
Average assessed value per acre	$1,300,000	$2,025,000	$1,800,000	$1,800,000	$700,000	$250,000	$250,000	$0	$0	$0
Total assessed value by land use	$117,000,00	$20,250,000	$63,000,000	$180,000,00	$35,000,000	$0	$17,500,000	$0	$0	$0
Total assessed value	$432,750,00									
Property tax rate ($ per 1000)	18.46	18.46	18.46	18.46	18.46	18.46	18.46	18.46	18.46	18.46
Total property tax generated by land use	$2,159,820	$373,815	$1,162,980	$3,322,800	$646,100	$0	$323,050	$0	$0	$0
Total property tax generated	$7,988,565									
Residential equivalent units (REUs)	360	90	420	1,200	0	0	0			
Impact fees assessed per REU	$500	$250	$110	$110	$0	$0	$0	$0	$0	$0
Impact fees collected by land use	$180,000	$22,500	$46,200	$132,000	$0	$0	$0			
Total impact fees collected	$380,700									

Percent of property tax to community	27.25%	$2,176,883.9
Percent of property tax to county	13.12%	$1,048,099.7
Percent of property tax to schools	51.86%	$4,142,869.8
Percent of property tax to other	7.77%	$620,711.50
Avg. household expenditures on retail/service	$23,350	$48,334,500
Avg. sales per square foot	$264	
Number of households in the trade area	2,400	$56,040,000
Percent of expenditures subject to tax	80%	$44,832,000
Percent of expenditures captured in community	25%	$14,010,000
Sales tax rate	5.5%	
Commercial area required (square feet)	53,068	
Commercial area planned by community	65,000	
Planned ratio of commercial acres to square feet	3.5	
Acres of commercial land needed	5.2	
Sales tax rate for community	0	$0
Sales tax rate for county	0.5%	$56,040.0
Sales tax rate for state	5.0%	$560,400.0
Current community population	25,477	
Current community households	11,048	

Neighborhood Development Impact Assessment Worksheet

Municipal budget (total)	$14,329,040									
Percent of budget funded by property t	73.1%									
Percent of budget funded by sales tax	0.0%									
	Public Works	Parks & Rec	Police	Fire/EMS	Library	Comm. Devel.	Debt Service	General Gov't.	Other	Total
Budget allocation by function	$1,347,674	$865,117	$5,021,895	$2,379,528		$509,708		$1,842,736	$2,362,382	$14,329,040
Percentage of budget allocated by function	9.41%	6.04%	35.05%	16.61%	0.00%	3.56%	0.00%	12.86%	16.49%	100.00%
Funding per household	$122	$78	$455	$215	$0	$46	$0	$167	$214	$1,297
Funding per capita	$53	$34	$197	$93	$0	$20	$0	$72	$93	$562
New neighborhood taxes generated	$204,740	$131,430	$762,932	$361,501	$0	$77,435	$0	$279,951	$358,896	$2,176,884
New neighborhood taxes per household	$99	$63	$369	$175	$0	$37	$0	$135	$173	$1,052
New neighborhood taxes per capita	$48	$31	$180	$85	$0	$18	$0	$66	$84	$512
School district budget	$37,629,716									
Current number of students	3681									
Property tax funding	$15,146,707									$4,142,869.8
State/other funding	$22,483,009									
School funding per student	$10,223									
Property tax funding per student	$4,115									$8,183.45
Number of public safety personnel	60									
Public safety personel per capita	424.6									
Number of other city personnel	141									
City personnel per capita	180.7									
Number of new public safety staff required	10.0									
Number of new other city workers required	23.5									

FITCHBURG-N. MCGAW NEIGHBORHOOD DESIGN WORKSHOP - APPENDIX A

	One Family	Two Family	Multifamily	Mixed Use	Commercial	Industrial	Business Park	Public Parks	Open Space	Schools and Institutional
Avg. number of trips generated per day (ADT)	9.6	7.0	6.6	350.0	350.0	140.0	140.0	1.6	0.0	25.0
Total trips per day by land use	3,456	630	2,772	42,920	17,500	0	9,800	80	0	375
Total trips generated	77,533									
Avg. sewage generated per day (GPD)	80	80	80	435	435	1000	1000	2	0	400
Sewage generated by land use (GPD)	28,800	7,200	33,600	139,500	21,750	0	70,000	100	0	6,000
Total sewage generated (GPD)	306,950									
Gallons of water used per acre per day (GPD)	565	565	689	689	689	904	904	134	0	964
Avg. water usage by land use (GPD)	203400	50850	289380	895700	34450	0	63280	6700	0	14460
Total water used (GPD)	1,558,220									
Number of workers per household	3,742									
Work force participation rate	77.5%									
Available work force	2,900									
Number of jobs per acre				20	20	10	15			5
Jobs created by land use				2,000	1,000	0	1,050			75
Total number of jobs created	4,125									
Ratio of jobs per available worker	1.42									

Sources
Capital Area Regional Planning Commission
City of Fitchburg
Wisconsin Department of Revenue
2010 Estimate, Fitchburg Comprehensive Plan
Oregon School District