

# COLLEGE OF DUPAGE

GLEN ELLYN, ILLINOIS  
DUPAGE COUNTY



## CAMPUS WIDE PARKING STUDY

### PREPARED FOR:

Facilities Planning and Construction  
425 Fawell Boulevard  
Glen Ellyn, Illinois 60137

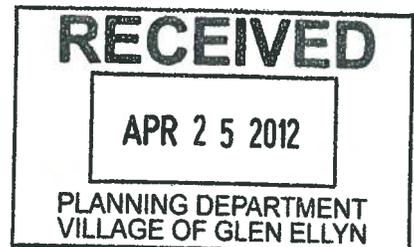
### PREPARED BY:



V3 Companies of Illinois  
7325 Janes Avenue  
Woodridge, Illinois 60517

V3 Project No. 05008.29

**-DRAFT-**  
MAY 12, 2010



**TABLE OF CONTENTS**

**I. INTRODUCTION .....1**

**II. DATA COLLECTION .....2**  
 Existing Parking Inventory  
 Existing Students and Staff

**III. PARKING ANALYSIS .....4**  
 Summary of Parking Study Procedures  
 Existing Parking Demand  
 Future Parking Demand

**IV. PARKING ALTERNATIVES .....8**  
 Short Term Solutions  
 Long Term Solutions  
 Premium Paid Parking  
 Special Events Consideration

**V. CONCLUSIONS & RECOMMENDATIONS .....19**

**TABLES**

**Table 1 Total Seatcounts per Hour ..... 3**

**Table 2 Fall 2009 Total Staff Counts During Peak Hour ..... 3**

**Table 3 Fall 2009 Existing Parking Demands at Peak Hour ..... 4**

**Table 4 Existing Peak Day/Hour Seatcounts by Building ..... 5**

**Table 5 LOS Service Conditions ..... 5**

**Table 6 Project Schedule and Parking Impacts ..... 6**

**Table 7 Parking Demand Trend ..... 6**

**Table 8 90% Parking Capacity Demand ..... 7**

**Table 10 Existing vs. Future Parking Inventory ..... 19**

**Table 9 Summary of Parking Lot Alternative Costs ..... 20**

**Table 11 Seatcounts vs. Future Parking % ..... 21**

**Table 12 Projected Schedule of Recommended Parking Improvements ..... 22**



## TABLE OF CONTENTS (CONT.)

### FIGURES

<b>FIGURE 1</b>	<b>SITE LOCATION MAP</b>
<b>FIGURE 2</b>	<b>EXISTING SITE LAYOUT</b>
<b>FIGURE 3</b>	<b>EXISTING PARKING INVENTORY</b>
<b>FIGURE 4</b>	<b>EXISTING PARKING DEMANDS</b>
<b>FIGURE 5</b>	<b>PROPOSED PARKING DEMANDS</b>
<b>FIGURE 6</b>	<b>SHORT TERM AND LONG TERM PARKING ALTERNATIVES</b>
<b>FIGURE 7</b>	<b>PREMIUM PAID PARKING LOCATIONS</b>
<b>FIGURE 8</b>	<b>RECOMMENDED PARKING LOCATIONS</b>

### APPENDIX

### DATA COLLECTION



## I. INTRODUCTION

College of DuPage (COD) is the third-largest single-campus community college in the nation and the second-largest institution of higher education in Illinois. COD offers more than 90 certificate programs and degrees for today's occupational and technical careers, seven associate's degrees in 59 occupational careers, and 45 transfer pre-baccalaureate programs. With more than 30,000 students attending each semester, COD provides an educational experience for nearly 25 percent of all high school graduates in Community College District 502.

COD is located in Glen Ellyn Illinois, covers 273 acres, and has nine major buildings. The campus is located at 425 Fawell Boulevard and is bounded by Fawell Boulevard on the north, Park Boulevard on the east, a residential subdivision south of College Road on the south, and a residential subdivision west of Lambert Road. The site location map is included as Figure 1. The Glen Ellyn campus is currently undergoing a major \$300 million renovation through the Facilities Master Plan (FMP), which has an anticipated completion date of 2014. Due to the proposed renovations, the College requested that an analysis of COD's current and projected parking needs be prepared to address impacts of the future campus developments on parking supply.

In February 2007, Civiltech Engineering, Inc. updated the 2004 Parking and Traffic Study for COD due to a change in future student enrollment estimates. The updated 2007 Parking and Traffic Study projected the parking and traffic estimates to the anticipated build-out year of 2014.

Since then, the implementation of COD's FMP included the completion of the Health & Sciences Center (HSC – east campus), Early Childhood Center (ECC – west campus), and Technology Education Center (TEC – west campus) buildings. Further improvements to the campus include reconstruction of the Berg Institutional Center (BIC – east campus), addition of the Culinary Arts Center (CAC – east campus), and addition of the Homeland Security Center (HEC – west campus).

It is anticipated for the FMP to be implemented over a duration of 5 years. During the interim conditions, classrooms will be relocated to other campus buildings in order to accommodate the ongoing reconstruction of the BIC building, addition of the CAC and HEC buildings. The construction of CAC and HEC will have a significant impact on the number of parking spaces on campus. The construction of these improvements will impact existing parking supply, and upon building completions, the future parking demands. The existing site layout is included as Figure 2.



Due to the addition of enhanced and expanded programs for COD, this study will address the parking needs beyond the anticipated FMP build-out year to 2020. This report includes a description of existing parking conditions, evaluation of the data to determine parking demands for each building, future parking needs, and recommendations.

## II. DATA COLLECTION

COD's Research and Planning Department provided V3 with the following data used in the analysis (see Appendix A):

- Building Occupancy by Hour Fall 2009 10<sup>th</sup> Day – provided Fall 2009 student seatcounts to obtain peak day and peak hour
- Number of Classes in Session Fall 2009 – provided Fall 2009 faculty
- Peak Hour non-faculty employees (included in Table 2)
- Fall Headcount Projects to 2030 – provided percent increase of enrollment
- Summary of Special Events per Building Date 1-1-09 thru 12-31-09 – provided attendance data for special events.

### Existing Parking Inventory

An inventory of existing parking stalls were obtained from recent improvements and aeriels; and then field verified. Figure 3 contains a table summary and map of the existing parking inventory for the Glen Ellyn campus. As shown in the table, the campus parking lots were classified as West, Main, and East and are associated with buildings in close proximity. The West campus consists of the TEC, K, OCC, M, and ECC buildings. The Main campus consists of the HSC, SRC, SCC, and BIC buildings. The East campus consists of the MAC and PE buildings.

The table also shows that there are a total of 6,664 standard parking spaces, 181 handicap stalls, 625 staff/faculty parking, and a number of various permit/assigned parking stalls. The small percentage of specialized parking stalls were not included for the purpose of this study in order to focus on student and staff parking needs.



**Existing Students and Staff**

Table 1 provides a summary of Fall 2009 student seatcounts during the 10<sup>th</sup> day of classes at each hour. The peak day and hour occurs on Tuesdays at 9:00 am.

**Table 1: Total Seatcounts per Hour**

Time	Monday	Tuesday	Wednesday	Thursday	Friday
6AM	0	0	0	0	42
7AM	534	225	510	247	499
8AM	3068	3433	3289	3431	2237
9AM	5379	7176	5720	7059	3679
10AM	5557	5983	5929	5790	3689
11AM	5219	5493	5657	5254	3583
Noon	4435	6341	4781	6153	2837
1PM	4278	4684	4433	4552	1743
2PM	3613	3581	3801	3474	894
3PM	2359	3016	2492	2998	354
4PM	1467	1899	1629	1806	120
5PM	1510	1720	1517	1757	148
6PM	3063	3388	3187	3092	205
7PM	4367	4286	4209	3894	187
8PM	4134	4207	3962	3808	187
9PM	3277	3182	3199	2923	148
10PM	157	163	167	190	6

Table 2 provides a summary of total staff present at the Glen Ellyn Campus during the peak day and hour.

**Table 2: Fall 2009 Total Staff Counts During Peak Hour**

Type of Staff	Staff During Peak Hour
*FT Faculty & PT Faculty	326
**Administrators	47
**FT Professionals	23
FT Classified (Includes FOP & Operating Engineers)	426
PT Classified	148
***Student Workers	354
<b>Total:</b>	<b>970</b>

\*Number based off 'Peak Class Sections' data received, assumed one faculty position per classroom

\*\*Assumed all to work during peak hour

\*\*\*Not included in 'Total' - already accounted for in seat count analysis

Based on this data, an estimated total of 8,146 people are on campus during the Fall 2009 peak day and peak hour. Since a parking accumulation survey was unavailable for the Fall 2009 session, an average vehicle occupancy (AVO) factor was determined to estimate the number of occupied parking spaces on campus during the peak hour. Based on parking studies conducted in Illinois, and at other colleges and universities, the AVO factor ranged between 1.10 – 1.25. An AVO factor of 1.20 persons per vehicle was used for this study; taken into account walking, carpooling, drop-offs, and public transportation.



Staying consistent with the updated 2007 Parking and Traffic Study, a practical capacity of 90% was used to provide a 10% buffer to avoid long searches for remaining parking spaces. According to this methodology 6,788 vehicles are estimated to be on campus during the Fall 2009 peak hour. Table 3 provides the summary of the existing parking demands for students and staff:

**Table 3: 2009 Existing Parking Demands at Peak Hour (based on 10th day data)**

Type	Population	Average Vehicle Occupancy	Estimated Occupied Parking Spaces	Existing Campus Parking	Available Parking Spaces
Students	7,176	1.2	5,980	6,845	865
Staff	970	1.2	808	625	-183

Although the table indicates a shortage of staff parking spaces, it has been observed throughout the school year that the staff parking lots are under utilized. It has been noted by COD reps, that staff members generally park closest to their building location regardless of the designated lots available to them. According to Table 3, there is an overall existing surplus of 682 available parking spaces (91% capacity) on campus during the peak day and hour.

### III. PARKING ANALYSIS

#### Summary of Parking Study Procedures

The Fall 2009 parking demand is slightly above the practical capacity (90%) based on the existing parking layout. Ongoing redevelopment projects will impact the existing parking lots on campus from now until the anticipated build-out year of 2014. Due to the addition of enhanced and expanded programs for COD, this analysis provides the parking needs through Fall 2020 to capture the continual increase of enrollment as well as identify when parking shortages occur.

Parking recommendations are provided to meet the immediate and long term needs of the College, along with their perspective cost estimates.

In addition to the parking demand for students and staff, COD provided data pertaining to the special events that occur throughout the year. Some of the events attracted non-student and non-staff members, which contribute to the overall parking demand. Recommendations are included to accommodate the additional parking demand.



**Existing Parking Demand**

Field observations indicated that the highest parking demands are located along the south side of Fawell Boulevard (Lots Fawell A – Fawell D). Table 4 provides the estimated number of occupied parking spaces associated with the breakdown of student seatcounts per building during the peak hour and peak day:

**Table 4: Existing Peak Day/Hour Seatcounts by Building**

Campus	Building	Fall 2009	Estimated Occupied Parking Spaces
EAST	MAC	548	457
	PE	177	148
MAIN	BIC	3415	2846
	HSC	982	818
	SCC	81	68
	SRC	306	255
WEST	ECC	27	23
	K	159	133
	M	953	794
	OCC	171	143
	TEC	357	298
TOTAL:		7,176	5,980

Based on the table above, a majority of the students are located at the main campus during the peak hour and day. Due to the close proximity of buildings on the main and east campus, a majority of the parking lots service more than one building, producing a high demand for parking in these lots. Figure 4 provides a generalization of existing high-in-demand parking locations in relation to the preferred walking distance from a building entrance. An estimated 875' radial depiction was based off a 2008 National Parking Association study entitled How Far Should Parkers Have to Walk? The study utilized a Level of Service (LOS) approach similar to how vehicle operations are evaluated and it also classified acceptable walking distances for several conditions found in Table 5:

**Table 5: LOS Service Conditions**

Level of Service Conditions	A	B	C	D
Climate Controlled	1,000 ft.	2,400 ft.	3,800 ft.	5,200 ft.
Outdoor/Covered	500	1,000	1,500	2,000
Outdoor/Uncovered	400	600	1,200	1,600
Through Surface Lot	350	700	1,050	1,400
Inside Parking Facility	300	600	900	1,200

Based off the study's extensive research, an LOS C or D for university campuses is usually recommended as the standard for acceptable walking distances. However, because of COD's



smaller scaled campus in comparison to a typical university, an average of 875' (LOS B – LOS C) for a through surface lot was considered the acceptable walking distance standard. The highest demands for parking shown in Figure 4 are consistent with field observations and the data provided in Table 4.

**Future Parking Demand**

Future parking demands depend heavily upon the scheduling of redevelopment projects and the impacts they have on parking. Table 6 provides the anticipated project schedule and number of parking spaces (student & staff) lost or gained until year 2020.

**Table 6: Project Schedule and Parking Impacts**

Date	Proposed Project	Parking Lots Affected	# Student (& Staff) Parking Spaces Lost/Gained
Fall 2009	None	None	None
Fall 2010	BIC, CAC, & HEC (Phase I) buildings under construction	College 2, Fawell A, & Fawell E1	-335 (0), -194 (-177), & -139 (0)
Fall 2011	CAC & HEC built and occupied	Fawell A & Fawell E1	+84 (0) & +5 (+60)
Fall 2012	BIC (South) complete, HEC Phase II, BIC (north) landscape	College 2 reopened, Fawell E, & Fawell B1	+335 (0), -436 (-27), & 112 (0)
Fall 2013	None scheduled	None	None
Fall 2014	West Campus (south) improvements completion	Lot 7 & Lot 7A	-229 (0) & -14 (0)
Fall 2015 – Fall 2020	None scheduled	None	None

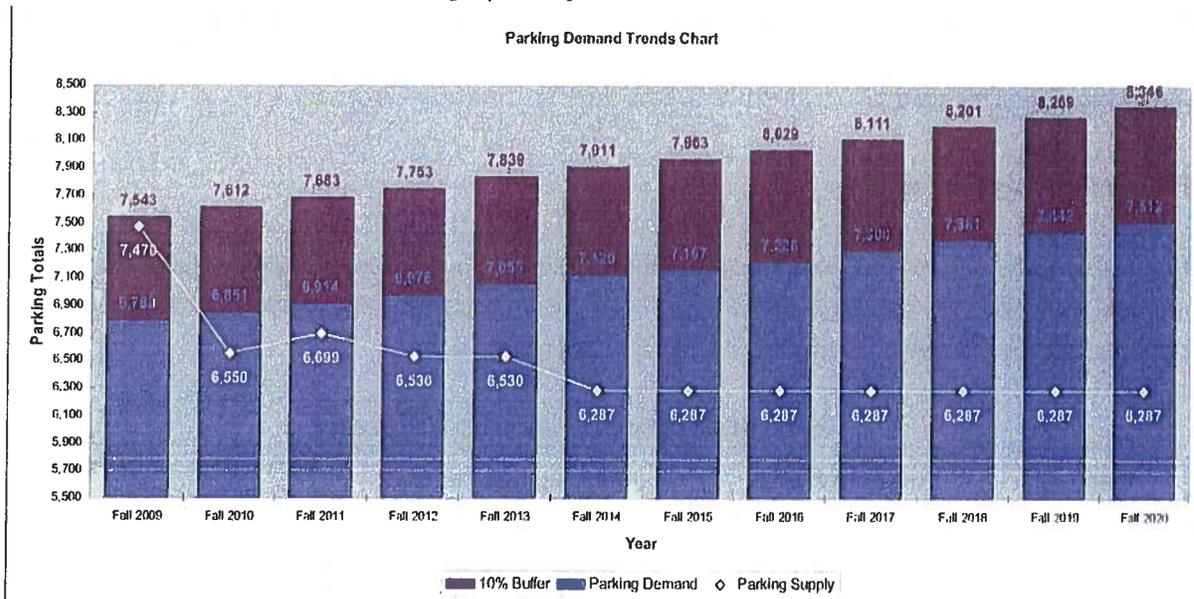
Table 7 addresses the collected total of student & staff parking spaces affected by the increase of enrollment. Faculty was projected similar to the enrollment rate while the rest of the staff (administration, maintenance, etc.) numbers remained constant.

**Table 7: Parking Demand Trend**

Year	Student & Staff	Parking Demand	Parking Supply	Parking Available	% Capacity
Fall 2009	8,146	6,788	7,470	682	0.91
Fall 2010	8,221	6,851	6,550	-301	1.05
Fall 2011	8,297	6,914	6,699	-215	1.03
Fall 2012	8,373	6,978	6,530	-448	1.07
Fall 2013	8,466	7,055	6,530	-525	1.08
Fall 2014	8,544	7,120	6,287	-833	1.13
Fall 2015	8,600	7,167	6,287	-880	1.14
Fall 2016	8,671	7,226	6,287	-939	1.15
Fall 2017	8,760	7,300	6,287	-1,013	1.16
Fall 2018	8,857	7,381	6,287	-1,094	1.17
Fall 2019	8,931	7,442	6,287	-1,155	1.18
Fall 2020	9,014	7,512	6,287	-1,225	1.19



The chart below illustrates Table 7 graphically.



The parking demand (in blue) increases yearly, due to enrollment growth; while the existing parking supply (white line) decreases due to the impacts of the proposed redevelopments. The chart indicates that the parking demand will not be met for the Fall 2010 year (and subsequent years). A parking supply deficit of 301 (6,550 – 6,851) indicates the number of parking spaces necessary to meet the demand. However, in order to provide drivers with a practical parking supply, the 10% buffer (in maroon) depicts the ideal amount of total parking spaces desired for the Fall 2010 (and subsequent) year. Table 8 summarizes the number of additional parking spaces necessary to meet the 10% buffer.

**Table 8: 90% Parking Capacity Demand**

Year	Parking Supply	Additional Parking to Meet 90% Capacity
Fall 2009	7,470	73
Fall 2010	6,550	1,062
Fall 2011	6,699	984
Fall 2012	6,530	1,223
Fall 2013	6,530	1,309
Fall 2014	6,287	1,624
Fall 2015	6,287	1,676
Fall 2016	6,287	1,742
Fall 2017	6,287	1,824
Fall 2018	6,287	1,914
Fall 2019	6,287	1,982
Fall 2020	6,287	2,059



The parking lots affected by the redevelopment projects are located in prime locations to access the east, main, and west campus (Fawell A – East, Fawell B1 – Main, College 2 – Main, and Fawell E1 – West, Fawell E – West). Superimposed on the FMP, Figure 5 provides a generalization of future high-in-demand parking locations in relation to the preferred walking distance from a building entrance. Generally, the 'hot-spot' location areas were enlarged and the demands for the parking lots were increased to include the new building additions, particularly at the Main and East campus. Development of the West campus results in a larger area of high-in-demand parking, which is also central to the anticipated building locations.

#### IV. PARKING ALTERNATIVES

Short term solutions were identified to compensate for the rapid loss of parking, particularly during the construction of the CAC and HEC buildings. Long term solutions addressed the increase of student enrollment, new hires, and the need for more convenient parking locations. Figure 6 illustrates the various short term and long term parking alternatives described below.

##### Short Term Alternatives

The construction of CAC, HEC, and reconstruction of the BIC impacts the parking significantly with a total loss of 845 parking spaces anticipated to occur this year and into Fall 2010. The following short term solutions address the anticipated loss of parking and are listed according to priority at each campus:

1. Eliminate staff parking at all lots – Reconfigure lots and remove parking gates and related islands.

Additional Parking Spaces: **78**

(net total based on vacant staff parking spaces during field observation in February & the Fall 2010 parking layout)

Construction Cost: **\$50,000**

Engineering Design / Permitting Cost: **\$6,000**

Total Cost: **\$56,000**

**Cost per Space: \$720**

Time to implement: 3-6 months

Approximate walking distance to buildings = Varies

Pros:

- o Quick Implementation
- o No stormwater permit would be required



- Low Cost

Cons:

- Small number of spaces gained

2. St. James Church Lot - Enter into an agreement with St. James the Apostle Catholic Church to utilize their parking lot during weekdays.

Additional Parking Spaces: **252**

Construction Cost: **\$2,000**

Engineering Design / Permitting / Legal Costs: **\$15,000**

Total Cost: **\$17,000** (Does not include crossing signalization costs)

**Cost per Space: \$70**

Time to implement: 2-4 months

Approximate walking distance to CAC building = 775'

Pros:

- Quick implementation
- Parking spaces could be utilized almost immediately
- No stormwater permit would be required
- Low Cost

Cons:

- Pedestrians parking in this lot would be required to cross Fawell Blvd. which could be hazardous and cause liability concerns
- Would need to install pavement markings, signage and possibly some sidewalk at the crossing location which will require a right-of-way permit from the Village.
- Village permit will be required for roadway crossing improvements. Village may not grant the crossing without special signalization which would be costly and is not included in these estimates.
- This parking lot is not centrally located.
- Would require the use of a shuttle bus to realize the lots full capacity.

3. Football Field Lots - Construct a surface parking lot on the existing football practice fields, including path/sidewalk access to lots

Additional Parking Spaces: **353**

Construction Cost w/ Detention: **\$1,685,000**

Engineering Design / Permitting Cost: **\$169,000**

Total Cost: **\$1,854,000**

**Cost per Space: \$6,210**

Time to implement: 9-12 months

Approximate walking distance to PE building = 1,465'



## Pros:

- Large amount of additional parking spaces

## Cons:

- Relatively Expensive
- Loss of Practice football fields
- County Right-of-way permit required for access to Park Blvd.
- Stormwater Permit required
- Detention Basin 1 / Wetland 5 may need to be expanded or an offline detention facility (under the parking lot) may need to be constructed to provide the required detention volume.
- Will take several months to design and obtain required permits.
- This parking lot is not centrally located and may therefore require shuttle bus service to realize the full capacity of this lot.

4. Tennis Courts - Eliminate tennis courts and construct new courts further to the east

Additional Parking Spaces: **263**

Construction Cost: **\$1,409,000**

Engineering Design / Permitting Cost: **\$141,000**

Total Cost: **\$1,550,000**

**Cost per Space: \$5,890**

Time to implement: 9-12 months

Approximate walking distance to PE building = 200'

## Pros:

- Large amount of additional parking spaces
- Better location than some of the more remote alternatives

## Cons:

- Relatively Expensive
- Stormwater Permit required
- Most of this development is tributary to detention basin 2 which does not have enough existing detention volume to accommodate these improvements. An additional detention basin or underground detention facility will need to be constructed. This cost has been estimated and included in the above construction cost.
- The relocated tennis courts may impact a small amount of wetland buffer which will require mitigation and further complicate the permitting process.
- Will take several months to design and permit.

5. Reconfigure College 6 – Restripe the existing parking lot to increase the number of spaces (south of ECC building)

Additional Parking Spaces: **29**



Construction Cost: **\$15,000**  
Construction Documents Cost: **\$4,000**  
Total Cost: **\$19,000**  
**Cost per Space: \$660**

Time to implement: 1 month (to be included with the resealing contract for this lot)

Approximate walking distance to ECC building = 545'  
Approximate walking distance to TEC building = 1100'  
Approximate walking distance to HSC building = 1100'  
Approximate walking distance to SRC building = 1700'

Pros:

- Low cost alternative
- No permitting required

Cons:

- The small amount of additional spaces may not justify the expense and temporary loss of the parking lot while it's being reconfigured.

6. Surface Lot west of ECC – Construct a new parking lot west of the ECC driveway & south of Pond 6

Additional Parking Spaces: **535 (includes 10 ADA)**  
Construction Cost: **\$1,613,000**  
Engineering Design / Permitting Cost: **\$161,000**  
Total Cost: **\$1,774,000**  
**Cost per Space: \$3,320**

Time to implement: 12-15 months

Approximate walking distance to ECC and M buildings = 400'  
Approximate walking distance to TEC building = 900'  
Approximate walking distance to HSC building = 900'

Pros:

- Large amount of additional parking spaces
- Proximate to three buildings
- This parking lot will be tributary to basin 6 which does have enough existing detention volume to accommodate most of this improvement\*
- No wetland or wetland buffer impacts

Cons:

- Loss of practice soccer field
- Stormwater permit required



- A small amount of additional stormwater detention will be required for this project. The cost of this additional volume has been estimated and included in the construction cost.
  - Must drive through smaller ECC parking lot to access this lot. Traffic flow patterns will need to be evaluated.
7. Surface Parking Lot west of TEC – Construct a new surface parking lot west of the TEC building and north of the OCC building. This area is currently planned to be used for contractor parking for the construction of the HEC.

Additional Parking Spaces: **104 (includes 5 ADA)**

Construction Cost w/ Detention: **\$655,000**

Engineering Design / Permitting Cost: **\$65,000**

Total Cost: **\$720,000**

**Cost per Space: \$6,920**

Time to implement: 6-12 months (but would not be available until after the construction of the of the HEC building).

Approximate walking distance to OCC and K buildings = 150'

Approximate walking distance to TEC building = 200'

Approximate walking distance to HEC building = 300'

Approximate walking distance to HSC building = 900'

**Pros:**

- Located near several campus buildings
- No wetland or wetland buffer impacts
- No right-of-way permit required

**Cons:**

- Stormwater permit required
- Stormwater detention may be required
- May not be able to be constructed until the completion of the HEC building.

8. Surface Lot North of Fawell Blvd. – Construct a new surface parking lot on the existing College owned parcel north of Fawell and west of St. James Church. This alternative includes the construction of a pedestrian overpass structure over Fawell Blvd.

Additional Parking Spaces: **232**

Construction Cost: **\$887,000**

Engineering Design / Permitting Cost: **\$89,000**

Total Cost: **\$976,000**

**Cost per Space: \$4,210**

Time to implement: 12-24 months

Approximate walking distance to CAC building = 475'



Approximate walking distance to MAC building = 1100'

Pros:

- o Large amount of additional parking spaces

Cons:

- o Pedestrians parking in this lot would be required to cross Fawell Blvd. which could be hazardous and cause liability concerns. A pedestrian bridge may be required.
- o Stormwater permit required
- o There may be some minor wetland buffer impacts which will require mitigation and further complicate the permitting process.
- o Stormwater detention will be required as this parking lot is not tributary to any of the on-site detention basins; the cost has been included in the construction cost.
- o Would need to install pavement markings, signage and possibly some sidewalk at the crossing location which will require a right-of-way permit from the Village.
- o This parking lot is not centrally located.

### Long Term Alternatives

The following long term alternatives address the continual growth of the College, as well as taking into consideration the centralization of parking to provide convenient access to the primary buildings on campus. Some of the alternatives, particularly along the far west campus, depend on the timing of HEC Phase B construction and would not be available as an immediate short term solution. Implementing a shuttle bus for the campus, along with the aforementioned short term alternatives, can also be used to address the long term parking demands.

9. Surface parking Lot west side (North Lot) – Construct a new surface parking lot along the west edge of the west campus.

Additional Parking Spaces: **131 (includes 5 ADA)**

Construction Cost w/ Detention: **\$723,000**

Engineering Design / Permitting Cost: **\$73,000**

Total Cost: **\$796,000**

**Cost per Space: \$6,080**

Time to implement: 12-24 months (however, would not be prudent to construct lots in this area until the HEC Phase B preliminary designs have been completed)

Approximate walking distance to K building = 360'

Approximate walking distance to future building SRB = 145'

Approximate walking distance to TEC building = 800'

Pros:

- o No wetland or wetland buffer impacts
- o No right-of-way permit required



## Cons:

- This parking lot would likely require shuttle bus service to service the Main and East campus areas to fully realize its capacity.
- Stormwater permit required
- Stormwater detention may be required\*
- College staff has indicated that poor soils may be present in this area. If this is the case then the construction cost would likely increase.

10. Surface Parking Lot west side (Center Lot) – Construct a new surface parking lot along the west edge of the west campus.

Additional Parking Spaces: **71 (includes 3 ADA)**

Construction Cost w/ Detention: **\$493,000**

Engineering Design / Permitting Cost: **\$50,000**

Total Cost: **\$543,000**

**Cost per Space: \$7,650**

Time to implement: 12-24 months (however, would not be prudent to construct lots in this area until the HEC Phase B preliminary designs have been completed)

Approximate walking distance to K building = 360'

Approximate walking distance to future building SRB = 145'

Approximate walking distance to TEC building = 800'

Approximate walking distance to K building (future FAC) = 130'

## Pros:

- No wetland or wetland buffer impacts
- No right-of-way permit required

## Cons:

- This parking lot would likely require shuttle bus service to service the Main and East campus areas to fully realize its capacity.
- Stormwater permit required
- Stormwater detention may be required\*
- College staff has indicated that poor soils may be present in this area. If this is the case then the construction cost would likely increase.

11. Surface Parking Lot west side (South Lot) – Construct a new surface parking lot along the west edge of the west campus.

Additional Parking Spaces: **373 (includes 8 ADA)**

Construction Cost: **\$1,715,000**

Engineering Design / Permitting Cost: **\$172,000**

Total Cost: **\$1,887,000**

**Cost per Space: \$5,060**



Time to implement: 12-24 months (however, would not be prudent to construct lots in this area until the HEC Phase B preliminary designs have been completed)

Approximate walking distance to M building (future CCC) = 130'

Approximate walking distance to TEC building = 800'

Pros:

- o No wetland or wetland buffer impacts
- o No right-of-way permit required

Cons:

- o This parking lot would likely require shuttle bus service to service the Main and East campus areas to fully realize its capacity.
- o Stormwater permit required
- o Stormwater detention will be required as this parking lot is not tributary to any of the on-site detention basins; the cost has been included in the construction cost.
- o College staff has indicated that poor soils may be present in this area. If this is the case then the construction cost would likely increase.

12. Parking Structure at College 2 - Construction of a parking structure in place of the College 2 lot. Structure is proposed to be 4 levels with access from the loading dock level as well as the surface parking level. A walkway would be constructed from the upper levels of the structure to the BIC building south plaza.

Additional Parking Spaces: **922**

Construction Cost: **\$21,250,000**

Engineering Design / Permitting Cost: **\$1,063,000**

Total Cost: **\$22,313,000**

**Cost per Space: \$24,200**

Time to implement: 24-36 months

Approximate walking distance to BIC building = 150'

Approximate walking distance to SCC building = 500'

Pros:

- o Centrally located
- o Proximate to several buildings
- o Should not require storm sewer permit
- o Could provide direct covered access into the BIC building

Cons:

- o Relatively costly
- o Higher maintenance costs
- o Will lose 406 existing spaces during construction



13. Parking Structure at College 3 - Construction of a parking structure in place of the north half of College 3 lot. Structure is proposed to be 4 levels with access from the surface parking level.

Additional Parking Spaces: **920**  
Construction Cost: **\$22,287,000**  
Engineering Design / Permitting Cost: **\$1,114,000**  
Total Cost: **\$23,401,000**  
**Cost per Space: \$25,440**

Time to implement: 24-36 months

Approximate walking distance to BIC building = 150'  
Approximate walking distance to SCC building = 50'  
Approximate walking distance to SRC building = 300'

Pros:

- o Centrally located
- o Proximate to several buildings
- o Should not require storm sewer permit

Cons:

- o Relatively costly
- o Higher maintenance costs
- o Will lose approximately 500 existing spaces during construction

14. Parking Structure at Fawell B - Construction of a parking structure in place of the Fawell B lot. Structure is proposed to be 4 levels with access from the surface parking level.

Additional Parking Spaces: **880**  
Construction Cost: **\$21,500,000**  
Engineering Design / Permitting Cost: **\$1,063,000**  
Total Cost: **\$22,313,000**  
**Cost per Space: \$25,360**

Time to implement: 24-36 months

Approximate walking distance to BIC building = 450'  
Approximate walking distance to MAC building = 250'  
Approximate walking distance to SRC building = 350'

Pros:

- o Centrally located
- o Proximate to several buildings
- o Should not require storm sewer permit

Cons:

- o Relatively costly



- Higher maintenance costs
- Will lose approximately 450 existing spaces during construction

15. Parking Structure at current OCC/K building location - Construction of a parking structure in place of the OCC & K buildings. Structure is proposed to be 2 levels with access from the surface parking level.

Additional Parking Spaces: **840**  
 Construction Cost: **\$14,700,000**  
 Engineering Design / Permitting Cost: **\$760,000**  
 Total Cost: **\$15,460,000**  
**Cost per Space: \$18,400**

Time to implement: 24-36 months

Approximate walking distance to TEC building = 150'  
 Approximate walking distance to HEC building = 250'  
 Approximate walking distance to HSC building = 450'

Pros:

- Proximate to West Campus Buildings and HSC
- No parking loss during construction

Cons:

- May require a stormwater permit
- Parking does not serve the east campus well.
- Relatively costly
- Higher maintenance costs
- Cannot be constructed until the OCC and K buildings are demolished.

16. Parking Structure west of ECC Driveway - Construction of a parking structure west of the ECC drive on the existing soccer field. Structure is proposed to be 5 levels with access from the surface parking level.

Additional Parking Spaces: **438**  
 Construction Cost: **\$15,120,000**  
 Engineering Design / Permitting Cost: **\$781,000**  
 Total Cost: **\$15,901,000**  
**Cost per Space: \$36,300**

Time to implement: 24-36 months

Approximate walking distance to TEC building = 800'  
 Approximate walking distance to HEC building = 1,200'  
 Approximate walking distance to HSC building = 800'

Pros:

- Proximate to West Campus Buildings



**Cons:**

- Parking does not serve the east campus well.
- Will likely require a stormwater permit
- Relatively costly
- Higher maintenance costs
- Will lose approximately 535 existing spaces during construction

\* Note: Alternates 6 (535 spaces), 7 (104 spaces), 9 (131 spaces), and lot 10 (71 spaces) are all tributary to detention basin 6. This basin does have some additional detention volume available however there is not enough volume to construct all four parking lots. It can accommodate lots 7, 9 and 10 or most of lot 6. Depending on which of these lots is constructed, additional detention basins or underground storage tanks may need to be constructed.

**Premium Paid Parking**

COD discussed an additional option to provide premium paid parking (1,082 spaces) for students at \$75/year to generate additional revenue for the College and provide convenient parking for students. Figure 7 shows the planned permit parking locations as of February 2010. According to the map, permit parking locations at Lot A & Lot F (existing lot names) were included in the permit total. However, redevelopment of COD eliminates these parking areas in the anticipated Fall 2012 year bringing the total number of permit parking to 830 spaces.

**Special Events Consideration**

In addition to student and staff parking demands, special events occur periodically throughout the school year. Based on the major events data provided by the College, the MAC building at East campus contains the highest number of attendees (maximum of about 800 during peak hour/day) for the theater and/or school performances. In addition to the short and long term solutions mentioned in the previous section, the following recommendations should be considered to accommodate the special events parking needs:

- Scheduling events on off-peak parking hours (Tuesdays at 9am)
- Designate and utilize St. James Apostle Catholic Church parking lot for special events and use shuttle bus for attendees

Field observations indicated that school buses are used to drop-off/pick-up a majority of the attendees for performances at the MAC building, decreasing the special events' parking demand. However, the number of school buses and the proposed removal of the existing drop-off/pick-up circulation area (in Fall 2012) will block traffic lanes along the College entrances and worsen traffic flow in the parking lot. Designating the St. James Apostle Catholic Church as bus stationing will help in alleviating congestion at this location on campus.



**V. CONCLUSIONS & RECOMMENDATIONS**

The ongoing renovation of COD, through the FMP, is anticipated to be completed by the year 2014. This study addressed the parking needs through 2020 to capture the continued increase of enrollments due to the addition of enhanced and expanded programs. The following short term and long term recommendations provide the College with the most cost-beneficial solutions after considering the pros and cons of the different parking alternatives:

Short Term Parking Recommendations:

We recommend that the College consider implementing a shuttle bus service to help encourage use and reach the full utilization of the lots that are not centrally located. A cost summary of the parking lot alternatives is provided in Table 9 on the following page and included the operation of shuttle service. We recommend the following alternatives be pursued based on their lowest cost per space. The aggregate cost per space for these alternatives is \$4,415/space.

- EAST Campus **+605 spaces**
  - o St. James the Apostle Catholic Church parking lot (+252 spaces)
  - o Football Practice Fields (+353 spaces)
- MAIN Campus **+78 spaces:**
  - o Eliminate staff parking (+78 spaces)
- WEST Campus **+564 spaces:**
  - o Re-stripe Lot College 6 (+29 spaces)
  - o Surface parking lot west of ECC Driveway & south of Pond 6 (+535 spaces)

Long Term Parking Recommendations:

The total number of additional parking spaces required to meet the 90% capacity for the year 2020 is 2,059 (from Table 8). Implementing the recommended short term parking solutions provides 1,247 parking spaces for the year 2012 and results in the need for 812 additional spaces to meet 90% capacity for the year 2020. Either of the following parking lot options will provide adequate long term parking supply for the College and is also summarized in Table 10:

- OPTION 1 (\$7,419 per space): Located on East & West Campus **+807 spaces**
  - o Surface parking lot north of Fawell Blvd. (+232 spaces)
  - o Surface parking lots along far west side – north, center, south (+575 spaces)
- OPTION 2 (\$26,137 per space): Located on Main Campus **+922 spaces**
  - o Parking Structure at College 2
- OPTION 3 (\$20,530 per space): Located on Main Campus **+840 spaces**
  - o Parking Structure OCC/K building location

Table 10: Existing vs. Future Parking Inventory

	Prior to Parking Addition		Short Term	Long Term			Total		
	Fall 2009	Fall 2020	Fall 2012	Fall 2020 (Option 1)	Fall 2020 (Option 2)	Fall 2020 (Option 3)	Option 1	Option 2	Option 3
WEST	1,641	861	564	575	0	840	2,000	1,425	2,265
MAIN	3,907	3,795	78	0	922	0	3,873	4,795	3,873
EAST	1,922	1,631	605	232	0	0	2,468	2,236	2,236
<b>TOTAL</b>	<b>7,470</b>	<b>6,287</b>	<b>1,247</b>	<b>807</b>	<b>922</b>	<b>840</b>	<b>8,341</b>	<b>8,456</b>	<b>8,374</b>



Table 9: Summary of Parking Lot Alternative Costs

Alternatives	Cost			Construction & Engineering	# of Spaces	Cost/space		Ranking		Needs Shuttle	Recommended Improvements			
	Construction	Engineering & Permitting	PV of Shuttle cost			Total	Construction & Engr.	Total (including PV of Shuttle)	Total Cost		Cost per Space	Based on Total Cost	Based on Cost/Space	
<b>Short Term Solutions</b>														
1 Eliminate Staff Parking Lots	\$ 50,000	\$ 0,000	\$ -	\$ 50,000	78	\$ 720	\$ 720	1	2	No	\$ 50,000	78		
2 St. James Church Lot	\$ 15,000	\$ 2,000	\$ 125,000	\$ 142,000	252	\$ 70	\$ 560	2	1	Yes	\$ 17,000	252		
3 Football Fields Lot	\$ 1,085,000	\$ 162,000	\$ 179,000	\$ 2,053,000	353	\$ 5,950	\$ 5,760	6	4	Yes	\$ 1,084,000	353		
4 Tennis Courts	\$ 1,409,000	\$ 141,000	\$ -	\$ 1,550,000	263	\$ 5,900	\$ 5,690	5	5	No	\$ 1,550,000	263		
5 Reconfigure College 6 <sup>th</sup>	\$ 15,000	\$ 4,000	\$ 355,000	\$ 374,000	29	\$ 689	\$ 12,900	3	7	Yes	\$ 19,000	29		
6 Surface Parking Lot west of ECC	\$ 1,813,000	\$ 161,000	\$ 272,000	\$ 2,646,000	535	\$ 3,350	\$ 3,620	7	3	Yes	\$ -	535		
7 Surface Parking Lot west of TEC	\$ 655,000	\$ 85,000	\$ -	\$ 720,000	104	\$ 6,920	\$ 6,920	4	6	No	\$ 720,000	104		
NPV of Shuttles Costs for 20 years (\$12x,000/yr) \$ 1,785,300 Spaces served by Shuttle 3516 Average Cost per space: \$ 5,502											\$ 4,215,000	1,247	\$ 3,720,000	\$ 3,720,000

Alternatives	Cost			Construction & Engineering	# of Spaces	Cost/space		Ranking		Needs Shuttle	Recommended Improvements		
	Construction	Engineering & Permitting	PV of Shuttle cost			Total	Construction & Engr.	Total (including PV of Shuttle)	Total Cost		Cost per Space	Based on Total Cost	Based on Cost/Space
<b>Long Term Solutions</b>													
8 Surface Lot north of Farnell	\$ 587,000	\$ 89,000	\$ 118,000	\$ 1,094,000	222	\$ 4,210	\$ 4,720	3	1	Yes	\$ 570,000	Option 1	
9 Surface Parking Lot West Side (North)	\$ 723,000	\$ 73,000	\$ 87,000	\$ 883,000	131	\$ 6,050	\$ 6,560	2	3	Yes	\$ 793,000	Option 1	
10 Surface Parking Lot West Side (Center)	\$ 483,000	\$ 50,000	\$ 35,000	\$ 578,000	71	\$ 7,650	\$ 8,150	1	4	Yes	\$ 443,000	Option 1	
11 Surface Parking Lot West Side (South)	\$ 1,715,000	\$ 172,000	\$ 189,000	\$ 2,076,000	373	\$ 5,050	\$ 5,570	4	2	Yes	\$ 1,887,000	Option 1	
12 Parking Structure at College 2	\$ 21,250,000	\$ 1,093,000	\$ -	\$ 22,313,000	922	\$ 24,200	\$ 24,200	6	6	No	\$ -	Option 2	
13 Parking Structure at College 3	\$ 22,287,000	\$ 1,114,000	\$ -	\$ 23,401,000	920	\$ 25,440	\$ 25,440	6	6	No	\$ -	Option 2	
14 Parking Structure at Farnell B	\$ 21,250,000	\$ 1,093,000	\$ -	\$ 22,313,000	860	\$ 25,360	\$ 25,360	6	8	No	\$ -	Option 2	
15 Parking Structure at current OCC/K	\$ 14,700,000	\$ 780,000	\$ 47,000	\$ 15,867,000	840	\$ 18,400	\$ 18,910	5	5	Yes	\$ 15,400,000	Option 3	
16 Parking Structure west of ECC/University	\$ 27,720,000	\$ 1,411,000	\$ 533,000	\$ 29,664,000	1,049	\$ 27,770	\$ 28,380	9	9	Yes	\$ -	Option 3	
Total 807 20 Yr Shuttle Cost: \$ 1,785,300 Average Cost per space: \$ 7,410											\$ 4,202,000	\$ 1,785,300	\$ 7,410

Option 2													
Total													
Total \$22,313,000 20 Yr Shuttle Cost: \$ 1,785,300 Average Cost per space: \$ 20,137											\$ 22,313,000	\$ 1,785,300	\$ 20,137

Option 3													
Total													
Total \$15,468,000 20 Yr Shuttle Cost: \$ 1,785,300 Average Cost per space: \$ 20,530											\$ 15,468,000	\$ 1,785,300	\$ 20,530

\* Present value of the cost to operate a shuttle service. The cost is allocated based on the ratio of spaces in the lot over the total number of spaces served by the shuttle.  
 \*\* Construction cost include only siting costs for 29 additional spaces. Shuttle costs are allocated by total number of spaces in lot.  
 \* This work has been completed



There are 3 viable options for resolving future parking demands which differ greatly in terms of cost per space and the location of the proposed parking.

Option 1 (\$4.2M, 807 spaces) provides additional parking on west and east campus at the lowest cost of the three options by providing all parking in surface lots. The schedule for the implementation of the proposed surface lots along the far west side depends on the schedule of HEC Phase B. The anticipated completion of the FMP is scheduled for the year 2014, so it was assumed that the construction of surface parking will start that year. The success of this option is also dependent on the implementation of shuttle service to access remote parking lots which will be a significant ongoing cost. The main disadvantage of this Option is that much of this parking is remote from the Main Campus and will require extensive use of shuttle service to encourage the use of its full capacity. This Option will not allow the potential for future expansion.

Option 2 (\$22.3M, 922 spaces) provides structured parking on the Main Campus and is intended to provide the most convenient parking in the area of highest demand with the shortest walking distance. This option could be adapted to provide environmentally controlled access to the BIC building which would make this parking highly desirable. Although this Option does not require shuttle service for this lot, the existing remote surface lots developed as part of the short term parking improvements will still require this service. Based on the combination of existing seatcounts by building (Table 4) and the identified proposed parking demands (Figure 5), the main campus is anticipated to have the highest parking demand. This Option will provide parking that should meet the demands of the Main and East Campus; however the west campus will be under parked. This option also has advantages in relation to the proposed permit and premium parking alternatives. Since this parking will be highly desirable, much of this lot could be permitted at a higher rate to generate income and since it is structure parking, the access could be controlled to allow only certain permits which would reduce enforcement costs. Assigning at least half of the garage (461 spaces) as premium parking would generate approximately \$37,000 per year for the \$75 permit fee and \$5 parking stickers. Since additional levels can be added to the garage, this Option can be expanded if the projected enrollment increases beyond what is anticipated in the projections that we received from the College.

Option 3 (\$15.5, 840 Spaces) provides structure parking on the West Campus and is intended to meet the future demands of the west side of Lambert Road. Although this Option should meet the demands of the West campus, the Main campus are will be under parked. This alternative would be less costly than Option 2 (primarily due to the fact it would not displace any existing parking); however this parking would not likely be in as high a demand as Option 2 and would not likely be as successful if permitted as premium parking. This Option does have the advantage that it could be constructed as part of a building in the HEC Phase B, making it more



aesthetically pleasing than a stand alone parking structure and possibly more cost effective. Since additional levels can be added to the garage, this Option can be expanded if the projected enrolment increases beyond what is anticipated in the projections that we received from the College.

Provided in Table 11 is a comparison of seatcount percentages at peak hour and the parking count percentages for Options 1, 2 and 3.

**Table 11: Seatcount vs. Future Parking %**

	Existing Seatcount %	Future Seatcount %	Future Parking Count %		
			Option 1	Option 2	Option 3
<b>WEST</b>	23%	28%	24%	17%	28%
<b>MAIN</b>	67%	55%	46%	57%	46%
<b>EAST</b>	10%	17%	30%	26%	26%

We recommend Option 1 as the most cost effective way to create sufficient parking to meet the demand and Option 2 as the most convenient and balanced parking option provided that the differential sum of \$18.1M can be raised.

The projected schedule to implement the recommended improvements is provided in the following table.

**Table 12: Projected Schedule of Recommended Parking Improvements**

Date	Recommended Parking Improvement	Net # of Parking Spaces	
		Option 1	Option 2
<b>Fall 2009</b>	None	None	None
<b>Fall 2010</b>	Utilize St. James Apostle Church Lot, Eliminate Staff Parking, & Restripe College 6	252 + 78 +29 = +359	252 + 78 +29 = +359
<b>Fall 2011</b>	Football practice fields lot completed	+353	+353
<b>Fall 2012</b>	Surface parking lot west of ECC Driveway completed	+535	+535
	Option 1: Construct surface parking lot north of Fawell Blvd. Option 2: Construct parking surface at College 2	None	-406
<b>Fall 2013</b>	Option 1: On going construction of surface parking lot north of Fawell Blvd.	None	N/A
	Option 2: Ongoing construction of structure parking at College 2 lot	N/A	None
<b>Fall 2014</b>	Option 1: Surface parking lot north of Fawell Blvd. completed	+232	N/A
	Option 1: Construct surface parking along far west side Option 2: Parking structure at College 2 completed	None N/A	N/A +922
<b>Fall 2015 – Fall 2020</b>	Option 1: Surface parking lots along far west completed	131+71+373 = +575	N/A



The graph below summarizes the projected future parking improvements schedule for the three viable options – Option 1 in black, Option 2 in blue, and Option 3 in orange.

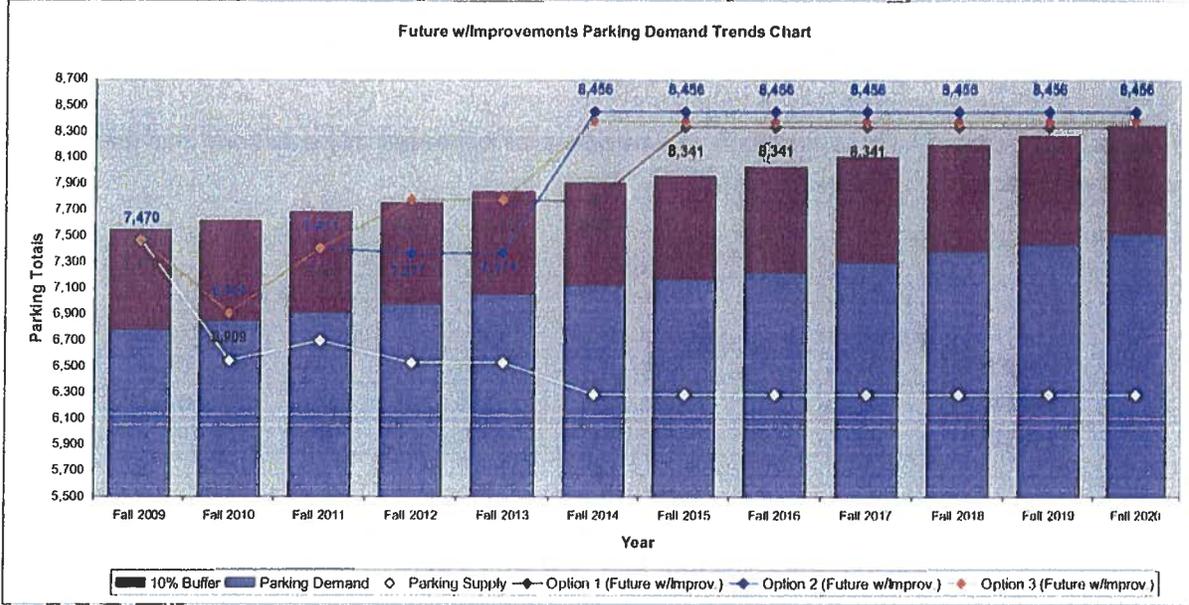


Figure 8 shows the recommended short term and long term parking improvements.



---

## FIGURES





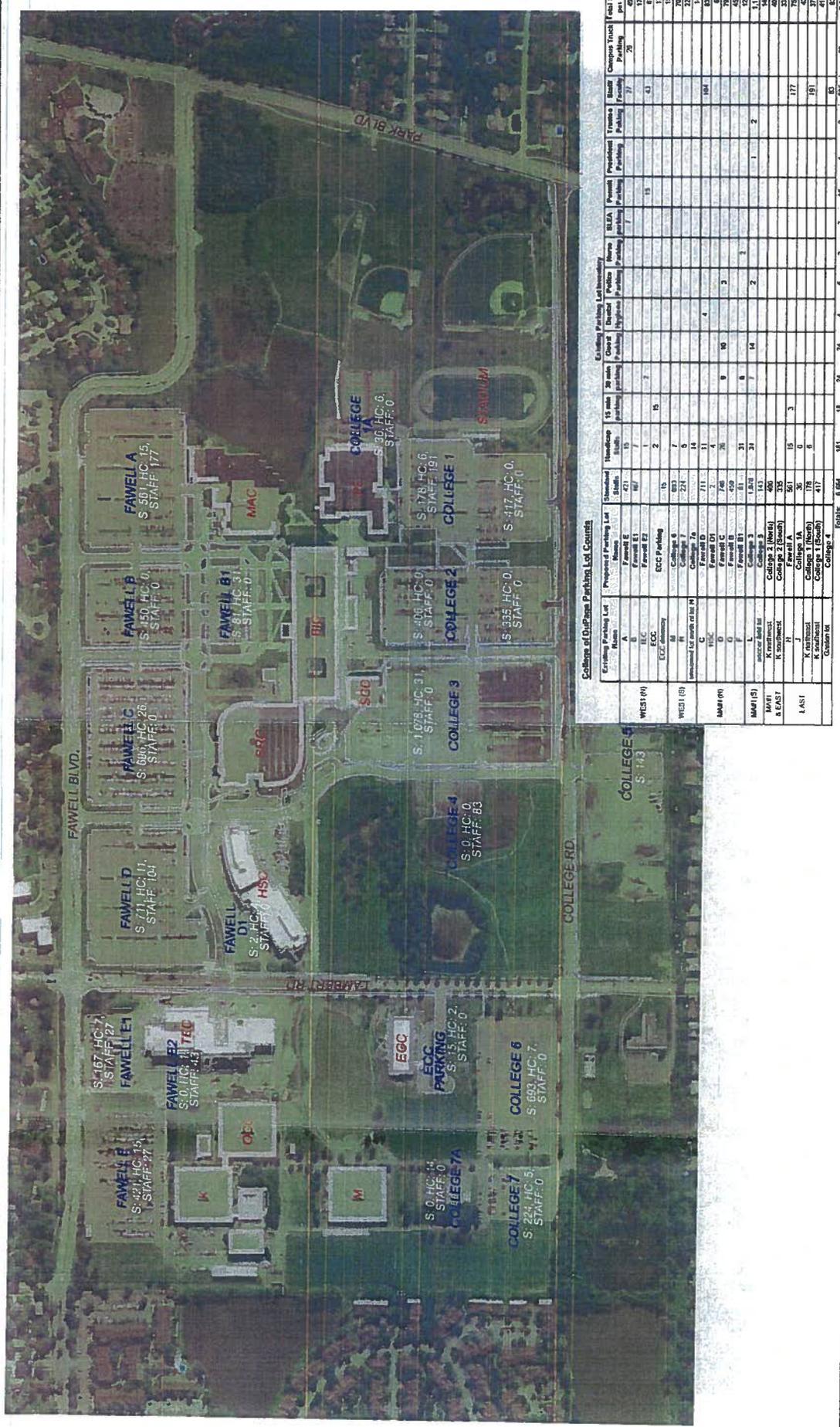
FIGURE 2  
EXISTING SITE LAYOUT



COLLEGE OF DUPAGE  
CAMPUS WIDE PARKING STUDY

V3 Companies  
7825 Jones Avenue  
Woodridge, IL 60517  
Phone: 830.724.8200  
Fax: 830.724.8202  
www.v3co.com





College of DuPage Parking Lot Counts

Building	Parking Lot	Number of Staff	15 min			30 min			60 min			Total
			General	Faculty	Public	General	Faculty	Public	General	Faculty	Public	
WEST (H)	A	21	7	7	7	15	15	15	43	43	43	
WEST (S)	B	15	7	7	7	15	15	15	43	43	43	
	C	15	7	7	7	15	15	15	43	43	43	
	D	15	7	7	7	15	15	15	43	43	43	
	E	15	7	7	7	15	15	15	43	43	43	
MID (S)	F	711	4	4	4	14	14	14	184	184	184	
	G	711	4	4	4	14	14	14	184	184	184	
	H	711	4	4	4	14	14	14	184	184	184	
	I	711	4	4	4	14	14	14	184	184	184	
	J	711	4	4	4	14	14	14	184	184	184	
	K	711	4	4	4	14	14	14	184	184	184	
	L	711	4	4	4	14	14	14	184	184	184	
	M	711	4	4	4	14	14	14	184	184	184	
	N	711	4	4	4	14	14	14	184	184	184	
	O	711	4	4	4	14	14	14	184	184	184	
EAST	P	405	15	15	15	45	45	45	135	135	135	
	Q	405	15	15	15	45	45	45	135	135	135	
	R	405	15	15	15	45	45	45	135	135	135	
	S	405	15	15	15	45	45	45	135	135	135	
LAST	T	178	5	5	5	15	15	15	45	45	45	
	U	178	5	5	5	15	15	15	45	45	45	
TOTAL		8,664	181	181	181	543	543	543	1,629	1,629	1,629	



FIGURE 3  
EXISTING PARKING INVENTORY

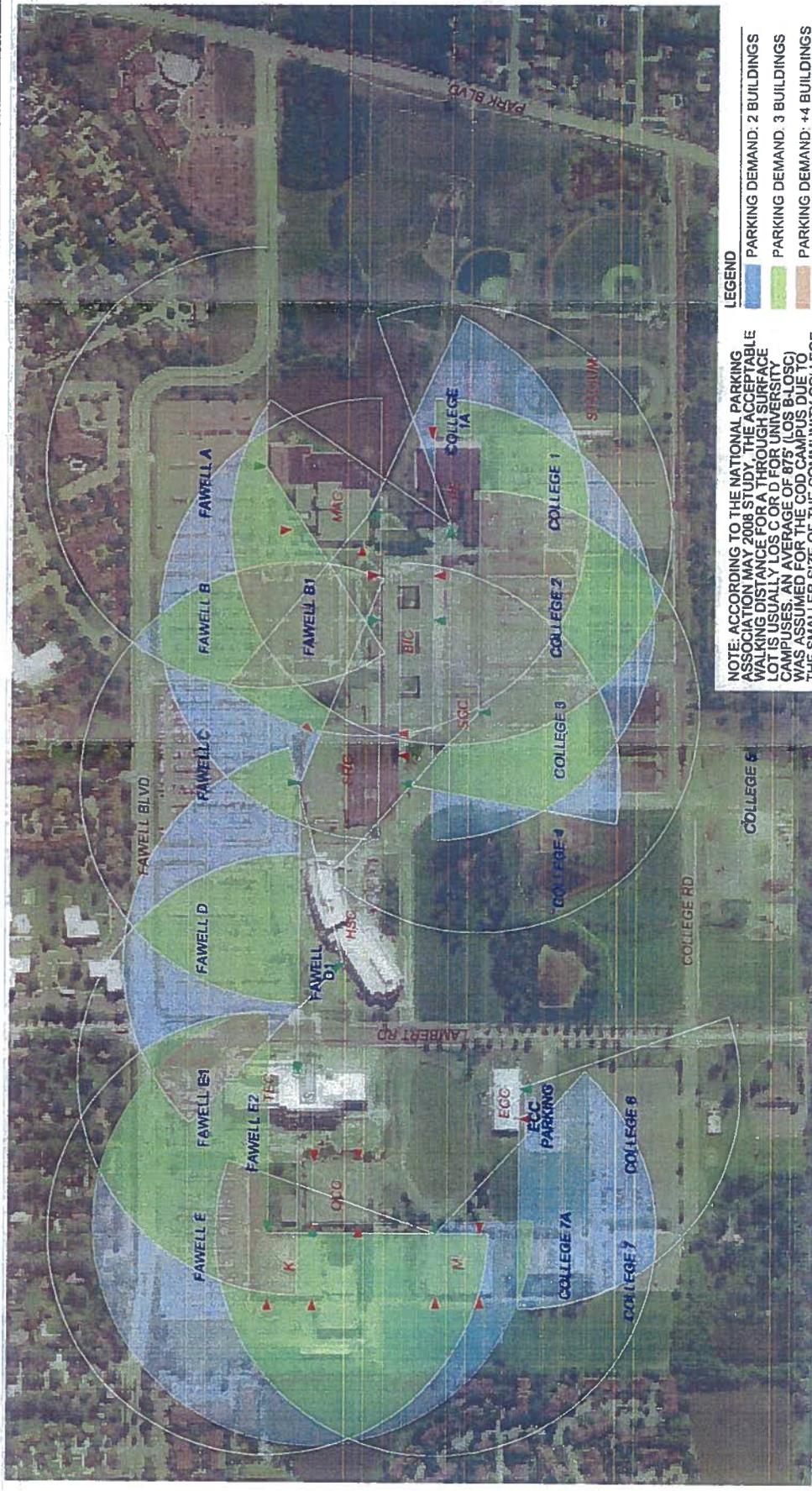
COLLEGE OF DUPAGE  
CAMPUS WIDE PARKING STUDY



V3 CONSULTING  
 7375 Janna Avenue  
 Woodridge, IL 60517  
 (708) 261-1100 Phone  
 (815) 724-9200 Fax  
 www.v3co.com

## COLLEGE OF DUPAGE CAMPUS WIDE PARKING STUDY

### FIGURE 4 EXISTING PARKING DEMANDS



NOTE: ACCORDING TO THE NATIONAL PARKING ASSOCIATION MAY 2008 STUDY, THE ACCEPTABLE WALKING DISTANCE FOR A LOT IS USUALLY 1/8 MILE (132 FT) THROUGH SURFACE LOTS IS USUALLY AN AVERAGE OF 97% UNIVERSITY CAMPUSES (AN AVERAGE OF 97% LOS B LOS C) WAS ASSUMED FOR THE CODES (LOS B LOS C) THE SMALLER SIZE OF THE COMMUNITY COLLEGE IN COMPARISON TO THE AVERAGE UNIVERSITY.

ACCEPTABLE WALKING DISTANCE FOR THROUGH SURFACE LOT:  
 LOS A: 350'  
 LOS B: 700'  
 LOS C: 1,050'  
 LOS D: 1,400'

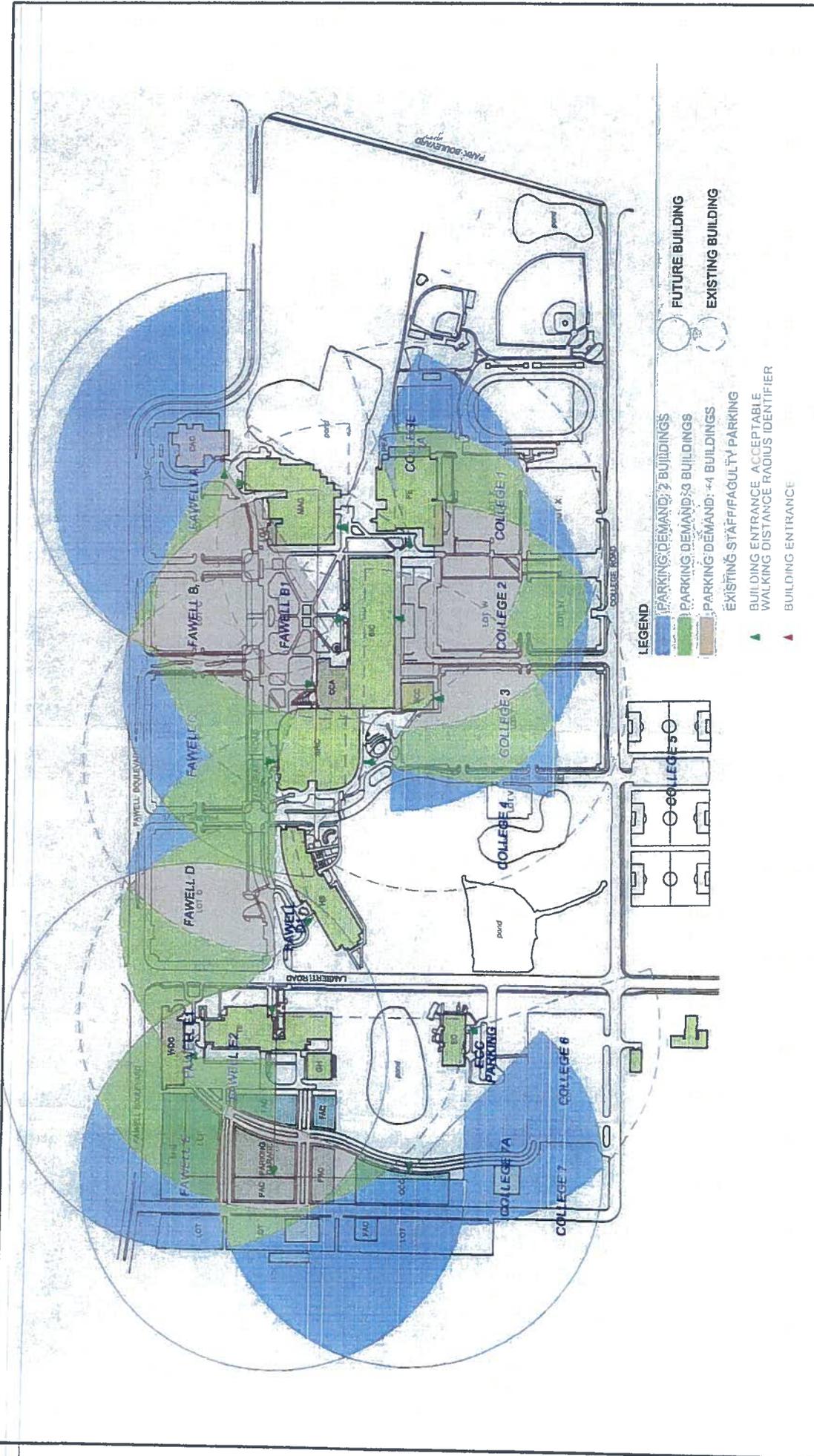
- LEGEND**
- PARKING DEMAND: 2 BUILDINGS
  - PARKING DEMAND: 3 BUILDINGS
  - PARKING DEMAND: +4 BUILDINGS
  - ▲ EXISTING STAFF/FACULTY PARKING
  - ▲ BUILDING ENTRANCE: ACCEPTABLE WALKING DISTANCE RADIUS IDENTIFIER
  - ▲ BUILDING ENTRANCE



**FIGURE 5  
PROPOSED PARKING DEMANDS**

**COLLEGE OF DUPAGE  
CAMPUS WIDE PARKING STUDY**

V3 Corporation  
2225 Ilex  
Waukegan, IL 60087  
815.724.8200 FAX  
815.724.8202 FAX  
www.v3corp.com





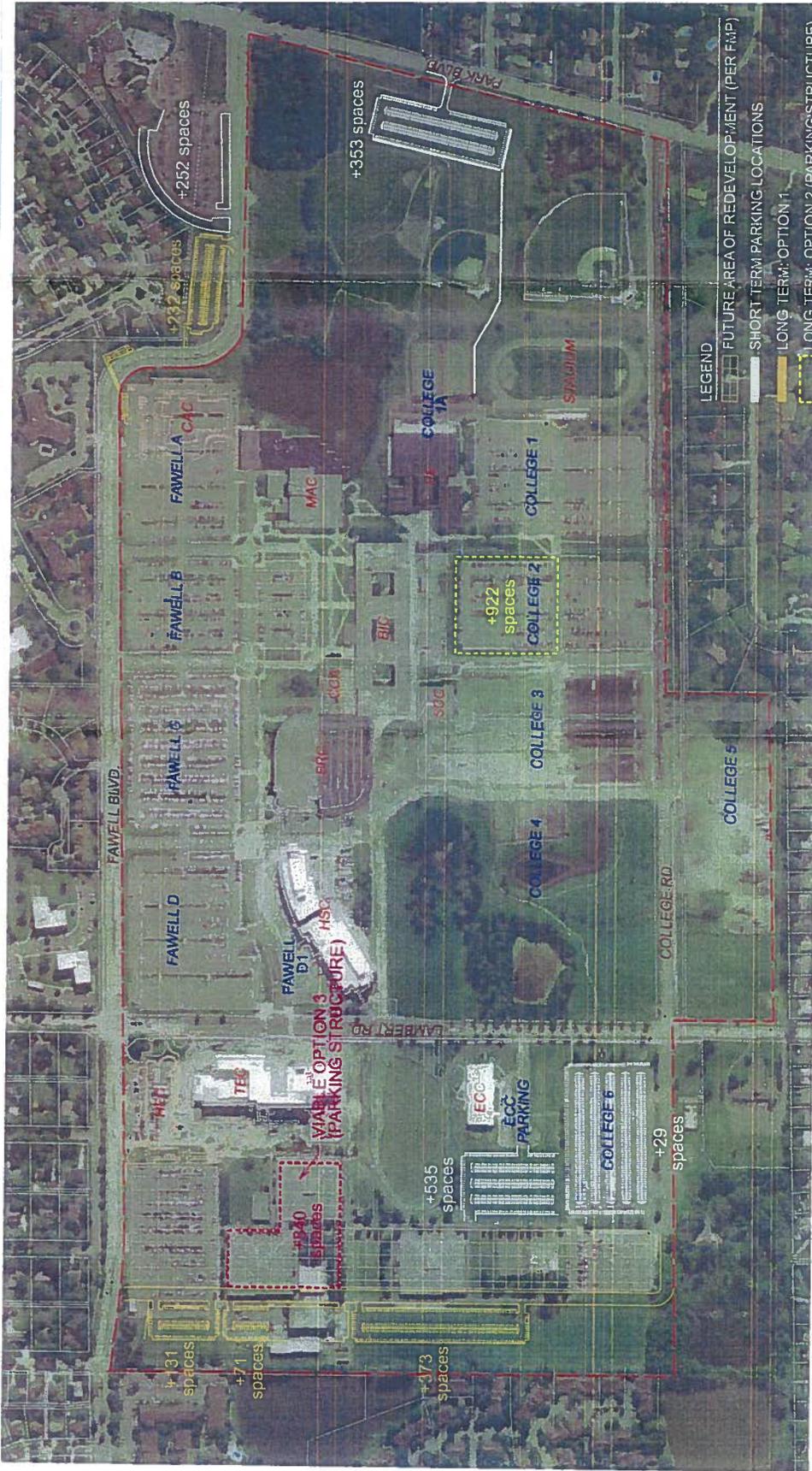
V3 Companies  
 7325 Jenes Avenue  
 Woodridge, IL 60517  
 630.724.8200 phone  
 630.724.8200 fax  
 www.v3co.com

**COLLEGE OF DUPAGE  
 CAMPUS WIDE PARKING STUDY**

**FIGURE 6  
 SHORT TERM AND LONG TERM  
 PARKING ALTERNATIVES**







V3 Companies  
 7395 Jones Avenue  
 Wood Dale, IL 60517  
 630.724.8200 ext. 400  
 www.v3cc.com

## COLLEGE OF DUPAGE CAMPUS WIDE PARKING STUDY



**FIGURE 8  
 RECOMMENDED PARKING LOCATIONS**

**LEGEND**  
 [Red outline] FUTURE AREA OF REDEVELOPMENT (PER FMP)  
 [White outline] SHORT TERM PARKING LOCATIONS  
 [Yellow outline] LONG TERM, OPTION 1  
 [Dashed Yellow outline] LONG TERM, OPTION 2 (PARKING STRUCTURE)

---

**APPENDIX  
DATA COLLECTION**

Building Occupancy by Hour -- Fall 2009 (10th Day)

MON	EAST		MAIN				EC	K	WEST		
	MAC	PE	BIC	HS	SCC	SRC			M	OCC	TE
GAM h6											
7AM h7		22	396	85		31					
8AM h8	203	55	1523	593	33	134		12	382		133
9AM h9	425	183	2563	653	73	222	25	153	715	176	191
10AM h10	400	195	2445	852	95	245	25	124	700	125	351
11AM h11	444	171	2381	652	94	180	7	103	706	152	329
Noon h12	281	147	2303	717	54	114	7	11	496	45	260
1PM h13	420	121	2021	699	17	251	13	27	532	22	155
2PM h14	380	112	1739	528	61	228	13	27	405	27	93
3PM h15	341	150	1006	378	48	41	13	27	247	27	81
4PM h16	157	145	616	292		62			119		76
5PM h17	100	134	777	299		46			99		55
6PM h18	285	124	1295	564	178	82	23	11	139	15	347
7PM h19	490	113	1727	720	178	182	51	109	317	100	380
8PM h20	490	87	1692	601	178	161	51	109	317	100	348
9PM h21	381	11	1454	457	178	124		81	218	100	273
10PM h22	16		94	16	31						

Sources: Fall 2009 - ODS Course Sections, SPT Course Sect Meetings.

Building Occupancy by Hour -- Fall 2009 (10th Day)

TUES	EAST		MAIN				WEST				
	MAC	PE	BIC	HS	SCC	SRC	EC	K	M	OCC	TE
6AM h6											
7AM h7		26	73	111		15					
8AM h8		272	46	1671	598	115	6	25	436	25	239
9AM h9		548	177	3415	982	81	27	159	953	171	357
10AM h10		408	141	2822	885	107	27	134	732	158	287
11AM h11		334	181	2298	929	103	27	70	709	157	304
Noon h12		405	139	3052	1005	128	30	25	750	114	372
1PM h13		375	154	2080	831	125	24	60	518	60	261
2PM h14		349	160	1500	704	99	1	35	436	20	129
3PM h15		362	107	1368	574	54	1	35	334		94
4PM h16		140	105	833	434	31	1		266		46
5PM h17		94	124	938	282		1		226		24
6PM h18		276	130	1400	585	203		21	301		341
7PM h19		299	44	1965	642	203	43	91	399	68	370
8PM h20		311	35	1857	642	203	43	91	399	68	344
9PM h21		198		1289	486	203		91	381	68	269
10PM h22				26		90			31		

Sources: Fall 2009 - ODS Course Sections, SPT Course Sect Meetings.

Building Occupancy by Hour -- Fall 2009 (10th Day)

WED	EAST		MAIN				WEST				
	MAC	PE	BIC	HS	SCC	SRC	EC	K	M	OCC	TE
6AM h6											
7AM h7		22	396	61		31					
8AM h8	203	55	1525	801	57	103	6	12	382		145
9AM h9	428	183	2501	966	102	240	31	148	715	181	225
10AM h10	403	195	2386	1188	119	272	31	119	700	130	386
11AM h11	447	171	2385	963	131	161	31	98	706	157	407
Noon h12	321	147	2290	937	85	131	6	11	496	45	312
1PM h13	458	121	1991	822	70	277			486	22	186
2PM h14	405	112	1820	657	59	250	23		356	27	92
3PM h15	329	150	1125	469	59	41	23		216	27	53
4PM h16	132	145	691	407	9	62	23		90		70
5PM h17	63	134	851	249		65	1		94		60
6PM h18	206	155	1659	434	124	151	24	0	111		323
7PM h19	266	124	2065	606	148	222	32	70	260	46	370
8PM h20	266	91	1941	496	168	222	24	70	260	46	378
9PM h21	172	11	1637	402	149	189		70	196	46	327
10PM h22	15		94	27	31						

Sources: Fall 2009 - ODS Course Sections, SPT Course Sect Meetings.

Building Occupancy by Hour -- Fall 2009 (10th Day)

THURS	EAST		MAIN				EC	K	WEST			
	MAC	PE	BIC	HS	SCC	SRC			M	OCC	TE	
6AM h6												
7AM h7		26	73	133		15						
8AM h8	289	46	1656	597	20	105	6	25	421	25	241	
9AM h9	566	177	3367	1010	56	276	6	159	945	171	326	
10AM h10	426	141	2766	875	100	204	6	134	724	158	256	
11AM h11	352	181	2223	866	96	350	6	70	680	157	273	
Noon h12	423	139	3000	918	122	321	31	25	737	114	323	
1PM h13	381	154	2043	801	115	215	25	25	489	60	244	
2PM h14	319	160	1602	611	94	144	1		407	20	116	
3PM h15	328	107	1488	521	57	89	1		326		81	
4PM h16	90	105	951	341	31	43	1		194		50	
5PM h17	109	113	1040	290			1		169		35	
6PM h18	256	124	1393	493	91	133		26	187		389	
7PM h19	210	59	1743	616	135	212	33	96	304	68	418	
8PM h20	222	36	1650	568	156	242	33	96	304	68	433	
9PM h21	163	11	1232	391	136	188		96	296	68	342	
10PM h22			36		80				74			

Sources: Fall 2009 - ODS Course Sections, SPT Course Sect Meetings.

Building Occupancy by Hour -- Fall 2009 (10th Day)

FRI	EAST		BIC	MAIN			EC	WEST				
	MAC	PE		HS	SCC	SRC		K	M	OCC	TE	
6AM	h6			42								
7AM	h7		22	396	81							
8AM	h8	105	22	1363	237	33	60	6	299			112
9AM	h9	268	96	2011	316	45	183	6	69	539	73	73
10AM	h10	251	138	1667	544	45	208	6	52	541	95	142
11AM	h11	281	99	1813	404	44	143	6	31	519	122	121
Noon	h12	109	57	1624	364		85	6	42	352	75	123
1PM	h13	121	83	727	373		58		31	279	22	49
2PM	h14	86	63	477	162			1	84			21
3PM	h15	15	50	176	65			1		26		21
4PM	h16	15	33	41	9			1				21
5PM	h17		55	25	67			1				
6PM	h18	35	54		110							6
7PM	h19	35	21		125							6
8PM	h20	35	21		125							6
9PM	h21	17	21		104							6
10PM	h22											6

Sources: Fall 2009 - ODS Course Sections, SPT Course Sect Meetings.

Number of Classes in Session by Building, Time, and Day of Week--Fall 2009

Sections by Hour of Day--Monday												
	EAST			MAIN				WEST				
	MAC	PE	BIC	HS	SCC	SRC	EC	K	M	OCC	TE	
h6												
h7		2	12	4		2						
h8	11	6	60	32	1	7		1	15	6	8	
h9	22	16	95	36	4	9	8	5	27	14	11	
h10	21	14	97	40	5	11	8	3	25	13	17	
h11	21	15	92	33	4	9	2	2	25	13	21	
h12	16	11	86	37	4	6	2	1	19	8	19	
h13	23	10	69	37	2	12	1	1	21	7	7	
h14	22	9	60	29	3	11	1	1	16	7	5	
h15	19	13	34	22	2	2	1	1	10	7	4	
h16	9	10	25	16		3			6		4	
h17	5	11	36	18		2			6		3	
h18	13	12	60	29	7	4	8	1	10		15	
h19	18	18	69	35	7	9	10	3	18	3	17	
h20	18	13	63	29	7	8	10	3	18	3	23	
h21	13	1	52	22	7	6		2	12	2	19	
h22			3	1	1							

Sources: ODS Course Sections; SPT Course Sect Meetings from 2/25/2010

## Number of Classes in Session by Building, Time, and Day of Week--Fall 2009

Sections by Hour of Day--Tuesday												
	EAST			MAIN				WEST				
	MAC	PE		BIC	HS	SCC	SRC	EC	K	M	OCC	TE
h6												
h7		2		3	5		1					
h8	13	5		63	34		7	1	1	16	7	14
h9	29	14		129	56	7	15	2	5	34	13	22
h10	25	10		117	46	9	14	2	4	26	13	21
h11	20	11		105	45	8	17	2	1	28	12	27
h12	20	7		114	46	10	14	2	1	29	11	27
h13	25	13		73	46	9	11	1	2	22	9	15
h14	24	10		52	39	7	7	1	1	16	7	8
h15	24	10		45	33	2	4	1	1	12	6	6
h16	8	7		29	27	1	2	1		10		3
h17	5	9		41	16		2	1		11		1
h18	16	9		65	30	8	8		1	15		20
h19	18	2		87	34	8	9	7	2	18	2	23
h20	19	3		79	34	8	11	7	2	18	2	27
h21	12			54	23	8	9		2	16	2	23
h22				1		3	1			1		

Sources: ODS Course Sections; SPT Course Sect Meetings from 2/25/2010

## Number of Classes in Session by Building, Time, and Day of Week--Fall 2009

Sections by Hour of Day--Wednesday												
	EAST			MAIN				WEST				
	MAC	PE		BIC	HS	SCC	SRC	EC	K	M	OCC	TE
h6												
h7		2		12	3		2					
h8	11	6		57	43	2	6	1	1	15	6	9
h9	22	16		93	51	5	10	2	5	27	13	13
h10	21	14		98	57	6	12	2	3	25	12	19
h11	21	15		93	49	6	8	2	2	25	12	25
h12	18	11		86	45	5	8	1	1	19	8	21
h13	24	10		70	40	5	14			19	7	8
h14	23	9		63	33	3	12	2		14	7	5
h15	19	13		38	26	3	2	2		9	7	3
h16	7	10		27	21	1	3	2		4		4
h17	4	11		38	13		3	1		5	1	3
h18	10	13		66	22	13	7	1	1	7	7	23
h19	16	17		78	29	14	11	2	2	13	3	26
h20	16	12		72	23	15	11	1	2	13	3	32
h21	11	1		59	19	12	9		2	10	1	28
h22				3	1	1						

Sources: ODS Course Sections; SPT Course Sect Meetings from 2/25/2010

Number of Classes in Session by Building, Time, and Day of Week--Fall 2009

Sections by Hour of Day--Thursday												
	EAST			MAIN				WEST				
	MAC	PE		BIC	HS	SCC	SRC	EC	K	M	OCC	TE
h6												
h7		2		3	6		1					
h8	14	5		60	32	1	6	1	1	16	7	14
h9	30	14		128	54	6	13	1	5	34	13	20
h10	26	10		109	46	8	10	1	4	26	13	18
h11	21	11		96	43	7	15	1	1	27	12	24
h12	21	7		107	44	6	14	2	1	29	11	23
h13	24	13		69	39	6	11	1	1	21	9	12
h14	22	10		54	29	4	7	1		15	7	6
h15	22	10		49	25	2	4	1		12	6	4
h16	5	7		33	18	1	2	1		7		3
h17	6	10		40	17			1		9		2
h18	16	11		61	24	3	7		2	8	2	24
h19	14	7		74	28	6	10	2	3	11	4	26
h20	15	5		65	26	7	11	2	3	11	4	32
h21	10	2		46	18	6	8		3	10	4	27
h22				1		3				3		

Sources: ODS Course Sections; SPT Course Sect Meetings from 2/25/2010

# Number of Classes in Session by Building, Time, and Day of Week--Fall 2009

	EAST		MAIN					WEST				
	MAC	PE	BIC	HS	SCC	SRC	EC	K	M	OCC	TE	
h6	.	.	.	1	.	.	.	.	.	.	.	
h7	.	4	12	3	.	.	.	.	.	.	.	
h8	4	4	49	11	1	2	1	.	11	6	6	
h9	10	9	72	18	2	9	1	5	20	9	4	
h10	10	10	66	28	2	11	1	4	19	8	7	
h11	10	7	66	24	2	9	1	3	18	9	6	
h12	7	4	49	24	.	6	1	3	13	7	6	
h13	7	7	26	24	.	2	.	2	10	7	2	
h14	6	5	17	7	.	.	1	.	3	6	1	
h15	1	4	6	3	.	.	1	.	1	6	1	
h16	1	2	1	2	.	.	1	.	.	.	1	
h17	.	3	1	7	.	.	1	.	.	.	.	
h18	1	4	.	9	.	.	.	.	.	.	.	
h19	1	2	.	10	.	.	.	.	.	.	.	
h20	1	2	.	10	.	.	.	.	.	.	.	
h21	1	2	.	9	.	.	.	.	.	.	.	
h22	.	.	.	.	.	.	.	.	.	.	.	

Sections by Hour of Day--Friday

# DuPage County Population and Fall Headcount Projections to 2030

## DUPAGE COUNTY

Population in thousands!

Age/Calendar Year

Age/Calendar Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
17-19	39,798	39,685	39,130	39,234	39,651	40,184	40,412	40,318	40,379	40,639	40,603	40,692	39,738
20-23	49,499	50,361	51,804	52,370	52,938	52,896	52,664	53,101	53,730	54,217	54,446	54,639	54,866
24-39	188,760	190,449	192,300	195,025	198,525	202,646	206,744	211,348	216,525	221,868	228,048	234,052	240,685
40-64	342,163	347,192	350,837	352,320	352,994	353,809	354,456	354,164	352,664	350,682	348,006	345,049	341,572
65+	105,078	109,107	113,862	120,267	126,524	132,467	138,879	145,169	151,854	158,775	165,644	173,091	180,355
Total Population over 16	725,298	736,794	747,933	759,216	770,632	782,002	793,155	804,100	815,152	826,181	836,747	847,523	857,206
% Increase Year to Year		1.6%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%	1.1%

## College of DuPage Fall Credit HC (10th Day)

Age/Fall Semester	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
17-19	6,601	6,582	6,490	6,507	6,577	6,665	6,703	6,687	6,897	6,740	6,735	6,749	6,591
20-23	7,825	7,962	8,190	8,279	8,369	8,362	8,326	8,395	8,494	8,571	8,607	8,638	8,622
24-39	7,944	7,915	7,991	8,105	8,250	8,421	8,592	8,783	8,998	9,220	9,477	9,727	10,002
40-64	4,415	4,480	4,527	4,546	4,555	4,565	4,574	4,570	4,551	4,525	4,490	4,452	4,407
65+	397	413	491	455	478	501	525	549	574	600	626	655	682
Total 10th Day HC (Projected)	27,083	27,351	27,629	27,892	28,229	28,515	28,719	28,984	29,314	29,657	29,936	30,220	30,355
% Increase Year to Year		1.0%	1.0%	1.0%	1.2%	1.0%	0.7%	0.9%	1.1%	1.2%	0.9%	1.0%	0.4%
Total 10th Day HC (Actual)	27,083												

## College of DuPage Fall Non-Credit HC (EOT)

Non-Credit HC (Projected)	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
	1,265	1,285	1,304	1,324	1,344	1,364	1,383	1,402	1,422	1,441	1,459	1,478	1,495
% Increase Year to Year		1.6%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%	1.1%

## College of DuPage Annualized FTES (10th Day)

Age/Fiscal Year	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
17-19	6,056	6,039	5,955	5,971	6,034	6,115	6,150	6,136	6,145	6,184	6,179	6,192	6,047
20-23	5,343	5,436	5,592	5,653	5,714	5,710	5,685	5,732	5,800	5,853	5,877	5,898	5,922
24-39	4,140	4,178	4,218	4,278	4,355	4,445	4,535	4,636	4,749	4,867	5,002	5,134	5,279
40-64	1,750	1,776	1,794	1,802	1,805	1,810	1,813	1,811	1,804	1,794	1,780	1,765	1,747
65+	106	110	115	121	128	134	140	146	153	160	167	174	182
Total Annualized 10th Day FTES (Projected)	17,396	17,539	17,674	17,825	18,036	18,213	18,323	18,461	18,651	18,857	19,005	19,164	19,177
Total Annualized 10th Day FTES (Actual)	17,396												
Total Annualized 10th Day FTES Projected (Plan)*	17,396	17,539	17,714	17,891	18,070	18,251							
Diff FTES (Projected - 5 Yr Plan*)	0	(0)	(40)	(66)	(34)	(38)							

\* C.O.D. Five-Year Financial Plan, 2010 Through 2014

Sources: DuPage County population estimates and projections--Woods & Poole Economics, Inc. 2010; Fall 2009 headcounts from SPT Student Acad Cred for 10th day and end of term.

# DuPage County Population and Fall Headcount Projections to 2030

## DU PAGE COUNTY

(Population in thousands)

Age/Calendar Year	2022	2023	2024	2025	2026	2027	2028	2029	2030
17-19	39,579	39,262	39,940	40,348	40,795	41,212	41,669	42,118	42,633
20-23	54,929	55,316	54,558	54,050	53,975	53,691	54,507	55,131	55,711
24-39	245,627	249,826	253,349	256,898	258,707	261,247	262,211	263,649	264,518
40-64	339,454	337,711	337,178	336,198	336,809	337,433	338,907	340,131	342,568
65+	187,639	195,080	202,101	209,452	216,419	222,754	228,595	234,421	239,589
Total Population over 16	867,228	877,195	887,126	896,946	906,705	916,337	925,889	935,450	945,019
% Increase Year to Year	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%

## College of DuPage Fall/Credit HC (10th Day)

Age/Fall Semester	Fall 2022	Fall 2023	Fall 2024	Fall 2025	Fall 2026	Fall 2027	Fall 2028	Fall 2029	Fall 2030
17-19	6,565	6,512	6,625	6,662	6,766	6,836	6,911	6,986	7,071
20-23	8,684	8,745	8,625	8,545	8,533	8,488	8,617	8,716	8,807
24-39	10,208	10,382	10,528	10,676	10,751	10,857	10,897	10,957	10,993
40-64	4,380	4,358	4,351	4,338	4,346	4,354	4,373	4,389	4,420
65+	740	738	764	792	818	842	864	886	906
Total 10th Day HC (Projected)	30,546	30,734	30,893	31,043	31,215	31,377	31,663	31,933	32,197
% Increase Year to Year	0.6%	0.6%	0.5%	0.5%	0.6%	0.5%	0.9%	0.9%	0.8%
Total 10th Day HC (Actual)									

## College of DuPage Fall Non-Credit HC (EOT)

Non-Credit HC (Projected)	Fall 2022	Fall 2023	Fall 2024	Fall 2025	Fall 2026	Fall 2027	Fall 2028	Fall 2029	Fall 2030
	1,513	1,530	1,547	1,564	1,581	1,598	1,615	1,632	1,648
% Increase Year to Year	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%

## College of DuPage Annualized FTES (10th Day)

Age/Fiscal Year	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
17-19	6,023	5,975	6,078	6,140	6,208	6,272	6,341	6,409	6,488
20-23	5,929	5,971	5,889	5,835	5,826	5,796	5,884	5,951	6,014
24-39	5,388	5,480	5,557	5,635	5,675	5,730	5,752	5,783	5,802
40-64	1,736	1,727	1,725	1,720	1,723	1,726	1,733	1,740	1,752
65+	189	197	204	211	218	225	230	236	242
Total Annualized 10th Day FTES (Projected)	19,266	19,350	19,453	19,540	19,650	19,748	19,940	20,120	20,298
Total Annualized 10th Day FTES (Actual)									
Total Annualized 10th Day FTES Projected (Plan)									
Diff FTES (Projected - 5 Yr Plan*)									

\* C.O.D. Five-Year Financial Plan, 2010 Through 2014

Sources: DuPage County population estimates and projections

## Summary of Special Events per Building (Max Attendance)

Building	Data	Day of the Week				
		Monday	Tuesday	Wednesday	Thursday	Friday
BIC	Max of AM	100	0	80	60	70
	Max of MD	70	80	80	70	70
	Max of SCHOOL HRS	75	70	70	225	0
	Max of ALL DAY	200	200	200	200	400
HSC	Max of AM	50	50	85	124	50
	Max of MD	50	100	0	100	0
	Max of SCHOOL HRS	100	124	0	0	100
	Max of ALL DAY	0	0	0	100	0
K	Max of AM	0	0	0	0	150
	Max of MD	0	0	100	50	0
	Max of SCHOOL HRS	50	55	200	200	100
	Max of ALL DAY	0	200	200	0	500
MAC	Max of AM	793	793	800	793	793
	Max of MD	50	793	0	75	800
	Max of SCHOOL HRS	793	793	793	793	800
	Max of ALL DAY	100	100	100	793	793
OCC	Max of AM	0	0	100	0	0
	Max of MD	0	0	0	0	50
	Max of SCHOOL HRS	55	55	55	100	75
	Max of ALL DAY	0	100	0	0	0
PE	Max of AM	60	150	60	150	65
	Max of MD	100	100	100	100	100
	Max of SCHOOL HRS	100	100	100	100	500
	Max of ALL DAY	6,000	0	0	0	1,500
SRC	Max of AM	0	375	375	375	200
	Max of MD	80	250	250	120	120
	Max of SCHOOL HRS	200	300	600	400	200
	Max of ALL DAY	1,500	1,500	1,500	1,500	1,500
TEC	Max of AM	0	0	50	0	120
	Max of MD	0	0	0	0	75
	Max of SCHOOL HRS	50	0	50	0	150
	Max of ALL DAY	0	0	0	0	50
Total Max of AM		793	793	800	793	793
Total Max of MD		100	793	250	120	800
Total Max of SCHOOL HRS		793	793	793	793	800
Total Max of ALL DAY		6,000	1,500	1,500	1,500	1,500

\*Max = 800 for School Shows/Performances

\*Max = 6,000 for Career Fair

\*Max = 1,500 for Spring Advising

**Special Events During:**

AM - Any event ending on or before 12pm

MD - Any event between 12pm - 5pm

SCHOOL HRS - Any event occurring and ending between 12pm - 5pm

ALL DAY - Any event starting in AM and ending after 5pm

\*Data does not include weekend events or days where classes are not in session