PARKING STUDY UPDATE

BOWDOIN COLLEGE
BRUNSWICK, ME

Prepared for:
BOWDOIN COLLEGE

MAY 31, 2012

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Walker Parking Consultants completed a parking study for Bowdoin College in 2008. Since that time there have been significant changes to the inventory and daily operation of the parking system. In addition, campus master planning efforts have raised questions about the most efficient way to plan the parking system to accommodate landscaping and other potential changes on campus that would reduce parking in the campus core.

Bowdoin has retained Walker to update the 2008 parking study. The goal of the current study is to help the College create a plan for efficient utilization of the parking system. Ultimately, the study aims to improve availability of parking for campus visitors, and to position the parking system to be able to accommodate the College’s parking needs as master planning efforts change the landscape.

**PARKING DEMAND**
The quantitative portion of our study found 1,081 cars parked on campus at peak on a typical, non-event weekday. This is 245 fewer cars than we counted during our 2006 counts for the original study. The drop in demand corresponds to a policy that has been instituted that does not allow first year students to register cars. In addition to the drop in demand, there has been an increase in inventory, largely as a result of the expansion of the lot at the Farley Field House/Watson Arena complex. The Dayton Lot has also added spaces, and in a prime parking area. Overall, parking conditions are better than in 2006. Overall occupancy on our survey day was 57%, as opposed to 77% in 2006. Stakeholders interviewed for the project unanimously felt that parking is considerably easier now than in the past.

That said, there continues to be significant congestion in the core campus parking areas; parking was 96% occupied in the key lots and along Park Row.

To understand the congestion in this area, we looked at permits and also counted permit-less vehicles. We counted over 110 student cars parked in the core campus, where their permits are not valid. We also counted over 150 cars with no permits, despite this being a non-event day. Anecdotally, we understand that students scrape off permit stickers or don’t register cars, then park in visitor parking areas. Our conclusion is that parking in central campus is congested in large part because students are driving from off-campus residences into the central campus and parking illegally.
There are two negative results of this kind of driving culture. One is that visitors to the campus – a sizable, frequent, and important constituency – have trouble when they come to campus for an event. Unlike staff, faculty and students, visitors cannot easily make use of peripheral resources, so an impacted core is an important issue for them.

The second problem is an environmental one. If more spaces need to be built in the core campus to accommodate everyone who doesn’t want to walk from a residence hall or peripheral lot, the College will end up creating double parking (one space at the dorm, one near campus) at the expense of green space and at an opportunity cost for more desirable buildings. A driving culture also creates unnecessary emissions as people circle the campus looking for an available space.

**MANAGEMENT RECOMMENDATIONS**
To help alleviate the congestion in the core campus and improve the visitor experience, we recommend that the College institute measures to promote a “Park Once” campus. The following are key suggestions; please see the text starting on page 19 for a full list.

**Park Row:**
1. The College should pursue negotiations with the Town to acquire Park Row (from College Street to Bath Road) for visitor parking. It should then be added to the enforcement route such that students can no longer legally leave cars with permits parked there.
2. Park Row should be visitor parking from College Street to Bath Road.
3. If part of Park Row becomes part of the College, overnight parking should be banned there unless there is a visitor hangtag on the car.

**Enforcement:**
4. Enforcement should be increased. One full-time enforcement person would be able to provide more consistent coverage of all parking areas, including Park Row. This will cost roughly $34,000 annually. This person can patrol the campus in general, and provide a consistent presence during events to prevent students from entering key visitor areas. The staff person can also serve as an “ambassador” for visitors, providing information and directions.
5. Faculty and staff routinely ignore the visitor-only area of the Admissions Lot and otherwise park illegally around campus. For all intents and purposes, they are not obligated to pay tickets and thus ignore the rules. This needs to be curtailed; we recommend changing to a system where new permits are issued annually. A faculty/staff person with outstanding tickets will not be able to get a new permit until all tickets are paid. Faculty and staff should be charged $1 to cover the cost of new permits.

6. Gate the Dayton Lot. This will cost roughly $75,000, but will help discourage students from driving to campus.

7. Be vigilant about tracking license plates on permit-less cars, so that students cannot park more than a few times without getting caught. The policy now is that multi-day visitors need to obtain a hangtag from security. Cars found without hangtags can be ticketed when they are present on multiple days. With more enforcement, it should be easier to track license plates on a daily basis. If needed, the College can purchase databases of license plate data to tie license plate numbers to students. Hand-held computers speed up this work even more, and should also be considered as an option.

8. Booting should be considered as an option for dealing with repeat offenders.

Other Recommendations:

9. The Admissions Office parking lot should be expanded and should be enforced as visitor-only parking. There is no need to allow visitor parking in every small lot on campus; a few, larger, always-available locations are easier to use.

10. Improve pedestrian connections and sidewalks. Better walking conditions will make peripheral parking less undesirable.

11. Continue to support car-free residency. The College is already doing an excellent job with the Yellow Bike and Zipcar programs, and has worked with other groups to improve shuttle and bus services. Continuing to create secure bike parking and adding Zipcars as much as possible will help students get comfortable not having cars.

12. Improve signage so that campus visitors can navigate more easily, and so that the College has a uniform, clear system.

OPTIONS FOR ADDING TO THE PARKING SYSTEM
Walker looked at options to add to the parking system. However, given the large surplus that exists, our recommendation is to make better use of existing resources, including Farley Field House/Watson Arena, before considering
major augmentation of the parking inventory. Farley Field House/Watson Arena is perceived as remote, but is not much more than a 10 minute walk from the opposite end of campus. Spending money on structured parking or creating large surface parking lots when this resource exists is not efficient. Hundreds of spaces sit empty in that lot on a typical day.

The only parking expansion recommended is the expansion of the Admissions Lot discussed above. Visitor parking is a constraint on campus, and there are many events. Expanding the lot behind Burton-Little would create more space for Admissions Office events and Thorne events. It could also reasonably serve the museums and other venues. Our proposed layouts are provided in Appendix B, and show options for adding 36 or 83 spaces to the lot.
Bowdoin College has retained Walker Parking Consultants to update a parking demand and management analysis that Walker originally submitted in 2008. The objective of the update is to understand the changes that have occurred since 2008, both in terms of day-to-day operation and master planning, to help the College create a plan for efficient utilization of the parking system. Ultimately, the goal of the study is to create a parking system that accommodates the campus’ parking needs over the next decade.

Walker collected field data on parking occupancy rates and patterns on February 15, 2012. These counts were an update of counts conducted in January of 2006 for our original study. In addition to field surveys, we interviewed stakeholders from the campus and the Town of Brunswick. The stakeholders interviewed include:

Scott Meiklejohn - Dean of Admissions and Financial Aid
Scott Hood - Vice President for Communications and Public Affairs
Stephanie Slocum – Director, Downtown Brunswick Association
Tony Sprague - Director of Events and Summer Programs
Gary Brown – Town Manager
Mike Lyne – JHR Development
Devin Hardy - Student Representative
Tim Ryan - Associate Director, Athletics
Randy Nichols – Director of Safety and Security
Carol McAllister – Associate Director of Safety and Security
Cheryl Harris – Administrative Coordinator, Security
Barry Mills – President of Bowdoin College

In addition, two open-campus forums were held. Approximately 25 staff and faculty attended these sessions. Several students were invited but did not attend.

Some of the key issues that came up repeatedly in the stakeholder interviews and general sessions include:

- Event parking is very difficult for venues that do not have dedicated parking, especially the two museums and Thorne Hall. Some venues (Morrell Gymnasium, Studzinski Recital Hall) have few events during the weekday peaks, but can occasionally experience difficulties, as can Farley Field House/Watson Arena during the largest events or when multiple events occur
simultaneously. This occurs on only a small number of days.

- The Admissions Office has a difficult time providing sufficient parking for visitors. A small lot to begin with, the parking is additionally challenged by students and faculty/staff using the visitor-only area despite signage and enforcement.

- Students disregard parking regulations and create congestion problems, especially around the noon hour when they drive from off-campus housing to the dining halls. Some students either don’t register their cars or remove the registration stickers in order to park as visitors in the faculty/staff lots. Illegal parking in loading zones creates problems for faculty and staff that need these areas for their work.

- Enforcement is hampered by two factors: one is apparent inadequate staffing to provide comprehensive enforcement. The second is that faculty/staff are, for all intents and purposes, immune from fines and can ignore parking regulations.

- Faculty and staff expressed a variety of opinions on parking locations. Some feel that it is important to have parking near their office, since they carry laptops and other items. Others feel that a longer walking distance would be acceptable as long as they know they can find parking in that area; the difficulty, according to this group, is the search for parking from lot to lot. Searching can take longer than the commute itself.
SURVEY DAY CONDITIONS

Walker conducted occupancy counts on February 15, 2012. This was a typical day when no significant events were occurring. Our counts found a peak of 1,081 cars parked on campus. The peak occurred in the late morning, though early afternoon was nearly as busy. Our 2006 count found a peak of 1,326 cars at the peak hour; demand has dropped by 245 cars.

The inventory has also shifted since the original study. The lots at the Stanwood (first year student parking off campus) and 14 McKeen have been removed from the inventory, as have spaces along Sills Drive at the corner of College Street. The total for these areas was 197 spaces. The Dayton lot has added back 97 spaces, so the net loss is 100 spaces. The lots at Farley Field House/Watson Arena have expanded by 292 spaces as well, bringing the campus to a net gain of 192 spaces. A map showing the parking system is provided in Figure 1.

Since our original study, faculty/staff has increased by roughly 80 people and student numbers have increased by 28. However, our original study recommended that first year students should no longer be allowed to bring cars to campus, and this policy has since been instituted. Student permits issued this year totaled 485, compared to 692 in 2006 – a difference of 207. Overall, demand has dropped considerably while inventory has increased. Whereas occupancy was 77% of the overall supply in our previous study, current occupancy is 57% at peak. Additionally, the fact that more spaces have been added in the prime central campus than were removed, helps the perception of a better parking system.

It should be noted that the occupancy count includes spaces that are peripheral, and not considered to be “regular” usable supply. Most notably, Farley Field House/Watson Arena contributes hundreds of spaces that are hardly used on weekdays. Omitting these spaces from the inventory, the occupancy rate is 68%. Further omitting public on-street spaces, the occupancy rate increases to 84%. Parking within the core areas (Druckenmiller/Dayton, Park Row, Campus Drive, Admissions) was 96 percent.
Figure 1: Campus Parking Map
EFFECTIVE SUPPLY
In analyzing the ability of a parking system to accommodate demand, we do not assume that the system becomes impacted at 100 percent occupancy. It is unrealistic to expect that every space in a parking system can be used, for two main reasons:

- There are always operating fluctuations that take some spaces out of service. These include misparked cars that take up two spaces; broken glass, ponding water or other temporary obstructions, or construction, etc.
- It is difficult for a driver to find one of the last few spaces in a parking system. Extra circulating time is needed at that point, and frustration increases. Thus, from both a circulation and level of (customer) service perspective, the parking system is impacted even when there are some spaces available somewhere.

Given these operational issues, we consider a parking system impacted at 85 to 95 percent occupancy, depending on the combination of user groups and the layout of the parking system. To evaluate adequacy, therefore, we start by reducing the parking supply to an "effective" (usable) supply that is 5 to 15 percent smaller than the full inventory. On the Bowdoin campus, we use small adjustments (five percent) for faculty/staff and student parking, since these user groups are very familiar with all areas of the parking system and can make efficient use of the spaces. For visitor parking we make a ten percent adjustment.

Ideally, the parking system will operate close to the 90 percent mark. This indicates that there is sufficient parking to accommodate demand, but that parking is not overbuilt.

Table 1 compares supply and demand on our survey day, omitting the "remote" parking at McLellan and in the non-student portion of Farley Field House/Watson Arena. Farley Field House/Watson Arena is added back on the last line of the table, to show the overflow inventory available.
It is important to note that the 178-space surplus in student parking areas is not available to other users. Thus the available surplus is realistically much smaller than the 392 spaces shown; roughly 230 spaces are realistically usable by, say, visitors to the campus. Farley Field House/Watson Arena does create an additional overflow parking area, however, adding back another 300+ spaces (albeit in a less desirable location).

Overall, the campus has surplus parking available. The findings of the occupancy counts were confirmed anecdotally by the stakeholder interviews, which unanimously indicated that parking on campus is better now than it used to be. However, key parking areas – the Dayton and Druckenmiller Lots, Park Row, North and South Campus Drives, and Admissions – are quite crowded (96 percent occupied during our counts). For the day-to-day users of the parking who prefer to park near the center of campus, this creates a perception that parking is difficult. For people unfamiliar with the campus, the crowded conditions in these largest, most central, easiest-to-find facilities makes the parking system genuinely difficult to use.
EVENT/VISITOR PARKING

Our counts were conducted on a day when there were no major events, in order to understand typical daily conditions. A previous report on parking covered event parking in detail; this is beyond the scope of the current update. However, from discussions with stakeholders we have made some assumptions about event parking needs.

There are three basic categories of events:

- Massive events that create a huge spike in parking demand but only occur a few days a year. These include Commencement, Reunion, Homecoming and Parents’ Weekend.

- Events that generate a lot of cars but do so at times that, for the most part, create little conflict with campus during its weekday peaks during the school semesters. These include the Maine State Music Theatre, basketball events at Morrell Gymnasium, sporting events at Farley Field House and/or Watson Arena, and football events at Whittier Field. Multiple events in the sports arena can generate very large demand that overflows the Field House area, but these occur infrequently. Although these events do not often conflict with peak student/faculty/staff needs, they can generate enough cars to require parking around the campus, which can be a source of confusion for attendees.

- Smaller events that occur frequently enough to create a common, if not everyday, impact on the parking system. These include Admissions Office tours/events for prospective students, Bowdoin Breakfasts and other weekday events at Thorne, some lectures, concerts, sporting events (though most of these occur in the evenings and on weekends), and popular museum shows like the Hopper exhibit.

We do not recommend designing a parking system to accommodate the occasional spike like Commencement. Too many spaces would be constructed that would sit empty most of the year. People anticipate parking problems during huge events, and are willing to accept longer walks, slow traffic and shuttling. We will touch upon some event management issues in our section on campus parking management.

For the purposes of this analysis, our focus is on the weekday events that add to regular peak-hour demand. Although many of these events only occur a few days a year, there are enough of them over the course of the year to make visitor parking a concern on a regular basis. The recommendations we make for semester
weekdays can also be modified for evening, weekend and summer event parking.

Although the events range considerably in size, we estimate a weekday, in-semester “design” event to generate upwards of 100 attendees, which usually translates to about 50 cars. As suggested by Table 1, the campus can accommodate this level of demand currently, though the spaces are likely to be harder to find than is optimal, given the crowded conditions in the larger, core-campus lots.

FUTURE PARKING CONDITIONS

PARKING SUPPLY CHANGES – PLANNED

1. Bowdoin is currently considering re-landscaping North and South Campus Drives to improve their appearance and the pedestrian feel of the inner core of campus. Per information from the Landscape Architect, Stephen Stimson Associates, the current plan calls for the removal of approximately 20 spaces from each of the drives, for a total of 40 spaces removed.

2. As a result of an exchange of properties between the Town and the College, McLellan will cease to be Bowdoin property in 2014. Bowdoin will continue to have art studios on the third floor, but the ±40 staff assigned to that building may move to Federal Street. The Town will allow Bowdoin to continue using 39 spaces in the McLellan lot for fleet or other vehicles. If the lot is demolished for construction, the Town will replace the 39 spaces at a location to be determined. Thus we do not deduct the McLellan spaces from the future inventory available to the campus. We further assume that campus vehicles currently stored at McLellan will continue to be stored there or moved to another peripheral location (Farley Field House/Watson Arena or off campus -- parking in the core of campus should not be used for vehicle storage). People needing to use those vehicles can drive to the remote lot and exchange their vehicle for the Bowdoin vehicle.

Table 2 shows an analysis of parking conditions assuming the changes to parking inventory outlined above. As in the Current Parking Adequacy table, the portion of Farley Field House/Watson Arena that goes unused on weekdays is omitted from the initial

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1 A “design” event is the target size the College plans to accommodate on a regular basis.

2 McLellan has more than 39 spaces in the Bowdoin area of the lot, but only 36 were in use during our survey; we assume replacing 39 spaces will be adequate.
analysis, but is shown as an overflow option along with the few cars parked there.\textsuperscript{3}

\begin{table}
\centering
\begin{tabular}{lcccc}
\hline
 & Inventory & Effective & Demand & Adequacy \\
\hline
Faculty/Staff Parking & 485 & 461 & 481 & (20) \\
Student Parking\textsuperscript{(1)} & 583 & 554 & 376 & 178 \\
Visitor/Other & 108 & 97 & 163 & (66) \\
Total & 1,176 & 1,112 & 1,020 & 92 \\
On-Street Inventory & 276 & 262 & & \\
Total & 1,452 & 1,374 & 1,020 & 354 \\
Total - Usable Surplus Only\textsuperscript{(2)} & & & & \\
Design Event Parking\textsuperscript{(3)} & & & & (50) \\
Total - During Design Event & & & & 126 \\
Design Event Surplus including Watson Lot\textsuperscript{(4)} & & & & 451 \\
\hline
\end{tabular}
\caption{Reduced Campus Drive Inventory}
\end{table}

Note: Analysis excludes McClellan. See text for discussion.

\textsuperscript{(1)} Student Parking includes Farley portion of Watson/Farley lot only.
\textsuperscript{(2)} Usable surplus excludes student parking areas that are not available to visitors.
\textsuperscript{(3)} Design event is assumed to be 100 attendees, at 2 people/car.
\textsuperscript{(4)} Surplus including Watson adds back the 342 spaces in the Watson portion of the Watson/Farley lot.

\textit{Source: Walker Parking Consultants, 2012}

The table indicates that the parking supply would be adequate to accommodate the change in inventory, but a design event or combination of events would push the campus closer to its effective capacity. However, Farley Field House/Watson Arena could supply several hundred more spaces at the periphery. Farley Field House/Watson Arena will be discussed as an alternative in the next section.

\textbf{PARKING CHANGES – LONG RANGE POTENTIAL}

Skidmore, Owings and Merrill (SOM) has been working with Bowdoin to develop and update a master plan for the campus since 2003. Although a formal plan for new building development has not been settled, the master plan offers a flexible set of possibilities. SOM’s 2010 and 2025 development options are shown in Appendix D.

\textsuperscript{3} Future supply also takes into account loss of spaces from the DOT project on the streets around the First Parish Church. However, since few of the spaces in that area were included in our original counts, the impact on our inventory is minimal.
One key aspect of the plan is to emphasize and improve the pedestrian nature of the campus, in part through key property acquisitions in the Coffin Street Lot area. The goal is to enable the College to create pedestrian corridors along Coffin Street from Grove Street to South Street and along North and South Campus Drive. This would help tie the Field House area to the rest of campus. Along with those pedestrian walkways, the plan suggests minimizing the impact of parking in the core of campus by eliminating some of the smaller lots and centralizing the parking in peripheral areas and/or central, but underground, garages.

Some potential parking changes highlighted in the plan include the possibility of constructing a building in the vicinity of the Dayton Lot and replacing that lot with underground parking. Another option shows a dorm at the site currently occupied by the Coffin Street lot. Another dorm might be constructed along Park Row near Chamberlain.

Other planning includes the possibility of the Brunswick Naval Air Station being developed as an extension of the campus, and potential development in the Maine Street Station area. These changes could have a significant impact on parking and circulation, but these long term plans are not defined at this point, and it is premature to plan the parking management strategy around them.

Without a concrete plan at this point, for the purpose of this analysis we simply assume that within the ten-year planning horizon the College could lose 100 to 125 spaces (Coffin or Dayton). Farley Field House/Watson Arena could serve as an adequate replacement for Coffin, especially if the pedestrian link is made to draw the Field House area into campus. Spaces lost at Dayton might be replaced underground in the core campus. Table 3 shows a projection of parking system adequacy with the Dayton Lot removed for construction. Without using Farley Field House/Watson Arena for day-to-day parking, the campus would be very close to its effective supply.
Table 3: Future Demand Projection - Dayton Lot Removed

<table>
<thead>
<tr>
<th></th>
<th>Inventory</th>
<th>Effective Inventory</th>
<th>Demand</th>
<th>Adequacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty/Staff Parking</td>
<td>393</td>
<td>373</td>
<td>481</td>
<td>-108</td>
</tr>
<tr>
<td>Student Parking(^1)</td>
<td>583</td>
<td>554</td>
<td>376</td>
<td>178</td>
</tr>
<tr>
<td>Visitor/Other</td>
<td>108</td>
<td>97</td>
<td>163</td>
<td>-66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,084</strong></td>
<td><strong>1,024</strong></td>
<td><strong>1,020</strong></td>
<td><strong>4</strong></td>
</tr>
<tr>
<td>On-Street Inventory</td>
<td>276</td>
<td>262</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,360</strong></td>
<td><strong>1,286</strong></td>
<td><strong>1,020</strong></td>
<td><strong>266</strong></td>
</tr>
<tr>
<td><strong>Total - Usable Surplus Only(^2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design Event Parking(^3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total - During Design Event</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design Event Surplus including Watson Lot(^4)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Analysis excludes McLellan. See text for discussion.

(1) Student Parking includes Farley portion of Watson/Farley lot only.
(2) Usable surplus excludes student parking areas that are not available to visitors.
(3) Design event is assumed to be 100 attendees, at 2 people/car.
(4) Surplus including Watson adds back the 342 spaces in the Watson portion of the Watson/Farley lot.


PARKING DEMAND SUMMARY

Overall, the campus parking system is not currently impacted. In fact, taking into account all resources, the system has considerable surplus. Even without the large overflow capacity of Farley Field House/Watson Arena lot, there is adequate parking on the campus and surrounding streets to support the current population and most event parking.

Parking is perceived as tight on campus because the most convenient parking areas – the two sides of Campus Drive, Park Row, the Dayton Lot, and some smaller lots – are extremely crowded. This problem is compounded by the fact that many of the areas that do have surpluses, such as the dorm parking areas and smaller, out-of-the-way faculty/staff lots, cannot be used by visitors.

The loss of spaces planned for North and South Campus Drives will still leave adequate parking, even for an event day. However, parking in the core campus will be well above its effective capacity and the campus would require very tight enforcement of student parking restrictions to function adequately. Events will become
more difficult to manage. Loss of the spaces at the Dayton and/or Coffin lots to building development would bring the whole campus, not just the core, close to its effective capacity. Heavier reliance on Farley Field House/Watson Arena or new parking construction would be required at that point.
There are three main options to support further growth on campus:

- Add structured parking
- Add surface parking
- Add more permits in the Farley Field House/Watson Arena Lot.

**STRUCTURED PARKING**

As part of its Master Planning effort, SOM looked at options to provide additional parking facilities in the core of campus, putting them underground as much as possible. Underground parking is valuable in two respects. First, it avoids the undesirable aesthetics associated with above-grade parking facilities. This is not as much of an issue as it used to be, as a little extra money spent on design and construction of the façade can result in a garage that fits with the surrounding architecture on a campus and is still cheaper to build than a below-grade facility. Second, and more importantly, underground garages allow for better use of prime space in the core area of a campus. This can be construction of buildings or retention of green space; both are typically more desired than car storage.

The downside of underground parking is its cost. At roughly twice the construction cost per square foot of an above-grade garage, and more square footage needed per car due to the column requirements of short-span construction, underground parking can cost $50,000 per stall. The Dayton Lot also has the potentially expensive complication of a large number of utilities lines running below the surface lot.

Above-grade construction is much cheaper than underground parking, and can be made to be aesthetically pleasing. It is more efficient than underground parking, both in terms of square footage per car, and also in terms of levels/cars per footprint. Particularly at Bowdoin, with its sandy soil and shallow water table, the cost of going more than one level underground would be extremely high, whereas it is relatively easy to build several levels in an above-grade garage and get a large net gain on the footprint. However, above-grade parking cannot preserve green space and is not as good a mixed-use with an academic building as an underground garage.

Walker looked at several options combinations of above- and below-grade parking on two sites mentioned in the SOM report. Our findings are shown in Table 4 below. Please note that the
projections are only opinions of “construction costs” based on
generalized information. “Project costs” can be 15 to 20 percent
higher than the budgets cited.

Table 4: Structured Parking Options and Costs

<table>
<thead>
<tr>
<th>Option</th>
<th>Configuration</th>
<th>Construction Cost</th>
<th>Est. Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td># 2 Dayton Site 1</td>
<td>1 Below, 2 Above</td>
<td>$15,000,000</td>
<td>480 Spaces</td>
</tr>
<tr>
<td># 2 Dayton Site 2</td>
<td>3 Above</td>
<td>$11,000,000</td>
<td>480 Spaces</td>
</tr>
<tr>
<td># 3 Coffin St, Scheme 1</td>
<td>1 Below, 3 Above</td>
<td>$12,000,000</td>
<td>440 Spaces</td>
</tr>
<tr>
<td># 3 Coffin St, Scheme 2</td>
<td>4 Above</td>
<td>$10,000,000</td>
<td>440 Spaces</td>
</tr>
<tr>
<td># 3 Coffin St, Scheme 3</td>
<td>1 Below, 2 Above</td>
<td>$18,000,000</td>
<td>640 Spaces</td>
</tr>
<tr>
<td># 3 Coffin St, Scheme 4</td>
<td>3 Above</td>
<td>$14,000,000</td>
<td>640 Spaces</td>
</tr>
</tbody>
</table>


Another option that we investigated is to build a single
underground level beneath a new building. At roughly $48,000
per stall, a 100-space level under a building would cost
$4,800,000.

At five percent interest over a 25-year loan period, assuming 90
percent financing, the cheapest of the options in Table 4 would
cost approximately $608,000 per year in debt service, plus
another $110,000 or so in maintenance, utilities, and other daily
operating costs. This equates to $1,630 per stall per year to build
and operate – a significant investment for stalls that generate
negligible income. A 100-space underground garage could cost
upwards of $3,000 per space to operate annually.

SURFACE PARKING

As with above-grade, structured parking, surface parking
represents an undesirable opportunity cost: it takes up green
space without providing an essential land use like an academic
building or a dorm. Its chief advantage, where land costs aren't
high, is that it is cheap to build. It is also perceived as more
convenient and safer than a garage.

Surface parking would not be an adequate solution to replace
multiple large facilities (e.g., if both Dayton and Coffin were
developed along with the losses on Campus Drive). However,
small, strategically-placed expansions of surface parking could
have value.

The main benefit of adding some surface parking is that it would
create a good visitor resource. It is difficult for visitors to navigate
all the “blue” lots on campus, seeking the few available spaces in
a faculty/staff facility, and to navigate. It is preferable for visitors to
have one or two relatively large, clearly distinguished, visitor parking areas.

We looked at several options for adding surface parking:

1. The Admissions Lot. A small expansion and reconfiguration of the lot would gain 36 - 38 spaces from the current total of 34.\(^4\) Going back further, behind the Craft Barn to the area between Chamberlain and Park Row, would provide a net gain of 83 spaces, for a total of 117. The latter option would improve circulation as well as add spaces: the lot could have one-way traffic flow in from College Street, with the exit moved to Park Row. The entrance to Russwurm could also be closed off, with access through the Admissions entrance. Conceptual layouts for both options are provided in Appendix B.

2. Coffin Street. We understand that the College has acquired the property directly to the south of the Coffin Street Lot. Depending on zoning issues south of South Street, it might be possible to extend the lot to the south. A two-bay expansion would add 94 spaces. A third bay might be feasible as well, depending on the property line. With so much available space at Farley Field House/Watson Arena lot, this option may not add significant value.

3. We recommend the College pursue negotiations with the Town to acquire Park Row from College Street to Bath Road. Assuming this occurs, we looked at opportunities to widen Park Row to accommodate parking on both sides of the street. The spaces gains are not estimated to be significant enough to make it worthwhile, and this is a less desirable location to add parking than the previous two options; it is not recommended.

The issue of adding surface parking will be covered further in the Management Recommendations section.

THE FARLEY FIELD HOUSE/WATSON ARENA LOT

The ability of Farley Field House/Watson Arena to serve as a more regular parking resource should be considered as the core campus inventory contracts as a result of landscaping and/or redevelopment. Currently it is mainly an overflow lot, and from stakeholder interviews it is clear that it is perceived as a last resort.

While its location a few blocks from the core of campus does make it feel peripheral, in reality the walking distances are short – it is approximately one tenth of a mile (about two minutes at

\(^4\) Ranges allow for loss of spaces to meet ADA requirements.
average walking speed) from the north end of the lot to the much more desirable Coffin Street Lot. From the center of the Farley Field House/Watson Arena lot to the Searles Science Building at the northwest corner of campus is .6 miles – roughly a 12 minute walk at average speed. Students who live at the Harpswell Apartments are expected to walk from there, so there is no reason why Farley Field House/Watson Arena should be considered an unacceptably long distance. This is especially true given that a parking space for a student really should be functioning as storage, rather than somewhere they need to walk several times every day.

Comparable campuses such as Amherst, Williams, Colby, Dartmouth, Bennington, Middlebury, and Wesleyan have similar walking distances and operate their campuses without shuttle service.

As the campus grows in population, the College will need to decide whether it is willing to consider more of the Farley Field House/Watson Arena Lot usable for student car storage. From a parking management perspective, there is no reason why this lot cannot be considered usable supply rather than overflow, but this is a question of campus culture that the Bowdoin community must address. This issue will be discussed in more detail in the section on parking management.

It should be noted that there needs to be enough empty space available at the lot so that regularly occurring daytime sports events are accommodated. It is our understanding that these events do not create very high levels of demand on a regular basis.

SUMMARY

The best alternative for replacing spaces lost in the core campus to redevelopment will ultimately depend on the finalized development plan. For now, we assume a modest loss of parking to redevelopment.

At the assumed development levels, we don’t see a need for structured parking facilities within a ten-year time frame. With proper management and a change in student culture, the existing system (especially Farley Field House/Watson Arena) has sufficient surplus to accommodate the proposed inventory changes. The only new spaces that would benefit the campus would be in a surface lot that would increase visitor capacity in a key area. The following discussion of parking management provides a more detailed look at options for growing and operating the parking system efficiently.
Stakeholders were unanimous in expressing the opinion that parking is considerably better on campus now than it was before the addition of the Dayton Lot and the change in policy regarding first year student parking. Our parking survey supports that view. There are, however, still some problems in the parking system:

- Event parkers still have trouble finding a place to park. This seems to be a combination of a challenging campus circulation layout and few spaces available in the key lots. People are driving from lot to lot looking for the one or two visitor spaces that remain available.

- The Admissions Office has a similar problem for its visitors. Although the lot behind the Admissions Office has spaces reserved for visitors, these spaces are often taken up by campus staff, faculty and/or students, leaving insufficient visitor spaces. During our campus visits, a significant number of cars with blue “faculty/staff” permits were observed in clearly marked “visitors only” spaces at the Admissions Office lot.

- Some students who are not on campus during the lunch hour drive their cars, parking (often illegally) near Chamberlain Hall or Moulton Union. This creates additional pressure on resources close to visitor parking areas.

- Illegal parking impacts loading zones.

**UNSHARED PARKING**
To some extent, each of these parking issues results from a culture on the campus that enables, and thus tacitly supports, driving from place to place. It is most noticeable with students because their permits give them away: During our survey day, we counted over 110 student cars parked outside the lot designated by their permit sticker. Most of these were Orange (Farley Field House/Watson Arena) permits or Silver (Coffin Street) permits. The vast majority of these cars were parked along Park Row and other streets that are not controlled by the College.

While stakeholders highlighted the problem of student driving and we were able to quantify that based on a permit count, many stakeholders also admitted that faculty and staff will drive across campus when they are running late or when bad weather makes the sidewalks in off-campus areas difficult to navigate.

When students drive to class or lunch from a dorm parking lot, or faculty/staff drive across campus to save time, there is a

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5 On very busy days, visitor demand might overrun the immediate supply even without illegally-parked cars.
significant impact to the parking system. The space that a student or employee leaves behind is likely to be in a place where no one else can use it. This is particularly true for students, whose dorm spaces are neither open to nor convenient for visitors or faculty/staff. It is true for some employees as well – an employee who parks behind the buildings on Cleaveland Street or at McLellan but then moves his/her car to a space in the Dayton Lot has vacated a space that a visitor probably cannot find. In both the student and employee examples, the person is for all intents and purposes taking up two parking spaces – the “reserved” dorm space sits empty while the car takes up a “shared” space. This is why the overall occupancy rate is not high, but parking is so impacted in the core of campus. If the 110+ student cars we counted on campus were back in the dorm lots where they are supposed to be, the number of spaces freed up for campus visitors would be sufficient to accommodate almost any of the events Bowdoin tends to host on weekdays during the semesters, including Bowdoin Breakfasts, Admissions Office tours, lectures, afternoon sporting events, etc.6

SUSTAINABLE PARKING PRACTICES
While the desire to drive on a cold or rainy day is perfectly understandable, it comes at a financial, aesthetic, and environmental cost to the College. To create more surface parking or to construct an above-grade garage removes green space and limits the ability to construct more useful buildings. Building underground parking has less environmental impact but comes at a huge premium. Cars circling looking for that last great space in the core of campus add to emissions and negatively impact the park-like feel of the campus. In its Environmental Mission Statement, the College has noted:

[T]he College will continue to incorporate environmental awareness into the daily lives of students.... In its daily operations, the College will continue to reduce waste and pollution through conservation, recycling, and other sustainability practices. These efforts will continue to include the investigation and implementation of new technologies and methods aimed at reducing Bowdoin’s impact on the environment.

In order to foster this sustainable vision, the College needs to focus on a “park once” approach to parking on campus. This will minimize future paving of green space for parking, and will reduce emissions caused by excessive circulation. Our management recommendations emphasize this point.

6 Finding the space would still be a challenge; this is addressed below.
SHORT-TERM IMPROVEMENTS

CREATE A PARK-ONCE CAMPUS

1. Change Park Row:
   a. Pursue the possibility of Park Row from Bath Road to College Street becoming part of the Bowdoin campus. From conversations with Bowdoin staff, we understand that this issue has been broached informally and the Town was open to further discussion. Unlike the permit system, Park Row works against a “park once” approach by enabling students to drive from their dorms to the campus. This leads to an imbalance in the parking system – underutilized dorm spaces, highly congested core campus -- along with unnecessary traffic and emissions as students circle the campus looking for space. The whole campus will function better if this exception is eliminated.
   b. Assuming part of Park Row becomes a campus street, begin enforcing that area. Students should not be allowed to park on Park Row where the campus can enforce it.
   c. Talk with the Town about enforcing the “no overnight parking” regulation on Park Row from College Street to South Street, and along South Street. The Town has recently hired an enforcement officer after a period without one. Enforcing the overnight ban will minimize use of this area as storage for non-permitted student cars, making space available in the mornings for staff and visitors.
   d. Again assuming Park Row becomes a campus street, make Coffin a student-only lot.
   e. Ban overnight parking on Park Row for non-visitor cars. Visitor cars with hangtags can park overnight. All other cars should be ticketed by the nighttime security staff or Town enforcement staff. Multi-day visitors in Bowdoin-controlled parking are supposed to have hangtags.
   f. Park Row from College Street to Bath Road would operate more smoothly if it ran one way northbound. Stalls would have to be restriped to reflect the new traffic flow. South of College Street, Park Row should have one-way traffic flow northbound.
   g. If Park Row cannot become part of the Bowdoin campus, it will be difficult to prevent student parking there. An alternative would be to make all of Coffin a
blue permit/visitor lot, and require all students to park in Farley Field House/Watson Arena. This would in turn enable the College to make more visitor parking available in the Dayton Lot. Another option is to expand Coffin Street to the south if possible, adding roughly 90 spaces to accommodate growth. Farley Field House/Watson Arena is a better solution until growth projections are formalized and a clear need for additional parking at Coffin is identified.

2. Improve sidewalks and pedestrian connections within campus. Several stakeholders talked about the physical difficulties – poor paving, narrow or non-existent sidewalks – that make it undesirable to walk from peripheral buildings in bad weather.

3. Educate faculty, staff and students about the reasoning behind the “park once” approach and the intention to enforce it vigorously. This should be part of orientation.

4. Enforce faculty/staff parking in the Dayton Lot by gating it. Only drivers with access cards would be able to enter the lot. Many access systems can be tied into existing ID/security card systems so that faculty/staff don’t need a second card; this setup should be pursued. Access to this lot should be limited to faculty/staff whose offices are located in the campus core. Not every faculty/staff ID card should be programmed to open the gate. Gates and an access control system would cost roughly $75,000 to install (assuming two entry/exit gates), plus another $12,000 per year to maintain.

5. **IMPROVE VISITOR PARKING**

   Staff the Admissions Lot. During our visit, there were 12 cars with blue permits parked at the Admissions Office Lot, out of a total of 25 parked cars. Many of these faculty/staff cars were in “visitors only” spaces. The Admissions Office is busy all months except December through February. Enforcement staff patrol more heavily during the busy months. Enforcement records indicate that next to the Dayton Lot, the Admissions Lot generates the most tickets. In the five months between September 1 and early February, which includes much of the slow period, over 100 tickets were issued. Thus it is likely that more tickets are issued in the spring. But the fact that so many tickets are issued indicates that, despite very clear signage about visitor parking and information on the parking webpage, people continue to use spaces that need to be available to visitors.

   a. College staff should not be allowed to park in the Admissions Lot. With fewer students on Park Row, College staff should be able to park conveniently.
without taking up visitor spaces. The lot should be strictly a visitor lot.

b. Enforcement staff should patrol the lot frequently, and station somewhere there before and during special events (shelter in a heated vehicle or booth should be provided during winter). This person could serve as an “ambassador” for visitors coming to campus, directing them to their destinations and providing maps if needed, helping seniors, etc. The ambassador could also send cars with permits away and, after a while, recognize students trying to use the lot for permit-less cars. The main drawback to an ambassador program is cost. The ambassador should not be a student, as the student is likely to overlook friends’ vehicles. An ambassador program combined with a ceremonial entrance at College St and Park Row would improve the visitor experience and reduce traffic on the campus roads.

c. The Ambassador option, if financially acceptable, is preferred. This position could potentially be combined with an additional enforcement officer position (see below); the cost would be approximately $34,000 per year.

6. Expand the Admissions Lot. In general we do not recommend paving more of campus than is necessary, and the campus does have a surplus at this point. That said, the parking supply for visitors is inherently challenging and is projected to become more so over time. The current system, where most “blue permit” lots are available to visitors, is a good idea but a difficult reality; it is difficult for someone unfamiliar with the campus to navigate. Consolidating more visitor parking in the Admissions Lot would improve the visitor experience. The Admissions Lot is a key visitor area where a high level of service for visitors is particularly important. It is also very close to the Thorne Center, which hosts well-attended events, including the Bowdoin Breakfasts. In addition, it is convenient to the museums and other visitor destinations on campus; along with the freed-up parking along Park Row it could provide a good resource for a variety of campus visitors. An ambassador present in the lot on busier days would help it function as a gateway to campus for people going to various destinations.

As discussed in the previous section, a small expansion and reconfiguration of the lot would gain up to 38 spaces, and a larger expansion would add 83 spaces.

Depending on how big the lot is made, and how much improvement is gained in general by enforcement changes,
another central visitor parking area could be made available. Park Row between College and Bath is well situated for visitor parking for the museums and other core-campus venues. It will have to be well patrolled to avoid use by students without permits on their cars (as will any visitor area that isn’t gated).

For large Thorne events like a 200-person Bowdoin Breakfast, part of Park Row could be coned off as well if it becomes campus property.

7. As much as possible, try to coordinate large events to minimize overlap. With good planning, an expanded Admissions lot can be used by many venues. Overlap between large events (for example afternoon lectures or recitals, and any afternoon basketball games) should be avoided. These would likely occur after the mid-day peak for the Admissions office or Thorne events, and could make use of the visitor lot as well.

8. Improve signage and mapping. For visitors trying to find destinations at Bowdoin, signage is inconsistent and limited.

a. Although it would be challenging to create a main entrance to campus given the road configuration, the College/Park Row entrance should have signage marking it as the ceremonial entrance, and all internet and printed directions to campus should mark this entrance as the visitor point of entry. Stimson and SOM have also recommended this emphasis.

b. Signage should direct visitors to campus – preferably via Maine Street to College – and should direct them to clearly marked visitor parking options. A few clearly marked areas will be easier for people to find and navigate than many options throughout campus.

c. The Bowdoin map should be linked to all event information pages and electronic ticket purchases, and a hard-copy version highlighting key visitor buildings and parking areas can be sent with “hard copy” tickets purchased by mail.

d. Naming should be consistent, and parking should be clearly marked at the lot entrances in a way that is consistent with campus maps and building names. What everyone refers to as the Dayton Lot is signed as the “Polar Loop.” Lot identification is uneven. For example, only some “blue permit” lots say they are open to visitors even though all of these lots can be used by visitors as well as employees. Some lots, like the Coe Building, have no marking at all.

e. Given these recommendations and the plans developed by SOM and Stimson, Bowdoin will need to
develop a signage package. Preliminary work has been done, and is included in Appendix E.

9. For larger visitor events, the following should be noted:
   
a. An event management plan is already in place, but several stakeholders indicated that coordination between event-sponsoring groups and security is not always strong. All offices involved in events should be coordinating to ensure that the event plans are followed.

b. Currently there are people directing traffic at some large events, but there is no communication available between them. A traffic director might advise people that a lot is full and send them to look elsewhere, but they end up going from lot to lot trying to find the empty space. Coordination – via walkie talkie or other device – will help each “flagger” direct people appropriately.

c. The College should provide special event parking information on its website for the larger events. Some other colleges, including Middlebury and Amherst, have separate webpages on parking for large events like commencement and reunion. Both Middlebury and Amherst discuss shuttles from remote lots and provide information on parking areas.

d. Shuttling should be used as extensively as is feasible, including to and from hotels during the largest events. Shuttles should be well advertised in advance mailings, etc. Any large lots near campus that are not used on major event days – churches, offices, etc. – should be investigated as shuttle lots. Owners will often lease the space when they don’t need it.

e. A webpage is very valuable, but not everyone thinks to look for it. Mailings to people who have registered or purchased tickets in advance for large events would be helpful as well. As more and more event registration is done online, it becomes more possible to avoid paper mailings and focus on email to transmit information.

SUPPORT THE CULTURE CHANGE THROUGH ENFORCEMENT

There is no getting around the fact that enforcement is punitive, and people receiving citations are likely to complain. But enforcement is the difference between perpetuating the campus’ problematic parking culture and improving it. Short of using gates on all the parking areas, which is not feasible (Dayton, Coffin, and the Admissions lots are the best candidates for gating), enforcement is the best way to discourage excessive circulation.
10. The employees responsible for enforcement work for Campus Security and have many other duties. They have indicated that it is not feasible for them to provide consistent, thorough enforcement on a daily basis. They focus on the problem areas, particularly during periods when problems are most likely to arise (e.g., when Admissions tours and interviews are in full swing). If the above measures are put into place, enforcement staff will have more area to cover, and may have to address faculty/staff parking issues as well as students. Over time, violations should decrease as people get used to the new rules, but enforcement must be a consistent presence to be effective. A staff person whose time is dedicated to enforcement would also be able to serve as an “ambassador” for visitors, direct traffic during events, and handle other security inquiries and issues. It is recommended that one staff position be funded to focus on parking management. This will add approximately $34,000 to the budget annually.

11. Explore options to enforce faculty/staff tickets. It is our understanding that when enforcement gives a ticket to faculty or staff, a copy of the ticket goes to the bursar and the bursar sends an invoice to the faculty or staff member. However, faculty and staff can ignore tickets with no consequence since it is not public parking. Faculty/staff who don’t understand the rules might pay, but a savvy employee will not, and will not change their practices. In order to enforce payment, Bowdoin would have to have the employee sign a voluntary waiver in advance allowing the College to garnish wages.

We recommend that the College institute an annual registration of vehicles for faculty/staff as well as students, and refuse to issue a new permit while fines are outstanding. In general this is good practice anyway, so that temporary employees don’t continue to have access to the campus parking system for years after their employment ends. But there is a cost associated with reissuing permits every year, and extra labor that goes into processing them. Based on information from the Office of Safety and Security, we estimate that it costs a little over $1 to purchase each decal. Thus it would cost around $1,000 annually to issue new faculty/staff permits. The College should consider charging faculty and staff $1 per permit as a service charge, to recoup most of its costs.

If an annual registration for staff and faculty is too difficult, the process can be bi-annual, but this will lead to more conflicts as faculty and staff let tickets accumulate for two years and are then confronted with very large bills that they then wish to contest. It is better to “clean house” annually.
12. Enable Enforcement staff to work more quickly by requiring permits to be posted on the inside of the rear driver-side window. Many people back in to parking spaces, which requires Enforcement staff to walk around the back of the car. This becomes time consuming. Furthermore, stickers on the exterior of the car get ruined easily.

13. Consider purchasing license plate databases. If large numbers of permit-less vehicles continue to be on campus on days when there are not many visitor events, this should be a signal that despite increased enforcement, students are continuing to take advantage of visitor parking areas. (We counted over 150 permit-less cars during our survey on a non-event day. Our previous study had similar numbers. It is likely that many of these cars are student cars.) If that is the case, the College should consider investing in license plate databases that will make it easier to track car ownership. Currently it is difficult for Enforcement to determine which permit-less cars belong to students. We understand that the investment to buy databases depends on how many states are purchased, but that each costs several hundred dollars and should be updated yearly. Purchasing databases for the five or six states that generate the greatest share of the enrollment would be worthwhile. An investment in handheld enforcement computers is also worthwhile. These computers allow enforcement staff to track repeat license plates much more easily, and will help reduce the number of student vehicles without permits using visitor spaces.

14. Fines should be increased if they are not sufficient to discourage illegal parking even after enforcement is made more consistent by the new hire.

15. Consider booting as an option for serious or repeat violators. The current policy, to have a personal meeting with students who have received more than four tickets, is a good one. It is also good that privileges are revoked upon issuing a sixth ticket. However, for students who do not have privileges in the first place, or find a work-around to losing their privileges, or for faculty/staff who repeatedly violate significant rules (parking in loading zones, fire lanes, ADA stalls, etc.), a boot is appropriate and sends a strong message both to the person who receives it and to others who see it.

16. Enforce the hangtag policy strictly. Permit-less cars that appear on multiple days without hangtags should be ticketed. A hand-held or car-mounted license scanner may be a worthwhile investment to speed up the process of identifying multi-day stays, but should be considered only if the databases recommended above are not sufficient to track student cars.
ENCOURAGING CAR-FREE RESIDENCY
The College has done a great job of creating options for students who don’t own cars. Along with the policy of not allowing first year students to bring cars to campus, which seems to have had a ripple effect into upper classman car ownership as well, the shuttle, yellow bike, and zipcar programs make it easier for students to live without cars. Many options exist for students to get off campus, and the new Amtrak service to Brunswick will add yet another option to encourage students to live without a personal vehicle. To continue along these lines:

17. As feasible, increase the number of zip cars available. They are well used and are a very good, inexpensive alternative for students who need a car occasionally. We understand that a certain utilization threshold must be reached for the existing cars before the College can obtain another for free.

18. Advertise the BSG Portland Shuttle and Brunswick Explorer shuttles more vigorously. Stakeholders mentioned that many students seem to be unaware of these options, and we have seen this issue on other campuses as well. In part this may be because the programs are still fairly new. The Bowdoin Shuttle is already well utilized. The College website has a good page on alternative transportation that outlines all the options available, but a periodic mass email would be a good way to remind people without printing thousands of flyers. Also, if alternative transportation is not covered in detail during new student orientation, it would be valuable to do so.

19. Continue to add bicycle storage options. According to the residence hall webpage, not all dorms have bicycle storage. Stakeholders have mentioned that bicycle usage has increased sharply over the last few years -- the Yellow Bike Club is likely a contributor along with regular bicycle ownership -- and campus buildings should be upgraded to keep up with this demand as possible.

OTHER ISSUES
20. To preserve use of spaces at McLellan once there is no longer on-site use of the spaces, we recommend signing the spaces for Bowdoin use only. If they continue to be used despite signage, enforcement or gating (if allowable) may be necessary.

21. Faculty and staff using a Bowdoin fleet vehicle should be issued a hangtag for their personal vehicle to park in the fleet vehicle stall. This is a better shared use of spaces, and will also streamline the process for the faculty/staff member.

22. The Coffin Street Lot should be paved. This will allow it to accommodate more cars (less mis-parking) and to be easily usable even in very bad weather.
23. Enforcement staff have mentioned that the number of different color permits adds cost and inefficiency to the permit process. Some permit colors could be eliminated by using a single color for residence halls that are close to each other, such that moving cars is not worthwhile. For example, all the dorms along Maine Street could have the same permit but the Harpswell Apartments should not have the same permit as Maine Street or students will be encouraged to drive if they have classes near Maine Street.

**POTENTIAL ADDITIONAL CONSIDERATIONS – LONGER TERM**

The following options should be considered if the immediate changes to the system do not go far enough to produce the desired results:

24. Create staff/faculty permit zones that discourage moving cars. Separate permits for staff whose office is located north of Bath Road, and those located west of Maine Street, could have different permits than those who work in the core. Each lot does not need a different permit, but permits can be grouped by area. The key is to define areas so that there is no good option to drive to the other side of campus.

25. Discuss the need for an all-day circulator shuttle. It is our opinion that the campus is small enough not to require regular shuttle service, and the fact that there isn’t already a daytime shuttle for students in the farther dorms (including the Harpswell Street Apartments, which obviously are as far from the campus core as the Farley Field House/Watson Arena Lot is) suggests that our opinion is shared. It is also worth reiterating that parking in the Farley Field House/Watson Arena Lot is meant as vehicle storage more than active parking.

That said, if changes to the condition of streets do not occur to make walking in bad weather more acceptable, or the campus does incorporate farther-out land like the Brunswick Naval Air Station, the College can extend the exiting shuttle service to daytime hours, making a circuit around the campus “ring” every 15 minutes or so. As existing vans need replacement, these should be CNG, hybrid, or other low-impact vehicles.

**SUMMARY**

While the overall occupancy rate on the campus is acceptable, the core area is crowded. For a population that knows the campus well, this is an inconvenience but people figure out where to park. For visitors the problem is more serious, and the campus
becomes inhospitable for many valued user groups. Whether people are comfortable with the system or not, it is undesirable to have a campus where people are going in and out of each lot looking for that last available space.

The most effective way to reduce congestion and grow the campus responsibly would be to incorporate Park Row into the campus and reduce its use by students who already have assigned parking elsewhere on campus. With proper enforcement, dozens of spaces should become available on a daily basis, alleviating pressure on the other core campus lots and making visitor parking easier. Enlarging the Admissions lot will also ease the visitor situation, and can be done with minimal intrusion.

It is also crucial to change the mindset on campus – through enforcement as well as education – to support a park once culture. Leaving cars at dorms or peripheral offices instead of trying to get as close to the center of campus as possible, will balance parking utilization rates across resources and reduce emissions and traffic.
APPENDIX A: SURVEY DAY PARKING OCCUPANCY
## PARKING STUDY UPDATE

**31 MAY 2012**

**PROJECT # 16-2405.00**

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</tr>
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<td>6</td>
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</tr>
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</tr>
</tbody>
</table>

**TOTAL:** 583 578 276 450 1,887 524 7 23 11 63 1 90 13 6 10 3 114 10 9 10 0 155 26 1,081 57%
APPENDIX B: OPTION TO EXPAND ADDMISSIONS LOT
Lower end of “net” stalls added accounts for ADA requirements, which are not included in the layout.

Lower end of “net” stalls added accounts for ADA requirements, which are not included in the layout.

Figure 4: Brunswick Explorer Route

APPENDIX D: SOM MASTER PLAN – 2010, 2025
Near Term Strategy
2010

New Construction
Kanbar Hall
2 Proctor Hall
Hockey Arena
College Bookstore

Renovation
Snape Towers
Existing “Bricks”
Appleton Hall
Coleman Hall
Hyde Hall
Maine Hall
Moore Hall
Winthrop Hotel
Concert Hall
Walker Art Building
Stowe House/Alumni Center/Faculty Club
Hawthorne-Longfellow Library

Demolition
Dayton Arena

Net Growth Near Term
± 110,000 gsf

Total Campus Development
± 1,900,000 gsf

Source: SOM
Mid Term Strategy 2025

New Construction
College Street area
A new Visual Arts Center
Dayton Arena site
Champlin Hall area
Bath Road area
Brunswick Apartments
Athletics area
Arctic Museum

Renovation
Sargent/Morrell Gym
Hatch Science Library
Adams Hall

Demolition
Dudley Coe Hall
Houses on College Street
Pine Street Apartments
Harpwell Street
Apartments
Visual Arts Center

Net Growth Near Term
± 400,000 gsf

Total Campus Development
± 2,300,000 ydf

Source: SOM
APPENDIX E: PROPOSED SIGNAGE
Sign Designs Based on Existing Signs