TOWN OF HIGHLAND PARK
Agenda Briefing
Council Meeting: August 9, 2010

Department: Building Inspection
Department Director: Ronnie Brown

TITLE


BACKGROUND

On May 10, 2010, the Town Council approved hiring Freese and Nichols, Inc. to perform the engineering services related to evaluation of the Comprehensive Transportation and Parking Plan at the Highland Park Village. Mr. Kevin St. Jacques, PE, with Freese and Nichols, Inc. has prepared the enclosed report evaluating the parking studies.

RECOMMENDATION

Staff requests review and comments by the Administrative Committee.

FINANCIAL IMPACT

None, the scope of this work is included in the contract.

ATTACHMENT(S)

• Report from Kevin St. Jacques dated July 27, 2010
TOWN OF HIGHLAND PARK
Agenda Briefing
Council Meeting: September 13, 2010

Department: Building Inspection
Department Director: Ronnie Brown

TITLE


BACKGROUND

On May 10, 2010, the Town Council approved hiring Freese and Nichols, Inc. to perform the engineering services related to an evaluation of the Comprehensive Transportation and Parking Plan at the Highland Park Village. Mr. Kevin St. Jacques, P.E., P.T.O.E., with Freese and Nichols, Inc. prepared the attached review of the parking studies.

RECOMMENDATION

The staff reviewed this report with the Administrative Committee on Wednesday, August 4, 2010. The Committee requested comments from the Highland Park Village. However, due to the short duration with which they had the report, they were not prepared to respond. Therefore, staff recommends presenting it to the Town Council as information only at this time.

FINANCIAL IMPACT

None.

ATTACHMENTS

• Review by Kevin St. Jacques dated July 27, 2010
July 27, 2010

Mr. James Fisher  
Director of Public Works and Town Secretary  
Town of Highland Park  
4700 Dexter Drive  
Highland Park, Texas 75205

Re: Highland Park Village Parking Studies Review

Dear Mr. Fisher:

Per our contract with the Town of Highland Park, we are providing the attached summary report of the findings of our review of the parking studies and existing parking provided at the Highland Park Village mixed use development. The objectives of the review were as follows:

1. Review the adequacy of the previous parking analysis methodologies, from the Comprehensive Transportation Plan approved in 1994 to the Transportation Plan Update approved in 2009.
2. Develop commentary and supporting tables regarding the process of updating the parking analysis as development changed between 1994 and 2010.
3. Review provisions for valet parking to assess whether they should be given full credit toward the provision of parking for the site.
4. Provide additional observations that may arise from the review.
5. Provide suggestions for further assessments that are deemed appropriate.

I am available to discuss these findings of our review with Town staff and with members of the Town Council as you deem appropriate.

Sincerely,

Freese and Nichols, Inc.

[Signature]  
Kevin St. Jacques, PE, PTOE  
Senior Transportation Engineer

CC: Dan Sefko, Tricia Hatley

Attachments
Review of the Parking Supply and Parking Studies for Highland Park Village
by Kevin St. Jacques, PE, PTOE of Freese and Nichols
July 27, 2010

Freese and Nichols was retained to review the chronology of parking studies performed for the Highland Park Village (HPV) from July 1994 through March 2010 to assess the appropriateness of methodologies used in calculating parking demand and the adequacy of parking supply.

The Town regulates activities at Highland Park Village (HPV) with two documents: a comprehensive site plan, and a comprehensive transportation and traffic management plan. Of concern is the provision of adequate parking supply for the complex patterns of parking demand generated by the development.

Parking Demand

1. **Appropriateness of Shared Use Parking Methodology:** The Shared Parking methodology is documented and promoted by the Urban Land Institute, and has been adopted as part of the Parking Ordinances of the City of Dallas and many other cities in the US. The use of a Shared Use Parking methodology for determining parking needs is appropriate for the Highland Park Village. Due to the mixture of land uses in HPV, it is proper to consider that the peak parking needs of the various uses occur at differing times of the day. It is also true that one trip to HPV can serve many destinations. Thus, reductions in parking needs would stem from the internal capture of the relationships of complementary land uses (retail, retail, retail-restaurant, office-restaurant, etc.) Thus, a critical concurrence assessment of the parking needs throughout the day is appropriate. Such is the premise of the Shared Parking methodology.

   The Shared Use Parking methodology, derived from national data, should be adapted to each location, using data collected at the location if possible, to be able to represent the hourly patterns of actual shared use. The methodology used for assessing the appropriate amount of parking to be provided at HPV was taken with little variation from the City of Dallas Mixed-Use Shared parking requirements approach. The City of Dallas established their Shared parking methodology as a simplification of the ULI Shared Parking Study, and used the City’s base peak parking rates rather than the ULI rates. Dallas refined their Mixed Use Shared Parking methodology slightly between the 1993 HPV Plan and 1998 HPV Plan to reflect experience with the application.

2. The [1993 Comprehensive Transportation Plan for the Highland Park Village](#), established the minimum parking requirements for HPV based on a Shared Use Parking methodology, and emphasized the valet parking program as a means of optimizing the total parking supply. The Plan discussed and illustrated six methods of estimating parking demand for the mixed use site, and recommended the method used by the City of Dallas using “Shared Use Parking” tables. These tables were based upon those in the 1983 ULI report Shared Use Parking that estimated the percentage of peak parking rate needed for land use types (office, retail, restaurant, theater) by five distinct time periods of the day (morning, noon, afternoon, late afternoon and evening). Shared parking demand was reported to have been calculated, using the Shared Parking methodology, as 1,025 spaces, a 36% reduction from the 1,401 spaces that would have been required by straight application of the Town’s peak parking zoning requirements. The parking supply at that time of 1,050 spaces was deemed adequate to meet demand, with an excess of 25 spaces.
Notably, the parking accumulation counts conducted in August 1992 for this study indicated that the peak accumulation (724 cars) occurred on Thursday at noon, while the next highest accumulation (705 cars) occurred on Friday at 1:00 and the third highest peak (589 cars) occurred on Saturday at 1:00 p.m. This weekday midday high parking pattern is in contrast to the Shared Use Parking methodology which estimated that the peak parking need would occur on Saturday afternoon (1,025 cars) followed closely by the weekday afternoon (1,005 cars). The actual peak parking demand pattern for HPV during the weekday midday appears to be under-represented in the Shared Use Parking methodology that was applied, though, overall, the methodology applied appears to require sufficient parking for the development.

Considered a part of the transportation plan, the Traffic and Parking Management Plan for Highland Park Village, February 1994 is a complement to the Comprehensive Transportation Plan for the Highland Park Village that was presented to Town Council in July 1993 to address concerns of the Town about the Transportation Plan. The Management Plan sets forth the Valet Parking operations, employee parking control, control for parking on adjacent residential streets, procedures for dedication of certain spaces near restaurants and encouragement of theater parking in the North Lot, recommended procedures for deliveries and refuse collection and various procedural measures for safety, traffic management and enforcement. Both the Transportation Plan and Traffic and Parking Management Plan were approved by Town Council on March 7, 1994.

3. **1998 Comprehensive Transportation Plan for Highland Park Village.** This document compares the development and parking attributes of HPV in 1992 to the attributes in 1998 at the time of this study. Since 1992, the office space had increased by 14,705 s.f. (38% increase over 1992), retail space decreased by 24,856 s.f. (13% decrease), and restaurant space increased by 2,470 s.f. (18% increase). The 1998 Plan again discussed and illustrated six methods of estimating parking demand for the mixed use site, and recommended continued use of the method used by the City of Dallas using “Shared Use Parking” tables which were based upon those in the 1983 ULI report Shared Use Parking.

Notably, the parking adjustment percentages by time of day were different in the Dallas Special Parking: Multi-Use Shared parking methodology applied in the 1998 Plan compared to those used in the 1993 Plan for some values during the critical time afternoon time period. These changes between 1993 and 1998 reflect experience gained in applications by the City of Dallas.

<table>
<thead>
<tr>
<th>Use Category</th>
<th>Weekday Noon</th>
<th>Saturday Afternoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>Retail</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Bar &amp; Restaurant</td>
<td>70%</td>
<td>100%</td>
</tr>
<tr>
<td>Cinema</td>
<td>50%</td>
<td>40%</td>
</tr>
</tbody>
</table>

The resulting peak parking requirement was calculated as 1,017 spaces on a Saturday afternoon, a net reduction of approximately 25% from the 1,350 spaces that would have been required from direct application of the Town's peak parking zoning requirements. (Note that the reduction was 39% in 1993.) Parking supply was identified as 1,044 spaces. Thus, the parking supply was deemed adequate, with a net surplus of 27 spaces. This information was put into the minutes of a Town Council meeting dated November 16, 1998 noting adoption of the 1998 updated Comprehensive Transportation Plan.
Notably, the 1998 study included another parking accumulation count, but only on a Friday and not a Saturday. Since Saturday had been identified as the expected peak parking day by the Shared Use Parking method, a Saturday parking accumulation count would have been appropriate, and could also have further supported the shared use parking methodology application. Without that comparison, it is possible that the actual peak parking demand pattern for HPV during the weekday midday might still be under-represented in the Shared Use Parking methodology that was applied.

4. **March 9, 2009 Town Council Approval of Ordinance 1785 adopting the new Village Site Plan and updated Transportation Plan.** The updated plan consists primarily of an updated site plan, updated building uses table and updated parking calculations. In the 2009 Update, the peak parking base rates and shared parking reductions used in the parking demand calculations were the same as used in the 1998 Plan. The Updated Transportation Plan recalculated all of the new building space uses. Compared to the 1998 Plan, the 2009 Plan defines a net decrease of 2,915 s.f. of Office, decrease of 11,559 s.f. of Retail, increase of 113 inside and 41 outside seats for Restaurant, and increase of 2,982 s.f. of Storage. The study determined a peak parking requirement of 997 spaces on a Saturday afternoon. This amount represents a 24% reduction from the 1,319 spaces that would have been required from direct application of the Town’s peak parking zoning requirements. Parking supply was identified as 1,039 spaces. Thus, a net surplus of 42 spaces was identified. No parking accumulation studies were performed to verify the appropriateness of the continued application of the shared parking methodology for the plan.

Review of the Update documents found various inconsistencies between the accounting of the ongoing changes at HPV by three resources: the HPV Management summaries of the changes from 1998 to 2009, the summary of ordinances between 1998 and 2009, and the difference in development values between the 1998 plan and 2009 plan update. These inconsistencies are further described in **Appendix A.** Though not of major consequence in itself, these inconsistencies in accounting for changes in building uses indicate that current procedures leave uncertainty in the ongoing status of parking provisions at the Village between Updates.

5. **Application of Base Peak Parking Demand:** The 1998 Plan used the City of Dallas approach for the parking requirement calculations, using the basic parking requirements (except for restaurant/bar) from the City of Dallas and the shared-use time-of-day adjustment percentages from the City of Dallas “Special Parking: Multi-Use Shared” procedure. Though it uses the implications of the ULI shared parking hourly variations, the Dallas procedure does not use the peak parking demand rates compiled by the Urban Land Institute in 1983 in its “Shared Use” document. Two base peak parking rates differ between Dallas and Highland Park, with Highland Park rates the greater:

- Office is 1 spaces per 333 s.f. for Dallas but 1 spaces per 300 s.f. for Highland Park (and ULI)
- Theater is 1 space per 28 s.f. of seating area (about 1 space per 4.3 seats) for Dallas but one space per 3 seats for Highland Park (Urban Land Institute suggests 1 space per 3.33 seats)

The recommendation was made by HPV and adopted by the Town of Highland Park (in 1993, 1998 and 2009) to utilize the complete City of Dallas Shared Use Parking methodology including the City of Dallas base peak parking rates, except for Bar and Restaurant, for land uses for this unique multi-use facility. Use of the City’s lower base rates were justified by the results of parking accumulation counts that were conducted on a Friday in September 1998 and on a Thursday, Friday, and Saturday in August 1992. Notably, the Plan Update did not include a Saturday count in 1998, the peak day of concern, and parking accumulation counts were not done to support the 2009 Plan Update.
In the 1993, 1998 and 2009 Plan Updates, the base peak parking rates for Office and for Theater uses were those of the City of Dallas rather than the peak parking rates of the Town of Highland Park Zoning Regulations that were in effect then. For the two parking rates that differ, the following is the resulting differential in parking requirement in the 2009 Plan Update:

- For the 50,247 s.f. of Office in the 2009 Plan, the application of the Town of Highland Park zoning requirements would have resulted in the need for 16.6 more spaces than the Dallas rates before reduction for shared use parking. According to the shared parking methodology, only 15% of the Office parking is needed during the peak Saturday Afternoon period, but 80% is needed during the peak weekday noon time period and 100% during the weekday afternoon period. Depending on which period is the critical period for the mix of uses, this issue may or may not be significant.
- The 2009 Plan uses the City of Dallas rate of 1 space per 28 s.f. of seating area for Theater (about 1 space per 4.3 seats), but the Highland Park Zoning Regulations specify a rate of 1 space per 3 seats for Theater. Using the information contained in the March 22, 2010 Council Agenda Briefing, the Village Theater in the 2009 Plan had 3,700 s.f. of seating area and 568 seats. The application of the Town zoning requirements would have resulted in the need for 67.2 more spaces than the Dallas rates before reduction for shared use parking. This number is significant since 80% of the Theater parking is required during the peak Saturday Afternoon time period.

6. Documentation of Changes to Parking Requirements between HPV Transportation Plan Updates
Each Transportation Plan Update calculates the new parking requirements based upon a revised inventory of building uses, and identifies the number of surplus spaces available. As changes in building space uses occur after the update, parking requirements change. When the changes result in an increase in parking demand, a town ordinance is prepared documenting the changes and the reduction in parking surplus. The Ordinance documentation only considers the base peak parking demand rates, and no shared parking reduction is included in the calculation. Thus, the interim accounting for surplus parking between Updates to not allow for shared parking is conservative on the part of the Town. A summary of the minor differences in calculations for parking requirements for interim building use changes is discussed in Appendix B.

The shared parking reductions are calculated by formula for the critical time period (Saturday afternoon), so could be factored into the calculations for changes in parking requirements as the modifications to HPV building uses occur. However, due to the fact that changes in building usage could change which time period on a weekday or Saturday becomes the critical time period for maximum parking demand, for the sake of simplicity and to use conservative approach, the parking requirements for interim approval of changes should continue to not allow for shared parking reductions.

Parking Supply
On Friday, May 28, representatives of FNI met with representatives of the Town of Highland Park to review the existing site operations and to observe the parking garage operations. Findings of the field review and subsequent analysis include:

1. We confirmed that there are 314 parking spaces in the North Lot, as was stated in the 1998 Comprehensive Transportation Plan for Highland Park Village, though the 2009 Plan Update indicated 315 spaces in this lot.
2. We found that there are 501 parking spaces in the Interior Lot, rather than the 504 noted on Exhibit IV-3 of the 1998 Plan or the 499 spaces in the 2009 Plan. Ordinance 1811, subsequent to the 1998 Plan, allowed for removal of three spaces in front of the theater.

3. We found that there are 233 valet parking spaces in the underground parking garage, rather than the 226 noted on Exhibit IV-3 of the 1998 Plan or 225 stated in the 2009 Plan. See attached markups to the exhibits in Appendix C. This count includes additions due to conversion of dedicated storage areas for parking (added 16 spaces), conversion of parking spaces to fenced storage (eliminated 2 spaces), judgment of 2 spaces as unusable due to phone equipment mounted on the side wall (spaces 15 and 30 on First Level – East), and judgment of 7 spaces as unusable due to maneuvering constraints (spaces 35 and 63, 17 and 34, and 62, 89 and 90 on Second Level - East – spaces are too close to the flat end wall at that location and cars are currently being parked straddling the 1.5-foot curb separating the double-stacked parking bays.)

4. It is noted that in the underground parking garage, three cars were parked in the unmarked area at the end of First Level West, but are not included in the count of available spaces. Also three very compact cars were parked in an unused area parallel to the ramp on the Second Level – East. These unmarked spaces are not included in the count of available spaces.

5. It was observed that 22 of the potentially available spaces in the garage were currently being used for open storage and work areas (see photos in Appendix C for examples), reducing the total currently available valet parking spaces in the garage to 211. Thus, the parking garage is currently providing 15 less spaces than stated in the 1998 Plan, 16 less than the 2009 Plan. It appears that the open storage and work areas could be readily removed, resulting in the full use of the 233 parking spaces (7 more spaces than stated in the 1998 Plan and 6 more than the 2009 Plan).

6. It was observed that 10 available spaces at the east end of the First Level East were being utilized for detailing, further reducing the currently available parking spaces in the garage to 201. The detailing service appears is a makeshift setup and appears to be readily removed if needed to use the capacity of the garage.

7. Based upon the 5.7-foot wide parking stalls, measured between the curbs, and 1.5 feet between stalls, there appear to be a percentage of spaces that should be considered to be typically used as straddled spaces and reduced from the overall count of available spaces. See photographs in Appendix C. In such cases, six parking spaces become only four parking spaces – a 33 percent reduction for that set of spaces. Valet parkers indicated that they do straddle the curbs for “nicer cars” with expensive wheels, and there are quite a few “nicer cars” in the mix at the HPSV. Larger vehicles (SUVs, pickups, etc.) also are straddle-parked. The net reduction in parking capacity will vary depending on anticipated demand (i.e. may straddle park more vehicle when spaces not in high demand.)

8. Based upon the observed mix of cars on a fairly busy Friday (May 28), a reasonable estimate is that an average of 15 percent of vehicles (35 “premium” vehicles, at capacity) in the garage are either too large or too valuable such that they need to be straddle-parked. Thus, a reduction of 18 spaces (lose one space for every two “premium” cars) from the 233 space capacity of the parking garage should be applied. However, 7 spaces were already discounted as being only useful for straddle parking (see item 3 above), so the reduction should only be 11 spaces. Thus, the net parking capacity in the garage should be considered to be 222. If current open storage activity is allowed to remain, the capacity should be considered to be 200 parking spaces. The capacity would be further reduced to 190 spaces if the current car detailing service is allowed to operate during peak periods.

9. It is recognized that the parking garage, due to its valet operations, can store some vehicles in the drive aisles, but those are not considered for assessment of capacity of parking operations. It is also recognized that some surface lot spaces will be held open for use as collection points for valet parking spaces, but this sequestering of spaces is not considered as a loss to parking capacity.
10. In summary, the total parking supply is recommended to be established at 1,037 spaces (314 in the north lot, 501 in the interior lot including handicap spaces, and 222 in garage). This parking capacity is in comparison to the 1,039 spaces established by adoption of the 2009 Update in Ordinance 1785. Parking capacity should be further reduced if open storage is not removed from the garage.

Summary Observations
The following is a summary of the observations of the study:

1. The Shared Parking methodology for determining parking needs is appropriate for this site. Due to the mixture of land uses in HPV, it is proper to consider that the peak parking needs of the various uses occur at differing times of the day. Thus, a critical concurrence assessment of the parking needs throughout the day is appropriate. It is also true that one trip to HPV can serve many destinations. Thus, reductions in parking needs would stem from the internal capture of the relationships of complementary land uses (retail-retail, retail-restaurant, office, restaurant, etc.)

2. Parking calculations should use the requirements stated in the current zoning regulations of the Town of Highland Park before adjustments by the shared parking methodology. There is a significant difference between the Plan rate of 1 space per 28 s.f. of seating area and the Zoning Regulation rate of 1 space per 3 seats in the Theater, such that application of Highland Park regulations would require 54 more parking spaces to be provided after applying the 80% shared parking adjustment. Office space parking at the Zoning rate of 1 per 300 s.f. rather than the Plan rate of 1 per 333 s.f. would require 3 more spaces after adjustments for sharing on a peak Saturday Afternoon period.

3. All modifications to the site should continue to be accounted for regularly by ordinance. If any increases in parking demand occur, all building use changes since the previous HPV Comprehensive Transportation Update approval should be included in a submittal for ordinance approval so that the running total of available surplus parking can be better maintained on an ongoing basis. The shared parking reductions should not be factored into the calculations for changes in parking requirements as modifications to HPV building uses occur between Comprehensive Transportation Plan Updates.

4. Due to the Design of the Valet Parking Garage, the stated capacity of the garage should be discounted. Valet Parking is crucial to the operational success of this site. The 815-space capacity of the surface parking lots, including 314 spaces in the north remote lot, is exceeded during all but the morning time period during a typical weekday and during the afternoon and late afternoon on a typical Saturday. The observed number of designated and usable parking spaces was 233. However, actual usage of the narrow curbed stalls results in parking of larger and more valuable cars by straddling the curbs, using up two spaces for one vehicle and reducing the designated capacity for parking. Due to the configuration of spaces and estimated mix of vehicles parked in the garage, a 15 percent reduction in stated parking garage capacity of 233 is recommended, reducing the parking garage capacity to 222, and overall stated site parking capacity to 1,037. Open storage in the garage, which currently uses 22 of the available spaces, further reduces the overall stated site parking capacity and should either be removed or the stated capacity of the garage reduces appropriately. Car detailing, a service currently provided in the garage, should not be allowed during peak parking periods or the capacity should be further reduced.

5. Open storage in the valet parking garage reduces parking capacity. Current open storage in the valet parking garage uses 22 of the available spaces and would impede the ability to operate at capacity, effectively reducing the currently stated parking surplus of 26 spaces to just 4 spaces for the site, and resulting in a parking deficit of 6 spaces if detailing is allowed during peak periods. Further, a deficit of 53 spaces would result if actual zoning requirements are considered. In order to comply with current ordinance requirements, it is recommended that the spaces used for open storage be vacated to allow the site to maintain full capacity of parking supply.
6. **Mix of Uses has changed over time.** The weekday noon period peak parking demand (948.5 in 2009 Plan) and the Saturday afternoon peak (997.1 in 2009 Plan) appear to be getting closer in significance (54 space difference in 1998 Plan, 48.6 difference in 2009 Plan). The shared parking reductions from the Town’s base peak parking requirements has reduced from 39% in 1994 to 25% in 1998 to 24% in 2009. These trends reflect changes in the proportion of various building uses in the mixed-use HPV development. The HPV Comprehensive Transportation Plan should be updated regularly, at least every 5 years and more often if there are significant changes in building use types. The updates should include actual parking accumulation counts for a sample of a typically busy weekday and a Saturday to document the parking demand at the HPV for comparison to the demand estimated by the Shared Parking methodology to confirm its appropriateness.

7. **Parking Capacity may not be meeting the needs of HPV.** Based upon the current parking demand (by ordinance) of 1,011, the site parking capacity of 1,037 (proposed herein) meets the needs of the site during the typical peak Saturday afternoon, with a surplus of 26 spaces. But, given the issues described in item 2 above (57 more spaces needed), the site may actually be lacking in parking supply by 31 spaces. The HPV building use inventory also includes over 25,000 s.f. of “Storage” as a building use, much of which may be converted at any time to higher intensity uses. Also, the current shared use parking methodology results in a peak parking demand on a Saturday afternoon, when in fact the parking accumulation counts done as part of the 1993 Plan Update showed that the Saturday afternoon time period was only the third highest for the week behind Thursday and Friday midday. Considerations should be given to expansion of parking supply for the site.

**Recommendations**

The following are recommendations for refinement of the Town procedures for enforcement of the Parking requirements of the Highland Park Village:

1. Require a Transportation Plan Update for HPV at least every 5 years.
2. Require a Parking Accumulation Study with each Transportation Plan Update.
3. With the next Transportation Plan Update, require assessment of whether the base peak parking rates used should be those of the Town of Highland Park or continue to be those of the City of Dallas. Use the Town’s base peak parking requirements rates for interim ordinances that may be required for changes in parking provisions until the next Transportation Plan Update is provided.
4. For each significant change in building use that will increase the number of spaces required at HPV, continue to require that the change be approved by ordinance and that a positive balance of surplus parking be maintained. Each Ordinance should incorporate all HPV building use changes since the previous Plan Update or Ordinance. The Town should continue its approach to not allow for shared parking reductions in the calculation of the parking requirements for these interim parking modification ordinances.
5. In the next Site Plan and Transportation Plan Update, scrutinize the building use designation of Storage such that it only apply to HPV management use or that is intended for use permanently as storage, and reduce the parking requirement for Storage to zero. Any storage that is actually available for lease or use by one of a building tenants should be classified as part of one of the appropriate use types (retail, office, etc) and be considered in the parking requirement for HPV.
6. Establish a tracking method for all changes at the HPV that require a building permit, identifying whether there is a change in building use type and associated changes in parking requirements.
Appendix A

Inconsistencies were noted in the accounting for changes among the following sources:

1. the HPV Management summaries of the changes from 1998 to 2009,
2. the HPV Management summary of ordinances between 1998 and 2009, and
3. the difference in development values between the 1998 Plan and 2009 Plan Update

1. February 9, 2009 Memo from Selzer Associates which summarizes the changes in building uses between the 1998 Transportation Plan and the proposed 2009 Transportation Plan update. This appears to indicate a net increase of 218 s.f. of Office, decrease of 6,840 s.f. of Retail, increase of 6,702 s.f. of Restaurant, and decrease of 2,937 s.f. of Storage. Net changes noted do not appear to coincide with the subsequent summary of ordinances or update of the transportation plan. See comparison in Table A1.

2. March 6, 2009 Memo from Selzer Associates which summarizes the Ordinances adopted by Town Council (1409, 1440, 1466, 1498, 1508 and 1539) after approval of the 1998 Transportation Plan for HPV. The memo appears to indicate a net increase of 2,754 s.f. of Retail, increase of 37 seats inside and 32 seats outside for Restaurant, and increase of 1,024 s.f. of Storage. Total added uses by ordinance called for 26 more parking spaces, reducing the 1998 Plan identified parking surplus from 27 to 1. However, zoning adjustments by ordinance were not requested for situations where the parking requirements would have reduced (surplus would have increased). It appears that the changes by ordinance did not bring forward all of the changes since the previous ordinance.

3. The 2009 Updated Transportation Plan recalculated all of the new building space uses. Compared to the 1998 Plan, the 2009 Plan defines a net decrease of 2,915 s.f. of Office, decrease of 11,559 s.f. of Retail, increase of 113 inside and 41 outside seats for Restaurant, and increase of 2,982 s.f. of Storage. The study determined a peak parking requirement of 997 spaces on a Saturday afternoon. Parking supply was identified as 1,039 spaces. Thus, a net surplus of 42 spaces was identified.

Though not of major consequence in itself, these inconsistencies in accounting for changes in building uses indicate that current procedures leave uncertainty in the ongoing status of parking provisions at the Village during the time between Comprehensive Transportation Plan Updates.
## Table A1
Comparison of Summaries of Changes in Building Uses from 1998 Plan to 2009 Plan

1. Compilation from Memo from Ricker to Hanson dated 2/9/09 (part of 2009 Update, Ordinance 1785)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Bldg</th>
<th>Office</th>
<th>Retail</th>
<th>Rest, In</th>
<th>Rest, Out</th>
<th>Storage</th>
<th>Theater</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>-270</td>
<td>-270</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>-477</td>
<td>-477</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>-352</td>
<td>4608</td>
<td>-4256</td>
<td>1110</td>
<td>-1110</td>
<td>-333</td>
</tr>
<tr>
<td>9</td>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>C</td>
<td>-333</td>
<td>-333</td>
<td>-333</td>
<td>-333</td>
<td>-333</td>
<td>-333</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>799</td>
<td>-799</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>C</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>D</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>D</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>D</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>D</td>
<td>270</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19</td>
<td>D</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>D</td>
<td>-3430</td>
<td>2430</td>
<td>500</td>
<td>370</td>
<td>370</td>
<td>370</td>
</tr>
<tr>
<td>21</td>
<td>D</td>
<td>370</td>
<td>-200</td>
<td>945</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>22</td>
<td>D</td>
<td>-2405</td>
<td>-2894</td>
<td>1106</td>
<td>838</td>
<td>838</td>
<td>838</td>
</tr>
<tr>
<td>23</td>
<td>E</td>
<td>2894</td>
<td>-2894</td>
<td>-1712</td>
<td>-80</td>
<td>-80</td>
<td>-80</td>
</tr>
<tr>
<td>24</td>
<td>E</td>
<td>-402</td>
<td>-402</td>
<td>-402</td>
<td>-402</td>
<td>-402</td>
<td>-402</td>
</tr>
<tr>
<td>25</td>
<td>F</td>
<td>-250</td>
<td>-1500</td>
<td>-878</td>
<td>2378</td>
<td>2378</td>
<td>2378</td>
</tr>
<tr>
<td>26</td>
<td>F</td>
<td>-80</td>
<td>-1500</td>
<td>-878</td>
<td>2378</td>
<td>2378</td>
<td>2378</td>
</tr>
<tr>
<td>27</td>
<td>G</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>28</td>
<td>G</td>
<td>1018</td>
<td>1018</td>
<td>1018</td>
<td>1018</td>
<td>1018</td>
<td>1018</td>
</tr>
<tr>
<td>29</td>
<td>G</td>
<td>-324</td>
<td>-324</td>
<td>-324</td>
<td>-324</td>
<td>-324</td>
<td>-324</td>
</tr>
<tr>
<td>30</td>
<td>G</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>31</td>
<td>G</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
</tr>
<tr>
<td>32</td>
<td>G</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
<td>1594</td>
</tr>
<tr>
<td>33</td>
<td>G</td>
<td>1024</td>
<td>1024</td>
<td>1024</td>
<td>1024</td>
<td>1024</td>
<td>1024</td>
</tr>
<tr>
<td>34</td>
<td>G</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>35</td>
<td>G</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

TOTAL = 218 (6,840) 6,702 0 (2,937)

= estimated distribution among uses
= estimated value

2. Summary of Ordinances 1998 Update to 2009 Update

<table>
<thead>
<tr>
<th>Item #</th>
<th>Bldg</th>
<th>Office</th>
<th>Retail</th>
<th>Rest, In</th>
<th>Rest, Out</th>
<th>Storage</th>
<th>Theater</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>2,754</td>
<td>37 seats</td>
<td>32 seats</td>
<td>1,024</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Comparison of building uses 1998 Plan vs 2009 Plan

<table>
<thead>
<tr>
<th>Item #</th>
<th>Bldg</th>
<th>Office</th>
<th>Retail</th>
<th>Rest, In</th>
<th>Rest, Out</th>
<th>Storage</th>
<th>Theater</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2,915)</td>
<td>(11,559)</td>
<td>113 seats</td>
<td>41 seats</td>
<td>2,982</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Review of the Parking Supply and Parking Studies for Highland Park Village - Appendices Appendix Page 2
Appendix B

Documentation of Changes to Parking Requirements between Plan Updates

Each Transportation Plan Update calculates the new parking requirements based upon a revised inventory of building uses, and identifies the number of surplus spaces available. As changes in building space uses occur after the update, parking requirements change. When the changes result in an increase in parking demand, a town ordinance is prepared documenting the changes and the reduction in parking surplus. The Ordinance documentation only considers the peak parking demand rates, and no shared parking reduction is included in the calculation. Thus, the interim accounting for surplus parking between Updates is conservative on the City’s side.

The difference between the parking surplus tracked by ordinance since the previous Plan Update versus the calculated surplus considering actual land uses and their shared parking is significant. The difference would generally err on the conservative side, indicating less surplus spaces. In addition to not making ordinance adjustments for increases in parking surplus, the ordinance adjustments that are made appear to apply full code parking requirements and not consider the appropriate shared parking reductions.

To illustrate this point, four ordinances (1796, 1806, 1811 and 1822) have been approved since the 2009 Transportation Plan update. Collectively, the ordinances have added a net of 520 s.f. of Office, reduced 1,574 s.f. of Storage, and added 44 seats inside and 24 seats outside for Restaurant. These modifications reduced the parking surplus by ordinance from 42 to 25, including the elimination of three parking spaces. Effectively, the peak parking requirement was raised by 14, from 997 spaces to 1,011 spaces by ordinance. However, only 15% of the Office space parking demand would occur during the peak Saturday afternoon, freeing up 3 spaces during the peak. Similarly, only 90% of the Restaurant space parking demand would occur during the peak Saturday afternoon, freeing up 1 space during the peak. So, the updated parking requirement, by ordinance, could have been 1,007 if the shared parking methodology were applied, rather than the 1,011 spaces. The shared parking reductions could be factored into the calculations for changes in parking requirements as modifications to HPV building uses occur. If any reductions in parking demand occur, those changes should also be submitted for ordinance approval so that the running total of available surplus parking can be better maintained on an ongoing basis.

In summary, the shared parking reductions are calculated by formula for the critical time period (Saturday afternoon), so could be factored into the calculations for changes in parking requirements as the modifications to HPV building uses occur. However, due to the fact that changes in building usage could change which time period on a weekday or Saturday becomes the critical time period for maximum parking demand, and thus the percentage to be used for the reductions, for the sake of simplicity and to use conservative approach, the parking requirements for interim approval of changes should continue to not allow for shared parking reductions. Each ordinance should, however, account for all building use changes since the previous ordinance.
Appendix C

Field Observations of Valet Parking Garage
EXHIBIT IV-6

SECOND LEVEL BASEMENT PARKING PLAN - EAST

90 BAY SPACES
- 7 stacked pairs

= 83
Phone and other wall-mounted equipment negates us of space for parking except in straddle position (First Level Basement Parking – East, Spaces 15 and 30 in 1998 Plan Exhibit IV-4)
Typical straddle parking arrangement for larger vehicles and those with expensive wheel treatments.
Typical parking arrangement in Basement Valet parking. Tires generally up against curb. Curb width approximately 1.5 feet.
Example of “available” parking spaces being utilized for storage and work space in garage basement (First Level Basement – West)