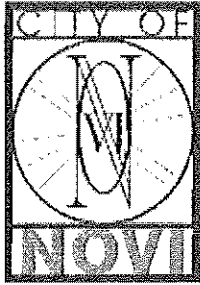


MEMORANDUM



cityofnovi.org

TO: BARBARA MCBETH, DEPUTY DIRECTOR COMM DEV
FROM: BRIAN COBURN, P.E.; ENGINEERING MANAGER *BIC*
SUBJECT: SP12-14 PAVILION SHORE PARK SITE PLAN RESPONSE
DATE: MARCH 22, 2012

We have received and reviewed the comments contained in the site plan review letters for the above referenced project and offer the following response to each comment.

Planning Review

1. Parking Space Dimensions: A 4" curb should be indicated where 17' parking spaces are proposed

4" curb will be indicated.

2. Number of Parking Spaces: the Pavilion Shore Park would require between 17 and 37 parking spaces. Therefore, the 30 parking spaces proposed for the Pavilion Shore Park fall within established parking standards for passive city parks.
3. Barrier Free Requirements: The barrier free space in the East Lake Road parking lot should be made van accessible. The applicant should show the barrier free sign location on the Final Site Plan.

Barrier free signs will be shown. BF space in East Lake Rd Parking lot will be made Van accessible.

4. Refuse Collection: The applicant should consider installing trash receptacles throughout the park to accommodate visitors.

Trash receptacles will be added to the plan

5. Site Lighting: The applicant should provide a photometric plan for the proposed lighting.

Photometric plan will be provided in the Final Site Plan submittal.

6. Traffic Review: Planning staff supports all of these recommendations and changes to the plan in response to these comments should be incorporated in the Final Site Plan submittal.

Pre-Construction Meeting

Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. **Pre Con meeting will be included in the contract requirements.**

Item	Required	Proposed	Meets Requirements?	Comments
Parking Space Dimensions (Sec 2506)	Spaces should be 9 feet wide by 19 feet deep with a 22 foot wide aisle;	Spaces 17' x 9' with 24' wide aisles	No	Plans should indicate 4" curb where 17' spaces are proposed 4" curb will be included
Barrier Free Spaces (barrier free code)	2 barrier free spaces required (1 van accessible required for each lot)	3 barrier free spaces (2 van accessible provided)	No	The barrier free space in the East Lake Road parking lot should be made van accessible. Will be made van accessible

Barrier Free Signs (Barrier Free Design Graphics Manual)	One barrier free sign is required per space	No signs shown	No	One sign should be shown for each barrier free space. Signs will be added to final plans
Accessory Structure Setback- Dumpster (Sec. 2503)	Accessory structures should be setback a minimum of 10 feet from any building unless structurally attached to the building and setback the same as parking from all property lines; in addition , the structure must be in the rear or interior side yard.	No dumpster provided	Yes	Applicant should clearly indicate how refuse will be disposed of and consider adding garbage cans to accommodate visitors to the site. Trash receptacles will be added to the plans.

Lighting (Sec. 2511)	Photometric plan required at the same time of Preliminary Site Plan due to site being adjacent to residential zoned property	Photometric plan not provided	Yes?	Applicant should provide a photometric plan for the proposed lighting. Will be provided in the Final Site Plan submittal
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Engineering Review

General

1. Provide a note on the plans that all work shall conform to the current City of Novi standards and specifications. *A note will be added to the plans stating that all work shall conform to the current City of Novi standards and specifications.*
2. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal. *City standard detail sheets will be submitted with the Stamping Set.*

Storm Sewer

3. Provide a plan sheet detailing any modifications/construction of storm sewer facilities within the project scope. *A plan sheet detailing the modifications to construction of storm sewer facilities will be included in the Final Site Plan submittal package.*
4. Provide a storm sewer design table and profile for any storm sewer proposed. *A storm sewer design table will be included in the Final Site Plan submittal package.*
5. Include a cross-section and additional detail for the proposed rain gardens. *A cross section and details for any proposed rain gardens will be included in the Final Site Plans.*

Storm Water Management Plan

6. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual. *A Storm Water Management Plan will be developed in accordance with the storm water ordinance and Chapter 5 of the Engineering Design Manual. This information will be included in the Final Site Plan submittal.*

However, due to the small size of the parking lots and desire to retain the existing vegetation adjacent to the proposed parking lots detention and treatment are not proposed for this project.

7. The SWMP must detail the storm water system design, calculations, details, and maintenance as stated in the ordinance. The SWMP must address the discharge of storm water off-site and evidence of its adequacy must be provided. This should be done by comparing pre- and post-development discharge rates and volumes. The area being used for this off-site discharge should be delineated and the ultimate location of discharge shown. *Storm sewer design calculations and details will be included in the Final Site Plan submittal.*

Paving & Grading

8. Provide a grading plan sheet of the distributed area detailing site drainage. *The final grading plan detailing the site drainage will be included in the Final Site Plan Submittal.*
9. Provide a cross-section of the pavement for the proposed parking areas. *A cross-section of the pavement section for the proposed parking areas will be included in the Final Site Plan submittal.*
10. Detectable warning plates are required at all barrier free ramps. The barrier-free ramps shall comply with current MDOT specifications for ADA Sidewalk Ramps. Provide the MDOT standard detail (R-28-F) for detectable surfaces. Label specific ramp locations on the plans where the detectable warning surface is to be installed. Specify the product proposed and provide a detail for the detectable warning surfaces. *Detectable warning plates conforming to MDOT specifications for ADA Sidewalk Ramps and MDOT standards detail (R-28-F) will be included at all barrier free ramps. Specific product information will be included in the Final Site Plan submittal.*
11. Provide a cross-section of the proposed pathway including the required 2% cross-slope. *A cross-section of the proposed pathway including the required 2% slope will be included in the Final Site Plan submittal.*

The following must be provided at the time of Final Site Plan resubmittal:

12. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. *A letter will be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.*

The following must be addressed prior to construction:

13. A pre-construction meeting shall be required prior to any site work being stated. Please contact Sarah Marchioni in the Community Development Department to set-up a meeting (248-347-0430). *A pre-construction meeting will be held with Sarah Marchioni prior to the start of any site work. The Design Engineer will attend the meeting.*
14. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting. *A City of Novi Grading Permit will be obtained prior to any grading on the site.*
15. An NPDES permit must be obtained from the MDEQ because the site is over 5 acres in size. The MDEQ requires an approved plan to be submitted with the Notice of Coverage. *Approved plans with the notice of coverage, will be submitted to MDEQ. A NPDES permit will be obtained prior to the start of construction.*
16. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information. *A Soil Erosion Control Permit will be obtained from the City of Novi prior to the start of construction. In addition, all soil erosion control measures will be in place prior to the start of construction*

Preliminary Landscape Review

3. West Parking Lot: The Applicant has proposed 4' tall unspecified plantings to act as a visual screen for parked cars. The ordinance requires a landscaped berm to screen parked vehicles from view. **A 3' tall berm along with adequate landscape should be placed at each parking lot between the pavement and the roadway.** Please also provide information regarding the existing landscaping berm on the south side of the roadway adjacent to the parking area. The goal would be to adequately buffer residences along Charlotte Drive.

The berm on the south side of the roadway is a grass berm with a mix of evergreen and deciduous trees. Per City provided 2' contours, the top of the berm ranges from elevation 940 to 944 from west to east. The portion of the berm across from the parking lot is at elevation +/- 942. The proposed parking lot is intended to be constructed at +/- 939.00.

We propose to enhance the screening provided by the existing berm with the proposed plantings at the parking lot edge. We feel that these combined screening systems will adequately buffer residences along Charlotte Drive.

4. East Parking Lot: The Applicant has sited the lot to take advantage of existing vegetation to screen the parked vehicles. In addition, a 5' tall evergreen hedge will be installed to augment the visual screen. **If it can be shown that the existing vegetation is thick and healthy enough to form a visual screen, the Applicant may wish to seek a Planning Commission waiver for the normally required landscape**

berm. Alternately, a 3' tall berm along with adequate landscape should be placed at each parking lot between the pavement and the roadway. Please also provide information as to the level and quality of the existing landscape to the east of this proposed lot. The goal would be to adequately buffer adjacent residences.

In order to preserve the existing trees, it is proposed that the existing mature trees along with the evergreen hedge will provide the required screening without the berm. Please note that the parking lot is located across from the park and not across the street from Residential or commercial uses.

Existing landscape east of the parking lot is a mix of mature deciduous and dense understory growth – measured 30'-60' with using aerial photographs.

5. Please show all clear vision clearance areas of 25' at points of vehicular and pedestrian access points.

Plans will be updated to show 25' vision clearance at points of vehicular and pedestrian access.

Trees to be Removed

1. Please provide an account of all trees proposed for removal, their caliper and condition. No Regulated Woodlands appear to be affected by the proposed improvements. Any tree 36" caliper and larger would automatically be regulated. Place priority on all healthy trees to be preserved. Include a tree protection fence detail in the plan set. An account of trees proposed for removal and their condition will be included in next submittal. No trees over 36" caliper are planned for removal.

Amenity Details

1. Details and specifications for proposed site amenities should be provided at the time of Final Site Plan submittal. Details will be required on the following:
 - a. Benches
 - b. Bike rails
 - c. Signage should
 - d. Railings
 - e. Historical marker
 - f. Specialty pavement / paver

g. Pier / boardwalk

h. Any other amenities that may be proposed

Details, specifications and plan locations will be provided for the items listed above at the time of final submittal.

Plant List (LDM)

1. Please provide a Plant List meeting the requirements of the Ordinance and Landscape Design Manual.

Plant List meeting the requirements of the Ordinance and Landscape Design Manual will be provided.

Planting Details & Notations (LDM)

1. Please provide Planting Details and Notations meeting the requirements of the Ordinance and Landscape Design Manual

Planting Details and Notations meeting the requirements of the Ordinance and Landscape Design Manual will be provided.

Irrigation 9Sec. 2509 3.f.(6)(b))

1. All landscape areas are required to be irrigated

All landscape areas will be irrigated. Irrigation plans will be provided.

TRAFFIC REVIEW

Vehicular Access Locations

Do the proposed driveway locations meet City spacing standards?

2. Do not on South Lake Drive. The two access drives for the parking lot on that street would be about 83 ft apart (back-of-curb to back-of-curb), or less than the 105 ft minimum ordinarily required for a 25-mph roadway. **A Planning Commission waiver of the City's Design and Construction Standards (Sec. 11-216(d)(1)d)) is required.**

Extending distance between curbs would push the drive approaches further into the curves on South Lake Rd. Parking lot capacity is 10 cars.

Driveway Design and Control

Are the driveways acceptably designed and signed?

3. The four driveways appear to be drawn about 22.5 ft wide. **All four drives should be designed 25 ft wide, back-to-back, so as to provide a 24-ft-wide driving surface (assuming vertical curbs). Drive approaches will be 24' driving surface.**
5. Most of the curb return radii at the parking lot access drives appear to be drawn at about 15ft. **Given the size of the east parking lot – and the potential need for somewhat larger vehicles (such as a small fire truck) to enter and circulate through the lot – all four of the driveway curb radii at this lot should be 20 ft in size. The four return radii at the west parking lot, however, can remain 15 ft. Radii will be adjusted accordingly.**
6. No corner radius is shown where the parking aisle of the east lot would meet Chapman Drive (extended). **A 15-ft radius would be adequate here.**

A 15' radius will be included.
7. We recognize that the plan under review is very preliminary in nature. No later than the final construction drawings, however, **a 24-inch STOP (R1-1) sign should be proposed on the exiting side of each of the four parking lot access drives.**

Stop signs will be proposed at parking lot exits.

Pedestrian Access

What should be done to improve pedestrian access to and from the park?

8. As can be seen in Figure I (attached), the crosswalk on 13 Mile Road at East Lake Drive is on the east side of the intersection. This requires residents living south of 13 Mile to cross two streets in order to reach or return from the park. To mitigate this situation and better comply with the latest "Complete Streets" practices, **another north-south crosswalk should be provided on the west side of the intersection** (although not shown in the aerial, the sidewalk along the south side of 13 Mile is now continuous).

Additional cross walk and barrier free ramp work will be installed by City in coordination with this project.

9. The implied pedestrian crossing between the east parking lot and the path within the main part of the park will be located only a short distance around the bend for westbound street traffic. This fact, along with the "mid-block" nature of the location, will require special treatment so as to provide a reasonable level of safety. **We are recommending that the City give serious consideration to providing a raised crosswalk at this location. Per standards developed elsewhere in the 1990s, the pavement would ramp up over a distance of about 7 ft to a height of about 3 inches. The "platform" would be 10 ft wide (measured parallel to the curbs), with an 8 ft wide striped crosswalk centered on that platform. Related pavement markings and signs are recommended later in this letter.**

Pending final approval from City departments, the raised crosswalk will be included.

10. The west parking lot appears to have 17-ft-long parking spaces abutting a 7 ft wide sidewalk. To permit that length of parking space, maximum vehicle overhang of the sidewalk must be assumed, requiring that the walk rise no higher than 4 inches above the parking surface. When such overhang occurs, the available walking surface may be only about 5 ft wide. **Given the importance of this particular walk, we recommend that it widen to at least 9 ft where it abuts the parking lot.**

Walk adjacent to parking lot will be widened to 9' wide.

Parking and Circulation

Can vehicles safely and conveniently maneuver through the site? Should any additional parking be considered, and where?

12. We have a serious concern regarding the potential use of the east parking lot by vehicles pulling boat trailers. The Endwell boat launch is only a short distance to the east, and it has not safely available parking of its own (see our earlier study report on this matter, dated 6-10-11). Absent appropriate signage and frequent police enforcement activity, trailers could be left in this lot, either blocking an entire parking bay or impeding two-way traffic in the parking aisle. **We recommend that the City consider adding 10 ft of additional pavement along the lot's east side and formally marking and signing parallel parking by vehicle-boat combinations. There is space for three, 65 ft long spaces of this type (as illustrated in the last town attached figures).**

Additional pavement for trailers will not be incorporated into this project based on City Staff review.

13. The proposed barrier-free parking spaces at the north end of the east lot shown equipped with what appears to be an access aisle only 5 ft wide. **To comply with ADA, this space must be van-accessible and, accordingly, equipped with an 8-ft-wide access aisle. Also, later plans should propose MMUTCD-compliant signing for this parking space: a RESERVED PARKING (R7-8) sign with a VAN ACCESSIBLE (R7-8a) sign below (with a minimum of 6'3" underneath).**

ADA space will be van accessible and signed appropriately.

14. To accommodate potential drop-off activity on the west side of East Lake Drive, we are recommending a 40-ft-long bay accompanied by 23-ft-long entry/exit tapers – just south of the about-discussed crosswalk. This bay unoccupied most of the time – would have the secondary benefit of enhancing the sight distance between northbound drivers and pedestrians about to step off the west curb.

40' drop off bay will be added.

15. Along the west side of East Lake Drive south of the above drop-off bay, there would be space for at least ten on-street parallel parking spaces. **We recommend that the City consider extending the drop-off bay – in the manner illustrated in Figure 9 and 1 – to provide such parking.** This concept would provide additional space, especially well-suited for short-term parking, at a location not requiring pedestrians to cross the street. Such on-street parking would also tend to "calm" traffic; that is, help maintain appropriately low speeds. (This street section now serves about 1,650 vehicles per day.)

On street parking will be added.

Additional Recommendations

What traffic control changes and additions would enhance traffic safely along East Lake Drive?

18. With the recommended addition of a raised crosswalk about 100 ft south of this bend, the speed maintenance issue – at least for northbound traffic – would be addressed without the existing STOP sign. As illustrated in Figure 10, we are recommending that:
 - a. **Each of the existing STOP signs be replaced with the new combined Bicycle/Pedestrian warning sign (W11-15) offered in the 2011 Edition of the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).** We specifically recommend that the new signs be the optional fluorescent yellow-green.
 - b. **The existing westbound Stop Ahead sign, 120 ft east of the existing STOP sign, be replaced by a Turn Warning (right-angle arrow) sign with an imbedded advisory speed of 10 mph; that is, a W1-1a (10).**
 - c. **An 18" x 18" STOP sign be placed on the eastbound bike path on its approach to East Lake Drive.** By law, there is not supposed to be any westbound bike traffic on the other end of this crosswalk – since it connects to an east bound-only bike lane – so no corresponding STOP sign is required on the east side of the street.

Recommended signs will be installed by City in coordination with this project.

19. Relative to the raised crosswalk between the east parking lot and the main part of the park, we are recommending:

- a. **A SPEED HUMP (W17-I) sign be placed for each direction of travel, 75 ft in advance of the hump of the hump's near ramp, with each accompanied by a 10-mph advisory speed plate; that is, a W13-I (10). Recommended signs will be installed by City in coordination with this project.**
- b. **A Stop for Pedestrian within Crosswalk (R1-6a) sign be placed for each direction of travel, just before the crosswalk. Recommended signs will be installed by City in coordination with this project.**
- c. **The crosswalk itself could be adequate marked with two 6-inch-wide white lines 8 ft apart; however, the City may want to add emphasis by instead marking the crosswalk with 2-ft-wide zebra bars spaced 4 ft on-center. Striping will be installed by City in coordination with this project.**
- d. **The driving ramps to the raised crosswalk should be marked according to the standard illustrated in Figure 3B-30, Option A, appearing in the 2011 MMUTCD (excerpted on our attached Figure 10). Striping will be installed by City in coordination with this project.**

21. There is no speed limit sign for northbound East Lake Drive upon turning into it from 13 Mile Road. **A 25-mph limit sign [R2-I (25)] should be installed in the location shown in Figure 10. Recommended signs will be installed by City in coordination with this project.**