

REQUEST FOR BOARD ACTION

**HENDERSON COUNTY
BOARD OF COMMISSIONERS**

MEETING DATE: Monday, October 3, 2005

SUBJECT: Water & Sewer Line Extensions

ATTACHMENTS: Yes

1. Carriage Park, Section 17 – Water Line Extension
2. Carriage Park Loop Road – Water Line Extension
3. Carriage Park, Section 19, Phase 2 – Water Line Extension
4. Carriage Park, Section 21 – Sewer Line Extension

SUMMARY OF REQUEST:

The City of Hendersonville has requested that the County comment on the proposed water line and sewer line extensions listed above. Staff has reviewed the water and sewer lines and has provided the project summary and staff comments as attached.

RECOMMENDATION / BOARD ACTION REQUESTED:

The County Manager recommends approval of these water and sewer line extensions and directs staff to convey the County's comments upon Board approval.

HENDERSON COUNTY REVIEW OF CITY WATER LINE EXTENSIONS

Project Name: Carriage Park, Section 17
 Size of Water Line (Main & Distribution Pipe Size): Approximately 690 LF 4" DIP CL 350; 688 LF 6" DIP CL 350
 County Staff Reviewing Extension: , Planning Department; Rocky Hyder, Emergency Management Director

Has the project been reviewed under the **County Subdivision Ordinance**? Yes No N/A

Date reviewed: July 19, 2005
 Action: Approved with Conditions
 Conditions: Final Plat Requirements, Approval of Water and Sewer Plans and Soil Erosion Plans, Road Name Approval
 Comments: and Record Amount of Open Space

Has the project been reviewed under the **County Manufactured Park Ordinance**? Yes No N/A

Date reviewed: _____
 Action: _____
 Conditions: _____
 Comments: _____

Has the project been reviewed under the **County Zoning Ordinance (i.e. Special-Use or Conditional-Use Permit)?** Yes No N/A

Date reviewed: July 19, 2005
 Action: Approved with Conditions
 Conditions: Same as Subdivision Approval
 Comments: _____

Is the project subject to **any other County Land Use Ordinance**? Yes No N/A

If yes, explain: Water Supply Watershed Protection Ordinance

Does the project conform with the **2020 Henderson County Comprehensive Plan (CCP)**? Yes No N/A

If no, explain: _____

Does the project have **adequate hydrant location and spacing**? Yes No N/A

Description of **hydrant type and thread**: Mueller Centurion – National Standard Thread

Does the estimated flow rate (gpm) meet **fire protection standards**? Meets standard for minimal structure spacing of 50 feet. Yes No N/A

BOARD OF COMMISSIONERS APPROVAL

- | | | |
|--------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | Approved | Date of Board Review: _____ |
| <input type="checkbox"/> | Not Approved | Comments: _____ |
| <input type="checkbox"/> | Conditional Approval (See Comments) | |

**City of Hendersonville - Project Summary
Water Line Extension
Carriage Park, Section 17**

Date: August 15, 2005

This is a project to extend existing water lines to provide water service to an existing residential development. This section is situated just north of Carriage Park Way. This extension will serve a total of thirty-five (35) lots.

This project is under the reviewing jurisdiction of: **Henderson County.**

This project requires approximately **1,378** linear feet of water line sized as following:

Description:	Approximate Length
6" DIP CL 350	688 lf
4" DIP CL 350	690 lf

Fire Protection will be provided by the installation of 2 fire hydrant(s).

The entire cost of the proposed water line extension is to be paid for by Carriage Park Associates, LLC.

Water pressure and flow in this area is as follows:

Static Pressure:	72 PS I	Hydrant 12-0853	
Residual:	48 PSI		Carriage Parkway near Section 15
Flow:	740 GPM		
Static:	68 PSI	Hydrant 12-0854	

Based on the above information, the Water & Sewer department is capable of supporting the additional connections and recommends approval of the project contingent upon approval of the final plans and specifications from the Water & Sewer Department.

A motion is needed to approve and accept this project. Suggest wording is as follows:

I move to accept this water line extension project and to authorize the City manager to execute the water line extension agreement on behalf of the City.

Water & Sewer Department:	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	Date: 8-19-05
Hendersonville City Council:	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	Date: _____

The undersigned represents this utility extension line request has been evaluated in light of the adopted land use plan for the municipality or Henderson County. In the absence of such a plan for the general area to be served, this extension has been evaluated in terms of its future impact on existing land uses.	
Reviewing Jurisdiction: Henderson County	
Signing Official:	_____
Date of Review:	_____
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	
Narrative Comments Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No	

PATTERSON & PATTERSON

PAUL PATTERSON

WILLIAM PATTERSON

PROFESSIONAL ENGINEER/LAND SURVEYOR

PROFESSIONAL LAND SURVEYOR

P.O. BOX 1189

HENDERSONVILLE, NC 28793-1189

1-828-692-6629 (TEL & FAX)

CP17W

MEMORANDUM

To: City of Hendersonville Water & Sewer Department
From: Paul Patterson, P.E.
Date: August 8, 2005
Subject: Carriage Park Section 17 - Water Main Extension

An extension of two (2) proposed 6" water mains (see Carriage Park Loop Road Extension) is required to provide water service to Section 17, Carriage Park. This section is situated just north of Carriage Park Way. The water extension will serve a total of thirty-five (35) lots. The proposed site is currently owned and being developed by:

Carriage Park Associates, L.L.C.
2827 Haywood Road
Hendersonville, NC 28791
Mr. Dale Hamlin, General Manager
(828) 697-7200

At the present time, Mr. Hamlin will be responsible for signing the Waterline Extension Agreement with the City of Hendersonville.

The project will consist of 688 linear feet of 6" CL-350 Ductile Iron waterline, 690 linear feet of 4" CL-350 Ductile Iron waterline, two (2) fire hydrants and assemblies, and other appurtenances. For more information, see the accompanying preliminary plans. (The above quantities are approximate.)

This project should be completed within one hundred twenty (120) working days after final grading has been completed, assuming favorable weather conditions. At the present time, I will be monitoring construction for this project. Should you have any questions and/or comments concerning the plans, please feel free to call.

We are hereby requesting that these plans be reviewed by your staff for compliance with the requirements set forth by the City of Hendersonville. Should you have any questions and/or comments concerning the plans, please feel free to call.

Sincerely,



Paul Patterson, P.E.

cc: File: 05-08-33-Eng

HENDERSON COUNTY REVIEW OF CITY WATER LINE EXTENSIONS

Project Name: Carriage Park Loop Road

Size of Water Line (Main & Distribution Pipe Size): Approximately 2389 LF 8" DIP CL 350

County Staff Reviewing Extension: , Planning Department; Rocky Hyder, Emergency Management Director

Has the project been reviewed under the **County Subdivision Ordinance**?

Yes No N/A

Date reviewed: _____

Action: _____

Conditions: _____

Comments:

Has the project been reviewed under the **County Manufactured Park Ordinance**?

Yes No N/A

Date reviewed: _____

Action: _____

Conditions: _____

Comments:

Has the project been reviewed under the **County Zoning Ordinance (i.e. Special-Use or Conditional-Use Permit)**?

Yes No N/A

Date reviewed: _____

Action: _____

Conditions: _____

Comments:

Is the project subject to **any other County Land Use Ordinance**?

Yes No N/A

If yes, explain: Water Supply Watershed Protection Ordinance

Does the project conform with the **2020 Henderson County Comprehensive Plan (CCP)**?

Yes No N/A

If no, explain:

Does the project have **adequate hydrant location and spacing**?

Yes No N/A

Description of **hydrant type and thread**: Mueller Centurion – National Standard Thread

Does the estimated flow rate (gpm) meet **fire protection standards**? Meets standard for minimal structure spacing of 50 feet.

Yes No N/A

BOARD OF COMMISSIONERS APPROVAL

- Approved
- Not Approved
- Conditional Approval (See Comments)

Date of Board Review: _____

Comments: _____

**City of Hendersonville - Project Summary
Water Line Extension
Carriage Park Loop Road**

Date: August 15, 2005

This is a project to extend existing water lines to provide better water flow and circulation for future Residential Sections of the Carriage Park Development. This extension is situated just northeast of Carriage Park Way, near the existing fire substation, and along Carriage Park Way to the end of the proposed water main extension for Section 21 of Carriage Park.

This project is under the reviewing jurisdiction of: **Henderson County.**

This project requires approximately **2,389** linear feet of water line sized as following:

Description:	Approximate Length
8" DIP CL 350	2,389 lf

Fire Protection will be provided by the installation of **3** fire hydrants

The entire cost of the proposed water line extension is to be paid for by Carriage Park Associates, LLC.

Water pressure and flow in this area is as follows:

Static Pressure:	72 PSI	Hydrant 12-0853
Residual:	48 PSI	
Flow:	740 GPM	
Static:	68 PSI	Hydrant 12-0854

Based on the above information, the Water & Sewer department is capable of supporting the additional connections and recommends approval of the project contingent upon approval of the final plans and specifications from the Water & Sewer Department.

A motion is needed to approve and accept this project. Suggest wording is as follows:

I move to accept this water line extension project and to authorize the City manager to execute the water line extension agreement on behalf of the City.

Water & Sewer Department:	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____
Hendersonville City Council:	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____

The undersigned represents this utility extension line request has been evaluated in light of the adopted land use plan for the municipality or Henderson County. In the absence of such a plan for the general area to be served, this extension has been evaluated in terms of its future impact on existing land uses.	
Reviewing Jurisdiction: Henderson County	
Signing Official:	_____
Date of Review:	_____
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	
Narrative Comments Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No	

PATTERSON & PATTERSON

PAUL PATTERSON

WILLIAM PATTERSON

PROFESSIONAL ENGINEER/LAND SURVEYOR

PROFESSIONAL LAND SURVEYOR

P.O. BOX 1189

HENDERSONVILLE, NC 28793-1189

1-828-692-6629 (TEL & FAX)

CP Loop Road

MEMORANDUM

To: City of Hendersonville Water & Sewer Department
From: Paul Patterson, P.E.
Date: August 5, 2005
Subject: Carriage Park Loop Road - Water Main Extension

An extension of one (1) existing 8" water main and one (1) proposed water main (see Section 21, Carriage Park Water Extension) located adjacent to Carriage Park Way is required to provide better water flow and circulation for future Residential Sections of the Carriage Park Development. This extension is situated just northeast of Carriage Park Way, near the existing fire substation, and along Carriage Park Way to the end of the proposed water main extension for Section 21 of Carriage Park. This water extension will be used to help provide water service for future development within the Carriage Park Community. The proposed site is currently owned and being developed by:

Carriage Park Associates, L.L.C.
2827 Haywood Road
Hendersonville, NC 28791
Mr. Dale Hamlin, General Manager
(828) 697-7200

At the present time, Mr. Hamlin will be responsible for signing the Waterline Extension Agreement with the City of Hendersonville.

The project will consist of 2389 linear feet of 8" CL-350 Ductile Iron water main, three (3) fire hydrants and assemblies, and other appurtenances. For more information, see the accompanying preliminary plans. (The above quantities are approximate.)

This project should be completed within one hundred twenty (120) working days after final grading has been completed, assuming favorable weather conditions. At the present time, I will be monitoring construction for this project.

We are hereby requesting that these plans be reviewed by your staff for compliance with the requirements set forth by the City of Hendersonville. Should you have any questions and/or comments concerning the plans, please feel free to call.

Sincerely,



Paul Patterson, P.E.

cc: File: 05-08-31-Eng

HENDERSON COUNTY REVIEW OF CITY WATER LINE EXTENSIONS

Project Name: Carriage Park, Section 19, Phase 2
 Size of Water Line (Main & Distribution Pipe Size): Approximately 693 LF 4" DIP CL 350
 County Staff Reviewing Extension: , Planning Department; Rocky Hyder, Emergency Management Director

Has the project been reviewed under the **County Subdivision Ordinance**? Yes No N/A
 Date reviewed: June 21, 2005
 Action: Approved with Conditions
 Conditions: Final Plat Requirements, Approval of Sewer and Water Plans and Soil Erosion Controls Plans and Road Name
 Comments: Approval

Has the project been reviewed under the **County Manufactured Park Ordinance**? Yes No N/A
 Date reviewed: _____
 Action: _____
 Conditions: _____
 Comments: _____

Has the project been reviewed under the **County Zoning Ordinance (i.e. Special-Use or Conditional-Use Permit)**? Yes No N/A
 Date reviewed: June 21, 2005
 Action: Approved with Conditions
 Conditions: Same as Above
 Comments: _____

Is the project subject to **any other County Land Use Ordinance**? Yes No N/A
 If yes, explain: Water Supply Watershed Protection Ordinance

Does the project conform with the **2020 Henderson County Comprehensive Plan (CCP)**? Yes No N/A
 If no, explain: _____

Does the project have **adequate hydrant location and spacing**? Yes No N/A
 Description of **hydrant type and thread**: Mueller Centurion – National Standard Thread
 Does the estimated flow rate (gpm) meet **fire protection standards**? Meets standard for minimal structure spacing of 50 feet. Yes No N/A

BOARD OF COMMISSIONERS APPROVAL

- Approved
- Not Approved
- Conditional Approval (See Comments)

Date of Board Review: _____

Comments: _____

**City of Hendersonville - Project Summary
Water Line Extension
Carriage Park, Section 19, Phase 2**

Date: August 26, 2005

This is a project to extend existing water lines to provide water service to an existing residential development. This section is situated just south of Carriage Park Way. This extension will serve a total of seven (7) lots.

This project is under the reviewing jurisdiction of: **Henderson County.**

This project requires approximately **693** linear feet of water line sized as following:

Description:	Approximate Length
4" DIP CL 350	693 lf

Fire Protection will be provided by existing fire hydrants.

The entire cost of the proposed water line extension is to be paid for by Carriage Park Associates, LLC.

Water pressure and flow in this area is as follows:

Static Pressure:	72 PSI	Hydrant: 12-0853
Residual:	48 PSI	
Flow:	740 GPM	Section 19, Phase 1 Carriage Parkway
Residual:	68 PSI	Hydrant: 12-0854

Based on the above information, the Water & Sewer department is capable of supporting the additional connections and recommends approval of the project contingent upon approval of the final plans and specifications from the Water & Sewer Department.

A motion is needed to approve and accept this project. Suggest wording is as follows:

I move to accept this water line extension project and to authorize the City manager to execute the water line extension agreement on behalf of the City.

Water & Sewer Department:	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: 8-19-05
Hendersonville City Council:	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____

The undersigned represents this utility extension line request has been evaluated in light of the adopted land use plan for the municipality or Henderson County. In the absence of such a plan for the general area to be served, this extension has been evaluated in terms of its future impact on existing land uses.	
Reviewing Jurisdiction: Henderson County	
Signing Official:	_____
Date of Review:	_____
<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
Narrative Comments Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No	

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P.O. BOX 1189
HENDERSONVILLE, NC 28793-1189
1-828-692-6629 (TEL & FAX)

CP 19-2
3

MEMORANDUM

To: City of Hendersonville Water & Sewer Department
From: Paul Patterson, P.E.
Date: August 5, 2005
Subject: Carriage Park Section 19 Phase 2 - Water Main Extension

An extension of the proposed 8" water main (see Carriage Park Loop Road Extension) is required to provide water service to Phase 2, Section 19, Carriage Park. This section is situated just south of Carriage Park Way. The water extension will serve a total of seven (7) lots. The proposed site is currently owned and being developed by:

Carriage Park Associates, L.L.C.
2827 Haywood Road
Hendersonville, NC 28791
Mr. Dale Hamlin, General Manager
(828) 697-7200

At the present time, Mr. Hamlin will be responsible for signing the Waterline Extension Agreement with the City of Hendersonville.

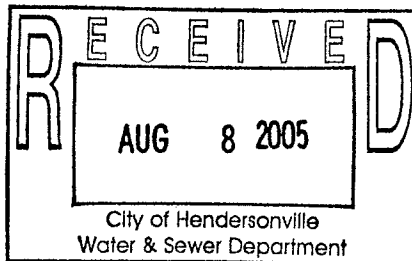
The project will consist of 693 linear feet of 4" CL-350 Ductile Iron waterline, one (1) 2" post flush hydrant and assembly, and other appurtenances. For more information, see the accompanying preliminary plans. (The above quantities are approximate.)

This project should be completed within one hundred twenty (120) working days after final grading has been completed, assuming favorable weather conditions. At the present time, I will be monitoring construction for this project. Should you have any questions and/or comments concerning the plans, please feel free to call.

Sincerely,


Paul Patterson, P.E.

cc: File: 05-08-32-Eng



**HENDERSON COUNTY
REVIEW OF CITY SEWER LINE EXTENSIONS**

Project Name: Carriage Park, Section 21
 Size of Sewer Line: 1,427 LF of 3-inch PVC Force Main
 County Staff Reviewing Extension: Gary Tweed, County Engineer; Matt Card, Subdivision Administrator

Has the project been reviewed under the **County Subdivision Ordinance**? Yes No N/A
 Date reviewed: February 15, 2005
 Action: Approved with Conditions
 Conditions: Final Plat Requirements, Approval of Water & Sewer Plans, Soil Erosion Plan Approval; Evidence of Permits for Lake, Open Space Details, Road Name Approval; Road Standard Condition and Development Plan Details
 Comments:

Has the project been reviewed under the **County Manufactured Park Ordinance**? Yes No N/A
 Date reviewed: _____
 Action: _____
 Conditions: _____
 Comments:

Has the project been reviewed under the **County Zoning Ordinance (i.e. Special-Use or Conditional-Use Permit)**? Yes No N/A
 Date reviewed: February 15, 2005
 Action: Approved with Conditions
 Conditions: Same as Above
 Comments:

Is the project subject to **any other County Land Use Ordinance**? Yes No N/A
 If yes, explain: Water Supply Watershed Protection Ordinance

Does the project conform to the **2020 Henderson County Comprehensive Plan (CCP)**? Yes No N/A

Other Comments: It appears that this will be a vacuum type collection system connecting to a gravity sanitary sewer. This system is connected to the City of Hendersonville wastewater collection system and not the Cane Creek Water & Sewer District. All approvals will be issued by the City of Hendersonville. The system will require a State Permit as well.

BOARD OF COMMISSIONERS APPROVAL

- Approved
 - Not Approved
 - Conditional Approval (See Comments)
- Date of Board Review: _____
 Comments: _____

City of Hendersonville - Project Summary
Sewer Line Extension
Carriage Park, Section 21

Date: August 26, 2005

This is a project to extend existing sewer lines to provide sewer service to an existing residential development. This section is situated just north of Carriage Park way on the north side of the new lake. This extension will serve a total of fourteen (14) lots.

This project is under the reviewing jurisdiction of: **Henderson County.**

This project requires approximately **1,427** linear feet of sewer line sized as following:

Description:	Approximate Length
3" PVC SDR 13.5	1,427 lf

Pump station required: yes No

The amount of wastewater generated by this project will be approximately **5,040** gallons per day.

The entire cost of the proposed sewer line extension is to be paid for by Carriage Park Associates, LLC

Based on the above information, the Water & Sewer department is capable of supporting the additional connections and recommends approval of the project contingent upon approval of the final plans and specifications from the Water & Sewer Department.

A motion is needed to approve and accept this project. Suggest wording is as follows:

I move to accept this sewer line extension project and to authorize the City manager to execute the sewer line extension agreement on behalf of the City.

Water & Sewer Department:	<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____
Hendersonville City Council:	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____

The undersigned represents this utility extension line request has been evaluated in light of the adopted land use plan for the municipality or Henderson County. In the absence of such a plan for the general area to be served, this extension has been evaluated in terms of its future impact on existing land uses.	
Reviewing Jurisdiction: Henderson County	
Signing Official:	_____
Date of Review:	_____
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	
Narrative Comments Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No	

PATTERSON & PATTERSON

PAUL PATTERSON

WILLIAM PATTERSON

PROFESSIONAL ENGINEER/LAND SURVEYOR

PROFESSIONAL LAND SURVEYOR

P.O. BOX 1189

HENDERSONVILLE, NC 28793-1189

1-828-692-6629 (TEL & FAX)

CP 21-5

MEMORANDUM

To: City of Hendersonville Water & Sewer Department
From: Paul Patterson, P.E.
Date: August 8, 2005
Subject: Carriage Park Section 21 - Sewer Extension

An extension of the existing sewer located in Section 1 of Carriage Park is required to provide sewer service to Section 21 of Carriage Park. This section is situated just north of Carriage Park Way on the north side of the new lake. The sewer extension will serve a total of fourteen (14) lots. The proposed site is currently owned and being developed by:

Carriage Park Associates, L.L.C.
2827 Haywood Road
Hendersonville, NC 28791
Mr. Dale Hamlin, General Manager
(828) 697-7200

At the present time, Mr. Hamlin will be responsible for signing the Sewerline Extension Agreement with the City of Hendersonville.

The project will consist of a collector force main system having 1427 linear feet of 3" SDR13.5 PVC Sewer Force Main, fourteen (14) sewer laterals, and appurtenances. The proposed sewer force main will tap into an existing 8" gravity sewer line in Section 1 of said Carriage Park. The total estimated daily sewage to be generated from this extension is 5,040 gpd. This collector force main will be further extended to provide sewer service to Section 19, Phase 2, and Section 17. For additional information, see the attached preliminary plans. (The above quantities are approximate.)

This project should be completed within one hundred twenty (120) working days after final grading has been completed, assuming favorable weather conditions. At the present time, I will be monitoring construction for this project. Should you have any questions and/or comments concerning the plans, please feel free to call.

Sincerely,



Paul Patterson, P.E.

cc: File: 04-12-78-Eng