



Date of Council Meeting: September 23, 2013

**TOWN OF LEESBURG
TOWN COUNCIL MEETING**

Subject: Crosstrail Development

Staff Contact: Jeanette A. Irby, Town Attorney

Recommendation: Direction from Council Required

Issue: Applicant request for an interim sewer outfall for Crosstrail Development

Fiscal Analysis: Unknown

Background:

Michael Banzaf submitted a letter to the Town, August 30, 2013, concerning his proposal for the provisions of utilities to serve the Crosstrail development.

The proposal submitted by Crosstrail has been analyzed on a preliminary basis by staff and the suggested response is attached. Staff needs guidance from Council in formulating a response to the proposal from Crosstrail.

Crosstrail is located adjacent to the Town but it is within the utility service area.

Michael A. Banzhaf
Direct Phone: +1 703 641 4319
Email: mbanzhaf@reedsmith.com

August 30, 2013

Jeanette Irby, Esq.
Town Attorney
The Town of Leesburg
25 West Market Street
Leesburg, Virginia 20176

RECEIVED

AUG 30 2013

Town of Leesburg
Town Attorney

Re: **Crosstrail; ZMAP 2012-0021**

Dear Jeanette:

At a meeting with representatives of The Peterson Companies (the "Developer") and the Town of Leesburg (the "Town") I was requested to draft an agreement (the "Crosstrail Utilities Agreement") for construction, repair, maintenance and use of sanitary sewer and water facilities depicted on attached Exhibit A, last dated August 29, 2013 (the "Utilities Concept Plan") by Dewberry Consultants, LLC ("Dewberry"). This memorandum will summarize the parameters of the proposed Crosstrail Utilities Agreement.

- **The Water Line.** The Developer will design, construct and dedicate to the Town the water line from the water source tie-in on Sycolin Road (Route 643), along Sycolin Road to proposed Crosstrail Boulevard, along proposed Crosstrail Boulevard and proposed Hawling Farm Boulevard through the Crosstrail project to Battlefield Parkway and along historic and existing Tolbert Lane right-of-way to the existing water main at the approximate terminus of Tolbert Lane as indicated on Exhibit A (the "Water Line"). The alignment of the Water Line may change during final engineering. The Developer will design the Water Line consistent with the Town's Design and Construction Manual (the "DCSM") at no cost to the Town. Prior to issuance of the first occupancy permit for any development on the Crosstrail Property, the Developer will complete construction of the Water Line and will offer the Water Line for dedication to the Town at no cost. Upon dedication and acceptance of the Water Line, the Town will maintain, operate and repair the Water Line. The Town will credit the Developer the cost of design and construction of the Water Line against any connection fees for structures constructed on Crosstrail. The Town will charge fees for provision of water to development upon the portion of Crosstrail located within the Town that will not exceed the rate charged other properties within the jurisdiction of the Town of Leesburg. Structures located upon the portion of Crosstrail in Loudoun County served by the Water Line shall be charged a rate for provision of water that shall not exceed the rate charged similarly used properties located outside of the Town of Leesburg.

- **The Sewer Line.** The Developer will design, construct and dedicate to the Town the gravity sanitary sewer line (“Gravity Sewer #1”) and the force main and pump station (the “Force Main and Pump Station”) from the pump station shown on the Utilities Concept Plan to the existing sewer manhole on property owned by Toll Road Investors (PIN 234-37-8457) in the location generally depicted on the Utilities Concept Plan along proposed Hawling Farm Boulevard (collectively the “Northern Force Main and Sewer Line”). The alignment of the Northern Force Main and Sewer Line may change during final engineering. The Developer will design the Northern Force Main and Sewer Line consistent with the Town’s DCSM Standards at no cost to the Town. Developer agrees to limit development of the portions of Crosstrail served by the Northern Force Main and Sewer Line to an amount that has a peak flow of up to 0.91MGD (assuming a peaking factor of 3.0) unless the Town determines additional capacity within the receiving sewer system is available. Prior to issuance of the first occupancy permit for any development on the Crosstrail Property, the Developer will complete construction of the Northern Force Main and Sewer Line at no cost to the Town. Until such time as the Town accepts the Northern Force Main and Sewer Line for operational and maintenance responsibilities, the Developer shall maintain and operate the Northern Force Main and Sewer Line at no cost to the Town. In the event the Town accepts the Northern Force Main and Sewer Line into the Town utility system, the Town will own, operate and maintain the Northern Force Main and Sewer Line. The Town will credit the Developer the cost of design and construction of the Northern Force Main and Sewer Line against any connection fees for structures on Crosstrail served by such line.

In the event the Town extends the sanitary sewer line from the Lower Sycolin Creek Sewage Pump Station along Cochran Mill Road, across Sycolin Road and across real property owned by others to the Crosstrail Property (the “Lower Sycolin Creek Sewer Line Extension” or “Gravity Sewer #3”), then, after five years of use by the Developer of the Northern Force Main and Sewer Line, the Developer will extend the gravity sewer line generally along the southern route as indicated on Exhibit A (“Gravity Sewer #2”) to the Lower Sycolin Creek Sewer Line Extension and thereafter utilize Gravity Sewer #2 and Gravity Sewer #1 for service of Crosstrail. The alignment of Gravity Sewer #2 may be changed during final design. At the Town’s election, the portion of Crosstrail served by the Northern Force Main and Sewer Line may continue to use the Northern Force Main and Sewer Line. In the event the Town elects to serve Crosstrail with Gravity Sewer #1 and Gravity Sewer #2 without use of the Force Main and Pump Station, then upon acceptance of Gravity Sewer #1 and Gravity Sewer #2, the Developer may elect to continue to maintain the Force Main and Pump Station without cost to the Town as a back-up sewer facility, but will otherwise utilize Gravity Sewer #1 and Gravity Sewer #2 and the Lower Sycolin Creek Sewer Line Extension to service Crosstrail. After the Town accepts Gravity Sewer Line #1 and Gravity Sewer Line #2, the Developer may, at its option, abandon the Force Main and remove the Pump Station at the Developer’s costs. Any salvage value of the Force Main and Pump Station will accrue to the Developer. So long as the portion of Crosstrail located in Loudoun County remains outside the boundary of the Town of Leesburg, structures developed on Crosstrail will pay sewer rates that are equal to the rate charged for comparable structures outside of the Town of Leesburg. If any portion of Crosstrail is annexed into the Town, structures developed on that portion of Crosstrail will pay sewer rates charged comparable

Jeanette Irby, Esq.
August 30, 2013
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structures in the Town. The Town will credit Developer the cost of design and construction of Gravity Sewer #2 against any connection fees for structures on Crosstrail served by such line.

Please review the Crosstrail utility extension parameters described above and provide me with your comments. Upon receipt of your comments, I will draft for your review an agreement by the Developer and the Town for utility service of Crosstrail. Thank you for your assistance with this agreement.

Very truly yours,



Michael A. Banzhaf

MAB:bb

cc: Amy Wyks
Aref Etemadi



The Town of Leesburg
INTEROFFICE MEMORANDUM
DEPARTMENT OF UTILITIES

To: Jeanette Irby, Town Attorney
From: Amy Wyks, Director of Utilities
Date: September 13, 2013
Subject: Crosstrail Development

Per our meeting on Monday September 8, 2013, I offer the following comments regarding the Crosstrail Development and Mr. Banzhaf's letter dated August 30, 2013.

1. The applicant's request for an interim sewer outfall must be requested in writing and approved by Town council;
2. The interim sewer outfall shall be considered a temporary solution and shall be abandoned and connected when the ultimate gravity sewer outfall through Lower Sycolin Conveyance System is available for the Crosstrail development;
3. The interim sewer outfall including private pump station will be maintained and owned by developer. The Town's responsibility will begin at the manhole in which the force main discharges. Developer is responsible for obtaining approvals from all outside agencies having jurisdiction over the private pump station prior to construction drawing approval from the Department of Utilities;
4. All cost for design and construction associated with the interim sewer facilities and the ultimate sewer system shall be paid by the developer per the Town's Design and Construction Standards Manual Section 4-130-10 and 11;
5. The developer is responsible for all water system costs for the design and construction including purchase, installation and connection of the mains, meters and appurtenances;
6. Developer shall be responsible for payment of currently adopted pro-rata fees associated with the Lower Sycolin Sewer Conveyance System and all applicable availability fees;
7. Water and sewer models including analysis of capacity have been completed for the project and provided to Dewberry per the attached letters.

Attachments

AMY R. WYKS, P.E.
Director
Department of Utilities



TOWN OF LEESBURG
DEPARTMENT OF UTILITIES

1385 East Market Street • 20176 • 703-771-2750 • FAX 703-737-7185 • www.leesburgva.gov

August 27, 2013

Mr. Tom Whipp
Senior Associate
Dewberry
1503 Edwards Ferry road, Suite 200
Leesburg, VA 20176
RE: Cross Trail Commercial-Proposed Interim Sewer Outfall
Sanitary Sewer Capacity Analysis
Second Analysis

Dear Tom:

In response to your follow up request I have reevaluated the Town's sanitary sewer system capacity downstream of the aforementioned site with the entire sewer shed built-out to determine if at any time prior to the built-out the flows from Cross Trail need to be diverted away from this sewer shed.

Based on the flow projections you provided and the revaluation of the system assuming the abandonment of the airport pump station the system will have adequate capacity for the proposed temporary diversion. The reevaluation also indicates that we will be able to handle the proposed diverted flows with the built out of Oaklawn. However, regardless of the outcome this will be considered a temporary solution and the applicant will need to connect to it's ultimate designated sewer system which is the Lower Sycolin Sewer.

What will be required for approval of this proposal is:

1. Authorization from Town Council for this proposed temporary arrangement. We will need a letter from you on behalf of Peterson or from them requesting this with detail explanation and justification.
2. Bonding the cost of abandonment of the temporary facilities and connection to the ultimate sewer outfall.

Please do not hesitate to call me at 703-771-2754 should you have any questions.

Sincerely,

Aref Etemadi

Aref Etemadi
Deputy Director of Utilities

AMY R. WYKS, P.E.
Director
Department of Utilities



TOWN OF LEESBURG
DEPARTMENT OF UTILITIES

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August 8, 2013

Mr. Tom Whipp
Senior Associate
Dewberry
1503 Edwards Ferry road, Suite 200

Leesburg, VA 20176

RE: Cross Trail Commercial-Proposed interim sewer outfall
Sanitary Sewer Capacity analysis

Dear Tom:

In response to your request I have analyzed the Town's sewer system capacity downstream of the aforementioned site based on the flow projections you provided. As indicated in your request the flows from the commercial portion of this site will on temporary basis be pumped to the north through the Simpson Middle School sewer outfall connecting at manhole 233012.

The modeling indicates that the downstream facilities have adequate capacity to handle the additional flows generated from this site on an interim basis for the time before all of Oaklawn development is developed.

What will be required for approval of this proposal is execution of an agreement between the Town and Peterson for commitment and bonding of future improvements to connect to the ultimate sewer outfall and abandonment of the temporary facilities.

The attached drawing provides you with the location of your proposed interim connection.

Please do not hesitate to call me at 703-771-2754 should you have any questions.

Sincerely,

Aref Etemadi

Aref Etemadi
Deputy Director of Utilities



AMY R. WYKS, P.E.
Director of Utilities

1385 East Market Street · 20176 · 703-771-2750 · FAX: 703-737-7185 · awyks@leesburgva.gov · www.leesburgva.gov

September 5, 2013

Mr. Tom Whipp
Senior Associate
Dewberry
1503 Edwards Ferry road, Suite 200
Leesburg, VA 20176

RE: Cross Trail Development
Water system Analysis

Dear Tom:

At your request I have analyzed the Town's water system assuming the two points of connection per attachment submitted with your letter.

The results indicate availability of adequate water supply and pressures at these two nodes under all conditions. The following is a summary of the findings along with printouts of the computer model.

Condition	Average Day		Maximum Day		Peak Hour	
	HGLE(feet)	P(psi)	HGLE(feet)	P(psi)	HGLE(feet)	P(psi)
1911630	519.06	52.45	520.51	53.08	519.96	52.85
2330320	518.64	55.31	520.30	56.03	519.32	55.60

Maximum Day Demand plus fire flows:

Node 1911630 (Elev. – 398.0')

Q ₁ = 0	H ₁ = 125.51	Q ₂ = 1000	H ₂ = 116.45	Q ₃ = 2000	H ₃ = 108.71
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Node 2320280 (Elev. – 391.0')

Q ₁ = 0	H ₁ = 129.3	Q ₂ = 1000	H ₂ = 114.14	Q ₃ = 2000	H ₃ = 86.07
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The values of Q (flow) and H (head) are in units of gpm and feet respectively.

Please feel free to call me at 703-771-2754 with any questions.

Sincerely,

Aref Etemadi

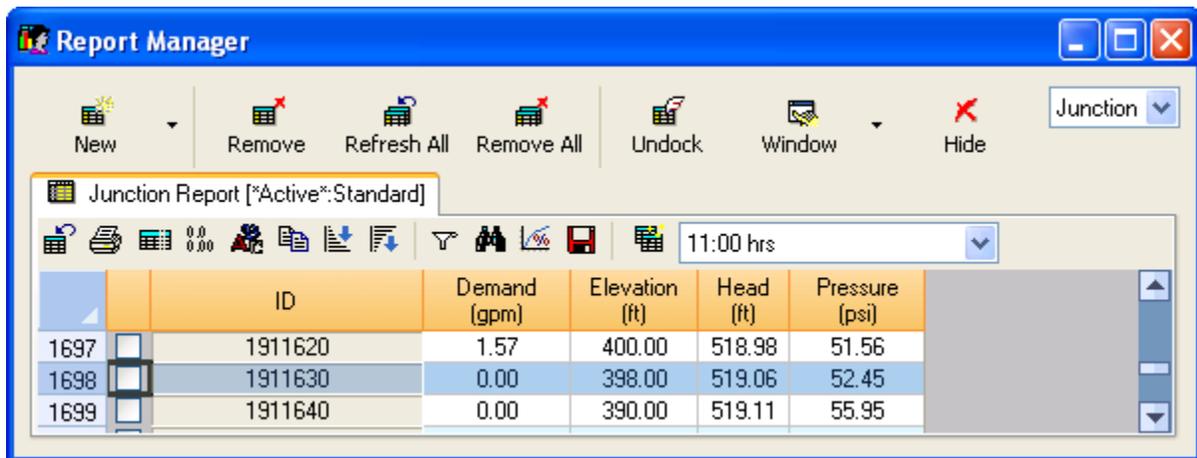
Aref Etemadi

Deputy Director of Utilities

Model Run Output Results

Average Day Demand

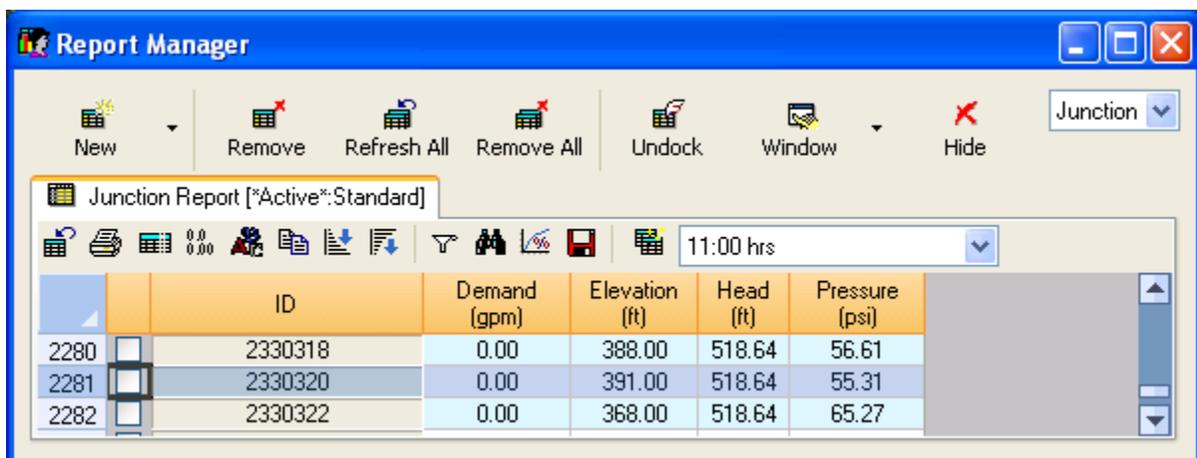
Node 1911630



The screenshot shows the 'Report Manager' window with a 'Junction Report [*Active*:Standard]' open. The report displays data for three nodes at 11:00 hrs. Node 1911630 is highlighted in blue, showing a demand of 0.00 gpm, an elevation of 398.00 ft, a head of 519.06 ft, and a pressure of 52.45 psi.

	ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
1697	1911620	1.57	400.00	518.98	51.56
1698	1911630	0.00	398.00	519.06	52.45
1699	1911640	0.00	390.00	519.11	55.95

Node 2330320

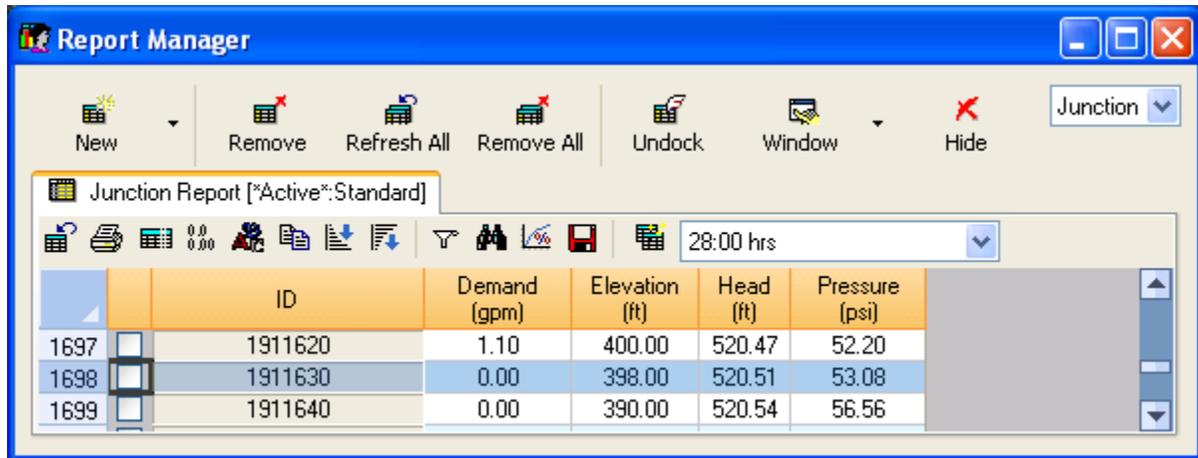


The screenshot shows the 'Report Manager' window with a 'Junction Report [*Active*:Standard]' open. The report displays data for three nodes at 11:00 hrs. Node 2330320 is highlighted in blue, showing a demand of 0.00 gpm, an elevation of 391.00 ft, a head of 518.64 ft, and a pressure of 55.31 psi.

	ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
2280	2330318	0.00	388.00	518.64	56.61
2281	2330320	0.00	391.00	518.64	55.31
2282	2330322	0.00	368.00	518.64	65.27

Maximum Day Demand

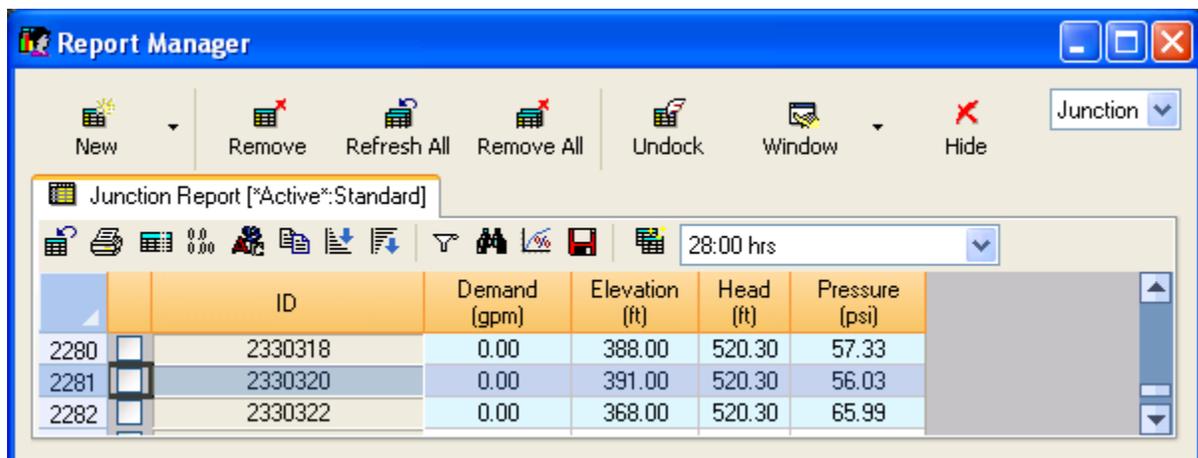
Node 1911630



The screenshot shows the 'Report Manager' window with a 'Junction Report [*Active*:Standard]' open. The report is filtered for '28:00 hrs'. The table below shows the data for three nodes, with Node 1911630 highlighted.

	ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
1697	1911620	1.10	400.00	520.47	52.20
1698	1911630	0.00	398.00	520.51	53.08
1699	1911640	0.00	390.00	520.54	56.56

Node 2330320

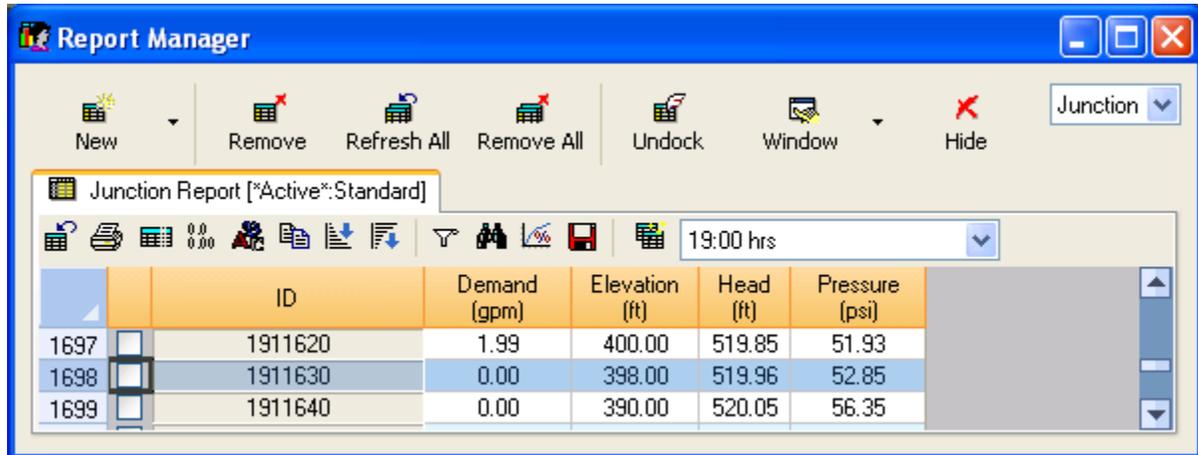


The screenshot shows the 'Report Manager' window with a 'Junction Report [*Active*:Standard]' open. The report is filtered for '28:00 hrs'. The table below shows the data for three nodes, with Node 2330320 highlighted.

	ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
2280	2330318	0.00	388.00	520.30	57.33
2281	2330320	0.00	391.00	520.30	56.03
2282	2330322	0.00	368.00	520.30	65.99

Peak Hour Demand

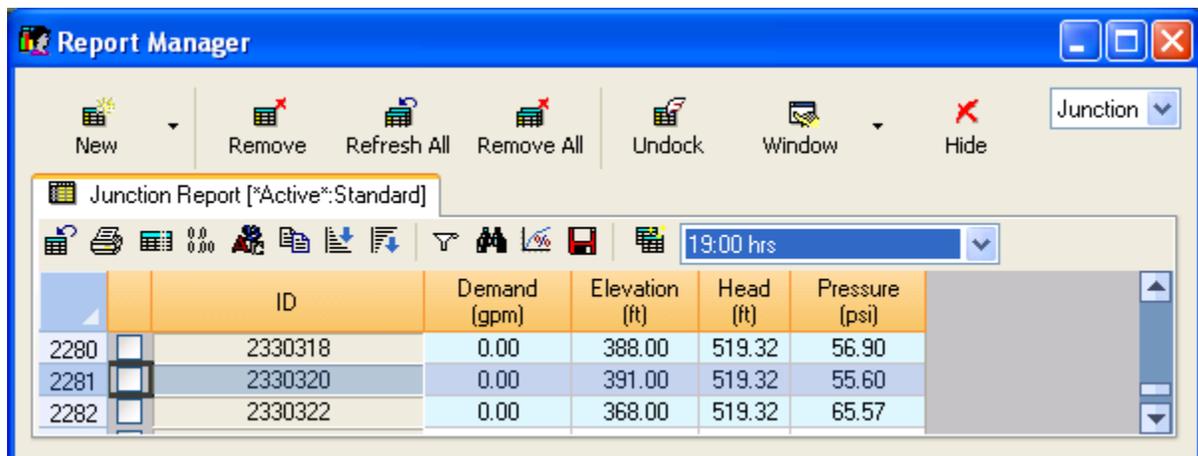
Node 1911630



The screenshot shows the 'Report Manager' window with a 'Junction Report [*Active*:Standard]' for '19:00 hrs'. The report table displays data for three nodes: 1911620, 1911630, and 1911640. Node 1911630 is highlighted, showing a demand of 0.00 gpm, an elevation of 398.00 ft, a head of 519.96 ft, and a pressure of 52.85 psi.

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
1911620	1.99	400.00	519.85	51.93
1911630	0.00	398.00	519.96	52.85
1911640	0.00	390.00	520.05	56.35

Node 2330320

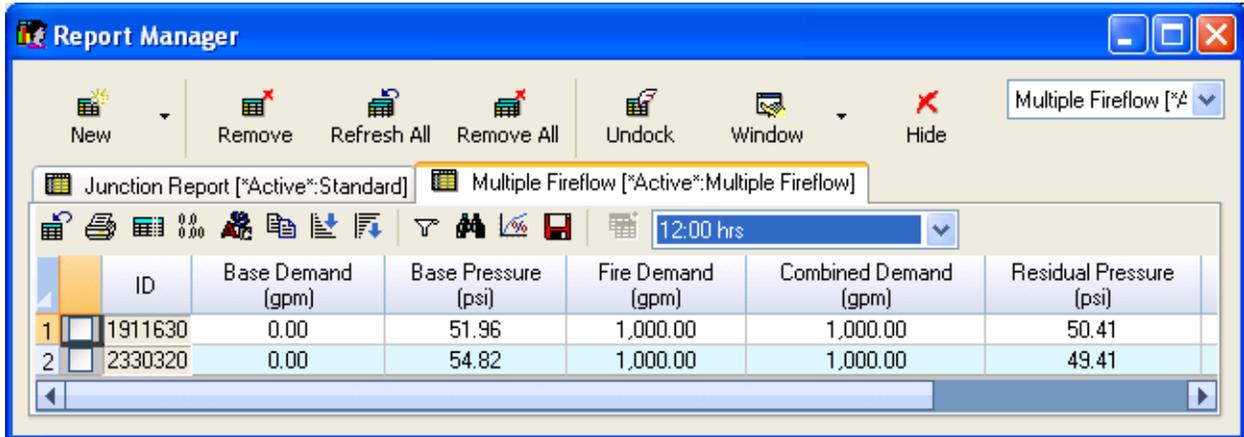


The screenshot shows the 'Report Manager' window with a 'Junction Report [*Active*:Standard]' for '19:00 hrs'. The report table displays data for three nodes: 2330318, 2330320, and 2330322. Node 2330320 is highlighted, showing a demand of 0.00 gpm, an elevation of 391.00 ft, a head of 519.32 ft, and a pressure of 55.60 psi.

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
2330318	0.00	388.00	519.32	56.90
2330320	0.00	391.00	519.32	55.60
2330322	0.00	368.00	519.32	65.57

Maximum Day + Fire Flow Demands

Simultaneous flow of 1000 gpm at both connection nodes



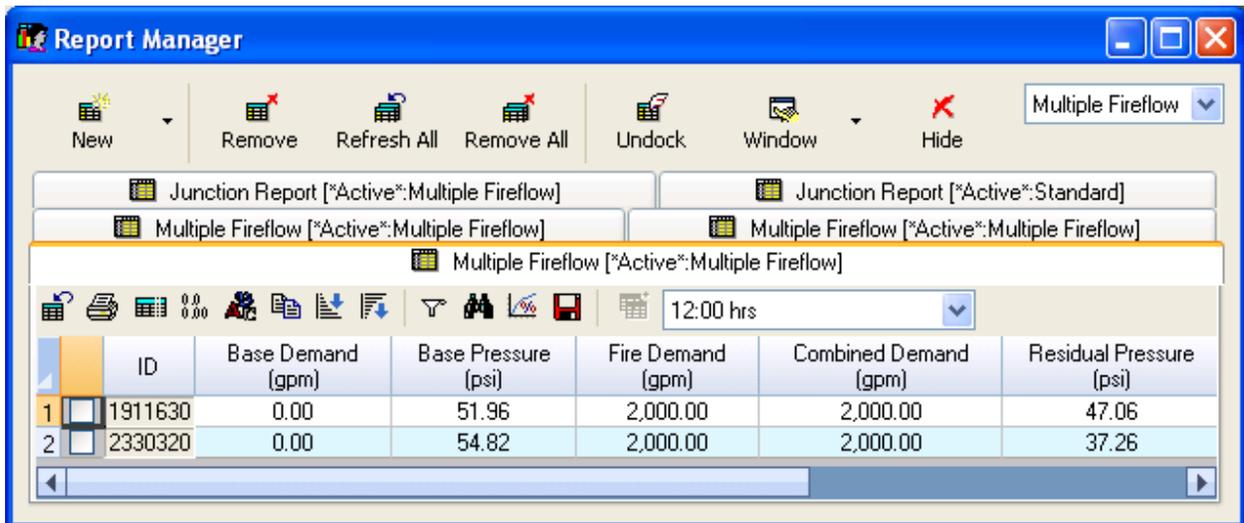
Report Manager

Multiple Fireflow [*^]

12:00 hrs

ID	Base Demand (gpm)	Base Pressure (psi)	Fire Demand (gpm)	Combined Demand (gpm)	Residual Pressure (psi)
1 1911630	0.00	51.96	1,000.00	1,000.00	50.41
2 2330320	0.00	54.82	1,000.00	1,000.00	49.41

Simultaneous flow of 2000 gpm at both connection nodes

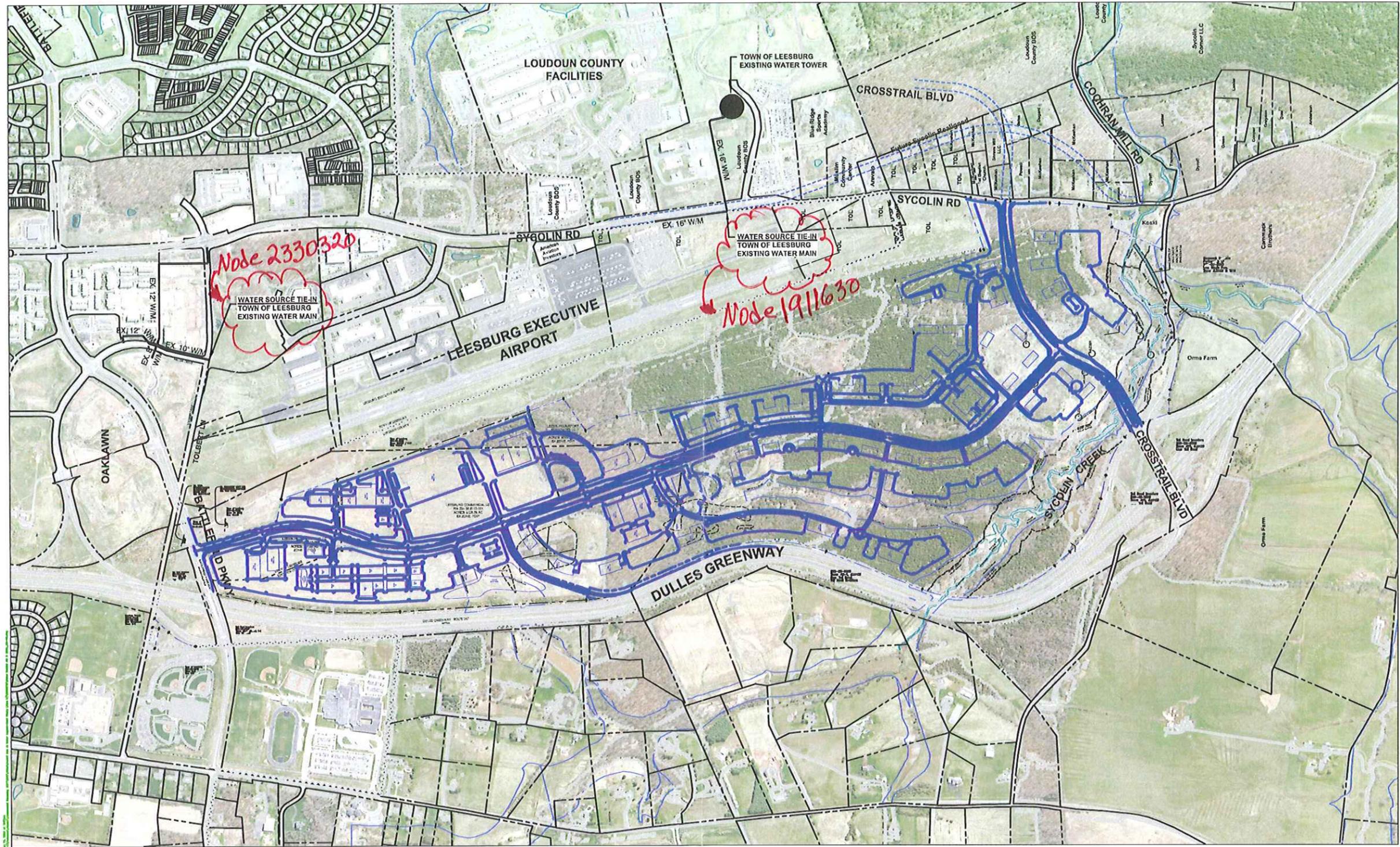


Report Manager

Multiple Fireflow

12:00 hrs

ID	Base Demand (gpm)	Base Pressure (psi)	Fire Demand (gpm)	Combined Demand (gpm)	Residual Pressure (psi)
1 1911630	0.00	51.96	2,000.00	2,000.00	47.06
2 2330320	0.00	54.82	2,000.00	2,000.00	37.26



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Crosstrail Commercial Center
 Water Service Exhibit

