

To: SandyNet Advisory Board  
From: Gregory Brewster  
Date 3/20/2025  
Subject: Criteria for SandyNet Expansion

## Background

On January 6, 2025, SandyNet Staff met with the City Manager to discuss next steps for the SandyNet Master Plan. Staff was informed that additional information was requested to be attached to the master plan, prior to its adoption. No changes to the existing text of the master plan were requested.

Prior to Council goal setting, SandyNet Staff were instructed by the City Manager to identify its ideal locations for SandyNet to expand to, along with consideration for how SandyNet should approach unserved areas within Urban Growth Reserve (UGR).

On February 1, 2025, City Council and Staff met for Council goal setting. During that meeting most of the prerequisites for SandyNet expansion, specifically the UGR, were updated to reflect an appropriate plan for approaching future expansion.

On March 3, 2025, Sandy City Council adopted their 2025-27 goals. Under the first goal for completing and adopting the master plan, was a sub goal to “[d]evelop clear criteria for determining when and where SandyNet expansion will occur.”<sup>1</sup>

Staff completed an internal analysis that included a design of nine spots within or near the UGR that are unserved by SandyNet fiber. Staff then ranked those deployments on the basis of cost, number of homes passed and return on investment.

After meeting with the Mayor and City manager on March 13, 2025, SandyNet Staff agreed to within the SandyNet and administration departments, wordsmith the criteria for expansion. Under the discussion section is the original criteria for expansion.

## Analysis

The following areas were walked by SandyNet staff to produce 60% designs for nine locations outside of Sandy city limits that show potential for future fiber deployments.

Area	Rank
Mt. Shadows	1
Edelweiss	2
Bluff Rd.	3
370 <sup>th</sup>	4
Jacoby	5
Hudson	6

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<sup>1</sup> City of Sandy, 2025, City Council Goals for 2025-2027, <https://www.ci.sandy.or.us/citycouncil/page/2025-27-city-council-goals>

362 <sup>nd</sup>	7
Langensand	8
Trubel Rd	9

See *Appendix A* for a map of each of the locations. See *Appendix B* for a breakdown.

**Note:** Some areas of the UGR were excluded from the initial assessment, along with areas already claimed to be constructed or build with fiber from competitors, particularly along Orient Drive.

**Mt. Shadows.** This neighborhood that has 80 potential subscribers. In order to provide fiber, the Edelweiss project would also have to be completed, in order to tie into the existing fiber that ends at Everfresh Fruit Co. The area has an average of 46 subscribers per mile of fiber and a return on investment (ROI) of three years per drop. The average cost per subscriber passed is \$2,657. The project requires 10,107ft of mainline fiber to be constructed and 9,106ft of drop conduit to be installed.

**Edelweiss.** This neighborhood has a potential of 28 subscribers and must be fed from the conduit extending to the Everfresh Fruit co. The area has an average of 28 subscribers per mile of fiber and an ROI of 3-4 years per drop. The project requires 2,892ft of mainline fiber to be constructed and 5,323ft of drop fiber to be installed with 14 terminals.

**Bluff Rd.** This area has 65 potential subscribers. Existing fiber already runs down Bluff rd., which pipes back to City Hall. The area has an average of 18 subscribers per mile and an ROI of 4-5 years per drop. The average cost per subscriber is \$3,802. The project requires 6,605ft of mainline fiber and 19,598 ft of drop cable to be installed.

**370<sup>th</sup>.** This area has 19 potential subscribers. Existing fiber already runs down Sandy Heights Street, which feeds the Sleepy Hollow neighborhood. This area has a ROI of 4-5 years and an average drop cost of \$4,069. The project requires 2,356ft of mainline and 6,999ft of drop cable to be installed.

**Jacoby.** This area has 14 potential subscribers. Existing fiber is available further down Jacoby rd. The ROI for this area is 5-7 years per subscriber and an average drop cost of \$4,503. The project requires 1,412ft of mainline and 5,460ft of drop cable to be installed.

**Hudson.** This area has 24 potential subscribers. Existing fiber is available from Bluff rd. and passes down to Lusted rd., for a Public Works project. The ROI for this area is 5-6 years per subscriber and an average drop cost of \$4,999. The project requires 2,262ft of mainline and 9,877ft of drop cable to be installed.

**362<sup>nd</sup>.** This area has 21 potential subscribers. Existing fiber is available between Bluff rd. and the Everfresh Fruit Co. The area has an average of 15 subscribers per mile and an ROI of 5-7 years per drop. The average cost per subscriber is \$5,161. The project requires 5,516ft to mainline and 7,523ft of drop cable to be installed.

**Langensand.** This area has 21 potential subscribers. Existing fiber is available further up on Langensand. The ROI for this area is 5-7 years per subscriber. The average cost per drop is \$5,527. The project requires 3,153ft of mainline and 9,877ft of drop cable to be installed.

**Trubel.** This area has 53 potential subscribers. Existing fiber is available on Bornstedt Rd. the ROI for this project is 6-7 years with an average cost of \$5,639 per drop. The project has an average of 12 subscribers per mile and requires 10,628ft of mainline and 22,309ft of drop cable to be constructed.

## **Discussion**

The following method for deploying fiber was based upon several factors. Much of SandyNet's expansion must be in accordance with feasibility requirements. Deployments must pass economically feasible, effectiveness feasibility, efficiency feasibility and political feasibility. The following criteria seeks to ensure that each of those aspects are properly represented in each deployment.

Rural deployments have fewer homes per mile. Within city limits, Sandy has 60+ homes per mile of fiber, which drove down the cost per subscriber. In rural areas, anything less than 12-15 subscribers per mile, makes it hard to achieve an acceptable ROI, when deploying underground fiber optic cable. Rural deployments also have different considerations. Crews can typically install more conduit in a day in rural settings since there are fewer conflicting utilities and underground obstructions. The increased distance also requires larger machinery which reduces setup and tear down time.

SandyNet has taken some lessons learned from the Colorado Rd construction IGA and has completed six of the eight drops identified under the agreement. The SandyNet team has drilled 3,660ft of the required 5,060ft within 18 workdays using four crew members. The remaining 1,400ft is on scheduled to be completed once the proper rights-to-access are obtained. This increase in distance per day is nearly twice of SandyNet's traditional bore speed when performing work inside city limits, which averaged between 200-250ft a day.

It is possible that the price per foot could be driven down even further, if SandyNet were to acquire a larger directional drill (currently borrowing one from Clackamas County), it could complete longer shots at a higher speed in rural deployments.

To ensure that SandyNet grows and becomes sustainable, requires control over costs. This means that SandyNet must also build out to areas that will not pose significant risk to SandyNet's financials. In order to drive those deployment costs down, SandyNet has focused on leveraging existing assets to highlight expansion areas and prevent duplication of assets.

After compiling, ranking, and analyzing the previously described nine sites, SandyNet has created a standard that helps guide areas of deployment:

***Ranking Considerations***

- 1) When self-funding deployments, deployments shall be no fewer than 12 subscribers per mile, except when the ROI is less than or equal to five years.
  
- 2) Only then should preference be given to areas that can take advantage of existing underutilized fiber mainline. If the first condition is met, but no existing fiber mainline is nearby, preference is then given to deployments within the UGR, so long as the project is deemed feasible.
  
- 3) If no feasible UGR deployment is identified, preference is then given to other areas showing substantial benefit to SandyNet or its mission (access, equity, ROI, etc).

**Actions**

SandyNet Staff requests that the SandyNet Advisory Board review the ranking consideration criteria, and provide recommendations under the knowledge that the wording may change, but aims to not substantially alter the criteria itself.