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To: Community Working Group (CWG)

From: Denver Igarita (PBOT) and Naomi Tsurumi (BES)

Date: January 7, 2015

Subject: **Materials for January 12th CWG Meeting Materials**
Tryon-Stephens TGM Task 3 – Needs, Opportunities & Constraints

The second meeting of the CWG meeting will be held on January 12th at the Multnomah Arts Center. More details below:

Meeting: Tryon-Stephens Headwaters Neighborhood Street Plan – CWG #2
Time: Monday, January 12, 2014 from 6 pm to 8 pm
Location: Multnomah Arts Center, Room 33, 7688 SW Capitol Hwy, Portland, OR 97219

Task 3 – Needs, Opportunities & Constraints

The Needs, Opportunities and Constraints phase of the project will document the transportation and stormwater needs within the project area and identify the opportunities and constraints to addressing those needs.

The Tryon-Stephens Headwaters Neighborhood Street Plan (TSHNSP) seeks to address the five transportation/stormwater needs listed below. Deficiencies may include known issues with the existing system, a lack of infrastructure, and gaps in existing policies. The following needs were identified based on the findings in the Existing Conditions Report, discussions with BES and PBOT staff, and public feedback compiled to date, including at the SW Sunday Parkways Roll and Stroll event, Community Working Group meeting and other community meetings. Addressing these needs (listed below) will be the core task in developing local street and stormwater solutions for the TSHNSP.

1. Address gaps in transportation networks to improve access to neighborhood destinations
2. Address gaps in the stormwater system
3. Tailor options for integrating street and stormwater improvements to existing neighborhood and street character
4. Manage runoff from impervious surfaces to preserve natural hydrology and enhance water quality
5. Limit motor vehicle speeds and volumes on the active transportation networks and when gravel streets are improved

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6. Identify ways to create new connections without fully relying on redevelopment

A series of maps have been prepared to locate project area “needs”. Please refer to the attached Map 1 and Map 2.

Map 1: Transportation Needs

1. Concentrations of dirt and gravel streets
2. Gaps in the pedestrian network
3. Gaps in the bicycle network
4. Areas with fewer street connections

Map 2: Stormwater Needs

1. High polluting/ more intense land uses
2. High polluting busy streets
3. Sediment runoff from gravel streets
4. Under-capacity or aging pipes
5. Lack of access to stormwater system
6. Impervious surface
7. Areas with more stormwater complaints

Constraints/Barriers/Challenges:

Constraints to addressing street and stormwater issues can include natural land features, historical development patterns, legal restrictions, and funding challenges. Various constraints within the study area have been identified, mapped and described here.

It is difficult to establish new public streets and pathways within an established neighborhood. The existing development, i.e. built structure, natural resources, and street patterns may limit the ability to acquire easements or right-of-way for new connections. When improvements are made they tends to happen intermittently and incrementally over decades.

Funding is a major challenge to creating new street and pathway connections citywide. It is the policy of the City of Portland that streets are constructed at the expense of abutting property owners and are maintained by abutting property owners until improved to City. However, without financial assistance from the City or other sources, it is often cost prohibitive for a group of residents to contribute enough money to have their local street improved.

There are also land use law limitations on what the City can require of private property owners when development is proposed, most recently as the result of the Supreme Court ruling *Koontz v. St. Johns River Water Management District (2013)*. Supreme Court cases have established that there must be a ‘nexus’ (or a clear connection) between the proposed development and the requirements placed on the property and the right-of-way dedication and facility improvements. Any requirements must be ‘roughly proportional’ to the impact of the proposed development on the

transportation system. This includes the cost to build transportation improvements. This case law constrains, but does not eliminate, the ability for the City to require street improvements through the development review process.

When more than 500 square feet of new impervious surface is created in the City of Portland (including street improvements), the City's Stormwater Management Manual (SWMM) requires runoff from the new impervious surface to be managed according to a hierarchy that prioritizes on-site treatment and infiltration. In Southwest Portland, several factors including topography, lack of infiltration, lack of paved and curbed streets, and lack of a complete stormwater system limit opportunities to manage stormwater. This plan recognizes the close link between street and stormwater improvements and aims to integrate solutions for both systems.

In addition to the legal, funding and process constraints described above, there are physical constraints related to geography and historic development patterns. A series of maps have been prepared to locate project area "**constraints**" – including natural and infrastructure barriers. Please refer to the attached Map 3 and Map 4.

Map 3: Transportation Constraints

1. Infrastructure barriers – freeways / higher traffic arterials
2. Open channel streams
3. Hills/topography
4. Steep slopes

Map 4: Stormwater Constraints

1. Landslide hazard areas
2. Low infiltration rate areas
3. Natural resources areas (high value areas and wetlands)
4. Private pipes and surface drainage

Opportunities:

The TSHNSP aims to find opportunities to address area needs by improving street connectivity and stormwater infrastructure. Staff prepared a series of maps to locate project area "**opportunities**". Refer to the attached Map 5 and Map 6.

Map 5: Transportation Opportunities

1. Planned pedestrian/bicycle/trail networks
2. Public right-of-way
3. Master Street Plan connections
4. Roadway closures
5. Projects in the City's Transportation System Plan
6. Walksheds for Commercial Areas (0.25 mile)

Map 6: Stormwater Opportunities

1. Undeveloped sites
2. Surface drainages and wetlands
3. Private retrofit opportunities
4. Vacant rights-of-way
5. Capital Projects
6. Curbed Streets

Street Plan Solutions:

Historically, the City of Portland has primarily relied on private development to improve substandard local streets. In 2001, the city adopted a TGM-funded Master Street Plan for Southwest Portland to identify potential new street connections. However, none of the identified missing connections within the TSHNSP area have been improved as streets as the result of private development or public investment. The traditional means of improving local streets (as part of redevelopment or local improvement districts) have thus far failed to produce a connected network of accessible routes.

The relatively high cost of traditional street standards is a contributing factor to the limit number of improvements made to the local street network. As a tool to address this, the City recently approved new residential street standards, which allow curbsless roadway designs on certain types of local streets, i.e. low traffic residential streets. These local street solutions were developed as the result of the TGM-funded *Cully Main Street and Local Street Plan* and *Street by Street Initiative*. The TSHNSP presents an opportunity to systematically and proactively apply the Street by Street options within the unique context of Southwest Portland, including consideration of its topography and natural conditions.

Just as new residential street standards are needed for improving the transportation system, innovative stormwater improvements are needed for improving the stormwater system in SW Portland. As described above, SW Portland has unique constraints to managing stormwater in the same manner as other parts of the city. When there is no curb and gutter or stormwater pipe to route runoff, other options such as roadside swales, neighborhood facilities, and off-site management may be explored. The SCSWSP developed a comprehensive list of tools to manage stormwater grouped by primary purpose (listed below), which serves as a starting point for matching appropriate stormwater management tools with new residential street standards.

Below is an initial list of potential street and stormwater tools that can be considered as solutions within the project area. These tools are intended to help expand the available options and provide more flexible and context-sensitive design, in hopes of increasing the viability of new connections.

Potential Street-Pathway Tools

• “Traditional” Local Street	• Separated in Roadway Bikeway
• “Separated” Residential Curbless Streets	• Neighborhood Greenway
• “Shared” Residential Curbless Streets	• Advisory Bike Lane
• Low-Impact Street	• Traffic Calming and Volume Control
• Shared Pedestrian and Bicycle Pathway	• Pedestrian Pathway
• Soft-surface Trail (PP&R Type B)	• Enhanced Maintenance Options
• Extended Paved Shoulder	• Street and Pathway Lighting
• Community Uses in ROW	• <i>Others?</i>

Potential Stormwater Tools (grouped by purpose)

• Treat and Infiltrate Stormwater	• Infiltrate Stormwater
• Impervious Area Reduction	• Store or Detain Stormwater
• Mechanical Stormwater Treatment	• Retrofit Existing Development
• Improve Conveyance	• Revegetate
• Inspection and Maintenance	• Improve Conveyance
• Pollution Prevention	• Protect Natural Resources
• Restore Natural Resource Function	• <i>Others?</i>