Appendix 4

Wetlands and Streams

MEMORANDUM

DATE: **12 January 2004; revised March 2005**

TO: **Alex Shkerich, Atelier ps**

FROM: **Lizzie Zemke, Adolfson Associates Inc.**

CC:

RE: **Burke-Gilman Trail Wetlands and Streams**

ADOLFSON

Environmental Solutions

Introduction

Adolfson Associates Inc (Adolfson) is pleased to present the results of a reconnaissance level study of wetlands and streams located along a length of the Burke Gilman Trail located north of the City of Seattle. Adolfson conducted this study at the request of Atelier ps (Atelier) on behalf of King County Department of Natural Resources and Parks, Parks and Recreation Division, in anticipation of possible trail improvements.

Methods

The study was conducted on December 14, 2003, January 8, 2004, and March 2, 2005 by an Adolfson wetland scientist walking the length of the Burke-Gilman trail from north to south between Log Boom Park in Kenmore and approximately NE 145th Street at the north edge of the City of Seattle. Wetlands were identified using the *Washington State Wetland Identification and Delineation Manual* (Ecology 1997). Wetlands were described using the classification scheme described in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979).

The study area consisted of an area 50 feet wide on either side of the trail between Kenmore and the City of Seattle. The study area was originally examined for the presence of wetlands, streams, and associated buffers in December 2003 and January 2004. A more detailed reconnaissance of previously identified wetlands was conducted in March 2005. During the March 2005 survey dominant plant species and the presence of surface water were noted, and where the plants and extent of surface water or soil saturation suggested the presence of wetlands, soils were examined using a hand auger or shovel. Locations where plant community composition, degree of soil saturation, and the appearance of the soil satisfied the criteria for jurisdictional wetlands were identified as wetlands on maps provided by Atelier. Water bodies that met the definition of a stream as defined in the DRAFT Lake Forest Park Municipal Code Chapter 16.16.030 were also marked on the maps. The wetlands and streams identified during this reconnaissance level survey are described in the following report sections and are identified on Figure 1.

While the Burke-Gilman Trail is maintained by King County, the trail crosses through the Cities of Kenmore, Lake Forest Park, and Seattle within the study area. Adolfson relied upon the definitions and descriptions of wetlands and streams contained in the DRAFT

Lake Forest Park Municipal Code (LFPMC) for the purpose of classifying wetlands and streams in this report. If the County proposes to alter the existing trail within the study area in the vicinity of any sensitive areas, then site- specific investigations to determine the exact boundaries of the sensitive areas should be delineated.

Findings

Six wetlands were identified during the study (Figure 1). These were: Wetlands A and B associated with the shore of Lake Washington, Wetlands C and D located in ditches near Lyon Creek, and Wetlands E and F associated with McAleer Creek. In addition, several ditch areas that meet the definition of wetland but which may or may not be regulated by Federal or local agencies were also identified.

Portions of Lyon and McAleer Creeks both of which enter the study area from the west, cross beneath the trail and flow into Lake Washington near the City of Lake Forest Park, were also identified within the study area. Both of these creeks are considered to be Class 2 streams under the DRAFT LFPMC.

The approximate locations of these wetlands and aquatic areas are shown on the attached figure.

Wetland A is a shrub-dominated wetland located at the edge of Lake Washington at Log Boom Park. This wetland is dominated by red alder, spiraea, and Himalayan blackberry. Wetland A is a palustrine scrub shrub (PSS) wetland according to the Cowardin classification system. Wetland A is located more than 50 feet from the main trail but within 50 feet of the lower paved trail that parallels the main trail as it passes through the park at Log Boom Park. Under the DRAFT LFPMC, Wetland A would likely be considered a Class 3 wetland.

Wetland B is also located along the shore of Lake Washington west of Log Boom Park. Like Wetland A, Wetland B is associated with Lake Washington. This wetland has a forested component dominated by black cottonwood. Wetland B also supports red alder, spiraea, and Himalayan blackberry. Wetland B is a palustrine forested/palustrine scrub-shrub wetland according to the Cowardin classification system. Due to its relatively large size, Wetland B would likely be considered a Class 2 wetland under the DRAFT LFPMC.

Wetland C is located south of Lyon Creek on the west side of the trail. The wetland consists of a deep ditch surrounded by mature cottonwoods, and containing salmonberry, reed canarygrass, and English ivy. Wetland C contained between six and eight inches of water in January 2004, and contained no surface water in March 2005. Under the Cowardin classification system Wetland C is a palustrine forested (PFO) wetland. Under the DRAFT LFPMC, Wetland C would be considered a Class 3 wetland.

Wetland D is located on the east side of the trail just north of the intersection of the trail and NE 170th. The wetland consists of a small shallow depression that supports a stand of reed canarygrass. No surface water was present in Wetland D in January 2004 or in March 2005. Wetland D is a palustrine emergent (PEM) wetland under the Cowardin

classification system. Under the DRAFT LFPMC, Wetland D would be considered a Class 3 wetland.

Wetland E is located on the west side of the trail just north of McAleer Creek. The wetland consists of a deep ditch that supports cottonwoods, salmonberry, Himalayan blackberry, and reed canarygrass. This wetland appears to be hydrologically connected to McAleer Creek. Under the Cowardin classification system Wetland E is a palustrine forested (PFO) wetland. Wetland E contained shallow surface water in January 2004 and in March 2005. Under the DRAFT LFPMC, Wetland E would be considered a Class 3 wetland.

Wetland F is located on the west side of the trail just south of McAleer Creek. The wetland consists of a relatively deep ditch and supports cottonwood, Himalayan blackberry, and English ivy. The wetland contained between 4 and 8 inches of water in January 2003. Wetland F is palustrine forested (PFO) wetland under the Cowardin classification system. Under the DRAFT LFPMC, Wetland F would be considered a Class 3 wetland.

Potentially regulated wetlands associated with ditches. In addition to the wetlands described above, a shallow ditch that may or may not be regulated by the City of Lake Forest Park was identified along the north and/or west edge of the trail for much of the length of the study area. While this feature is apparent along much of the length of the study area, it is completely absent for several discontinuous lengths of the study area. Where it exists, this ditch is variably well defined, ranging from a shallow swale containing mowed grasses and saturated non-hydric soil, to a well-defined channel supporting obligate wetland plant species and containing several inches of flowing water. In some locations this ditch would qualify as a wetland. However, it may be that these areas would not be regulated by the City of Lake Forest Park because they would be considered man-made and maintained ditches. The U.S. Army Corps of Engineers (Corps) will likely regulate the sections of these ditches that do not meet the definition of jurisdictional wetland, as "waters of the U.S.". In general the areas of this ditch most likely to be considered regulated wetland are associated with the culverts that direct water that flows down the hillside from the west, beneath the trail and out toward Lake Washington. The approximate locations of the wetland areas associated with the trailside drainage features and that could potentially be regulated are shown on the attached figure.

The determination of whether or not these areas would be regulated as wetlands by the City of Lake Forest Park, or as wetlands or "waters of the U.S." by the Corps would need to be made by those agencies, based upon the results of site visits conducted by those agencies.

Regulatory Considerations

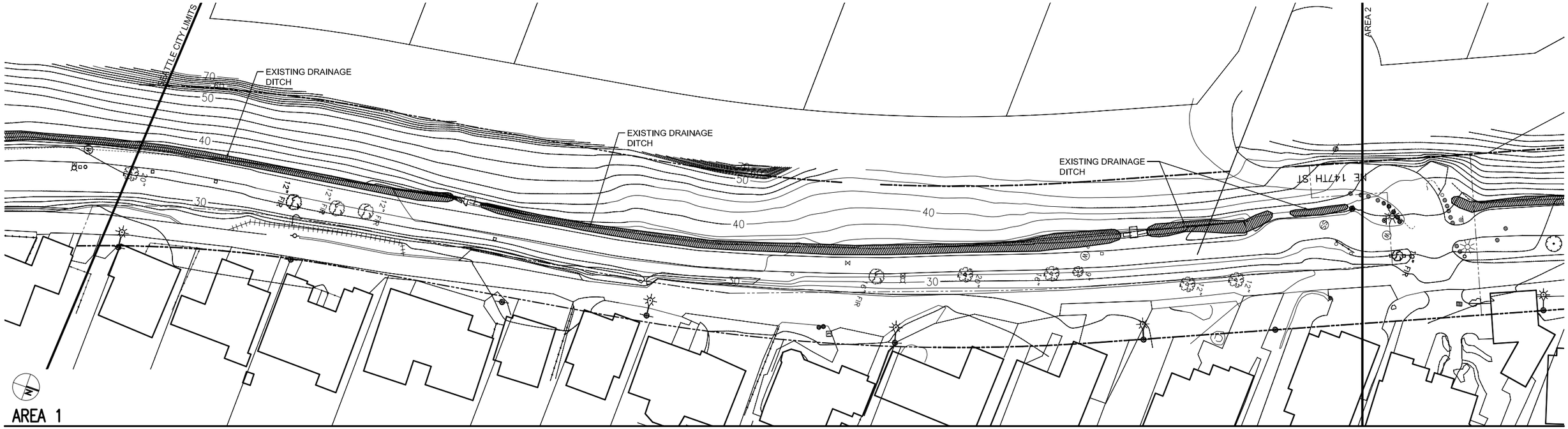
In order to satisfy the Growth Management Act's requirement to include best available science in sensitive areas regulations, the City of Kenmore and the City of Lake Forest Park are in the process of updating their critical areas regulations. Neither City has

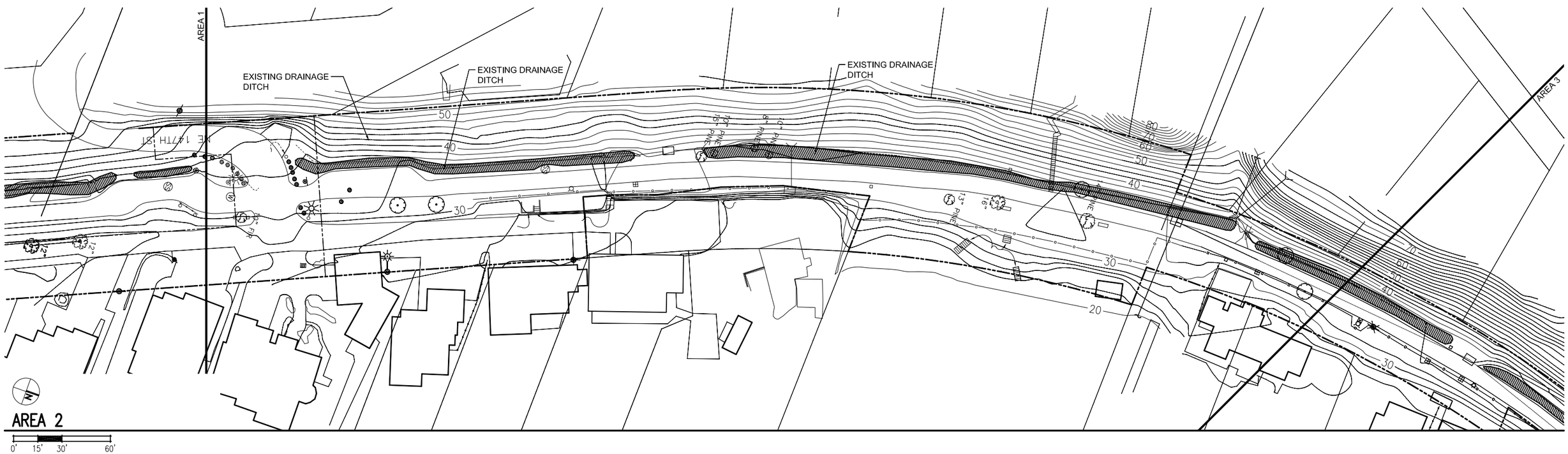
adopted new regulations, but both are anticipated to adopt new code language regarding wetlands and streams sometime in 2005.

Under the DRAFT LFPMC, it is likely that the wetlands identified along the trail would be considered either Class 2 or 3 wetlands. Depending upon the actual category, these wetlands would be required to have standard buffer widths of either 100 or 50 feet. Under the DRAFT LFPMC, standard buffer widths may be reduced in certain cases if done in combination with buffer enhancement.

Limitations

Due to the cursory nature of this reconnaissance level survey the locations and extent of these wetland areas as shown on the attached figures are approximate. The information contained in this report should be used for preliminary planning purposes only. If and when a proposal to develop or alter the current configuration of the trail is developed, project-specific investigations, including formal wetland and stream delineations should be conducted in compliance with Federal and local regulatory requirements.





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CLIENT AGENCY: KING COUNTY
PARKS & RECREATION DIVISION
210 SOUTH JACKSON STREET, SUITE 700
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98104

KING COUNTY FACILITIES MANAGEMENT DIVISION
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Atelier ps
Landscape Architects
120 Belmont Ave. E. Seattle, WA 98102
Tele: 206.322.0672 Fax: 206.322.1401

SCALE:	1" = 30'
DATE:	04/15/05
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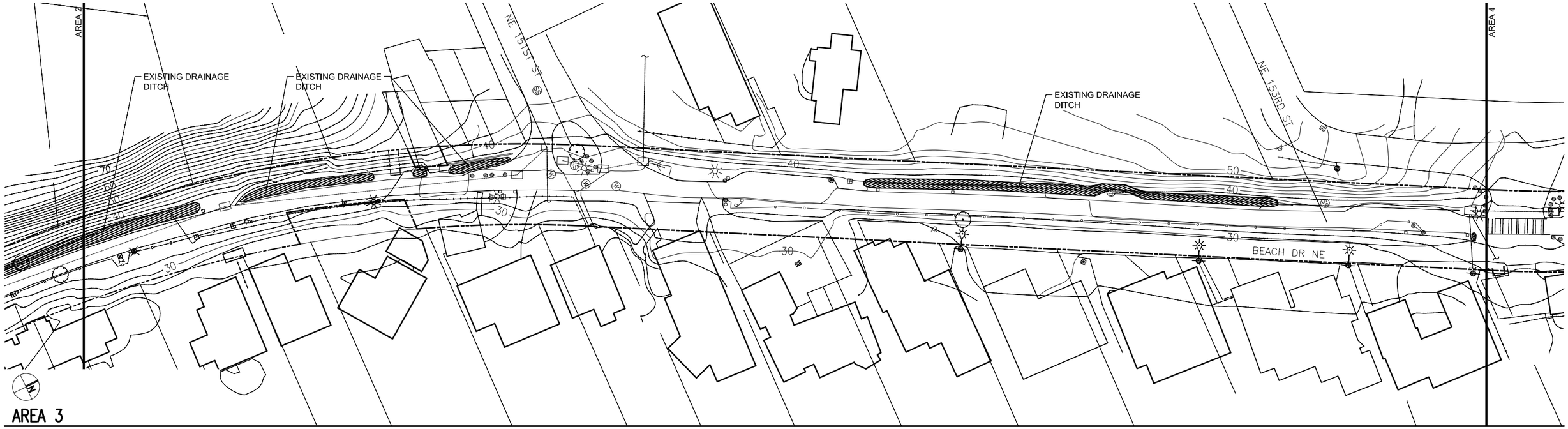
JOB NO.:	

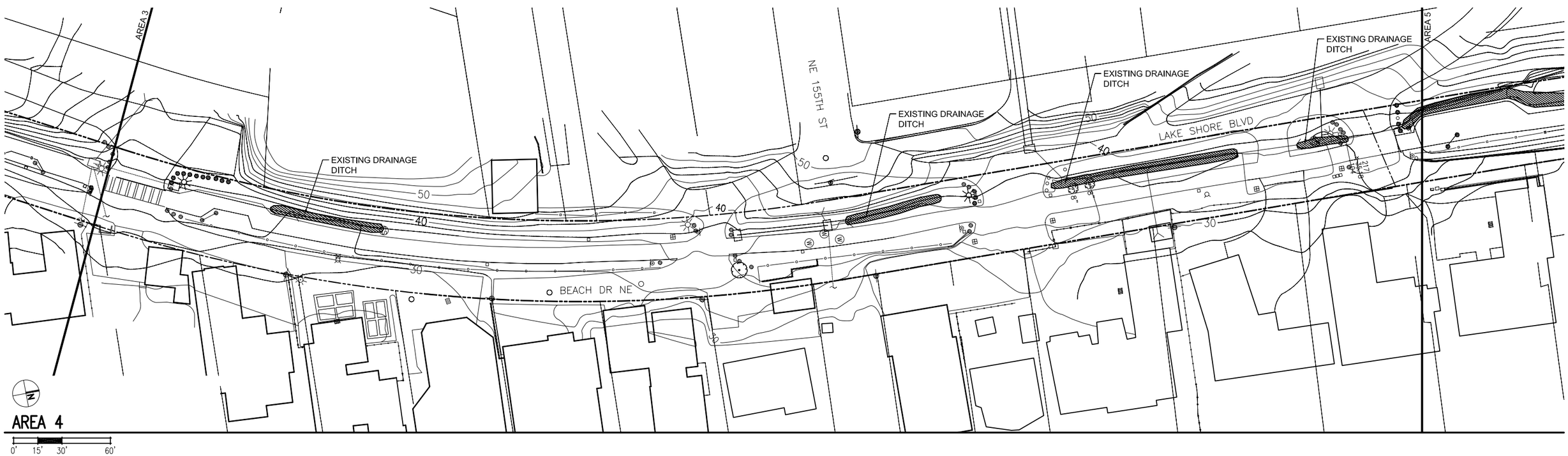
Burke Gilman Trail Redevelopment

WETLAND & STREAMS
FIGURE 1

SHEET 1 OF 7

1





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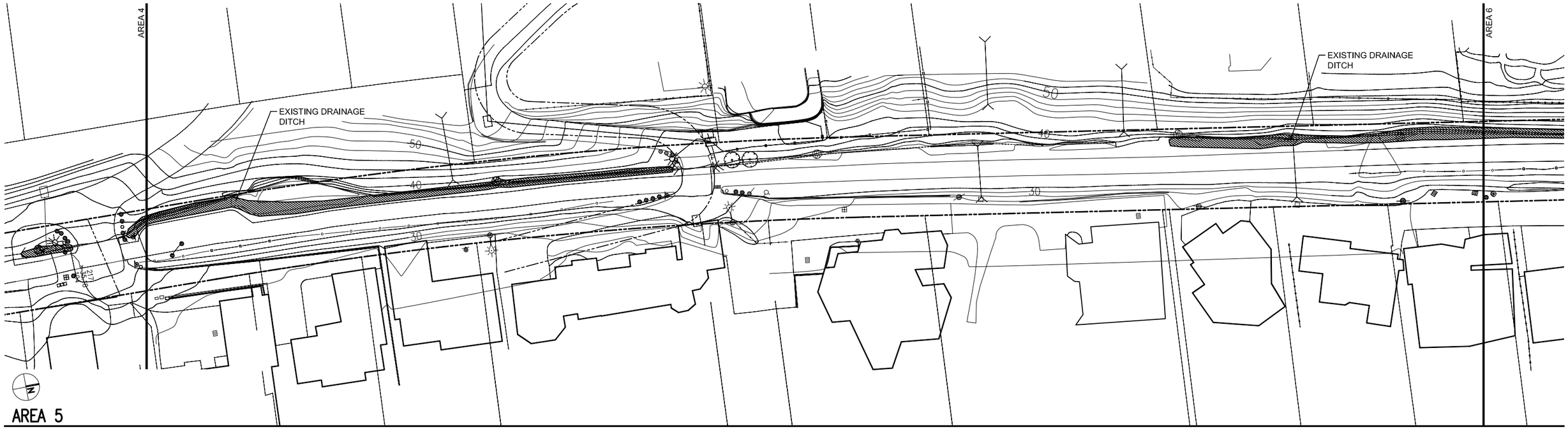
WETLAND & STREAMS
FIGURE 1

SHEET 2 OF 7

2



AREA 5

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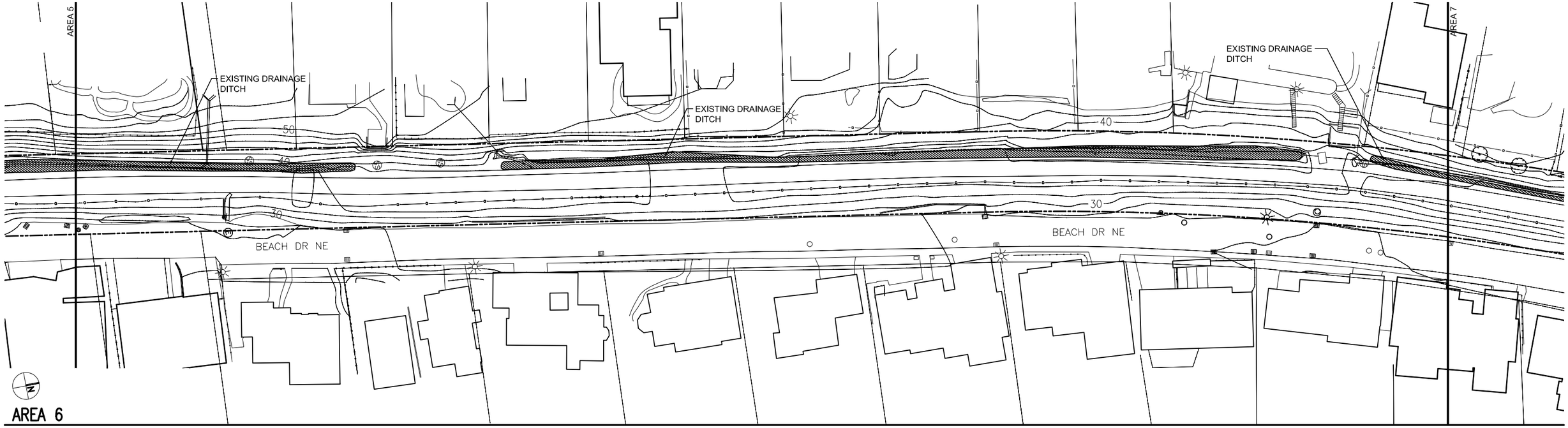

AREA 6

0' 15' 30' 60'

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WETLAND & STREAMS
FIGURE 1

SHEET 3 OF 7

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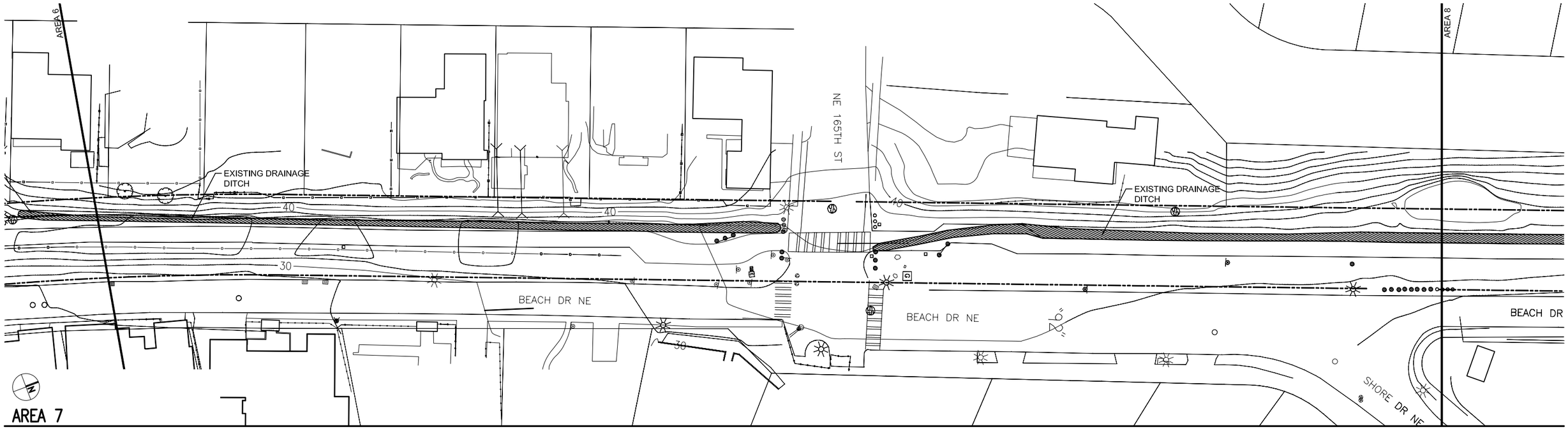

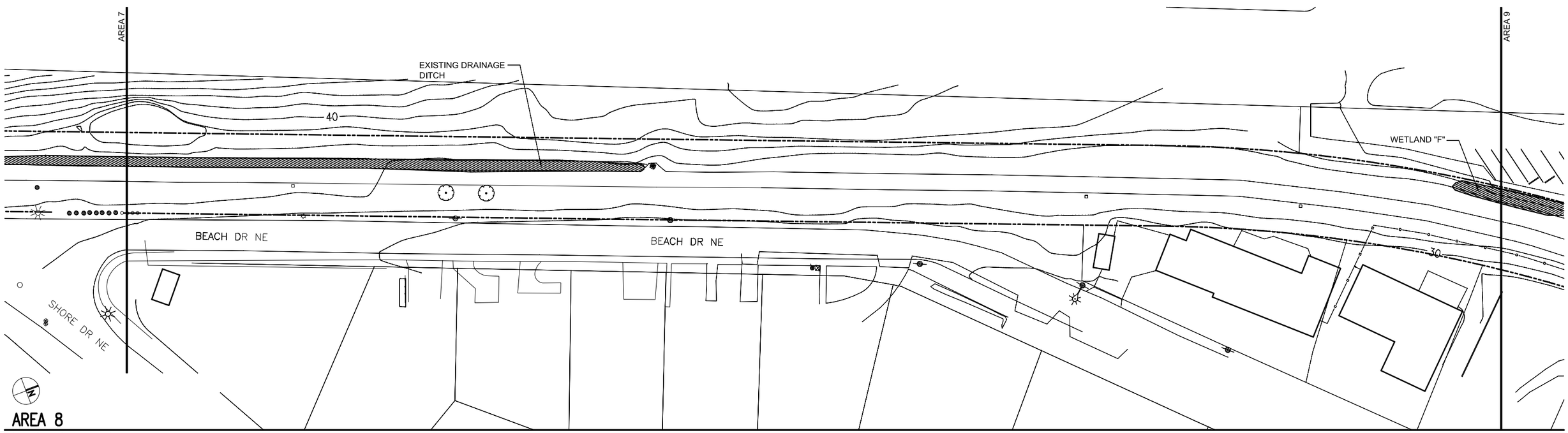

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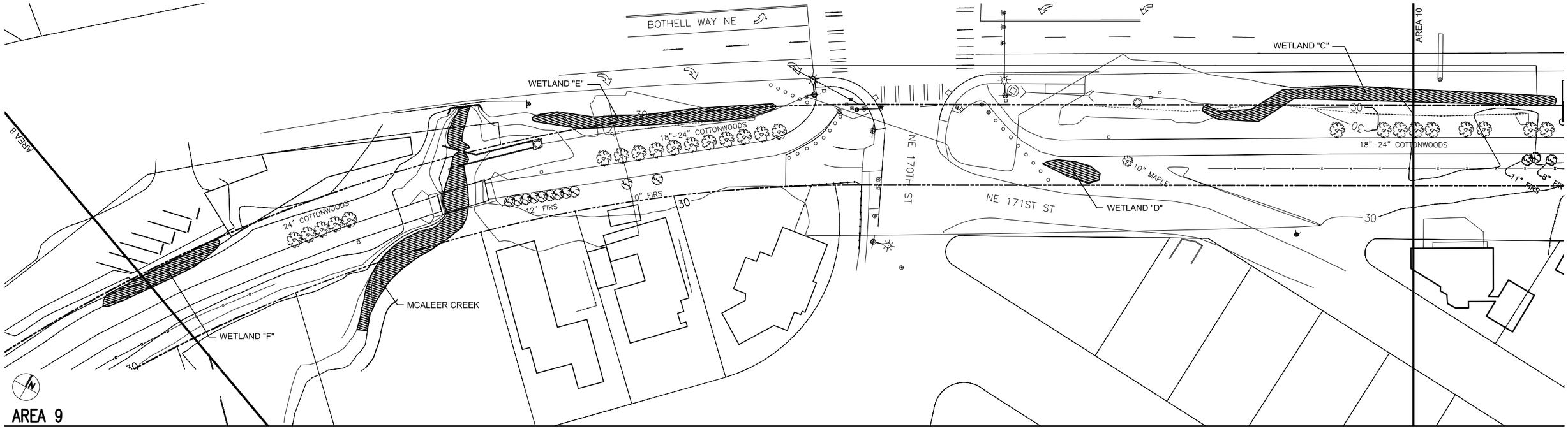
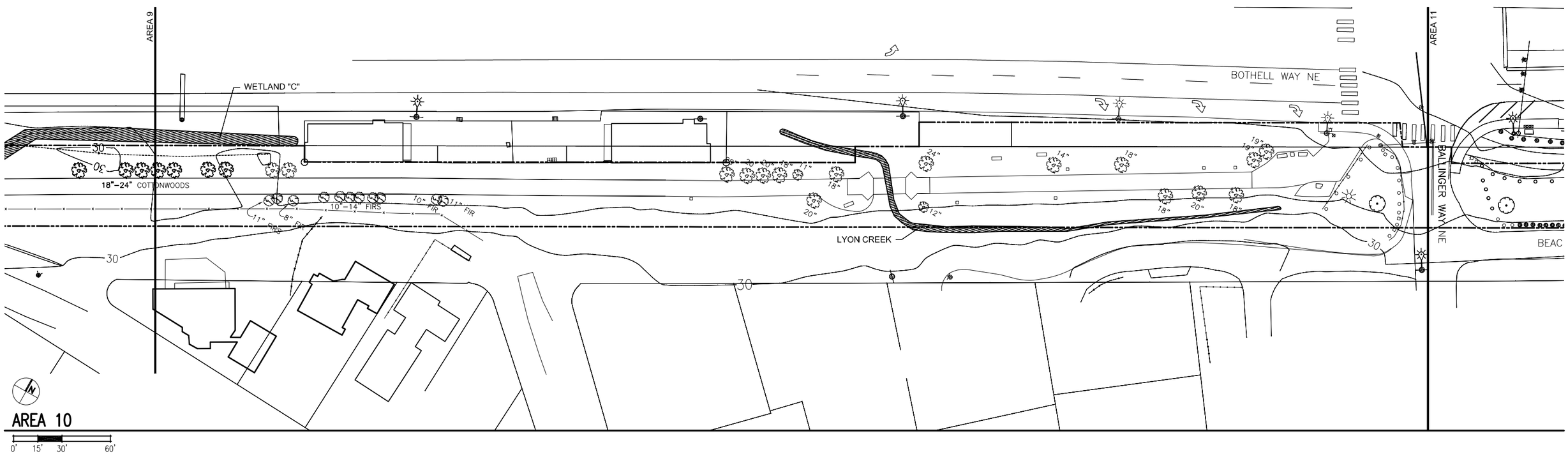
WETLAND & STREAMS
FIGURE 1

SHEET 4 OF 7

4





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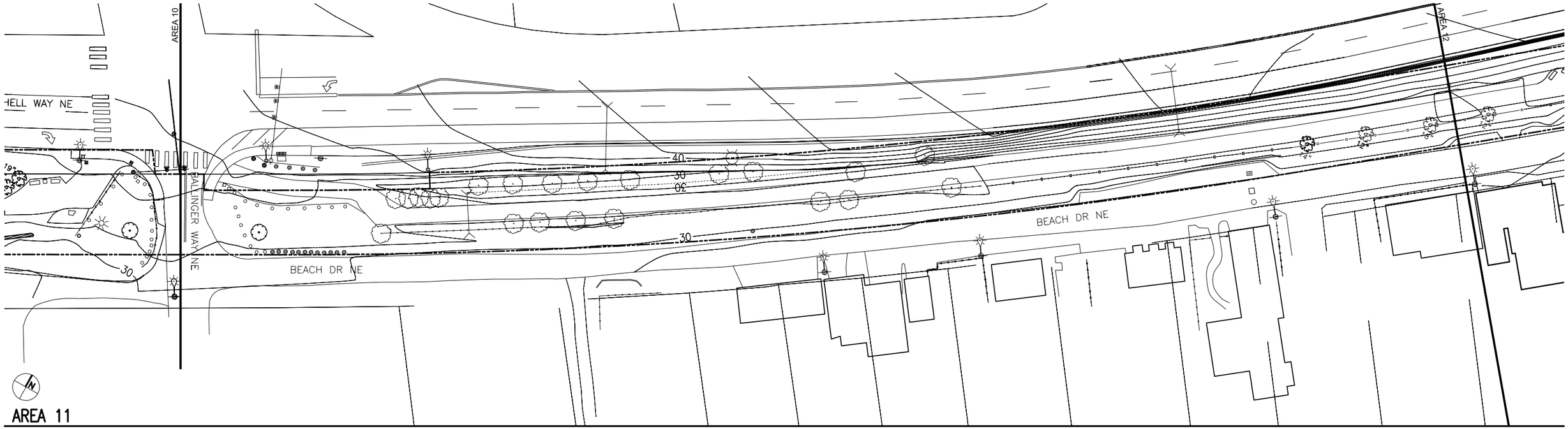
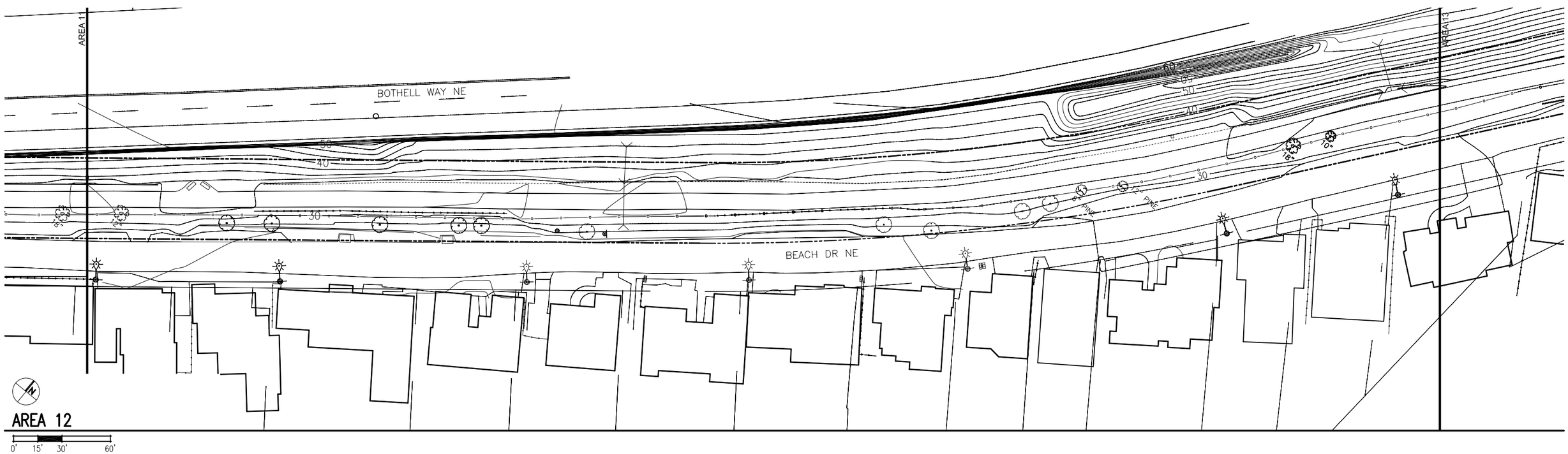
WETLAND & STREAMS
FIGURE 1

SHEET 5 OF 7

5





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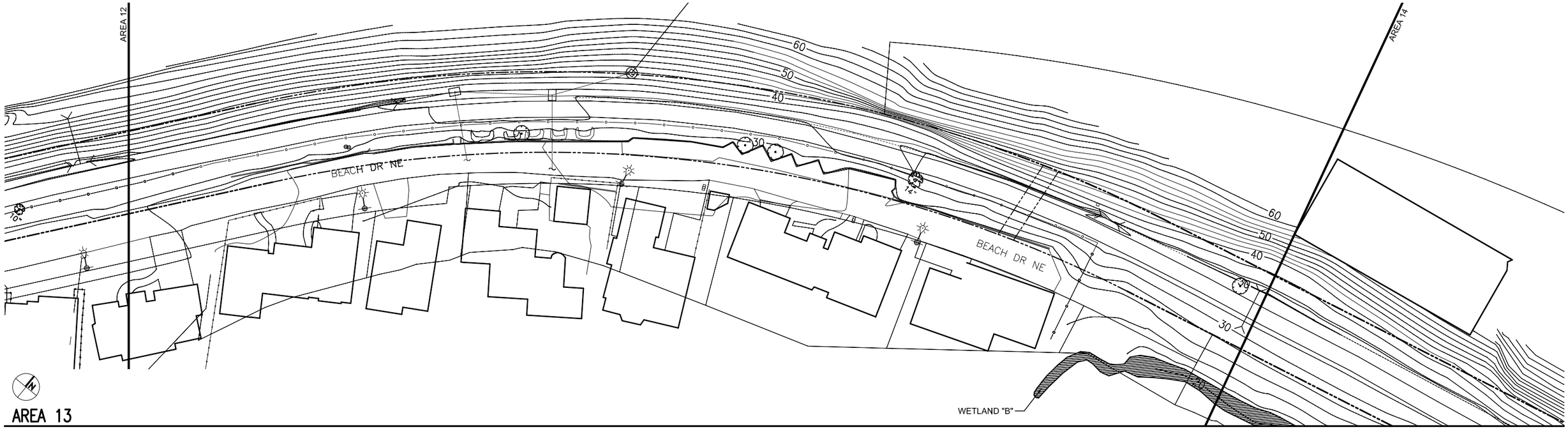
WETLAND & STREAMS
FIGURE 1

SHEET 6 OF 7

6



AREA 13

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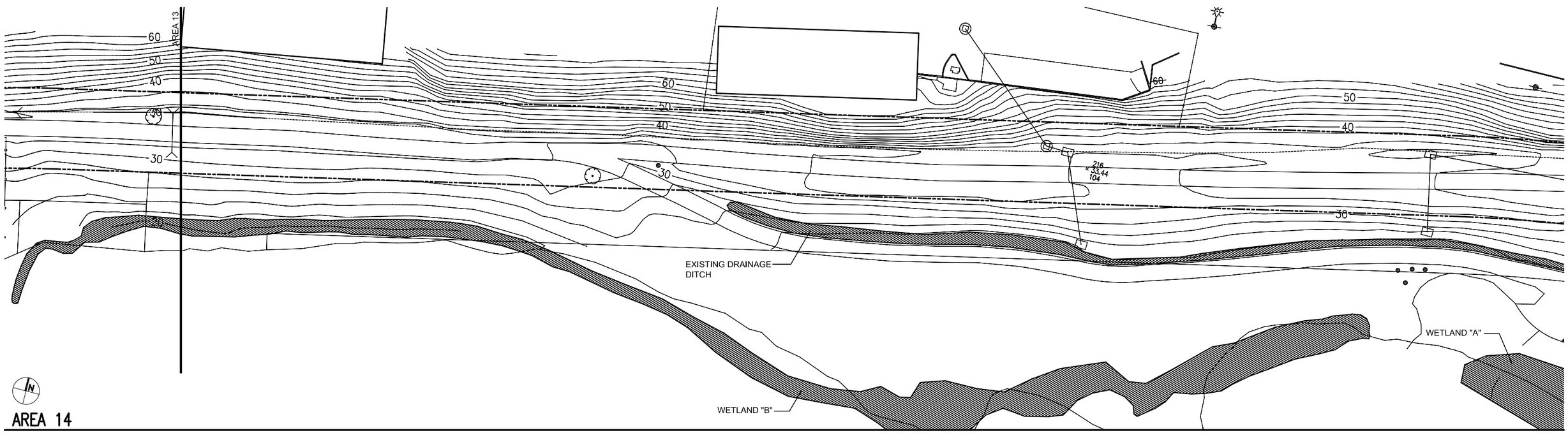

AREA 14

0' 15' 30' 60'

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WETLAND & STREAMS
FIGURE 1

SHEET 7 OF 7

7