

## IPSWICH RIVER GREENWAY ACCESSIBILITY AND PRIORITY RECOMMENDATIONS

The Ad Hoc Northern Area Greenway Task Force (NAG) adopts the following document as its primary reference for trail accessibility standards:

***What is an accessible trail?*** National Center on Accessibility. (Fall 2002, revised October 2007). Bloomington, IN: National Center on Accessibility, Indiana University-Bloomington. [www.ncaonline.org](http://www.ncaonline.org).

The document includes the following text and table:

### Accessible Routes, Outdoor Access Routes, & Trails

Accessible routes, outdoor access routes, and trails are all paths that have varying requirements based on their purpose, what they connect to and the environment they fall within. The following table identifies the technical provisions as they apply to each of the different paths.

Technical Provisions for Access Routes, Outdoor Recreation Access Routes & Trails

	Access Route (ADAAG)	Outdoor Access Route	Accessible <sup>1</sup> Trail
<b>Surface</b>	Stable, firm, Slip resistant	Firm and Stable	Firm and Stable <i>Exception*</i>
<b>Max Running Slope</b>	1: 12	1: 20 (for any distance) 1: 12 (for max 50 ft) 1: 10 (for max 30 ft)	1: 20 (for any distance) 1: 12 (for max 200 ft) 1: 10 (for max 30 ft) 1: 8 (for max 10 ft) <i>Exception- 1: 7 (for 5 ft max for open drainage structures)</i> <i>Exception*</i>
<b>Max Cross Slope</b>	1: 50	1: 33 <i>Exception- 1: 20 (for drainage purposes)</i>	1: 20 <i>Exception- 1: 10 (at the bottom of an open drain where clear tread width is a min of 42 inches)</i>
<b>Min Clear Tread Width</b>	36 inches 32 inches (for no more than 24 inches)	36 inches <i>Exception- 32 inches when * applies</i>	36 inches for any distance <i>Exception- 32 inches when * applies.</i>
<b>Edge Protection</b>	Where provided, min of 2 inches.	Where provided, min of 3 inches.	Where provided, 3 inches min.
<b>Tread Obstacles</b>	(Changes in Level) 1/4 inch (no beveled edge) 1/4 - 1/2 inch must have a beveled edge with a max slope of 1: 2. Over 1/2 inch= ramp.	1 inch high max <i>Exception- 2 inches high max (where beveled with a slope no greater than 1: 2 and where * applies.)</i>	2 inches high max <i>Exception- 3 inches max (where running and cross slopes are 1: 20 or less)</i> <i>Exception*</i>
<b>Passing Space</b>	Every 200 feet where clear tread width is less than 60 inches, a minimum 60 X 60 inch space, or a t-shaped intersection of two walks or corridors with arms and stem extending min of 48 inches.	Every 200 feet where clear tread width is less than 60 inches, a minimum 60 X 60 inch space, or a t-shaped intersection of two walking surfaces with arms and stem extending min of 48 inches. <i>Exception- every 300 feet where * applies.</i>	Every 1000 feet where clear tread width is less than 60 inches, a 60 X 60 inch min passing space or a t-shaped intersection of two walking surfaces with arms and stem extending min of 48 inches. <i>Exception*</i>

<sup>1</sup> “Accessible” added for clarity and to match the terminology found in documents from other sources.

<b>Resting Intervals</b>	(Landings) 60 inch min length, min width as wide as the ramp run leading to it, if change in direction occurs, must have 60 X 60 inch space.	60 inches min length, width at least as wide as the widest portion of the trail segment leading to the resting interval and a max slope of 1: 33 <i>Exception- a max slope of 1: 20 is allowed for drainage purposes.</i>	60 inches min length, width at least as wide as the widest portion of the trail segment leading to the resting interval and a maximum slope of 1: 20. <i>Exception*</i>
* (T302 Conditions for Departure) The provision may not apply if it cannot be provided because compliance would cause substantial harm to cultural, historic, religious or significant natural features or characteristics; substantially alter the nature of the setting or purpose of the facility; require construction methods or materials that are prohibited by Federal, state or local regulations or statutes; or would not be feasible due to terrain or the prevailing construction practices.			

The following definitions apply to the table:

**Access Route (ADAAG):** A continuous, unobstructed path connecting all accessible elements and spaces of a facility or building that meets the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

[www.americantrails.org/resources/info/glossary.html#a](http://www.americantrails.org/resources/info/glossary.html#a)

Note that the Access Route standard is not applicable to the greenway, though it may be applicable to the park created at the WTP site.

**Outdoor Access Route:** Outdoor Recreation Access Routes (ORAR) are paths that connect accessible elements within a picnic area, campground, or designated trailhead. These paths provide a means of access for people with disabilities to reach built elements that are part of the recreation experience. For example, the paths leading from the parking lot to the visitor center or to a picnic area from a campground would be considered ORARs. [www.fhwa.dot.gov/Environment/sidewalk2/sidewalks215.htm](http://www.fhwa.dot.gov/Environment/sidewalk2/sidewalks215.htm)

**Accessible Trail:** A designated route on land or water with public access for recreation or transportation purposes such as walking, jogging, ... hiking, bicycling... [www.americantrails.org/resources/info/glossary.html#a](http://www.americantrails.org/resources/info/glossary.html#a)

NAG recommends the following standard of accessibility for the Town Forest and Ipswich River boardwalk segments of the greenway:

- **Greenway trailhead to the proposed Town Forest fishing pier, including the two Town Forest road loops closest to the trailhead:** *outdoor access route* standard. Rationale: These loops are closest to the trailhead and connect to the proposed accessible fishing pier. They are flat and provide .3 and .7 mile loops (approx.) suitable for mobility challenged individuals, strollers, or very young children on bikes. Based on a discussion with Mike DeBrigard, NAG recommends the use of "processed gravel" across the full width of these roads as the trail surface. A test patch should be laid down in order to assess firmness and stability. This recycled, aggregate material is stockpiled by the Town.
- **Town Forest fishing pier to the proposed boardwalk to Lobs Pound Mill site:** *accessible trail* standard. Rationale: The length of this section (approx. 1.4 miles), several sections of steeper slope, and difficult environmental conditions along the Ipswich River make the lower standard appropriate. Processed gravel could be used on the Town Forest road section. The boardwalk material will be recommended by on the feasibility study.

**IPSWICH RIVER GREENWAY ACCESSIBILITY, PRIORITY AND COST**

	<b>Zone</b>	<b>Name</b>	<b>Route Designation</b>	<b>Existing / Proposed</b>	<b>Priority</b>	<b>Estimated Cost<sup>2</sup></b>	<b>Length (feet)</b>	<b>Length (miles)</b>
<b>Alternate Route</b>	A1	Counsel Ring trail	Not Accessible	Proposed	Medium	\$5,545	688	0.13
	A2	Dividence Meadow boardwalk	Not Accessible	Existing – needs work		\$48,580	347	0.07
	A3	Dividence Meadow trail 1 (W of Cran dam)				\$7,399	918	0.17
	A4	Cranberry Dam				\$0	32	0.01
	A5	Dividence Meadow trail 2 (E of Cran dam)	Not Accessible	Existing		\$4,215	523	0.10
	A6	Lynn Village Way trail	Not Accessible	Proposed		\$17,848	895	0.17
	A7	Sanborn Village sidewalks	ADA	Existing		\$177	2,944	0.56
	A8	Old Mill Lane trail incl. boardwalk	Accessible Trail	Proposed		\$45,217	1,217	0.23
<b>Estimated Cost of Alternate Route:</b>						<b>\$128,982</b>	<b>7,564</b>	<b>1.44</b>
<b>Main Route</b>	M1a	Town Forest road from WTP to proposed Town Forest fishing pier	Outdoor Access Route	Existing	High	\$35,059	1,943	0.37
	S1	Town Forest fishing pier / boardwalk	Outdoor Access Route	Proposed		\$31,965	121	0.02
	M1b	Fishing pier to Town Forest trail 2				\$17,358	962	0.18
	M2	Town Forest trail 2	Accessible Trail	Existing		\$38,616	1,925	0.36
	M3	Ipswich River boardwalk	Accessible Trail	Proposed	Highest	\$478,505	4,175	0.79
	X3	Mill Street crosswalk	ADA		High	\$250	22	0.00
	M4	Marion Woods trail 1	Accessible Trail	Existing		\$10,030	768	0.15
	M5	Marion Woods trail 2 / boardwalk	Not Accessible	Proposed		\$25,620	183	0.03
	M6	Main St sidewalk	ADA	Existing		\$37	489	0.09
	M7	Mattera Cons Area	Outdoor Access Route	Existing		\$3,827	293	0.06
	M8	Bare Meadow overlook trail to viewing platform	Outdoor Access Route	Proposed		\$13,276	404	0.08
	M9	Bare Meadow trail				\$6,086	605	0.11
	M10	Bare Meadow woods trail 1	Not Accessible	Existing		\$17,162	1,706	0.32
M11	Haverhill St access trail	Not Accessible	Proposed	\$29,172	1,213	0.23		
<b>Estimated Cost of Main Route (incl. TF fishing pier):</b>						<b>\$706,963</b>	<b>14,787</b>	<b>2.77</b>

<sup>2</sup> Cost assumes no volunteer labor, aggregate stone dust surface (\$2/linear ft) except where boardwalk is specified (\$35/sf), and includes signs and trail markers. Cost of Main Street crossing, land purchase, and any development at the water treatment plant location are not included.

<b>Spurs and Access Routes</b>	S2	River Overlook trail	Not Accessible	Existing	Low	\$11,892	911	0.17	
	S3	Wood End access trail	Not Accessible	Existing		\$6,338	786	0.15	
	S4	Lobs Pound Mill access to fishing pier	Outdoor Access Route	Existing – needs work	To be done by the State	\$0	208	0.04	
	S5	Bare Meadow parking access	Outdoor Access Route	Existing	Low	\$2,932	291	0.06	
	S6	Franklin St access trail	Not Accessible	Existing		\$10,458	1,040	0.20	
	S7	Wood End Cemetery to Bare Meadow woods trail 2, i.e. muddy area to bridge	Not Accessible	Existing	High	\$25,495	182	0.03	
	S8	Bare Meadow woods trail 2	Not Accessible	Existing	Medium	\$6,671	663	0.13	
	<b>Estimated Cost of Spurs and Access Routes:</b>						<b>\$63,786</b>	<b>4,081</b>	<b>0.78</b>