

100' RIPARIAN ZONE
 N/F ELIZABETH R. ROGERS
 8 POND STREET
 MAP 2 PARCEL 2

N/F
 ELIZABETH R. ROGERS
 8 POND STREET
 MAP 2 PARCEL 5

FEMA FLOOD
 ELEVATION 65

APPROXIMATE
 LOCATION OF
 RIGHT OF WAY

APPROXIMATE
 LOCATION OF
 RIGHT OF WAY

HOOD
 POND

MEAN ANNUAL HIGH
 WATER EL. 60.5±

APPROX. EDGE
 OF POND

N/F
 MAUREN BRESNAHAN
 1 POND STREET
 MAP 2 PARCEL 6

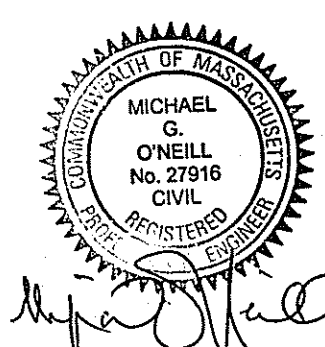
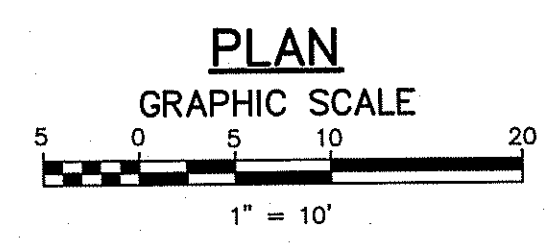
N/F
 ANTHONY G. & JANE M.
 BONANNO
 184 HAVERHILL STREET
 MAP 1 PARCEL 1

NOTE:
 BORDERING VEGETATED
 WETLANDS DELINEATED
 BY BIODIVERSITY
 CONSULTING, LLC 6/19/20

LEGEND

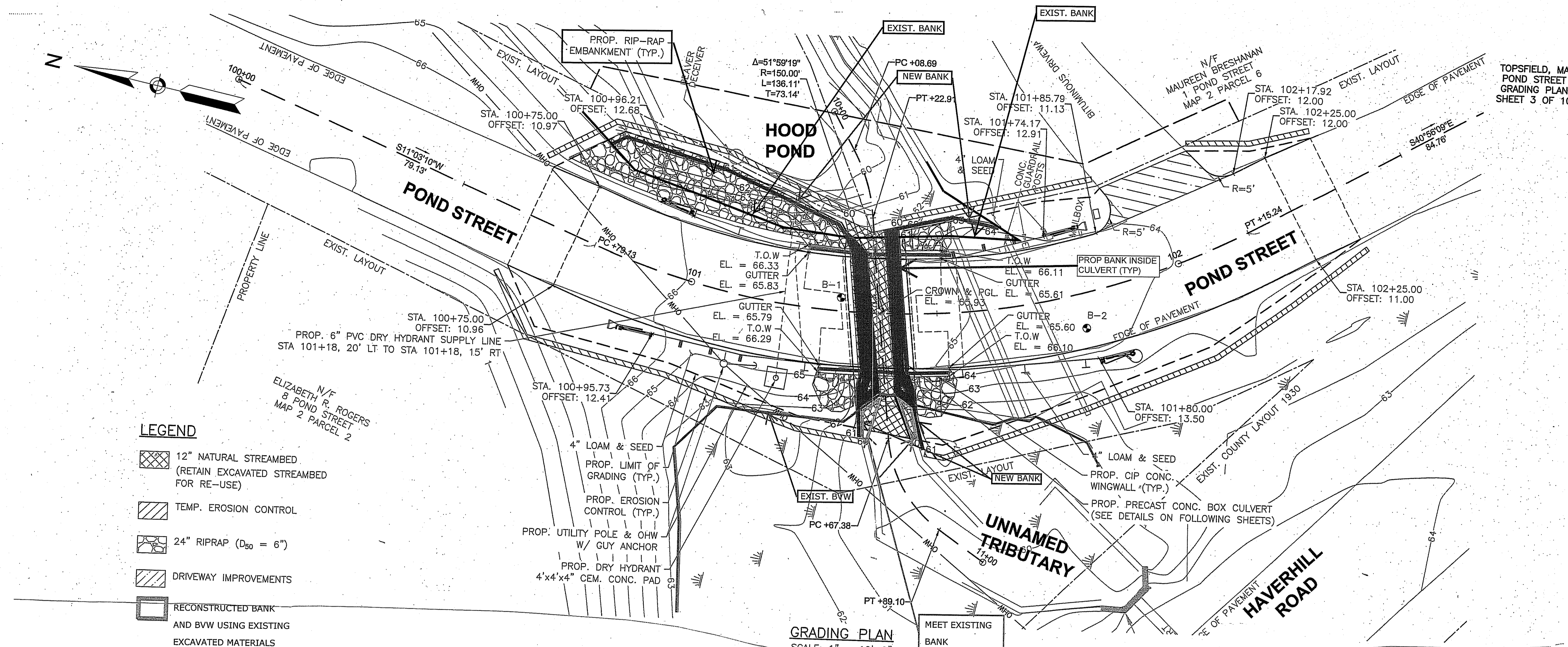
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- EXISTING TREE/BRUSH LINE
- EXISTING OVERHEAD WIRE
- EXISTING UTILITY POLE
- EXISTING MANHOLE
- BENCH MARK (SEE CHART)
- MEAN ANNUAL HIGH WATER
- BORDERING VEGETATED WETLANDS
- EAST OF POND STREET FLAGS A1-A10 AND A1.1-A1.3 WEST OF POND STREET AS LABELED ON PLAN
- LAND UNDER WATER
- BORDERLAND SUBJECT TO FLOODING

BENCHMARK (NAVD 88)		
NO.	DESCRIPTION	ELEVATION
BM#1	MANHOLE RIM	65.26



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NOTICE OF INTENT PLAN
EXISTING CONDITIONS PLAN
POND STREET CULVERTS REPLACEMENT
(HOOD POND OUTLET - POND STREET)
 TOPSFIELD, MASSACHUSETTS
 FEBRUARY 7, 2021 REV: FEMA ELEVATION HIGHLIGHTED 2/28/21



LEGEND

- 12" NATURAL STREAMBED (RETAIN EXCAVATED STREAMBED FOR RE-USE)
- TEMP. EROSION CONTROL
- 24" RIPRAP (D₅₀ = 6")
- DRIVEWAY IMPROVEMENTS
- RECONSTRUCTED BANK AND BVW USING EXISTING EXCAVATED MATERIALS

BORDERING LAND SUBJECT TO FLOODING

RIPRAP AREAS

Contour El.	LOST		GAINED	
	Area(sf)	Volume (cy)	Area(sf)	Volume (cy)
60	20		0	
61	22	0.8	0	
62	17.5	0.7	3	0.06
63	22.5	0.7	8	0.2
64	20	0.8	5	0.25
65	0	0.4	0	0.18
TOTAL		3.4		0.69

CULVERT

Invert to Roof (3.7 x 10 x 25)/27	Vol Gained 32.4 cy
ROADWAY PAVEMENT OVERLAY (15 x 20 x 0.12)/27	Vol. Lost 1.3 cy
AREA UPSTREAM OF CULVERT	Vol. Lost 2 cy
	Vol. Gained 5.7 cy
AREA DOWNSTREAM OF CULVERT	Vol. Lost 2 cy
	Vol. Gained 4.5 cy
EXISTING PIPES UNDER ROAD	
190 lf of 12/16 inch pipe. Vol. Lost 6.2 cy	
TOTAL LOST 14.9 cy	TOTAL GAINED 43.3 cy
NET GAIN IN FLOOD STORAGE	28.4 cy

WETLANDS RESOURCE AREA IMPACTS

Note: Existing resources areas were calculated within the limits of proposed work areas for comparison with the impacts of the proposed work.

EXISTING	PROPOSED
Bank	Bank
90 l.f. on east side of Pond Street	85 l.f. on east side of Pond Street
20 l.f. on west side of Pond Street	28 l.f. on west side of Pond Street
	50 l.f. inside culvert
Total 110 l.f.	Total 163 l.f.
BVW	
0 s.f. on east side of Pond Street	0 s.f. on east side of Pond Street
34 s.f. on west side of Pond Street	34 s.f. Reconstructed as Bank and BVW using excavated BVW materials
Total 34 s.f.	Total 34 s.f.
Land Under Water (LUW)	
20 s.f. on east side of Pond Street	40 s.f. on east side of Pond Street
56 s.f. on west side of Pond Street	64 s.f. on west side of Pond Street
	150 s.f. inside culvert
s.f.	Total 254 s.f.

GRADING PLAN
SCALE: 1" = 10'-0"

REDUCED COPIES
NOT TO SCALE

- NOTES:**
- Base Plan obtained from TEC Pond Street Grading Plan sheet 3 of 10 printed date December 11, 2020.
 - For erosion control details and water control see sheet 8 and 9 of 10, printed date December 11, 2020.
 - Project is entirely within the 100 foot buffer zone on the Hood Pond Bank and the Unnamed Stream's Bordering Vegetated Wetlands.



Revised 3/1/2021 Bordering Land Subject to Flooding Table added

NOTICE OF INTENT PLAN
Culvert Replacement
Pond St., Topsfield, Ma
Proposed Impacts
Date: Feb. 22, 2021
Revised Feb. 24, 2021

Prepared for Ipswich River Watershed Associates
Prepared by Micheal O'Neill P.E.