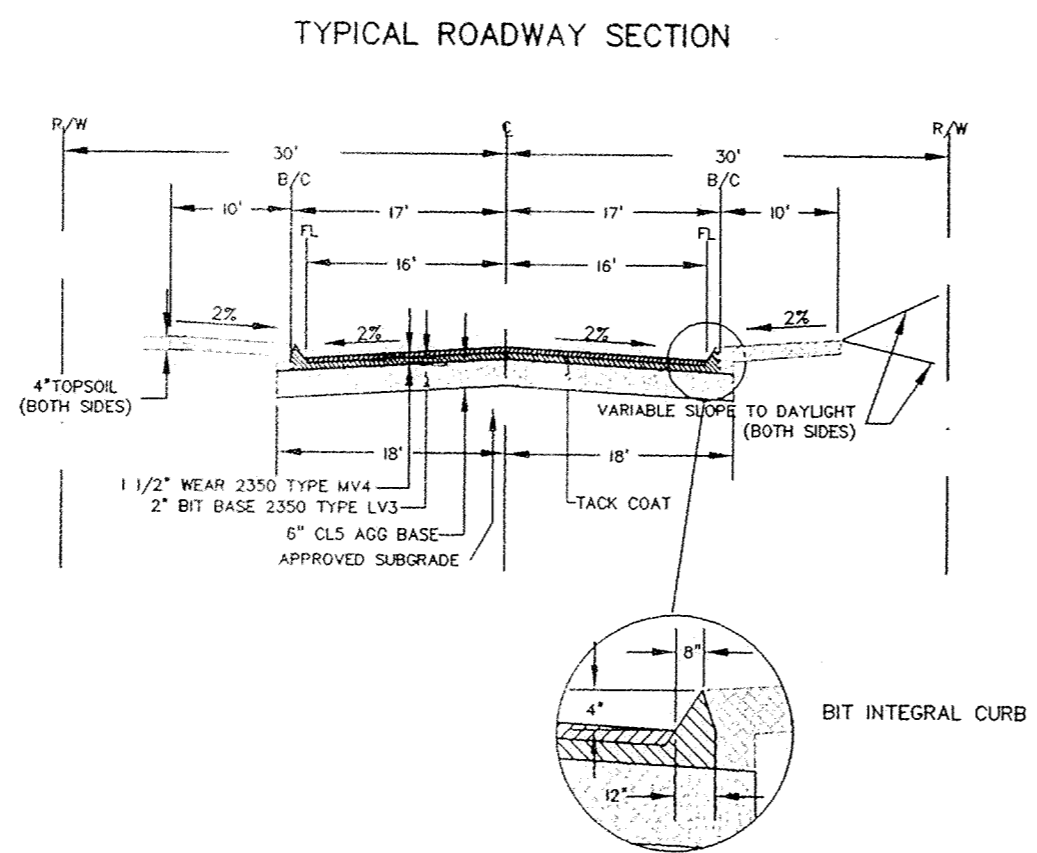


PROPOSED STORM SEWER STRUCTURE SCHEDULE

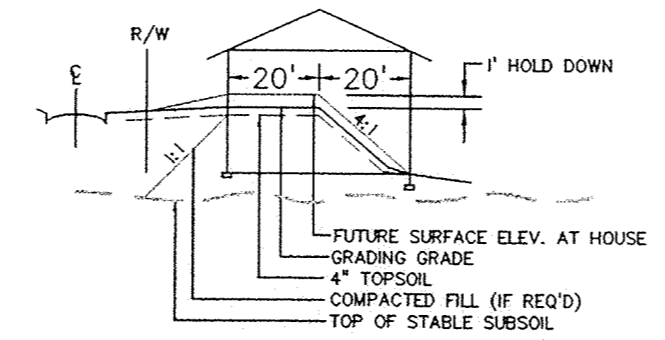
STRUCTURE NUMBER	FLOW LINE ELEV.	INVERT ELEV.	CASTING	PIPE DIA.	PIPE	PIPE LENGTH & END SECTION	GRADE
APR 103		940.00					
CBMH 102 (48"ø)	942.97	939.90	R-3067-V	15"	HDPE	30	0.33%
CBMH 101 (48"ø)	942.97	939.78	R-3067-V	15"	RCP CL 5	32	0.38%
APR 100		939.70		15"	HDPE	25	0.32%
CB 105 (24"x36")	944.82	940.40	R-3067-V				
CBMH 105 (48ø)	944.82	940.20	R-3067-V	15"	RCP CL 5	32	0.62%
APR 104		940.00		15"	HDPE	51	0.39%
CB 109 (24"x36")	958.18	954.25	R-3067-V				
CBMH 108 (48ø)	958.18	954.12	R-3067-V	15"	RCP CL 5	32	0.41%
APR 107		954.00		15"	HDPE	32	0.38%
CB 112 (24"x36")	961.69	954.32	R-3067-V				
CBMH 111 (48ø)	961.69	954.20	R-3067-V	15"	RCP CL 5	32	0.38%
APR 110		954.00		15"	HDPE	52	0.38%

NOTE:

Silt fence shall be placed around all sedimentation basins after construction is complete.
No driveway slope shall be greater than 10%.



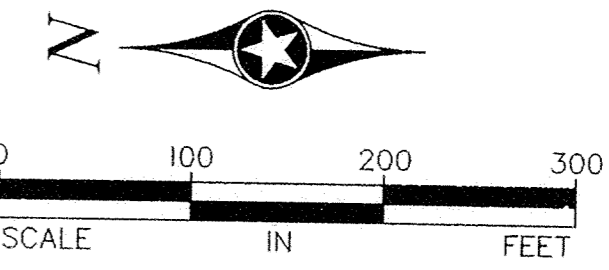
TYPICAL FULL BASEMENT (FB) OR SPLIT LOOKOUT



TYPICAL FULL BASEMENT WALKOUT (FWO)

LEGEND

- 40.5 LOT CORNER ELEVATION
- EXISTING TREES
- EXISTING TREE LINE
- FOUND MONUMENT
- SET MONUMENT
- FOUND CAST IRON MONUMENT
- WETLAND
- SIGN
- POLE
- GUY ANCHOR
- ELECTRIC BOX
- TELEPHONE PEDESTAL
- EXISTING SWAMP (MARKHURD)
- EXISTING WATER/DITCH (MARKHURD)
- WETLANDS AS LOCATED BY BPA
- WETLANDS AS LOCATED BY DYNAMICS DESIGN
- PROPOSED STORM SEWER
- PROPOSED CATCH BASIN
- POSSIBLE PRIMARY AND SECONDARY SEPTIC SYSTEM LOCATION (1200 S.F.)
- POSSIBLE HOUSE PAD LOCATION LOWEST OPENING
- FWO = DENOTES FULL WALKOUT GARAGE FLOOR ELEVATION

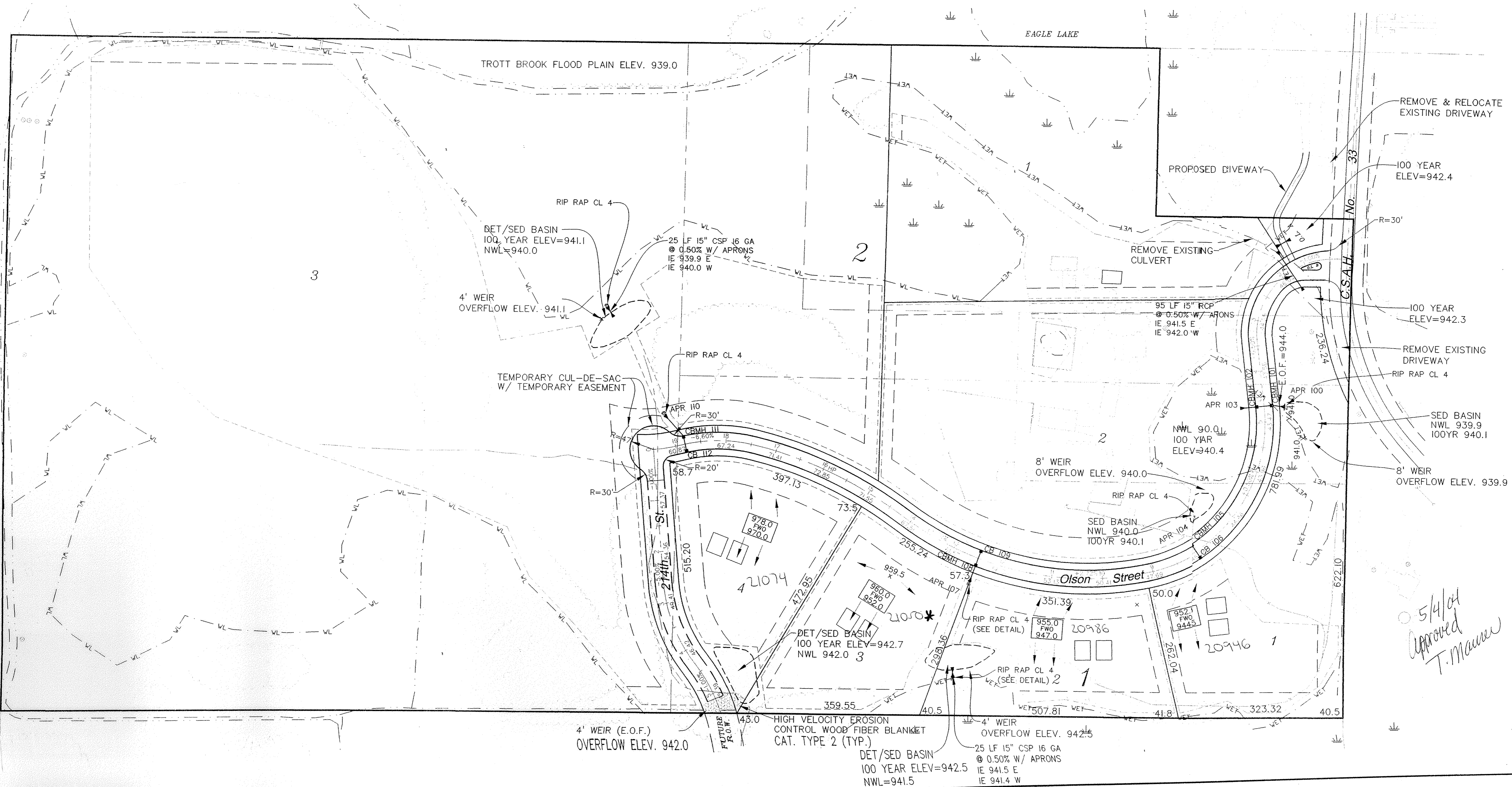


NOTE:

WETLAND DELINEATION BY PETER MILLER OF MILLER ENVIRONMENTAL INC.

NOTE:

Due to the nature and size of the lots, the exact placement of the house may not be at the location shown. The builder should use the same relative criteria for elevations when placement is changed.



DESCRIPTION

DATE

REV. NO.

4/19/04

DESIGN BY: JKB

DRAWN BY: JKB

CHECKED BY: JKB

DWG FILE: Development-KE

FILE NO.: 103079.0

I hereby certify that this plan, specification, or report was prepared by me or my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signed: *JKB*

Date: 4/19/04

Reg. No. 41929

BOGART, PEDERSON & ASSOCIATES, INC.

LAND SURVEYING
CIVIL ENGINEERING
1507A FIRST STREET, DEERER, MN 55308-8122
TEL: 763-262-8852 FAX: 763-262-8844

KINGDOM ESTATES
City of Elk River, Mn.
Dynamics Design & Land Co
Development Plan

SHEET NO. 1