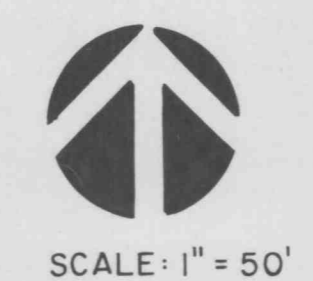


Ver 2.11 Prepared: JDL Date: 09/13/91 HYDRAULIC CALCULATIONS KBR ENGINEERING, INC. 204 West Main Street Belleville, IL. 62220

Checked: GB Revised: 09/13/91 Sheet: 1

Struct. No.	Len. in	Area in	P.I. in	Total Pipe Const. in	Const. V in	Hyd. Frict. Grade Loss n=0.013	Flow Line Elevation Upper	Top of Structure Elevation Upper	Free Board Upper	Hydr. Loss Upper	Junct. Loss Angle ft. (5°)	Turn Loss Capacity ft. c.f.s.	Discharge Velocity f.p.s.
3	2	2.42	2.92	2.92	1.00	1.65	0.04	0.12	0.082	0.19	20	10.50	0.28
2	1	0.83	2.92	1.89	1.65	0.04	0.12	0.082	0.06	0.19	20	10.50	0.28
							481.00	478.58	484.70	483.00	2.20	480.28	480.09
							478.58	477.75	483.00	479.75	2.91	479.31	479.25



STORM WATER AND DETENTION REQUIREMENT

CURRENT CONDITIONS

PREVIOUS AREA = 1.08 AC Q = PIA = 2.31
 Q = 1.89 X 1.08 = 2.0 CFS

PROPOSED CONDITIONS

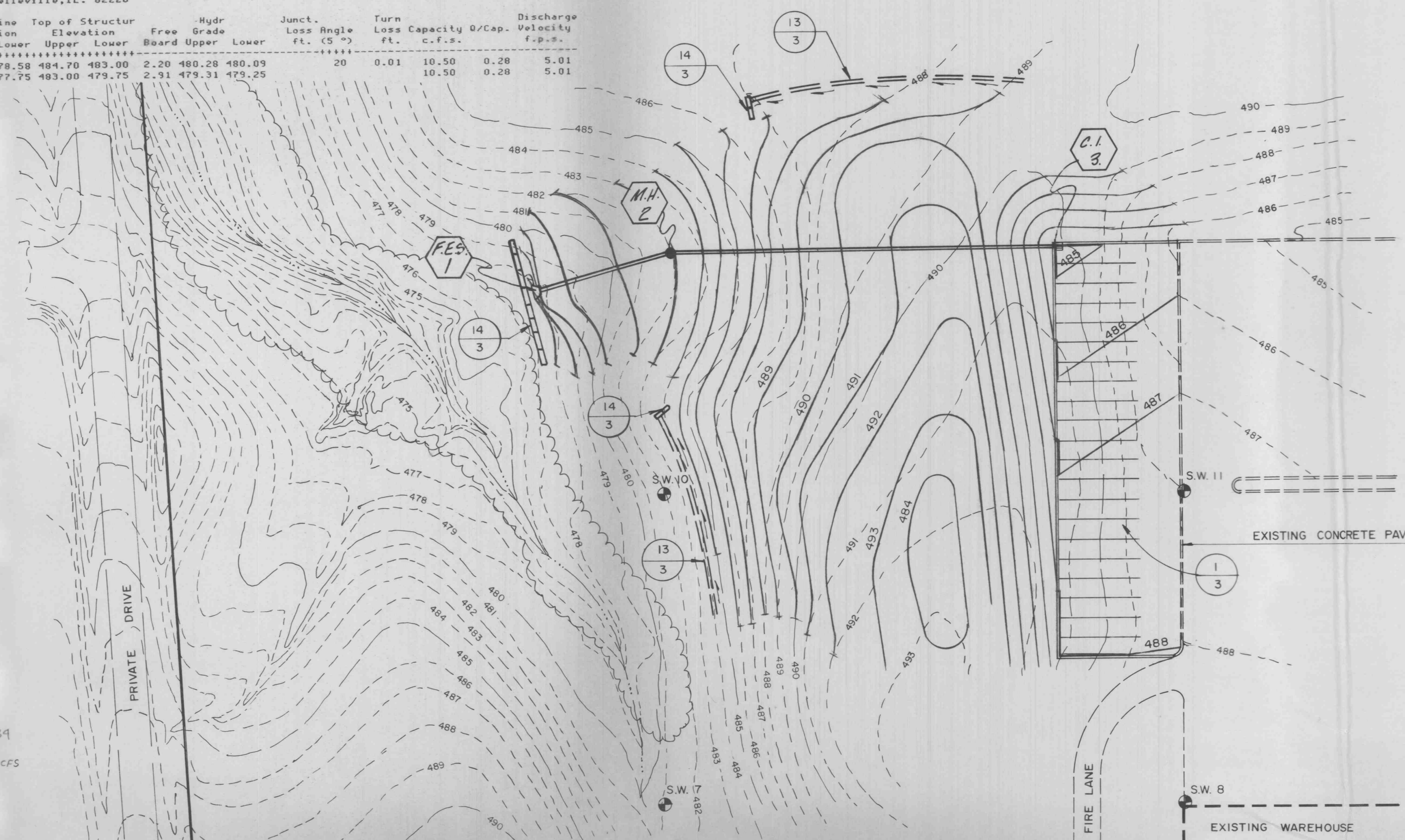
PREVIOUS AREA = 0.64 AC Q = PIA = 1.89 X 0.64 = 1.20 CFS
 IMPERIOUS AREA = 0.44 AC Q = PIA = 3.89 X 0.44 = 1.71 CFS
 TOTAL = 1.08 AC Q = 2.9 CFS

NET INCREASE IN RUN-OFF DUE TO IMPROVEMENTS

PROPOSED = 2.9 CFS
 EXISTING = 2.0 CFS
 DIFFERENCE = 0.9 CFS

SUMMARY: INCREASE IN RUN-OFF INSUFFICIENT TO WARRANT DETENTION.

AREA OF PARKING = 75x152 = 18,700 sq. ft. = 434 sq. ft.
 2.5 YEAR PI = (2.31 - 4.75) = 2.44 X .434 = 1.06 CFS



NOTE: Ⓞ - DENOTES BORING LOCATIONS.

DATE: _____ BY: _____

NO. _____

DATE: _____ BY: _____

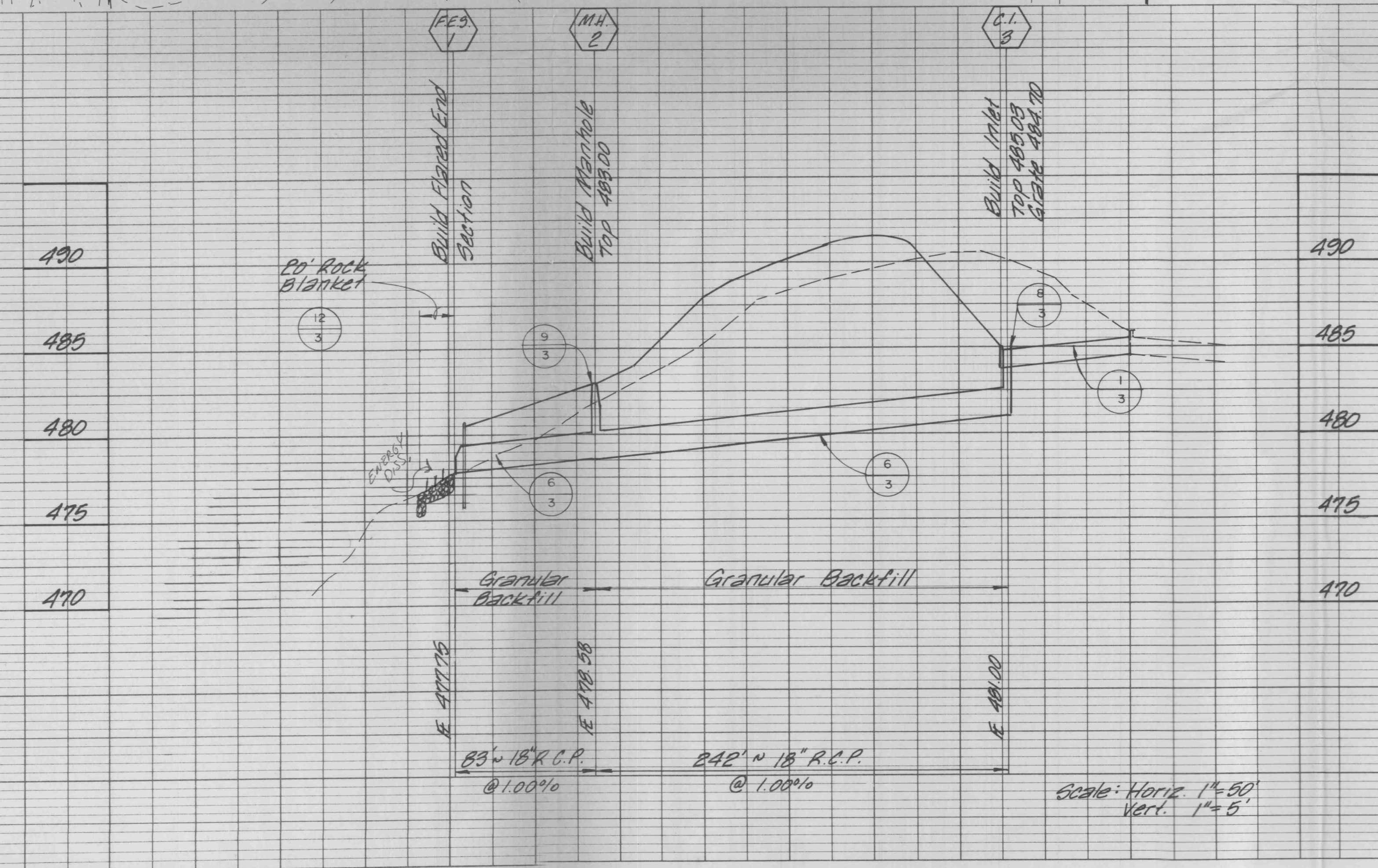
NO. _____

DATE: _____ BY: _____

NO. _____

DATE: _____ BY: _____

NO. _____



Scale: Horiz. 1" = 50'
 Vert. 1" = 5'



204 West Main Street
 Belleville, Illinois 62220
 (618) 233-0616

KBR engineering, inc.
 consulting engineers

8706 Gravois 63123
 (314) 634-9996

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 (314) 278-4700

ALDI FACILITY
 TRAILER PARKING EXTENSION
 O'FALLON, MISSOURI

REVISION

TITLE: STORM SEWER PLAN & PROFILE
 PROJECT NO.: 91-16
 DATE: SEPT. 18, 1991

SHEET 2 OF 4