

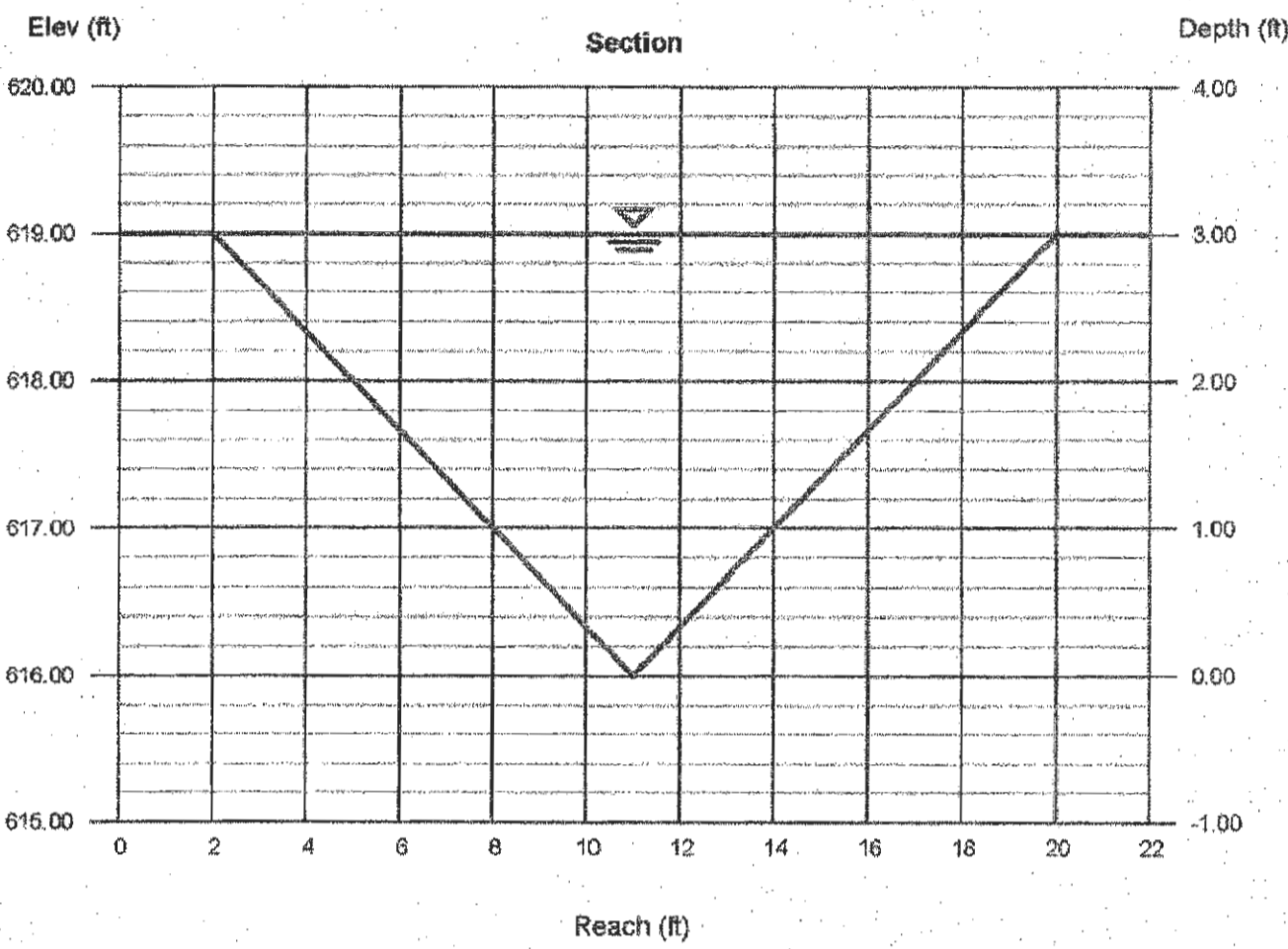
Channel Report

Hydroflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Monday, Feb 2 2015

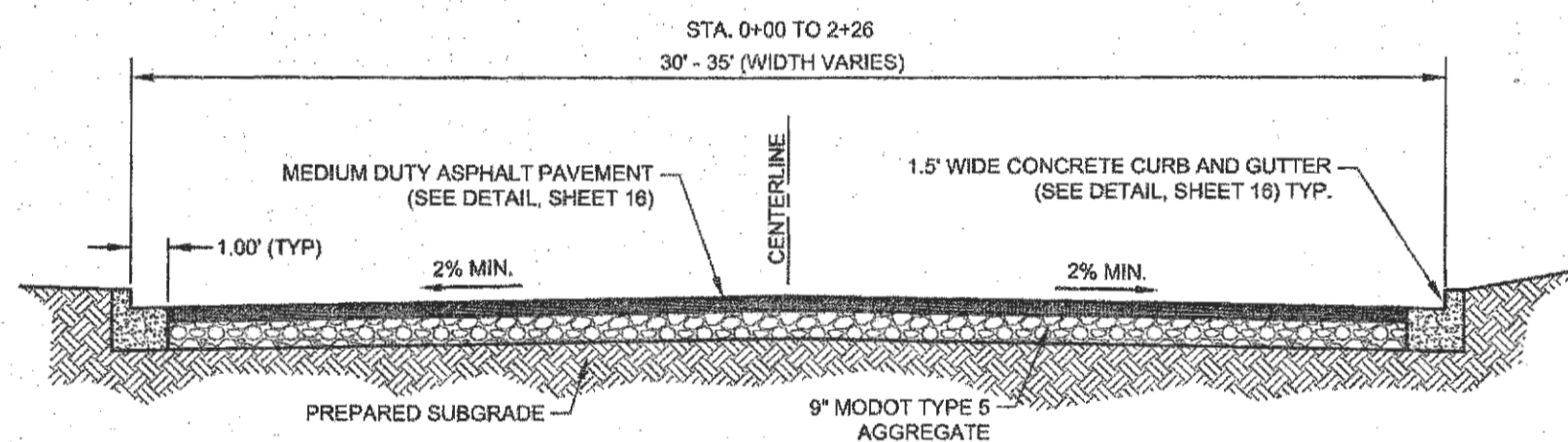
EX CHANNEL ANALYSIS

Triangular
 Side Slopes (z:1) = 3.00, 3.00
 Total Depth (ft) = 3.00
 Invert Elev (ft) = 616.00
 Slope (%) = 2.70
 N-Value = 0.150
 Calculations
 Compute by: Q vs Depth
 No. Increments = 10

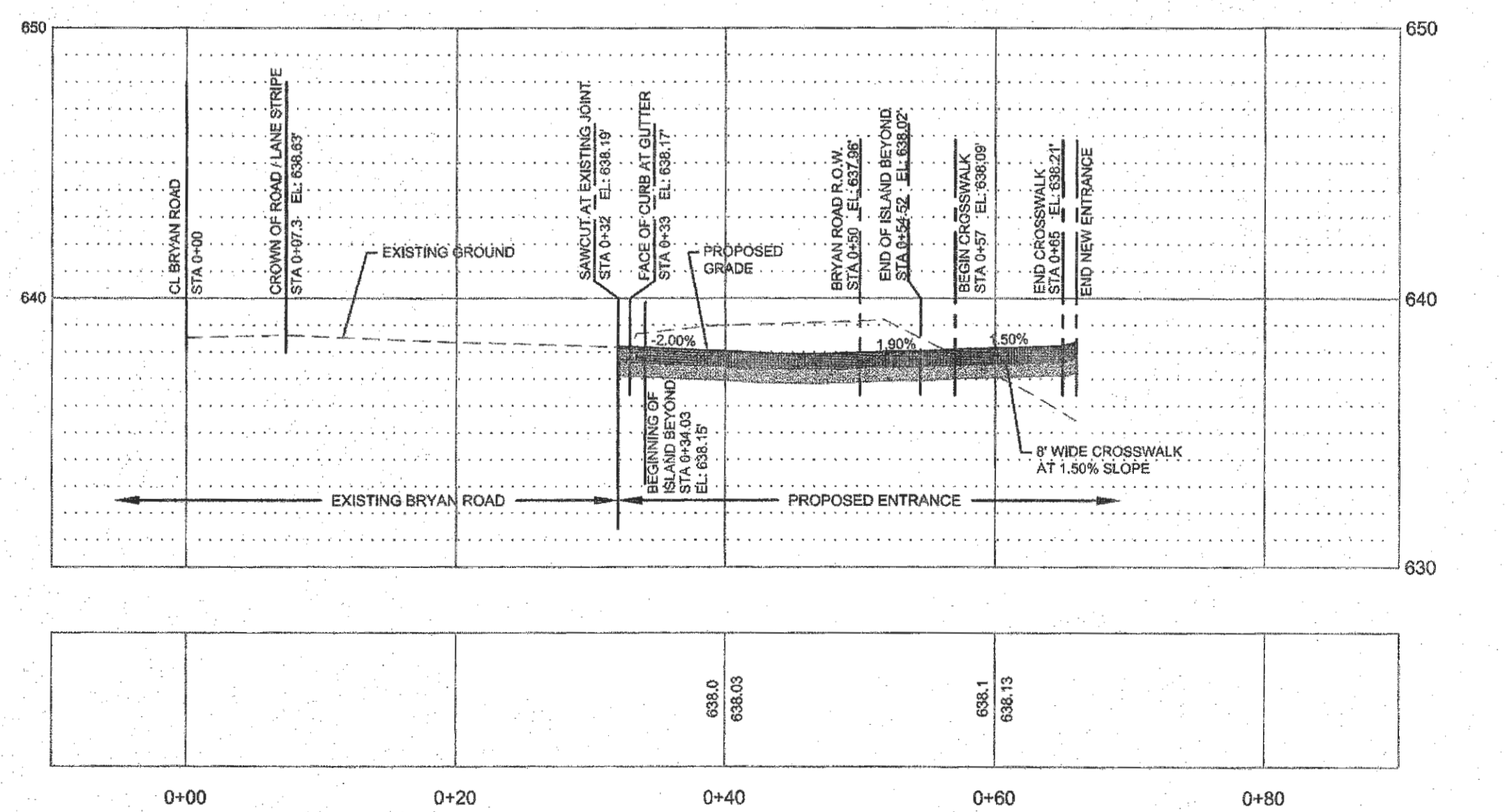
Highlighted
 Depth (ft) = 3.00
 Q (cfs) = 56.61
 Area (sqft) = 27.00
 Velocity (ft/s) = 2.06
 Wetted Perim (ft) = 18.97
 Crit Depth, Yc (ft) = 1.85
 Top Width (ft) = 18.00
 EGL (ft) = 3.07



**DOWNSTREAM DITCH FROM FE 200
 MAX Q ANALYSIS**

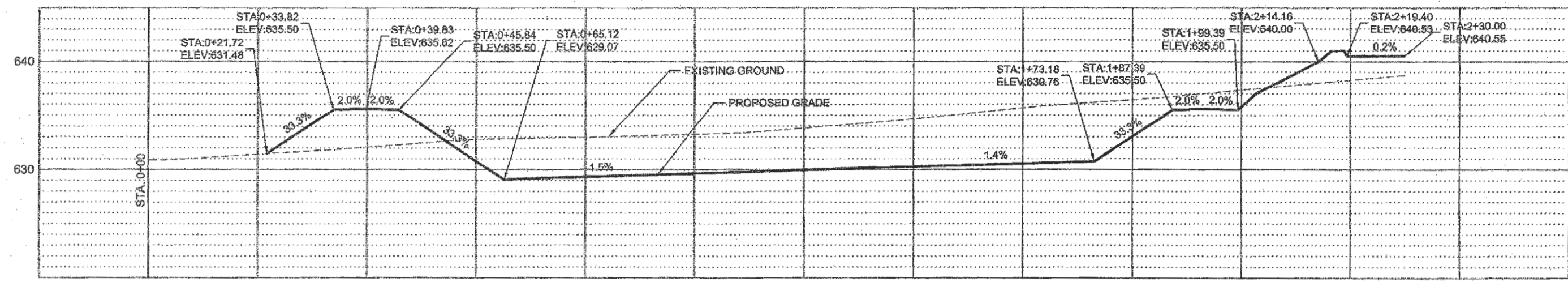


**TYPICAL FEISE ROAD ENTRANCE
 PAVEMENT SECTION
 (ON-SITE)**
 1" = 5'



BRYAN ROAD ENTRANCE CENTERLINE PROFILE
 HORIZONTAL SCALE: 1" = 10'
 VERTICAL SCALE: 1" = 5'

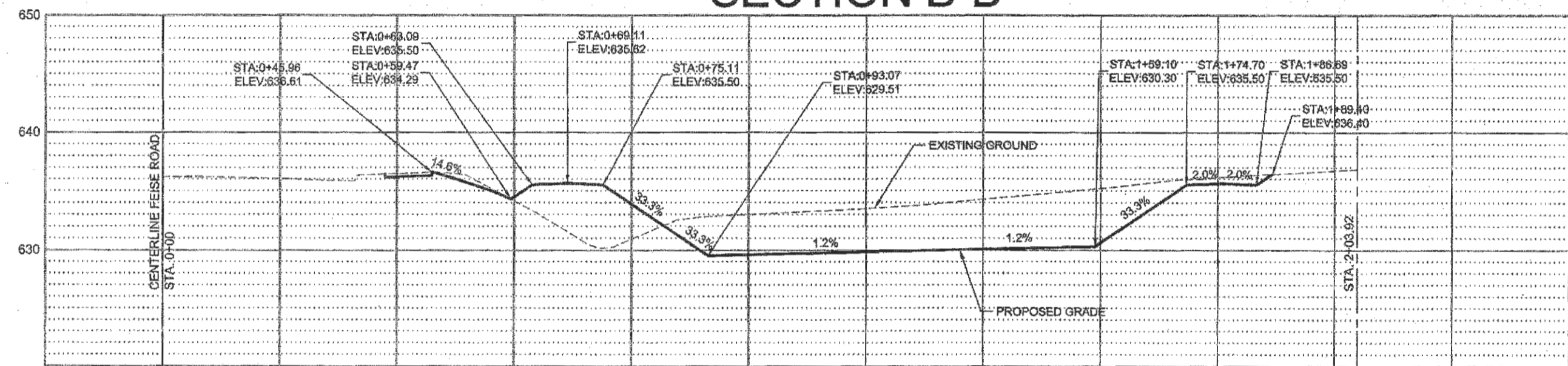
**DETENTION BASIN
 SECTION A-A**



630.9	631.4	632.1	635.62	632.8	630.78	633.0	629.33	633.3	629.64	633.8	629.97	634.7	630.29	635.7	630.57	636.4	633.04	637.3	635.77	638.2	640.52	
0+00	0+20	0+40	0+60	0+80	1+00	1+20	1+40	1+60	1+80	2+00	2+20	2+40										

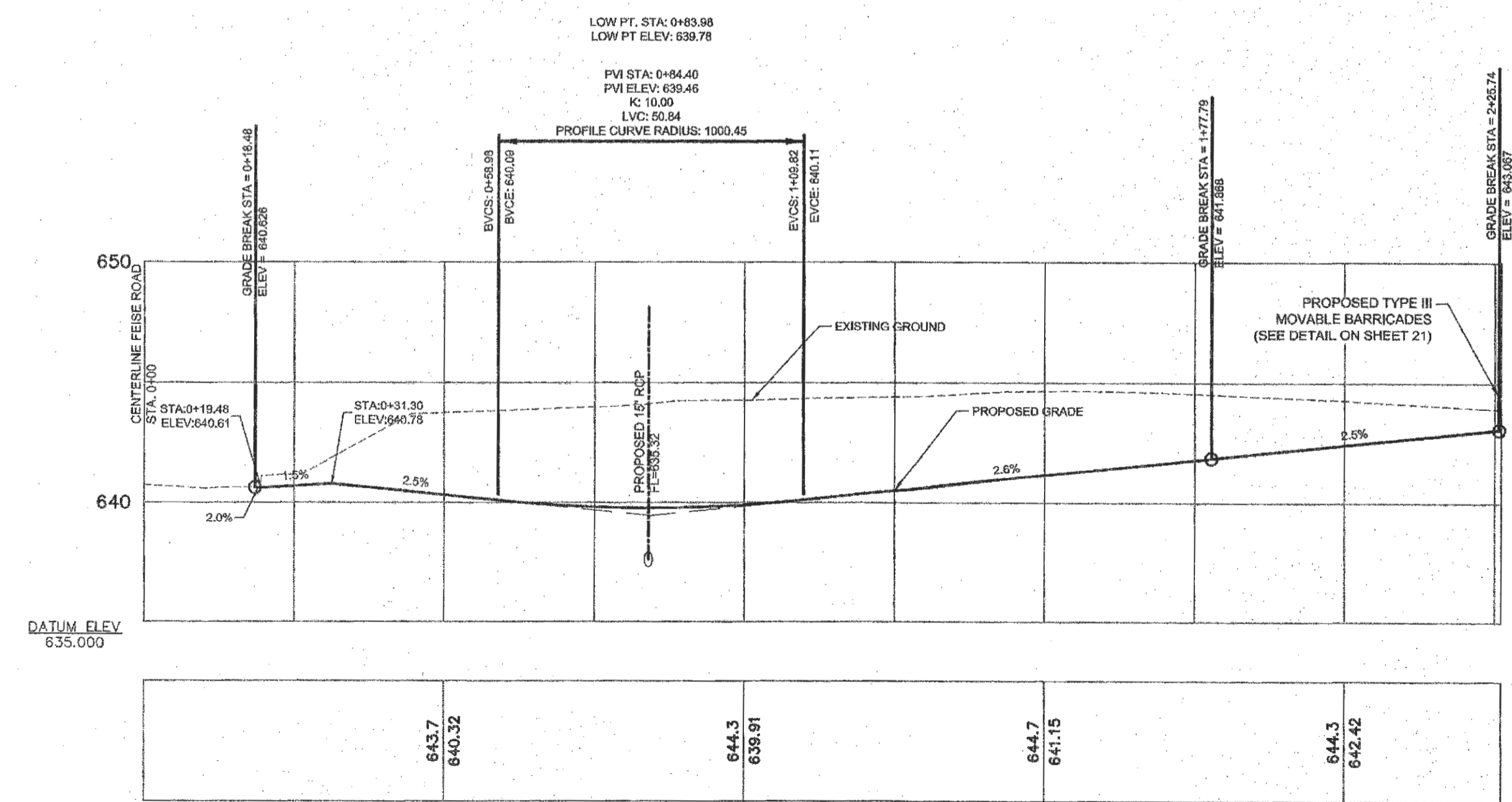
HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 10'

**DETENTION BASIN
 SECTION B-B**



634.5	634.47	633.9	633.57	629.6	629.60	629.6	629.84	630.1	630.07	630.6	630.60	635.6	635.61
0+00	0+20	0+40	0+60	0+80	1+00	1+20	1+40	1+60	1+80	2+00	2+20		

HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 10'



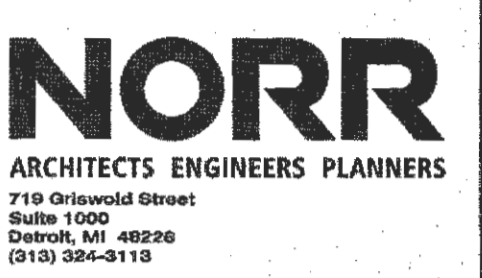
FEISE ROAD ENTRANCE CENTERLINE PROFILE
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 10'



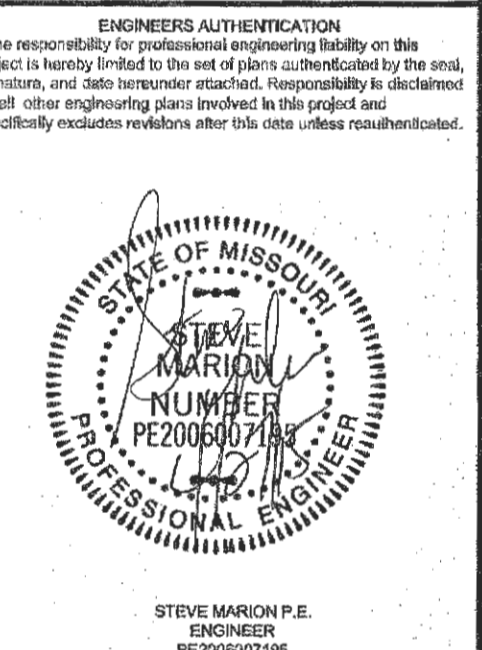
NOTE:
 Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction.



PROJECT TITLE
 NORTHERN 13,225-RIGHT CHAMFER DRIVE-THRU
STORE NUMBER: 10546
 NEC FEISE ROAD AND BRYAN ROAD
 FT. JEFF, MO
PROJECT TYPE: NEW CONSTRUCTION
 DEAL TYPE Fee for Service
CS PROJECT NUMBER: 69591



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 Missouri Certificate of Authority # LS-2012007849



STEVE MAROON P.E.
 ENGINEER
 PE20001746

Developer / Owner Information
 T.M.
CROWLEY & ASSOCIATES
 Detention Basin Sections and Feise Road Entrance Profile

P+Z No. 01-15 & 0115-01
 APPROVED 1-15-15
 City No.

Sheet Number:
 14
 PCE PROJECT NO. 136101