

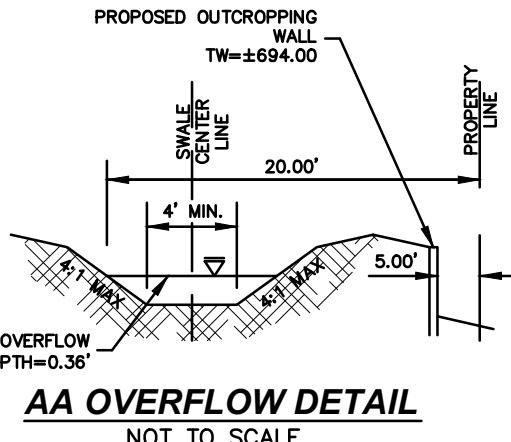
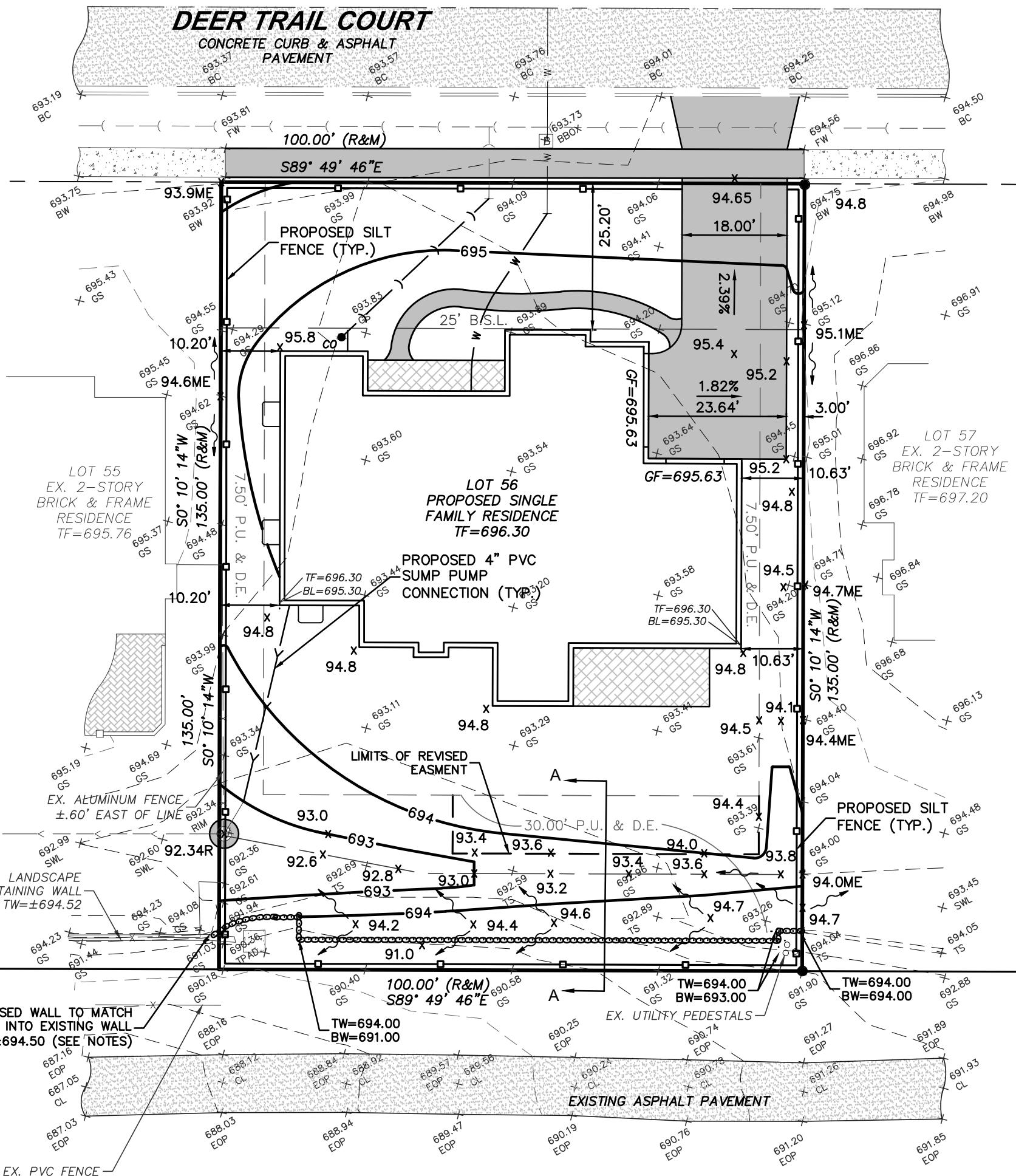
# DETAILED GRADING PLAN

LOT 56 IN OLDE MILL PHASE III, A SUBDIVISION OF PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 29, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

## LEGEND

EXISTING	PROPOSED
— — SANITARY SEWER	— — SANITARY SEWER
— — > STORM SEWER	— — > STORM SEWER
□ CATCH BASIN	■ CATCH BASIN
○ OPEN LID MANHOLE	● CLOSED LID MANHOLE
□ INLET	□ INLET
W WATER MAIN	W WATER MAIN
⊗ VALVE	● VALVE
HYDRANT	HYDRANT
HEADWALL	HEADWALL
FLARED END	FLARED END
STREET LIGHT	STREET LIGHT
UTILITY POLE	UTILITY POLE
B B-BOX	B B-BOX
○ RETAINING WALL	○ RETAINING WALL
SILT FENCE	SILT FENCE
CONTOUR	CONTOUR
— 701	— 701
100-YEAR OVERFLOW PATH	
STORM STRUCTURE W/ INLET PROTECTION	
EX. TREE TO BE REMOVED	

## PROPOSED PLAN



NOTE: THE PROPOSED LANDSCAPE OUTCROPPINGS ARE SHOWN FOR GRADING PURPOSES ONLY AND SHALL BE DESIGNED BY OTHERS. THE PROPOSED OUTCROPPINGS SHALL NOT EXCEED 3' IN HEIGHT AND SHALL BE CONSTRUCTED UNDER THE LANDSCAPING CONTRACT. MMEI MAKES NO REPRESENTATION AS TO THE STRUCTURAL DESIGN OF THE PROPOSED LANDSCAPE OUTCROPPINGS.

## NOTES:

ALL PROPERTY BOUNDARY INFORMATION HAS BEEN PROVIDED BY THE APPROVED SUBDIVISION PLAT BY OTHERS.

THE PROPOSED GRADING REFERS TO THE APPROVED GRADING ON THE FINAL ENGINEERING PLAN DONE BY OTHERS.

WATER AND SEWER SERVICES. WATER SERVICE TO BE 1 1/2" MIN. TYPE K COPPER MIN. DEPTH 5'.

SANITARY SERVICE TO BE 6" SDR 26 PVC MIN. SLOPE OF 1%.

SANITARY & WATER SERVICES ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

MIN. SEPARATION OF WATER AND SANITARY SERVICES 10'.

EROSION CONTROL. TO BE APPLIED PER THE ILLINOIS URBAN MANUAL, LATEST EDITION.

CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION TO DETERMINE IF ANY CONFLICTS EXIST. THE DESIGN ENGINEER MUST BE NOTIFIED PRIOR TO START OF CONSTRUCTION. FOR BUILDING LINES, EASEMENTS AND OTHER RESTRICTIONS NOT SHOWN HEREON REFER TO YOUR DEED, CONTRACT, TITLE POLICY, ZONING ORDINANCE, ETC.

FOR UNDERGROUND UTILITY LOCATIONS AND PRIOR TO ANY CONSTRUCTION, CONTACT J.U.L.I.E., TOLL FREE 1-800-892-0123.

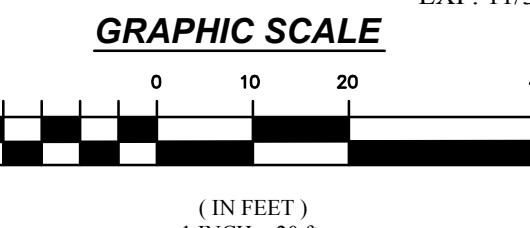
CURRENT ZONING = R-3 RESIDENTIAL.

BENCHMARK: "X" MARKED ON THE BACK OF CURB IN FRONT OF THE FIRE HYDRANT ACROSS FROM LOT 56. ELEV.=693.87

ORDERED BY:  
TSK BUILDERS

## LOT COVERAGE

LOT AREA	= 13,500 SF
BUILDING AREA	= 4,046 SF
DRIVEWAY/WALKS	= 956 SF
TOTAL % COVERAGE = 38.31%	



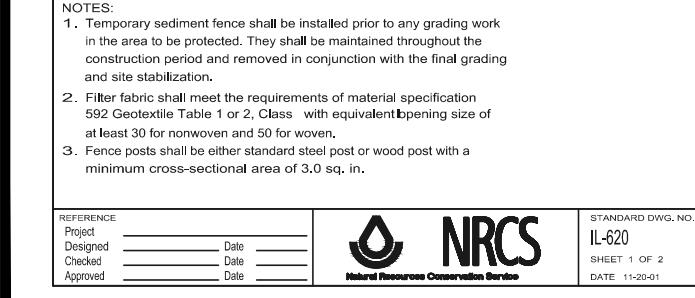
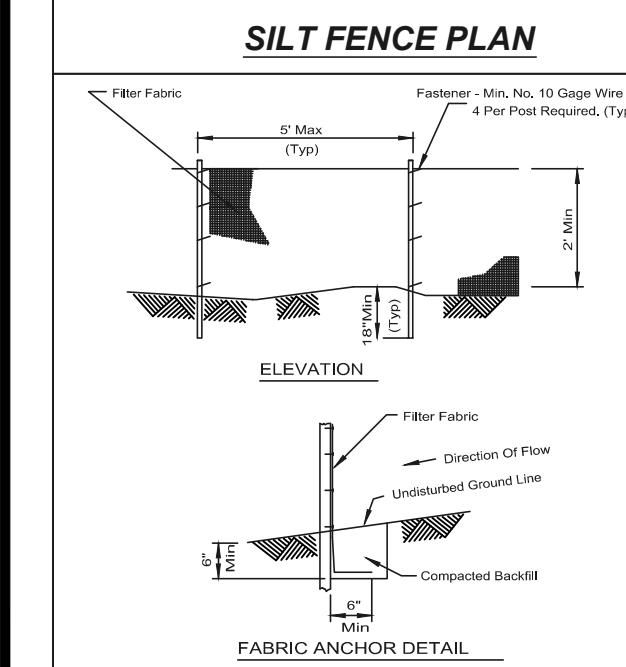
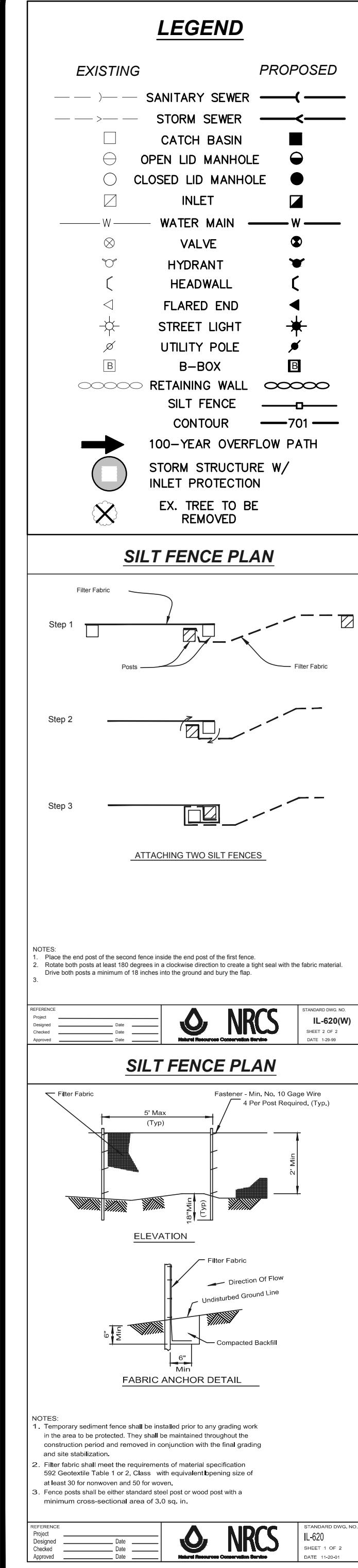
## LOT 56 ~ OLDE MILL, PHASE III

ORLAND PARK, ILLINOIS

### DETAILED GRADING PLAN

MARTIN M. Engineering, Inc.  
SITE DESIGN CIVIL ENGINEERS & SURVEYORS  
20123 OAKWOOD DRIVE  
MOKENA, ILLINOIS 60448  
VOICE: (708) 995-1323  
FAX: (708) 995-1384

DRAWN BY: BMM	CHECKED BY: BMM
SCALE: 1"=20'	DATE: 11/20/18
JOB NUMBER: 18-238	SHEET: 1 OF 1
# DATE	DESCRIPTION
1. 12/07/18	PER CLIENT REVIEW
2. 01/22/19	PER CLIENT REVIEW



## ABBREVIATIONS:

P.U. & D.E.	PUBLIC UTILITY & DRAINAGE EASEMENT	XXX.XTC	TOP OF CURB ELEVATION
N.F.	NO FENCE	XXX.XME	MATCH EXISTING ELEVATION
N.A.	NO ACCESS	(XX.X)	EXISTING SPOT GRADE PER APPROVED
L.C.	LANDSCAPE COVENANT		ENGINEERING PLANS
B.S.L.	BUILDING SETBACK LINE		EX. AS-BUILT GRADE & DESCRIPTION
TF	TOP OF FOUNDATION	XXX.XX	SPOT GRADE W/ FLOW DIRECTION
GF	GARAGE FLOOR		NOTE: ADD 600 TO ALL PROPOSED SPOT GRADES
LO	LOOK OUT		
WO	WALK OUT		
WW	WINDOW WELL		
DS	DOWN SPOUT		
BL	BRICK LEDGE		
SP	SUMP PUMP		
TL	TREE LINE		

<b>Lot 56 ~ Olde Mill, Orland Park</b>				
<b>Water Flow Through Open Channels - South Swale</b>				
<b>slope (S):</b> vertical fall (ft)	1.46			(S) <b>0.0152</b>
horizontal distance (ft)	95.9			
<b>hydraulic radius (R)</b>	(x-sectional area/wetted perimeter)			(R) <b>0.284</b>
if known:	x-section (sq ft)			
	wetted perimeter (ft)			
<b>R can alternatively be calculated from geometric shape</b> <b>(choose ONE appropriate shape)</b>				
OR	rectangle: width (ft)		x-section	wet perimeter
	water depth (ft)			
OR	semicircle: diameter (ft)			
OR	trapezoidal ditch: width at base (ft)	4	<b>1.99</b>	<b>7.00</b>
	side slope (run/rise)	4		
	water depth	0.36		
<b>coefficient of roughness (n)</b>	(select from chart)	<b>0.025</b>		
Earthen channels, unvegetated				
	straight, uniform	0.02		
	rubble sides	0.03		
	jagged and irregular	0.04		
Vegetated, earthen ditches				
	Dense vegetation, <2.5" high	0.03-0.10		
	Dense vegetation, >10" high	0.05-0.20		
Concrete- or wood-lined canals				
	smooth concrete or wood	0.015		
	rubble surface	0.03		
Natural stream channels				
	clean, straight, flowing full	0.03		
	moderately stoney, weeds, flowing full	0.035		
	very weedy	0.07-0.15		
<b>Calculated water velocity (v)</b>				
<b>Rate of discharge (Q),</b>	(velocity times x-section)		<b>2.13</b>	ft/second
			<b>4.23</b>	cfs