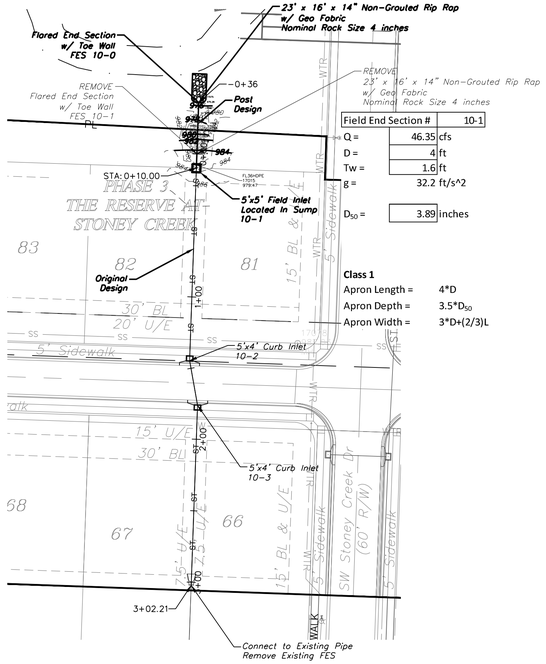
STORM SEWER PLAN & PROFILE

SCALE: 1" = 50'



Field End Section #	10-1
Q =	46.35 cfs
D =	4 ft
Tw =	1.6 ft
g =	32.2 ft/s^2
D_{50} =	3.89 inches

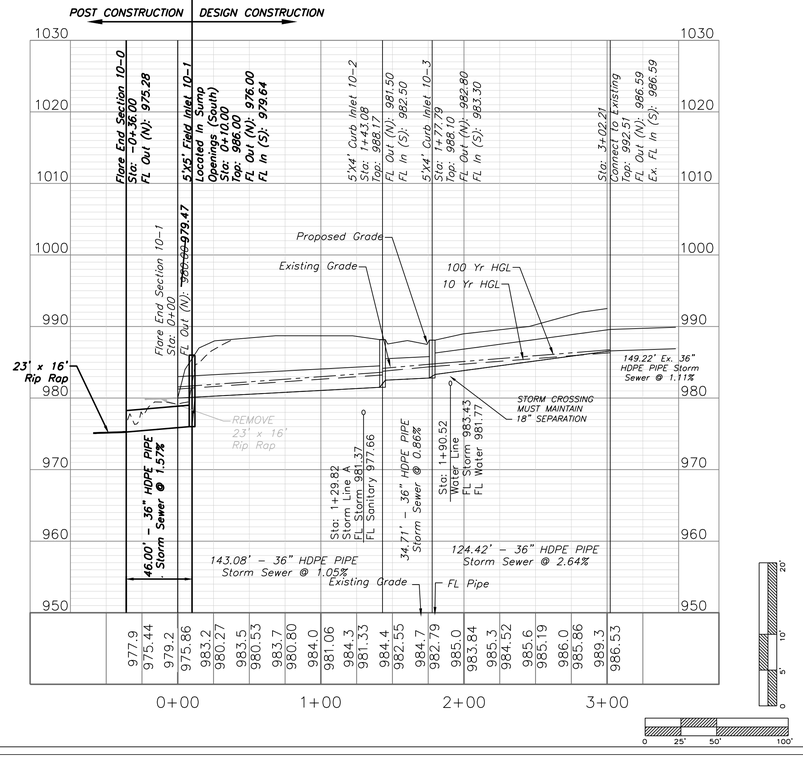
D_{50} = riprap size, m(ft)
Q = design discharg, m^3/s (ft^3/s)
D = culvert diameter (circular), m(ft)
Tw = tailwater depth, m(ft)
g = acceleration due to gravity, 9.81 m/s^2 (32.2 ft/s^2)

*Taken From Publication No. FHWA-NHI-06-086
Hydraulic Engineering Circular No. 14, 3rd Edition

Class 1

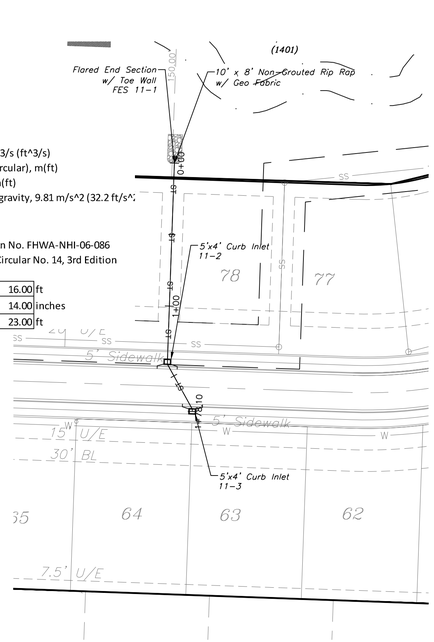
Apron Length =	4*D	16.00 ft	use	16.00 ft
Apron Depth =	3.5*D_{50}	13.60 inches	use	14.00 inches
Apron Width =	3*D+(2/3)L	22.67 ft	use	23.00 ft

STORM LINE 10



STORM SEWER PLAN & PROFILE

SCALE: 1" = 50'



Field End Section #	11-1
Q =	14.05 cfs
D =	1.25 ft
Tw =	0.5 ft
g =	32.2 ft/s^2
D_{50} =	11.94 inches

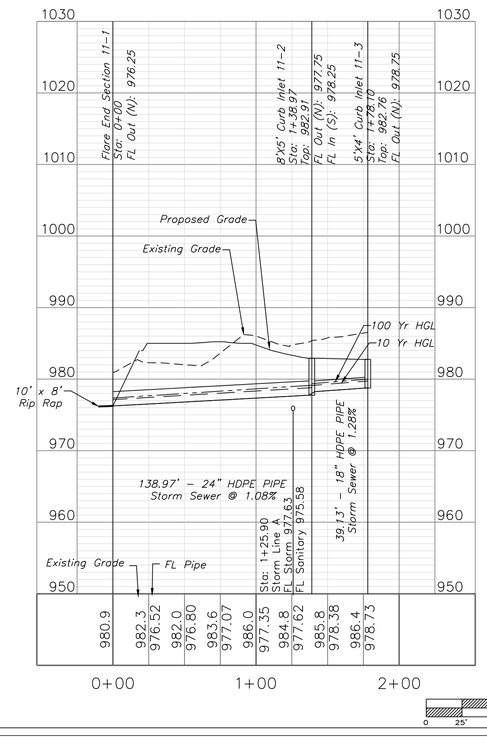
D_{50} = riprap size, m(ft)
Q = design discharg, m^3/s (ft^3/s)
D = culvert diameter (circular), m(ft)
Tw = tailwater depth, m(ft)
g = acceleration due to gravity, 9.81 m/s^2 (32.2 ft/s^2)

*Taken From Publication No. FHWA-NHI-06-086
Hydraulic Engineering Circular No. 14, 3rd Edition

Class 4

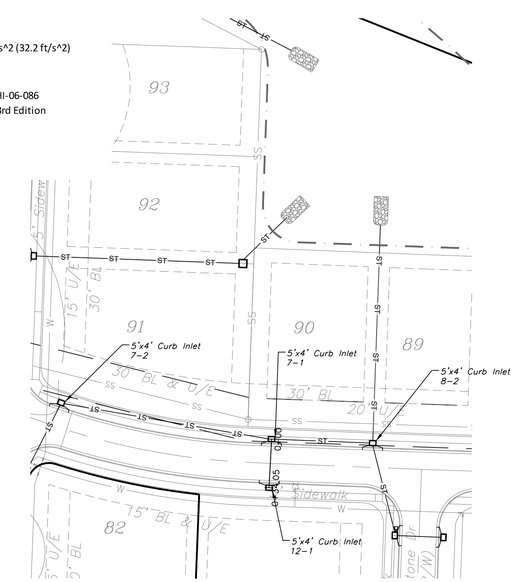
Apron Length =	6*D	7.50 ft	use	8.00 ft
Apron Depth =	2.2*D_{50}	26.27 inches	use	27.00 inches
Apron Width =	3*D+(2/3)L	9.08 ft	use	10.00 ft

STORM LINE 11

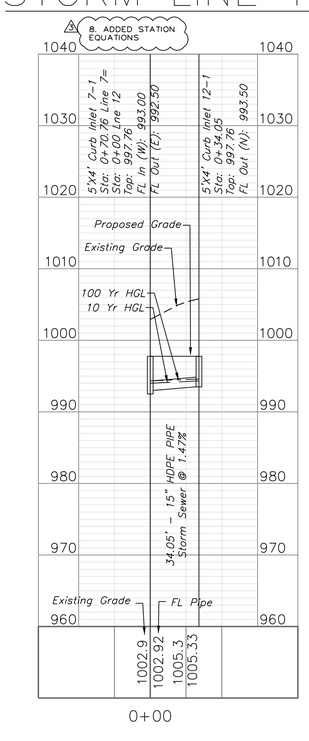


STORM SEWER PLAN & PROFILE

SCALE: 1" = 50'



STORM LINE 12



ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P:(816) 623-9888 F:(816)623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
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Oklahoma
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Nebraska
Engineering CA2821

The Reserve at Stoney Creek - 3rd Plat
Lee's Summit, Jackson County, Missouri

Project: THE RESERVE AT STONEY CREEK 3RD PLAT
Issue Date: July 18, 2017

Storm Sewer Plan and Profile
Construction Plans for:
The Reserve at Stoney Creek - 3rd Plat
Lee's Summit, Jackson County, Missouri

STATE OF MISSOURI
MATTHEW J. SCHLICHT
E-2006019708
PROFESSIONAL ENGINEER

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226

REVISIONS

ADDED STORM EXTENSION 1/21/2022

C.305