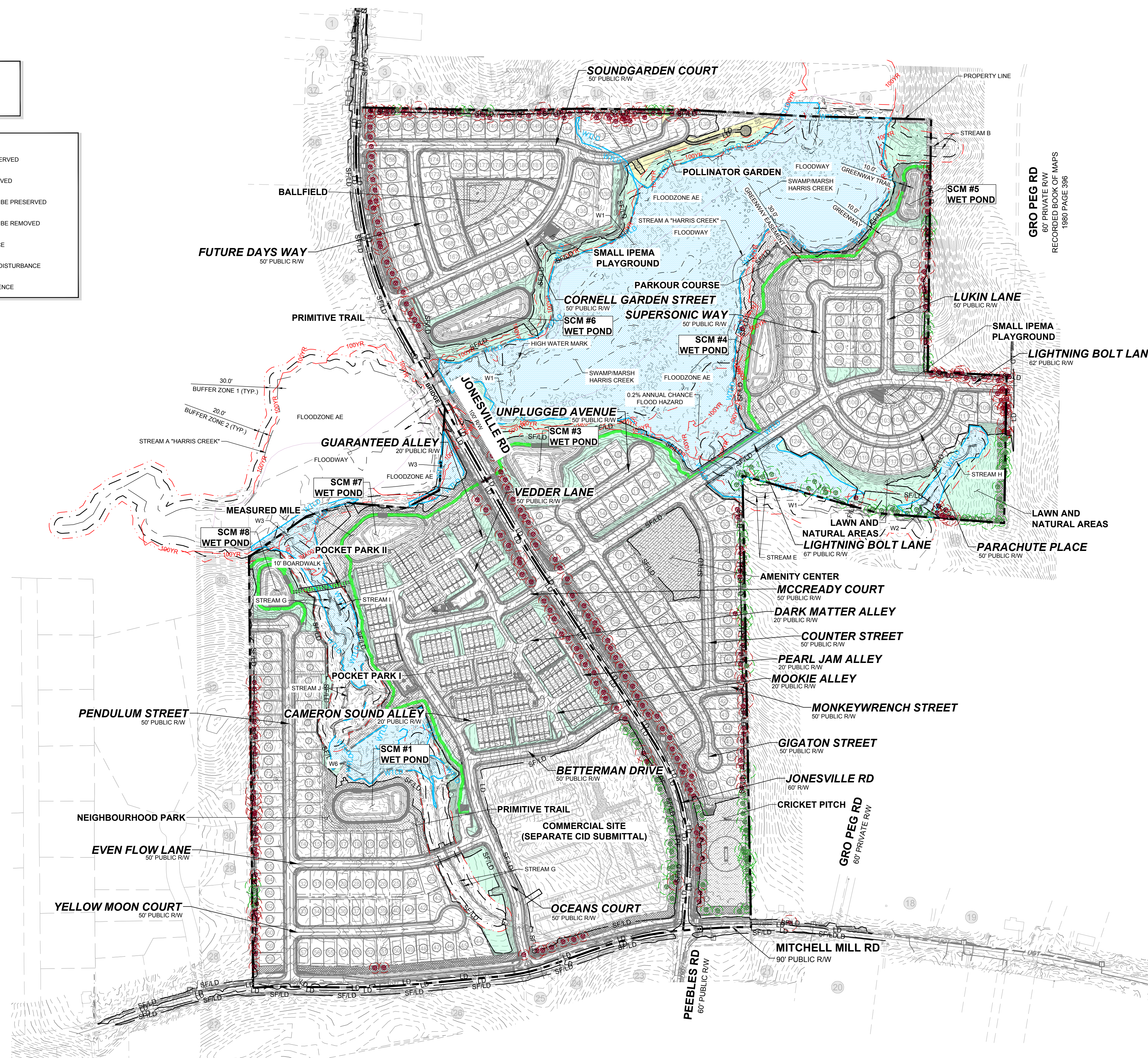
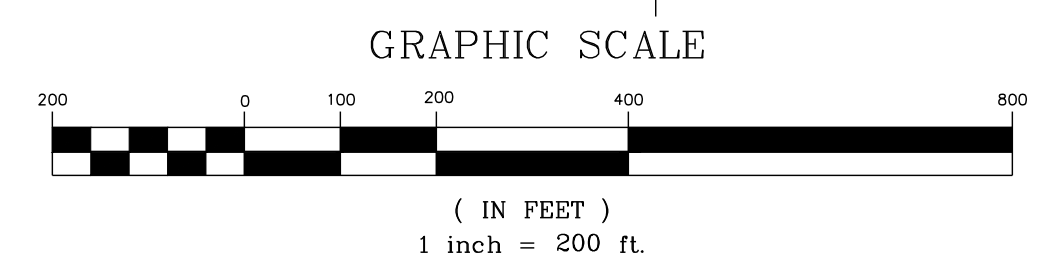
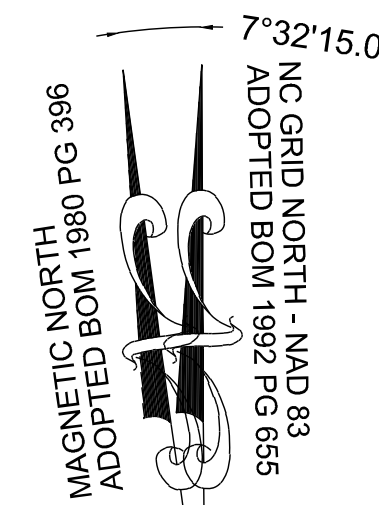


**NOTE:**  
THE CRITICAL ROOT ZONES (CRZ) SHALL REMAIN FREE OF ALL BUILDING MATERIALS, REFUSE, AND DEBRIS. SEE SHEET C-3.0 FOR ADJACENT PROPERTY DETAILS.

LEGEND:	
	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
	LD LIMIT OF DISTURBANCE
	SF/LD SILT FENCE/LIMIT OF DISTURBANCE
	TPF TREE PROTECTION FENCE

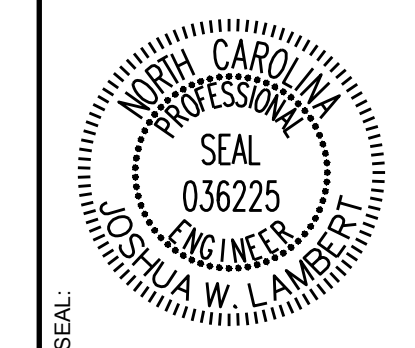


**GRO PEG RD**  
60' PRIVATE RW  
RECORDED BOOK OF MAPS  
1980 PAGE 396



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CONSTRUCTION INFRASTRUCTURE DRAWINGS	DATE	BY
CID-24-04	08/04/2024	
TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	
TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	



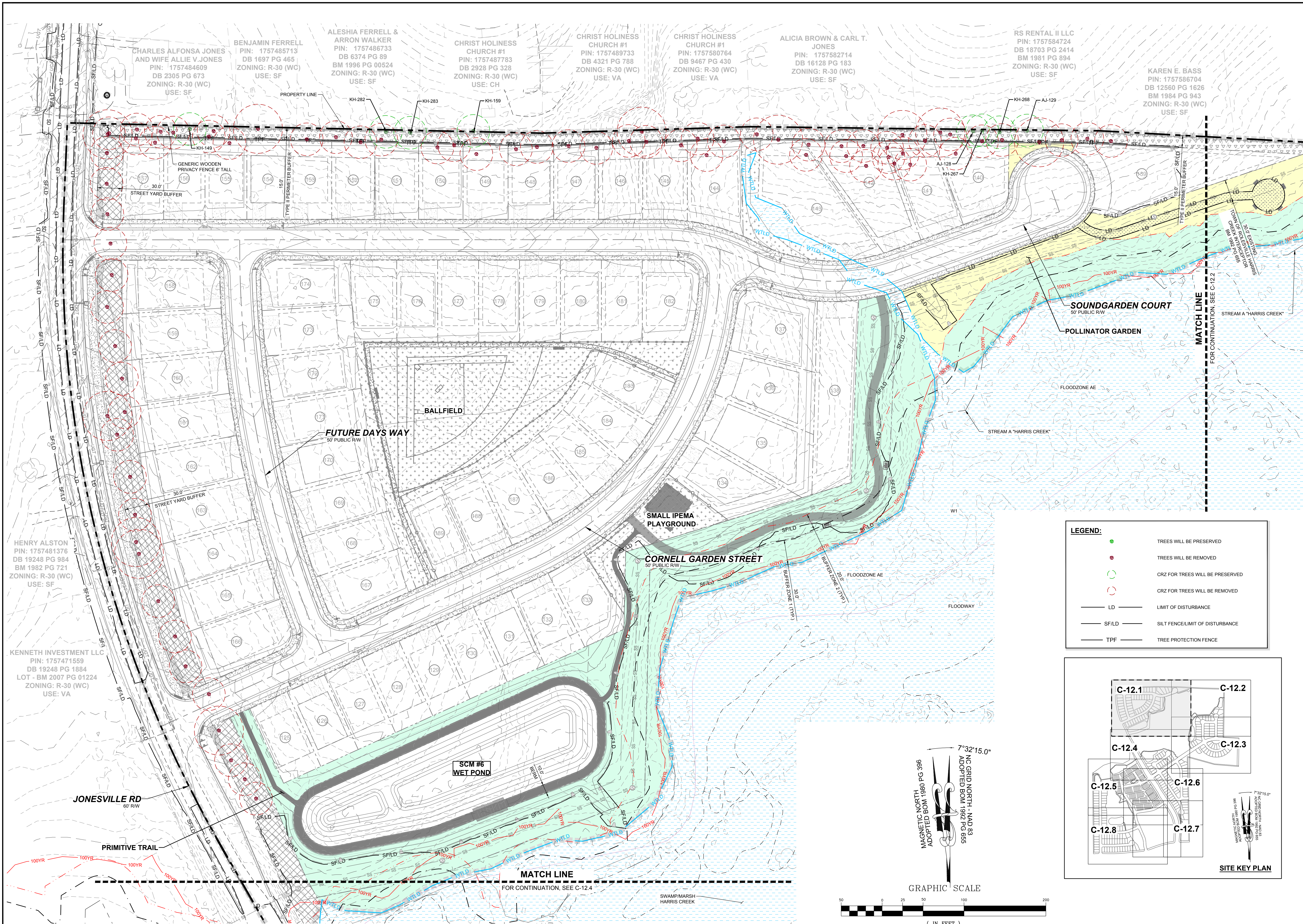
**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
OVERALL PRESERVATION PLAN

DRAWING SHEET  
**C-12.0**





CHARLES ALFONSA JONES AND WIFE ALLIE V. JONES  
PIN: 1757484609  
DB 2305 PG 673  
ZONING: R-30 (WC)  
USE: SF

BENJAMIN FERRELL  
PIN: 1757485713  
DB 1697 PG 465  
ZONING: R-30 (WC)  
USE: SF

ALESHIA FERRELL & ARRON WALKER  
PIN: 1757486733  
DB 6374 PG 89  
BM 1996 PG 00524  
ZONING: R-30 (WC)  
USE: SF

CHRIST HOLINESS CHURCH #1  
PIN: 1757487783  
DB 2928 PG 328  
ZONING: R-30 (WC)  
USE: CH

CHRIST HOLINESS CHURCH #1  
PIN: 1757489733  
DB 4321 PG 788  
ZONING: R-30 (WC)  
USE: VA

CHRIST HOLINESS CHURCH #1  
PIN: 1757580764  
DB 9467 PG 430  
ZONING: R-30 (WC)  
USE: VA

ALICIA BROWN & CARL T. JONES  
PIN: 1757582714  
DB 16128 PG 183  
ZONING: R-30 (WC)  
USE: SF

RS RENTAL II LLC  
PIN: 1757584724  
DB 18703 PG 2414  
BM 1981 PG 894  
ZONING: R-30 (WC)  
USE: SF

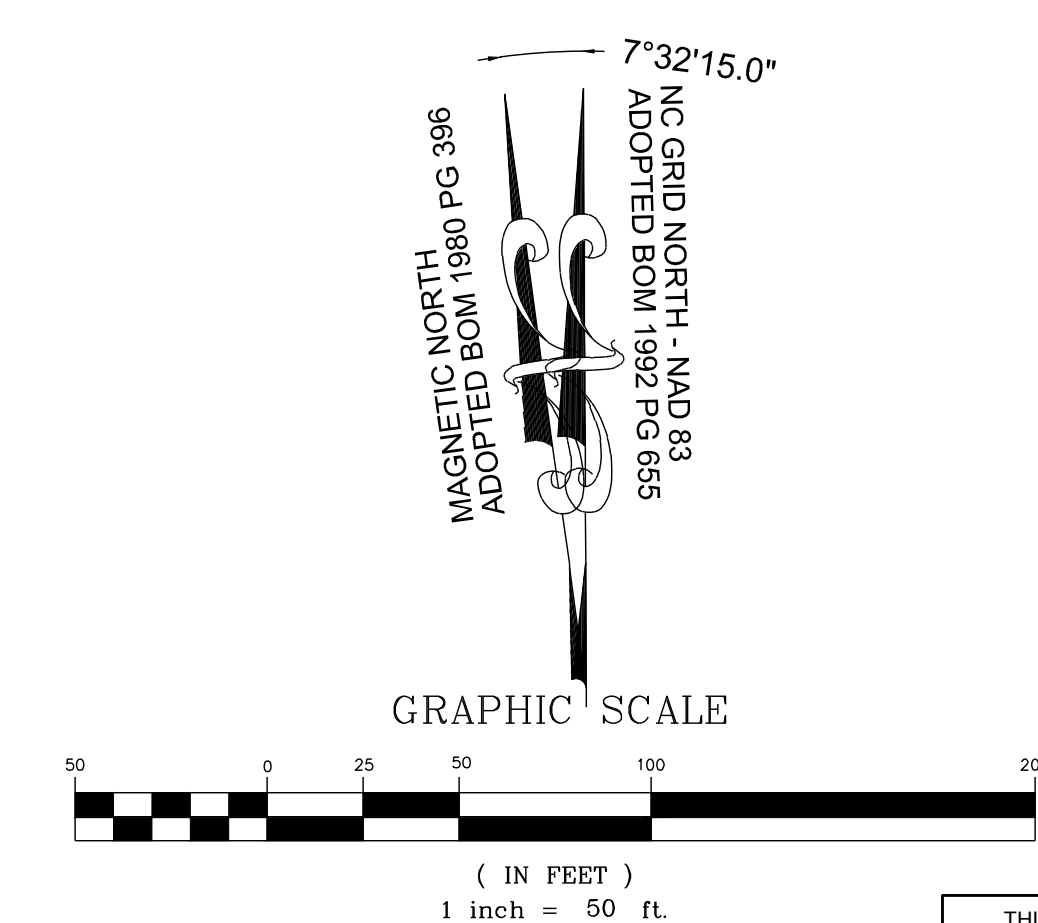
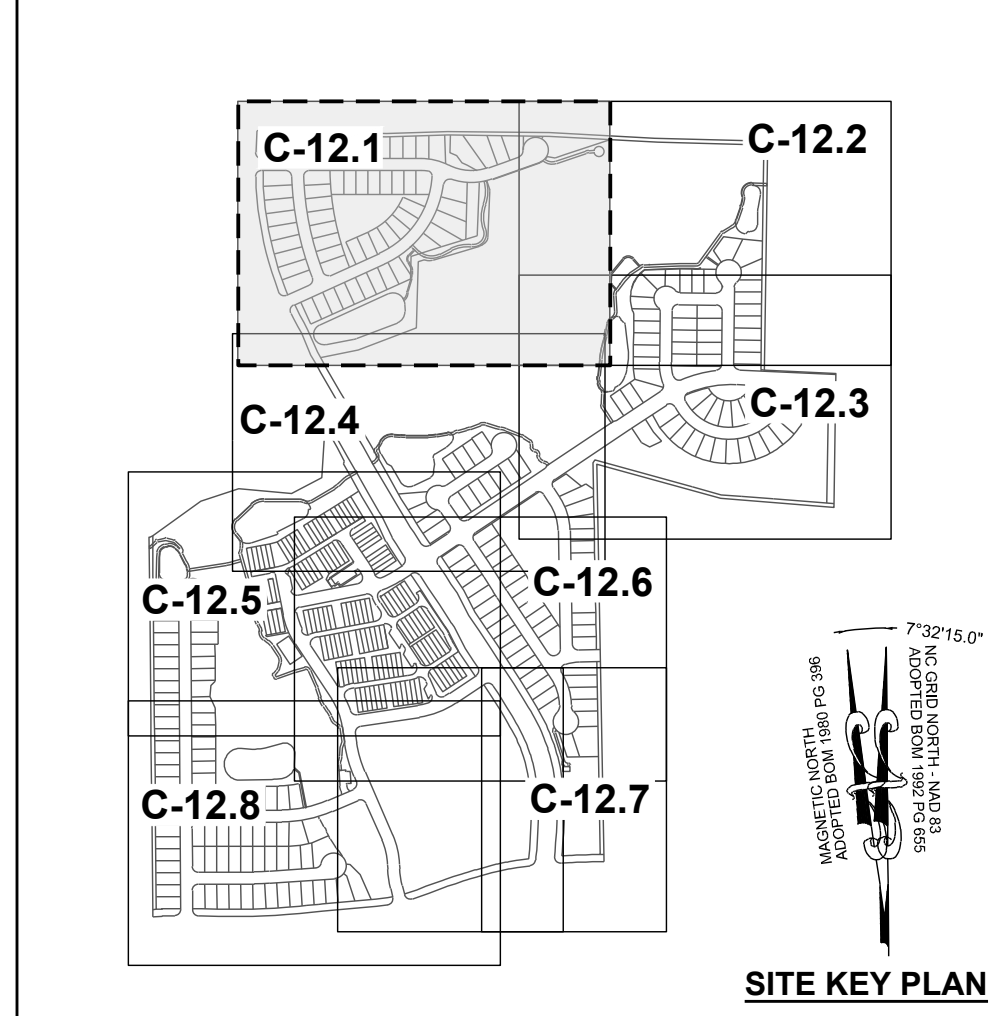
KAREN E. BASS  
PIN: 1757586704  
DB 12560 PG 1626  
BM 1984 PG 943  
ZONING: R-30 (WC)  
USE: SF

HENRY ALSTON  
PIN: 1757481376  
DB 19248 PG 984  
BM 1982 PG 721  
ZONING: R-30 (WC)  
USE: SF

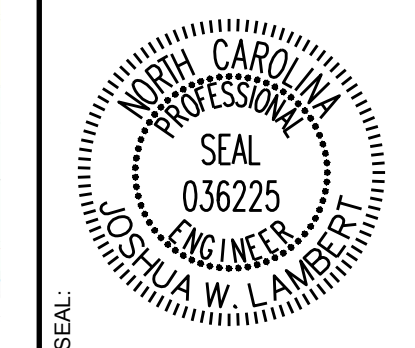
KENNETH INVESTMENT LLC  
PIN: 1757471559  
DB 19248 PG 1884  
LOT - BM 2007 PG 01224  
ZONING: R-30 (WC)  
USE: VA

**LEGEND:**

	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
	LD - LIMIT OF DISTURBANCE
	SFILD - SILT FENCE/LIMIT OF DISTURBANCE
	TPF - TREE PROTECTION FENCE



NO.	REVISIONS	DATE	BY
01			
02			
03			



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ENGINEERING GROUP

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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT P-SP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
**PRESERVATION PLAN I**

DRAWING SHEET  
**C-12.1**

155 OF 201

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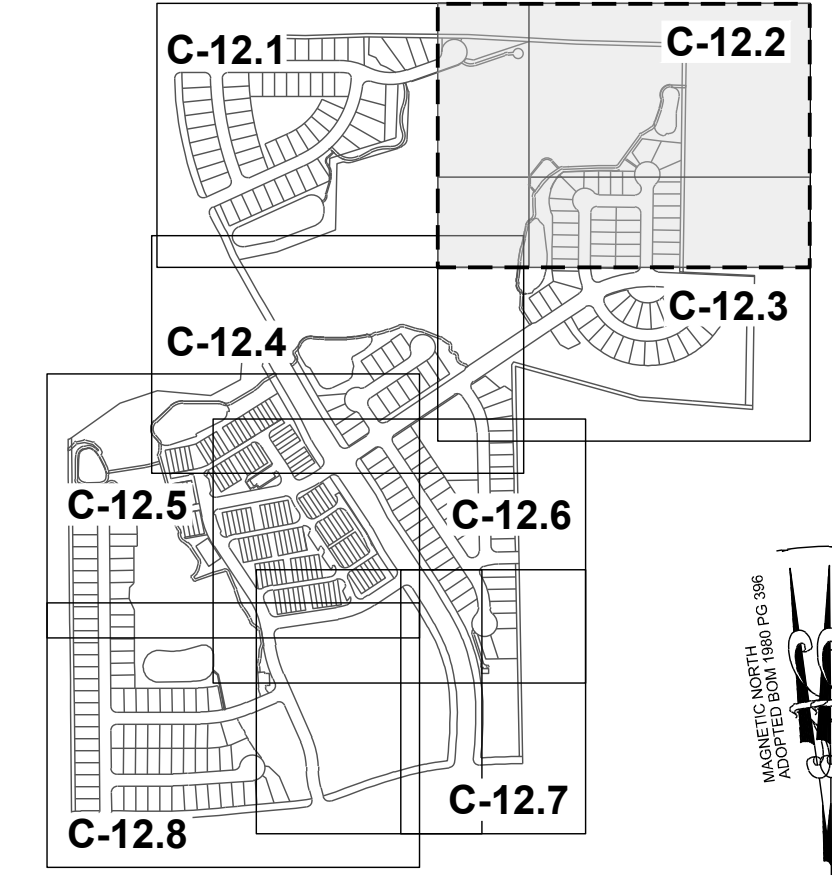
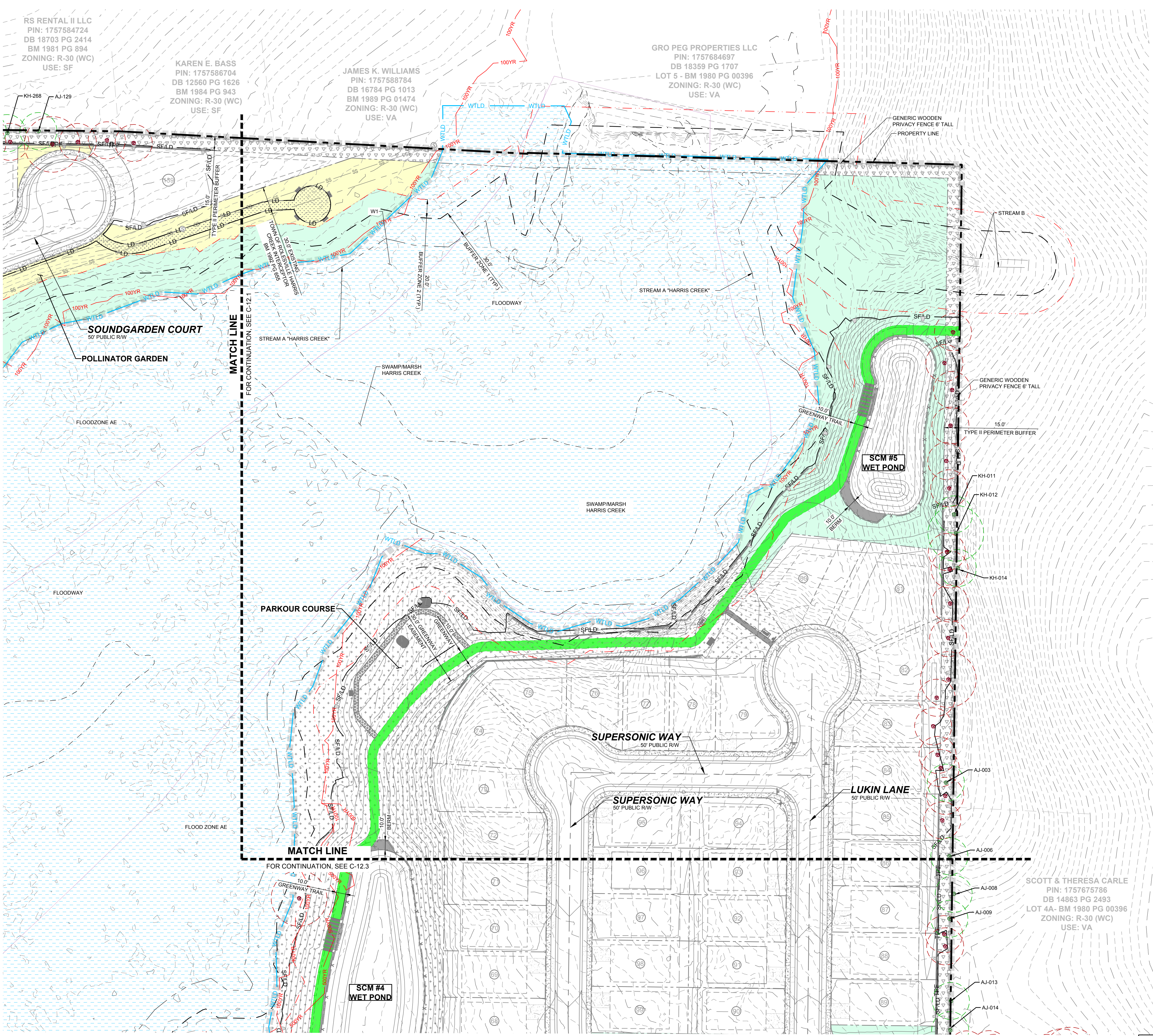
RS RENTAL II LLC  
PIN: 1757584724  
DB 18703 PG 2414  
BM 1981 PG 894  
ZONING: R-30 (WC)  
USE: SF

KAREN E. BASS  
PIN: 1757586704  
DB 12560 PG 1626  
BM 1984 PG 943  
ZONING: R-30 (WC)  
USE: SF

JAMES K. WILLIAMS  
PIN: 1757588784  
DB 16784 PG 1013  
BM 1989 PG 01474  
ZONING: R-30 (WC)  
USE: VA

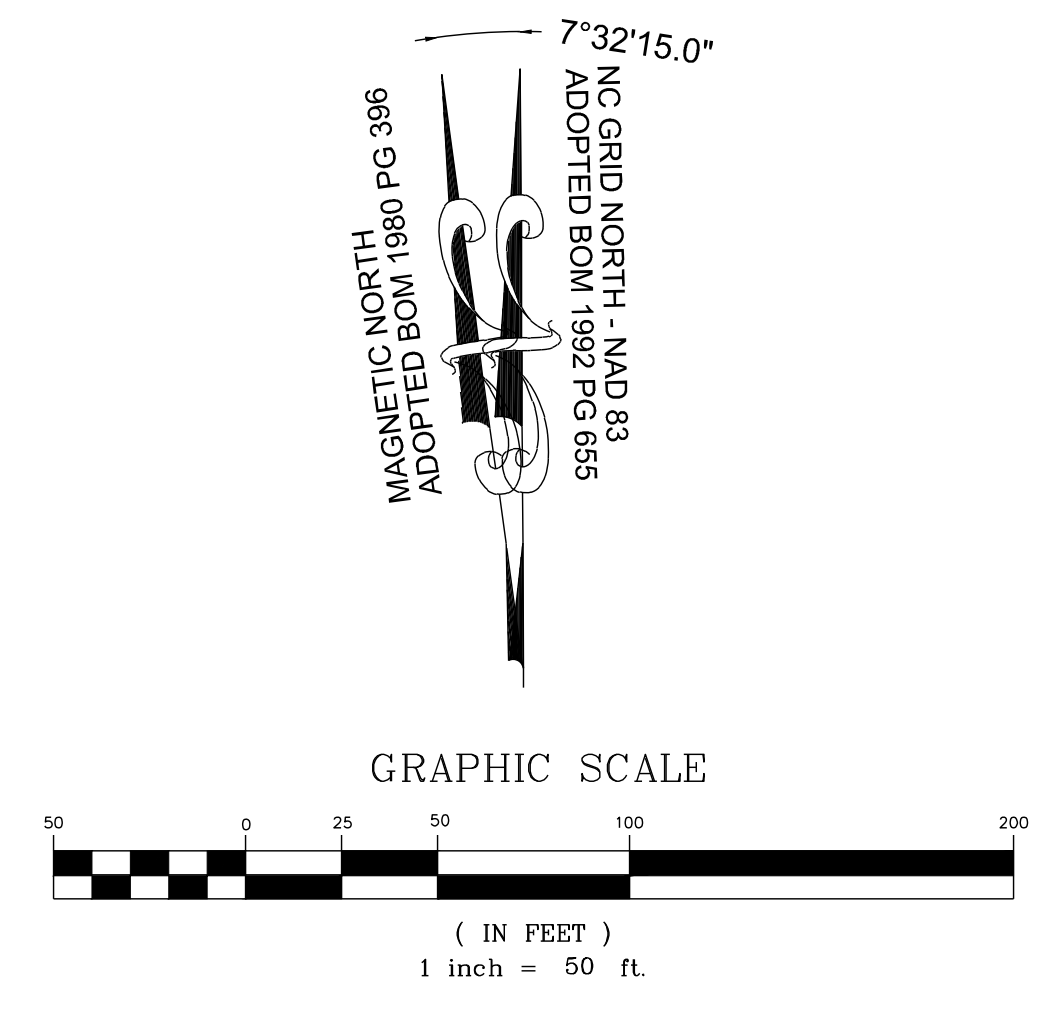
GRO PEG PROPERTIES LLC  
PIN: 1757684697  
DB 18359 PG 1707  
LOT 5 - BM 1980 PG 00396  
ZONING: R-30 (WC)  
USE: VA

SCOTT & THERESA CARLE  
PIN: 1757675786  
DB 14863 PG 2493  
LOT 4A- BM 1980 PG 00396  
ZONING: R-30 (WC)  
USE: VA

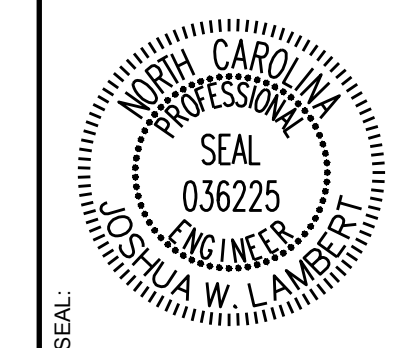


**LEGEND:**

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE



NO.	REVISIONS	DATE	BY
01			
02			
03			



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ENGINEERING GROUP

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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	PSP-24-00
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

CONSTRUCTION PLANS  
PRESERVATION PLAN II

DRAWING SHEET  
**C-12.2**

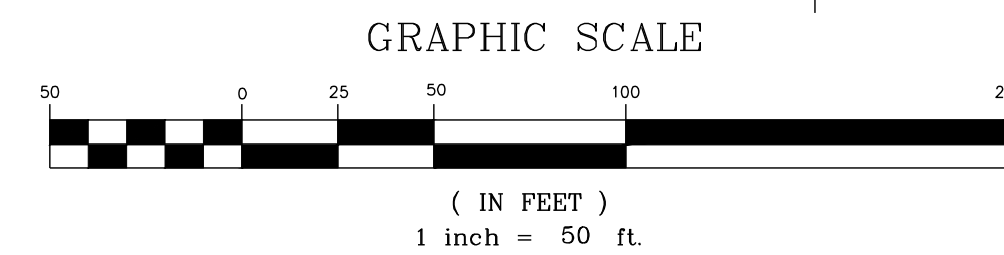
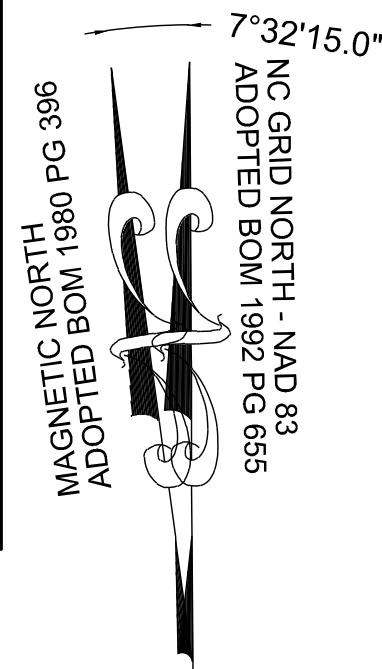
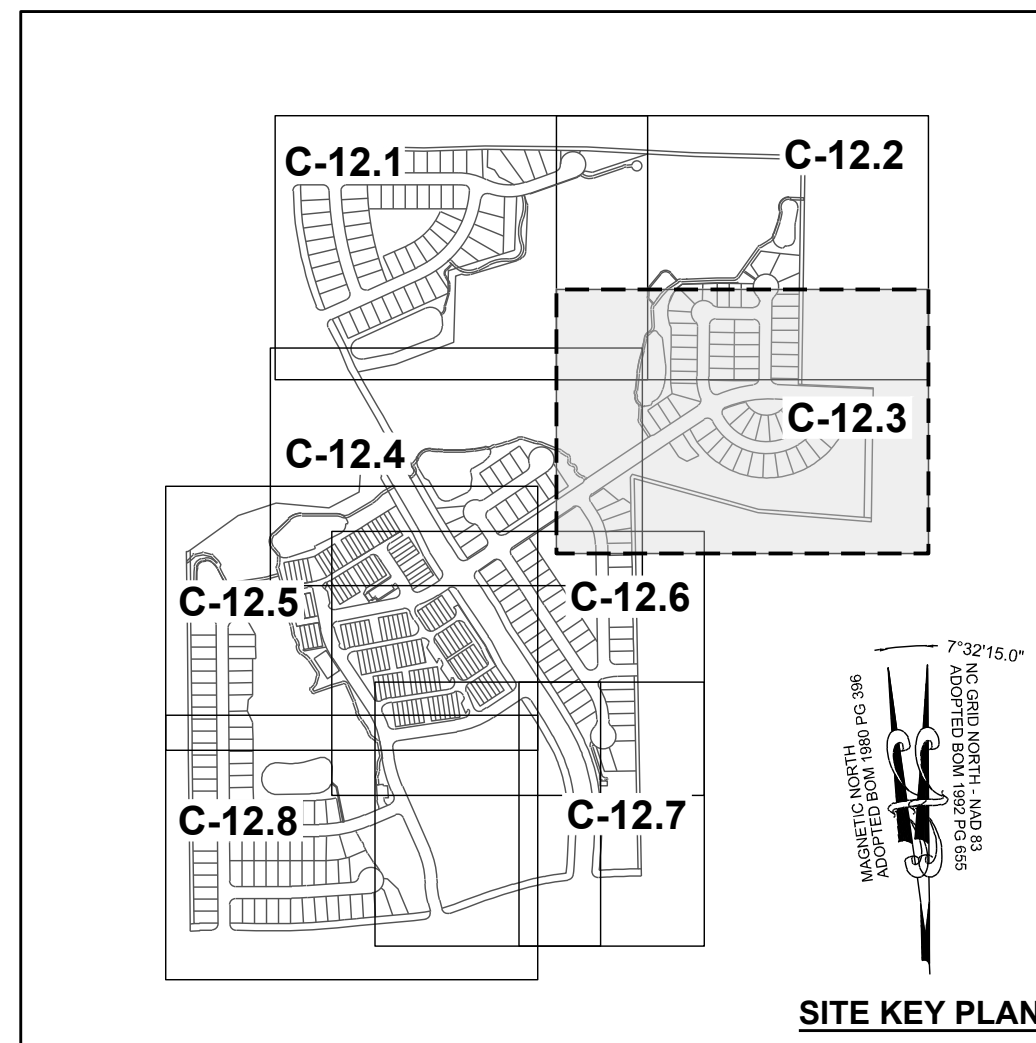
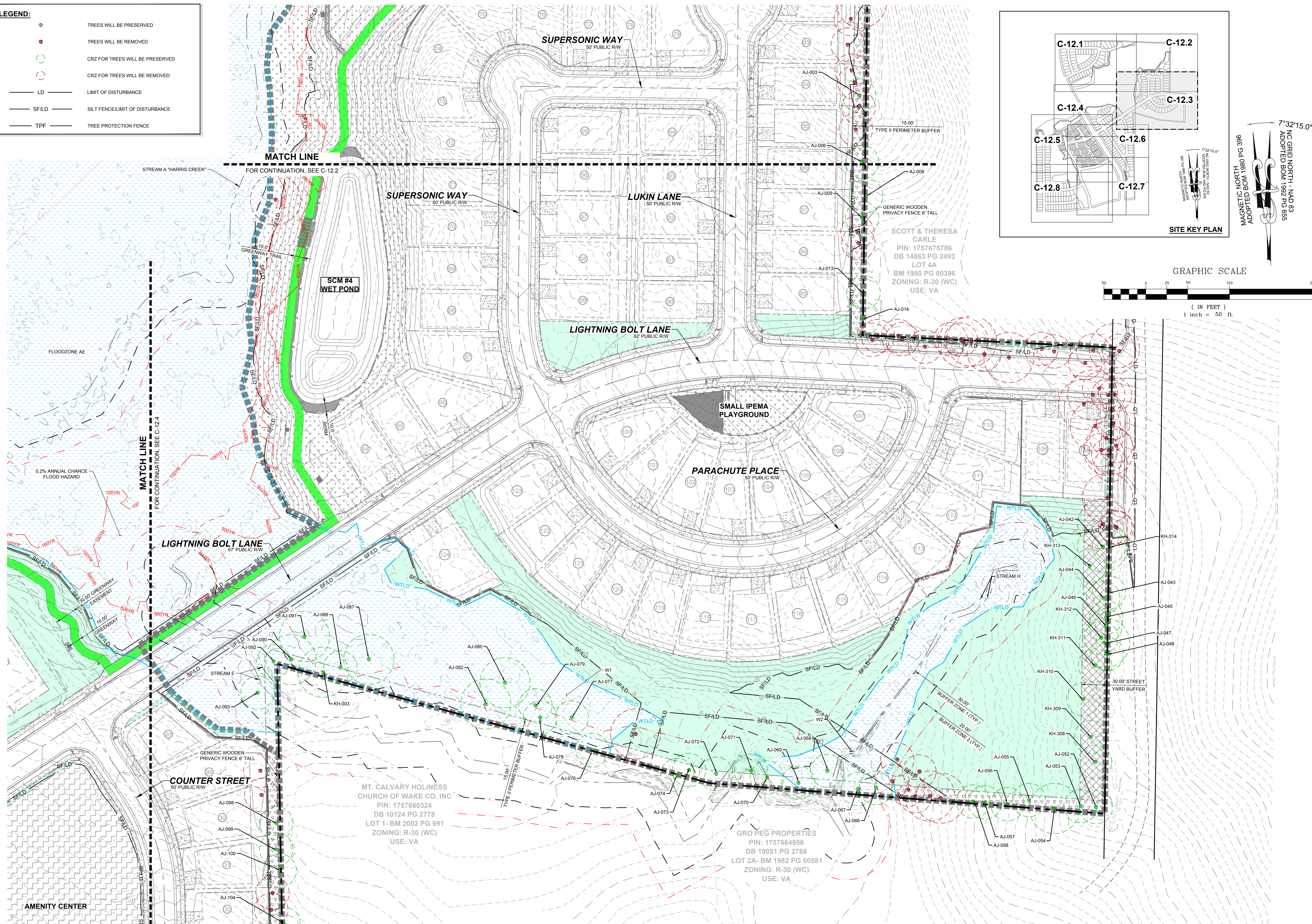
156 OF 201

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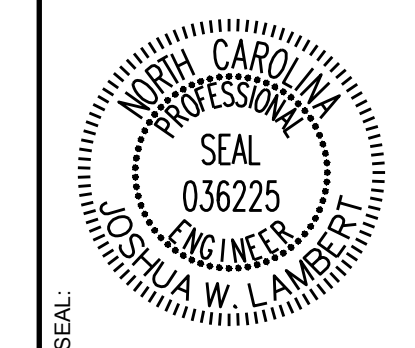


**LEGEND:**

	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
	LIMIT OF DISTURBANCE
	SILT FENCE/LIMIT OF DISTURBANCE
	TREE PROTECTION FENCE



NO.	REVISIONS	DATE	BY
01			
02			
03			



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 ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

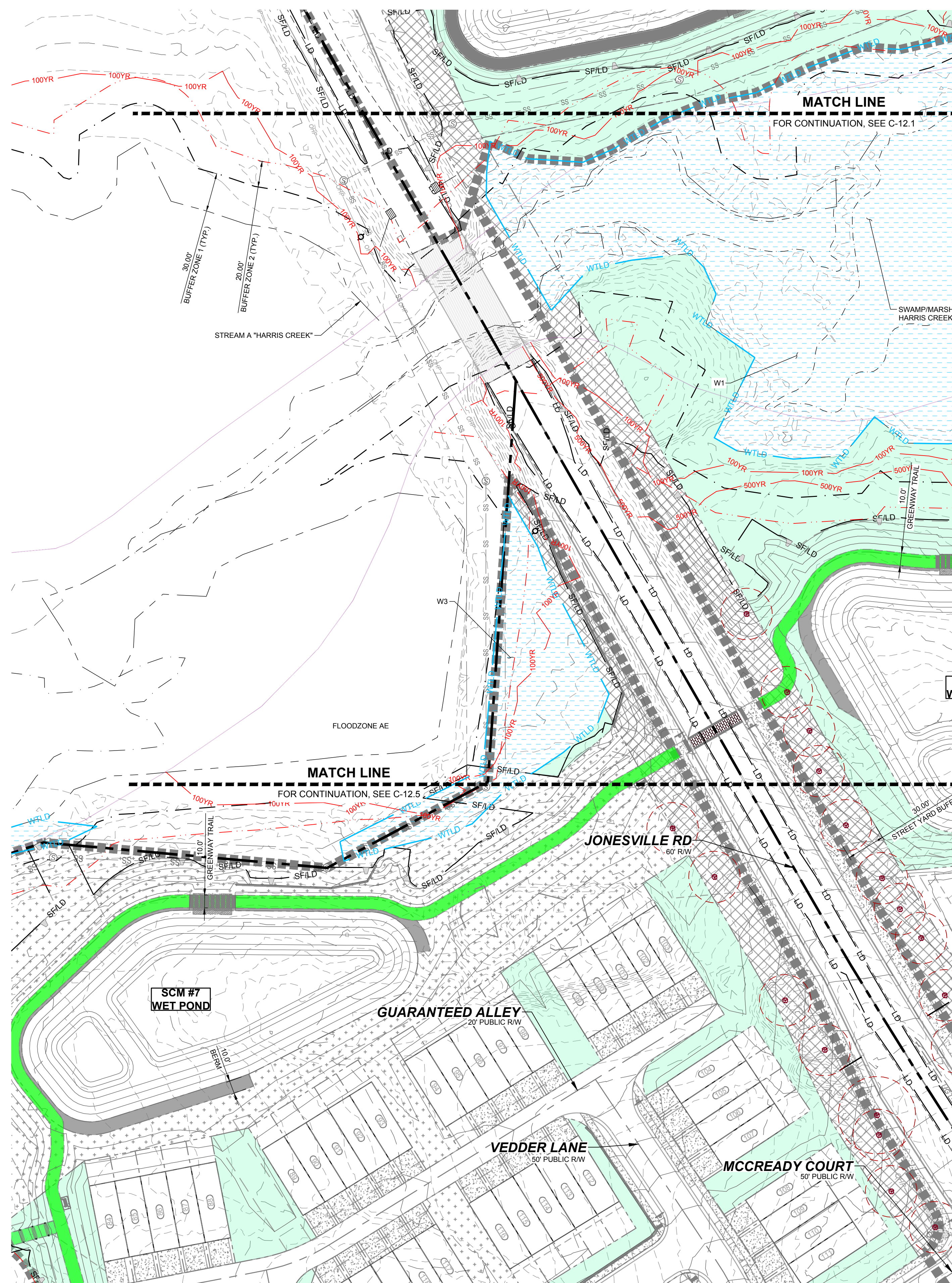
STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT
PSP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL
			DRAWN BY SRG
			CHECKED BY JWL

RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
 CONSTRUCTION PLANS  
 PRESERVATION PLAN III

DRAWING SHEET  
**C-12.3**

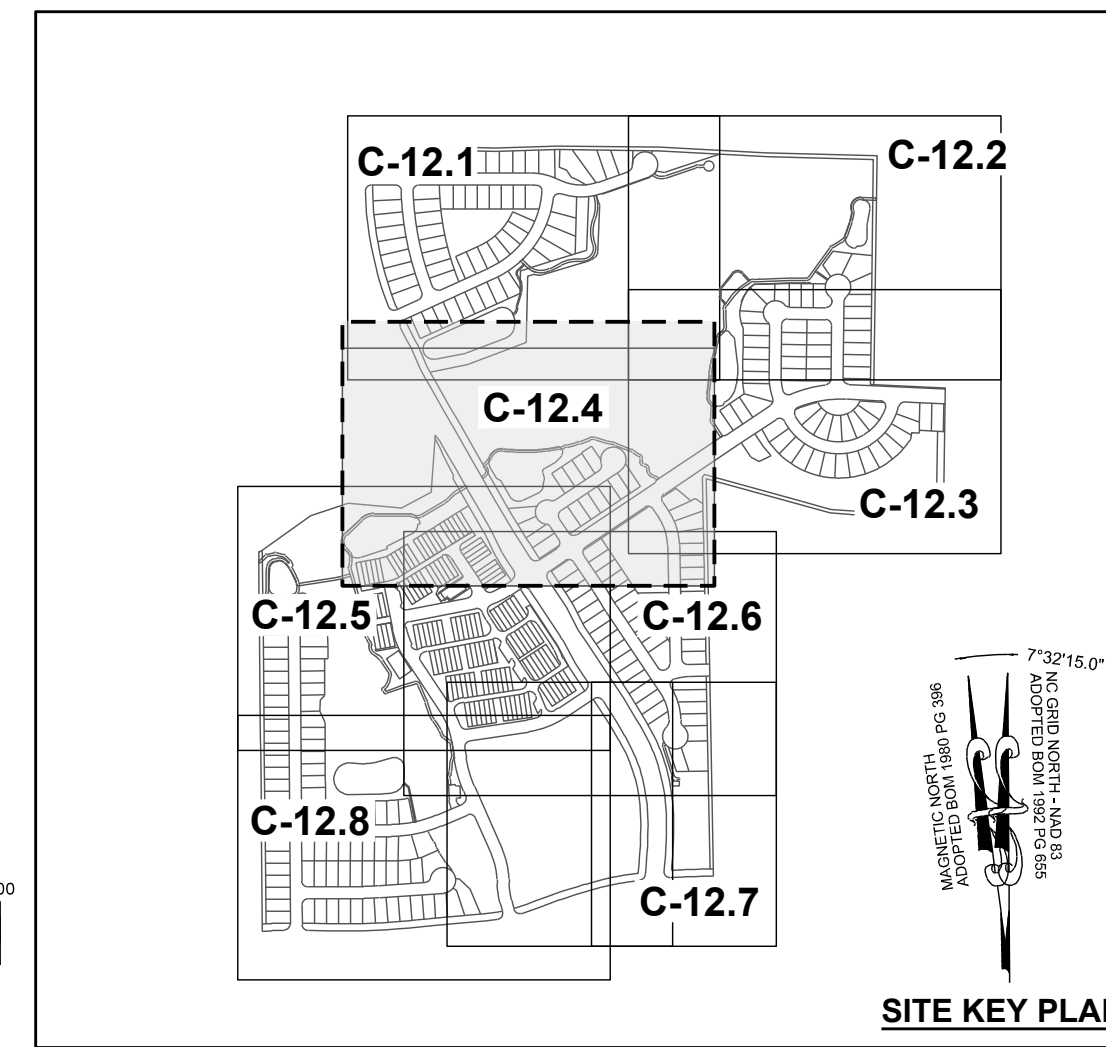
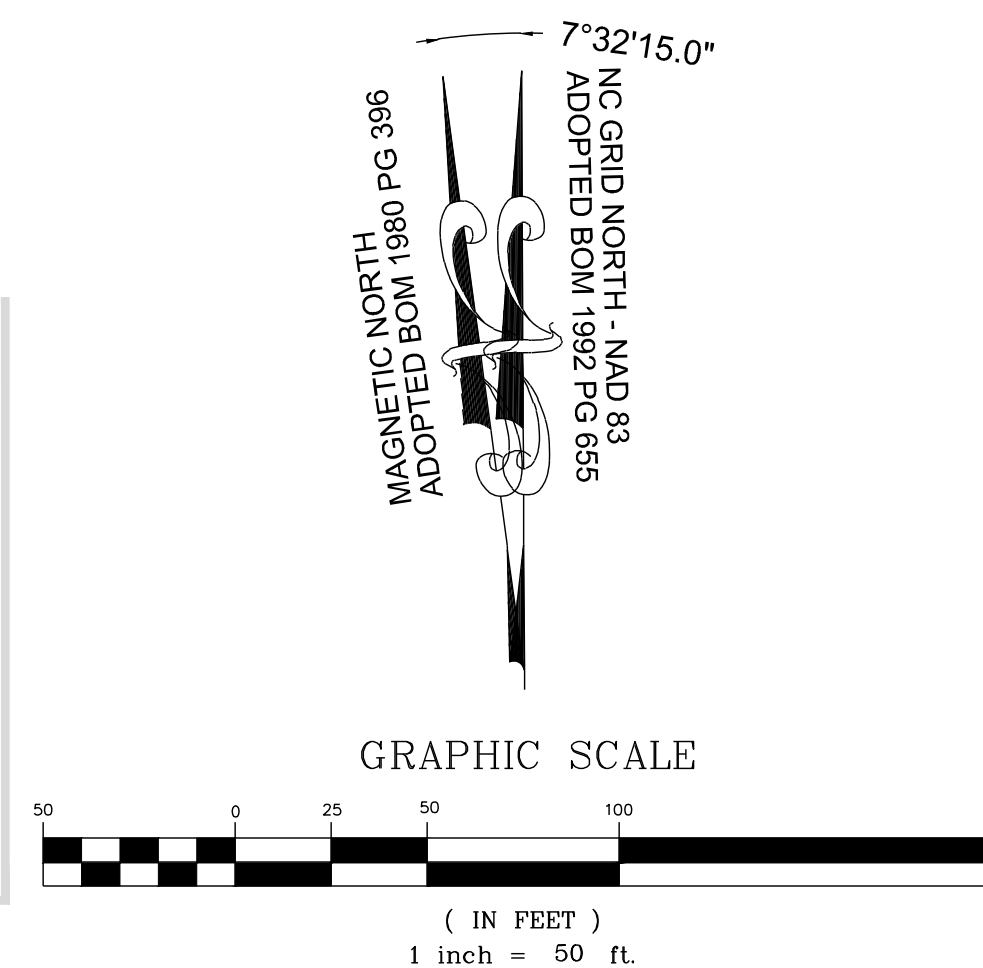
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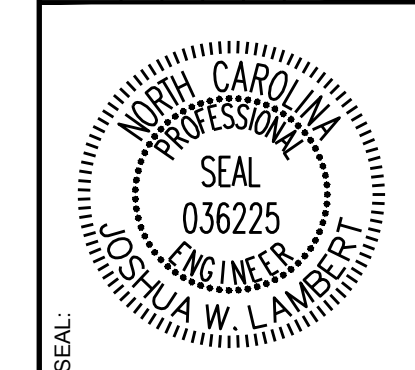


**LEGEND:**

	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
	LIMIT OF DISTURBANCE
	SILT FENCE/LIMIT OF DISTURBANCE
	TREE PROTECTION FENCE



NO.	REVISIONS	DATE	BY
01			
02			
03			



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ENGINEERING GROUP

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305 CHURCH AT NORTH HILLS STREET, SUITE 110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT P-2166	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PRESERVATION PLAN IV

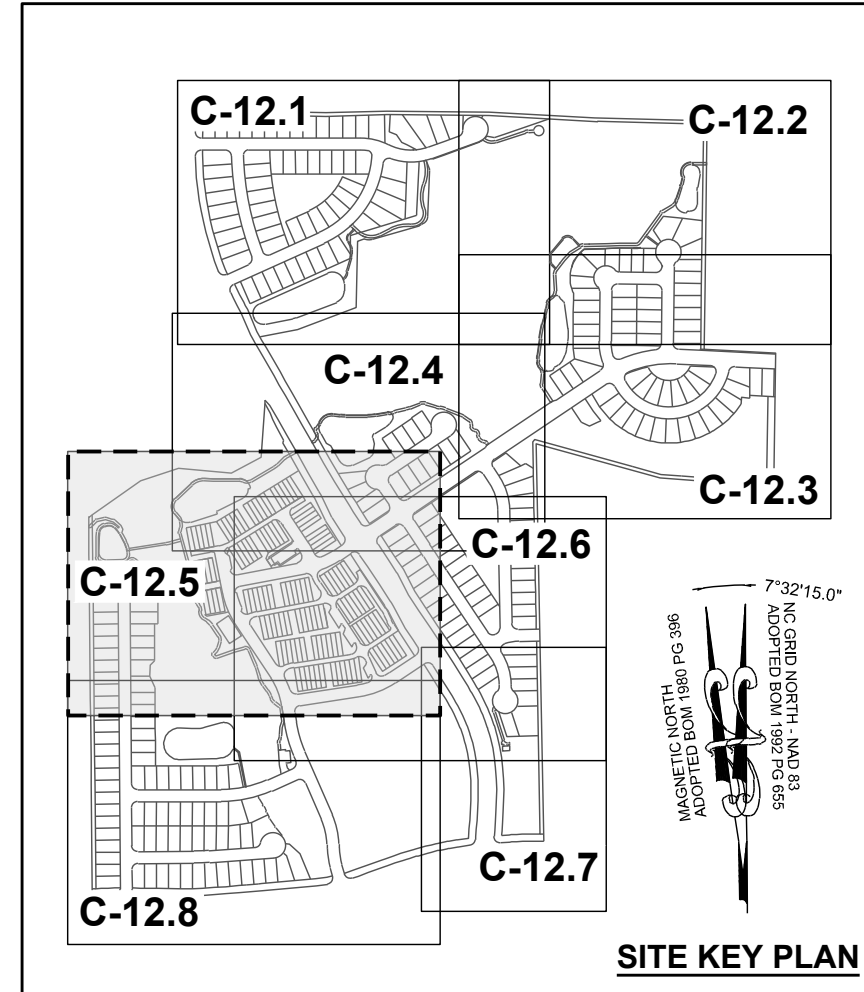
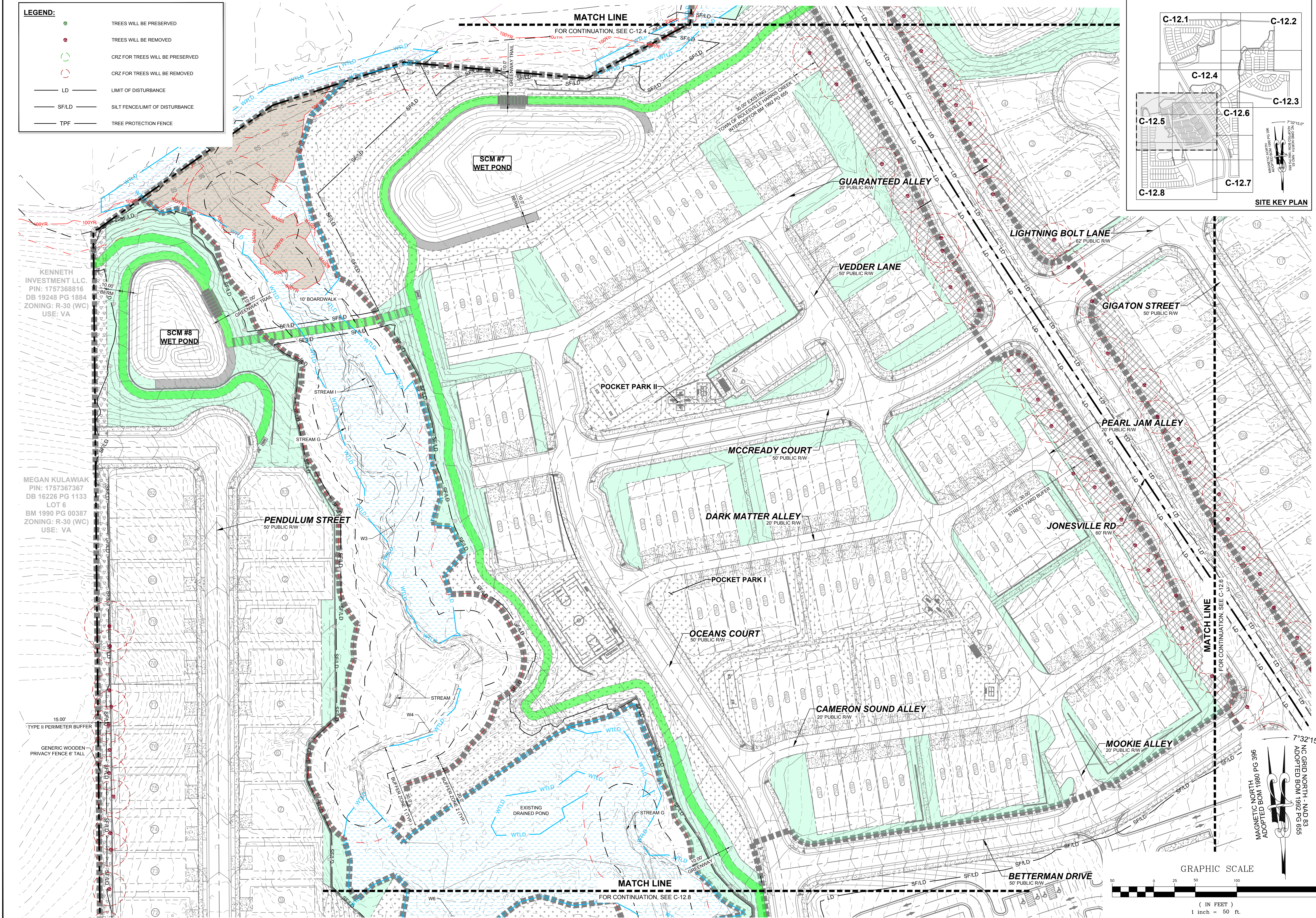
DRAWING SHEET  
**C-12.4**

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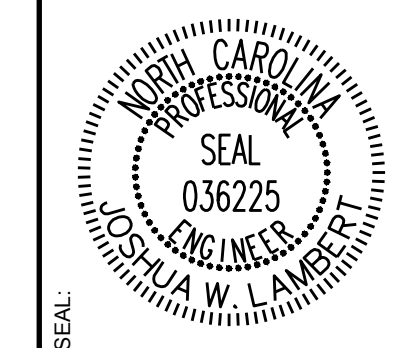


**LEGEND:**

	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
	LD LIMIT OF DISTURBANCE
	SF/LD SILT FENCE/LIMIT OF DISTURBANCE
	TPF TREE PROTECTION FENCE



NO.	REVISIONS	DATE	BY



**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

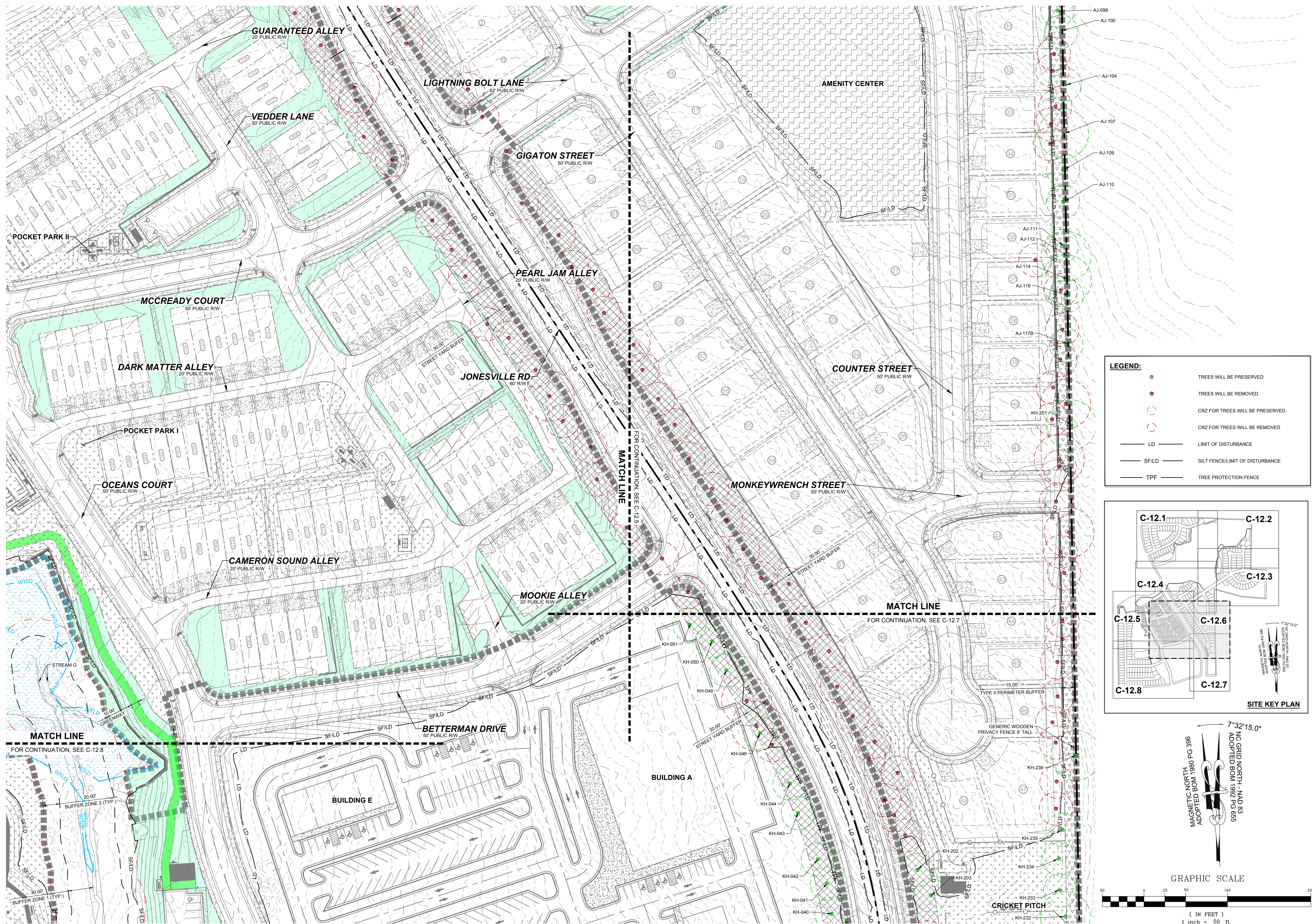
STRONG ROCK PROJECT	PSP-24-00
NOT FOR CONSTRUCTION	SCALE AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PRESERVATION PLAN V

DRAWING SHEET  
C-12.5

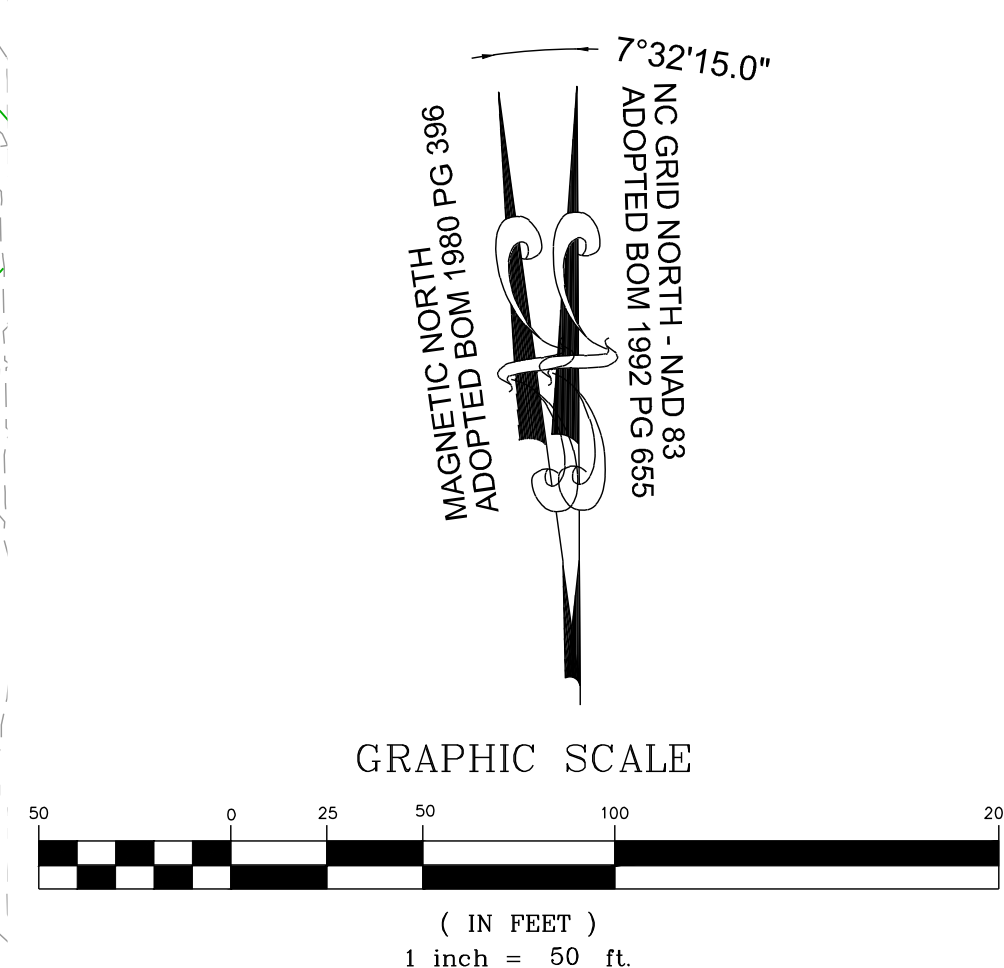
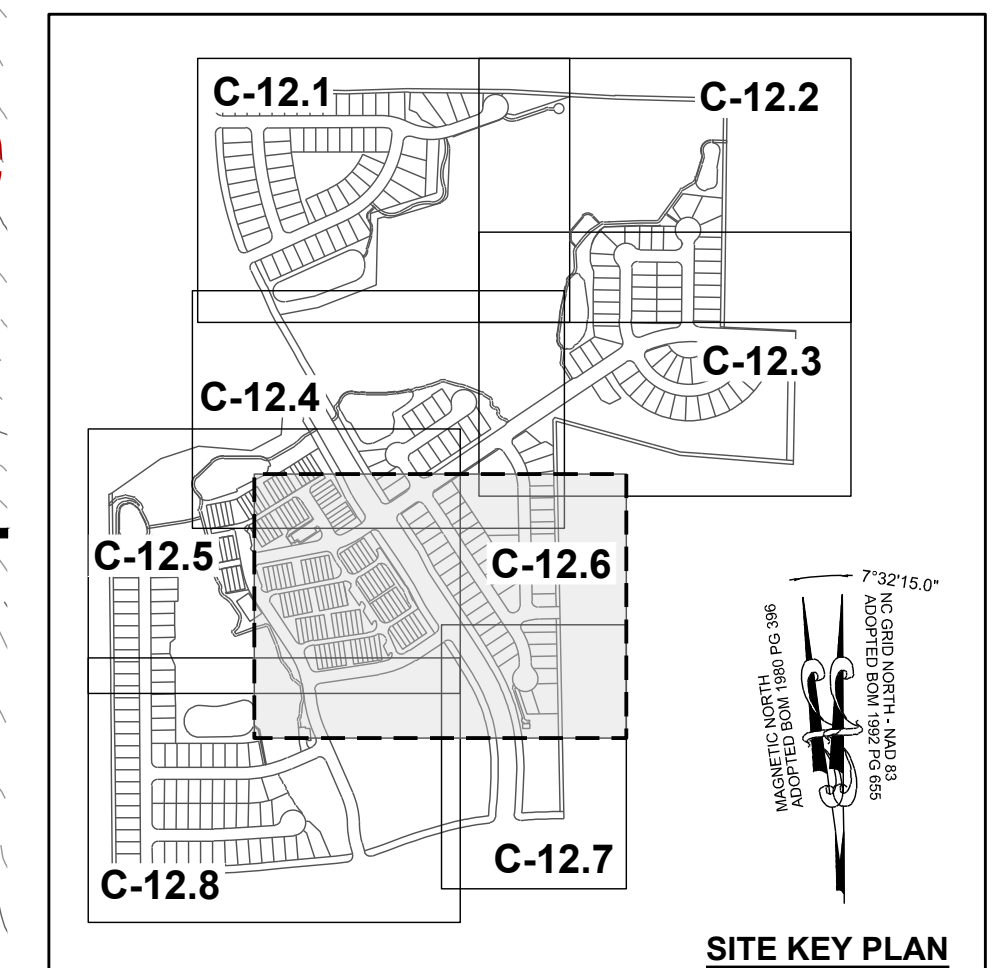
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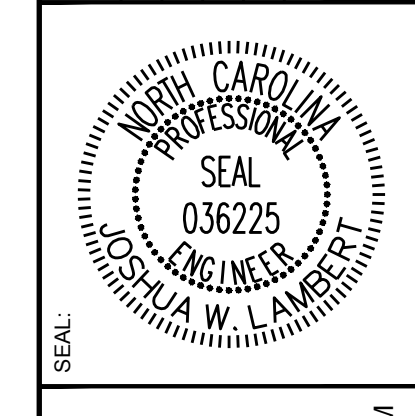


**LEGEND:**

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE



NO.	REVISIONS	DATE	BY
01			
02			
03			



**STRONGROCK**  
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	PSP-24-03	NOT FOR CONSTRUCTION	SCALE	AS SHOWN	DESIGNED BY	JWL	DRAWN BY	SRG	CHECKED BY	JWL
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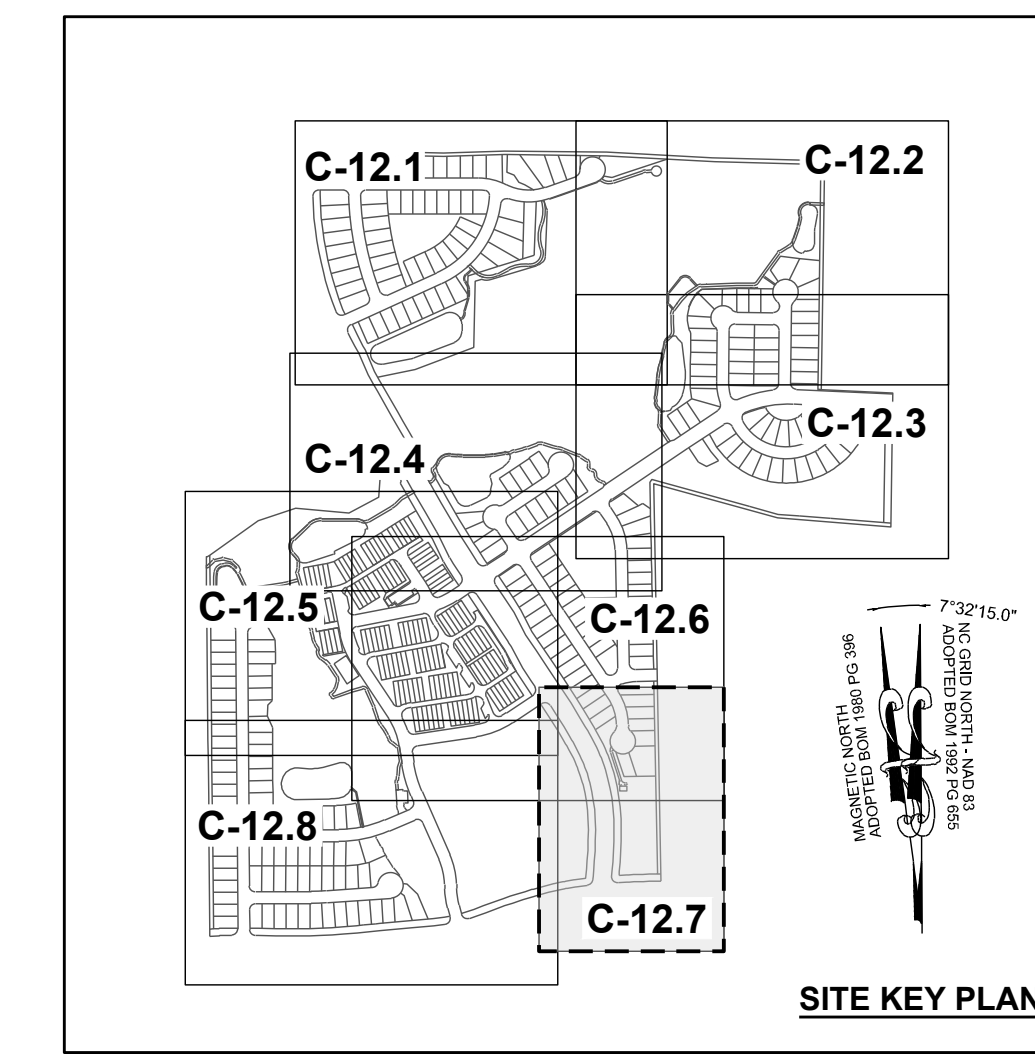
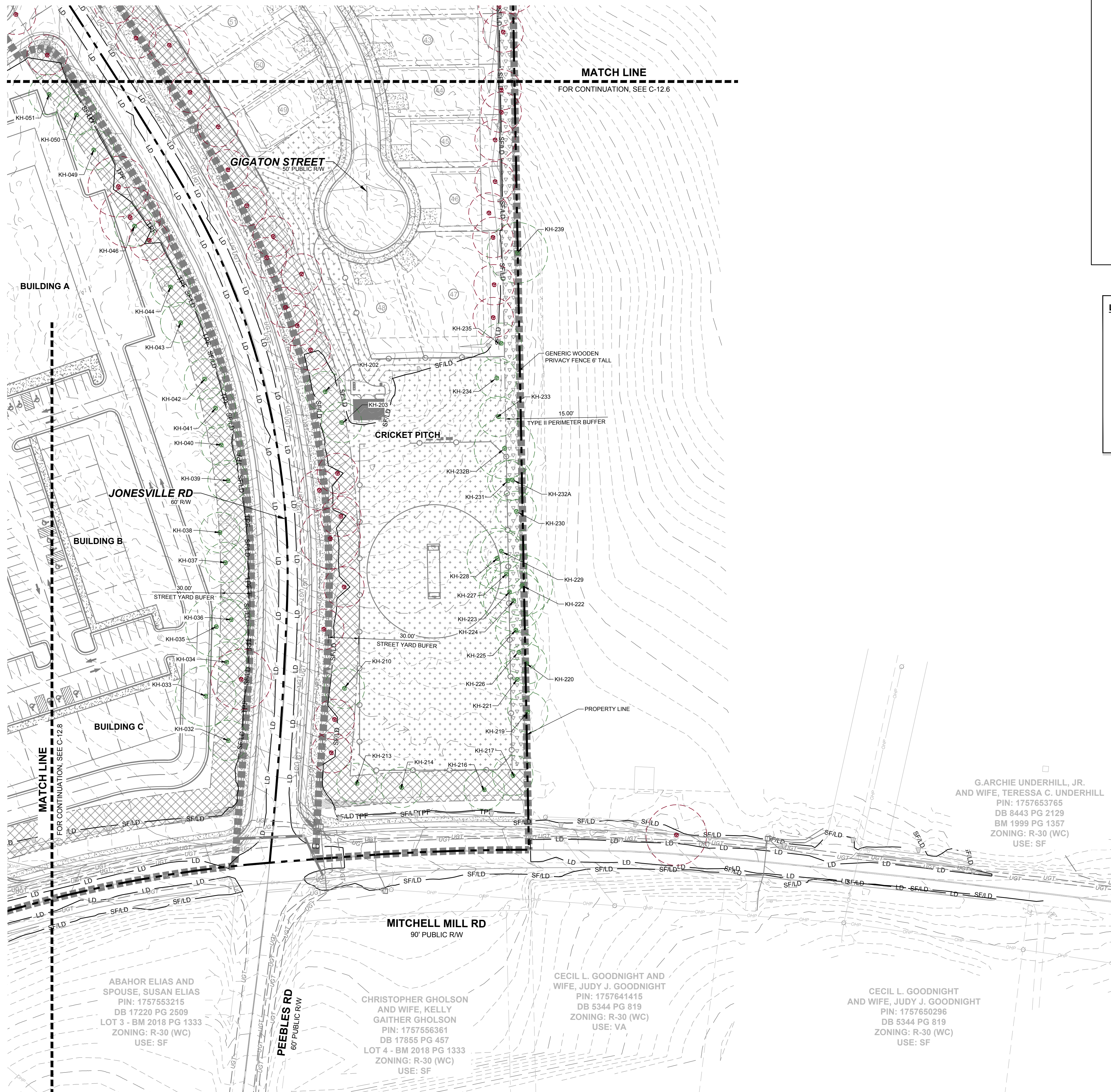
RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PRESERVATION PLAN VI

DRAWING SHEET  
**C-12.6**

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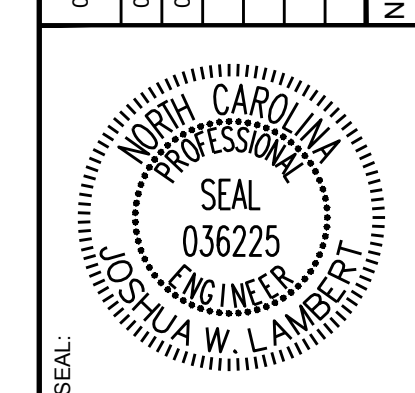




**LEGEND:**

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

NO.	REVISIONS	DATE	BY
01			
02			
03			



**STRONGROCK**  
ENGINEERING GROUP

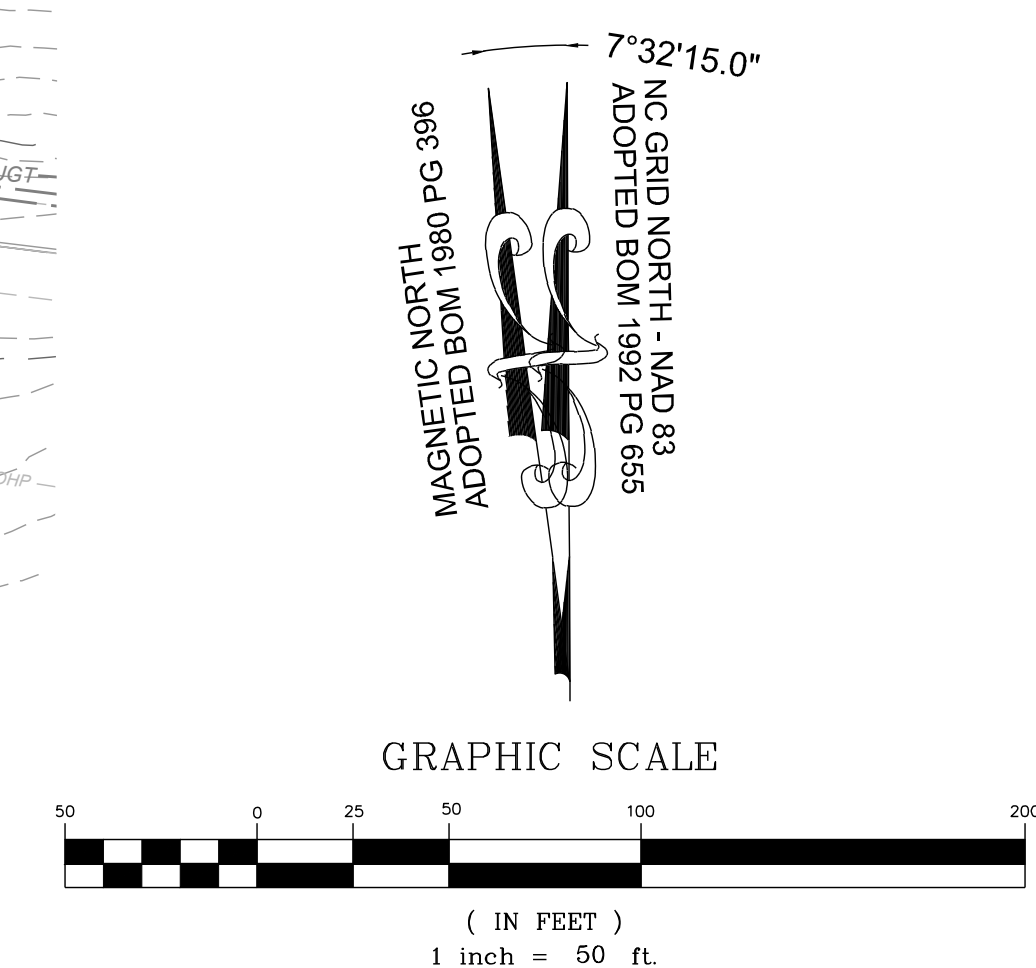
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	PSP-24-03
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

**RESERVE @ MITCHELL MILL**  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PRESERVATION PLAN VII

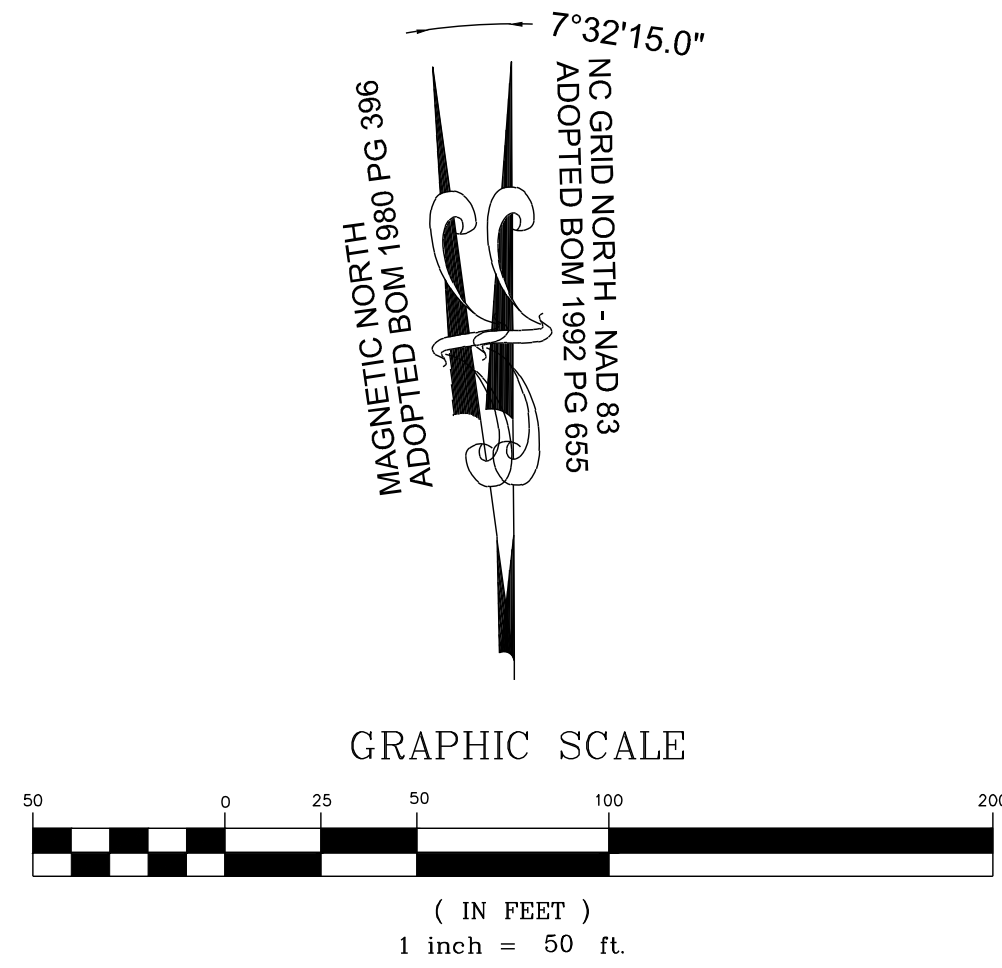
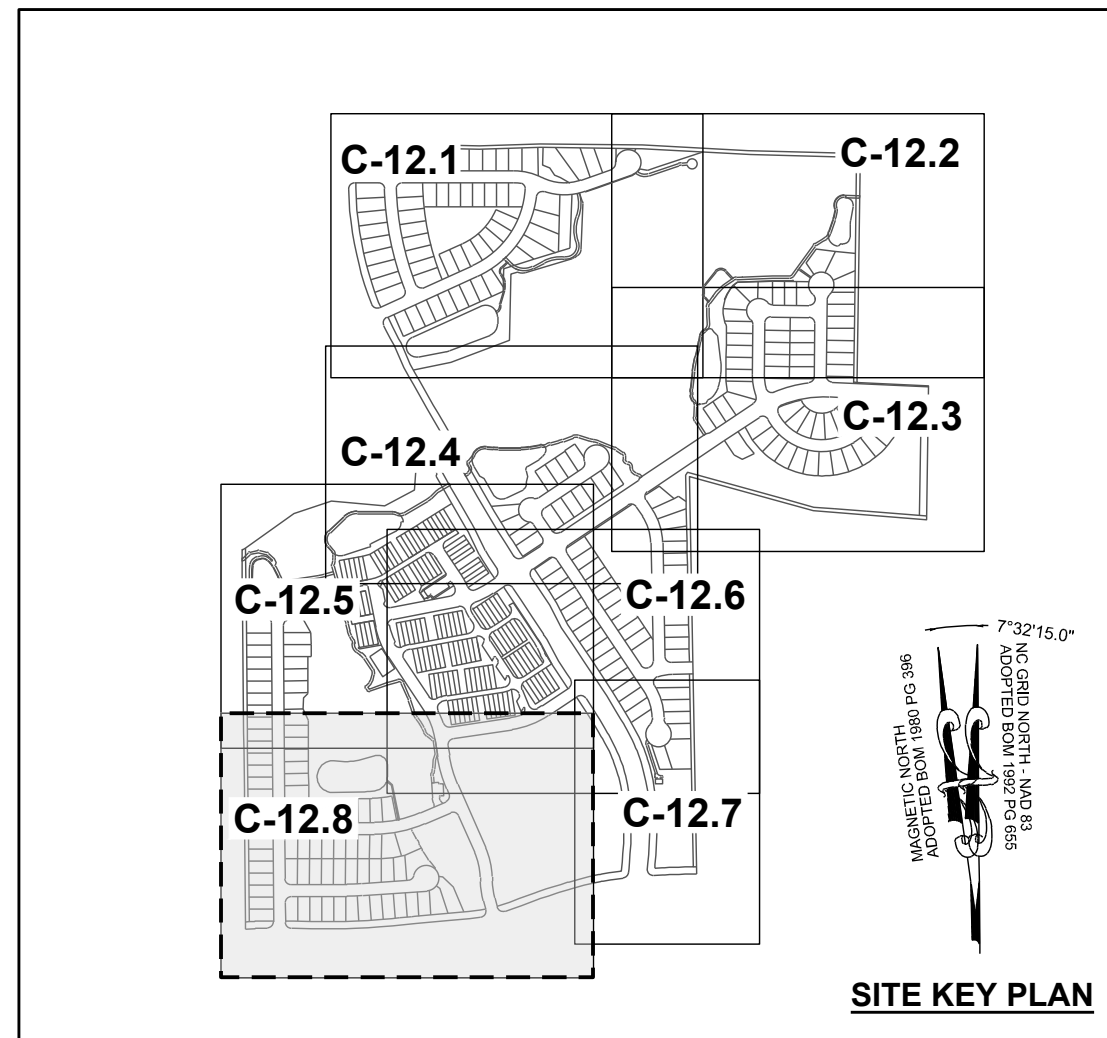
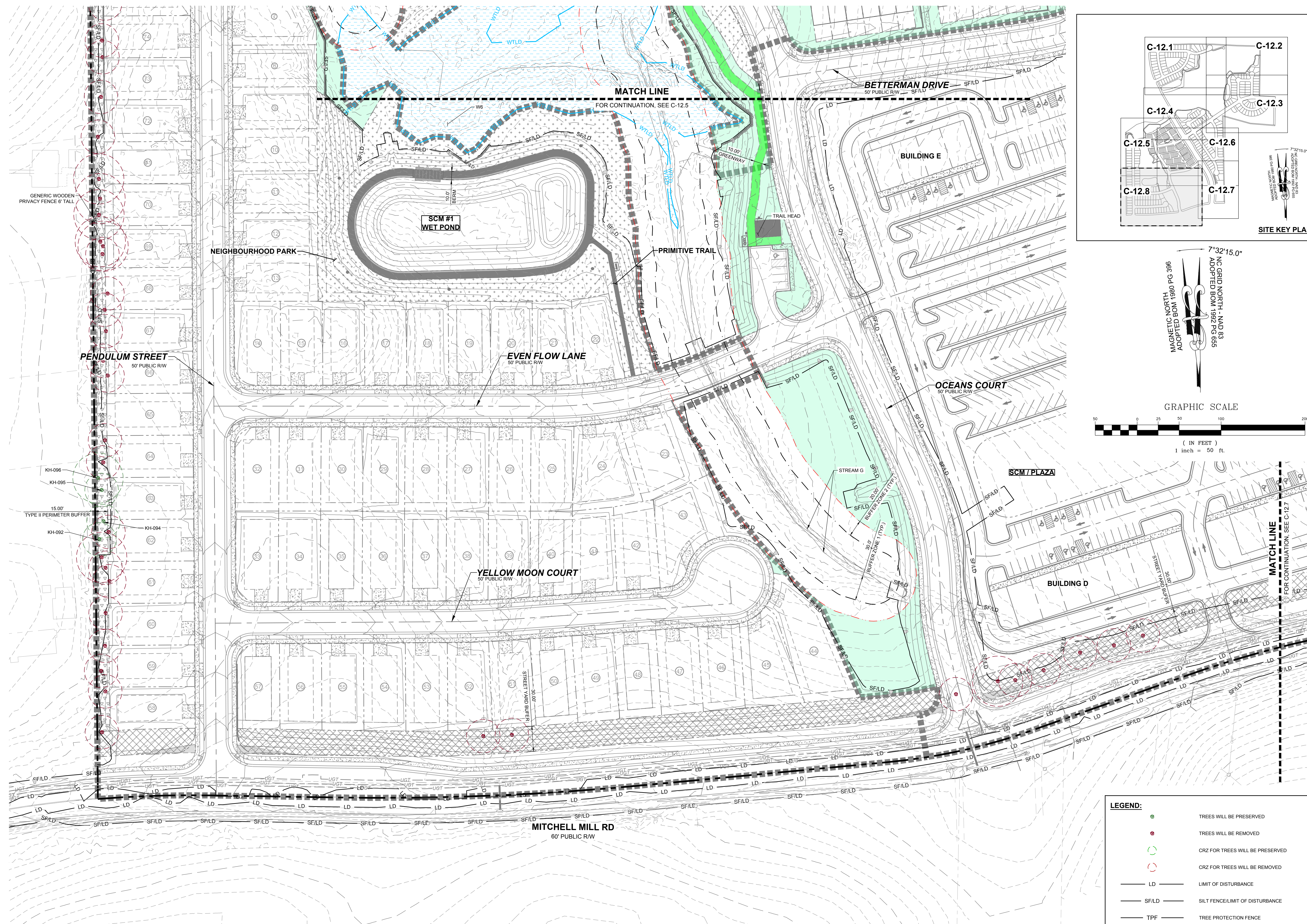
DRAWING SHEET  
**C-12.7**

161 OF 201



THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.





**LEGEND:**

	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
	LIMIT OF DISTURBANCE
	SILT FENCE LIMIT OF DISTURBANCE
	TREE PROTECTION FENCE

CONSTRUCTION INFRASTRUCTURE DRAWINGS	08/04/2024	SREG	BY
CID-24-04	11/07/2024	SREG	DATE
TOWN OF ROLESVILLE CID-24-04 V2	02/07/2024	SREG	NO.
TOWN OF ROLESVILLE CID-24-04 V3			REVISIONS

**STRONGROCK**  
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2766  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	PSP-24-03	DESIGNED BY	JWL	CHECKED BY	JWL
NOT FOR CONSTRUCTION		DRAWN BY	SRG		
SCALE	AS SHOWN				

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PRESERVATION PLAN VIII

DRAWING SHEET  
**C-12.8**

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



TREE INVENTORY SPECIES LIST	
ACRU	ACER RUBRUM
CACA	CARPINUS CAROLINIANA
CATO	CARYA TOMENTOSA
COFL	CORNUS FLORIDA
DIVI	DIOSPYROS VIRGINIANA
FRPE	FRAXINUS PENNSYLVANICA
ILOP	ILEX OPACA
JUVI	JUNIPERUS VIRGINIANA
LISI	LIGUSTRUM SINENSE
LIST	LIQUIDAMBAR STYRACIFLUA
LITU	LIRIODENDRON TULIPIFERA
MORU	MORUS RUBRA
NYSY	NYSSA SYLVATICA
OXAR	OXYDENDRUM ARBOREUM
PITA	PINUS TAEDA
PLOC	PLATANUS OCCIDENTALIS
PLOR	PLATYCLADUS ORIENTALIS
PRSE	PRUNUS SEROTINA
QUAL	QUERCUS ALBA
QUFA	QUERCUS FALCATA
QUNI	QUERCUS NIGRA
QUPA	QUERCUS PAGODA
QUPH	QUERCUS PHELLOS
QURU	QUERCUS RUBRA
QUST	QUERCUS STELLATA
QUVE	QUERCUS VELUTINA
ULAL	ULMUS ALATA
ULRU	ULMUS RUBRA

NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
KH-226	CATO	6"	GOOD
KH-227	QURU	11"	GOOD
KH-228	PITA	22"	GOOD
KH-229	QURU	13"	GOOD
KH-230	QUAL	16"	GOOD
KH-231	QURU	17"	FAIR
KH-232A	QURU	18"	GOOD
KH-232B	QURU	20/11"	GOOD
KH-233	QURU	10"	GOOD
KH-234	QURU	10/7/11/7"	FAIR
KH-235	QURU	8"	GOOD
KH-239	PITA	26"	GOOD
KH-251	LITU	31/12"	GOOD
N/A	QURU	4"	GOOD

NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
AJ-003	QUAL	10"	GOOD
AJ-006	QURU	10"	GOOD
AJ-007	QURU	8"	GOOD
AJ-008	LIST	18"	GOOD
AJ-009	QUAL	6"	GOOD
AJ-012	QUAL	12"	GOOD
AJ-013	CATO	6"	GOOD
AJ-014	ACRU	14"	GOOD
AJ-042	LITU	22"	GOOD
AJ-043	LITU	18"	GOOD
AJ-044	PRSE	19"	FAIR
AJ-045	LITU	19"	GOOD
AJ-046	LITU	17"	GOOD
AJ-047	QUVE	31"	GOOD
AJ-048	LIST	6"	FAIR
AJ-049	QUNI	17"	GOOD
AJ-050	QUAL	12"	GOOD
AJ-051	QUAL	12"	GOOD
AJ-052	QURU	12"	GOOD
AJ-053	QUAL	4"	GOOD
AJ-054	QUAL	32"	GOOD
AJ-055	OXAR	6"	GOOD
AJ-056	QURU	19"	GOOD
AJ-057	QUAL	13"	GOOD
AJ-058	LITU	17"	GOOD

NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
AJ-080	LITU	25"	GOOD
AJ-081	PRSE	9"	GOOD
AJ-082	LITU	22"	GOOD
AJ-083	LITU	21"	GOOD
AJ-084	PLOC	41"	GOOD
AJ-086	ACRU	9"	GOOD
AJ-087	LITU	30"	GOOD
AJ-088	LIST	4"	GOOD
AJ-089	ACRU	18"	GOOD
AJ-090	ACRU	30"	GOOD
AJ-091	ACRU	30"	GOOD
AJ-092	LIST	4"	GOOD
AJ-093	LIST	9"	GOOD
AJ-094	FRPE	22"	GOOD
AJ-095	LIST	21"	GOOD
AJ-098	PRSE	8"	GOOD
AJ-099	QUNI	4"	GOOD
AJ-100	ILOP	4"	GOOD
AJ-101	QUST	29"	POOR
AJ-104	QURU	19"	GOOD
AJ-107	QURU	28"	GOOD
AJ-109	QUST	18"	GOOD
AJ-110	PRSE	6"	GOOD
AJ-111	LIST	14"	GOOD
AJ-112	PITA	21"	GOOD

NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
KH-094	JUNI	7"	GOOD
KH-095	PRSE	14/16"	GOOD
KH-096	PRSE	25"	GOOD
KH-149	PRSE	7"	0
KH-151	ULRU	9"	GOOD
KH-154	MORU	10"	FAIR
KH-155	ULRU	13"	GOOD
KH-156	PITA	31"	GOOD
KH-157	PRSE	9"	GOOD
KH-158	QNRN	37"	EXCELLENT
KH-159	LIST	6"	GOOD
KH-160	LITU	34"	GOOD
KH-163	QUAL	24"	GOOD
KH-164	QURU	23"	GOOD
KH-165	ILOP	8/9"	GOOD
KH-167	QUAL	21"	GOOD
KH-169	QUAL	22"	GOOD
KH-170	QURM	23"	GOOD
KH-171	PITA	21"	GOOD
KH-172	PITA	24"	GOOD
KH-173	LIST	9/8"	FAIR
KH-202	QUNI	7"	GOOD
KH-203	QUAL	9"	GOOD
KH-210	PITA	13"	GOOD
KH-213	PITA	16"	GOOD

NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
AJ-059	LITU	24"	FAIR
AJ-060	QURU	32"	FAIR
AJ-061	ILOP	6"	FAIR
AJ-128	PITA	20"	GOOD
AJ-129	PITA	20"	GOOD
AJ-130	LITU	21"	GOOD
AJ-131	ULRU	8"	GOOD
AJ-062	QURU	20"	FAIR
AJ-063	LITU	12"	FAIR
AJ-064	QURU	19"	FAIR
AJ-065	LITU	16"	FAIR
AJ-066	OXAF	14"	GOOD
AJ-067	ACRU	4"	GOOD
AJ-068	ACRU	5"	GOOD
AJ-069	ACRU	10"	GOOD
AJ-070	ACRU	6"	GOOD
AJ-071	ACRU	6"	GOOD
AJ-072	PRSE	9"	GOOD
AJ-073	DIVI	3"	GOOD
AJ-074	LITU	8"	GOOD
AJ-075	ACRU	21"	FAIR
AJ-076	LITU	13"	GOOD
AJ-077	LIST	13"	GOOD
AJ-078	LIST	4"	GOOD
AJ-079	LITU	18"	POOR

NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
AJ-114	PITA	28"	GOOD
AJ-116	QUST	20"	GOOD
AJ-117B	CACA	7"	GOOD
KH-005	QUAL	7"	GOOD
KH-011	CATO	6"	GOOD
KH-012	QUAL	21"	GOOD
KH-014	QUAL	20"	GOOD
KH-32	IVI	18"	GOOD
KH-33	ITA	25"	EXCELLENT
KH-34	ITA	18"	EXCELLENT
KH-035	PITA	29"	GOOD
KH-036	LIST	8"	GOOD
KH-037	ULRU	14"	GOOD
KH-038	PITA	17"	GOOD
KH-039	PITA	13"	GOOD
KH-040	PITA	16"	GOOD
KH-041	QUAL	6"	GOOD
KH-042	PITA	18"	GOOD
KH-043	ULRU	6"	GOOD
KH-044	QUNI	5"	FAIR
KH-046	QUNI	6"	GOOD
KH-049	QUNI	5"	GOOD
KH-050	QUNI	5"	GOOD
KH-051	QURU	6"	GOOD
KH-092	QUNI	19"	GOOD

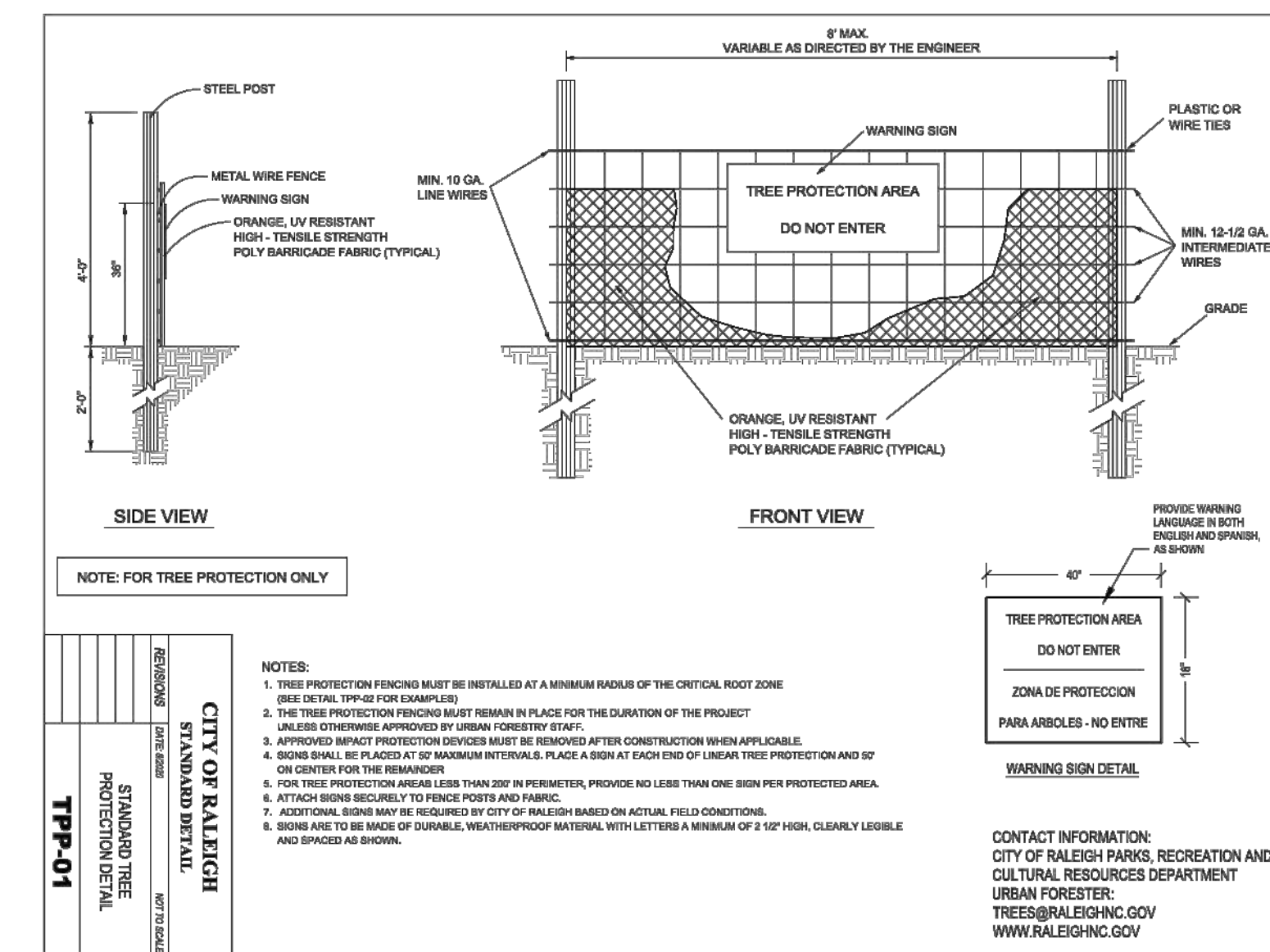
NO OF TREES	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
KH-214	PITA	10"	GOOD
KH-267	QUAL	11"	GOOD
KH-268	QUAL	12"	GOOD
KH-269	PITA	15"	GOOD
KH-270	PITA	15"	GOOD
KH-271	QURU	8"	GOOD
KH-282	PITA	25"	GOOD
KH-283	QUAL	16"	GOOD
KH-308	QUPH	10"	GOOD
KH-309	LIST	5"	GOOD
KH-310	QUNI	17"	FAIR
KH-311	QURU	6"	GOOD
KH-312	LITU	15"	GOOD
KH-313	LITU	18"	GOOD
KH-314	ACRU	14"	GOOD
KH-003	ACRU	31"	GOOD
KH-217	PITA	14"	GOOD
KH-218	ULRU	11"	GOOD
KH-219	QUNI	4"	GOOD
KH-220	ULRU	15"	GOOD
KH-221	JUVI	5"	GOOD
KH-222	QURU	56"	GOOD
KH-223	QURU	22"	GOOD
KH-224	QURU	25"	GOOD
KH-225	ULRU	10"	GOOD

TREE TO BE REMOVED			
TYPE	NO OF TREE	BOTANICAL NAME	CALIPER INCHES
CONIFERS	AJ-022A	PITA	20"
CONIFERS	AJ-022B	PITA	20"
CONIFERS	AJ-028	PITA	25"
CONIFERS	AJ-030	QURU	20"
CONIFERS	AJ-036	PITA	20"
CONIFERS	AJ-123	PITA	23"
CONIFERS	AJ-124	PITA	25"
CONIFERS	KH-205	PITA	20"
CONIFERS	KH-002	PITA	30"
CONIFERS	KH-021	PITA	40"
CONIFERS	KH-047	PITA	21"
CONIFERS	KH-048	PITA	21"
CONIFERS	KH-054	PITA	20"
CONIFERS	KH-069	PITA	27"
CONIFERS	KH-105	PITA	23"
CONIFERS	KH-106	PITA	22"
CONIFERS	KH-107	PITA	29"
CONIFERS	KH-108	PITA	26"
CONIFERS	KH-109	PITA	28"
CONIFERS	KH-130	PITA	21"
CONIFERS	KH-131	PITA	25"
CONIFERS	KH-145	PITA	24"
CONIFERS	KH-168	OUFA	22"
CONIFERS	KH-197	PITA	20"
CONIFERS	KH-200	PITA	20"
CONIFERS	KH-207	PITA	20"
CONIFERS	KH-277	PITA	28"
CONIFERS	KH-136	PITA	29"
CONIFERS	KH-247	PITA	25"
CONIFERS	46	PITA	46"
TOTAL		30	

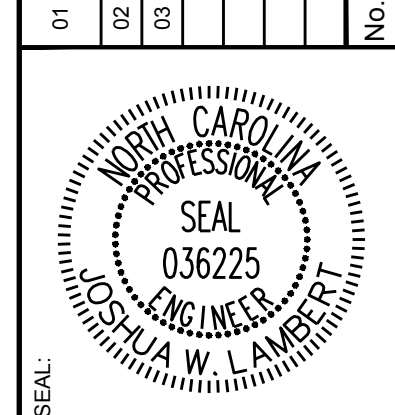
TREE TYPE	CODE SECTION	CALIPER MIN. (")	REPLACEMENT RATE	NUMBER OF TREES CUT DOWN	NUMBER OF REPLACEMENT TREES
EVERGREEN*	6.2.4.5.B.2 & 6.2.4.5.B.3	20	4 TREES	30	120
DECIDUOUS*		18	4 TREES	29	116
ALL**	6.2.4.5.B.4	60	60*	0	0
			TOTAL:	59	236

\* REPLACEMENT TREES TO BE OF SIMILAR SPECIES AND SIZE  
 \*\* REPLACEMENT TREE MIN 3" CALIPER

TREE TO BE REMOVED			
TYPE	NO OF TREE	BOTANICAL NAME	CALIPER INCHES
DECIDUOUS	AJ-001	LITU	19"
DECIDUOUS	AJ-024	QUST	22"
DECIDUOUS	AJ-031	LIST	19"
DECIDUOUS	AJ-033	LITU	27"
DECIDUOUS	AJ-034	LIST	18"
DECIDUOUS	AJ-035	LITU	23"
DECIDUOUS	AJ-038	LITU	19"
DECIDUOUS	AJ-039	LITU	36"
DECIDUOUS	AJ-040	ACRU	22"
DECIDUOUS	AJ-041B	ACRU	18"
DECIDUOUS	AJ-096	LIST	18"
DECIDUOUS	AJ-097	LITU	19"
DECIDUOUS	AJ-102	QURU	18"
DECIDUOUS	AJ-113	QUPH	18"
DECIDUOUS	KH-019	QUAL	20"
DECIDUOUS	KH-026	PRSE	26"
DECIDUOUS	KH-059	QUNI	59"
DECIDUOUS	KH-91	PRSE	22"
DECIDUOUS	KH-121	QURU	27"
DECIDUOUS	KH-261	LITU	22"
DECIDUOUS	KH-284	QUNI	20"
DECIDUOUS	KH-305	QUNI	19"
DECIDUOUS	KH-306	QUFA	19"
DECIDUOUS	KH-307	QURU	19"
DECIDUOUS	KH-317	QUAL	20"
DECIDUOUS	KH-319	QUAL	29"
DECIDUOUS	KH-245	QUAL	18"
DECIDUOUS	KH-250	QURU	24"
DECIDUOUS	KH-253	QURU	23"
TOTAL		29	



NO.	DATE	REVISIONS
01		
02		
03		



**STRONGROCK**  
 ENGINEERING GROUP  
 STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-00	CONSTRUCTION	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
 CONSTRUCTION PLANS  
 PRESERVATION PLAN TABLES

DRAWING SHEET  
**C-12.9**



**SIGN LEGEND:**

- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
 

SIGN	MUTCD STD.	SIZE
STOP	R1-1, R1-3P	30"X30"
20 MPH	R2-1	24"X30"
DEAD END	W14-1	30"X30"
STREET NAME	D3-1	VARIABLES X12"
PEDESTRIAN CROSSING	W11-2, W16-7P	30"X30", 12"X24"
PARKING		24"X30"
- ALL SIGNS SHALL BE MOUNTED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 3-LB. GALV. STEEL U-CHANNEL POST SET IN 3-FT SIGN DEEP X 12-IN DIA. CONCRETE FOOTING. MUTCD STD. SIZE NCDOT PRIOR TO SIGN INSTALLATION.
- ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF ROLESVILLE.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE TOWN OF ROLESVILLE, NCDOT STANDARDS AND SPECIFICATIONS.

CONSTRUCTION INFRASTRUCTURE DRAWINGS	DATE	BY
CID-24-04	08/04/2024	SRG
TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SRG
TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SRG

NO.	REVISIONS	DATE

SEAL: 

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STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

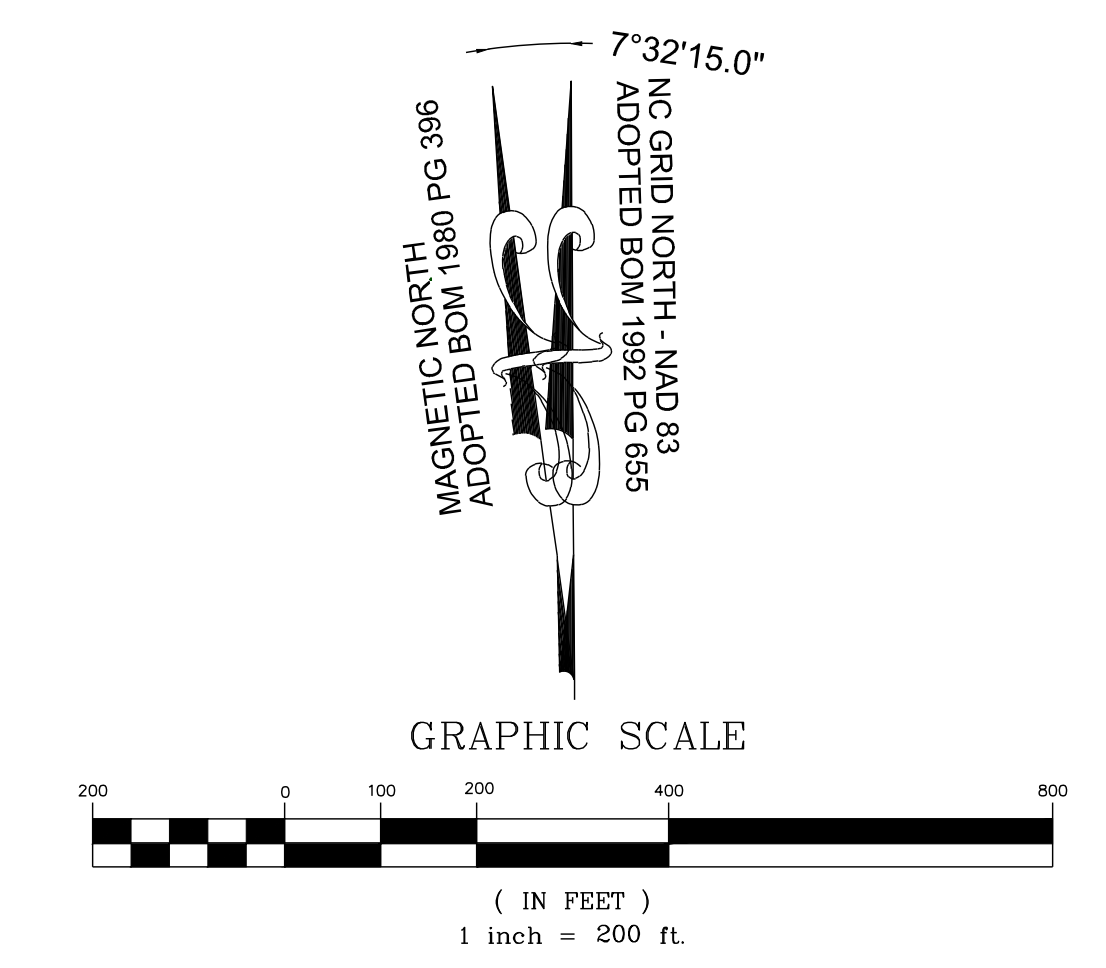
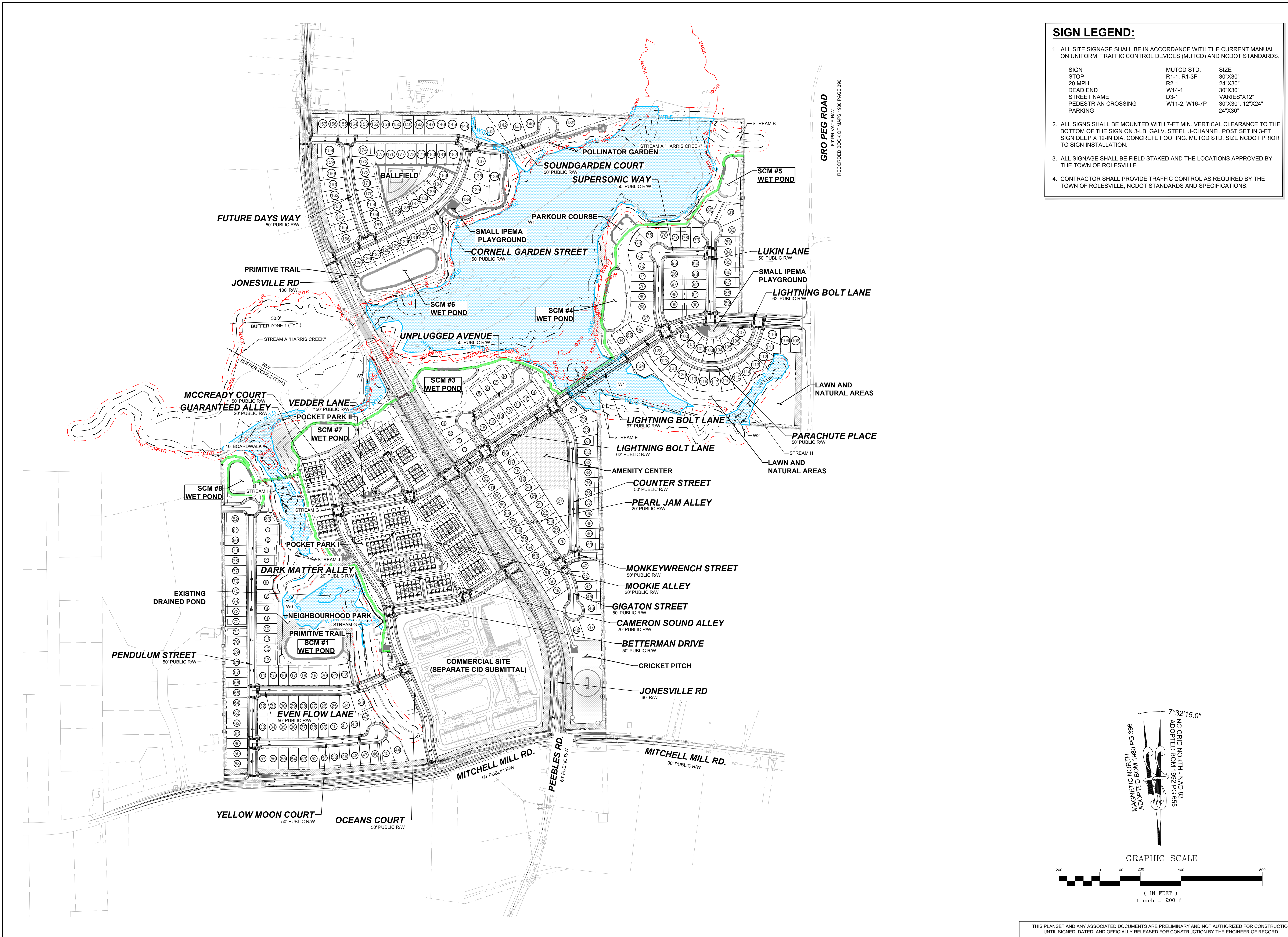
CONSTRUCTION PLANS

OVERALL SIGNAGE & PAVEMENT MARKING PLAN

DRAWING SHEET

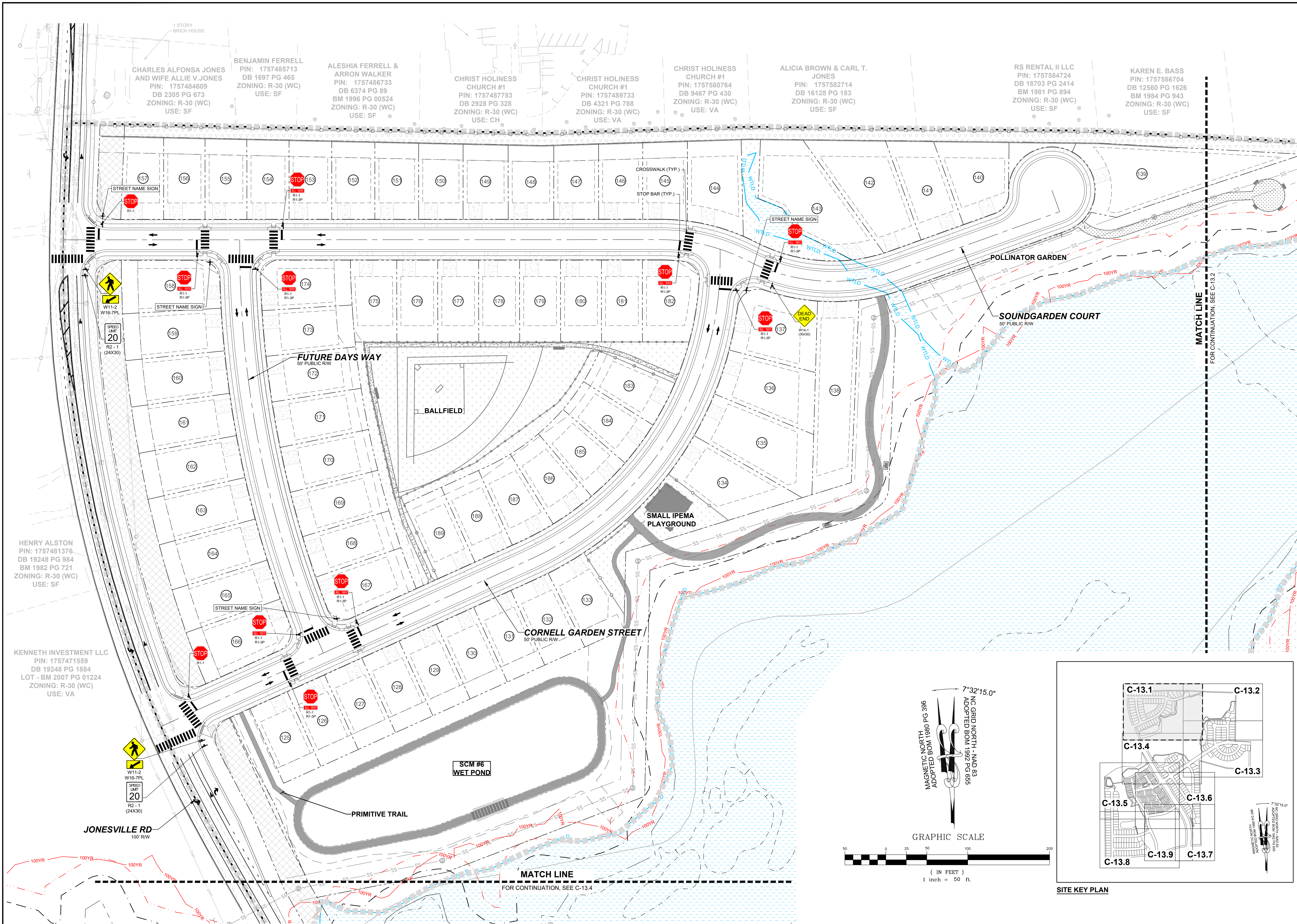
**C-13.0**

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CHARLES ALFONSA JONES AND WIFE ALLIE V. JONES  
PIN: 1757484609  
DB 2305 PG 673  
ZONING: R-30 (WC)  
USE: SF

BENJAMIN FERRELL  
PIN: 1757485713  
DB 1697 PG 465  
ZONING: R-30 (WC)  
USE: SF

ALESHIA FERRELL & ARRON WALKER  
PIN: 1757486733  
DB 6374 PG 89  
BM 1996 PG 00524  
ZONING: R-30 (WC)  
USE: SF

CHRIST HOLINESS CHURCH #1  
PIN: 1757487783  
DB 2928 PG 328  
ZONING: R-30 (WC)  
USE: CH

CHRIST HOLINESS CHURCH #1  
PIN: 1757489733  
DB 4321 PG 788  
ZONING: R-30 (WC)  
USE: VA

CHRIST HOLINESS CHURCH #1  
PIN: 1757580764  
DB 9467 PG 430  
ZONING: R-30 (WC)  
USE: VA

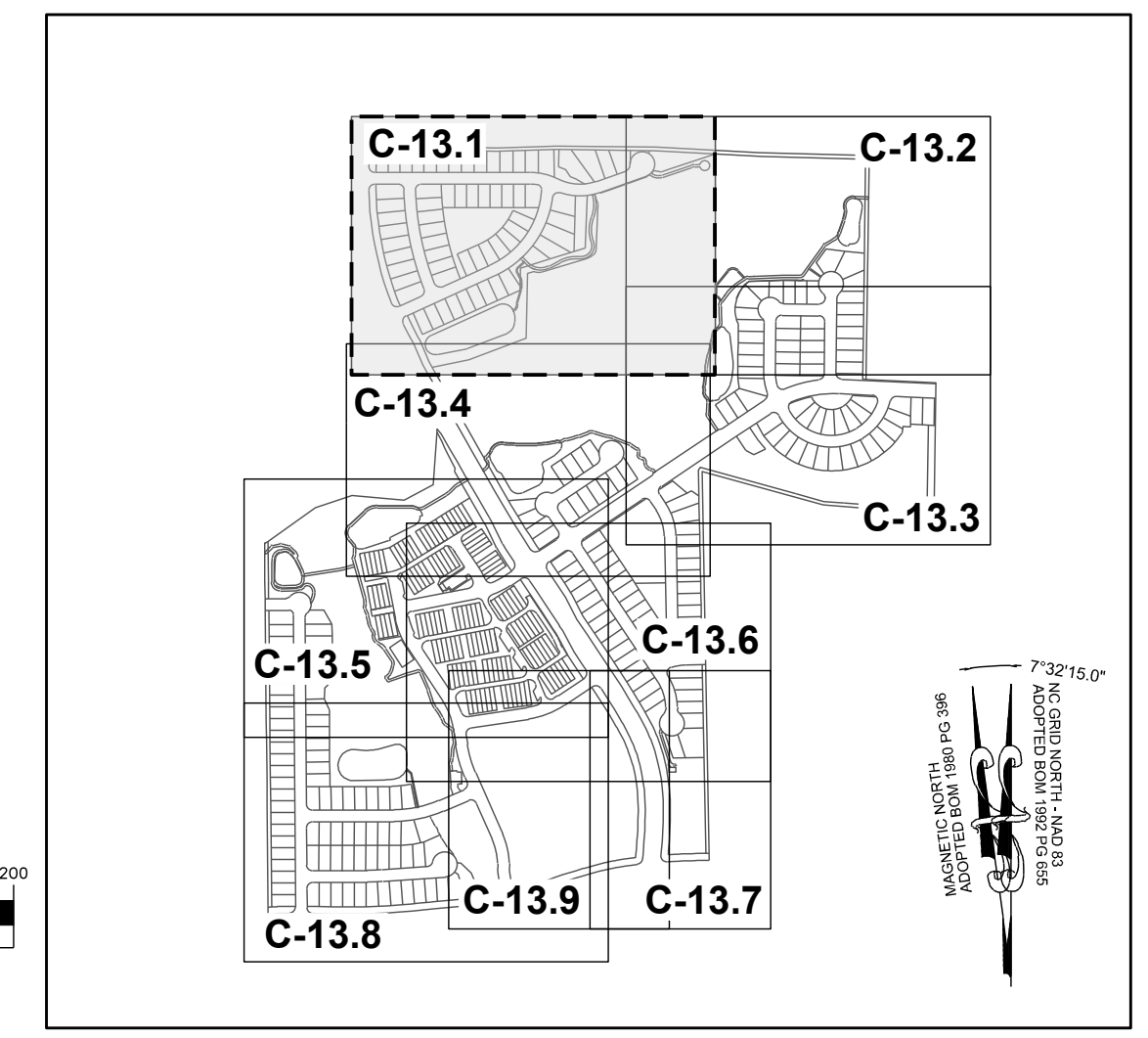
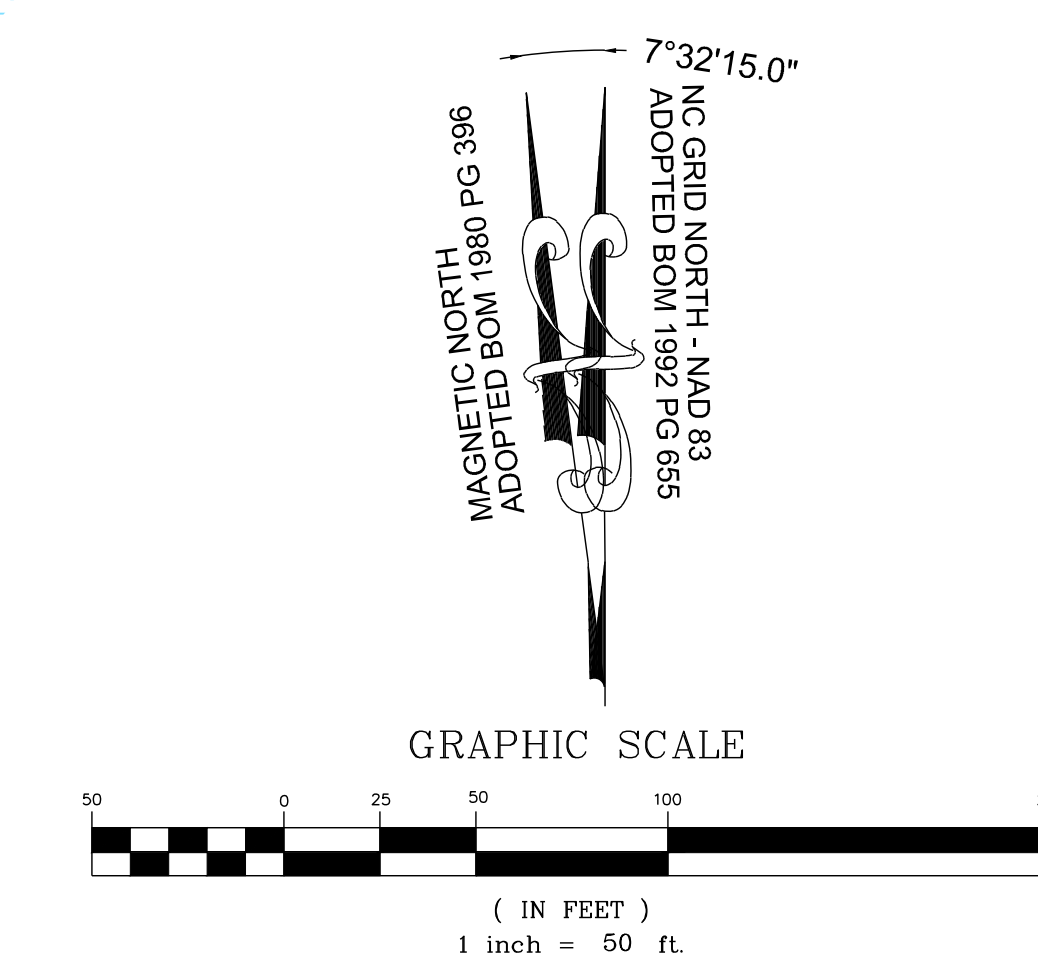
ALICIA BROWN & CARL T. JONES  
PIN: 1757582714  
DB 16128 PG 183  
ZONING: R-30 (WC)  
USE: SF

RS RENTAL II LLC  
PIN: 1757584724  
DB 18703 PG 2414  
BM 1981 PG 894  
ZONING: R-30 (WC)  
USE: SF

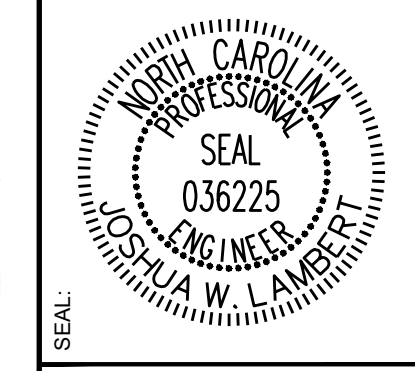
KAREN E. BASS  
PIN: 1757586704  
DB 12560 PG 1626  
BM 1984 PG 943  
ZONING: R-30 (WC)  
USE: SF

HENRY ALSTON  
PIN: 1757481376  
DB 19248 PG 984  
BM 1982 PG 721  
ZONING: R-30 (WC)  
USE: SF

KENNETH INVESTMENT LLC  
PIN: 1757471559  
DB 19248 PG 1884  
LOT - BM 2007 PG 01224  
ZONING: R-30 (WC)  
USE: VA



NO.	REVISIONS	DATE	BY
01			
02			
03			



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ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT
PSP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL
			DRAWN BY SRG
			CHECKED BY JWL

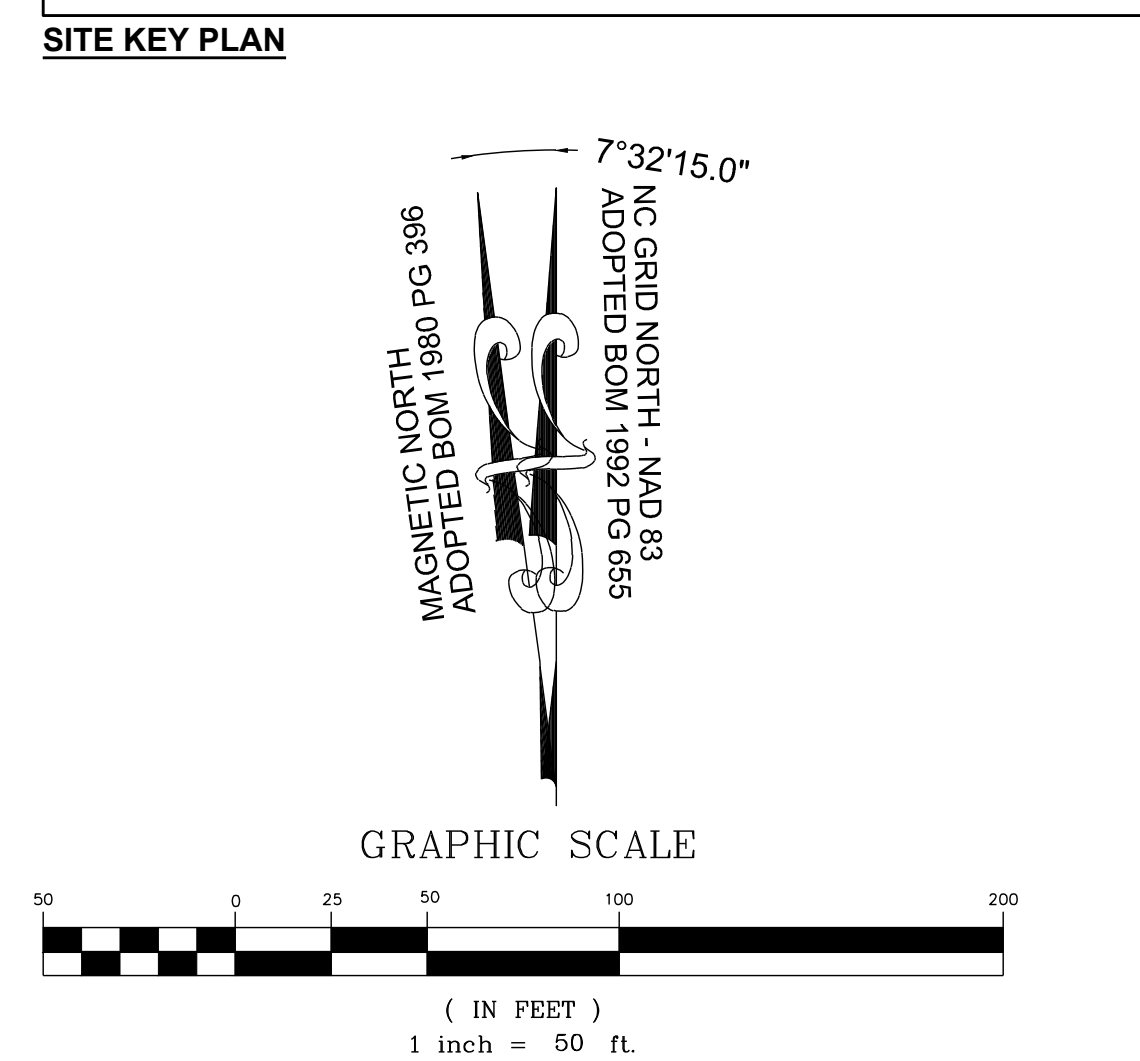
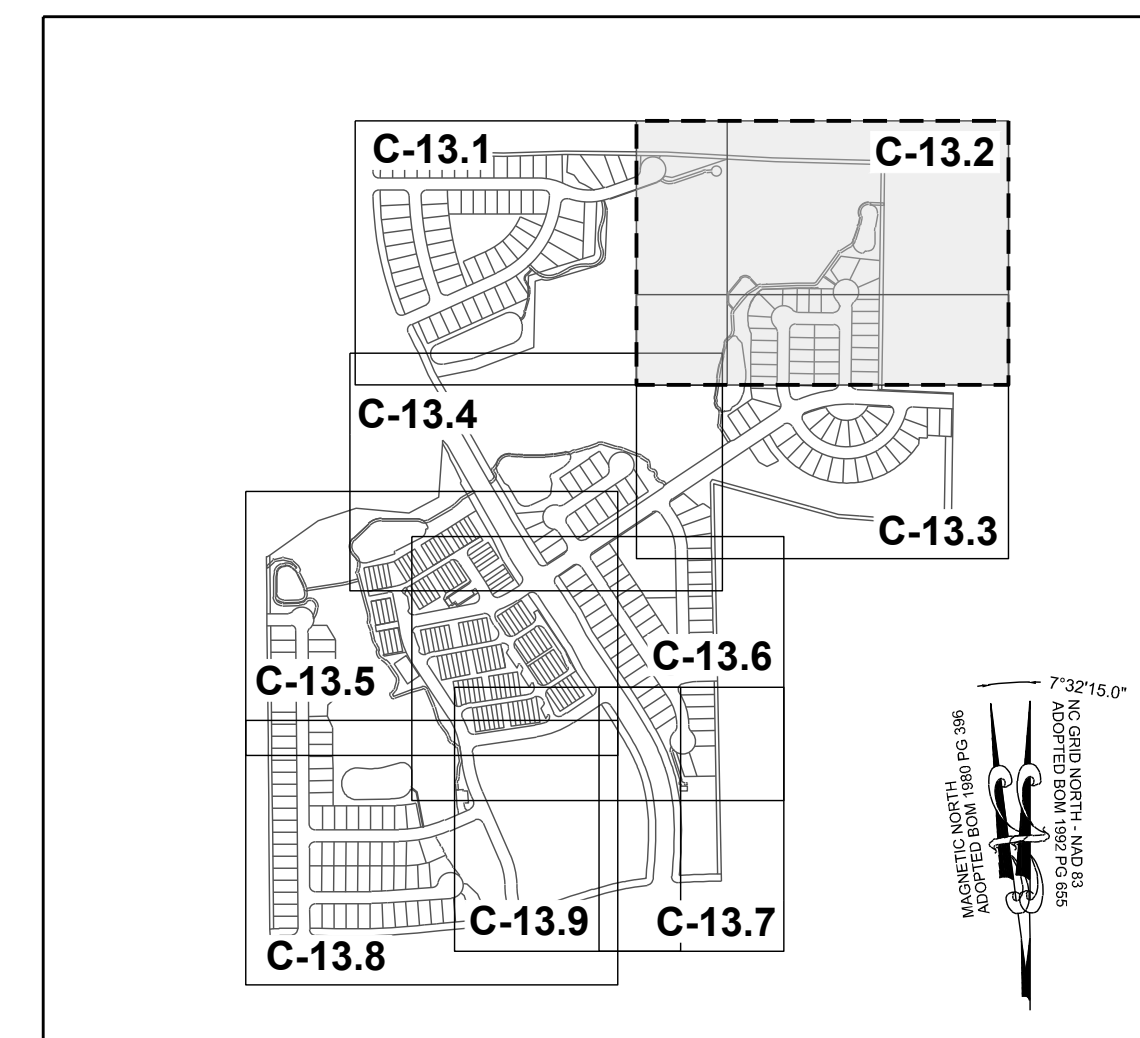
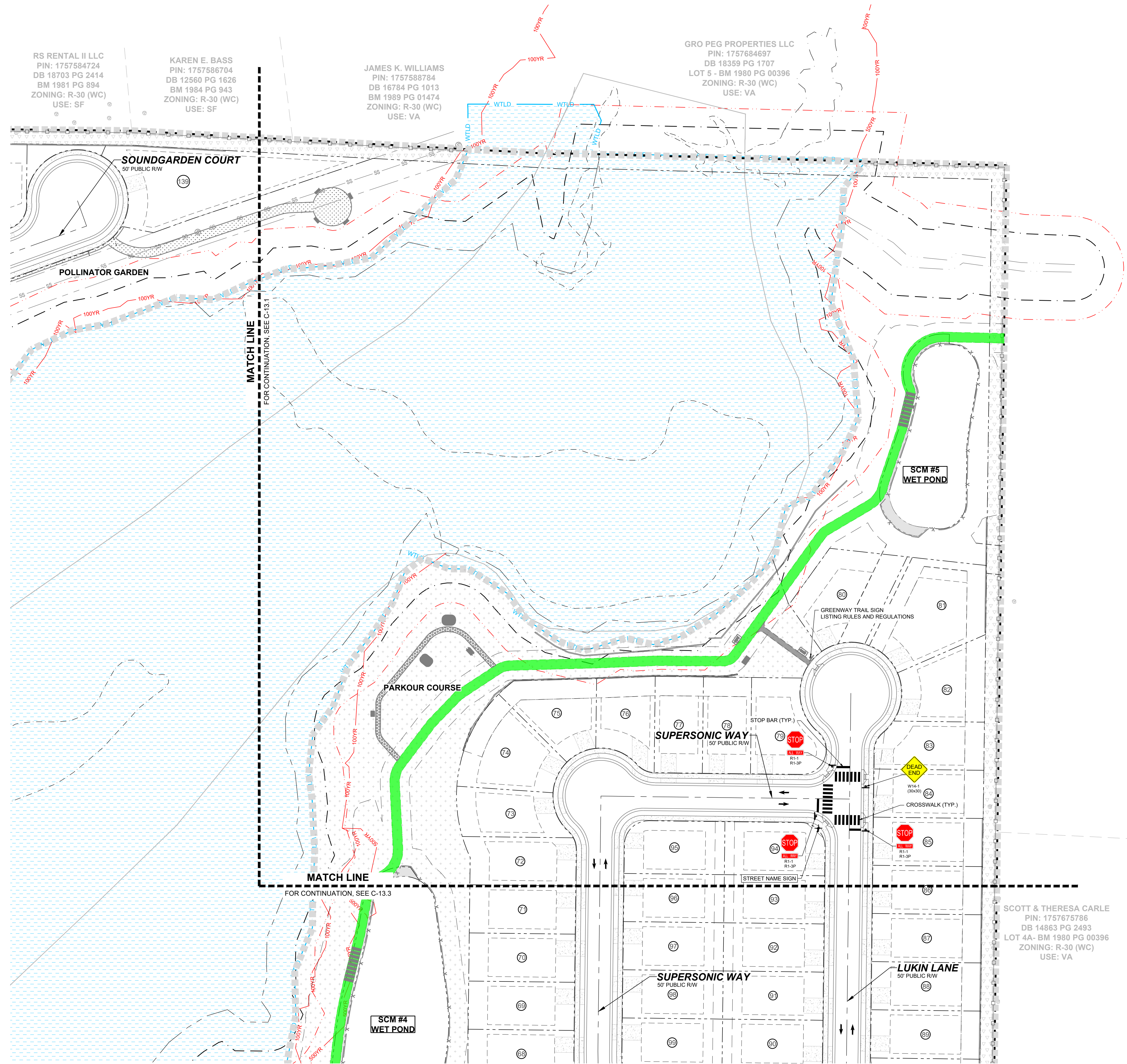
RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PARTIAL SIGNAGE & PAVEMENT MARKING PLAN I

DRAWING SHEET  
C-13.1

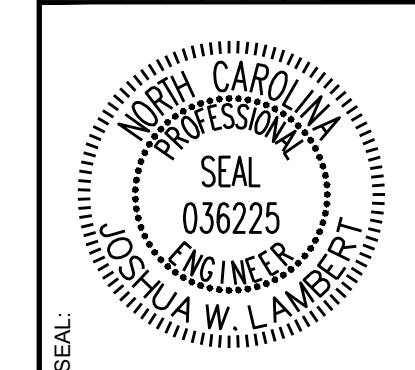
165 OF 201

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NO.	REVISIONS	DATE	BY
01			
02			
03			



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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

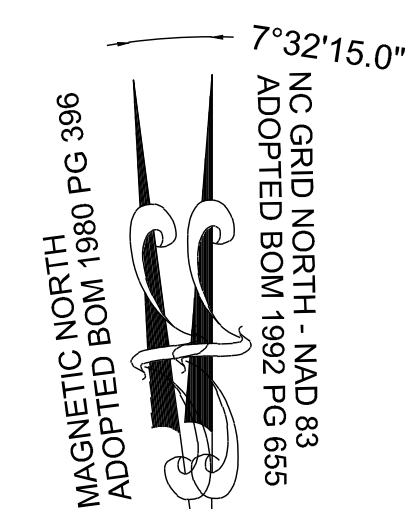
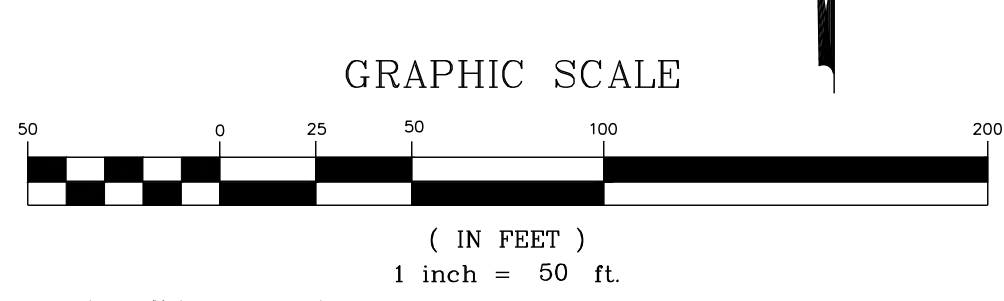
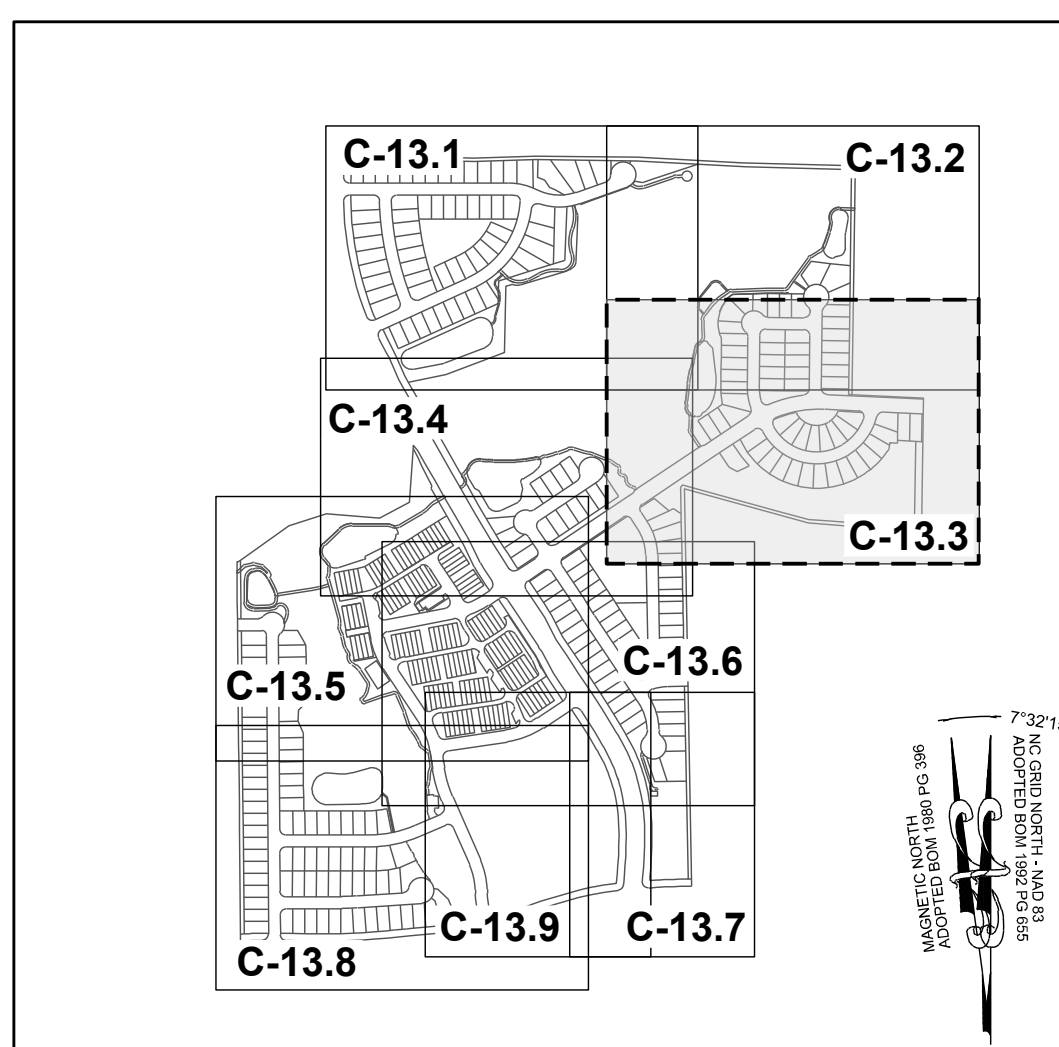
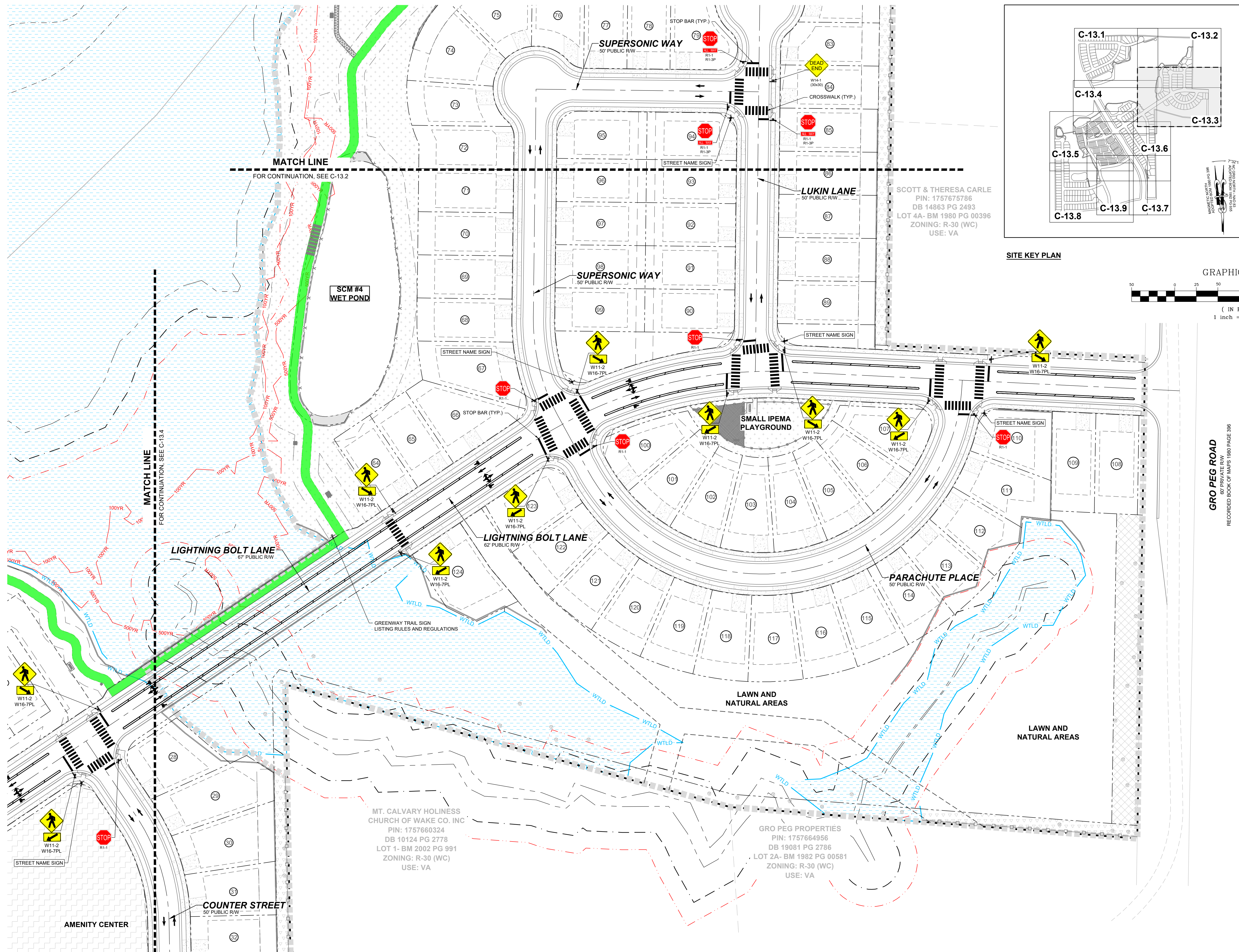
STRONG ROCK PROJECT	PSP-24-03
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PARTIAL SIGNAGE & PAVEMENT MARKING PLAN II

DRAWING SHEET  
**C-13.2**

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NO.	REVISIONS	DATE	BY
01			
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03			

**STRONGROCK**  
ENGINEERING GROUP

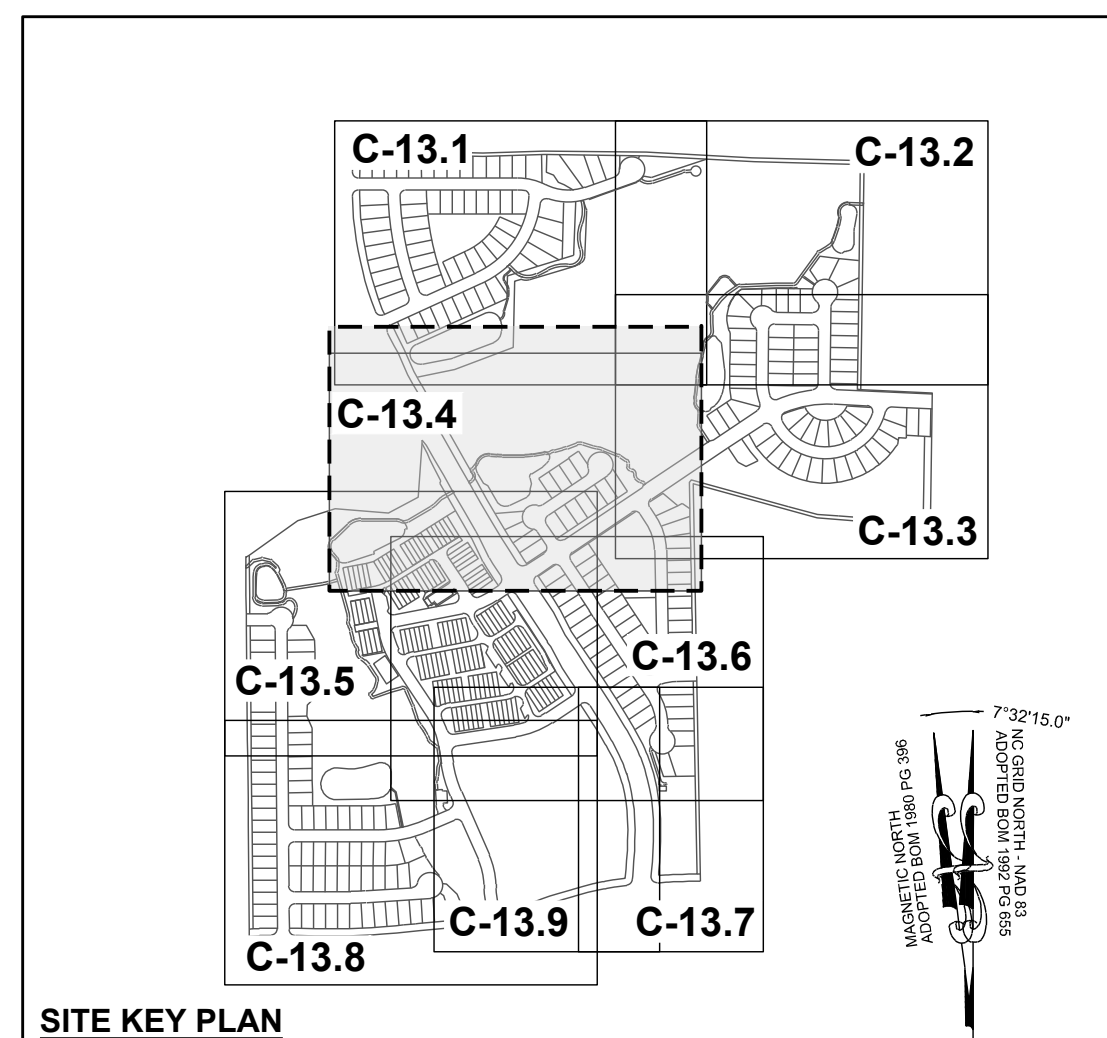
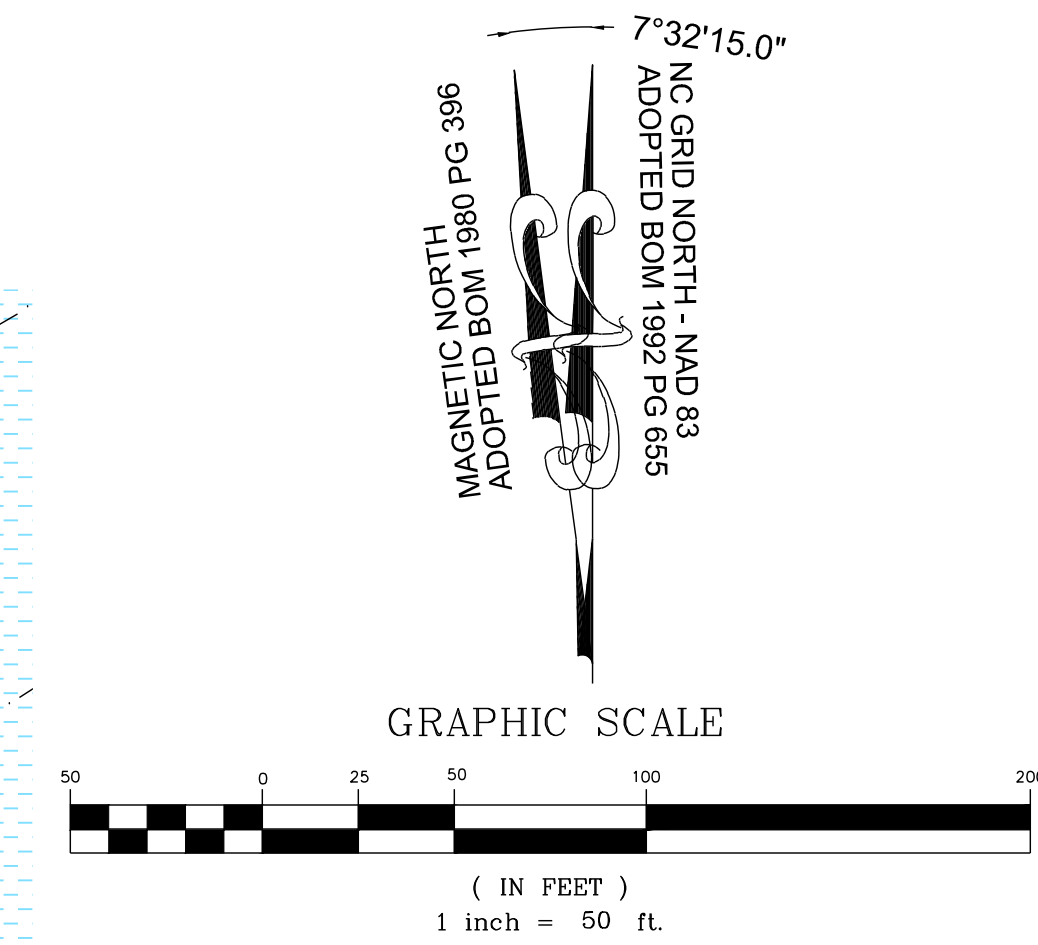
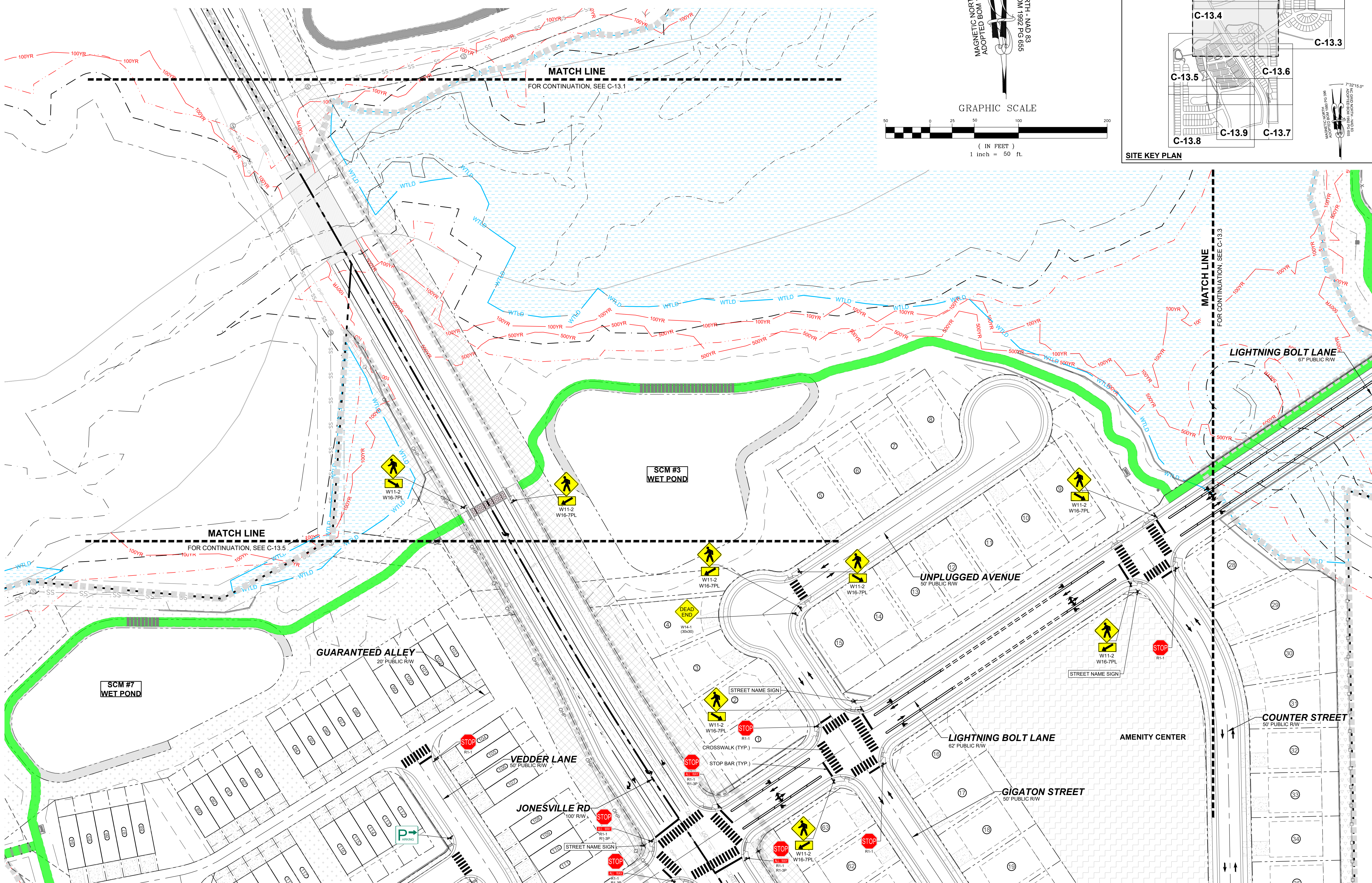
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PARTIAL SIGNAGE & PAVEMENT  
MARKING PLAN III

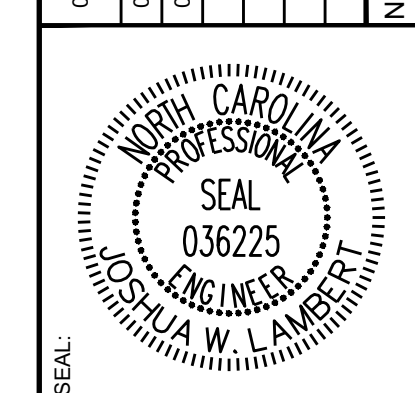
DRAWING SHEET  
**C-13.3**

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NO.	DATE	REVISIONS	BY
01	08/04/2024	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	
02	11/07/2024	TOWN OF ROLESVILLE CID-24-04 V2	
03	02/07/2024	TOWN OF ROLESVILLE CID-24-04 V3	



**STRONGROCK**  
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT P-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

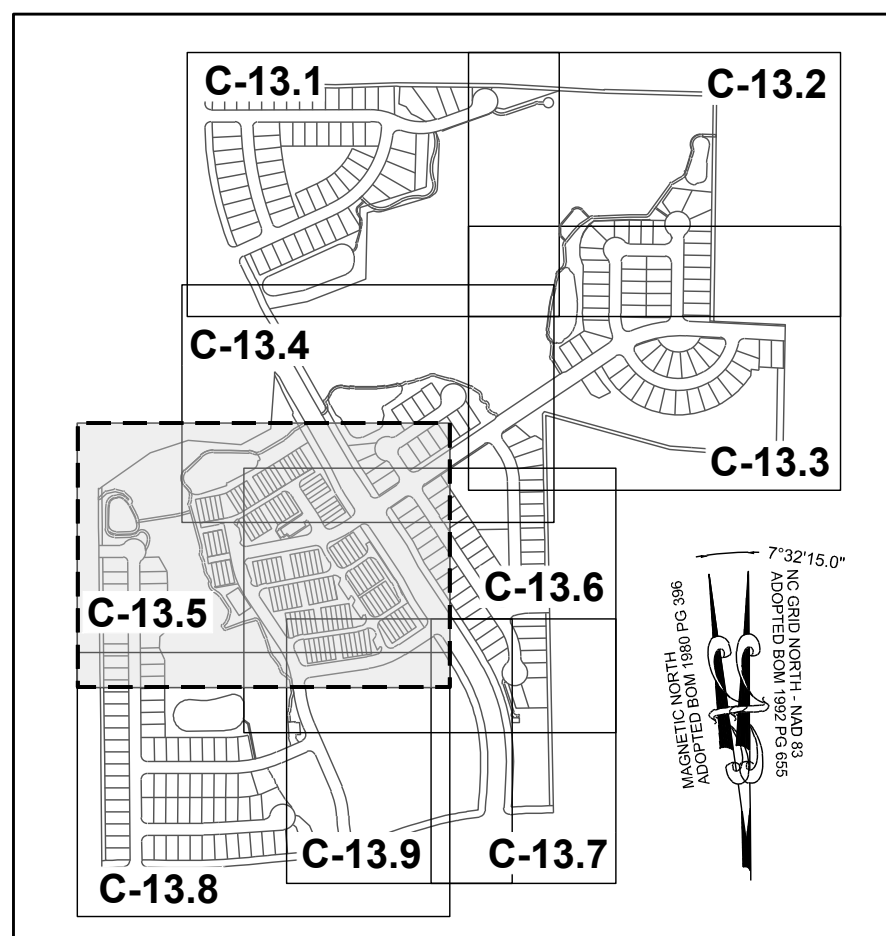
CONSTRUCTION PLANS

PARTIAL SIGNAGE & PAVEMENT MARKING PLAN IV

DRAWING SHEET  
**C-13.4**

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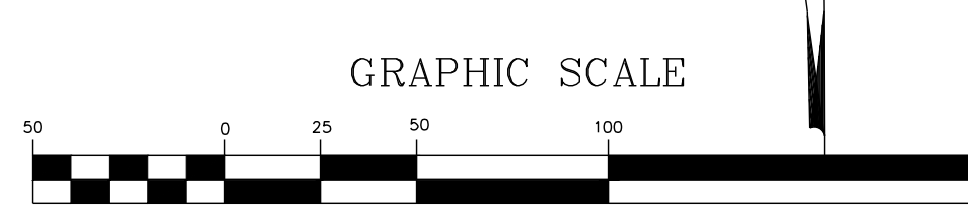
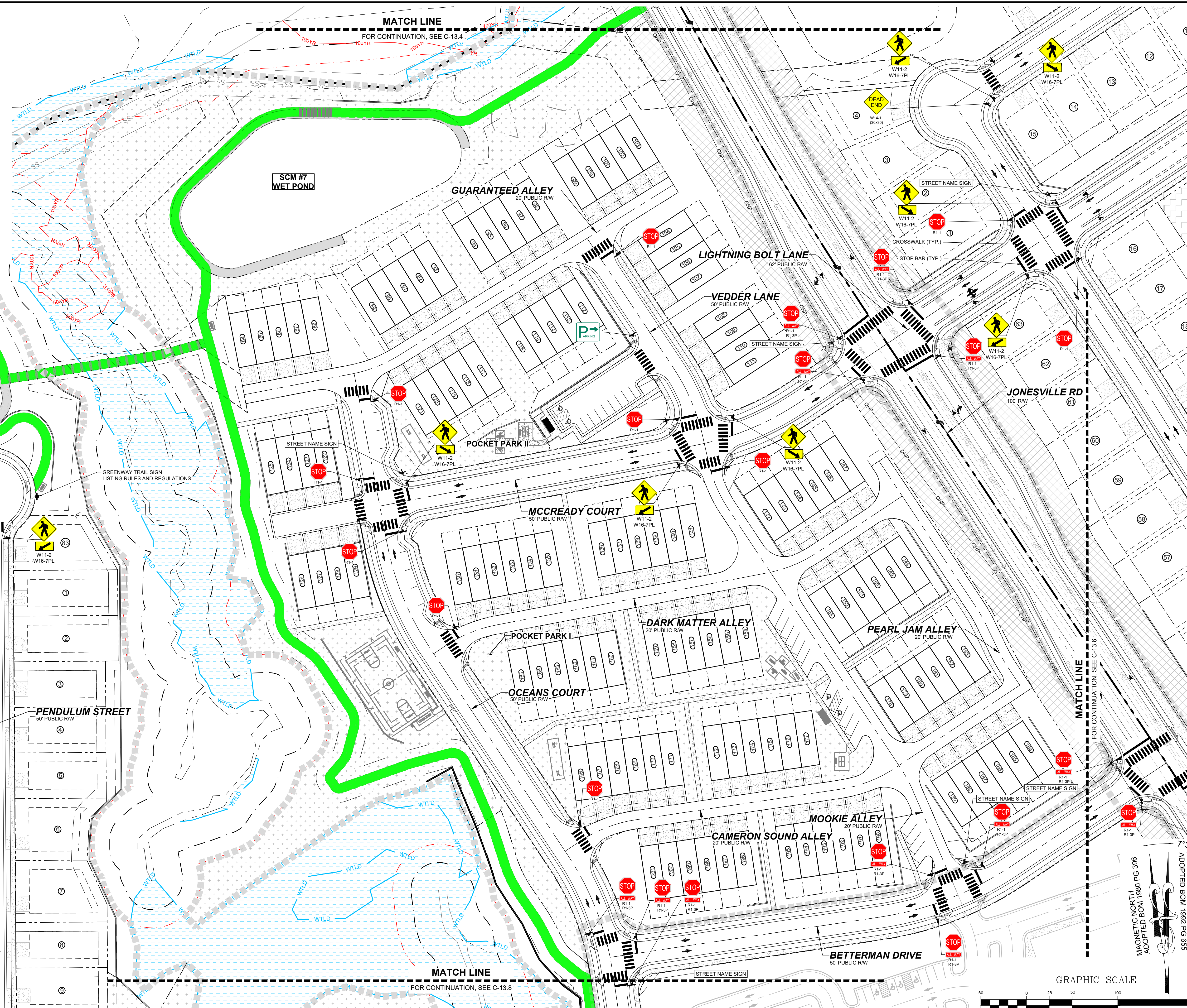




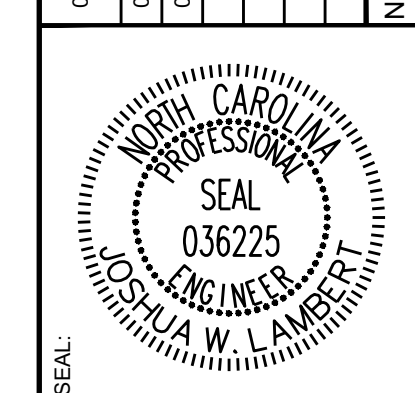
**SITE KEY PLAN**

KENNETH INVESTMENT LLC  
PIN: 1757368816  
DB 19248 PG 1884  
ZONING: R-30 (WC)  
USE: VA  
GREENWAY TRAIL SIGN LISTING RULES AND REGULATIONS

MEGAN KULAWIAK  
PIN: 1757367367  
DB 16226 PG 1133  
LOT 6  
BM 1990 PG 00387  
ZONING: R-30 (WC)  
USE: VA



NO.	REVISIONS	DATE	BY
01			
02			
03			



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ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

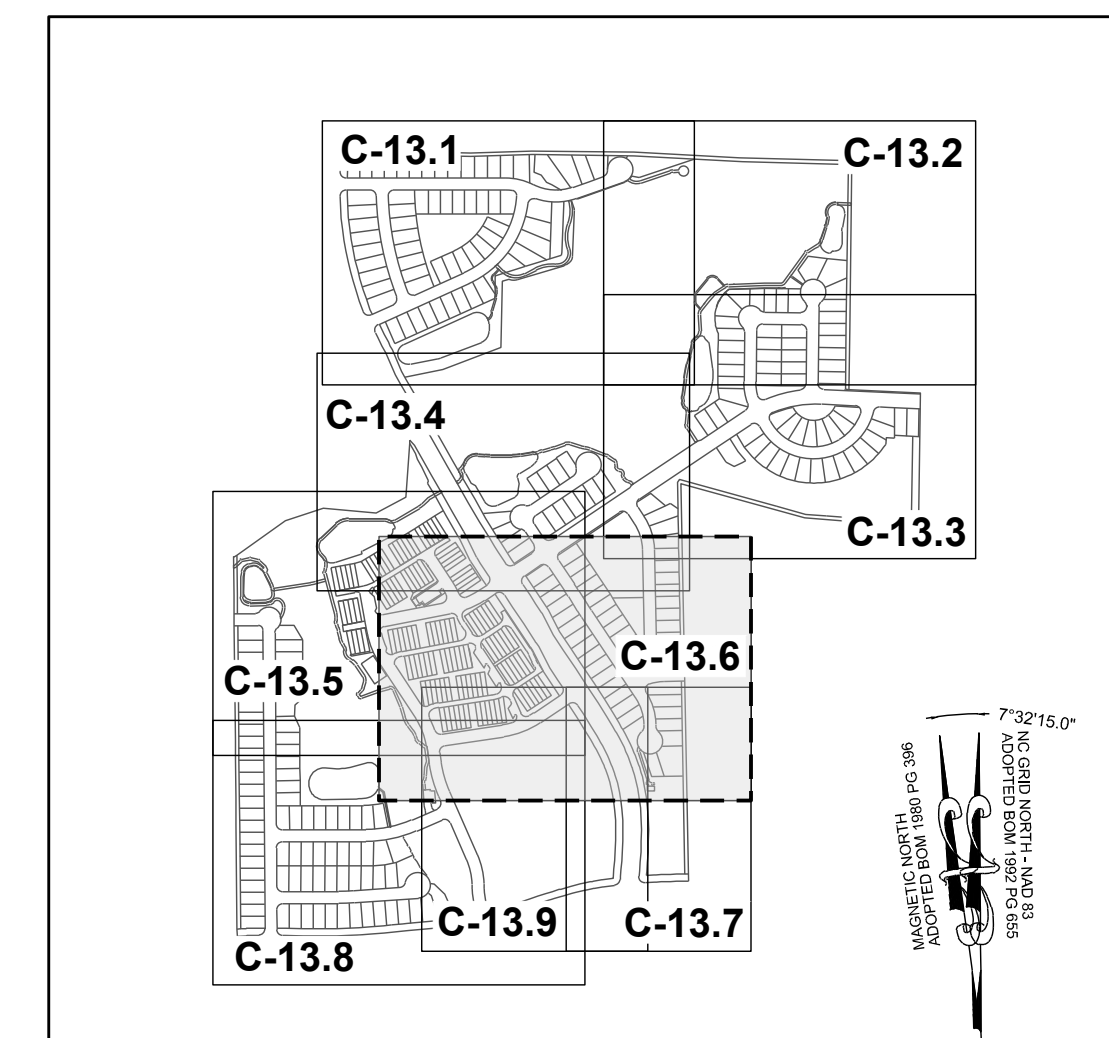
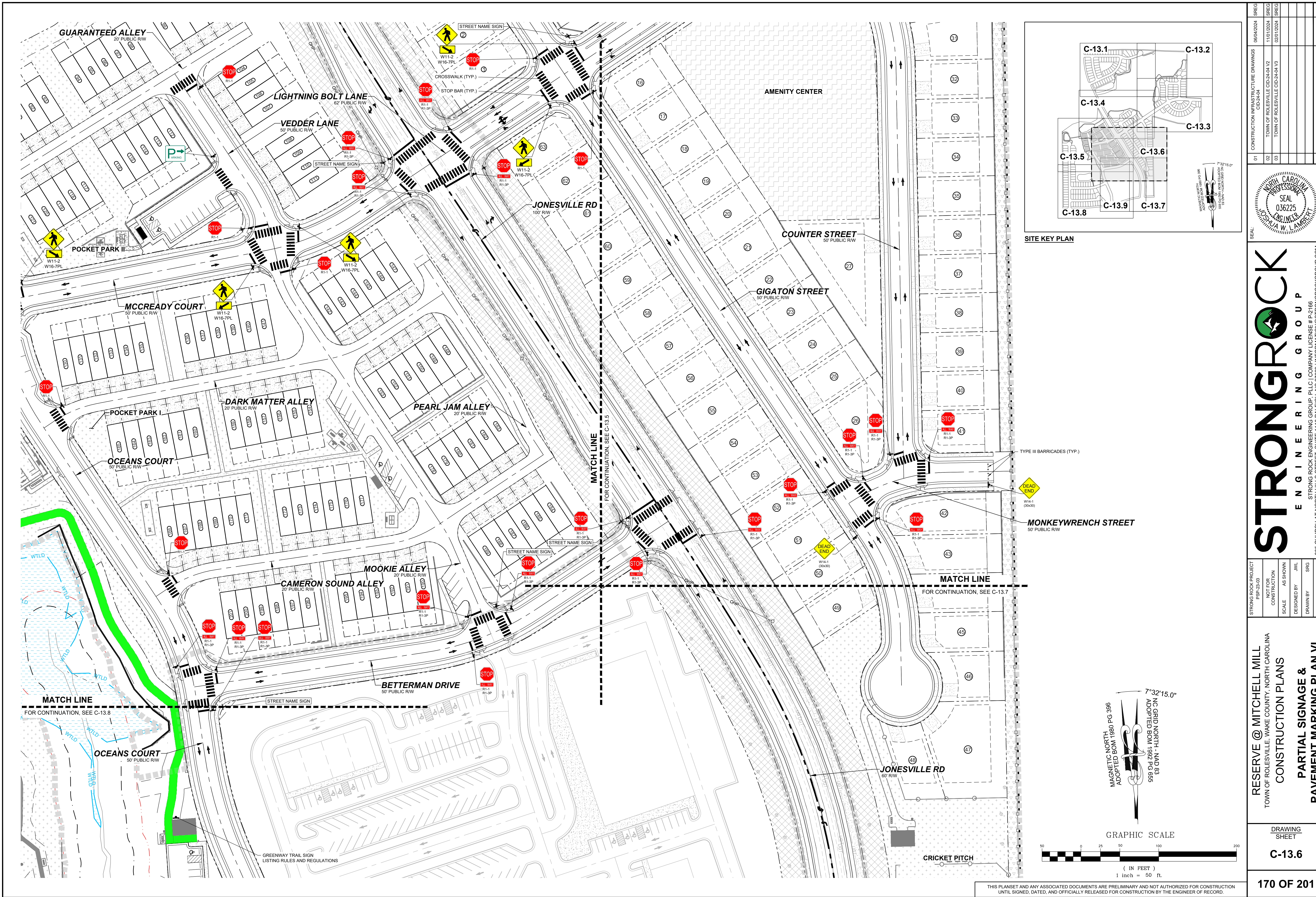
RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PARTIAL SIGNAGE & PAVEMENT MARKING PLAN V

DRAWING SHEET  
**C-13.5**

169 OF 201

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SITE KEY PLAN

CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-34-04	08/04/2024	SREG	BY
TOWN OF ROLESVILLE CID-34-04 V2	11/07/2024	SREG	DATE
TOWN OF ROLESVILLE CID-34-04 V3	02/07/2024	SREG	REVISIONS
No.			

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER  
 SEAL 036225  
 JUSTIN W. LAMBERT

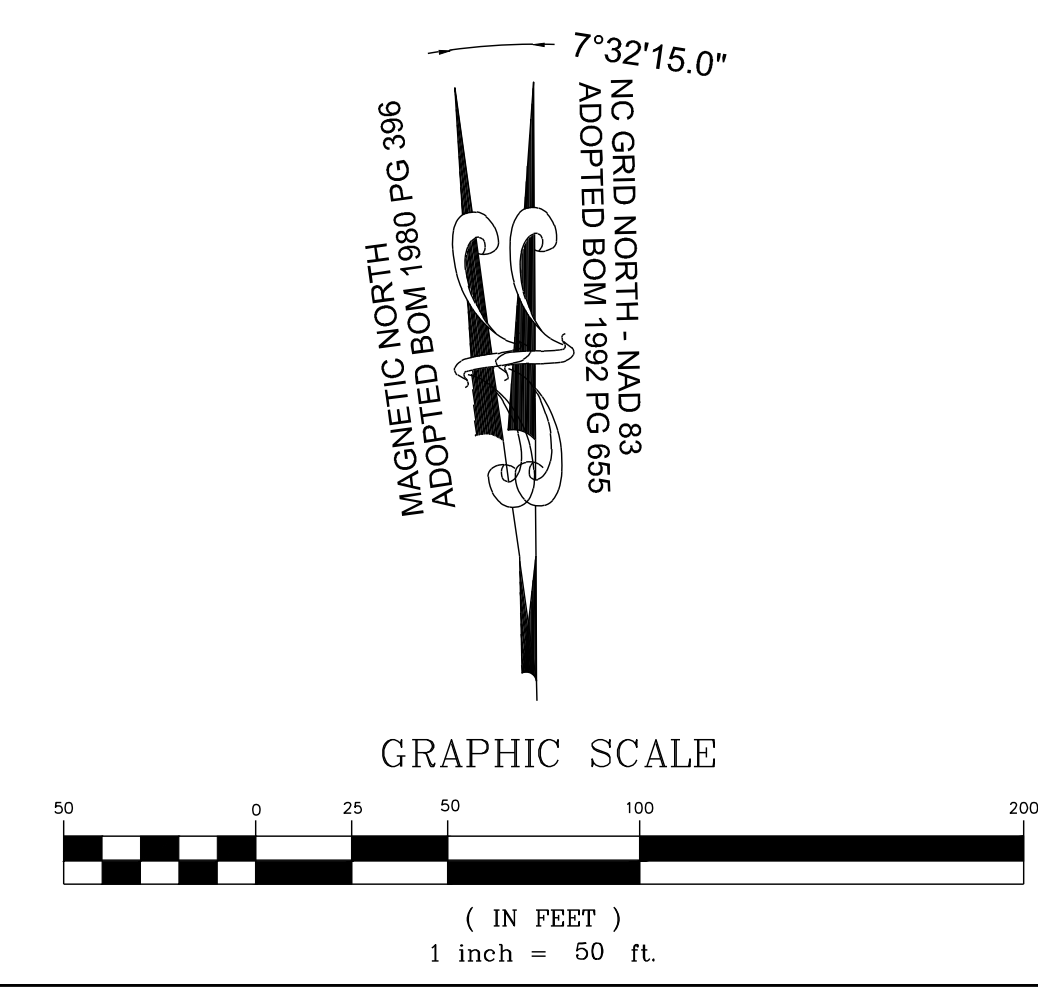
**STRONGROCK**  
 ENGINEERING GROUP

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STRONG ROCK PROJECT PSP-24-03	DESIGNED BY JWL	SRG
NOT FOR CONSTRUCTION	DRAWN BY JWL	
SCALE AS SHOWN	CHECKED BY JWL	

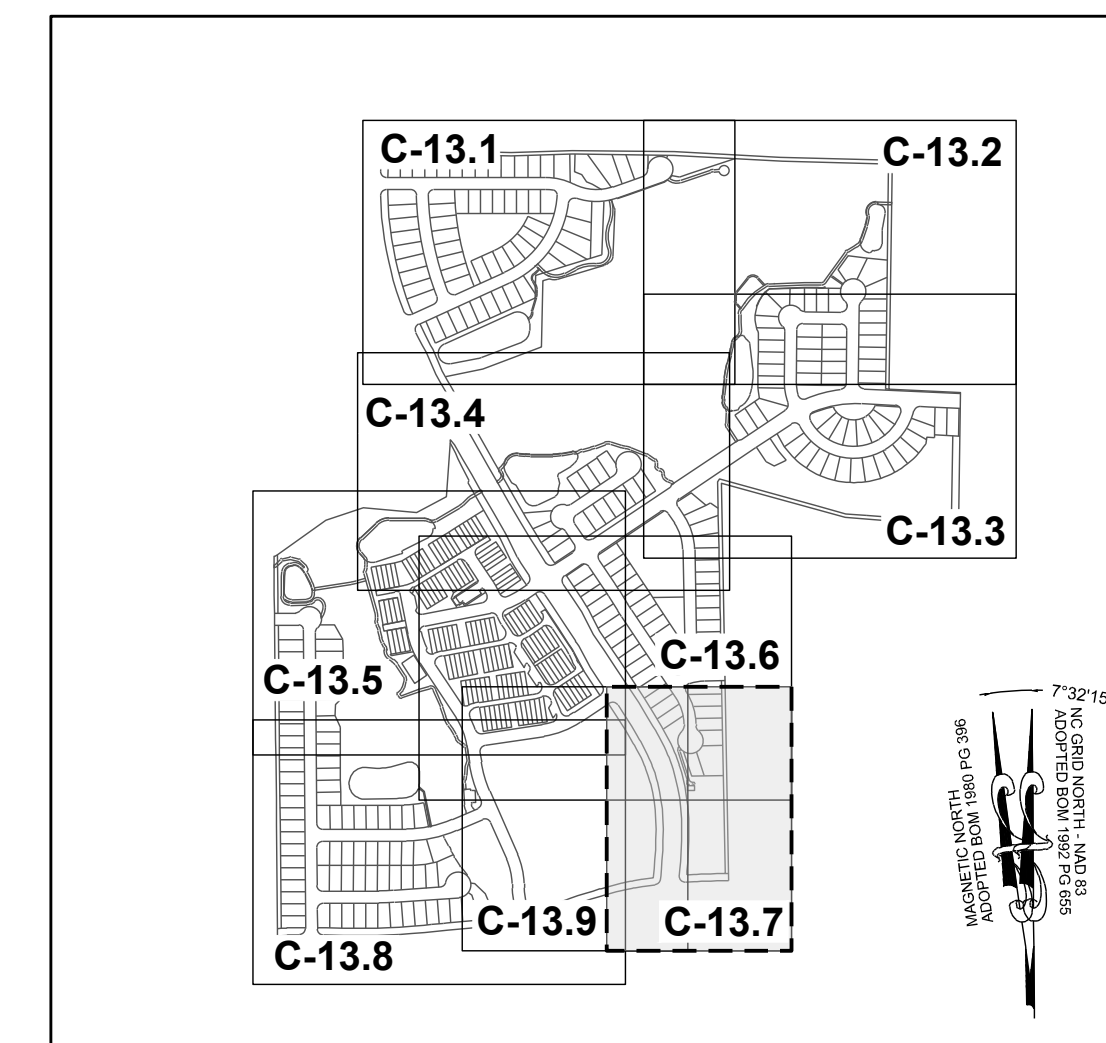
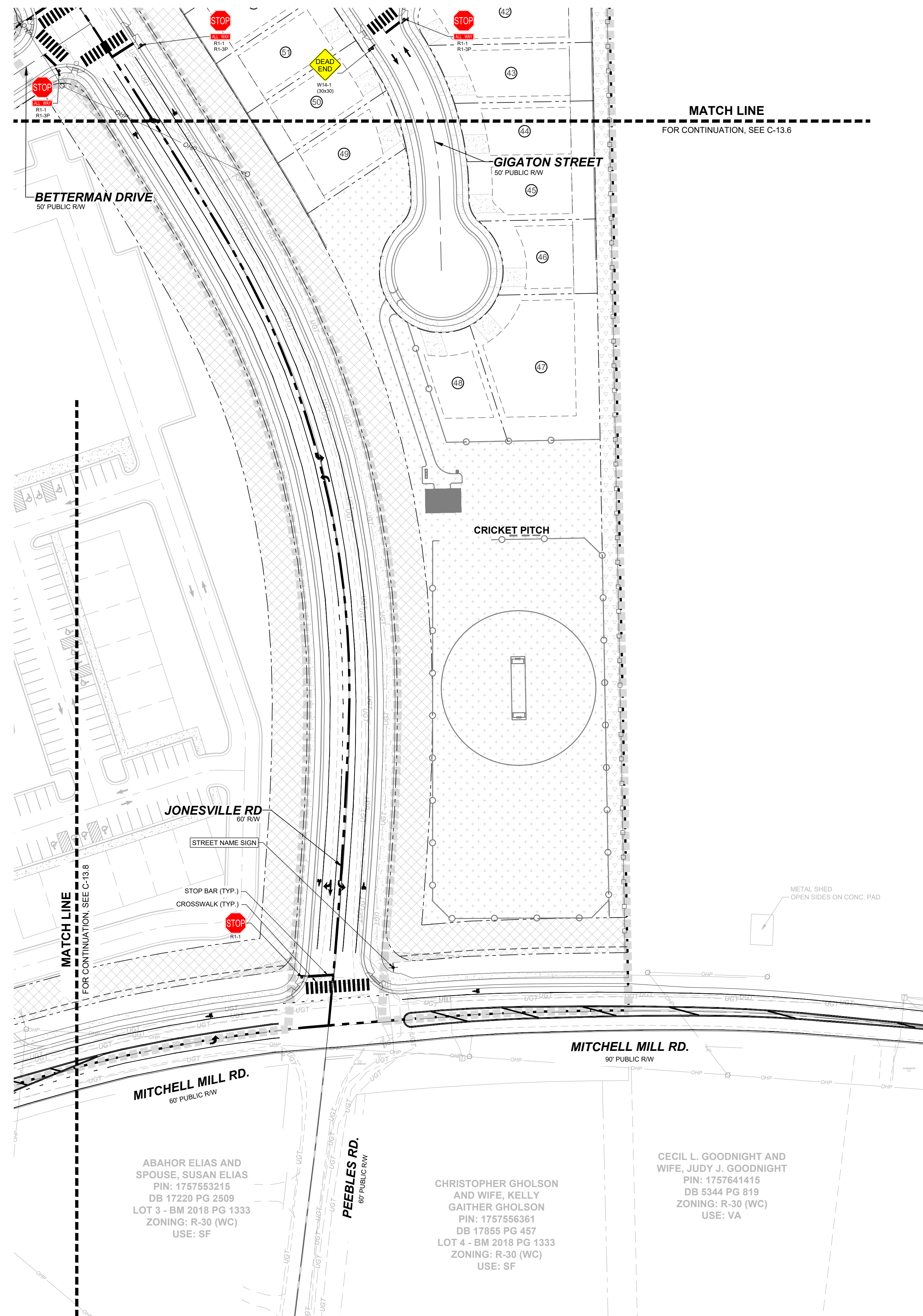
RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
 CONSTRUCTION PLANS  
 PARTIAL SIGNAGE &  
 PAVEMENT MARKING PLAN VI

DRAWING SHEET  
**C-13.6**  
 170 OF 201

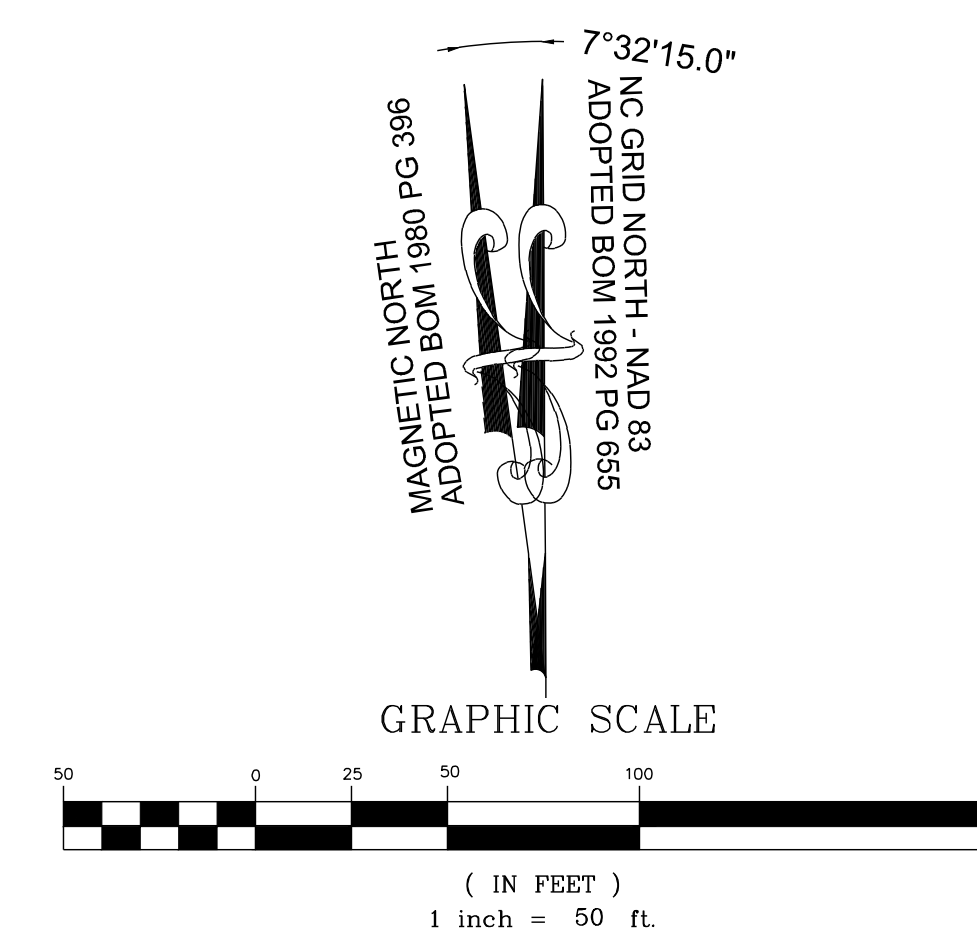


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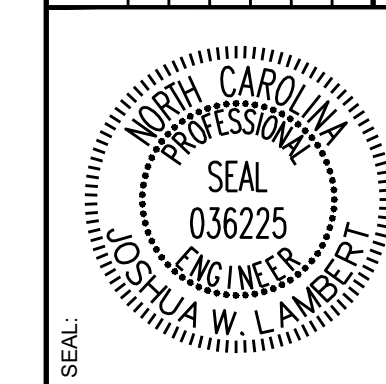




SITE KEY PLAN



NO.	REVISIONS	DATE	BY
01			
02			
03			



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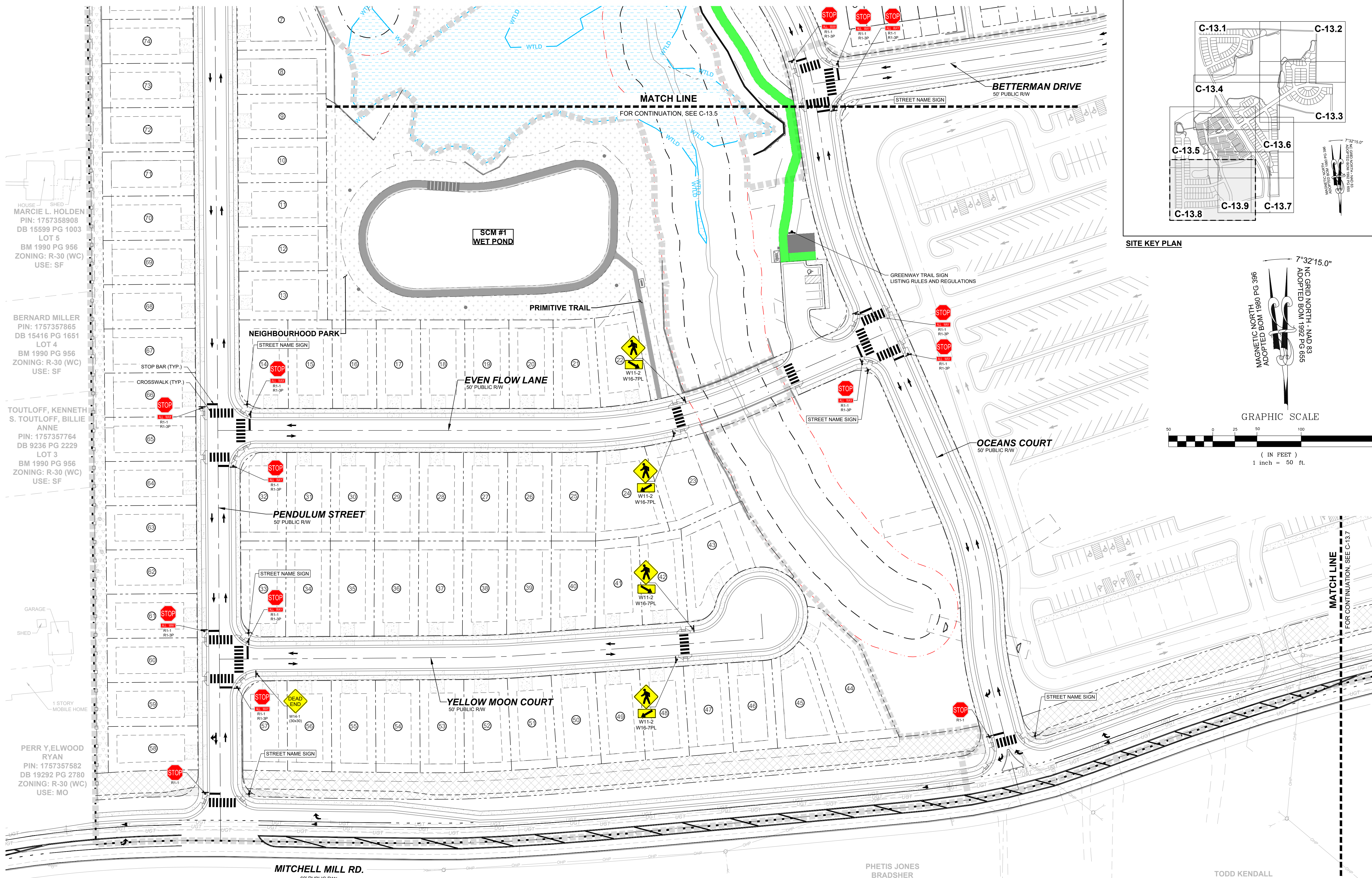
STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT
PSP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL
			DRAWN BY SRG
			CHECKED BY JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PARTIAL SIGNAGE & PAVEMENT  
MARKING PLAN VII

DRAWING SHEET  
**C-13.7**

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HOUSE SHED  
 MARCIE L. HOLDEN  
 PIN: 1757358908  
 DB 15599 PG 1003  
 LOT 5  
 BM 1990 PG 956  
 ZONING: R-30 (WC)  
 USE: SF

BERNARD MILLER  
 PIN: 1757357865  
 DB 15416 PG 1651  
 LOT 4  
 BM 1990 PG 956  
 ZONING: R-30 (WC)  
 USE: SF

TOUTLOFF, KENNETH  
 S. TOUTLOFF, BILLIE  
 ANNE  
 PIN: 1757357764  
 DB 9236 PG 2229  
 LOT 3  
 BM 1990 PG 956  
 ZONING: R-30 (WC)  
 USE: SF

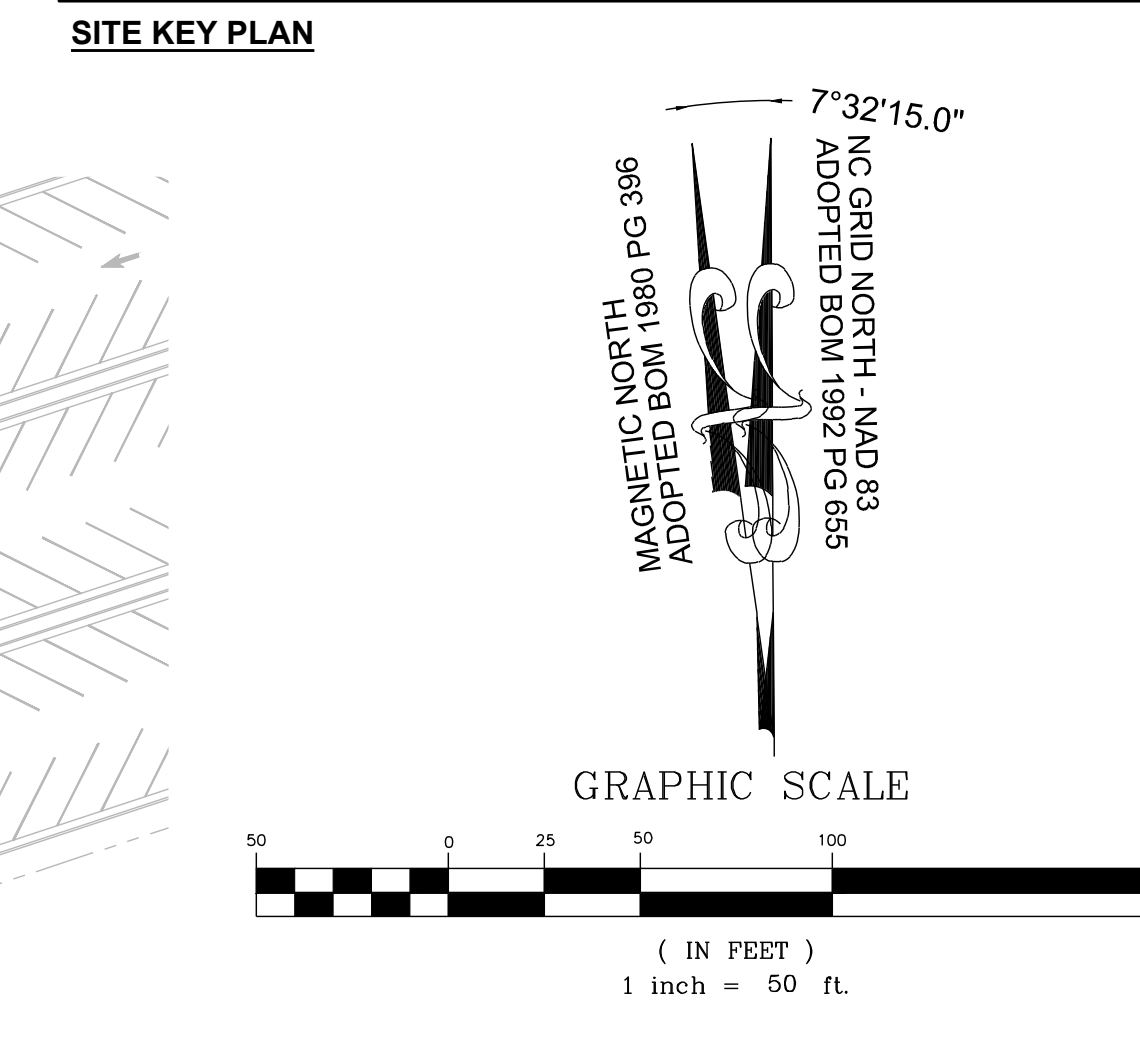
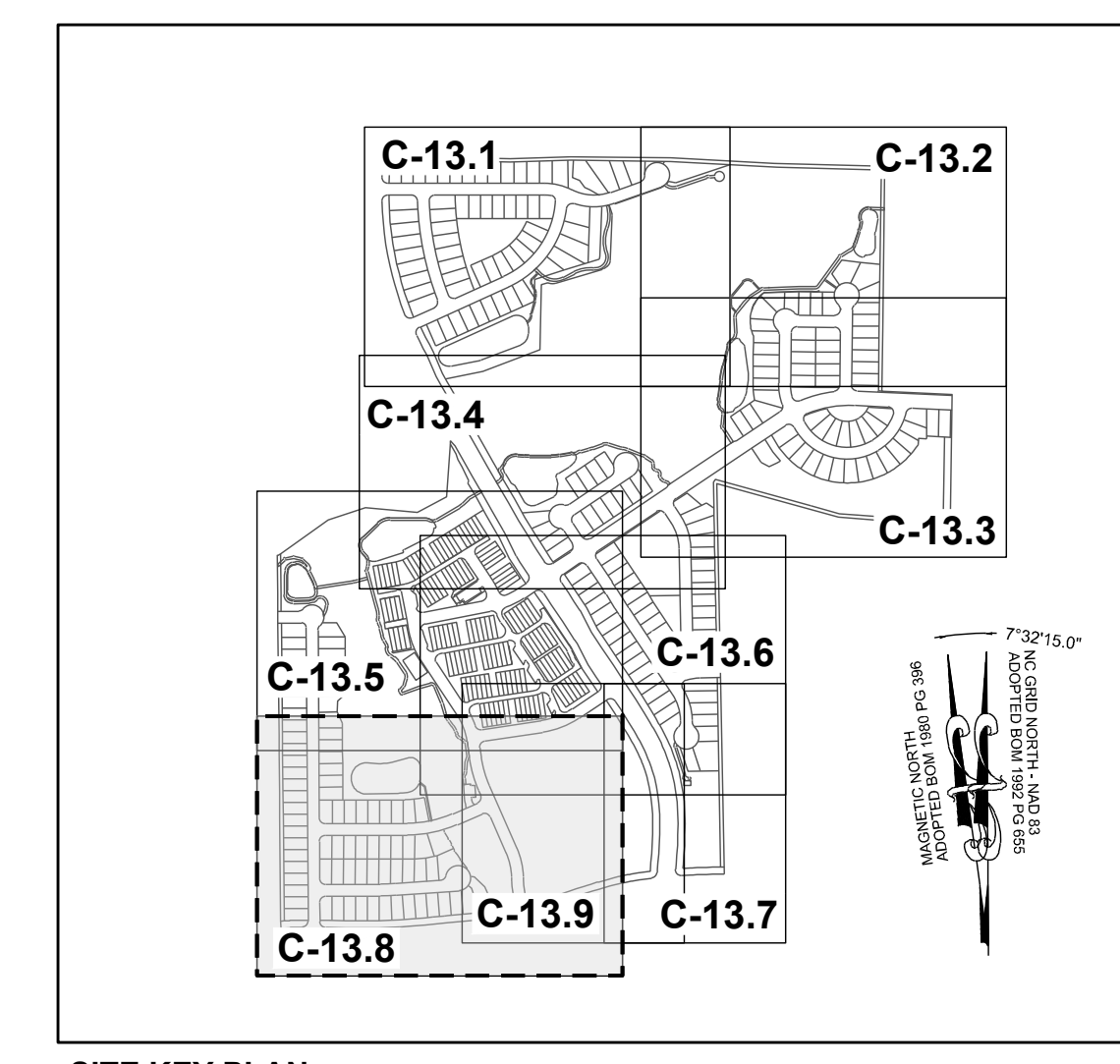
GARAGE  
 SHED  
 1 STORY MOBILE HOME

PERR Y, ELWOOD  
 RYAN  
 PIN: 1757357582  
 DB 19292 PG 2780  
 ZONING: R-30 (WC)  
 USE: MO

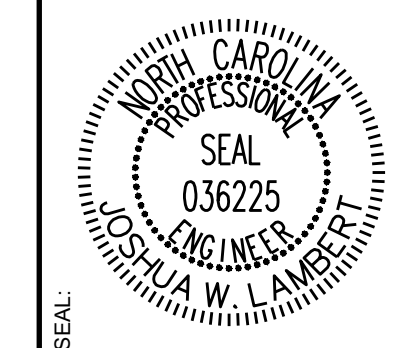
PHETIS JONES  
 BRADSHER  
 PIN: 1757349473  
 DB 15208 PG 2320  
 BM 2013 PG 868  
 ZONING: R-30 (WC)  
 USE: FO

CURTIS L. HONEYCUTT  
 AND WIFE TODD  
 KENDALL  
 PIN: 1757540996  
 DB 19269 PG 2474  
 LOT 1 - BM 2018 PG 1333  
 ZONING: R-30 (WC)  
 USE: SF

TODD KENDALL  
 HONEYCUTT  
 PIN: 1757551202  
 DB 13474 PG 1974  
 LOT 2 - BM 2018 PG 1333  
 ZONING: R-30 (WC)  
 USE: SF



NO.	REVISIONS	DATE	BY
01			
02			
03			



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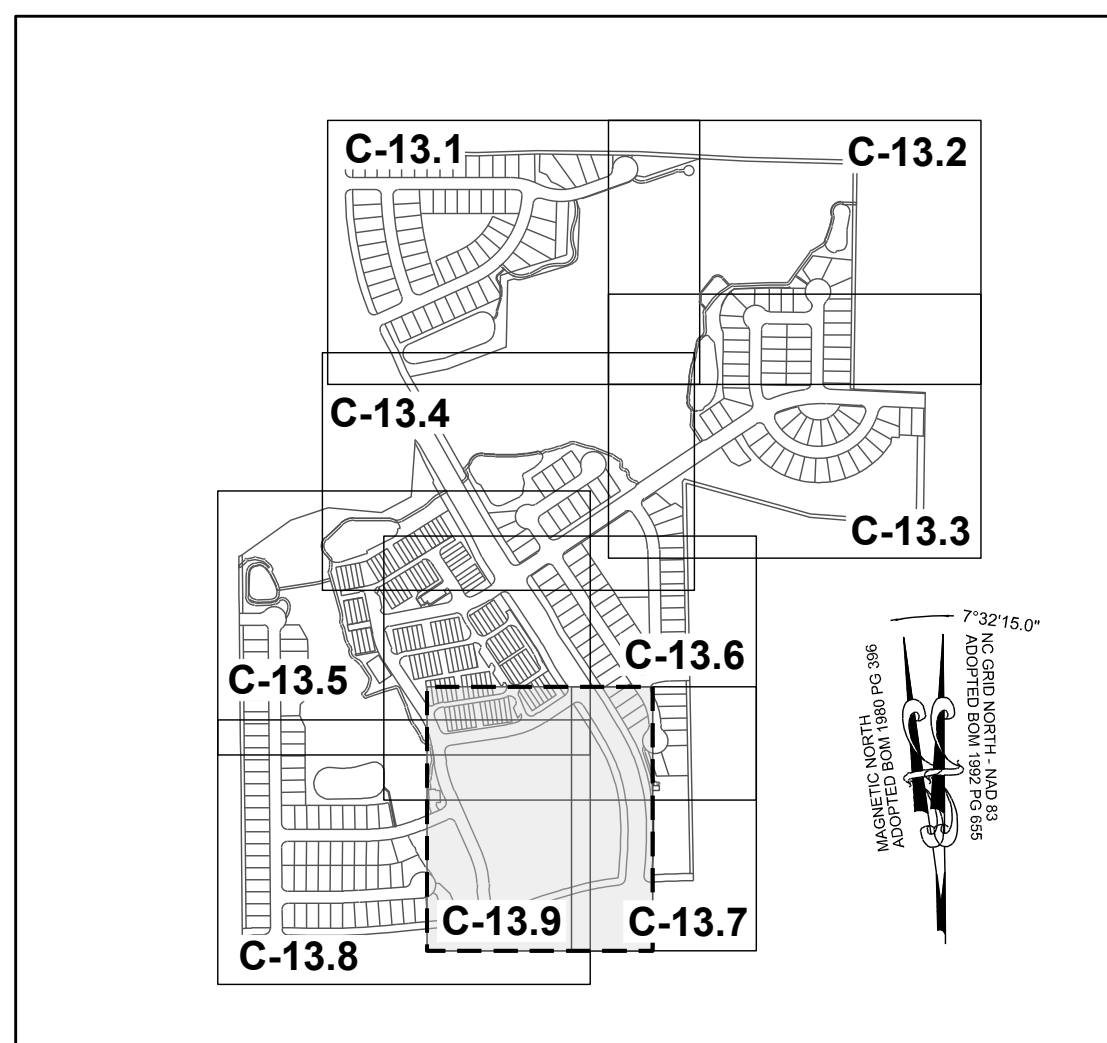
STRONG ROCK PROJECT PSP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
 CONSTRUCTION PLANS  
 PARTIAL SIGNAGE & PAVEMENT MARKING PLAN VIII

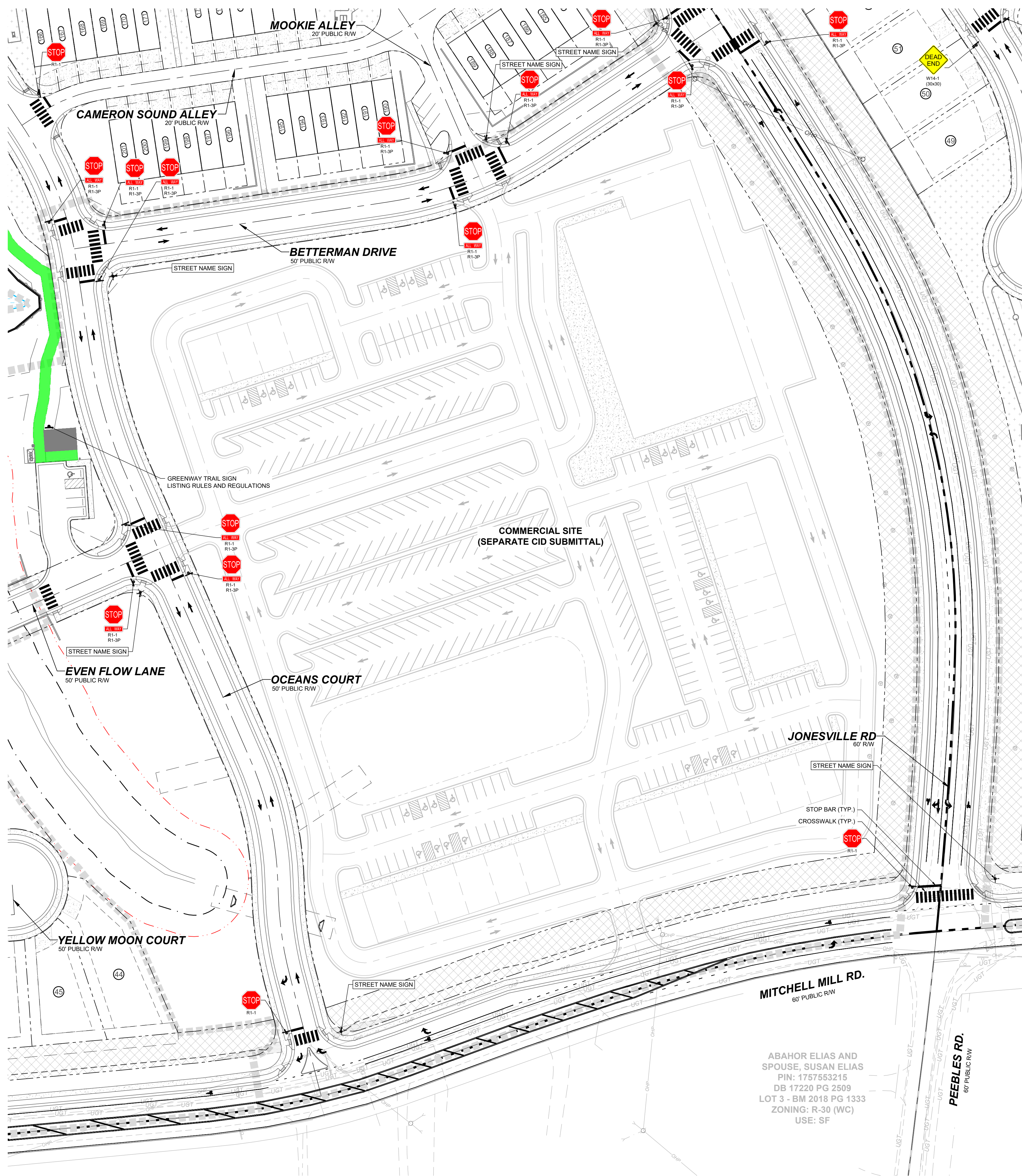
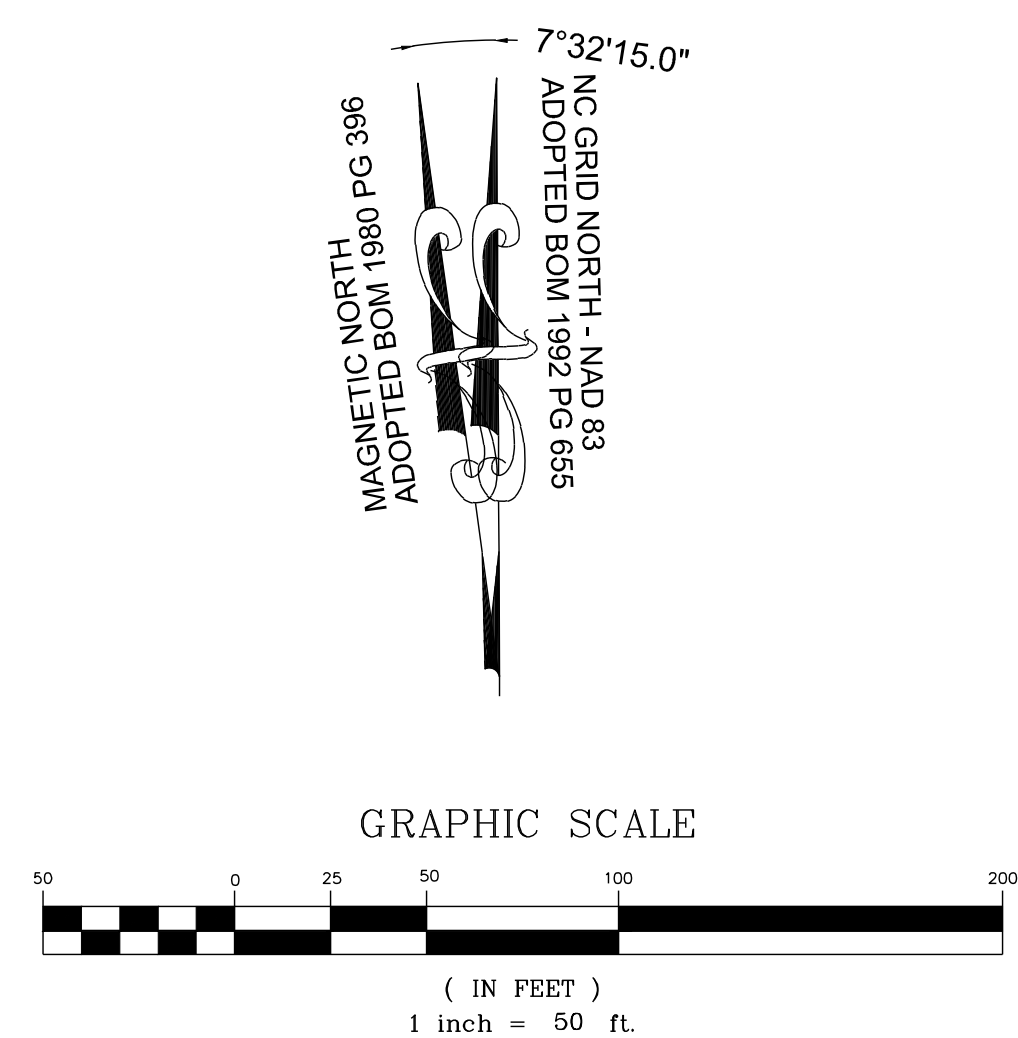
DRAWING SHEET  
**C-13.8**

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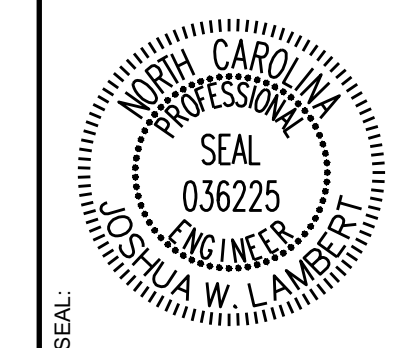


SITE KEY PLAN



ABAHOR ELIAS AND SPOUSE, SUSAN ELIAS  
PIN: 1757553215  
DB 17220 PG 2509  
LOT 3 - BM 2018 PG 1333  
ZONING: R-30 (WC)  
USE: SF

NO.	REVISIONS	DATE	BY
01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SREG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SREG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SREG



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STRONG ROCK PROJECT	PSP-24-03
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
PARTIAL SIGNAGE & PAVEMENT  
MARKING PLAN IX

DRAWING SHEET  
**C-13.9**

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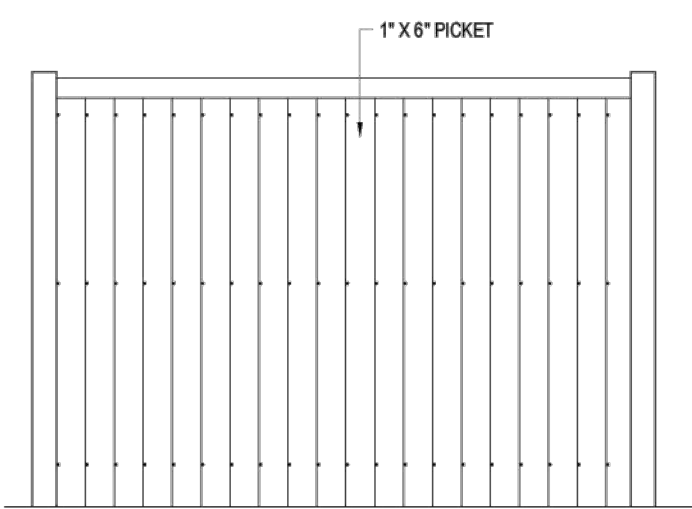


HUMBOLDT SAWMILL  
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SANTA ROSA, CA 95403  
www.getredwood.com

**SELECT DESIRED STYLE:**  
 DOG-EAR  
 FLAT-TOP (SHOWN)

**SELECT DESIRED SIZE:**  
 1" X 4"  
 1" X 6" (SHOWN)  
 1" X 8"  
 1" X 10"  
 1" X 12"

**SELECT DESIRED GRADE:**  
 CONSTRUCTION COMMON (PREMIUM)  
 CONSTRUCTION HEART  
 CLEAR RIDGE & VALLEY




FRONT VIEW

**SPECIFICATIONS**  
 FINISH CHARACTERISTICS: ROUGH  
 NOTES:  
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.  
 2. DO NOT SCALE DRAWING.  
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.  
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 5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/Info](http://www.CADdetails.com/Info) AND ENTER REFERENCE NUMBER 5348-029

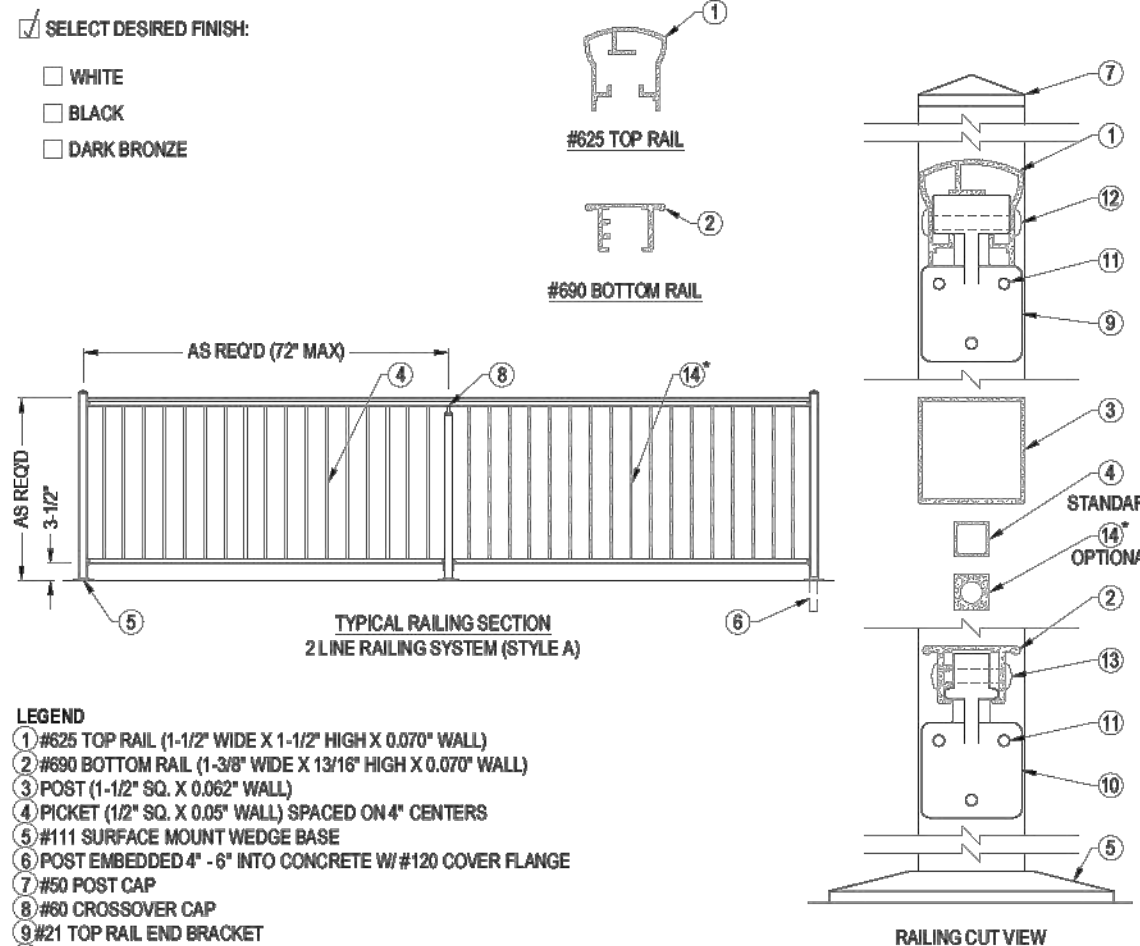
**1 REDWOOD FENCING**  
 D-1.0 REDWOOD FENCING: 1" X 6" FENCE PICKET FLAT-TOP

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RUSSIA, OH 45363  
TOLL FREE: 1-800-548-8656  
PHONE: (937) 526-4065  
www.superioraluminum.com

**SELECT DESIRED FINISH:**  
 WHITE  
 BLACK  
 DARK BRONZE



TYPICAL RAILING SECTION  
2 LINE RAILING SYSTEM (STYLE A)


RAILING CUT VIEW

**LEGEND**  
 1 #625 TOP RAIL (1-1/2" WIDE X 1-1/2" HIGH X 0.070" WALL)  
 2 #625 BOTTOM RAIL (1-3/8" WIDE X 1 1/16" HIGH X 0.070" WALL)  
 3 POST (1-1/2" SQ. X 0.052" WALL)  
 4 PICKET (1/2" SQ. X 0.052" WALL) SPACED ON 4" CENTERS  
 5 #11 SURFACE MOUNT WEDGE BASE  
 6 POST EMBEDDED 4" - 6" INTO CONCRETE W/ #12 COVER FLANGE  
 7 #60 POST CAP  
 8 #60 CROSSOVER CAP  
 9 #21 TOP RAIL END BRACKET  
 10 #22 BOTTOM RAIL END BRACKET  
 11 #1452 POST BRACKET BOLT (1/8")  
 12 #12 TOP RAIL BINDER BOLT (1/8") (1364)  
 13 #13 BOTTOM RAIL BINDER BOLT (1/8") (1364)  
 14 TWISTED PICKET (1/2" SQ. X 0.052" WALL) SPACED ON 4" CENTERS

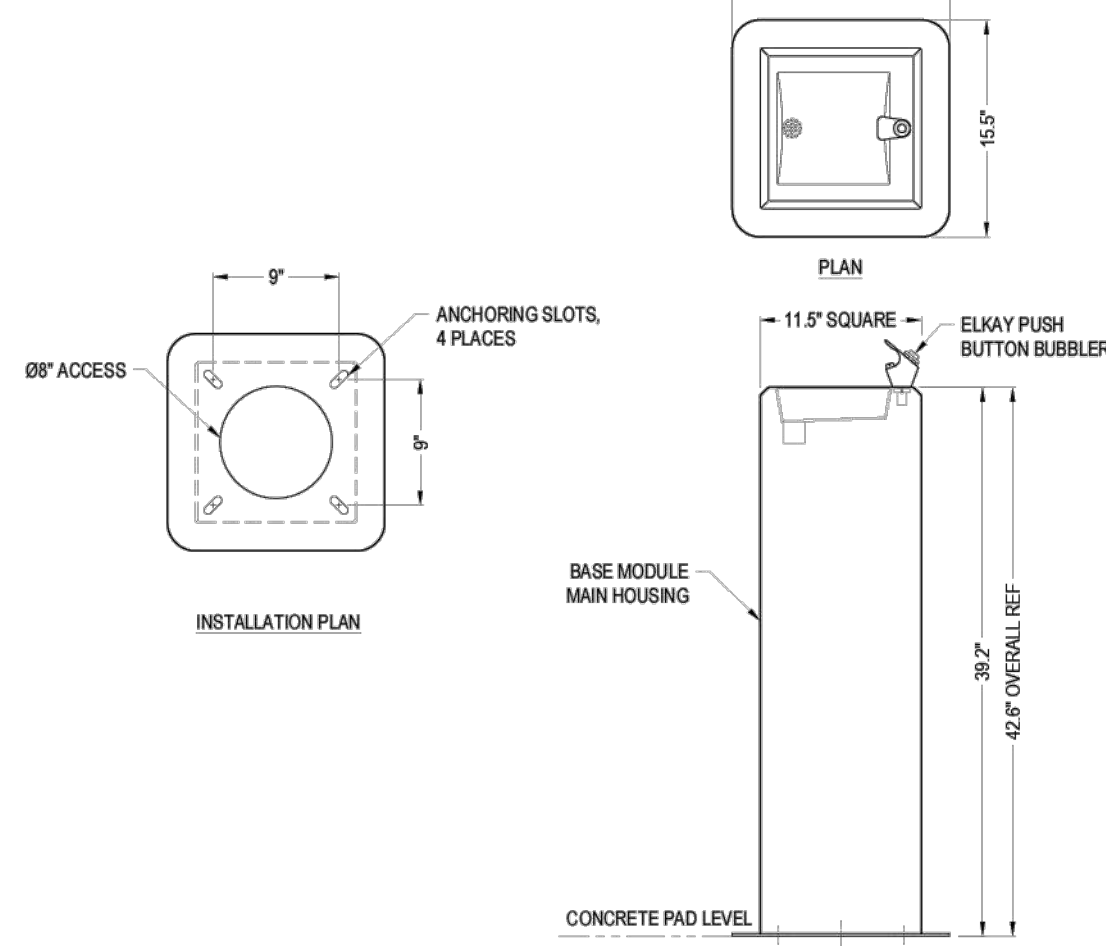
**NOTES:**  
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.  
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 5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/Info](http://www.CADdetails.com/Info) AND ENTER REFERENCE NUMBER S311-010

**2 ECONOMY PICKET RAILING**  
 D-1.0 SERIES 02: 2 LINE RAILING SYSTEM (STYLE A)

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KNILL SITE FURNISHINGS  
PO BOX 20027 NORTHVILLE  
PARIS, OH NSL 445  
PHONE: (619) 442-2424  
www.knillcustomfab.com




INSTALLATION PLAN

ELEVATION

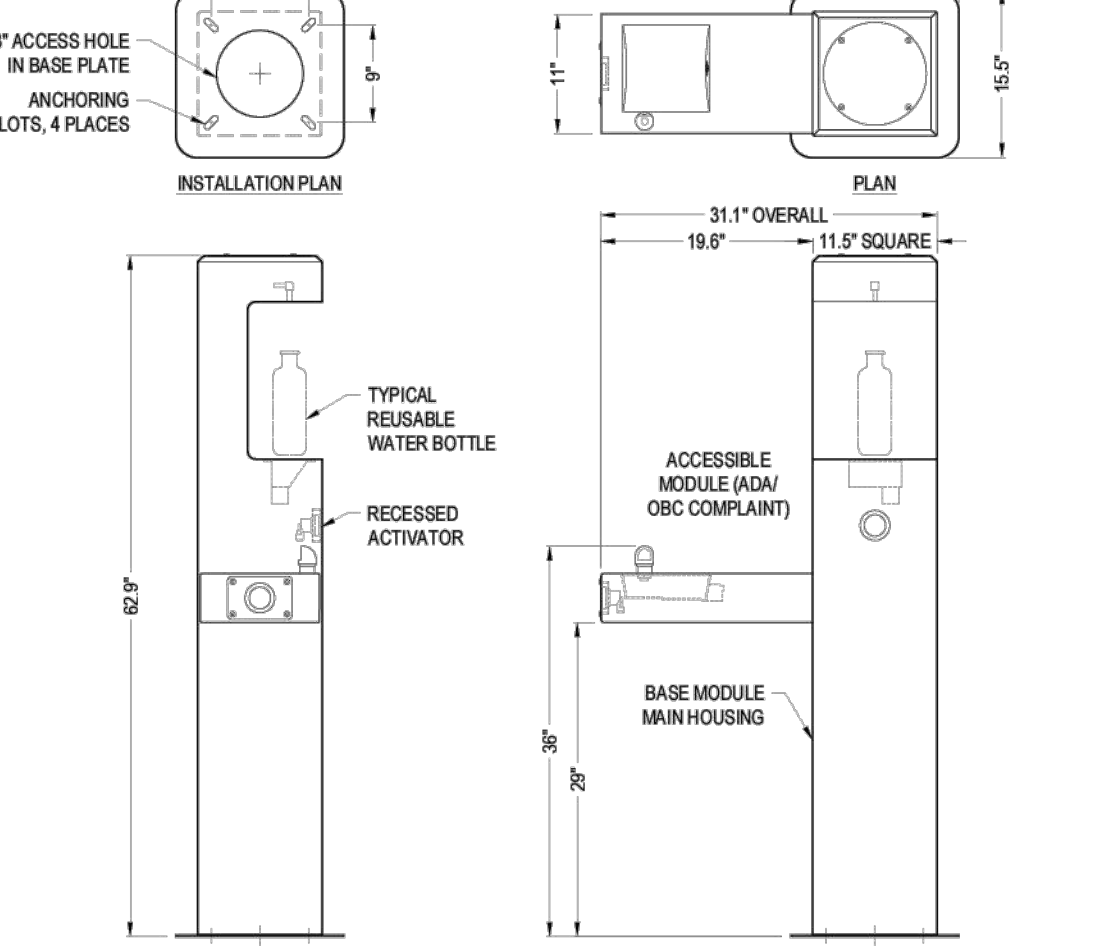
**SPECIFICATIONS**  
 MATERIAL: RUGGED 11 GA. STAINLESS STEEL HOUSING AND BASIN  
 MANUFACTURERS NOTES:  
 1. KNILL FABRICATION LTD. MAINTAINS A POLICY OF CONTINUOUS PRODUCT IMPROVEMENT. AS A RESULT, SOME DETAILS MAY CHANGE WITHOUT NOTICE.  
 NOTES:  
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.  
 2. DO NOT SCALE DRAWING.  
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.  
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.  
 5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/Info](http://www.CADdetails.com/Info) AND ENTER REFERENCE NUMBER 5436-073

**3 DRINKING FOUNTAINS AND BOTTLE FILLING STATIONS**  
 D-1.0 (35000) DRINKING FOUNTAIN, SINGLE BASIN

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KNILL SITE FURNISHINGS  
PO BOX 20027 NORTHVILLE  
PARIS, OH NSL 445  
PHONE: (619) 442-2424  
www.knillcustomfab.com




INSTALLATION PLAN

FRONT ELEVATION

**SPECIFICATIONS**  
 MATERIAL: RUGGED 11 GA. STAINLESS STEEL HOUSING WITH POLYESTER POWDER TOP COAT  
 MANUFACTURERS NOTES:  
 1. KNILL FABRICATION LTD. MAINTAINS A POLICY OF CONTINUOUS PRODUCT IMPROVEMENT. AS A RESULT, SOME DETAILS MAY CHANGE WITHOUT NOTICE.  
 NOTES:  
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.  
 2. DO NOT SCALE DRAWING.  
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.  
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 5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/Info](http://www.CADdetails.com/Info) AND ENTER REFERENCE NUMBER 5436-077

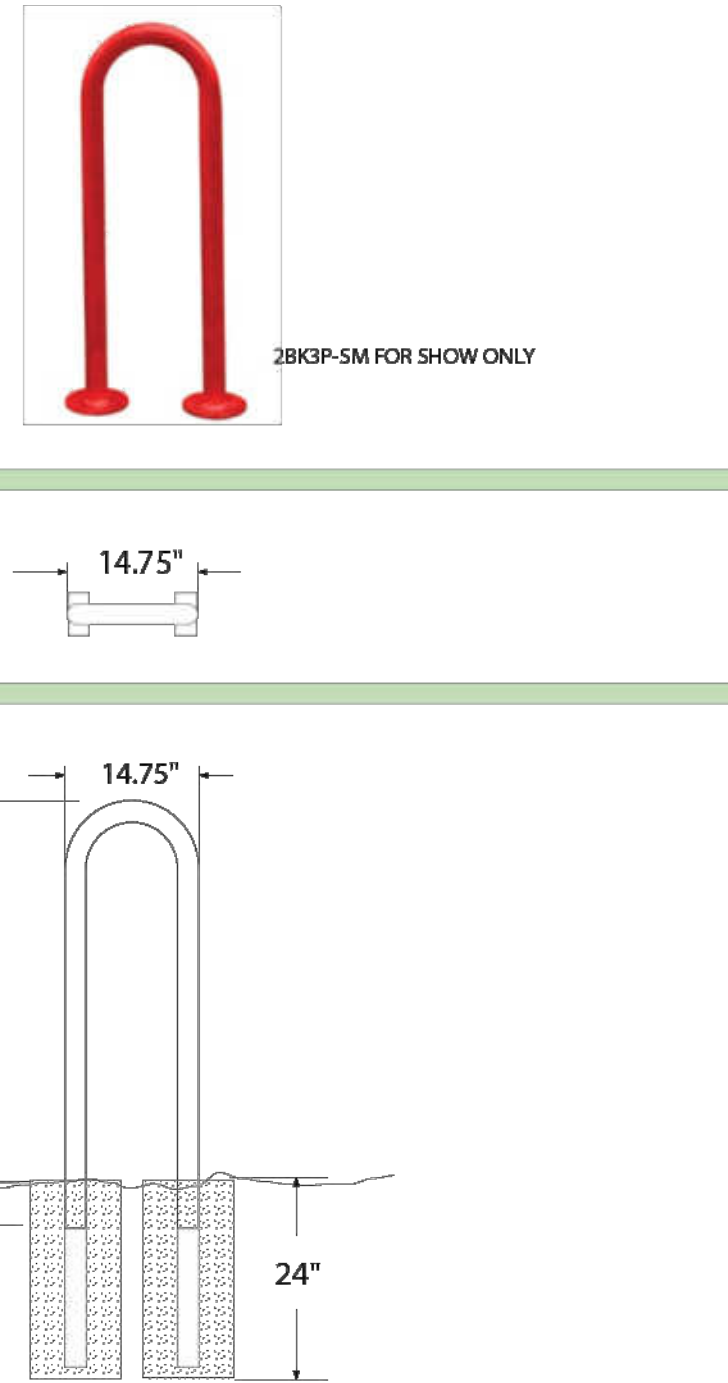
**3.1 DRINKING FOUNTAINS AND BOTTLE FILLING STATIONS**  
 D-1.0 (35000) \*THE ATHABASCA\* - BOTTLE FILLING STATION, WITH ACCESSIBLE DRINKING MODULE

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P.O. Box 1700 - Hendersonville, NC 28793 - Tel: (800) 633-6241 - (828) 693-8241  
Fax: (828) 693-8777 - www.leisurecraftinc.com - sales@leisurecraftinc.com

**SPEC SHEET: 2BK3P-IG**  
**14 3/4" THERMOPLASTIC WAVE RACK 2 3/8" DIA in-ground** Wt. 87 lbs  
 photo




top view

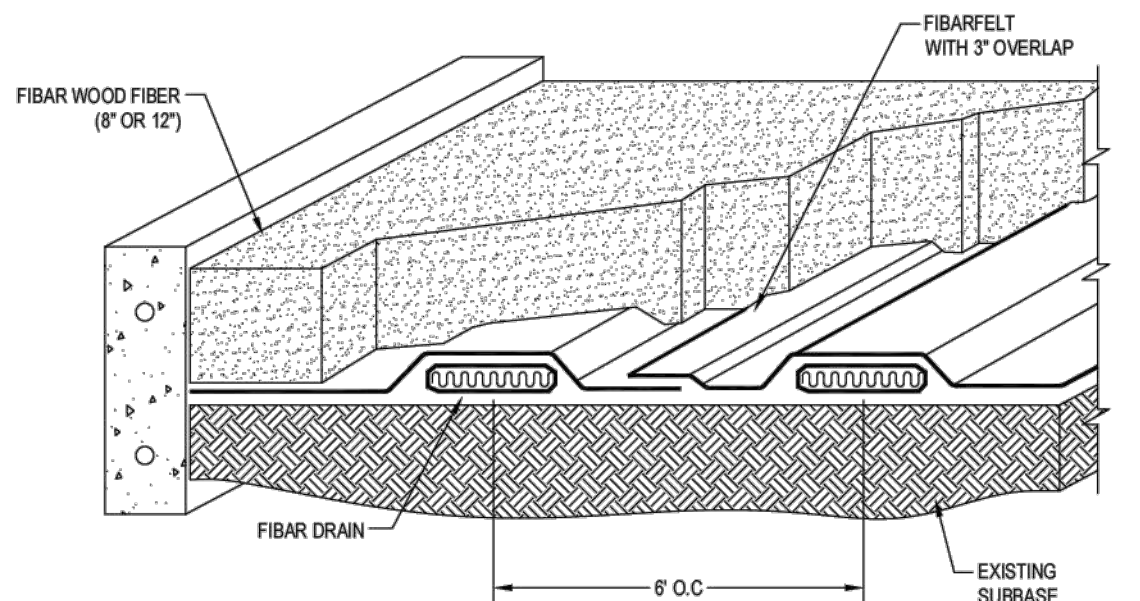
front view

**4**  
 D-1.0

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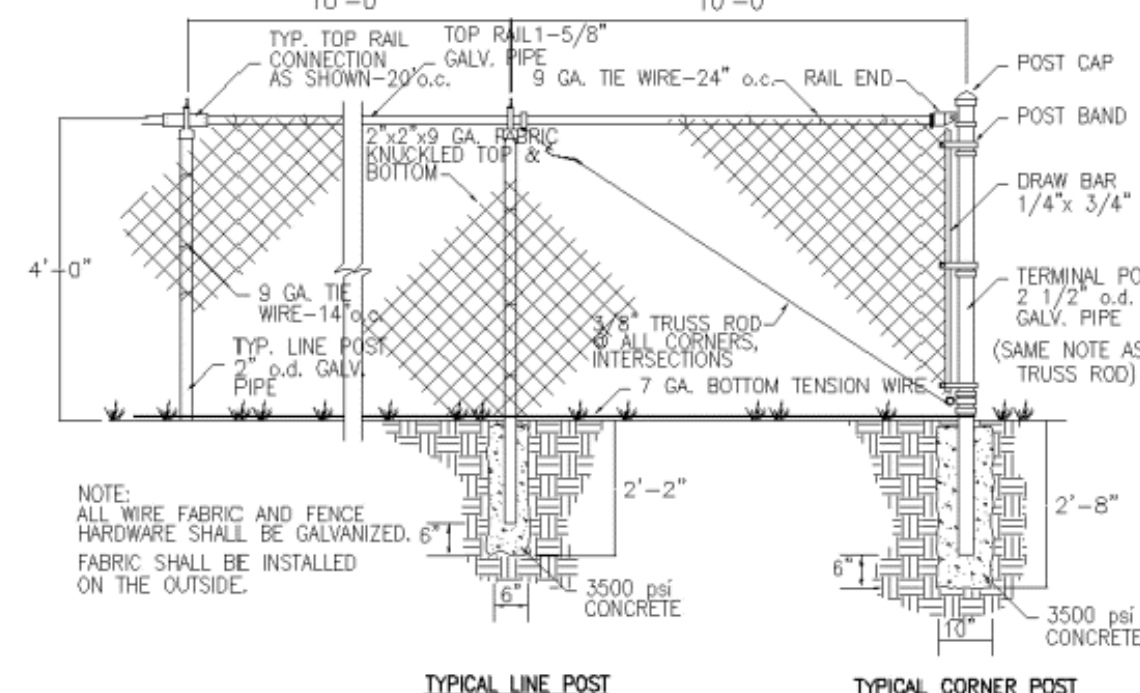


THE FIBAR GROUP LLC  
80 BUSINESS PARK DRIVE, SUITE 300  
ARMONK, NY 10504  
TOLL FREE: 1-800-342-2721  
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**5 ENGINEERED WOOD FIBER PLAYGROUND SAFETY SURFACING**  
 D-1.0 SYSTEM 300, N.T.S.


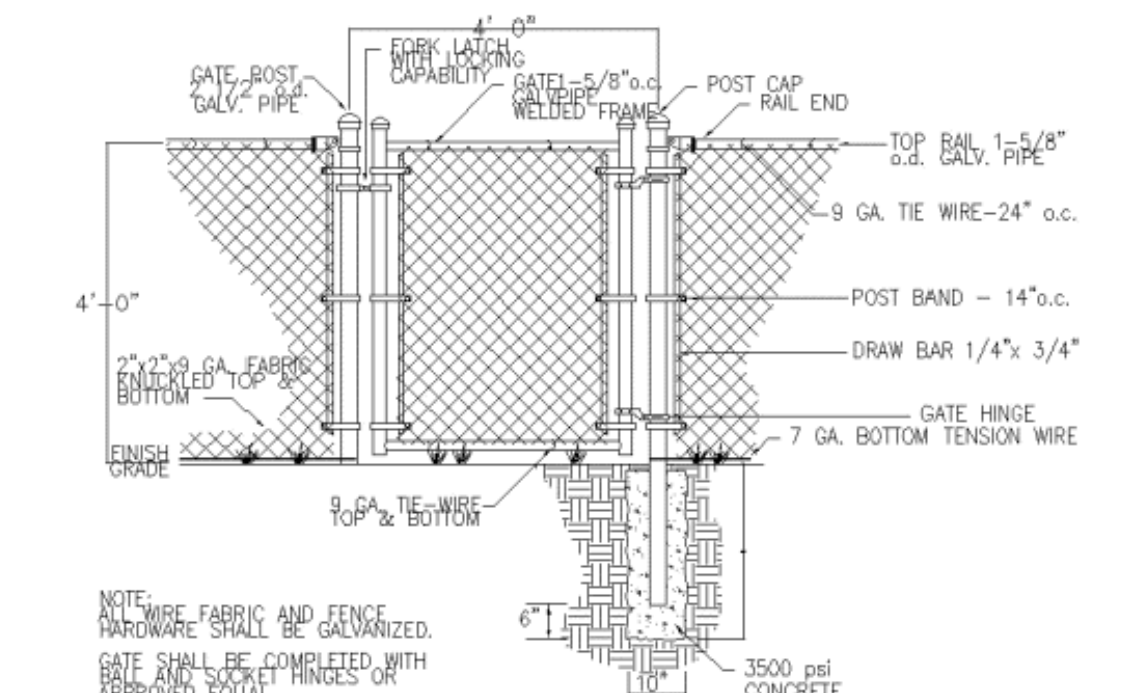
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**6 FENCING**  
 D-1.0 4" CHAIN LINK FENCE

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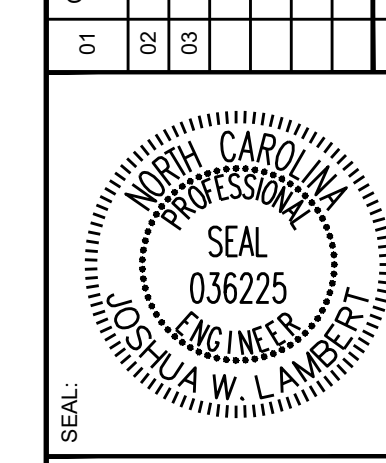



**7 FENCING**  
 D-1.0 4" CHAIN LINK FENCE

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CONSTRUCTION INFRASTRUCTURE DRAWINGS	DATE	BY
01	08/04/2024	
02	11/07/2024	
03	02/07/2024	



**STRONGROCK**  
 ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
 CONSTRUCTION PLANS  
 AMENITIES DETAILS

DRAWING SHEET  
**D-1.0**  
 174 OF 201



3"x4" RECYCLED PLASTIC

3/4" STEEL CENTER REINFORCING STRAP

3/4" STEEL CONTOUR FRAME

2 1/2" x 3/16" WALL SQUARE TUBE

1 5/16" O.D. GALV. HIGH TENSILE TUBE

2 3/8" O.D. GALVANIZED HIGH TENSILE TUBE FOR LONGER LIFE.

THE TABLE RESTS ON THE FOUR OUTSIDE CORNERS SO THAT IT WILL NOT ROCK ON UNEVEN GROUND.

\* SEAT BRACKET & TOP CLEAT ARE GALVANIZED AFTER FABRICATION TO ELIMINATE RAW EDGES LEFT WHEN USING PRE-GALV. SHEETS

1"x1" REINFORCING TUBE TOPS PLANKS HAVE ONE TUBE SEAT PLANKS HAVE TWO WELDED TOGETHER

2"x10" No. Recycled Plastic WITH EASED EDGES

9 D-1.1

**KAY PARK**  
MODEL: 82BGRRP WT: 386 lbs.  
DRAWN BY: LCB DATE: 06/04 SCALE: NONE

FILE NAME: 82BGRRP

Sheet 1 of 1	Initials	Date	Spec Drawing	Model #: 6CB3RP	<b>Kay Park-Rec Corp.</b>
Drawn by	BGS	6/5/2014	Description: 6' 3"x4" SURFACE MOUNT CONTOUR BENCH	1301 Pine Street Janesville, IA 50647 1-800-553-2476 WWW.KAYPARK.COM	
Note: This drawing and all information contained herein is the property of Kay Park Rec. and is not to be reproduced without express written permission. Kay Park Rec. assumes no responsibility for unauthorized use of the drawing.			Material: COATED STEEL, RECYCLED PLASTIC	Weight: 224 lbs	8 D-1.1

1 5/16" O.D. GALV. HIGH TENSILE TUBE

2 3/8" O.D. GALVANIZED HIGH TENSILE TUBE FOR LONGER LIFE.

THE TABLE RESTS ON THE FOUR OUTSIDE CORNERS SO THAT IT WILL NOT ROCK ON UNEVEN GROUND.

\* SEAT BRACKET & TOP CLEAT ARE GALVANIZED AFTER FABRICATION TO ELIMINATE RAW EDGES LEFT WHEN USING PRE-GALV. SHEETS

1"x1" REINFORCING TUBE TOPS PLANKS HAVE ONE TUBE SEAT PLANKS HAVE TWO WELDED TOGETHER

2"x10" No. Recycled Plastic WITH EASED EDGES

9 D-1.1

**KAY PARK**  
MODEL: 82BGRRP WT: 386 lbs.  
DRAWN BY: LCB DATE: 06/04 SCALE: NONE

FILE NAME: 82BGRRP

**Pattern Paving Products**

1750 HWY 160 WEST, SUITE 101-222  
FORT MILL, SC 29708  
TOLL FREE: 1-888-434-8811  
PHONE: (704) 996-7248  
FAX: (215) 893-4827  
www.patternpaving.com

PLAN VIEW

5' X 10' ASPHALT CABLE STAMPING TEMPLATE  
BRICK SIZES ARE: 6" X 6" TO 12" X 12" (15.25CM X 15.25CM TO 30.50CM X 30.50CM)  
PATTERN IS WOVEN TILE WITH 3/8" (.75CM) MORTAR

NOTES:  
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.  
3. DO NOT SCALE DRAWING.  
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5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 4728-008.

10 D-1.1 CABLE PATTERNS  
STAMPED ASPHALT: HAMPTON TILE

4728-008  
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REVISION DATE 05/16/2012  
www.CADdetails.com

ELEVATION PLAN

ROOF PLAN

24" WIDE INTERLOCKING 1/2" STYLE ROOF PANELS

EXTRUDED ALUM. RIDGE CAP

EXTRUDED ALUM. GUTTER FASCIA

11 D-1.1

**AMERICANA OUTDOORS**  
AMERICANA OUTDOORS, INC.  
#2 INDUSTRIAL DRIVE - SALEM, IL 62881  
(800) 851-0865 - www.americana.com

TITLE: 20' x 30' DOUBLE TIER NAVAJO SHELTER

SIZE: A	DATE:	DWG NO:	REV:
SCALE: AS NOTED	DRAWN:	SHEET: 2 OF 2	

ELEVATION PLAN

ROOF PLAN

24" WIDE INTERLOCKING 1/2" STYLE ROOF PANELS

EXTRUDED ALUM. GUTTER FASCIA

12 D-1.1

**AMERICANA OUTDOORS**  
AMERICANA OUTDOORS, INC.  
#2 INDUSTRIAL DRIVE - SALEM, IL 62881  
(800) 851-0865 - www.americana.com

TITLE: 7' x 16' SHAWNEE SHELTER

SIZE: A	DATE:	DWG NO:	REV:
SCALE: AS NOTED	DRAWN:	SHEET: 2 OF 2	

**AMERICANA OUTDOORS**

MADRAX DIVISION  
GRABER MANUFACTURING, INC.  
1800 LINCOLN DRIVE  
WALUNGAKEE, WI 53557  
(800) 445-7871 (P800) 849-1000 (F800) 849-1001  
WWW.MADRAX.COM, E-MAIL: SALES@MADRAX.COM

Model: MBRSCSM  
Weight: 80 Lbs  
Material: Coated Steel

CUSHIONED BICYCLE SUPPORT

STAINLESS STEEL TOOL TETHERS

TOOLS (SHOWN BELOW) ARE CRIMPED TO END OF TETHERS.

STEEL MOUNTING FLANGE WITH 4 HOLES FOR 3/8" ANCHORS

INCLUDED TOOL LIST:  
1. PHILIPS SCREWDRIVER  
2. STRAIGHT SCREWDRIVER  
3. 2.5, 3, 4, 5, 6, 8MM ALLEN WRENCHES  
4. HEADSET WRENCH  
5. PEDAL WRENCH  
6. 8, 9, 13, 15MM OPEN WRENCHES  
7. TIRE LEVER (1)  
8. ADJUSTABLE WRENCH

NOTES:  
1. INSTALL BIKE RACKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.  
2. CONSULTANT TO SELECT COLOR FINISH. SEE MANUFACTURER'S SPECIFICATIONS.  
3. SEE SITE PLAN FOR LOCATION OR CONSULT OWNER.

PRODUCT: BRS-1P  
DESCRIPTION: RepairSTAY™, BICYCLE REPAIR STAND, WITH REPAIR TOOLS  
DATE: 10-5-16  
ENG: SMC

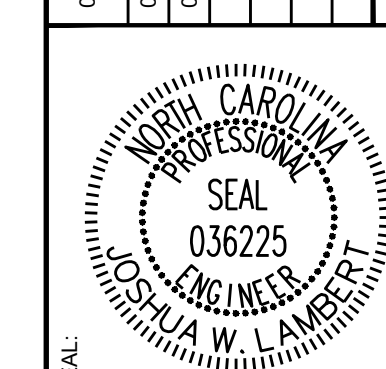
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Making People Places, People Friendly Since 1954!  
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1301 Pine St. Janesville, IA 50647

13 D-1.1

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02			
03			



**STRONGROCK**  
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT	STRONG ROCK PROJECT
PSP-24-03	PSP-24-03	PSP-24-03	PSP-24-03
NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION
SCALE AS SHOWN	SCALE AS SHOWN	SCALE AS SHOWN	SCALE AS SHOWN
DESIGNED BY JWL	DESIGNED BY JWL	DESIGNED BY JWL	DESIGNED BY JWL
DRAWN BY SRG	DRAWN BY SRG	DRAWN BY SRG	DRAWN BY SRG
CHECKED BY JWL	CHECKED BY JWL	CHECKED BY JWL	CHECKED BY JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
AMENITIES DETAILS

DRAWING SHEET	D-1.1
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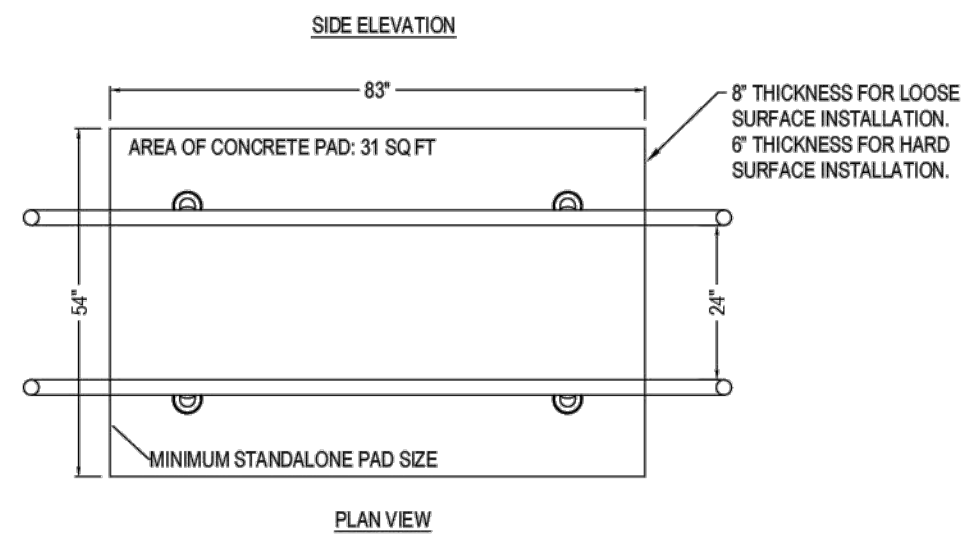
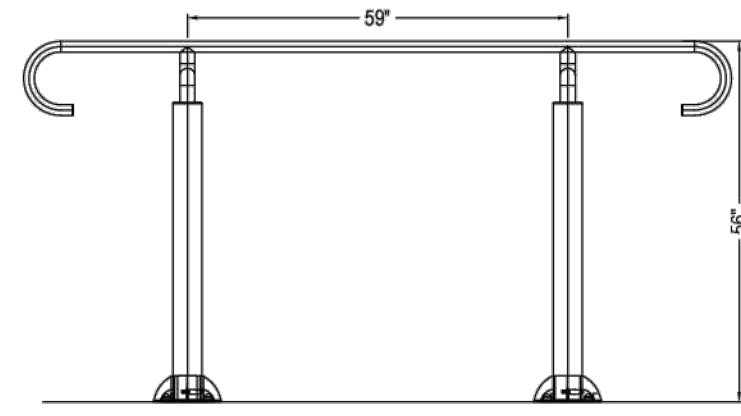








GREENFIELDS OUTDOOR FITNESS  
2617 W. WOODLAND DR.  
ANAHEIM, CA 92801  
PHONE: (888) 315-9037  
EMAIL: info@greenfieldsfitness.com  
www.greenfieldsfitness.com



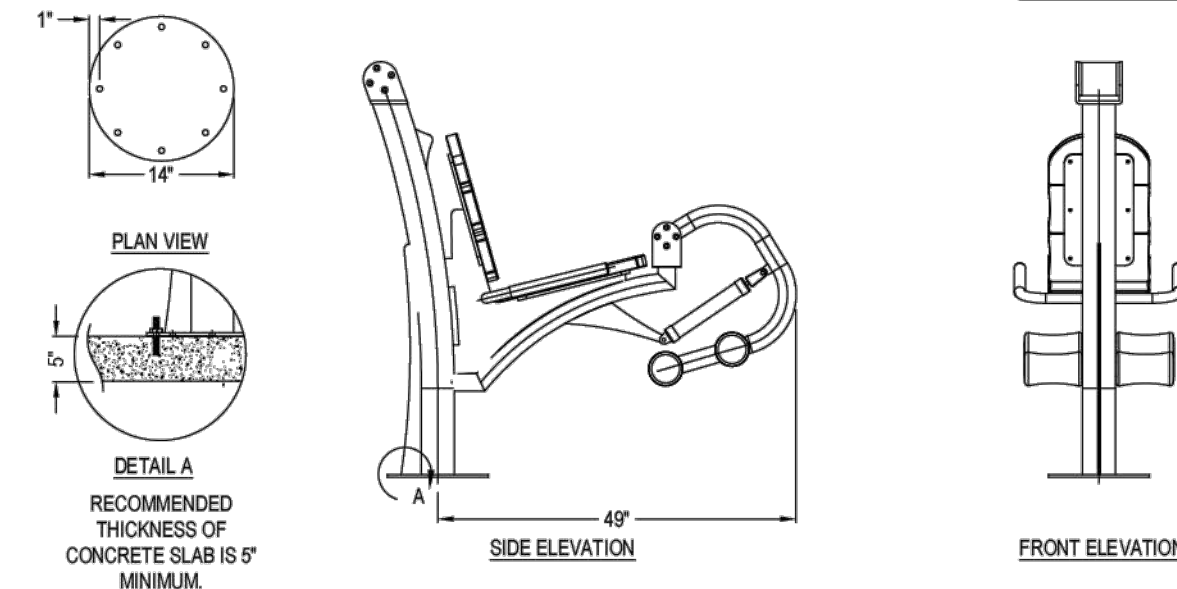
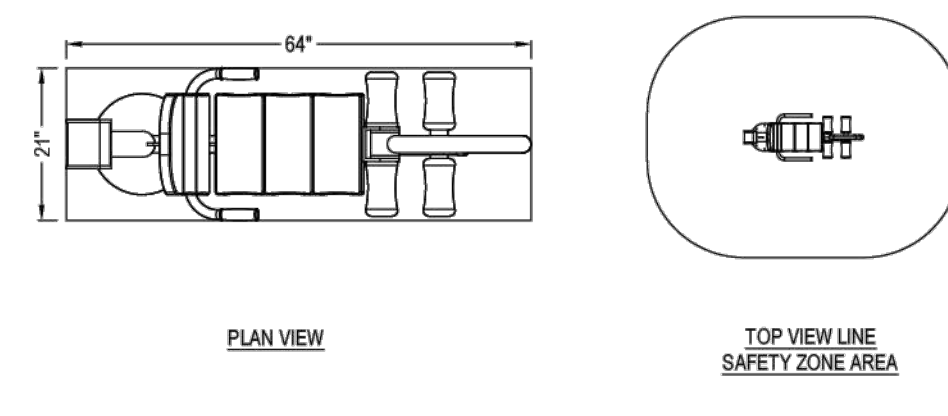
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  5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADetails.com/info](http://www.CADetails.com/info) AND ENTER REFERENCE NUMBER 4913-071.

**28 FUNCTIONAL FITNESS**  
D-1.4 MODEL (SGR043) PARALLEL BARS

4913-071 REVISION DATE: 11/05/2022  
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ANAHEIM, CA 92801  
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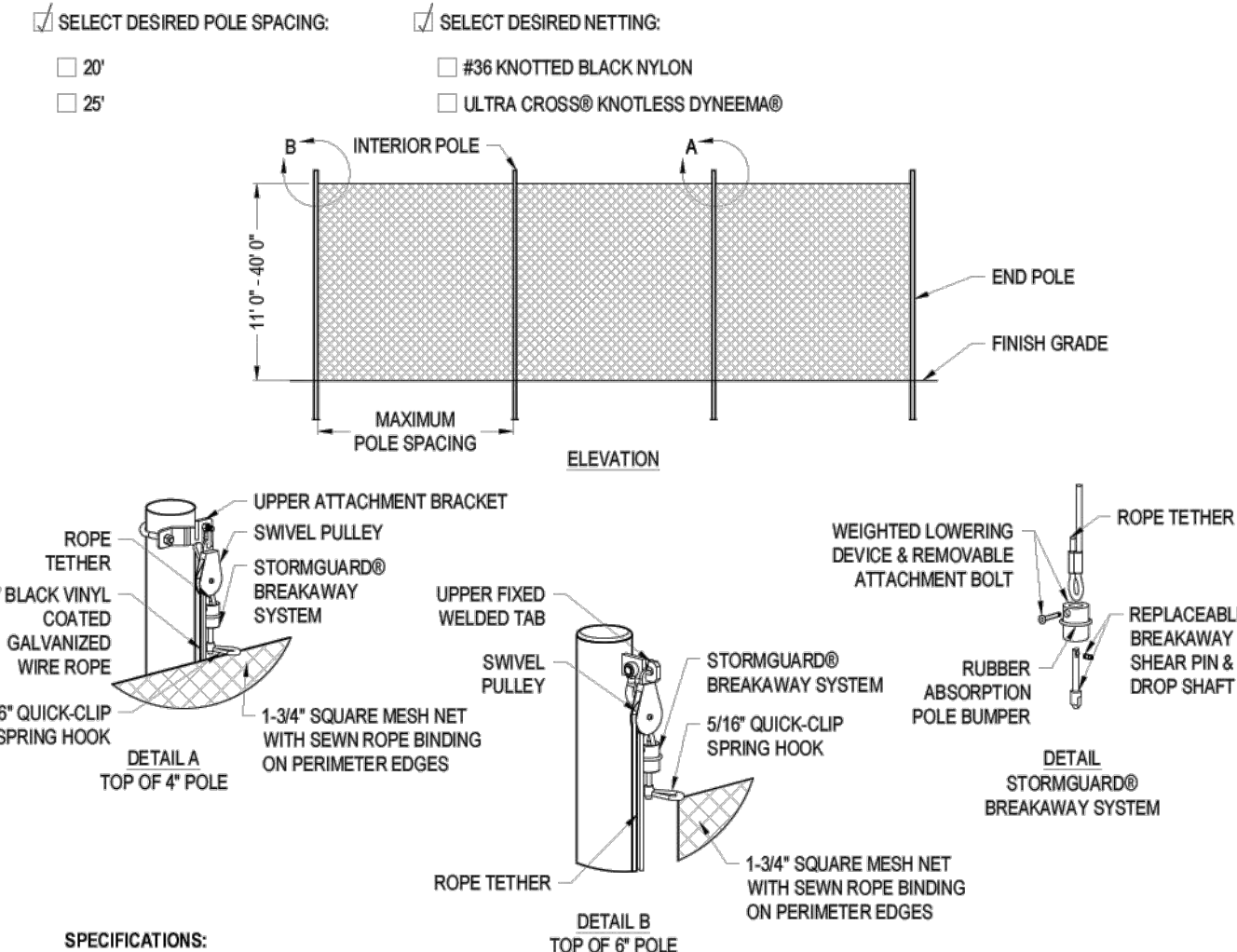
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**29 PROFESSIONAL SERIES**  
D-1.4 MODEL (UBX298) LEG EXTENSION & CURL (ADJUSTABLE RESISTANCE)

4913-049 REVISION DATE: 10/05/2022  
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41155 STATE HIGHWAY 10  
DELHI, NY 13753  
TOLL FREE: 1-888-975-3343  
PHONE: (607) 746-8911  
FAX: (607) 746-8481  
www.sportsfield.com

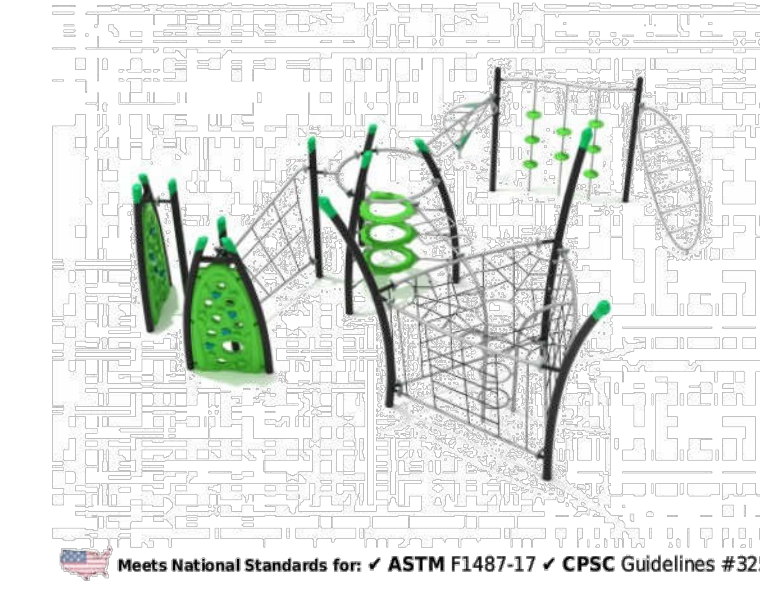


- SELECT DESIRED POLE SPACING:**
- 20'
  - 25'
- SELECT DESIRED NETTING:**
- #96 KNOTTED BLACK NYLON
  - ULTRA CROSS® KNOTLESS DYNEEMA®
- SPECIFICATIONS:**
- MATERIALS:**
- POLES: BLACK SUPER DURABLE POWDER COATED ALUMINUM OR STEEL POLES
  - 12' TO 40' HEIGHTS COMMONLY USED FOR MULTI-SPORT APPLICATIONS
  - PROFESSIONALLY PRE-ENGINEERED TO MEET ASCE 7-10 WIND RATING UP TO 105 MPH
- NOTES:**
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  2. DO NOT SCALE DRAWINGS.
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  5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADetails.com/info](http://www.CADetails.com/info) AND ENTER REFERENCE NUMBER 5455-023.

**30 NETTING SYSTEMS**  
D-1.4 MULTI-SPORT NETTING; STORMGUARD BREAKAWAY BALL SAFETY SYSTEM NETTING

5455-023 REVISION DATE: 01/03/2022  
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**Twin Falls**

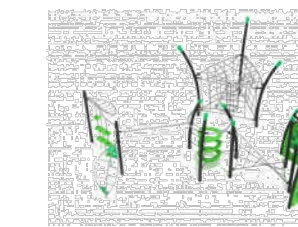


Meets National Standards for: ASTM F1487-17 CPSC Guidelines #325

**Product Description**  
Twin Falls is the ultimate climbing playground structure designed for endless hours of fun and adventure! With various climbing elements including net climbers, ladders, bridges, rock wall panels, and floating tunnels, children can explore and conquer their fears while developing their physical skills. Twin Falls is designed with safety and durability in mind, constructed with high-quality materials that are built to last. The structure's engaging design, vibrant colors, and unique features like the floating tunnels will capture the imagination of children of all ages, encouraging them to spend more time outside and engage in physical activity. Twin Falls is the perfect addition to any outdoor play area, like parks, schools, or community centers. It offers a challenging and exciting way for kids to develop their physical skills and build their confidence in a safe and supervised environment. Give your children the opportunity to discover the joys of outdoor play with the exciting and dynamic Twin Falls playground structure.

**Product Specifications**  
Price: \$24,456.00  
Model Number: PGP031  
Age Range: 5-12 years  
Child Capacity: 28-36  
Fall Height: 96"  
Post Diameter: 4.5-inch  
Product Type: Get Physical  
Safety Zone: 40' 3" x 38' 9"

ADA Compliant  
Elevated 10 components  
Ground Level 0 components



**31**  
D-1.4

www.eliteplayequipment.com

919-201-7471 | Nancy Bascietto

**Monterey**

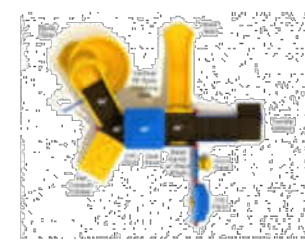


Meets National Standards for: ASTM F1487-17 CPSC Guidelines #325

**Product Description**  
The Monterey play system is an awesome kind of fun with excitement around every corner. It has a series of four-foot tall deck platforms which spill into an arched Sea Creature Climber with adorable ocean shapes, and an exciting Wave Slide. This way, kids will have quick routes to get up or down from that side of the structure. The sides of the other four-foot platforms are lined with fun activities, including a Ship's Wheel, Gear Panel, and Vertical PE Rock Climbing Wall. There is also a place where the deck diverges and leads up to a 66-inch platform. Here, they will find a humongous Spiral Slide that spins children around a full 360 degrees as they hurtle towards the ground. This slide is sure to be the focal point of playgrounds everywhere. There is even an extension on the ground level with a Drum Panel and Car Panel.

**Product Specifications**  
Price: \$19,890.00  
Model Number: PKP158  
Age Range: 2-12 years  
Child Capacity: 27-32  
Fall Height: 66"  
Post Diameter: 3.5-inch  
Product Type: Spark  
Safety Zone: 25' x 29' 7"

ADA Compliant  
Elevated 6 components  
Ground Level 2 components



**32**  
D-1.4

www.eliteplayequipment.com

919-201-7471 | Nancy Bascietto

**DGA MACH 2™ PERMANENT DISC GOLF BASKET SPECIFICATION SHEET**

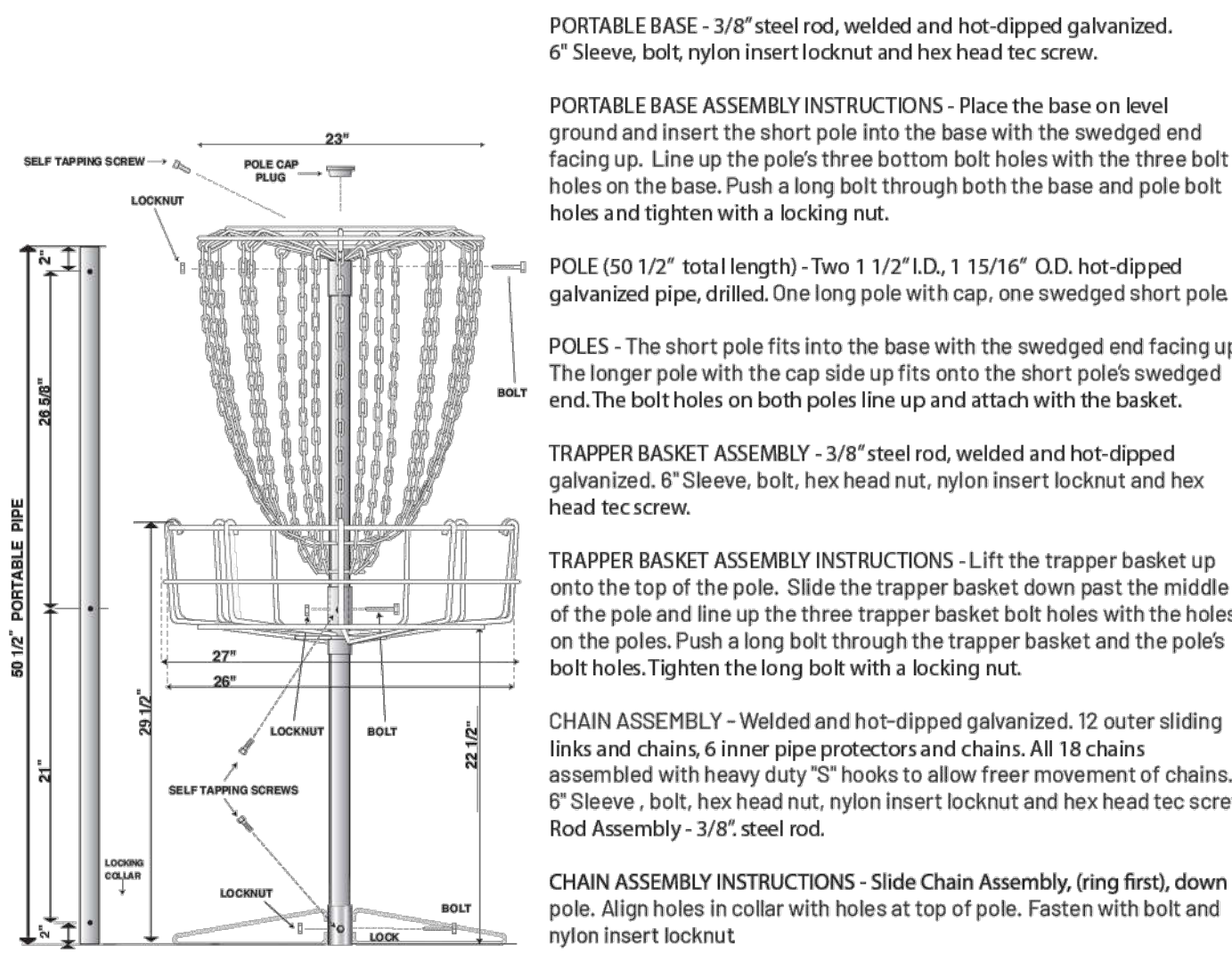
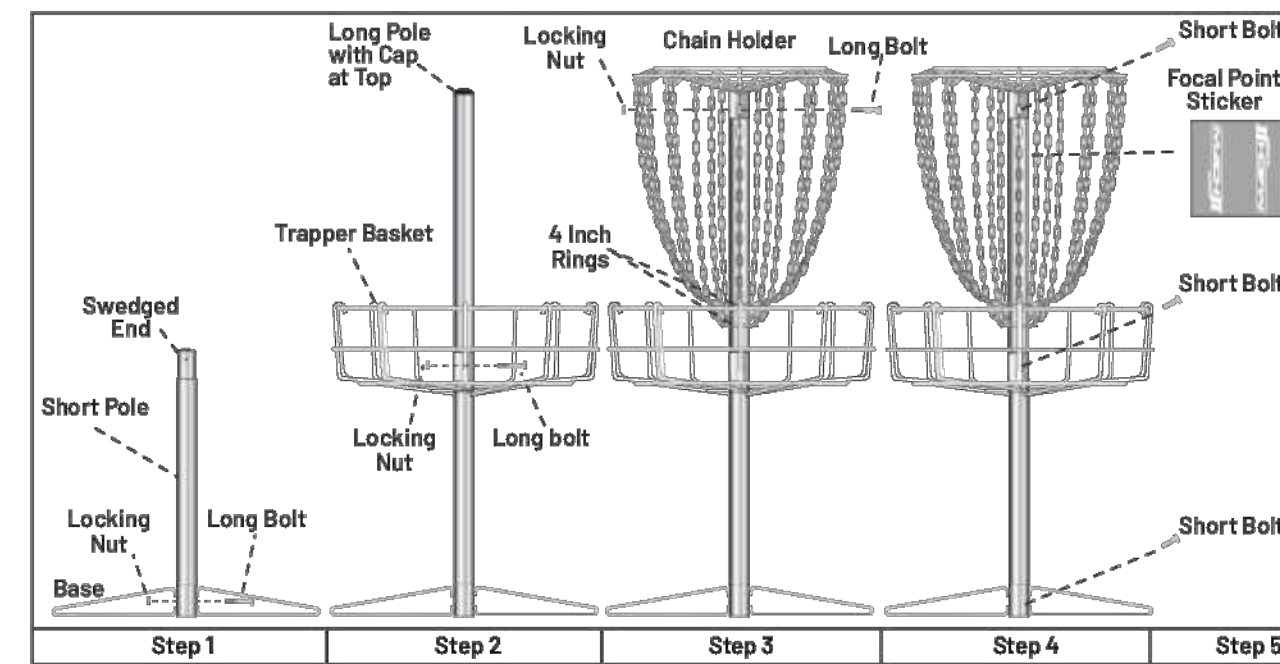
The Mach II Permanent Disc Pole Hole disc golf basket is an excellent portable target for home, schools, colleges or any recreational setting. With the in-ground installation kit the Mach II is also perfect for entry level disc golf courses.



**DGA MACH 2™ PERMANENT DISC GOLF BASKET ASSEMBLY INSTRUCTIONS**

Box includes: 1 base, 1 trapper basket, 1 chain holder, 1 long pole with cap, 1 swaged short pole, 3 long bolts (11mm), 3 locking nuts (11mm), 3 short bolts (10mm) and 1 focal point sticker. You will need 10mm and 11mm wrenches or ratchets to tighten the bolts.

- 1) Remove all parts from inside the box. Place the base on level ground and insert the short pole into the base with the swaged end facing up. Line up the poles three bottom bolt holes with the three bolt holes on the base. Push a long bolt through both the base and pole bolt holes and tighten with a locking nut.
- 2) Place the longer pole with the cap side up onto the short pole's swaged end and line up the three bolt holes on both poles. Lift the trapper basket up onto the top of the pole. Slide the trapper basket down past the middle of the pole and line up the three trapper basket bolt holes with the holes on the poles. Push a long bolt through the trapper basket and the pole's bolt holes. Tighten the long bolt with a locking nut.
- 3) Lift the chain holder up onto the top of the pole by first feeding the two 4 inch rings that connect to the bottom of the chain strands. Line up the three bolt holes on the chain holder and the poles top three bolt holes and push a long bolt through the chain holder and pole bolt holes. Tighten the long bolt with a locking nut.
- 4) The base, trapper basket and chain holder each have one remaining hole for the 10mm short bolts. In each of the remaining holes insert and tighten a short bolt to prevent the base, trapper basket and chain holder from wobbling on the pole.
- 5) Attach the included focal point sticker so that the top of the sticker is about five inches from the top of the pole. Start with lining up one end of the sticker so it is straight up and down in line with the pole and slowly wrap the focal point sticker around the pole. The Mach 2 logo should be facing side ways on the pole.

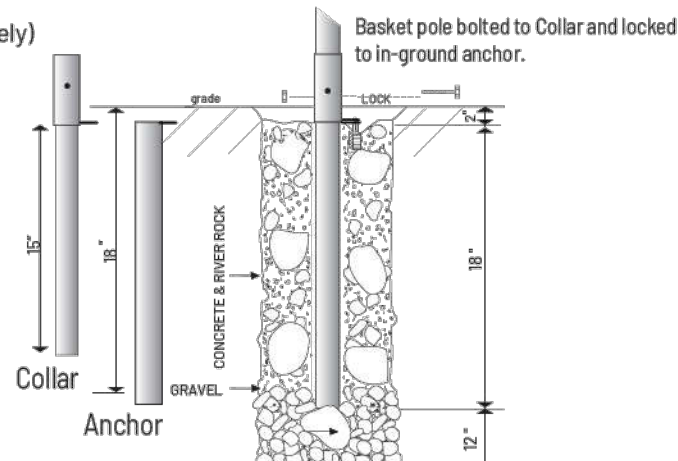


**IN-GROUND INSTALLATION KIT (Sold Separately)**

With the locking tab towards top of collar align holes in locking collar with holes in pole and fasten with bolt, head nut and nylon insert locknut.

Once fastened, the pole can be placed and locked in anchor.

\*Note: The LOCKING TAB should always be pointing at the tee.



**33**  
D-1.4

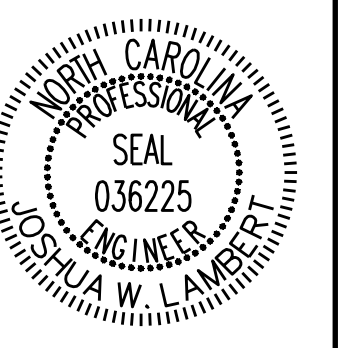
DGA | The Founding Company of Disc Golf  
DiscGolf.com 831-722-6037



**33.1**  
D-1.4

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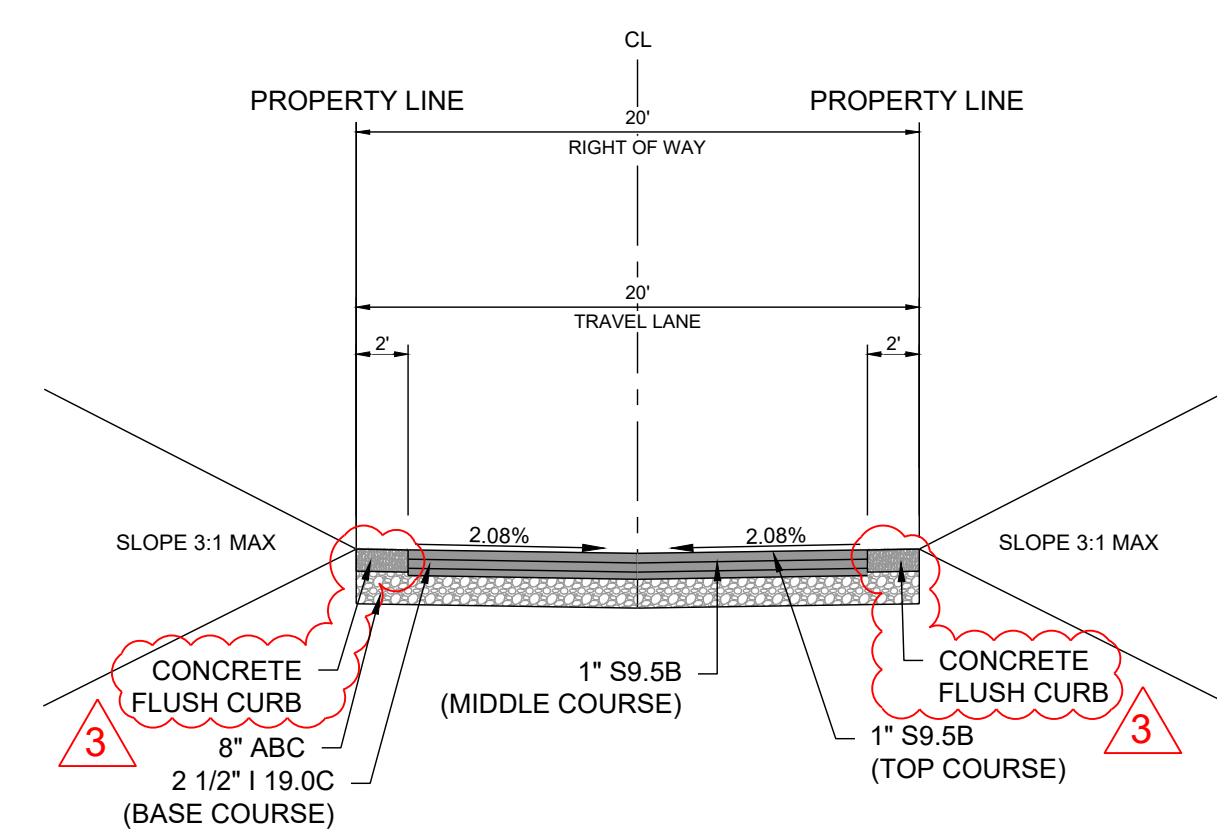
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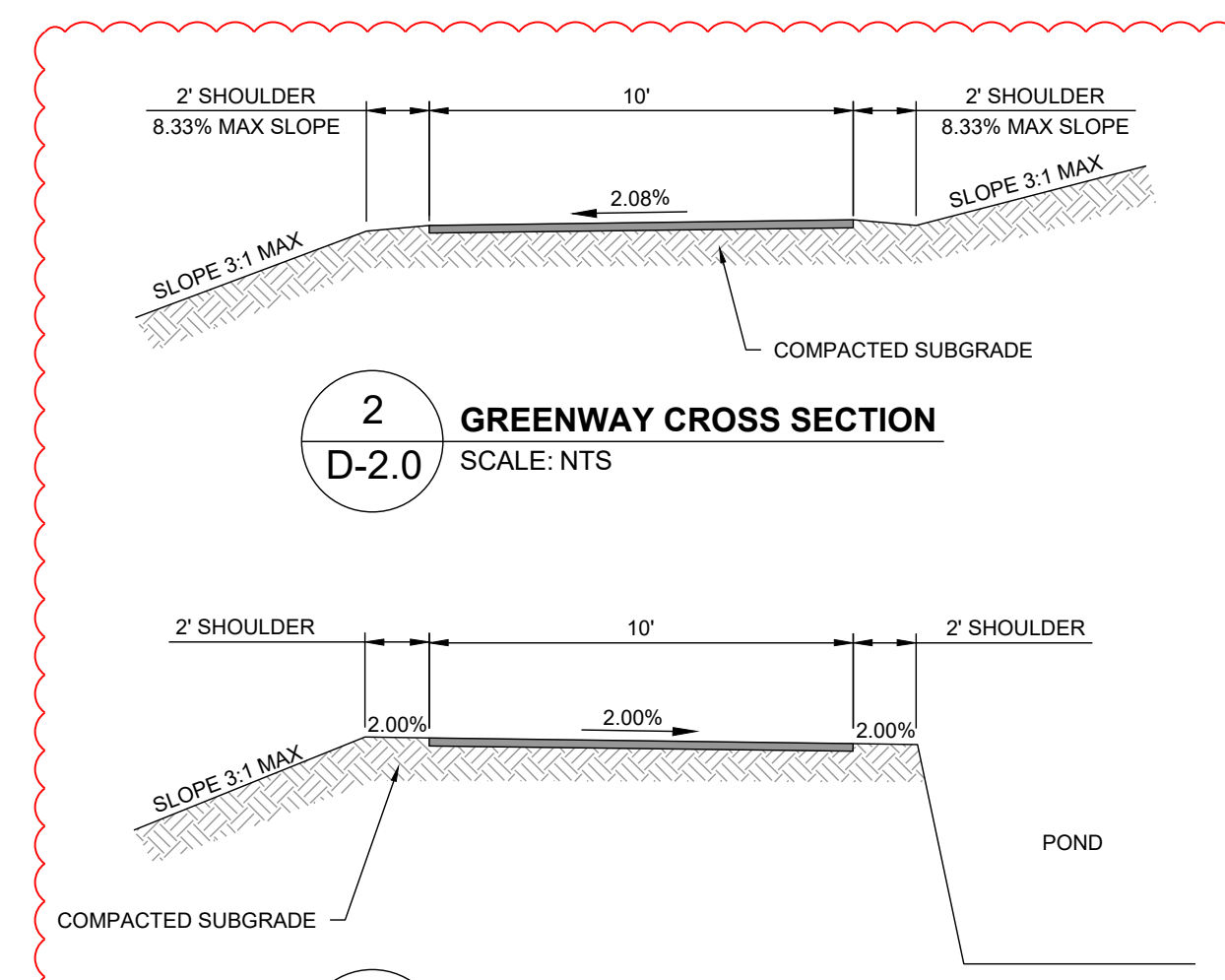
RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
AMENITIES DETAILS

DRAWING SHEET  
D-1.4

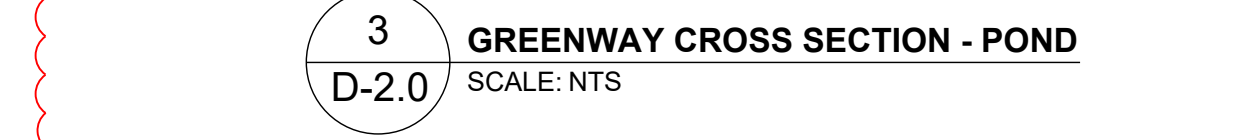




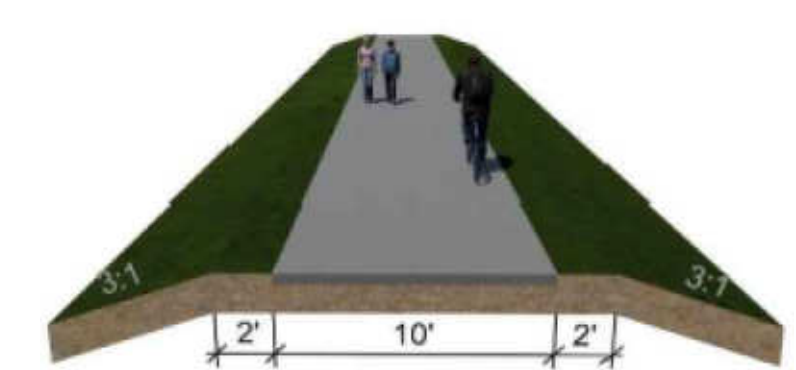
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D-2.0 SCALE: NTS



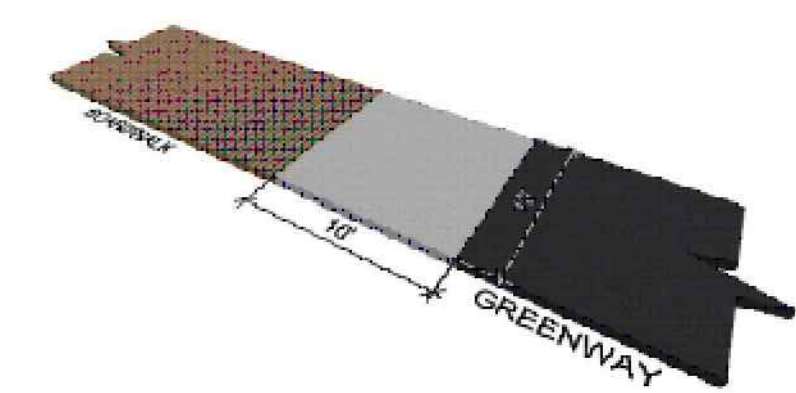
**2 GREENWAY CROSS SECTION**  
D-2.0 SCALE: NTS



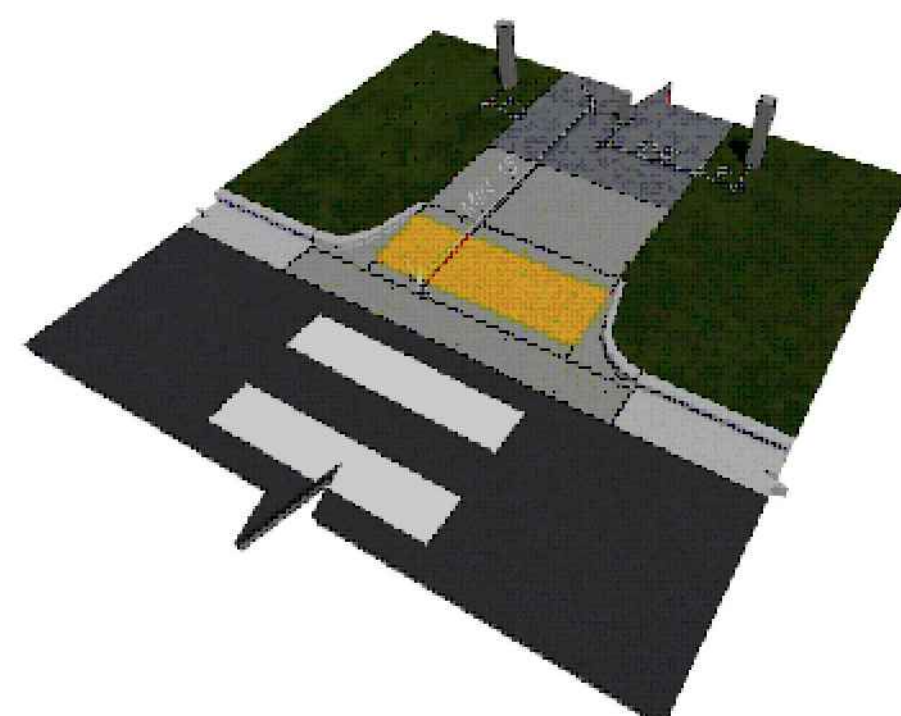
**3 GREENWAY CROSS SECTION - POND**  
D-2.0 SCALE: NTS



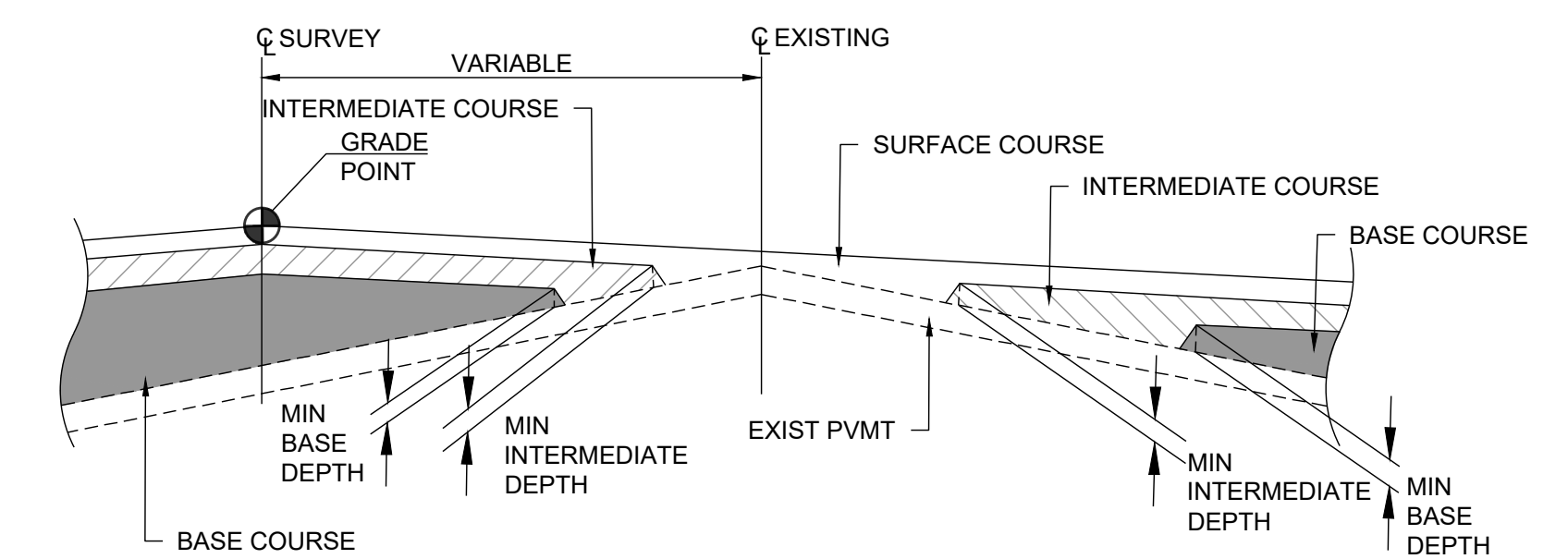
**10 TYPICAL GREENWAY SECTION**  
D-2.0 SCALE: NTS



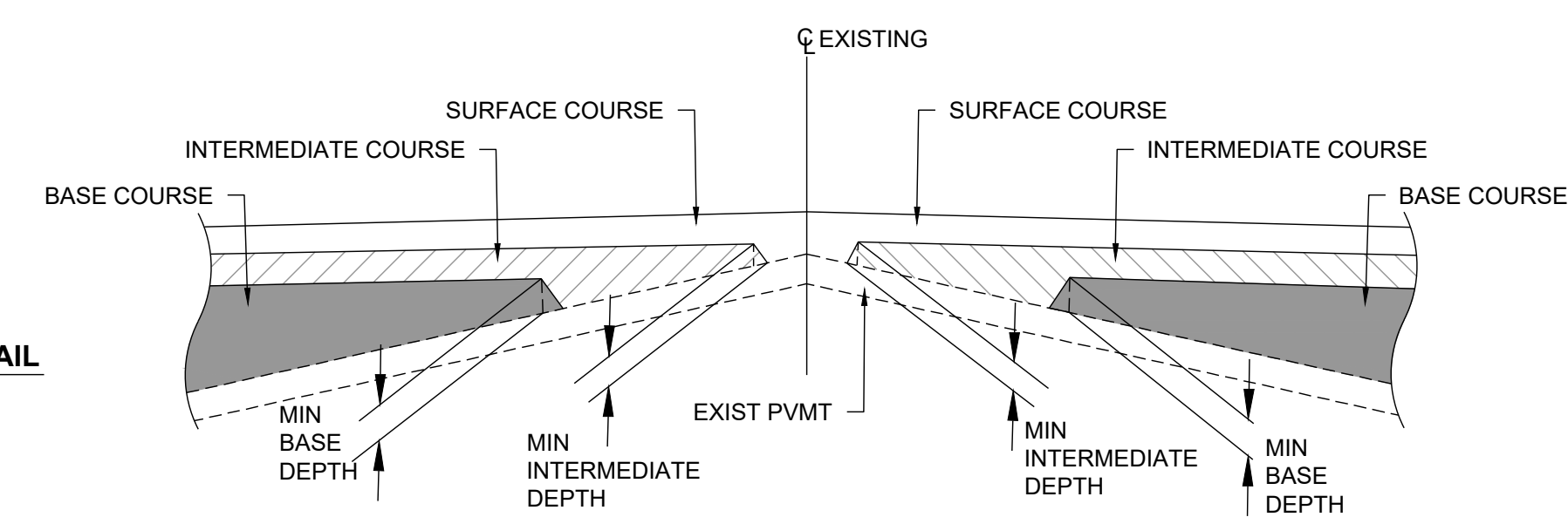
**11 GREENWAY BOARDWALK APPROACH DETAIL**  
D-2.0 SCALE: NTS



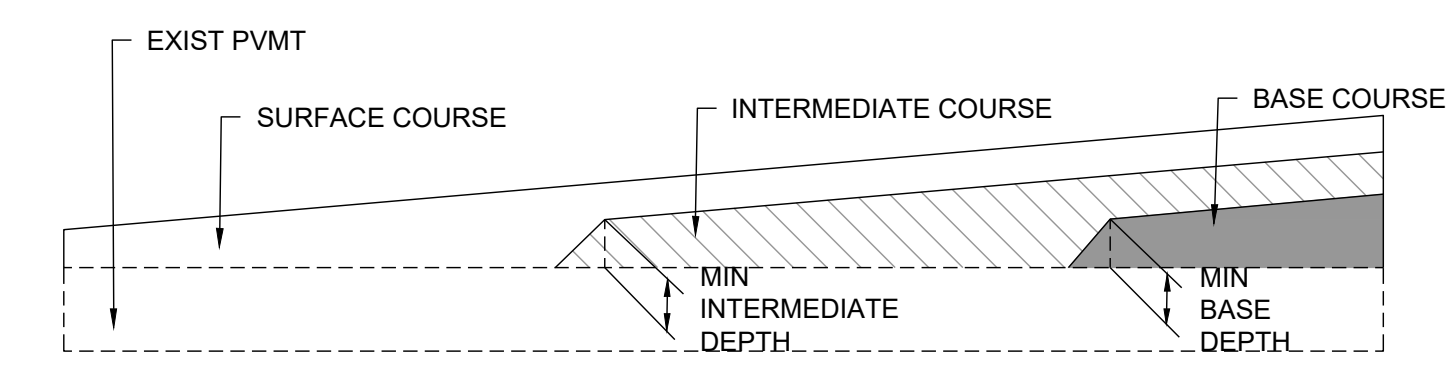
**12 TRAIL ACCESS POINT DETAIL**  
D-2.0 SCALE: NTS



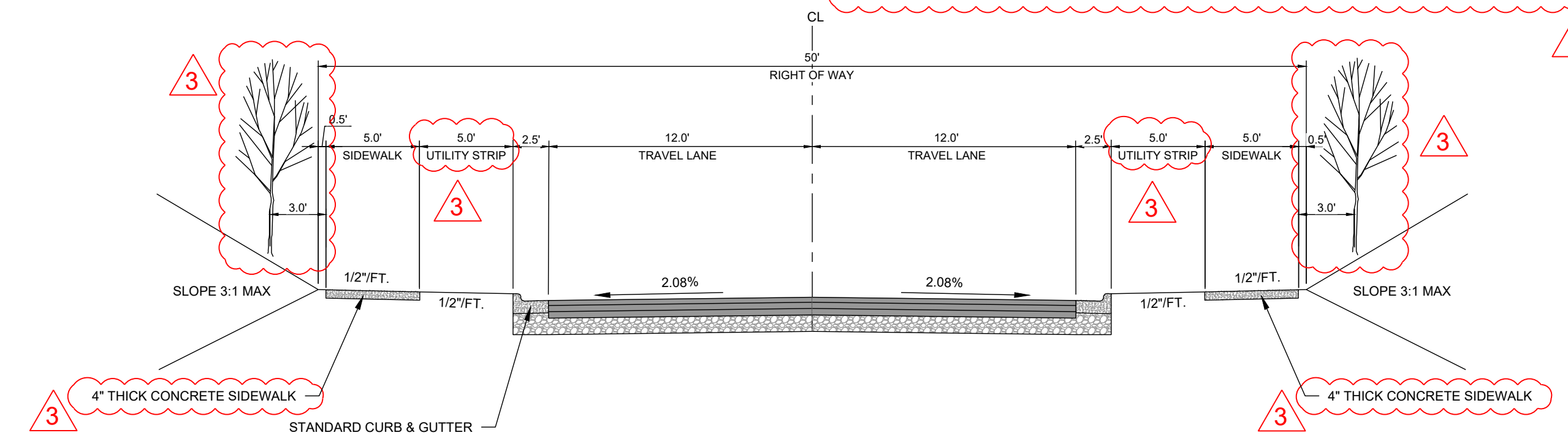
**7 WEDGING DETAIL**  
D-2.0 SCALE: NTS



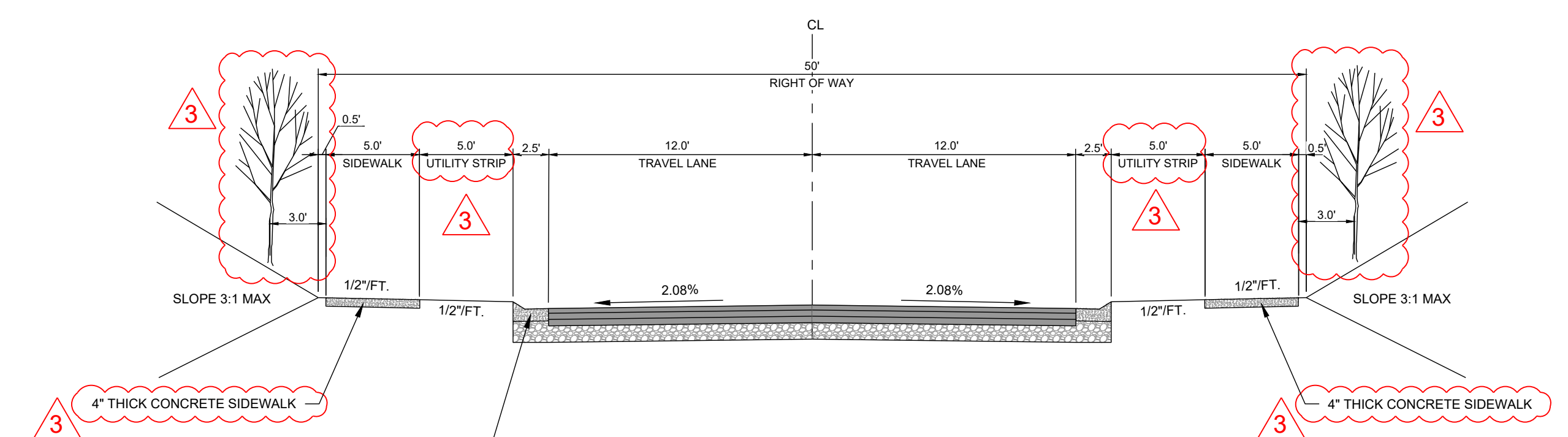
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D-2.0 SCALE: NTS



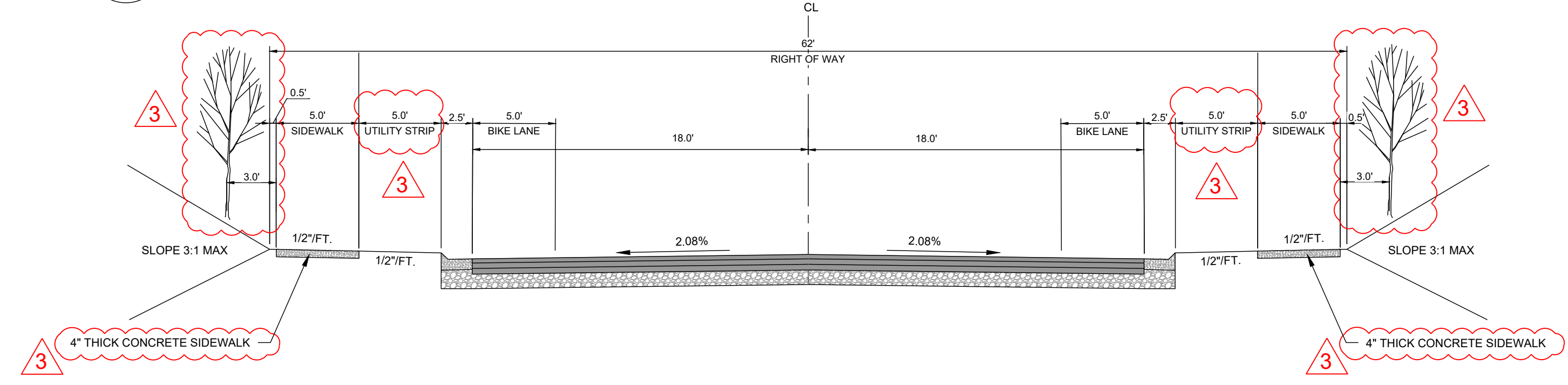
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D-2.0 SCALE: NTS



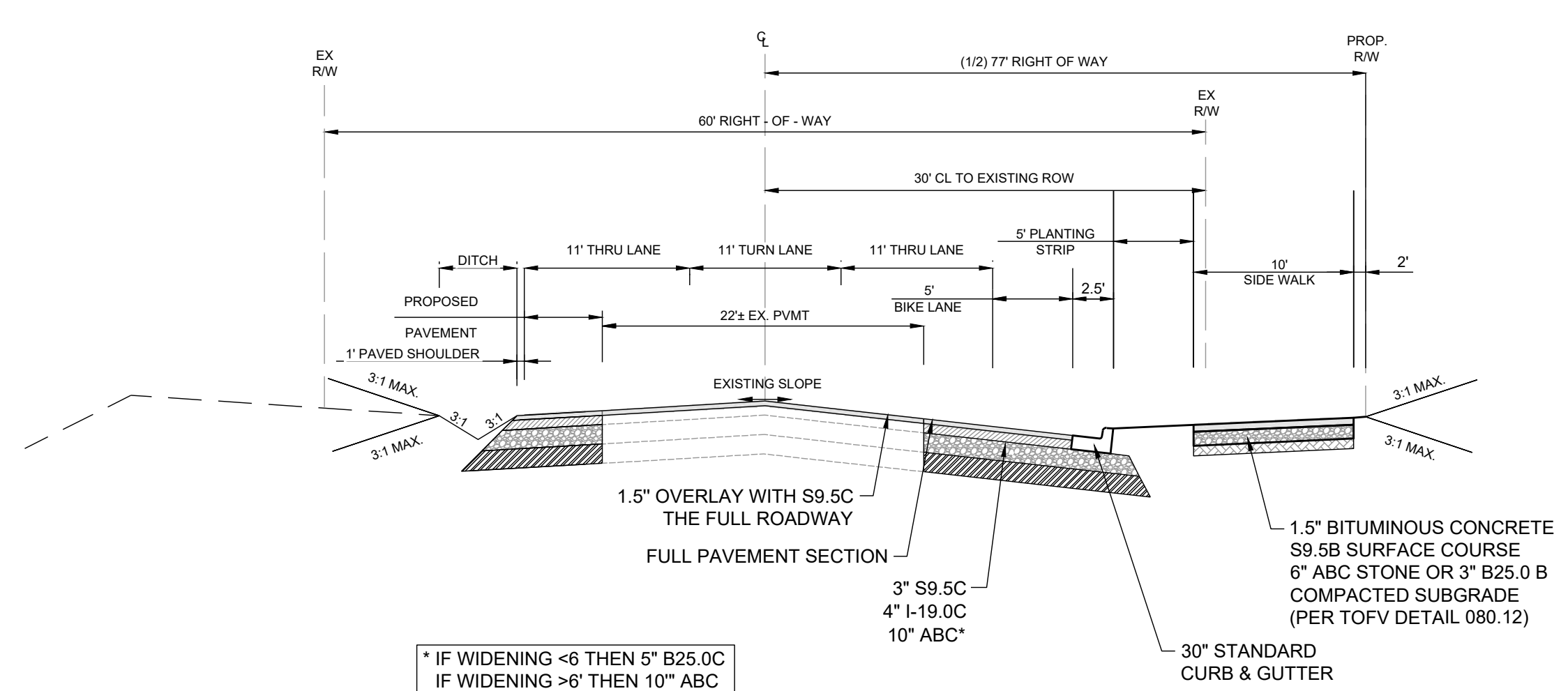
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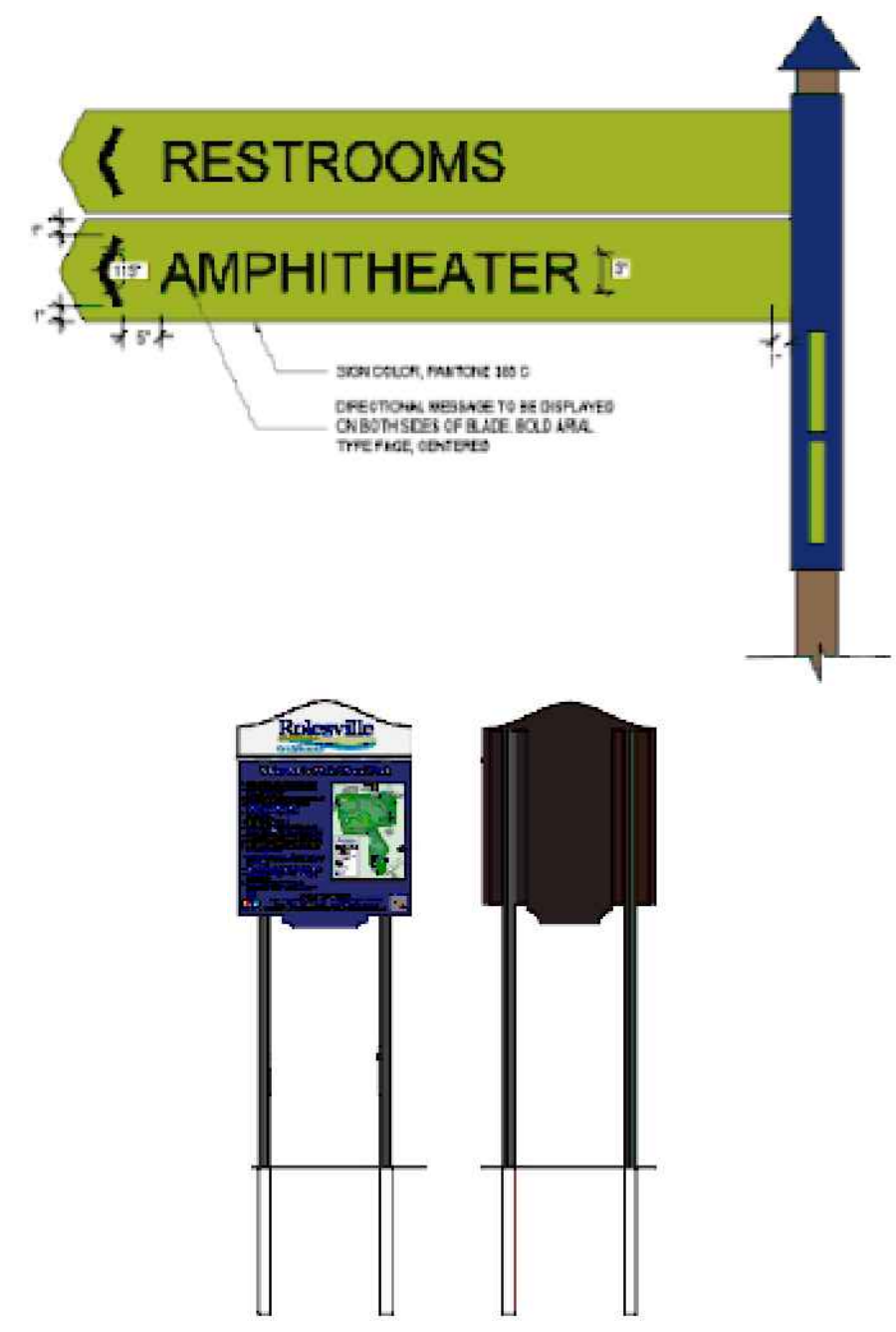
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D-2.0 SCALE: NTS



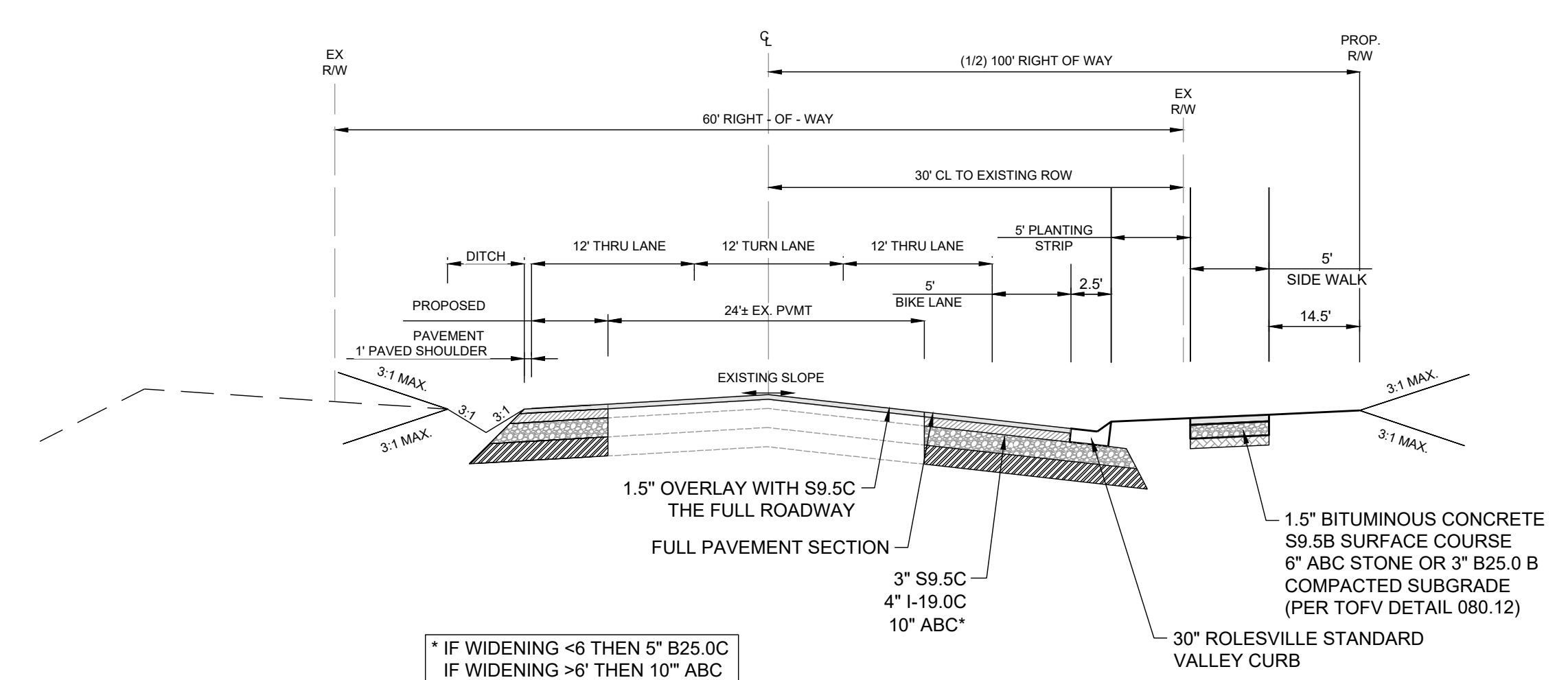
**8 TYPICAL CROSS SECTION - 62' ROW**  
D-2.0 SCALE: NTS



**6 JONESTOWN RD ROADWAY IMPROVEMENTS**  
D-2.0 SCALE: NTS

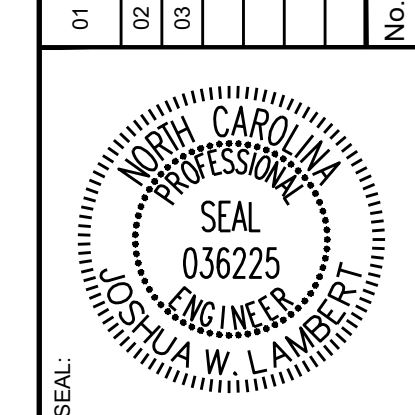


**13 GREENWAY SIGNAGE DETAILS**  
D-2.0 SCALE: NTS



**9 MITCHELL MILL RD ROADWAY IMPROVEMENTS**  
D-2.0 SCALE: NTS

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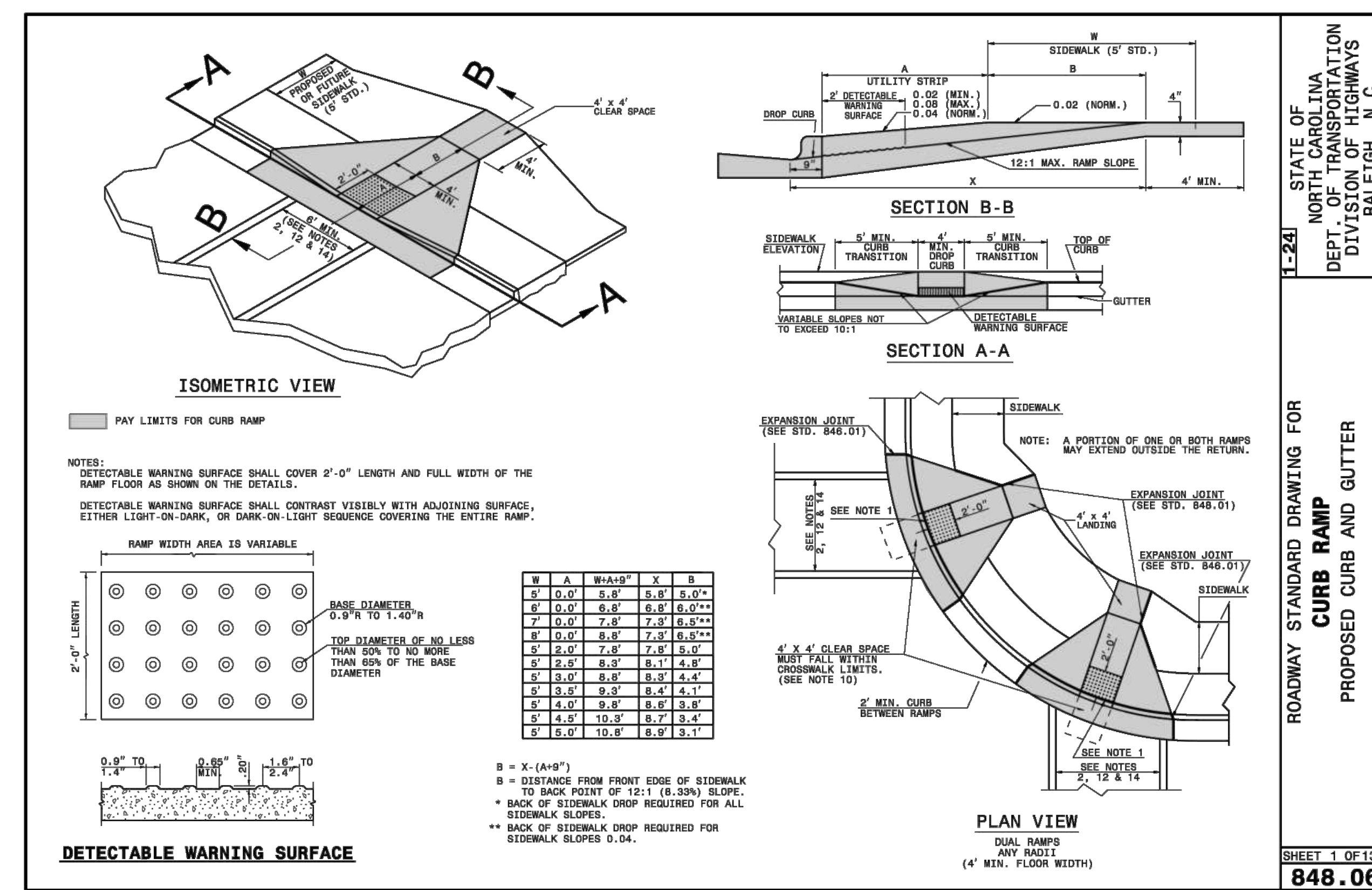
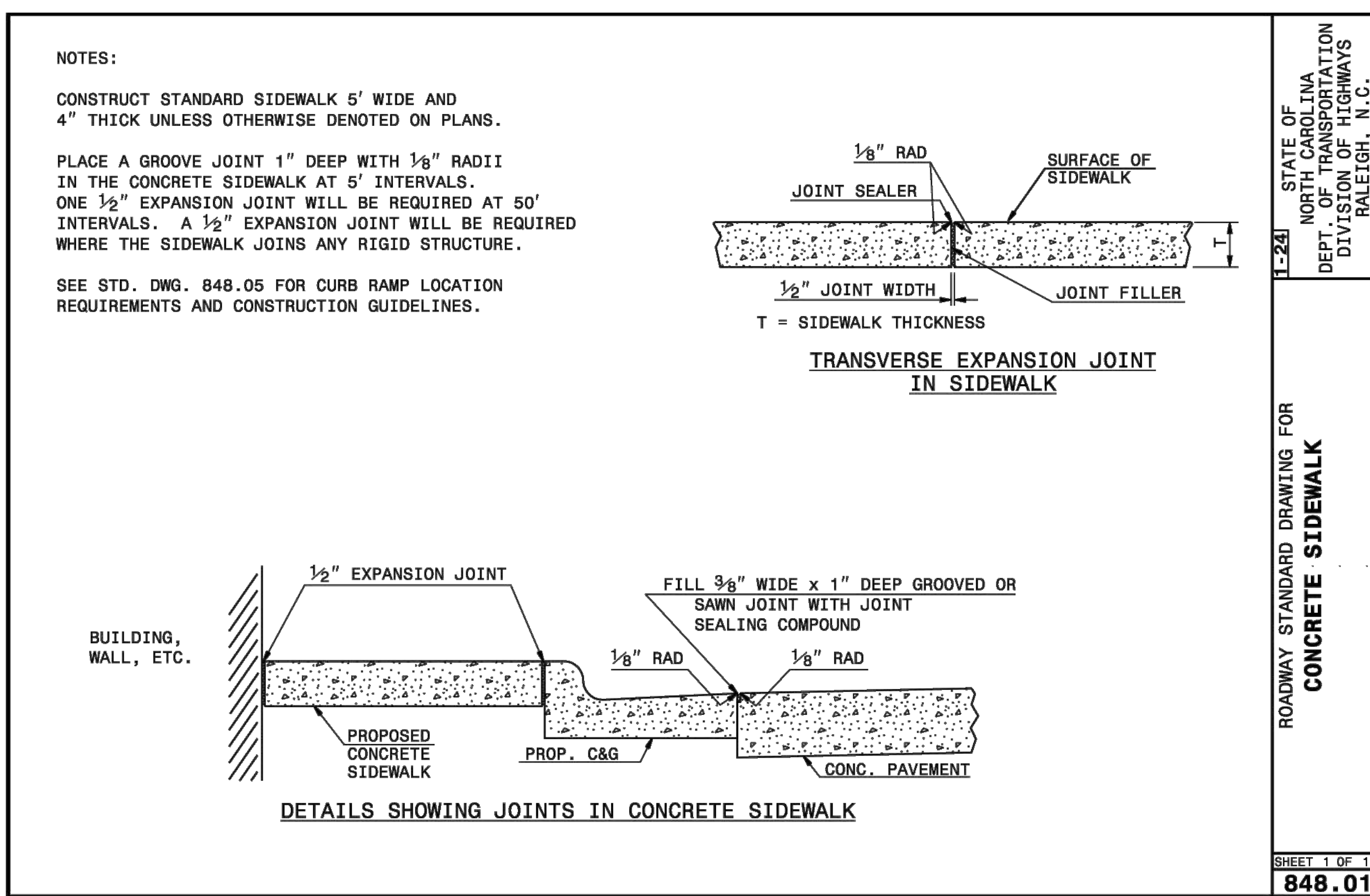
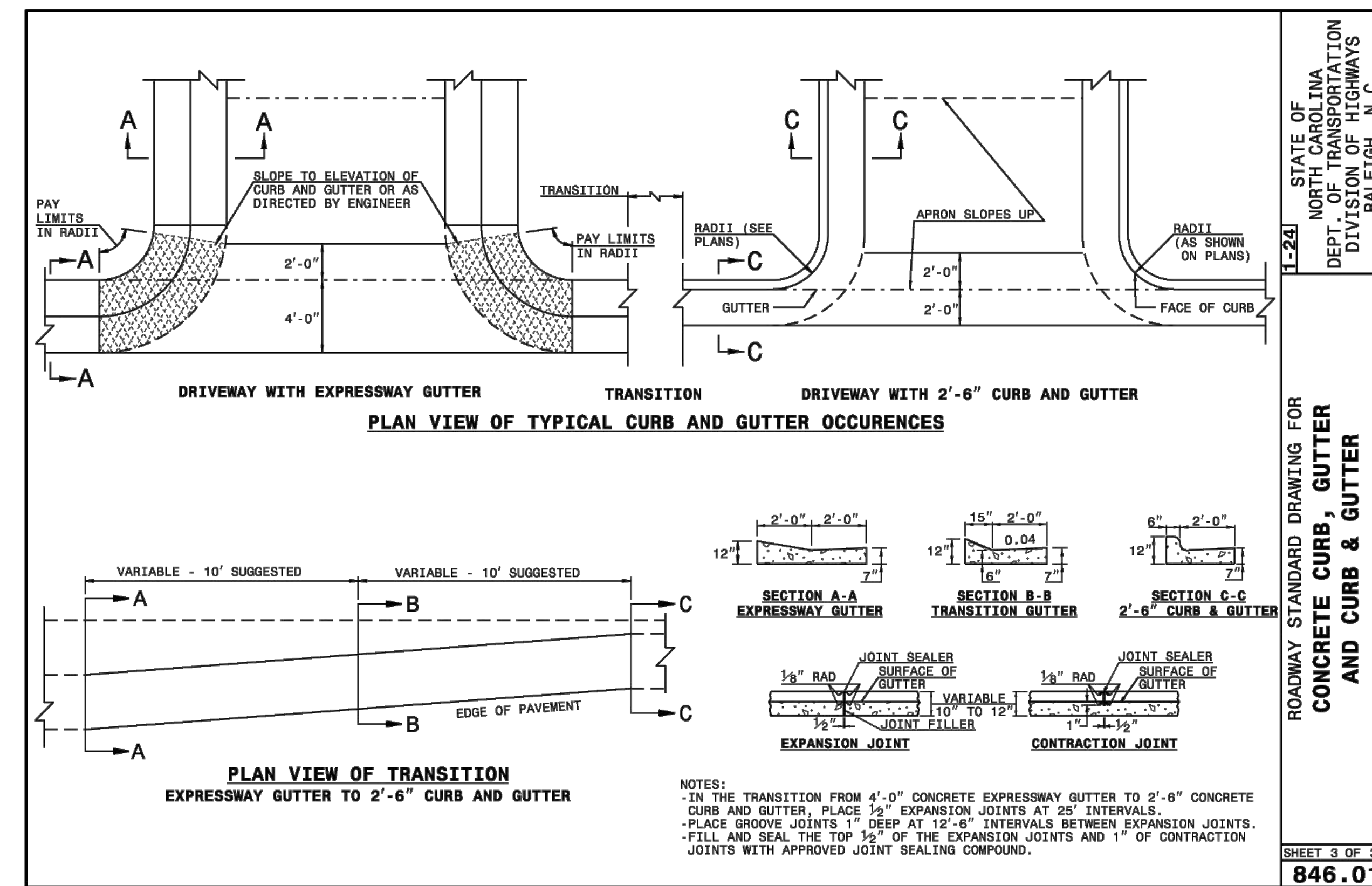
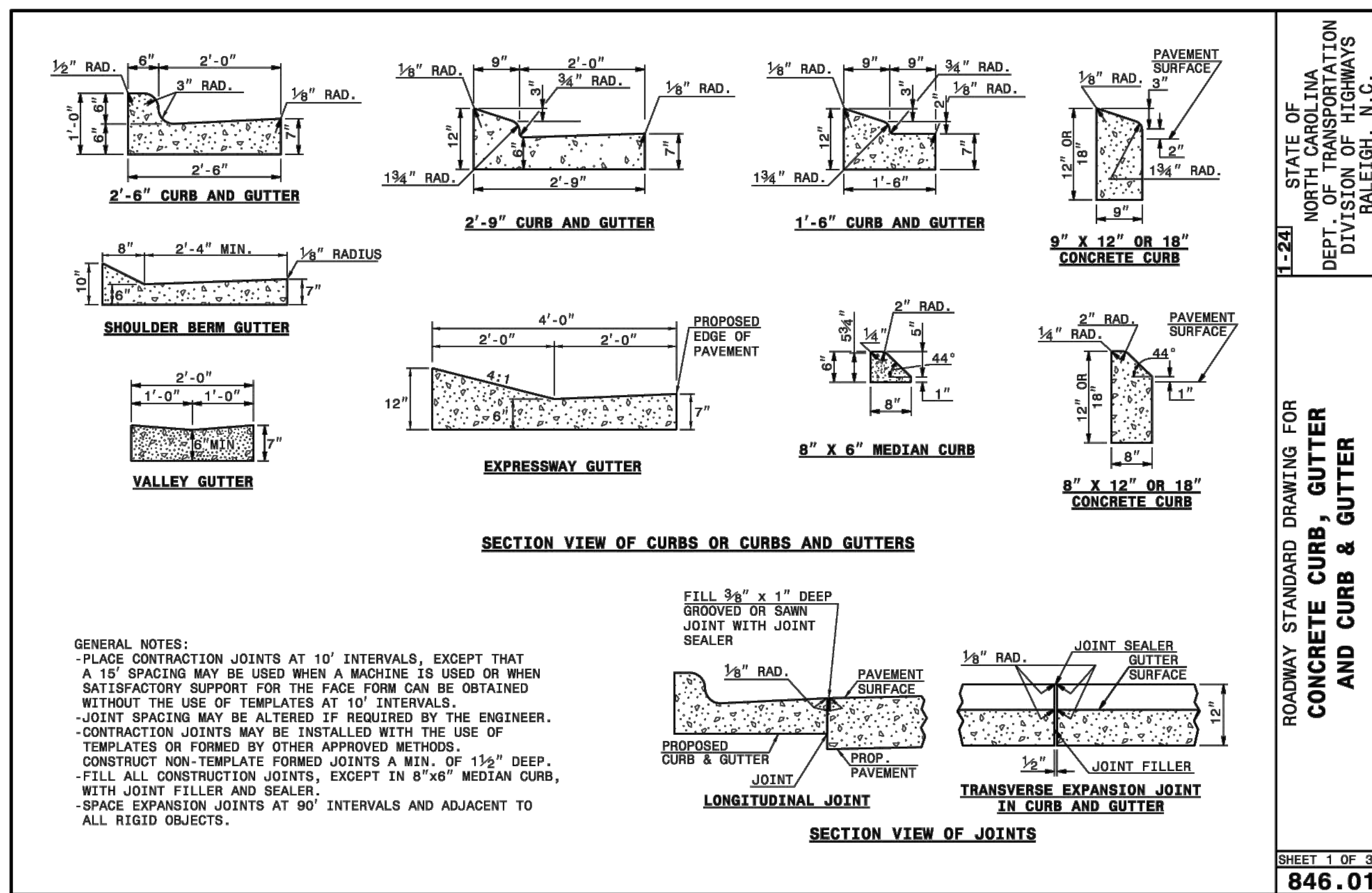
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NOT FOR CONSTRUCTION	JWL	JWL
SCALE AS SHOWN	JWL	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
SITE DETAILS

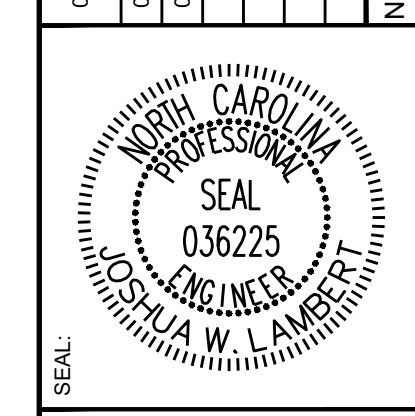
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**D-2.0**

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NO.	REVISIONS	DATE	BY
01			
02			
03			



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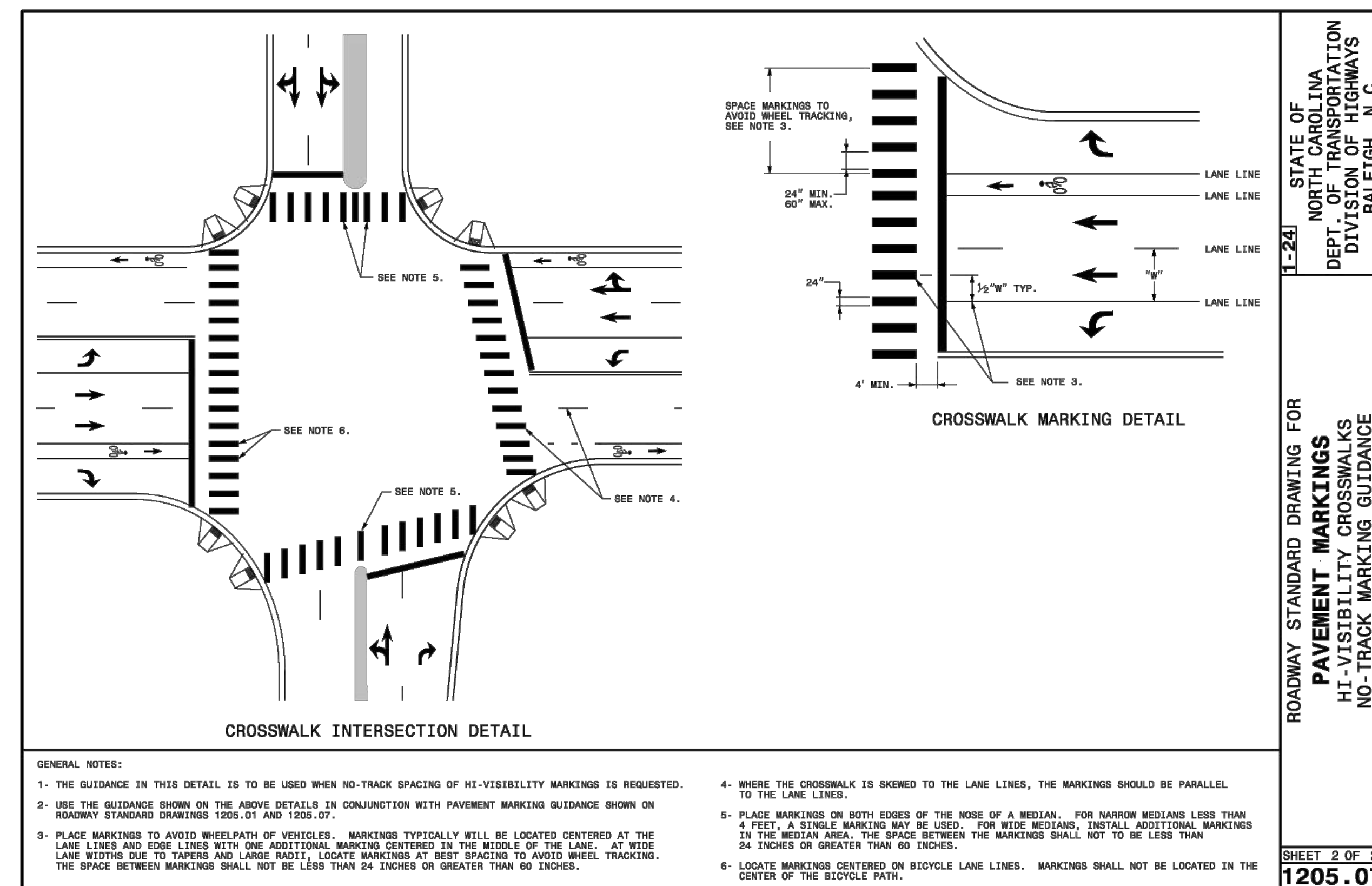
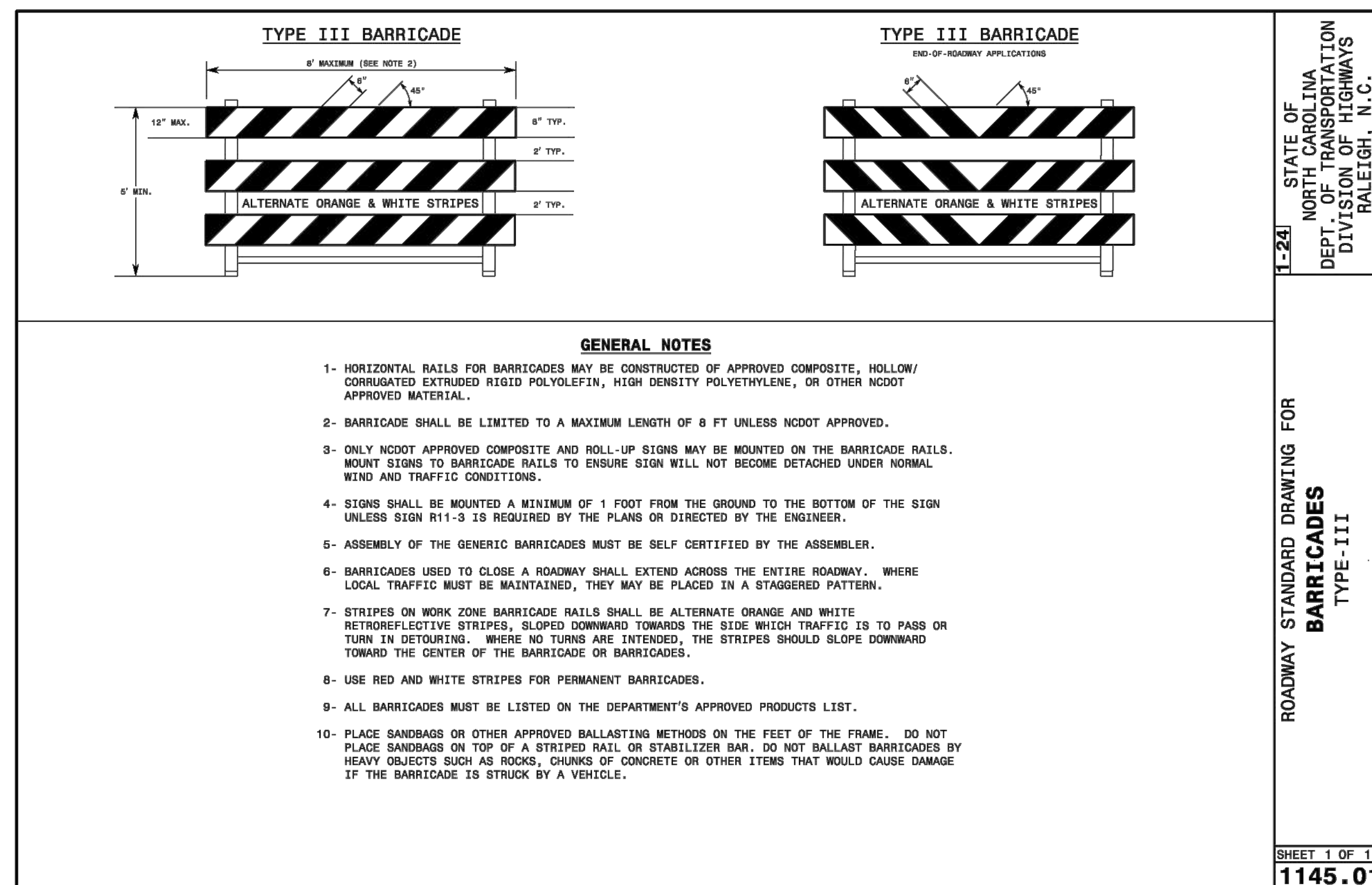
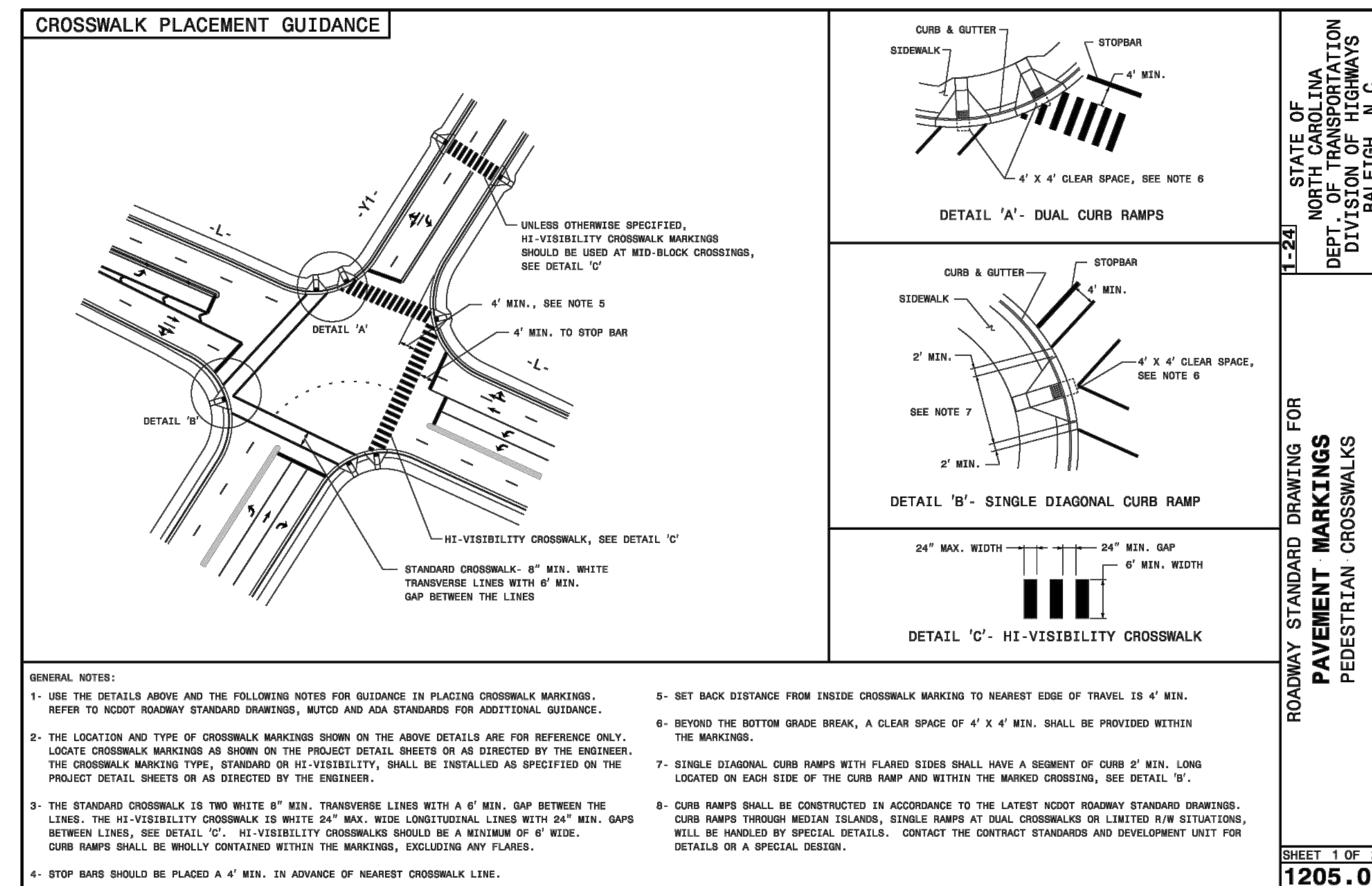
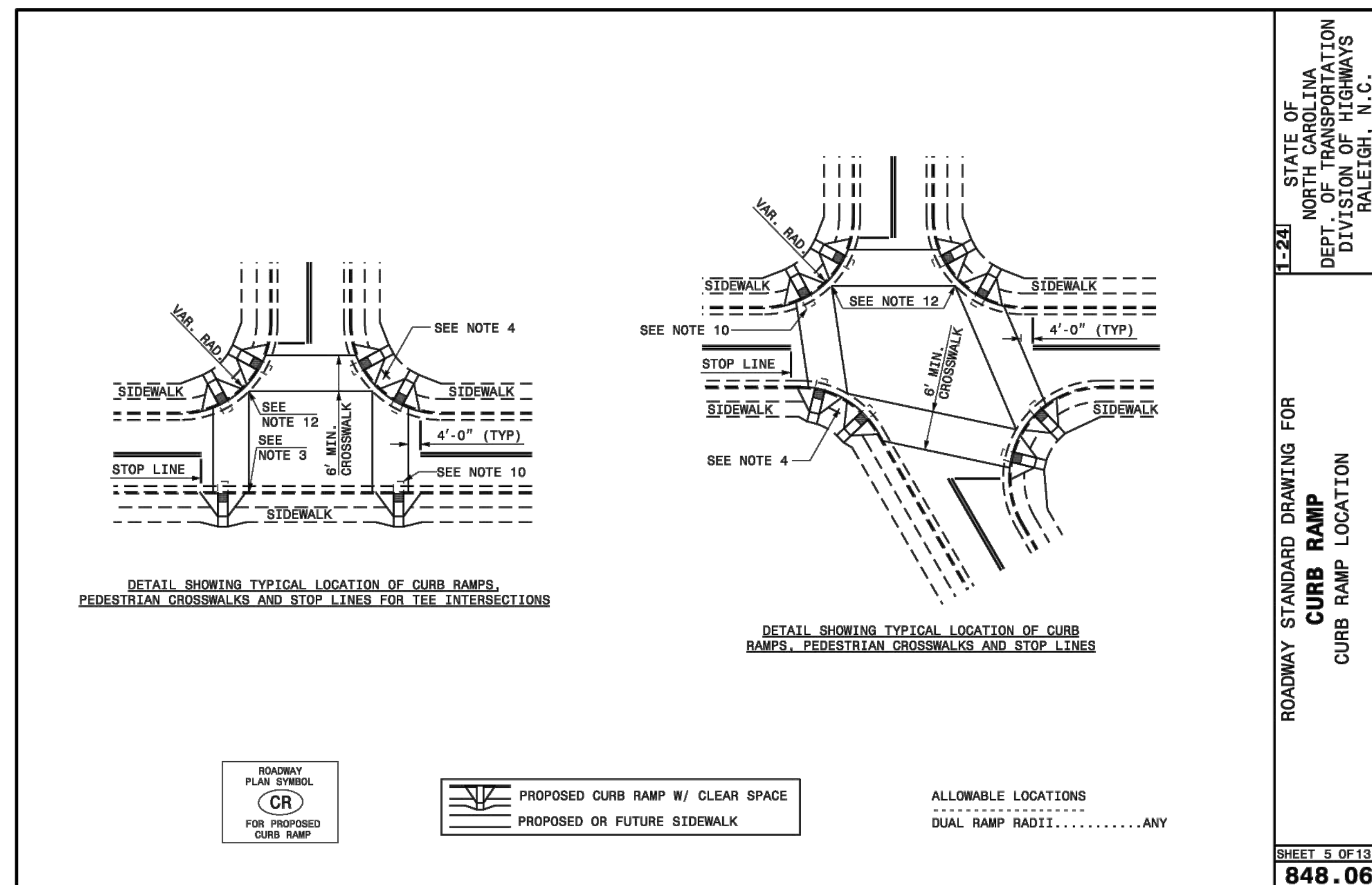
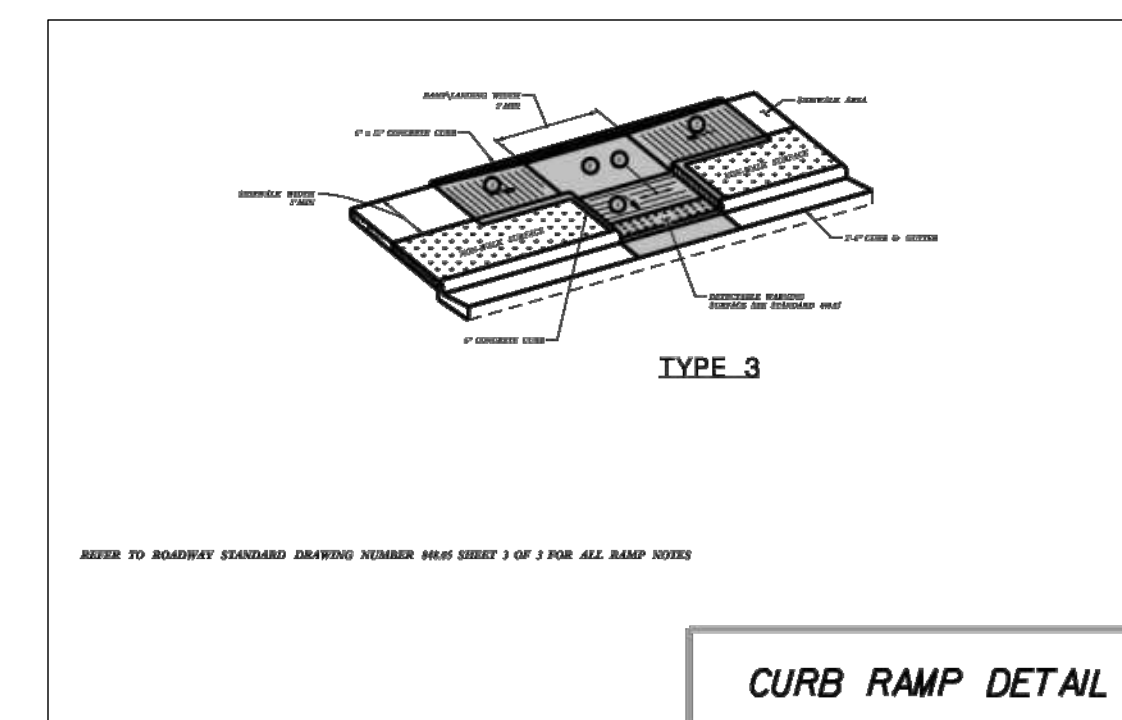
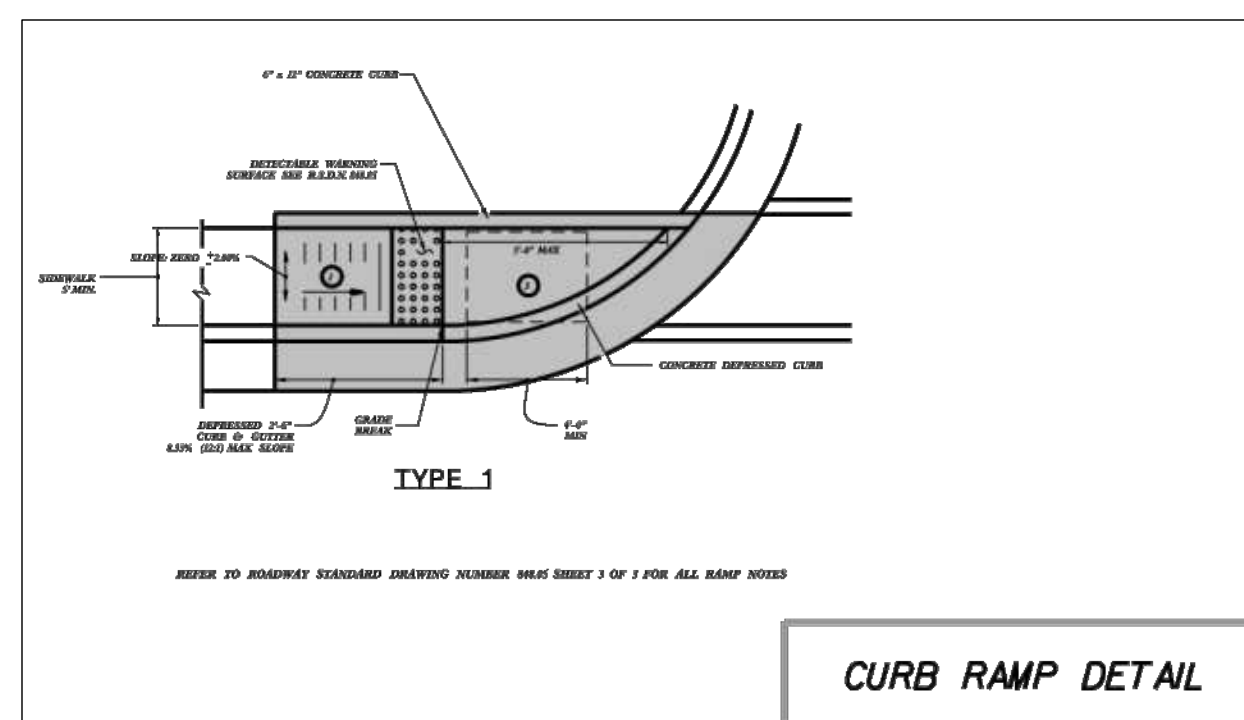
STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PPP-24-03	AS SHOWN	JWL	SRG	JWL	

**RESERVE @ MITCHELL MILL**  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

**CONSTRUCTION PLANS**

**SITE DETAILS**





NO.	REVISIONS	DATE	BY
01			
02			
03			



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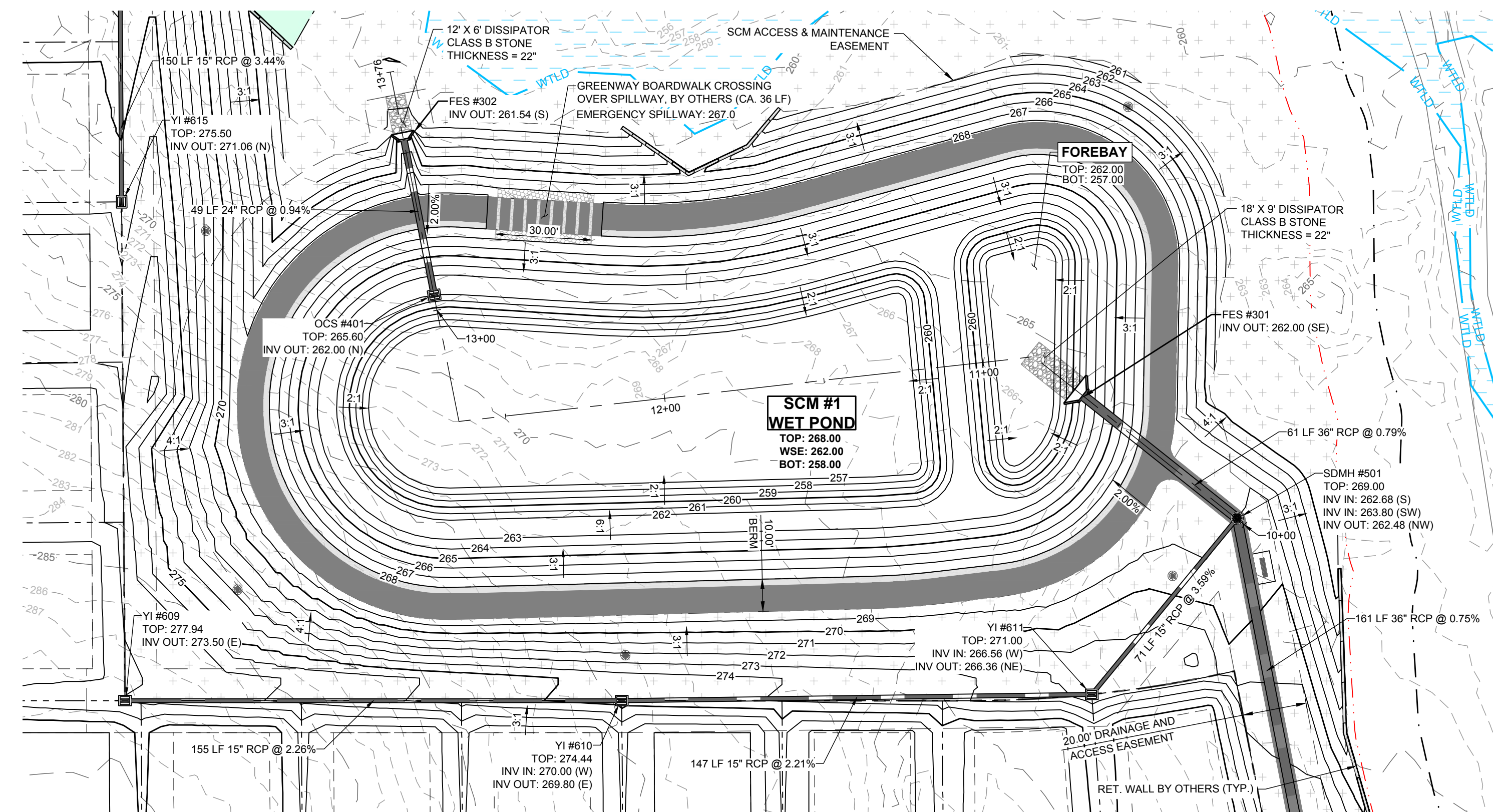
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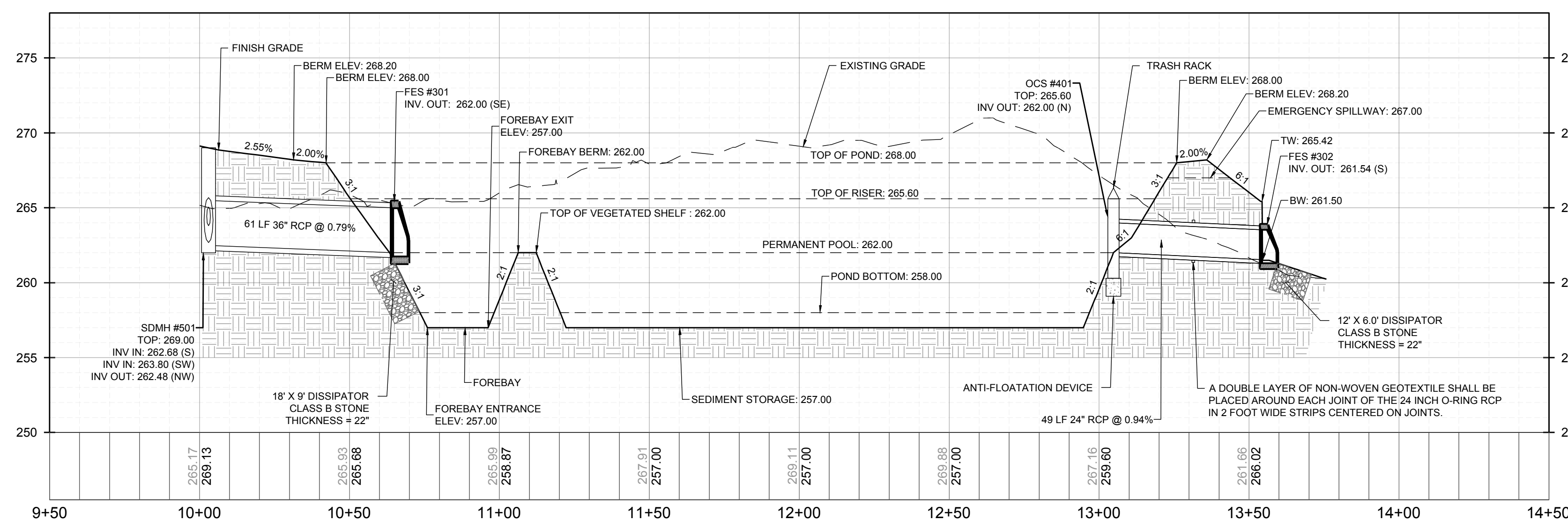
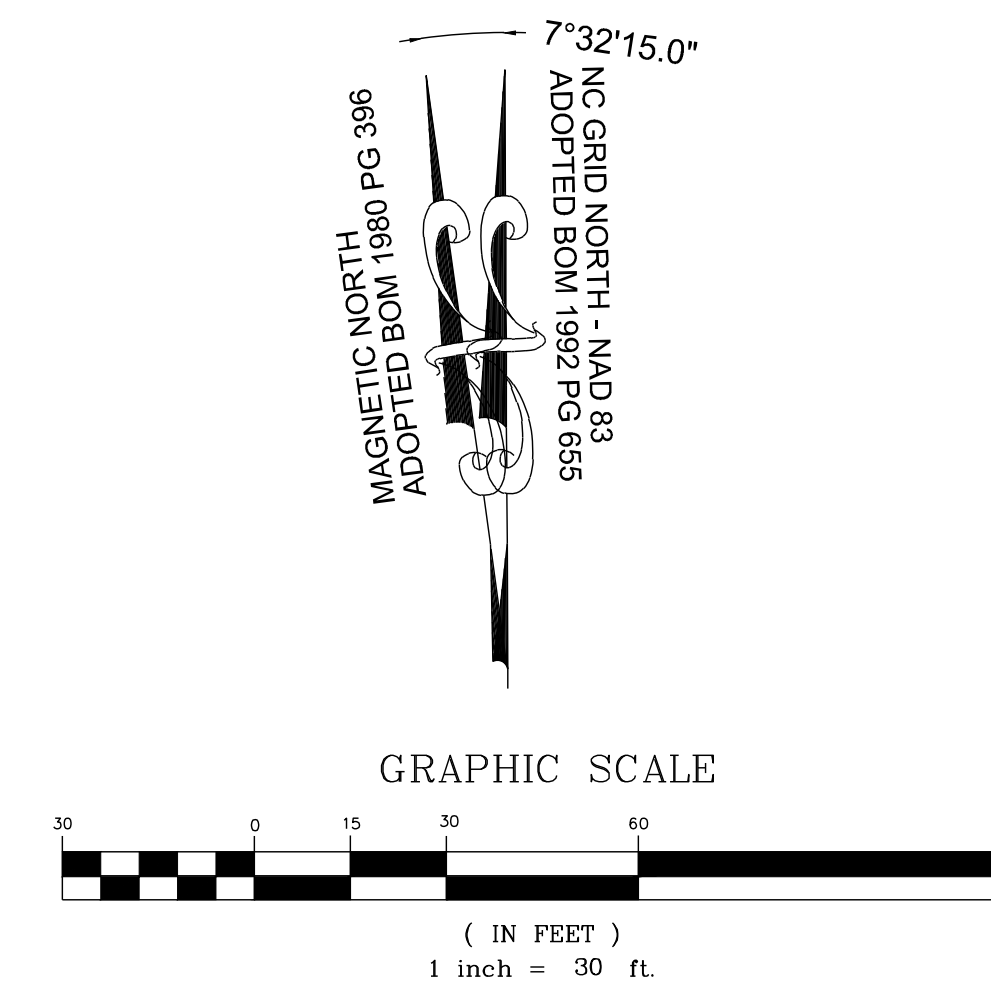
CONSTRUCTION PLANS  
SITE DETAILS

DRAWING SHEET  
D-2.2



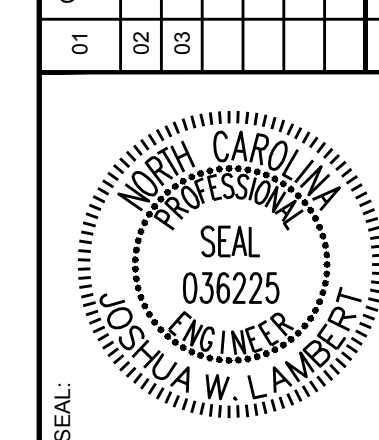


**SCM #1 (WETPOND) - PLAN VIEW**  
HORIZONTAL: 1" = 30'



**SCM #1 (WETPOND) - PROFILE VIEW**  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01			
02			
03			



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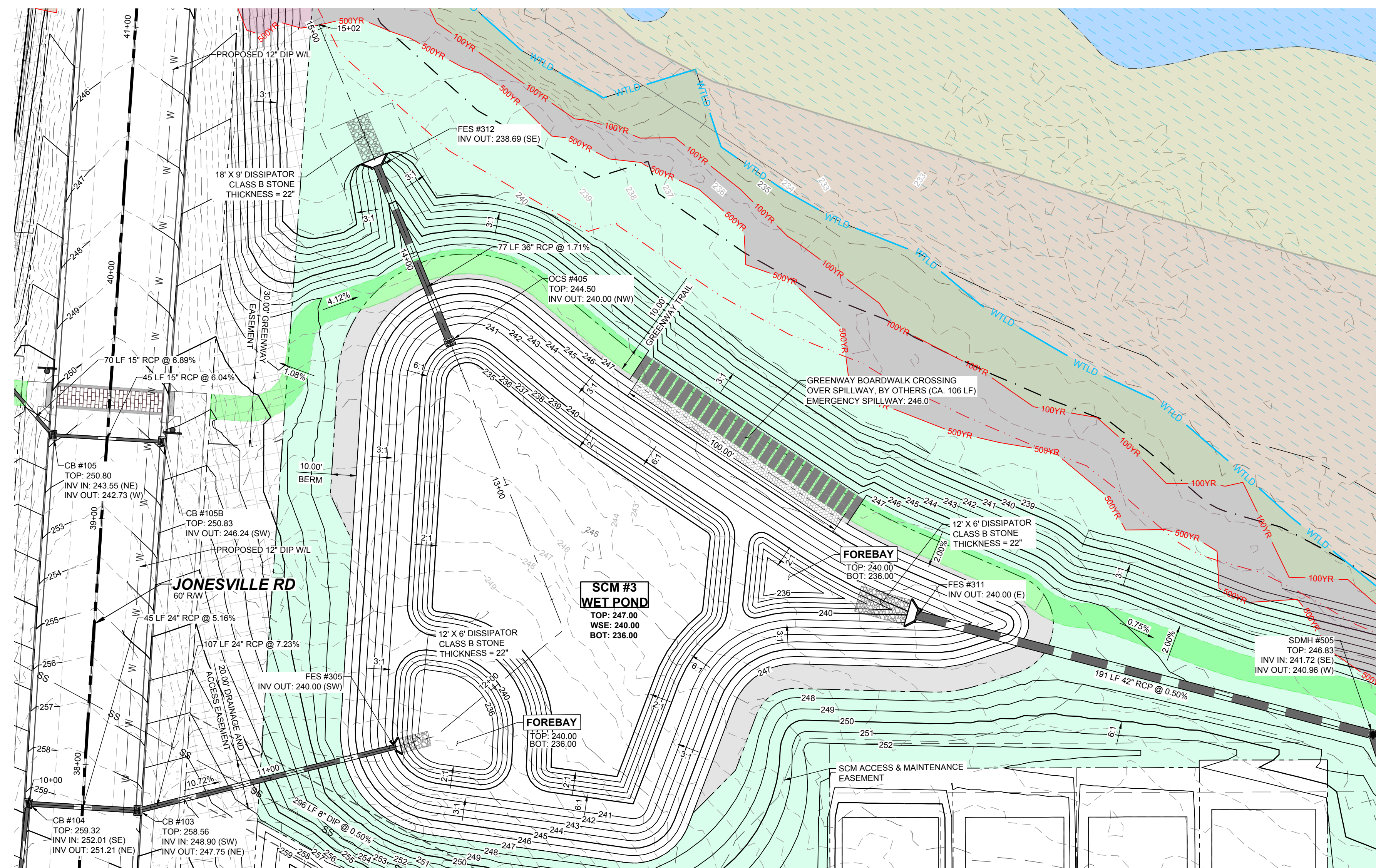
STRONG ROCK PROJECT	STRONG ROCK PROJECT
PSP-23-03	PSP-23-03
NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION
SCALE AS SHOWN	SCALE AS SHOWN
DESIGNED BY JWL	DESIGNED BY JWL
DRAWN BY SRG	DRAWN BY SRG
CHECKED BY JWL	CHECKED BY JWL

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TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
STORMWATER CONTROL  
MEASURE '1'

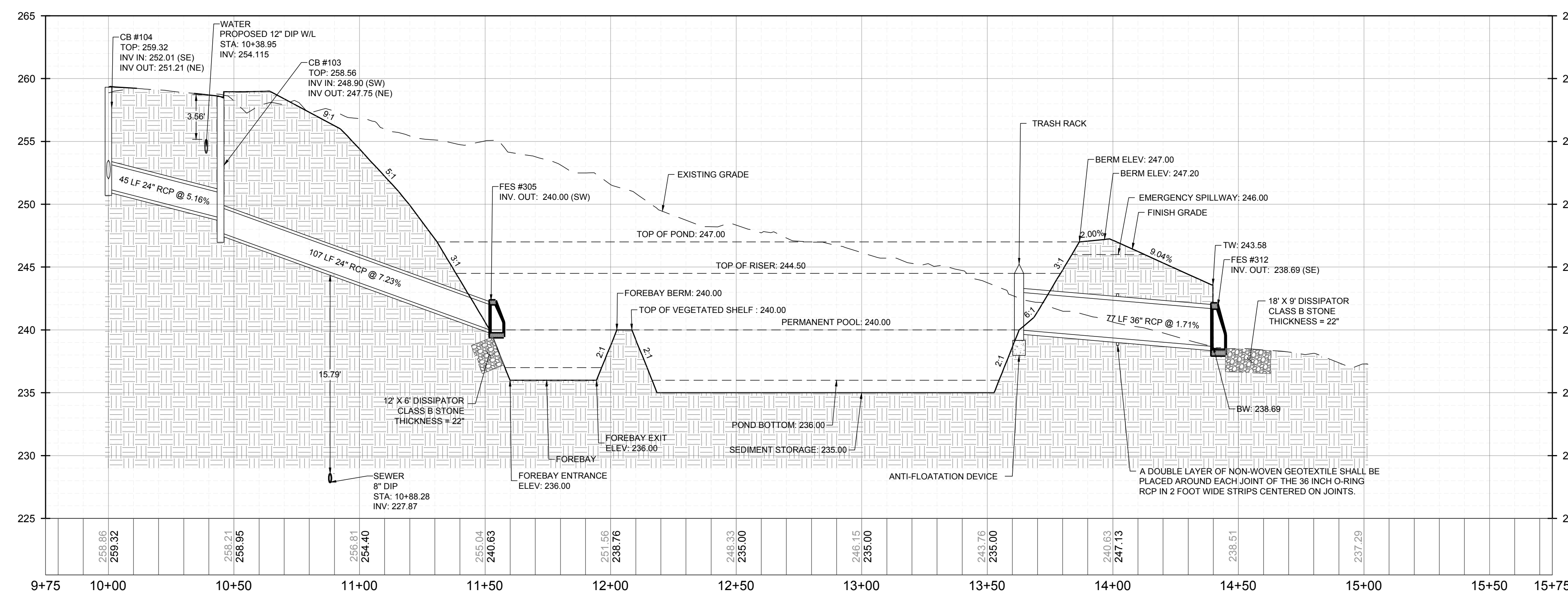
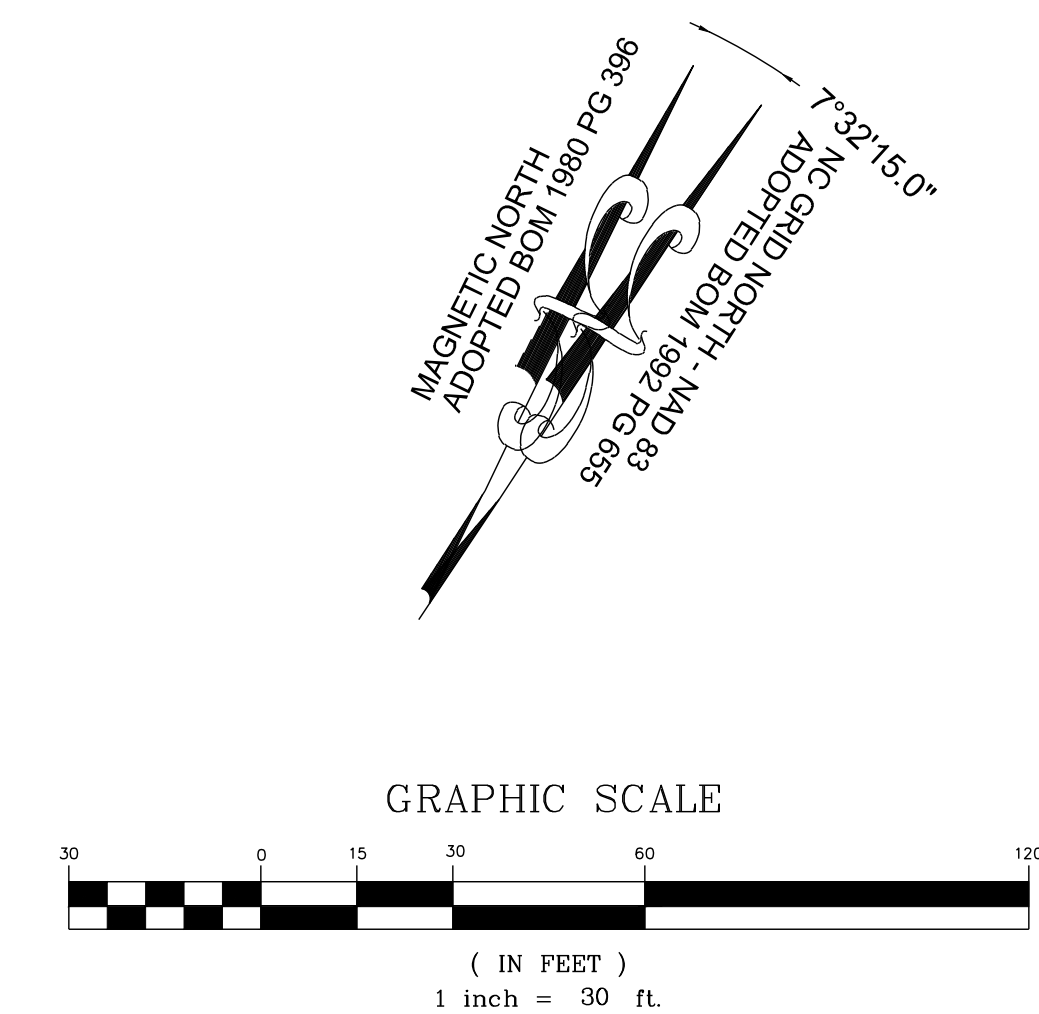
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**D-3.0**

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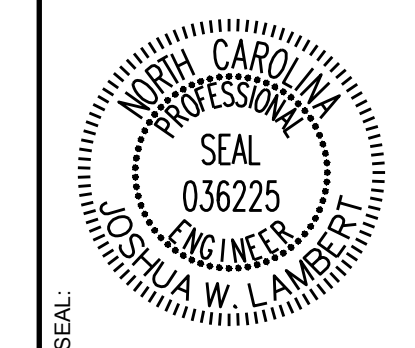


SCM #3 (WETPOND) - PLAN VIEW  
HORIZONTAL: 1" = 30'



SCM #3 (WETPOND) - PROFILE  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01			
02			
03			



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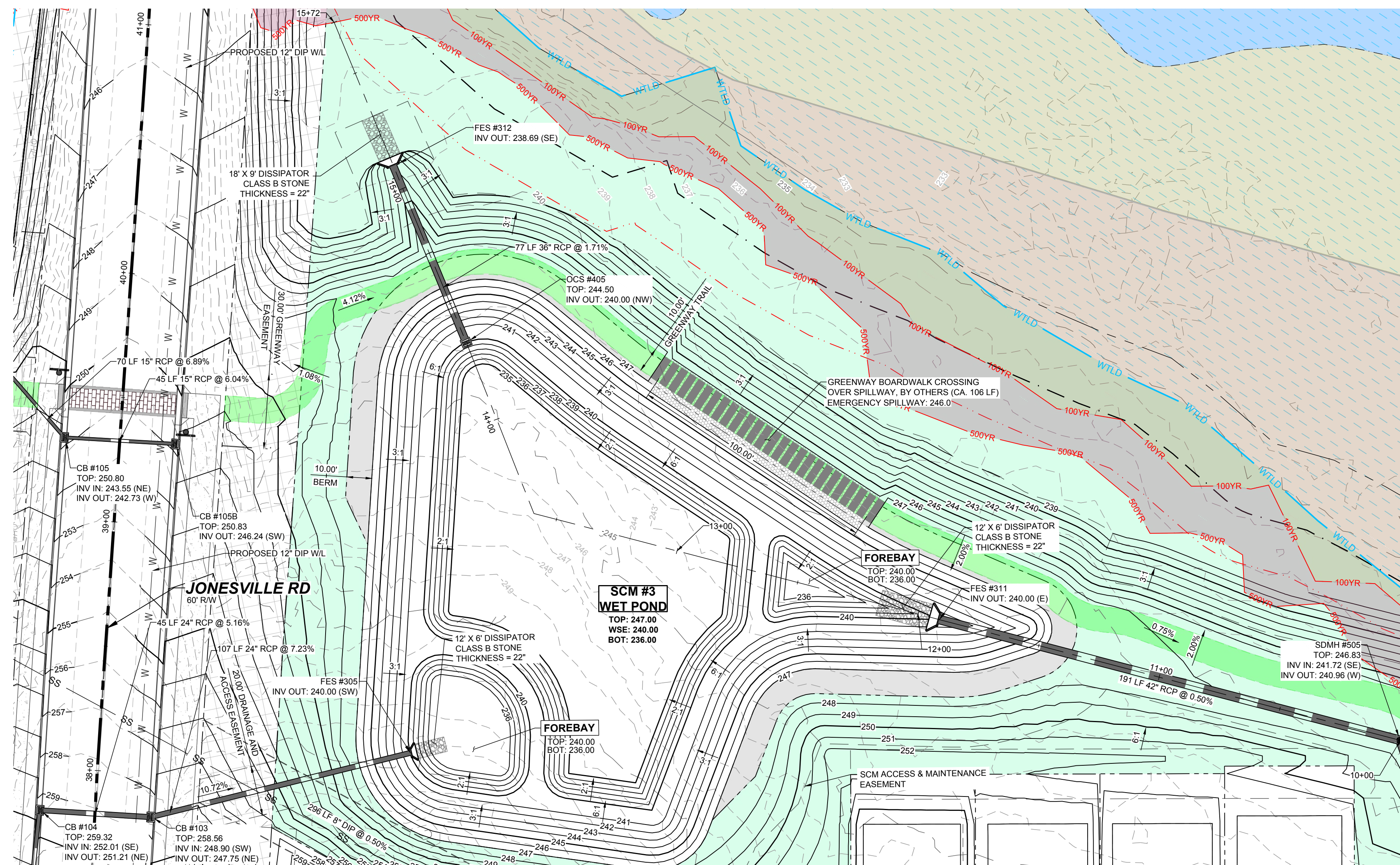
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PSP-24-00	AS SHOWN	JWL	SRG	JWL	JWL

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TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
STORMWATER CONTROL  
MEASURE '3'

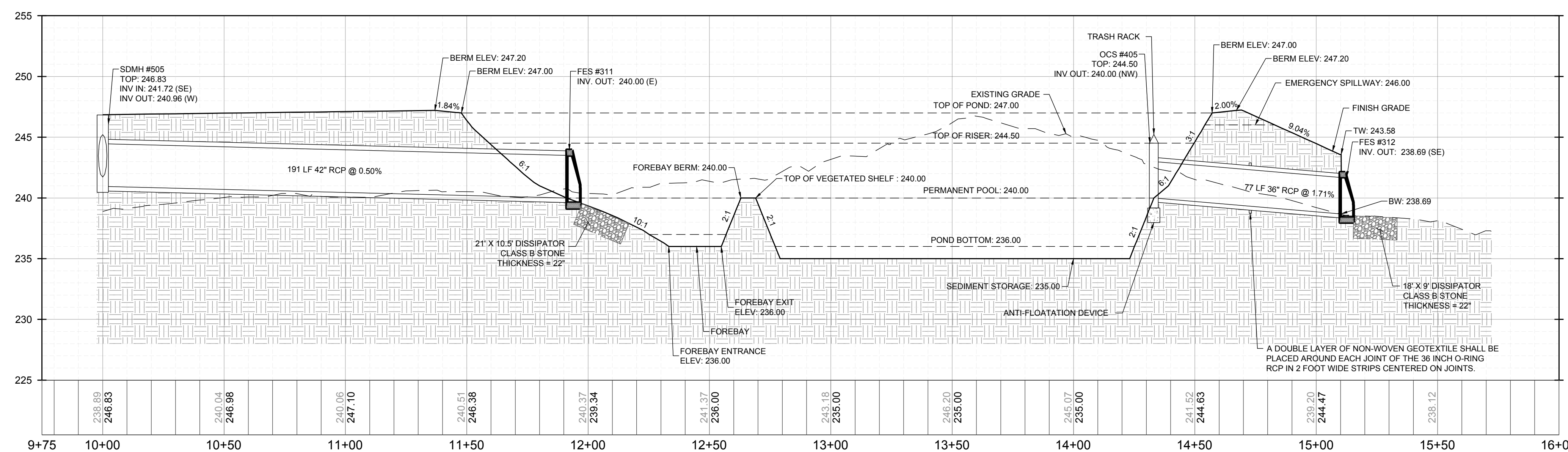
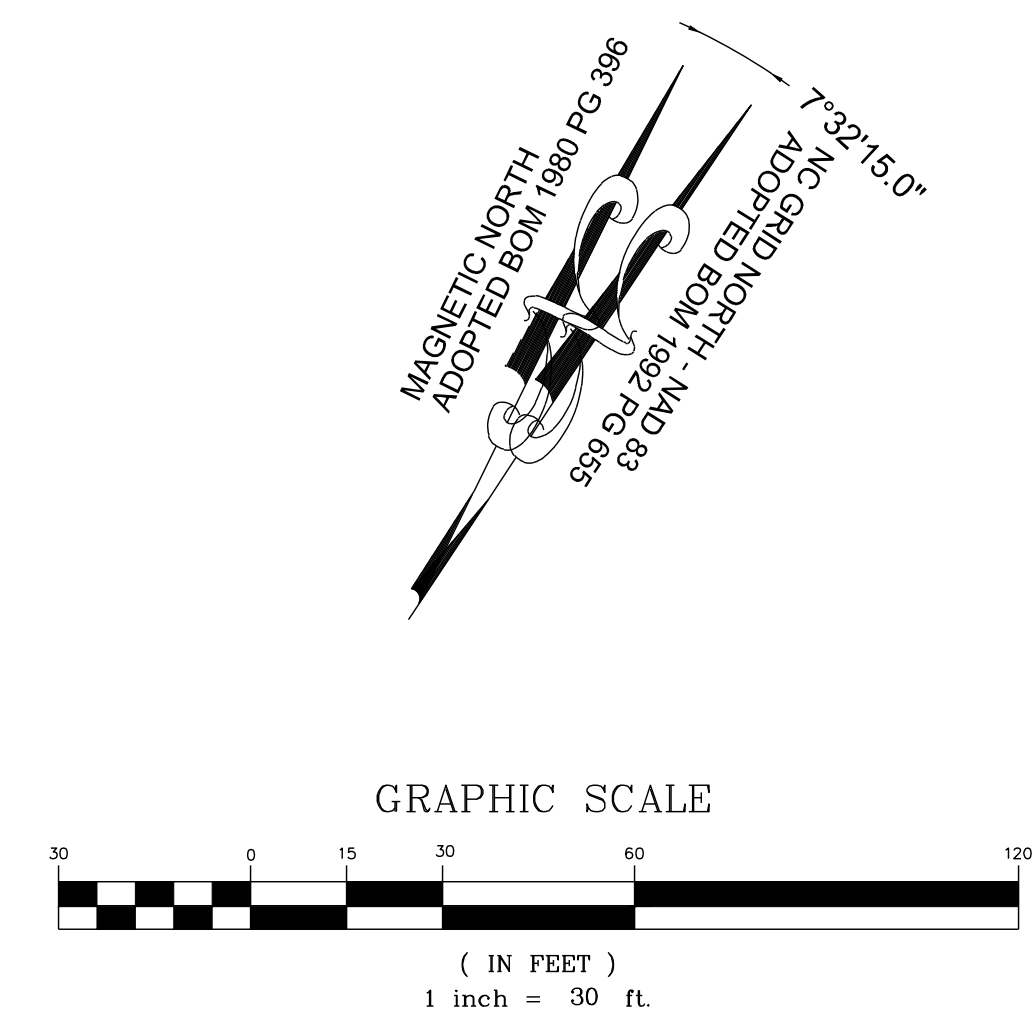
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D-3.1

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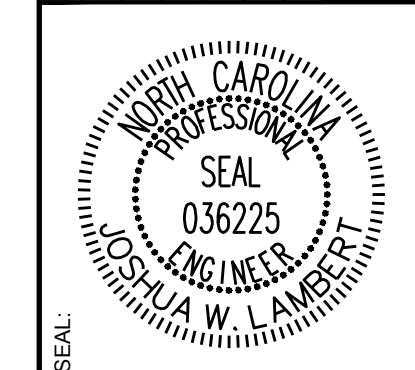


**SCM #3 (WETPOND) - PLAN VIEW**  
HORIZONTAL: 1" = 30'



**SCM #3 (WETPOND) - PROFILE**  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SRG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SRG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SRG



**STRONGROCK**  
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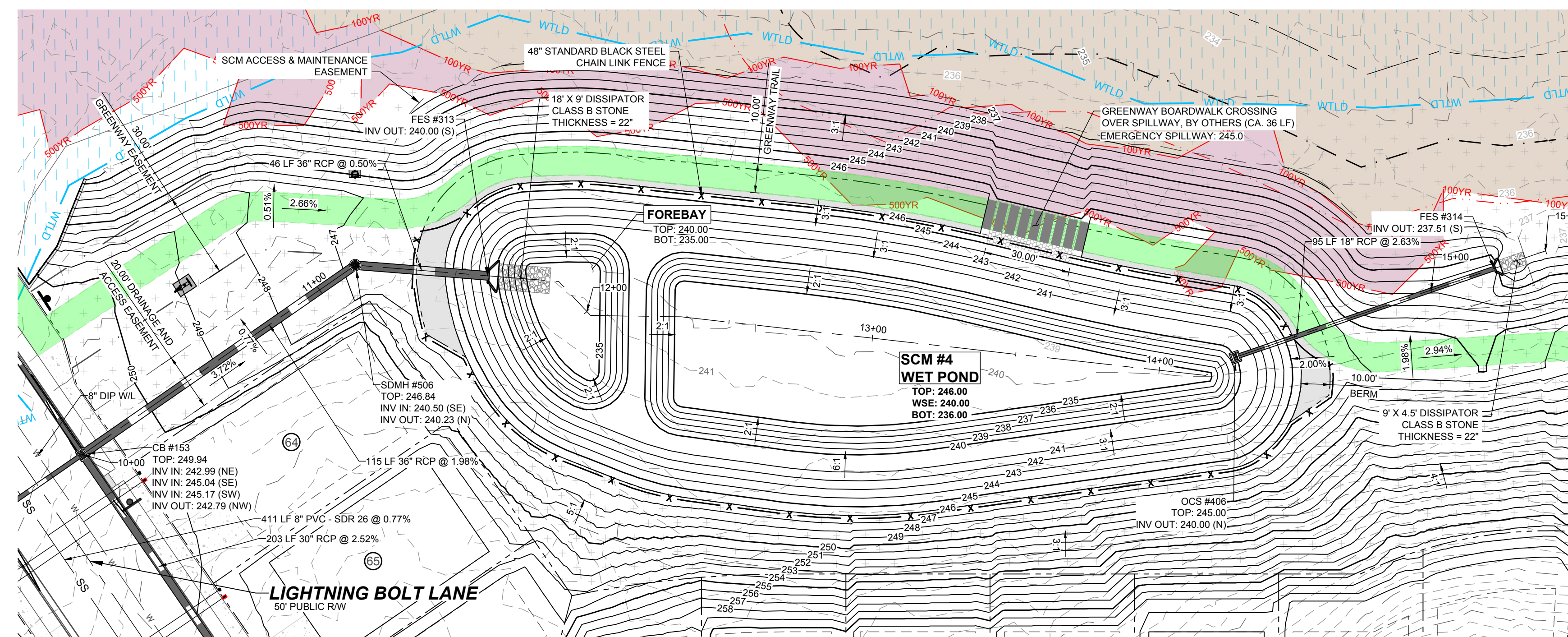
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STRONG ROCK PROJECT	STRONG ROCK PROJECT PSP-24-00
NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

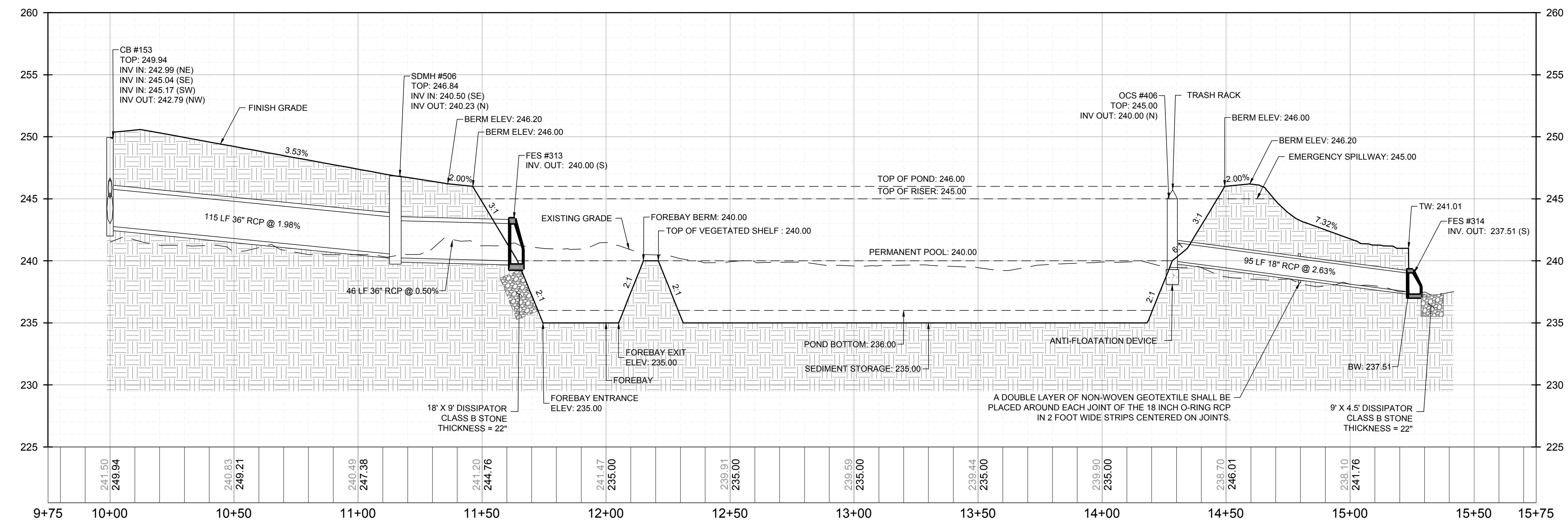
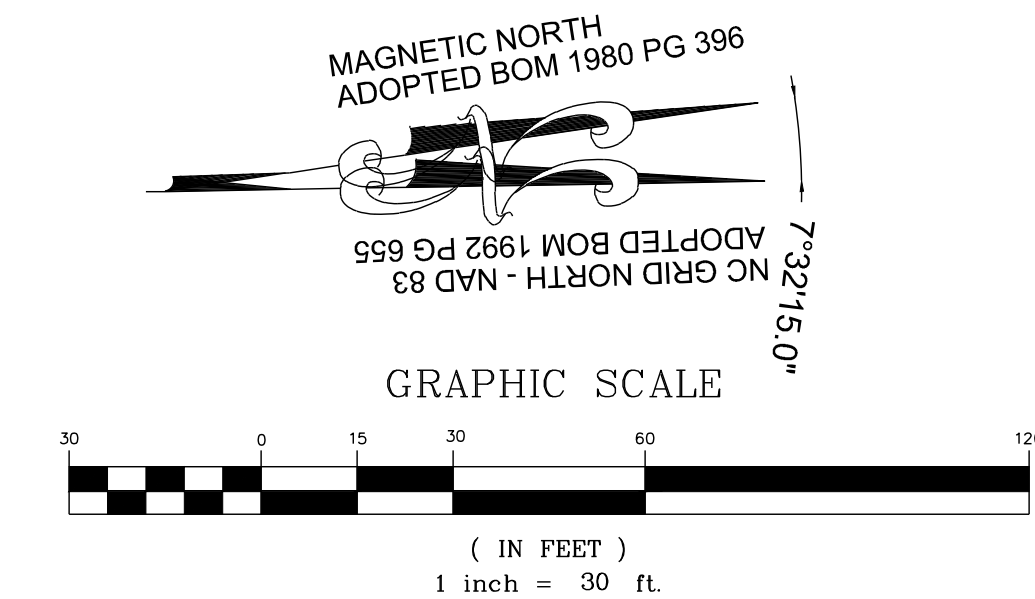
RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
**CONSTRUCTION PLANS**  
**STORMWATER CONTROL**  
**MEASURE '3'**

DRAWING SHEET  
**D-3.2**



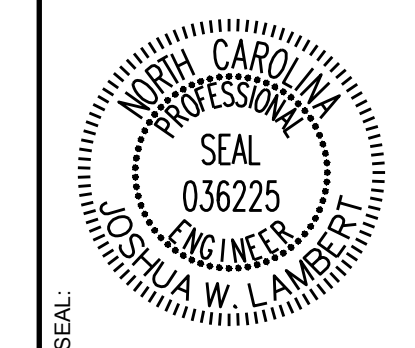


**SCM #4 (WETPOND) - PLAN VIEW**  
HORIZONTAL: 1" = 30'



**SCM #4 (WETPOND) - PROFILE**  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SREG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SREG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SREG



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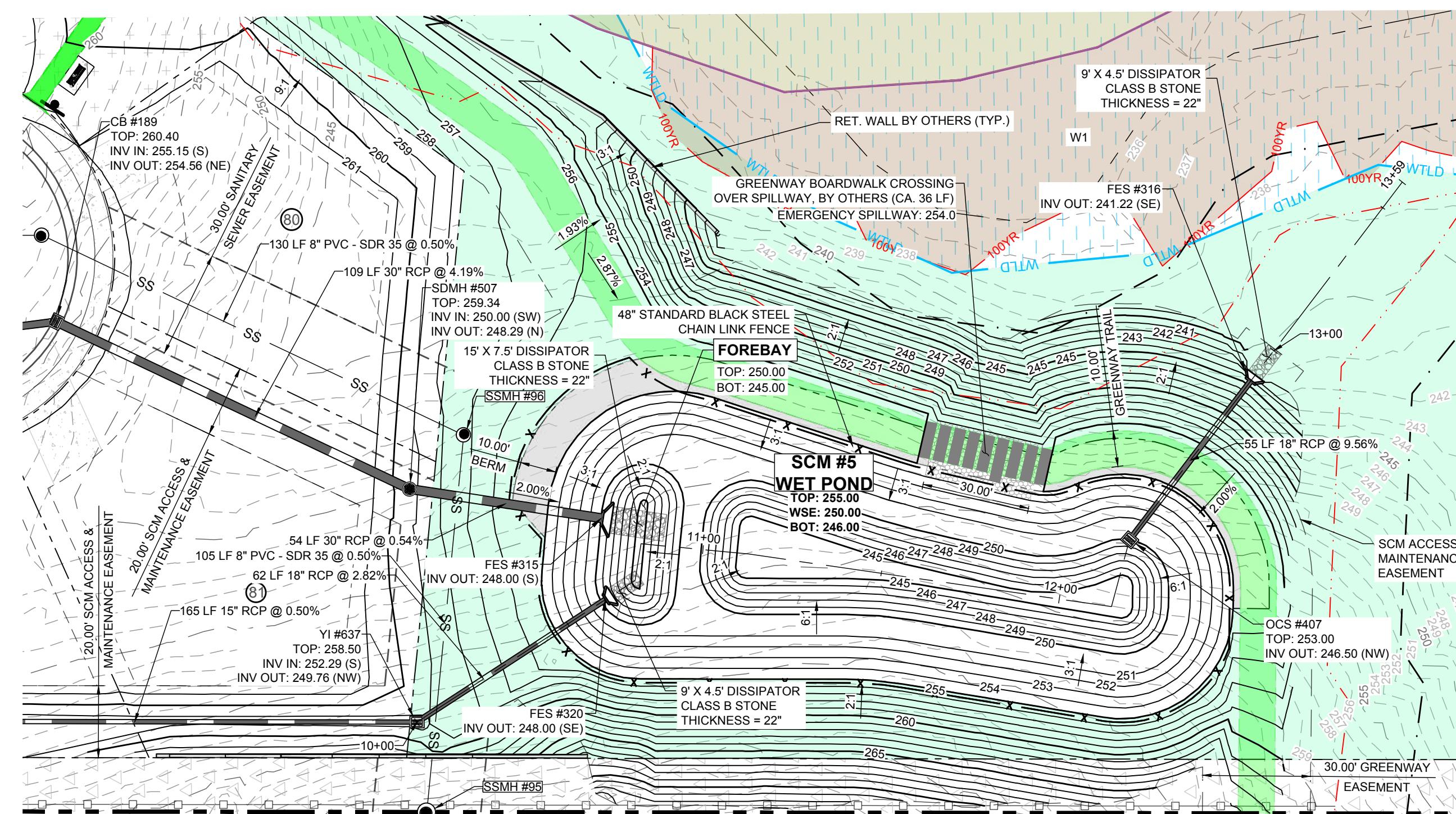
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NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SRG
CHECKED BY	JWL

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CONSTRUCTION PLANS  
STORMWATER CONTROL  
MEASURE '4'

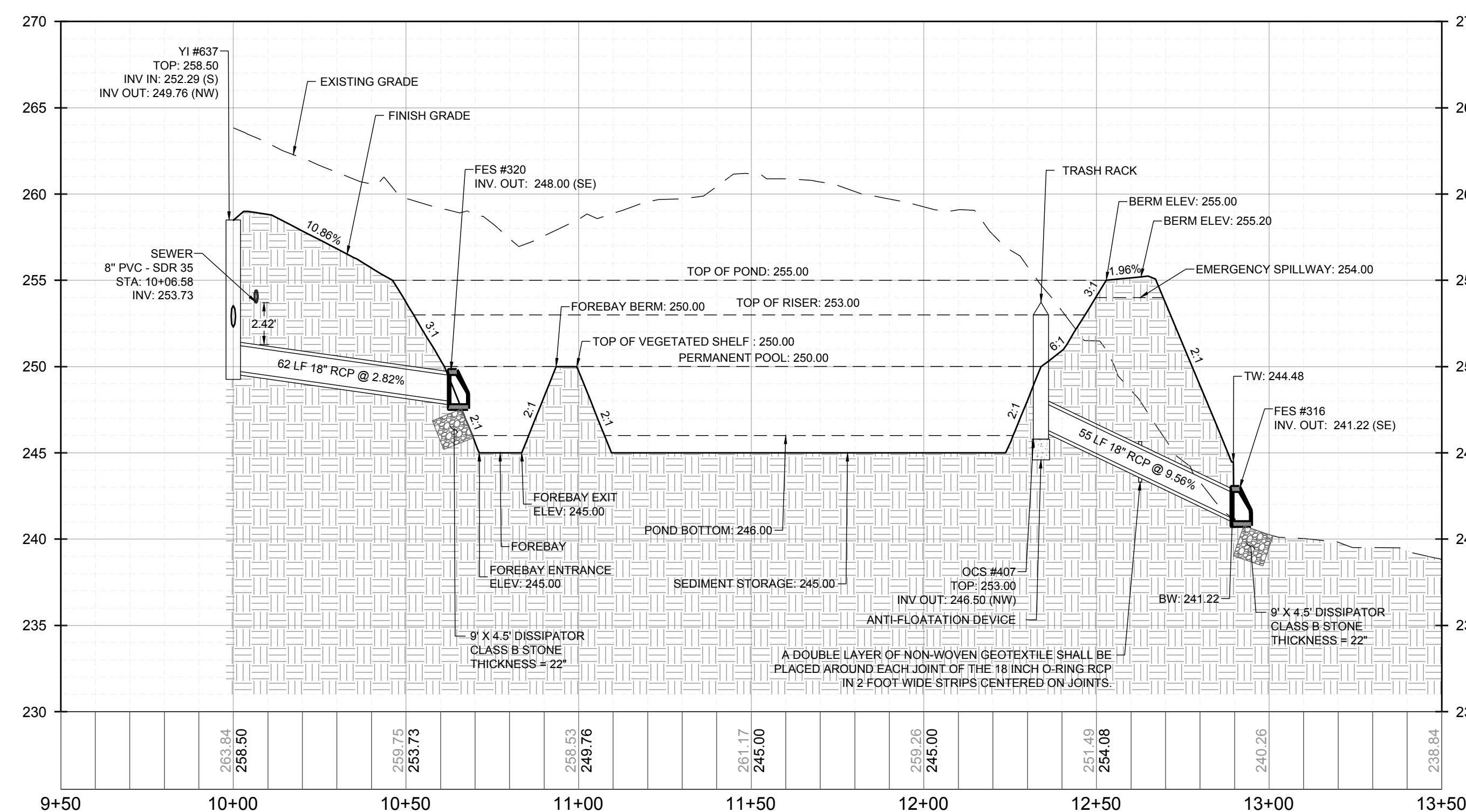
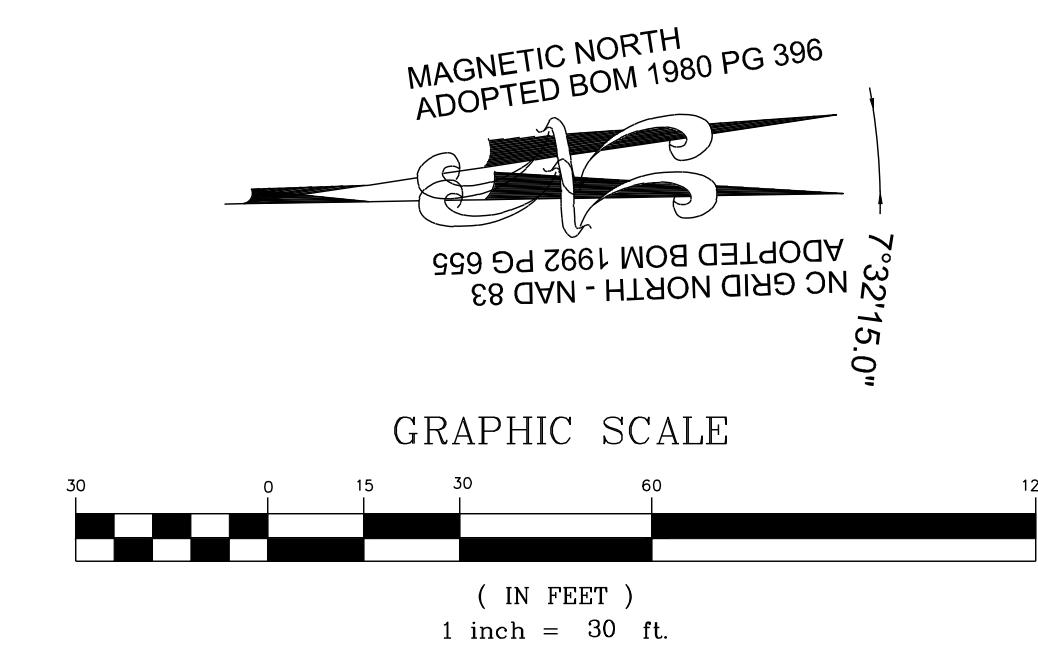
DRAWING SHEET  
**D-3.3**

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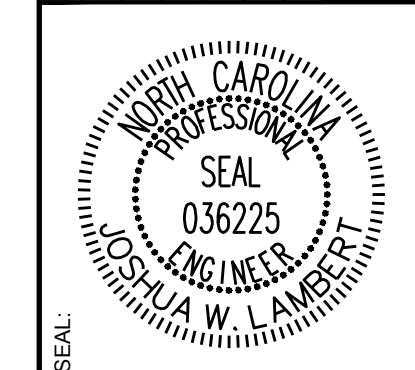


SCM #5 (WETPOND) - PLAN VIEW  
HORIZONTAL: 1" = 30'



SCM #5 (WETPOND) - PROFILE VIEW  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SREG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SREG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SREG



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STRONG ROCK PROJECT	PSP-24-00
NOT FOR CONSTRUCTION	SCALE AS SHOWN
DESIGNED BY	JWL
DRAWN BY	SREG
CHECKED BY	JWL

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CONSTRUCTION PLANS  
STORMWATER CONTROL  
MEASURE '5'

DRAWING SHEET  
**D-3.4**

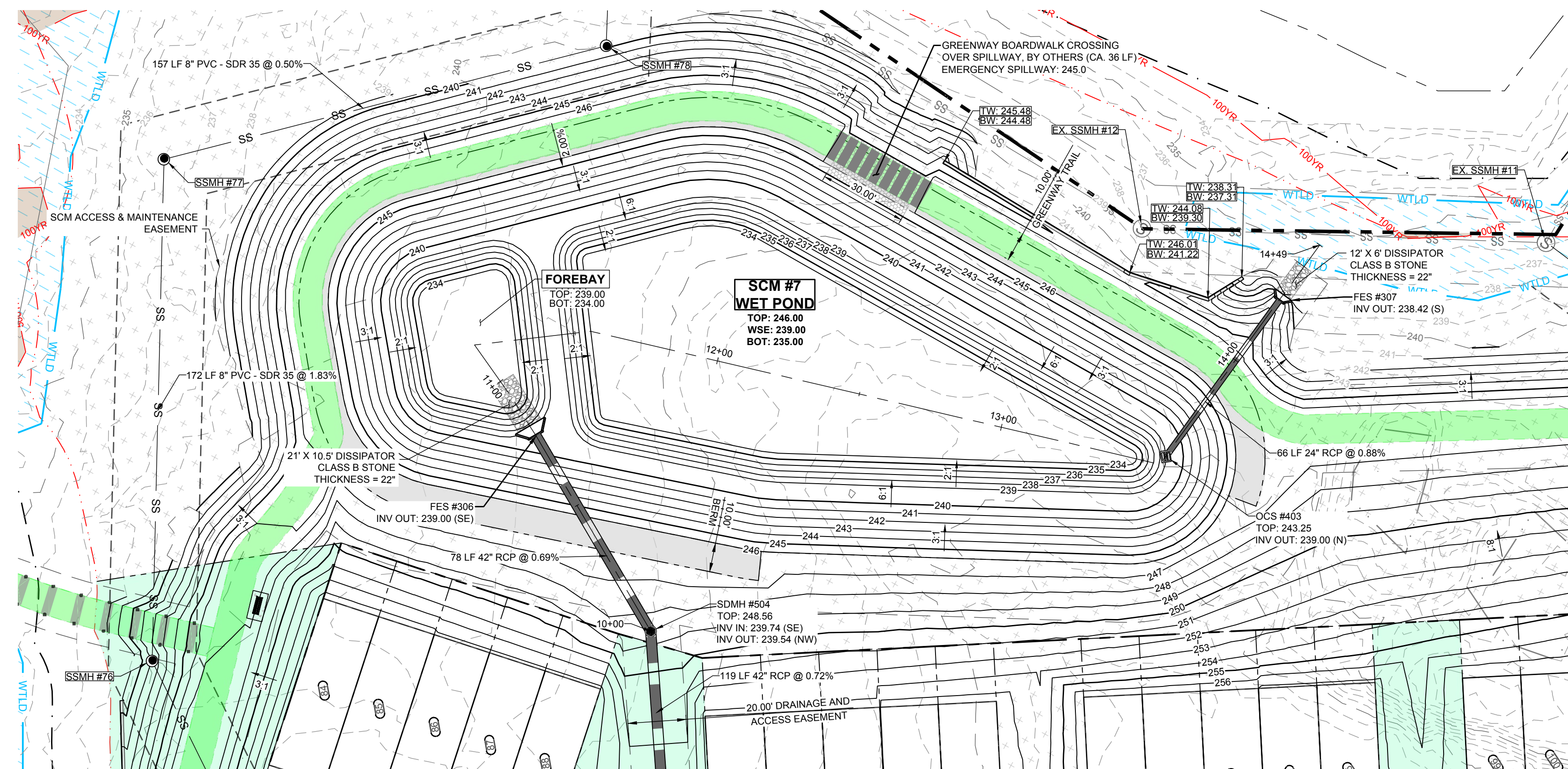




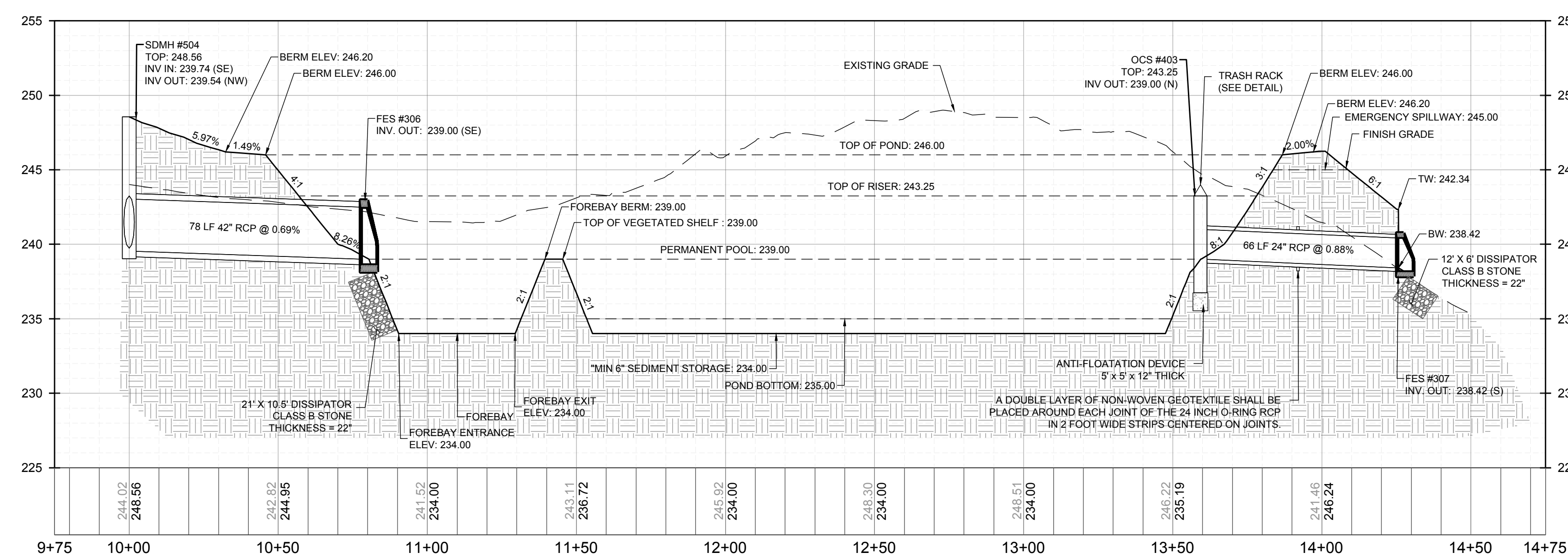
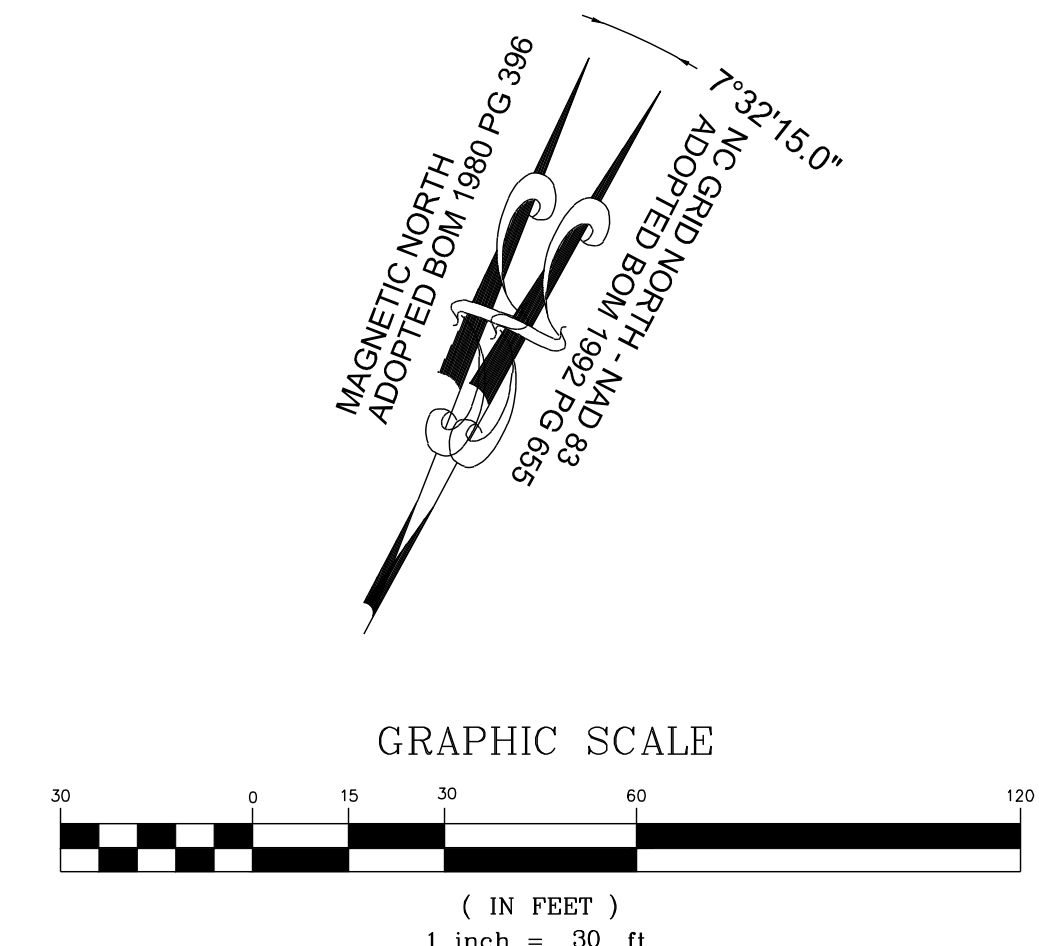






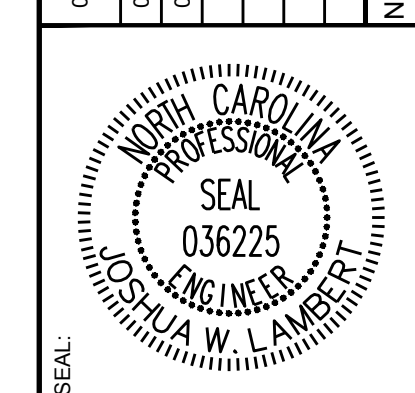


SCM #7 (WETPOND) - PLAN VIEW  
HORIZONTAL: 1" = 30'



SCM #7 (WETPOND) - PROFILE VIEW  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SRG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SRG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SRG



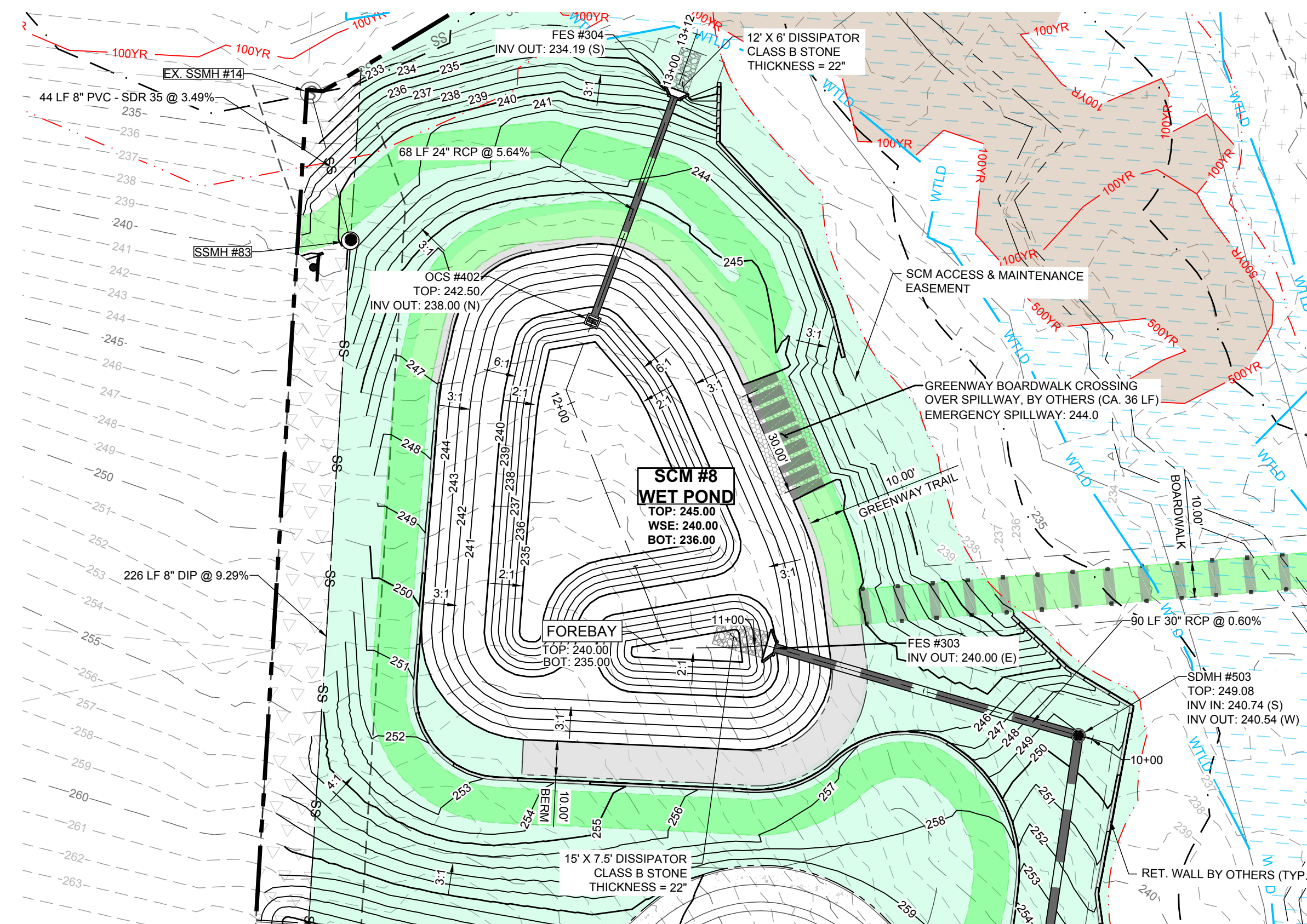
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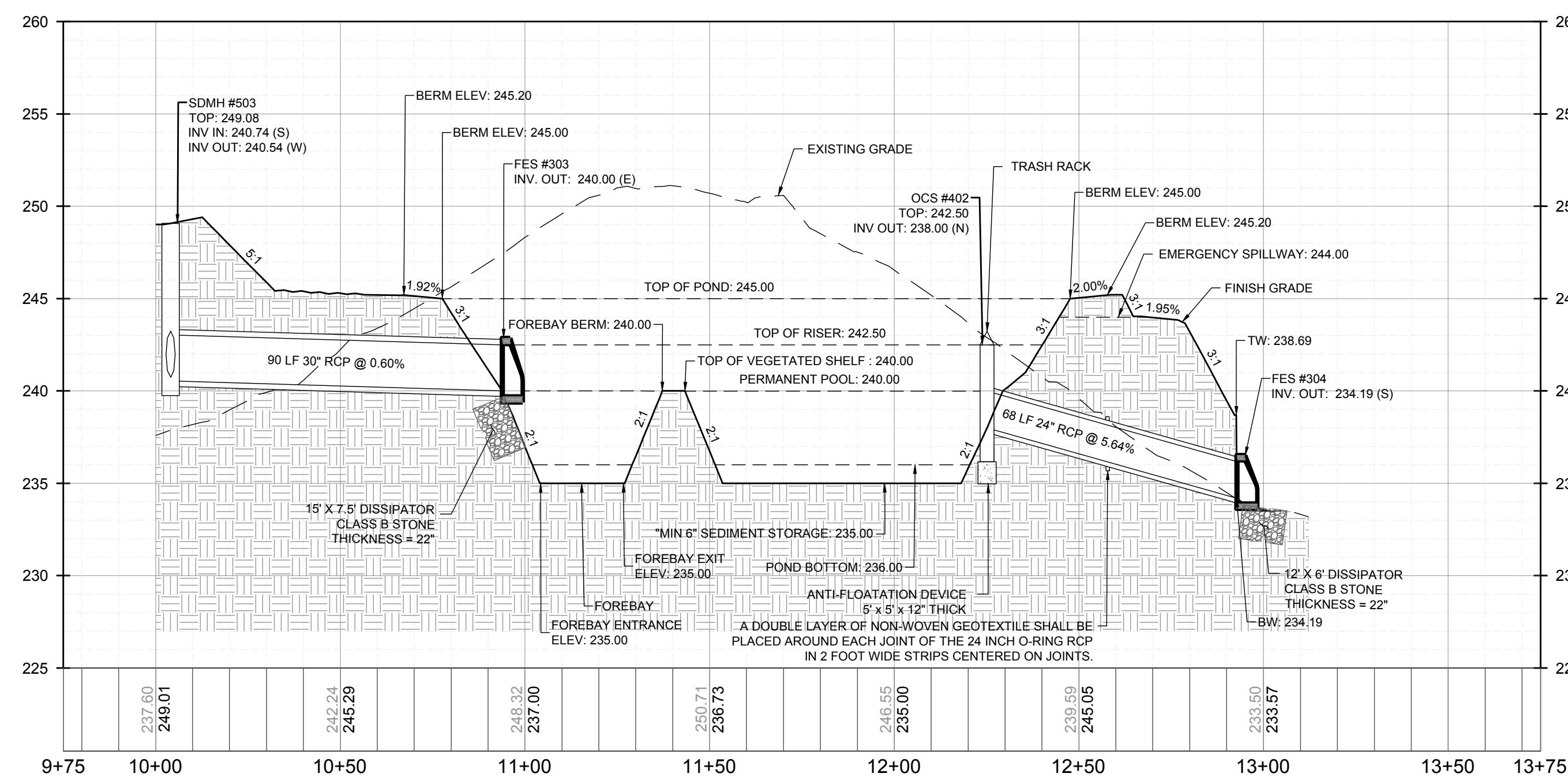
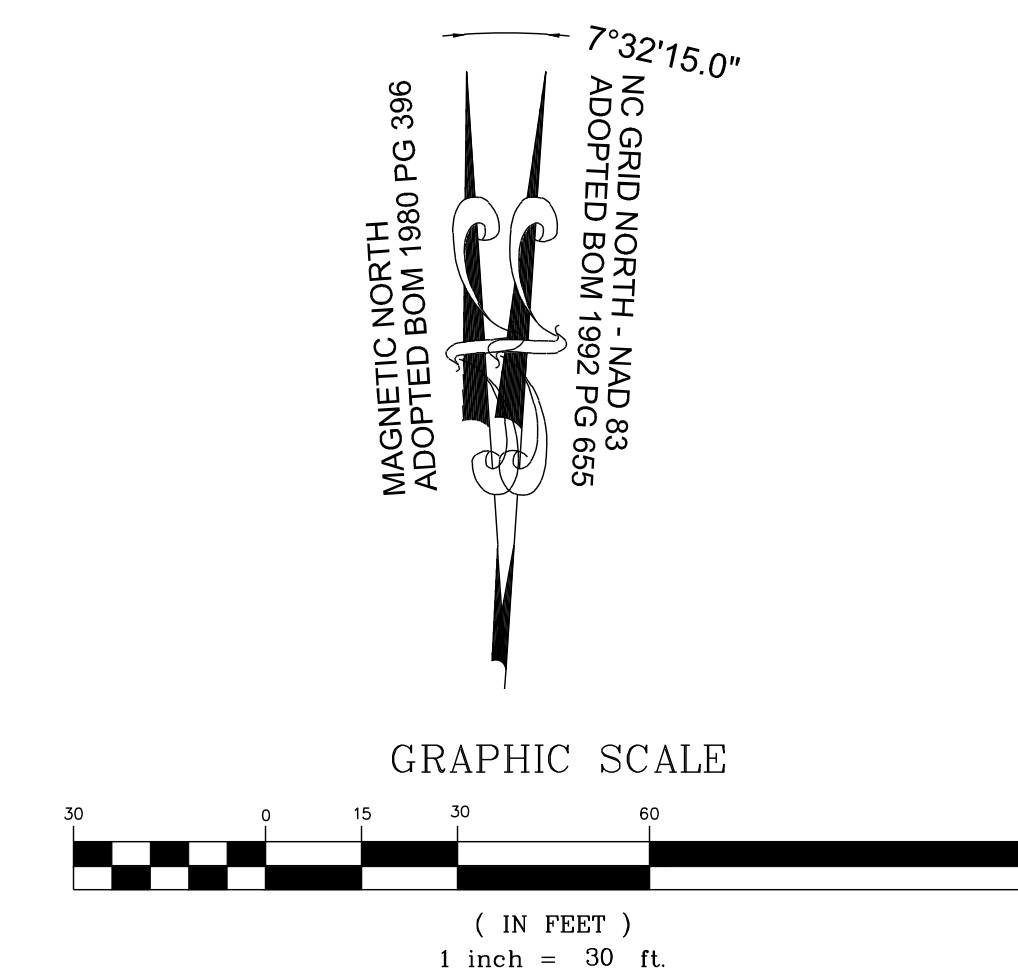
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TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
STORMWATER CONTROL  
MEASURE '7'

DRAWING SHEET  
D-3.7



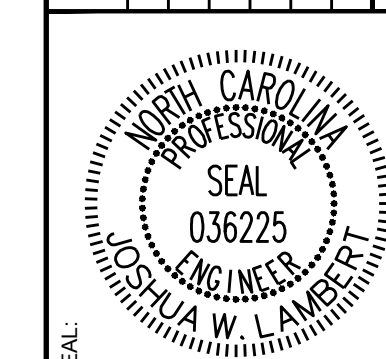


**SCM #8 (WETPOND) - PLAN VIEW**  
HORIZONTAL: 1" = 30'



**SCM #8 (WETPOND) - PROFILE VIEW**  
HORIZONTAL: 1" = 30'  
VERTICAL: 1" = 6'

NO.	REVISIONS	DATE	BY
01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SREG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SREG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SREG



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STRONG ROCK PROJECT PSP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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CONSTRUCTION PLANS  
STORMWATER CONTROL  
MEASURE '8'

DRAWING SHEET  
**D-3.8**



**NOTES:**

- \* THIS PRECAST ENDWALL MAY BE USED FOR THE FOLLOWING STANDARDS: 838.01, 838.11, 838.21, 838.27, 838.33, 838.39, 838.51, 838.57, 838.63 AND 838.69.
- \* INSTALL PRECAST ENDWALLS WITH WINGS AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 838.
- \* USE 4000 PSI CONCRETE.
- \* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185 WITH 2" MIN. CLEARANCE.
- \* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
- \* PIPE TO BE GROUTED INTO ENDWALL AT JOB SITE BY CONTRACTOR.
- \* ALL ELEMENTS PRECAST TO MEET ASTM C913.
- \* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
- \* CHAMFER ALL CORNERS 1" OR HAVE A RADIUS OF 1".

**NOTE:** THE MINIMUM BAR SIZE SHALL BE #5 BARS AT 8" CTS. THE CONTRACTOR WILL HAVE THE OPTION TO INCREASE THIS BAR SIZE AS NEEDED.

PIPE DIA.	MINIMUM BAR SIZE	MIN. /MAX. H1	MIN. /MAX. H2	MIN. /MAX. W1	MIN. /MAX. W2
12"	#5 @ 8"	15"/24"	33"/45"	15"/21"	36"/45"
15"	#5 @ 8"	15"/24"	37"/45"	15"/24"	42"/45"
18"	#5 @ 8"	15"/24"	40"/51"	15"/30"	42"/45"
24"	#5 @ 8"	18"/32"	47"/57"	21"/30"	48"/51"
30"	#5 @ 8"	30"/42"	54"/72"	24"/36"	54"/66"
36"	#5 @ 8"	36"/42"	61"/72"	33"/42"	63"/69"
42"	#5 @ 8"	39"/52"	68"/81"	39"/42"	72"/81"
48"	#5 @ 8"	42"/52"	75"/84"	39"/42"	78"/81"
54"	#5 @ 8"	48"/60"	82"/102"	39"/48"	84"/111"
60"	#5 @ 8"	54"/60"	89"/102"	39"/48"	89"/111"
66"	#5 @ 8"	54"/60"	96"/102"	39"/48"	96"/111"
72"	#5 @ 8"	54"/60"	103"/108"	39"/48"	103"/111"

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR PRECAST CONCRETE ENDWALL FOR SINGLE 12" THRU 72" PIPE - 90° SKEW

SHEET 1 OF 1  
**838.80**

**GENERAL NOTES:**

- USE CLASS "B" CONCRETE THROUGHOUT.
- PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
- OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
- USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
- IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
- USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.
- FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
- MAXIMUM DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 16'-0". STD. NO. 840.45 CONTROLS MAXIMUM DEPTH IF PRECAST BOX IS USED. CONSTRUCT WITH PIPE CROWNS MATCHING.
- CHAMFER ALL EXPOSED CORNERS 1".
- DRAWING NOT TO SCALE.

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE

SHEET 1 OF 2  
**840.02**

**MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H, WITH NO RISER)**

PIPE DIA.	DIMENSIONS OF BOX AND PIPE				COVER		BARS-U			BARS-V			BARS-W			TOTAL TOP SLAB		BOTTOM SLAB		CONC. IN BOX		DEDUCTIONS ONE PIPE	
	SPAN	WIDTH	DEPTH	HEIGHT	MIN.	MAX.	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	C.M.	R.C.	
12"	3'-0"	2'-2"	2'-9"	2'-9"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	39	0.123	0.321	1.439	0.092	0.127	0.235	0.772	0.015	0.026	
15"	3'-0"	2'-2"	3'-0"	3'-0"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	43	0.161	0.358	1.714	0.132	0.178	0.235	0.829	0.023	0.036	
18"	3'-0"	2'-2"	3'-3"	3'-3"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	32	0.112	0.318	1.238	0.100	0.243	0.235	0.887	0.033	0.049	
24"	3'-0"	2'-2"	3'-9"	3'-9"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	36	0.148	0.352	2.092	0.235	0.317	0.235	0.901	0.059	0.085	
30"	3'-0"	2'-2"	4'-3"	4'-3"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	41	0.180	0.388	2.387	0.297	0.401	0.235	0.959	0.085	0.117	
36"	3'-0"	2'-2"	4'-9"	4'-9"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	43	0.181	0.358	1.714	0.132	0.178	0.235	0.829	0.023	0.036	
42"	3'-0"	2'-2"	5'-3"	5'-3"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	32	0.112	0.318	1.238	0.100	0.243	0.235	0.887	0.033	0.049	
48"	3'-0"	2'-2"	5'-9"	5'-9"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	36	0.148	0.352	2.092	0.235	0.317	0.235	0.901	0.059	0.085	
54"	3'-0"	2'-2"	6'-3"	6'-3"	3'-0"	3'-0"	4	1'-5"	2	3'-9"	3	3'-9"	41	0.180	0.388	2.387	0.297	0.401	0.235	0.959	0.085	0.117	

\* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CONCRETE CATCH BASIN 12" THRU 54" PIPE

SHEET 2 OF 2  
**840.02**

**NOTE:** USE TYPE "E", "F" AND "G" GRATE UNLESS OTHERWISE NOTED.

ALIGN FRAME WITH INSIDE EDGE OF WALL TO ALLOW FOR VERTICAL ADJUSTMENT

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

SHEET 1 OF 2  
**840.03**

NO.	DATE	REVISIONS
01	08/04/2024	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04
02	11/07/2024	TOWN OF ROLESVILLE CID-24-04 V2
03	02/07/2024	TOWN OF ROLESVILLE CID-24-04 V3



**STRONGROCK**  
ENGINEERING GROUP

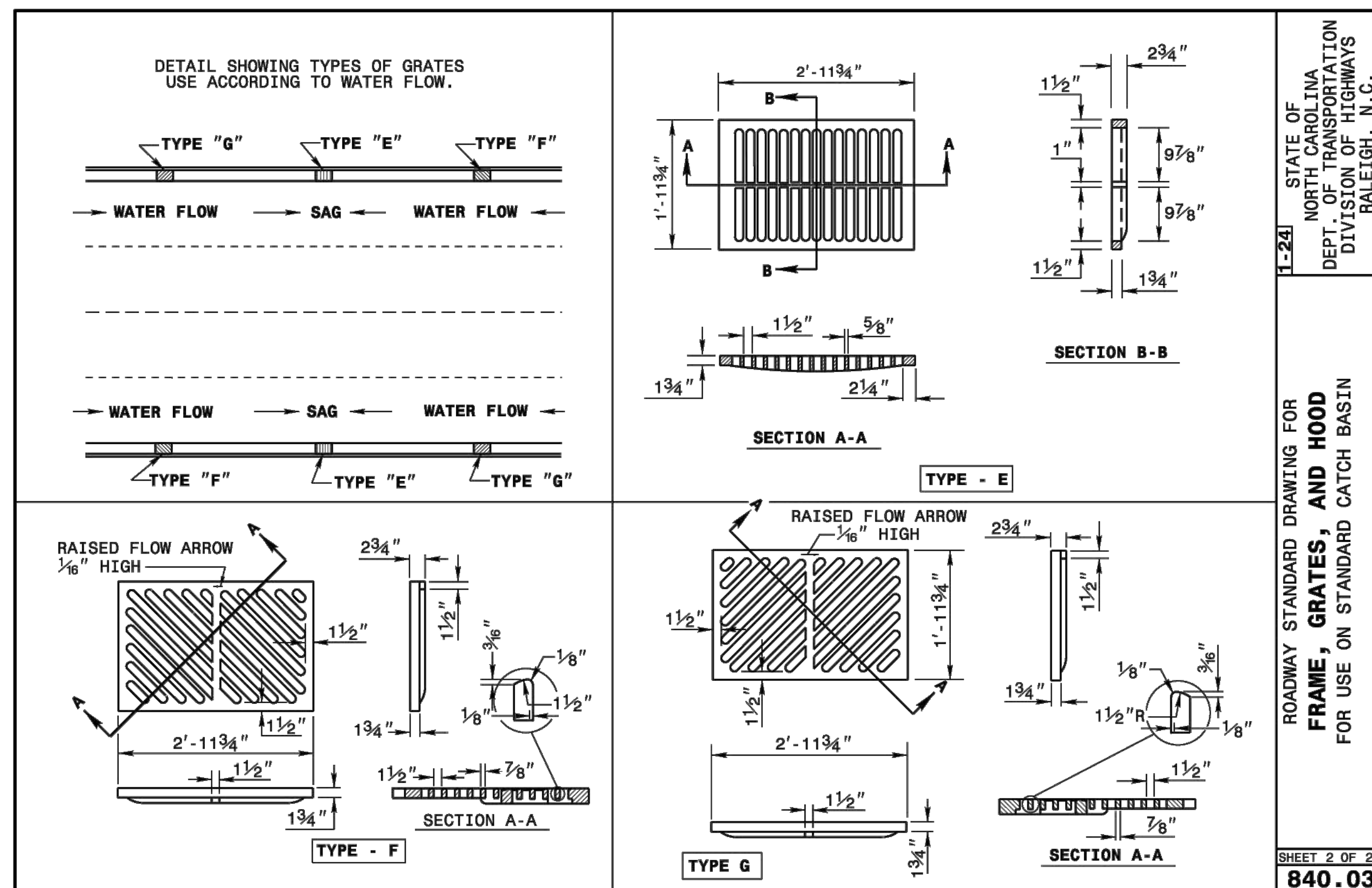
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
STORM DRAINAGE DETAILS

DRAWING SHEET  
**D-3.9**

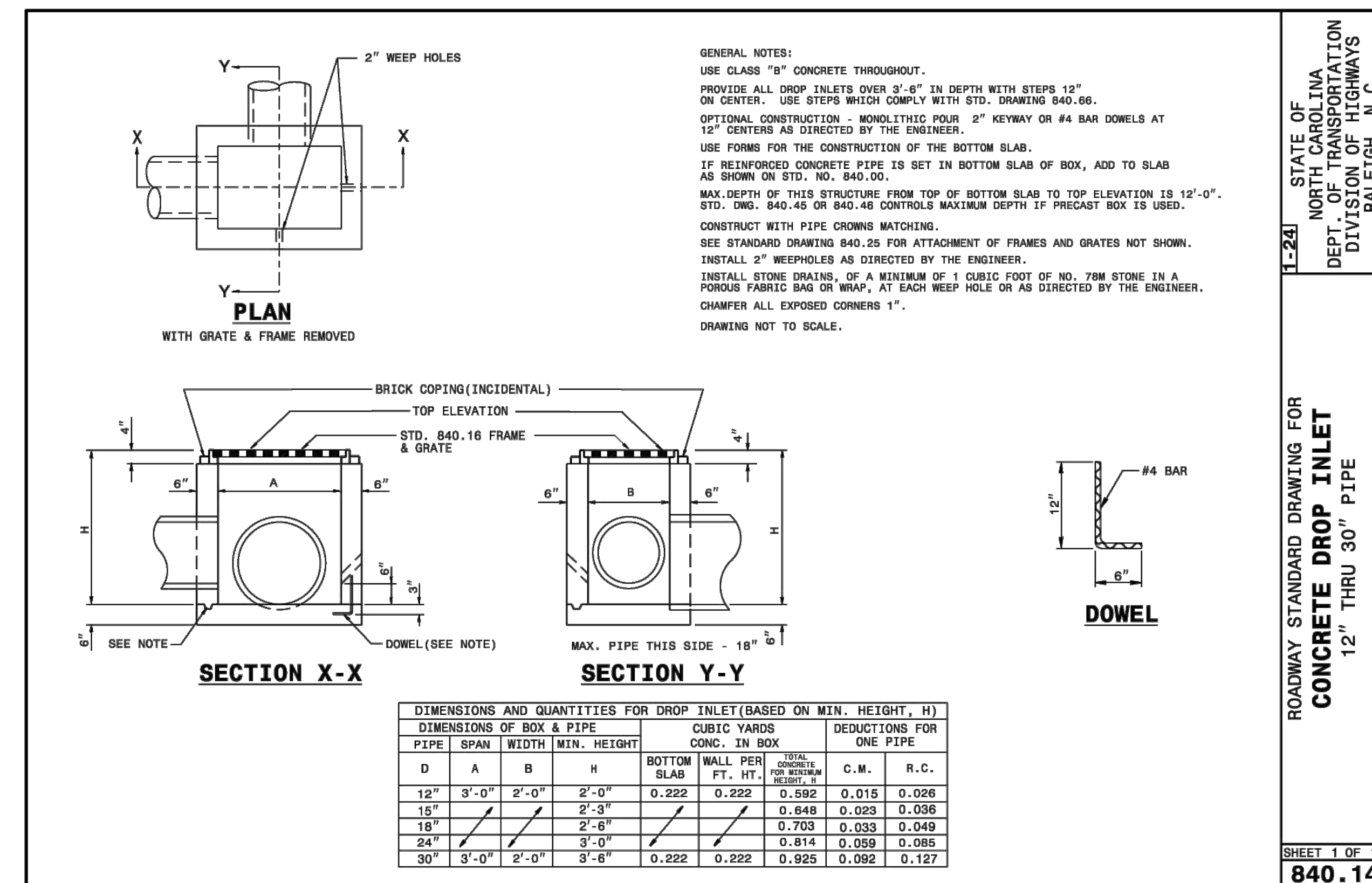




STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **FRAME, GRATES, AND HOOD** FOR USE ON STANDARD CATCH BASIN

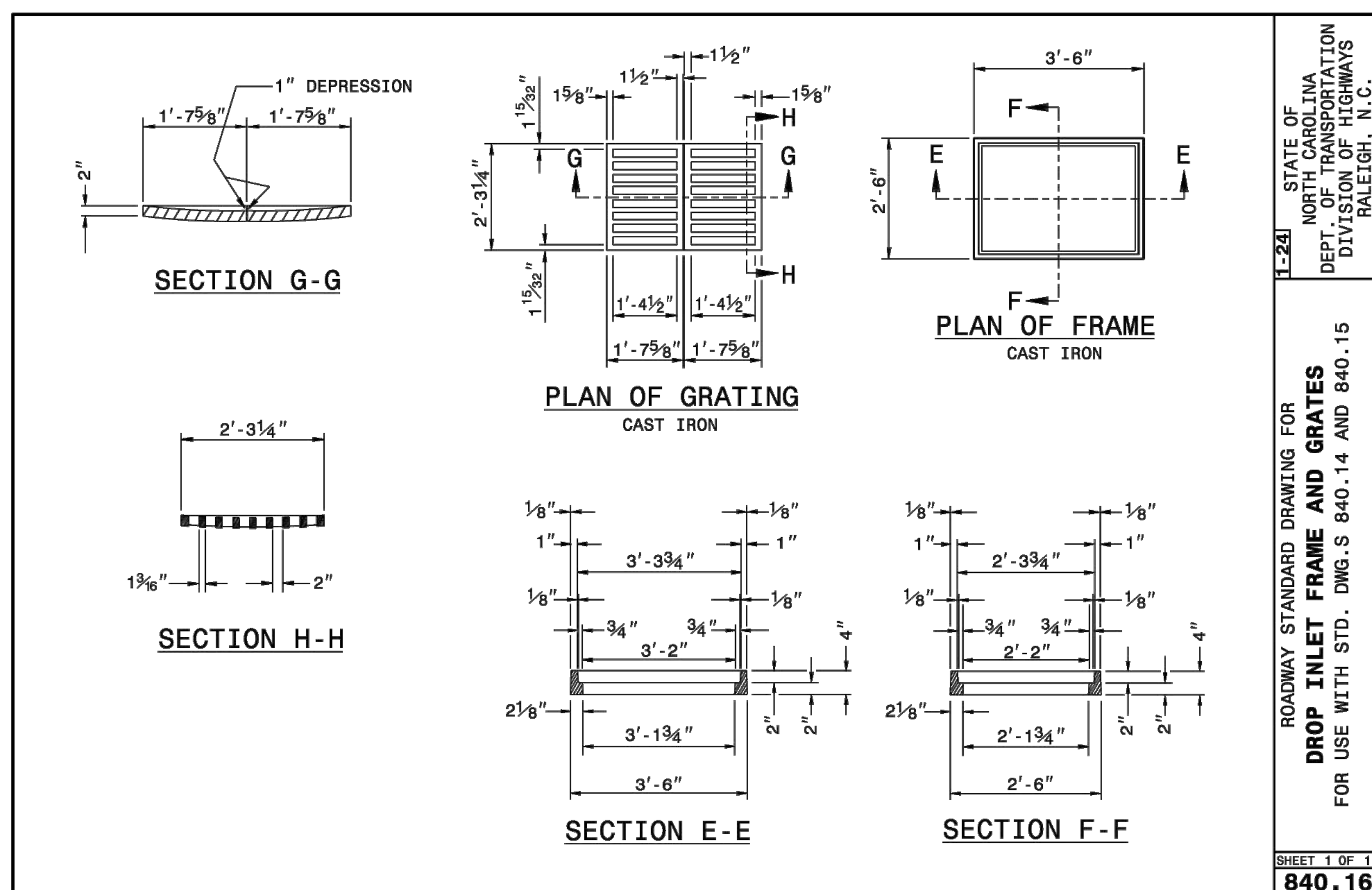
SHEET 2 OF 2 **840.03**



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **CONCRETE DROP INLET** 12" THRU 30" PIPE

SHEET 1 OF 1 **840.14**

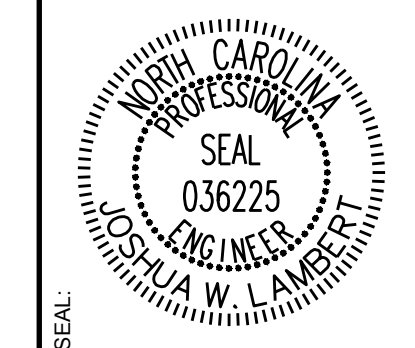


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **DROP INLET FRAME AND GRATES** FOR USE WITH STD. DNG. S 840.14 AND 840.15

SHEET 1 OF 1 **840.16**

NO.	CONSTRUCTION INFRASTRUCTURE DRAWINGS	DATE	BY
01	CID-24-04	08/04/2024	SRG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SRG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SRG



**STRONGROCK**  
 ENGINEERING GROUP

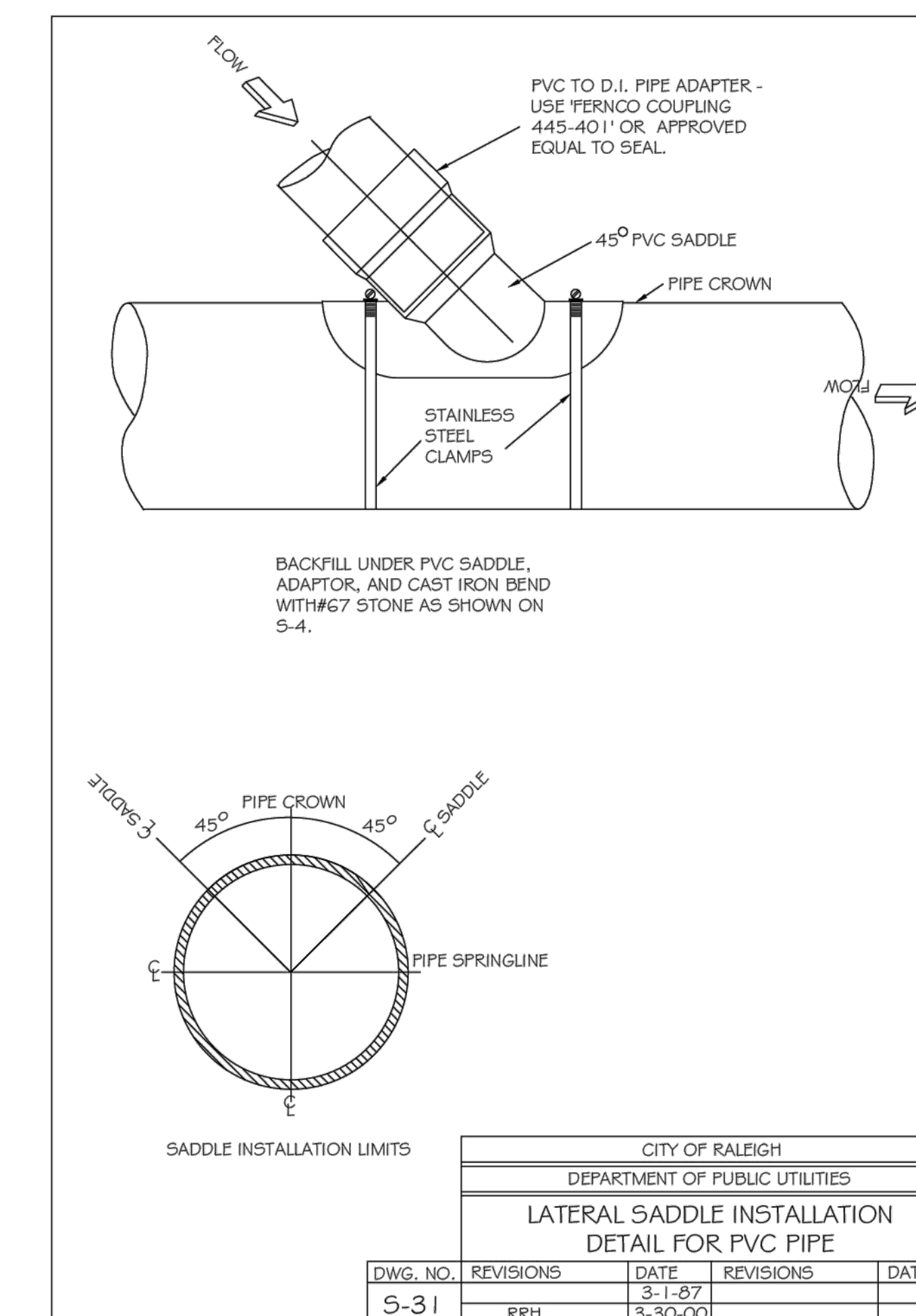
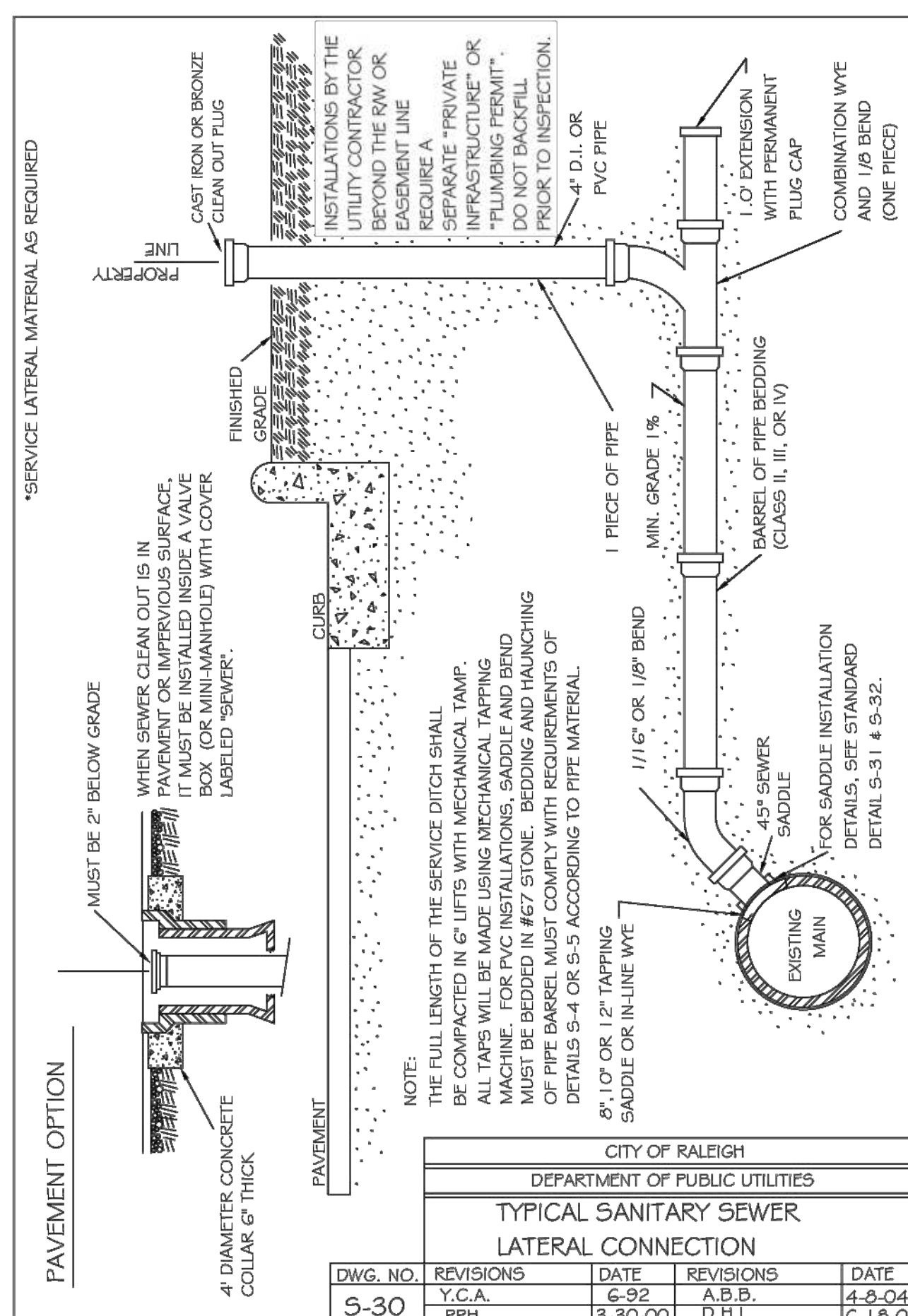
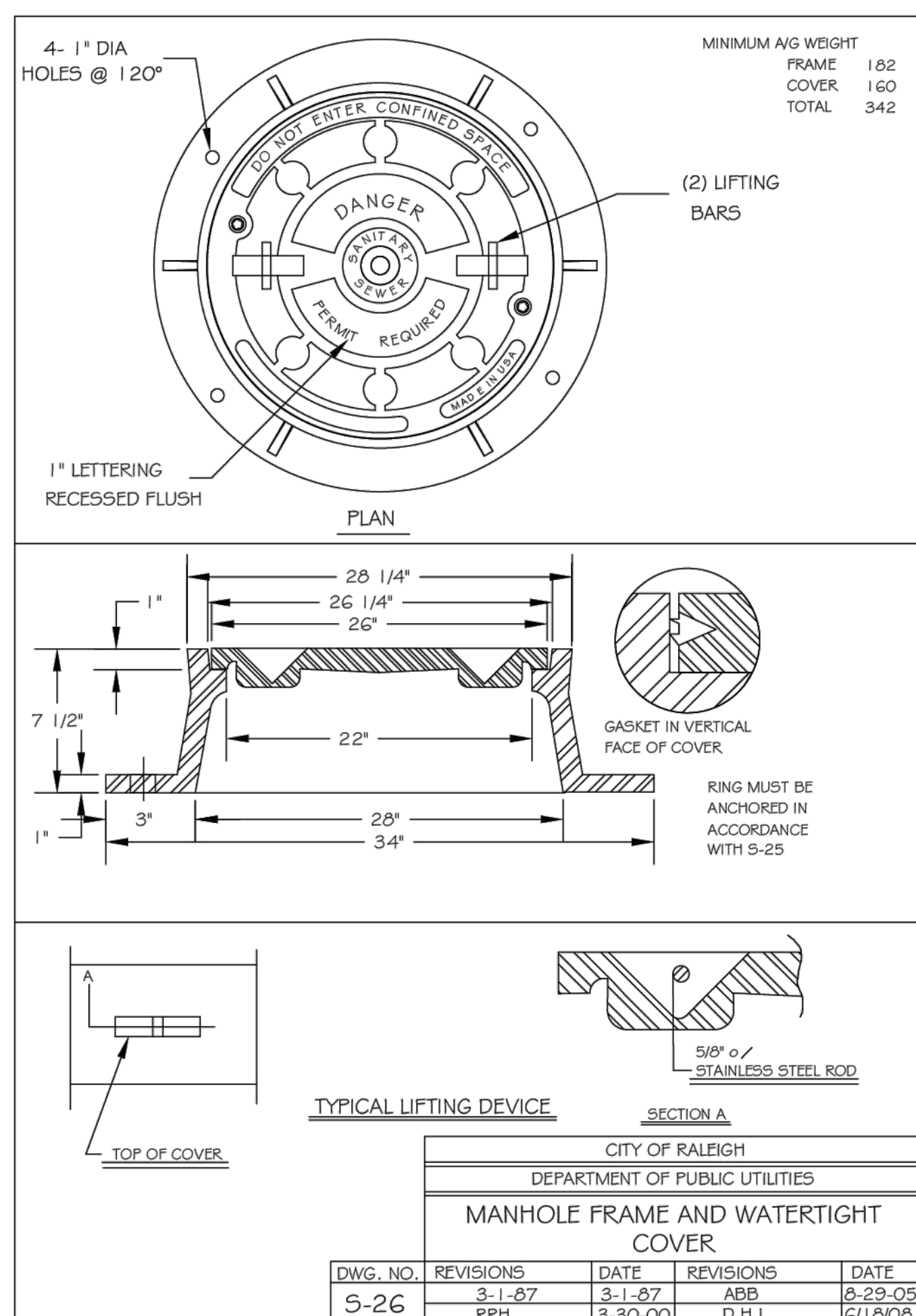
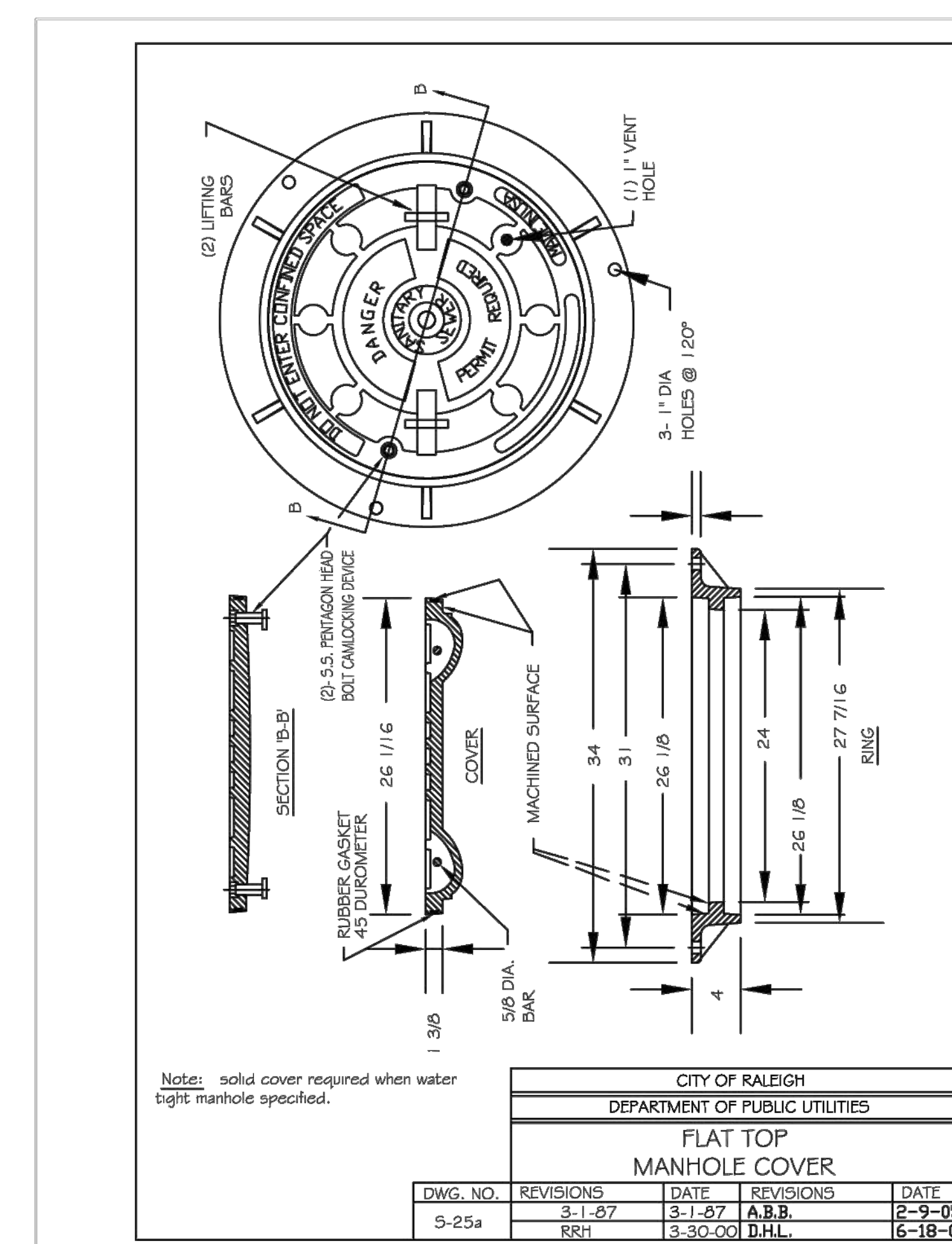
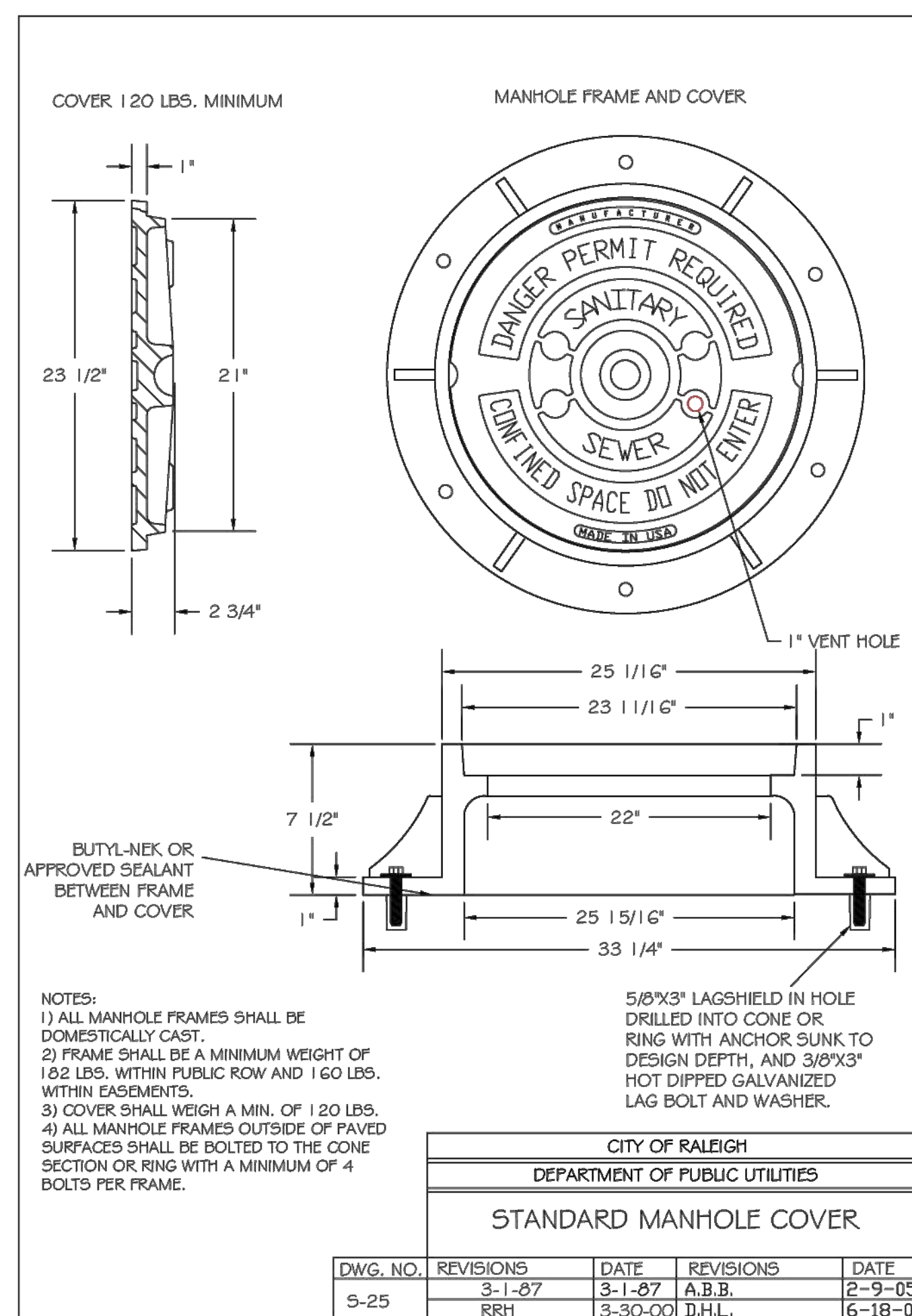
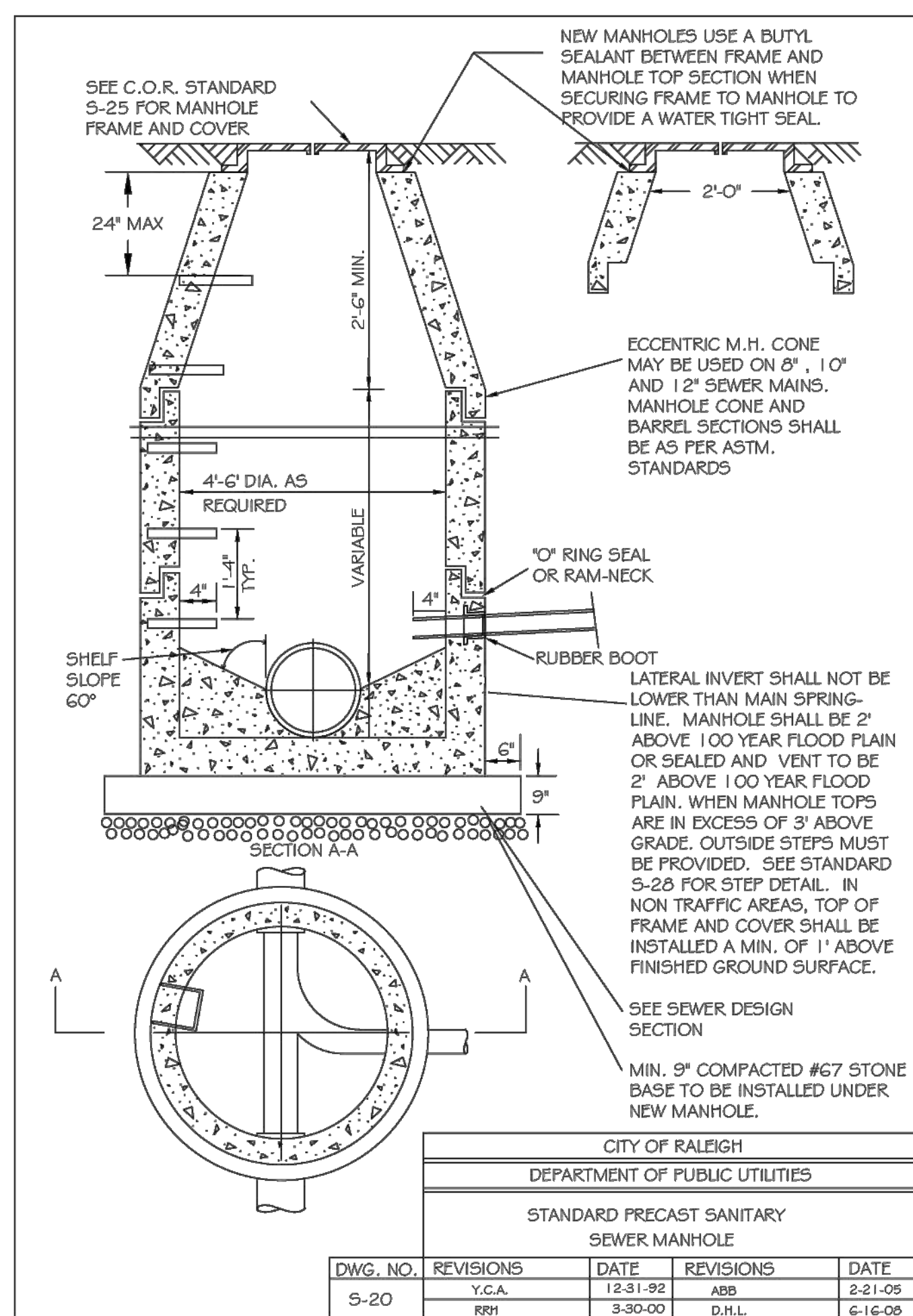
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL	JWL

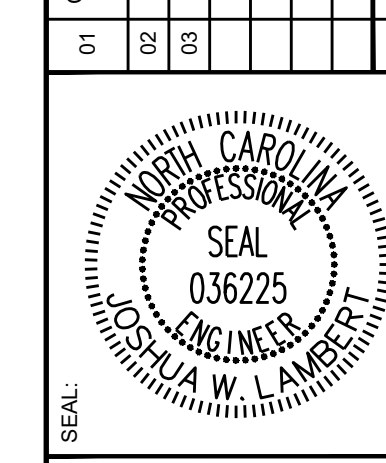
RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
**CONSTRUCTION PLANS**  
**STORM DRAINAGE DETAILS**

DRAWING SHEET  
**D-3.10**





NO.	REVISIONS	DATE	BY
01			
02			
03			



**STRONGROCK**  
ENGINEERING GROUP

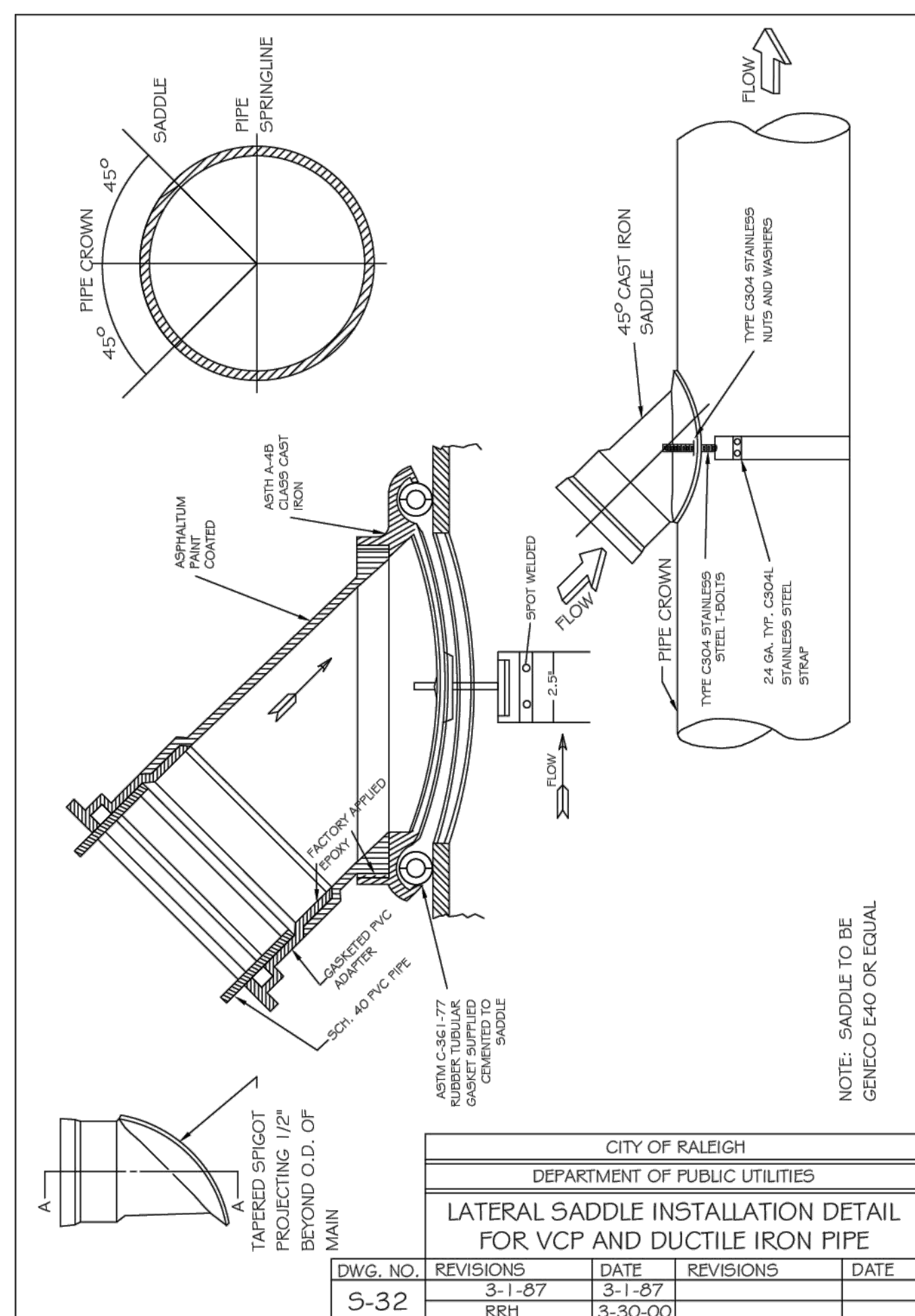
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	NOT FOR CONSTRUCTION	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
SANITARY SEWER DETAILS

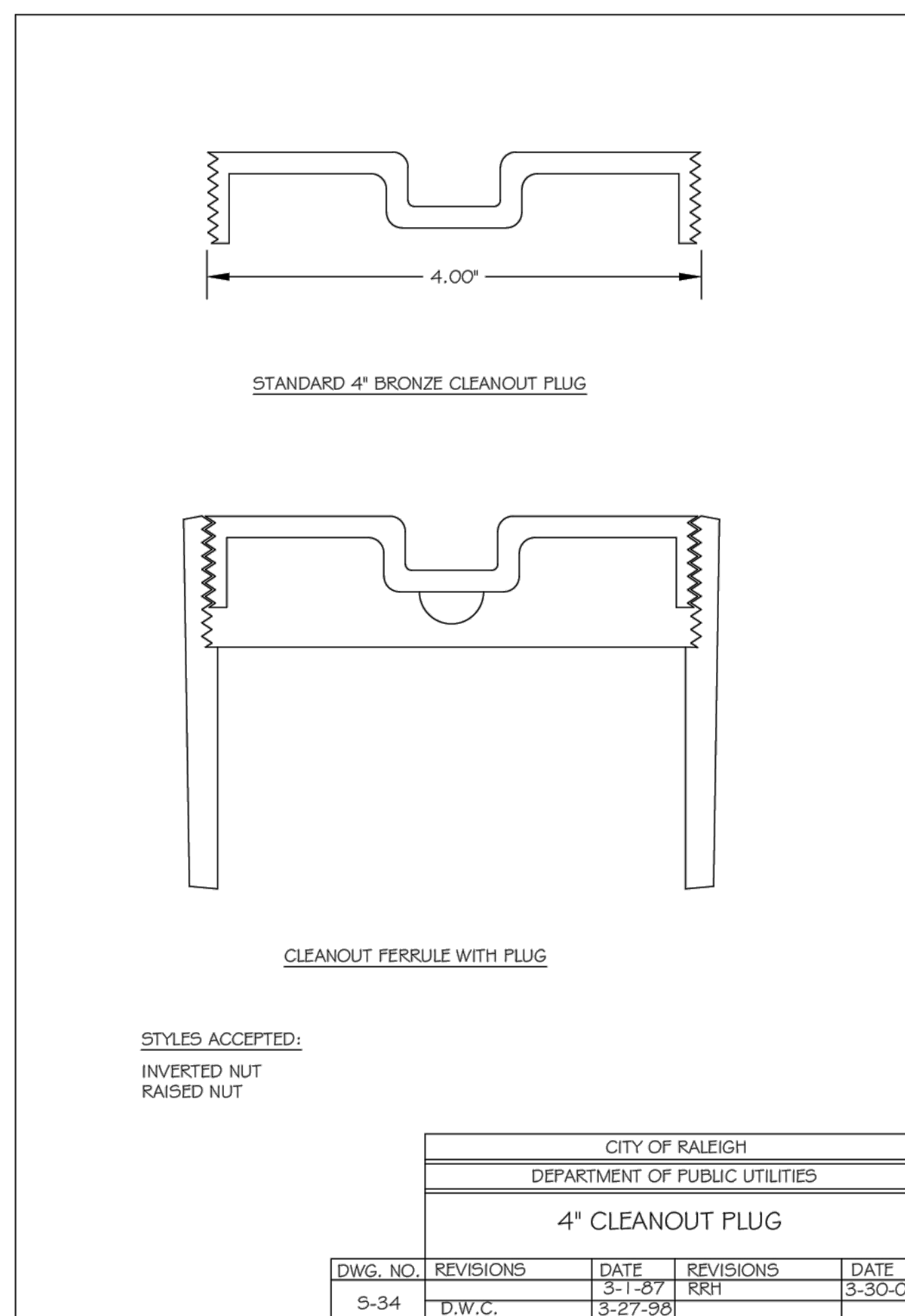
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-31	RRH	3-1-87		
	RRH	3-30-00		





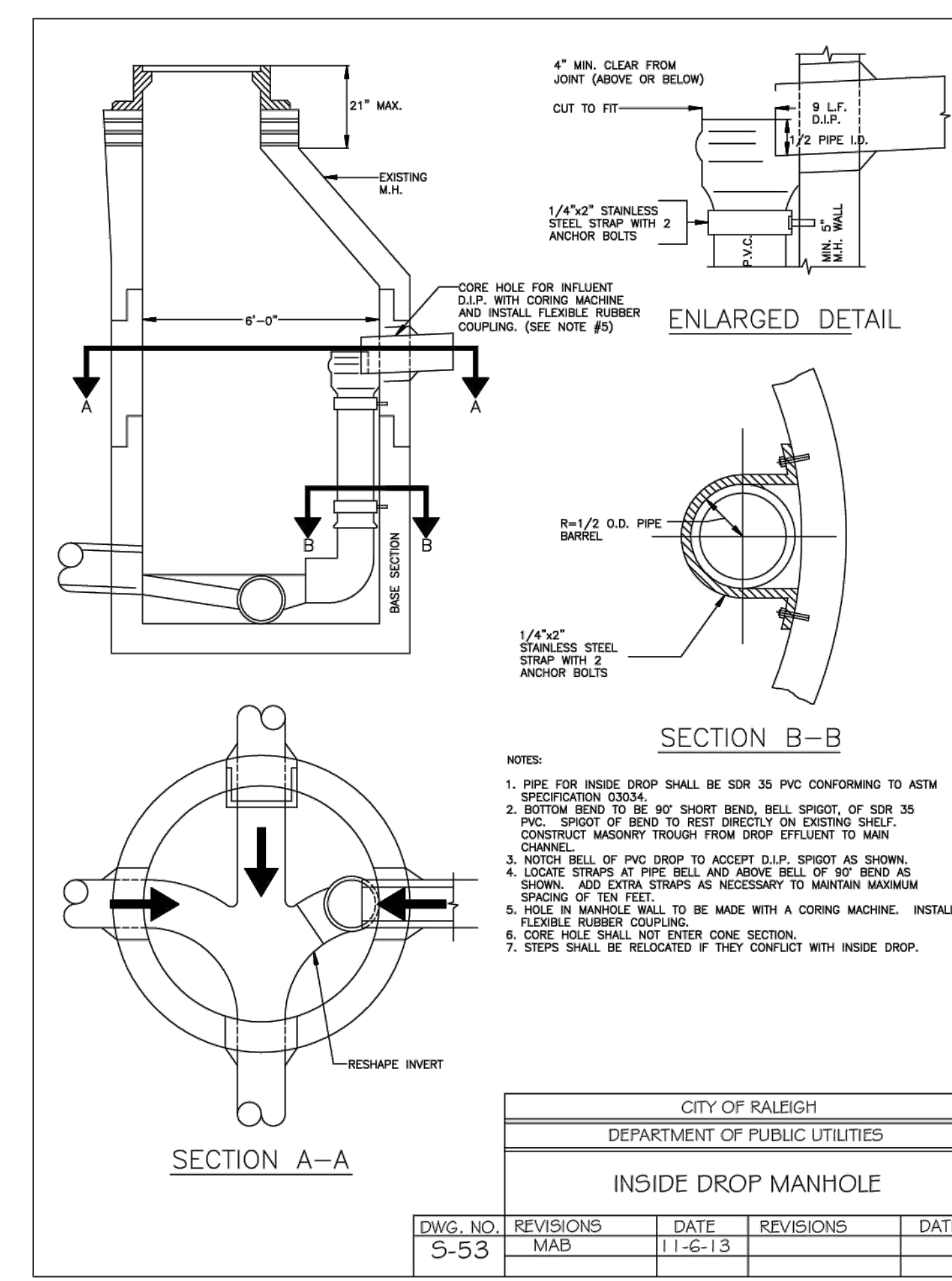
CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES					
LATERAL SADDLE INSTALLATION DETAIL FOR VCP AND DUCTILE IRON PIPE					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-32					
	3-1-87	3-1-87			
	RRH	3-30-00			

NOTE: SADDLE TO BE  
GENEEO FHO OR EQUAL



STYLES ACCEPTED:  
INVERTED NUT  
RAISED NUT

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES					
4\"/>					
S-34					
	D.W.C.	3-27-88			



- NOTES:
- PIPE FOR INSIDE DROP SHALL BE SDR 35 PVC CONFORMING TO ASTM SPECIFICATION D3034.
  - BOTTOM BEND TO BE 90° SHORT BEND, BELL SPIGOT, OF SDR 35 PVC. SPIGOT OF BEND TO REST DIRECTLY ON EXISTING SHELF. CONSTRUCT MASONRY TROUGH FROM DROP STUFTLET TO MAIN CHANNEL.
  - NOTCH BELL OF PVC DROP TO ACCEPT D.I.P. SPIGOT AS SHOWN.
  - LOCATE STRAPS AT PIPE BELL AND ABOVE BELL OF 90° BEND AS SHOWN. ADD EXTRA STRAPS AS NECESSARY TO MAINTAIN MAXIMUM SPACING OF TEN FEET.
  - HOLE IN MANHOLE WALL TO BE MADE WITH A CORING MACHINE. INSTALL FLEXIBLE RUBBER COUPLING.
  - CORE HOLE SHALL NOT ENTER CONE SECTION.
  - STEPS SHALL BE RELOCATED IF THEY CONFLICT WITH INSIDE DROP.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES					
INSIDE DROP MANHOLE					
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE	
S-53					
	MAB	11-6-13			

NO.	REVISIONS	DATE	BY
01			
02			
03			



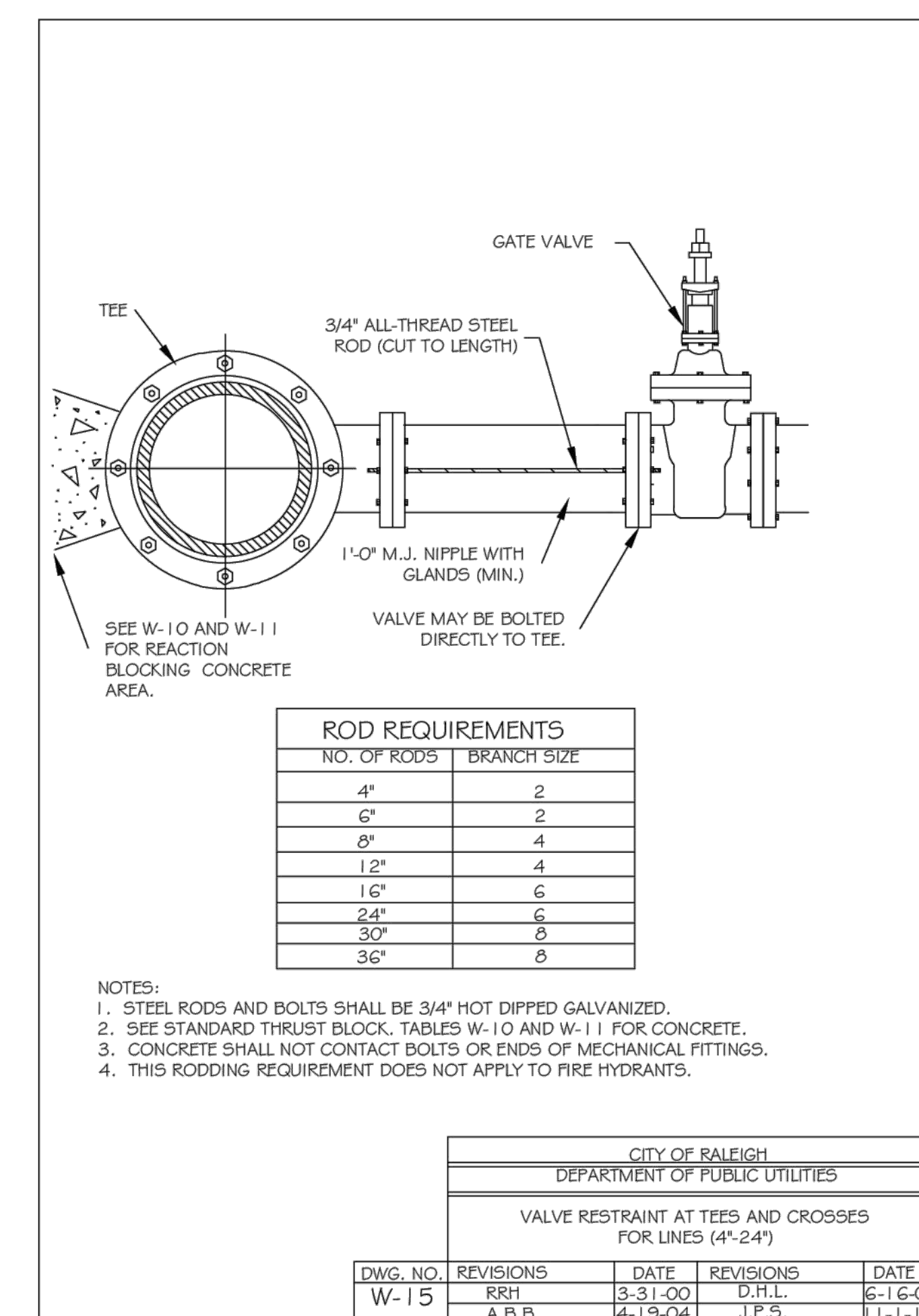
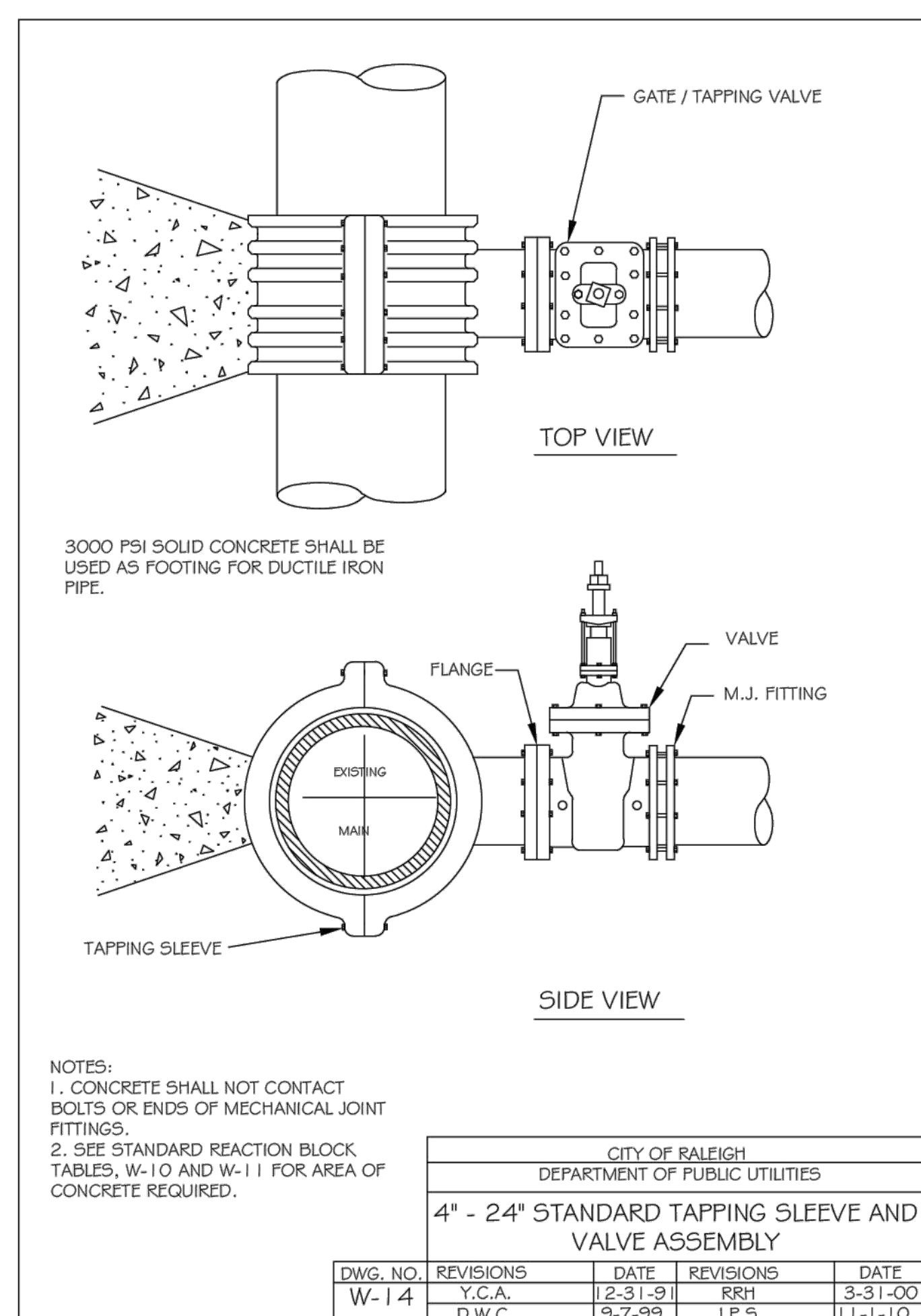
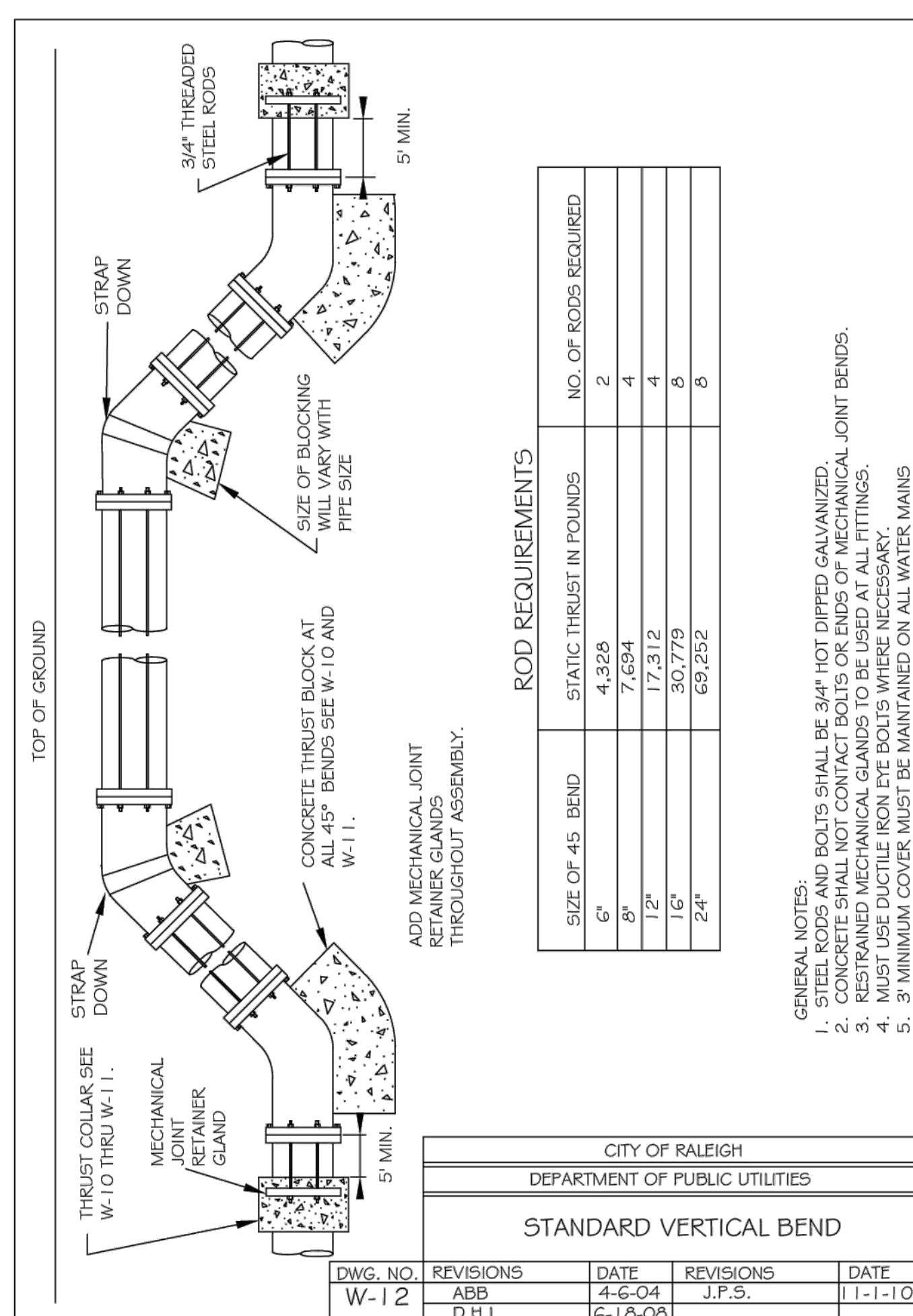
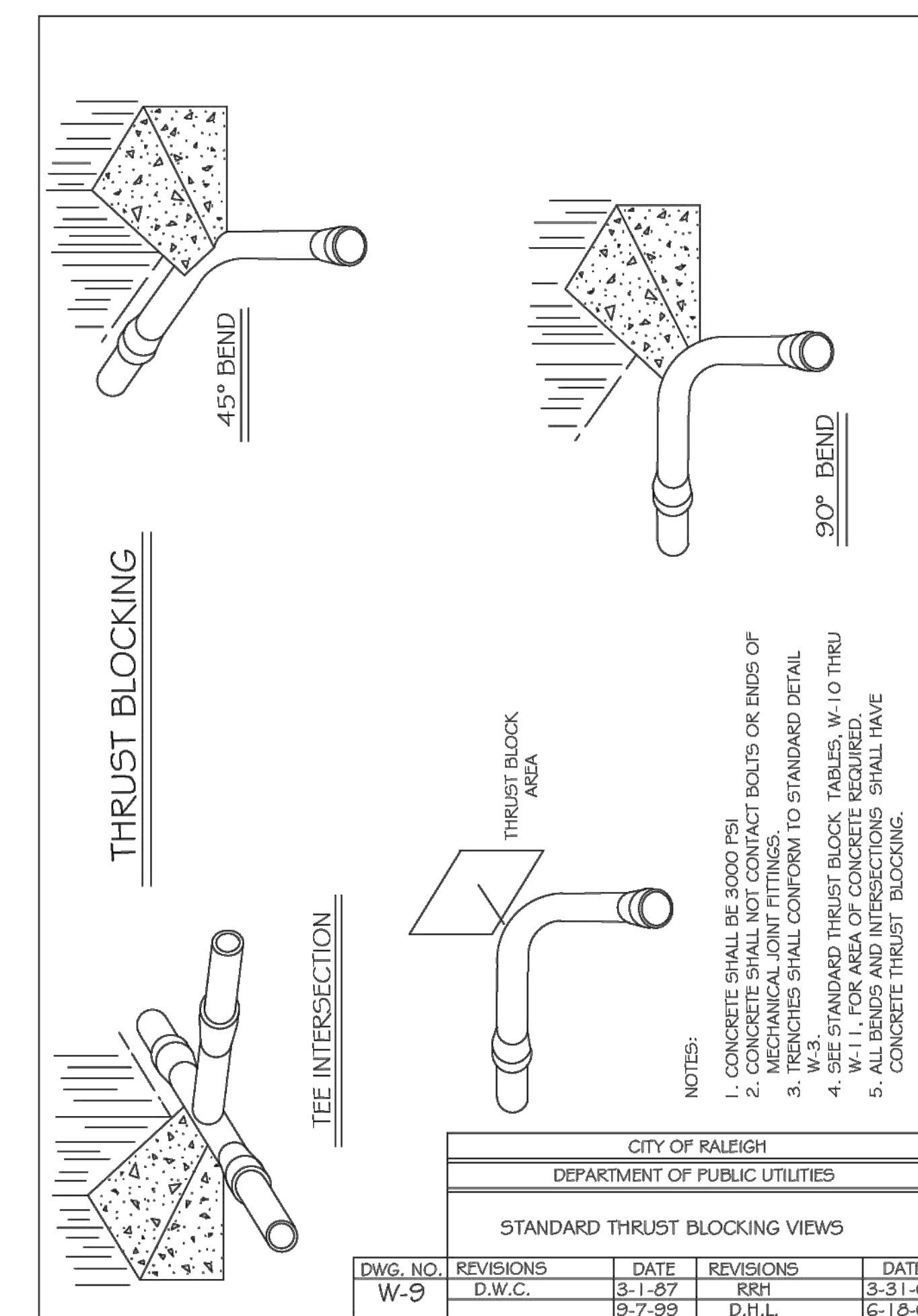
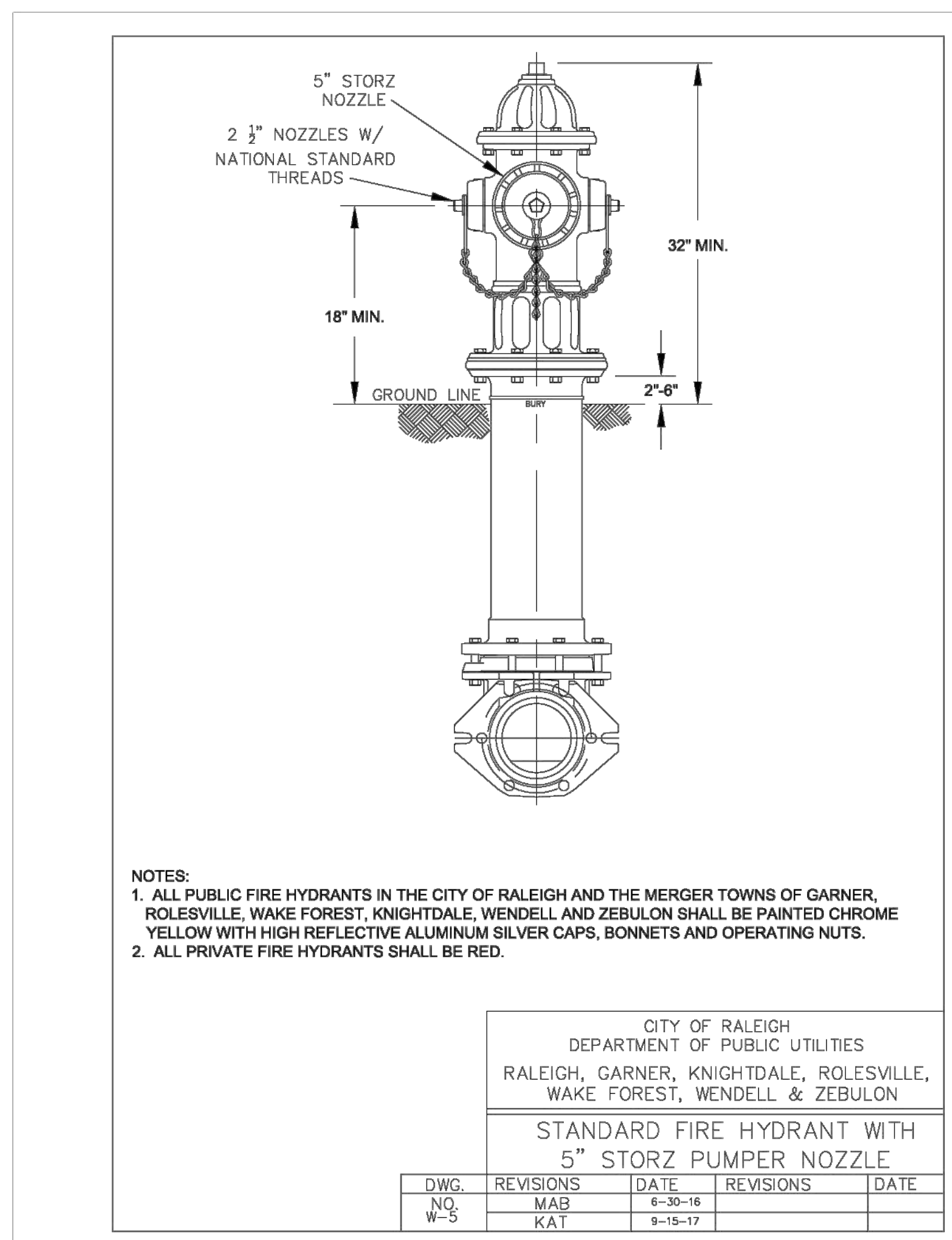
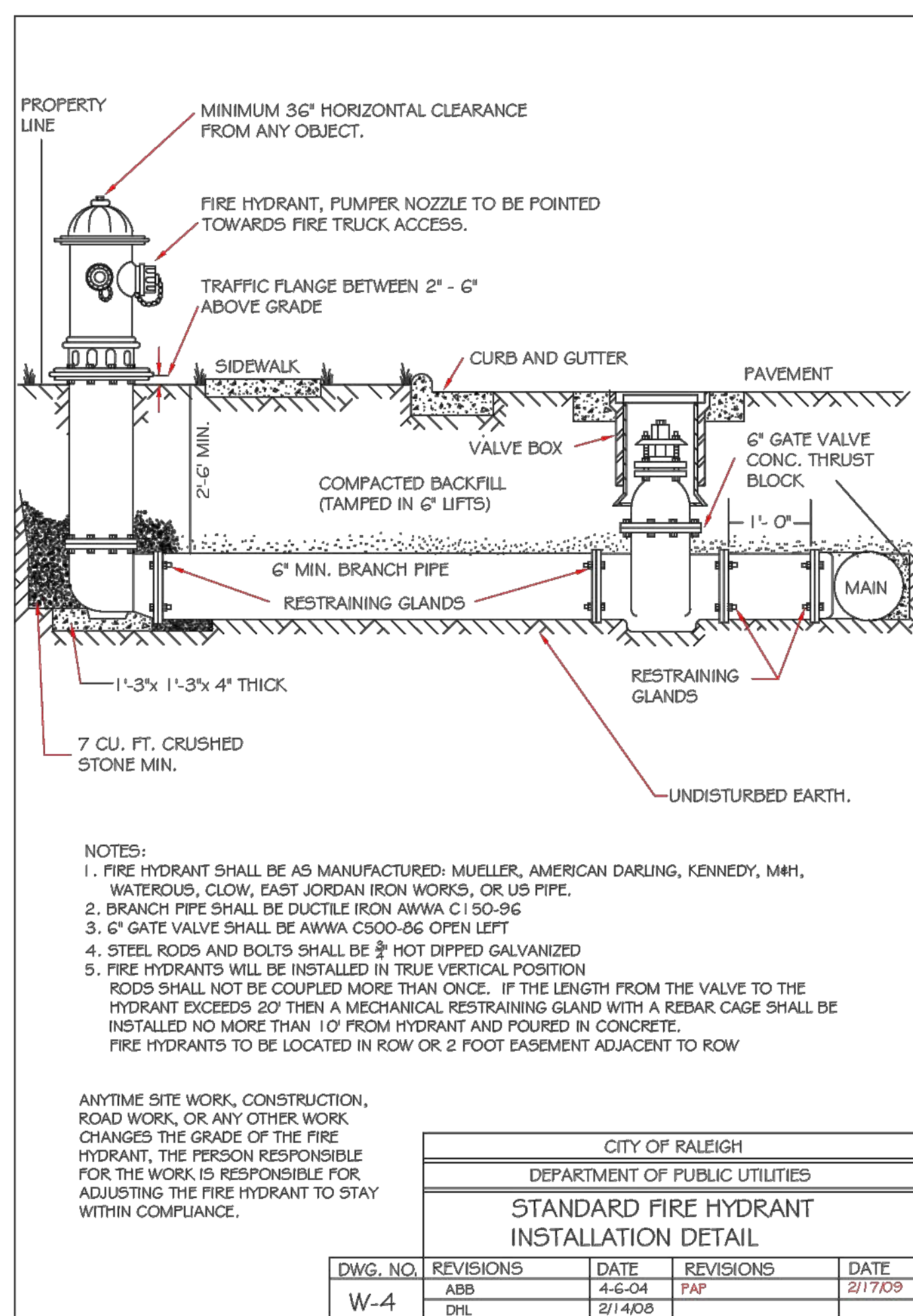
**STRONGROCK**  
ENGINEERING GROUP  
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

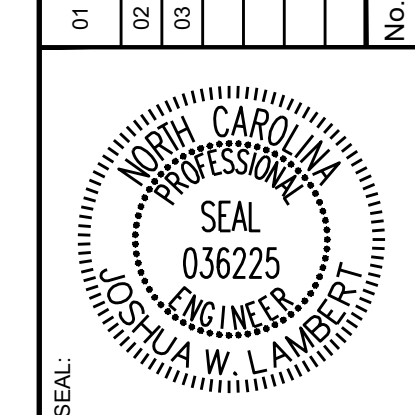
RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
SANITARY SEWER DETAILS

DRAWING SHEET  
**D-4.1**





NO.	REVISIONS	DATE	BY
01			
02			
03			



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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-08		AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

**CONSTRUCTION PLANS**  
**WATER DETAILS**

DRAWING SHEET  
**D-5.0**



01	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04	08/04/2024	SREG
02	TOWN OF ROLESVILLE CID-24-04 V2	11/07/2024	SREG
03	TOWN OF ROLESVILLE CID-24-04 V3	02/07/2024	SREG



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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

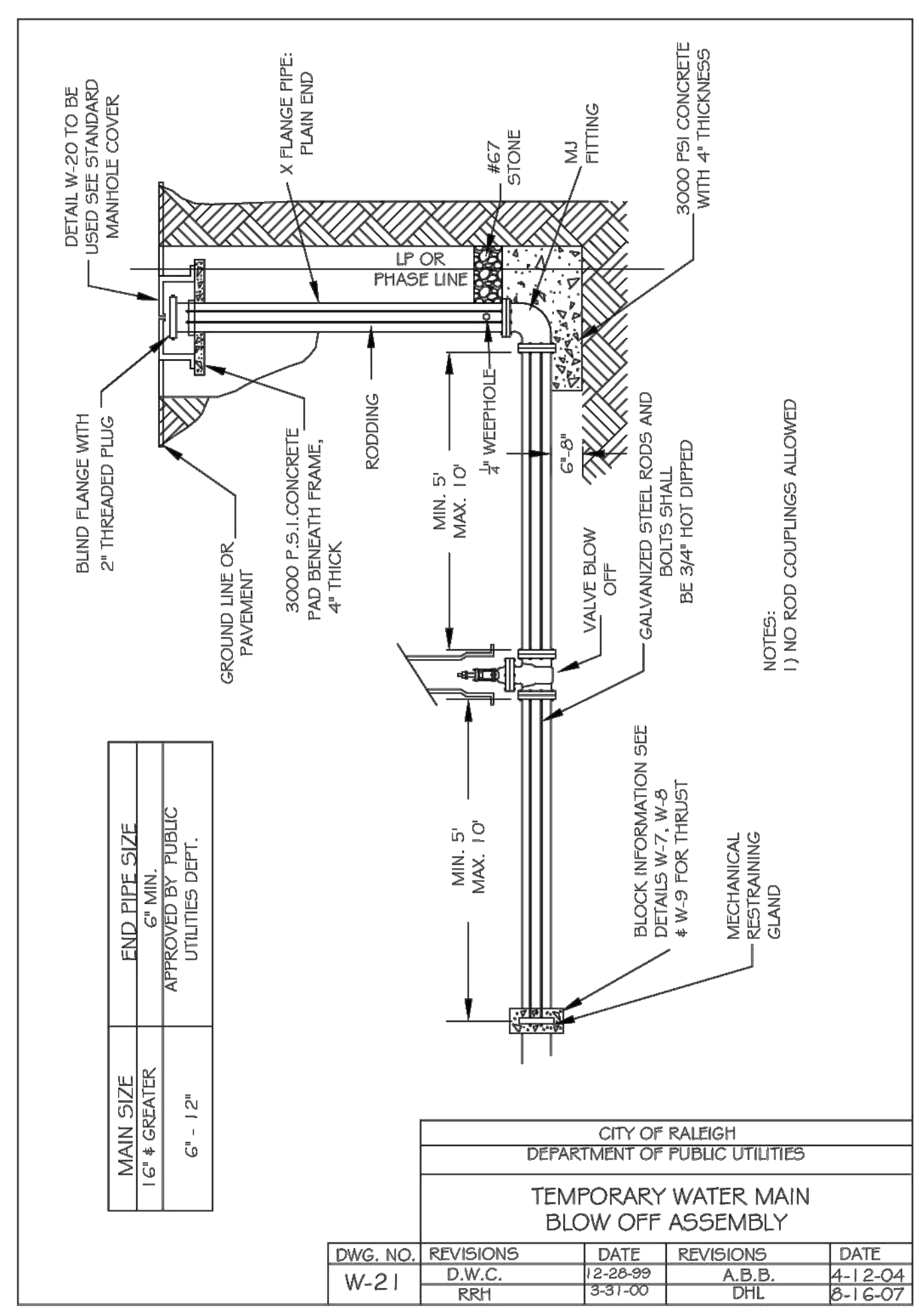
STRONG ROCK PROJECT PSP-24-03	NOT FOR CONSTRUCTION	SCALE AS SHOWN	DESIGNED BY JWL	DRAWN BY SRG	CHECKED BY JWL
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RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

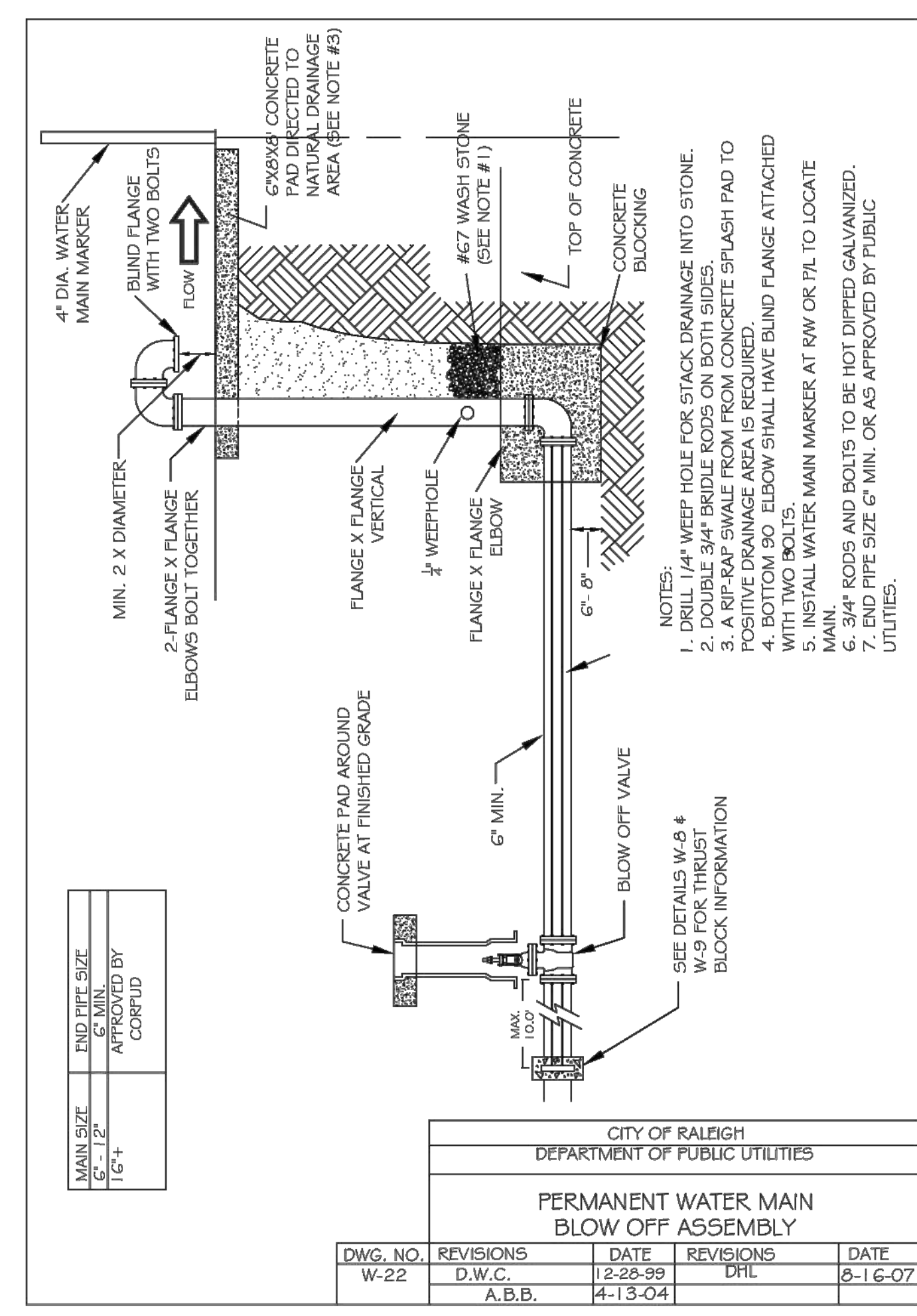
**CONSTRUCTION PLANS**  
WATER DETAILS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-23	ABB	4-6-04	RKV	7/23/13
	D.H.L.	6/18/08		

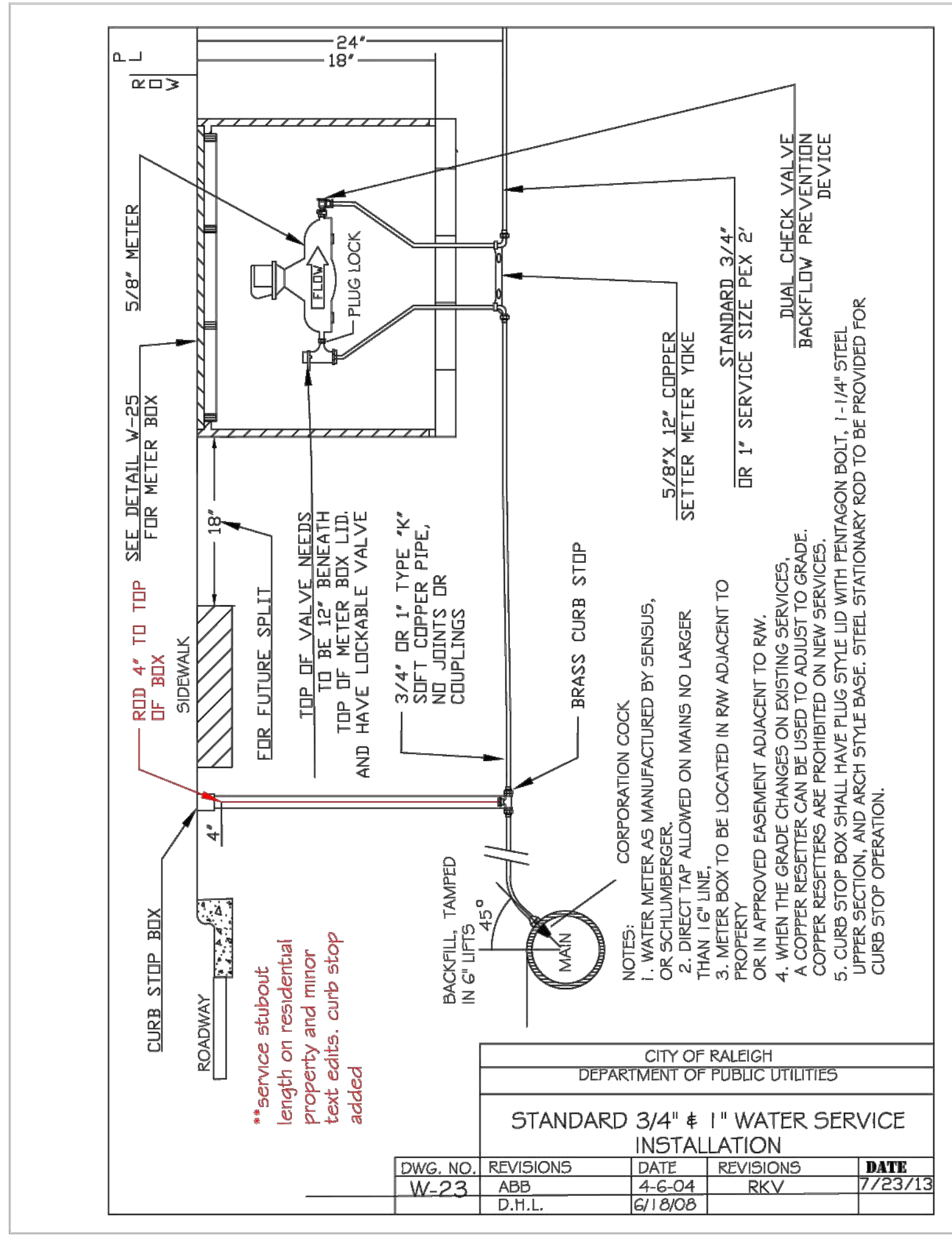
DRAWING SHEET  
**D-5.1**



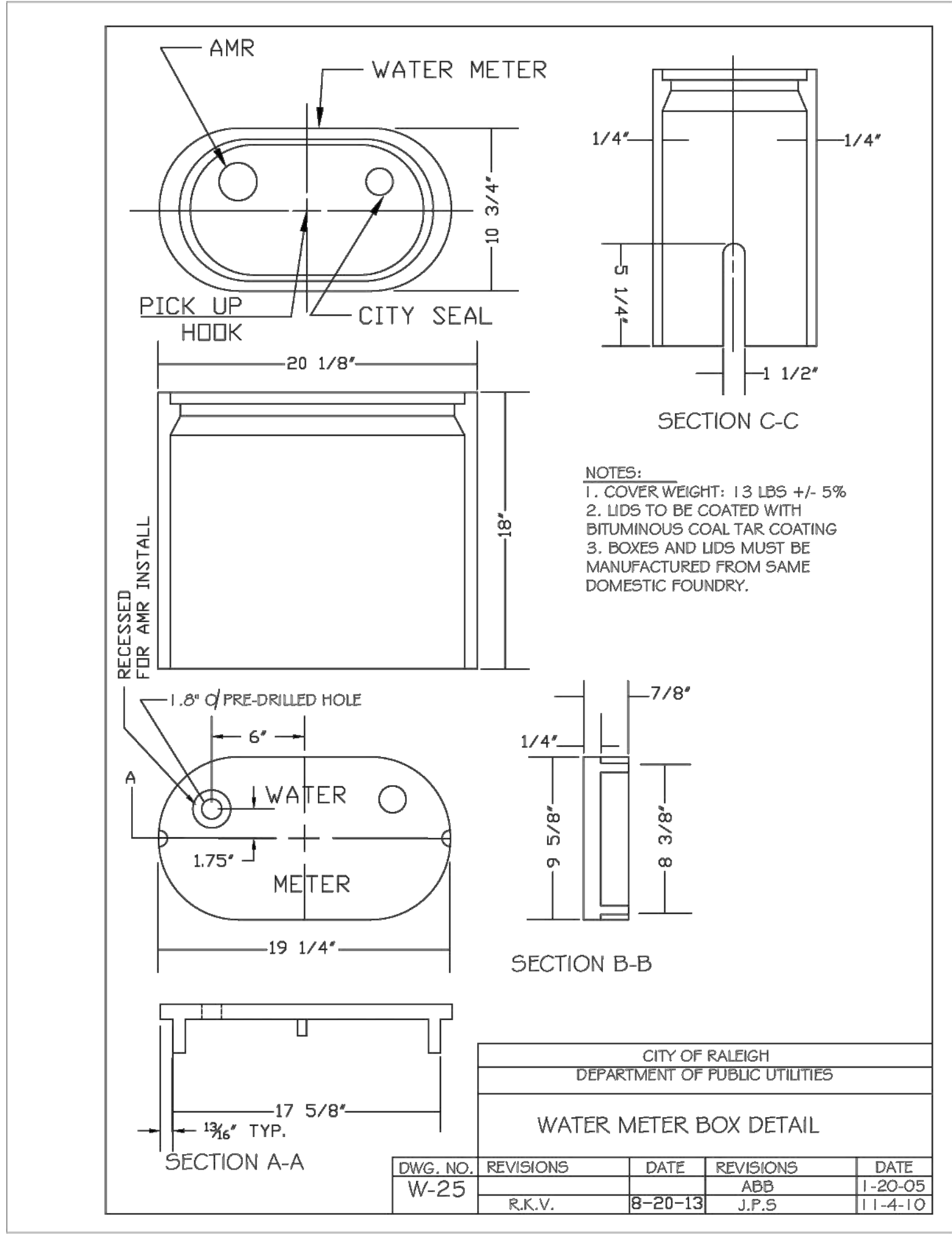
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W-21	D.W.C.	12-28-99	A.B.B.	4-12-04
	RRH	3-31-00	DHL	8-16-07



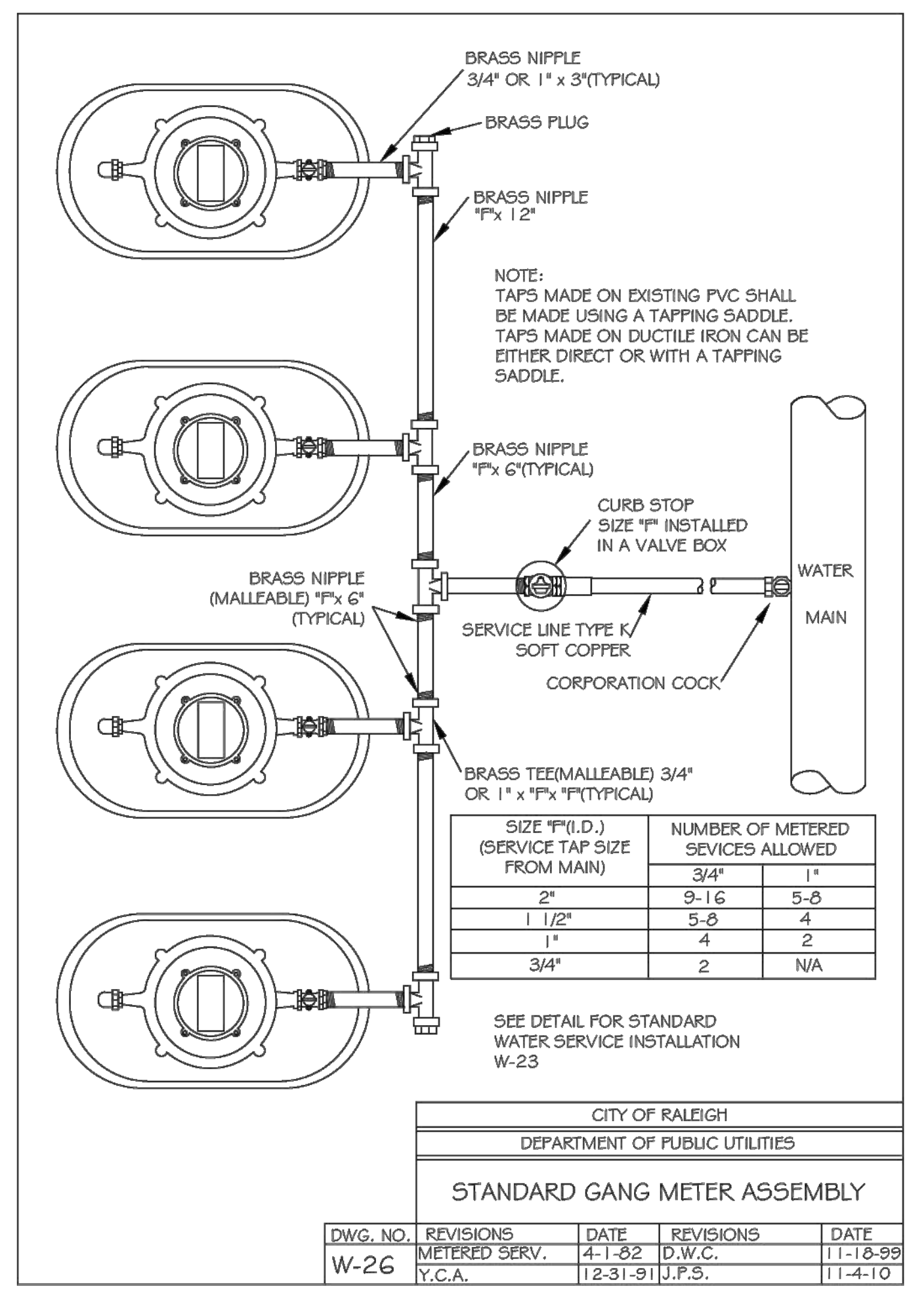
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-22	D.W.C.	12-28-99	DHL	8-16-07
	A.B.B.	4-13-04		



DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-23	ABB	4-6-04	RKV	7/23/13
	D.H.L.	6/18/08		

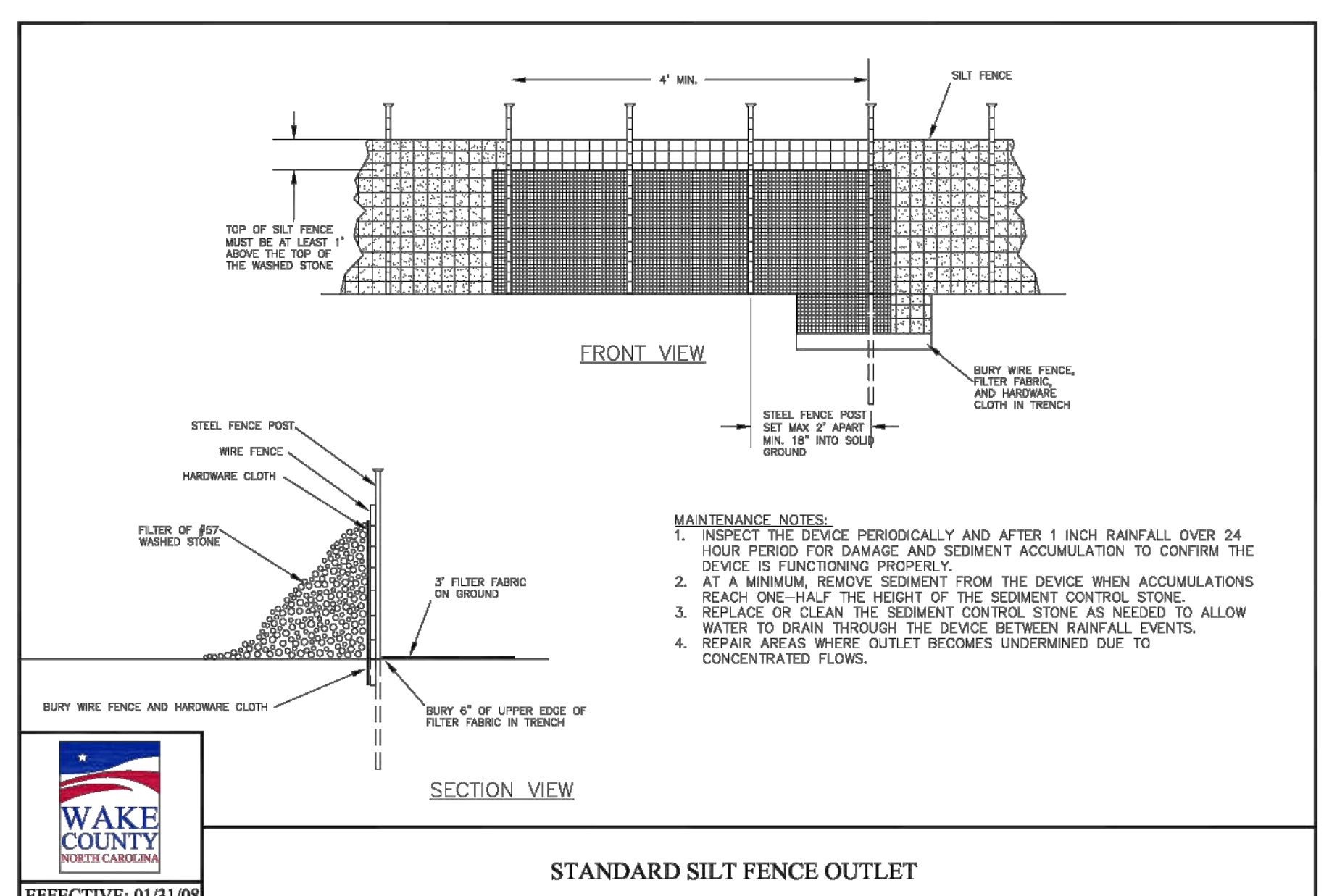
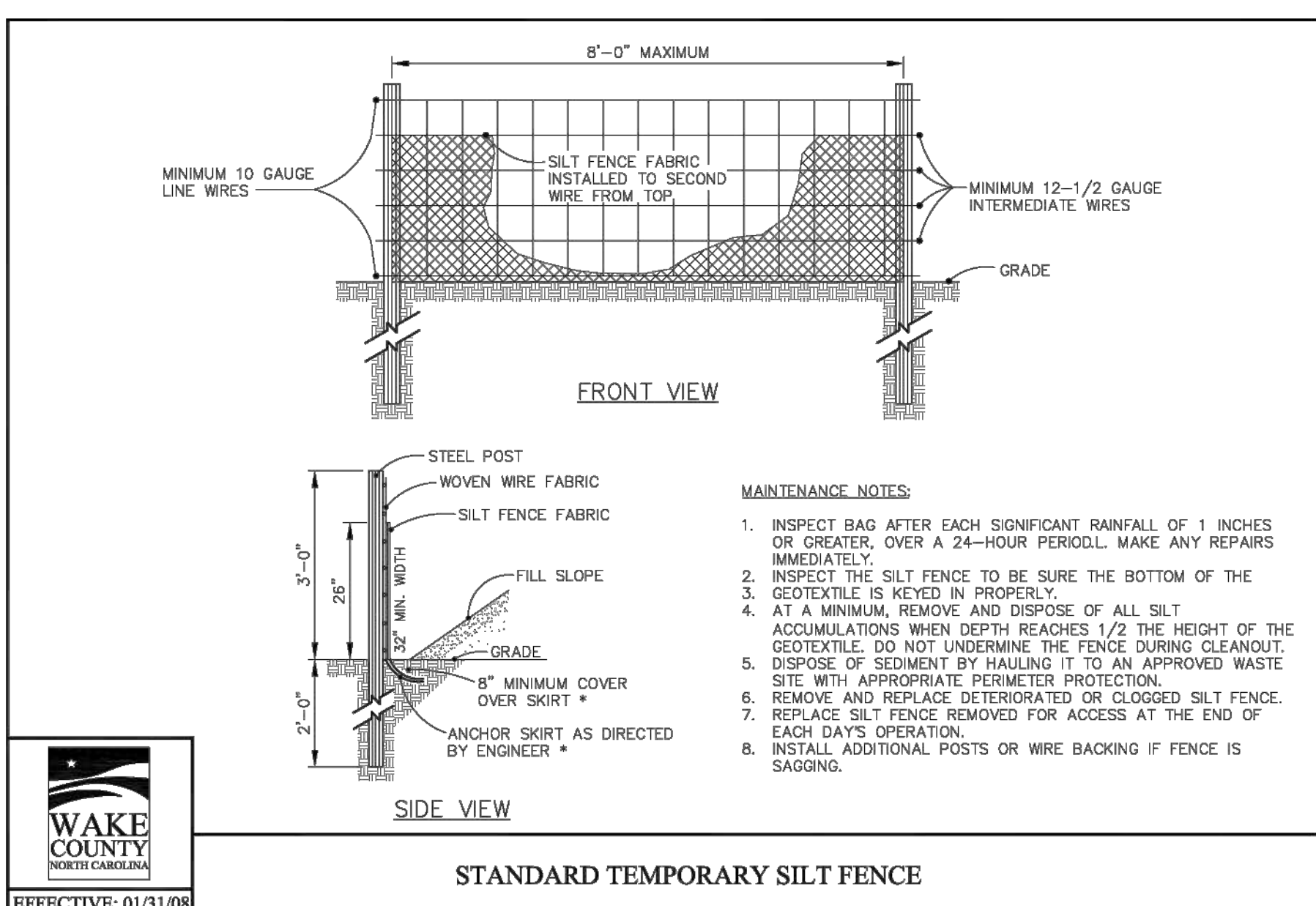
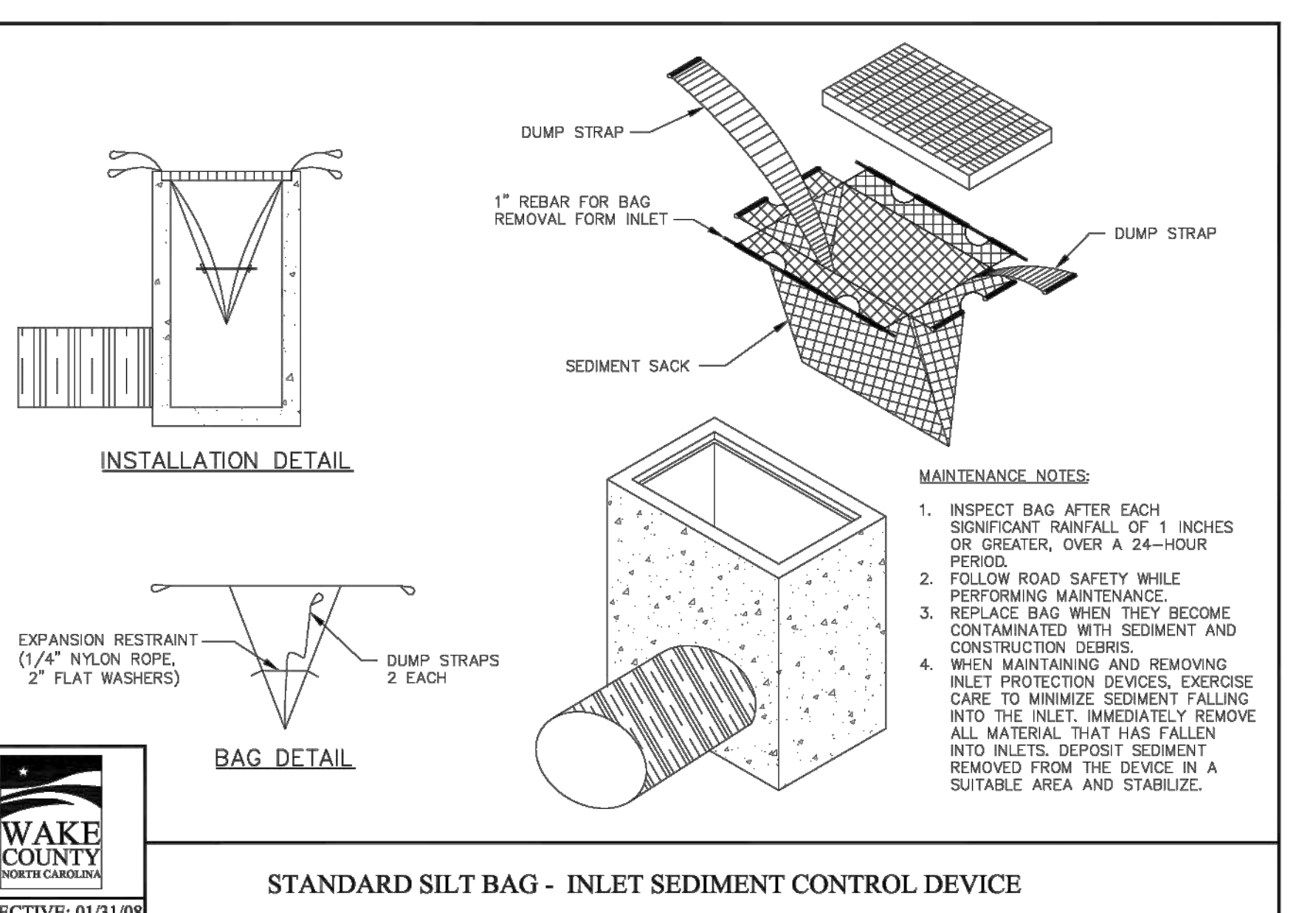
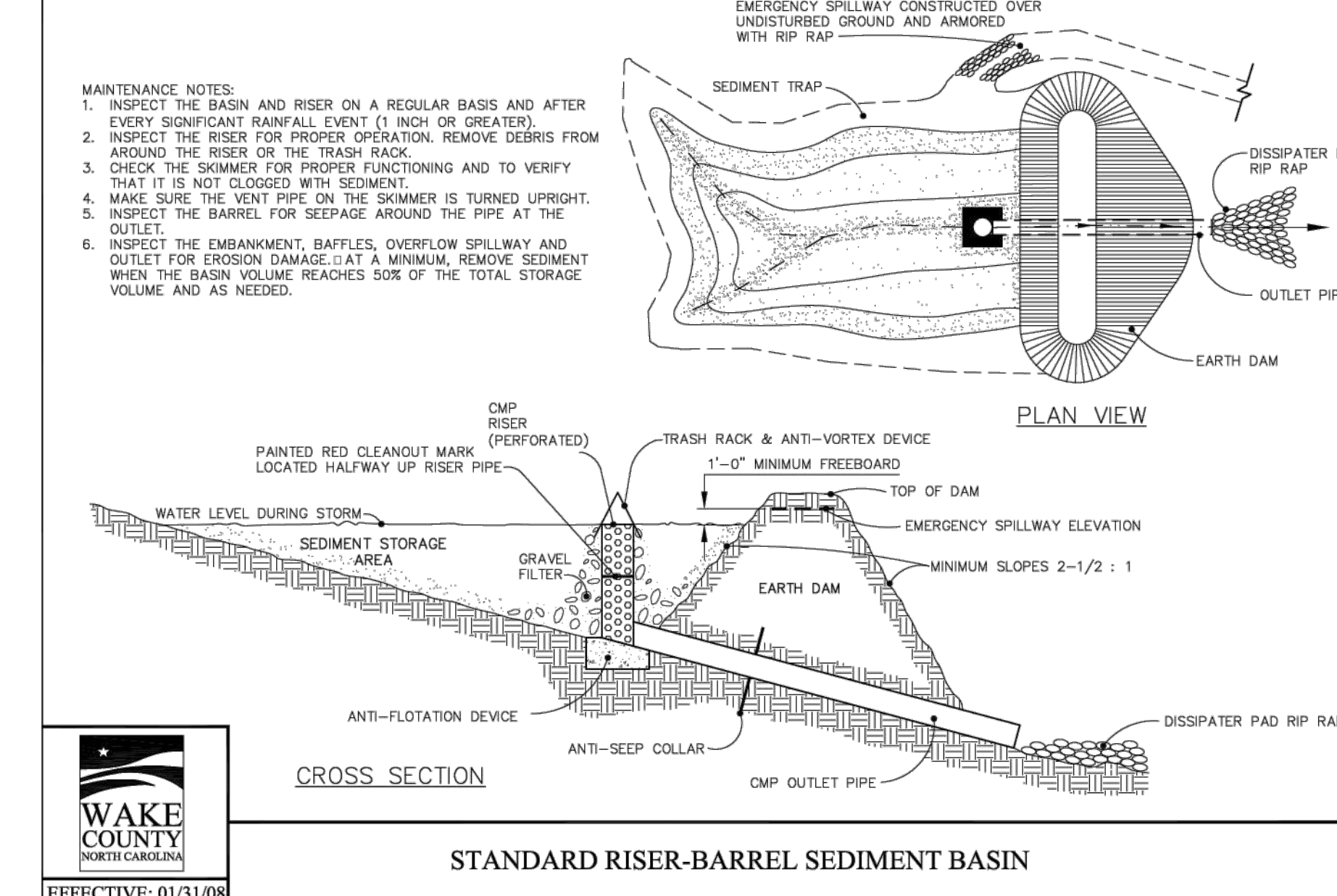
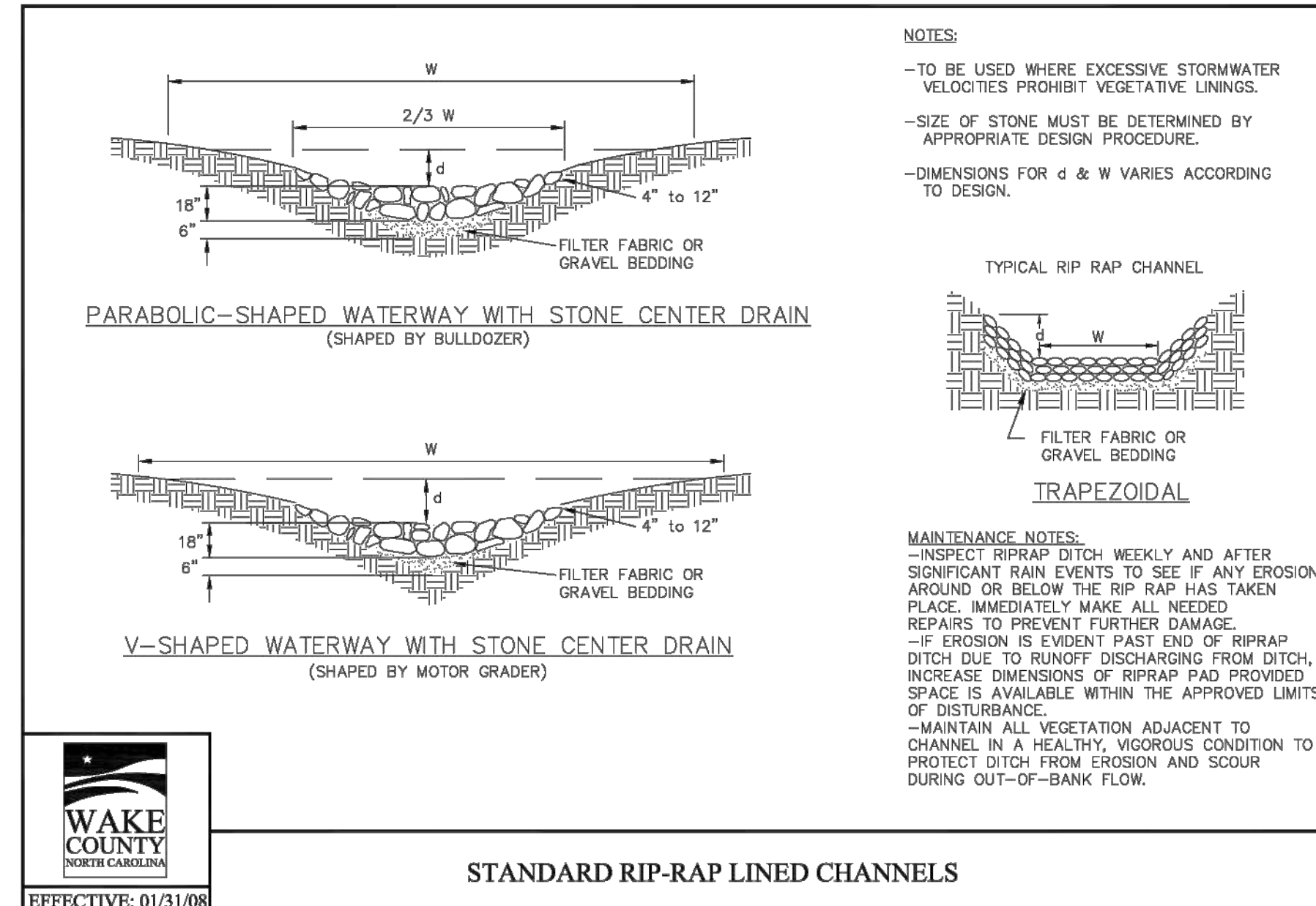
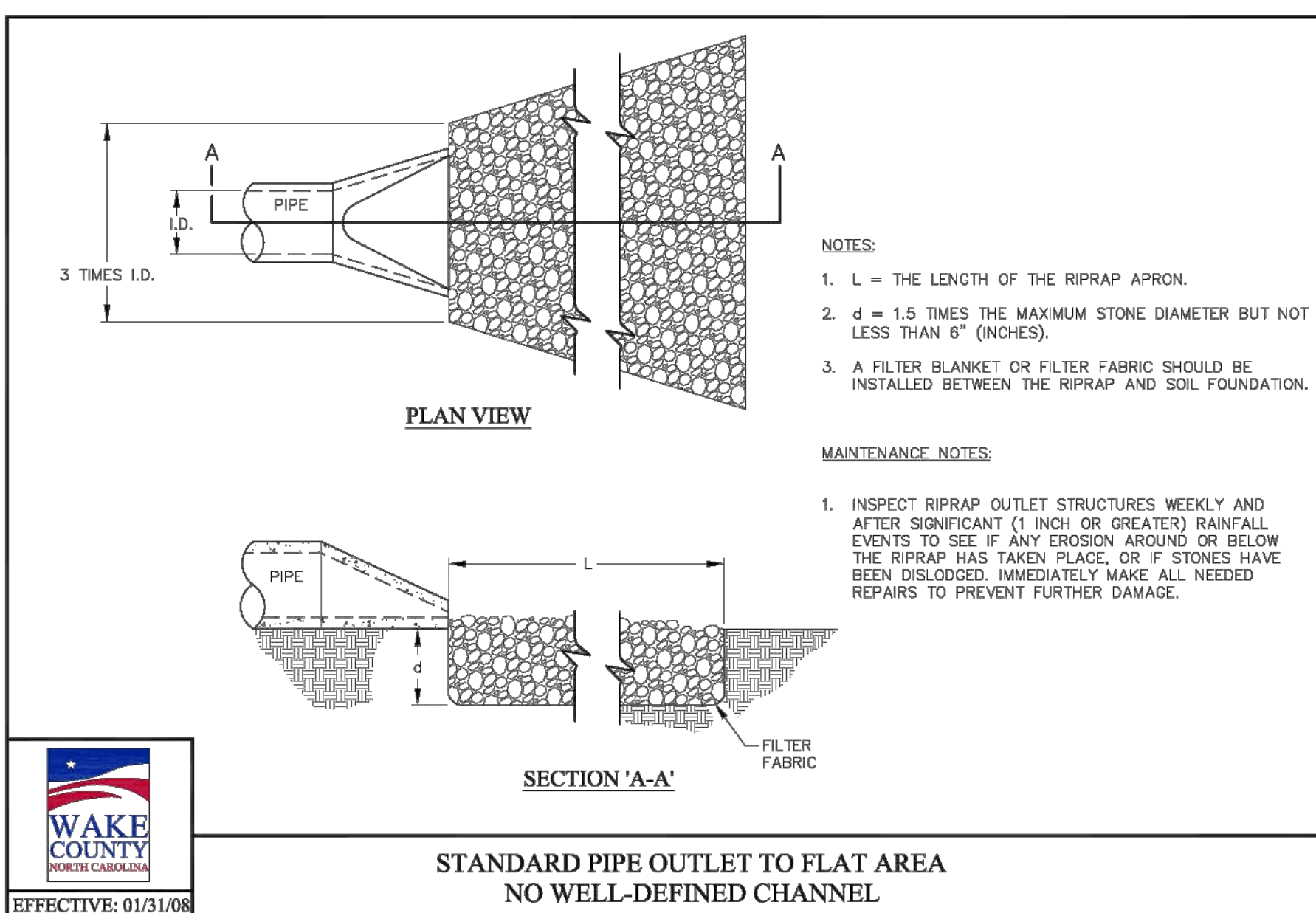
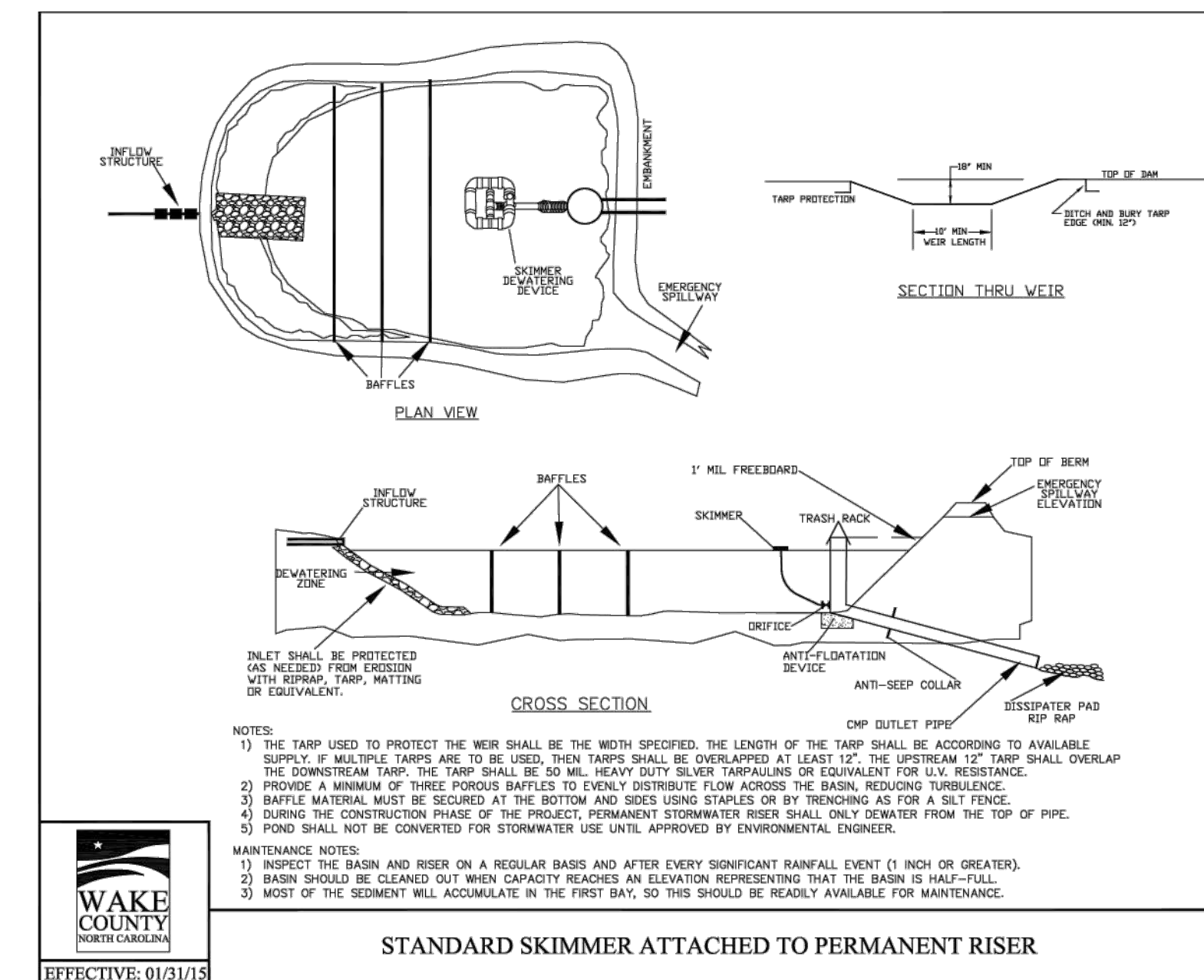
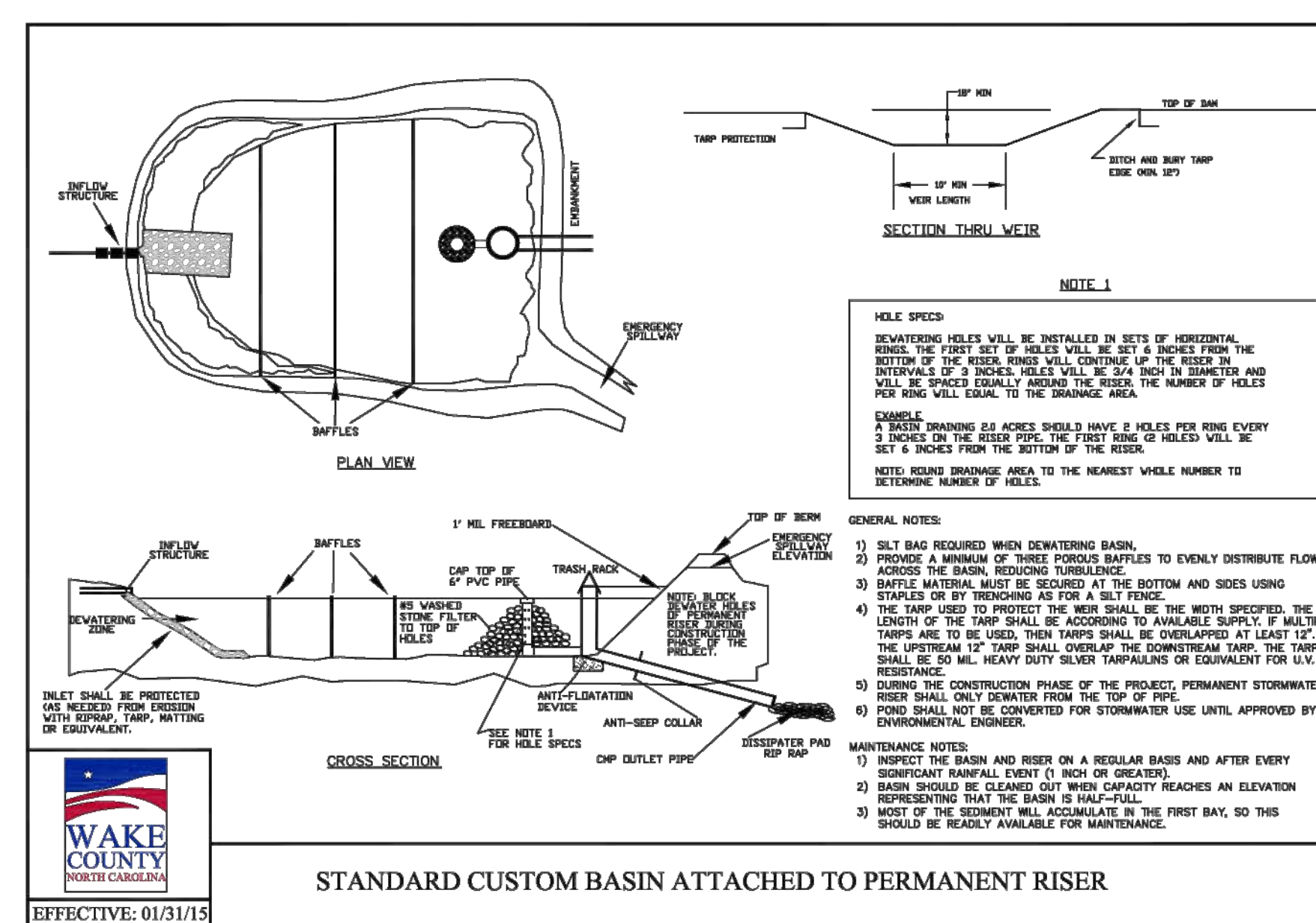
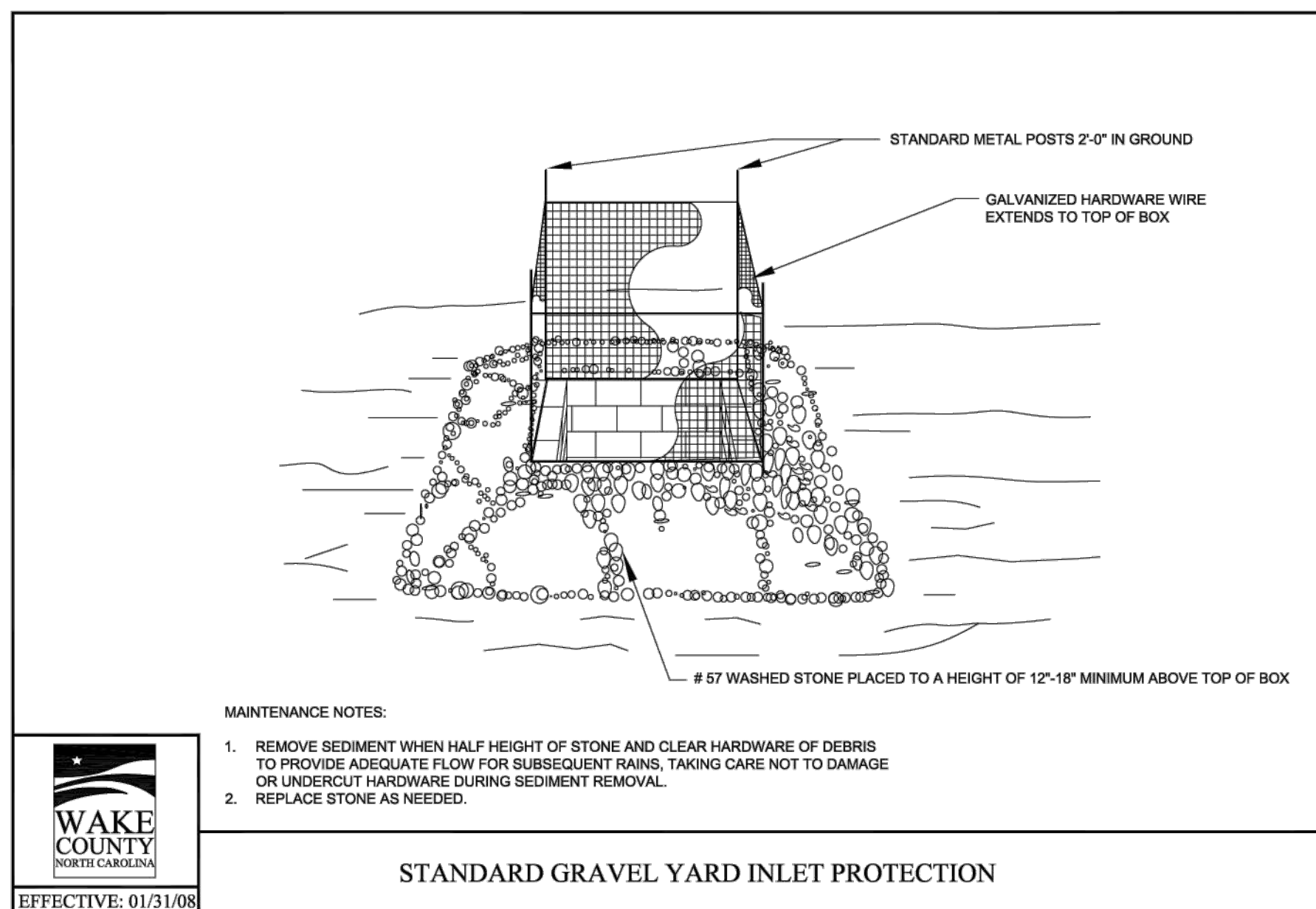


DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-25	R.K.V.	8-20-13	J.P.S	11-4-10
	ABB			1-20-05



DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-26	METERED SERV.	4-1-82	D.W.C.	11-18-99
	Y.C.A.	12-31-91	J.P.S.	11-4-10





NO.	REVISIONS	DATE	BY
01			
02			
03			

SEAL: [Professional Engineer Seal]

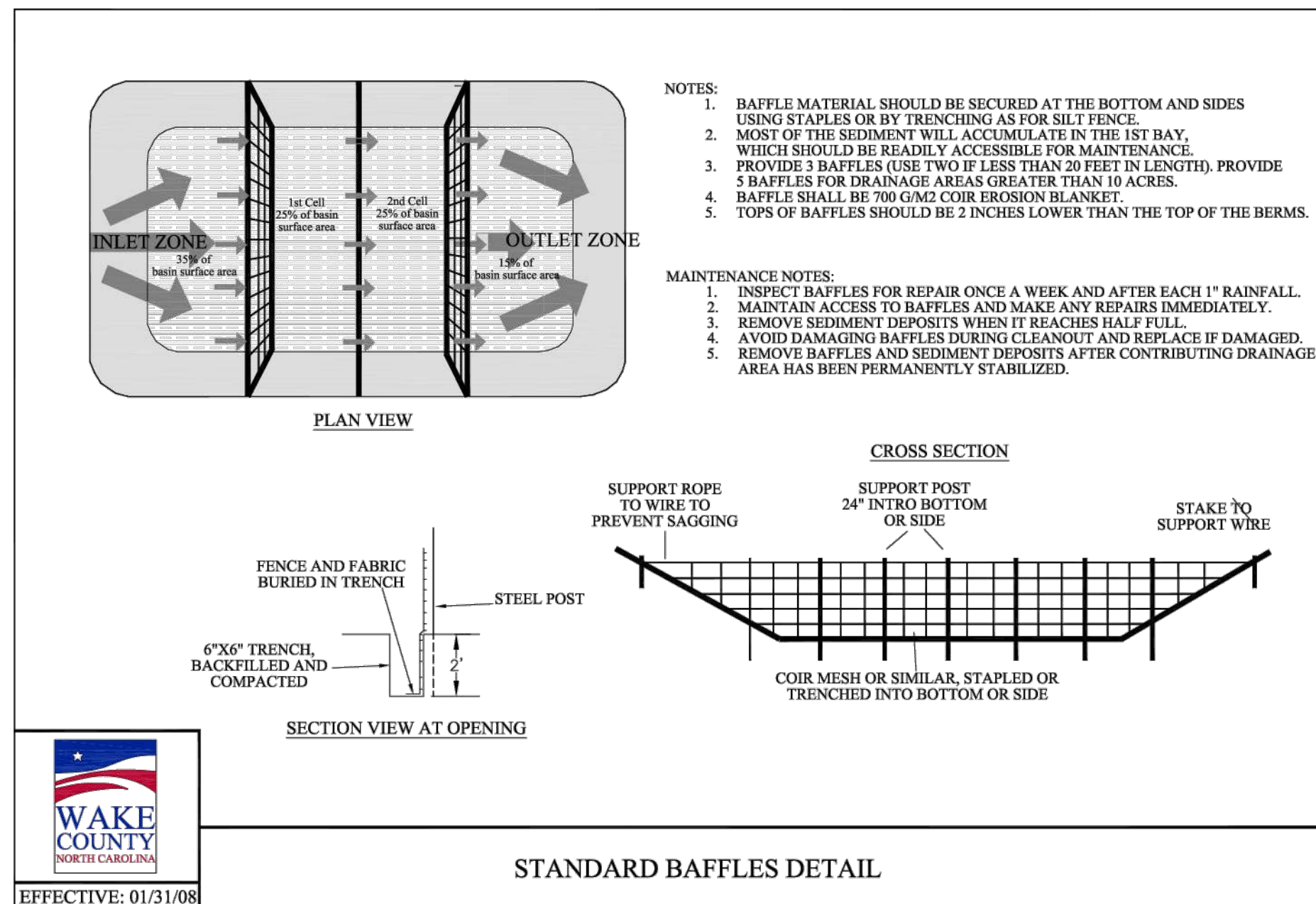
**STRONGROCK ENGINEERING GROUP**

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 305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

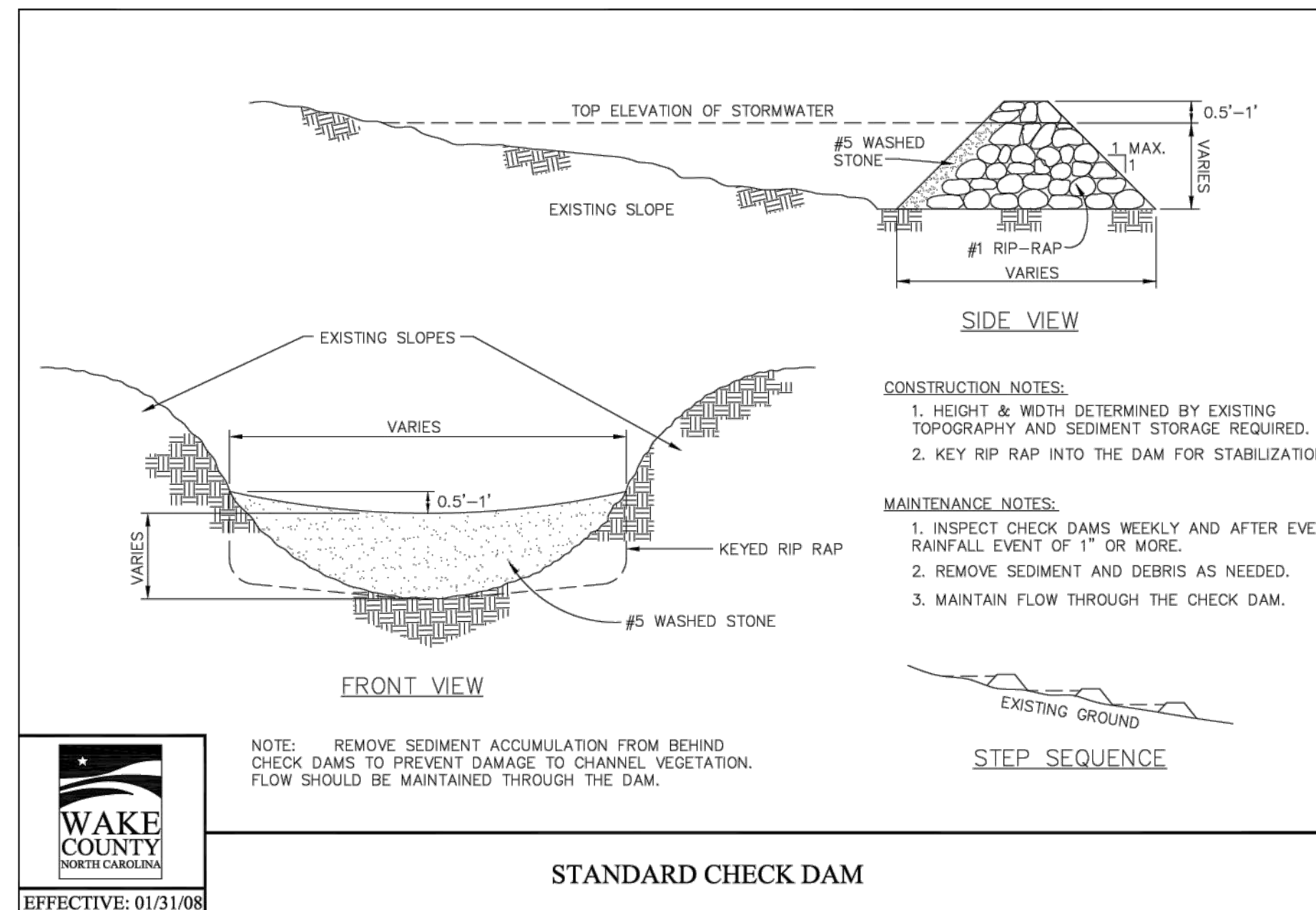
PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
STRONG ROCK PROJECT P-2166	AS SHOWN	JWL	SRG	JWL

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.

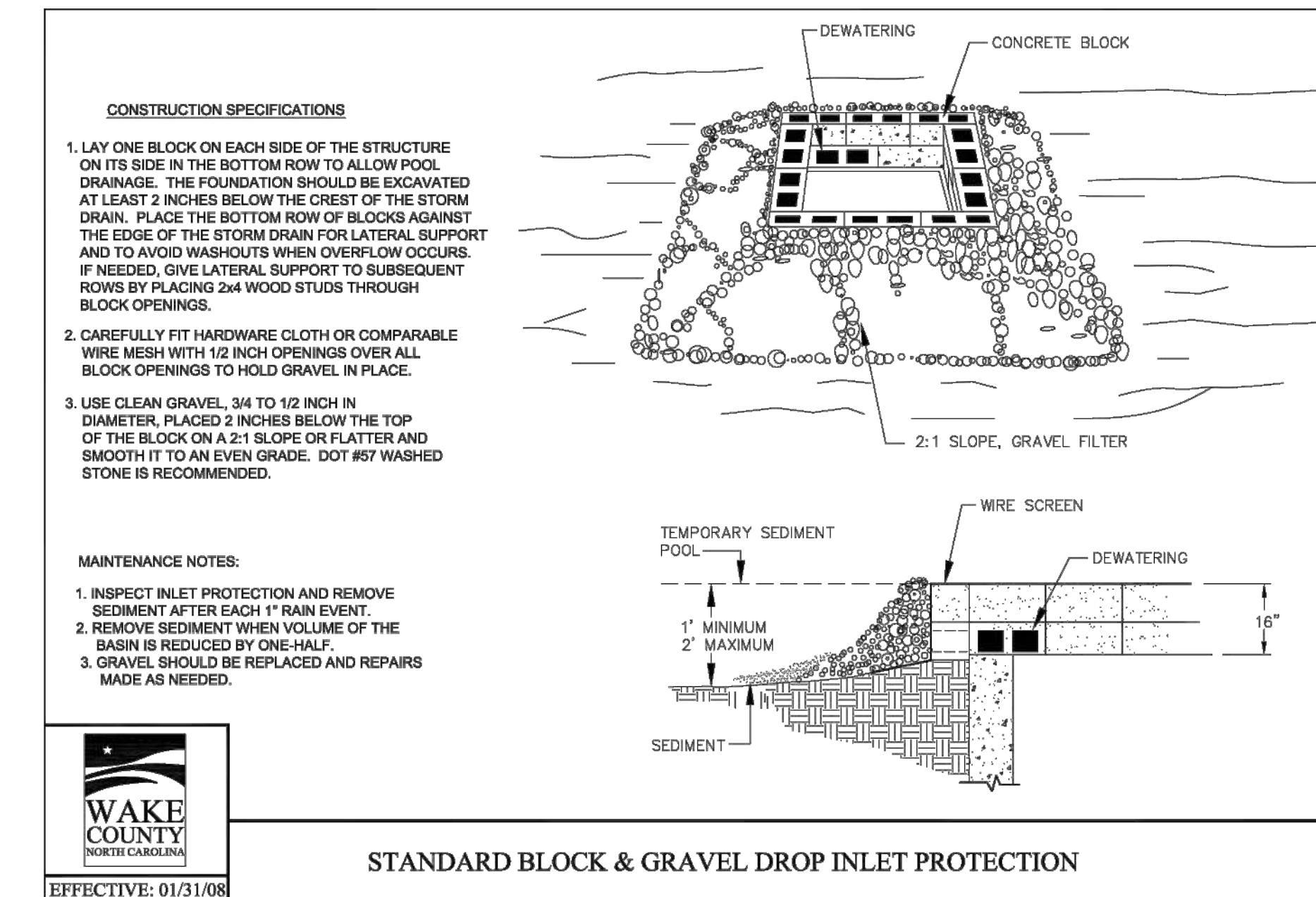




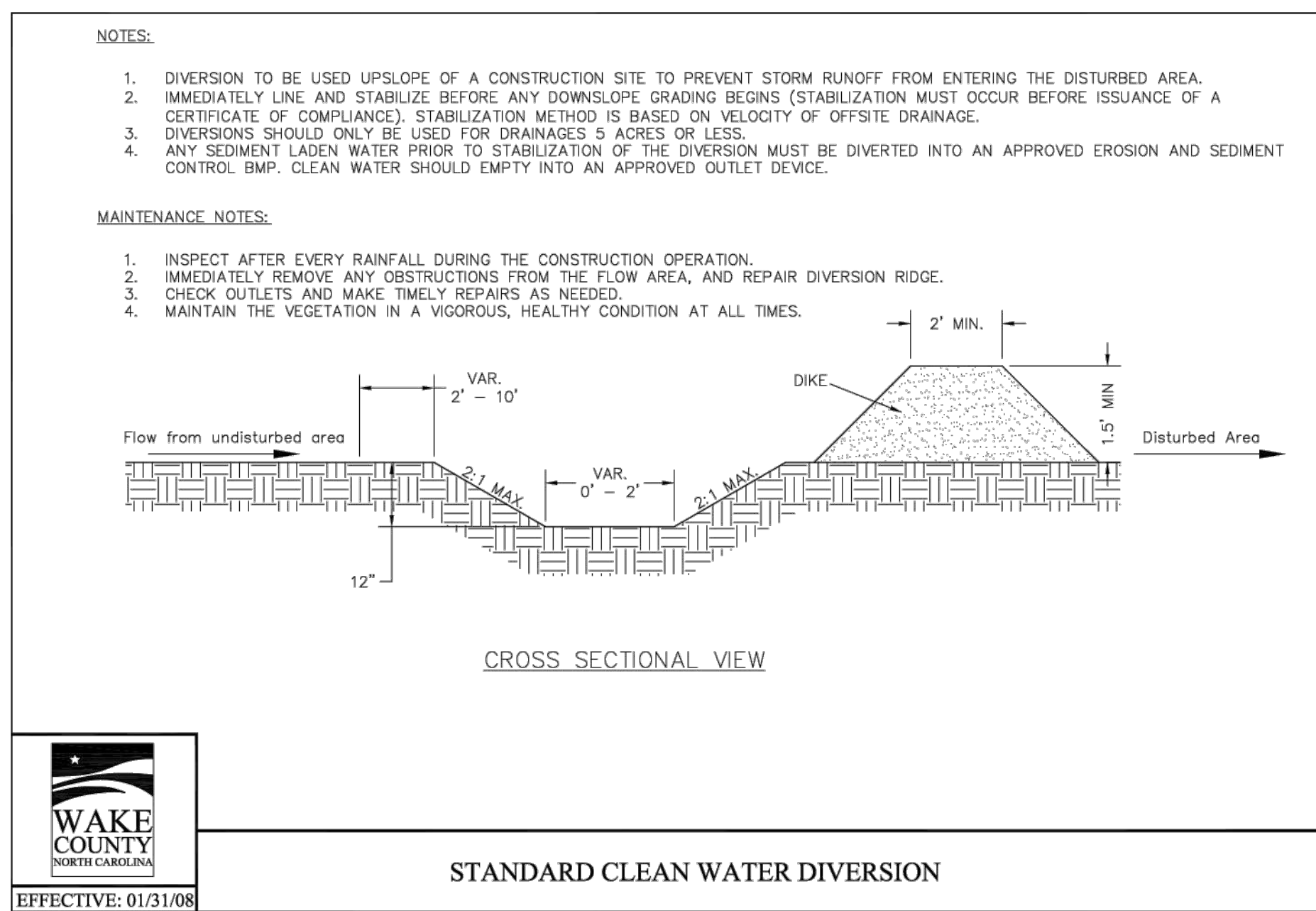
STANDARD BAFFLES DETAIL



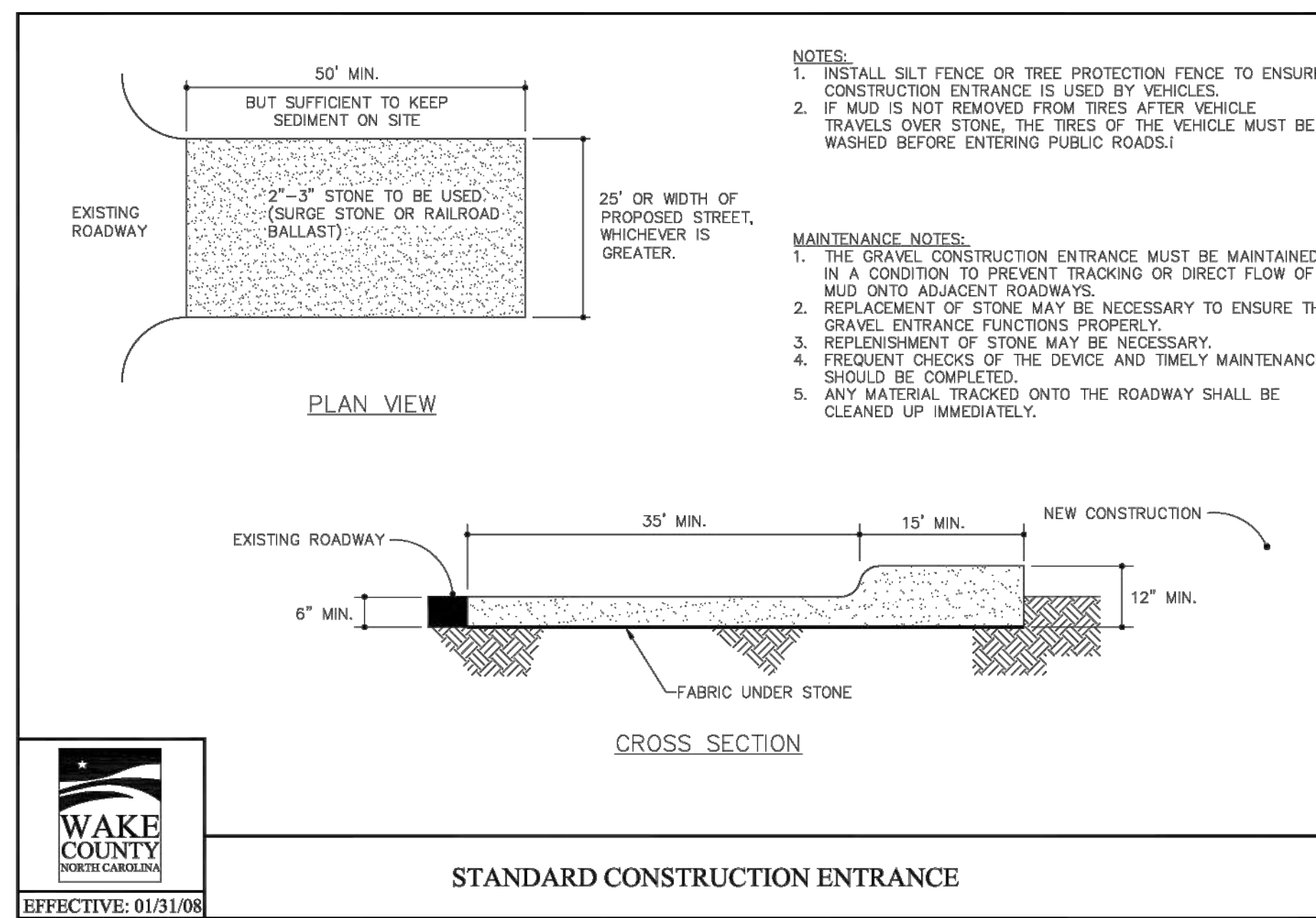
STANDARD CHECK DAM



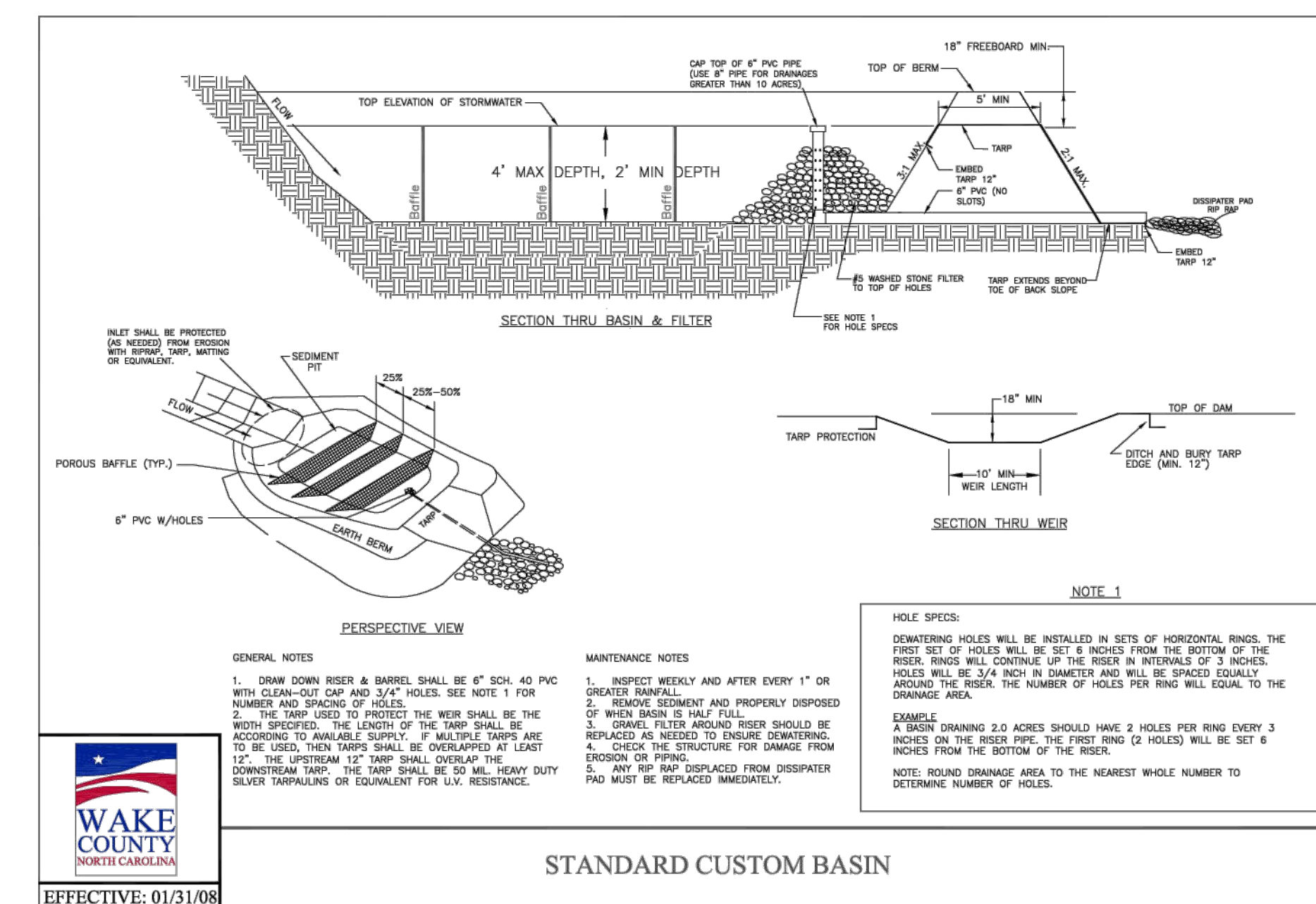
STANDARD BLOCK & GRAVEL DROP INLET PROTECTION



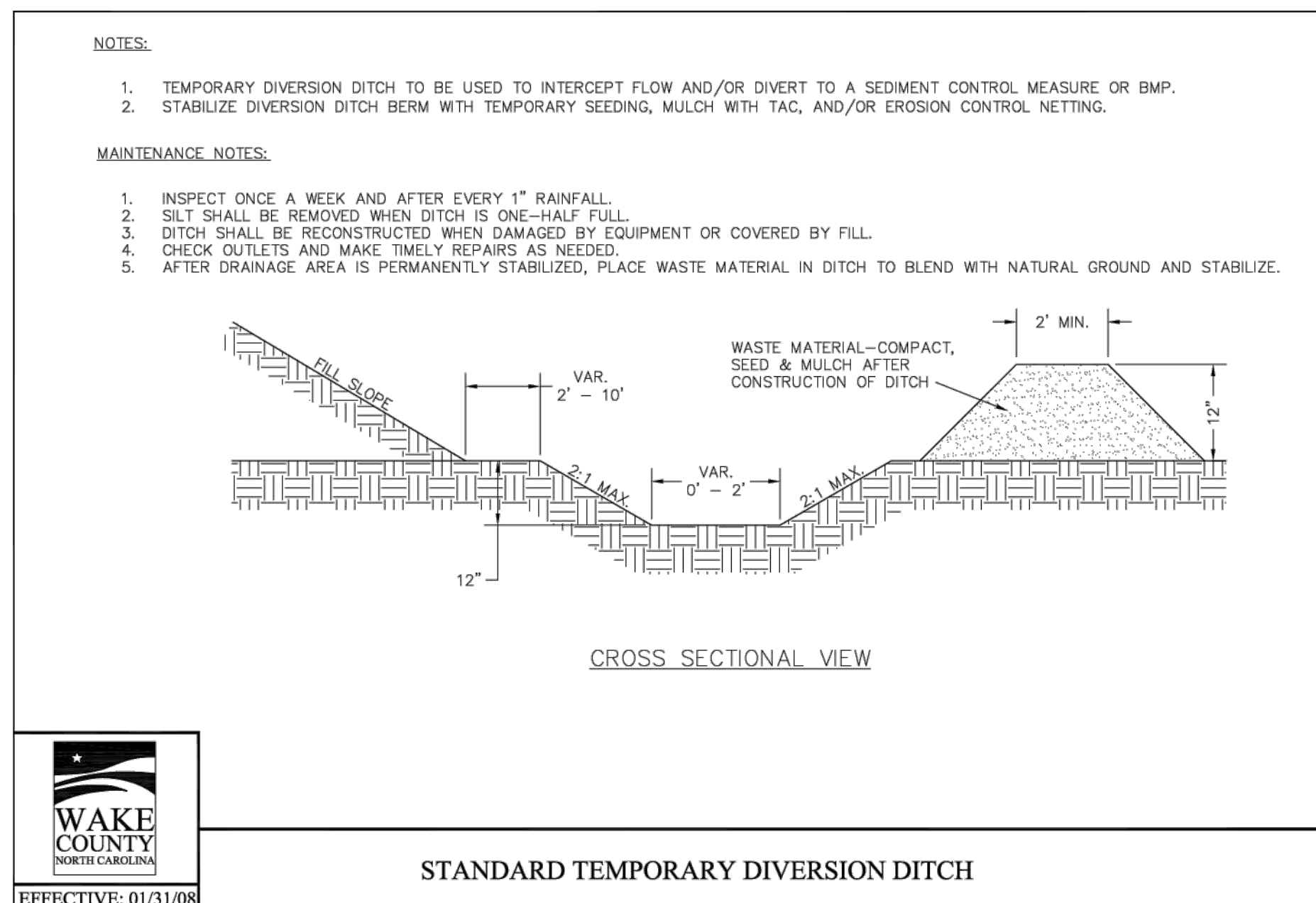
STANDARD CLEAN WATER DIVERSION



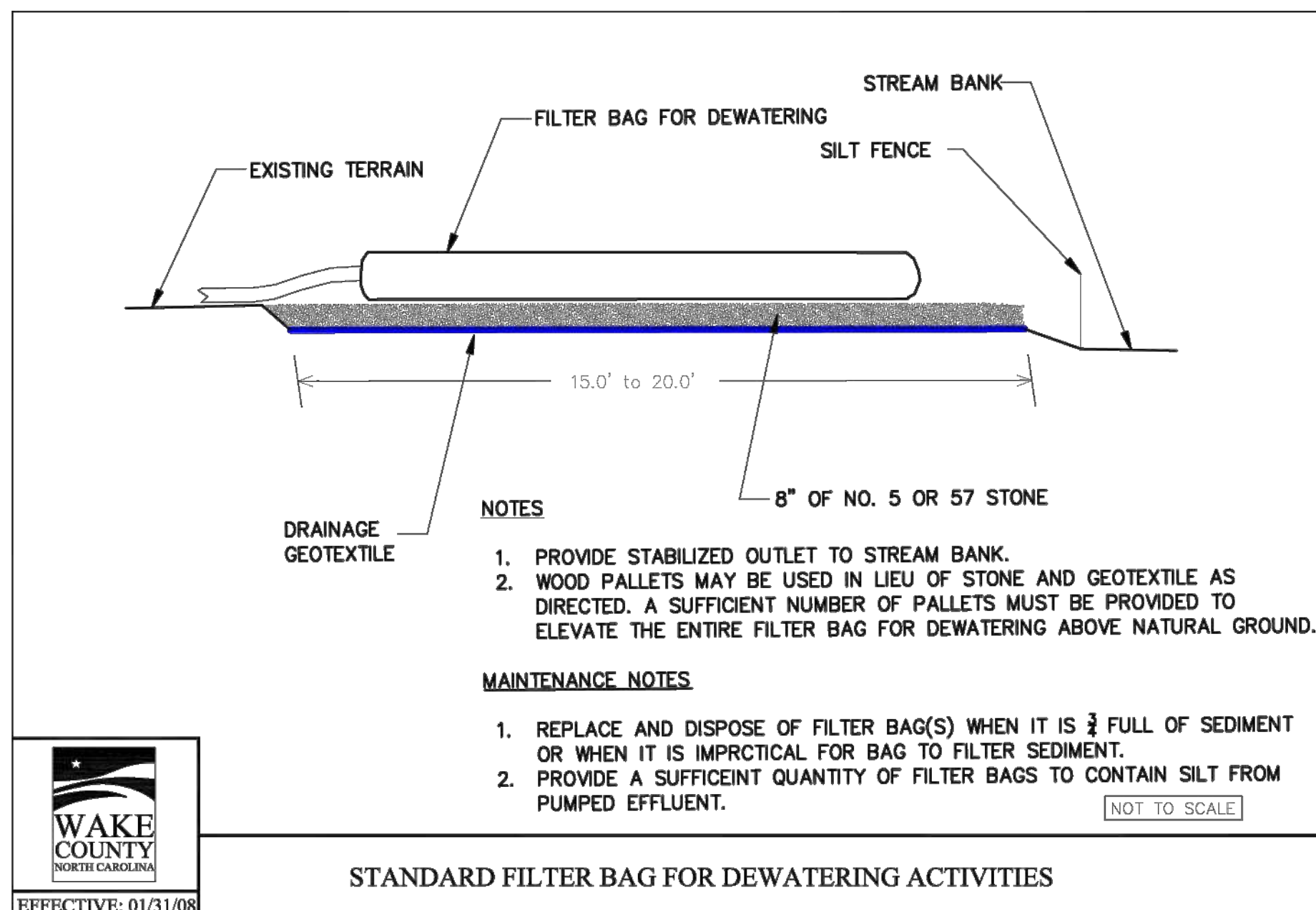
STANDARD CONSTRUCTION ENTRANCE



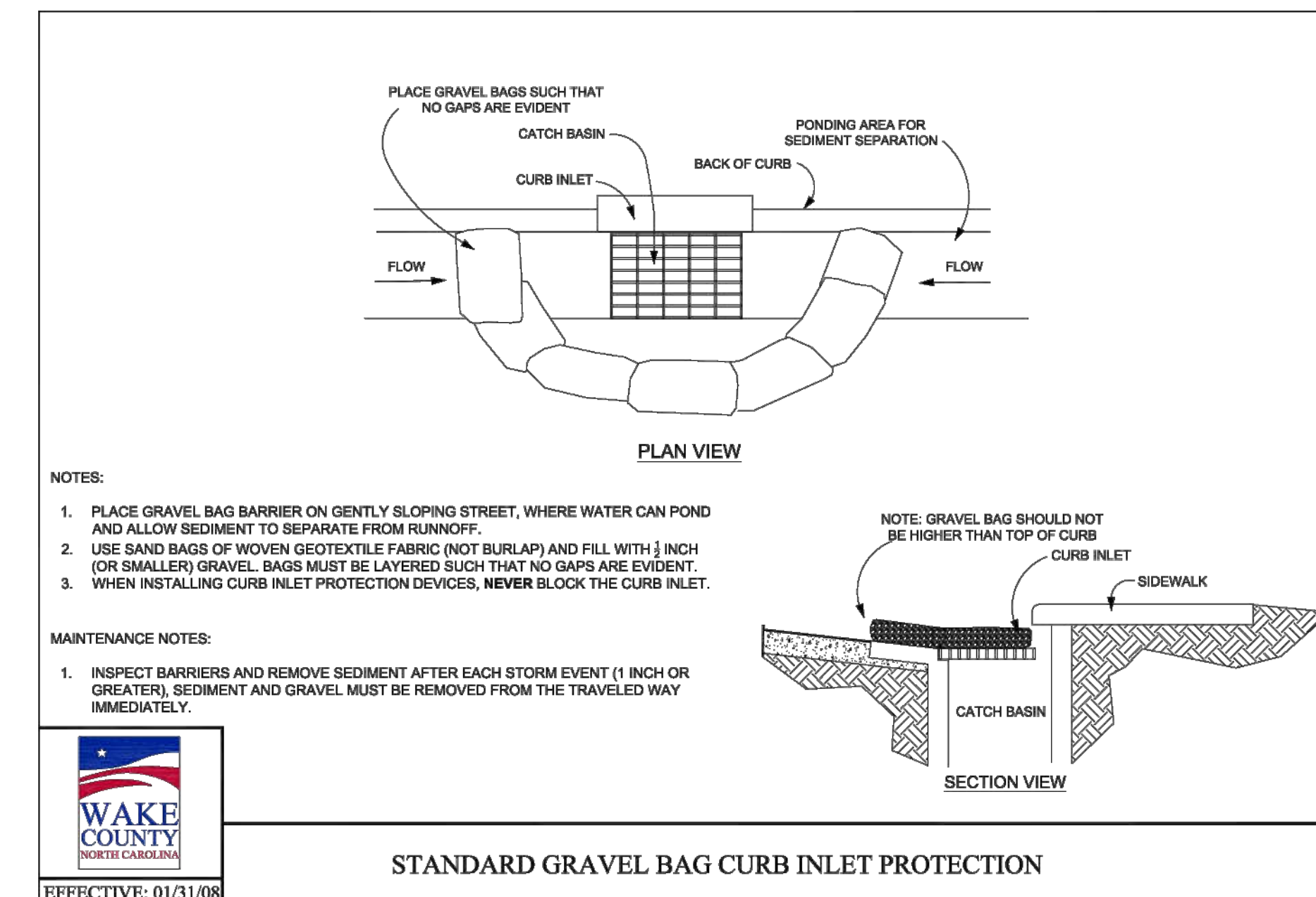
STANDARD CUSTOM BASIN



STANDARD TEMPORARY DIVERSION DITCH

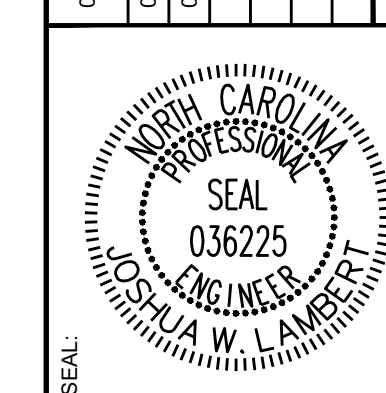


STANDARD FILTER BAG FOR DEWATERING ACTIVITIES



STANDARD GRAVEL BAG CURB INLET PROTECTION

NO.	DATE	REVISIONS
01	08/04/2024	CONSTRUCTION INFRASTRUCTURE DRAWINGS CID-24-04
02	11/01/2024	TOWN OF ROLESVILLE CID-24-04 V2
03	02/07/2024	TOWN OF ROLESVILLE CID-24-04 V3



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ENGINEERING GROUP

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1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

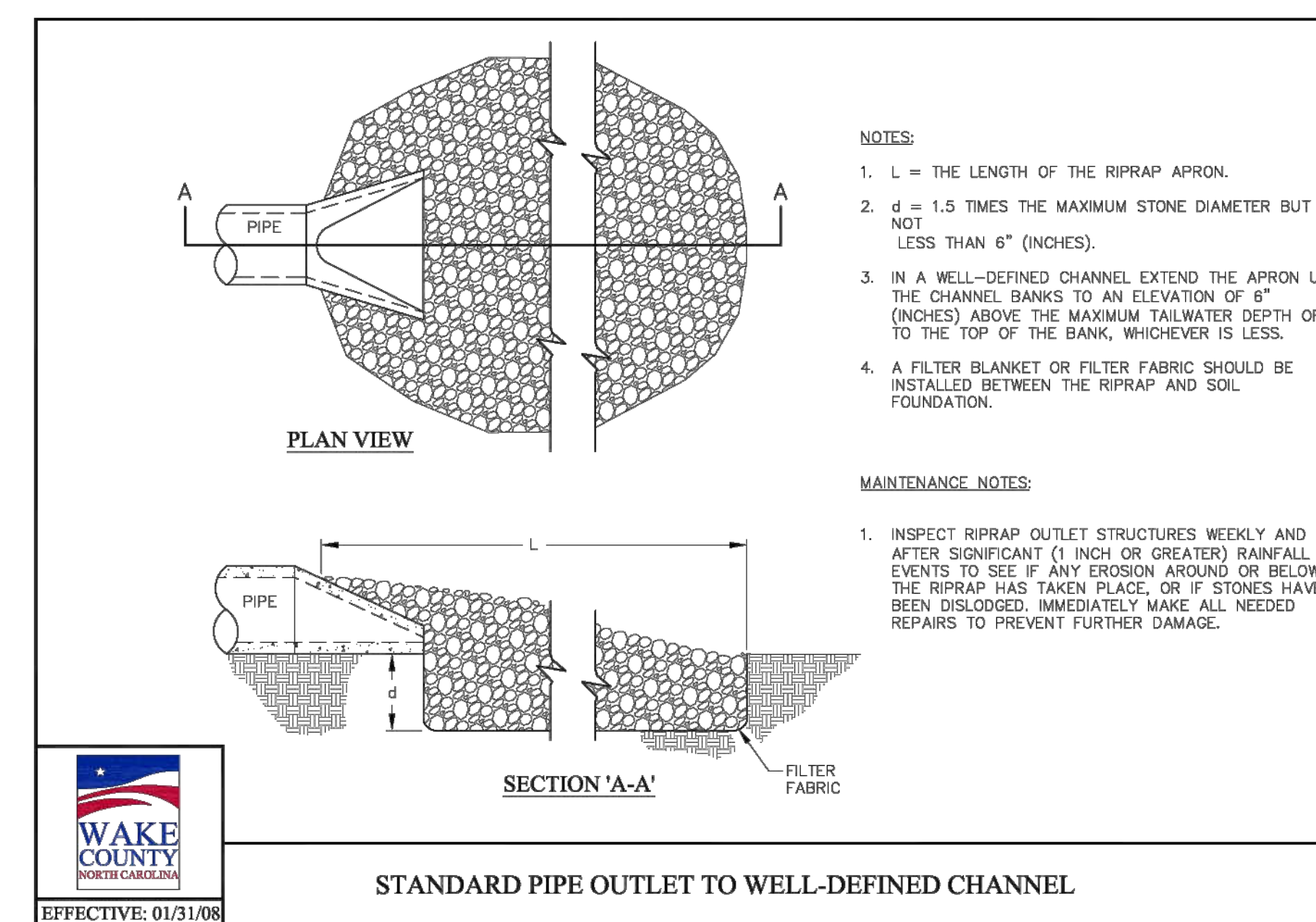
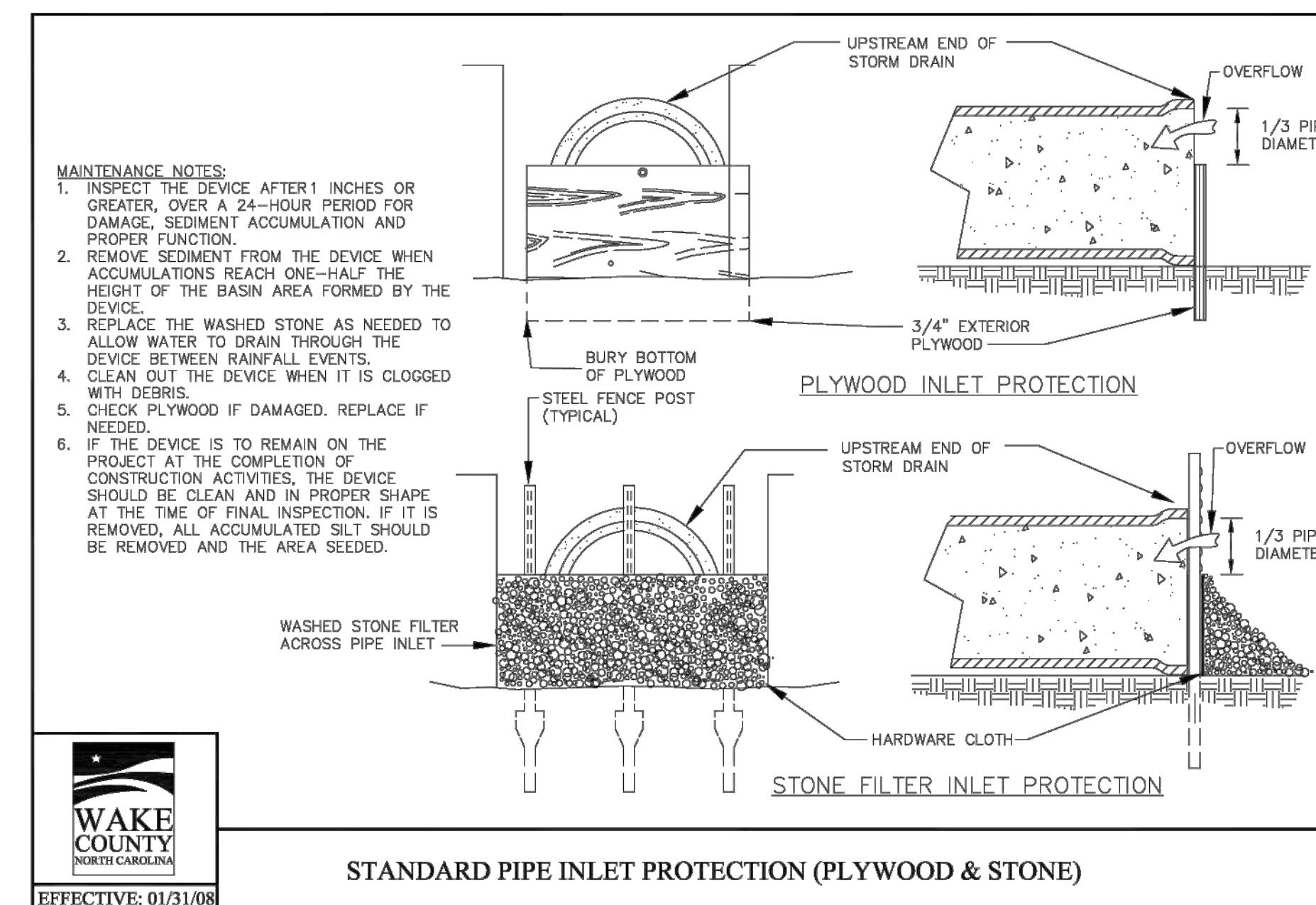
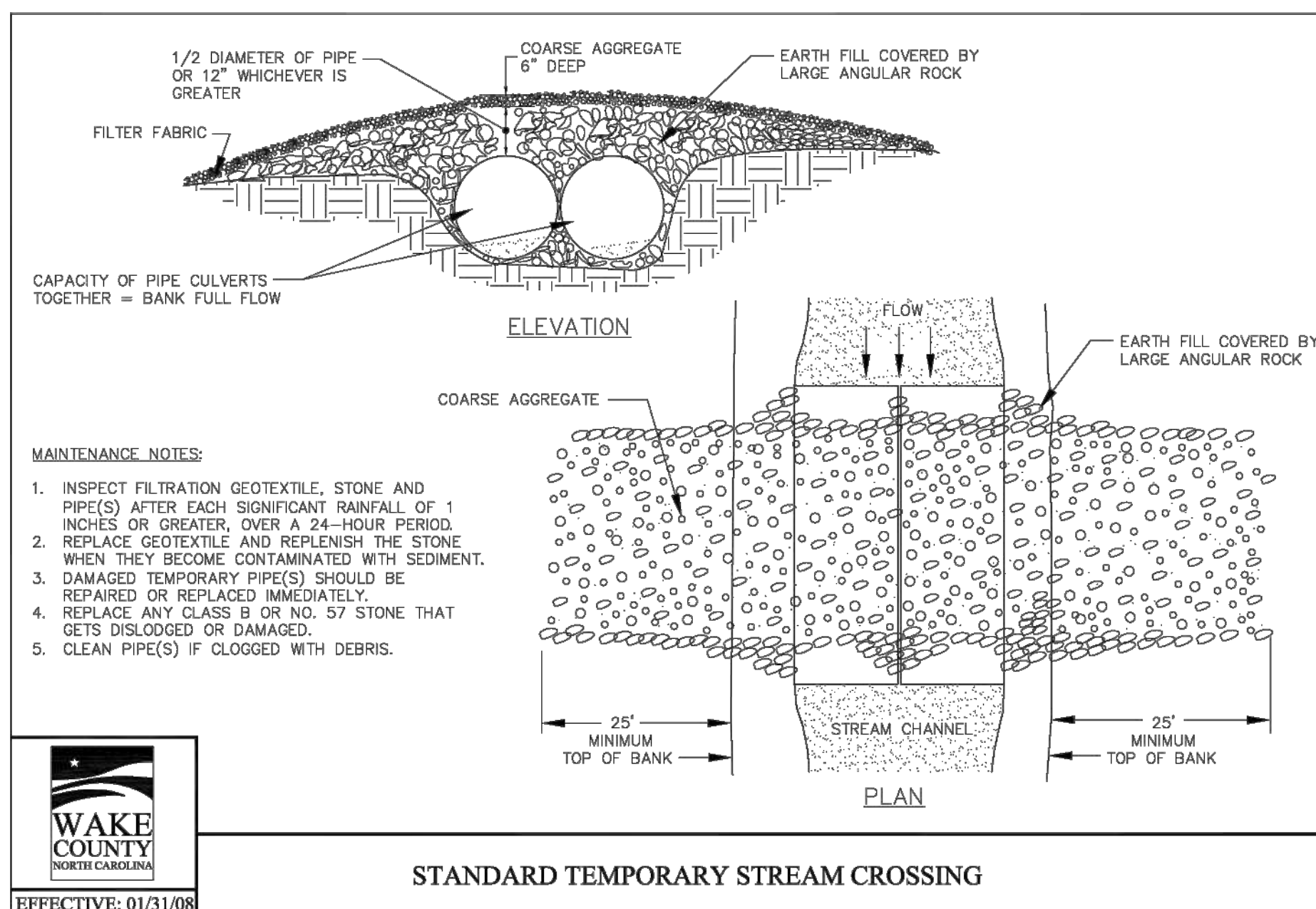
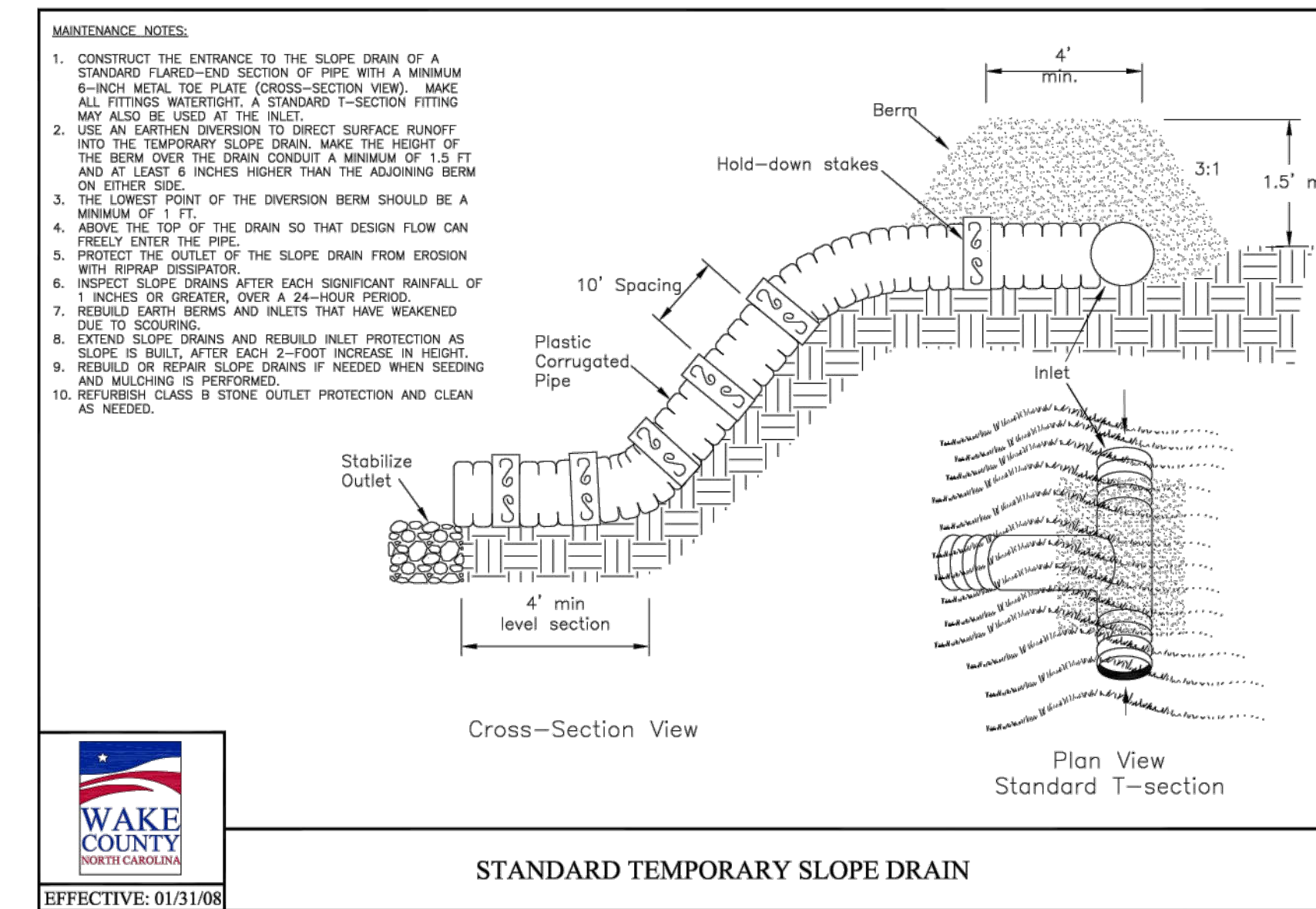
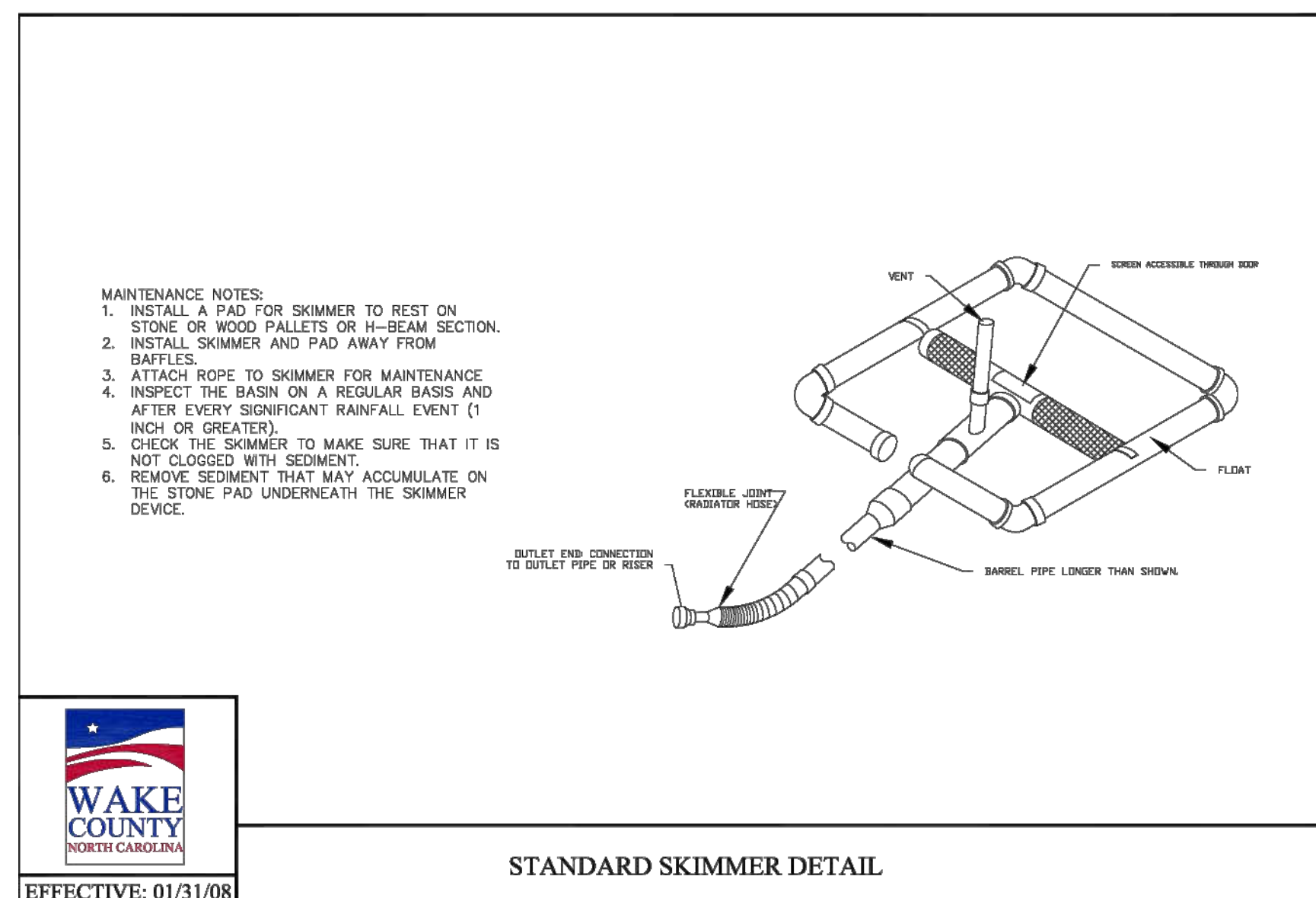
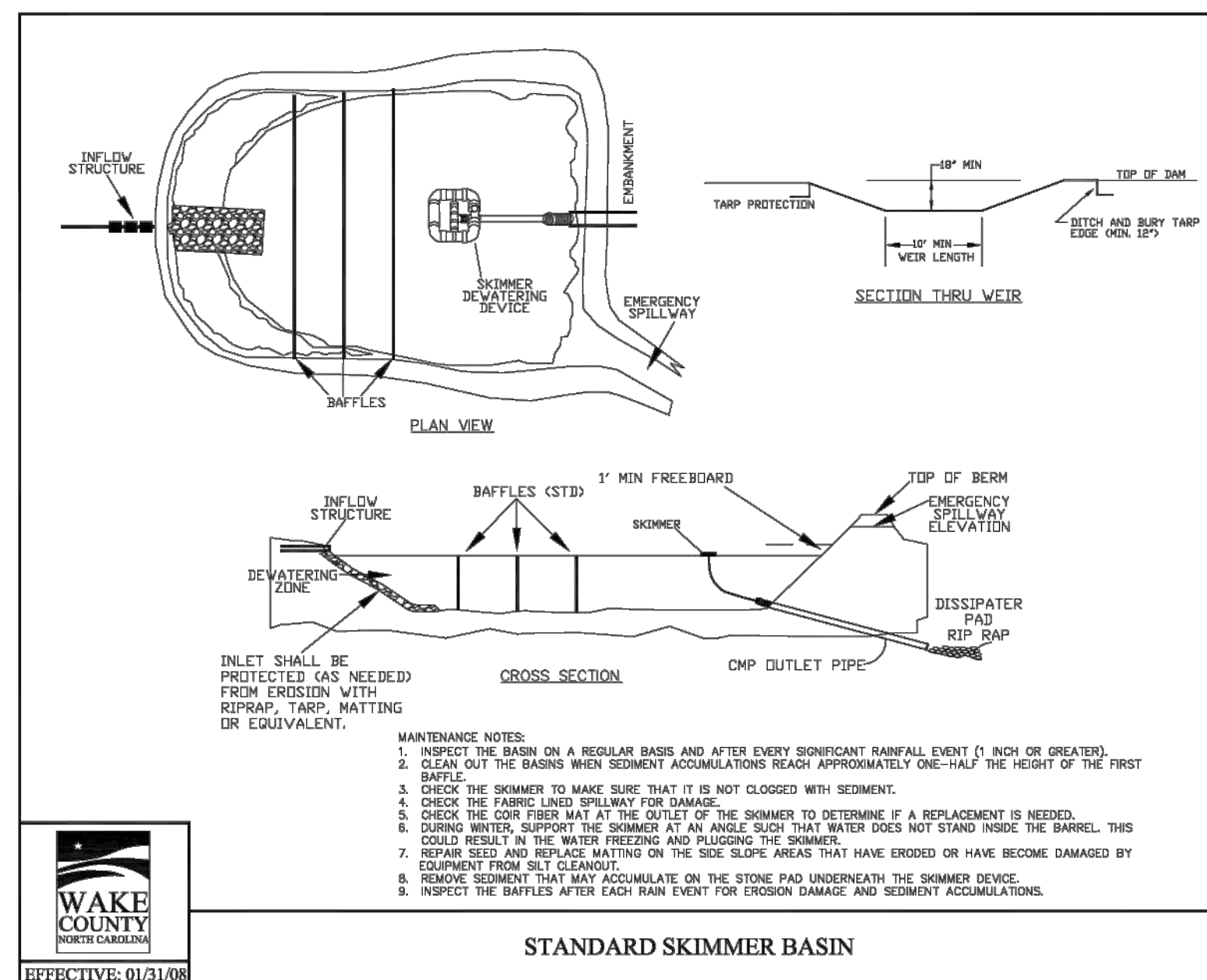
**CONSTRUCTION PLANS**

**EROSION CONTROL PLAN DETAILS**

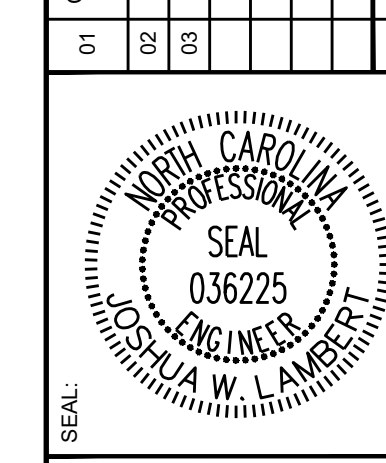
DRAWING SHEET

**D-6.1**





CONSTRUCTION INFRASTRUCTURE DRAWINGS	DATE	BY
08/04/2024		
11/07/2024		
02/07/2024		



**STRONGROCK ENGINEERING GROUP**

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
 305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
PSP-24-03	AS SHOWN	JWL	SRG	JWL

RESERVE @ MITCHELL MILL  
 TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
**CONSTRUCTION PLANS**  
**EROSION CONTROL PLAN DETAILS**

DRAWING SHEET  
**D-6.2**

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

Channel Slope (%)	Space Between Silt Socks/Wattles (Feet)
1	100
2	50
3	33
4	25
5	20

**NOTES:**

- Other materials providing equivalent protection against erosive velocities may be substituted for use in silt socks or wattles.
- Use a minimum 12 inch diameter silt sock/wattle.
- Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
- Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
- Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
- Install a minimum of two upslope stakes and four downslope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch.
- The use of Polyacrylamide (PAM) is recommended. Apply 2-3 ounces of anionic PAM on top of sock/wattle. Apply 1-2 ounces of matting on either side of sock/wattle. Reapply after each 1.0 inch rainfall.

**MAINTENANCE:**

- Inspect silt sock/wattle(s) weekly and after each rain of 1 inch or greater. Remove accumulated sediment and any debris.
- Silt sock/Wattle(s) must be replaced if clogged or torn.
- If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
- Reinstall if damaged or dislodged.
- Silt socks/Wattles shall be inspected until land disturbance is complete and the area above the measure is permanently stabilized.

**SILT SOCK / WATTLE FOR CHECK DAM**

**PLAN VIEW**

**J-HOOK DETAIL (NOT TO SCALE)**

**FILTER BAG NO SCALE**

Filter bags may be used to filter water pumped from excavations prior to discharging. Filter bags shall be made from non-woven geotextile material sewn with high strength, double stitched "J" type seams. They shall be capable of trapping particles larger than 150 microns. The pumping rate shall be no greater than 100GPM or 1/2 the maximum specified by the manufacturer, whichever is less. Pump intakes should be floating and screened. Filter bags shall be located in well-vegetated (grassy) areas and discharged onto stable, erosion resistant areas. Where this is not possible, a geotextile flow path shall be provided. Bags shall not be placed on slopes greater than 5%. The pump discharge hose shall be inserted into the filter bag in the manner specified by the manufacturer and securely clamped. A suitable means of accessing the bag with machinery required for disposal purposes must be provided. Filter bags shall be replaced when they become 1/2 full. Spare replacement bags shall be kept available for replacement of those that have failed or are 1/2 full. Filter bags shall be inspected daily. If any problem is detected, pumping shall cease immediately and not resume until the problem is corrected.

**J-HOOK MAINTENANCE:**

- Inspect J-hook installation at regular intervals per NPDES monitoring requirements.
- Replace torn silt fence fabric with new fence material.
- Bent or broken wires and T-poles shall be replaced immediately.
- Sediment accumulation higher than 1/3 of installed height of fabric shall be promptly removed.

**PLAN VIEW**

**I. SPACING REQUIREMENTS**

**II. SIZING REQUIREMENTS: J15, J25**

**J-HOOK DETAIL (NOT TO SCALE)**

J15 - For catchment Area < 0.25 Acres  
J25 - For catchment Area ≥ 0.25 Acres

Note: Spacing distances will vary, but are not to exceed 100 feet.

Note: J-hooks shall be used when the silt fence is installed at an angle of 30 degrees or greater from parallel to the contours.

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10 feet or less in length and are not steeper than 2:1, 14 days are allowed. -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(d) Slopes 3:1 to 4:1	14	-7 days for perimeter dikes, swales, ditches perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers.</li> <li>Hydroseeding</li> <li>Rolled erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Rolled erosion control products with grass seed</li> </ul>

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

**EQUIPMENT AND VEHICLE MAINTENANCE**

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

**LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

**PORTABLE TOILETS**

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

**EARTHEN STOCKPILE MANAGEMENT**

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

**HAZARDOUS AND TOXIC WASTE**

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

**ON-SITE CONCRETE WASHOUT STRUCTURE WITH LINER**

SECTION A-A and SECTION B-B diagrams showing washout structure details.

**CONCRETE WASHOUTS**

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spill or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

**HERBICIDES, PESTICIDES AND RODENTICIDES**

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

**ROLLED EROSION CONTROL PRODUCT INSTALLATION DETAIL**

REVISOR: 1/2/2020

**SECTION A-A**

**SECTION B-B**

**CONCRETE WASHOUTS**

**MATting IN DITCHES**

**MATting ON SLOPES**

**DIAGRAM A**

**DIAGRAM B**

**DIAGRAM C**

**Staple Check Pattern**

**A-10**

CONSTRUCTION INFRASTRUCTURE DRAWINGS  
CID-24-04

01 02 03

08/04/2024  
11/07/2024  
02/07/2024

TOWN OF ROLESVILLE CID-24-04 V2  
TOWN OF ROLESVILLE CID-24-04 V3

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER 036225 JUSTIN W. LAMBERT

**STRONGROCK ENGINEERING GROUP**

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166  
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT PSP-24-03 NOT FOR CONSTRUCTION SCALE AS SHOWN DESIGNED BY JWL DRAWN BY SRG CHECKED BY JWL

RESERVE @ MITCHELL MILL TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA CONSTRUCTION PLANS

**EROSION CONTROL PLAN DETAILS**

DRAWING SHEET D-6.3

200 OF 201



**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**

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**GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and fasteners</li> <li>Hydroseeding</li> <li>Refrill erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and fasteners</li> <li>Refrill erosion control products with permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Refrill erosion control products with grass seed</li> </ul>

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- On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

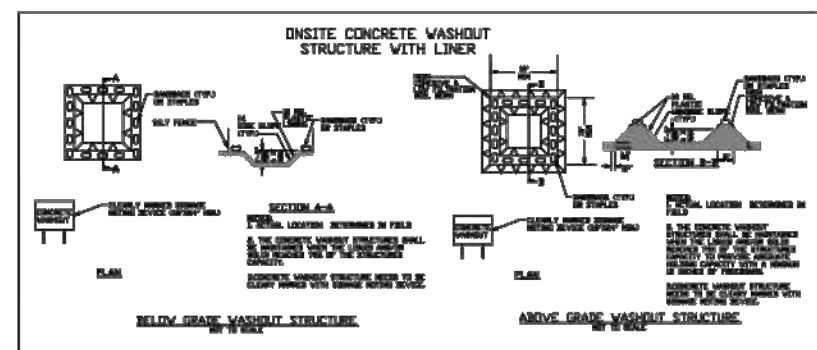
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**HERBICIDES, PESTICIDES AND RODENTICIDES**

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

**HAZARDOUS AND TOXIC WASTE**

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

**SEEDING SPECIFICATIONS:**

- SEEDBED PREPARATION:**
- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
  - RIP THE ENTIRE AREA TO SIX INCHES DEEP.
  - REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
  - APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL. (SEE MIXTURE BELOW).
  - CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
  - SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
  - MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
  - INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, REESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
  - CONSULT WAKE COUNTY SOIL & WATER OR NC STATE COOPERATIVE EXTENSION ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

**MIXTURE:**

AGRICULTURAL LIMESTONE	2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER	1,000 LBS/ACRE - 10-10-10
SUPERPHOSPHATE	500 LBS/ACRE - 20% ANALYSIS
MULCH	2 TONS/ACRE - SMALL GRAIN STRAW
ANCHOR	ASPHALT EMULSION AT 400 GALS/ACRE

**SEEDING SCHEDULE:**

FOR SHOULDERS, SIDE DITCHES. SLOPES (MAX 3:1):

DATE	TYPE	PLANTING RATE
AUG 15-NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1-MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS/ACRE
MAR 1-APR 15	TALL FESCUE	300 LBS/ACRE
APR 15-JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1-AUG 15	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	125 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)

FOR SHOULDERS, SIDE DITCHES. SLOPES (MAX 3:1 TO 2:1):

DATE	TYPE	PLANTING RATE
MAR 1-JUN 1	SERICEA LESPEDEZA (SCARIFIED) AND USE THE FOLLOWING COMBINATIONS:	50 LBS/ACRE (SERICEA LESPEDEZA);
MAR 1-APR 15	ADD TALL FESCUE	120 LBS/ACRE
MAR 1-JUN 30	OR ADD WEEPING LOVE GRASS	10 LBS/ACRE
MAR 1-JUN 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1-SEPT 1	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	120 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)
SEPT 1-MAR 1	SERICEA LESPEDEZA (UNHULLED -UNSCARIFIED) AND TALL FESCUE	70 LBS/ACRE (SERICEA LESPEDEZA); 120 LBS/ACRE (TALL FESCUE)
NOV 1-MAR 1	AND ABRUZZI RYE	25 LBS/ACRE

CONSULT WAKE COUNTY SOIL & WATER CONSERVATION DISTRICT OR NC STATE COOPERATIVE EXTENSION FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

\*\*\* TEMPORARY RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING; OTHERWISE, FESCUE MAY BE SHADED OUT.

**WAKE COUNTY Environmental Services**

Sedimentation & Erosion Control  
336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602

TEL: 919.856.7400  
FAX: 919.743.4772

Effective September 1, 2008  
Soil stockpiles shall be located on the approved plan and shall adhere to the following requirements:

- Design Criteria**
- A 25-foot temporary maintenance and access easement shall be shown around all proposed stockpiles (erosion control measures surrounding the stockpile shall be shown at the outer limit of this easement).
  - Stockpile footprints shall be setback a minimum of 25' from adjacent property lines.
  - A note shall be provided on the approved plan that stockpile height shall not exceed 35 feet.
  - Stockpile slopes shall be 2:1 or flatter.
  - Approved BMPs shall be shown on a plan to control any potential sediment loss from a stockpile.
  - Stockpiling materials adjacent to a ditch, drainageway, watercourse, wetland, stream buffer, or other body of water shall be avoided unless an alternative location is demonstrated to be unavailable.
  - Any concentrated flow likely to affect the stockpile shall be diverted to an approved BMP.
  - Off-site spoil or borrow areas must be in compliance with Wake County UDO and State Regulations. All spoil areas over an acre are required to have an approved sediment control plan. Developer/Contractor shall notify Wake County of any offsite disposal of soil, prior to disposal. Fill of FEMA Floodways and Non-encroachment Areas are prohibited except as otherwise provided by subsection 14-19-2 of the Wake County Unified Development Ordinance (certifications and permits required).

- Maintenance Requirements to be Noted on the Plan**
- Seeding or covering stockpiles with tarps or mulch is required and will reduce erosion problems. Tarps should be keyed in at the top of the slope to keep water from running underneath the plastic.
  - If a stockpile is to remain for future use after the project is complete (builders, etc.), the financial responsible party must notify Wake County of a new responsible party for that stockpile.
  - The approved plan shall provide for the use of staged seeding and mulching on a continual basis while the stockpile is in use.
1. Establish and maintain a vegetative buffer at the toe of the slope (where practical).

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspection	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts.
(2) EESC Measures	At least once per 7 calendar days and within 24 hours of rain event 2.0 inch in 24 hours	1. Identification of the measures inspected, date and time of the inspection. 2. Name of person performing the inspection. 3. Description of maintenance needs for the measure. 4. Description, address, and date of corrective action taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event 2.0 inch in 24 hours	1. Identification of the discharge outfall inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration. 5. Identification of visible sediment leaving the site. 6. Description, address, and date of corrective action taken.
(4) Retention of site	At least once per 7 calendar days and within 24 hours of a rain event 2.0 inch in 24 hours	1. Address retention to show up or stabilize the sediment that has left the site limits. 2. Address retention, evidence, and date of corrective actions taken, and 3. An evaluation as to the actions taken to control future violations.
(5) Streams or wetlands outside of off-site (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event 2.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream or wetland outside the limits of the construction activity, there is a record of the following shall be made: 1. Description, address, and date of corrective action taken, and 2. Receipts of the required reports to the appropriate Division (Regulated Discharge per Part III, Section C, Item 2)(c) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter EESC measures, installation of drainage facilities, completion of all land-disturbing activities, and/or site preparation, permanent ground cover). 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of erosion control measures that have been provided within the required timeframes or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION B: RECORDKEEPING**

1. EESC Plan Documentation  
The approved EESC plan as well as any approved deviation shall be kept on the site. The approved EESC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the EESC plan shall be kept on site and available for inspection at all times during normal business hours:

Item to Document	Documentation Requirements
(a) Each EESC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved EESC plan.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(b) A phase of grading has been completed.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(c) Ground cover is located and installed in accordance with the approved EESC plan.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all EESC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to EESC measures.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site  
In addition to the EESC plan documents above, the following items shall be kept on the site and available for inspection at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practicable:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- Documentation to be Retained for Three Years  
All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION C: REPORTING**

1. Occurrences that Must be Reported  
Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more.
  - They are less than 25 gallons but cannot be cleaned up within 24 hours.
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 113.0.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements  
After a permittee becomes aware of an occurrence that must be reported, he/she shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per item 1)(b)(5) above	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> <li>A report or least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quantity and effect of the bypass.</li> <li>Within 24 hours, an oral or electronic notification.</li> </ul>
(c) Unanticipated bypasses [40 CFR 122.41(e)(3)]	<ul style="list-style-type: none"> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(f)(6).</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

**PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The EESC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the EESC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item 2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

**PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

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- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item 2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
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**STRONGROCK ENGINEERING GROUP**

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RESERVE @ MITCHELL MILL  
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA  
CONSTRUCTION PLANS  
EROSION CONTROL PLAN DETAILS

DRAWING SHEET  
D-6.4  
2021 OF 201

01 02 03  
CONSTRUCTION INFRASTRUCTURE DRAWINGS  
CID-24-04  
TOWN OF ROLESVILLE CID-24-04 V2  
TOWN OF ROLESVILLE CID-24-04 V3

08/04/2024  
11/07/2024  
02/07/2024

DATE

BY

NO.

REVISIONS

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 036225 W.L. LAIBERTI