

NOW OR FORMERLY
BASS
BOOK 4946 PAGE 1527
ZONING - R-5

NOW OR FORMERLY
CITY OF WILMINGTON
BOOK 606 PAGE 11
ZONING - CB

NOW OR FORMERLY
BASS
BOOK 2553 PAGE 757
ZONING - R-5

NOW OR FORMERLY
BASS
BOOK 5450 PAGE 22
ZONING - R-5

NOW OR FORMERLY
CITY OF WILMINGTON
BOOK 606 PAGE 11
ZONING - CB

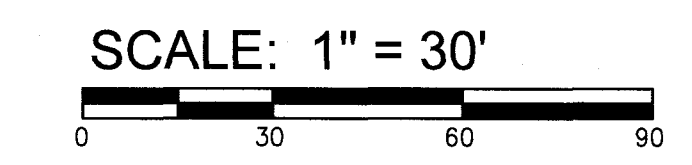
NOW OR FORMERLY
DAVENPORT
BOOK 2024 PAGE 600
ZONING - CB

NOW OR FORMERLY
BATSON
BOOK 1514 PAGE 64.3
ZONING - CB

LEGEND

EIP	EXISTING IRON PIPE
EIR	EXISTING IRON REBAR
SS	SANITARY SEWER
O	OAK
P	PINE
M	MAGNOLIA
S	SYCAMORE
MP	MAPLE
PP	POWER POLE
LP	LIGHT POLE
—OP—	OVERHEAD POWER
---	PROPERTY LINE
---	EXISTING STORM DRAIN
—	EXISTING CONCRETE

NOTES:
1) SURVEY PROVIDED BY MICHAEL UNDERWOOD & ASSOC. AND PROVIDED BY OWNER.
2) DRAINAGE SYSTEM INSTALLED ONSITE WAS INSTALLED PER PREVIOUS PROJECT. FIELD VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION.



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

EXISTING CONDITIONS PLAN
NATIONAL GUARD ARMORY
2221 CAROLINA BEACH RD
WILMINGTON, N. C. 28401

OWNER/DEVELOPER
STATE OF NORTH CAROLINA
NC NATIONAL GUARD
CONSTRUCTION & FACILITY
MANAGEMENT OFFICE
1636 GOLD STAR DR., SUITE 2600
RALEIGH, NC 27607
800-621-4136

NORRIS & TUNSTALL
CONSULTING ENGINEERS P.C.
2602 IRON GATE DR., SUITE 102
WILMINGTON, NC 28412
PHONE (910) 343-3653

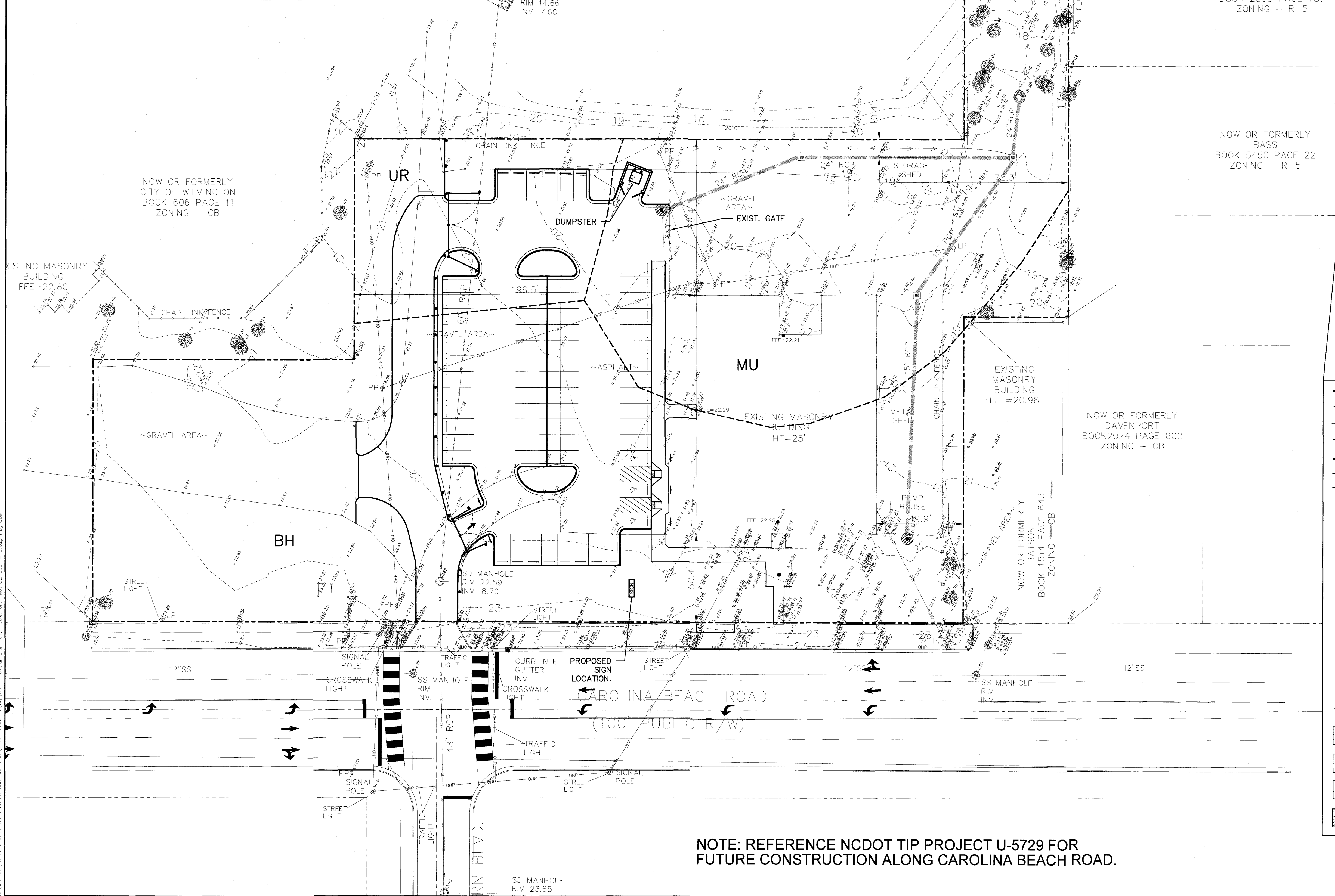
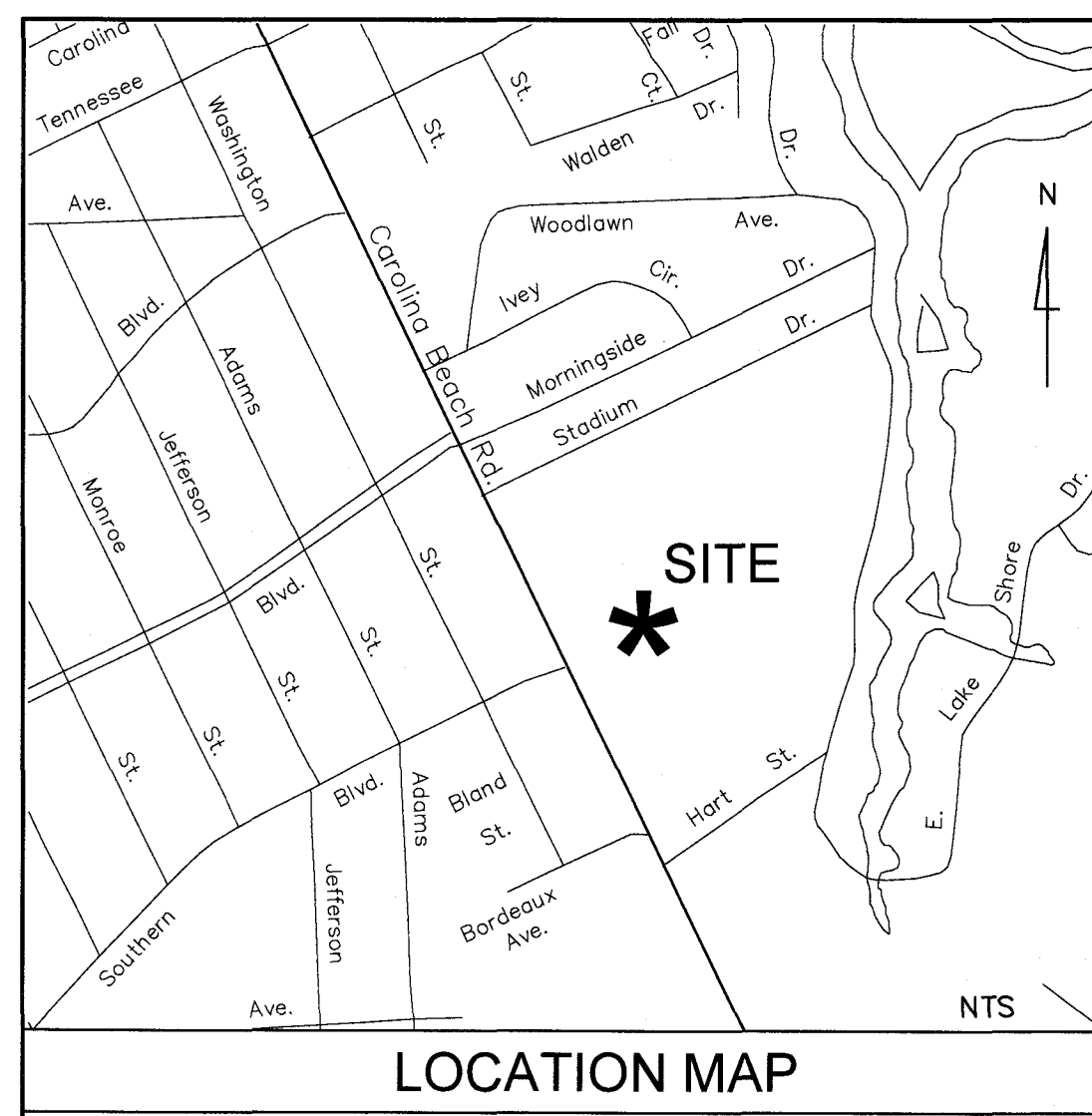
Licence #C-3641

21043

DES. JST
CHK. JPN
DRWN. DGC
DATE 11/3/21

CO

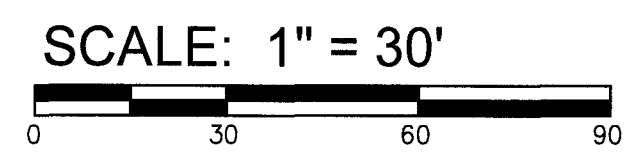
G:\projects\2018\19008 CB Rd Armory\19008 CB Rd Armory\19008 Plan\Site\19008master.dwg CD - Existing conditions Printed on: Nov 03, 2021 - 5:09pm By User



SITE DATA TABLE	
PARCEL ID#:	R06013-018-002-000
PARCEL PIN#:	312609.05.8751.000
SITE ADDRESS:	2221 CAROLINA BEACH RD
PARCEL OWNER:	STATE OF NC
PROPOSED PARCEL USE:	3.14 AC (136,765 SF)
CURRENT ZONING:	GOV.
CAMA LAND CLASSIFICATION:	084-1 URBAN
FUTURE LAND USE:	N/A
SOIL TYPE:	MU/BH/UR
BUILDING SETBACKS 0&I-1:	
FRONT SETBACK:	20'
INTERIOR SIDE SETBACK:	20'
REAR SETBACKS:	20'
PROPOSED/EXISTING SETBACKS:	
FRONT SETBACK:	50.5'
INTERIOR SIDE SETBACK:	49.9'
REAR SETBACK:	88.5'
BUILDING INFORMATION:	
TOTAL # OF BUILDINGS=	1 EXISTING
TOTAL SF OF BUILDINGS=	13,573 SF
TOTAL # OF STORIES=	1
BUILDING LOT COVERAGE PERCENTAGE=	9.92%
IMPERVIOUS AREAS EXISTING:	
BUILDING=	13,665 SF (ROOF AREA)
ASPHALT, CONCRETE, CURB & GUTTER=	17,740 SF
GRAVEL=	32,935 SF
SIDEWALK=	1,266 SF
TOTAL EXISTING IMPERVIOUS AREA=	65,606 SF
EXISTING TO REMAIN=	38,850 SF
IMPERVIOUS AREAS PROPOSED:	
BUILDING=	13,665 SF (ROOF AREA)
ASPHALT, CONCRETE, CURB & GUTTER=	30,953 SF
GRAVEL=	15,222 SF
SIDEWALK=	2,914 SF
TOTAL PROPOSED IMPERVIOUS AREA=	62,754 SF
TOTAL IMPERVIOUS AREA=	62,754 SF
% IMPERVIOUS LOT COVERAGE=	45.88%
REQUIRED PARKING: N/A	
TOTAL PARKING PROVIDED:	66
REGULAR SPACES:	63
HC SPACES:	3
TOTAL SPACES:	66
LANDSCAPING: N/A	
STREETYARD FACTOR 18' (27' MAX - 9' MIN.): N/A	
AREA OF DISTURBED LIMITS = 55,309 SF (1.27 AC.)	

PROPERTY IS NOT LOCATED WITHIN THE 100 YEAR FLOOD PLAIN BOUNDARY

LEGEND	
	PROPERTY LINE
	DISTURBED AREA LIMITS
	PROPOSED CONTOUR
	TEMPORARY SILT FENCE
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE
	PROPOSED SANITARY SEWER
	PROPOSED SPOT ELEVATION FLOW LINE
	PROPOSED SPOT ELEVATION TOP OF CURB
	PROPOSED SPOT ELEVATION FINISH GRADE
	FLARED END SECTION WITH RIP-RAP ENERGY DISSIPATOR
	DROP INLET WITH INLET PROTECTION (DI)
	CURB INLET WITH INLET PROTECTION (CI)
	JUNCTION BOX WITH INLET PROTECTION (JB)
	PROPOSED FIRE HYDRANT
	EXISTING CONTOUR
	EXISTING TREE TO BE SAVED
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING
	RESURFACE ASPHALT 4B/C5
	NEW ASPHALT 4A/C5
	HD CONCRETE 2/C5
	CONCRETE SIDEWALK



NOTE: REFERENCE NCDOT TIP PROJECT U-5729 FOR FUTURE CONSTRUCTION ALONG CAROLINA BEACH ROAD.

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

© 2020 NORRIS & TUNSTALL

OVERALL SITE PLAN
NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR., SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.

2602 IRON GATE DR., SUITE 102 1429 ASH LITTLE RIVER RD. NW
 WILMINGTON, NC 28412 WILMINGTON, NC 28430
 PHONE: (910) 343-9633 PHONE: (910) 367-5900

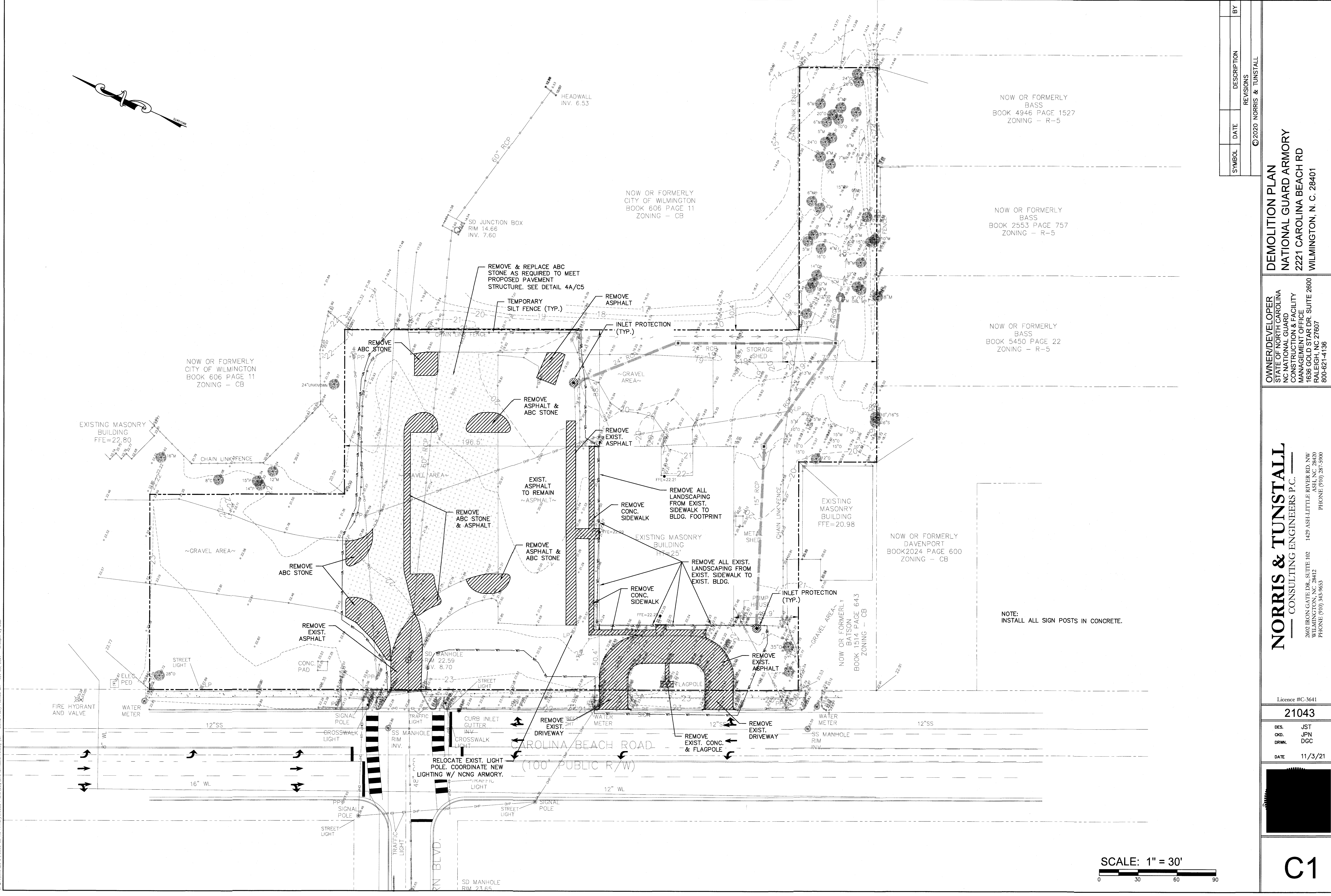
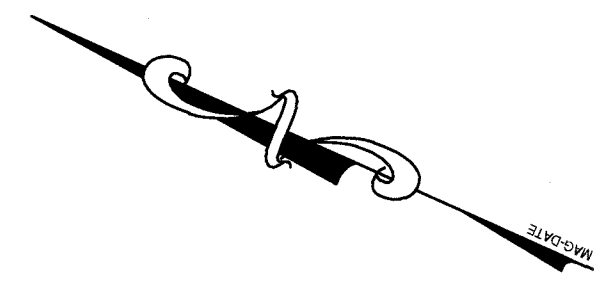
Licence #C-3641

21043

DES.	JUST
CG.	JPN
DRWN.	DCC

DATE 11/3/21

C0.1



NOW OR FORMERLY
BASS
BOOK 4946 PAGE 1527
ZONING - R-5

NOW OR FORMERLY
CITY OF WILMINGTON
BOOK 606 PAGE 11
ZONING - CB

NOW OR FORMERLY
BASS
BOOK 2553 PAGE 757
ZONING - R-5

NOW OR FORMERLY
CITY OF WILMINGTON
BOOK 606 PAGE 11
ZONING - CB

NOW OR FORMERLY
BASS
BOOK 5450 PAGE 22
ZONING - R-5

NOW OR FORMERLY
DAVENPORT
BOOK 2024 PAGE 600
ZONING - CB

NOW OR FORMERLY
BATSON
BOOK 1514 PAGE 64.3
ZONING - CB

NOTE:
INSTALL ALL SIGN POSTS IN CONCRETE.

C:\projects\2021\2021_03_02\2021_03_02_09_00am_by_siber

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
		© 2020 NORRIS & TUNSTALL	

DEMOLITION PLAN
NATIONAL GUARD ARMORY
2221 CAROLINA BEACH RD
WILMINGTON, N. C. 28401

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR. SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

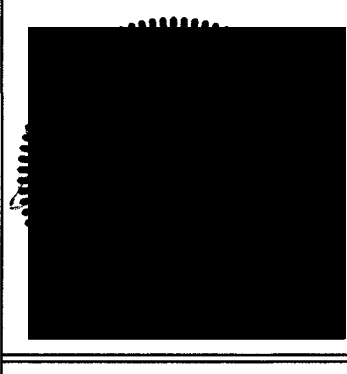
NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 2602 IRON GATE DR. SUITE 102 1429 ASHLITTLE RIVER RD. NW
 WILMINGTON, NC 28412 WILMINGTON, NC 28403
 PHONE (910) 343-9653 PHONE (910) 287-5900

Licence #C-3641

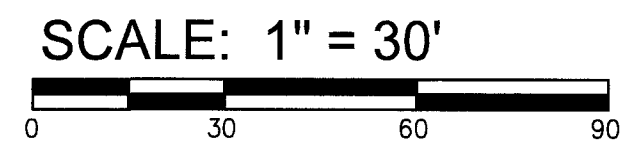
21043

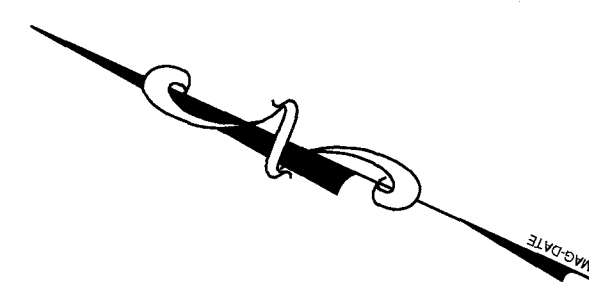
DES.	JUST
CHKD.	JPN
DRWN.	DGC

DATE 11/3/21



C1





SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

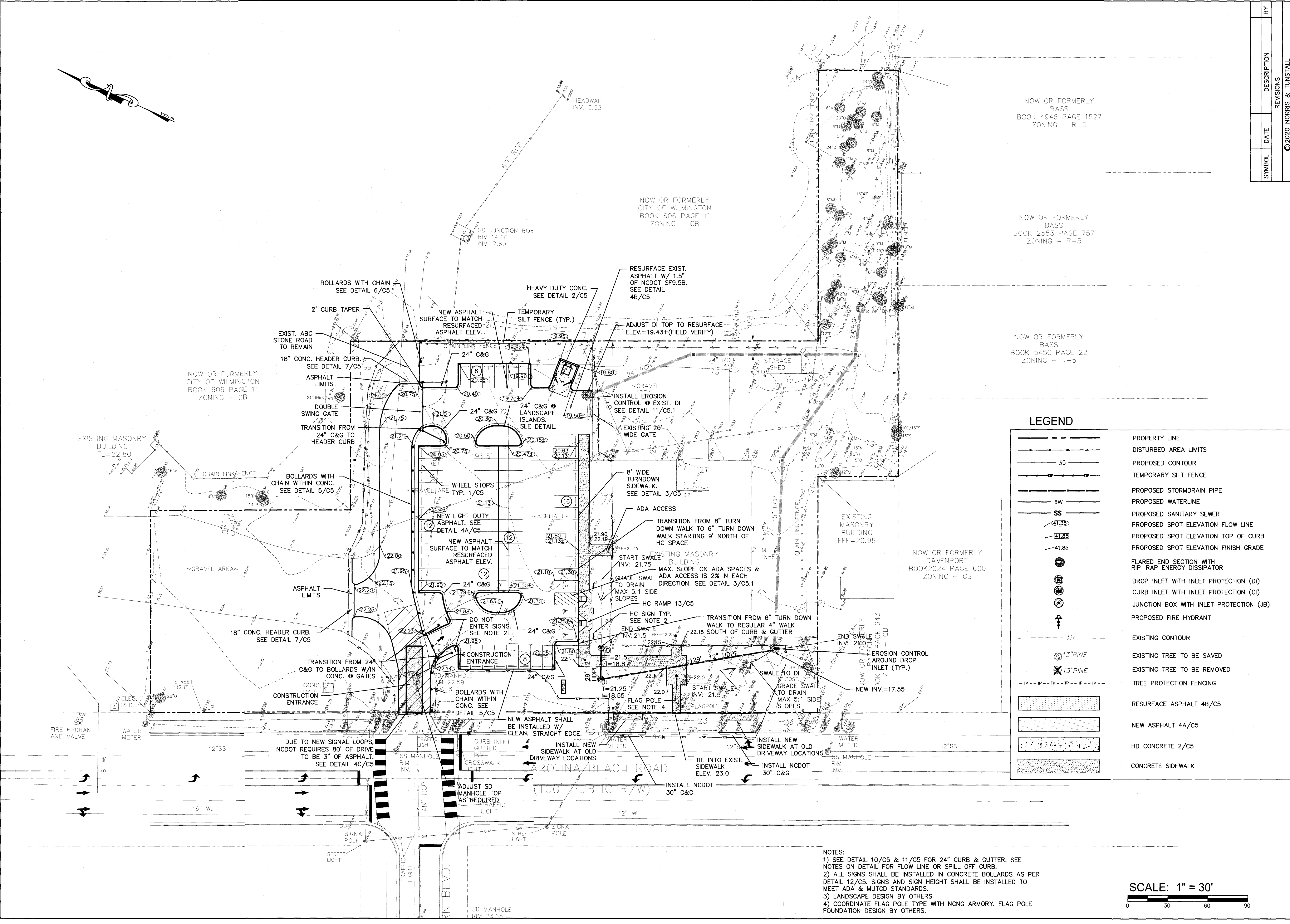
GRADING, DRAINAGE, AND EROSION CONTROL PLAN
 NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR., SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 2602 IRON GATE DR., SUITE 102 1429 ASH-LITTLE RIVER RD. NW
 WILMINGTON, NC 28412 ASH, NC 28420
 PHONE (910) 343-9653 PHONE (910) 287-5900

21043
 RES. JST
 CKD. JFN
 DRWN. DCC
 DATE 11/3/21

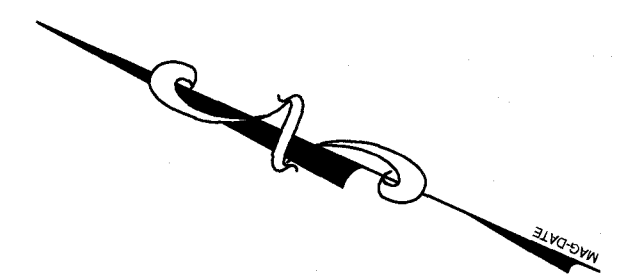
SCALE: 1" = 30'



LEGEND	
	PROPERTY LINE
	DISTURBED AREA LIMITS
	PROPOSED CONTOUR
	TEMPORARY SILT FENCE
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE
	PROPOSED SANITARY SEWER
	PROPOSED SPOT ELEVATION FLOW LINE
	PROPOSED SPOT ELEVATION TOP OF CURB
	PROPOSED SPOT ELEVATION FINISH GRADE
	FLARED END SECTION WITH RIP-RAP ENERGY DISSIPATOR
	DROP INLET WITH INLET PROTECTION (DI)
	CURB INLET WITH INLET PROTECTION (CI)
	JUNCTION BOX WITH INLET PROTECTION (JB)
	PROPOSED FIRE HYDRANT
	EXISTING CONTOUR
	EXISTING TREE TO BE SAVED
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING
	RESURFACE ASPHALT 4B/C5
	NEW ASPHALT 4A/C5
	HD CONCRETE 2/C5
	CONCRETE SIDEWALK

NOTES:
 1) SEE DETAIL 10/C5 & 11/C5 FOR 24" CURB & GUTTER. SEE NOTES ON DETAIL FOR FLOW LINE OR SPILL OFF CURB.
 2) ALL SIGNS SHALL BE INSTALLED IN CONCRETE BOLLARDS AS PER DETAIL 12/C5. SIGNS AND SIGN HEIGHT SHALL BE INSTALLED TO MEET ADA & MUTCD STANDARDS.
 3) LANDSCAPE DESIGN BY OTHERS.
 4) COORDINATE FLAG POLE TYPE WITH NCNG ARMORY. FLAG POLE FOUNDATION DESIGN BY OTHERS.

© 2021 Norris & Tunstall, Inc. All Rights Reserved. This drawing is the property of Norris & Tunstall, Inc. and is not to be reproduced without written permission.



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

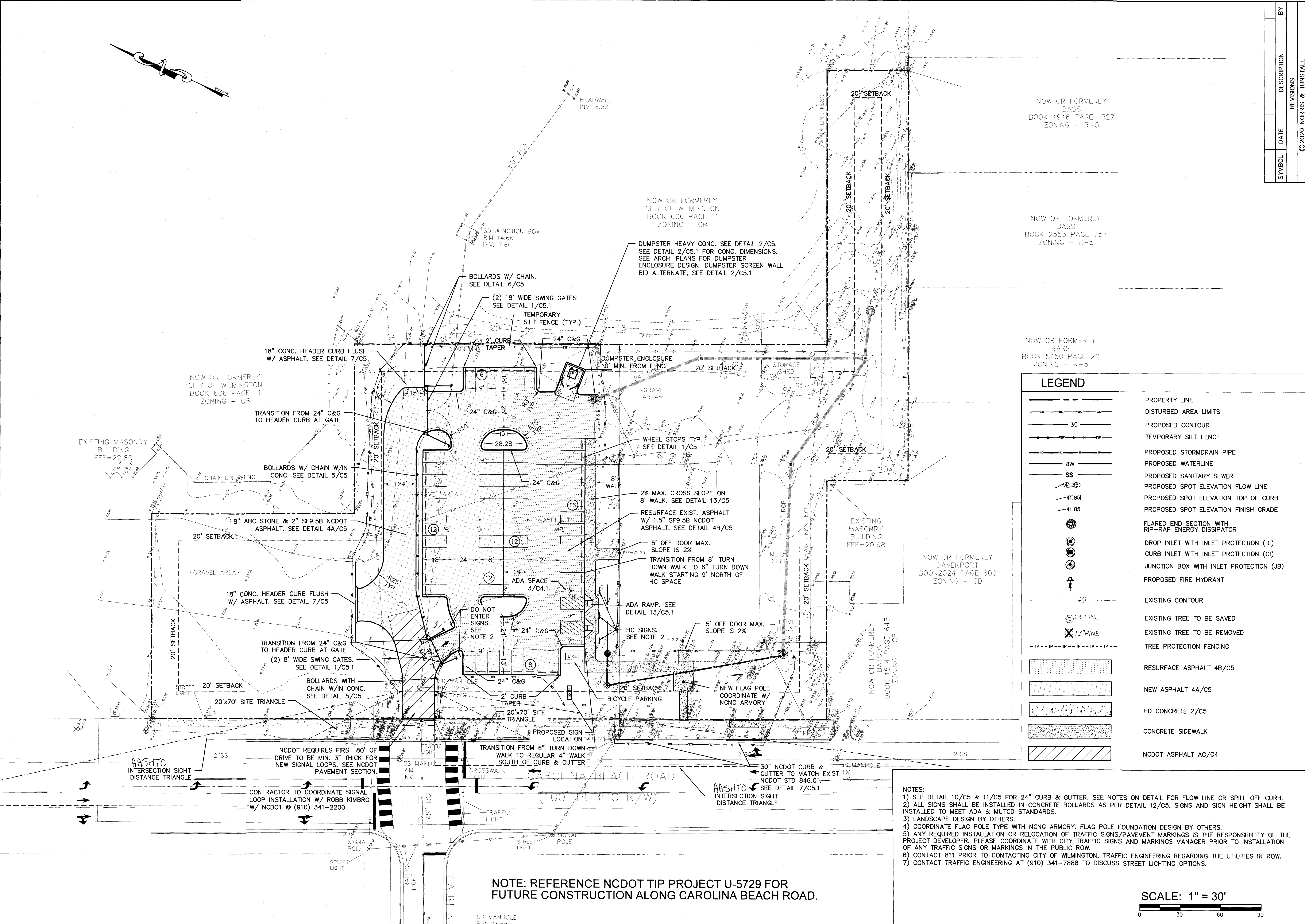
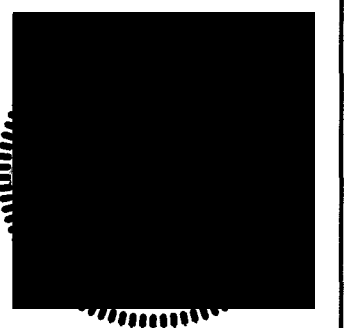
LAYOUT PLAN
NATIONAL GUARD ARMOY
2221 CAROLINA BEACH RD
WILMINGTON, N. C. 28401

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR. SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.

2602 IRON GATE DR., SUITE 102 1429 ASH-LITTLE RIVER RD. NW
 WILMINGTON, NC 28412 ASH, NC 28420
 PHONE (910) 345-9653 PHONE (910) 287-5900

Licence #C-3641
21043
 DES. JST
 CKD. JPN
 DRWN. DCC
 DATE 11/3/21



NOW OR FORMERLY
 BASS
 BOOK 4946 PAGE 1527
 ZONING - R-5

NOW OR FORMERLY
 BASS
 BOOK 2553 PAGE 757
 ZONING - R-5

NOW OR FORMERLY
 BASS
 BOOK 5450 PAGE 22
 ZONING - R-5

NOW OR FORMERLY
 DAVENPORT
 BOOK 2024 PAGE 600
 ZONING - CB

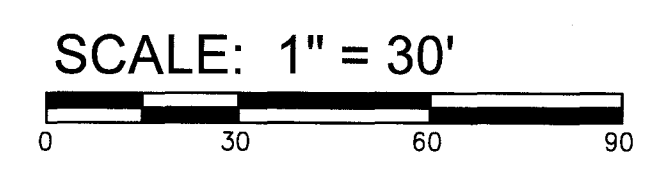
NOW OR FORMERLY
 BATSON
 BOOK 1514 PAGE 643
 ZONING - CB

LEGEND

	PROPERTY LINE
	DISTURBED AREA LIMITS
	PROPOSED CONTOUR
	TEMPORARY SILT FENCE
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE
	PROPOSED SANITARY SEWER
	PROPOSED SPOT ELEVATION FLOW LINE
	PROPOSED SPOT ELEVATION TOP OF CURB
	PROPOSED SPOT ELEVATION FINISH GRADE
	FLARED END SECTION WITH RIP-RAP ENERGY DISSIPATOR
	DROP INLET WITH INLET PROTECTION (DI)
	CURB INLET WITH INLET PROTECTION (CI)
	JUNCTION BOX WITH INLET PROTECTION (JB)
	PROPOSED FIRE HYDRANT
	EXISTING CONTOUR
	EXISTING TREE TO BE SAVED
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING
	RESURFACE ASPHALT 4B/C5
	NEW ASPHALT 4A/C5
	HD CONCRETE 2/C5
	CONCRETE SIDEWALK
	NCDOT ASPHALT AC/C4

- NOTES:**
- 1) SEE DETAIL 10/C5 & 11/C5 FOR 24" CURB & GUTTER. SEE NOTES ON DETAIL FOR FLOW LINE OR SPILL OFF CURB.
 - 2) ALL SIGNS SHALL BE INSTALLED IN CONCRETE BOLLARDS AS PER DETAIL 12/C5. SIGNS AND SIGN HEIGHT SHALL BE INSTALLED TO MEET ADA & MUTCD STANDARDS.
 - 3) LANDSCAPE DESIGN BY OTHERS.
 - 4) COORDINATE FLAG POLE TYPE WITH NCNG ARMOY. FLAG POLE FOUNDATION DESIGN BY OTHERS.
 - 5) ANY REQUIRED INSTALLATION OR RELOCATION OF TRAFFIC SIGNS/PAVEMENT MARKINGS IS THE RESPONSIBILITY OF THE PROJECT DEVELOPER. PLEASE COORDINATE WITH CITY TRAFFIC SIGNS AND MARKINGS MANAGER PRIOR TO INSTALLATION OF ANY TRAFFIC SIGNS OR MARKINGS IN THE PUBLIC ROW.
 - 6) CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN ROW.
 - 7) CONTACT TRAFFIC ENGINEERING AT (910) 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.

NOTE: REFERENCE NCDOT TIP PROJECT U-5729 FOR FUTURE CONSTRUCTION ALONG CAROLINA BEACH ROAD.



© 2021 Norris & Tunstall, Inc. All rights reserved. This drawing is the property of Norris & Tunstall, Inc. and is not to be reproduced or used in any manner without the written consent of Norris & Tunstall, Inc.

DRAINAGE AREA / IMPERVIOUS AREA

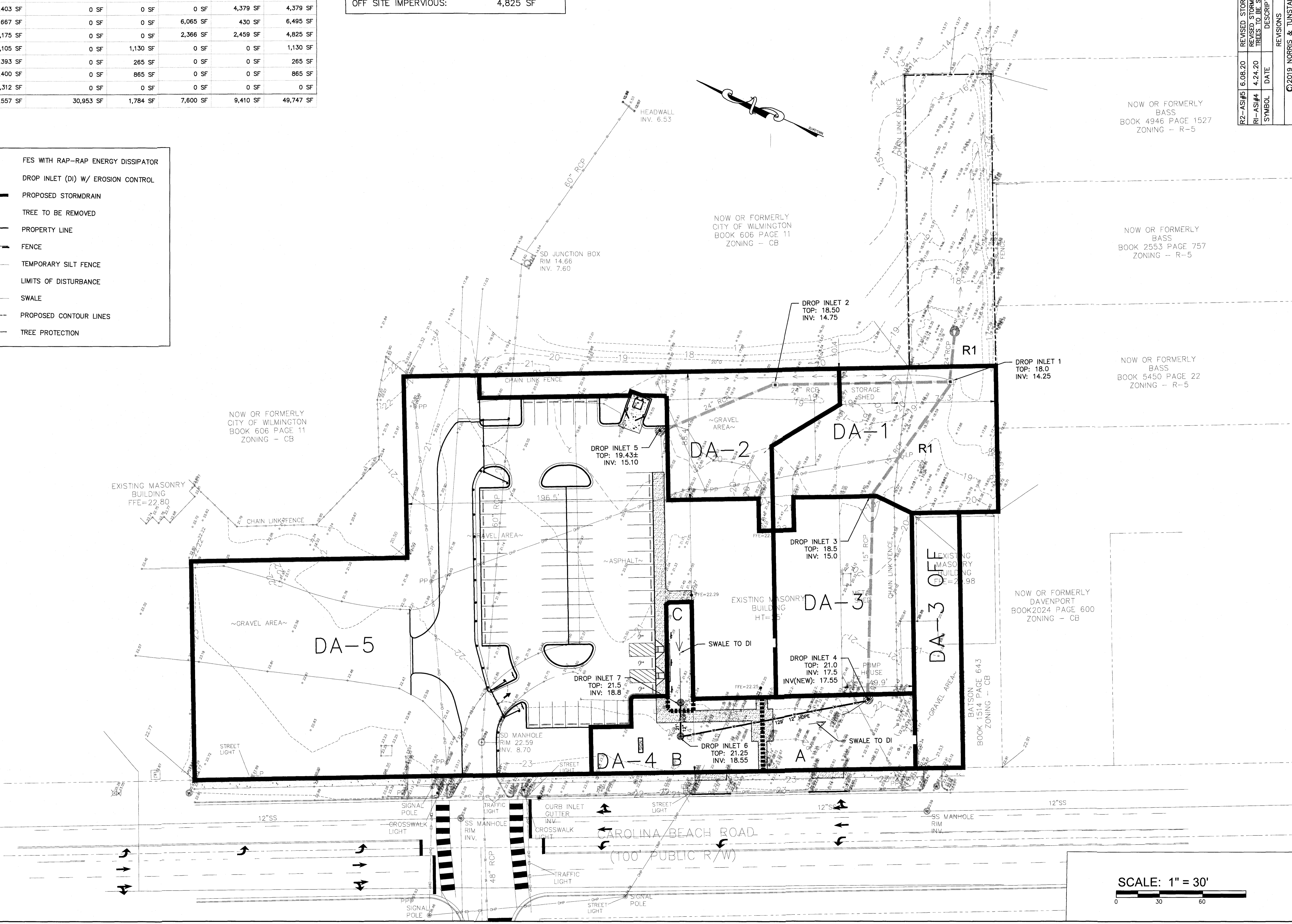
DRAINAGE AREA	TOTAL AREA	ASPHALT & C&G	CONCRETE	BUILDINGS	ABC STONE & GRAVEL	TOTAL IMP.
DA-1	13,152 SF	0 SF	0 SF	0 SF	1,003 SF	1,003 SF
DA-2	10,403 SF	0 SF	0 SF	0 SF	4,379 SF	4,379 SF
DA-3	12,667 SF	0 SF	0 SF	6,065 SF	430 SF	6,495 SF
DA-3 OFF SITE	5,175 SF	0 SF	0 SF	2,366 SF	2,459 SF	4,825 SF
DA-4 (TOTAL)	12,105 SF	0 SF	1,130 SF	0 SF	0 SF	1,130 SF
DA-4A	5,393 SF	0 SF	265 SF	0 SF	0 SF	265 SF
DA-4B	5,400 SF	0 SF	865 SF	0 SF	0 SF	865 SF
DA-4C	1,312 SF	0 SF	0 SF	0 SF	0 SF	0 SF
DA-5	76,557 SF	30,953 SF	1,784 SF	7,600 SF	9,410 SF	49,747 SF

IMPERVIOUS DATA

TOTAL IMPERVIOUS:	62,754 SF
TOTAL SITE AREA:	136,765 SF
PERCENT IMP.:	45.88%
OFF SITE IMPERVIOUS:	4,825 SF

LEGEND

	FES WITH RAP-RAP ENERGY DISSIPATOR
	DROP INLET (DI) W/ EROSION CONTROL
	PROPOSED STORM DRAIN
	TREE TO BE REMOVED
	PROPERTY LINE
	FENCE
	TEMPORARY SILT FENCE
	LIMITS OF DISTURBANCE
	SWALE
	PROPOSED CONTOUR LINES
	TREE PROTECTION



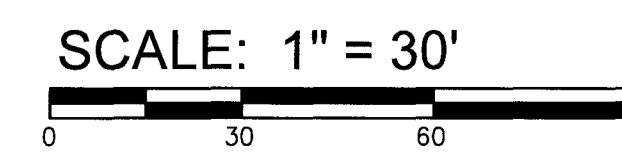
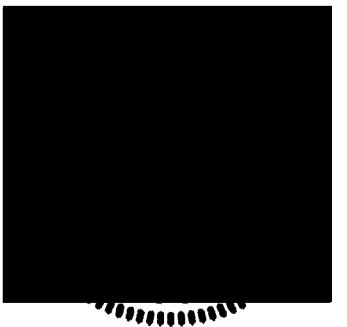
R2-ASI#5	6.08.20	REVISED STORM DRAINAGE
R1-ASI#4	4.24.20	REVISED STORM PIPES ADDED TREES TO BE SAVED
SYMBOL	DATE	DESCRIPTION
		REVISIONS
		BY

DRAINAGE AREAS
NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR, SUITE 2800
 RALEIGH, NC 27607
 800-621-4136

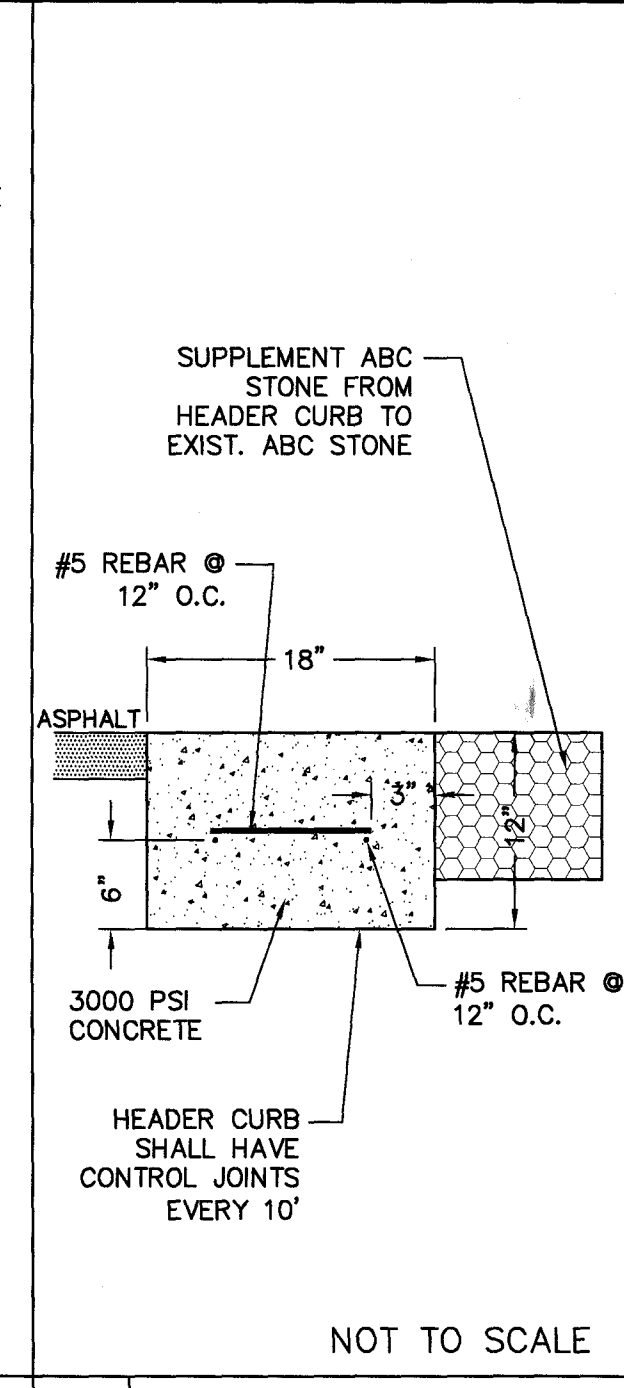
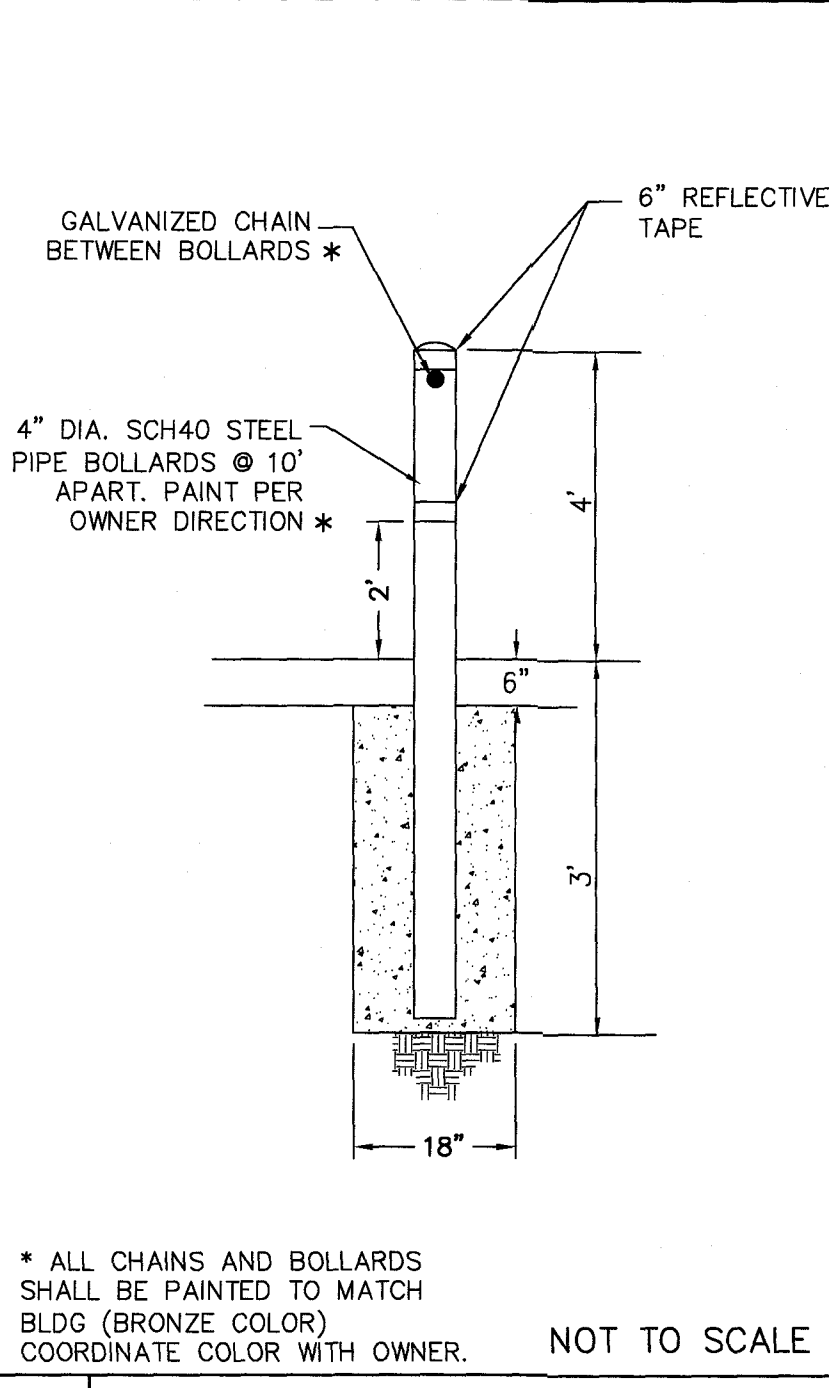
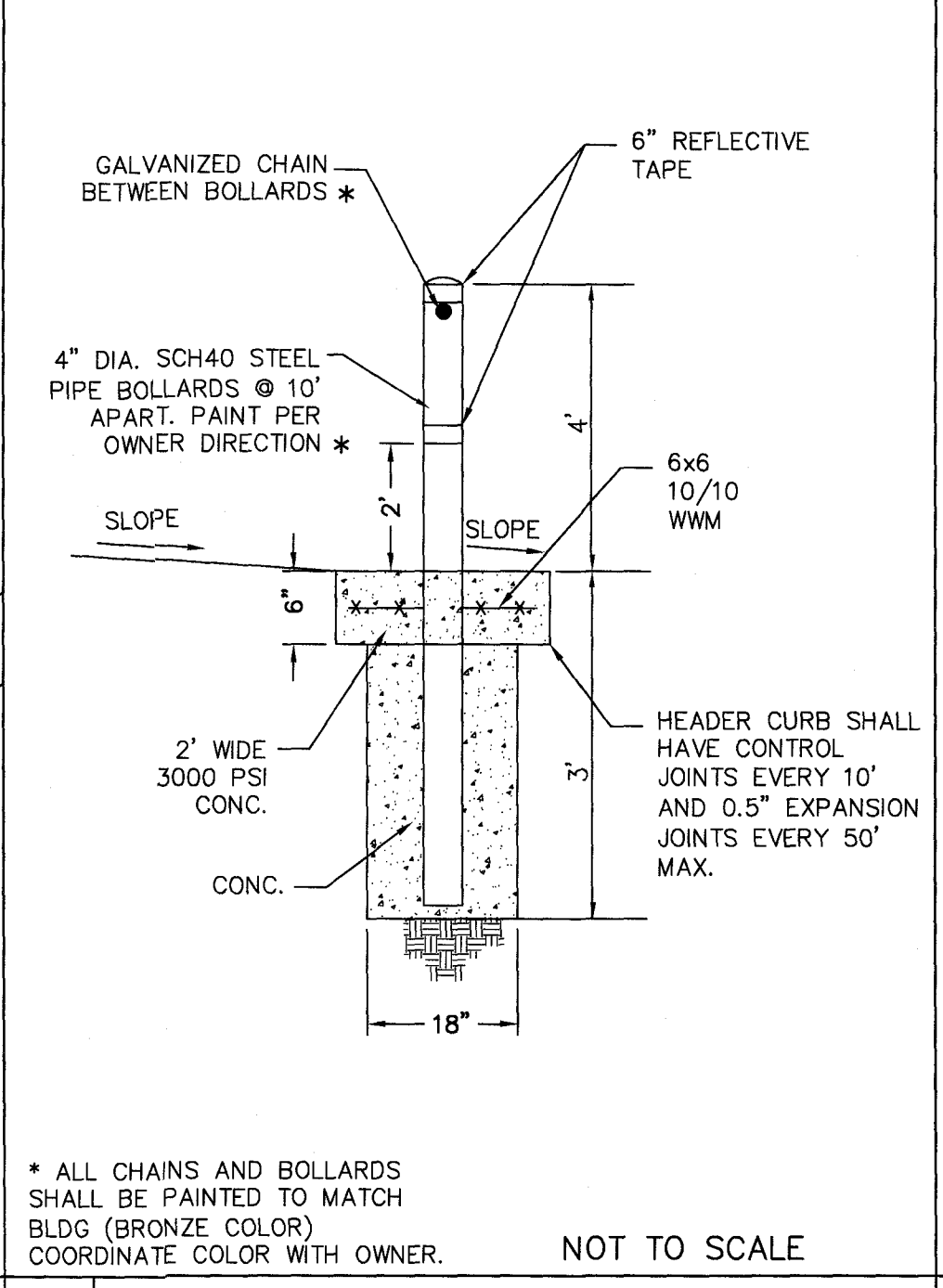
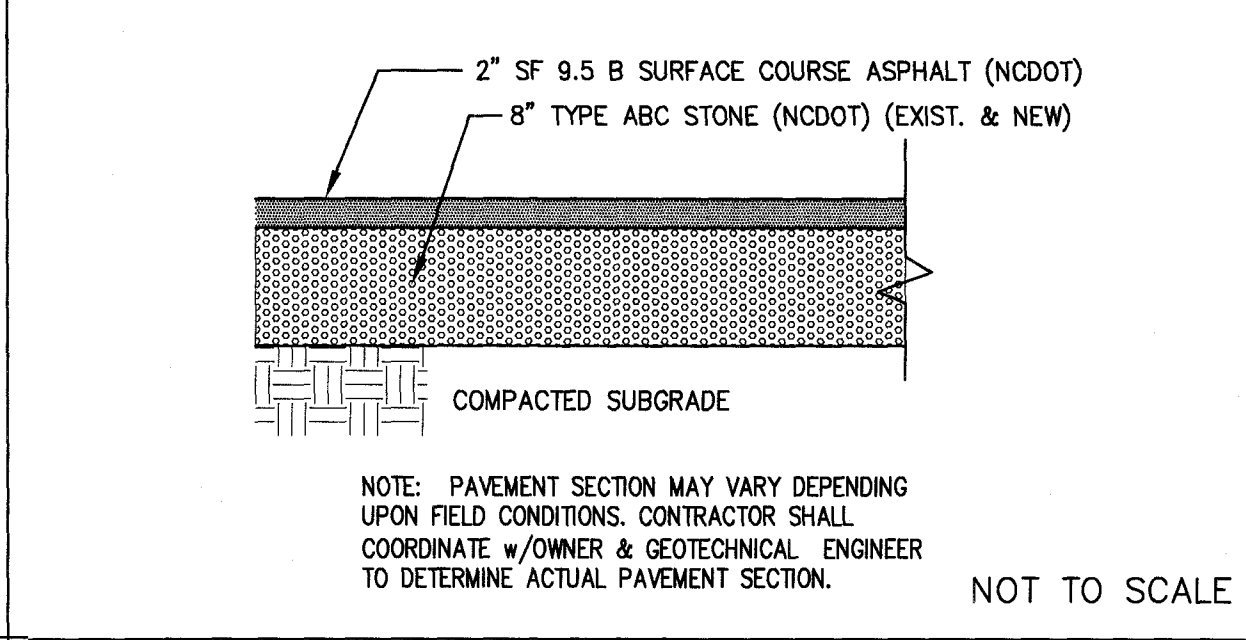
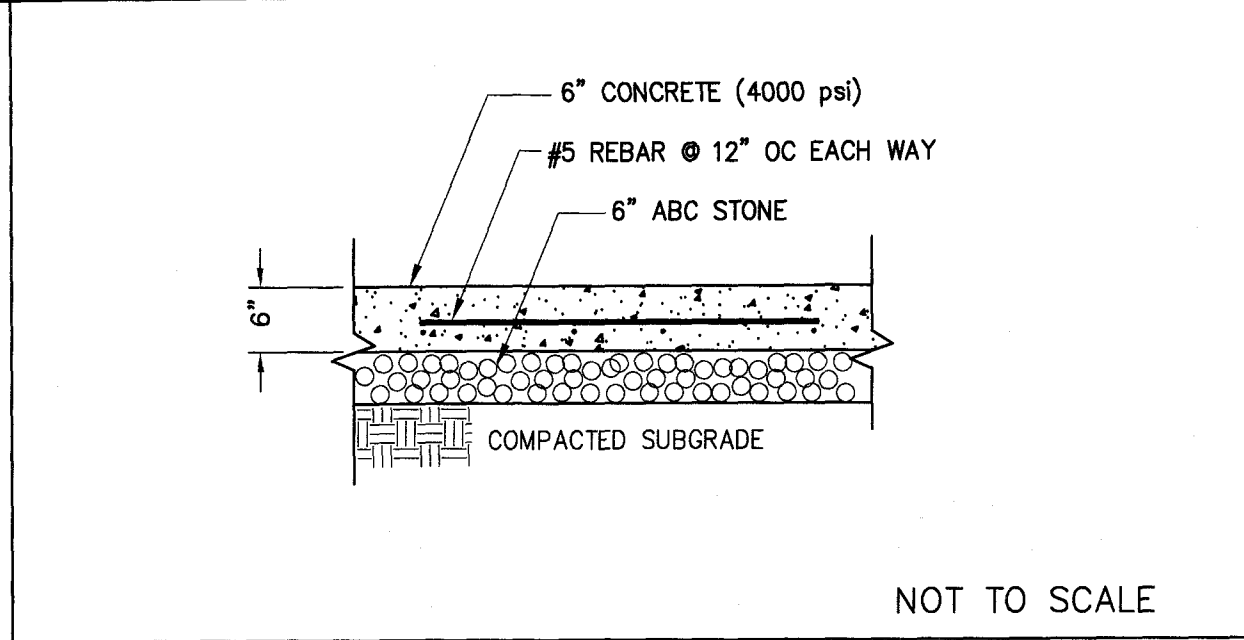
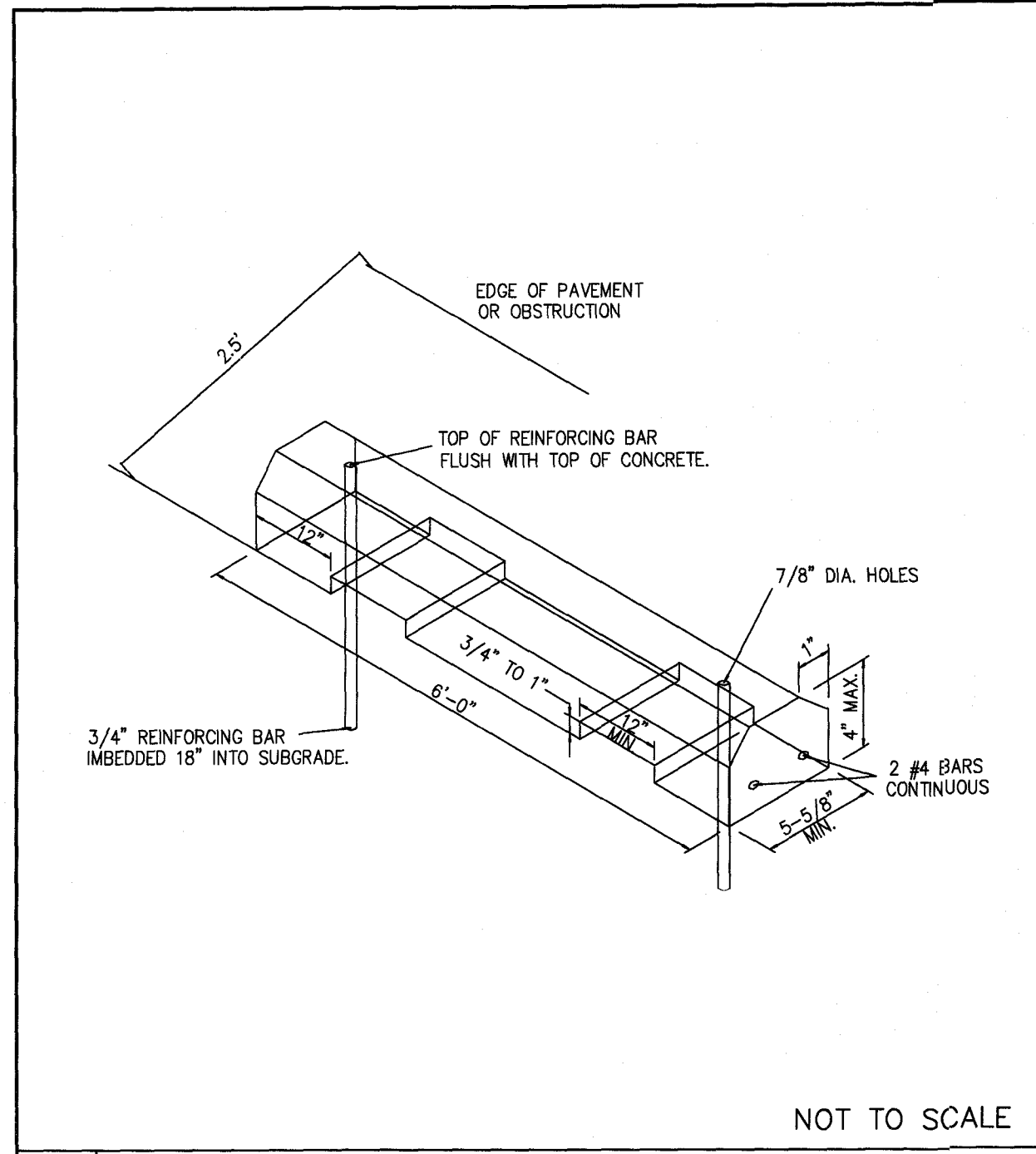
NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 1900 EASTWOOD RD, SUITE #11
 WILMINGTON, NC 28403
 PHONE (910) 343-9653

License #C-3641
21043
 DES. JUST
 CDR. JPN
 DRWN. RPH
 DATE 11/3/21



C4

C:\projects\2021\10206_C4_04_Armory\10206_C4_04_Armory\10206_C4_04_Armory\10206_C4_04_Armory.dwg (C:\projects\2021\10206_C4_04_Armory\10206_C4_04_Armory.dwg) (User: jpn) (Date: 11/3/21) (Time: 5:07pm)



1 CONCRETE WHEEL STOP DETAIL

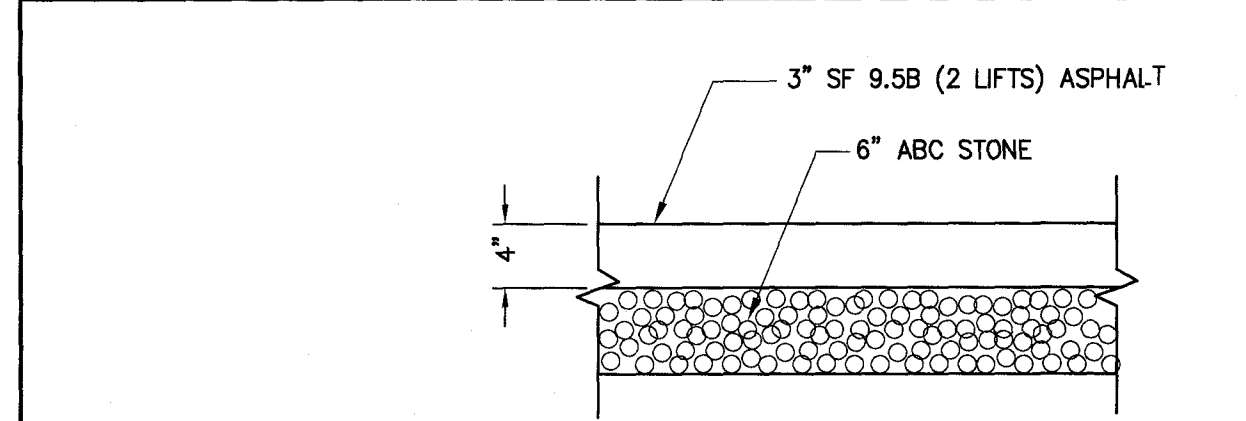
2 HEAVY DUTY CONCRETE PAVEMENT SECTION

4A NEW ASPHALT SECTION

5 BOLLARDS WITH CHAIN WITHIN CONC. DETAIL

6 BOLLARDS WITH CHAIN DETAIL

7 REINFORCED HEADER CURB DETAIL



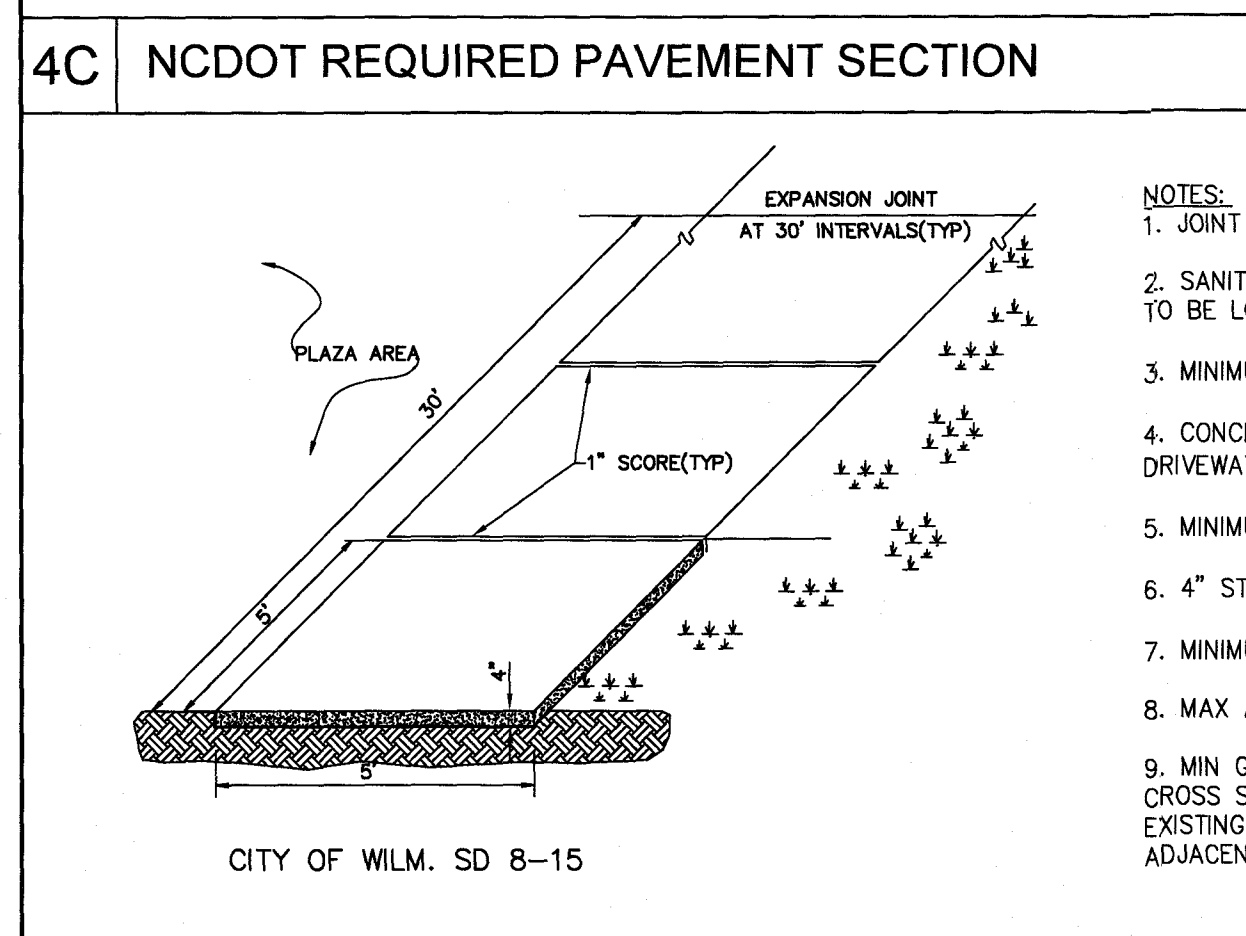
3 TURN DOWN WALK SECTION

4B ASPHALT RESURFACE PAVEMENT SECTION

5 BOLLARDS WITH CHAIN WITHIN CONC. DETAIL

6 BOLLARDS WITH CHAIN DETAIL

7 REINFORCED HEADER CURB DETAIL



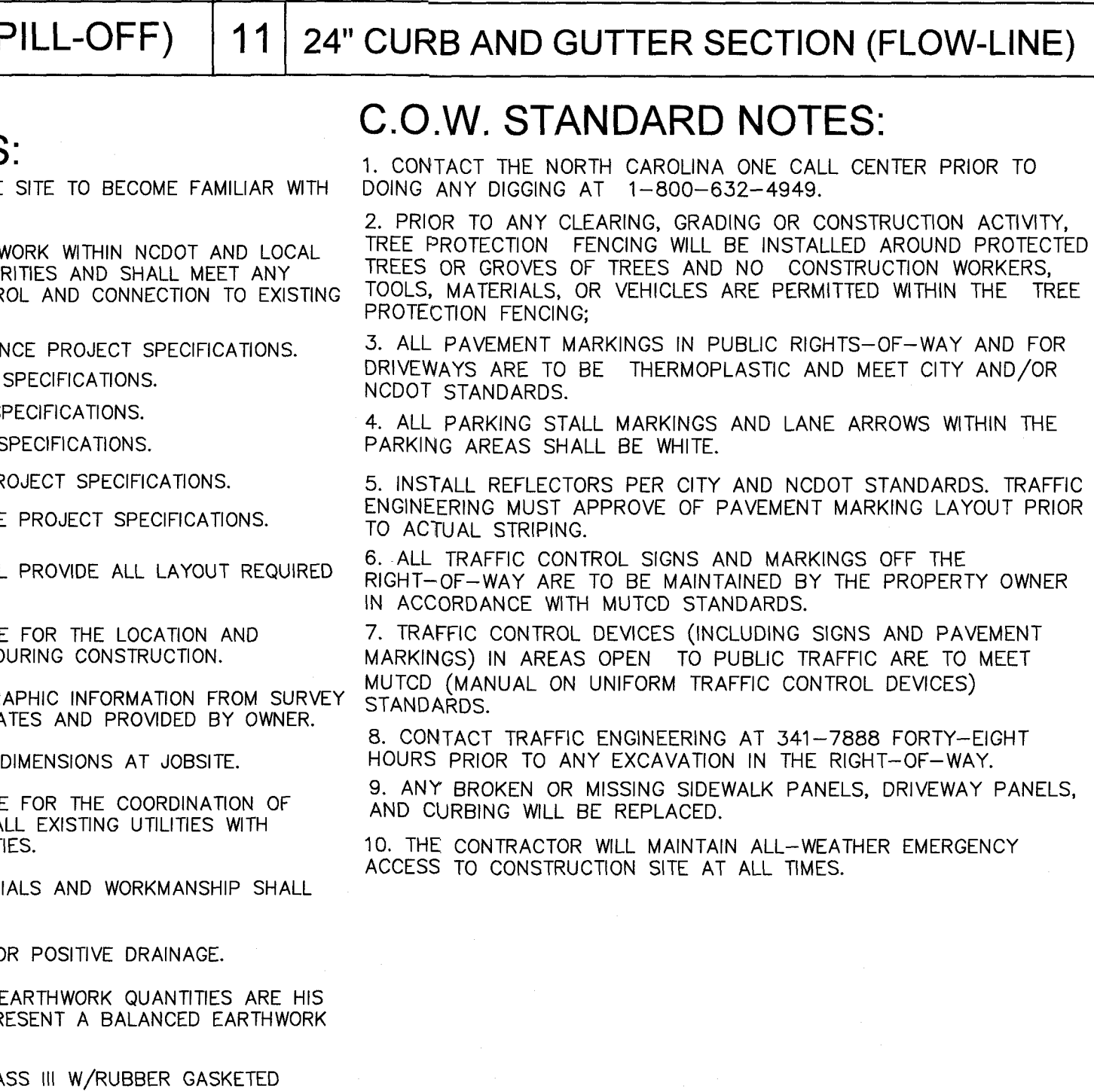
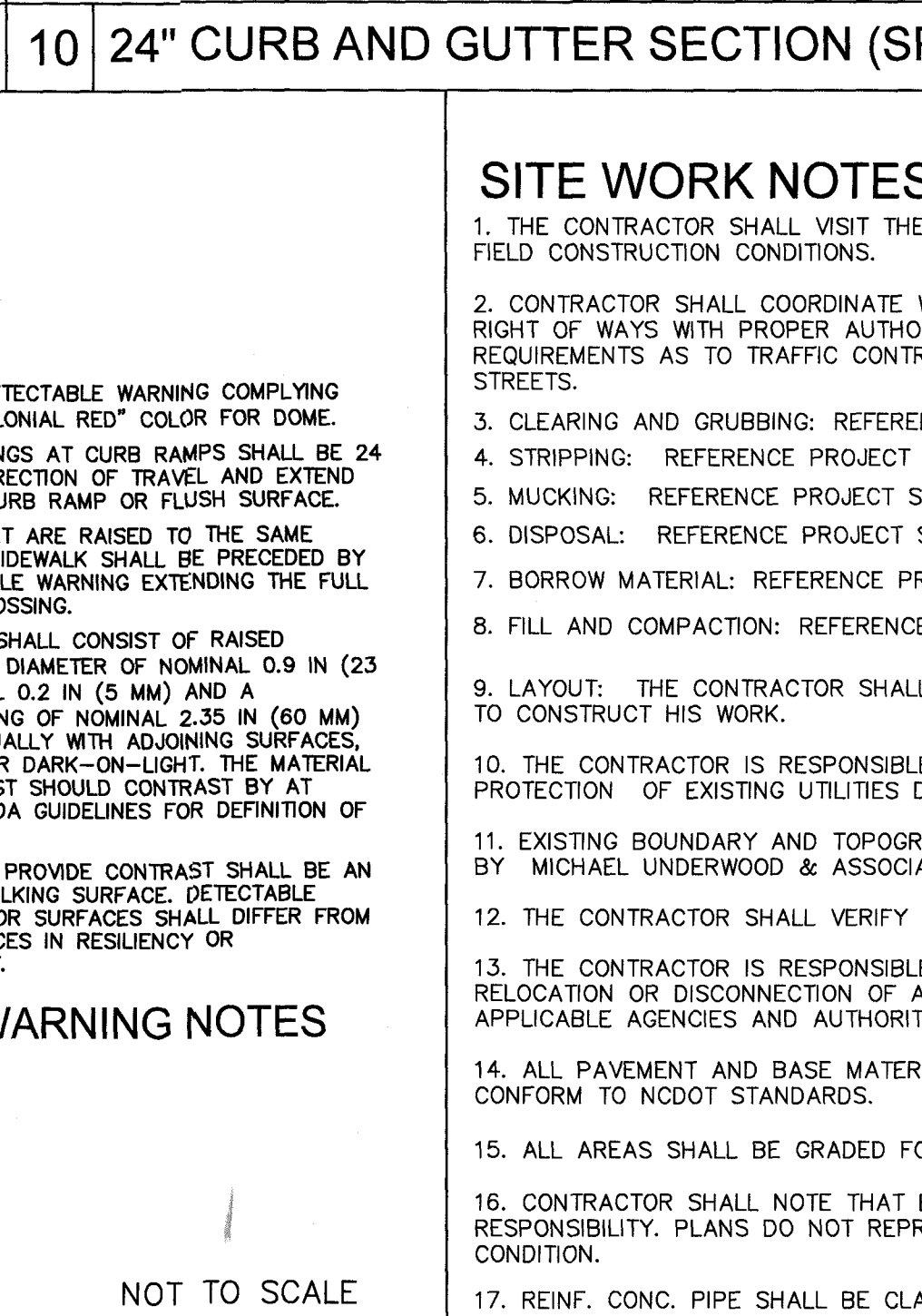
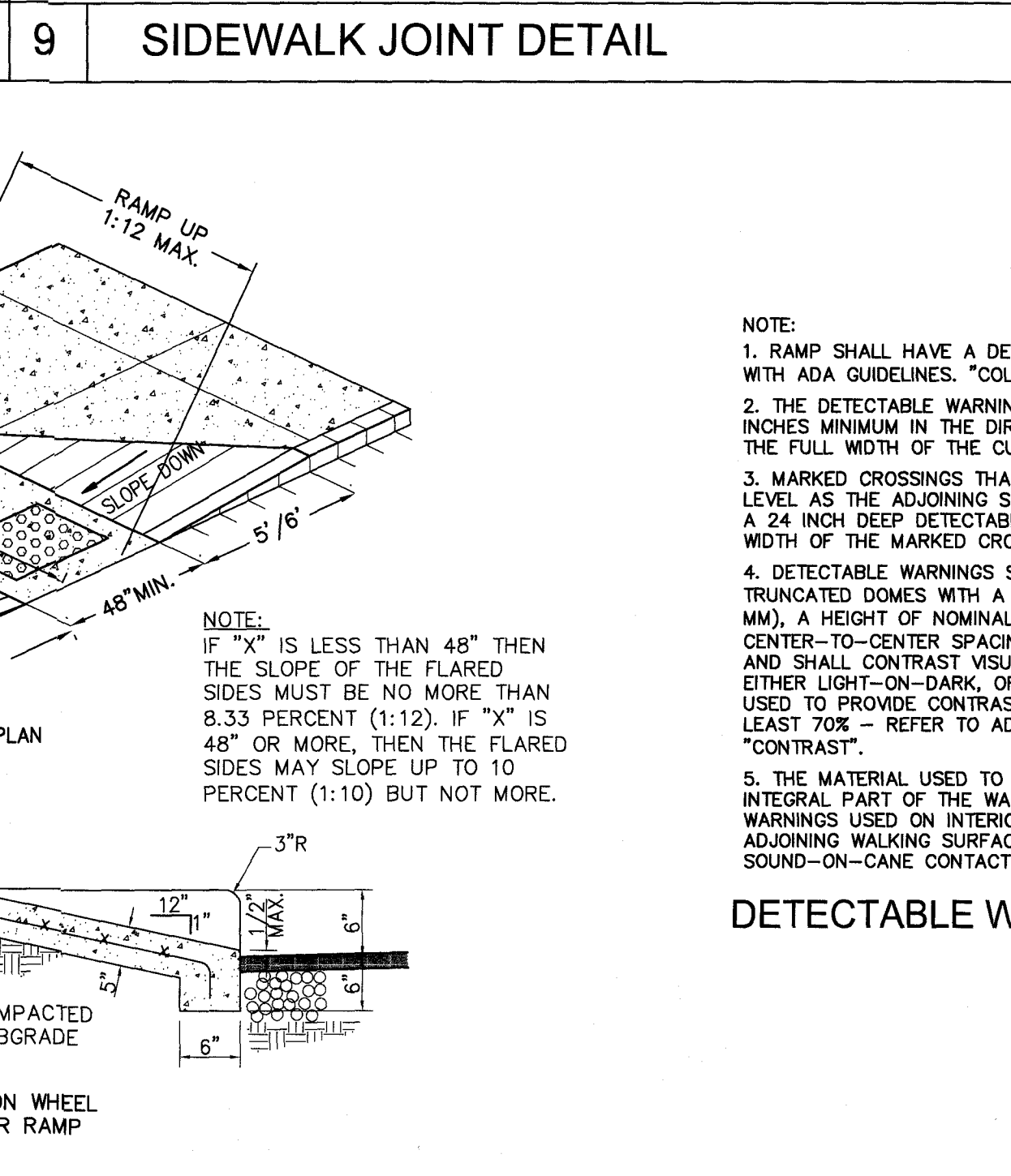
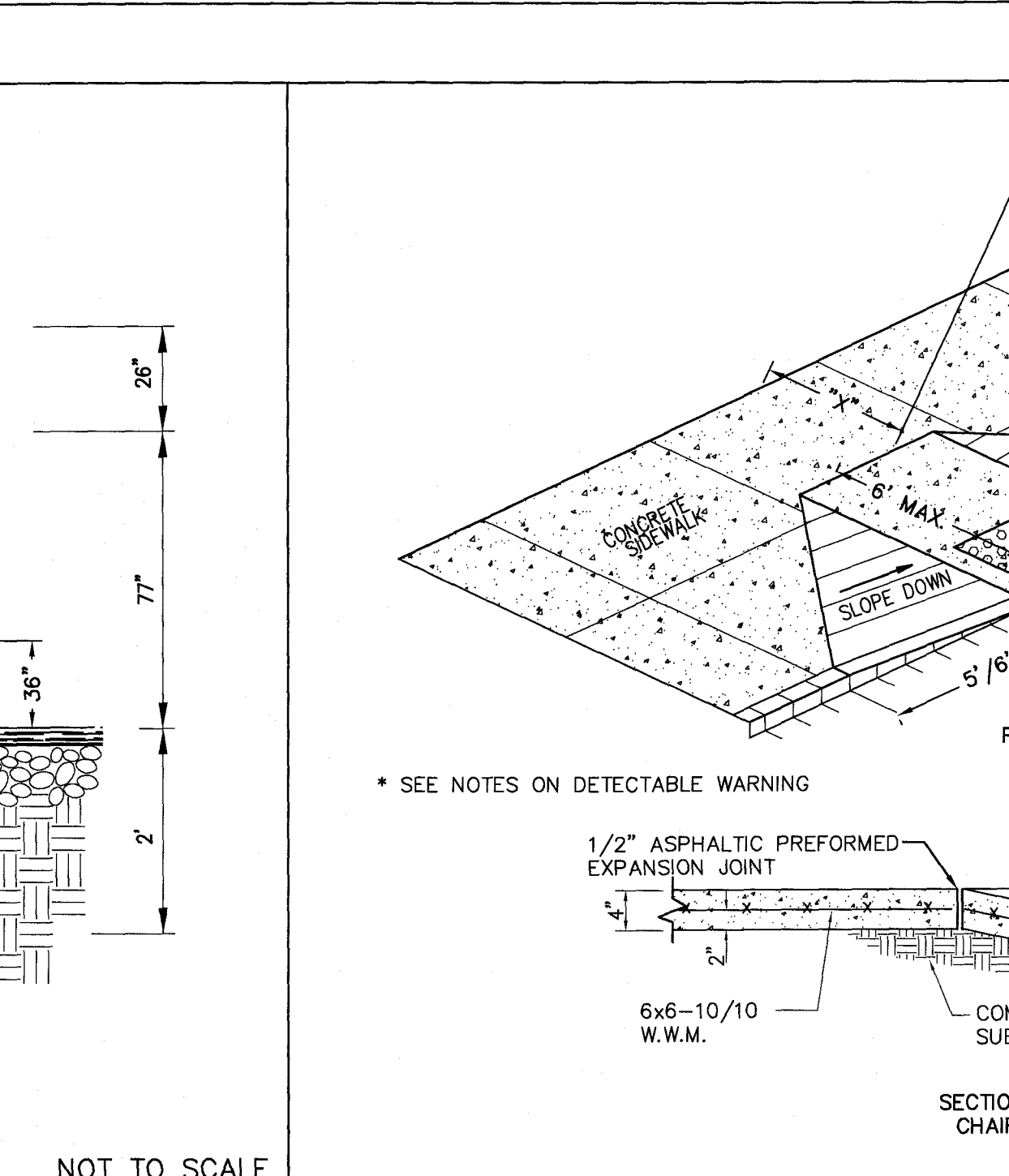
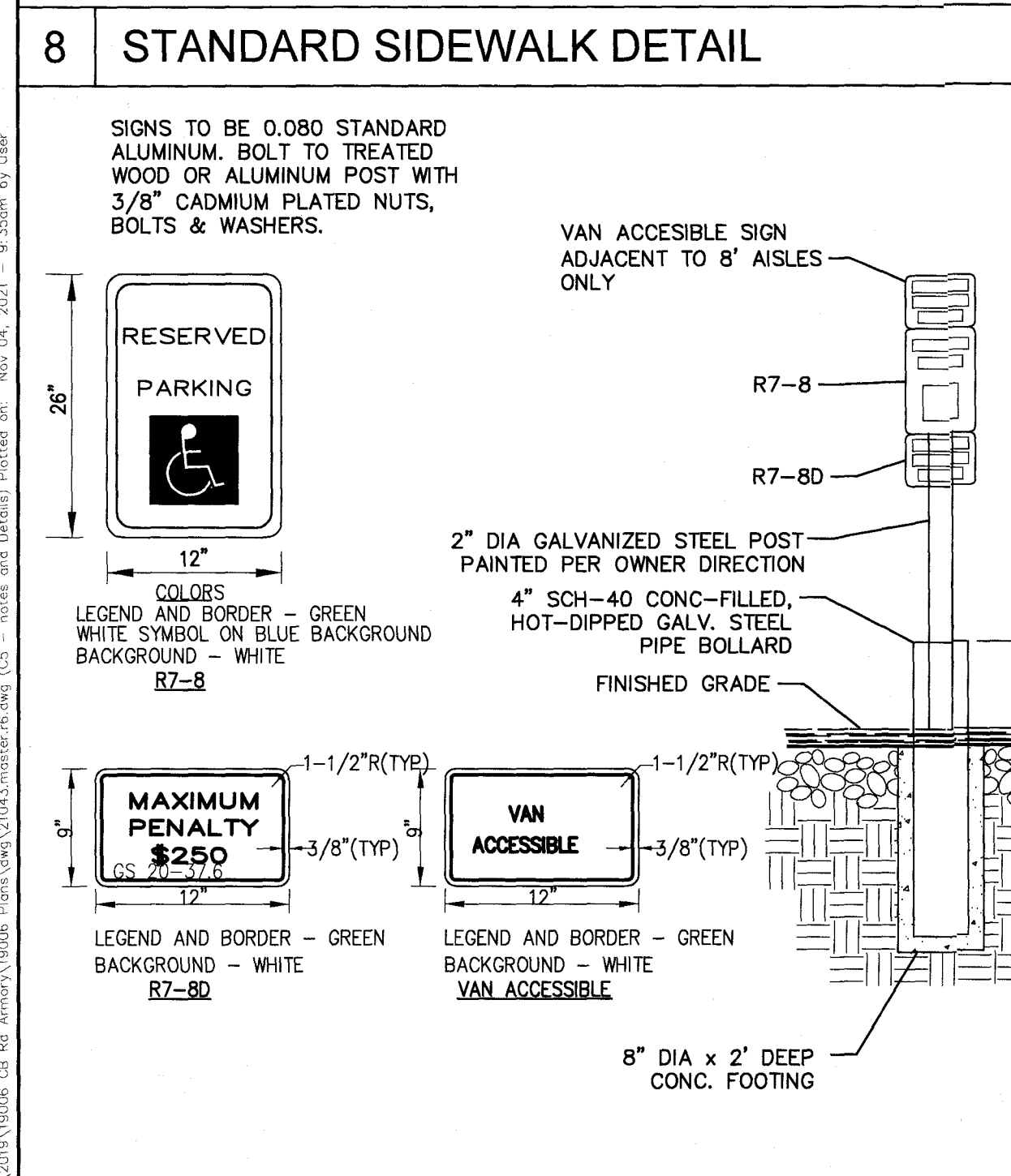
3 TURN DOWN WALK SECTION

4B ASPHALT RESURFACE PAVEMENT SECTION

5 BOLLARDS WITH CHAIN WITHIN CONC. DETAIL

6 BOLLARDS WITH CHAIN DETAIL

7 REINFORCED HEADER CURB DETAIL



12 TYPICAL HANDICAPPED SIGN DETAIL

9 SIDEWALK JOINT DETAIL

13 SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL

10 24" CURB AND GUTTER SECTION (SPILL-OFF)

11 24" CURB AND GUTTER SECTION (FLOW-LINE)

SITE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. CLEARING AND GRUBBING: REFERENCE PROJECT SPECIFICATIONS.
4. STRIPPING: REFERENCE PROJECT SPECIFICATIONS.
5. MUCKING: REFERENCE PROJECT SPECIFICATIONS.
6. DISPOSAL: REFERENCE PROJECT SPECIFICATIONS.
7. BORROW MATERIAL: REFERENCE PROJECT SPECIFICATIONS.
8. FILL AND COMPACTION: REFERENCE PROJECT SPECIFICATIONS.
9. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.
11. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY BY MICHAEL UNDERWOOD & ASSOCIATES AND PROVIDED BY OWNER.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
14. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.
15. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
16. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
17. REINF. CONC. PIPE SHALL BE CLASS III W/RUBBER GASKETED JOINT OR "RAM NECK". INSTALL PER MANUFACTURER'S REQUIREMENTS.
18. HDPE PIPE SHALL BE DOUBLE WALL SMOOTH INTERIOR PIPE. H20 LOAD RATED @ 1' COVER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

C.O.W. STANDARD NOTES:

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
6. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
7. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
8. CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
9. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
10. THE CONTRACTOR WILL MAINTAIN ALL-WEATHER EMERGENCY ACCESS TO CONSTRUCTION SITE AT ALL TIMES.

DETECTABLE WARNING NOTES

- NOTE:
1. RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH ADA GUIDELINES. "COLONIAL RED" COLOR FOR DOME.
 2. THE DETECTABLE WARNINGS AT CURB RAMP SHALL BE 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
 3. MARKED CROSSINGS THAT ARE RAISED TO THE SAME LEVEL AS THE ADJOINING SIDEWALK SHALL BE PRECEDED BY A 24 INCH DEEP DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE MARKED CROSSING.
 4. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN (23 MM), A HEIGHT OF NOMINAL 0.2 IN (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN (60 MM) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70% - REFER TO ADA GUIDELINES FOR DEFINITION OF "CONTRAST".
 5. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.

NOTES AND DETAILS
NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

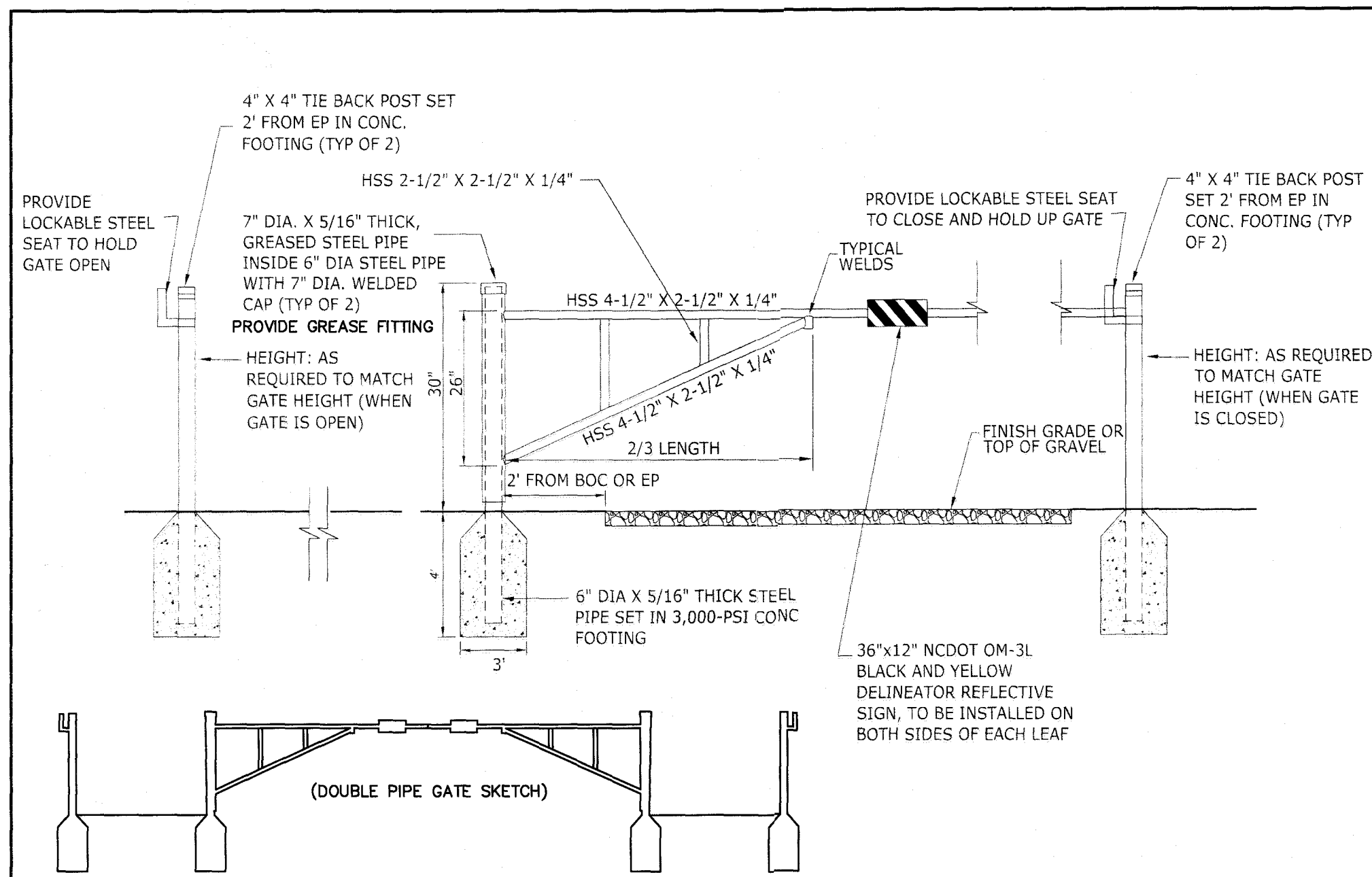
OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR. SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.

2602 IRON GATE DR., SUITE 102
 WILMINGTON, NC 28412
 1429 ASH-LITTLE RIVER RD. NW
 ASH, NC 28420
 PHONE (910) 343-9653

License #C-3641
21043
 DES. JST
 C.D. JPN
 DRWN. DCC
 DATE 11/3/21

C5



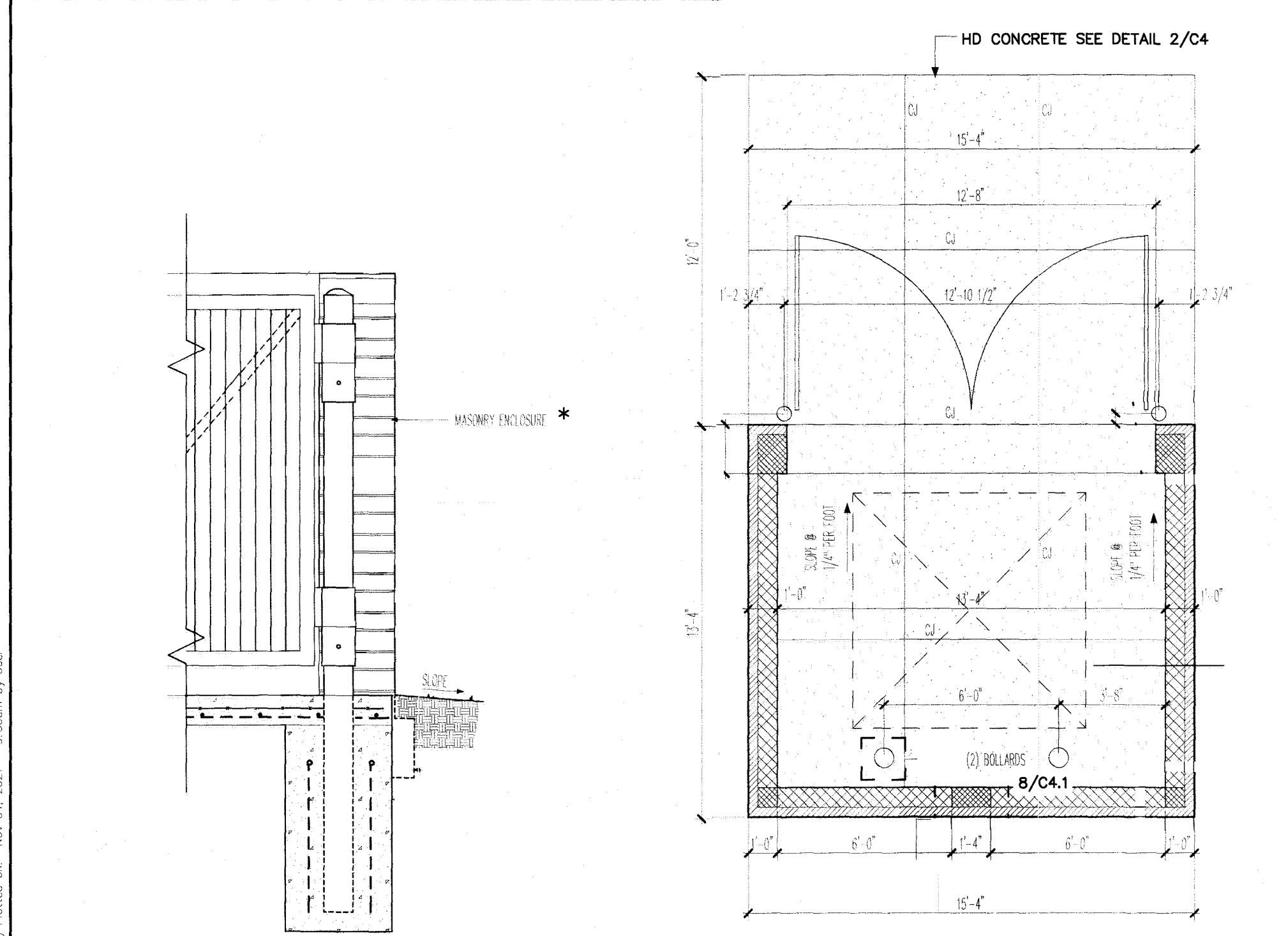
NOTES

- ALL STEEL SHALL BE HOT-DIPPED GALVANIZED AND EPOXY PAINTED.
- SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND ASSEMBLY.
- CONTRACTOR SHALL CONTRACT OUT DIMENSIONS OF PIPES FOR STRUCTURAL SUPPORT.
- ALL GATES SHALL HAVE 8' OF CONCRETE JERSEY BARRIER ON EITHER SIDE OF GATE POST. (SEE NCDOT SPECIFICATION FOR JERSEY BARRIERS)

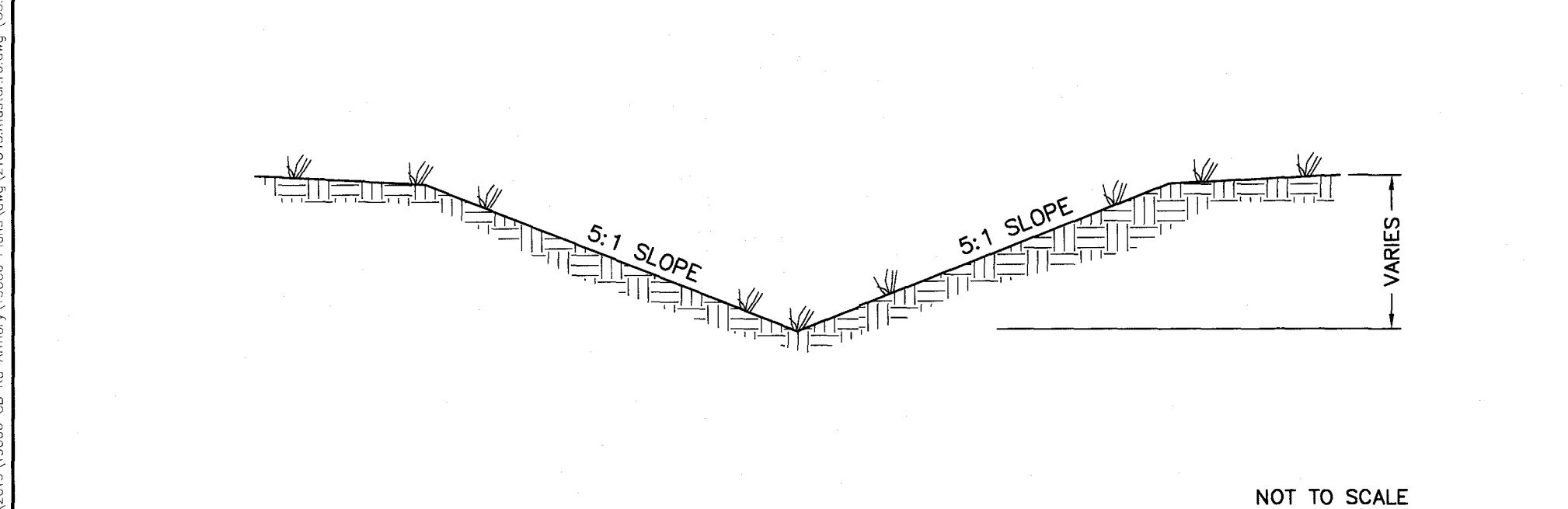
PAINTING SPECIFICATIONS:

- MANUFACTURER: TNEPEC COMPANY, INC.; CARY, NC (919-859-3737)
- SYSTEM TYPE: EPOXY-POLYURETHANE
- SURFACE PREPARATION: SSPV-SPI AND BRUSH OFF BLAST CLEAN
- PRIMER: SERIES 27 (FIELD-COATED) TYPOXY OR 69 HI-BUILD EPOXOLINE
- FINISH PAINT: SERIES 73 ENDURA-SHIELD, SEMI-GLOSS, COLOR: BRONZE TO MATCH BLDG. COORDINATE W/ NONG ARMORY.

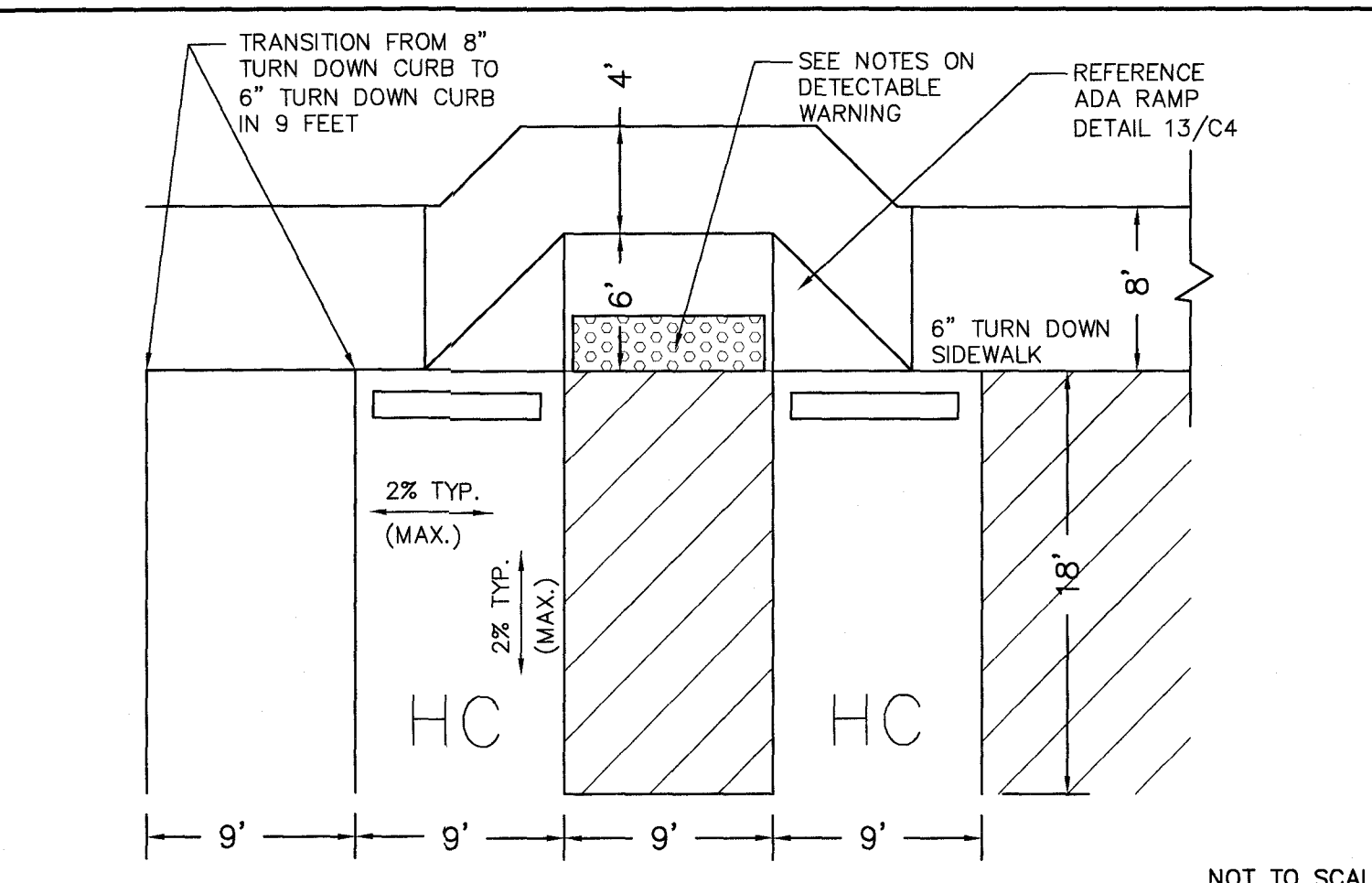
DOUBLE PIPE GATE (SEE SKETCH ABOVE) DETAIL 1 N.T.S.



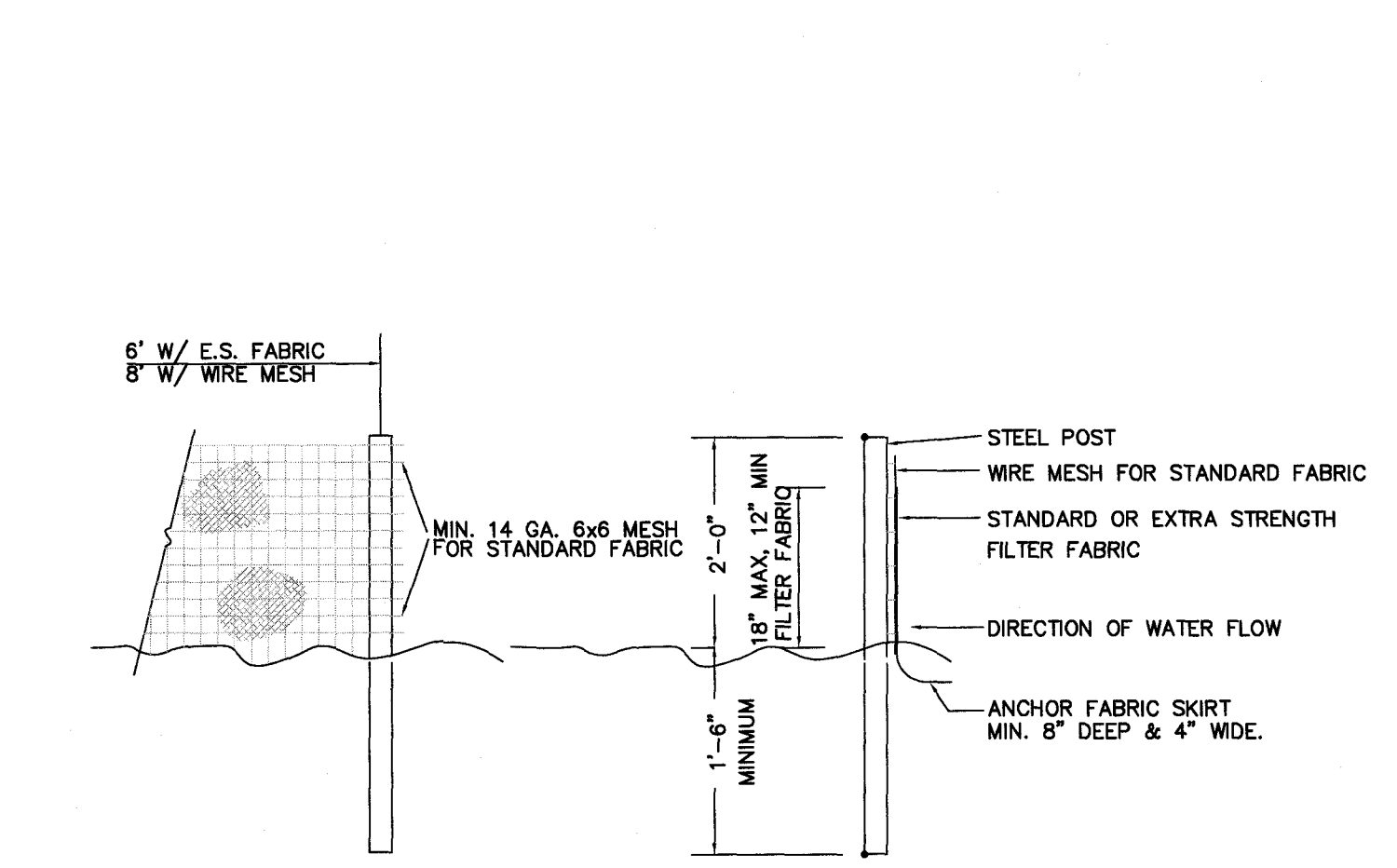
2 DUMPSTER GATE POST ELEVATION*
 1/2" = 1'-0"
 * SEE ARCHITECTURAL PLANS FOR DUMPSTER SCREEN WALL DESIGN. VERIFY ALL DIMENSIONS.



4 TYPICAL GRASS SWALE



3 SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL

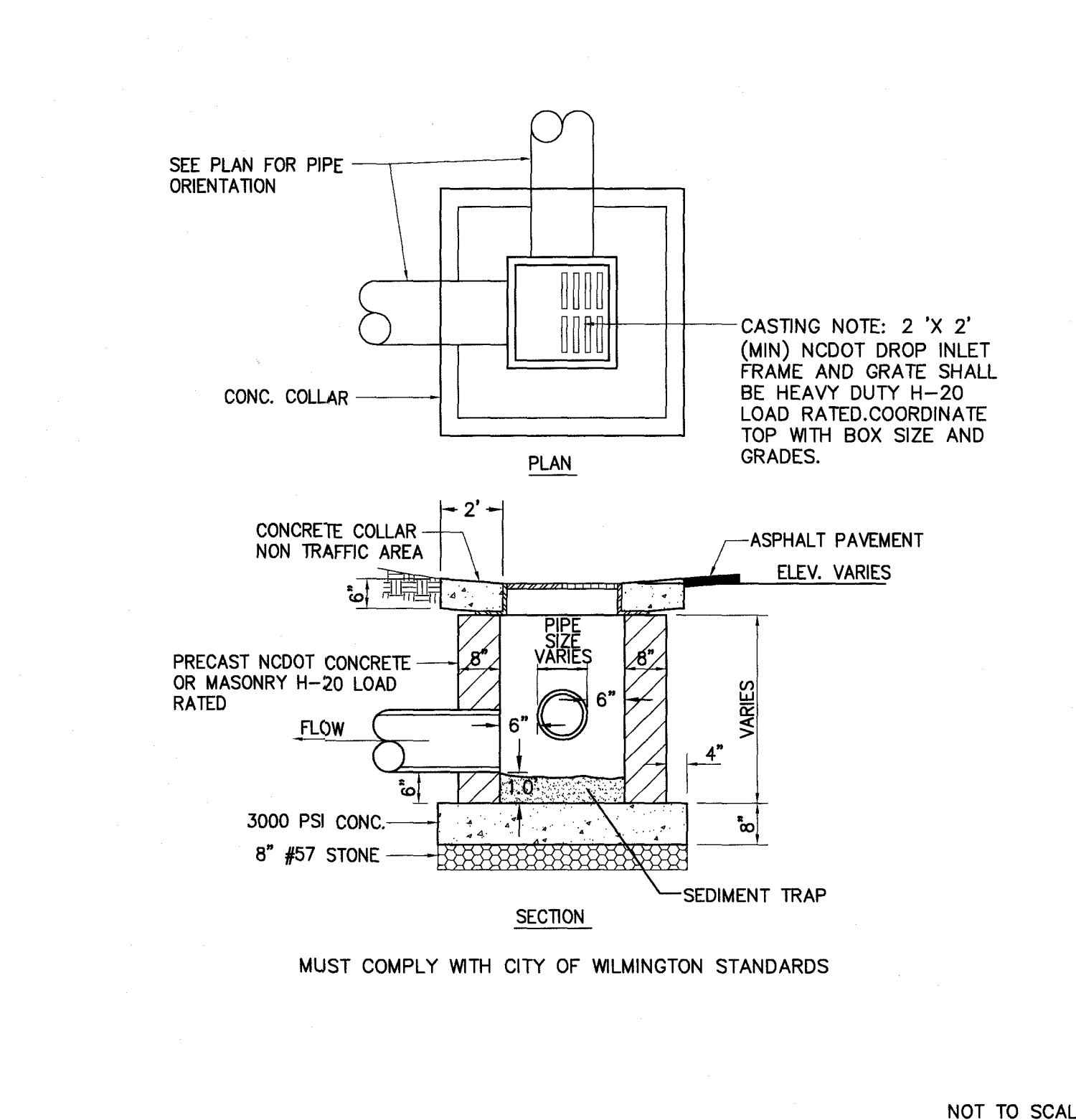


PAINTING SPECIFICATIONS:

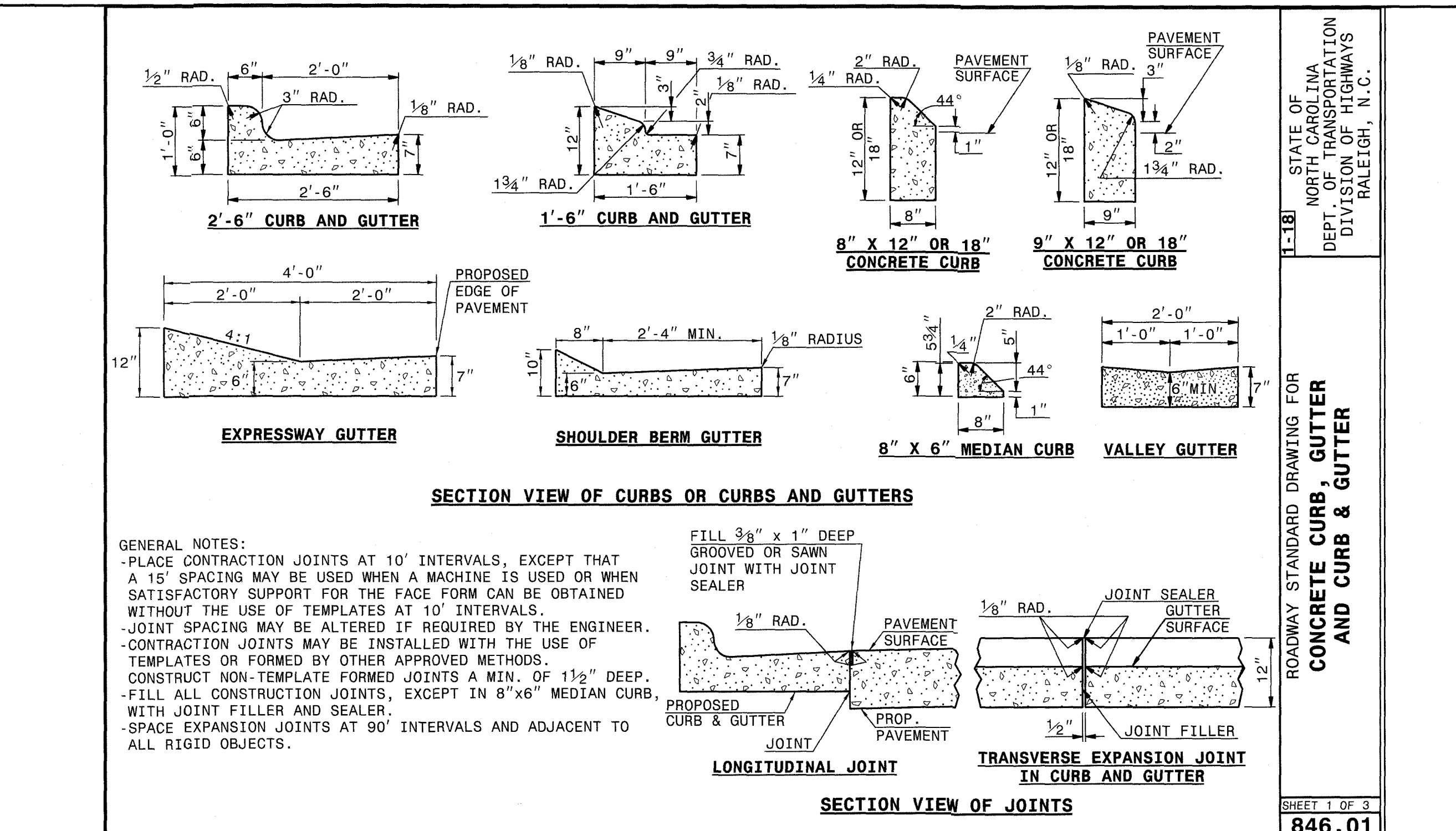
- MANUFACTURER: TNEPEC COMPANY, INC.; CARY, NC (919-859-3737)
- SYSTEM TYPE: EPOXY-POLYURETHANE
- SURFACE PREPARATION: SSPV-SPI AND BRUSH OFF BLAST CLEAN
- PRIMER: SERIES 27 (FIELD-COATED) TYPOXY OR 69 HI-BUILD EPOXOLINE
- FINISH PAINT: SERIES 73 ENDURA-SHIELD, SEMI-GLOSS, COLOR: HI-VIS YELLOW

NOT TO SCALE

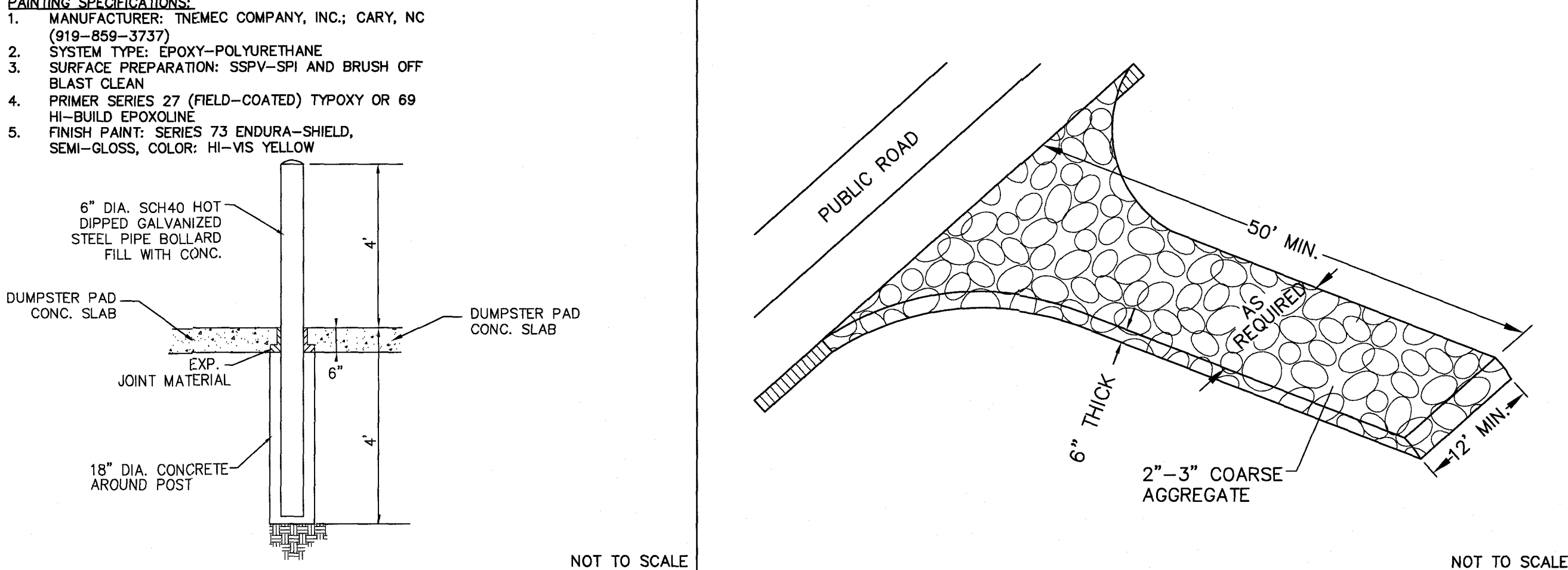
7 NCDOT 30" CURB & GUTTER STD# 846.01



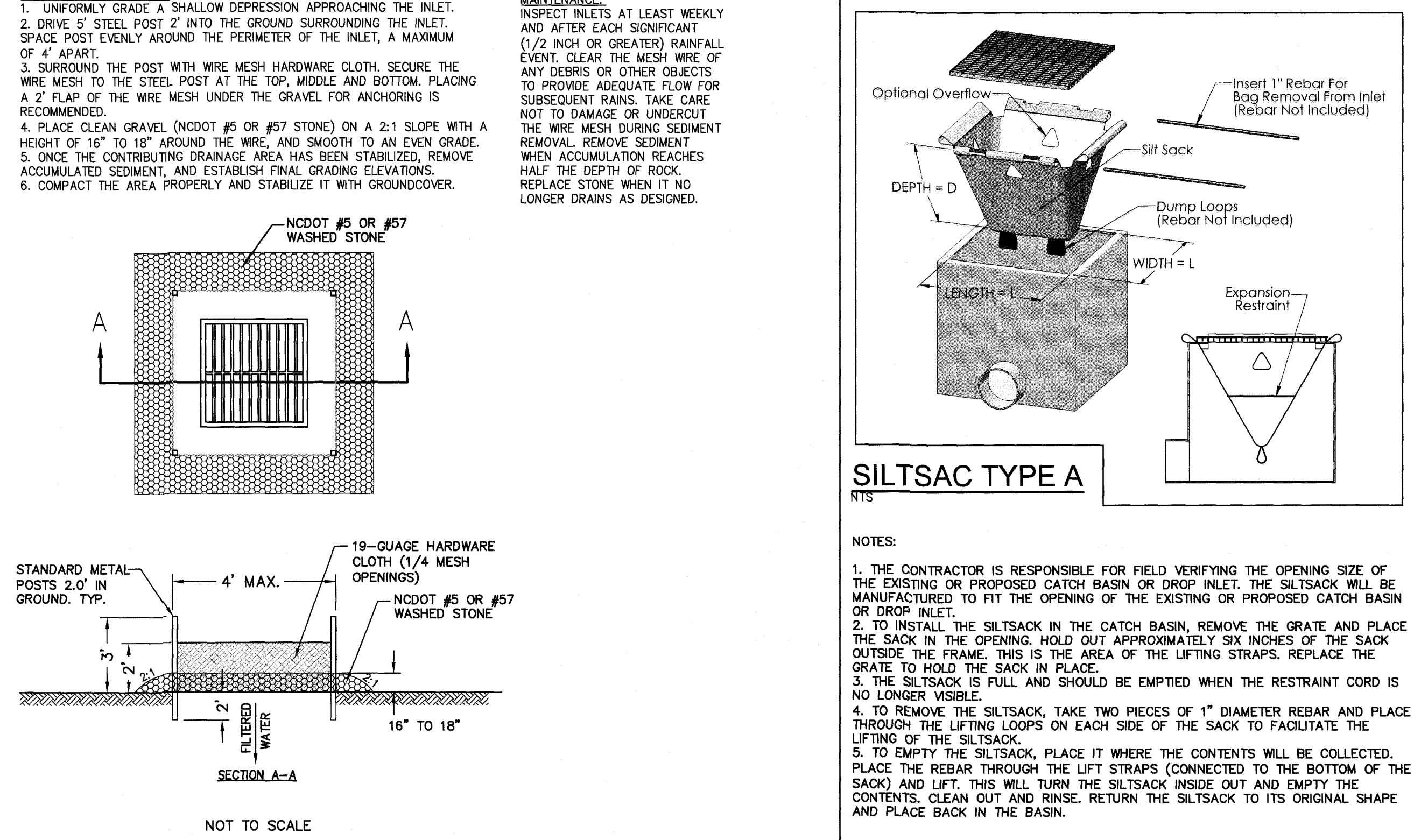
5 TEMPORARY SILT FENCE



SECTION VIEW OF CURBS OR CURBS AND GUTTERS



8 PIPE BOLLARD DETAIL



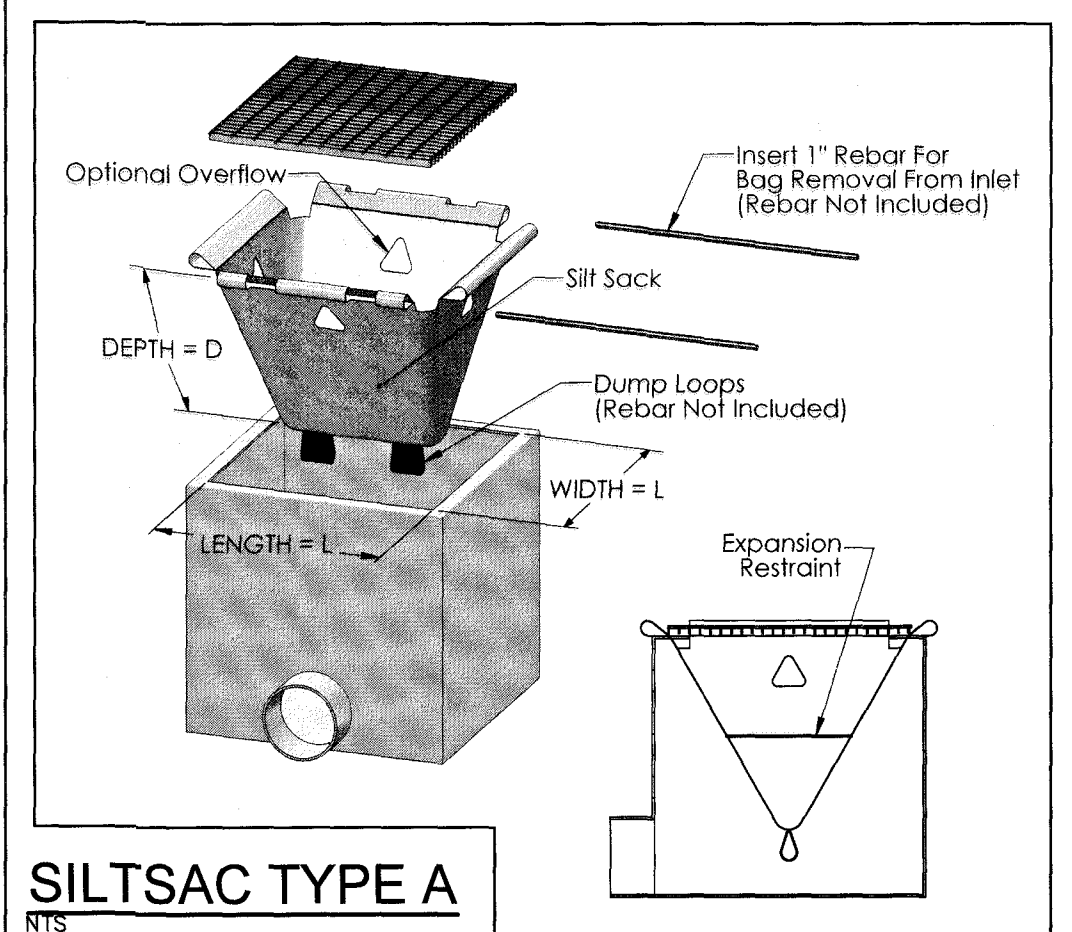
9 TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE

4 TYPICAL GRASS SWALE

6 DROP INLET DETAIL

10 HARDWARE CLOTH AND GRAVEL INLET PROTECTION

11 SILT SACK BASIN NOTES



SILT SACK TYPE A

NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE OPENING SIZE OF THE EXISTING OR PROPOSED CATCH BASIN OR DROP INLET. THE SILT SACK WILL BE MANUFACTURED TO FIT THE OPENING OF THE EXISTING OR PROPOSED CATCH BASIN OR DROP INLET.
- TO INSTALL THE SILT SACK IN THE CATCH BASIN, REMOVE THE GRATE AND PLACE THE SACK IN THE OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME. THIS IS THE AREA OF THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
- THE SILT SACK IS FULL AND SHOULD BE EMPTIED WHEN THE RESTRAINT CORD IS NO LONGER VISIBLE.
- TO REMOVE THE SILT SACK, TAKE TWO PIECES OF 1" DIAMETER REBAR AND PLACE THROUGH THE LIFTING LOOPS ON EACH SIDE OF THE SACK TO FACILITATE THE LIFTING OF THE SILT SACK.
- EMPTY THE SILT SACK, PLACE IT WHERE THE CONTENTS WILL BE COLLECTED. PLACE THE REBAR THROUGH THE LIFT STRAPS (CONNECTED TO THE BOTTOM OF THE SACK) AND LIFT. THIS WILL TURN THE SILT SACK INSIDE OUT AND EMPTY THE CONTENTS. CLEAN OUT AND RINSE. RETURN THE SILT SACK TO ITS ORIGINAL SHAPE AND PLACE BACK IN THE BASIN.

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

ROADWAY STANDARD DRAWING FOR
 CONCRETE CURB, GUTTER
 AND CURB & GUTTER

SHEET 1 OF 3
 846.01

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR. SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

NOTES AND DETAILS
 NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.

2602 IRON GATE DR., SUITE 102
 WILMINGTON, NC 28412
 PHONE (910) 345-9653

1429 ASHLITTLE RIVER RD. NW
 ASH, NC 28620
 PHONE (910) 287-5900

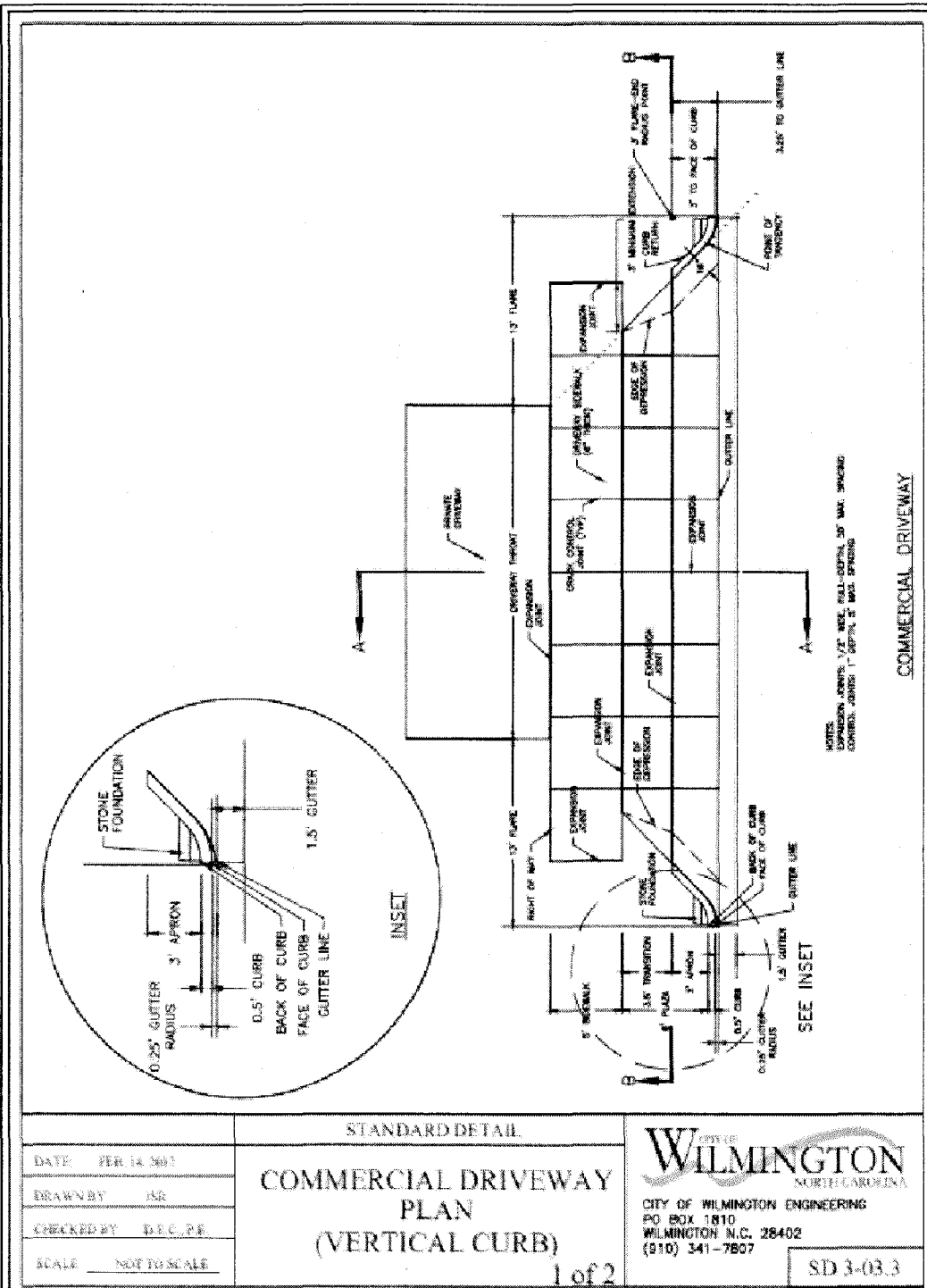
License #C-3641
 21043

DES. JST
 CDR. JPN
 DRWN. DCC

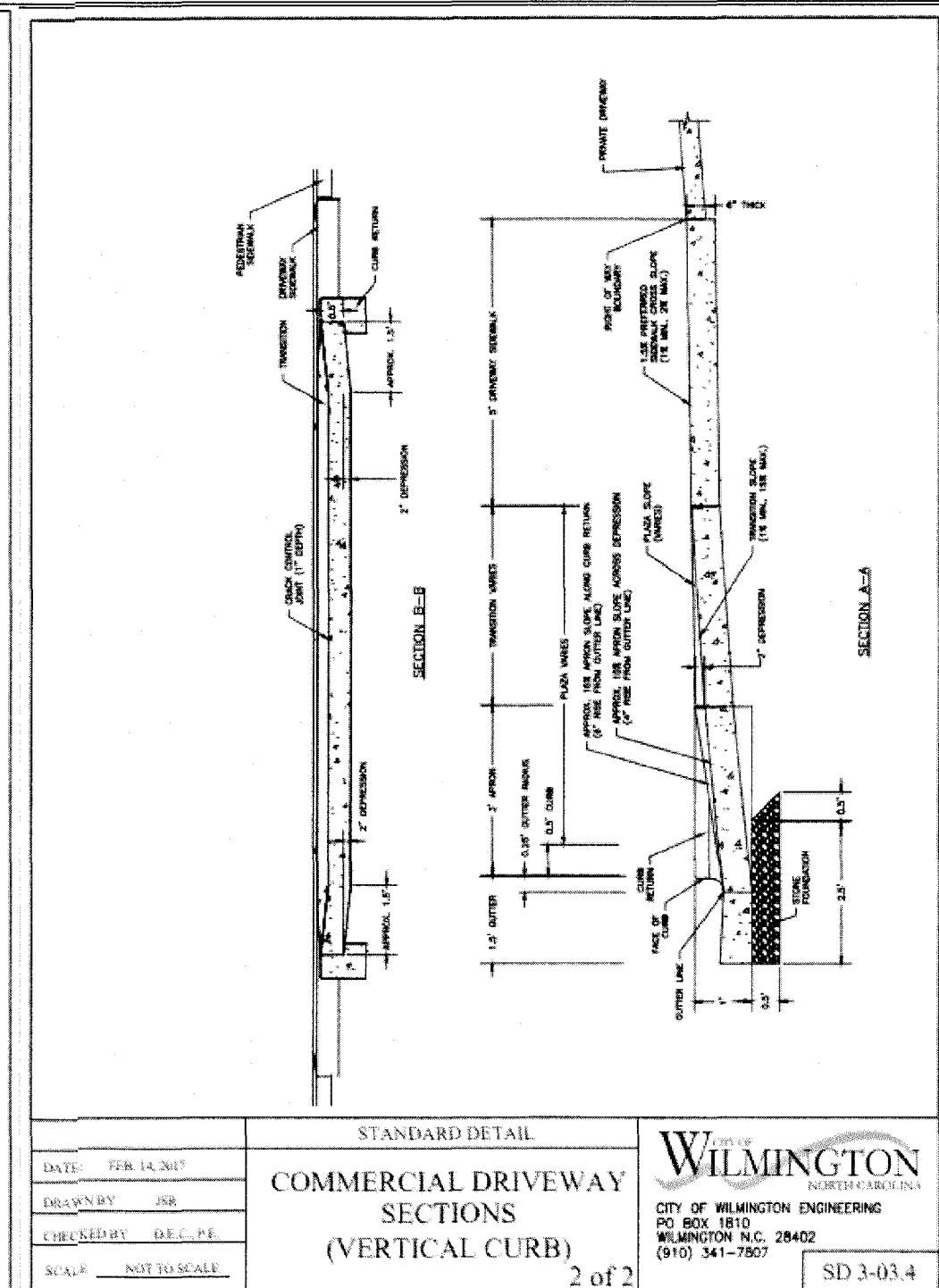
DATE 11/3/21

C5.1

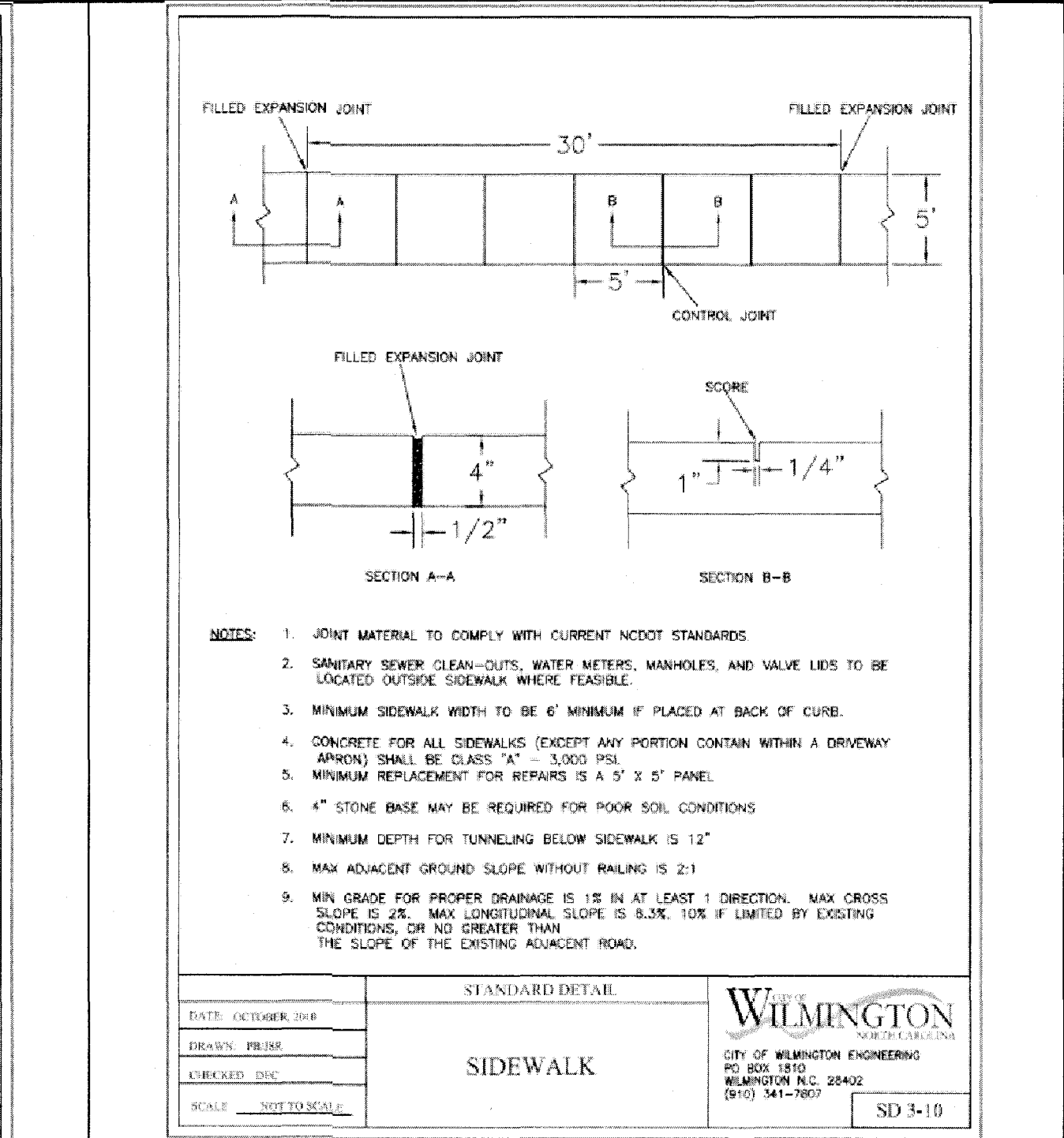
G:\projects\2019\16006 03 Rd. Armer\16006 03 Rd. Armer\16006 03 Rd. Armer.dwg (C5.2 - Notes and Details) Plotted on: Nov 03, 2021 - 9:08am by User



1 COMMERCIAL DRIVEWAY



2 SIDEWALK



2 SIDEWALK

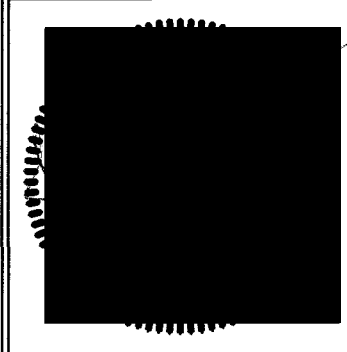
- FIRE AND LIFE SAFETY NOTES:**
1. FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
 2. THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
 3. LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE FIRE HYDRANT.
 4. FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
 5. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
 6. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
 7. THE CONTRACTOR WILL MAINTAIN ALL-WEATHER EMERGENCY ACCESS TO CONSTRUCTION SITE AT ALL TIMES.
 8. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
 9. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
 10. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
 11. HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF THE STRUCTURE.
 12. ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
 13. THE CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SEC. 510 OF THE 2018 FIRE CODE.
 14. BUILDING CONSTRUCTION TYPE:
 15. PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0696
 16. ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM MUST BE ELECTRICALLY SUPERVISED.

NOTES AND DETAILS
NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

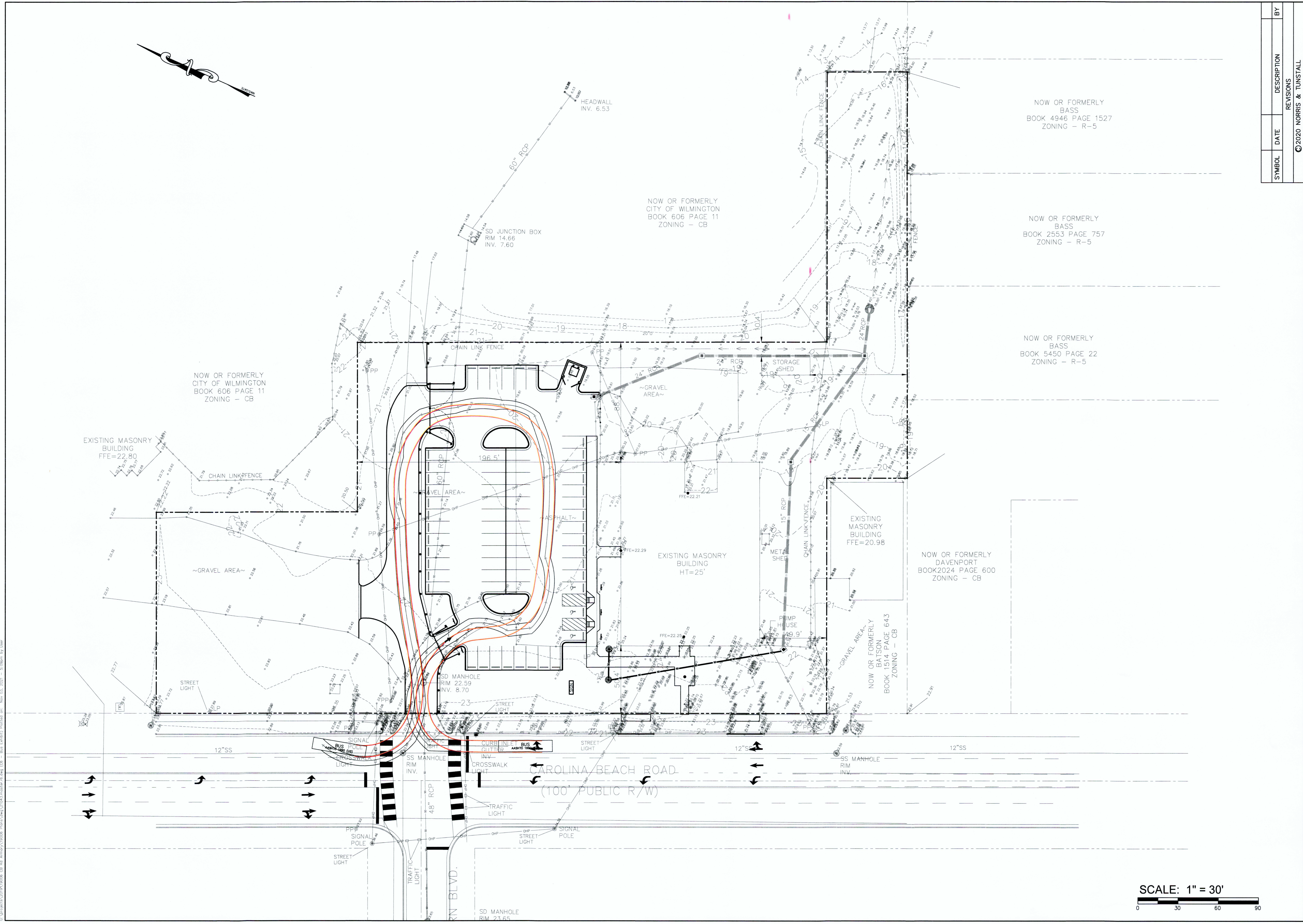
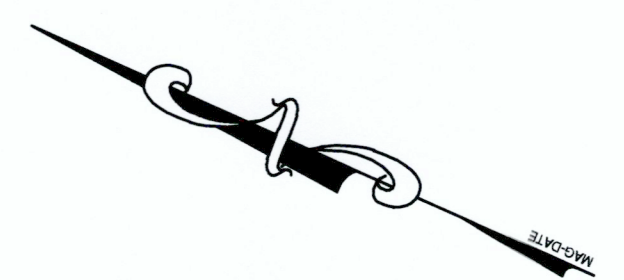
OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR., SUITE 2800
 RALEIGH, NC 27607
 800-621-4136

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 2609 IRON GATE DR., SUITE 102 1429 ASHLITTLE RIVER RD. NW
 WILMINGTON, NC 28412 ASHLITTLE RIVER RD. NW
 WILMINGTON, NC 28412
 PHONE: (910) 343-9653 PHONE: (910) 287-5900

Licence #C-3641
21043
 DES. JST
 O.D. JPN
 DRWN. DGC
 DATE 11/3/21



C5.2



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
		© 2020 NORRIS & TUNSTALL	

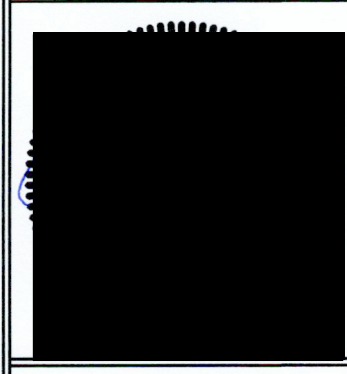
BUS EXHIBIT
NATIONAL GUARD ARMORY
 2221 CAROLINA BEACH RD
 WILMINGTON, N. C. 28401

OWNER/DEVELOPER
 STATE OF NORTH CAROLINA
 NC NATIONAL GUARD
 CONSTRUCTION & FACILITY
 MANAGEMENT OFFICE
 1636 GOLD STAR DR., SUITE 2600
 RALEIGH, NC 27607
 800-621-4136

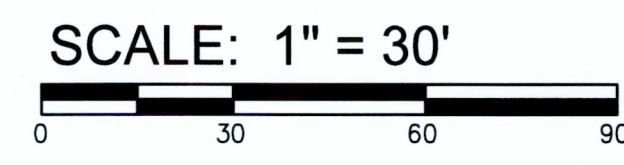
NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.
 2602 IRON GATE DR., SUITE 102
 WILMINGTON, NC 28412
 PHONE (910) 343-9653

License #C-3641

DES.	JST
CD.	JPN
DRWL.	DCC
DATE	11/3/21



C6



G:\projects\2019\19006 CB Rd Armer\19006 Plans\19006\21043-master.rvt (2021-11-03 10:09:00 AM)