

CIVIL SITE PLANS:  
CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON, NORTH CAROLINA 28405  
NEW HANOVER COUNTY

ARCHITECT:

TBD

OWNER:

NEW HANOVER COUNTY  
230 GOVERNMENT CENTER DR  
WILMINGTON, NC 28403

DEVELOPER:

CIRCLE K STORES INC  
ANDY PRIOLO  
1100 SITUS COURT, SUITE #100  
RALEIGH, NC 27606  
PH: (919) 566-1714  
FAX: (919) 777-5139

CIVIL ENGINEER:

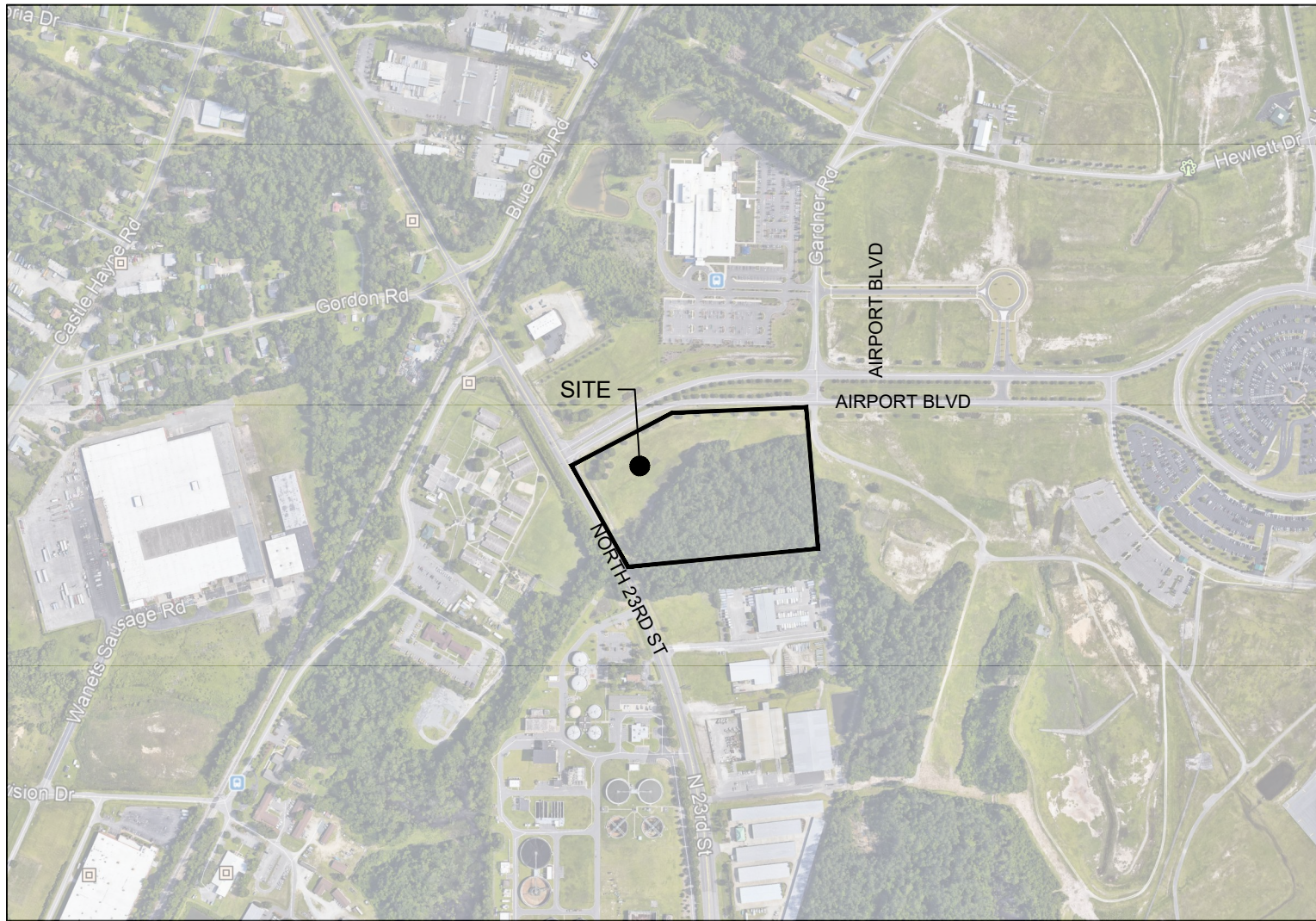
TIMMONS GROUP  
5410 TRINITY ROAD  
SUITE 102  
RALEIGH, NC 27607  
  
PROJECT MANAGER  
BRIAN DOWNS  
BRIAN.DOWNS@TIMMONS.COM  
PH: (919) 866-4504

SURVEYOR:

PARAMOUNTE ENGINEERING, INC  
TIM CLINKSCALES, P.E., PLS  
122 CINEMA DRIVE  
WILMINGTON, NC 28403  
PH: (910) 791-6707  
TCLINKSCALES@PARAMOUNTE-ENG.COM

ENGINEER OF RECORD  
RICK BAKER, PE  
RICK.BAKER@TIMMONS.COM  
PH: (919) 866-4939

SITE PLAN SUMMARY	
PROJECT:	CIRCLE K - NTI - AIRPORT BLVD WILMINGTON - NC.115
OWNER:	NEW HANOVER COUNTY
PROJECT ADDRESS:	0 AIRPORT BLVD, WILMINGTON, NC 28405
PID:	R04200-001-025-F00
JURISDICTION:	NEW HANOVER COUNTY
ZONING:	AC (AIRPORT COMMERCE)
EXISTING USE:	VACANT
PROPOSED USE:	CONVENIENCE STORE W/ GAS SALES
FLOOD ZONE:	NOT LOCATED IN FLOOD HAZARDS AREA PER FEMA MAP #3720312900K (EFFECTIVE 08/28/2018)
PROPOSED TRACT AREA:	2.13 AC (92,834.78 SF)
DISTURBED AREA:	10.00 AC (435,600 SF)
EXISTING IMPERVIOUS SURFACE AREA:	91.5 SF (0.10%)
PROPOSED IMPERVIOUS SURFACE AREA:	69,896 SF
PROPOSED % IMPERVIOUS	75%
TYPE OF BUILDING CONSTRUCTION:	CONVENIENCE STORE: V-B (NON-SPRINKLERED)
TYPE OF CANOPY CONSTRUCTION:	II-B
PROPOSED CONVENIENCE BUILDING SQUARE FOOTAGE:	5,200 SF
VEHICLE PARKING SUMMARY: REQUIRED	CONVENIENCE STORES W/ GAS SALES: 1 SPACE PER 400 SQUARE FEET OF GFA = 5,200 SF / 400 SF = 13 SPACES REQUIRED TOTAL = 13 SPACES (1 MUST BE ADA SPACES)
VEHICLE PARKING SUMMARY: PROVIDED	23 PARKING SPACES 2 ADA SPACES (1 IS VAN ACCESSIBLE) TOTAL: 25 SPACES



VICINITY MAP  
NTS

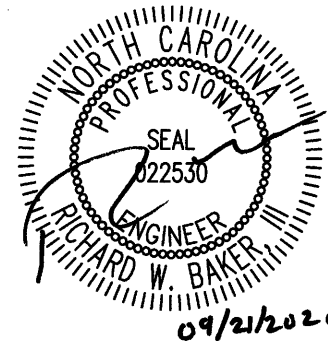
Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS PLAN
C1.1	EXISTING CONDITIONS PLAN
C1.2	DEMOLITION PLAN
C1.3	DEMOLITION PLAN
C2.0	SITE LAYOUT PLAN
C2.1	PAVING PLAN
C2.2	VEHICULAR ROUTING PLAN
C3.0	GRADING AND DRAINAGE PLAN
C3.1	GRADING AND DRAINAGE PLAN
C3.2	SPOT GRADING PLAN
C3.3	PRIVATE STREET 1 - PLAN AND PROFILE
C3.4	PRIVATE STREET 2 - PLAN AND PROFILE
C3.5	PHASE IIIA DRY POND - PLAN AND PROFILE
C3.6	PHASE IIIB DRY POND - DETAILS
C3.7	PHASE IIIB DRY POND - PLAN AND PROFILE
C3.8	PHASE IIIB DRY POND - DETAILS
C3.9	SCM DETAILS
C4.0	EROSION CONTROL PLAN - PHASE I
C4.1	EROSION CONTROL PLAN - PHASE I

C4.2	EROSION CONTROL PLAN - PHASE II
C4.3	EROSION CONTROL PLAN - PHASE II
C4.4	NPDES PLAN
C4.5	NPDES PLAN
C4.6	NPDES NOTES AND DETAILS
C5.0	UTILITY PLAN
C5.1	UTILITY PLAN
C5.2	SANITARY SEWER PLAN AND PROFILE
C5.3	WATER MAIN PLAN AND PROFILE
C6.0	LANDSCAPE PLAN
C6.1	LANDSCAPE PLAN
C7.0	NOTES AND DETAILS
C7.1	NOTES AND DETAILS
C7.2	NOTES AND DETAILS
C7.3	NOTES AND DETAILS
C7.4	NOTES AND DETAILS
C7.5	NOTES AND DETAILS
C7.6	NOTES AND DETAILS
C7.7	NOTES AND DETAILS
L1.0	SITE LIGHTING PLAN
L1.1	SITE LIGHTING DETAILS

- GENERAL NOTES:
- IT SHALL BE UNLAWFUL FOR ANY PERSON TO MAKE ANY EXCAVATION OR DO ANY OTHER WORK WHICH MAY CAUSE A DANGEROUS CONDITION IN OR ON ANY STREET, ALLEY, SIDEWALK, PUBLIC WAY OR PUBLIC PLACE IN THE CITY, UNLESS A WRITTEN PERMIT IS FIRST OBTAINED FROM AN OFFICER OF THE CITY VESTED WITH AUTHORITY TO GRANT THE SAME. NO PERMIT SHALL BE ISSUED IN ANY CASE WHERE A BOND IS REQUIRED, UNTIL A BOND SHALL HAVE BEEN EXECUTED.
  - ALL CONTRACTORS SHALL VISIT THE PROJECT TO FAMILIARIZE THEMSELVES WITH SITE CONDITIONS PRIOR TO BIDDING OR CONSTRUCTION. BY SUBMITTING A BID, THE CONTRACTOR AND HIS SUBCONTRACTORS ARE CONFIRMING THAT THEY HAVE VISITED THE SITE AND HAVE INCLUDED IN THEIR BID ANY ADDITIONAL ITEMS OF CONSTRUCTION THAT MAY BE REQUIRED DUE TO EXISTING SITE CONDITIONS.
  - CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR  
PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS



THIS DRAWING PREPARED AT THE  
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TEL 919.866-4931 FAX 919.833.8124 www.timmons.com

REVISION DESCRIPTION  
REVISION PER CFBIA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/11/2020  
09/21/2020

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

COVER SHEET

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

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SURVEY NOTES

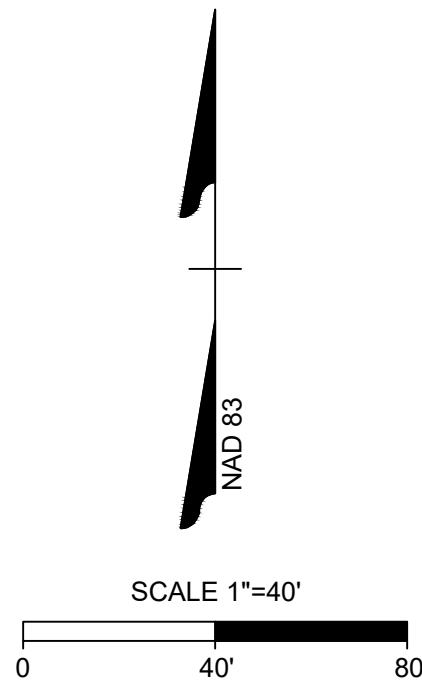
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- ALL DISTANCES SHOWN ON SURVEY ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
- THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY THIS FIRM.
- BASIS OF BEARING SHOWN HEREON IS NC GRID NAD 83 (NSRS 2007).
- VERTICAL DATUM SHOWN HEREON IS NAVD88.
- NOT LOCATED IN FLOOD HAZARD AREA PER FEMA MAP #3720312900K (EFFECTIVE 08/28/2018).
- EXISTING IMPERVIOUS AREA = 0.01 ACRES
- THE UTILITIES ON THESE PLANS ARE APPROXIMATE ONLY, AND ARE NOT ACCURATE FOR CONSTRUCTION PURPOSES. FOR FIELD MARKS CALL 1-800-632-4949.

WETLAND NOTES

- WETLANDS DELINEATION PER MAP TITLED "WETLANDS LOCATION SURVEY WILMINGTON INTERNATIONAL AIRPORT 500 +/- ACRE WETLAND DELINEATION" BY MCKIM & CREED DATED 11-30-2010. USACE JURISDICTIONAL DETERMINATION LETTER DATED 1/31/2020.

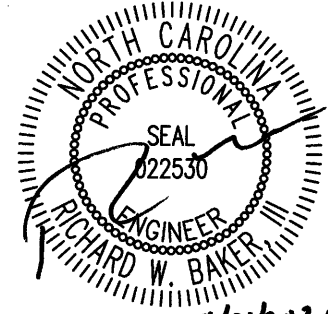
EXISTING CONDITIONS PLAN KEYNOTES	
NUMBER	DESCRIPTION
CE01	TEMPORARY BENCHMARK #1 IRON ROD N = 190,125.11' E = 2,326,176.26' ELEV. = 25.38'
CE02	TEMPORARY BENCHMARK #2 IRON ROD N = 190,169.26' E = 2,326,812.71' ELEV. = 24.30'

LEGEND		
IPF - IRON PIPE FOUND IRF - IRON ROD FOUND AMF - ALUMINUM MONUMENT FOUND IPS - IRON PIPE SET CP - COMPUTED EASEMENT POINT CMF - CONCRETE MONUMENT PKS - PK NAIL SET PKF - PK NAIL FOUND RSF - RAILROAD SPIKE FOUND CSF - COTTON SPINDLE FOUND BFP - BACKFLOW PREVENTER WV - WATER VAULT TV - TELEPHONE VAULT TCB - TRAFFIC CONTROL BOX PV - POWER VAULT UV - UTILITY VAULT WV - WETLAND FLAG RCP - REINFORCED CONCRETE PIPE CMP - CORRUGATED METAL PIPE VCP - VITRIFIED CLAY PIPE DIP - DUCTILE IRON PIPE HDPE - HIGH DENSITY POLYETHYLENE PIPE FES - FLARED END SECTION MKF - FIBER OPTIC MARKER MKG - GAS MARKER TVP - TELEVISION PEDESTAL SIGP - SIGNAL POLE HVAC - HEATING, VENTILATION AND AIR CONDITIONING LSA - LANDSCAPED AREA R/W - RIGHT-OF-WAY P/L - PROPERTY LINE C/L - CENTERLINE NTS - NOT TO SCALE GV - GAS VALVE CB - CATCH BASIN GI - GRATE INLET YI - YARD INLET CI - CURB INLET EP - EDGE OF PAVING TBC - TOP BACK OF CURB DB - DEED BOOK PB - PLAT BOOK FG - PAGE SF - SQUARE FEET CONC - CONCRETE	MH DRAINAGE MH SANITARY MH ELECTRIC MH TELEPHONE MH WATER STORM INLET ELECTRIC BOX TELEPHONE PEDESTAL CABLE TV PEDESTAL SIGN ELECTRIC METER WATER METER WATER VALVE FIRE HYDRANT POWER POLE LIGHT POLE YARD LIGHT GROUND LAMP	SPRINKLER BOX SPRINKLER HEAD SPRINKLER VALVE GAS TEST LOCATION FUEL LID GAS VALVE FLAG POLE SHRUB, BUSH OR SAPLING BOLLARD BOREHOLE AC UNIT MAILBOX CLEAN OUT GUY HANDICAP PARKING WELL MONITORING WELL ROOF DRAIN WATER SPIGOT DEED LINE LINE NOT SURVEYED STORM LINE SANITARY LINE FENCE OVERHEAD POWER LINE PAINTED GAS LINE PAINTED POWER LINE PAINTED TELEPHONE LINE PAINTED WATER LINE EDGE OF TREELINE



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09/11/2020	A. MAY
DATE	DESIGNED BY
09/21/2020	B. DOWNS
DATE	CHECKED BY
	R. BAKER
SCALE	
AS SHOWN	

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

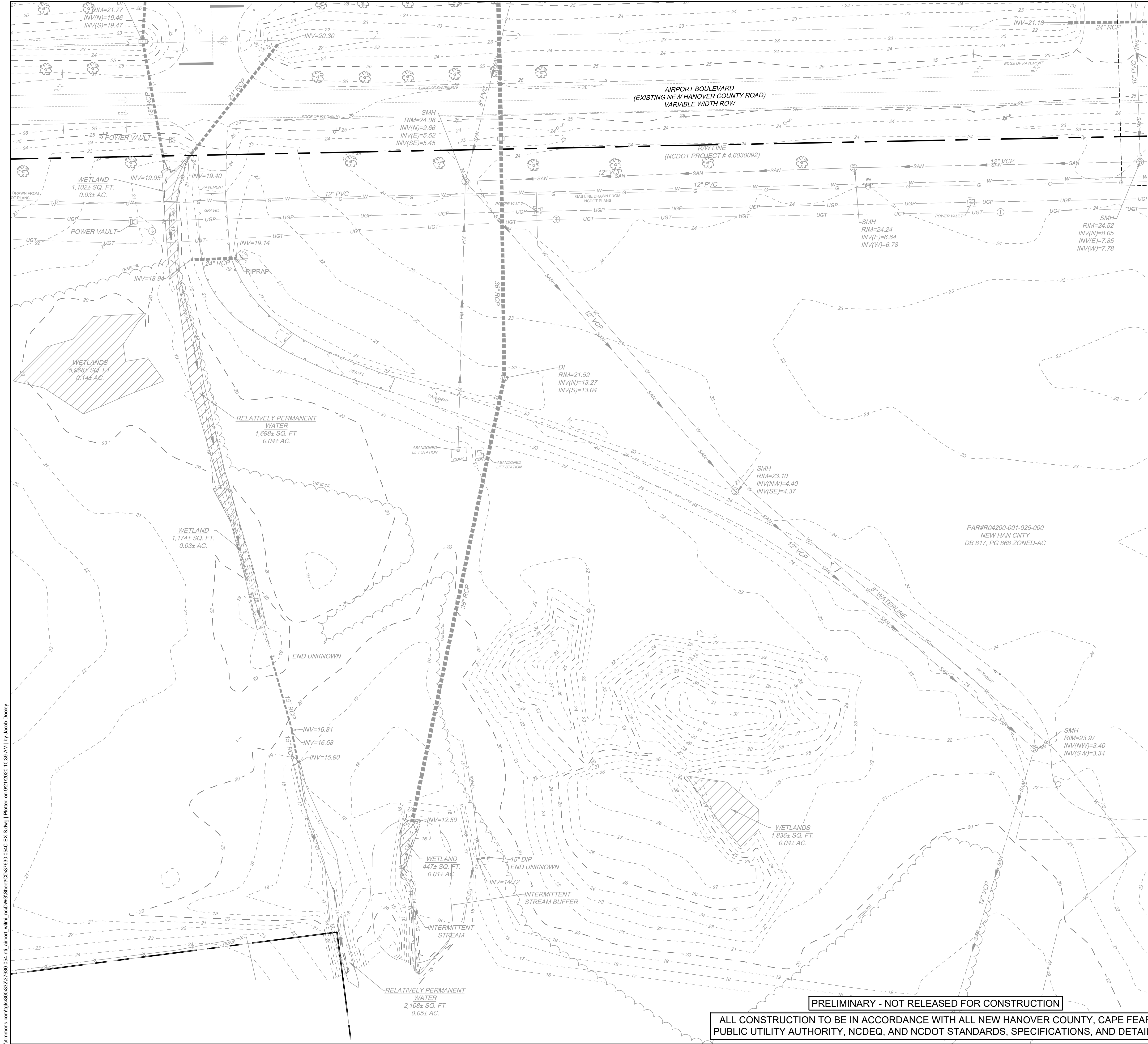
CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

EXISTING CONDITIONS PLAN

JOB NO.
37630.054
SHEET NO.
C1.0

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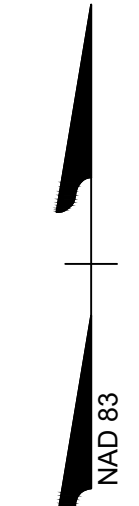
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EXISTING CONDITIONS PLAN KEYNOTES	
NUMBER	DESCRIPTION
CE01	TEMPORARY BENCHMARK #1
	IRON ROD
	N = 190,125.11' E = 2,326,176.26' ELEV. = 25.38'
CE02	TEMPORARY BENCHMARK #2
	IRON ROD
	N = 190,169.26' E = 2,326,612.71' ELEV. = 24.30'

# LEGEND

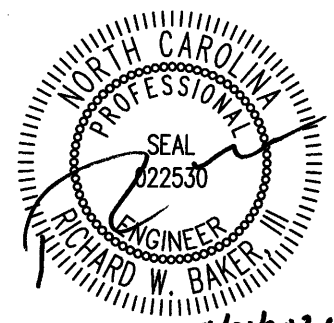
	IPF - IRON PIPE FOUND		MH DRAINAGE		SPRINKLER BOX
	AMF - ALUMINUM MONUMENT FOUND		MH SANITARY		SPRINKLER HEAD
	IPS - IRON PIPE SET		MH ELECTRIC		SPRINKLER VALVE
	CP - COMPUTED EASEMENT POINT		MH TELEPHONE		GAS TEST LOCATION
	CMF - CONCRETE MONUMENT		MH WATER		FUEL LID
	PK5 - PK NAIL SET		STORM INLET		GAS VALVE
	PKF - PK NAIL FOUND		ELECTRIC BOX		FLAG POLE
	RSF - RAILROAD SPIKE FOUND		TELEPHONE PEDESTAL		SHRUB, BUSH OR SAPLING
	CSF - COTTON SPINDLE FOUND		CABLE TV PEDESTAL		BOLLARD
	BFP - BACKFLOW PREVENTER		SIGN		BOREHOLE
	WATER VAULT		ELECTRIC METER		AC UNIT
	TELEPHONE VAULT		WATER METER		MAILBOX
	TRAFFIC CONTROL BOX		WATER VALVE		CLEAN OUT
	POWER VAULT		FIRE HYDRANT		GUY
	UTILITY VAULT		POWER POLE		HANDICAP PARKING
	WF - WETLAND FLAG		LIGHT POLE		WELL
	RCP - REINFORCED CONCRETE PIPE		YARD LIGHT		MONITORING WELL
	CMP - CORRUGATED METAL PIPE		GROUND LAMP		ROOF DRAIN
	VCP - VITRIFIED CLAY PIPE				WATER SPIGOT
	DIP - DUCTILE IRON PIPE				DEED LINE
	HDPE - HIGH DENSITY POLYETHYLENE PIPE				LINE NOT SURVEYED
	FES - FLARED END SECTION				STORM LINE
	MKF - FIBER OPTIC MARKER				SANITARY LINE
	MKG - GAS MARKER				FENCE
	TYP - TELEVISION PEDESTAL				OVERHEAD POWER LINE
	SIGP - SIGNAL POLE				PAINTED GAS LINE
	HVAC - HEATING, VENTILATION AND AIR CONDITIONING				PAINTED POWER LINE
	LSA - LANDSCAPED AREA				PAINTED TELEPHONE LINE
	R/W - RIGHT-OF-WAY				PAINTED WATER LINE
	P/L - PROPERTY LINE				EDGE OF TREELINE
	C/L - CENTERLINE				
	NTS - NOT TO SCALE				
	GV - GAS VALVE				
	CB - CATCH BASIN				
	GI - GRATE INLET				
	YI - YARD INLET				
	CI - CURB INLET				
	EP - EDGE OF PAVING				
	TBC - TOP BACK OF CURB				
	DB - DEED BOOK				
	PB - PLAT BOOK				
	PG - PAGE				
	SF - SQUARE FEET				
	CONC - CONCRETE				



SCALE 1"=40'

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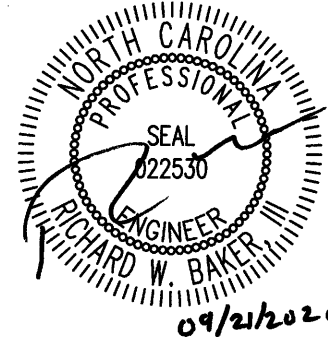
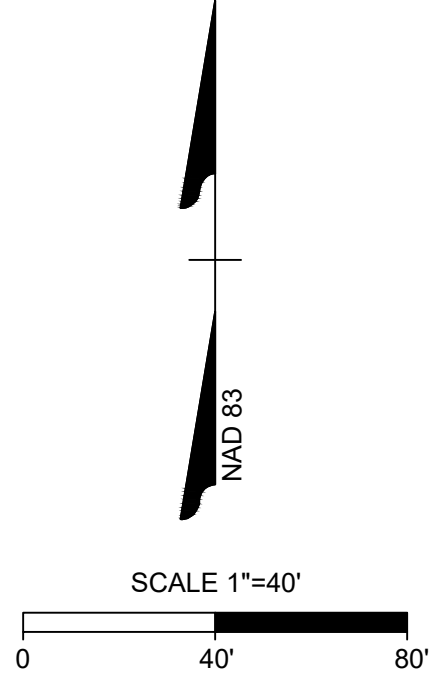
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DEMOLITION NOTES

- ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE. CONTRACTOR TO OBTAIN, REFERENCE, AND UTILIZE ALL AVAILABLE ENVIRONMENTAL REPORTS (PHASE 1 ESA, ASBESTOS, ETC.) FROM DEVELOPER.
- ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
- REMOVE/ DEMOLISH/ ABANDON AFTER EROSION CONTROL MEASURES ARE IN PLACE AN APPROVAL OF THE INSPECTOR. REFER TO EROSION CONTROL PLAN.
- REMOVE TOPSOIL AND STOCKPILE APPROPRIATELY ON-SITE. ON-SITE TEMPORARY STOCKPILES SHALL BE LOCATED WITHIN CONSTRUCTION LIMITS. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED BY THE OWNER OR OTHERS EXCEPT WHEN PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE ACCEPTABLE TEMPORARY UTILITY SERVICES. (1) NOTIFY OWNER NOT LESS THAN ONE WEEK IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS. (2) DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT RECEIVING OWNER WRITTEN PERMISSION. (3) COORDINATE ALL UTILITY RELOCATION WITH APPROPRIATE UTILITY PROVIDER.
- ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TRENCH IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR DETAIL.
- PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGE OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
- SUBSURFACE FEATURES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR IS RESPONSIBLE FOR SUBSURFACE UTILITY EXPLORATION TO DETERMINE UTILITY LOCATIONS AND DEPTHS.
- THE CONTRACTOR SHALL USE NC ONE CALL (811) TO LOCATE ALL UNDERGROUND UTILITIES.
- CONTRACTOR TO VERIFY LOCATIONS AND SIZES OF ALL EXISTING FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION. REPAIR AND REPLACE ANY DAMAGES TO EXISTING UTILITIES RESULTING FROM CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING OR ABANDONING ALL EXISTING UTILITIES AND STRUCTURES REQUIRED TO COMPLETE SITE CONSTRUCTION, EITHER ONSITE OR IN PUBLIC ROW, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- WATER AND SEWER ABANDONMENT SHALL BE DONE IN ACCORDANCE WITH NEW HANOVER COUNTY STANDARDS INCLUDING DISCONNECT FROM THE MAIN AND REMOVAL OF SERVICES FROM THE RIGHT-OF-WAY.
- ANY EXISTING UNIDENTIFIED SEPTIC SYSTEMS AND WELLS FOUND ON SITE SHALL BE REMOVED OR ABANDONED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AT NO CHARGE TO THE OWNER
- VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
- CONTRACTOR SHALL COORDINATE ALL CONNECTIONS, RELOCATION AND DEMOLITION WORK WITH THE APPROPRIATE COMPANY OR JURISDICTION HAVING AUTHORITY AND SHALL OBTAIN ANY PERMITS AS REQUIRED.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
- EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE JUSTIFIED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED)
- GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING ETC. WITH THE DEVELOPER.
- CONTRACTOR SHALL NOTIFY APPROPRIATE DEPARTMENTS PRIOR TO BEGINNING ANY WORK WITHIN PUBLIC RIGHT-OF-WAY.

DEMOLITION KEYNOTES	
NUMBER	DESCRIPTION
D01	EXISTING FEATURE TO REMAIN.
D02	REMOVE EXISTING FEATURE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR TO COORDINATE AS NEEDED WITH LOCAL MUNICIPALITY, INSPECTORS, AND/OR UTILITY COMPANIES.
D03	RELOCATE AND MODIFY EXISTING FEATURE TO REMAIN IN SERVICE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR TO COORDINATE AS NEEDED WITH LOCAL MUNICIPALITY, INSPECTORS, AND/OR UTILITY COMPANIES.
D04	EXISTING WETLANDS TO BE REMOVED ONLY AFTER IMPACT IS FULLY PERMITTED.
D05	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
D06	CIRCLE K FUNDED CONSTRUCTION WORK
D07	ILM FUNDED CONSTRUCTION WORK
	TREE DEMOLITION AREA (INDIVIDUAL TREES DENOTED WITH X)



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CHECKED BY	R. BAKER
SCALE	AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

DEMOLITION PLAN

JOB NO.
37630.054
SHEET NO.
C1.2

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR  
PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

1. ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
2. CONTRACTOR TO OBTAIN, REFERENCE, AND UTILIZE ALL AVAILABLE ENVIRONMENTAL RECORDS (PHASE I ESA, ASBESTOS, ETC.) FROM DEVELOPER.
3. ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
4. REMOVE/ DEMOLISH ABANDON AFTER EROSION CONTROL MEASURES ARE IN PLACE AN APPROVAL OF THE INSPECTOR. REFER TO EROSION CONTROL PLAN.
5. REMOVE TOPSOIL AND STOCKPILE APPROPRIATELY ON-SITE. ON-SITE TEMPORARY STOCKPILES SHALL BE LOCATED WITHIN CONSTRUCTION LIMITS. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED BY THE OWNER OR OTHERS EXCEPT WHEN PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE ACCEPTABLE TEMPORARY UTILITY SERVICES. (1) NOTIFY OWNER NOT LESS THAN ONE WEEK IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS. (2) DO NOT INTERFERE WITH UTILITY IN OPERATION WITHOUT RECEIVING OWNER'S WRITTEN PERMISSION. (3) COORDINATE ALL UTILITY RELOCATION WITH APPROPRIATE UTILITY PROVIDER.
7. ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT WITH NEW CONSTRUCTION. ANY EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH EXISTING CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED). UTILITY INSTALLATIONS MAY UTILIZE OPEN CUT OF PAVEMENTS UNLESS INDICATED OTHERWISE. TOUCH-UP IN EXISTING ASPHALT SHALL BE PATCHED PER PAVEMENT REPAIR DETAIL.
8. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGE OCCUR, NOTIFY ARCHITECT IMMEDIATELY.
9. SUBSURFACE FEATURES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR IS RESPONSIBLE FOR SUBSURFACE UTILITY EXPLORATION TO DETERMINE UTILITY LOCATIONS AND DEPTHS.
10. THE CONTRACTOR SHALL USE NC ONE CALL (811) TO LOCATE ALL UNDERGROUND UTILITIES.
11. CONTRACTOR TO VERIFY LOCATIONS AND SIZES OF ALL EXISTING FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION. REPAIR AND REPLACE ANY DAMAGES TO EXISTING UTILITIES RESULTING FROM CONSTRUCTION.
12. CONTRACTOR IS RESPONSIBLE FOR REMOVING OR ABANDONING ALL EXISTING UTILITIES AND STRUCTURES REQUIRED TO COMPLETE SITE CONSTRUCTION, EITHER ONSITE OR IN PUBLIC ROW, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
13. WATER AND SEWER ABANDONMENT SHALL BE DONE IN ACCORDANCE WITH NEW HANOVER COUNTY STANDARDS INCLUDING DISCONNECT FROM THE MAIN AND REMOVAL OF SERVICES FROM THE RIGHT-OF-WAY.
14. ANY EXISTING UNIDENTIFIED SEPTIC SYSTEMS AND WELLS FOUND ON SITE SHALL BE REMOVED OR ABANDONED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AND TO CHARGE TO THE OWNER.
15. NOTIFY ALL INDICATED KNOWN UNDERGROUND ELEMENTS EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
16. CONTRACTOR SHALL COORDINATE ALL CONNECTIONS, RELOCATION AND DEMOLITION WORK WITH THE APPROPRIATE COMPANY OR JURISDICTION HAVING AUTHORITY AND SHALL OBTAIN ANY PERMITS AS REQUIRED.
17. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
18. EXISTING MANHOLES, VALVE BOXES, VAULTS, CLEANOUTS, UTILITY POLES ETC. TO REMAIN WITHIN THE GRADING LIMITS SHALL BE ADJUSTED AS NEEDED TO FUNCTION PROPERLY WITH THE PROPOSED FINISHED GRADES (WHETHER OR NOT INDICATED TO BE MODIFIED).
19. GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING ETC. WITH THE DEVELOPER.
20. CONTRACTOR SHALL NOTIFY APPROPRIATE DEPARTMENTS PRIOR TO BEGINNING ANY WORK WITHIN PUBLIC RIGHT-OF-WAY.

SCALE 1"=40'

0 40' 80'

JOB NO.  
37630.054

SHEET NO.  
C1.3

A. MAY  
DESIGNED BY  
B. DOWNS  
CHECKED BY  
R. BAKER

# DEMOLITION PLAN

JOB NO.  
7630.054

SHEET NO.  
C1.3

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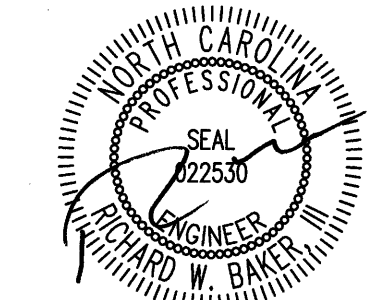


SITE LAYOUT NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NEW HANOVER COUNTY AND NCDOT STANDARDS AND SPECIFICATIONS.
2. ALL DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVING, BUILDING WALL FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, UTILITIES AND GRADES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING DISCREPANCIES PRIOR TO COMMENCING ANY RELATED CONSTRUCTION.
4. AT LEAST 72 HOURS PRIOR TO CONSTRUCTION OR EXCAVATION THE CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" (811) OR (1-800-632-4949) TO HAVE EXISTING UTILITIES LOCATED.
5. PARKING SPACES ARE 9.5' WIDE X 18' LONG MINIMUM EXCEPT HANDICAP SPACES WHICH ARE 8.0' WIDE MINIMUM WITH 8.0' VAN ACCESS AND 5.0' STANDARD ACCESS AISLES.
6. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF THE BUILDING.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DIMENSIONAL CONFLICTS PRIOR TO THE BEGINNING OF CONSTRUCTION.
8. ALL CURB AND GUTTER ONSITE SHALL BE 24" WIDE.
9. ALL DISTURBED CURB & GUTTER AND ASPHALT SHALL BE REPLACED PER NEW HANOVER COUNTY OR NCDOT STANDARDS AND SPECIFICATIONS.
10. ALL DRIVEWAY DESIGN AND CONSTRUCTION MUST COMPLY WITH NEW HANOVER COUNTY SPECIFICATIONS. DRIVEWAYS SHALL BE PERMITTED SEPARATELY.
11. NO SIGHT OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, FOLIAGE, BERMING, PARKED VEHICLES OR SIGN BETWEEN THE HEIGHTS OF TWENTY-FOUR (24) INCHES AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION, OR THE NEAREST TRAVELED WAY IF NO CURBING EXISTS, SHALL BE PLACED WITHIN A SIGHT TRIANGLE OF A PUBLIC STREET, PRIVATE STREET OR DRIVEWAY CONTAINED EITHER ON THE PROPERTY OR ON AN ADJOINING PROPERTY.

SITE LAYOUT KEYNOTES	
NUMBER	DESCRIPTION
CS01	C-STORE BUILDING, REFER TO ARCHITECTURAL AND MEP PLANS BY OTHERS.
CS02	DUMPSTER ENCLOSURE AND BOLLARDS; REFER TO ARCHITECTURAL PLANS BY OTHERS.
CS05	GAS CANOPY; REFER TO CANOPY PLANS BY OTHERS.
CS07	UST TANKS AND PAD; REFER TO FUELING PLANS BY OTHERS FOR PAD SIZING AND PAVING DESIGN.
CS10	PYLON SIGN; FURNISHED AND INSTALLED BY OTHERS. VERIFY EXACT LOCATION AND DESIGN BEFORE ROUGH-IN. PERMITTED BY OTHERS.
CS11	AIR AND WATER MACHINE; PROVIDE 3'x6' CONCRETE PAD. REFER TO DETAIL CK-160.
CS12	AIR AND WATER MACHINE PAVEMENT MARKING; REFER TO DETAIL CK-165.
CS13	TRANSFORMER PAD; GC TO COORDINATE LOCATION WITH LOCAL PROVIDER. LOCAL PROVIDER CAN SUPERSEDE THE PROPOSED TRANSFORMER PAD LOCATION.
CS14	ROOF LADDER PAD; 4'x6' STANDARD DUTY CONCRETE IF LOCATED IN LANDSCAPE AREA.
CS16	CO2 TANK AND STORAGE CABINET; 4'x4' STANDARD DUTY CONCRETE PAD IF LOCATED IN LANDSCAPE AREA.
CS17	BUILDING SERVICE ENTRANCE SECTION; 3.5'x7' STANDARD DUTY CONCRETE PAD IF LOCATED IN LANDSCAPE AREA.
CS18	OUTDOOR SEATING; REFER TO PLAN FOR DIMENSIONS.
CS20	THREE SEAT ROUND OUTDOOR SEATING TABLE; REFER TO DETAIL CK-195 (TYP.). REFER TO PLAN FOR COUNT.
CS21	CUSTOMER ONLY SEATING SIGN; REFER TO DETAIL CK-199.
CS23	BICYCLE RACK; REFER TO DETAIL CK-198 OR LOCAL REQUIREMENT.
CS24	4" BOLLARD AND COVER, REFER TO DETAIL CK-180 AND CK-197 (TYP.), CENTER ON ADA STRIPING. 5' ON CENTER SPACING. REFER TO PLAN FOR COUNT.
CS25	4" BOLLARD AND COVER, REFER TO DETAIL CK-180 AND FUELING PLANS FOR LOCATION AND COUNT (TYP.).
CS27	ACCESSIBLE PARKING SIGN (TYPICAL - PER ADA AND LOCAL CODES) R7-8A (MUTCD) MOUNTED IN A BOLLARD; REFER TO DETAIL CK-185.
CS28	VAN ACCESSIBLE PARKING SIGN (TYPICAL - PER ADA AND LOCAL REQUIREMENTS) R7-8A (MUTCD) MOUNTED IN A BOLLARD; REFER TO DETAIL CK-185.
CS29	ADA ACCESSIBLE PARKING SPACE, AISLE, AND SYMBOL STRIPING; REFER TO DETAIL CK-105 AND CK-110. PER ADA AND LOCAL CODES.
CS32	24" CURB & GUTTER; REFER TO DETAIL CK-120 AND CK-125.
CS33	30" WIDE CONCRETE COLOR BAND FLUSH CURB; REFER TO DETAIL CK-197.
CS34	LIGHT POLE BASE (TYPICAL - PER LIGHTING PLAN); REFER TO DETAIL CK-190 AND ARCHITECTURAL PLANS BY OTHERS.
CS36	DIRECTIONAL TRAFFIC ARROW (PER LOCAL CODES); REFER TO DETAIL CK-115 (TYP.).
CS38	EXISTING SIGNALIZED INTERSECTION
CS56	DOG WASTE STATION; TO BE PROVIDED BY AND INSTALLED BY CIRCLE K.
CS58	MPD; REFER TO DETAIL CK-200 (TYP.).
S01	RIGHT-OF-WAY (TYP.)
S02	LEASE BOUNDARY (TYP.)
S28	EXISTING ROAD CENTERLINE
S34	RIGHT IN / RIGHT OUT DRIVEWAY
S35	ROAD WIDENING FOR RIGHT TURN LANE
S41	PARKING STALL STRIPING PER LOCAL CODES (TYP.)
S44	10' X 70' SIGHT DISTANCE TRIANGLE (TYP.)
S53	"RIGHT TURN ONLY" SIGN; R3-5 (MUTCD)
S60	PROPOSED CENTERLINE; TO BE DESIGNED BY OTHERS
S61	PROPOSED ROAD BARRICADE
S62	1' 6" NCDOT MOUNTABLE CURB
S63	4' WIDE, 5" HIGH CONCRETE MONOLITHIC ISLAND PER NCDOT STD 852.01
S64	MUTCD R4-7 MEDIAN SIGN
S65	TRAFFIC SIGNAL MODIFICATIONS. REFER TO TRAFFIC SIGNAL PLANS.
S66	30' WIDE CFPWA SANITARY SEWER EASEMENT
S67	20' WIDE CFPWA WATER EASEMENT
S68	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
S69	CIRCLE K FUNDED CONSTRUCTION WORK
S70	ILM FUNDED CONSTRUCTION WORK
S71	30"x30" R1-1 "STOP" SIGN AND 24" WIDE "STOP" BAR
S72	VARIABLE WIDTH SCM ACCESS EASEMENT

TRAFFIC CONTROL KEYNOTES			
Symbol	Description	Material	Linear Length Adjustment
T2	WHITE STOPBAR (24", 120 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01.	Thermo	1
TA	WHITE EDGE LINE (4", 90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01.	Thermo	1
TD	3 FT. - 9 FT./SP WHITE MINISKIP (4", 120 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01.	Thermo	0.25
TE	WHITE SOLID LANE LINE (4", 120 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01.	Thermo	1
TI	YELLOW DOUBLE CENTER (4", 120 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01.	Thermo	2
TN	WHITE GORELINE (8", 90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01 AND 1205.09.	Thermo	1
TO	WHITE DIAGONAL (8", 90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.01 AND 1205.09.	Thermo	1
UA	LEFT TURN ARROW (90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.08.	Thermo	1
UB	RIGHT TURN ARROW (90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.08.	Thermo	1
UC	STRAIGHT ARROW (90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.08.	Thermo	1
UE	COMBO. RIGHT/STRAIGHT ARROW (90 MIL); REFER TO NCDOT STANDARD DETAIL 1205.08.	Thermo	1



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DATE  
09/11/2020  
09/21/2020  
DATE  
09/02/2020  
DRAWN BY  
A. MAY  
DESIGNED BY  
B. DOWNS  
CHECKED BY  
R. BAKER  
SCALE  
AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA  
SITE LAYOUT PLAN  
JOB NO.  
37630.054  
SHEET NO.  
C2.0

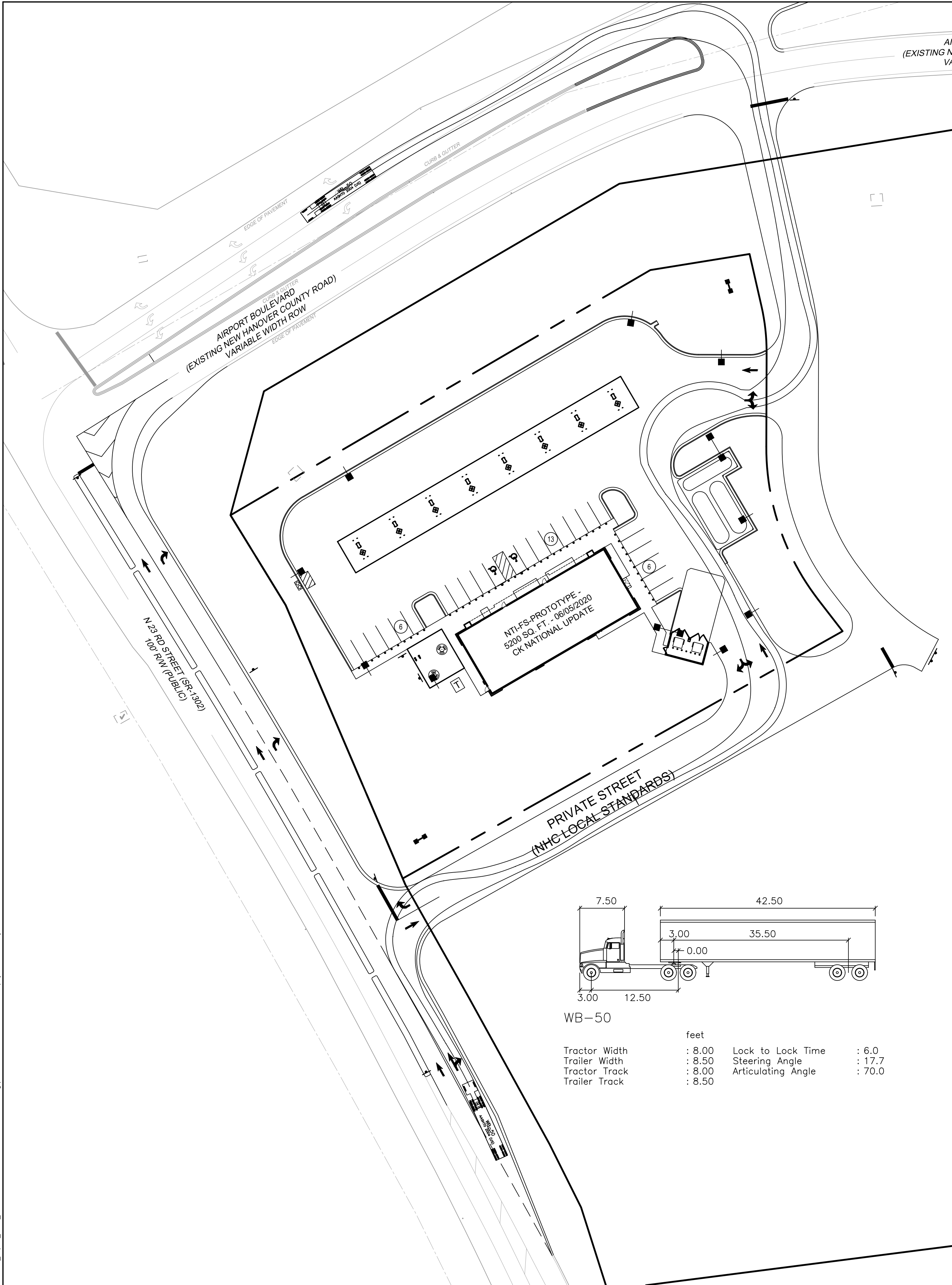
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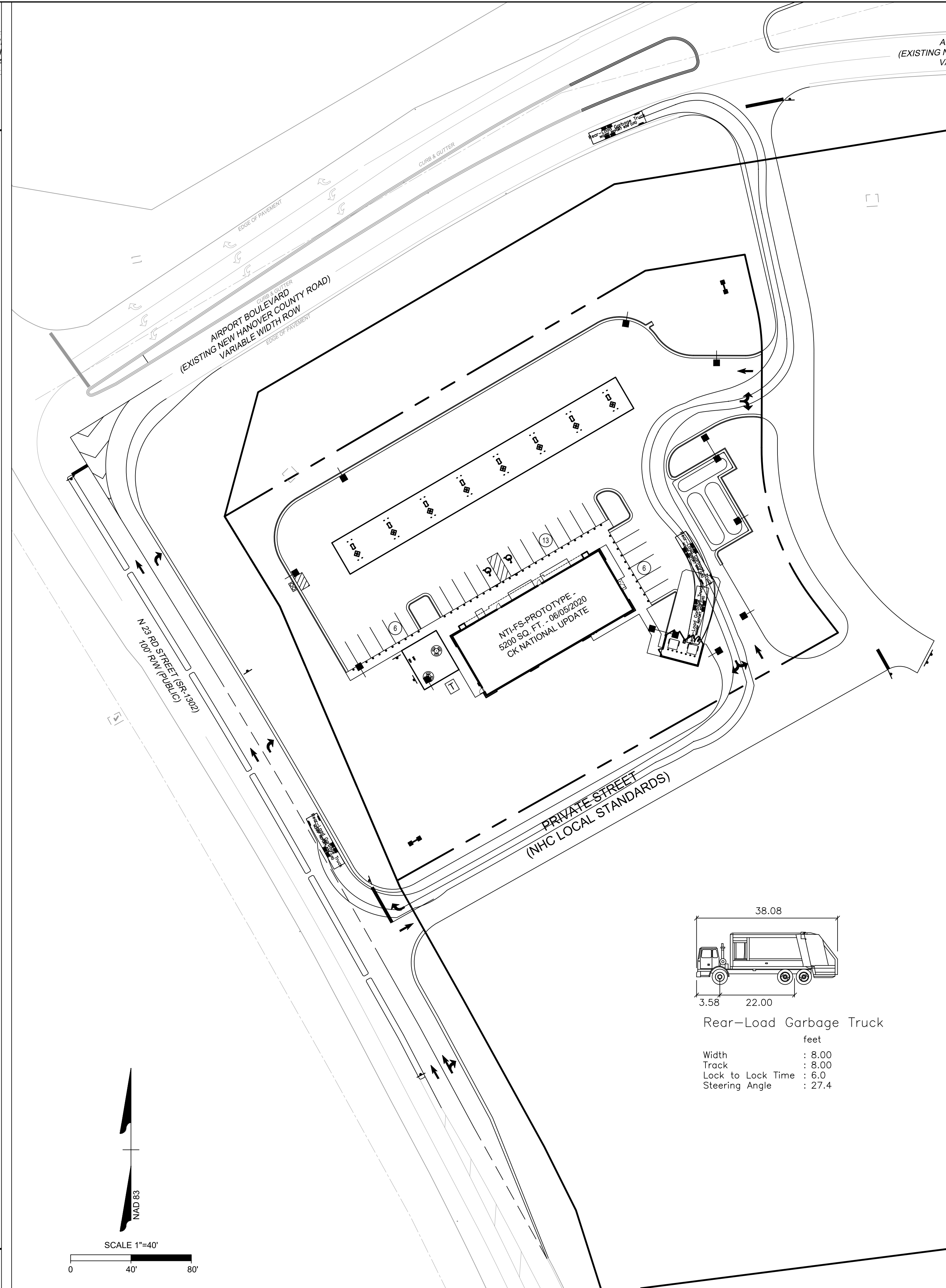




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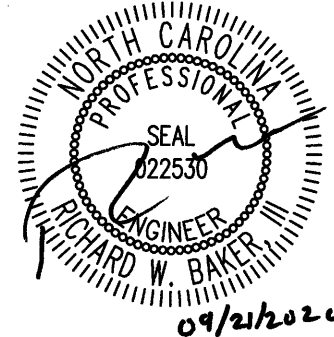
GAS TRUCK ROUTING (WB-50)



GARBAGE TRUCK ROUTING

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR  
PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS



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REVISION DESCRIPTION

REVISION PER CFBIA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE

09/11/2020

DATE

09/02/2020

DRAWN BY

A. MAY

DESIGNED BY

B. DOWNS

CHECKED BY

R. BAKER

SCALE

AS SHOWN

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

VEHICULAR ROUTING PLAN

JOB NO.

37630.054

SHEET NO.

C2.2

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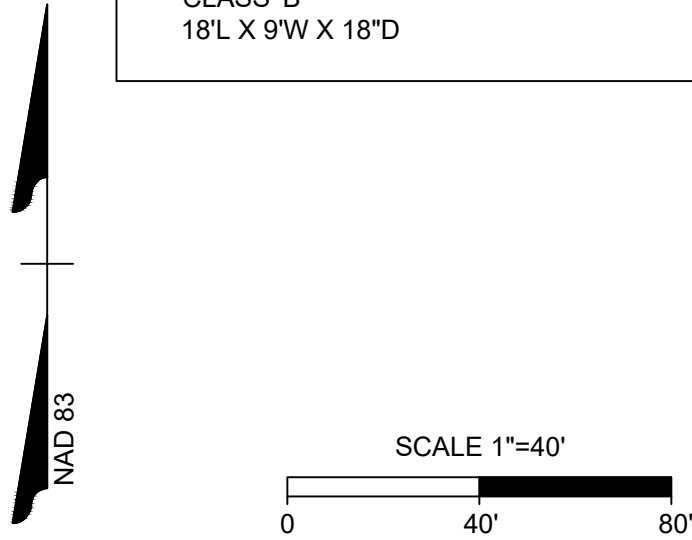


PIPE #	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH	DESCRIPTION
EW-EXPIE2	14.00	13.97	0.47%	7.42 LF	24 inch RCP
EW-EXPIE1	19.96	19.92	0.48%	8.00 LF	24 inch RCP
101A-101	14.35	14.20	0.32%	46.59 LF	18 inch RCP
103-102	16.35	16.00	0.82%	42.86 LF	30 inch RCP
105-104	16.93	16.50	1.00%	42.75 LF	30 inch RCP
106-105	18.25	17.31	1.00%	93.60 LF	24 inch RCP
107-106	21.75	19.07	3.00%	89.24 LF	15 inch RCP
109-108	22.71	22.51	0.30%	68.21 LF	18 inch Class IV RCP
201-200	12.89	12.80	0.30%	30.00 LF	30 inch RCP
202-201	13.05	12.93	0.30%	39.27 LF	30 inch RCP
204-203	14.55	14.25	1.00%	30.00 LF	42 inch RCP
206-205	14.55	14.25	1.00%	30.00 LF	42 inch RCP
208-207	15.08	14.80	1.00%	27.64 LF	30 inch RCP
209-208	19.20	18.90	0.54%	55.37 LF	30 inch RCP
211-210	15.04	14.80	1.00%	23.73 LF	42 inch RCP
212-211	18.70	18.20	0.87%	57.63 LF	36 inch RCP
213-211	15.60	15.24	0.50%	71.34 LF	30 inch RCP
215-214	19.15	19.01	0.30%	47.43 LF	18 inch RCP
302-301	23.52	23.20	0.35%	92.29 LF	18 inch Class IV RCP

GRADING PLAN KEYNOTES	
NUMBER	DESCRIPTION
CG01	TAPER CURB AND GUTTER TO FULL HEIGHT OVER 10' (TYP.); REFER TO DETAIL CK-135.
CG03	DAYLIGHT ROOF DRAIN DOWN SPOUTS TO GRADE (TYP.), REFER TO DETAIL CK-215.
CG05	STORM CLEANOUT; REFER TO DETAIL CK-210. TRAFFIC RATED IF WITHIN PAVEMENT (TYP.).
CG06	ROOF DRAIN SYSTEM, REFER TO PLAN FOR SIZE AND MATERIAL. MINIMUM COVER OF 2' AND MINIMUM SLOPE OF 1.00%.
CG09	DAYLIGHT CANOPY DRAINS OUTLET TO GRADE (TYP.)
G23	ADA STALLS (MAX SLOPE 1:50)
G24	SIDEWALK (ADA ACCESS ROUTE MAX CROSS SLOPE 1:50; MAX LONG. SLOPE 1:20)
G30	MATCH EXISTING PAVEMENT ELEVATION
G31	RIP RAP PAD OVER FILTER FABRIC (REFER TO SIZING CHART)
G32	RISER STRUCTURE
G40	24" CONCRETE FLUME
G41	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
G42	CIRCLE K FUNDED CONSTRUCTION WORK
G43	ILM FUNDED CONSTRUCTION WORK
G44	VARIABLE WIDTH SCM ACCESS EASEMENT

### **RIPRAP SIZING CHART**

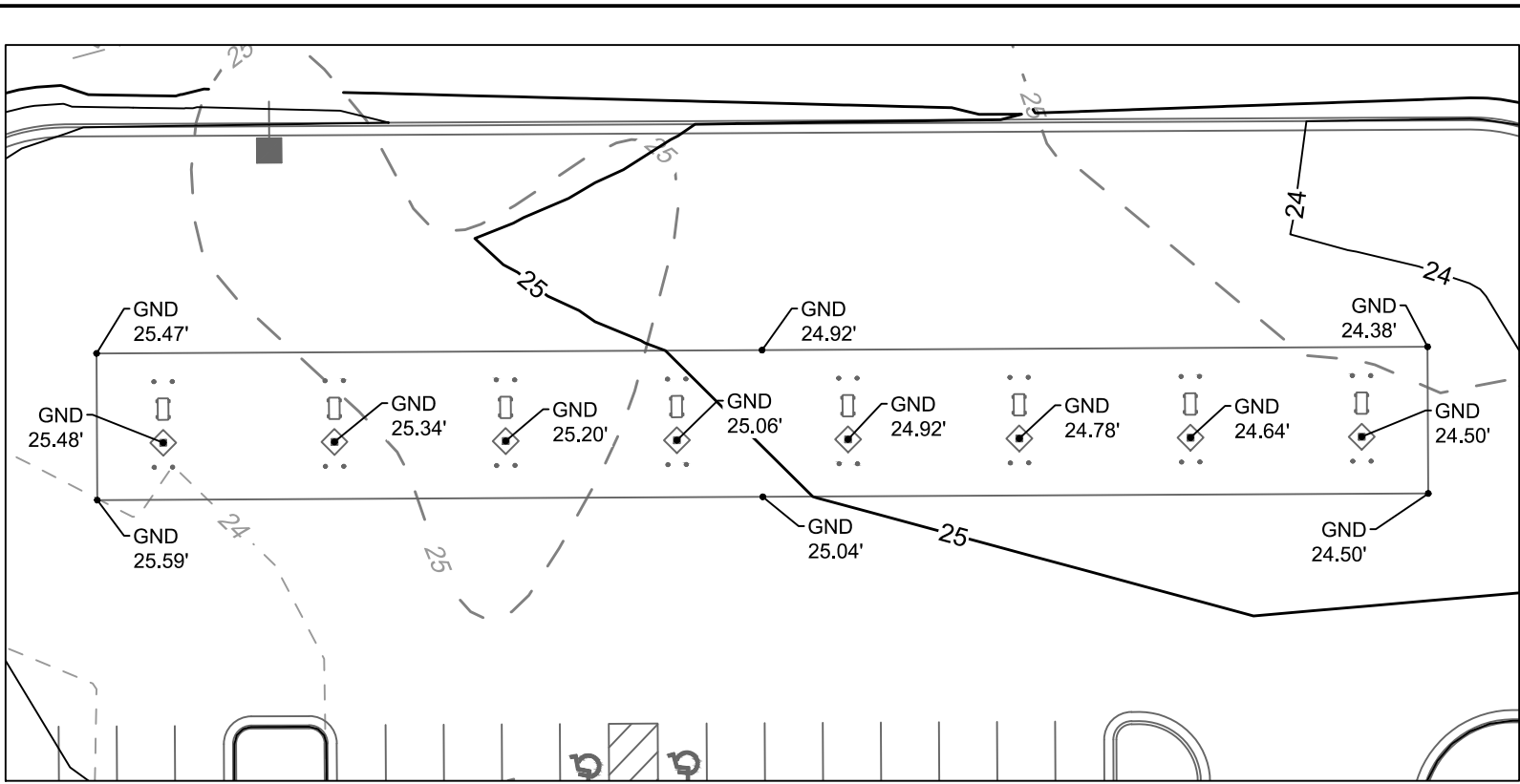
<ul style="list-style-type: none"> <li>• <b>EW101</b> CLASS 'B' 12L X 6W X 18"D</li> </ul>	<ul style="list-style-type: none"> <li>• <b>EW202_204_ &amp; 206</b> CLASS 'I' 40L X 22"W X 24"D</li> </ul>
<ul style="list-style-type: none"> <li>• <b>EW102</b> CLASS 'B' 16L X 6W X 18"D</li> </ul>	<ul style="list-style-type: none"> <li>• <b>FE214</b> CLASS 'A' 6L X 4.5"W X 12"D</li> </ul>
<ul style="list-style-type: none"> <li>• <b>EW103</b> CLASS 'B' 12L X 6W X 18"D</li> </ul>	<ul style="list-style-type: none"> <li>• <b>FE303</b> CLASS 'A' 6L X 4.5"W X 12"D</li> </ul>
<ul style="list-style-type: none"> <li>• <b>EW108</b> CLASS 'A' 6L X 4.5"W X 12"D</li> </ul>	<ul style="list-style-type: none"> <li>• <b>FE303</b> CLASS 'A' 8L X 6W X 12"D</li> </ul>
<ul style="list-style-type: none"> <li>• <b>EW200</b> CLASS 'B' 18L X 9W X 18"D</li> </ul>	



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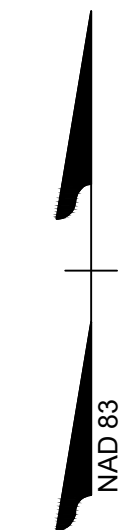
\\timmons.com\gis\3001\332\37630-054-nti\_airport\_wm.ncd\DWG\Sheet\CD\37630-054C-SPOT.dwg [Plotted on 9/21/2020 10:41 AM] by Jacob Dosley



GAS CANOPY SPOT GRADE INSET - SCALE 1" = 30'

GRADING PLAN KEYNOTES	
NUMBER	DESCRIPTION
G41	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
G42	CIRCLE K FUNDED CONSTRUCTION WORK
G43	ILM FUNDED CONSTRUCTION WORK

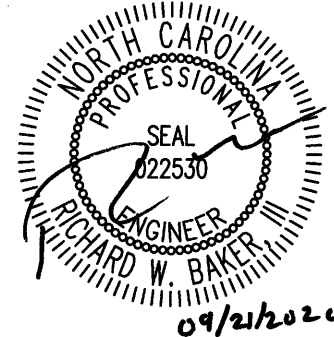
SPOT ELEVATION LEGEND  
TC = TOP OF CURB  
ME = MATCH EXISTING  
GND = GROUND  
SWK = SIDEWALK  
TW = TOP OF WALL  
BW = BOTTOM OF WALL  
HP = HIGH POINT  
FC = FLUSH CURB  
EP = EDGE OF PAVEMENT  
PVT = PAVEMENT



SCALE 1"=40'  
0 40' 80'

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS



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REVISION DESCRIPTION  
REVISION PER CFFRA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE	DATE
09/11/2020	09/02/2020
DRAWN BY	A. MAY
DESIGNED BY	B. DOWNS
CHECKED BY	R. BAKER
SCALE	AS SHOWN

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

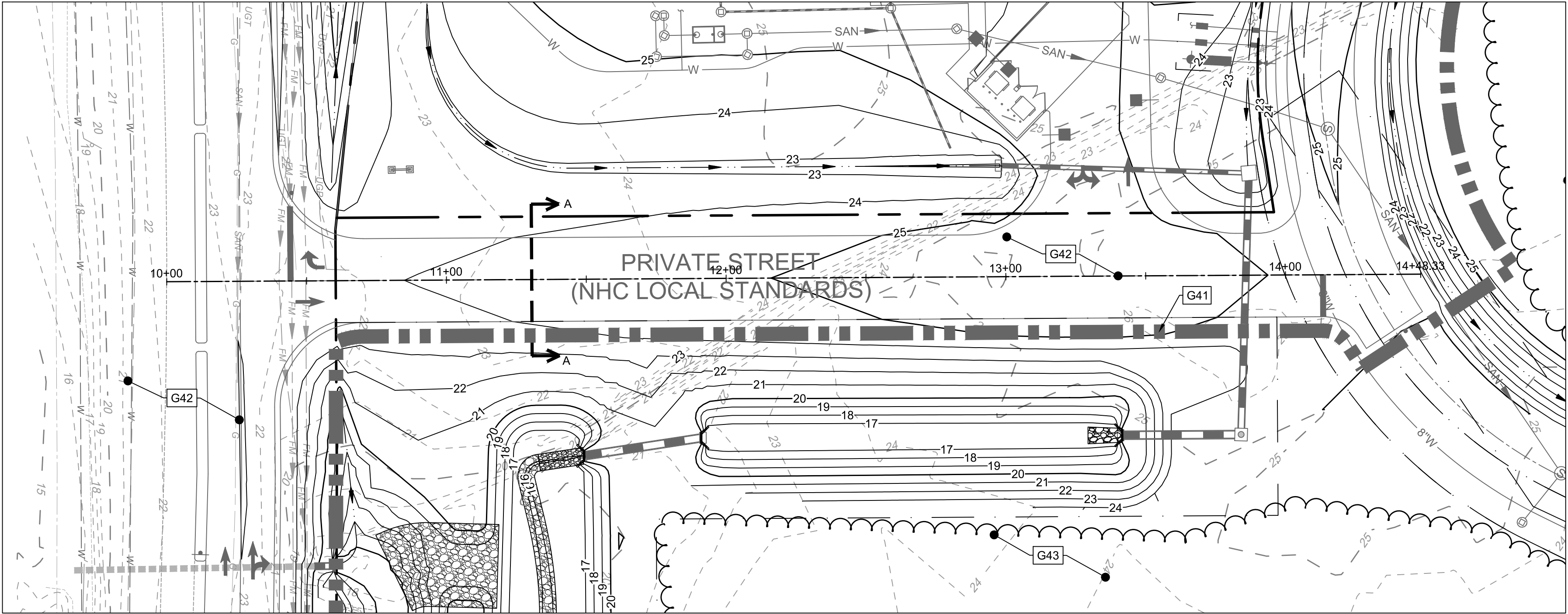
SPOT GRADING PLAN

JOB NO.	37630.054
SHEET NO.	C3.2

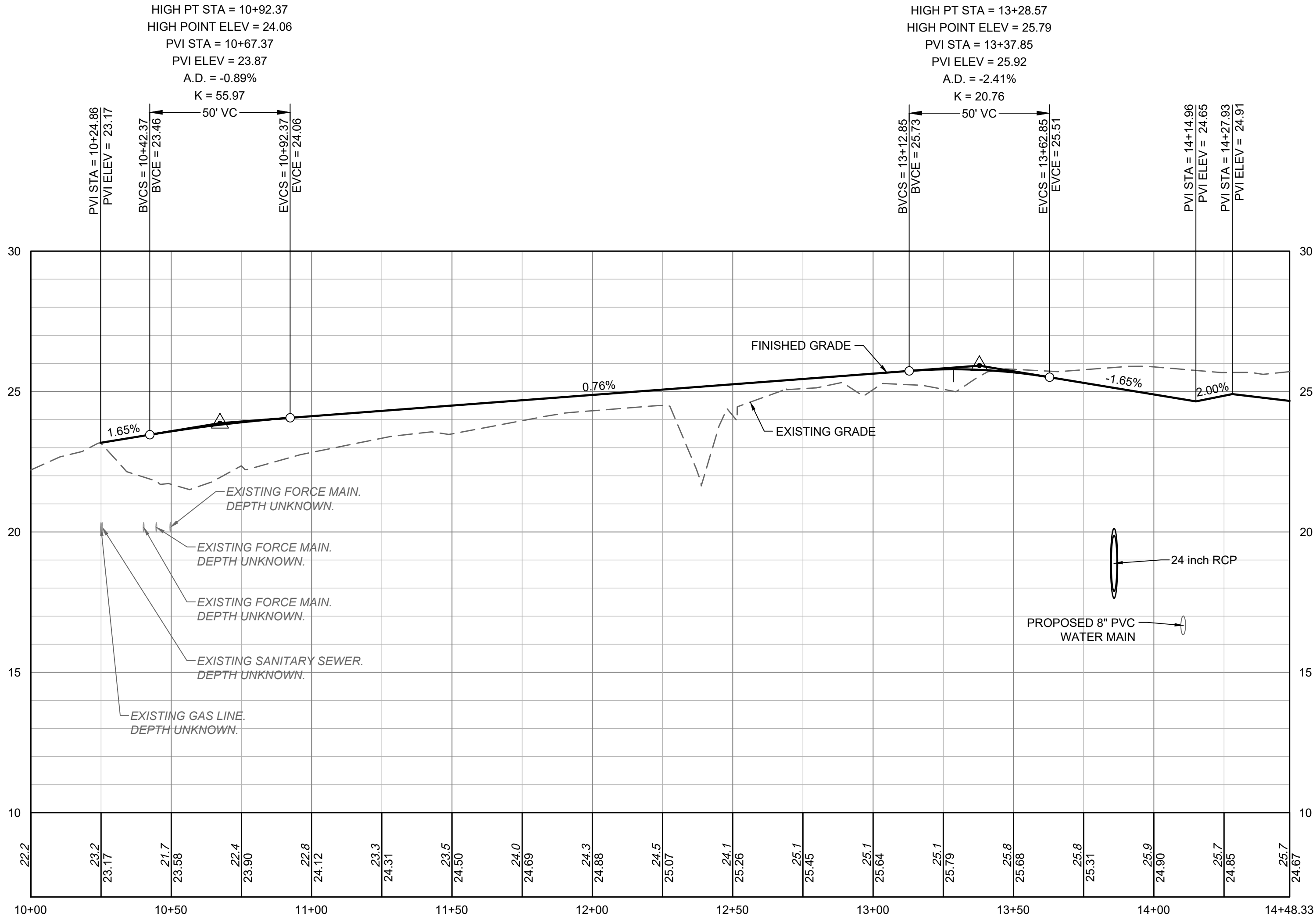
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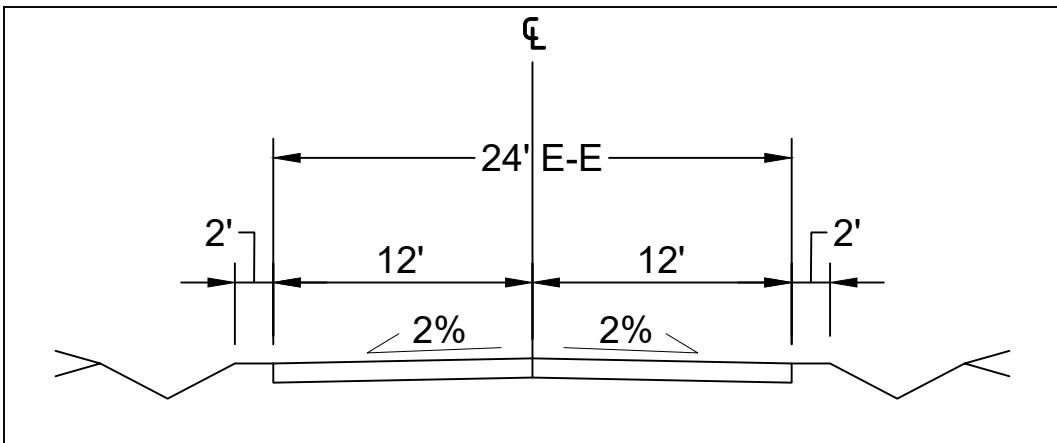


PRIVATE STREET 1 - PLAN VIEW

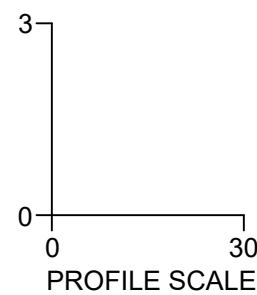


PRIVATE STREET 1 - PROFILE VIEW

GRADING PLAN KEYNOTES	
NUMBER	DESCRIPTION
G41	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
G42	CIRCLE K FUNDED CONSTRUCTION WORK
G43	ILM FUNDED CONSTRUCTION WORK

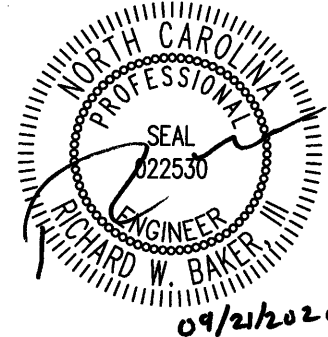


PRIVATE STREET 1  
CROSS SECTION A-A



PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/11/2020  
09/21/2020

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

PRIVATE STREET 1 - PLAN AND PROFILE

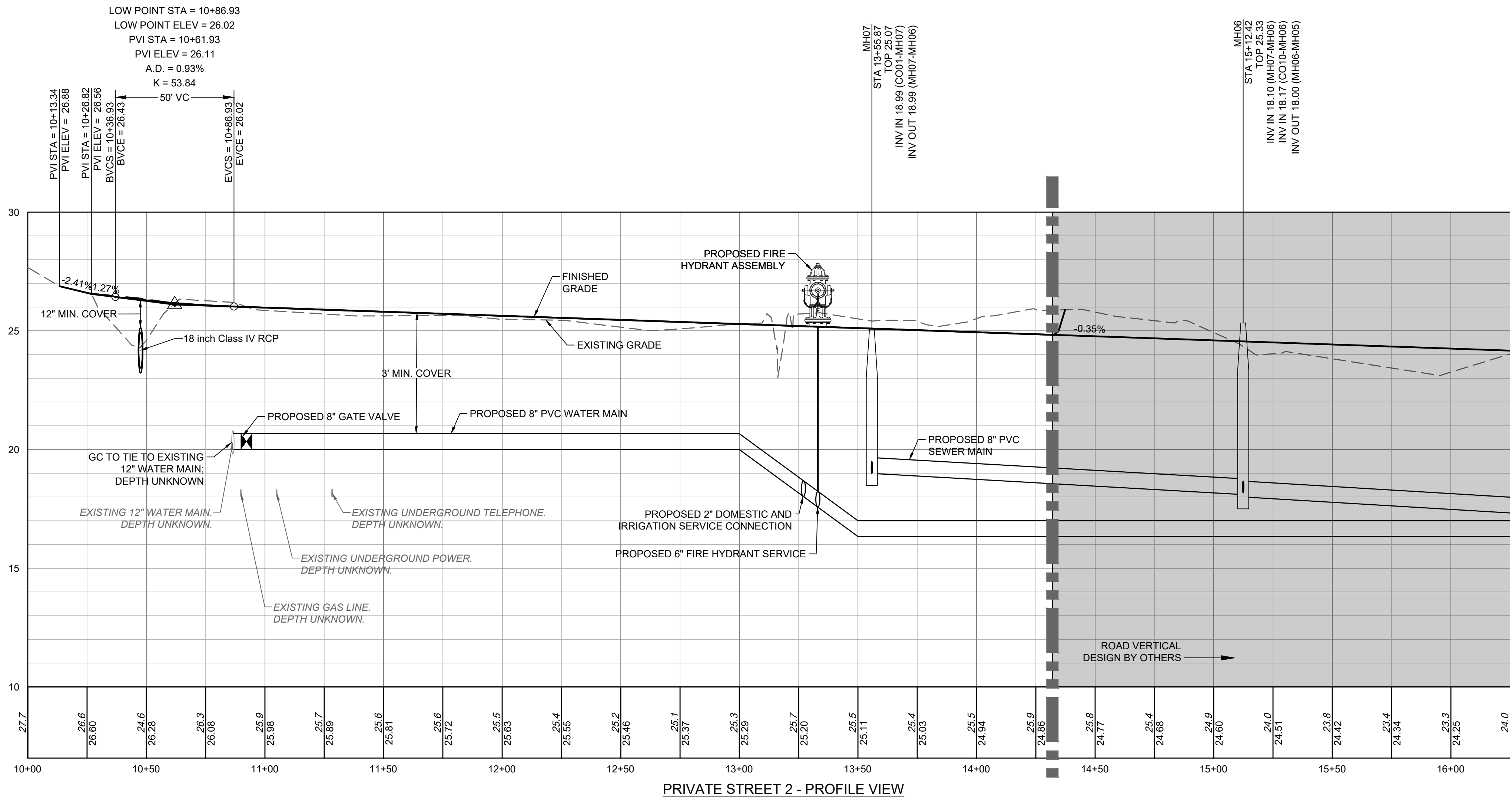
JOB NO.  
37630.054

SHEET NO.  
C3.3

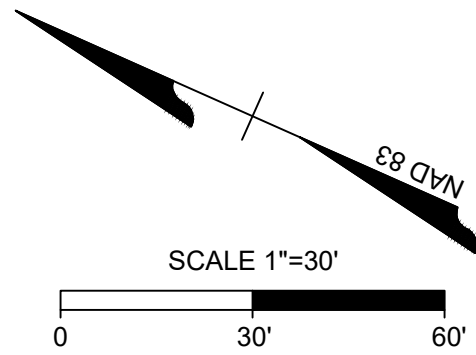
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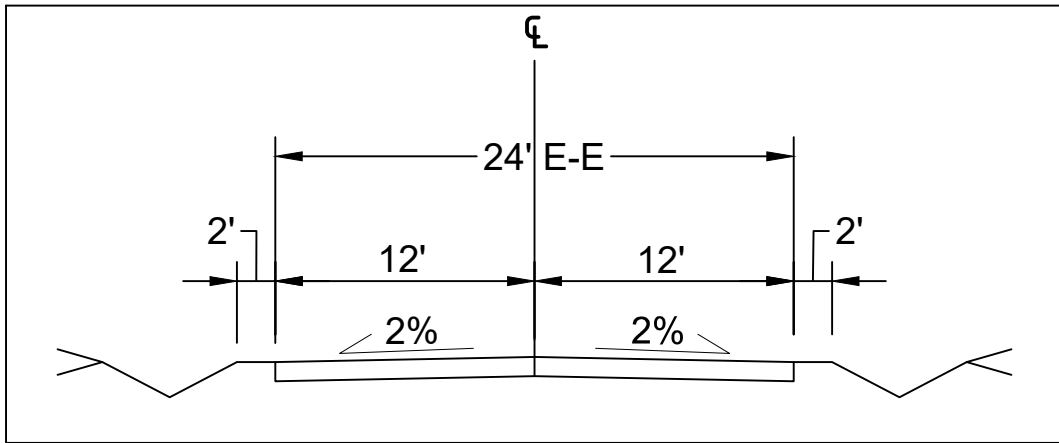
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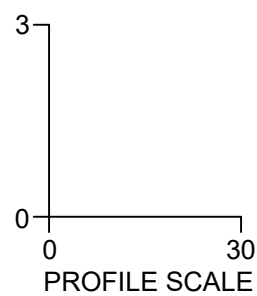
PRIVATE STREET 2 - PLAN VIEW



GRADING PLAN KEYNOTES	
NUMBER	DESCRIPTION
G41	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
G42	CIRCLE K FUNDED CONSTRUCTION WORK
G43	ILM FUNDED CONSTRUCTION WORK



PRIVATE STREET 2  
CROSS SECTION B-B



PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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DATE  
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09/21/2020

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

PRIVATE STREET 2 - PLAN AND PROFILE

JOB NO.

37630.054

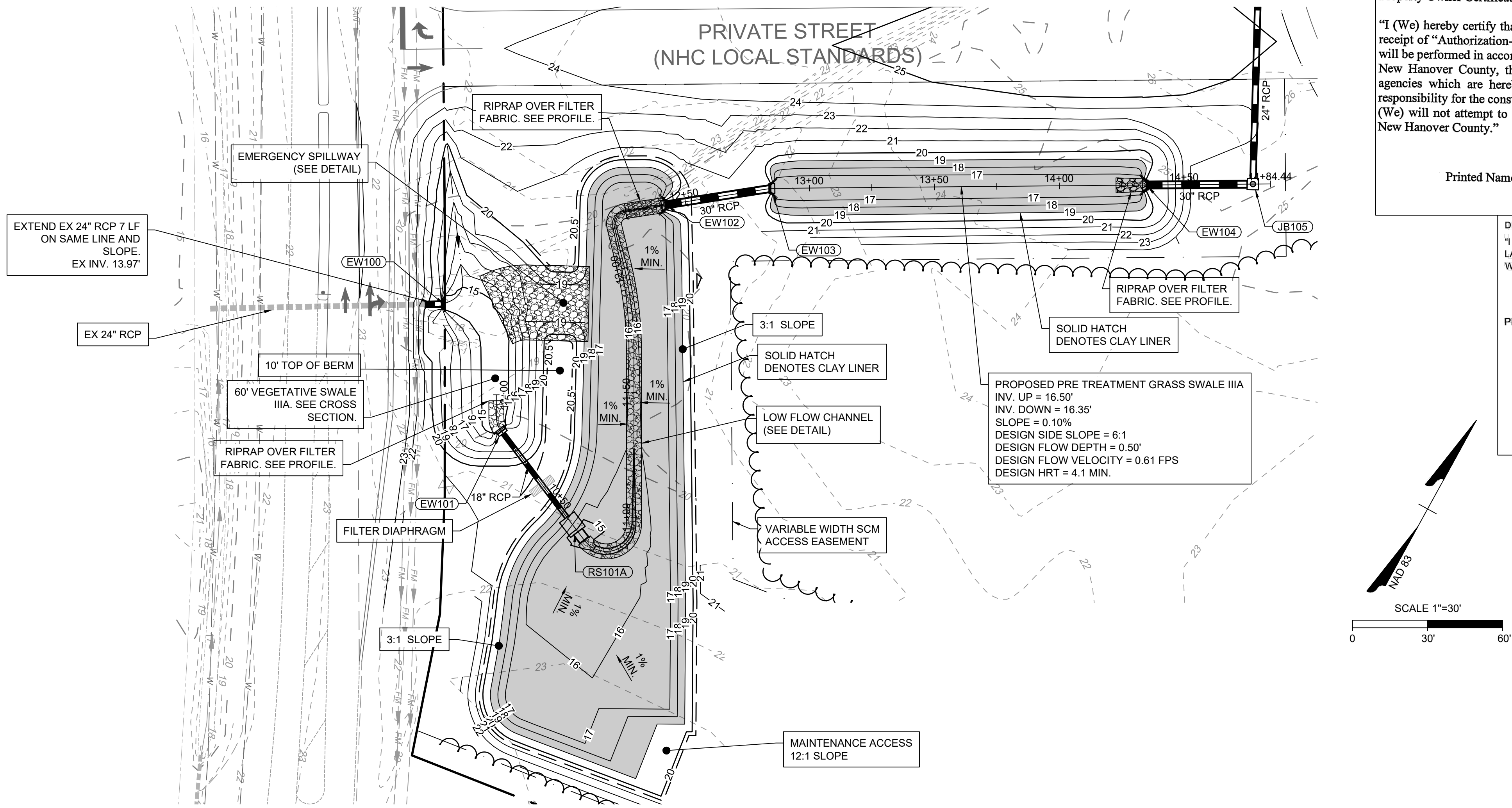
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C3.4

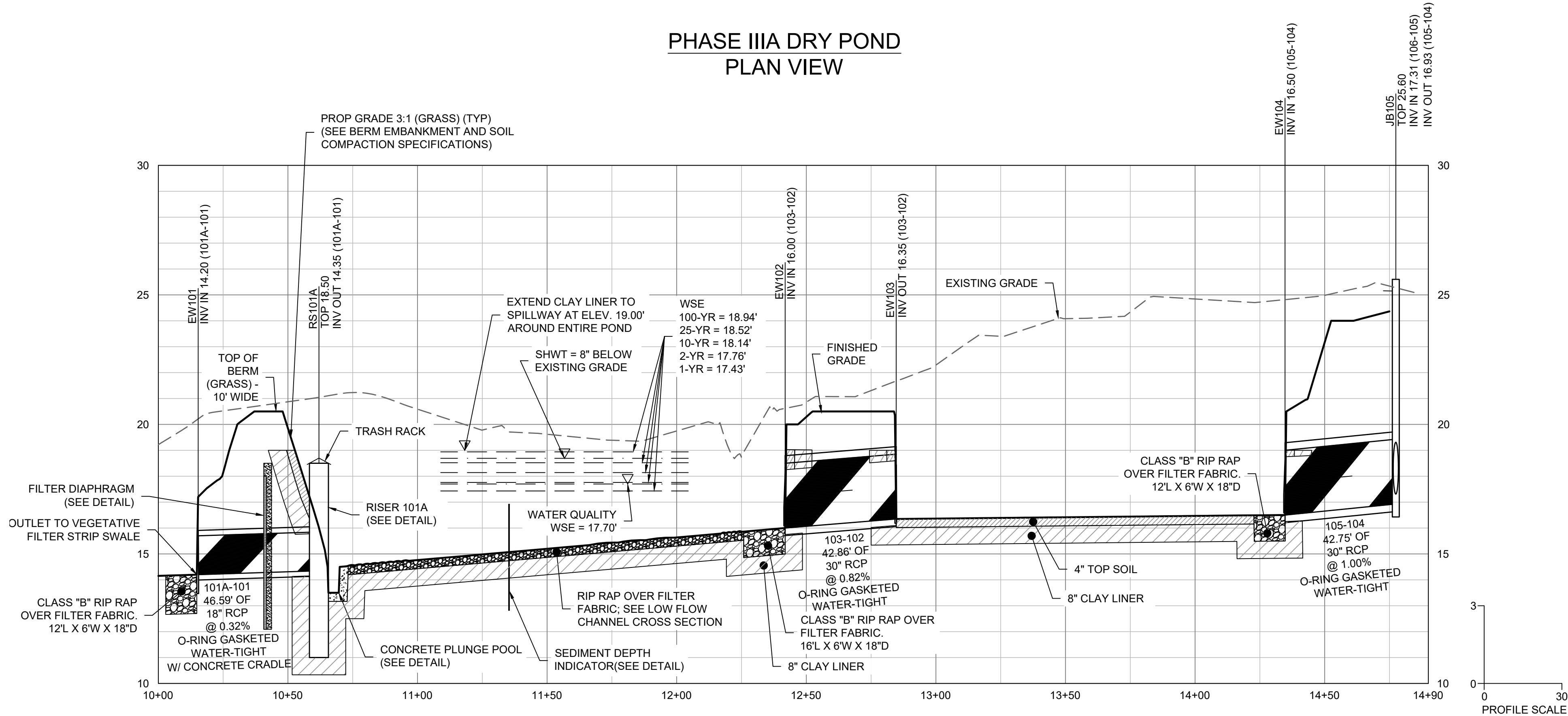
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PHASE IIIA DRY POND  
PLAN VIEW



PHASE IIIA DRY POND  
PROFILE VIEW

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR  
PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

Property Owner Certification:

"I (We) hereby certify that I (we) am (are) the current owner of the property and that upon receipt of "Authorization-To-Construct" any clearing, grading, construction or development, will be performed in accordance with this plan and that the applicable ordinances and rules of New Hanover County, the State of North Carolina and the Federal Government and its agencies which are hereby made part of this plan. As the owner, I (we) accept full responsibility for the construction and operation and maintenance of the proposed facilities. I (We) will not attempt to transfer of this responsibility without the written authorization of New Hanover County."

Signature: *A. Grasseur Dick*

Printed Name and Title: A. Grasseur Dick, Facilities Director

Date: 09/18/2020 New Hanover County Airport Authority,  
dba Wilmington International Airport

DESIGNER'S PLAN CERTIFICATION:

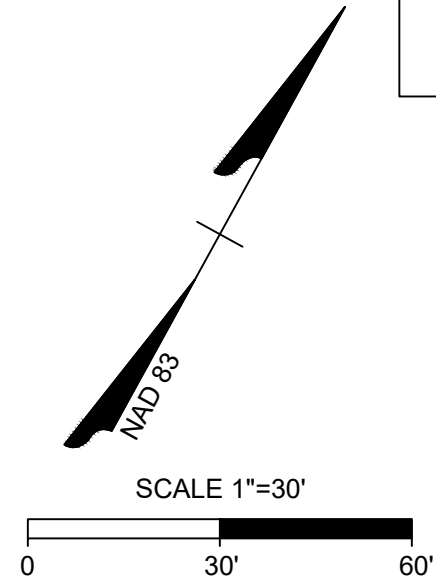
"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE LATEST NEW HANOVER COUNTY ORDINANCES AND STORM WATER DESIGN MANUAL AND WITH THE NEW HANOVER COUNTY INTERNATIONAL AIRPORT STORMWATER MASTER PLAN."

SIGNATURE: *Stephen Ballentine*

PRINTED NAME AND TITLE: Stephen Ballentine, PE

DATE: 9-17-20

REGISTRATION NUMBER: 26493



**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

PHASE IIIA DRY POND - PLAN AND PROFILE

JOB NO.  
37630.054

SHEET NO.  
C3.5

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REVISION DESCRIPTION

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NEW HANOVER COUNTY STORMWATER SUBMITTAL

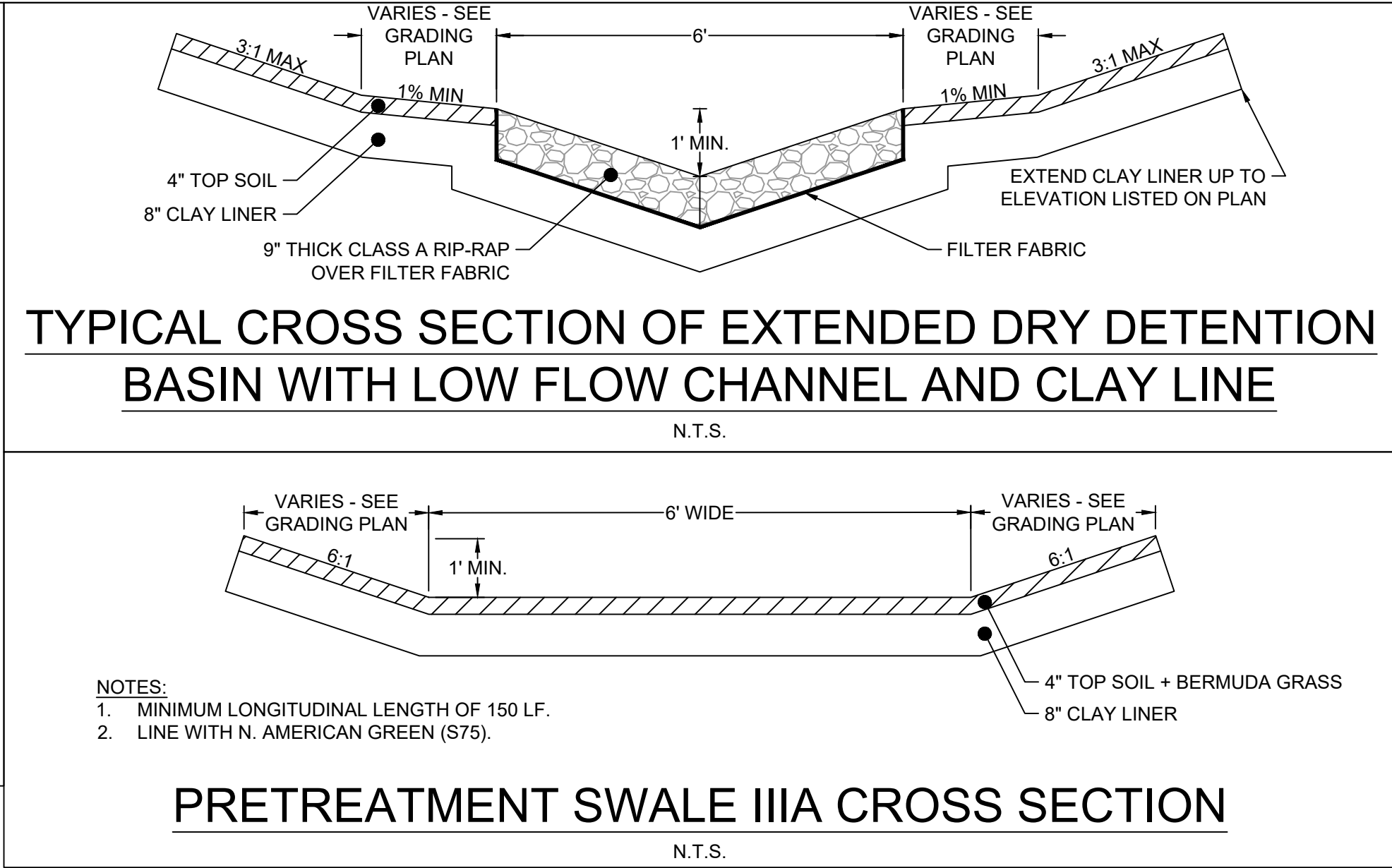
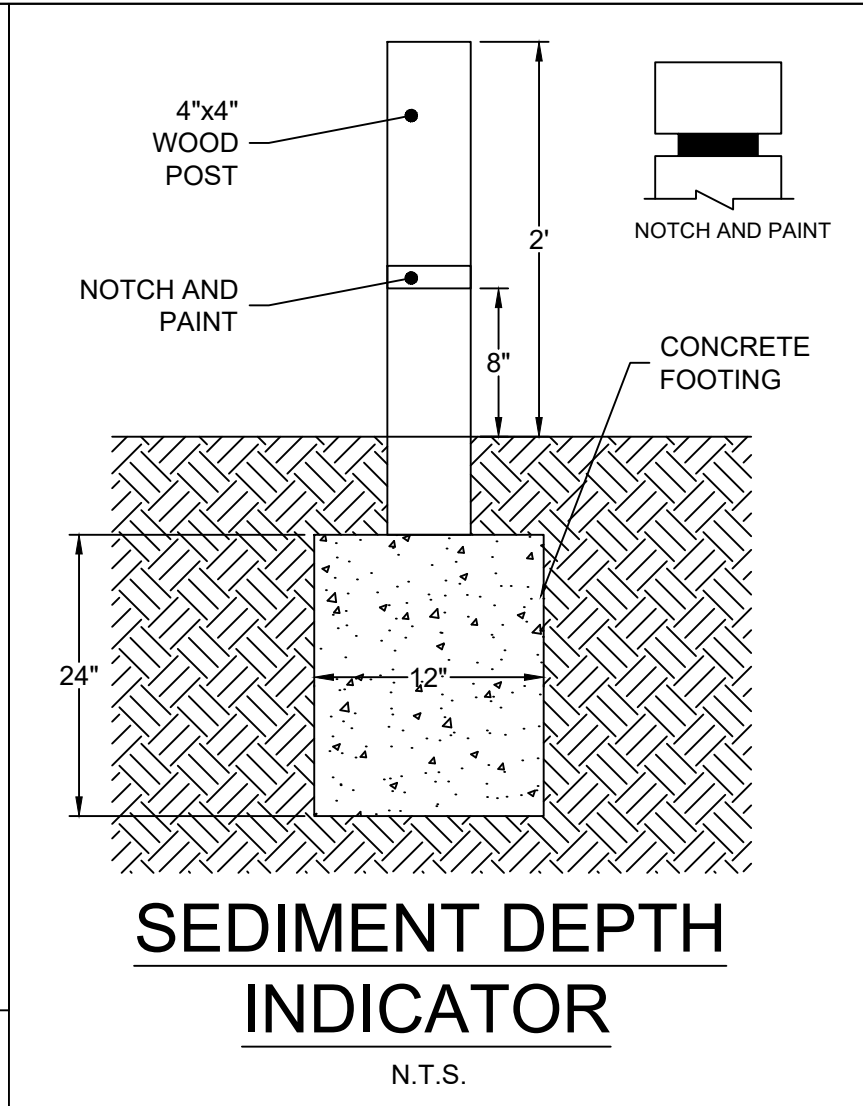
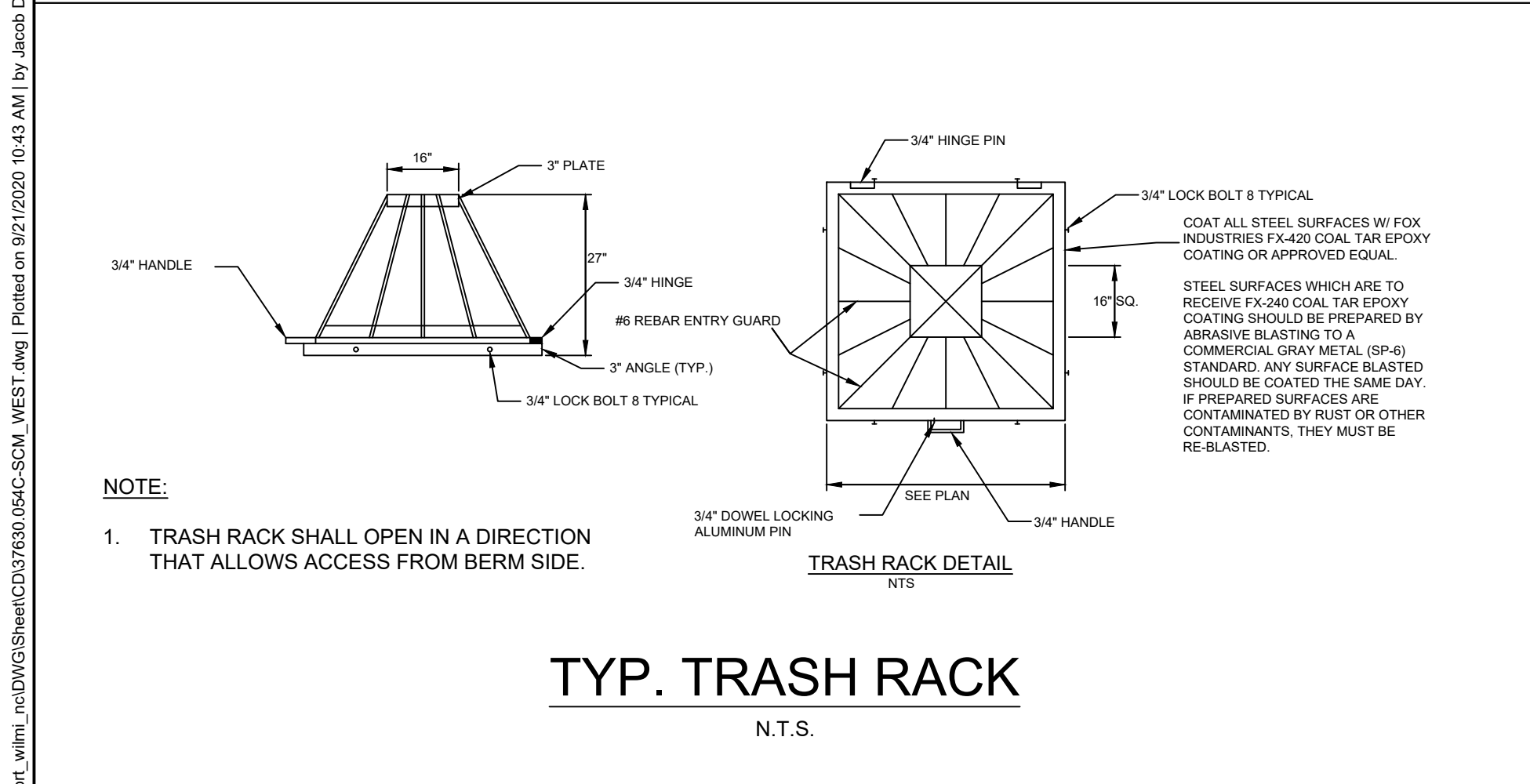
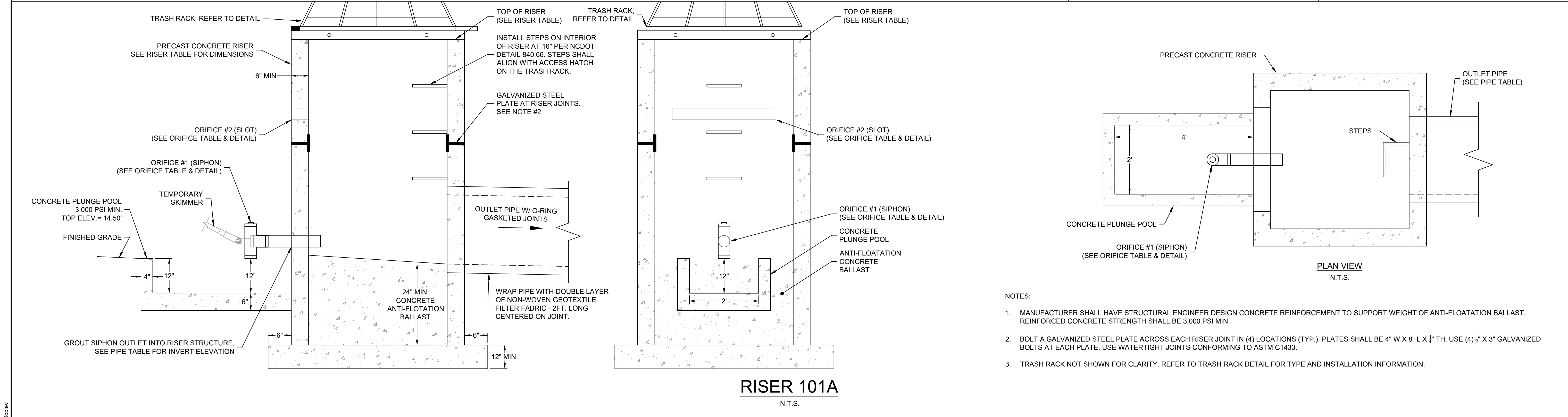
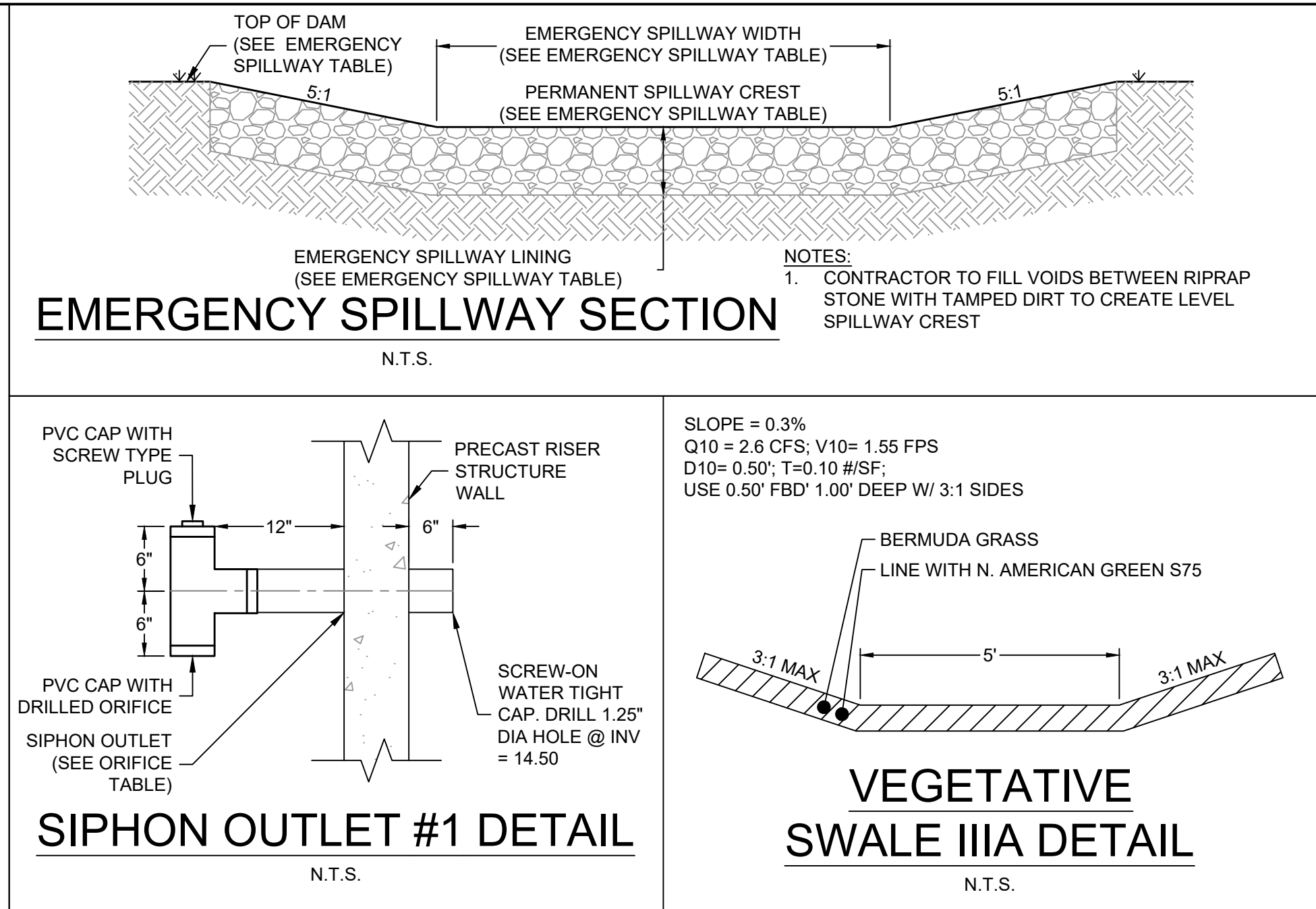
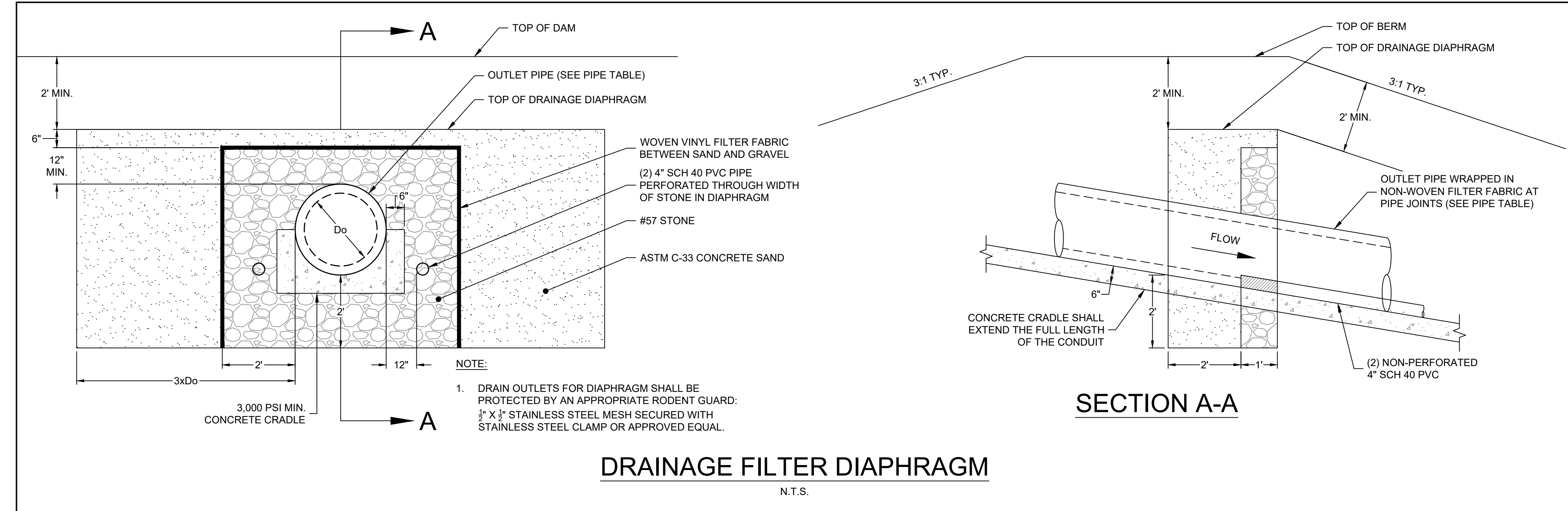
DATE  
09/11/2020  
09/21/2020

DATE  
09/02/2020  
DRAWN BY  
A. MAY  
DESIGNED BY  
B. DOWNS  
CHECKED BY  
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ORIFICE TABLE			
	SIZE	DRILLED ORIFICE SIZE	INVERT ELEV.
ORIFICE #1 (SIPHON)	6"	1.25"	PVC SCH 40 14.50'
	LENGTH	HEIGHT	ORIENTATION
ORIFICE #2 (SLOT)	36"	4"	SE 17.70'

RISER TABLE		
	INVERT ELEVATION	INTERIOR DIMENSIONS
TOP OF RISER	18.50'	48" X 48"

EMERGENCY SPILLWAY TABLE	
TOP OF BERM ELEVATION:	20.50'
PERM. SPILLWAY CREST ELEVATION:	19.00'
EMERGENCY SPILLWAY BASE WIDTH:	15.00'
EMERGENCY SPILLWAY TOP WIDTH:	30.00'
EMERGENCY SPILLWAY LINING:	CLASS "B" RIPRAP (18" TH.) AND NON-WOVEN FILTER FABRIC OR 50 MIL HEAVY DUTY SILVER TARP

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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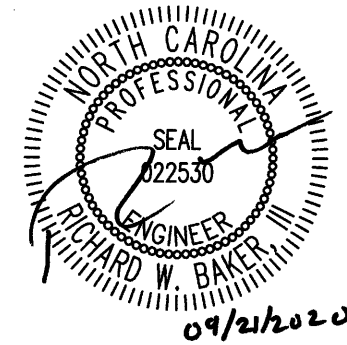
**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

PHASE IIIA DRY POND - DETAILS



09/21/2020

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REVISION DESCRIPTION  
REVISION PER CFBIA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

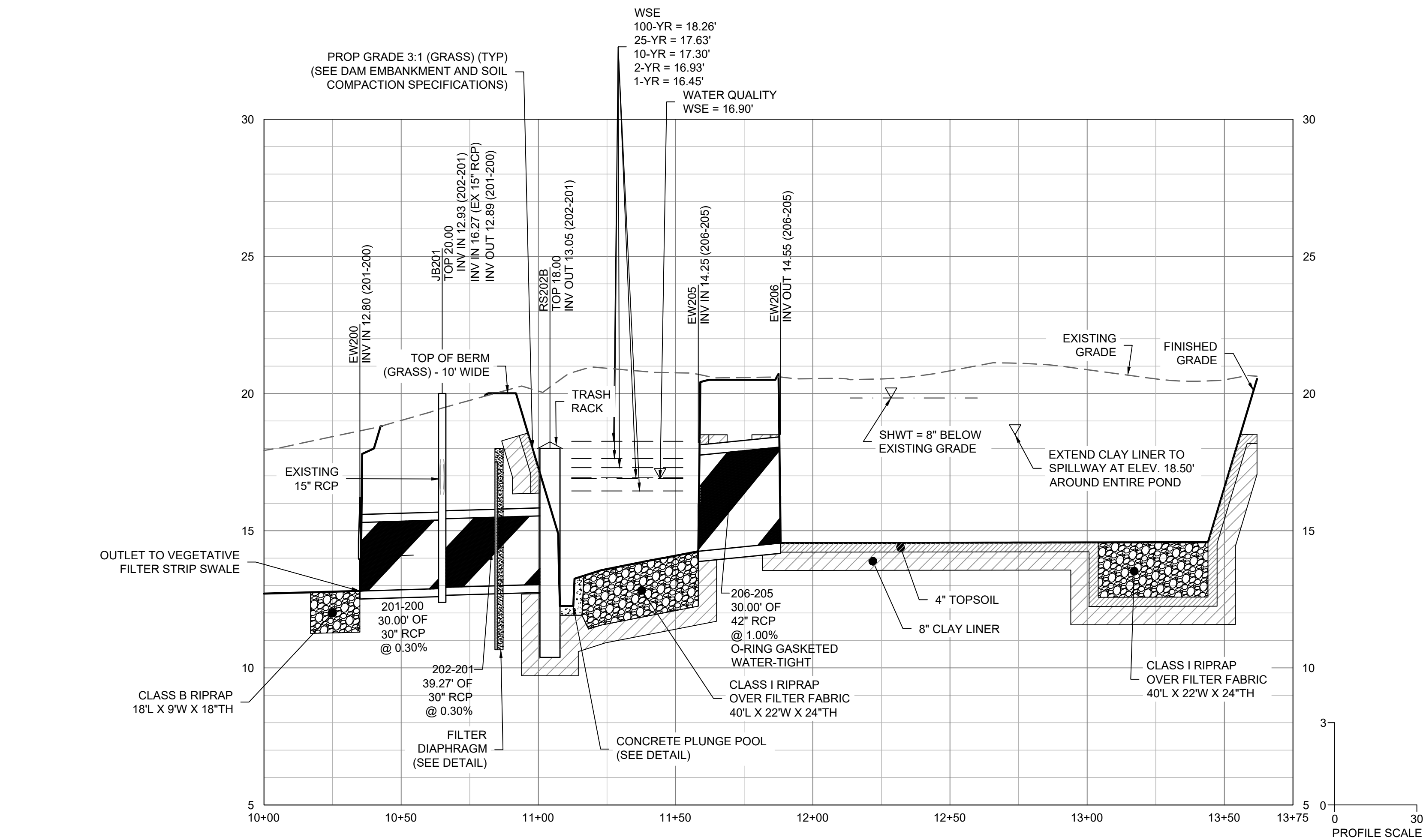
JOB NO.  
37630.054

SHEET NO.  
C3.6

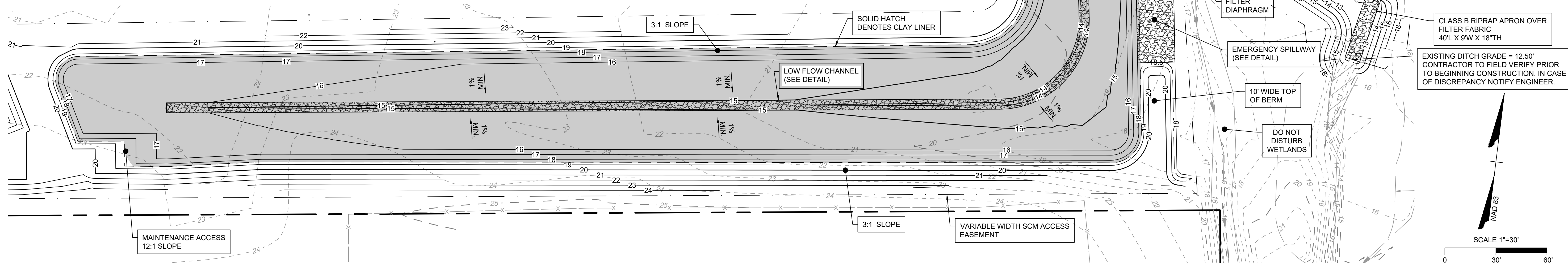
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PHASE IIIB DRY POND  
PROFILE VIEW



PHASE IIIB DRY POND  
PLAN VIEW

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR  
PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

DESIGNERS PLAN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE LATEST NEW HANOVER COUNTY ORDINANCES AND STORM WATER DESIGN MANUAL AND WITH THE NEW HANOVER COUNTY INTERNATIONAL AIRPORT STORMWATER MASTER PLAN."

SIGNATURE:

PRINTED NAME AND TITLE: Stephen Ballentine, PE

DATE: 9-17-20

REGISTRATION NUMBER: 26493



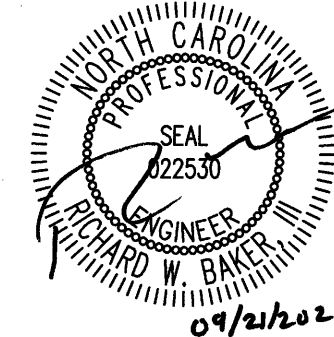
Property Owner Certification:

"I (We) hereby certify that I (we) am (are) the current owner of the property and that upon receipt of "Authorization-To-Construct" any clearing, grading, construction or development, will be performed in accordance with this plan and that the applicable ordinances and rules of New Hanover County, the State of North Carolina and the Federal Government and its agencies which are hereby made part of this plan. As the owner, I (we) accept full responsibility for the construction and operation and maintenance of the proposed facilities. I (We) will not attempt to transfer of this responsibility without the written authorization of New Hanover County."

SIGNATURE:

Printed Name and Title: A. Granseur Dick, Facilities Director

DATE: 09/18/2020 New Hanover County Airport Authority, dba Wilmington International Airport



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09/21/2020  
09/02/2020  
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DESIGNED BY  
B. DOWNS  
CHECKED BY  
R. BAKER  
SCALE  
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**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

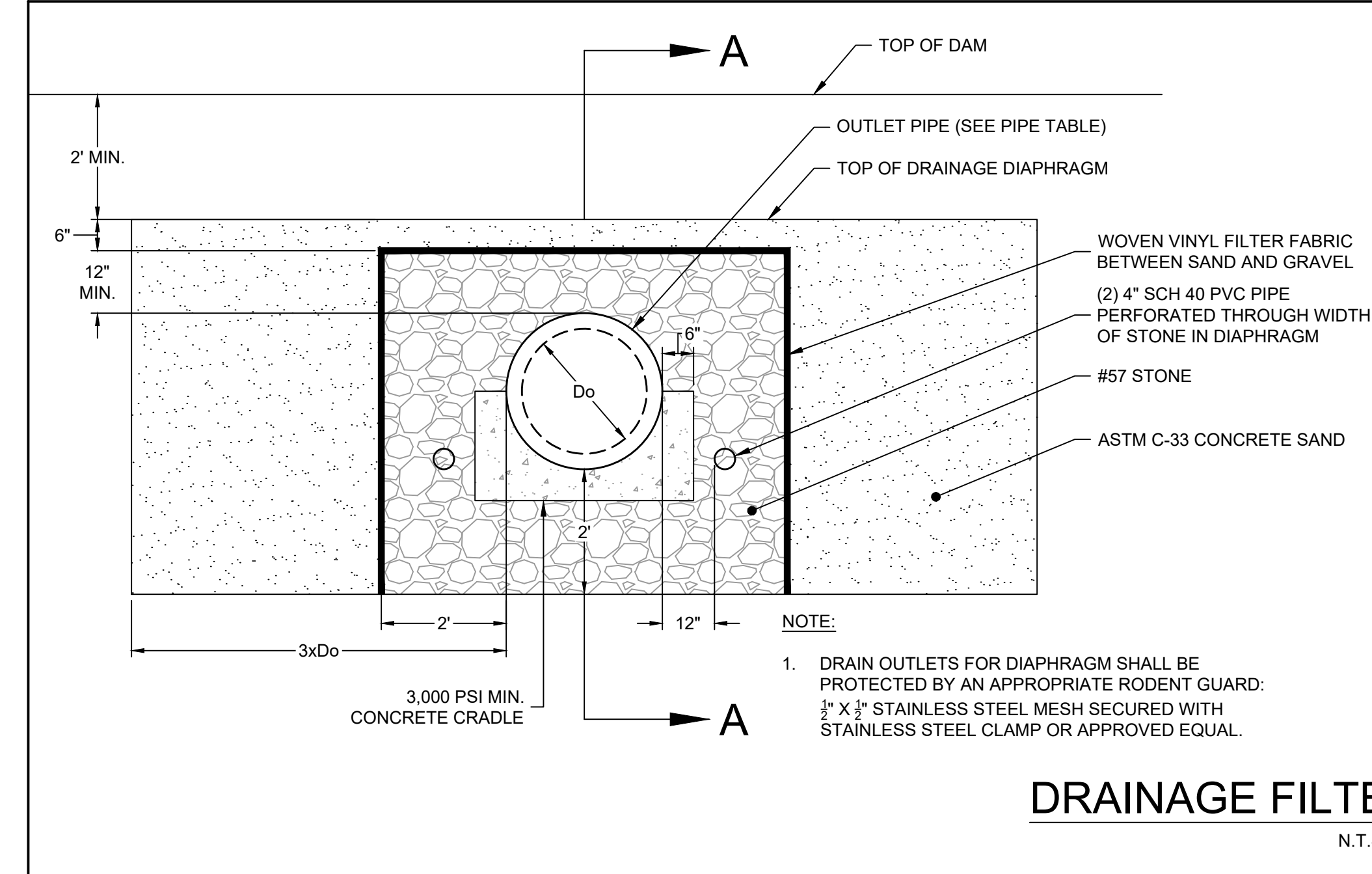
CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA  
PHASE IIIB DRY POND - PLAN AND PROFILE

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C3.7

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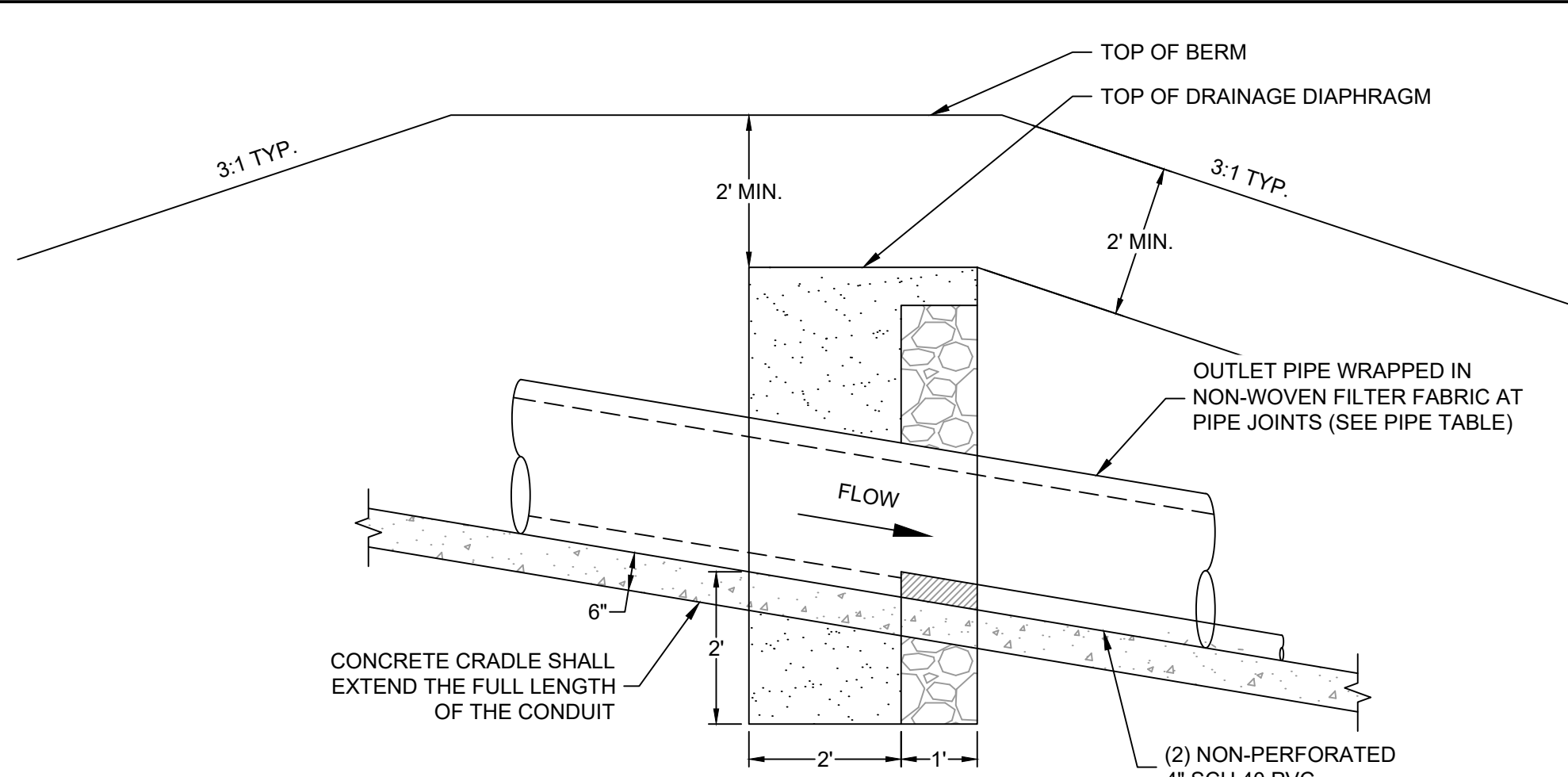


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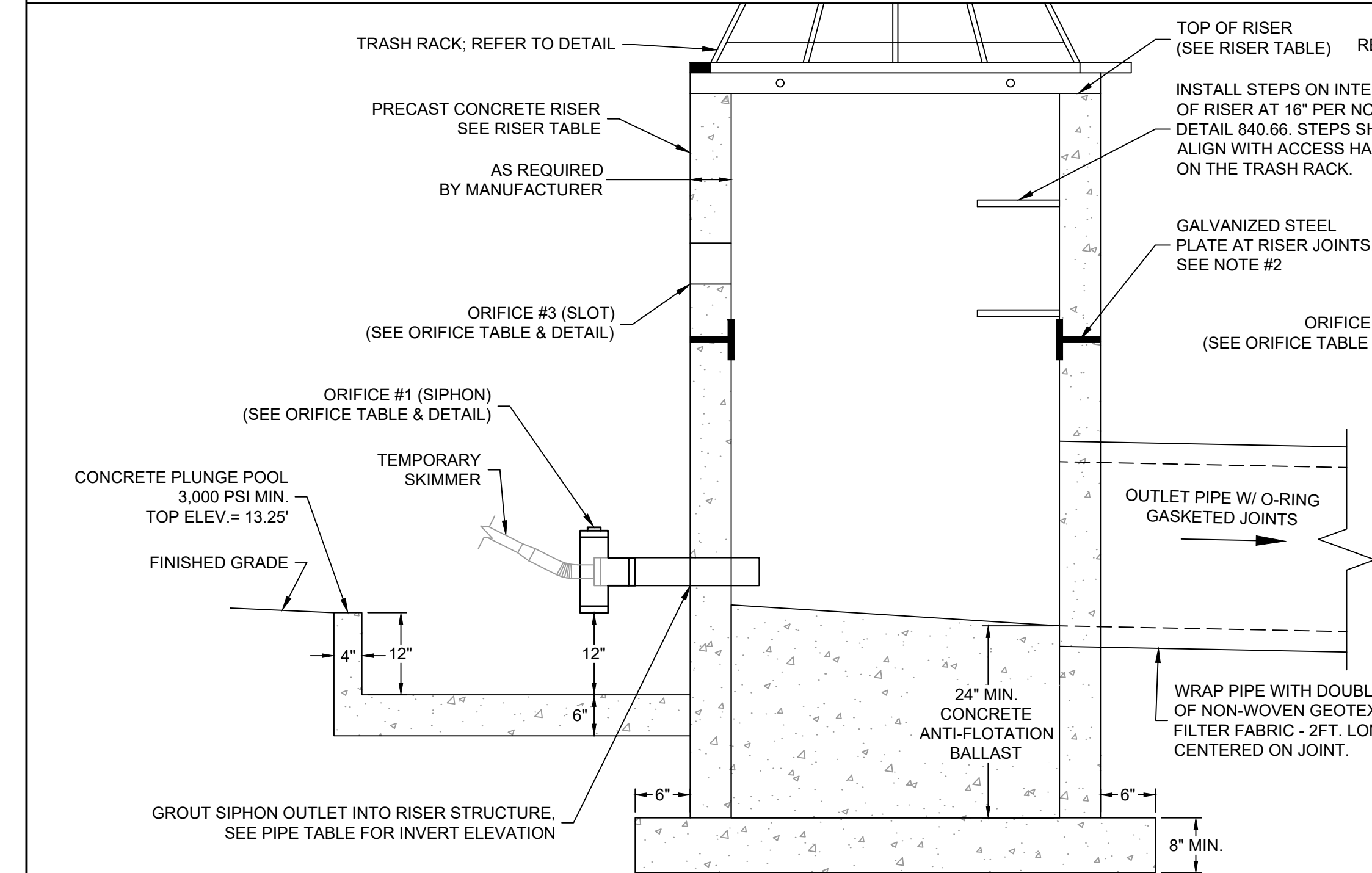
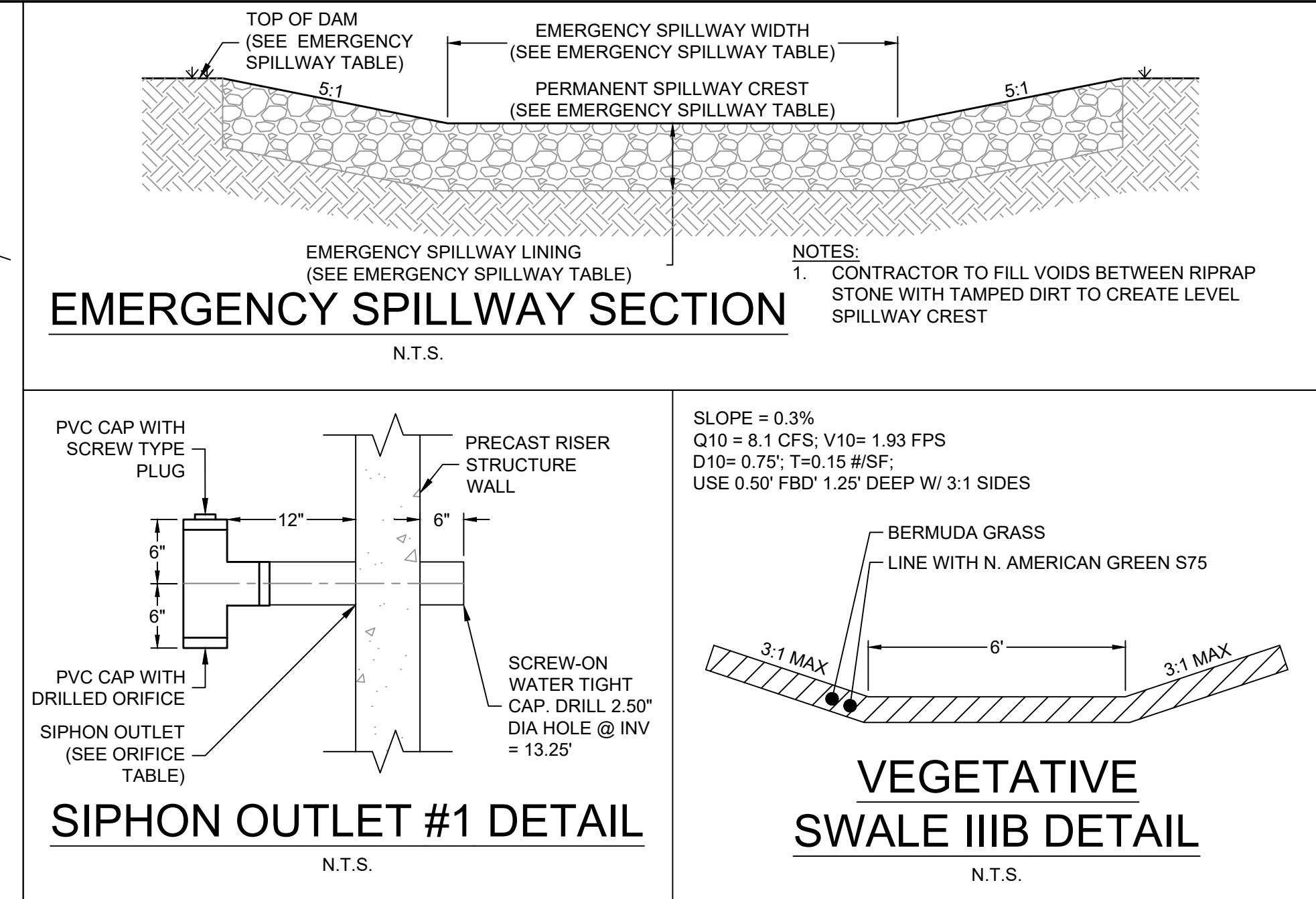


**DRAINAGE FILTER DIAPHRAGM**

N.T.S.

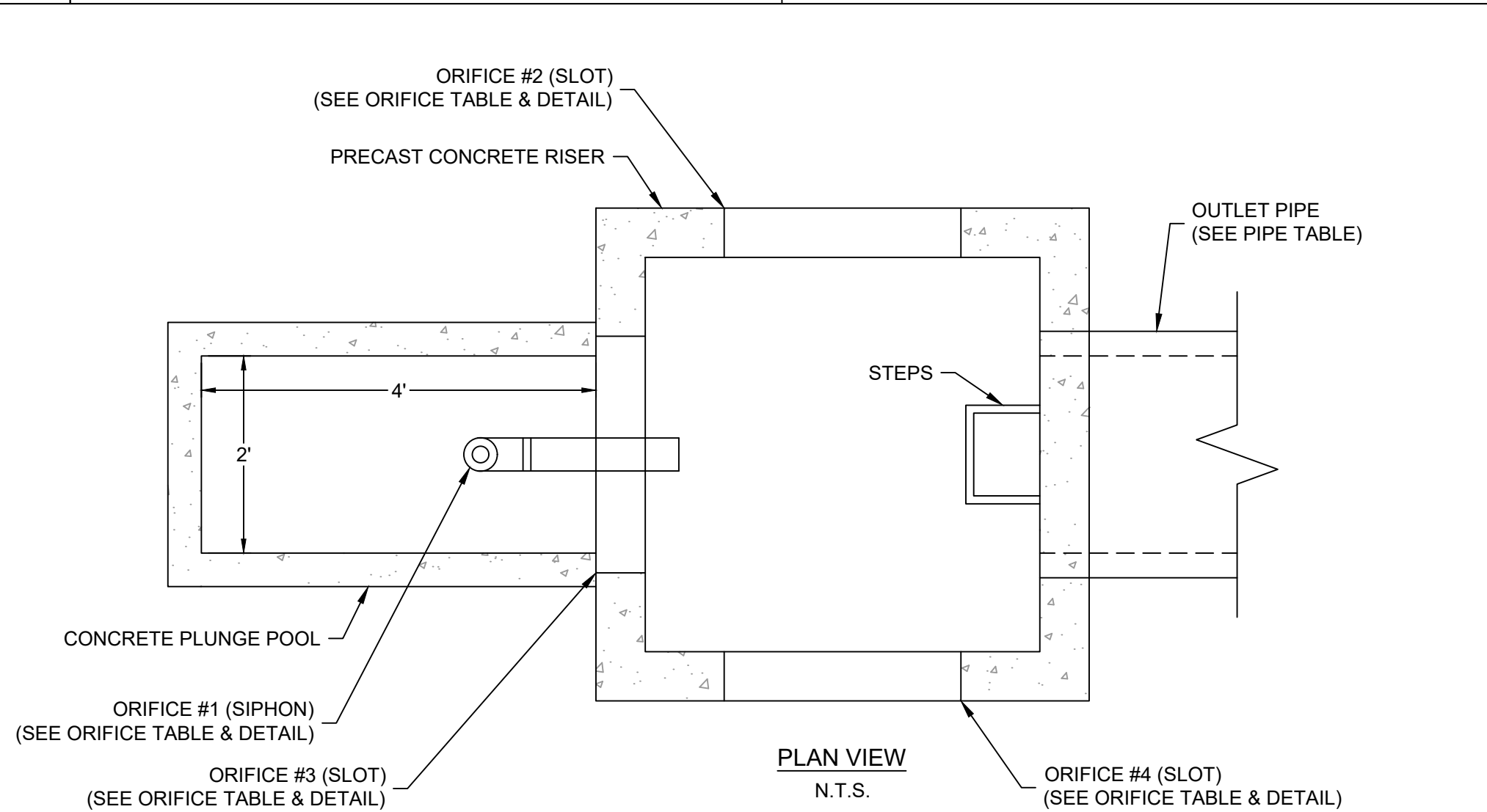
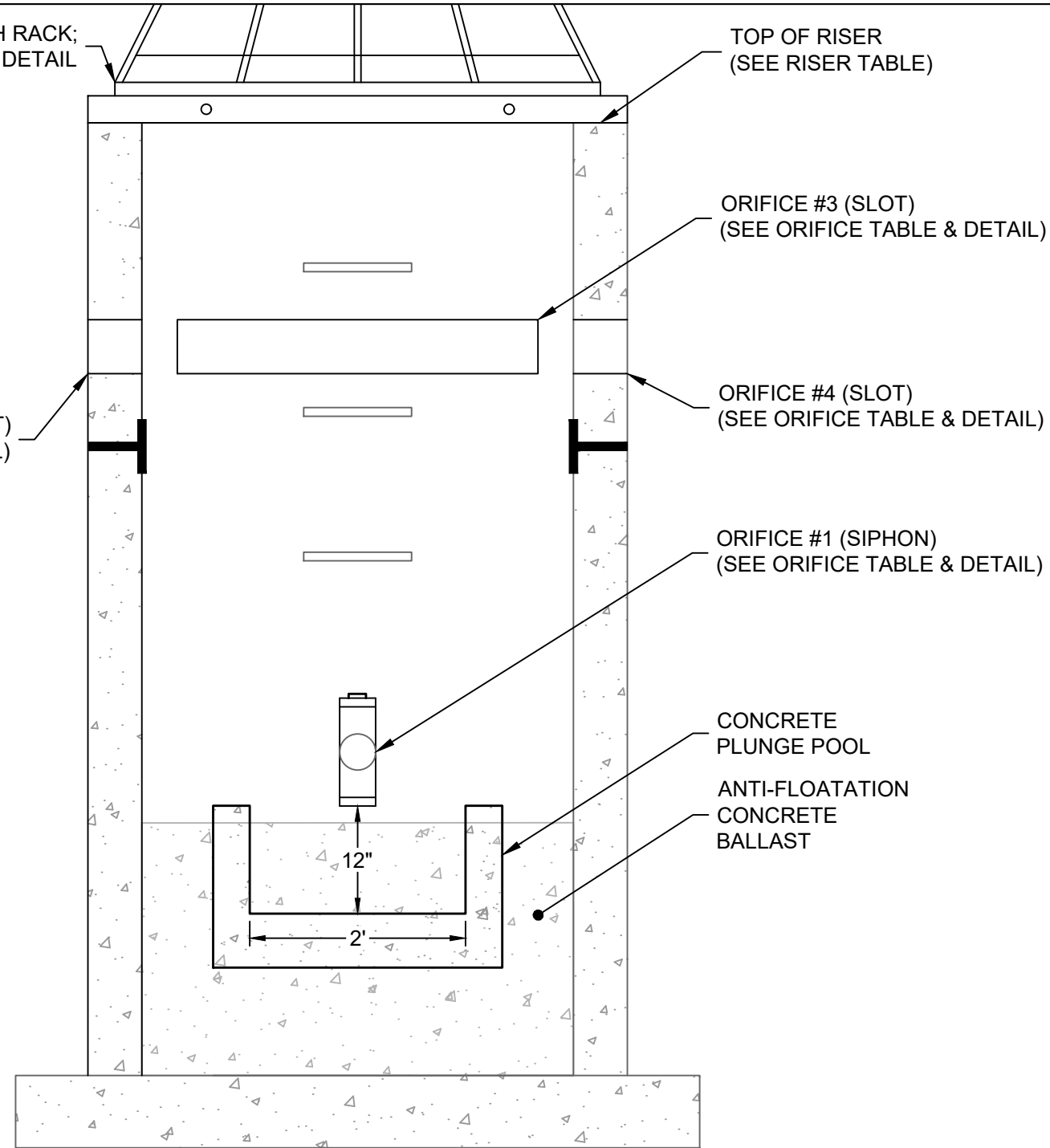


**SECTION A-A**



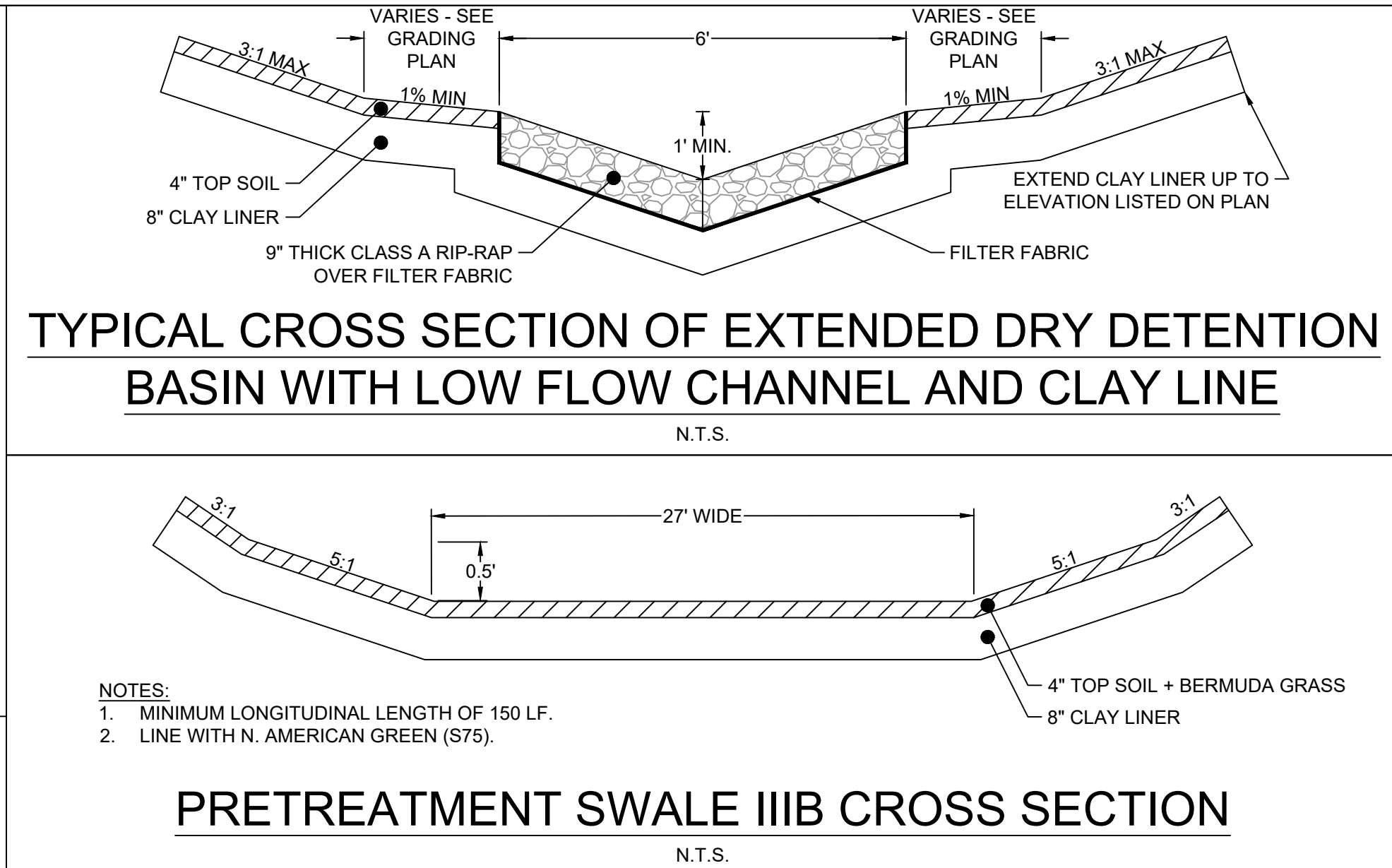
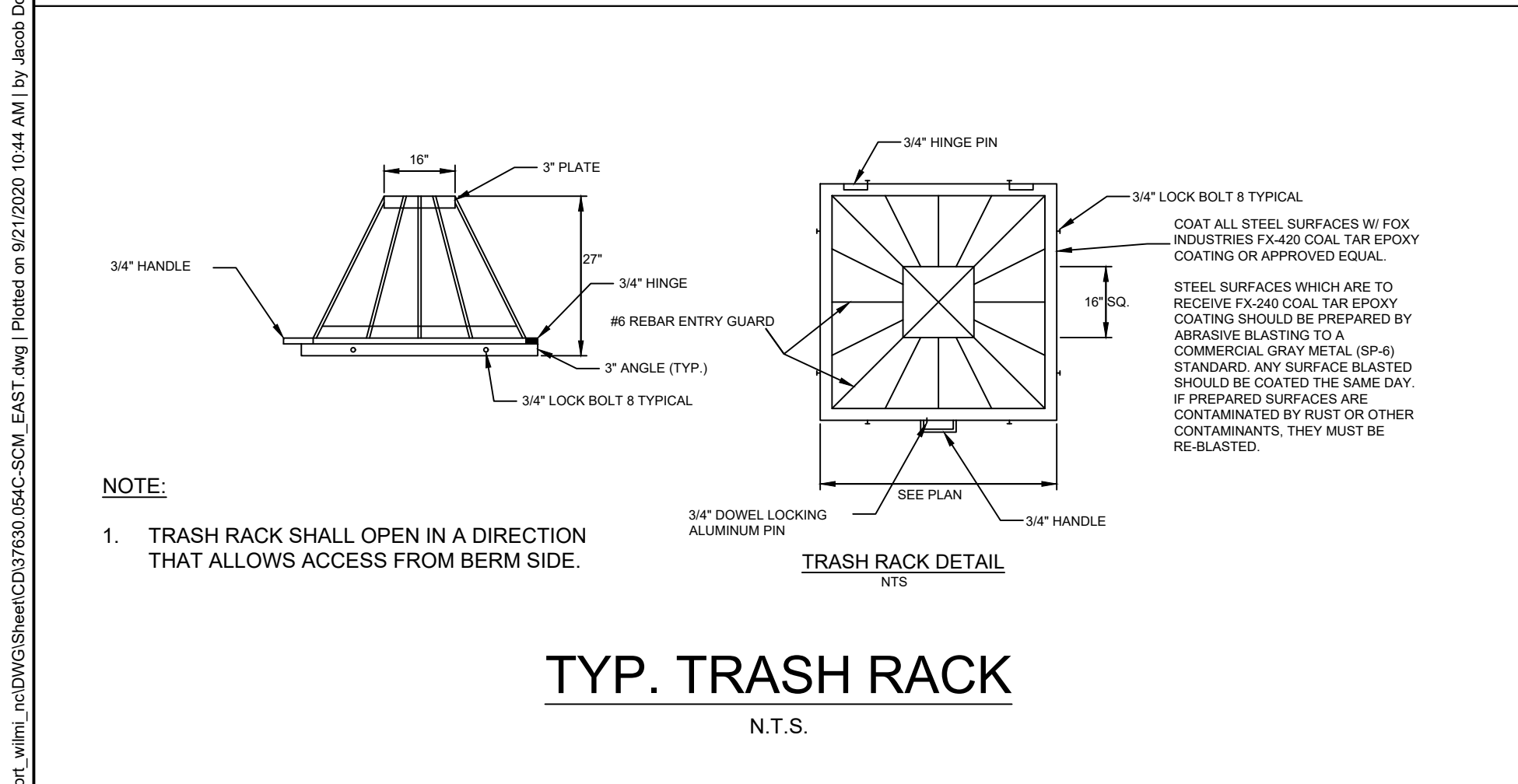
**RISER 101B**

N.T.S.



**NOTES:**

1. MANUFACTURER SHALL HAVE STRUCTURAL ENGINEER DESIGN CONCRETE REINFORCEMENT TO SUPPORT WEIGHT OF ANTI-FLOATATION BALLAST. REINFORCED CONCRETE STRENGTH SHALL BE 3,000 PSI MIN.
2. BOLT A GALVANIZED STEEL PLATE ACROSS EACH RISER JOINT IN (4) LOCATIONS (TYP.). PLATES SHALL BE 4" W X 8" L X  $\frac{1}{4}$ " TH. USE (4)  $\frac{1}{2}$ " X 3" GALVANIZED BOLTS AT EACH PLATE. USE WATERTIGHT JOINTS CONFORMING TO ASTM C1433.
3. TRASH RACK NOT SHOWN FOR CLARITY. REFER TO TRASH RACK DETAIL FOR TYPE AND INSTALLATION INFORMATION.




- NOTES:**
1. MINIMUM LONGITUDINAL LENGTH OF 150 LF.
  2. LINE WITH N. AMERICAN GREEN (S75).

ORIFICE TABLE				
	SIZE	DRILLED ORIFICE SIZE	MATERIAL	INVERT ELEV.
ORIFICE #1 (SIPHON)	6"	2.50"	PVC SCH 40	13.25'
	LENGTH	HEIGHT	ORIENTATION	INVERT ELEV.
ORIFICE #3 (SLOT)	36"	6"	N	17.00'
ORIFICE #3 (SLOT)	36"	6"	W	17.00'
ORIFICE #3 (SLOT)	36"	6"	S	17.00'

RISER TABLE		
	INVERT ELEVATION	INTERIOR DIMENSIONS
TOP OF RISER	18.00'	60" X 60"

EMERGENCY SPILLWAY TABLE	
TOP OF BERM ELEVATION:	20.00'
PERM. SPILLWAY CREST ELEVATION:	18.50'
EMERGENCY SPILLWAY BASE WIDTH:	50.00'
EMERGENCY SPILLWAY TOP WIDTH:	65.00'
EMERGENCY SPILLWAY LINING:	CLASS "B" RIPRAP (18" TH.) AND NON-WOVEN FILTER FABRIC OR 50 MIL HEAVY DUTY SILVER TARP



**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

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REVISION DESCRIPTION  
REVISION PER CFBIA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/11/2020  
09/21/2020

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

PHASE IIIB DRY POND - DETAILS

JOB NO.  
37630.054

SHEET NO.  
C3.8

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

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PHASE IIIA AND PHASE IIIB STORMWATER NOTES

1.

PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES FOUND WITHIN THE PLANS.
2.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ON-SITE GEOTECHNICAL ENGINEER FOR OBSERVATION, TESTING AND CERTIFICATION OF CONSTRUCTION.
3.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NCDEQ STANDARDS, NEW HANOVER COUNTY, THE WILMINGTON INTERNATIONAL AIRPORT STORMWATER MASTER PLAN, AND THE PROPOSED STORMWATER MANAGEMENT FACILITY DETAILS AND SPECIFICATIONS SHOWN IN THESE DRAWINGS.
4.

SOILS, COMPACTION AND/OR OTHER MISCELLANEOUS DETAILS AND SPECIFICATIONS MAY BE MODIFIED PER THE RECOMMENDATIONS OF THE ON-SITE GEOTECHNICAL ENGINEER. HOWEVER, PRIOR TO IMPLEMENTATION, THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DEVIATION FROM THESE DESIGN DRAWINGS, INCLUDING SHOP DRAWINGS FOR ANY PROPOSED MODIFICATION.
5.

CONTRACTOR TO FINE GRADE ALL POND FINISHED SURFACES TO WITH 2 INCHES +/- TOLERANCE.
6.

**AS-BUILT SURVEY:**

THE CONTRACTOR SHALL ACCURATELY CONSTRUCT ALL SCM GRADES, BERM, SPILLWAY, RISER TOP, RISER INVERTS, ETC. WITHIN ± 0.2 FEET VERTICALLY OF THE APPROVED PLANS. AT THE END OF THE PROJECT, THE CONTRACTOR SHALL AS-BUILT SURVEY ALL FEATURES OF THE SCM BY A LICENSED SURVEYOR. SUBMIT SEALED AS-BUILT SURVEY AND CAD FILE TO THE ENGINEER. THE ENGINEER WILL THEN COORDINATE ANY ADJUSTMENTS NEEDED WITH THE CONTRACTOR AND CERTIFICATION WITH THE MUNICIPALITY. ADDITIONAL AS-BUILT SURVEYS MAY BE NEEDED BASED ON REQUIRED ADJUSTMENTS.

DRY DETENTION BASIN SPECIFICATIONS:

1.

THE DRY DETENTION BASIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILM STORMWATER MASTER PLAN, NCDEQ AND THE PROPOSED STORMWATER MANAGEMENT FACILITY DETAILS AND SPECIFICATIONS SHOWN IN THESE DRAWINGS.
2.

ALL SIDE SLOPES AND BASIN FLOOR SHALL BE PERMANENTLY STABILIZED WITH A DENSE STAND OF GRASS.
3.

THE RISER STRUCTURE HAS BEEN DESIGNED WITH A CONCRETE ANCHOR FOR ANTI-FLOATATION.
4.

A TRASH RACK IS REQUIRED AT THE TOP OF THE RISER, IT SHOULD BE INSTALLED TO PROVIDE ACCESS ALIGNED WITH THE STEPS ON THE BERM SIDE OF THE RISER.
5.

AN INVERTED SIPHON AND A CONCRETE PLUNGE POOL HAVE BEEN DESIGNED AT THE RISER ORIFICE TO REDUCE THE LIKELIHOOD OF CLOGGING, AND ALLOW FOR MAINTENANCE.
6.

THE DRY DETENTION BASIN SHALL BE GRADED IN ACCORDANCE WITH THE APPROVED PLANS, SECTIONS AND DETAILS.
7.

THE RISER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RISER DETAIL.
8.

THE EMERGENCY SPILLWAY SHALL BE LINED WITH RIPRAP. REFER TO DETAIL ON THE APPROVED PLANS.
9.

THE OWNER'S GEOTECHNICAL ENGINEER SHALL OVERSEE THE INSTALLATION OF THE BERM, TO PROVIDE BERM COMPACTION TESTING.
10.

REFER TO CONVERSION SEQUENCE ON THIS SHEET.

DRY DETENTION BASIN CONVERSION SEQUENCE:

1.

DRY DETENTION BASIN WILL INITIALLY BE INSTALLED AS A SKIMMER SEDIMENT BASIN. REFER TO GRADING PLAN AND DRY DETENTION BASIN SECTIONS AND DETAILS FOR FINAL STAGE. THE FINAL BASIN AND BERM GRADING SHOULD HAVE BEEN PERFORMED AS PART OF THE EROSION CONTROL PHASE 1 AND CONVERSION SHOULD ONLY REQUIRED REMOVAL OF SEDIMENT AND MINOR DRESS-UP WORK.
2.

STABILIZE ALL AREAS TRIBUTARY TO THE DRY DETENTION BASIN AND OBTAIN APPROVAL FROM THE NCDEQ AND NEW HANOVER COUNTY INSPECTOR PRIOR TO BEGINNING THE CONVERSION.
3.

LEAVE SKIMMER IN PLACE, REMOVE BAFFLES AND SEDIMENT FROM THE BOTTOM OF THE BASIN. FINE GRADE BERM AS REQUIRED.
4.

INSTALL TRASH RACK, REMOVE SKIMMER, AND INSTALL PERMANENT ORIFICE PIPE AS SHOWN ON THE APPROVED PLANS.
5.

INSTALL CONCRETE PLUNGE POOL BENEATH PERMANENT ORIFICE AS SHOWN ON THE APPROVED PLANS. INSTALL CLAY LINER, TOPSOIL, RIP-RAP, FILTER FABRIC, AND LOW FLOW CHANNEL PER SCM DETAILS.
6.

REPAIR SPILLWAY RIPRAP LINER AS NEEDED AND SEED ALL DISTURBED AREAS.
7.

SUBMIT SURVEY CAD FILE WITH SPOT GRADES TO ENGINEER FOR REVIEW. CONTACT ENGINEER TO SCHEDULE INSPECTION.
8.

MAKE ANY ADJUSTMENTS REQUIRED BY ENGINEER FOLLOWING INSPECTION AND REVIEW OF AS-BUILT SURVEY DATA.
9.

CONVERSION OF THE SKIMMER BASIN TO A PERMANENT DRY DETENTION BASIN SHALL NOT BE CONSIDERED COMPLETE UNTIL THE FOLLOWING ITEMS HAVE BEEN COMPLETED:

•

BASIN HAS BEEN FULLY CONVERTED AND IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN, AS DETERMINED BY THE ENGINEER.

•

OPERATION & MAINTENANCE AGREEMENT IS COMPLETE.

•

NCDEQ HAS PERFORMED AN INSPECTION AND APPROVED THE COMPLETED DRY DETENTION BASIN, AND THE AS-BUILTS.

BERM EMBANKMENT AND SOIL COMPACTION SPECIFICATIONS

1.

CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE BERM EMBANKMENT /KEY TRENCH SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INCH LOOSE LAYERS WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
2.

ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
3.

FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
4.

ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
5.

SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
6.

FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
7.

TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E., TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. ALL SUCH ACTIVITIES SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
8.

FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
9.

EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
10.

COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.
11.

HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES (INCLUDING THE CRADLE) UNTIL ADEQUATE CURING TIME HAS ELAPSED.
12.

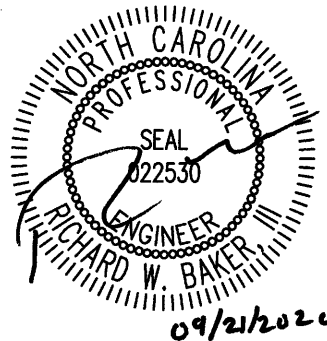
INSTALL CLAY LINER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
13.

TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 2- TO 3-INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA TEMPORARILY SEEDED AND MULCHED OR HYDROSEEDED WITH NON-CLUMPING TURF GRASS.
14.

NO TREES OR WOODY VEGETATION ARE ALLOWED TO BE PLANTED ON THE DAM OR EMBANKMENT.

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS



THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866-4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	
DATE	REVISION PER CFB/A REVIEW
09/11/2020	NEW HANOVER COUNTY STORMWATER SUBMITTAL
09/21/2020	

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA  
SCM DETAILS

JOB NO.  
37630.054  
SHEET NO.  
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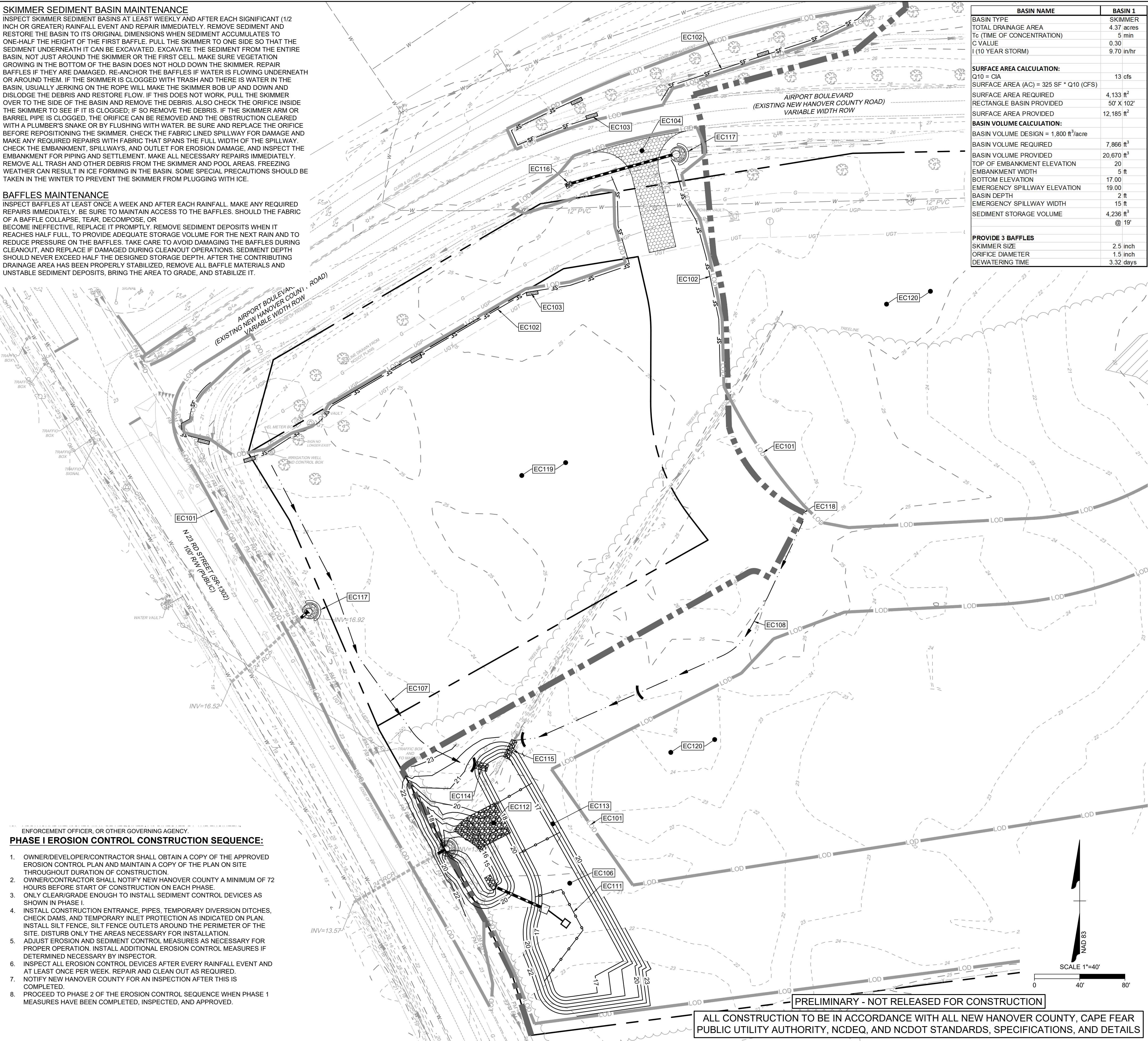


SKIMMER SEDIMENT BASIN MAINTENANCE

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER. REPAIR BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED. IF SO REMOVE THE DEBRIS. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

BAFFLES MAINTENANCE

INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL, TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT, AND REPLACE IF DAMAGED DURING CLEANOUT OPERATIONS. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.



BASIN NAME	BASIN 1
BASIN TYPE	SKIMMER
TOTAL DRAINAGE AREA	4.37 acres
Tc (TIME OF CONCENTRATION)	5 min
C VALUE	0.30
I (10 YEAR STORM)	9.70 in/hr
SURFACE AREA CALCULATION:	
Q10 = CIA	13 cfs
SURFACE AREA (AC) = 325 SF * Q10 (CFS)	
SURFACE AREA REQUIRED	4,133 ft²
RECTANGLE BASIN PROVIDED	50' X 102'
SURFACE AREA PROVIDED	12,185 ft²
BASIN VOLUME CALCULATION:	
BASIN VOLUME DESIGN = 1,800 ft³/acre	
BASIN VOLUME REQUIRED	7,866 ft³
BASIN VOLUME PROVIDED	20,670 ft³
TOP OF EMBANKMENT ELEVATION	20
EMBANKMENT WIDTH	5 ft
BOTTOM ELEVATION	17.00
EMERGENCY SPILLWAY ELEVATION	19.00
BASIN DEPTH	2 ft
EMERGENCY SPILLWAY WIDTH	15 ft
SEDIMENT STORAGE VOLUME	4,236 ft³
	@ 19'
PROVIDE 3 BAFFLES	
SKIMMER SIZE	2.5 inch
ORIFICE DIAMETER	1.5 inch
DEWATERING TIME	3.32 days

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

- ALL CONSTRUCTION SHALL COMPLY WITH NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.
- A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE ON FILE AT THE JOB SITE AT ALL TIMES.
- FAILURE TO FOLLOW THE APPROVED PLAN SEQUENCE AND DETAILS COULD SUBJECT THE CONTRACTOR TO FINES AND PENALTIES ISSUED BY DEQ.
- FIELD VERIFY ALL DIMENSIONS AND GRADES ON THESE PLANS PRIOR TO CONSTRUCTION. FAILURE TO NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH PLAN OR GRADE CHANGES, MAY RESULT IN NO EXTRA COMPENSATION PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY.
- EXCAVATION AND EARTH MOVING OPERATIONS SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER.
- VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND FROM A SURVEY OF ABOVE GROUND FEATURES. NO WARRANTY IS GIVEN OR IMPLIED AS TO THE ACCURACY OF THE INFORMATION. ALL EXISTING UTILITIES SHOULD BE CONSIDERED APPROXIMATE IN LOCATION AND VERIFIED PRIOR TO COMMENCING ACTIVITY ON SITE.
- ALL ADJACENT ROADS TO THE SITE ARE TO BE SWEEPED AND WASHED AT THE END OF EACH WORK DAY TO ENSURE NO SEDIMENT COLLECTS ON THE ROADWAYS.
- INSPECT AND PROPERLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER EVERY RAINFALL EVENT.
- INSTALL ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT RUNOFF.
- PROVIDE NEW HANOVER COUNTY WITH THE LOCATION OF OFFSITE STOCKPILES USED TO STORE EXCAVATED SOIL FROM THE SITE. THE LOCATION OF OFFSITE STOCKPILES MUST BE AN UPLAND AREA. IF AN OFFSITE BORROW OR SPOIL SITE IS UTILIZED, THEN THE DISTURBED AREA FOR THE BORROW/SPOIL SITE MUST BE INCLUDED IN THE LAND DISTURBANCE PERMIT. THE CONTRACTOR WILL PROVIDE THE LOCATION OF ALL EXCAVATED SOILS USED FOR THIS PROJECT TO NEW HANOVER COUNTY. THIS AREA MUST ALSO BE AN UPLAND AREA.
- CONTRACTOR TO MOVE EXCESS SOIL EXCAVATED FROM STORMWATER CONTROL MEASURES TO DESIGNATED STOCKPILE AREA ON ILM PROPERTY. CORROINATE WITH ILM CONTACT ON EXACT LOCATION.
- CONCRETE WASHOUT TO BE LOCATED A MINIMUM OF 50' FROM ANY DRAINAGE STRUCTURE.
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS.
- ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.

EROSION CONTROL PLAN - PHASE I KEYNOTES	
NUMBER	DESCRIPTION
EC101	LIMITS OF DISTURBANCE
EC102	SILT FENCE; REFER TO DETAIL (TYP.)
EC103	SILT FENCE OUTLET; REFER TO DETAIL (TYP.)
EC104	TEMPORARY 25' X 100' CONSTRUCTION ENTRANCE; REFER TO DETAIL
EC105	TEMPORARY INLET PROTECTION; REFER TO DETAIL (TYP.)
EC106	SKIMMER SEDIMENT BASIN #1 DRAINAGE AREA=4.37 AC; DIST AREA=4.37 AC REQ'D SURFACE AREA=4,133 SF; REQ'D STORAGE=7,866 CF PROVD SURFACE AREA=12,185 SF; PROVD STORAGE=20,670 CF (OR EQUIVALENT SURFACE AREA & VOLUME) PROVIDE 2.5" SKIMMER W/ 1.5" DIA. ORIFICE ON 4'X4'X1'D CLASS B PAD; TETHER TO BERM INV=17.00'
EC107	TEMP. DIVERSION DITCH #1 LENGTH = 341'; DRAINAGE AREA = 0.78 AC; S = 1.6% Q10 = 2.3 CFS; V10 = 2.65 FPS D10 = 0.5'; T = 0.5 #/SF; B = 0.5' USE 0.50' FBD' 1.0' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC108	TEMP. DIVERSION DITCH #2 LENGTH = 340'; DRAINAGE AREA = 0.25 AC; S = 1.8% Q10 = 0.7 CFS; V10 = 2.07 FPS D10 = 0.3'; T = 0.33 #/SF; B = 0.5' USE 0.50' FBD' 0.8' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC111	3 POROUS BAFFLES
EC112	15' WIDE SPILLWAY W/ CLASS B RIPRAP & NON-WOVEN LINER OR 50 MIL HEAVY DUTY SILVER TARP TOP=19.00 CREST=20.50
EC113	3:1 SIDE SLOPE
EC114	CLASS A RIP RAP DISSIPATER PAD (11'L X 6.5'W X 12"D)
EC115	CLASS A RIP RAP DISSIPATER PAD (17'L X 5.3'W X 12"D)
EC116	CLASS A RIP RAP DISSIPATER PAD (6'L X 4.5'W X 12"D)
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EC118	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
EC119	CIRCLE K FUNDED CONSTRUCTION WORK
EC120	ILM FUNDED CONSTRUCTION WORK

EROSION CONTROL LEGEND	
— LOD —	LIMITS OF DISTURBANCE
— SF — SF — SF —	SILT FENCE
— P — P — P — P —	POROUS BAFFLE
— D — D — D — D —	PERMANENT DIVERSION DITCH
— TD — TD — TD — TD —	TEMPORARY DIVERSION DITCH
— S — S — S — S —	SILT FENCE STONE OUTLET
— ES — ES — ES — ES —	EMERGENCY SPILLWAY / RIP RAP APRON
— CD — CD — CD — CD —	CHECK DAM
— CE — CE — CE — CE —	CONSTRUCTION ENTRANCE
— TI — TI — TI — TI —	TEMPORARY INLET PROTECTION
— CW — CW — CW — CW —	CONCRETE WASHOUT
— HI — HI — HI — HI —	HORSESHOE INLET PROTECTION
— SK — SK — SK — SK —	SKIMMER

ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.

PHASE I EROSION CONTROL CONSTRUCTION SEQUENCE:

- OWNER/DEVELOPER/CONTRACTOR SHALL OBTAIN A COPY OF THE APPROVED EROSION CONTROL PLAN AND MAINTAIN A COPY OF THE PLAN ON SITE THROUGHOUT DURATION OF CONSTRUCTION.
- OWNER/CONTRACTOR SHALL NOTIFY NEW HANOVER COUNTY A MINIMUM OF 72 HOURS BEFORE START OF CONSTRUCTION ON EACH PHASE.
- ONLY CLEAR/GRADE ENOUGH TO INSTALL SEDIMENT CONTROL DEVICES AS SHOWN IN PHASE I
- INSTALL CONSTRUCTION ENTRANCE, PIPES, TEMPORARY DIVERSION DITCHES, CHECK DAMS, AND TEMPORARY INLET PROTECTION AS INDICATED ON PLAN. INSTALL SILT FENCE, SILT FENCE OUTLETS AROUND THE PERIMETER OF THE SITE. DISTURB ONLY THE AREAS NECESSARY FOR INSTALLATION.
- ADJUST EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY FOR PROPER OPERATION. INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DETERMINED NECESSARY BY INSPECTOR.
- INSPECT ALL EROSION CONTROL DEVICES AFTER EVERY RAINFALL EVENT AND AT LEAST ONCE PER WEEK. REPAIR AND CLEAN OUT AS REQUIRED.
- NOTIFY NEW HANOVER COUNTY FOR AN INSPECTION AFTER THIS IS COMPLETED.
- PROCEED TO PHASE 2 OF THE EROSION CONTROL SEQUENCE WHEN PHASE 1 MEASURES HAVE BEEN COMPLETED, INSPECTED, AND APPROVED.

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

EROSION CONTROL PLAN - PHASE I

YOUR VISION ACHIEVED THROUGH OURS.

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

DATE  
09/11/2020

REVISION DESCRIPTION  
REVISION PER CIPRIAN REVIEW  
09/21/2020

REVISION DESCRIPTION  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

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DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

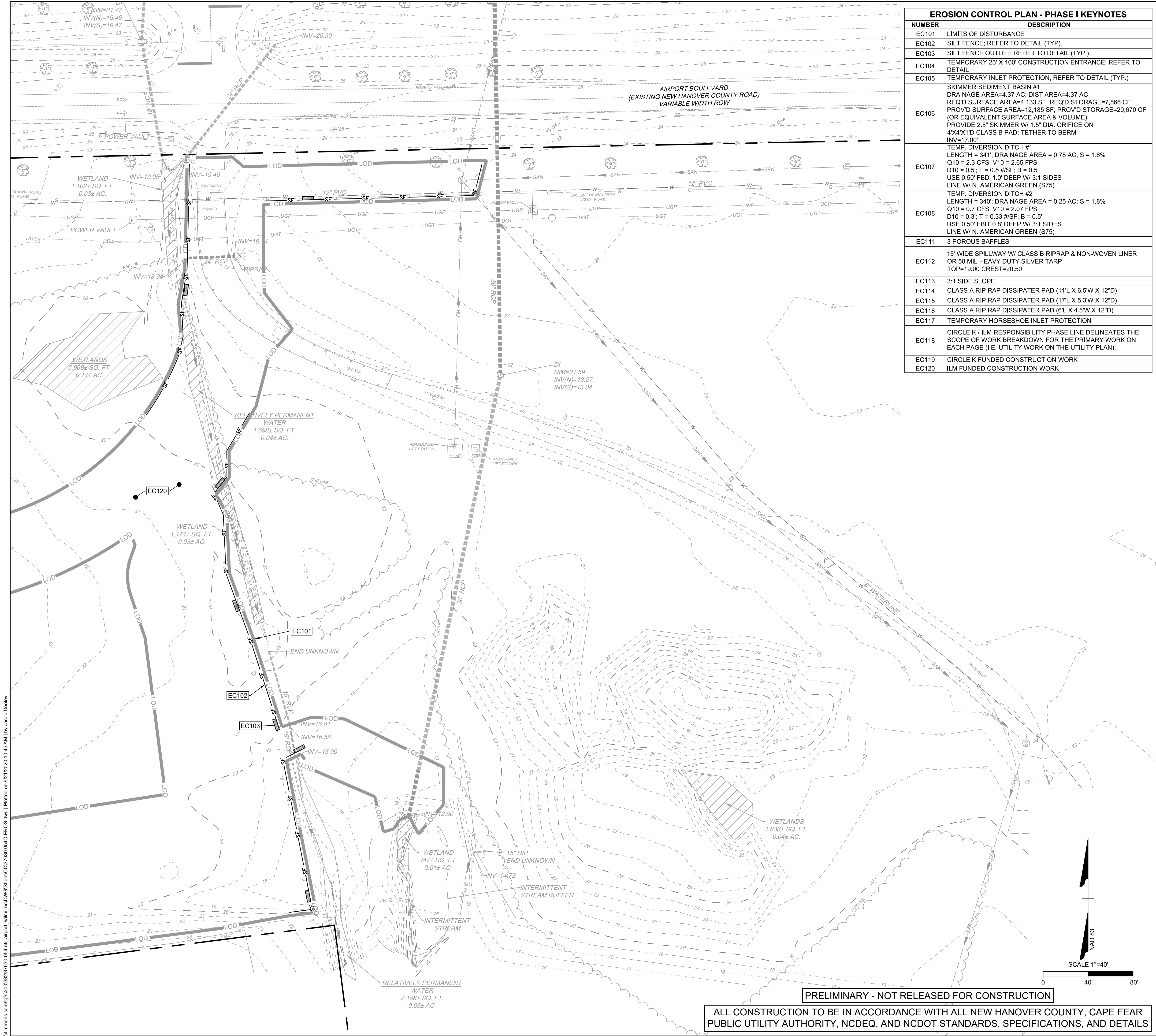
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PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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  - ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.
- PHASE I EROSION CONTROL CONSTRUCTION SEQUENCE:**
- OWNER/DEVELOPER/CONTRACTOR SHALL OBTAIN A COPY OF THE APPROVED EROSION CONTROL PLAN AND MAINTAIN A COPY OF THE PLAN ON SITE THROUGHOUT DURATION OF CONSTRUCTION.
  - OWNER/CONTRACTOR SHALL NOTIFY NEW HANOVER COUNTY A MINIMUM OF 72 HOURS BEFORE START OF CONSTRUCTION ON EACH PHASE.
  - ONLY CLEAR/GRADE ENOUGH TO INSTALL SEDIMENT CONTROL DEVICES AS SHOWN IN PHASE I.
  - INSTALL CONSTRUCTION ENTRANCE, PIPES, TEMPORARY DIVERSION DITCHES, CHECK DAMS, AND TEMPORARY INLET PROTECTION AS INDICATED ON PLAN. INSTALL SILT FENCE, SILT FENCE OUTLETS AROUND THE PERIMETER OF THE SITE. DISTURB ONLY THE AREAS NECESSARY FOR INSTALLATION.
  - ADJUST EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY FOR PROPER OPERATION. INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DETERMINED NECESSARY BY INSPECTOR.
  - INSPECT ALL EROSION CONTROL DEVICES AFTER EVERY RAINFALL EVENT AND AT LEAST ONCE PER WEEK. REPAIR AND CLEAN OUT AS REQUIRED.
  - NOTIFY NEW HANOVER COUNTY FOR AN INSPECTION AFTER THIS IS COMPLETED.
  - PROCEED TO PHASE 2 OF THE EROSION CONTROL SEQUENCE WHEN PHASE 1 MEASURES HAVE BEEN COMPLETED, INSPECTED, AND APPROVED.

EROSION CONTROL LEGEND	
	LIMITS OF DISTURBANCE
	SILT FENCE
	POROUS BAFFLE
	PERMANENT DIVERSION DITCH
	TEMPORARY DIVERSION DITCH
	SILT FENCE STONE OUTLET
	EMERGENCY SPILLWAY / RIP RAP APRON
	CHECK DAM
	CONSTRUCTION ENTRANCE
	TEMPORARY INLET PROTECTION
	CONCRETE WASHOUT
	HORSESHOE INLET PROTECTION
	SKIMMER



**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

**CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115**

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

**EROSION CONTROL PLAN - PHASE I**

THIS DRAWING PREPARED AT THE  
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5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866-4951 FAX 919.833.8124 www.timmons.com

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DATE  
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DATE  
09/21/2020

DATE  
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09/21/2020

DATE  
09/21/2020

DATE  
09/21/2020

REVISION DESCRIPTION  
REVISION PER CFBIA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

JOB NO.  
**37630.054**

SHEET NO.  
**C4.1**

09/21/2020

SEAL 022530

REGISTERED PROFESSIONAL ENGINEER

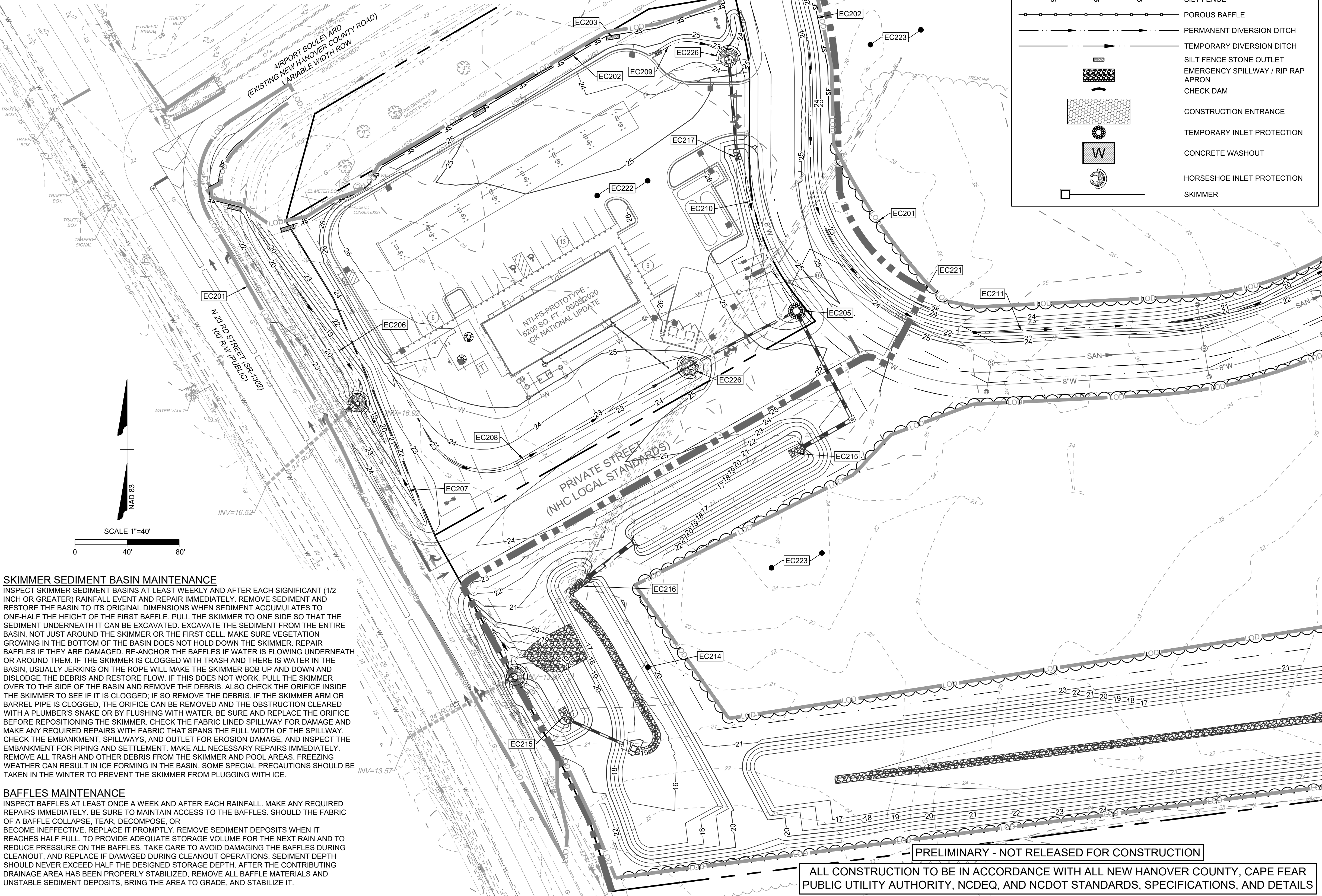
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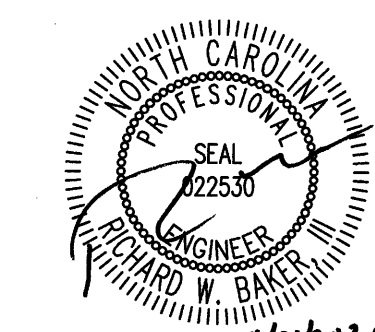
PHASE II EROSION CONTROL CONSTRUCTION SEQUENCE:

1. MAINTAIN ALL EXISTING EROSION CONTROL FEATURES PREVIOUSLY CONSTRUCTED AND ASSOCIATED WITH PHASE 2 EROSION CONTROL.
2. CONTINUE BRINGING FILL INTO THE SITE. IMPORTED MATERIAL WILL REQUIRE A PERMITTED SITE APPROVAL BEFORE THIS PROCESS BEGINS. ALL FILL SHALL BE BROUGHT INTO THE SITE AND EVENLY SPREAD OUT THROUGH THE SITE AS SHOWN IN LIFTS OF NO MORE THAT 1.0' AT A TIME. FILL SHALL BE ROLL COMPACTED BY A DOZER OR EQUIVALENT AS IT IS PLACED.
3. BEGIN INSTALLATION OF THE STORM PIPE SYSTEM FROM OUTLET POINT (LOW END) AND WORK UPSTREAM. PIPE INLET PROTECTION SHALL BE UTILIZED AT THE END OF EACH WID.
4. INSTALL SITE IMPROVEMENTS, STORMWATER DRAINAGE SYSTEM, UTILITY SERVICES, SIDEWALKS AND DRIVES AS SHOWN ON THE APPROVED PLANS. ALL OPEN TRENCHES FOR UTILITY AND STORMWATER INSTALLATION SHALL BE PROTECTED FROM SEDIMENTATION BY PILING EXCAVATED MATERIAL ON THE UPHILL SIDE OF EXCAVATION.
5. INSTALL ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES AND/OR INCREASE MAINTENANCE FREQUENCY WHERE APPROVED MEASURES FAIL TO PREVENT ACCELERATED EROSION, OFF-SITE SEDIMENTATION, OR REPETITIVE NON-COMPLIANCE ISSUES. ALL MEASURES MUST BE INSTALLED PER PLAN DETAIL. ENSURE CONSTRUCTION TRAFFIC IS LIMITED TO THE CONSTRUCTION ENTRANCE ONLY.
6. GROUND COVER SHALL BE PROVIDED AS FOLLOWS:
  - FOR ALL AREAS OF MODERATE AND/OR STEEP SLOPES, PROVIDE TEMPORARY GROUND COVER IF THE SLOPE HAS NOT BEEN DISTURBED FOR A PERIOD OF FOURTEEN (14) DAYS. SLOPES GREATER THAN 3:1 REQUIRE GROUND COVER IN 7 DAYS.
  - PROVIDE GROUND COVER SUFFICIENT TO RESTRAIN EROSION ON ANY PORTION OF THE SITE UPON WHICH FURTHER LAND-DISTURBING ACTIVITY IS NOT BEING UNDERTAKEN WITHIN FOURTEEN (14) CALENDAR DAYS OF TEMPORARILY OR PERMANENTLY SUSPENDING LAND DISTURBING ACTIVITY.
  - ESTABLISH PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION WITHIN FOURTEEN (14) CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT AND/OR PRIOR TO FINAL INSPECTION.
8. INSTALL CURB & GUTTER AND GRAVEL BASE.
9. MODIFICATIONS TO THE APPROVED AND PERMITTED PLANS SHALL BE APPROVED BY EROSION CONTROL INSPECTIONS PRIOR TO REMOVAL OR INSTALLATION. CONTACT THE EROSION CONTROL INSPECTOR TO OBTAIN SIGN-OFF ON THE PLANS.
10. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER. SILT FENCE, INLET PROTECTION, AND OTHER SIMILAR MEASURES MUST BE CLEARED OUT BEFORE THEY ARE HALF FULL. CLOGGED STONE FILTERS MUST BE REFRESHED/REPLACED. SILT FENCE CAN NOT HAVE HOLES OR TEARS.
11. AT A MINIMUM OF SEVEN (7) DAYS PRIOR TO SCHEDULING THE STORMWATER FINAL INSPECTION, SUBMIT ANY REQUIRED PAPERWORK TO THE EROSION CONTROL INSPECTORS FOR APPROVAL. FAILURE TO DO SO WILL PREVENT A CERTIFICATE OF OCCUPANCY FROM BEING ISSUED.
12. ONCE THE STORMWATER FINAL INSPECTION IS APPROVED, CLOSE THE GRADING PERMIT AND OBTAIN A CERTIFICATE OF COMPLETION.



GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.
2. A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE ON FILE AT THE JOB SITE AT ALL TIMES.
3. FAILURE TO FOLLOW THE APPROVED PLAN SEQUENCE AND DETAILS COULD SUBJECT THE CONTRACTOR TO FINES AND PENALTIES ISSUED BY DEQ.
4. FIELD VERIFY ALL DIMENSIONS AND GRADES ON THESE PLANS PRIOR TO CONSTRUCTION. FAILURE TO NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH PLAN OR GRADE CHANGES, MAY RESULT IN NO EXTRA COMPENSATION PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY.
5. EXCAVATION AND EARTH MOVING OPERATIONS SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER.
6. VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND FROM A SURVEY OF ABOVE GROUND FEATURES. NO WARRANTY IS GIVEN OR IMPLIED AS TO THE ACCURACY OF THE INFORMATION. ALL EXISTING UTILITIES SHOULD BE CONSIDERED APPROXIMATE IN LOCATION AND VERIFIED PRIOR TO COMMENCING ACTIVITY ON SITE.
7. ALL ADJACENT ROADS TO THE SITE ARE TO BE SWEEPED AND WASHED AT THE END OF EACH WORK DAY TO ENSURE NO SEDIMENT COLLECTS ON THE ROADWAYS.
8. INSPECT AND PROPERLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER EVERY RAINFALL EVENT.
9. INSTALL ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT RUNOFF.
10. PROVIDE NEW HANOVER COUNTY WITH THE LOCATION OF OFFSITE STOCKPILES USED TO STORE EXCAVATED SOIL FROM THE SITE. THE LOCATION OF OFFSITE STOCKPILES MUST BE AN UPLAND AREA. IF AN OFFSITE BORROW OR SPOIL SITE IS UTILIZED, THEN THE DISTURBED AREA FOR THE BORROW/SPOIL SITE MUST BE INCLUDED IN THE LAND DISTURBANCE PERMIT. THE CONTRACTOR WILL PROVIDE THE LOCATION OF ALL EXCAVATED SOILS USED FOR THIS PROJECT TO NEW HANOVER COUNTY. THIS AREA MUST ALSO BE AN UPLAND AREA.
- 10.1. CONTRACTOR TO MOVE EXCESS SOIL EXCAVATED FROM STORMWATER CONTROL MEASURES TO DESIGNED STOCKPILE AREA ON ILM PROPERTY. CORROINATE WITH ILM CONTACT ON EXACT LOCATION.
11. CONCRETE WASHOUT TO BE LOCATED A MINIMUM OF 50' FROM ANY DRAINAGE STRUCTURE.
12. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS.
13. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER.



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5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.4951 FAX 919.933.8124 www.timmons.com

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DATE  
09/11/2020  
DRAWN BY  
A. MAY  
DESIGNED BY  
B. DOWNS  
CHECKED BY  
R. BAKER  
SCALE  
AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA  
EROSION CONTROL PLAN - PHASE II

JOB NO.  
37630.054  
SHEET NO.  
C4.2

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PHASE II EROSION CONTROL CONSTRUCTION SEQUENCE:

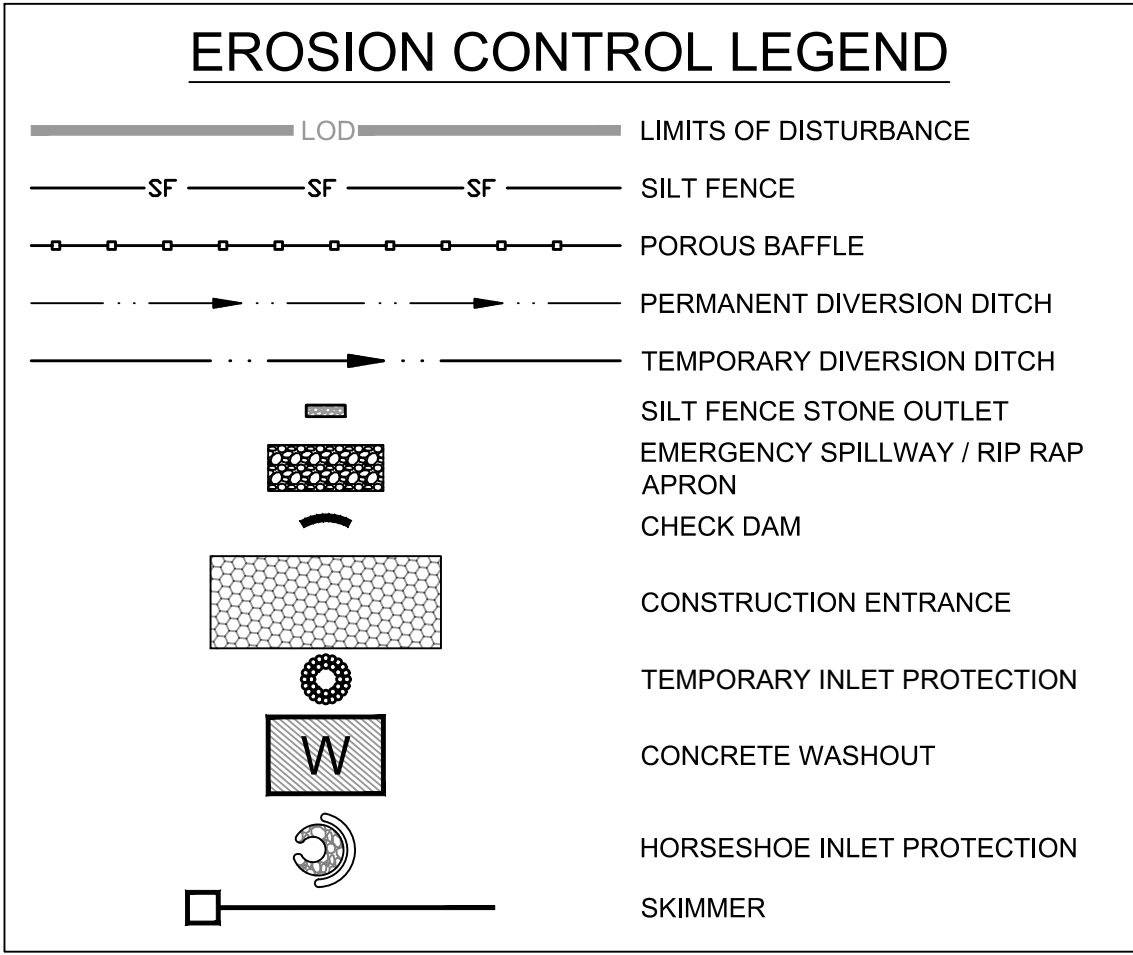
1. MAINTAIN ALL EXISTING EROSION CONTROL FEATURES PREVIOUSLY CONSTRUCTED AND ASSOCIATED WITH PHASE 2 EROSION CONTROL.
2. CONTINUE BRINGING FILL INTO THE SITE. IMPORTED MATERIAL WILL REQUIRE A PERMITTED SITE APPROVAL BEFORE THIS PROCESS BEGINS. ALL FILL SHALL BE BROUGHT INTO THE SITE AND EVENLY SPREAD OUT THROUGH THE SITE AS SHOWN IN LIFTS OF NO MORE THAT 1.0' AT A TIME. FILL SHALL BE ROLL COMPACTED BY A DOZER OR EQUIVALENT AS IT IS PLACED.
3. BEGIN INSTALLATION OF THE STORM PIPE SYSTEM FROM OUTLET POINT (LOW END) AND WORK UPSTREAM. PIPE INLET PROTECTION SHALL BE UTILIZED AT THE END OF EACH WO
4. INSTALL SITE IMPROVEMENTS, STORMWATER DRAINAGE SYSTEM, UTILITY SERVICES, SIDEWALKS AND DRIVES AS SHOWN ON THE APPROVED PLANS. ALL OPEN TRENCHES FOR UTILITY AND STORMWATER INSTALLATION SHALL BE PROTECTED FROM SEDIMENTATION BY PILING EXCAVATED MATERIAL ON THE UPHILL SIDE OF EXCAVATION.
5. INSTALL ADEQUATE EROSION AND SEDIMENT CONTROL MEASURES AND/OR INCREASE MAINTENANCE FREQUENCY WHERE APPROVED MEASURES FAIL TO PREVENT ACCELERATED EROSION, OFF-SITE SEDIMENTATION, OR REPETITIVE NON-COMPLIANCE ISSUES. ALL MEASURES MUST BE INSTALLED PER PLAN DETAIL. ENSURE CONSTRUCTION TRAFFIC IS LIMITED TO THE CONSTRUCTION ENTRANCE ONLY.
6. GROUND COVER SHALL BE PROVIDED AS FOLLOWS:
  - FOR ALL AREAS OF MODERATE AND/OR STEEP SLOPES, PROVIDE TEMPORARY GROUND COVER IF THE SLOPE HAS NOT BEEN DISTURBED FOR A PERIOD OF FOURTEEN (14) DAYS. SLOPES GREATER THAN 3:1 REQUIRE GROUND COVER IN 7 DAYS.
  - PROVIDE GROUND COVER SUFFICIENT TO RESTRAIN EROSION ON ANY PORTION OF THE SITE UPON WHICH FURTHER LAND-DISTURBING ACTIVITY IS NOT BEING UNDERTAKEN WITHIN FOURTEEN (14) CALENDAR DAYS OF TEMPORARILY OR PERMANENTLY SUSPENDING LAND DISTURBING ACTIVITY.
  - ESTABLISH PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION WITHIN FOURTEEN (14) CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT AND/OR PRIOR TO FINAL INSPECTION.
8. INSTALL CURB & GUTTER AND GRAVEL BASE.
9. MODIFICATIONS TO THE APPROVED AND PERMITTED PLANS SHALL BE APPROVED BY EROSION CONTROL INSPECTIONS PRIOR TO REMOVAL OR INSTALLATION. CONTACT THE EROSION CONTROL INSPECTOR TO OBTAIN SIGN-OFF ON THE PLANS.
10. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER. SILT FENCE, INLET PROTECTION, AND OTHER SIMILAR MEASURES MUST BE CLEANED OUT BEFORE THEY ARE HALF FULL. CLOGGED STONE FILTERS MUST BE REFRESHED/REPLACED. SILT FENCE CAN NOT HAVE HOLES OR TEARS.
11. AT A MINIMUM OF SEVEN (7) DAYS PRIOR TO SCHEDULING THE STORMWATER FINAL INSPECTION, SUBMIT ANY REQUIRED PAPERWORK TO THE EROSION CONTROL INSPECTORS FOR APPROVAL. FAILURE TO DO SO WILL PREVENT A CERTIFICATE OF OCCUPANCY FROM BEING ISSUED.
12. ONCE THE STORMWATER FINAL INSPECTION IS APPROVED, CLOSE THE GRADING PERMIT AND OBTAIN A CERTIFICATE OF COMPLETION.

SKIMMER SEDIMENT BASIN MAINTENANCE

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER. REPAIR BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

BAFFLES MAINTENANCE

INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL, TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT, AND REPLACE IF DAMAGED DURING CLEANOUT OPERATIONS. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.



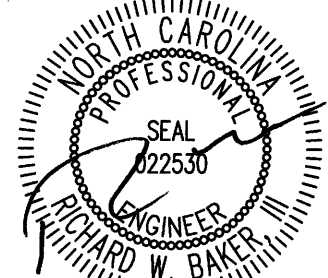
PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH NEW HANOVER COUNTY STANDARDS AND SPECIFICATIONS.
2. A COPY OF THE APPROVED EROSION CONTROL PLAN MUST BE ON FILE AT THE JOB SITE AT ALL TIMES.
3. FAILURE TO FOLLOW THE APPROVED PLAN SEQUENCE AND DETAILS COULD SUBJECT THE CONTRACTOR TO FINES AND PENALTIES ISSUED BY DEQ.
4. FIELD VERIFY ALL DIMENSIONS AND GRADES ON THESE PLANS PRIOR TO CONSTRUCTION. FAILURE TO NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH PLAN OR GRADE CHANGES, MAY RESULT IN NO EXTRA COMPENSATION PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY.
5. EXCAVATION AND EARTH MOVING OPERATIONS SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER.
6. VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND FROM A SURVEY OF ABOVE GROUND FEATURES. NO WARRANTY IS GIVEN OR IMPLIED AS TO THE ACCURACY OF THE INFORMATION. ALL EXISTING UTILITIES SHOULD BE CONSIDERED APPROXIMATE IN LOCATION AND VERIFIED PRIOR TO COMMENCING ACTIVITY ON SITE.
7. ALL ADJACENT ROADS TO THE SITE ARE TO BE SWEEPED AND WASHED AT THE END OF EACH WORK DAY TO ENSURE NO SEDIMENT COLLECTS ON THE ROADWAYS.
8. INSPECT AND PROPERLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER EVERY RAINFALL EVENT.
9. INSTALL ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT RUNOFF.
10. PROVIDE NEW HANOVER COUNTY WITH THE LOCATION OF OFFSITE STOCKPILES USED TO STORE EXCAVATED SOIL FROM THE SITE. THE LOCATION OF OFFSITE STOCKPILES MUST BE AN UPLAND AREA. IF AN OFFSITE BORROW OR SPOIL SITE IS UTILIZED, THEN THE DISTURBED AREA FOR THE BORROW/SPOIL SITE MUST BE INCLUDED IN THE LAND DISTURBANCE PERMIT. THE CONTRACTOR WILL PROVIDE THE LOCATION OF ALL EXCAVATED SOILS USED FOR THIS PROJECT TO NEW HANOVER COUNTY. THIS AREA MUST ALSO BE AN UPLAND AREA.
- 10.1. CONTRACTOR TO MOVE EXCESS SOIL EXCAVATED FROM STORMWATER CONTROL MEASURES TO DESIGNATED STOCKPILE AREA ON ILM PROPERTY. COORDINATE WITH ILM CONTACT ON EXACT LOCATION.
11. CONCRETE WASHOUT TO BE LOCATED A MINIMUM OF 50' FROM ANY DRAINAGE STRUCTURE.
12. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS.
13. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER.

EROSION CONTROL PLAN - PHASE II KEYNOTES	
NUMBER	DESCRIPTION
EC201	LIMITS OF DISTURBANCE
EC202	SILT FENCE; REFER TO DETAIL (TYP.)
EC203	SILT FENCE OUTLET; REFER TO DETAIL (TYP.)
EC204	TEMPORARY 25' X 100' CONSTRUCTION ENTRANCE; REFER TO DETAIL
EC205	TEMPORARY INLET PROTECTION; REFER TO DETAIL
EC206	PERMANENT DIVERSION DITCH #1 DRAINAGE AREA= 2.24 AC; S = 1.8% Q10 = 9.5 CFS; V10=3.77 FPS D10=1.0'; T=0.97 #/SF USE 0.5' FBD' 1.5' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC207	PERMANENT DIVERSION DITCH #2 DRAINAGE AREA= 0.24 AC; S = 4.1% Q10 = 1.4 CFS; V10=3.85 FPS D10=0.5'; T=1.28 #/SF USE 0.5' FBD' 1.0' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC208	PERMANENT DIVERSION DITCH #3 DRAINAGE AREA= 0.70 AC; S = 0.8% Q10 = 3.8 CFS; V10=2.29 FPS D10=0.75'; T=0.4 #/SF USE 0.25' FBD' 1.0' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC209	PERMANENT DIVERSION DITCH #4 DRAINAGE AREA= 1.06 AC; S = 1.1% Q10 = 8.3 CFS; V10= 3.2 FPS D10=1.0'; T=0.7 #/SF USE 0.0' FBD' 1.0' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC210	PERMANENT DIVERSION DITCH #5 DRAINAGE AREA= 1.53 AC; S = 0.3% Q10 = 11.7 CFS; V10= 2.28 FPS D10=1.5'; T=0.31 #/SF USE 0.0' FBD' 1.0' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC211	PERMANENT DIVERSION DITCH #6 DRAINAGE AREA= 1.22 AC; S = 0.7% Q10 = 5.3 CFS; V10= 2.26 FPS D10= 0.75'; T=0.3 #/SF; B=1.0' USE 0.5' FBD' 1.25' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC212	PERMANENT DIVERSION DITCH #7 DRAINAGE AREA= 0.50 AC; S = 4.60% Q10 = 2.4 CFS; V10= 5.18 FPS D10= 0.50'; T=1.43 #/SF; B=2.0' USE 0.5' FBD' 1.00' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC213	PERMANENT DIVERSION DITCH #8 DRAINAGE AREA= 1.24 AC; S = 0.6% Q10 = 7.2 CFS; V10= 2.37 FPS D10= 0.75'; T=0.29 #/SF; B=2.0' USE 0.25' FBD' 1.00' DEEP W/ 3:1 SIDES LINE W/ N. AMERICAN GREEN (S75)
EC214	3:1 SIDE SLOPES
EC215	CLASS B RIP RAP DISSIPATER PAD (12'L X 6'W X 18"D)
EC216	CLASS B RIP RAP DISSIPATER PAD (16'L X 6'W X 18"D)
EC217	CLASS A RIP RAP DISSIPATER PAD (6'L X 4.5'W X 12"D)
EC221	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
EC222	CIRCLE K FUNDED CONSTRUCTION WORK
EC223	ILM FUNDED CONSTRUCTION WORK
EC224	CLASS B RIP RAP DISSIPATER PAD (18'L X 9'W X 18"D)
EC225	CLASS A RIP RAP DISSIPATER PAD (8'L X 6'W X 12"D)
EC226	TEMPORARY HORSESHOE INLET PROTECTION



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NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA  
EROSION CONTROL PLAN - PHASE II

JOB NO.  
37630.054  
SHEET NO.  
C4.3

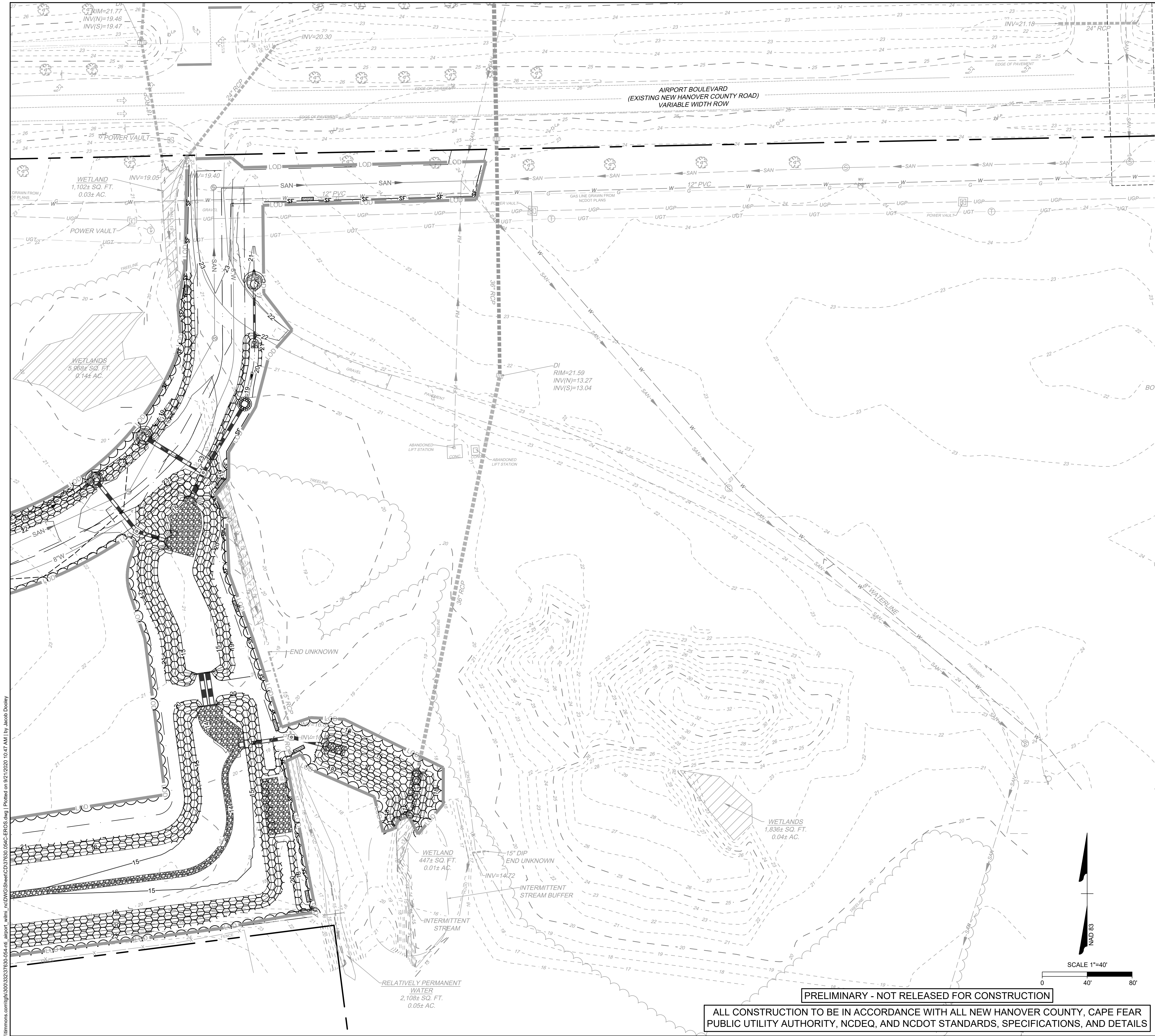
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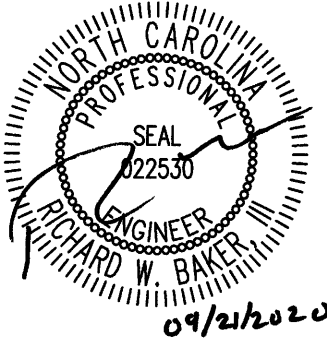
\\timmons.com\gis\3001332\37630-054-nl-airport\_wm.ncd\DWG\Sheet\CD\37630-054-C-EROS.dwg [Plotted on 9/21/2020 10:47 AM] by Jacob Doleay



GROUND STABILIZATION HATCHES	
HATCH	SITE AREA DESCRIPTION
	SLOPES STEEPER THAN 3:1; REFER TO SECTION E OF NCG01 GROUND STABILIZATION AND MATERIALS HANDLING
	SLOPES 3:1 TO 4:1; REFER TO SECTION E OF NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

REFER TO NPDES STABILIZATION NOTES AND DETAILS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.

EROSION CONTROL LEGEND	
	LIMITS OF DISTURBANCE
	SILT FENCE
	POROUS BAFFLE
	PERMANENT DIVERSION DITCH
	TEMPORARY DIVERSION DITCH
	SILT FENCE STONE OUTLET
	EMERGENCY SPILLWAY / RIP RAP APRON
	CHECK DAM
	CONSTRUCTION ENTRANCE
	TEMPORARY INLET PROTECTION
	CONCRETE WASHOUT
	HORSESHOE INLET PROTECTION
	SKIMMER



THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866-4951 FAX 919.833.8124 www.timmons.com

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REVISION DESCRIPTION	
REVISION PER CERIA REVIEW	
NEW HANOVER COUNTY STORMWATER SUBMITTAL	

DATE	DRAWN BY
09/11/2020	A. MAY
DATE	DESIGNED BY
09/21/2020	B. DOWNS
DATE	CHECKED BY
	R. BAKER
SCALE	AS SHOWN

**TIMMONS GROUP** . . . . .  
NORTH CAROLINA LICENSE NO. C-1652

**CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115**  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

JOB NO.	SHEET NO.
37630.054	C4.5

NPDES PLAN

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**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		
Required Ground Stabilization Timeframes		
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' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-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
(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:	
<b>Temporary Stabilization</b> <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>	<b>Permanent Stabilization</b> <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**

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

**EQUIPMENT AND VEHICLE MAINTENANCE**

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. 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**

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

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

**PORTABLE TOILETS**

1. 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.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. 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**

1. 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.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. 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.



## NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

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.		
Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (note this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls 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. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An evaluation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover), 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

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

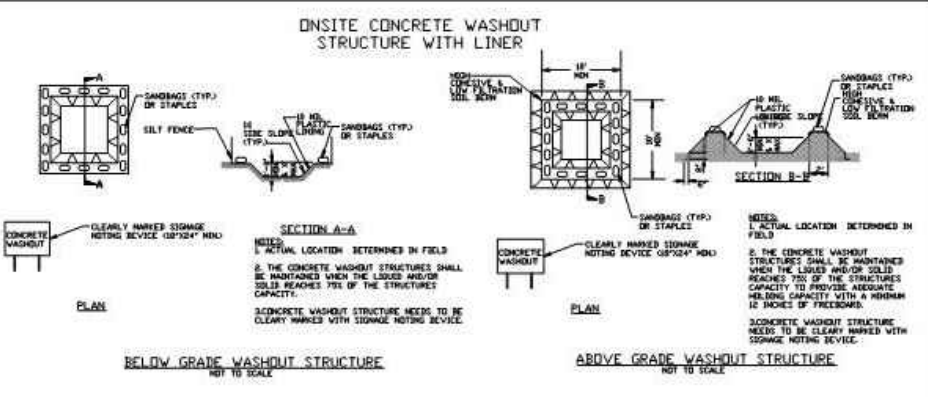
**PART II, SECTION G, ITEM (4)  
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

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:

- (a) The E&SC 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 E&SC plan authority has approved these items,
- (b) 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,
- (c) 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,
- (d) 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,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge point and the dewatering devices, and
- (f) 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.

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS



**CONCRETE WASHOUTS**

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. 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.
4. 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.
5. 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.
6. 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 spills or overflow.
7. 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.
8. 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.
9. 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.
10. 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**

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. 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.
3. 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.
4. Do not stockpile these materials onsite.

**HAZARDOUS AND TOXIC WASTE**

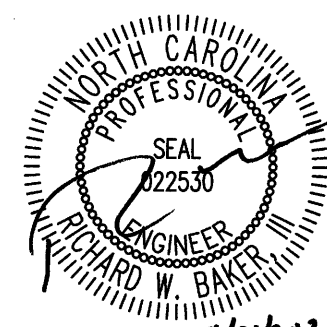
1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING		
SECTION C: REPORTING		
<b>1. Occurrences that Must be Reported</b> Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland. (b) Oil spills if: <ul style="list-style-type: none"><li>• They are 25 gallons or more,</li><li>• They are less than 25 gallons but cannot be cleaned up within 24 hours,</li><li>• They cause sheen on surface waters (regardless of volume), or</li><li>• They are within 100 feet of surface waters (regardless of volume).</li></ul> (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85. (d) Anticipated bypasses and unanticipated bypasses. (e) Noncompliance with the conditions of this permit that may endanger health or the environment.		
<b>2. Reporting Timeframes and Other Requirements</b> After a permittee becomes aware of an occurrence that must be reported, he 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>• <b>Within 24 hours</b>, an oral or electronic notification.</li><li>• <b>Within 7 calendar days</b>, 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 <a href="#">NC 303(d) list</a> 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)(c) above	<ul style="list-style-type: none"><li>• <b>Within 24 hours</b>, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li></ul>	
(c) Anticipated bypasses (40 CFR 122.41(i)(1))	<ul style="list-style-type: none"><li>• <b>A report at least ten days before the date of the bypass, if possible.</b> The report shall include an evaluation of the anticipated quality and effect of the bypass.</li></ul>	
(d) Unanticipated bypasses (40 CFR 122.41(i)(3))	<ul style="list-style-type: none"><li>• <b>Within 24 hours</b>, an oral or electronic notification.</li><li>• <b>Within 7 calendar days</b>, a report that includes an evaluation of the quality and effect of the bypass.</li></ul>	
(e) Noncompliance with the conditions of this permit that may endanger health or the environment (40 CFR 122.41(i)(7))	<ul style="list-style-type: none"><li>• <b>Within 24 hours</b>, an oral or electronic notification.</li><li>• <b>Within 7 calendar days</b>, 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 recurrences of the noncompliance. (40 CFR 122.41(i)(6)).</li><li>• Division staff may waive the requirement for a written report on a case-by-case basis.</li></ul>	



## NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



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DATE	REVISION DESCRIPTION
09/11/2020	REVISION PER CFPJA REVIEW
09/21/2020	NEW HANOVER COUNTY STORMWATER SUBMITTAL

DRAWN BY  
**A. MAY**  
DESIGNED BY  
**B. DOWNS**  
CHECKED BY  
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SCALE  
**AS SHOWN**

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

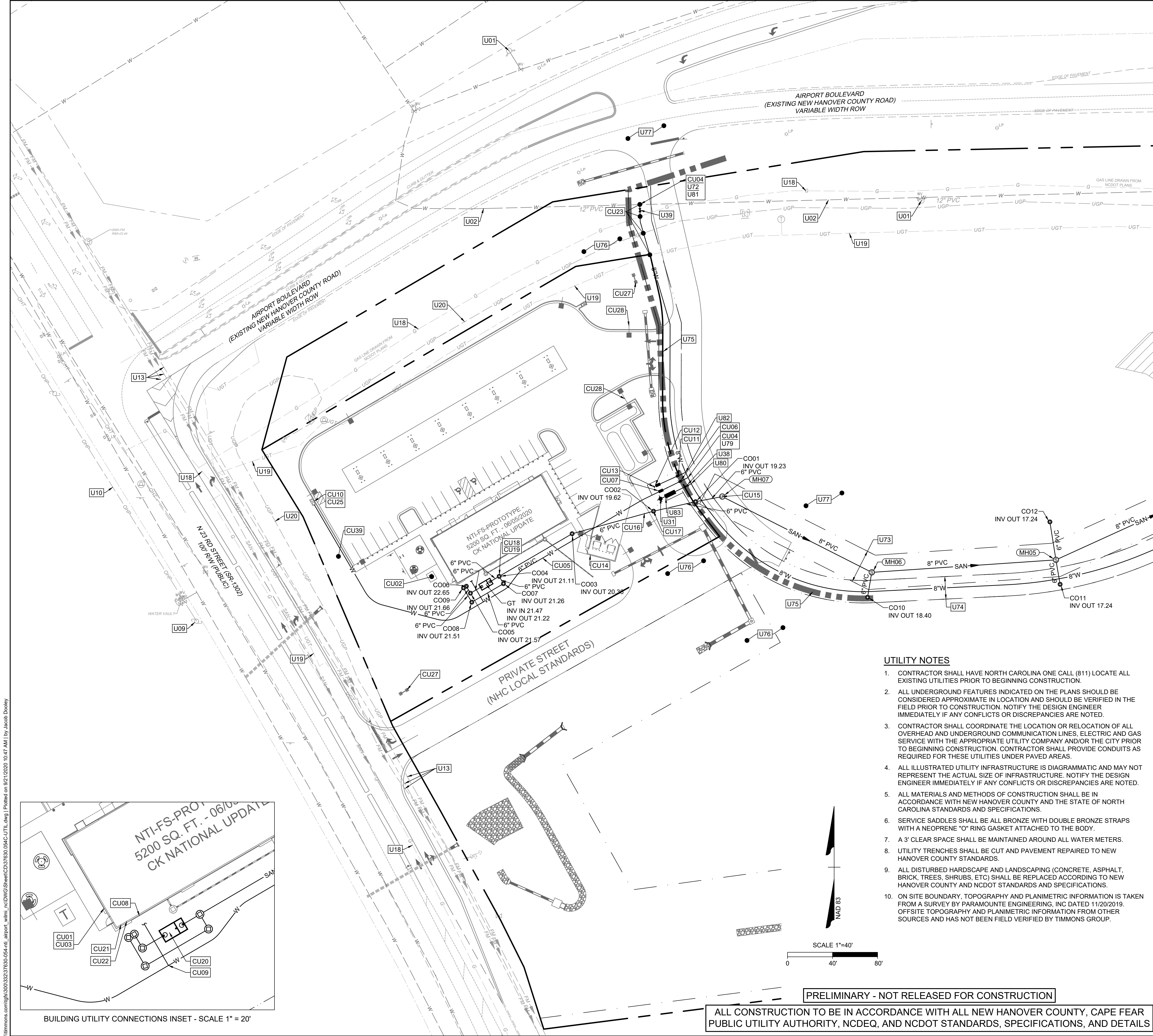
NPDES NOTES AND DETAILS

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#### UTILITY NOTES

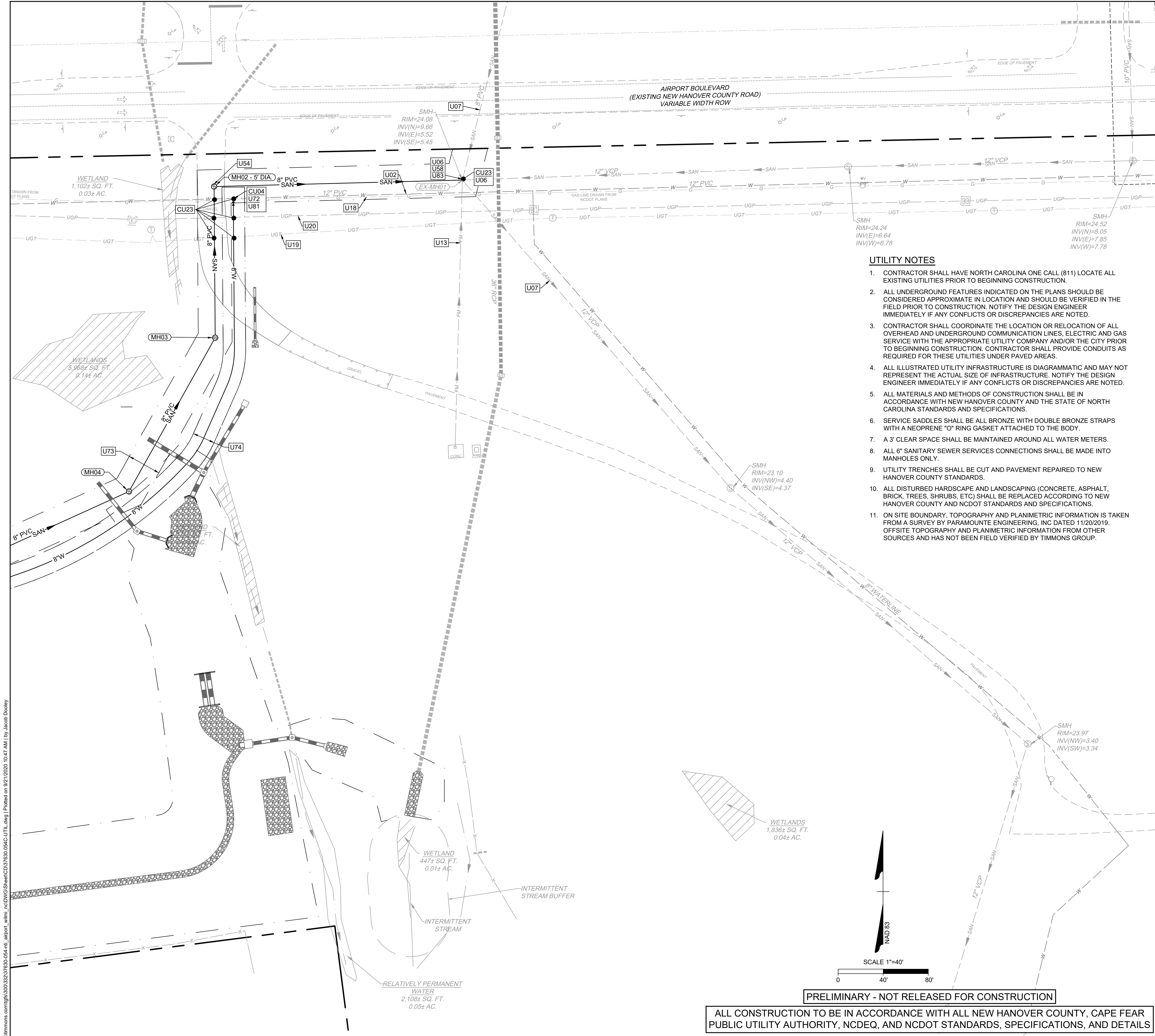
- CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- ALL UNDERGROUND FEATURES INDICATED ON THE PLANS SHOULD BE CONSIDERED APPROXIMATE IN LOCATION AND SHOULD BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF ANY CONFLICTS OR DISCREPANCIES ARE NOTED.
- CONTRACTOR SHALL COORDINATE THE LOCATION OR RELOCATION OF ALL OVERHEAD AND UNDERGROUND COMMUNICATION LINES, ELECTRIC AND GAS SERVICE WITH THE APPROPRIATE UTILITY COMPANY AND/OR THE CITY PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROVIDE CONDUITS AS REQUIRED FOR THESE UTILITIES UNDER PAVED AREAS.
- ALL ILLUSTRATED UTILITY INFRASTRUCTURE IS DIAGRAMMATIC AND MAY NOT REPRESENT THE ACTUAL SIZE OF INFRASTRUCTURE. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF ANY CONFLICTS OR DISCREPANCIES ARE NOTED.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH NEW HANOVER COUNTY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- SERVICE SADDLES SHALL BE ALL BRONZE WITH DOUBLE BRONZE STRAPS WITH A NEOPRENE "O" RING GASKET ATTACHED TO THE BODY.
- A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND ALL WATER METERS.
- UTILITY TRENCHES SHALL BE CUT AND PAVEMENT REPAIRED TO NEW HANOVER COUNTY STANDARDS.
- ALL DISTURBED HARDSCAPE AND LANDSCAPING (CONCRETE, ASPHALT, BRICK, TREES, SHRUBS, ETC) SHALL BE REPLACED ACCORDING TO NEW HANOVER COUNTY AND NCDOT STANDARDS AND SPECIFICATIONS.
- ON SITE BOUNDARY, TOPOGRAPHY AND PLANIMETRIC INFORMATION IS TAKEN FROM A SURVEY BY PARAMOUNT ENGINEERING, INC DATED 11/20/2019. OFFSITE TOPOGRAPHY AND PLANIMETRIC INFORMATION FROM OTHER SOURCES AND HAS NOT BEEN FIELD VERIFIED BY TIMMONS GROUP.

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

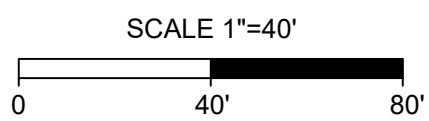
UTILITY PLAN KEYNOTES	
NUMBER	DESCRIPTION
CU01	TELEPHONE SERVICE POINT OF ENTRY TO BUILDING; REFER TO ARCHITECTURAL PLANS BY OTHERS. COORDINATE WITH LOCAL PROVIDER AND CIRCLE K CONSTRUCTION MANAGER FOR ACCOUNT SETUP. PROVIDE A 2" CONDUIT FOR TELEPHONE FROM BUILDING TO POINT OF CONNECTION. PROVIDE A 3" CONDUIT FOR CABLE/INTERNET FROM BUILDING TO PEDESTAL. CONDUIT RUNS BURIED A MINIMUM OF 24" BELOW GRADE AND HAVE A PULL STRING INSTALLED. CONDUIT RUNS MUST NOT EXCEED A TOTAL OF 180° DEGREES OF BEND WITHOUT A PULL BOX. STANDARD 90° BEND IS 6' BENDS WITH 3' RADIUS.
CU02	TRANSFORMER PAD LOCATION. COORDINATE WITH LOCAL PROVIDER. LOCAL PROVIDER CAN SUPERSEDE THE PROPOSED TRANSFORMER PAD LOCATION. PROVIDE TWO (2) 6" CONDUITS BETWEEN POINT OF CONNECTION AND TRANSFORMER. 24" MINIMUM BURY DEPTH WITH 18" OF VERTICAL SEPARATION AT WATER AND SEWER CROSSINGS.
CU03	ELECTRIC SERVICE POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS. COORDINATE WITH LOCAL PROVIDER.
CU04	WATER LINE POINT OF CONNECTION.
CU05	2" TYPE K COPPER DOMESTIC WATER SERVICE; CONFIRM SIZE WITH MEP PLANS BY OTHERS.
CU06	1.5" DOMESTIC WATER METER
CU07	1.5" DOMESTIC RPZ BACKFLOW PREVENTER (PER LOCAL REQUIREMENTS) DOWNSTREAM OF THE WATER METER. PROVIDE POWER TO HOT BOX. REFER TO DETAIL CK-240.
CU08	WATER LINE POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS.
CU09	2" x 3/4" TEE, BALL VALVE, AND 3/4" TYPE K COPPER DOMESTIC WATER SERVICE FOR AIR AND WATER MACHINE.
CU10	WATER LINE POINT OF ENTRY TO AIR AND WATER MACHINE.
CU11	5/8" IRRIGATION METER
CU12	3/4" RPZ IRRIGATION BACKFLOW PREVENTER (PER LOCAL REQUIREMENTS) DOWNSTREAM OF THE IRRIGATION METER. PROVIDE POWER TO HOT BOX. REFER TO DETAIL CK-240.
CU13	1" IRRIGATION WATER LINE. REFER TO IRRIGATION PLANS BY OTHERS AND DETAILS CK-230 AND CK-235. PROVIDE AS-BUILT TO CIRCLE K CONSTRUCTION MANAGER.
CU14	APPROXIMATE IRRIGATION CONTROLLER LOCATION. OWNER'S REPRESENTATIVE SHALL PINPOINT EXACT LOCATION ON-SITE. IRRIGATION CONTRACTOR SHALL HARDWIRE POWER TO CONTROLLER. REFER TO IRRIGATION PLANS BY OTHERS.
CU15	SANITARY SEWER POINT OF CONNECTION.
CU16	8" PVC SANITARY SEWER SERVICE @ 1/8" PER LF MIN. SLOPE, 4' MIN. COVER (TYP.).
CU17	SANITARY SEWER CLEANOUT. TRAFFIC RATED IF WITHIN PAVEMENT (TYP.). REFER TO DETAIL CK-205.
CU18	SANITARY SEWER TWO-WAY CLEANOUT; REFER TO PLUMBING DETAIL ON P1.3 AND CK-205.
CU19	SANITARY SEWER WYE CONNECTION.
CU20	GREASE TRAP; REFER TO MEP PLANS BY OTHERS FOR SIZING, VENTING, AND DETAILS.
CU21	SANITARY SEWER POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS.
CU22	GREASE SERVICE POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS.
CU23	CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IMMEDIATELY NOTIFY CLIENT AND ENGINEER IF DISCREPANCIES OR CONFLICTS ARE FOUND.
CU25	PROVIDE POWER TO AIR AND WATER MACHINE. CIRCLE K VENDOR TO PROVIDE AIR AND WATER MACHINE.
CU27	PROVIDE POWER TO MID SIGN. WIRED BY BUILDING ELECTRICAL CONTRACTOR. VERIFY EXACT LOCATION AND DESIGN BEFORE ROUGH-IN. PERMITTED BY OTHERS.
CU28	LIGHT POLE BASE; REFER TO DETAIL CK-190. REFER TO LIGHTING, ELECTRICAL, AND STRUCTURAL PLANS BY OTHERS (TYP.).
CU39	PROVIDE 2" CONDUIT FOR FUTURE ELECTRIC CHARGING STATION FROM BUILDING. STUB AND CAP 8" ABOVE FINISHED GRADE. CONDUIT RUNS BURIED A MINIMUM OF 24" BELOW GRADE AND HAVE A PULL STRING INSTALLED. CONDUIT RUNS MUST NOT EXCEED A TOTAL OF 180° DEGREES OF BEND WITHOUT A PULL BOX. STANDARD 90° BEND IS 6' BENDS WITH 3' RADIUS.
U01	EXISTING FIRE HYDRANT
U02	EXISTING WATER LINE; CONFIRM PRIOR TO CONSTRUCTION
U06	EXISTING SANITARY SEWER MANHOLE (TYP.)
U07	EXISTING SANITARY SEWER MAIN (TYP.)
U09	EXISTING UTILITY POLE (TYP.)
U10	EXISTING OVERHEAD UTILITY LINE (TYP.)
U13	EXISTING FORCE MAIN; CONFIRM PRIOR TO CONSTRUCTION
U18	EXISTING GAS MAIN TO REMAIN
U19	EXISTING TELEPHONE LINES TO REMAIN
U20	EXISTING UNDERGROUND POWER LINE TO REMAIN
U31	FIRE HYDRANT ASSEMBLY (TYP.)
U38	6" GATE VALVE (TYP.)
U39	8" GATE VALVE (TYP.)
U54	5' (INSIDE DIAMETER) MANHOLE
U58	CONNECT TO EXISTING SANITARY SEWER MANHOLE. CORE DRILL AND INSTALL FLEXIBLE RUBBER BOOT. (CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION)
U72	COORDINATE WITH WATER DEPARTMENT TO ENSURE THAT SERVICE IS NOT INTERRUPTED AT ANY TIME.
U73	30' WIDE CFPWA SANITARY SEWER EASEMENT.
U74	20' WIDE CFPWA WATER EASEMENT.
U75	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
U76	CIRCLE K FUNDED CONSTRUCTION WORK
U77	ILM FUNDED CONSTRUCTION WORK
U79	PROPOSED 2" SADDLE CONNECTION
U80	PROPOSED 8" x 8" x 6" TEE
U81	PRO





UTILITY NOTES

- CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- ALL UNDERGROUND FEATURES INDICATED ON THE PLANS SHOULD BE CONSIDERED APPROXIMATE IN LOCATION AND SHOULD BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF ANY CONFLICTS OR DISCREPANCIES ARE NOTED.
- CONTRACTOR SHALL COORDINATE THE LOCATION OR RELOCATION OF ALL OVERHEAD AND UNDERGROUND COMMUNICATION LINES, ELECTRIC AND GAS SERVICE WITH THE APPROPRIATE UTILITY COMPANY AND/OR THE CITY PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROVIDE CONDUITS AS REQUIRED FOR THESE UTILITIES UNDER PAVED AREAS.
- ALL ILLUSTRATED UTILITY INFRASTRUCTURE IS DIAGRAMMATIC AND MAY NOT REPRESENT THE ACTUAL SIZE OF INFRASTRUCTURE. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF ANY CONFLICTS OR DISCREPANCIES ARE NOTED.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH NEW HANOVER COUNTY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- SERVICE SADDLES SHALL BE ALL BRONZE WITH DOUBLE BRONZE STRAPS WITH A NEOPRENE "O" RING GASKET ATTACHED TO THE BODY.
- A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND ALL WATER METERS.
- ALL 6" SANITARY SEWER SERVICES CONNECTIONS SHALL BE MADE INTO MANHOLES ONLY.
- UTILITY TRENCHES SHALL BE CUT AND PAVEMENT REPAIRED TO NEW HANOVER COUNTY STANDARDS.
- ALL DISTURBED HARDSCAPE AND LANDSCAPING (CONCRETE, ASPHALT, BRICK, TREES, SHRUBS, ETC) SHALL BE REPLACED ACCORDING TO NEW HANOVER COUNTY AND NCDOT STANDARDS AND SPECIFICATIONS.
- ON SITE BOUNDARY, TOPOGRAPHY AND PLANIMETRIC INFORMATION IS TAKEN FROM A SURVEY BY PARAMOUNTE ENGINEERING, INC DATED 11/20/2019. OFFSITE TOPOGRAPHY AND PLANIMETRIC INFORMATION FROM OTHER SOURCES AND HAS NOT BEEN FIELD VERIFIED BY TIMMONS GROUP.



PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

UTILITY PLAN KEYNOTES	
NUMBER	DESCRIPTION
CU01	TELEPHONE SERVICE POINT OF ENTRY TO BUILDING; REFER TO ARCHITECTURAL PLANS BY OTHERS. COORDINATE WITH LOCAL PROVIDER AND CIRCLE K CONSTRUCTION MANAGER FOR ACCOUNT SETUP. PROVIDE A 2" CONDUIT FOR TELEPHONE FROM BUILDING TO POINT OF CONNECTION. PROVIDE A 3" CONDUIT FOR CABLE/INTERNET FROM BUILDING TO PEDESTAL. CONDUIT RUNS BURIED A MINIMUM OF 24" BELOW GRADE AND HAVE A PULL STRING INSTALLED. CONDUIT RUNS MUST NOT EXCEED A TOTAL OF 180° DEGREES OF BEND WITHOUT A PULL BOX. STANDARD 90° BEND IS 6' BENDS WITH 3' RADIUS.
CU02	TRANSFORMER PAD LOCATION. COORDINATE WITH LOCAL PROVIDER. LOCAL PROVIDER CAN SUPERSEDE THE PROPOSED TRANSFORMER PAD LOCATION. PROVIDE TWO (2) 6" CONDUITS BETWEEN POINT OF CONNECTION AND TRANSFORMER. 24" MINIMUM BURY DEPTH WITH 18" OF VERTICAL SEPARATION AT WATER AND SEWER CROSSINGS.
CU03	ELECTRIC SERVICE POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS. COORDINATE WITH LOCAL PROVIDER.
CU04	WATER LINE POINT OF CONNECTION.
CU05	2" TYPE K COPPER DOMESTIC WATER SERVICE; CONFIRM SIZE WITH MEP PLANS BY OTHERS.
CU06	1.5" DOMESTIC WATER METER
CU07	1.5" DOMESTIC RPZ BACKFLOW PREVENTER (PER LOCAL REQUIREMENTS) DOWNSTREAM OF THE WATER METER. PROVIDE POWER TO HOT BOX. REFER TO DETAIL CK-240.
CU08	WATER LINE POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS.
CU09	2" x 3/4" TEE, BALL VALVE, AND 3/4" TYPE K COPPER DOMESTIC WATER SERVICE FOR AIR AND WATER MACHINE.
CU10	WATER LINE POINT OF ENTRY TO AIR AND WATER MACHINE.
CU11	5/8" IRRIGATION METER
CU12	3/4" RPZ IRRIGATION BACKFLOW PREVENTER (PER LOCAL REQUIREMENTS) DOWNSTREAM OF THE IRRIGATION METER. PROVIDE POWER TO HOT BOX. REFER TO DETAIL CK-240.
CU13	1" IRRIGATION WATER LINE. REFER TO IRRIGATION PLANS BY OTHERS AND DETAILS CK-230 AND CK-235. PROVIDE AS-BUILT TO CIRCLE K CONSTRUCTION MANAGER.
CU14	APPROXIMATE IRRIGATION CONTROLLER LOCATION. OWNER'S REPRESENTATIVE SHALL PINPOINT EXACT LOCATION ON-SITE. IRRIGATION CONTRACTOR SHALL HARDWIRE POWER TO CONTROLLER. REFER TO IRRIGATION PLANS BY OTHERS.
CU15	SANITARY SEWER POINT OF CONNECTION.
CU16	6" PVC SANITARY SEWER SERVICE @ 1/8" PER LF MIN. SLOPE, 4' MIN. COVER (TYP.)
CU17	SANITARY SEWER CLEANOUT. TRAFFIC RATED IF WITHIN PAVEMENT (TYP.). REFER TO DETAIL CK-205.
CU18	SANITARY SEWER TWO-WAY CLEANOUT; REFER TO PLUMBING DETAIL ON P1.3 AND CK-205.
CU19	SANITARY SEWER WYE CONNECTION.
CU20	GREASE TRAP; REFER TO MEP PLANS BY OTHERS FOR SIZING, VENTING, AND DETAILS.
CU21	SANITARY SEWER POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS.
CU22	GREASE SERVICE POINT OF ENTRY TO BUILDING; REFER TO MEP PLANS BY OTHERS.
CU23	CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IMMEDIATELY NOTIFY CLIENT AND ENGINEER IF DISCREPANCIES OR CONFLICTS ARE FOUND.
CU25	PROVIDE POWER TO AIR AND WATER MACHINE. CIRCLE K VENDOR TO PROVIDE AIR AND WATER MACHINE.
CU27	PROVIDE POWER TO MID SIGN; WIRED BY BUILDING ELECTRICAL CONTRACTOR. VERIFY EXACT LOCATION AND DESIGN BEFORE ROUGH-IN. PERMITTED BY OTHERS.
CU28	LIGHT POLE BASE; REFER TO DETAIL CK-190. REFER TO LIGHTING, ELECTRICAL, AND STRUCTURAL PLANS BY OTHERS (TYP.).
CU39	PROVIDE 2" CONDUIT FOR FUTURE ELECTRIC CHARGING STATION FROM BUILDING. STUB AND CAP 8" ABOVE FINISHED GRADE. CONDUIT RUNS BURIED A MINIMUM OF 24" BELOW GRADE AND HAVE A PULL STRING INSTALLED. CONDUIT RUNS MUST NOT EXCEED A TOTAL OF 180° DEGREES OF BEND WITHOUT A PULL BOX. STANDARD 90° BEND IS 6' BENDS WITH 3' RADIUS.
U01	EXISTING FIRE HYDRANT
U02	EXISTING WATER LINE; CONFIRM PRIOR TO CONSTRUCTION
U06	EXISTING SANITARY SEWER MANHOLE (TYP.)
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U58	CONNECT TO EXISTING SANITARY SEWER MANHOLE. CORE DRILL AND INSTALL FLEXIBLE RUBBER BOOT. (CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION)
U72	COORDINATE WITH WATER DEPARTMENT TO ENSURE THAT SERVICE IS NOT INTERRUPTED AT ANY TIME.
U73	30' WIDE CFPWA SANITARY SEWER EASEMENT.
U74	20' WIDE CFPWA WATER EASEMENT.
U75	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
U76	CIRCLE K FUNDED CONSTRUCTION WORK
U77	ILM FUNDED CONSTRUCTION WORK
U79	PROPOSED 2" SADDLE CONNECTION
U80	PROPOSED 8" x 8" x 6" TEE
U81	PROPOSED 8" x 12" TS&V
U82	PROPOSED CORPORATION STOP
U83	6" FIRE HYDRANT RPZ BACKFLOW PREVENTER (PER LOCAL REQUIREMENTS). PROVIDE POWER TO HOT BOX. REFER TO DETAIL CK-240.
U84	PROPOSED INSIDE DROP. REFER TO DETAIL.



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REVISION DESCRIPTION
REVISION PER CFPWA REVIEW
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE	09/11/2020
DATE	09/21/2020
09/21/2020	
DRAWN BY	A. MAY
DESIGNED BY	B. DOWNS
CHECKED BY	R. BAKER
SCALE	AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

UTILITY PLAN

JOB NO.	37630.054
SHEET NO.	C5.1

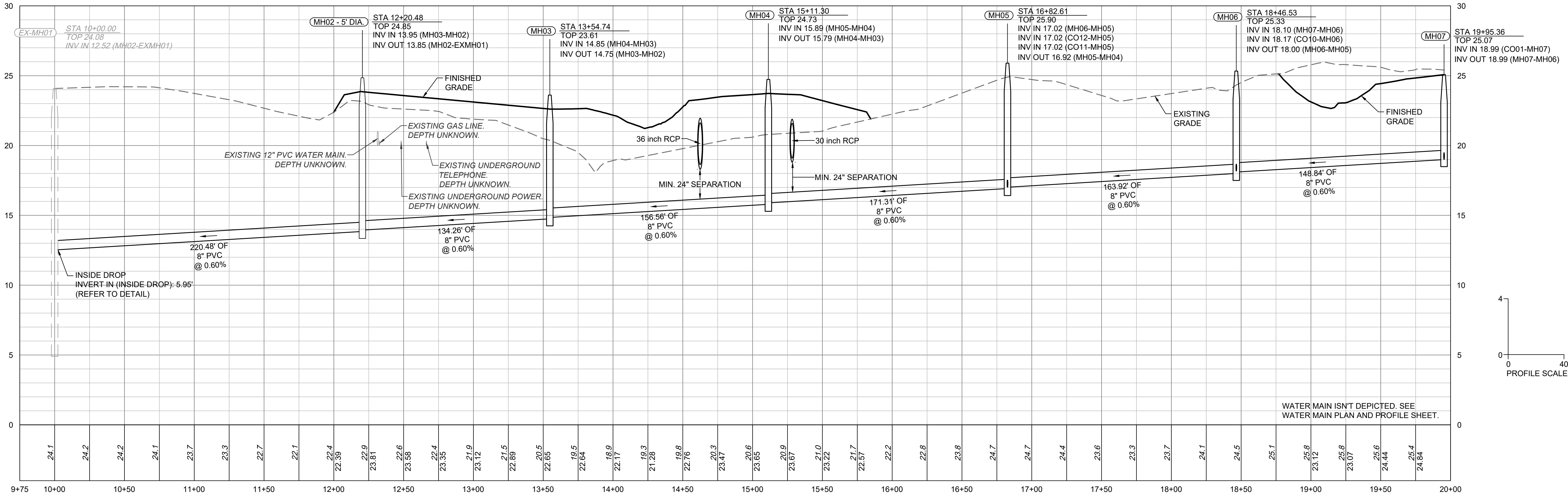
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UTILITY PLAN KEYNOTES	
NUMBER	DESCRIPTION
U73	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN)
U74	CIRCLE K FUNDED CONSTRUCTION WORK
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SANITARY SEWER - PLAN VIEW

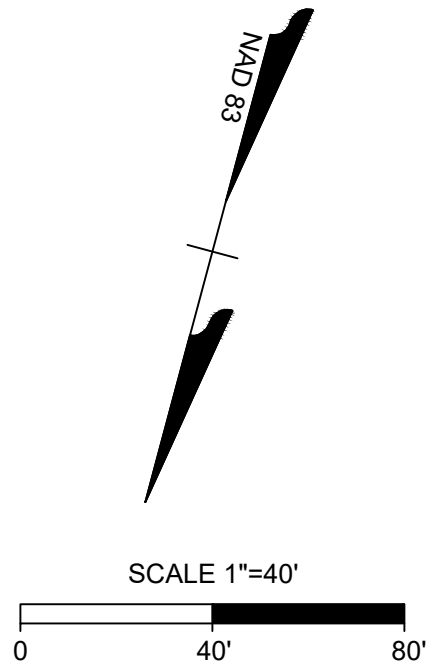


SANITARY SEWER - PROFILE VIEW

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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- CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:
- ALL PROPOSED ADDITIONS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEMS, AS SHOWN AND SPECIFIED HEREIN, SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM TO STATE RULES AND THE CFPUA'S MINIMUM TECHNICAL STANDARDS. THE CFPUA MINIMUM TECHNICAL STANDARDS ARE CONTAINED IN THE CURRENT DESIGN GUIDANCE MANUAL, MATERIAL SPECIFICATION MANUAL, TECHNICAL SPECIFICATIONS FOR CONSTRUCTION, AND STANDARD DRAWING DETAILS.
  - SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
  - WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE.
  - ALL SEWER SERVICES CONNECTING INTO DUCTILE IRON MAINS SHALL ALSO BE CONSTRUCTED OF DIP.
  - MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
  - NO FLEXIBLE COUPLINGS SHALL BE USED.
  - ALL STAINLESS STEEL FASTENERS SHALL BE TYPE 316.
  - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 6 FEET FROM ALL PROPERTY CORNERS.
  - WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.
  - UNUSED SERVICES SHALL BE ABANDONED. ABANDONED WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.
  - A MINIMUM OF 10' OF MAIN LINE, 5' UPSTREAM AND 5' DOWNSTREAM SHALL BE REPLACED FOR NEW SEWER SERVICE CONNECTIONS TO EXISTING CLAY GRAVITY SEWER MAINS.
  - A MINIMUM OF 20' OF MAIN LINE, 10' UPSTREAM AND 10' DOWNSTREAM SHALL BE REPLACED FOR NEW CUT IN MANHOLES ON EXISTING CLAY GRAVITY SEWER MAINS.
  - PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGE OF MANHOLE CORE HOLES AND MANHOLE BARREL JOINTS. PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGES OF CORE HOLES. CORING THE MANHOLE CONE IS NOT PERMITTED. WATER MAIN AND FORCE MAIN PIPE INSTALLED BY OPEN CUT SHALL BE BURIED AT A MINIMUM OF THREE (3) FEET AND A MAXIMUM OF FIVE (5) FEET BELOW FINISHED GRADE. DEPTHS GREATER THAN FIVE (5) FEET MUST BE APPROVED BY CFPUA.
  - ALL MANHOLE MAIN LINE AND SERVICE PIPING TO BE INSTALLED AT A MINIMUM OF CROWN TO CROWN OF THE LARGEST DIAMETER PIPE.



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REVISION DESCRIPTION  
REVISION PER CFPUA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/11/2020  
09/21/2020  
DRAWN BY  
A. MAY  
DESIGNED BY  
B. DOWNS  
CHECKED BY  
R. BAKER  
SCALE  
AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA  
SANITARY SEWER PLAN AND PROFILE

JOB NO.  
37630.054  
SHEET NO.  
C5.2

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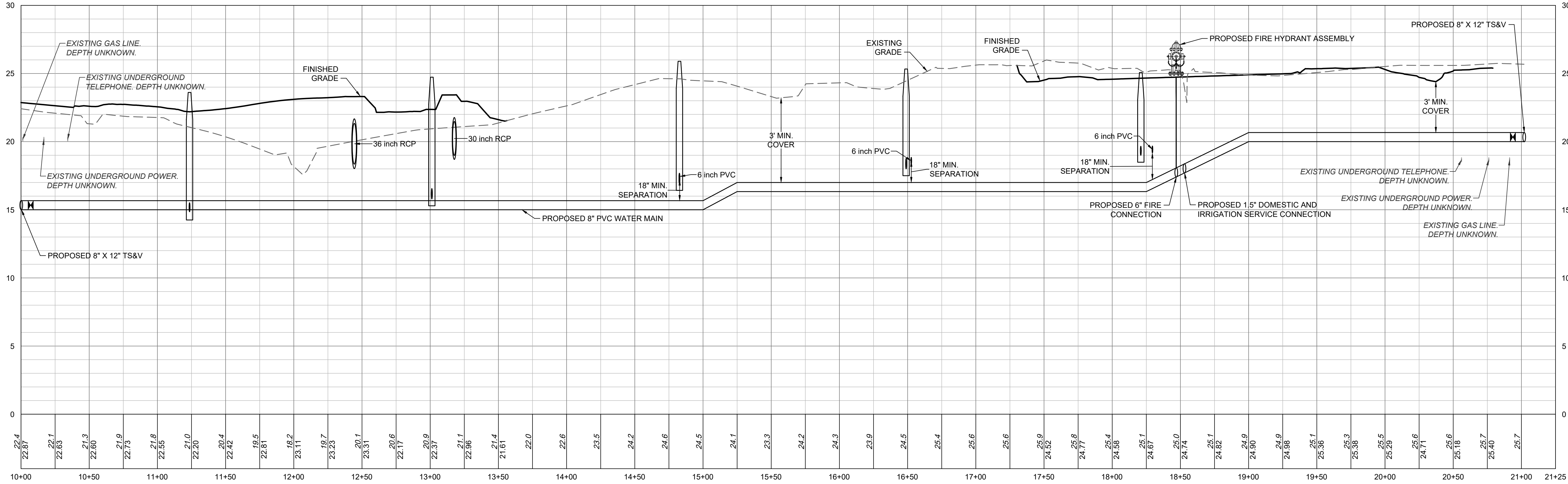


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UTILITY PLAN KEYNOTES	
NUMBER	DESCRIPTION
U73	CIRCLE K/ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
U74	CIRCLE K FUNDED CONSTRUCTION WORK
U75	ILM FUNDED CONSTRUCTION WORK



WATER MAIN - PLAN VIEW

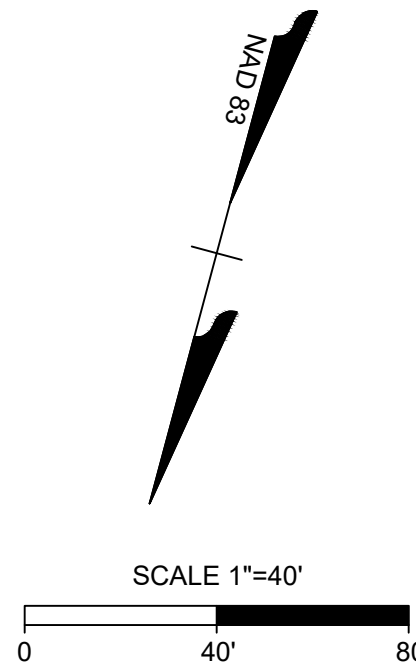


WATER MAIN - PROFILE VIEW

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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- CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:
1. ALL PROPOSED ADDITIONS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEMS, AS SHOWN AND SPECIFIED HEREIN, SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM TO STATE RULES AND THE CFPUA'S MINIMUM TECHNICAL STANDARDS. THE CFPUA MINIMUM TECHNICAL STANDARDS ARE CONTAINED IN THE CURRENT DESIGN GUIDANCE MANUAL, MATERIAL SPECIFICATION MANUAL, TECHNICAL SPECIFICATIONS FOR CONSTRUCTION, AND STANDARD DRAWING DETAILS.
  2. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
  3. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE.
  4. ALL SEWER SERVICES CONNECTING INTO DUCTILE IRON MAINS SHALL ALSO BE CONSTRUCTED OF DIP.
  5. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
  6. NO FLEXIBLE COUPLINGS SHALL BE USED.
  7. ALL STAINLESS STEEL FASTENERS SHALL BE TYPE 316.
  8. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 6 FEET FROM ALL PROPERTY CORNERS.
  9. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.
  10. UNUSED SERVICES SHALL BE ABANDONED. ABANDONED WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.
  11. A MINIMUM OF 10' OF MAIN LINE, 5' UPSTREAM AND 5' DOWNSTREAM SHALL BE REPLACED FOR NEW SEWER SERVICE CONNECTIONS TO EXISTING CLAY GRAVITY SEWER MAINS.
  12. A MINIMUM OF 20' OF MAIN LINE, 10' UPSTREAM AND 10' DOWNSTREAM SHALL BE REPLACED FOR NEW CUT IN MANHOLES ON EXISTING CLAY GRAVITY SEWER MAINS.
  13. PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGE OF MANHOLE CORE HOLES AND MANHOLE BARREL JOINTS. PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGES OF CORE HOLES. CORING THE MANHOLE CONE IS NOT PERMITTED.
  14. WATER MAIN AND FORCE MAIN PIPE INSTALLED BY OPEN CUT SHALL BE BURIED AT A MINIMUM OF THREE (3) FEET AND A MAXIMUM OF FIVE (5) FEET BELOW FINISHED GRADE. DEPTHS GREATER THAN FIVE (5) FEET MUST BE APPROVED BY CFPUA.
  15. ALL MANHOLE MAIN LINE AND SERVICE PIPING TO BE INSTALLED AT A MINIMUM OF CROWN TO CROWN OF THE LARGEST DIAMETER PIPE.



**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

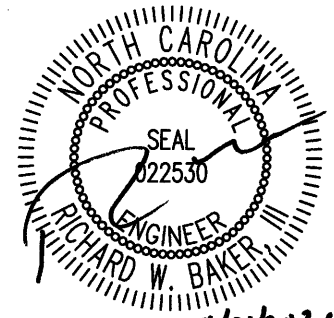
WATER MAIN PLAN AND PROFILE

JOB NO.  
37630.054

SHEET NO.  
C5.3

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REVISION DESCRIPTION  
REVISION PER CFPUA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/11/2020  
09/21/2020

DRAWN BY  
A. MAY

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R. BAKER

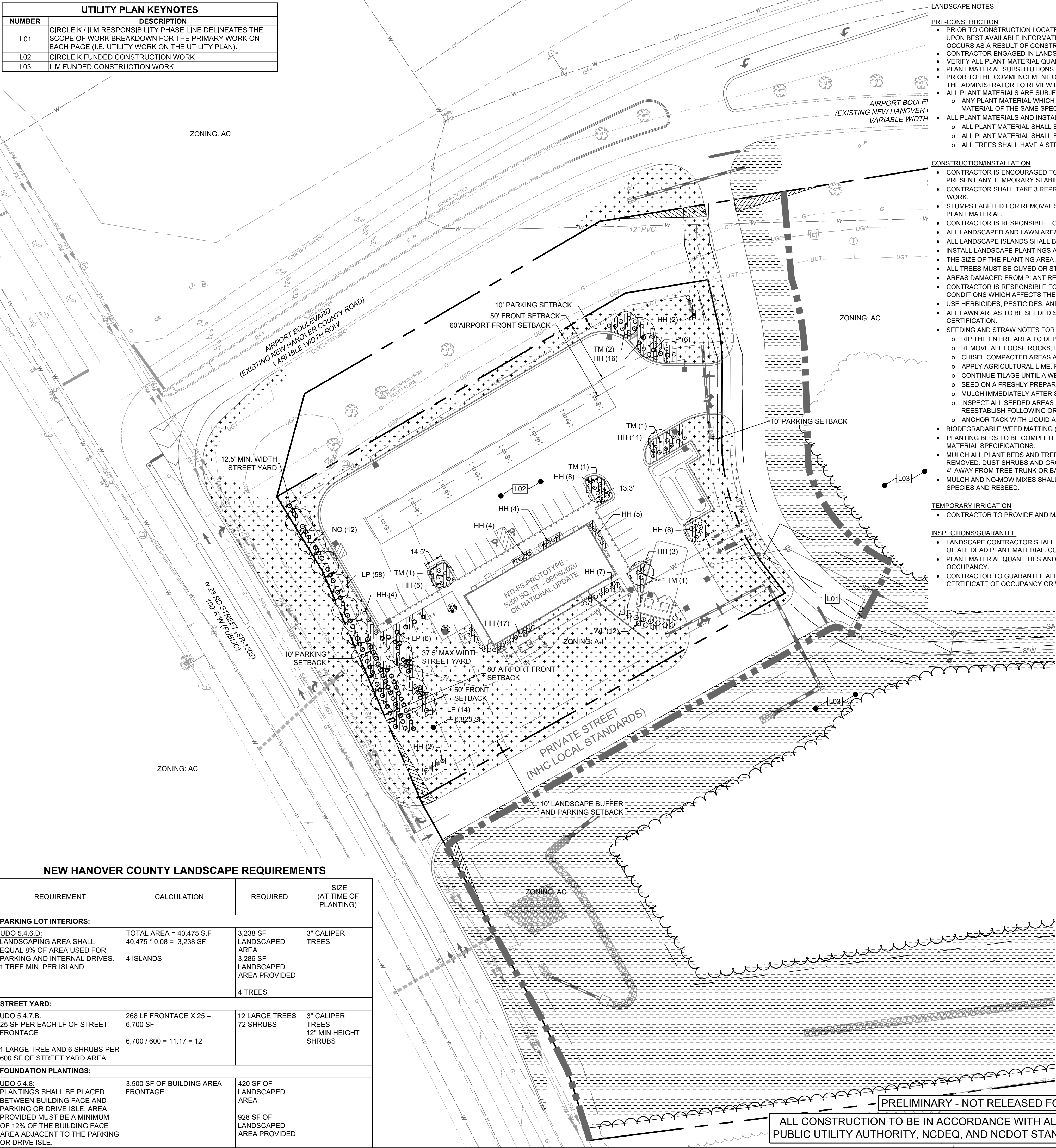
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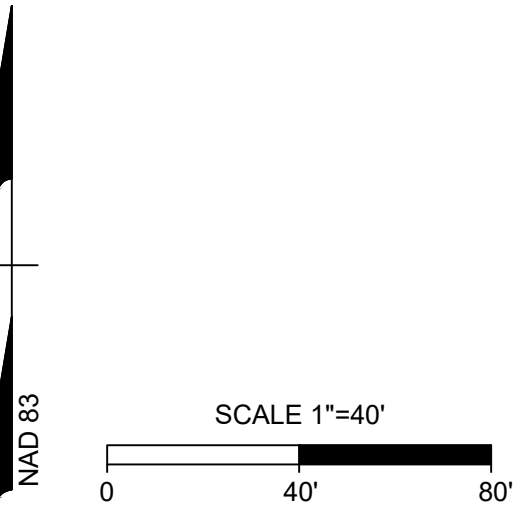
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UTILITY PLAN KEYNOTES	
NUMBER	DESCRIPTION
L01	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
L02	CIRCLE K FUNDED CONSTRUCTION WORK
L03	ILM FUNDED CONSTRUCTION WORK



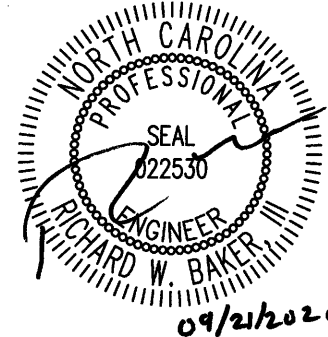
- LANDSCAPE NOTES:**
- PRE-CONSTRUCTION**
- PRIOR TO CONSTRUCTION LOCATE ALL UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE WORK AREA. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. PROTECT ALL UTILITIES. REPAIR ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF CONSTRUCTION.
  - CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
  - VERIFY ALL PLANT MATERIAL QUANTITIES ON PLANS PRIOR TO BIDDING. PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND MUST BE VERIFIED.
  - PLANT MATERIAL SUBSTITUTIONS CAN ONLY OCCUR WITH PRIOR WRITTEN APPROVAL BY LANDSCAPE ARCHITECT.
  - PRIOR TO THE COMMENCEMENT OF ANY ACTIVITIES REQUIRING A BUILDING OR ZONING PERMIT AN ON-SITE PRE-CONSTRUCTION CONFERENCE SHALL TAKE PLACE WITH THE DEVELOPER AND THE ADMINISTRATOR TO REVIEW PROCEDURES FOR THE PROTECTION AND MANAGEMENT OF ALL LANDSCAPE ELEMENTS TO REMAIN.
  - ALL PLANT MATERIALS ARE SUBJECT TO LANDSCAPE ARCHITECT APPROVAL BEFORE, DURING, AND AFTER INSTALLATION.
    - ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE.
  - ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK".
    - ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
    - ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
    - ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD.
- CONSTRUCTION/INSTALLATION**
- CONTRACTOR IS ENCOURAGED TO COMPLETE TEMPORARY OR PERMANENT SEEDING IN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETED AFTER GRADING. THIS PLAN DOES NOT PRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN.
  - CONTRACTOR SHALL TAKE 3 REPRESENTATIVE SOIL SAMPLES OF EACH PROPOSED PLANT BED AND SUBMIT COPIES OF THE RESULTS TO THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING WORK.
  - STUMPS LABELED FOR REMOVAL SHALL BE EXCAVATED, NOT GROUND. REMOVE ALL DEBRIS FROM THE HOLE. FILL WITH TOP SOIL, COMPACT, AND RAKE SMOOTH PRIOR TO INSTALLING NEW PLANT MATERIAL.
  - CONTRACTOR IS RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING TO MAINTAIN HEALTHY PLANT CONDITIONS.
  - ALL LANDSCAPED AND LAWN AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL.
  - ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
  - INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO MATERIAL WILL NOT INTERFERE WITH SIGHT DISTANCES.
  - THE SIZE OF THE PLANTING AREA AND SIZE OF PLANT MATERIAL AT MATURITY SHALL ALLOW FOR A 2.5' BUMPER OVERHANG FROM THE BACK OF CURB.
  - ALL TREES MUST BE GUYED OR STAKED AS DETAILED.
  - AREAS DAMAGED FROM PLANT RELOCATION OR OTHER ACTIVITIES OF LANDSCAPE CONTRACTOR TO BE RESEEDED AND ESTABLISHED AT NO ADDITIONAL COST TO THE OWNER.
  - CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE. IT MAY BE NECESSARY TO TRUCK IN NON-CITY WATER TO MEET PLANT NEEDS.
  - USE HERBICIDES, PESTICIDES, AND FERTILIZER IN A MANNER CONSISTENT WITH THE FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT AND IN ACCORDANCE WITH LABEL RESTRICTIONS.
  - ALL LAWN AREAS TO BE SEEDED SHALL USE A LOCALLY GROWN COMMERCIAL MIX MEETING LATEST STATE OF NORTH CAROLINA AGRICULTURE STANDARDS FOR SEED AND PLANT CERTIFICATION.
  - SEEDING AND STRAW NOTES FOR LAWN AREAS:
    - RIP THE ENTIRE AREA TO DEPTH OF NOT LESS THAN 6".
    - REMOVE ALL LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE SMOOTH AND UNIFORM. DISPOSE OF WASTE MATERIAL OFF-SITE.
    - CHISEL COMPACTED AREAS AND SPREAD TOPSOIL TO SPECIFIED DEPTH.
    - APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPER PHOSPHATE UNIFORMLY AND MIX WITH SOIL. APPLY SOIL AMENDMENTS PER REQUIRED SOIL ANALYSIS RECOMMENDATIONS.
    - CONTINUE TILAGE UNTIL A WELL PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED.
    - 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 IF POSSIBLE, MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON. IF GRANDSTAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, AND SEEDING RATES.
    - ANCHOR TACK WITH LIQUID ASPHALT AT 400 GAL/ACRE OR EMULSIFIED ASPHALT AT 300 GAL/ACRE.
  - BIODEGRADABLE WEED MATTING (ALL-PRO WEED MAT OR APPROVED EQUAL) SHALL BE REQUIRED IN SHRUB BEDS ADJACENT TO BUILDING FACADE.
  - PLANTING BEDS TO BE COMPLETELY COVERED WITH A MINIMUM 4" DEPTH OF MATERIAL FROM A LOCAL SOURCE HARVESTED IN A SUSTAINABLE MANNER. REFER TO LANDSCAPE SCHEME FOR MATERIAL SPECIFICATIONS.
  - MULCH ALL PLANT BEDS AND TREE RINGS WITH FRESH, CLEAN MATERIAL PER SPECIFICATIONS. ALL MULCH EDGES SHALL BE NEATLY TUCKED. ALL STRING AND/OR BAILING WIRE SHALL BE REMOVED. DUST SHRUBS AND GROUND COVER AFTER MULCHING TO REMOVE LOOSE MATERIAL FROM PLANTS. DO NOT PLACE MULCH IN CONTACT WITH THE TREE TRUNK. KEEP A MINIMUM OF 4" AWAY FROM TREE TRUNK OR BASE OF PLANT.
  - MULCH AND NO-MOW MIXES SHALL BE REPLENISHED AS NEEDED, ESPECIALLY AFTER HEAVY RAIN EVENTS. IF NO-MOW MIX GERMINATES AT A RATE OF LESS THAN 90%, THEN REMOVE OTHER SPECIES AND RESEED.
- TEMPORARY IRRIGATION**
- CONTRACTOR TO PROVIDE AND MAINTAIN TEMPORARY IRRIGATION FOR SOD WITHIN THE STORMWATER CONTROL MEASURE UNTIL SOD BECOMES ESTABLISHED.
- INSPECTIONS/GUARANTEE**
- LANDSCAPE CONTRACTOR SHALL NOTIFY GENERAL CONTRACTOR UPON COMPLETION OF LANDSCAPE INSTALLATION. CONTRACTOR WILL VERIFY COMPLETENESS INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY LANDSCAPE ARCHITECT.
  - PLANT MATERIAL QUANTITIES AND SIZES WILL BE INSPECTED FOR COMPLIANCE WITH APPROVED PLANS BY A SITE PLAN REVIEW AGENT PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY.
  - CONTRACTOR TO GUARANTEE ALL PLANT MATERIALS FOR ONE FULL YEAR AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. WARRANTY PERIOD SHALL BEGIN UPON CERTIFICATE OF OCCUPANCY OR WHEN THE OWNER TAKES OVER MAINTENANCE, WHICHEVER COMES FIRST.

PLANT SCHEDULE						
SYMBOL	TREE	PROVD	BOTANICAL NAME	COMMON NAME	MIN. INSTALLATION SIZE	COMMENTS
	DECIDUOUS SHADE TREE					
	NO	12	QUERCUS TEXANA	NUTTAL OAK	1.5-2" CALIPER, 8-10' MIN. HEIGHT	STREET TREES
	TM	6	ACER BUERGERIANUM	TRIDENT MAPLE	1.5-2" CALIPER, 6-8' MIN. HEIGHT	PARKING LOT
	SHRUBS					
	LP	84	DARUMA DWARF LOROPETALUM	LOROPETALUM	24" MIN. HT.	STREET PROTECTIVE YARD
	HH	96	ILEX CRENATA	HOOGENDORN HOLLY	24" MIN. HT.	STREET PROTECTIVE YARD
	WL	12	LIGUSTRUM JAPONICUM 'TEXANUM'	WAXLEAF PRIVET	3' MIN. HT.	BUFFER YARD
	GROUND COVER					
	BG		CYNODON DACTYLON	BERMUDA GRASS	SOD	
	BG		CYNODON DACTYLON	BERMUDA GRASS	SEED	
	BM			BARK MULCH		



PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS



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REVISION DESCRIPTION	DATE
REVISION PER CFPBA REVIEW	09/21/2020
NEW HANOVER COUNTY STORMWATER SUBMITTAL	

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115

WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

LANDSCAPE PLAN

JOB NO.  
37630.054

SHEET NO.  
C6.0

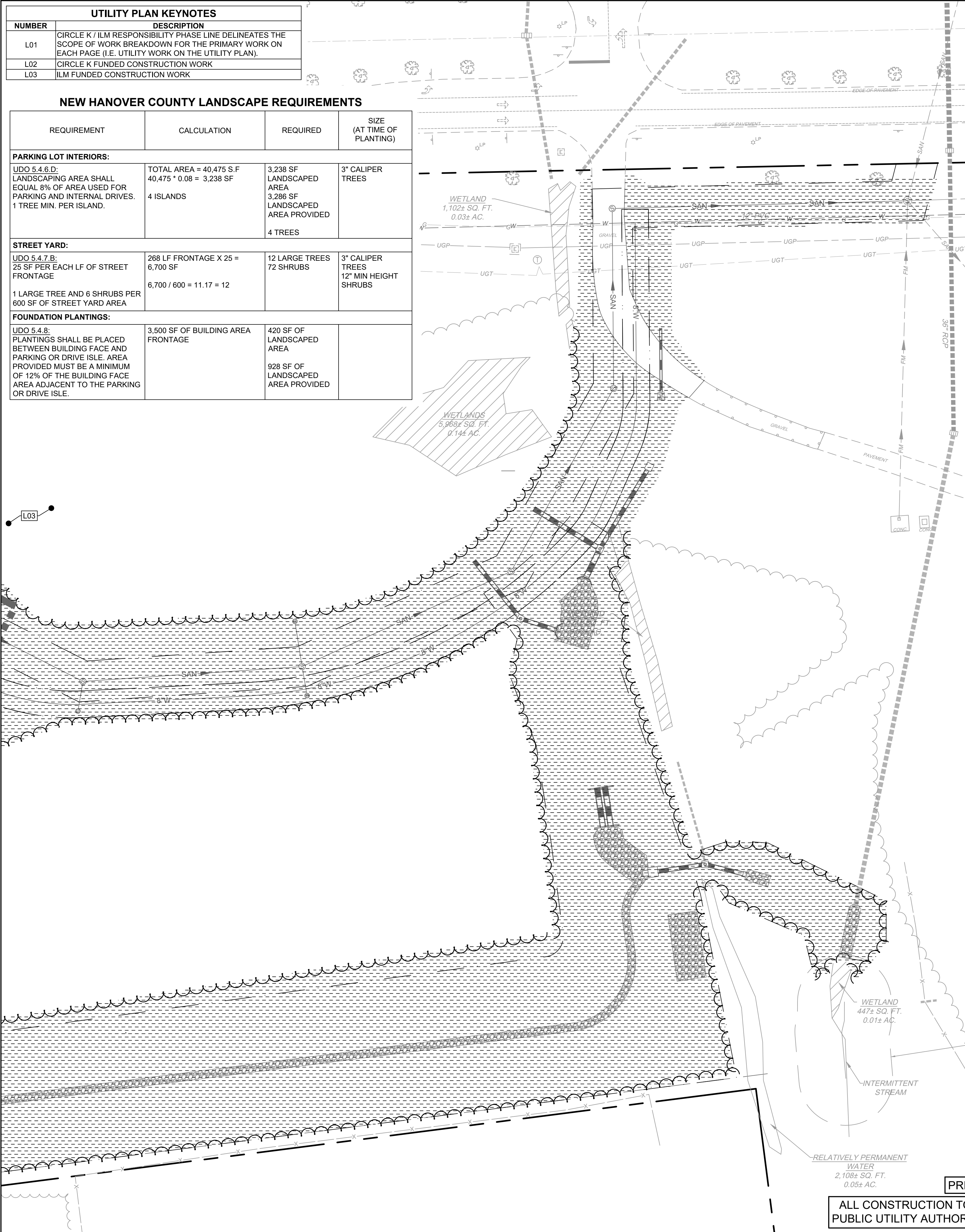
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UTILITY PLAN KEYNOTES	
NUMBER	DESCRIPTION
L01	CIRCLE K / ILM RESPONSIBILITY PHASE LINE DELINEATES THE SCOPE OF WORK BREAKDOWN FOR THE PRIMARY WORK ON EACH PAGE (I.E. UTILITY WORK ON THE UTILITY PLAN).
L02	CIRCLE K FUNDED CONSTRUCTION WORK
L03	ILM FUNDED CONSTRUCTION WORK

## NEW HANOVER COUNTY LANDSCAPE REQUIREMENTS

REQUIREMENT	CALCULATION	REQUIRED	SIZE (AT TIME OF PLANTING)
<b>PARKING LOT INTERIORS:</b>			
UDO 5.4.6.D: LANDSCAPED AREA SHALL EQUAL 8% OF AREA USED FOR PARKING AND INTERNAL DRIVES. 1 TREE MIN. PER ISLAND.	TOTAL AREA = 40,475 S.F 40,475 * 0.08 = 3,238 SF  4 ISLANDS	3,238 SF LANDSCAPED AREA  3,286 SF LANDSCAPED AREA PROVIDED  4 TREES	3" CALIPER TREES
<b>STREET YARD:</b>			
UDO 5.4.7.B: 25 SF PER EACH LF OF STREET FRONTAGE  1 LARGE TREE AND 6 SHRUBS PER 600 SF OF STREET YARD AREA	268 LF FRONTAGE X 25 = 6,700 SF  6,700 / 600 = 11.17 = 12	12 LARGE TREES 72 SHRUBS	3" CALIPER TREES 12" MIN HEIGHT SHRUBS
<b>FOUNDATION PLANTINGS:</b>			
UDO 5.4.8: PLANTINGS SHALL BE PLACED BETWEEN BUILDING FACE AND PARKING OR DRIVE ISLE. AREA PROVIDED MUST BE A MINIMUM OF 12% OF THE BUILDING FACE AREA ADJACENT TO THE PARKING OR DRIVE ISLE.	3,500 SF OF BUILDING AREA FRONTAGE	420 SF OF LANDSCAPED AREA   928 SF OF LANDSCAPED AREA PROVIDED	



LANDSCAPE NOTES

## PRE-CONSTRUCTION

- PRIOR TO CONSTRUCTION LOCATE ALL UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE WORK AREA. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. PROTECT ALL UTILITIES. REPAIR ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF CONSTRUCTION.
- CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
- VERIFY ALL PLANT MATERIAL QUANTITIES ON PLANS PRIOR TO BIDDING. PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND MUST BE VERIFIED.
- ALL PLANT SUBSTITUTIONS CAN ONLY OCCUR WITH THE PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- PRIOR TO THE COMMENCEMENT OF ANY ACTIVITIES REQUIRING A BUILDING OR ZONING PERMIT AN ON-SITE PRE-CONSTRUCTION CONFERENCE SHALL TAKE PLACE WITH THE DEVELOPER AND THE ADMINISTRATOR TO REVIEW PROCEDURES FOR THE PROTECTION AND MANAGEMENT OF ALL LANDSCAPE ELEMENTS TO REMAIN.
- ALL PLANT MATERIALS ARE SUBJECT TO LANDSCAPE ARCHITECT APPROVAL BEFORE, DURING, AND AFTER INSTALLATION.
  - ANY PLANT MATERIAL WHICH IS DISEASED, DISTRESSED, DEAD, OR REJECTED (PRIOR TO SUBSTANTIAL COMPLETION) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE.
- ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK".
  - ALL PLANT MATERIAL SHALL BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
  - ALL PLANT MATERIAL SHALL BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
  - ALL TREES SHALL HAVE A STRAIGHT TRUNK AND FULL HEAD.

## CONSTRUCTION/INSTALLATION

- CONTRACTOR IS ENCOURAGED TO COMPLETE TEMPORARY OR PERMANENT SEEDING IN STAGES FOR SOIL STABILIZATION AS AREAS ARE COMPLETED AFTER GRADING. THIS PLAN DOES NOT REPRESENT ANY TEMPORARY STABILIZATION REQUIRED AS PART OF SWPPP PLAN.
- CONTRACTOR SHALL TAKE 3 REPRESENTATIVE SOIL SAMPLES OF EACH PROPOSED PLANT BED AND SUBMIT COPIES OF THE RESULTS TO THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING WORK.
- STUMPS LABELED FOR REMOVAL SHALL BE EXCAVATED, NOT GROUND. REMOVE ALL DEBRIS FROM THE HOLE. FILL WITH TOP SOIL, COMPACT, AND RAKE SMOOTH PRIOR TO INSTALLING NEW PLANT MATERIAL.
- CONTRACTOR IS RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING TO MAINTAIN HEALTHY PLANT CONDITIONS.
- ALL LANDSCAPED AND LAWN AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL.
- ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
- INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO MATERIAL WILL NOT INTERFERE WITH SIGHT DISTANCES.
- THE SIZE OF THE PLANTING AREA AND SIZE OF PLANT MATERIAL AT MATURITY SHALL ALLOW FOR A 2.5' BUMPER OVERHANG FROM THE BACK OF CURB.
- ALL TREES MUST BE GUYED OR STAKED AS DETAILED.
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  - CONTINUE TILAGE UNTIL A WELL PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED.
  - 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 IF POSSIBLE, MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON. IF GRANDSTAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LINE, FERTILIZER, AND SEEDING RATE.
  - ANCHOR TACK WITH LIQUID ASPHALT AT 400 GAL/ACRE OR EMULSIFIED ASPHALT AT 300 GAL/ACRE.
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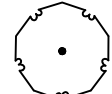



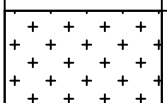
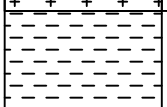
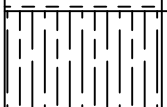
### TEMPORARY IRRIGATION

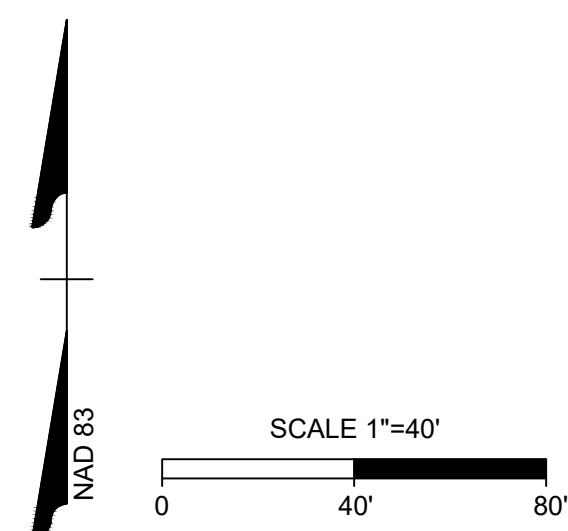
- CONTRACTOR TO PROVIDE AND MAINTAIN TEMPORARY IRRIGATION FOR SOD WITHIN THE STORMWATER CONTROL MEASURE UNTIL SOD BECOMES ESTABLISHED.

INSPECTIONS/GUARANTEE

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- CONTRACTOR TO GUARANTEE ALL PLANT MATERIALS FOR ONE FULL YEAR AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. WARRANTY PERIOD SHALL BEGIN UPON CERTIFICATE OF OCCUPANCY OR WHEN THE OWNER TAKES OVER MAINTENANCE, WHICHEVER COMES FIRST.

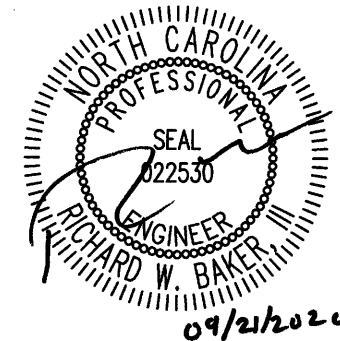
## PLANT SCHEDULE

SYMBOL	TREE DECIDUOUS SHADE TREE	PROV'D	BOTANICAL NAME	COMMON NAME	MIN. INSTALLATION SIZE	COMMENTS
	NO	12	QUERCUS TEXANA	NUTTAL OAK	1.5-2" CALIPER, 8-10' MIN. HEIGHT	STREET TREES
	TM	6	ACER BUERGERIANUM	TRIDENT MAPLE	1.5-2" CALIPER, 6-8' MIN. HEIGHT	PARKING LOT
	SHRUBS					
	LP	84	DARUMA DWARF LOROPETALUM	LOROPETALUM	24"MIN. HT.	STREET PROTECTIVE YARD
	HH	96	ILEX CRENATA	HOOGENDORN HOLLY	24" MIN. HT.	STREET PROTECTIVE YARD
	WL	12	LIGUSTRUM JAPONICUM 'TEXANUM'	WAXLEAF PRIVET	3' MIN. HT.	BUFFER YARD
	GROUND COVER					
	BG		CYNODON DACTYLON	BERMUDA GRASS	SOD	
	BG		CYNODON DACTYLON	BERMUDA GRASS	SEED	
	BM			BARK MULCH		



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DATE	
09/11/2020	
09/21/2020	NEW

DATE  
09/02/2020

DRAWN BY  
*A. MAY*

DESIGNED BY  
*B. DOWNS*

CHECKED BY  
P. BAKER

SCALE  
AS SHOWN

ATI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

LANDSCAPE PLAN

JOB NO.	37630.054
SHEET NO.	C6.1

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PERMANENT SEEDING SCHEDULE FOR COASTAL PLAIN

DATE	TYPE	BROADCAST SEEDING RATES
OCT 1 - APR 1	SPLITBEARD BLUESTEM	15 LBS/ACRE
AUG 30 - MAR 15	BIG BLUESTEM	200-250 LBS/ACRE
AUG 15 - APR 15	RYE GRAIN	40 LBS/ACRE
APR 15- AUG 15	GERMAN MILLET	10 LBS/ACRE

TEMPORARY SEEDING SCHEDULE

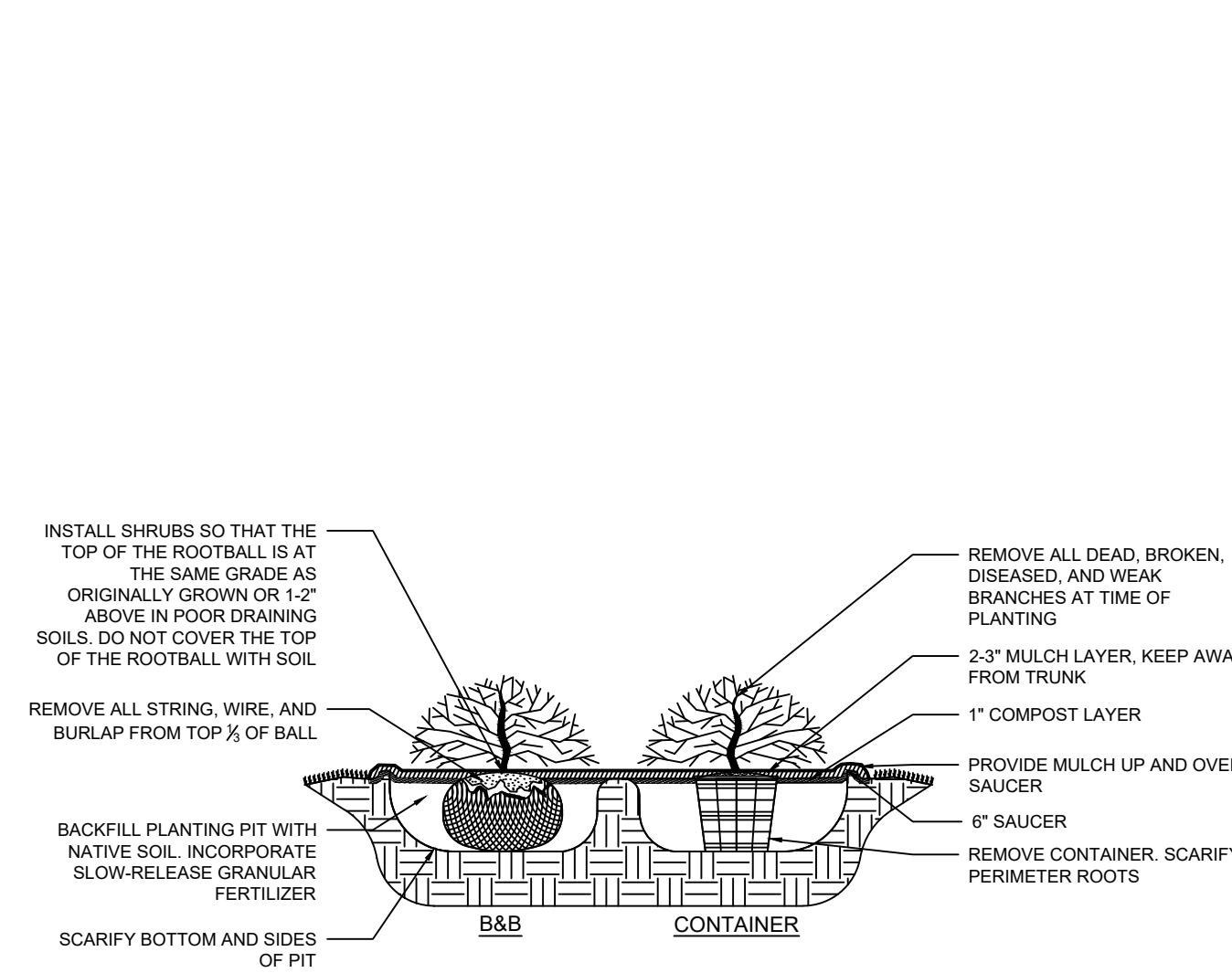
DATE	TYPE	PLANTING RATE
DEC 1 - APR 15	SWITCHGRASS	50 LBS/ACRE
APR. 15 - AUG 15	GERMAN MILLET	40 LBS/ACRE
AUG 15 - DEC 30	RYE GRAIN	120 LBS/ACRE

SEEDBED PREPARATION

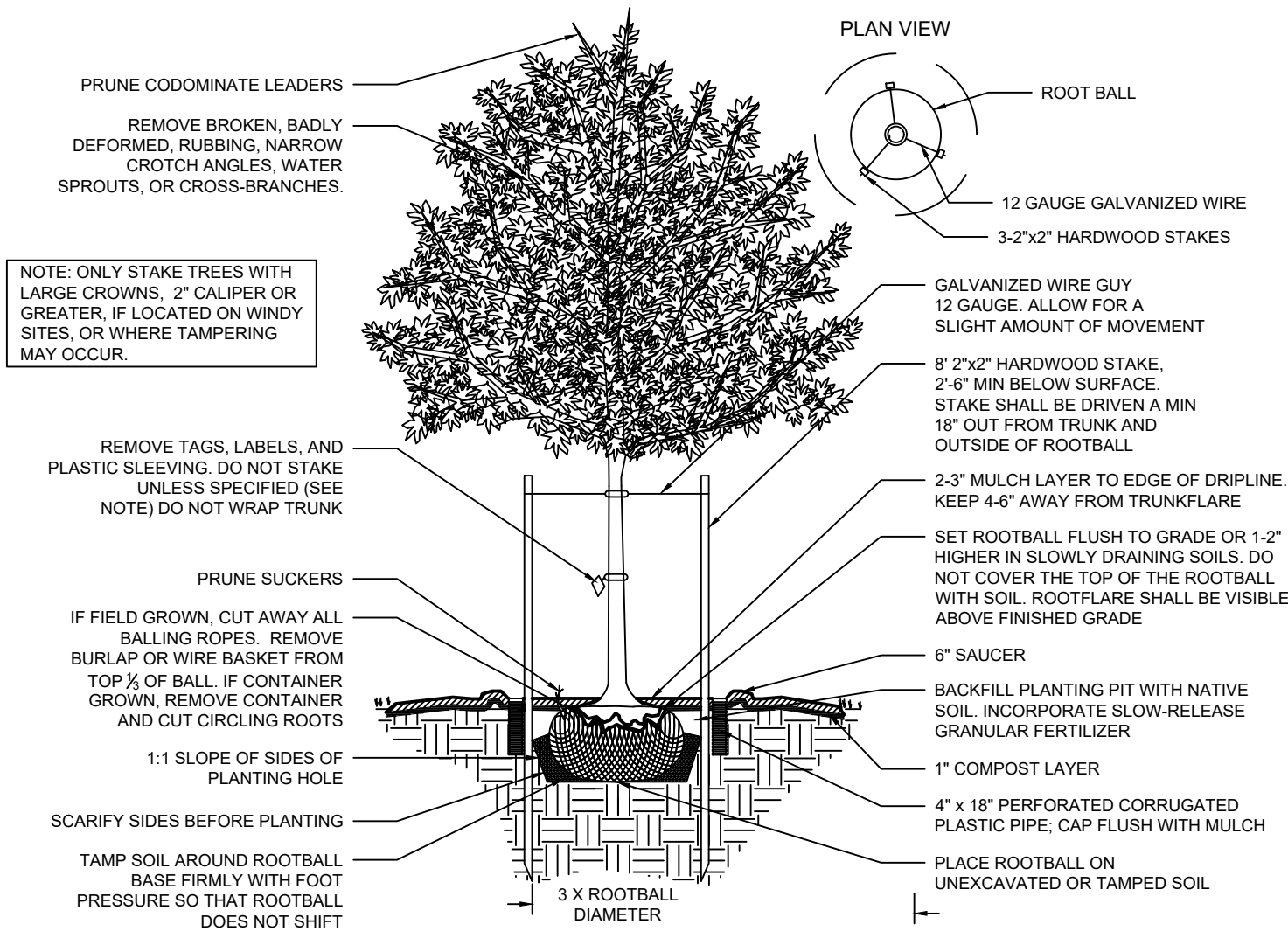
CONSTRUCTION SPECIFICATIONS

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
- 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 BELOW).
- CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 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 OVER 60% DAMAGED REESTABLISHED FOLLOWING ORIGINAL LIME, FERTILIZER, AND SEEDING RATES.
- CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

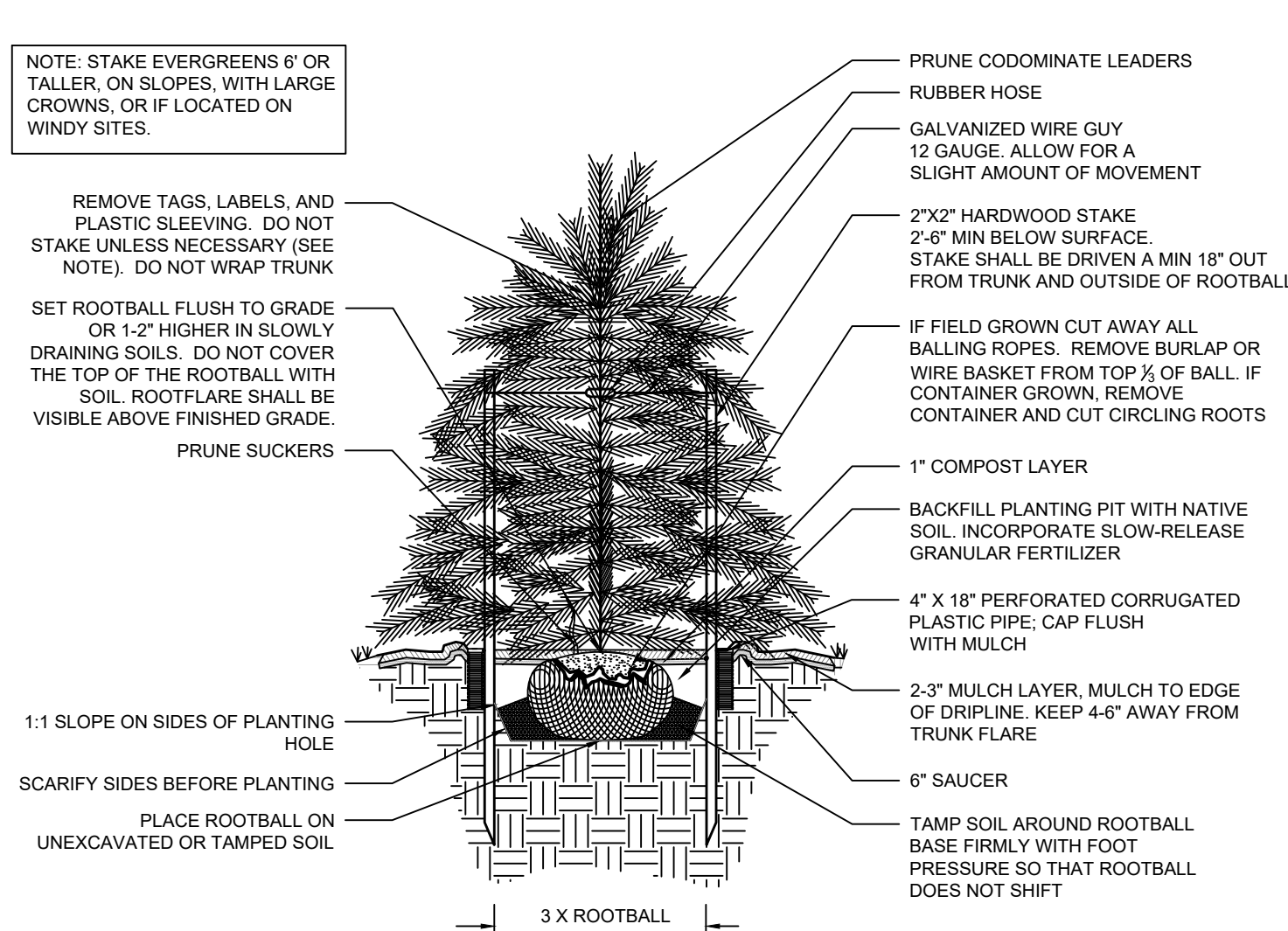
\*APPLY:  
AGRICULTURAL LIMESTONE - 1-1.5 TONS/ACRE ON COURSE TEXTURED SOILS AND 2-3 TONS/ACRE IN FINE-TEXTURED SOILS.  
SOILS WITH PH OF 6 OR HIGHER NEED NOT BE LIMED.  
FERTILIZER - 700/1000 LBS/ACRE (10-10-10)  
MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)  
ANCHOR - ASPHALT EMULSION AT 450 GAL/ACRE



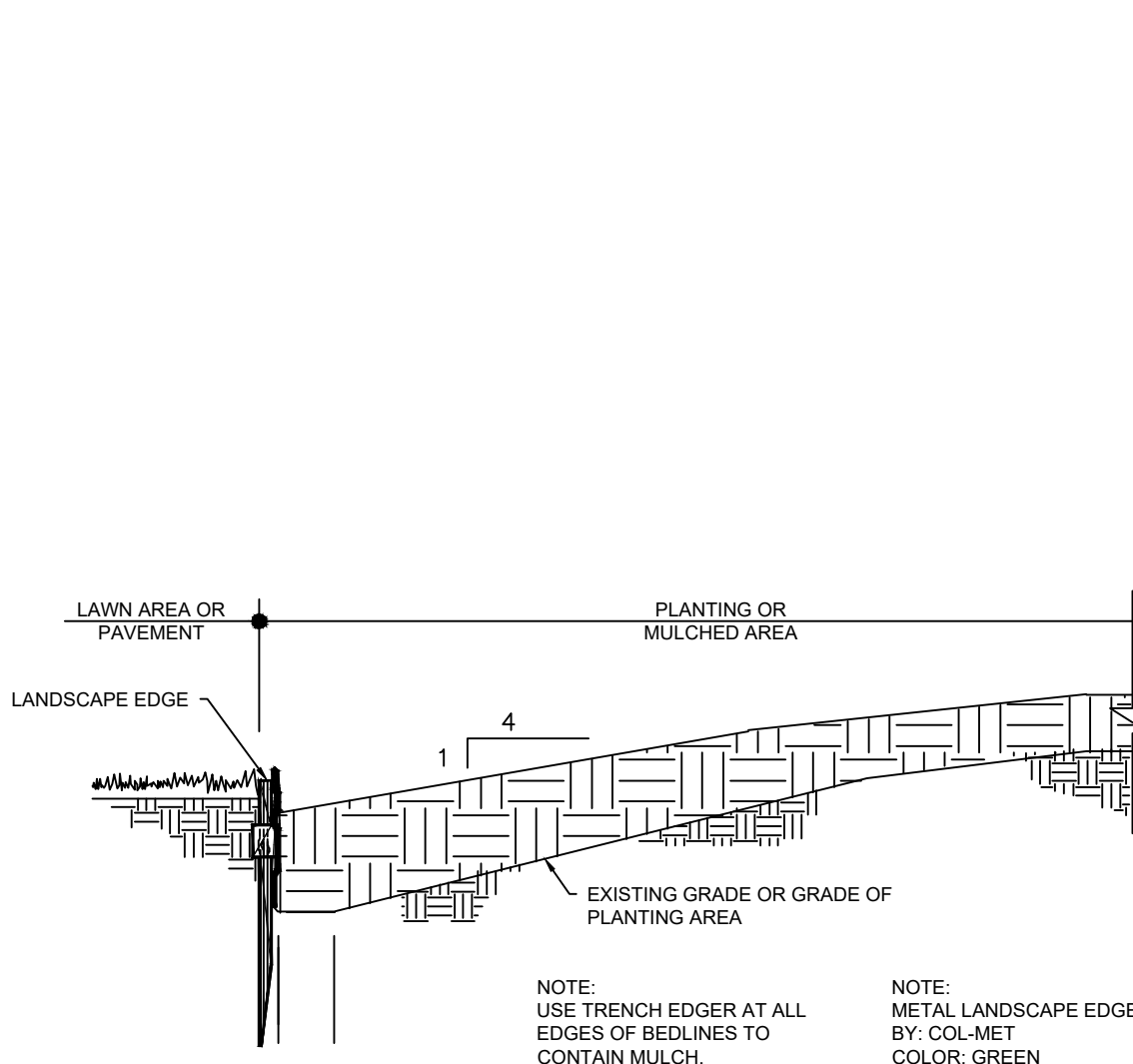
1 SHRUB DETAIL  
NOT TO SCALE



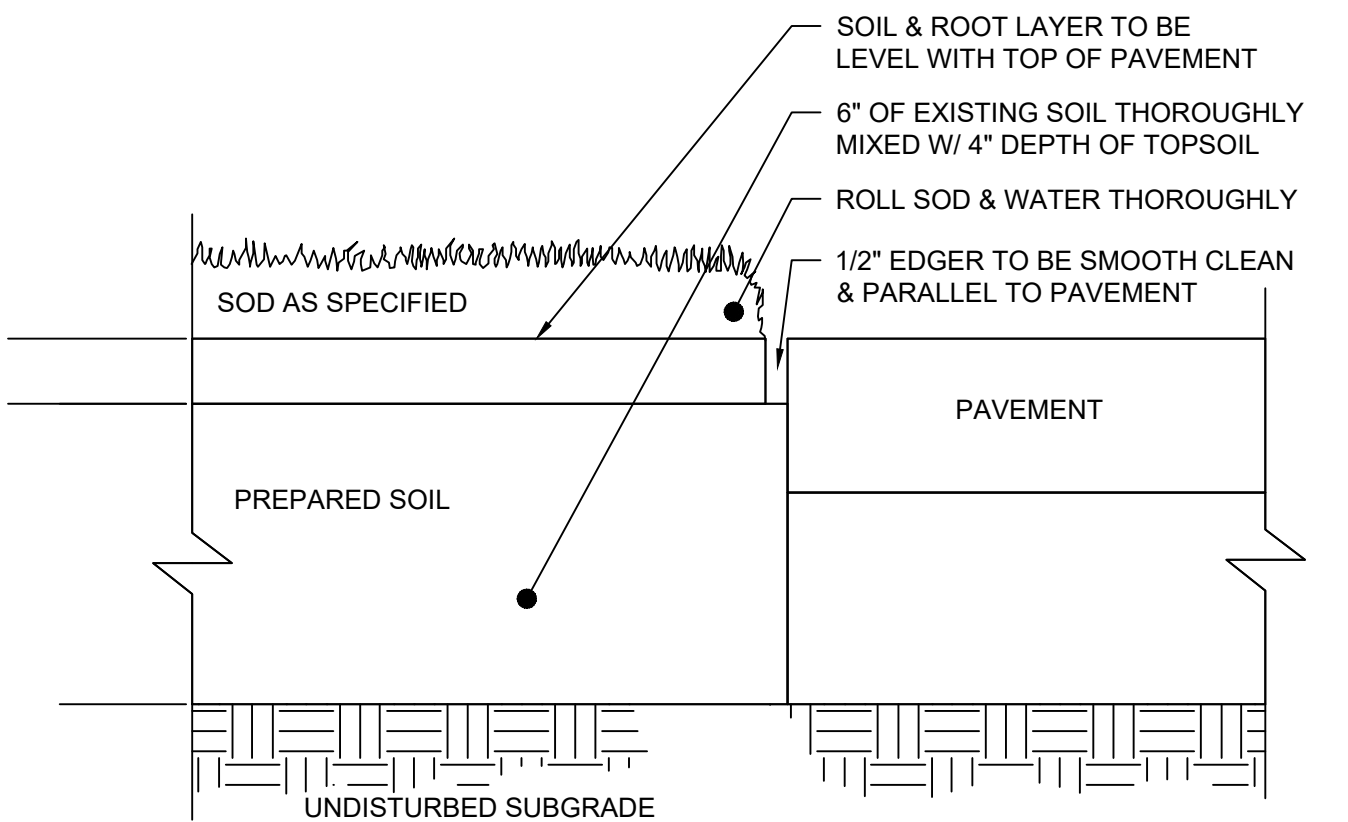
2 DECIDUOUS TREE - STAKING SPECIFIED  
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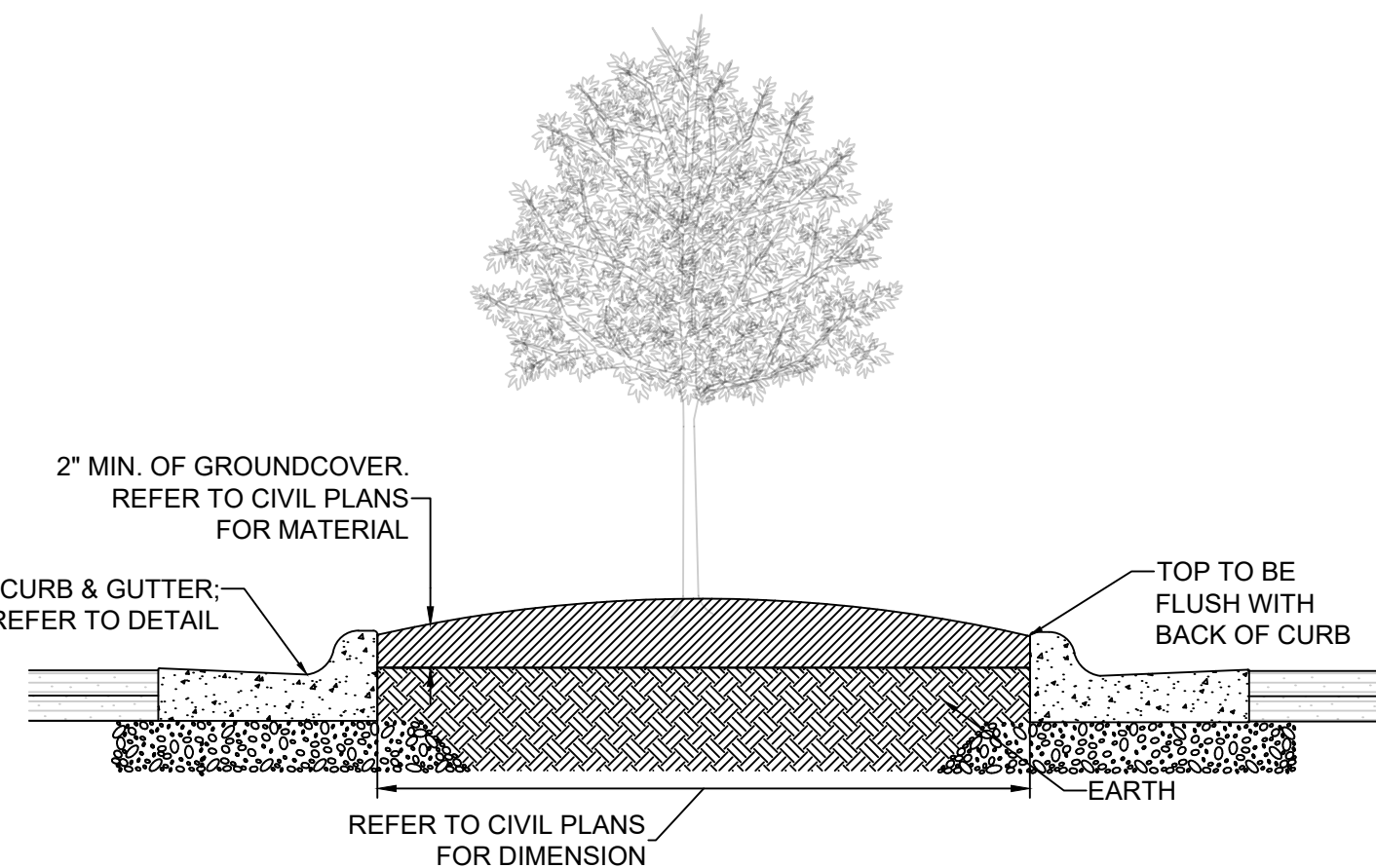
3 EVERGREEN TREE - STAKING SPECIFIED  
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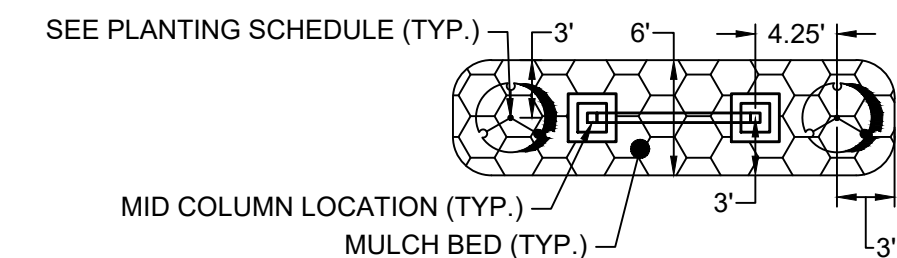
4 TRENCH EDGER DETAIL  
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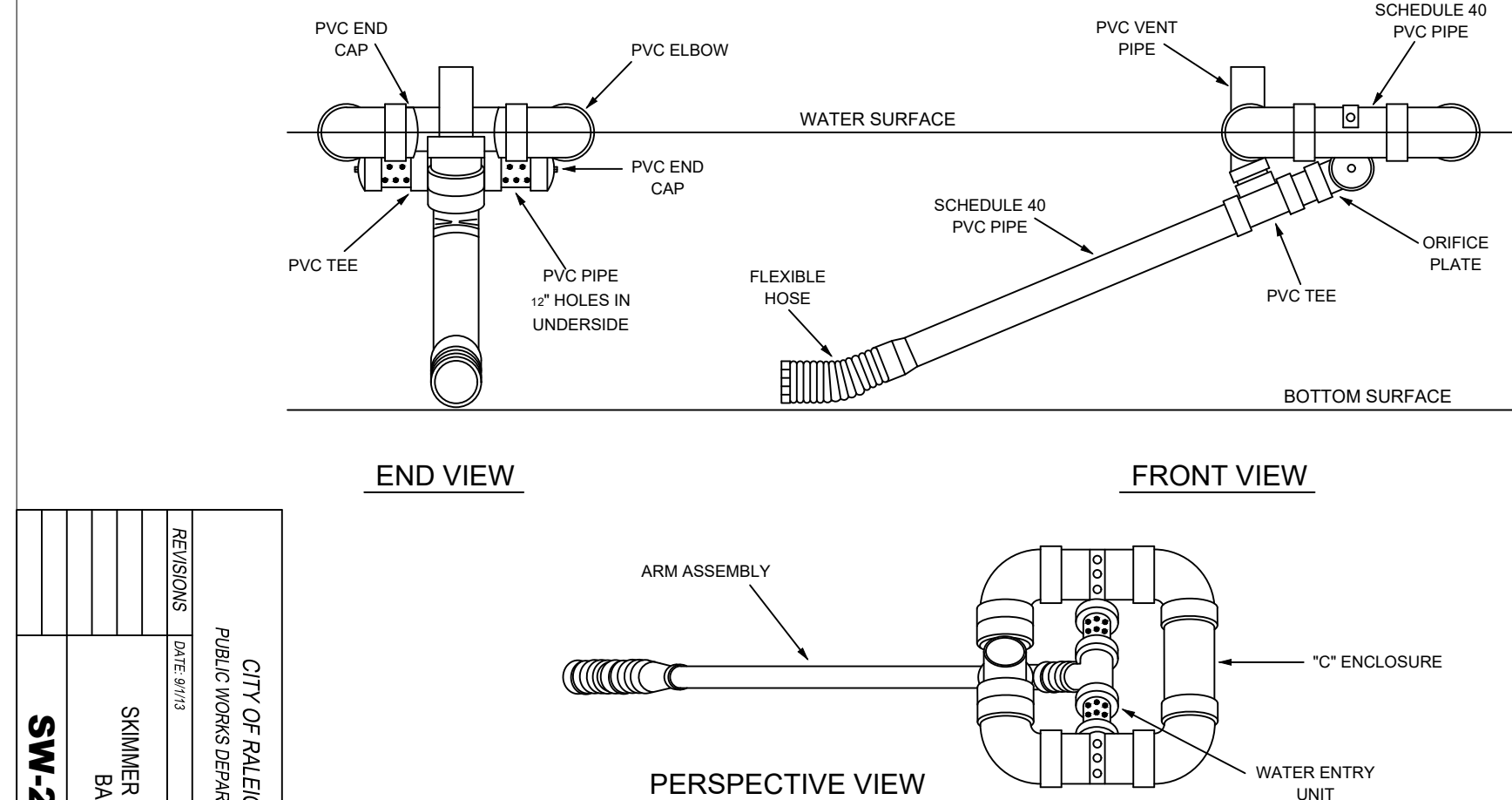
5 SOD DETAIL  
NOT TO SCALE



6 LANDSCAPE ISLAND DETAIL  
NOT TO SCALE

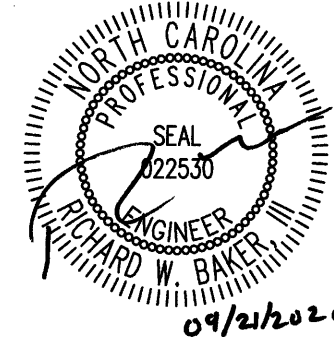


5 MID SIGN PLANTING DETAIL  
NOT TO SCALE



NOTE: SKIMMER TO BE TETHERED

SEE N.C. DENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR CONDITIONS WHERE PRACTICE APPLIES; PLANNING CONSIDERATION & DESIGN CRITERIA.



THIS DRAWING PREPARED AT THE  
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TEL 919.866-4951 FAX 919.863.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

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09/11/2020

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A. MAY

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B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

DATE  
09/02/2020

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B. DOWNS

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**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

NOTES AND DETAILS

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS





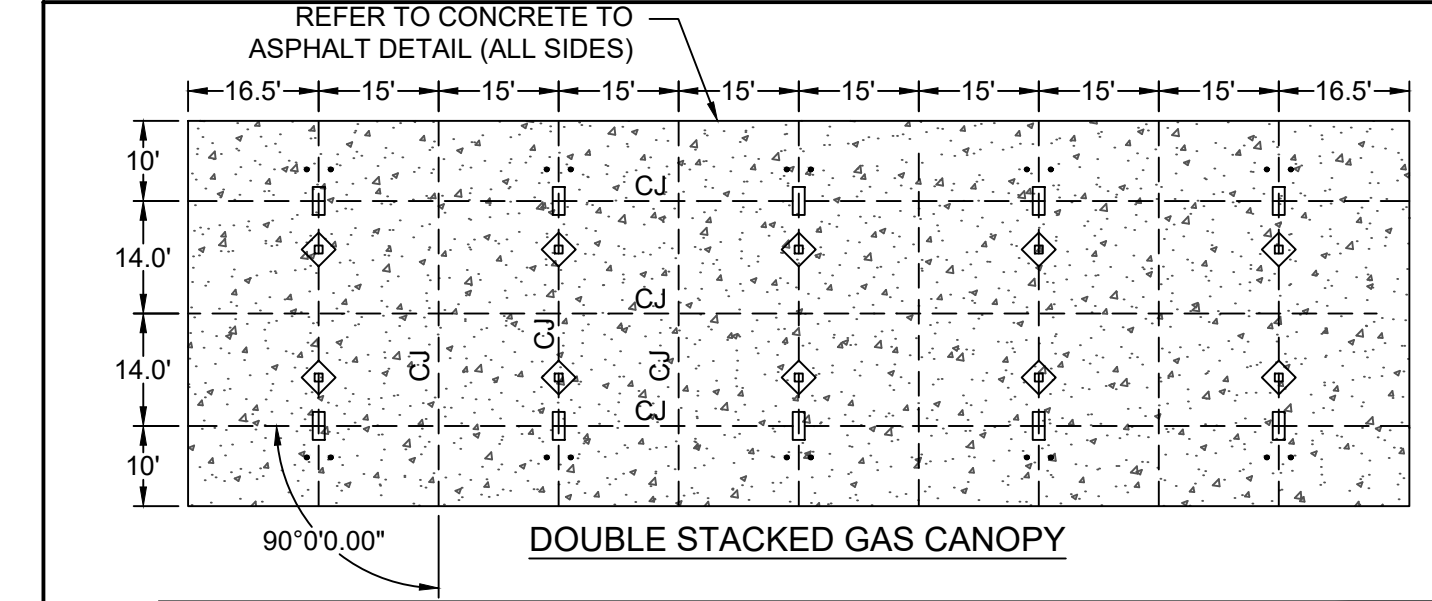
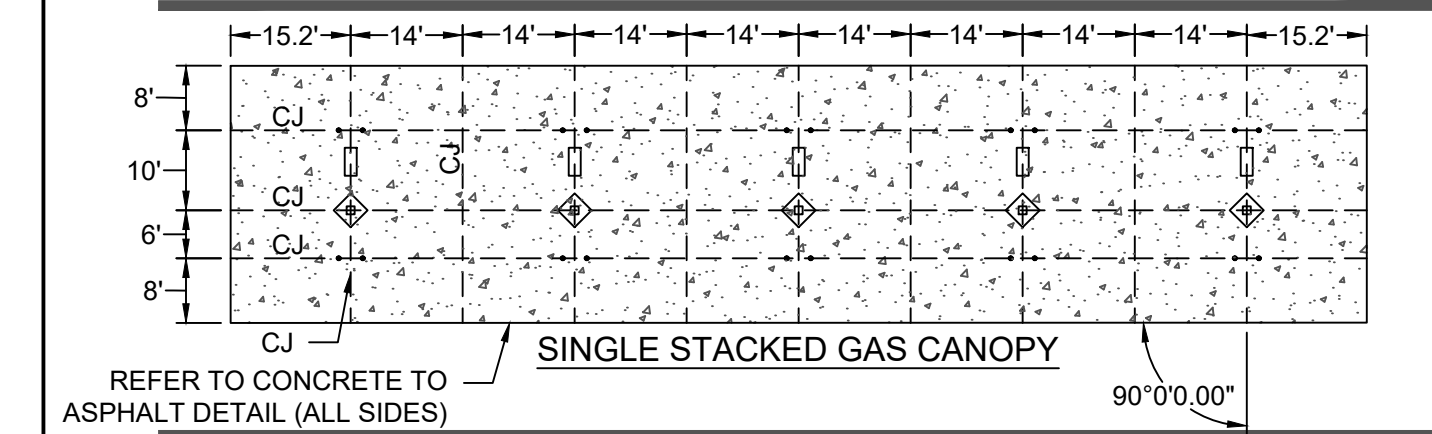
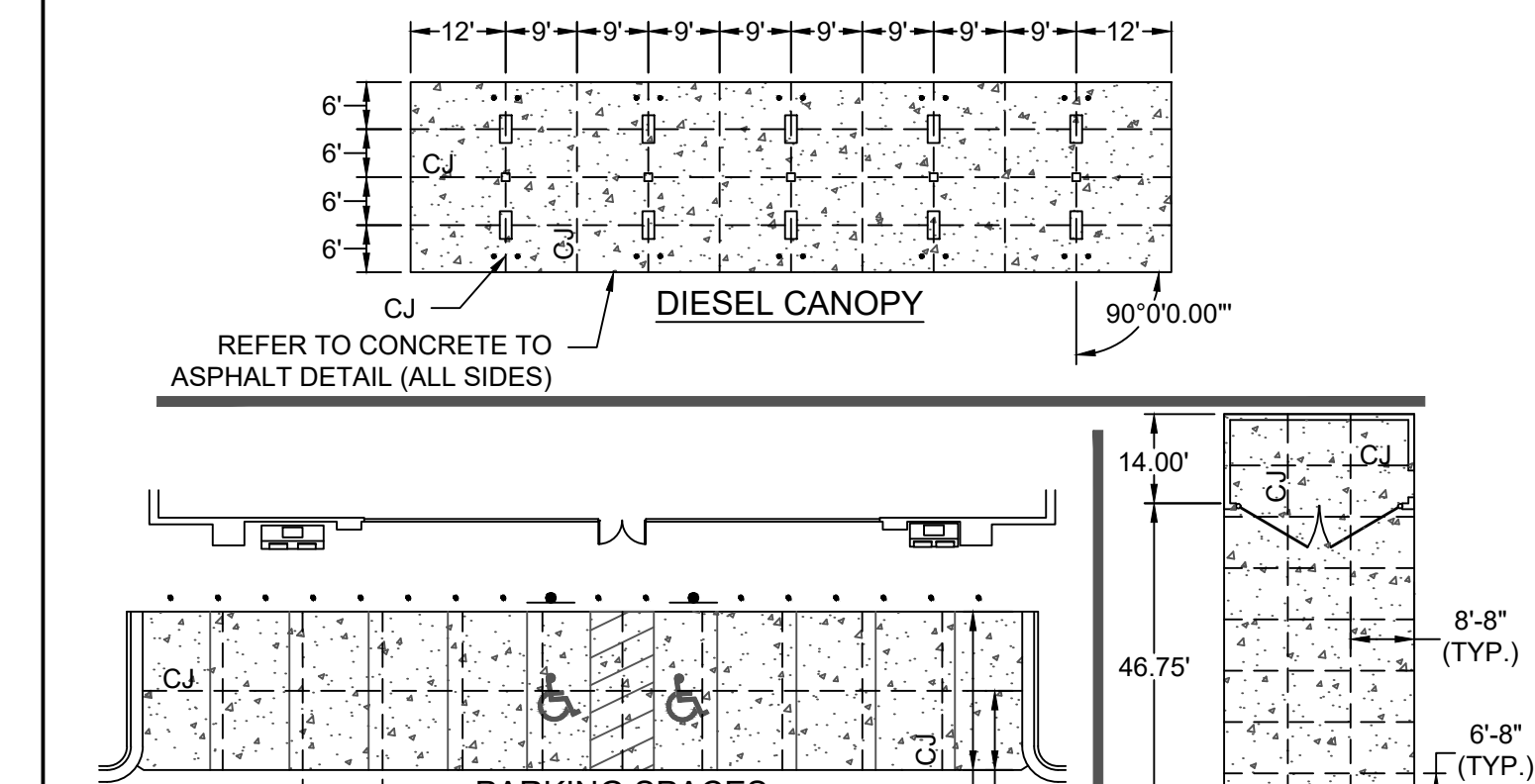


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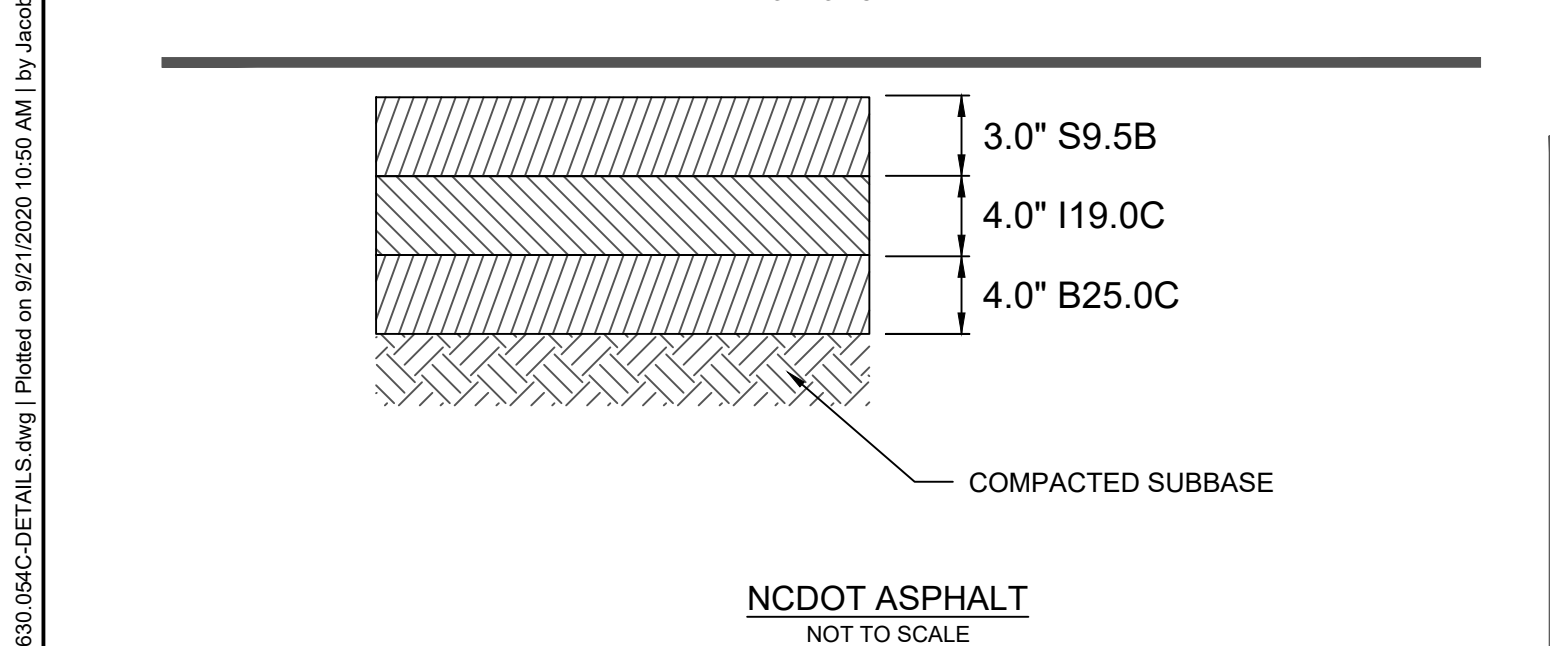
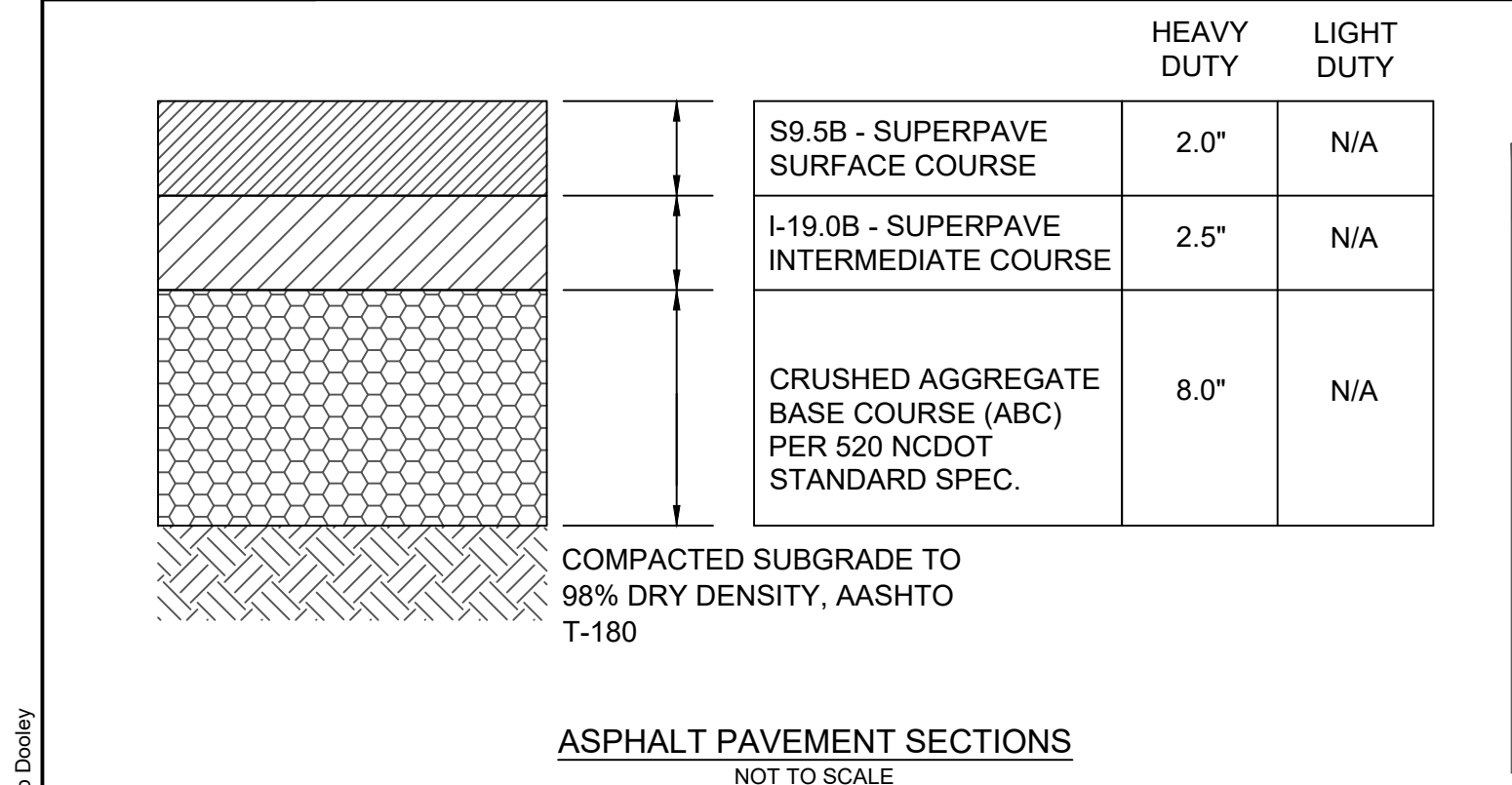
# CK-170  
REVISED: 2020-06-18

# CK-175  
REVISED: 2020-06-18

- NOTES:
- DIMENSIONS AND JOINT PLACEMENTS ARE TYPICAL.
  - REFER TO DEDICATED JOINT DETAILS FOR MORE INFORMATION.
  - REFER TO SITE SPECIFIC CANOPY AND DUMPSTER PLANS TO CONFIRM EXACT DIMENSIONS.
  - REFER TO PAVING PLAN FOR PAD INFORMATION.
  - REFER TO GRADING PLAN FOR ELEVATIONS.



CONCRETE PAVEMENT JOINT DETAIL  
NOT TO SCALE



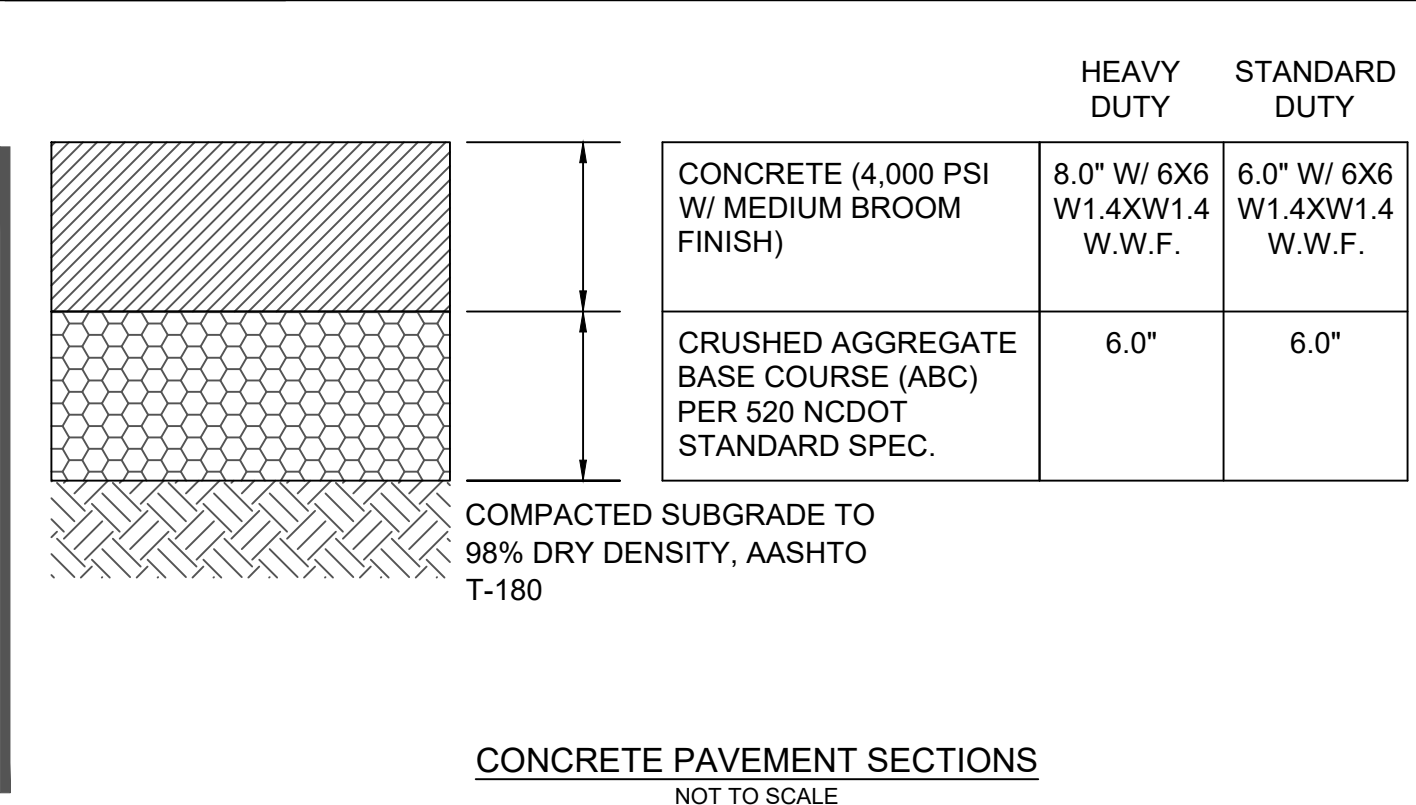
- NOTES:
- PREPARING, GRADING, SHAPING, AND COMPACTION OF SUBGRADE SOILS SHOULD BE PERFORMED IN ACCORDANCE WITH DIVISION 5, SECTION 501 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (2006). PREPARING, GRADING, SHAPING, AND COMPACTION OF AGGREGATE BASE COURSE (ABC) STONE SHOULD BE PERFORMED IN ACCORDANCE WITH DIVISION 5, SECTION 520 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (2006). PLACEMENT AND COMPACTION OF THE BITUMINOUS CONCRETE SHOULD BE PERFORMED IN ACCORDANCE WITH DIVISION 6, SECTION 600 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (2006). PROPER SUBGRADE COMPACTION, ADHERENCE TO THE NCDOT SPECIFICATIONS, AND COMPLIANCE WITH PROJECT PLANS AND SPECIFICATIONS ARE CRITICAL TO THE PERFORMANCE OF THE CONSTRUCTED PAVEMENT.
  - CONTRACTOR MAY CHOOSE TO INSTALL INTERMEDIATE COURSES OF PAVEMENT TO STABILIZE THE SITE DURING CONSTRUCTION AT NO ADDITIONAL COST. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ADEQUATE THICKNESS REQUIRED FOR INTERMEDIATE PAVING. INCREASES IN THE DESIGN PAVEMENT SECTION TO FACILITATE INTERMEDIATE PAVING SHALL BE PROVIDED AT NO ADDITIONAL COST.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGES TO SUBGRADE, INSTALLED BASE COURSE AND/OR INTERMEDIATE PAVING PRIOR TO PLACING SUBSEQUENT PAVEMENT LIFTS AT NO ADDITIONAL COST.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PAVEMENT DURING ALL PHASES OF WORK. THE FINAL SURFACE OF PAVEMENT SHALL BE FREE OF ALL DEFECTS OR DAMAGE.
  - PER GEOTECH REPORT (NUMBER #22-28078) BY ECS SOUTHEAST, LLP DATED JULY 9, 2019 AND CLIENT PREFERENCES.

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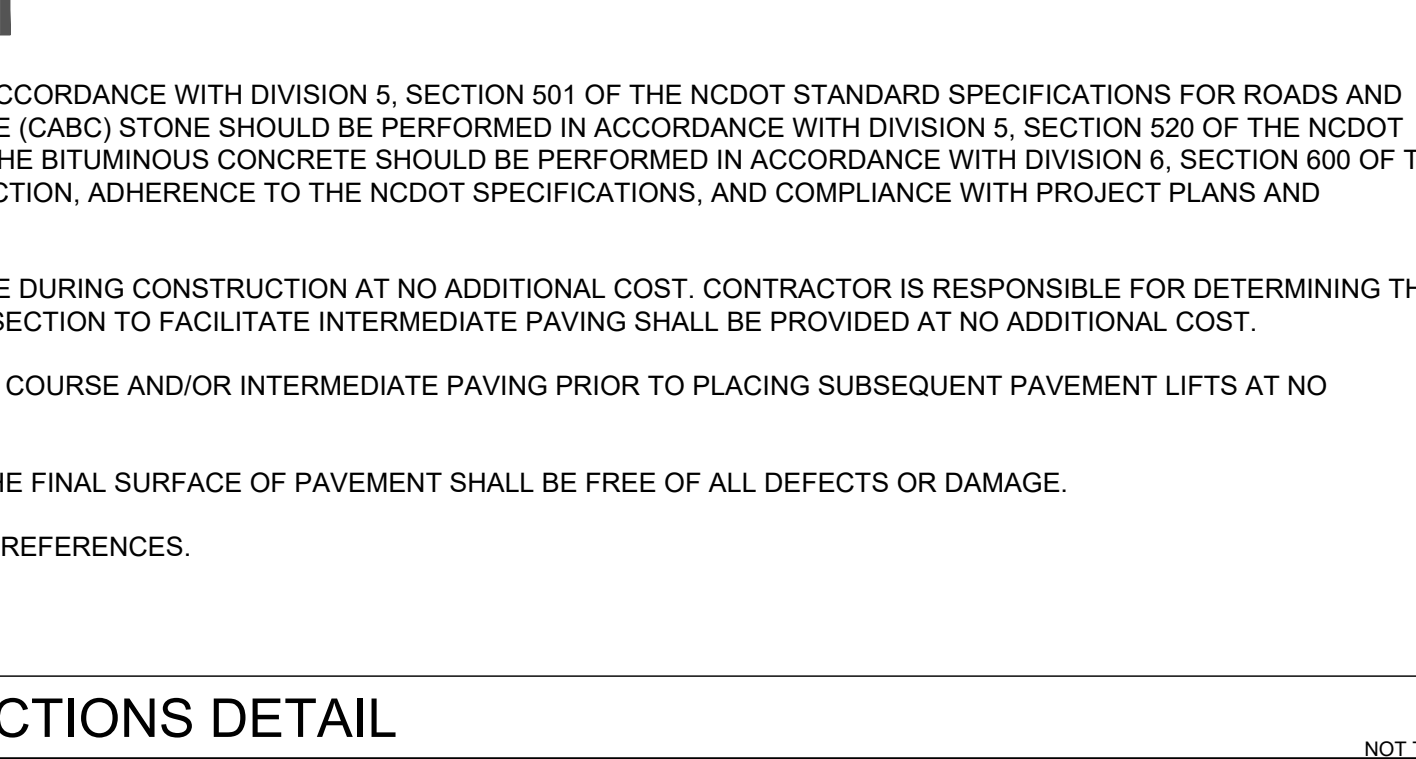
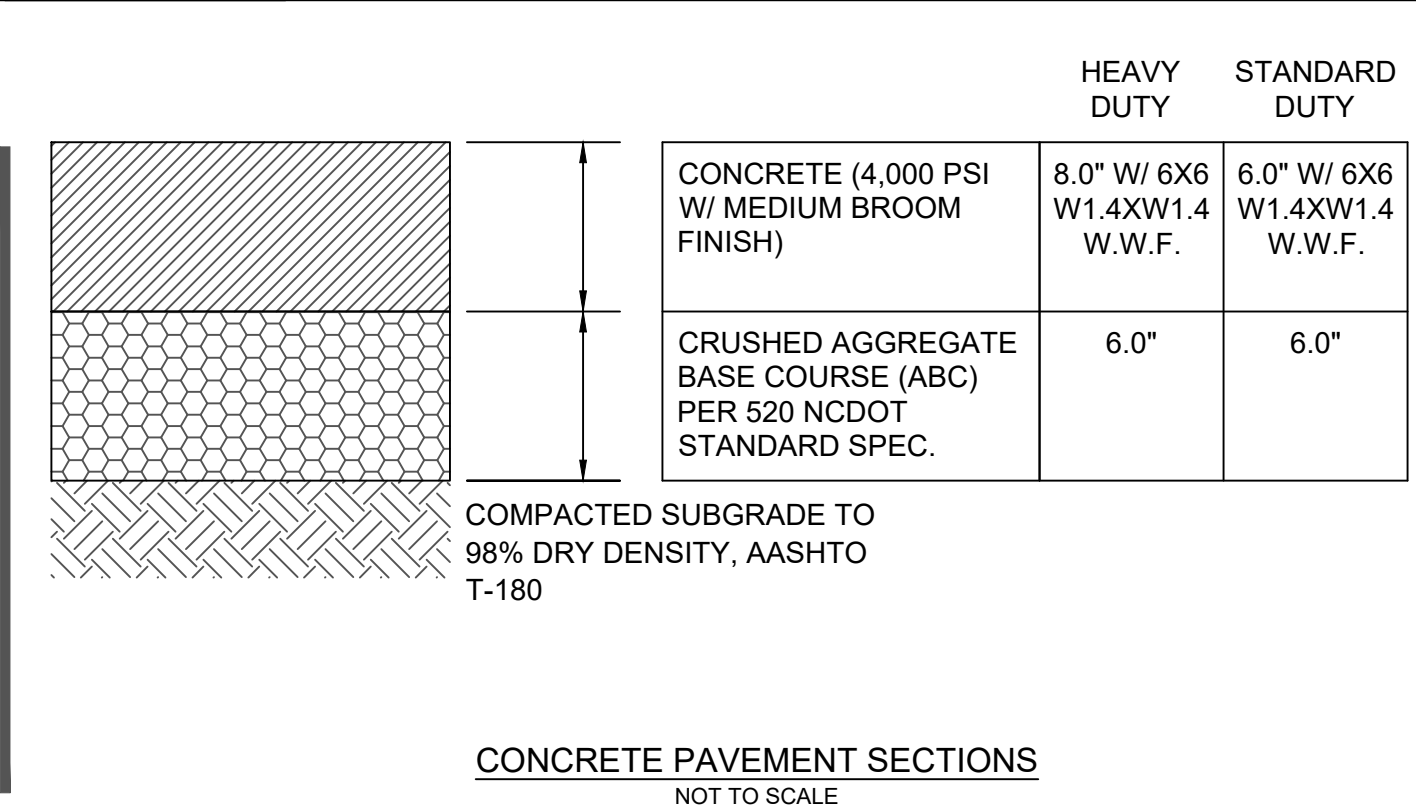
## PAVEMENT SECTIONS DETAIL

# CK-180  
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- NOTES:
- 6" STEEL BOLLARDS TO BE INSTALLED IN FRONT OF THE STORE WHERE SPECIFIED.
  - 6" STEEL BOLLARDS TO BE INSTALLED UNDER GAS CANOPY WHERE SPECIFIED ON THE PETROLEUM PLANS.
  - 6" STEEL BOLLARDS WILL BE DELIVERED WITH PLASTIC COVER BASED ON NATIONAL ACCOUNT AGREEMENT, INSTALLED BY GENERAL CONTRACTOR. REFER TO RESPONSIBILITY MATRIX.
  - REFER TO ARCHITECTURAL PLANS FOR BOLLARDS AT DUMPSTER ENCLOSURE.



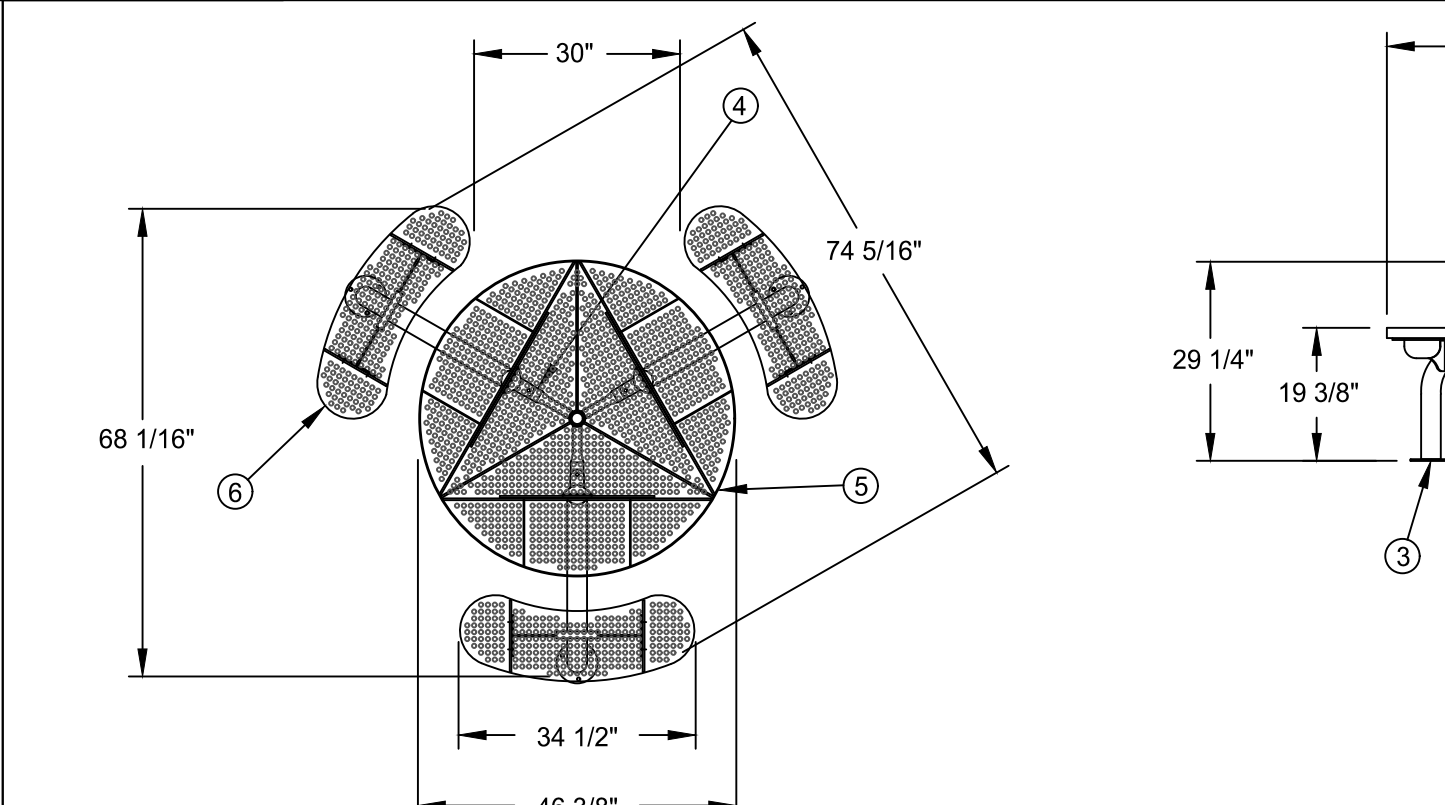
4" BOLLARD WITH COVER DETAIL  
NOT TO SCALE



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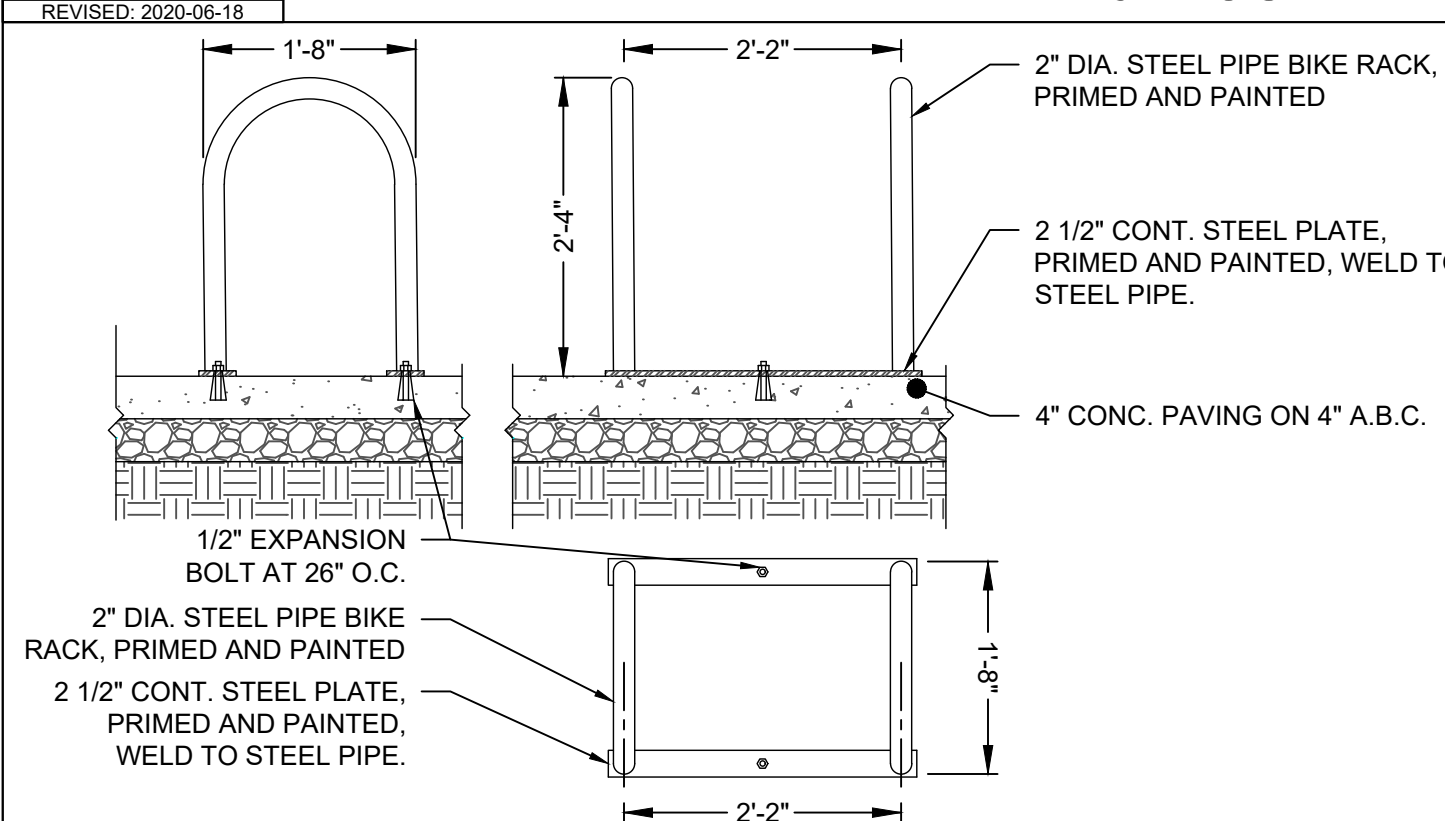
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- NOTES:
- ONE REQUIRED AT EACH ACCESSIBLE PARKING SPACE.
  - WHERE ACCESSIBLE SPACES FACE EACH OTHER WITHOUT WALKWAY, THERE SHALL BE ONE POST WITH SIGNS MOUNTED ON BOTH SIDES.
  - MOUNT SIGNS TO POST WITH GALVANIZED OR CADMIUM PLATED 5/16" DIAMETER STEEL BOLTS, NUTS, AND WASHERS. CONTRACTOR SHALL SUPPLY AND INSTALL 5/16" NYLON WASHERS BETWEEN BOLT HEADS AND SIGN FACE TO PROTECT FINISH.
  - SIGNS SHALL CONFORM TO THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) FOR SIZE, COLOR AND DIMENSIONS.



- NOTES:
- UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES, PER ASME Y14.5M-1994 AND AFTER COATING.
  - ALL DIMENSIONS AFTER TO PLASTISOL COATING.
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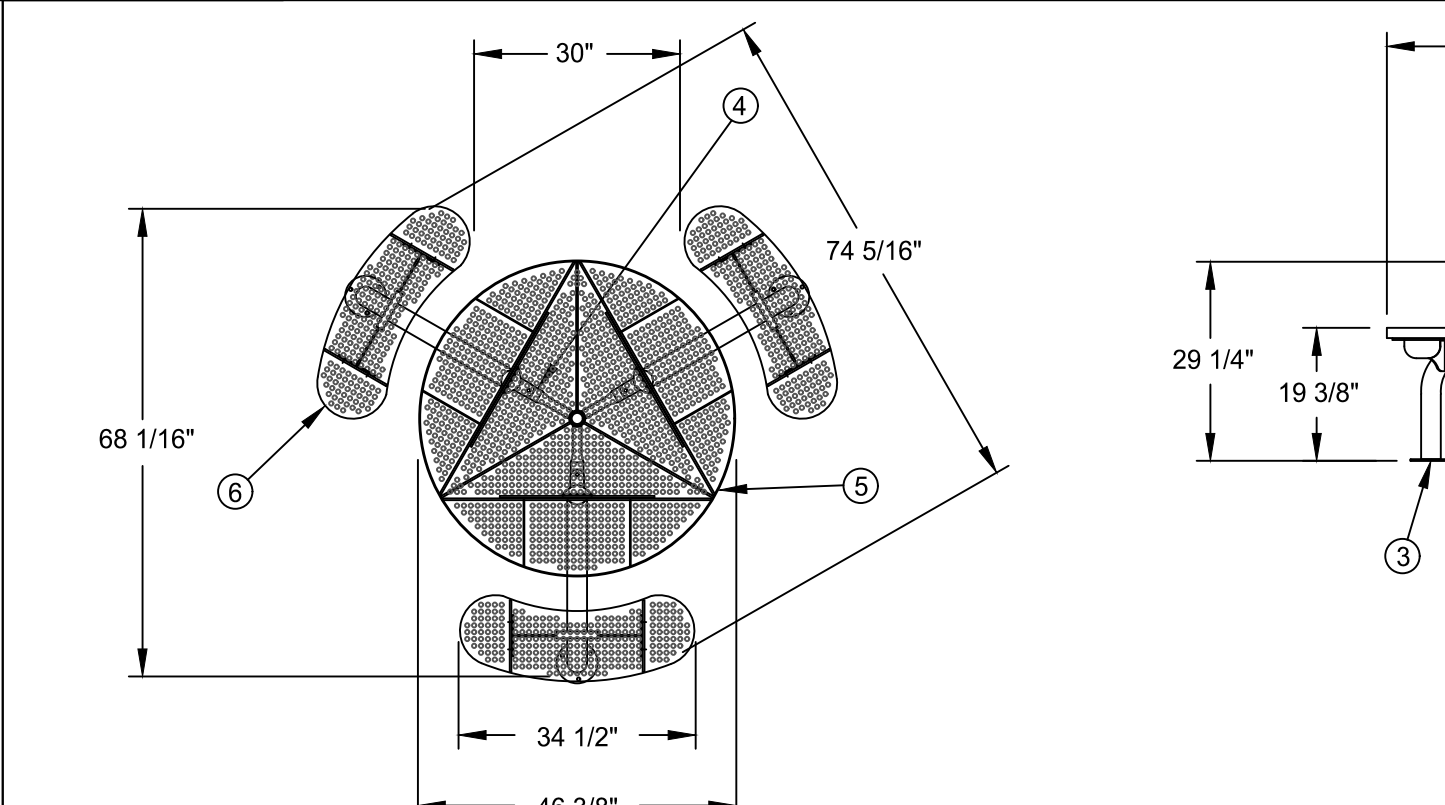
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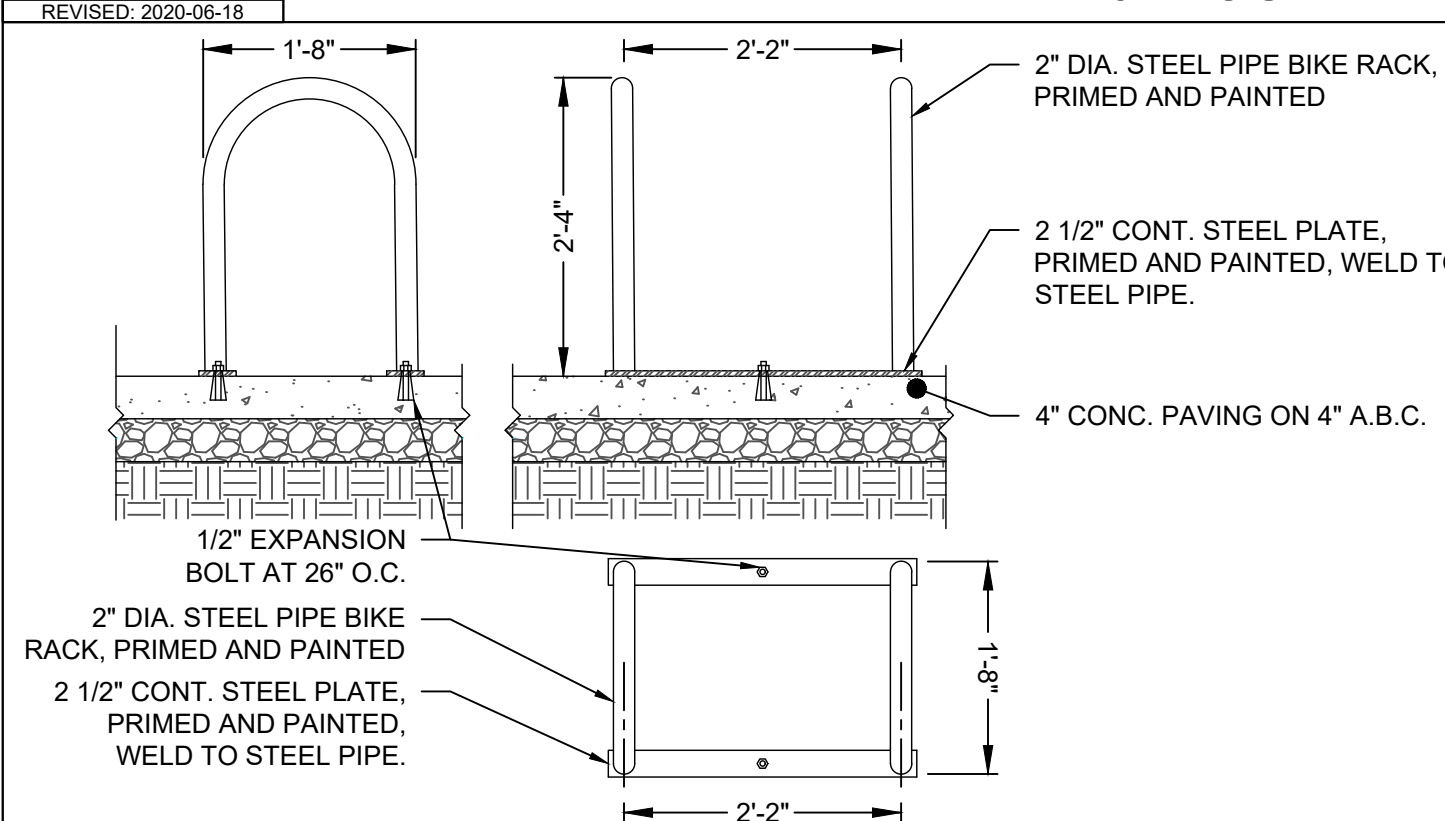
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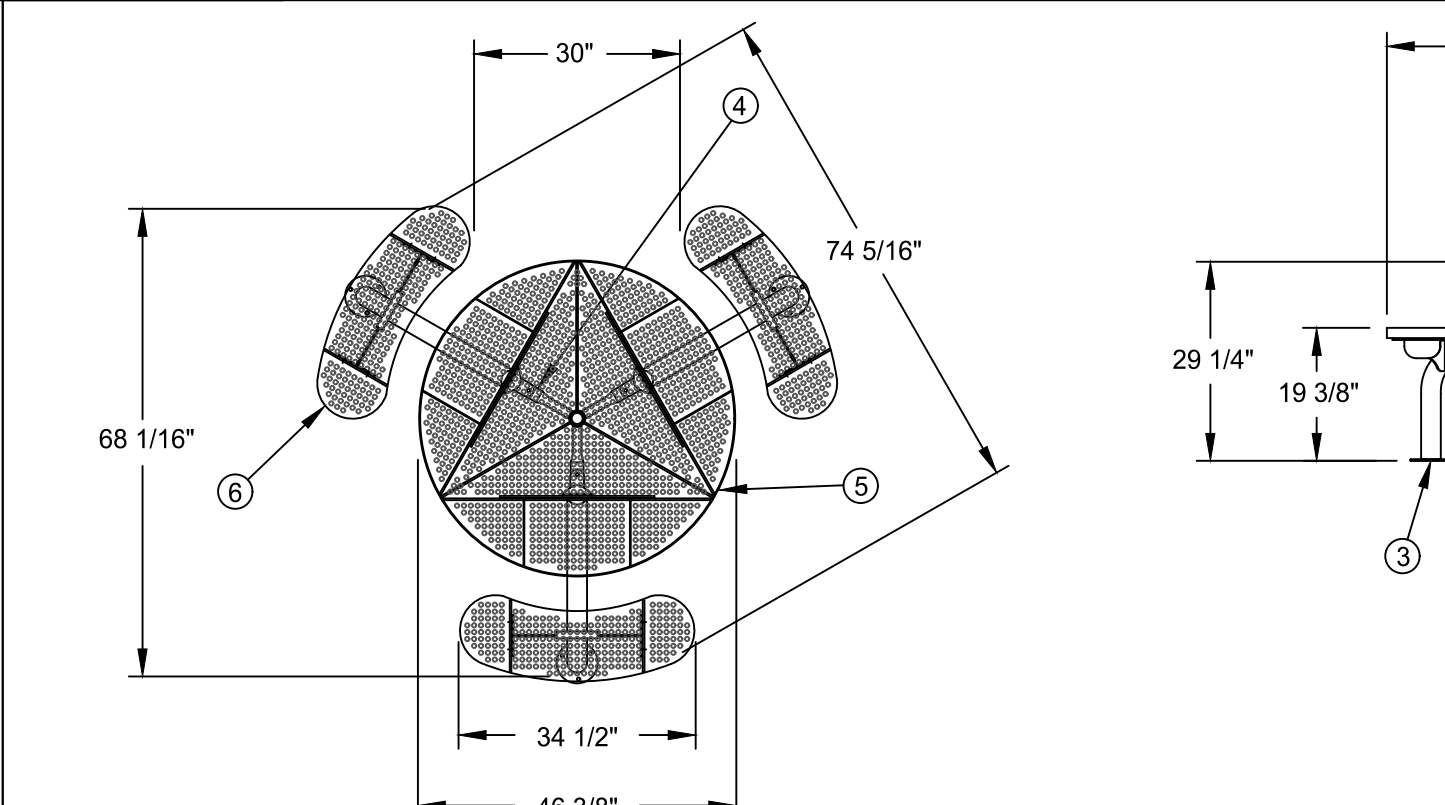
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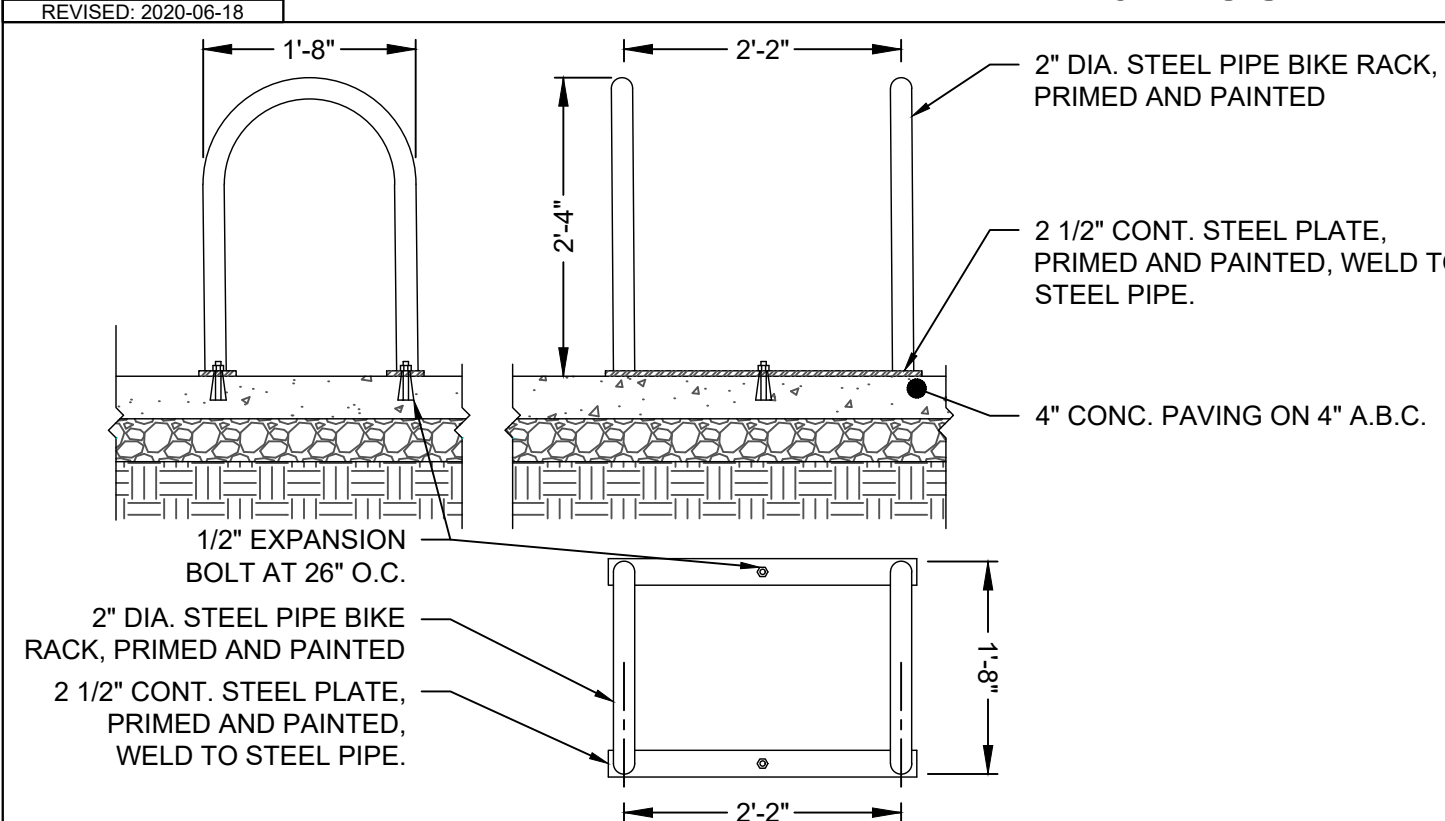
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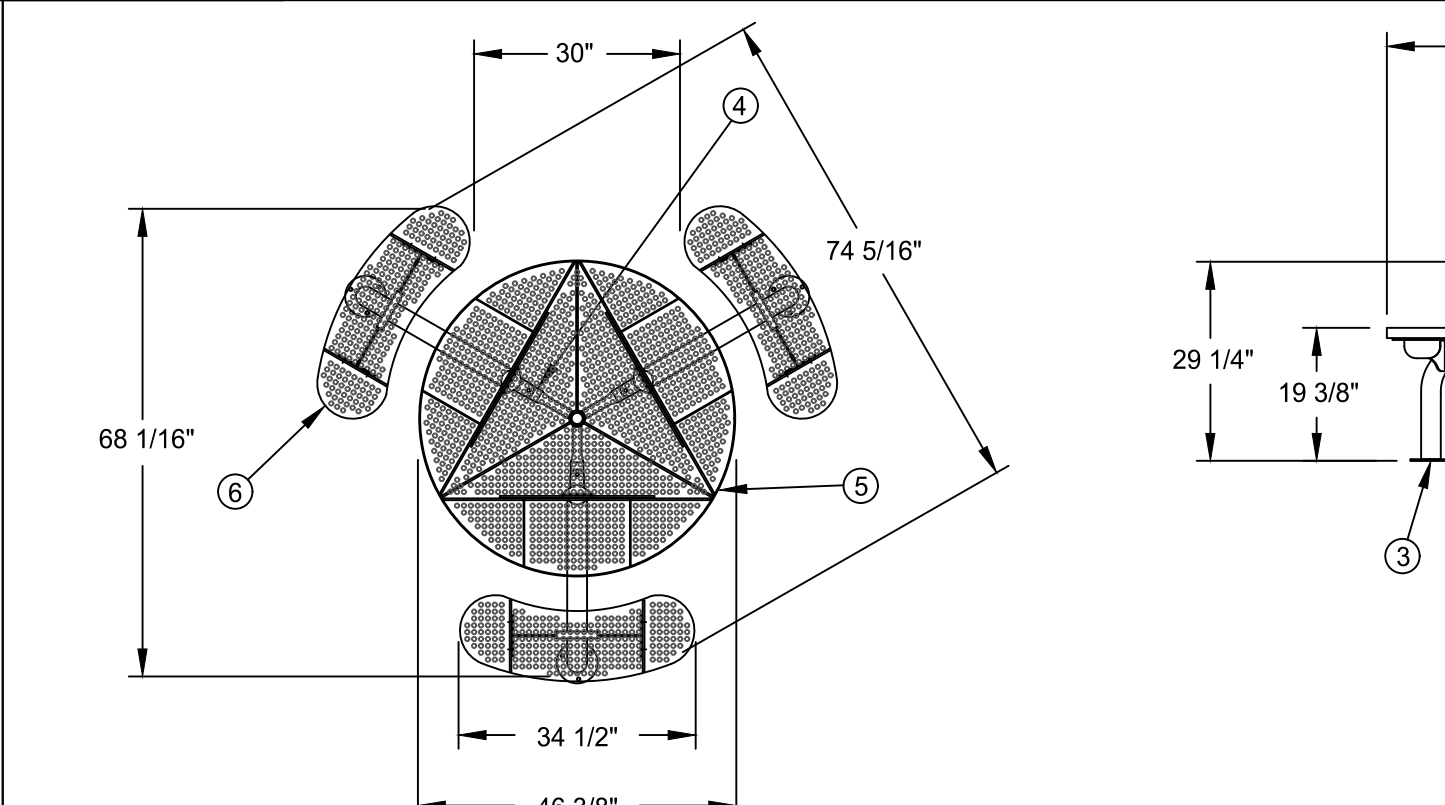
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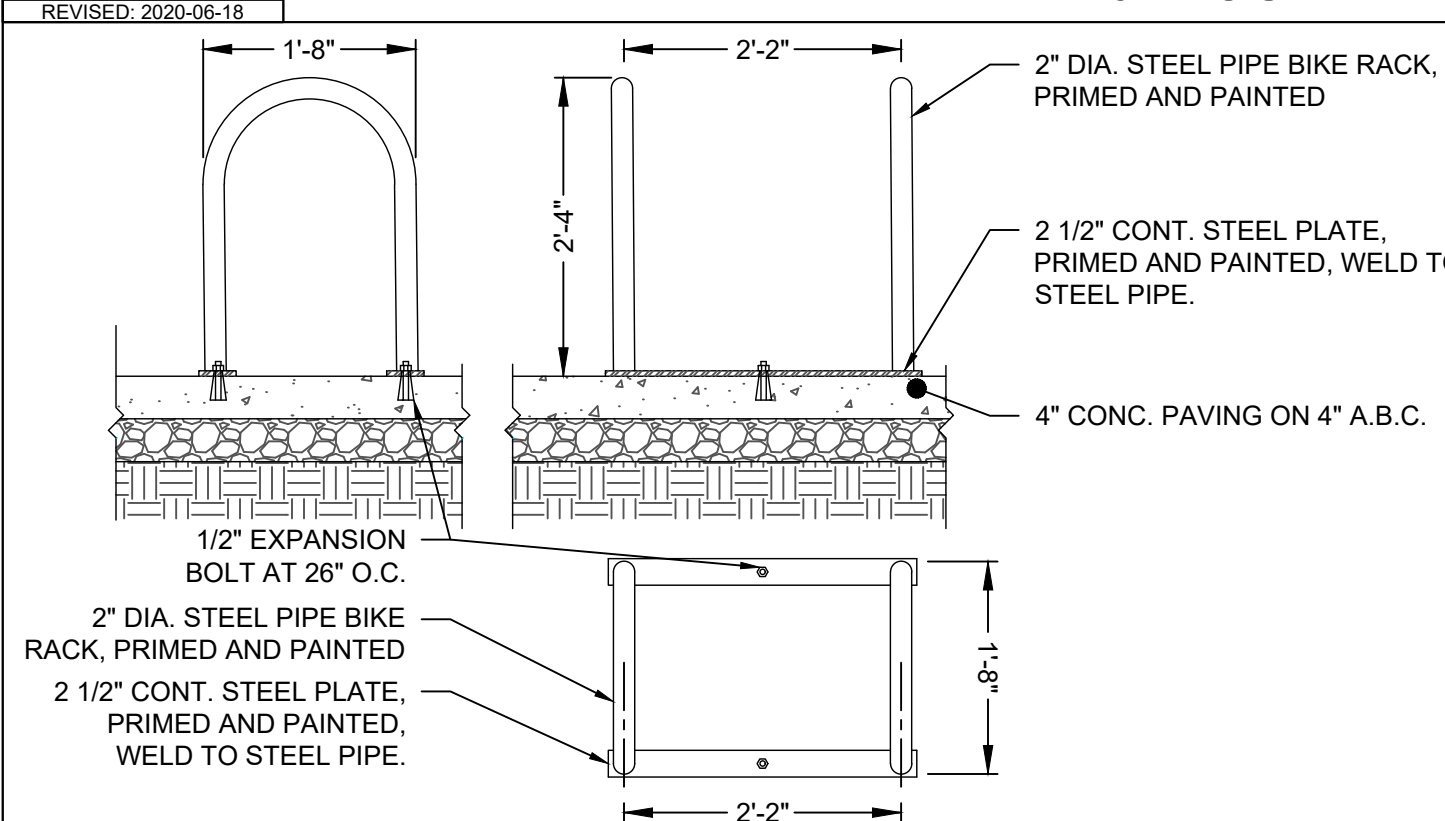
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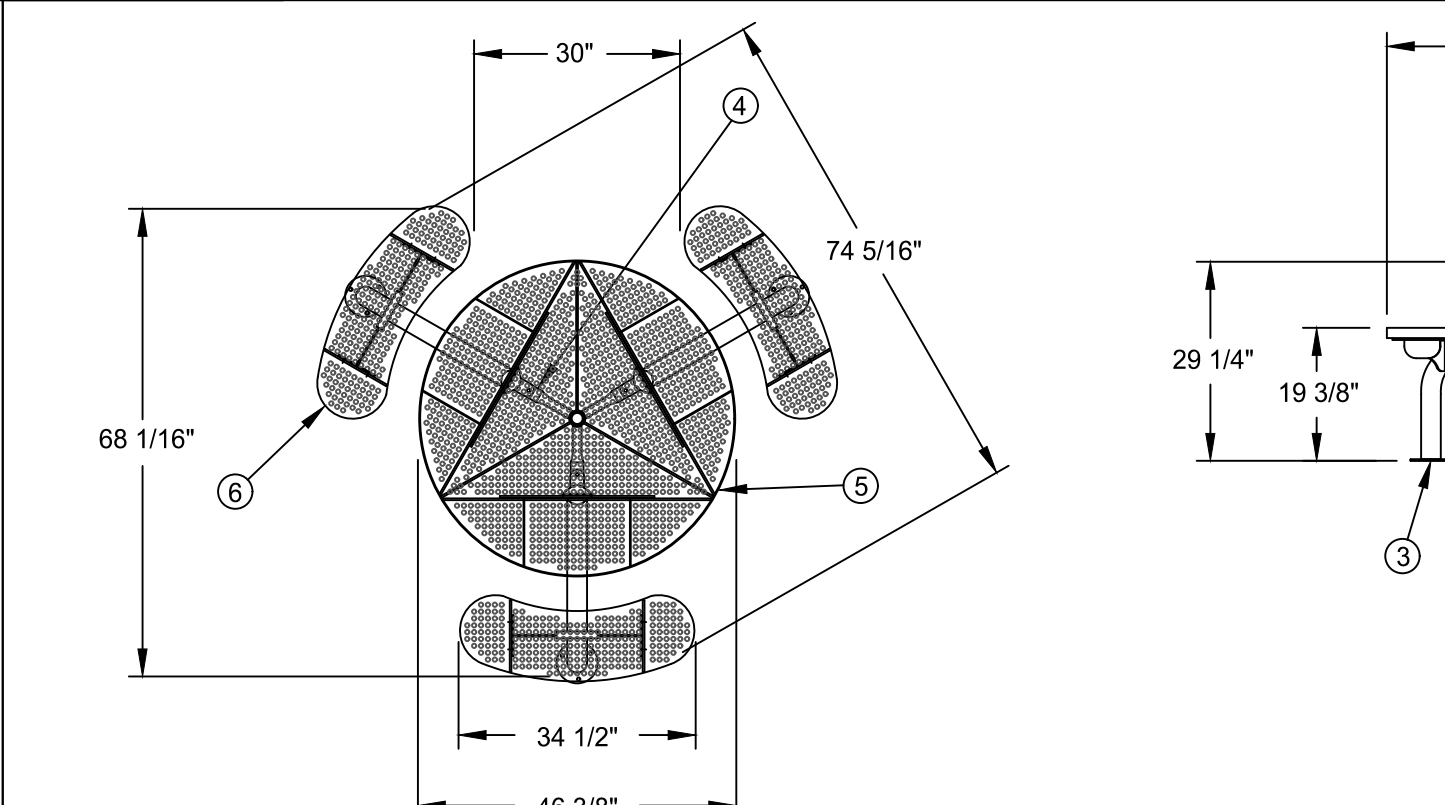
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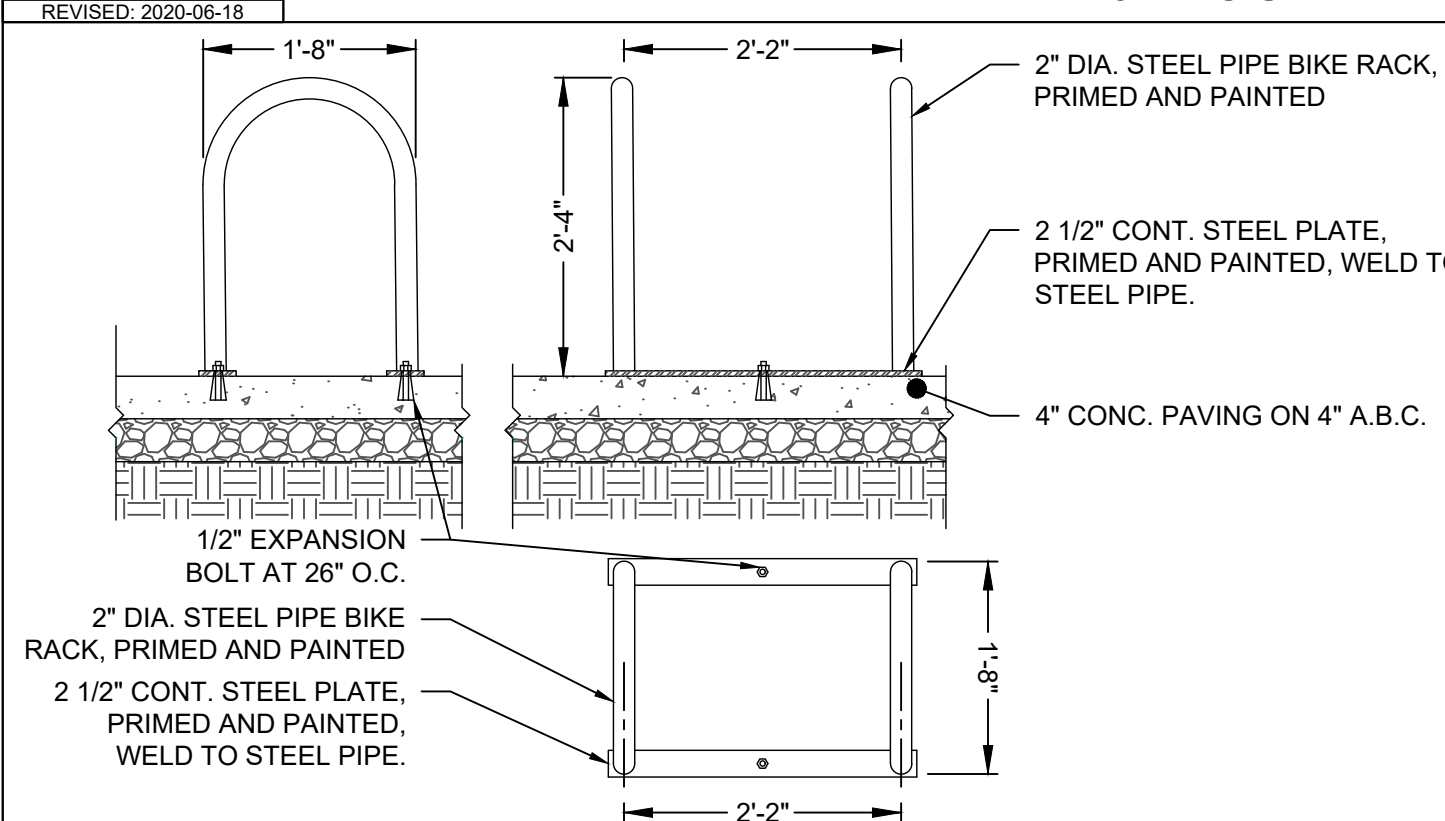
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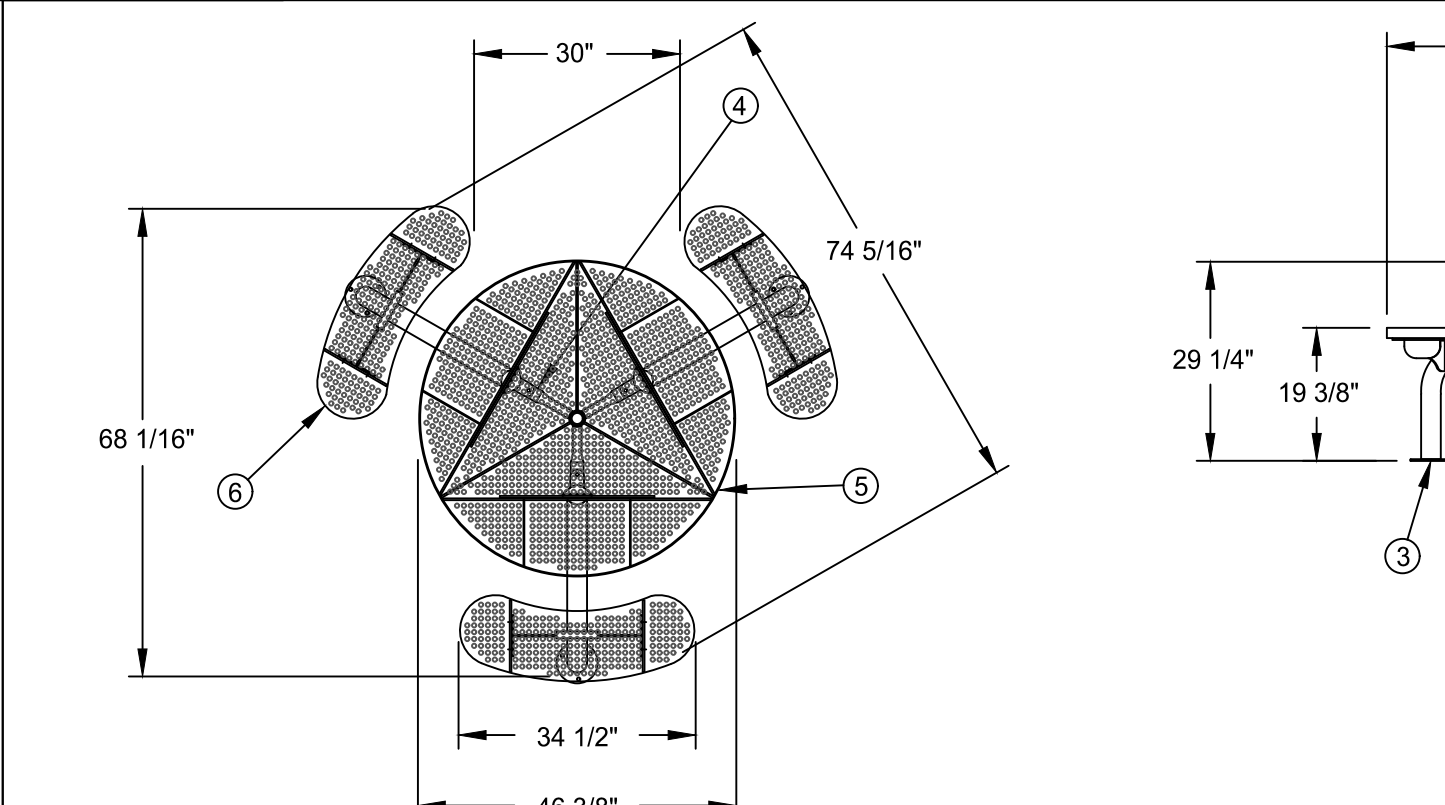
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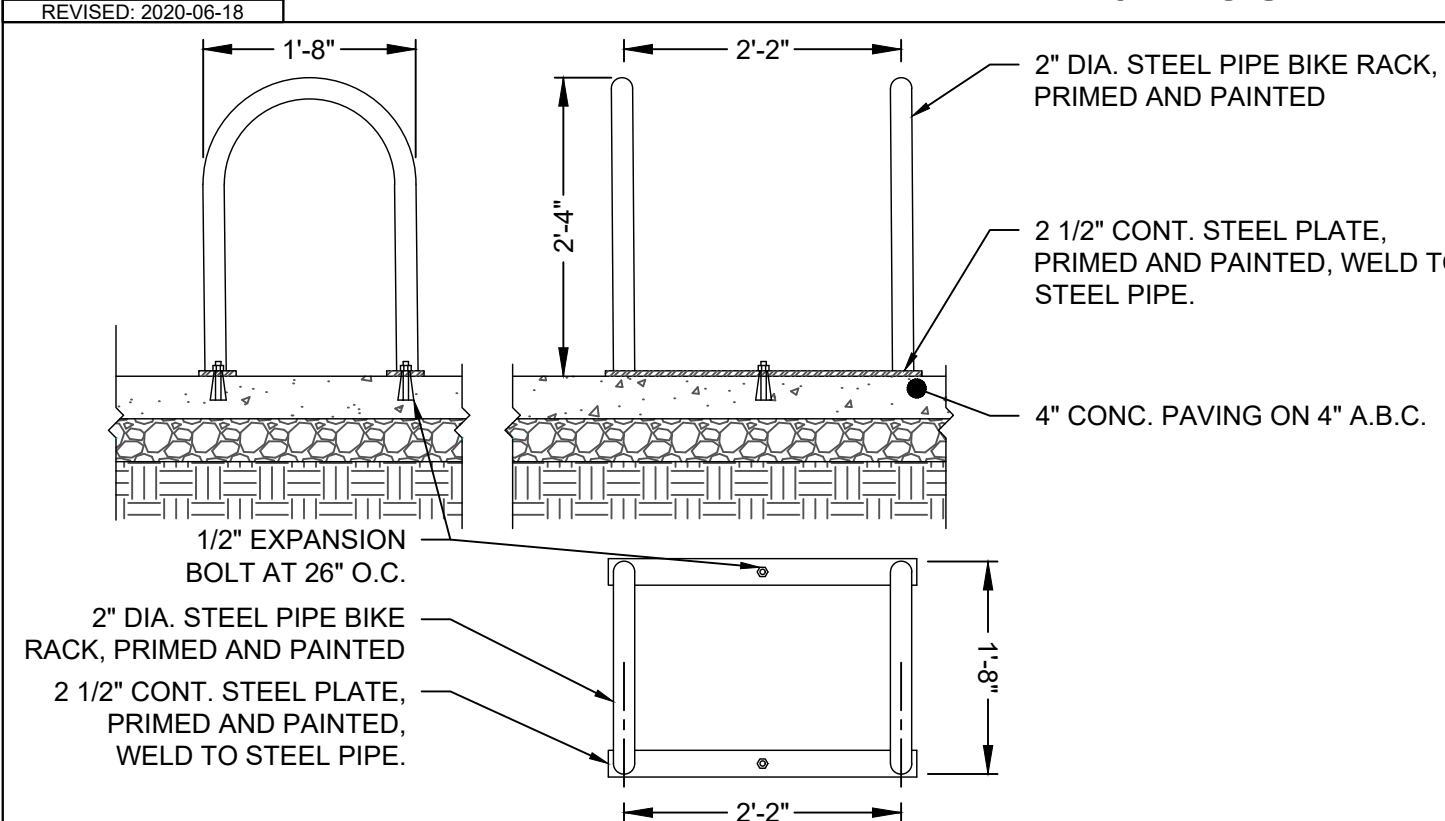
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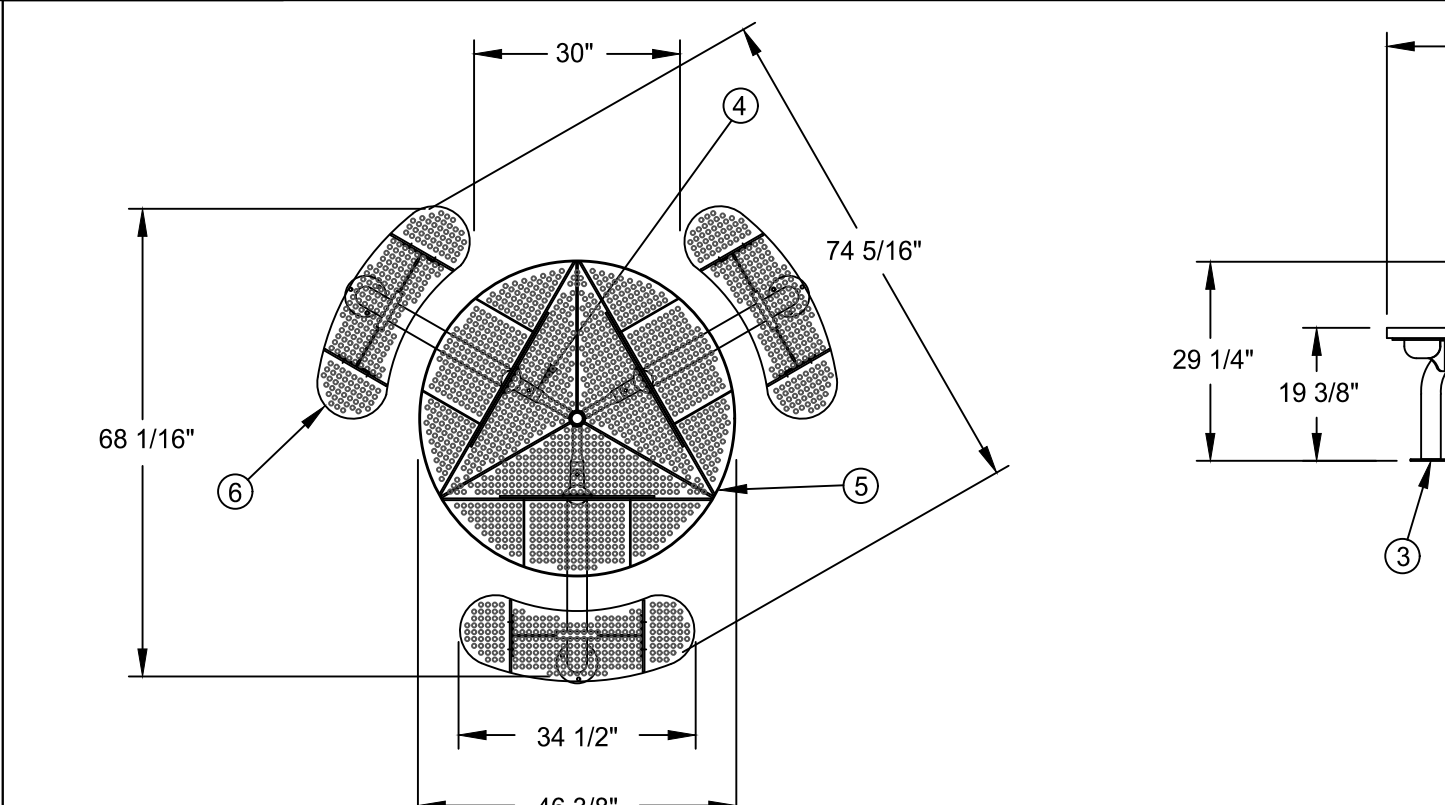
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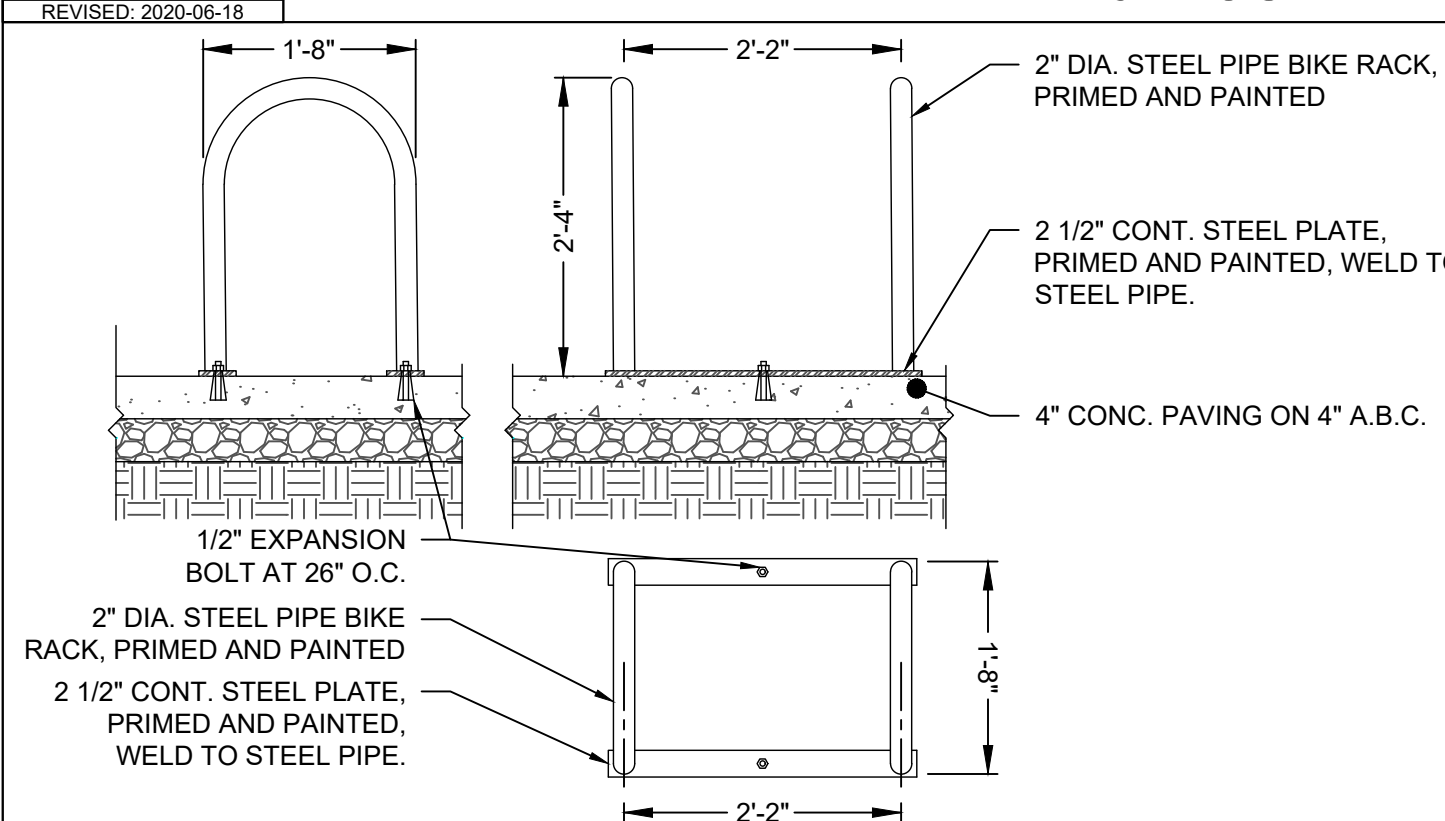
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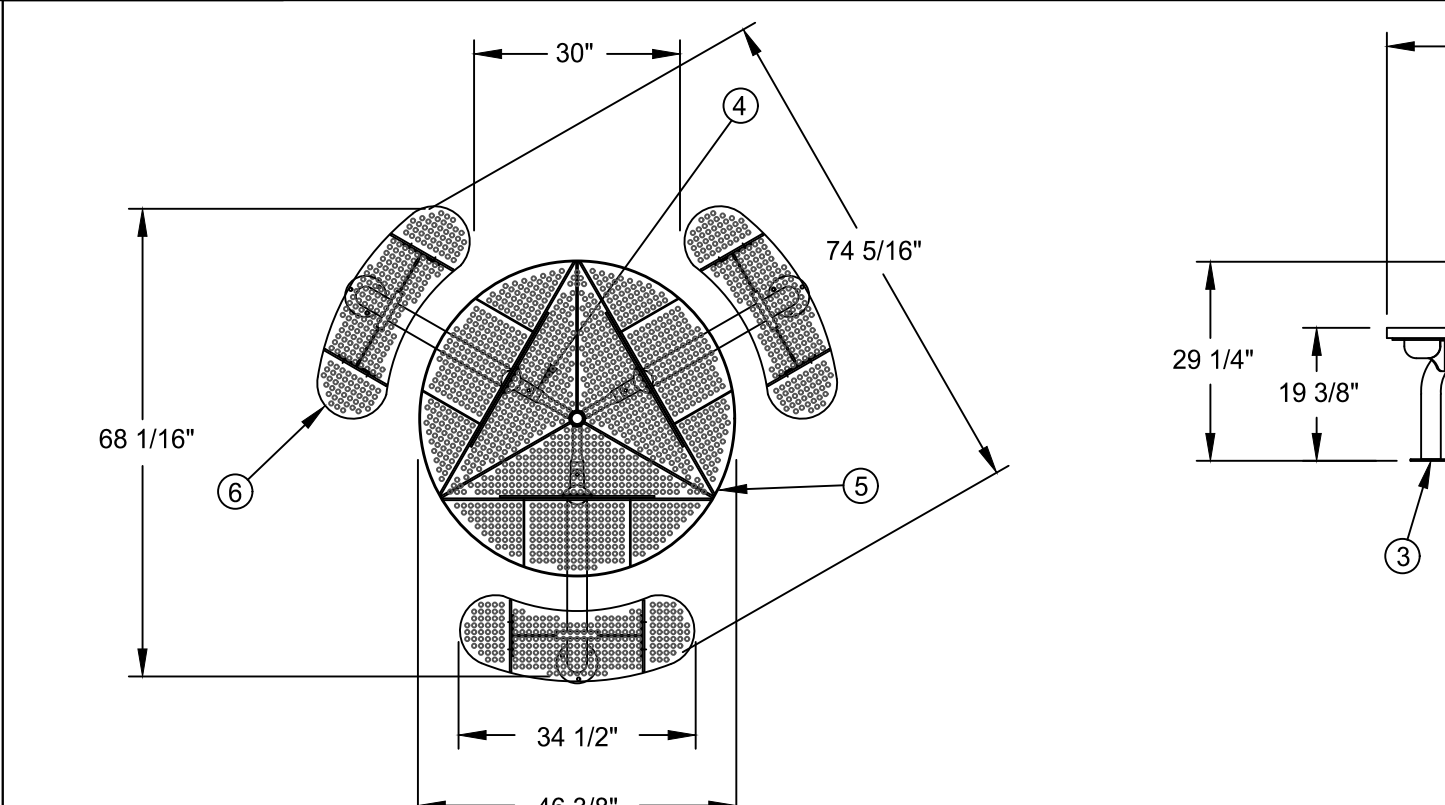
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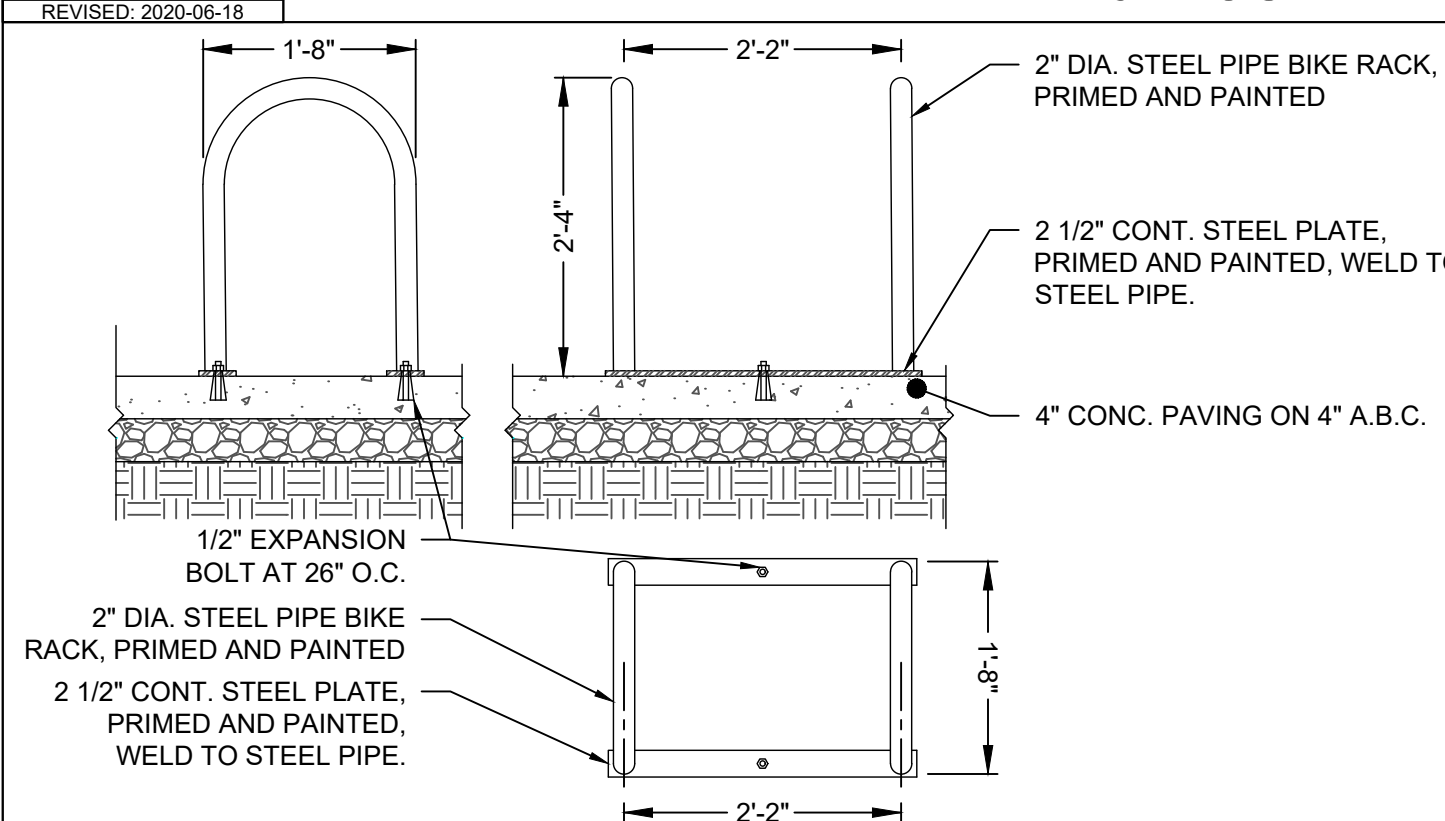
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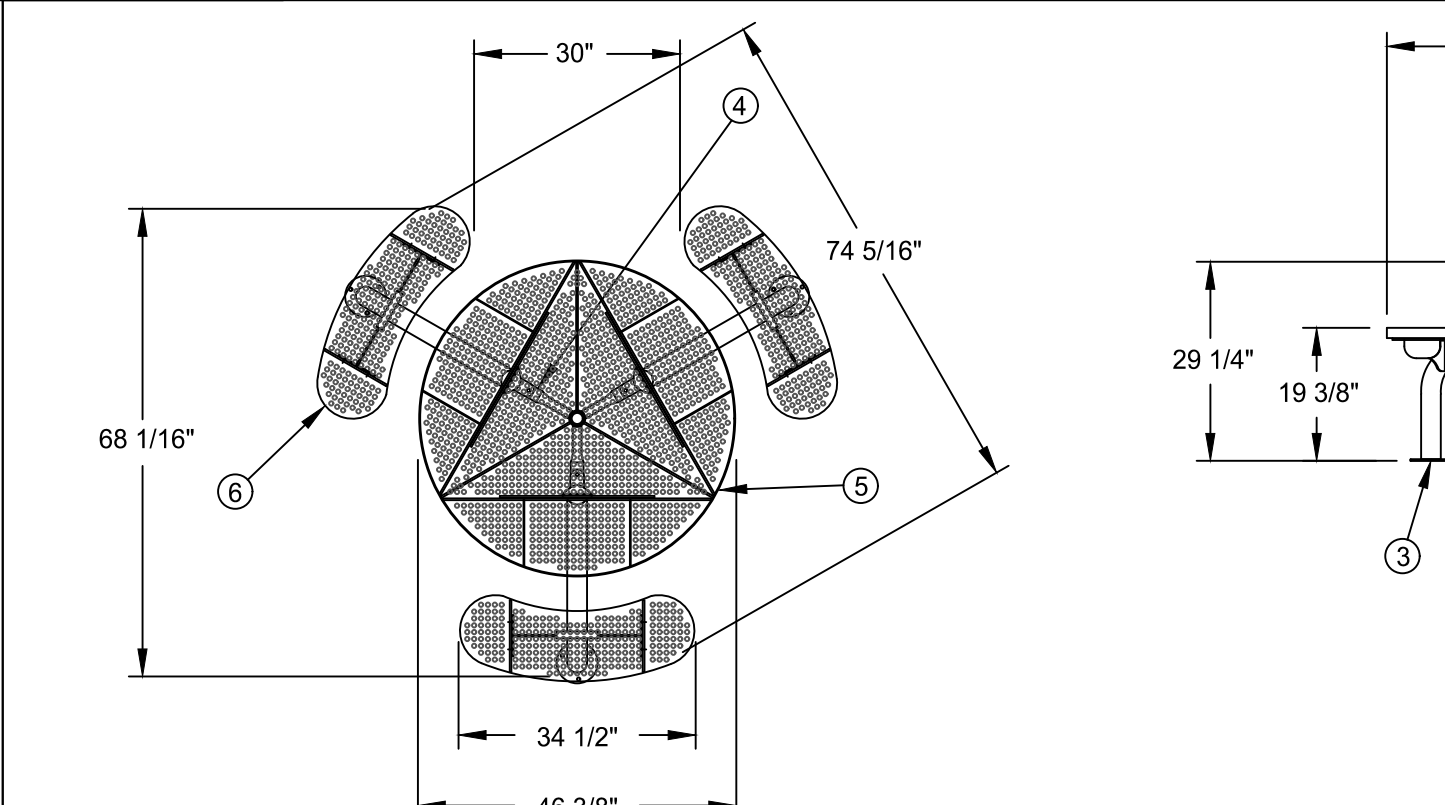
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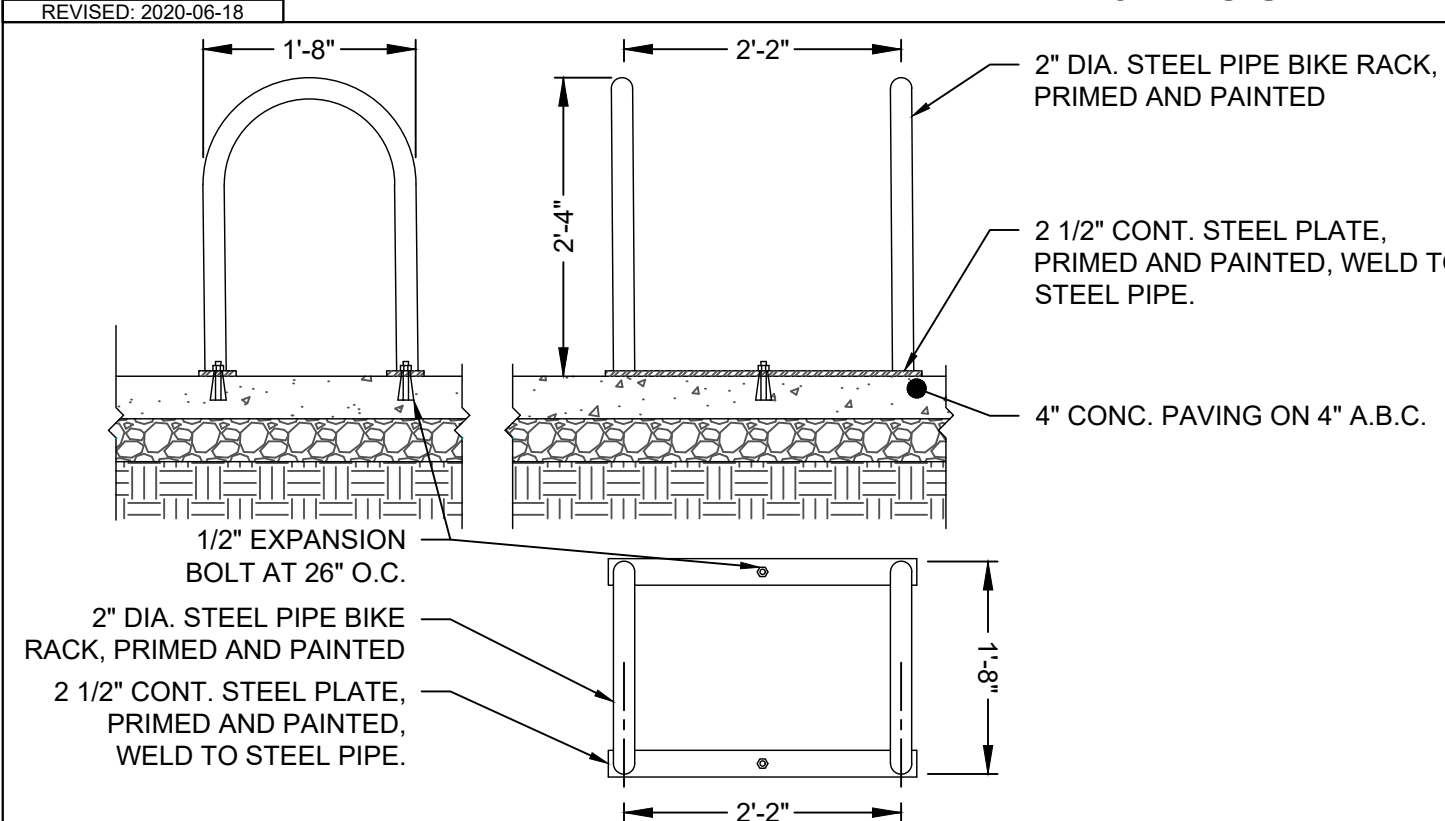
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  - ALL DIMENSIONS AFTER TO PLASTISOL COATING.
  - DO NOT SCALE DRAWING.

# CK-195  
REVISED: 2020-06-18



# CK-198  
REVISED: 2020-06-18

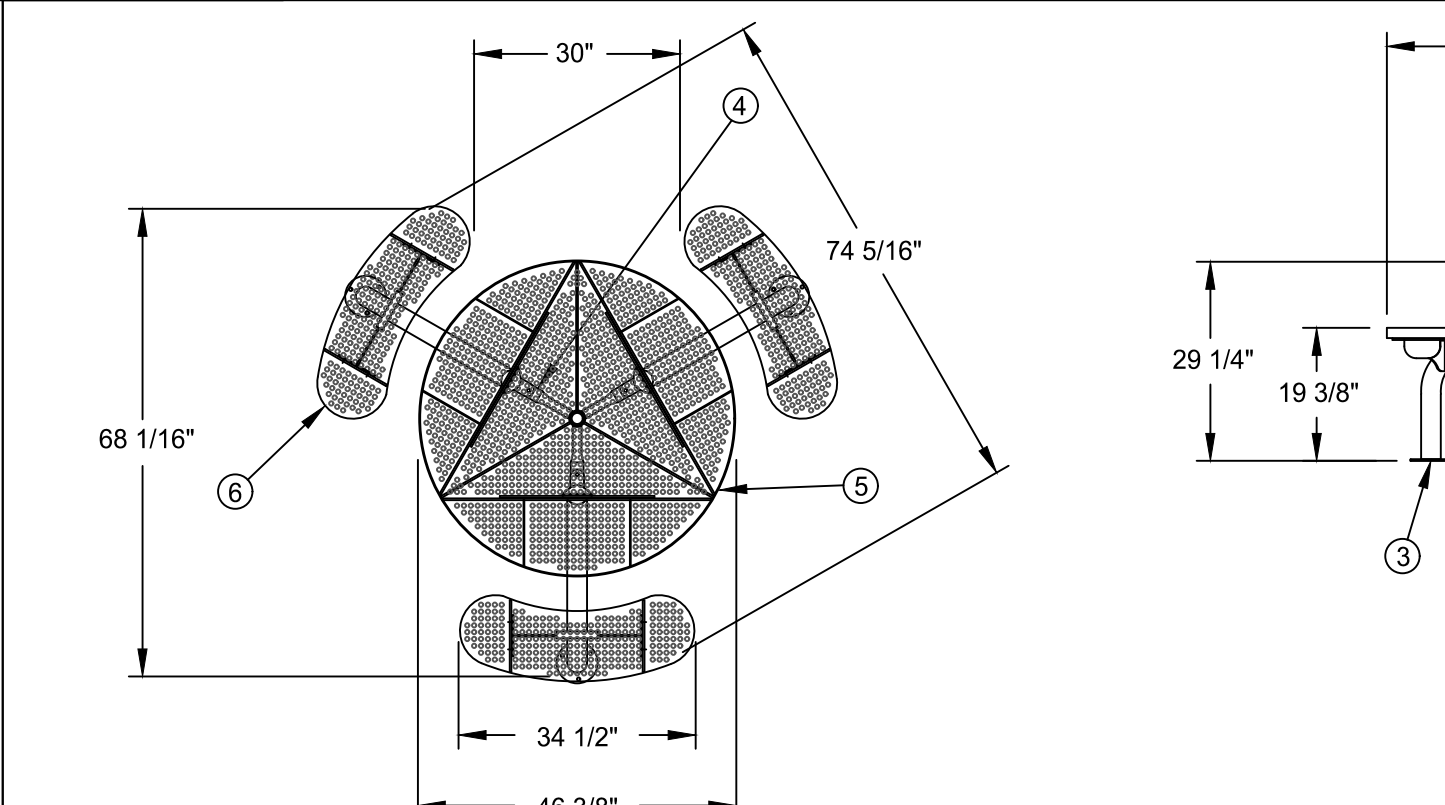
BIKE RACK DETAIL (TYPICAL OF 2)  
NOT TO SCALE

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS

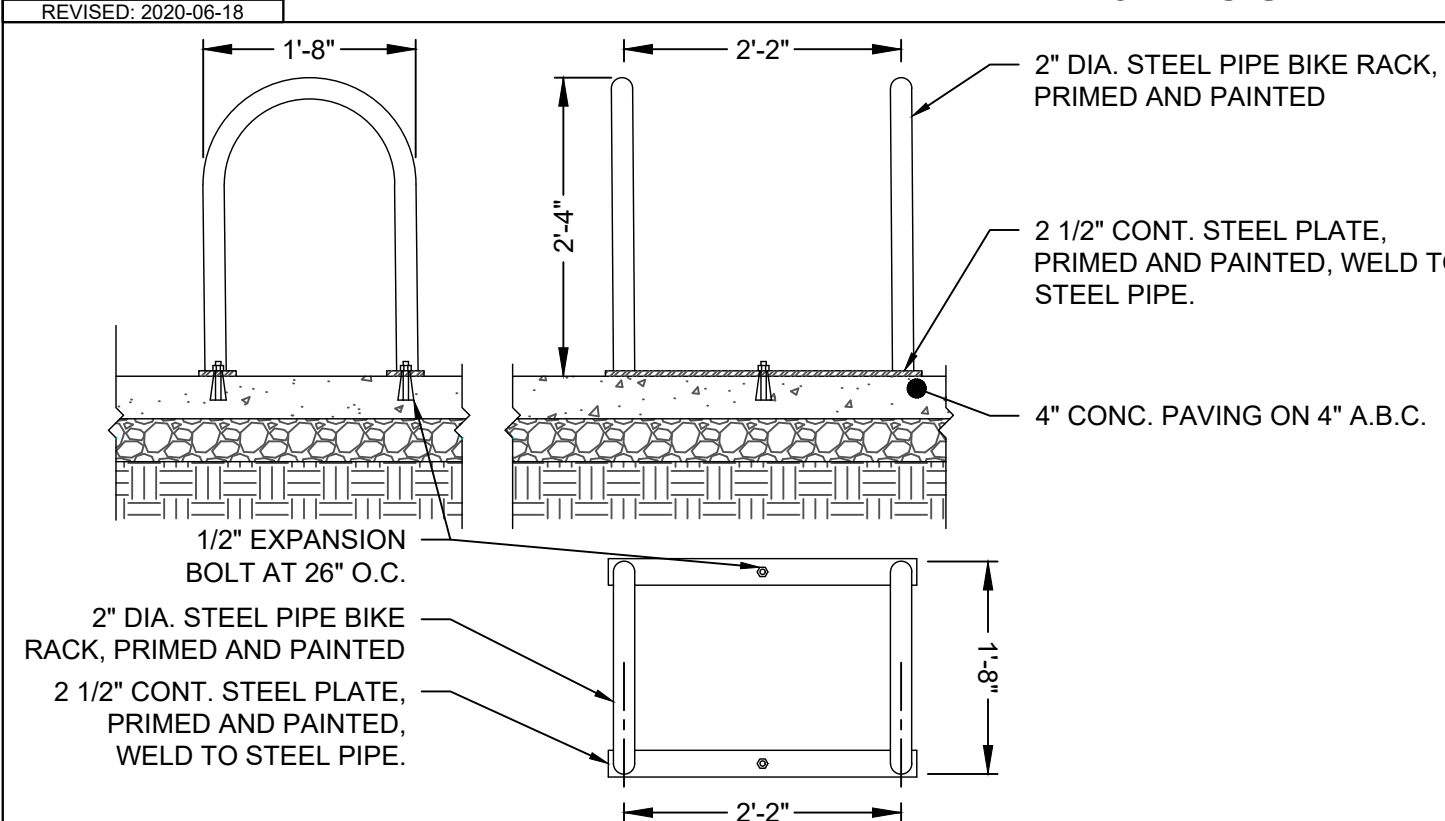
# CK-185  
REVISED: 2020-06-18

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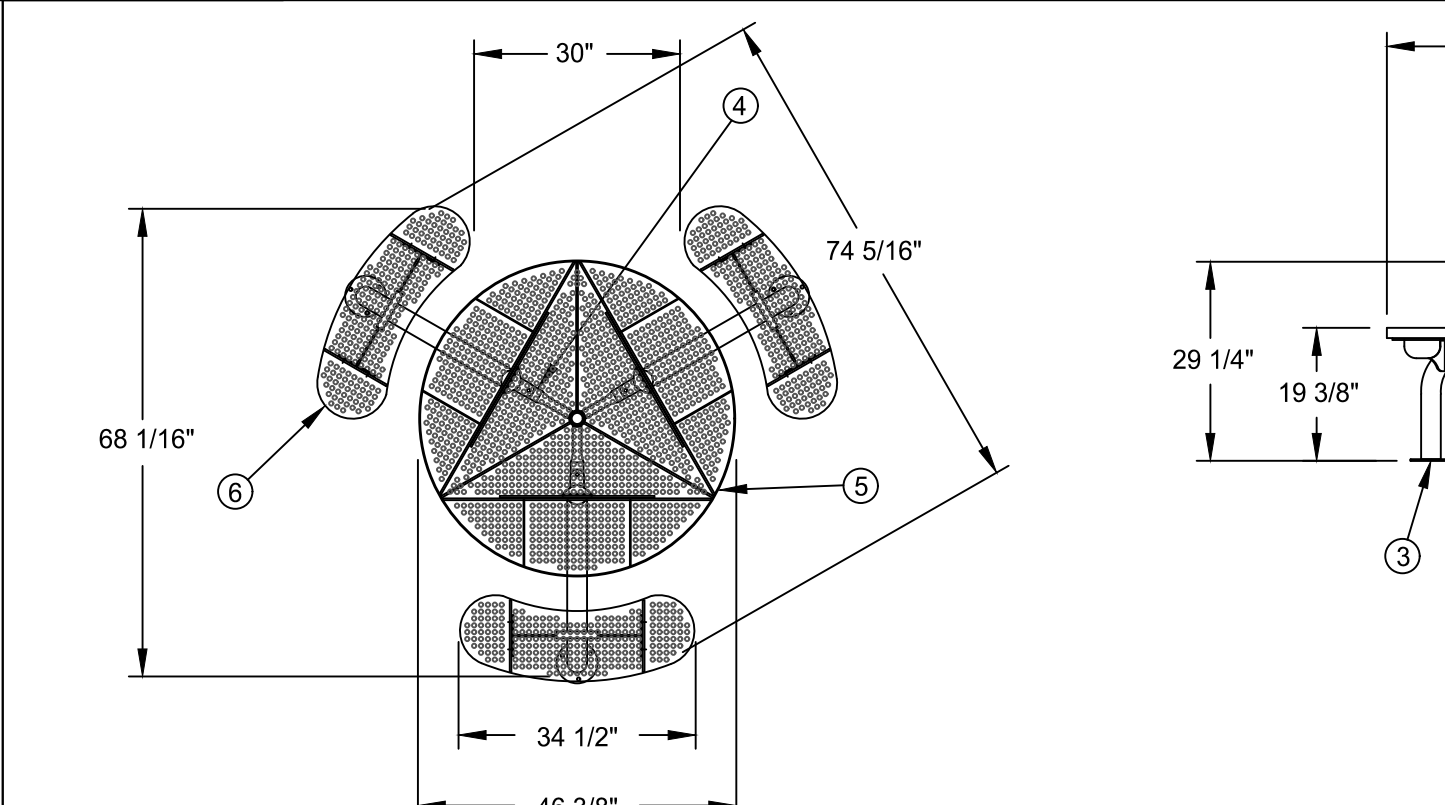
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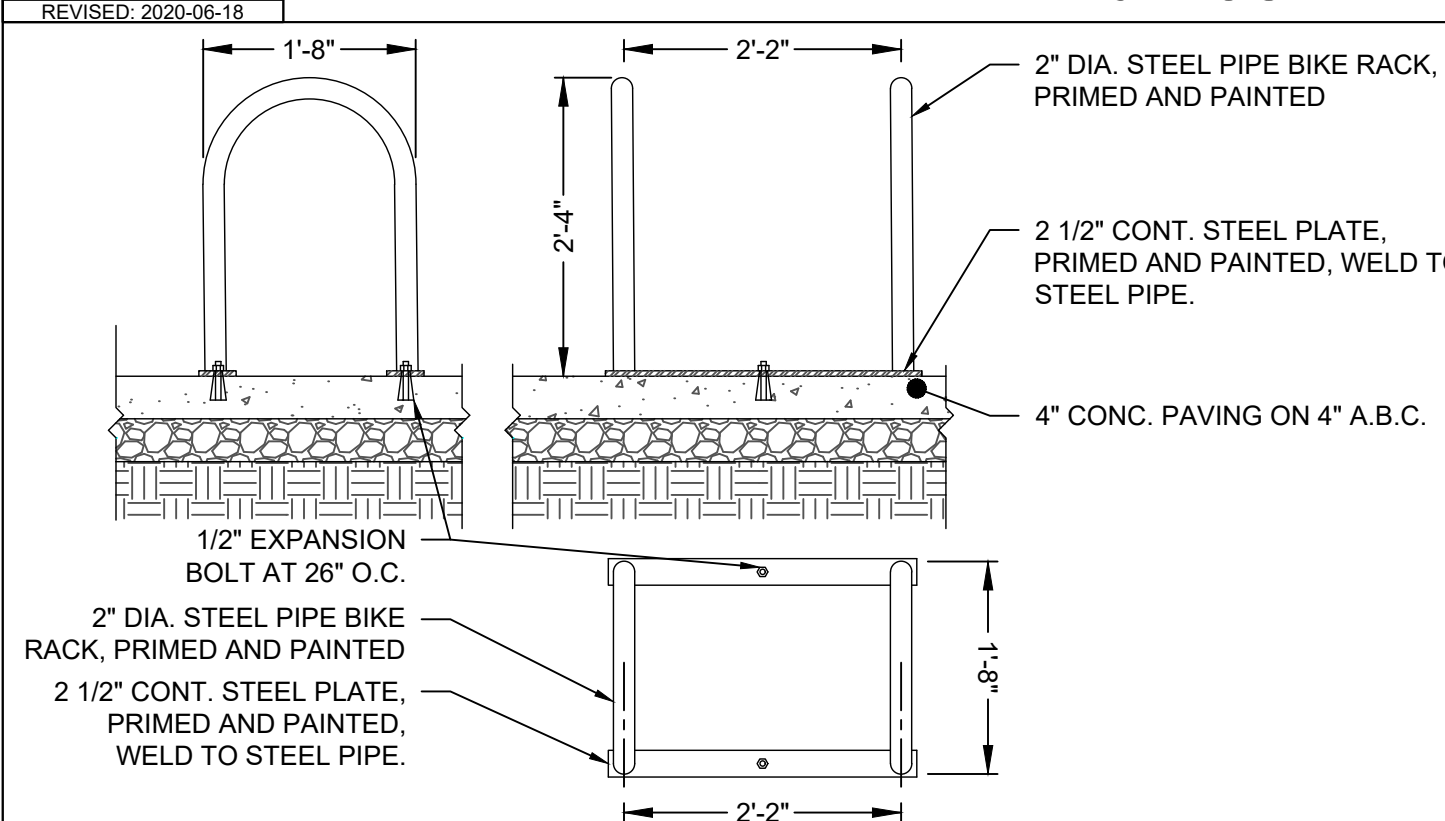
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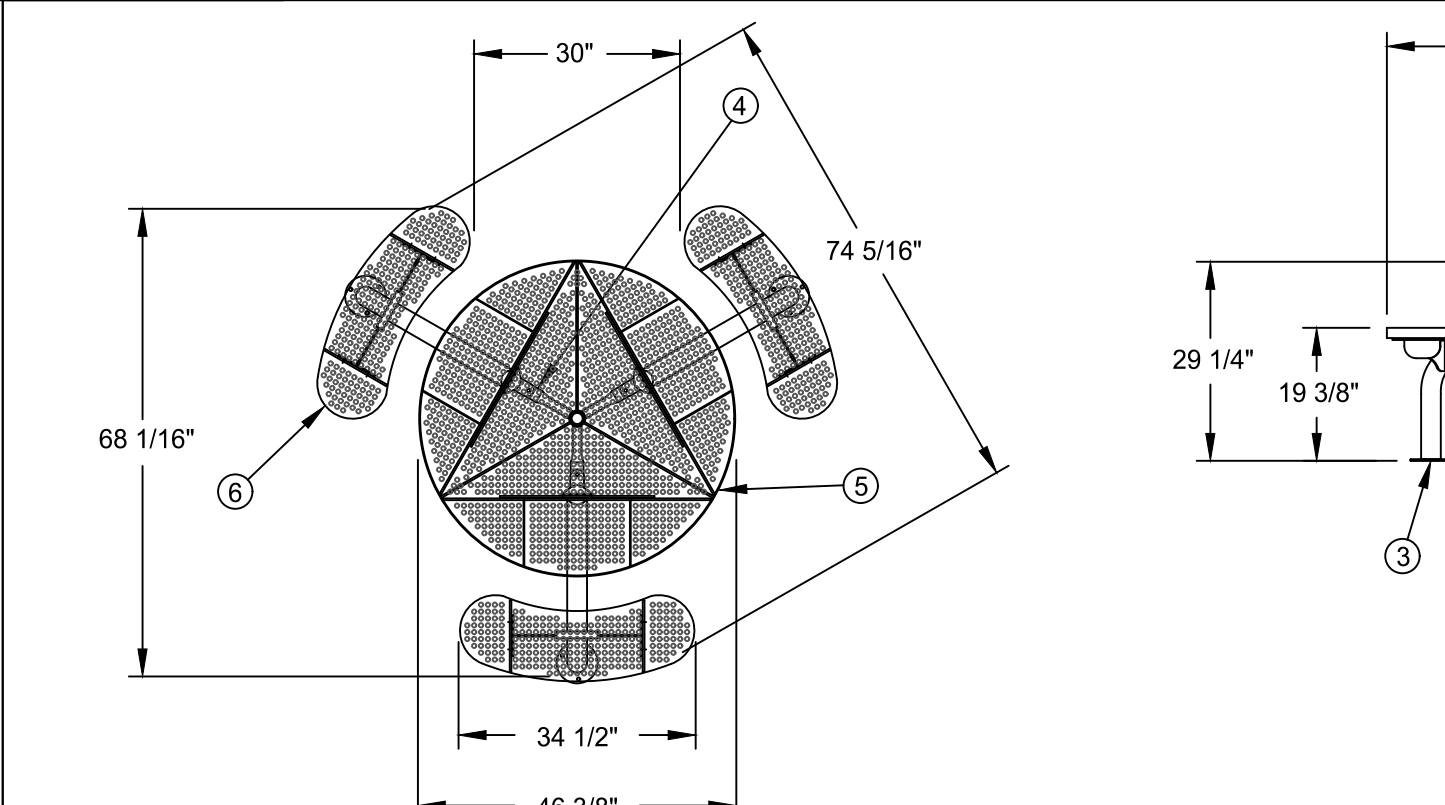
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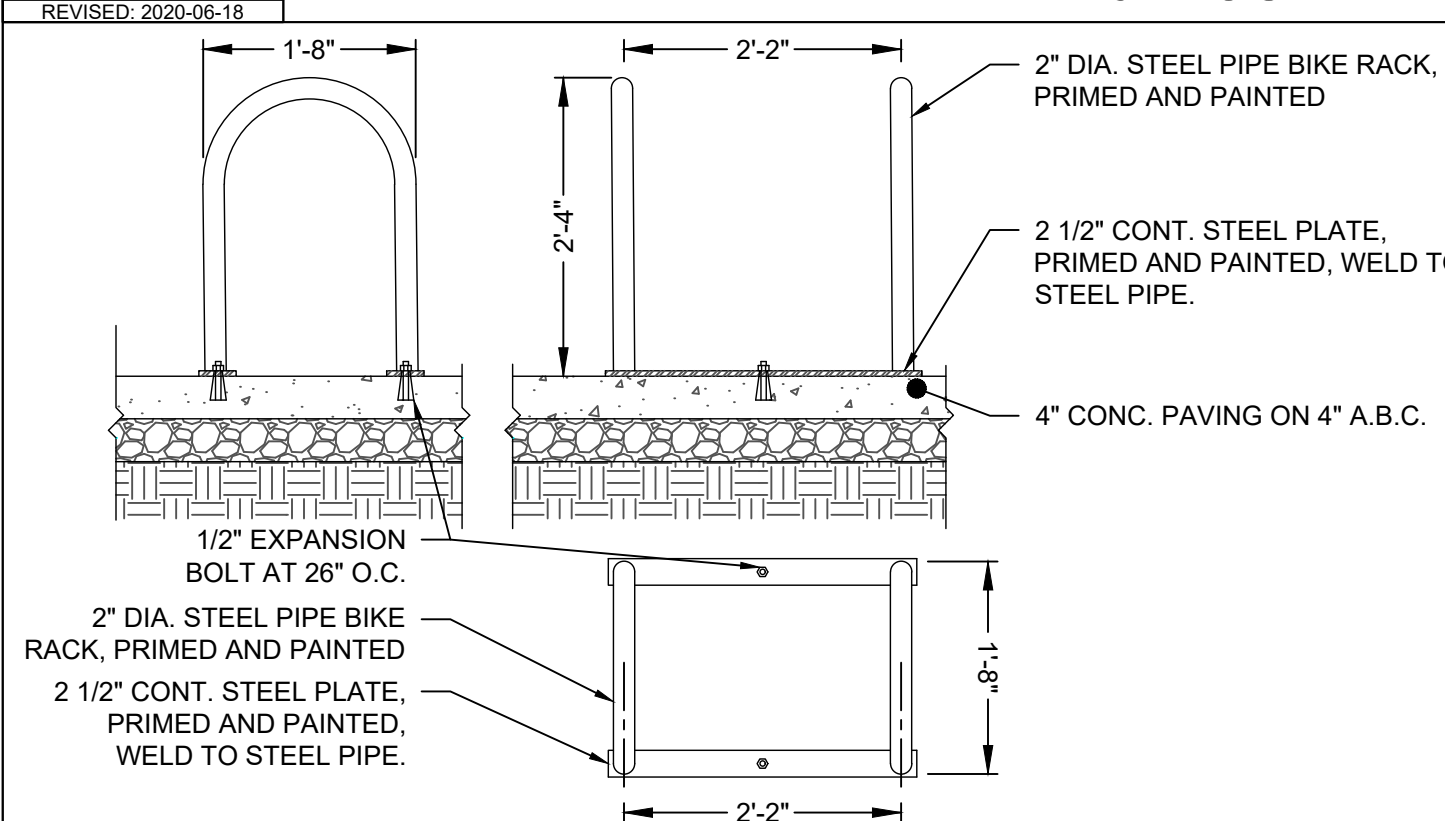
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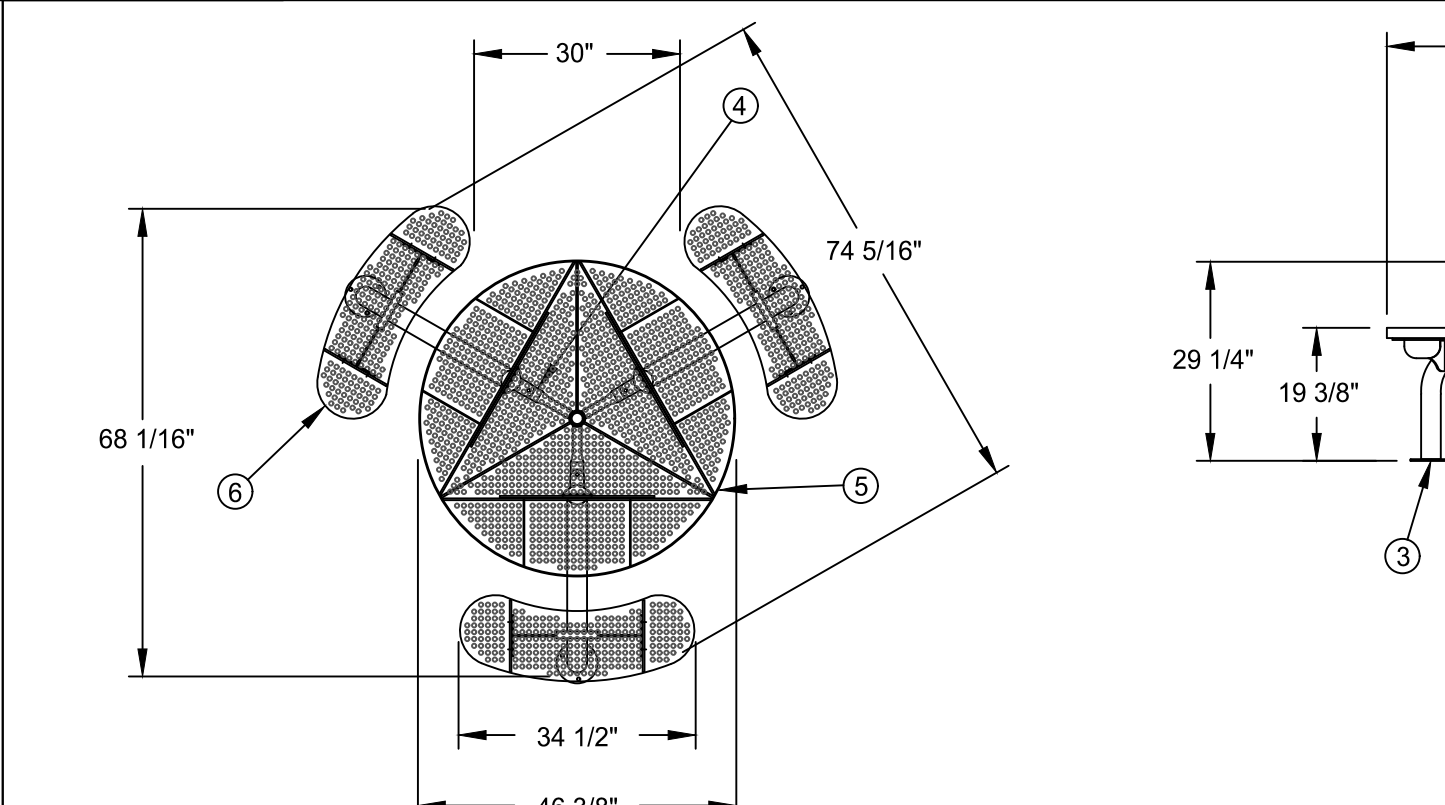
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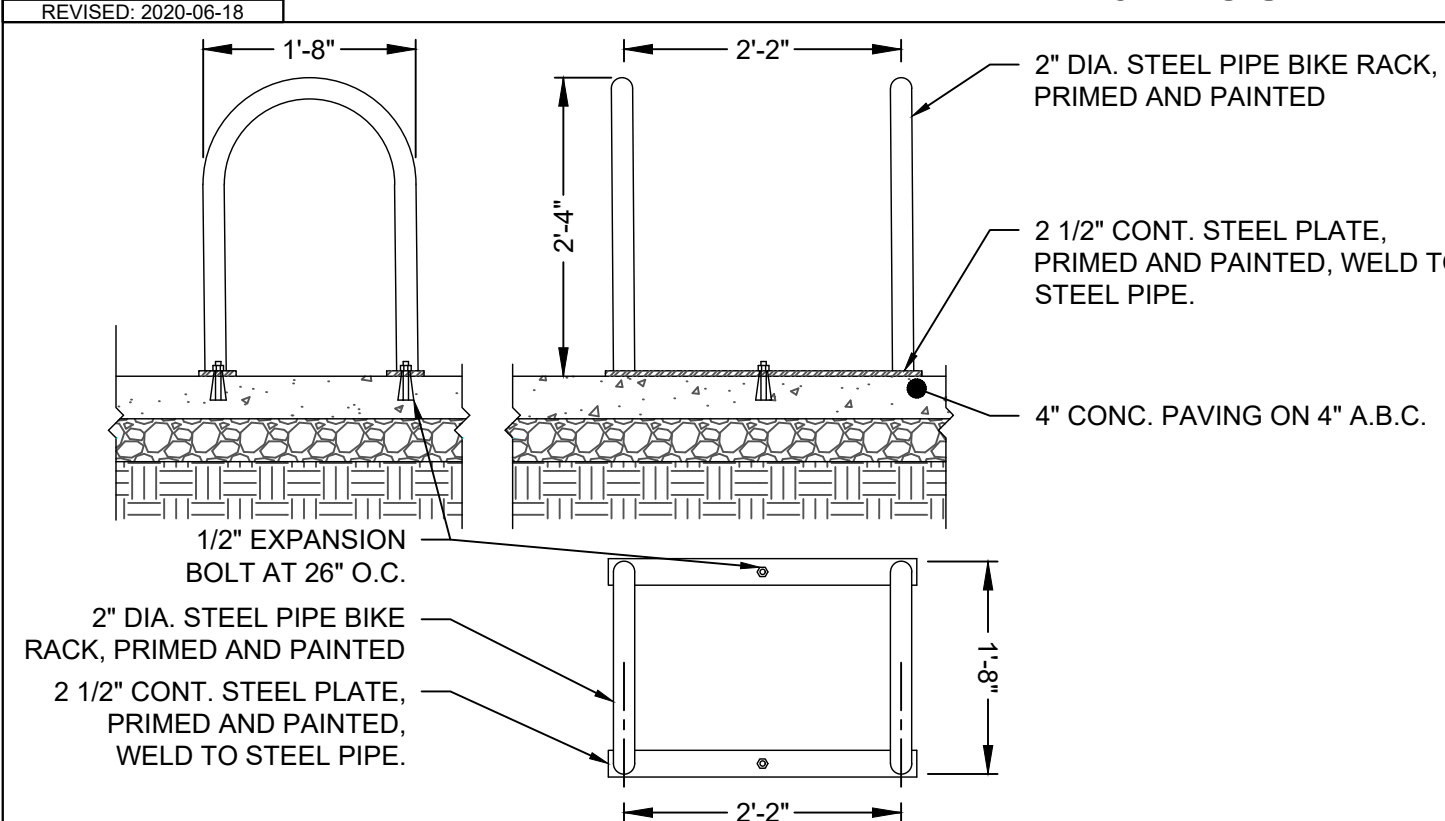
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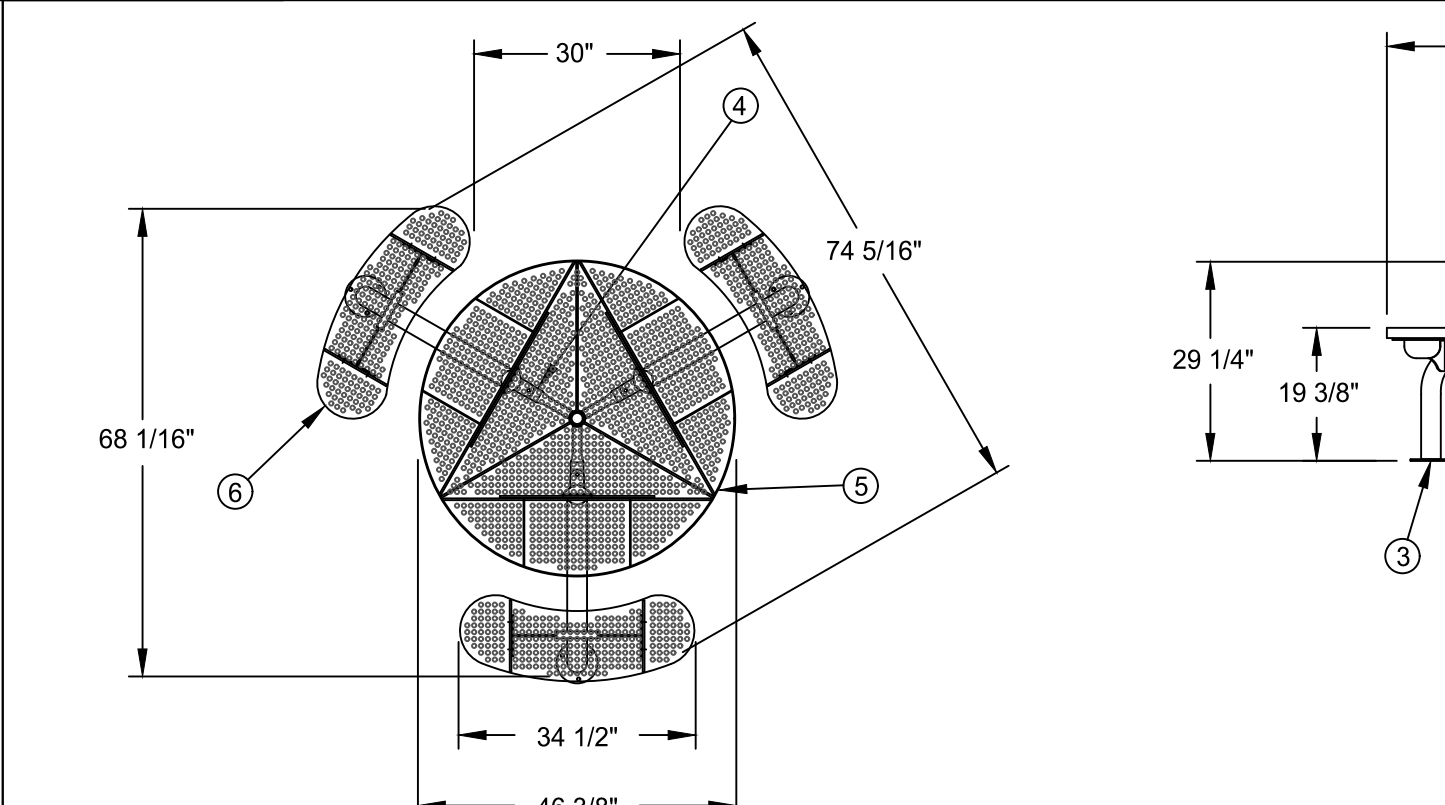
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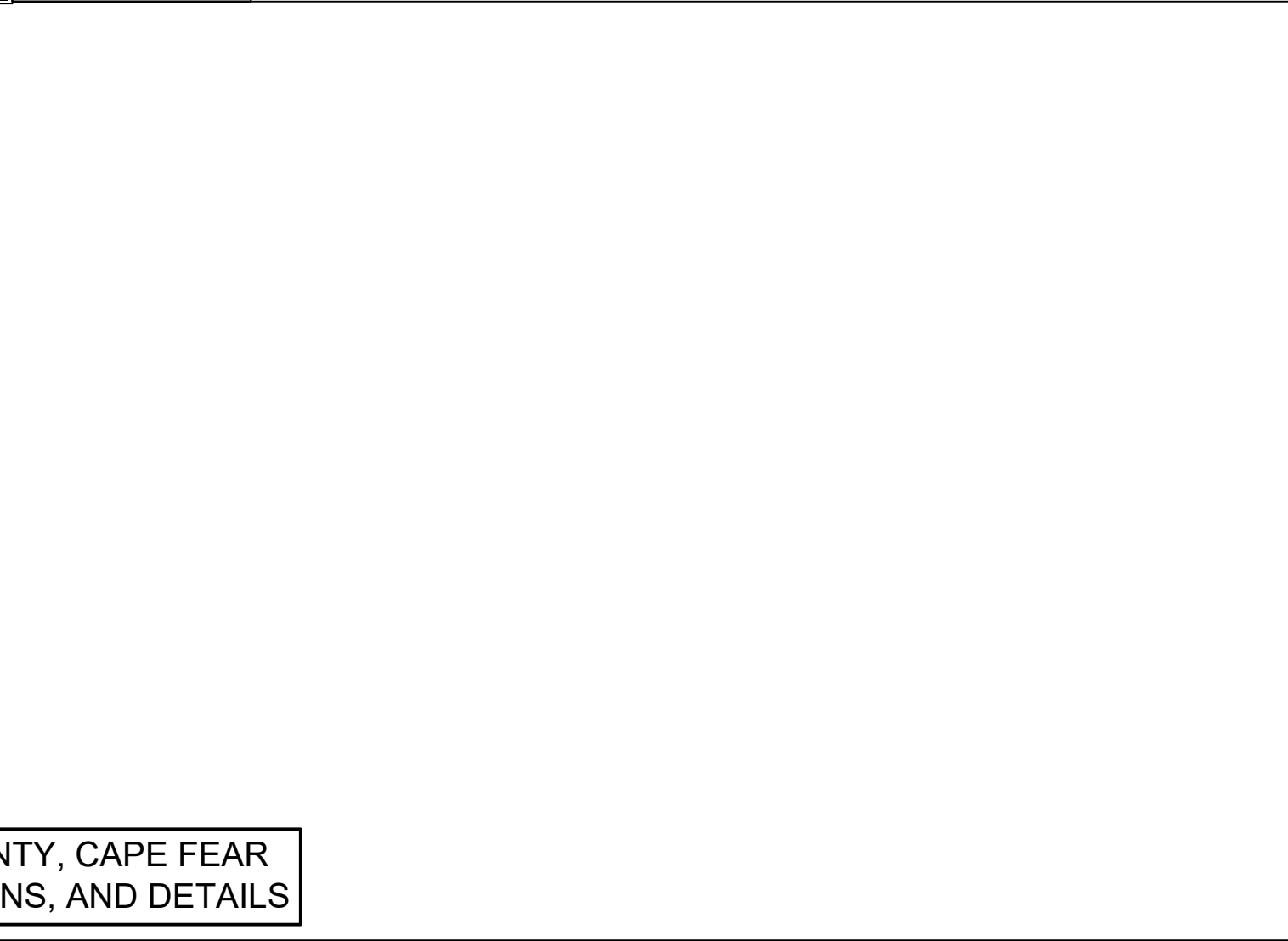
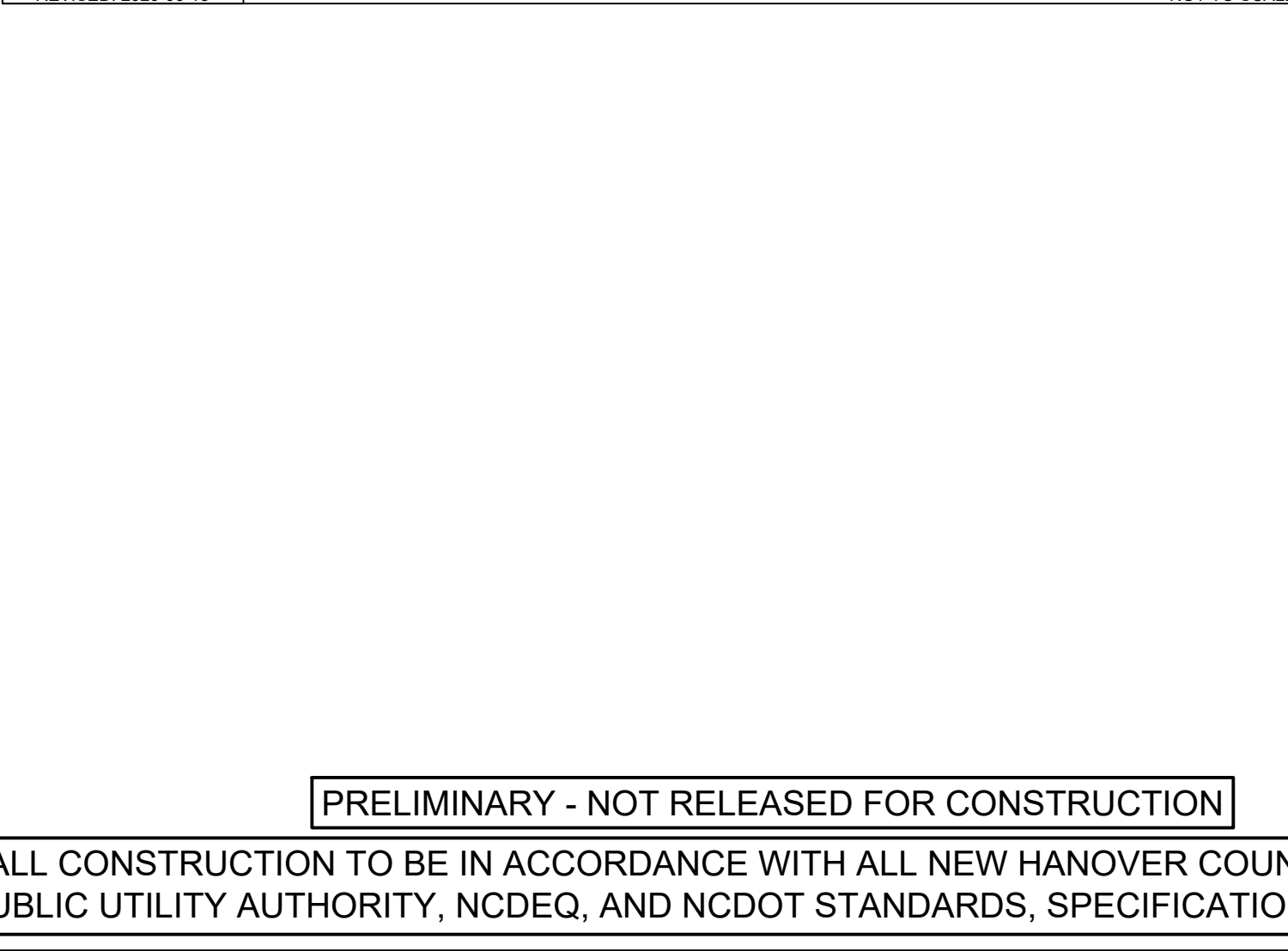
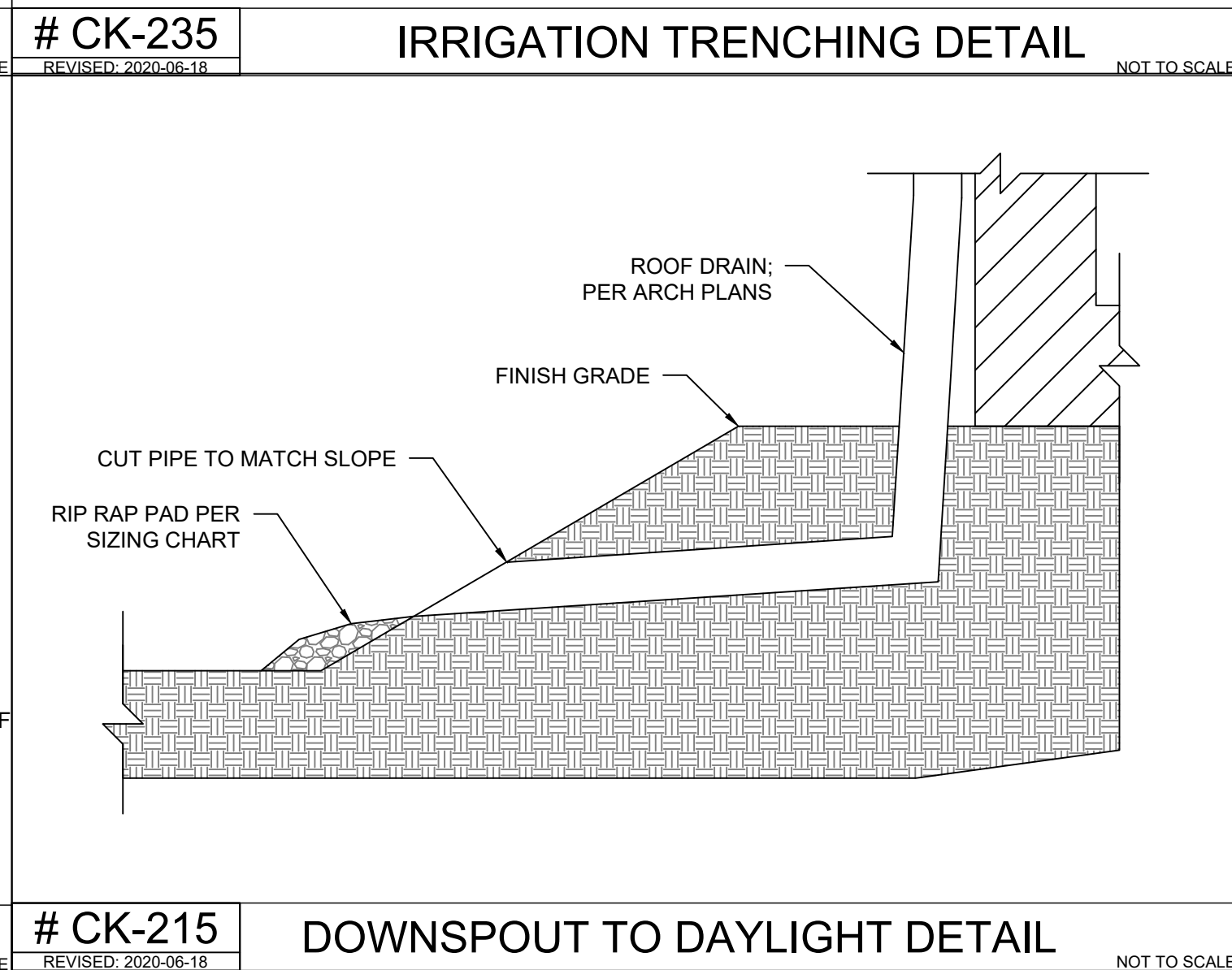
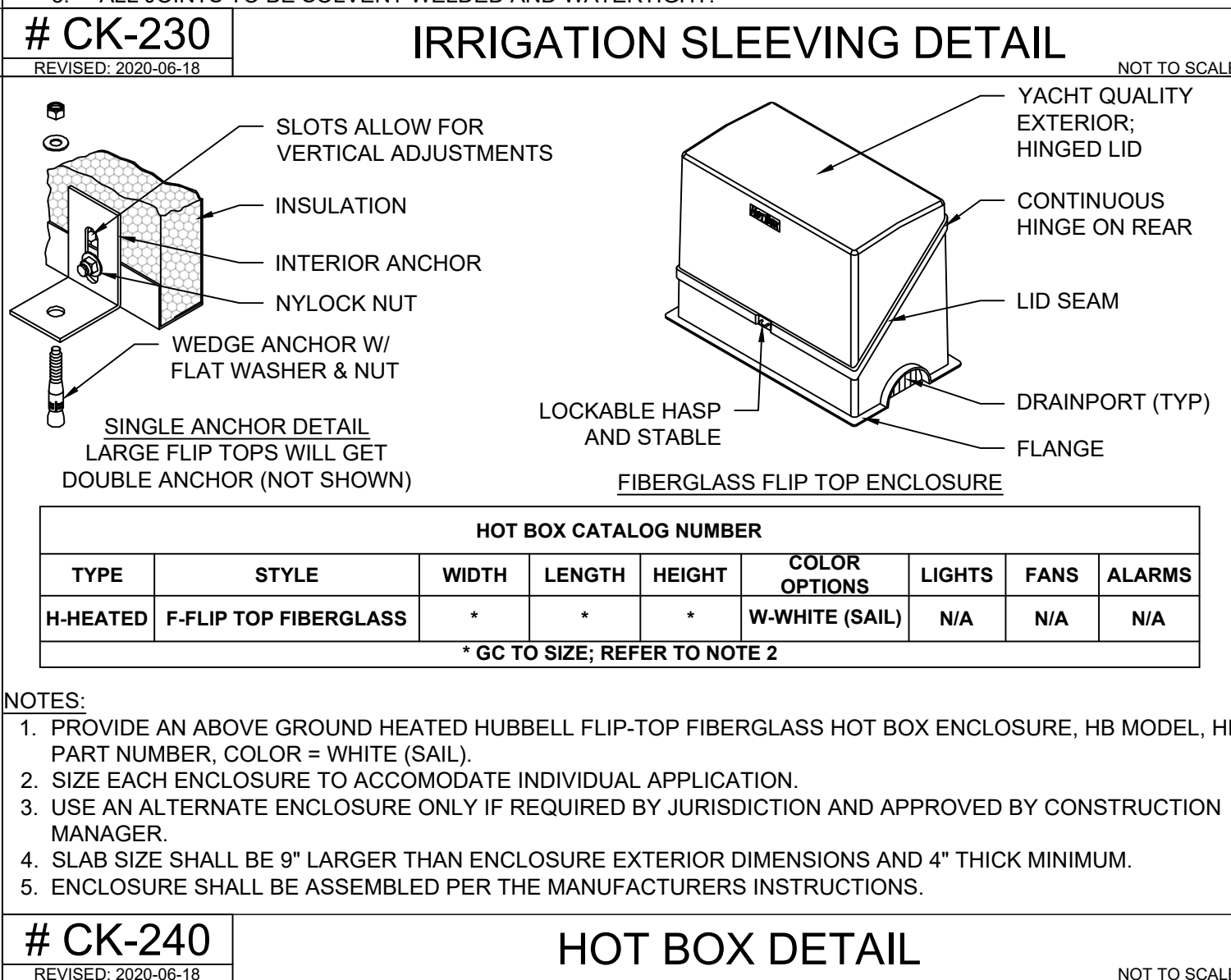
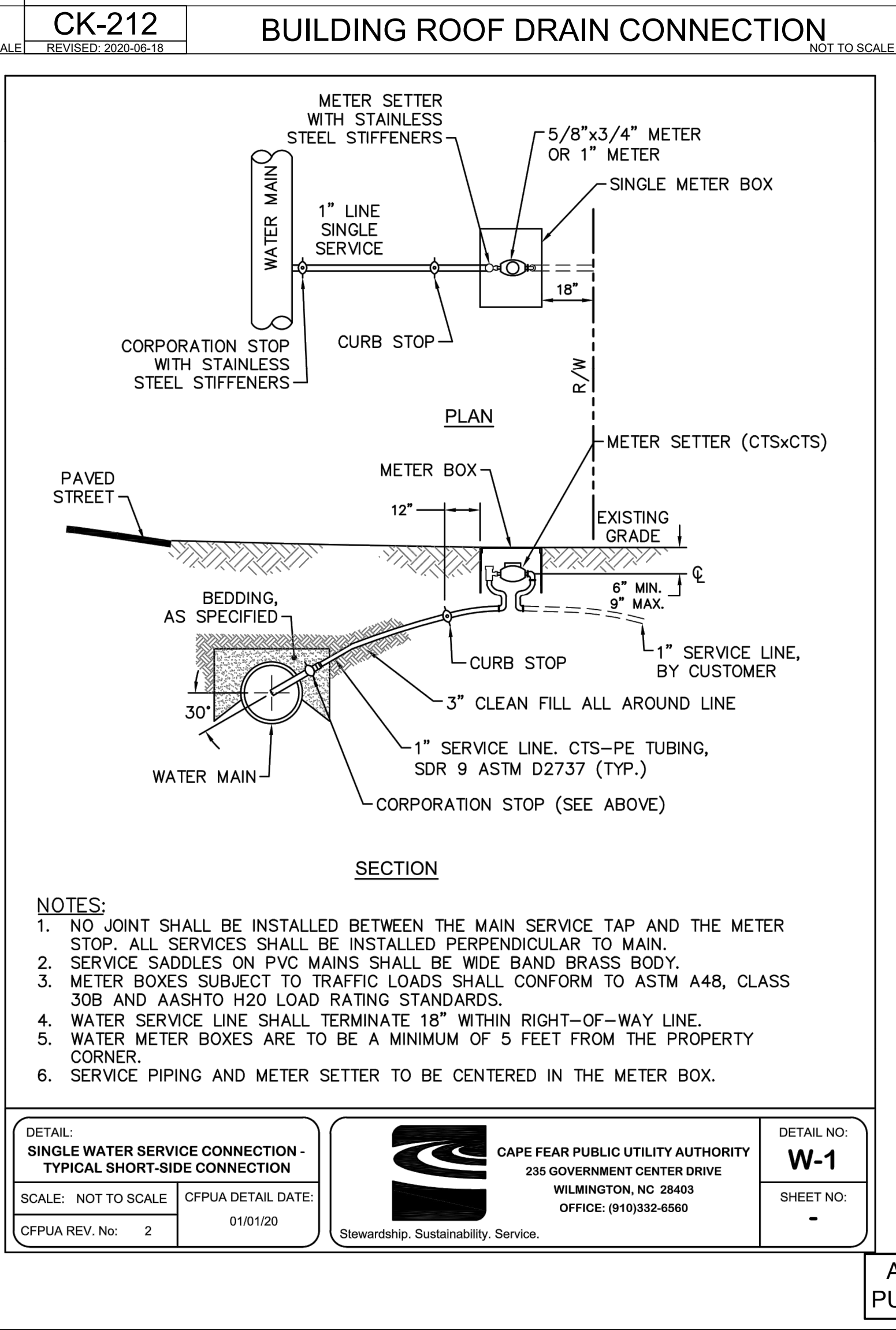
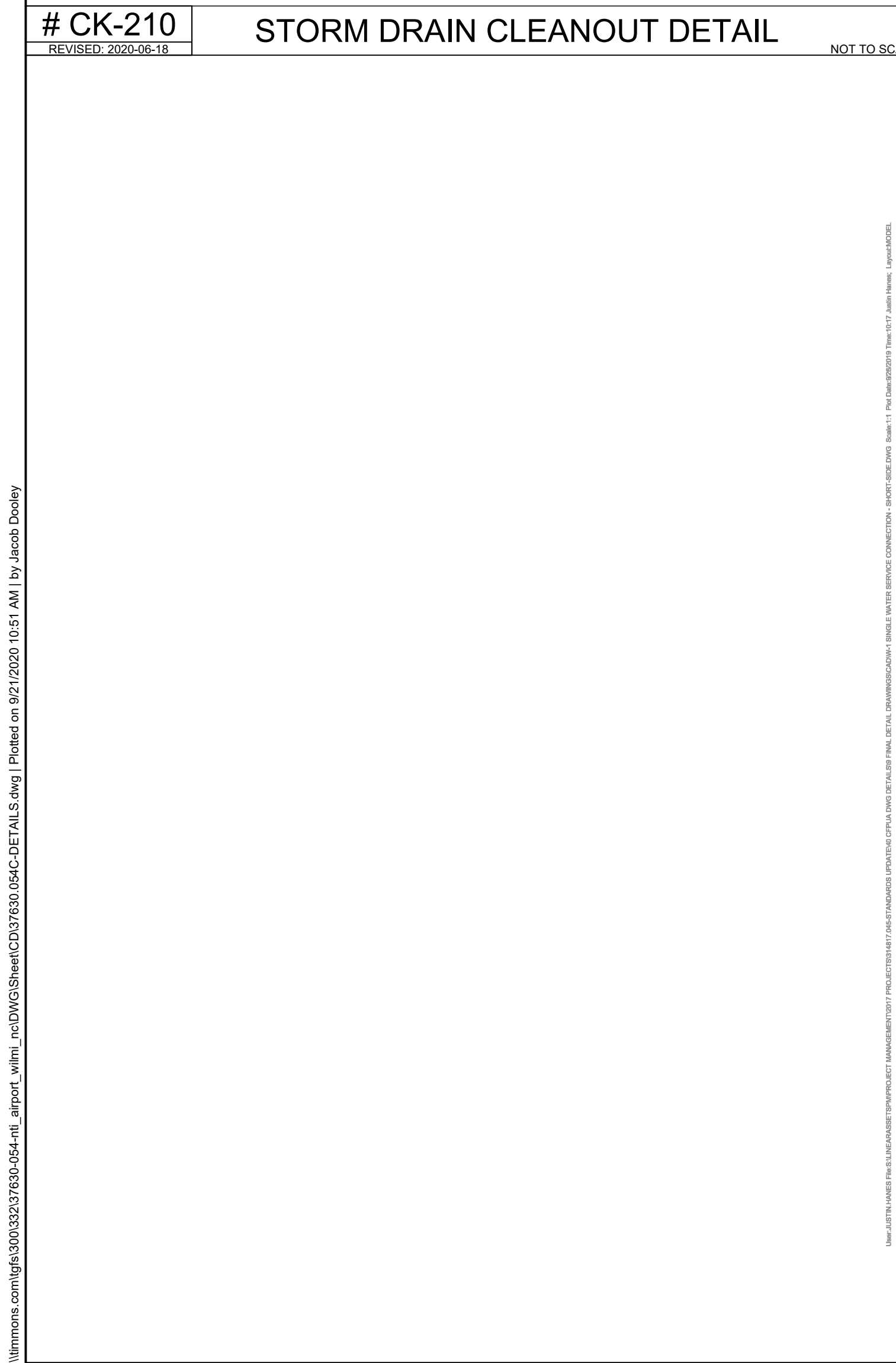
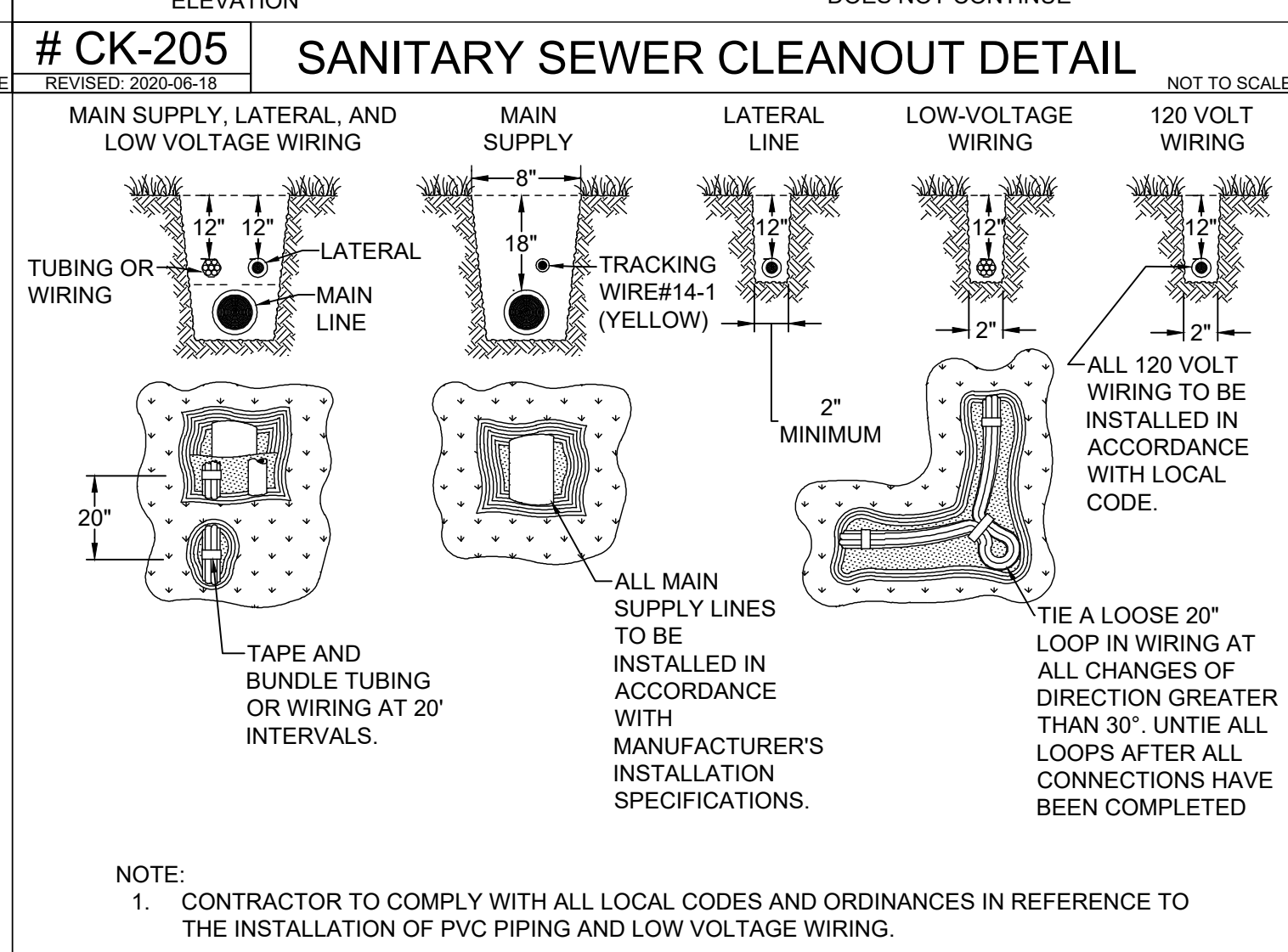
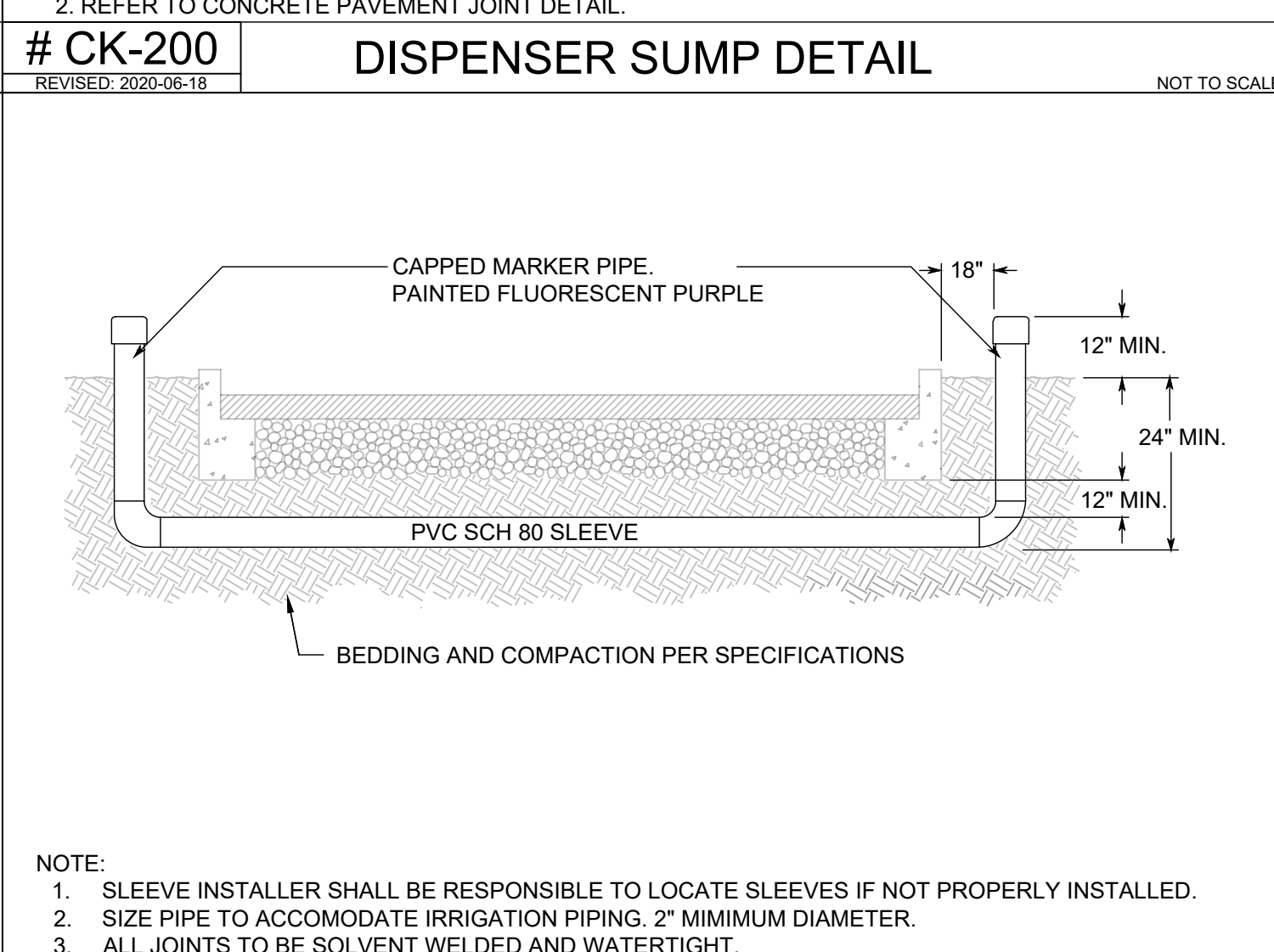
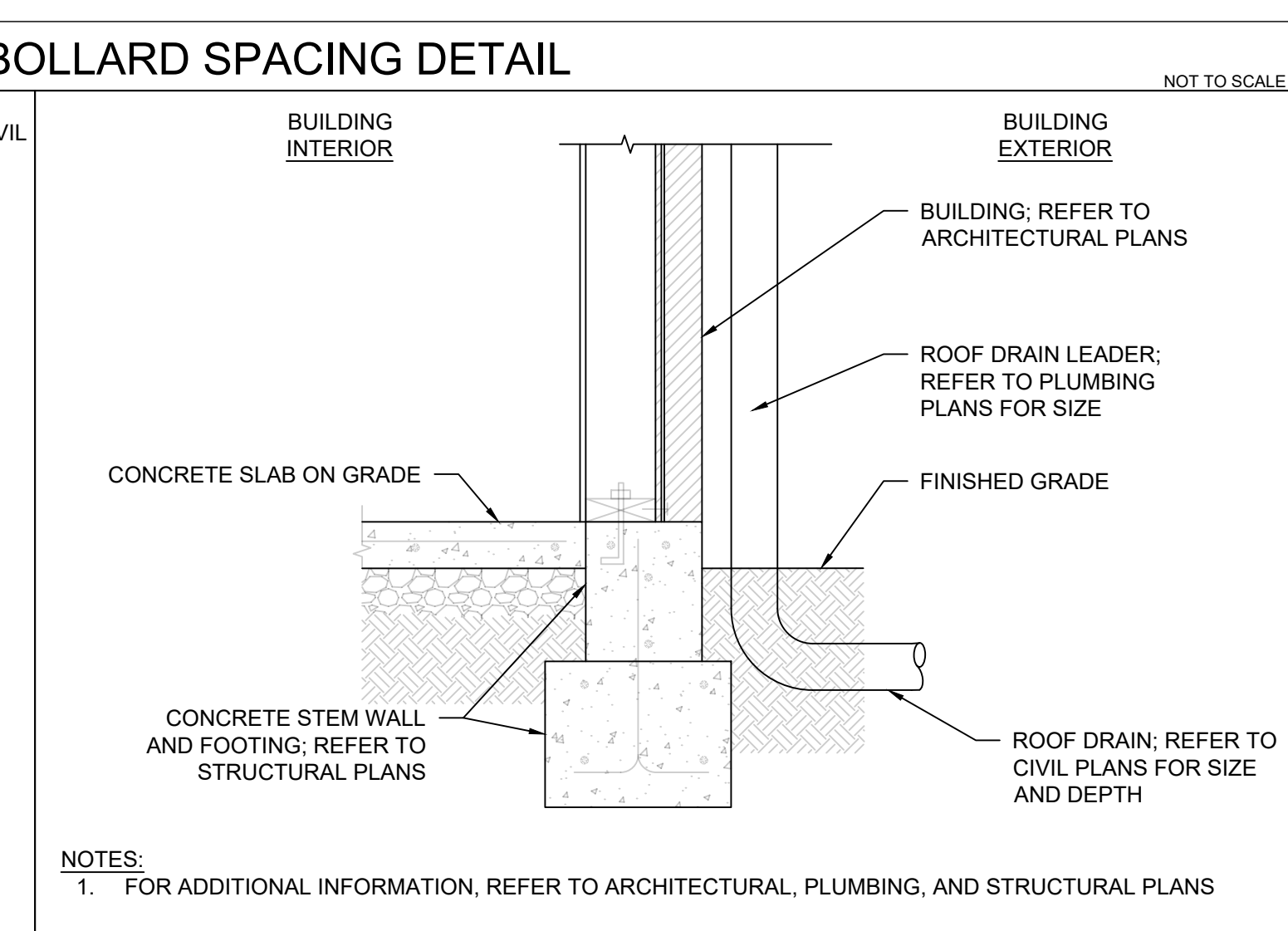
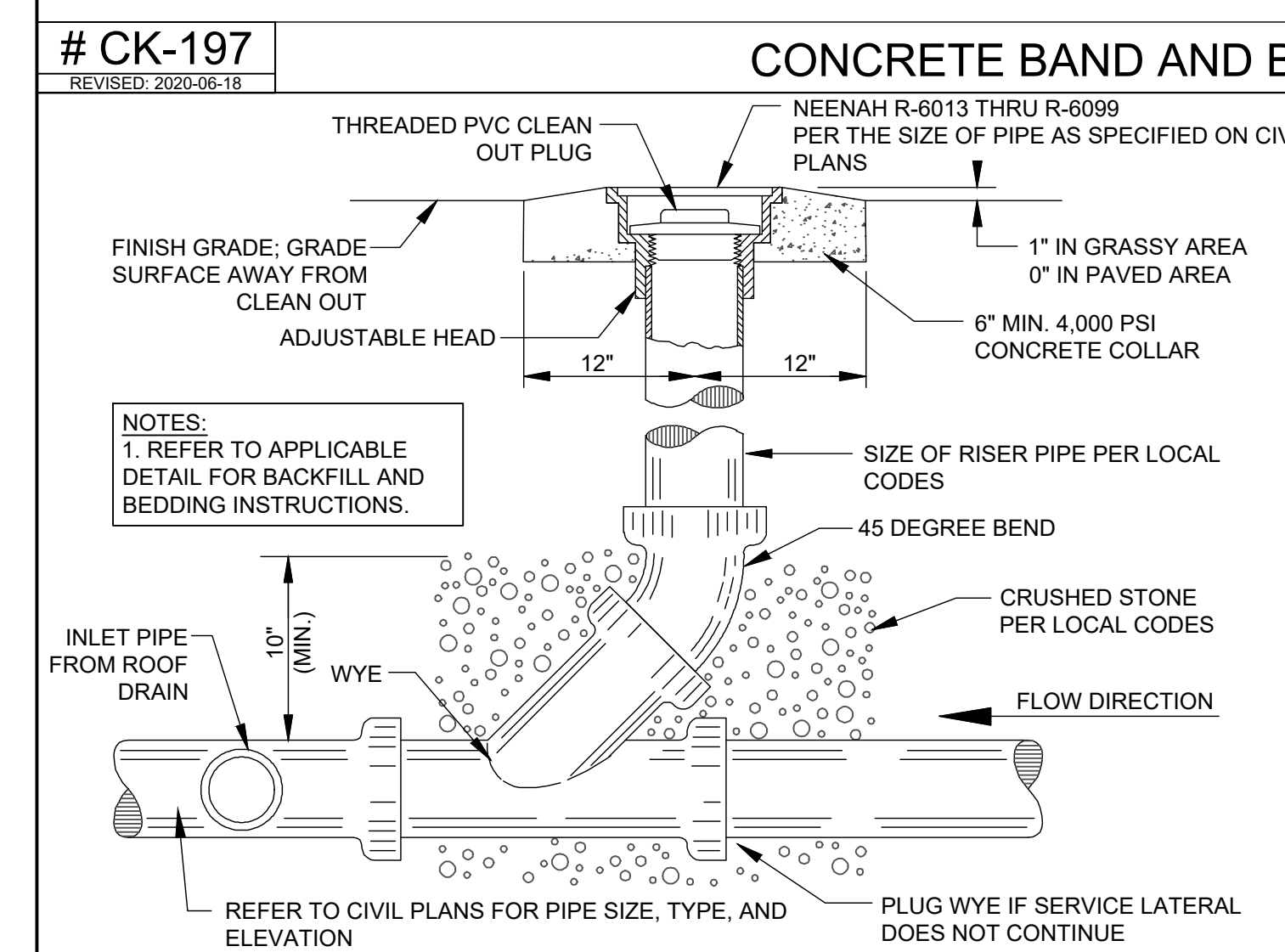
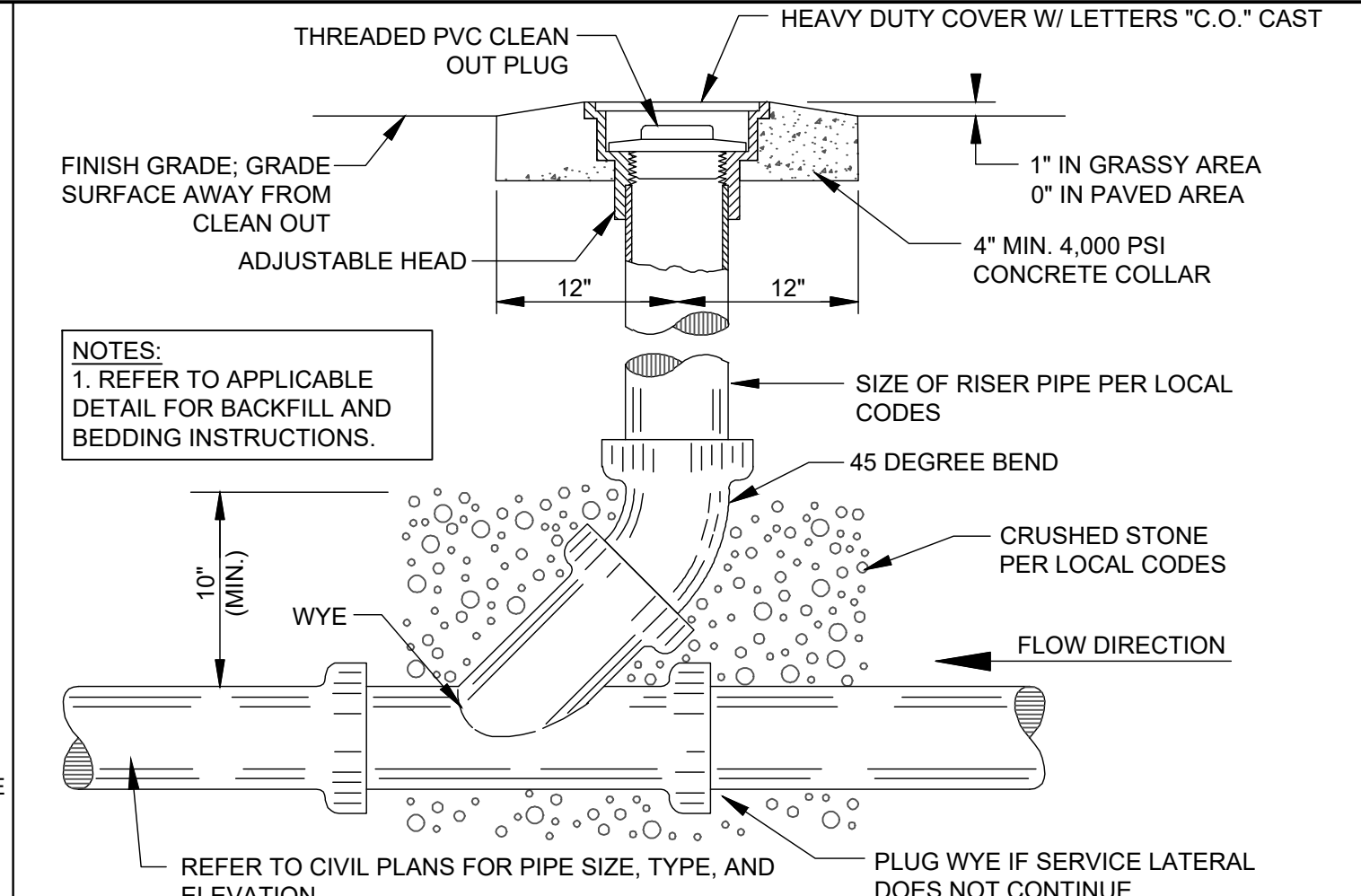
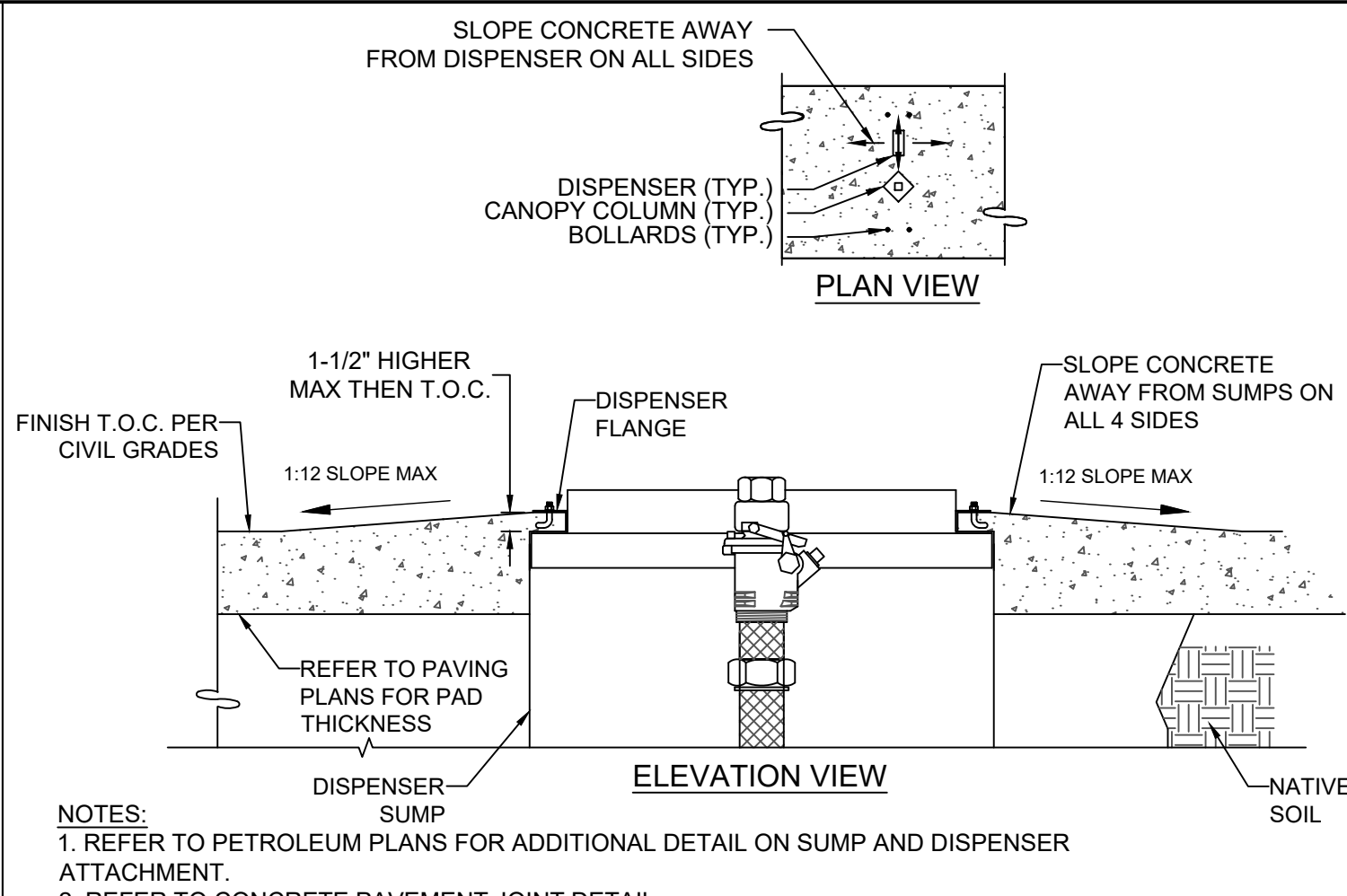
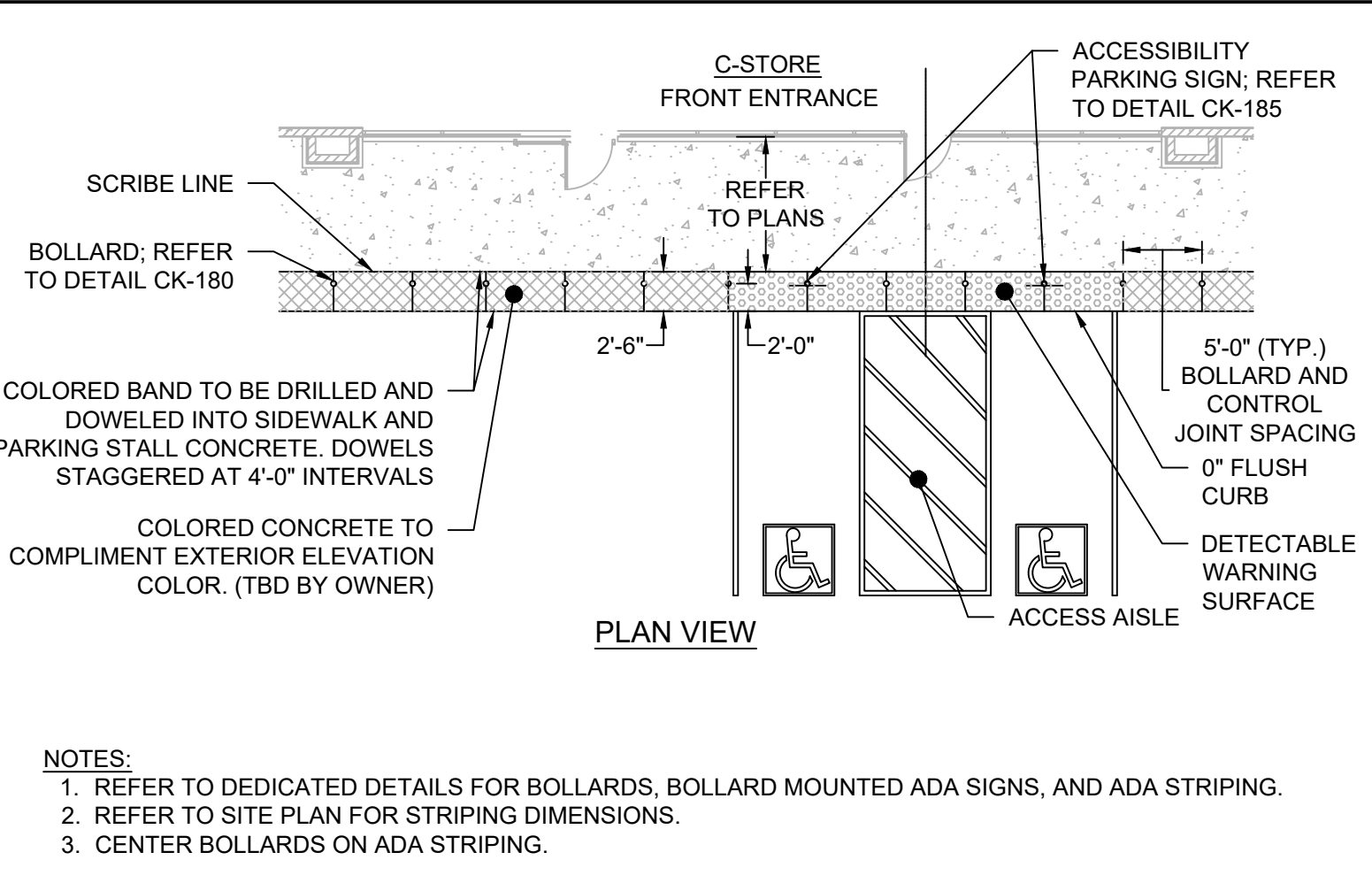
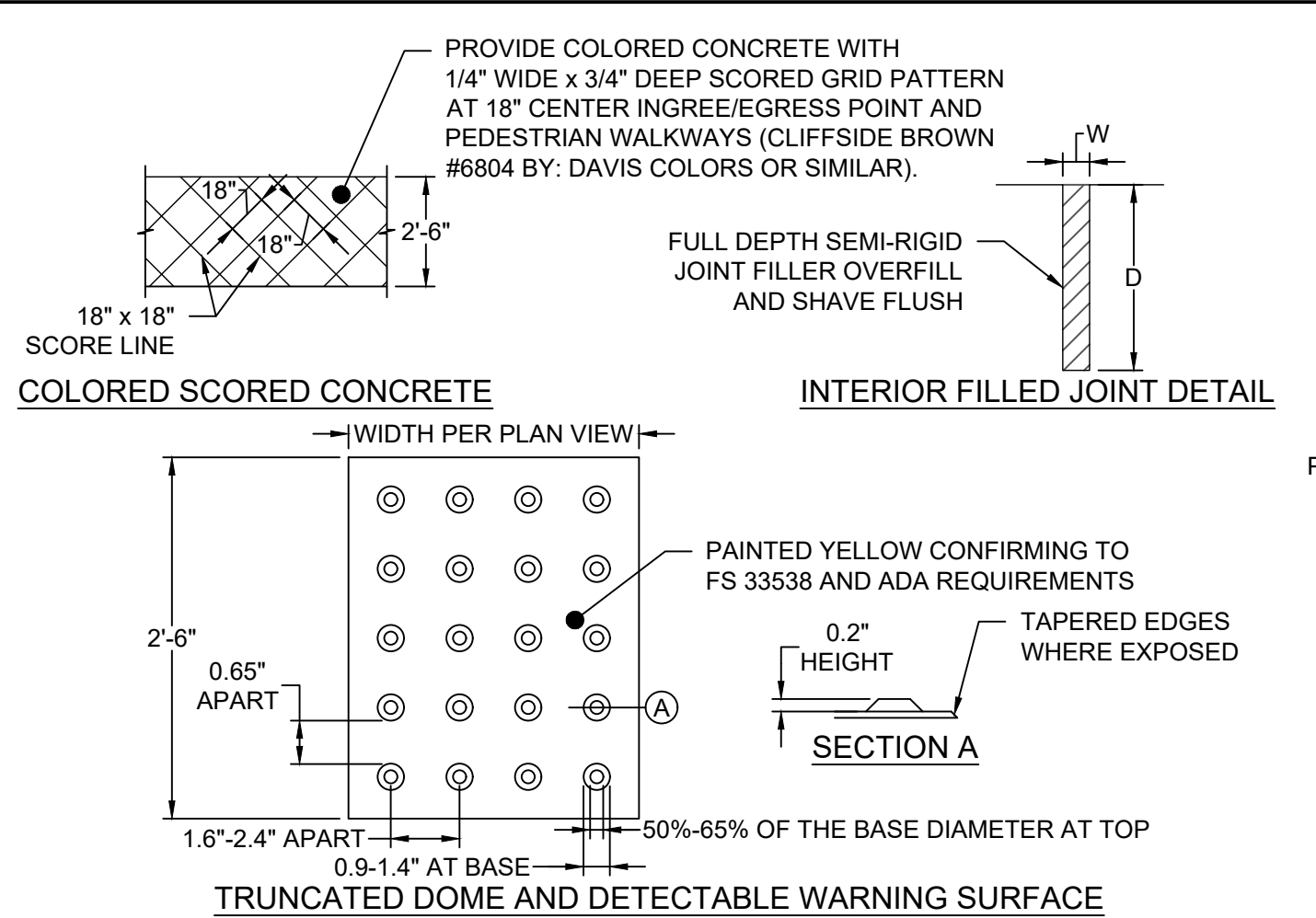
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timmons.com/gis/0301332/37630-054-nl\_airport\_wilmington.ncdwgs/SheetCD37630-054C-DETAILS.dwg [Plotted on 9/21/2020 10:51 AM] by Jacob Bosley



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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION  
REVISION PER CFP/IA REVIEW  
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/11/2020  
09/21/2020

DATE  
09/02/2020

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

NOTES AND DETAILS

JOB NO.  
37630.054

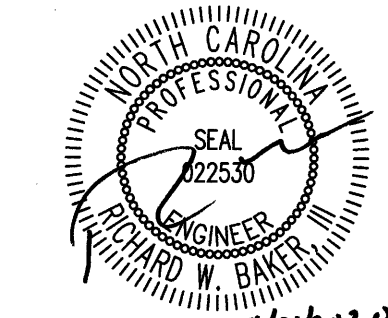
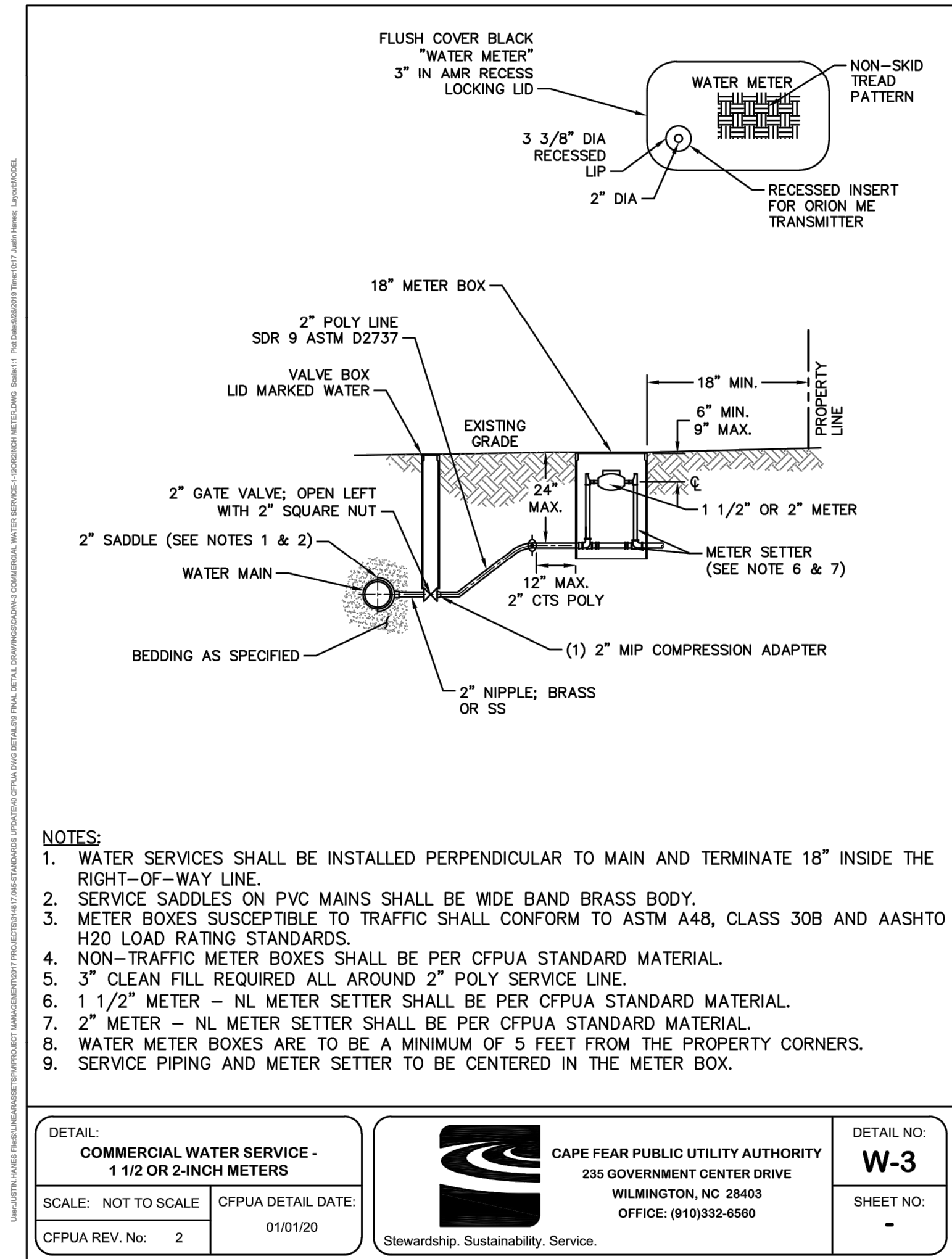
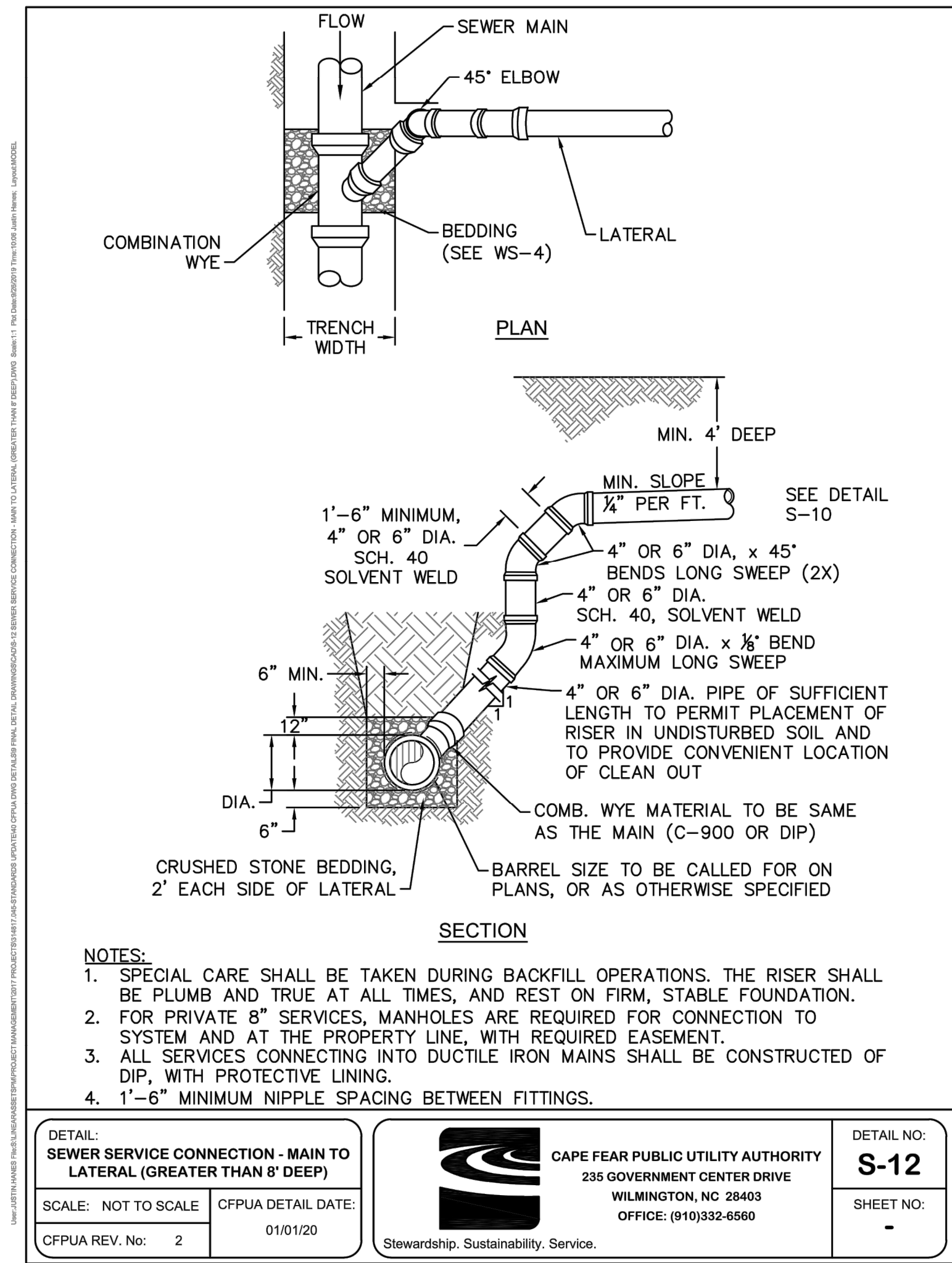
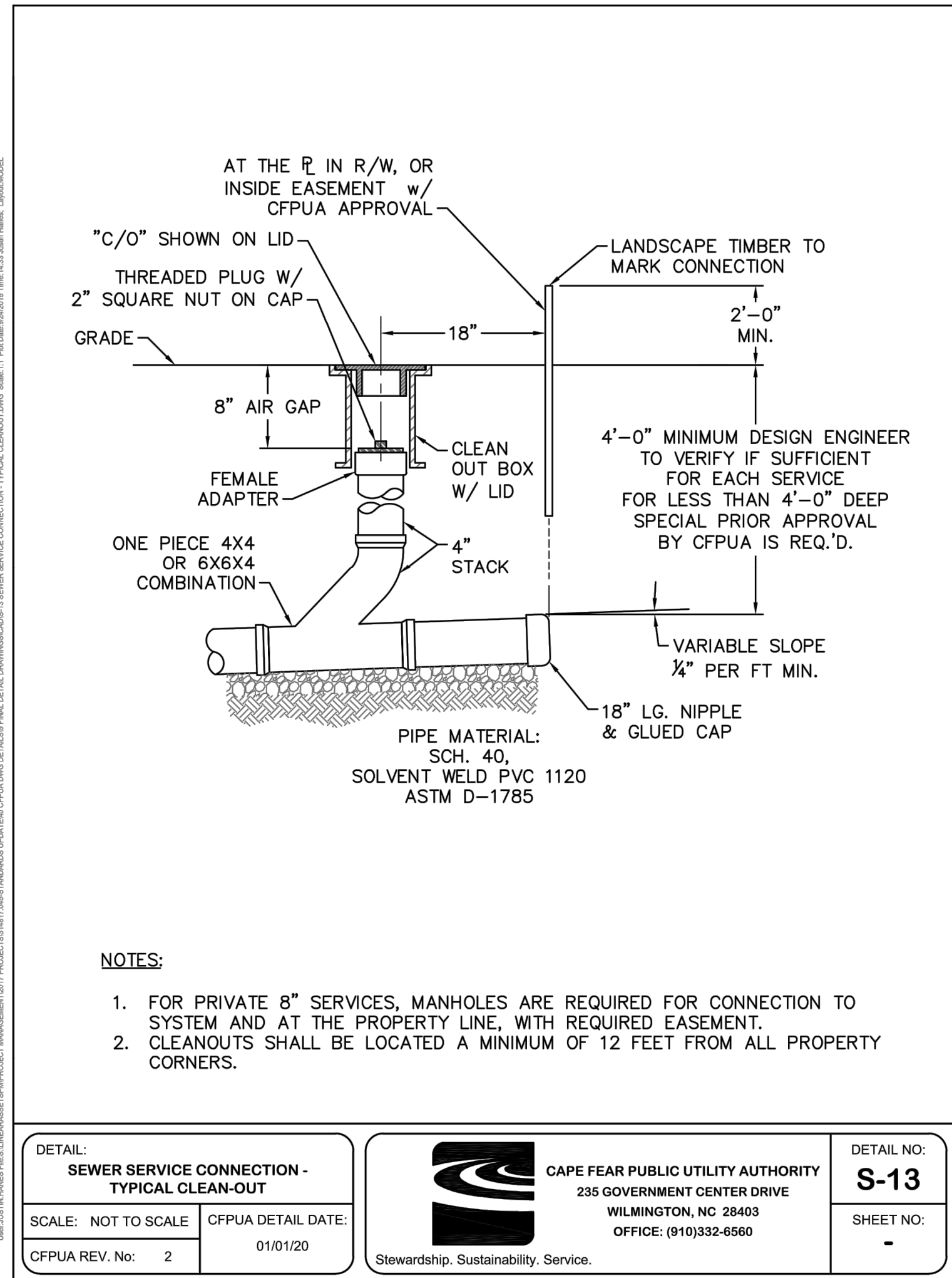
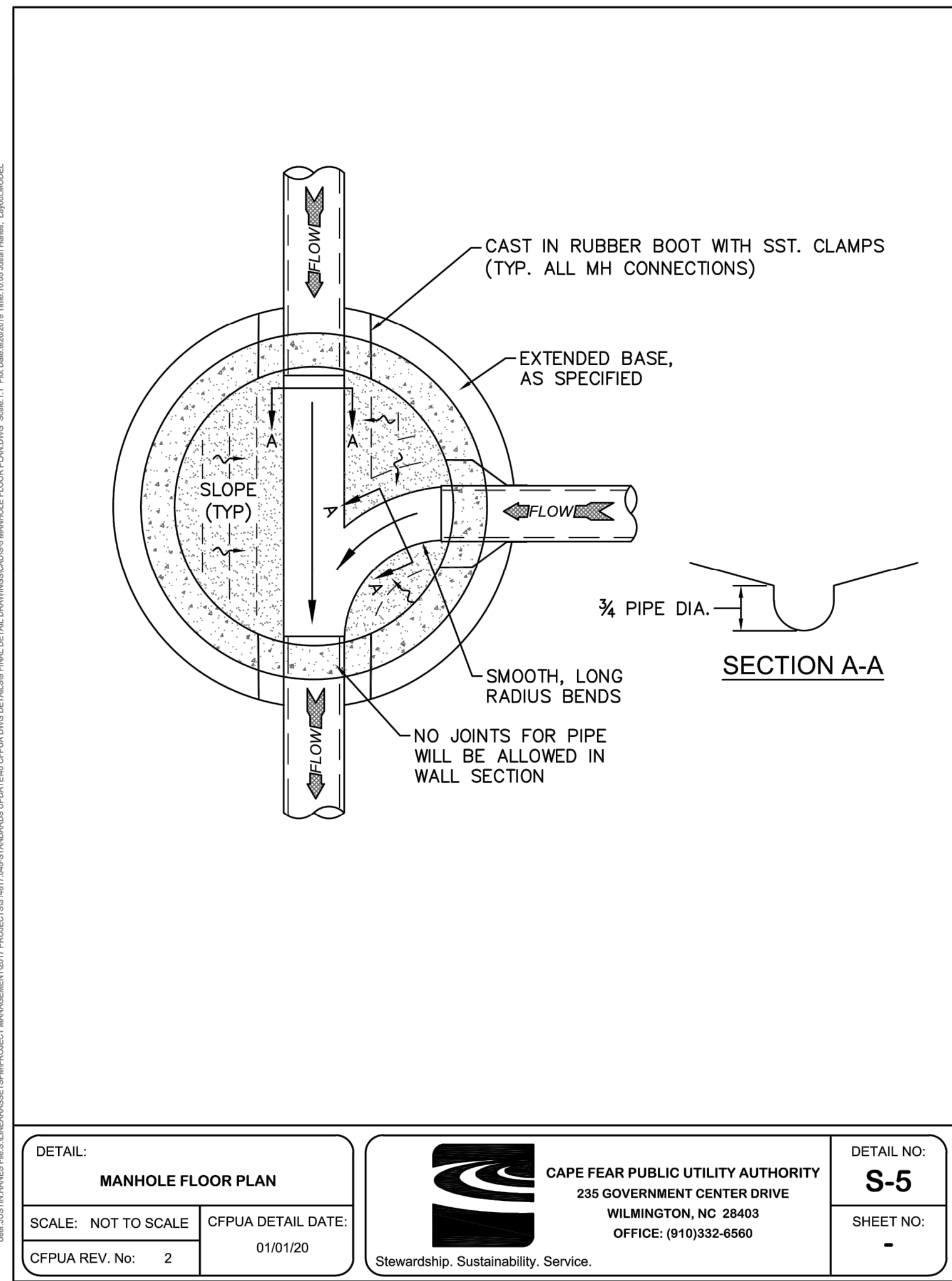
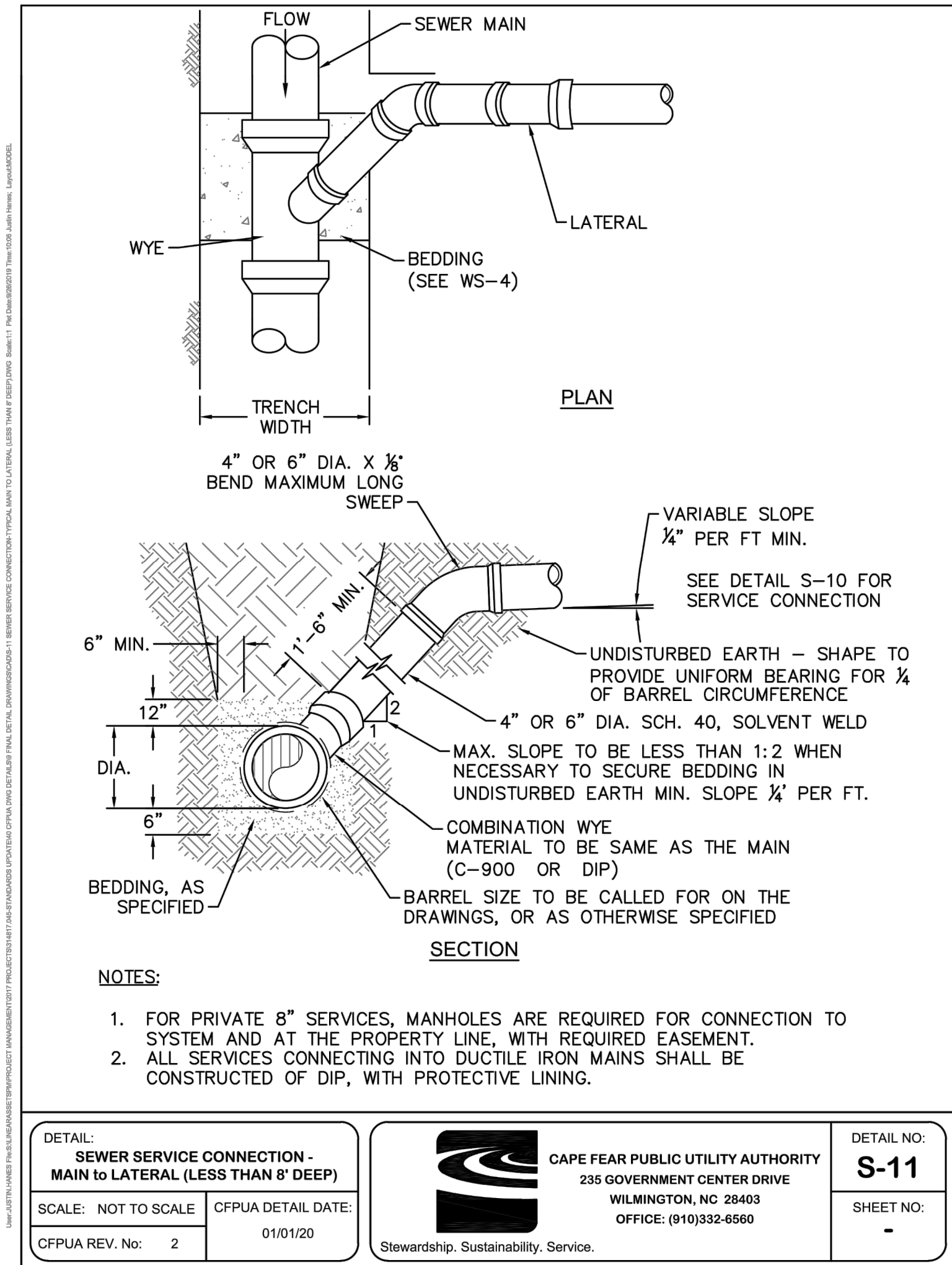
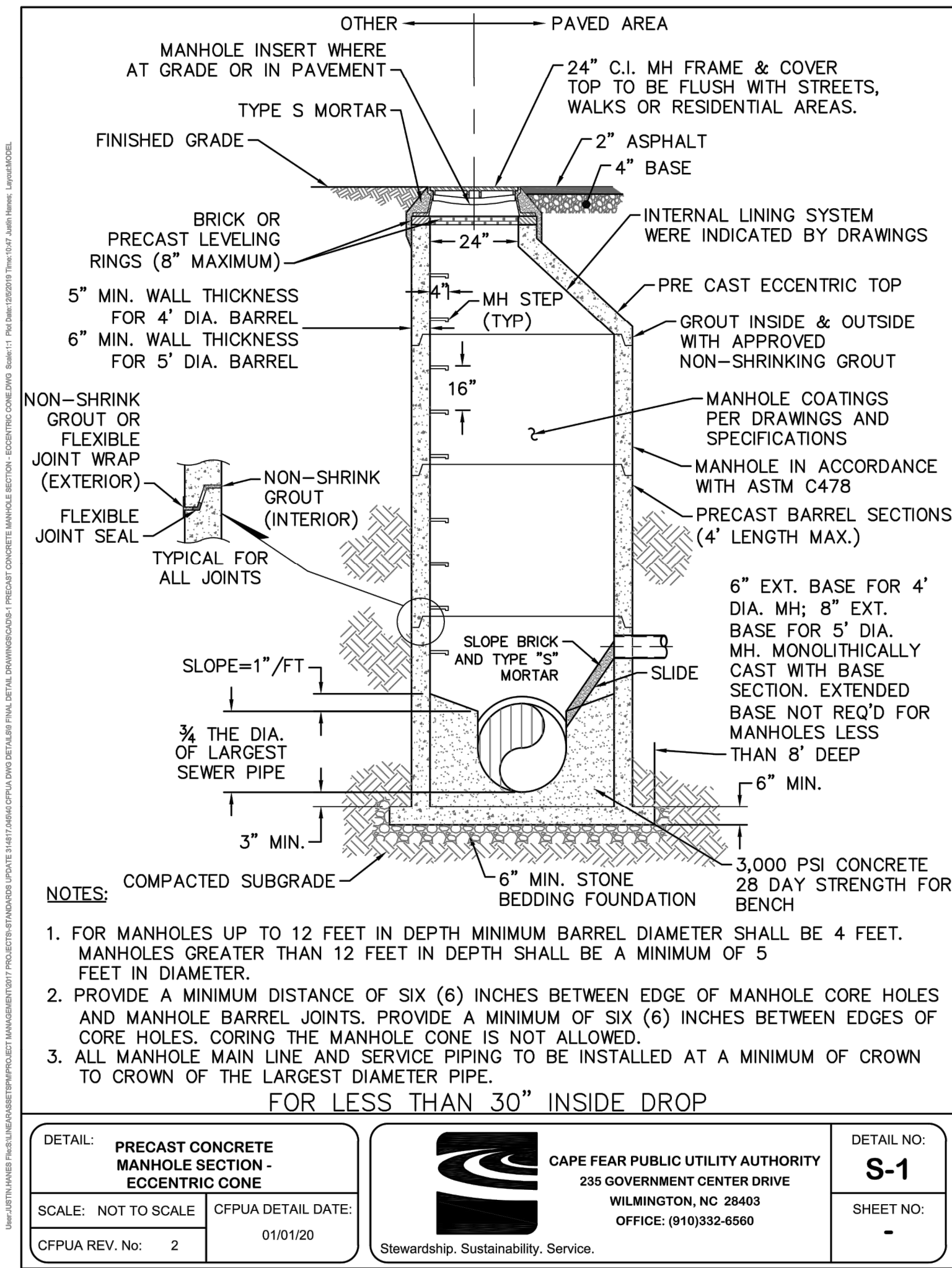
SHEET NO.  
C7.4

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PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION
REVISION PER CFPWA REVIEW
NEW HANOVER COUNTY STORMWATER SUBMITTAL

DATE  
09/02/2021

DRAWN BY  
A. MAY

DESIGNED BY  
B. DOWNS

CHECKED BY  
R. BAKER

SCALE  
AS SHOWN

WILLIAMS AIRPORT BLVD WILMINGTON - NC.115  
WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA

NOTES AND DETAILS

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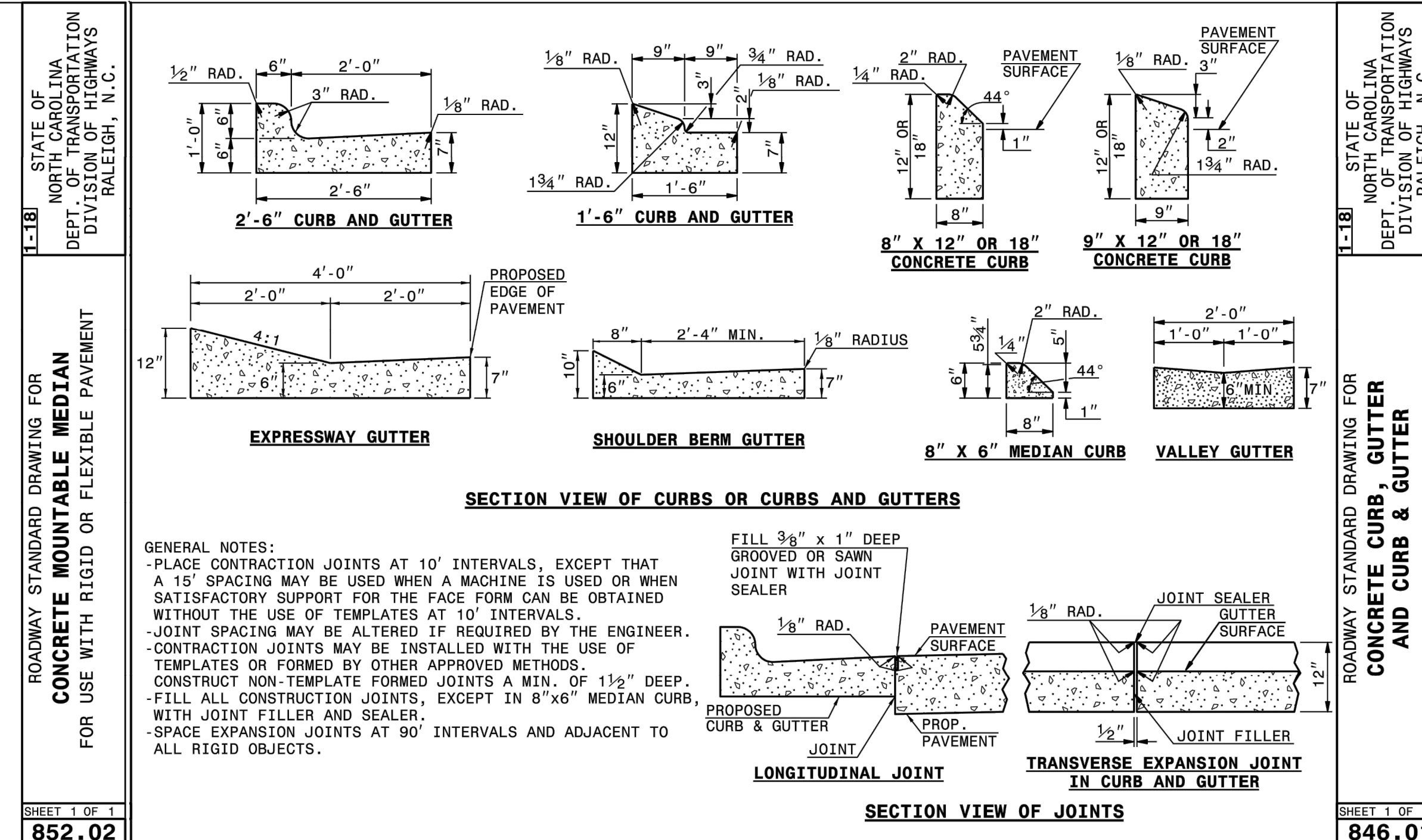
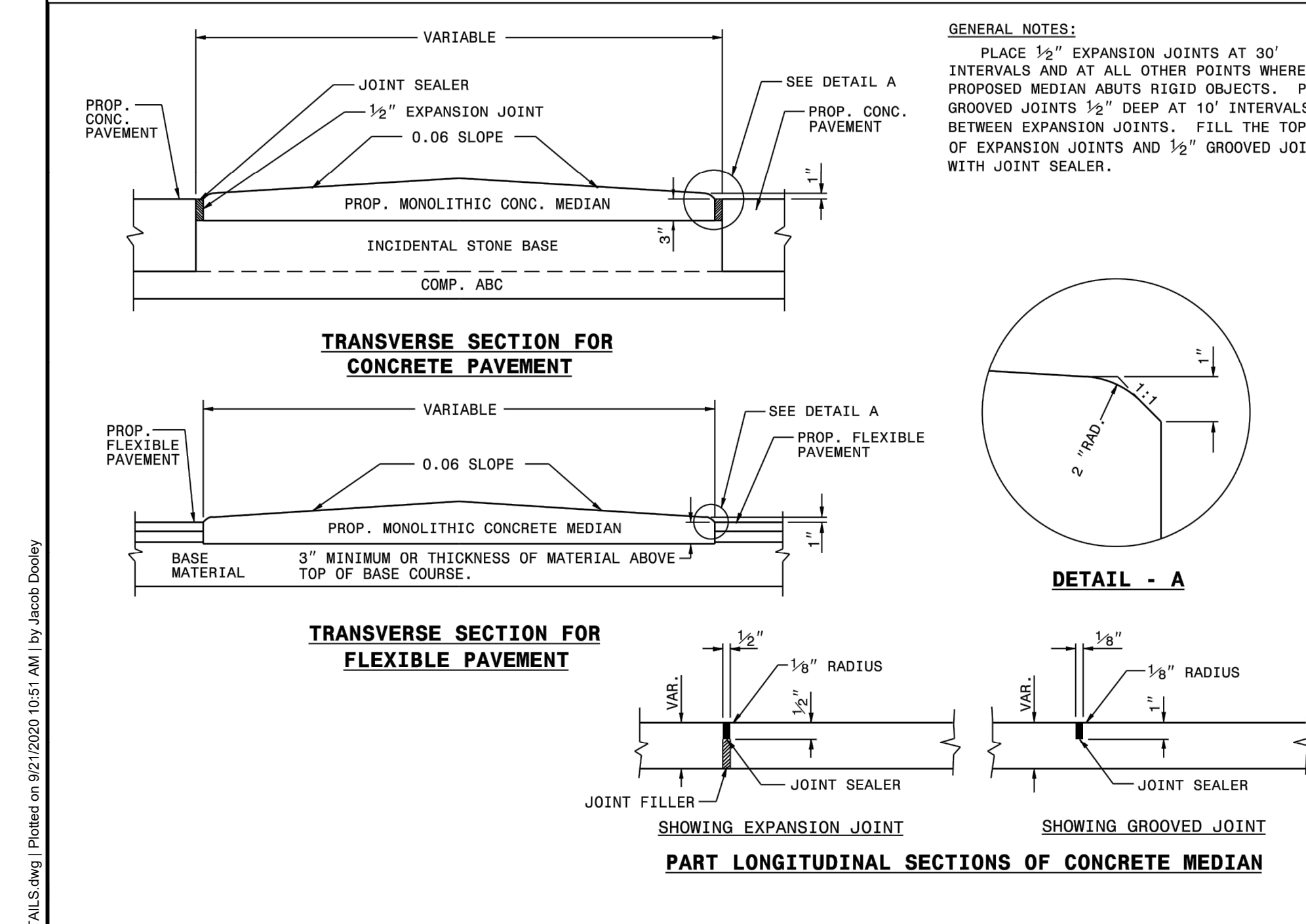
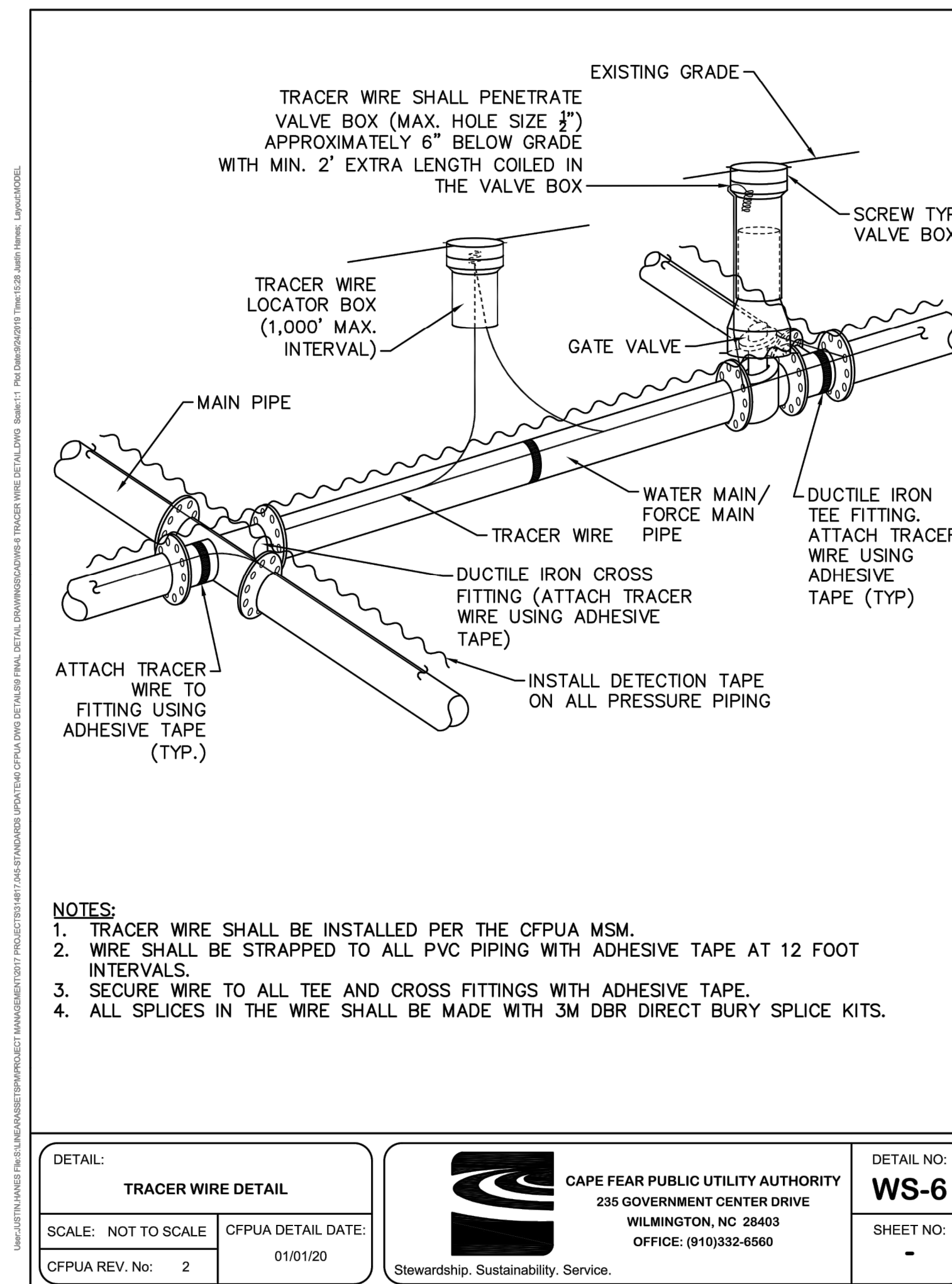
JOB NO.  
7630.054

SHEET NO.  
C7.5

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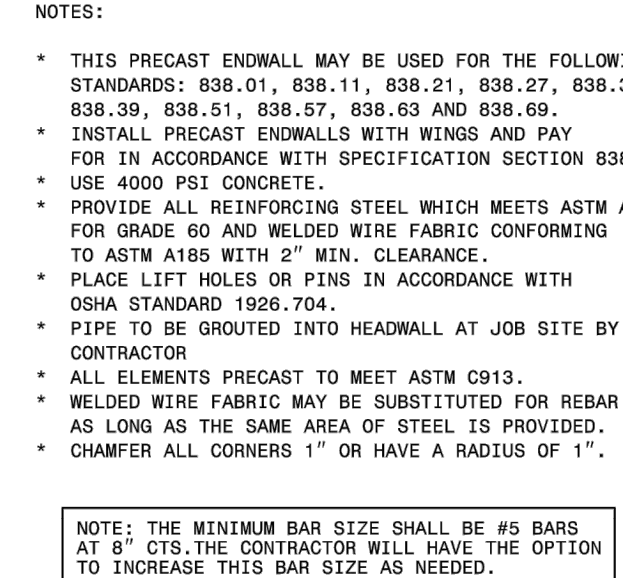
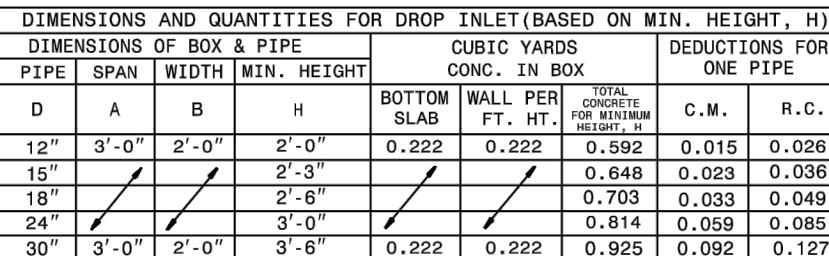
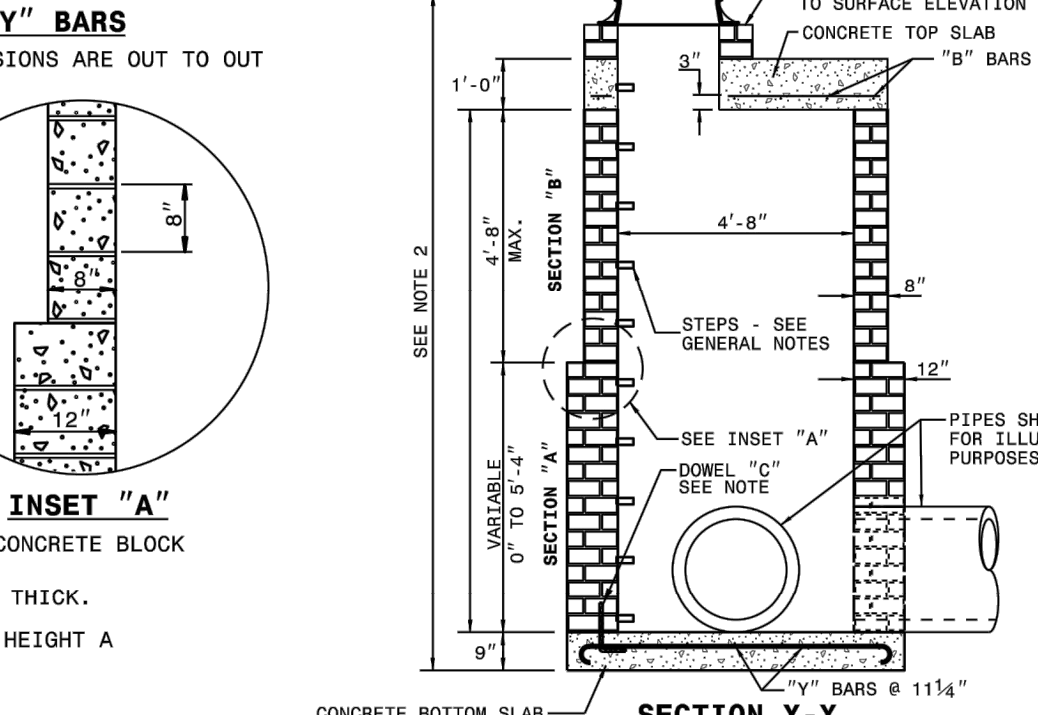
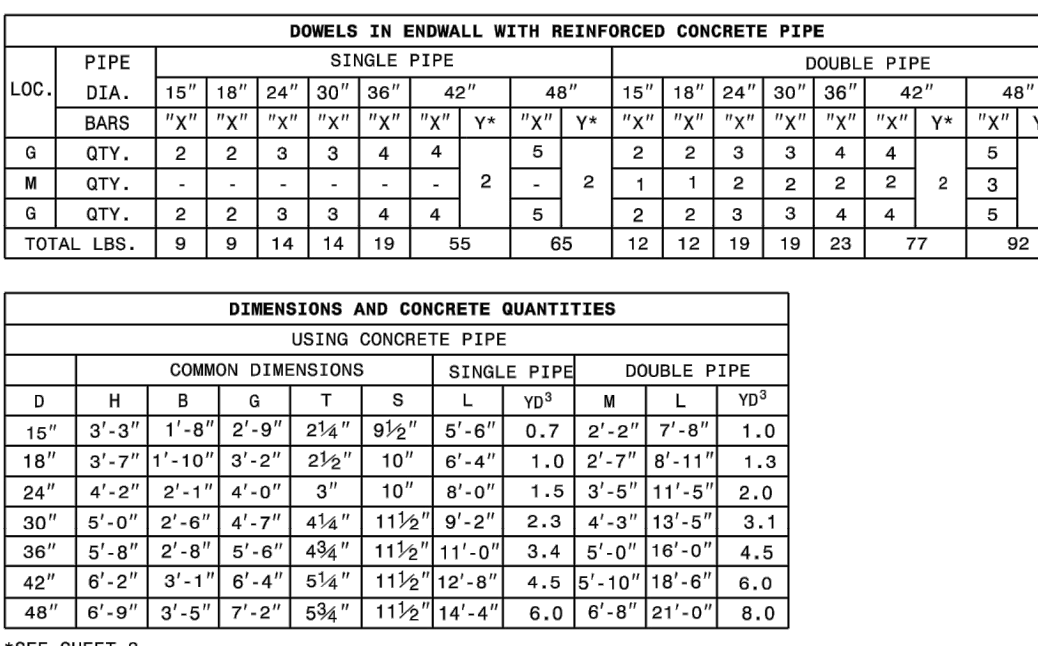
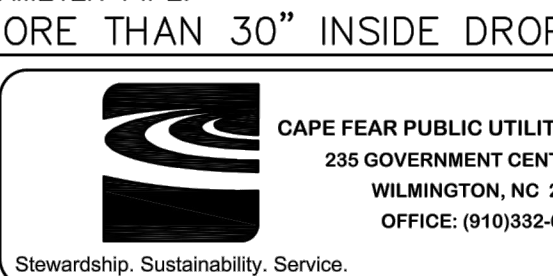




<div><div><div>TIMMONS GROUP</div><div>.....</div></div><div>NORTH CAROLINA LICENSE NO. C-1652</div><div>CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115</div><div>WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA</div><div>NOTES AND DETAILS</div></div>	JOB NO.		37630.054		
	SHEET NO.		C7.6		
	SCALE		AS SHOWN		
	CHECKED BY		R. BAKER		
	DESIGNED BY		B. DOWNS		
	DRAWN BY		A. MAY		
	DATE		09/02/2020		
	DATE		09/11/2020		
	DATE		09/21/2020		
	REVISION DESCRIPTION		REVISION PER CEPIA REVIEW		
REVISION DESCRIPTION		NEW HANOVER COUNTY STORMWATER SUBMITTAL			
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ENDWALL DIMENSIONS						
FT.	MINIMUM	MIN./MAX.	MIN./MAX.	MIN./MAX.	MIN./MAX.	MIN./MAX.
PIPE DIA.	BAR SIZE	H1(FT.)	H2(FT.)	D (FT.)	W1	W2
1.0	#5 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 8"	1.50/2.50	4.00/4.75	1.75/2.50	4.00/4.25	7.50/8.25
2.5	#5 8"	2.50/3.50	4.00/6.00	2.00/3.00	4.50/5.50	10.00/11.50
3.0	#5 8"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75
3.5	#5 8"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25
4.0	#5 8"	3.50/4.50	6.50/7.00	3.25/3.50	6.50/6.75	13.00/13.25
4.5	#5 8"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/15.75
5.0	#5 8"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/15.75
5.5	#5 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.25/9.25	14.00/15.75
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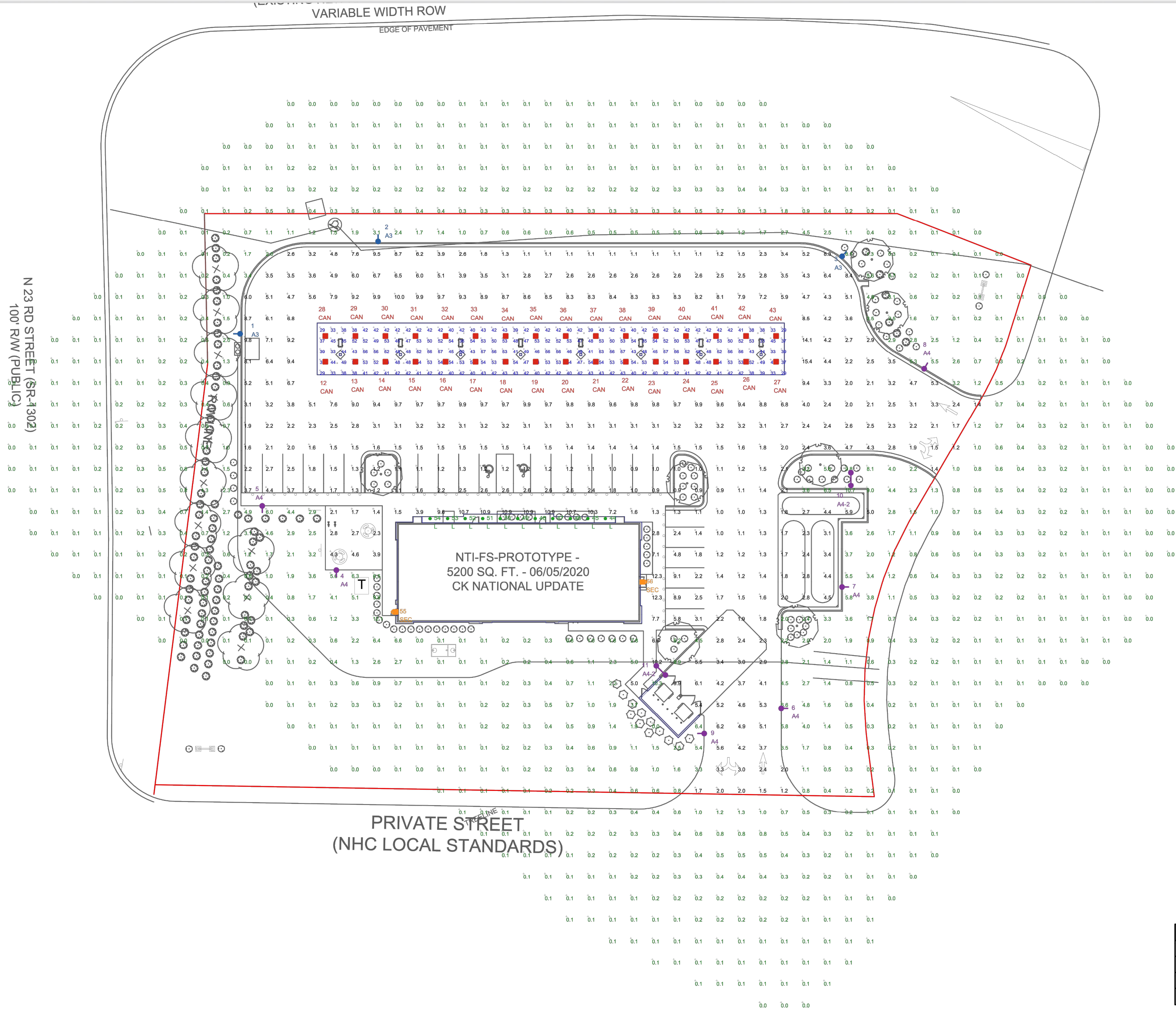
BILL OF MATERIAL				
BAR	QTY.	SIZE	LENGTH	WEIGHT
A	8	#5	1'-2"	9.7
B	14	#5	5'-6"	80.3
C	26	#4	1'-6"	26.1
Y	14	#5	6'-11 3/8"	101.5
STEEL TOTAL WEIGHT				217.6
CU. YDS. CLASS "AA" CONC.				2.6
CU. YDS. BRICK/FT. HT. (8")				0.53
CU. YDS. BRICK/FT. HT. (12")				0.84

ROADWAY STANDARD DRAWING FOR <b>DROP INLET FRAME AND GRATES</b> FOR USE WITH STD. DWG-S 840.14 AND 840.15	1-18	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
SHEET 1 OF 1 <b>840.16</b>		

TIMMONS GROUP NORTH CAROLINA LICENSE NO. C-1652	CIRCLE K - NTI AIRPORT BLVD WILMINGTON - NC.115  WILMINGTON - NEW HANOVER COUNTY - NORTH CAROLINA	JOB NO.	
		37630.054	
		SHEET NO.	
		C7.7	
		NOTES AND DETAILS	
YOUR VISION ACHIEVED THROUGH OURS.	DATE	09/02/2020	
REVISION DESCRIPTION	09/17/2020	REVISION PER CERLA REVIEW	
	09/21/2020	NEW HANOVER COUNTY STORMWATER SUBMITTAL	
THIS DRAWING PREPARED AT THE <b>RALEIGH OFFICE</b> 5410 Trinity Road, Suite 102   Raleigh, NC 27607 TEL 919.866.4951 FAX 919.833.8124 www.ttimmons.com	Seal of North Carolina Professional Engineer Richard W. Banks No. 22530 09/20/2020		

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THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES

NOTE:  
- ALL AREA LIGHTS MOUNTED AT 17 FT. ON NEW BLACK ANODIZED ALUMINUM FLUTED POLES AT GRADE

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PAVED AREA	4.04	15.4	0.9	4.49	17.11
UNDEFINED	0.65	12.1	0.0	N.A.	N.A.
UNDER CANOPY	45.96	57	29	1.58	1.97

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
* 	3	A3	SINGLE	10946	1.000	B1-U3-G2	80	240	HCT LIGHTING	F180-L-XXX-LED80W-5000K-III-9011BLACK + A361-1A-RAL9011
* 	6	A4	SINGLE	10013	1.000	B2-U0-G5	79.6	477.6	HCT LIGHTING	F180-L-XXX-LED80W-5000K-IV-9011BLACK + A361-1A-RAL9011
* 	2	A4-2	BACK-BACK	10013	1.000	B2-U0-G5	79.6	318.4	HCT LIGHTING	F180-L-XXX-LED80W-5000K-IV-9011BLACK + A361-2A-RAL9011
	32	CAN	SINGLE	12516	1.020	B3-U0-G1	91.19	2918.08	Cree Lighting	CPY250-B-DM-F-13L-UL-XX-57K
	11	L	SINGLE	1800	1.020	B1-U0-G0	20.5	225.5	Cree Lighting	LR6X-18L-40K-120V
	2	SEC	SINGLE	10279	1.020	B3-U0-G3	134	268	CREE, INC.	SEC-EDG-3M-WM-06-E-UL-XX-700-40K

\* SUBSTITUTE LIGHT FIXTURE FOR DOMUS STYLE FIXTURE MANUFACTURED BY LUMEC SPECIFIED BY AIRPORT AUTHORITY.

REV.	BY	DATE	DESCRIPTION
R1	FNE	9/3/2020	MOVED AREA LIGHTS FARTHER FROM UNDERGROUND UTILITIES & ELIMINATED POLE IN FRONT OF BLDG.

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SCALE: 1" = 30'  
LAYOUT BY: FNE  
DWG SIZE: D  
DATE: 9/2/2020

PROJECT NAME:  
CIRCLE K  
WILMINGTON, NC  
DRAWING NUMBER:  
RL-6942-S1-R1



LUMINAIRIES

PRODUCT TECHNICAL DATA SHEET


**HCI LIGHTING**  
 HIGHLIGHTING GALLERY & EXPERIENCED ILLUMINATION

F180-LED SERIES

SPECIFICATIONS

Housing

Made from heavy duty cast aluminum to withstand harsh weather.

Hardware

All exposed hardware is made of durable stainless steel, with industrial strength seals.

Interior Design & Optical

Energy efficient LED driver is mounted on a removable plate, with quick disconnect wiring to allow easy driver maintenance.

170 to 50,000 hours with CRI>90

Exterior Design & Finish

Luminaire is electrocated to fit post top mounting or pendant mounting with our ornamental arm and pole, and is suitable for wet locations.

Finish is electrocatedly applied with thermoset polyester powder-coat.

SIZES

	length	width	height	weight	tenon size	EPA
Large	25"	23"	17"	23 lbs	2" (W) x 1/4"	7-40 R <sup>1</sup>
Small						

PHOTOMETRICS

SAMPLE ILLUSTRATION

IES Type II, medium

ISO beam2x2

PRODUCT	FITTER	OFFER TYPE	WATTAGE	COT	VOLTAGE	OPTICS	OPTIONS	FINALS	COLOR
F180L	N/A	CRYSTAL CLEAR GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		OPIC CLEAR POLY CARBONATE	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		OPIC CLEAR POLY CARBONATE	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		ETIC CLEAR TEMPERED GLASS	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
F180S	CUSTOM	MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
F180P	CUSTOM	MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
F180T	CUSTOM	MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
F180V	CUSTOM	MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
F180W	CUSTOM	MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
F180X	CUSTOM	MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K
		MAC FACETED ACRYLIC	18W	SSBK	120V-277V	0.5 FTX	UMBING CONTROL	N/A	16-180000K

Product ordering sample

F180 - L - CAC - LED35W - 3000K - 120-277V - TYPE II - DIM - RAL9011 BLACK

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[illegible][illegible]

Rev. 2016.06/2017.01

## Product Description

The Cree One Edge™ wall mount luminaire has a slim, low profile design. The luminaire and caps are made from rugged die cast aluminum with integral, weatherproof LED driver components and high performance aluminum heat sink specifically designed for LED applications. Housing is rugged and durable, includes a mounting bracket for installation over standard and fixed size single glass or double doors. Straps are used with wall 3/16" (5mm) anchors to control. Contact us today for more information, ideas and pricing for lighting design for installation over standard and fixed size single glass or double doors. Straps are used with wall 3/16" (5mm) anchors to control. Designed and approved for easy through-window, includes leaflet/guide card.

Applications: General area and security lighting

## Performance Summary

Patented NanoShield™ Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CES: MicroShield™

CCL: C00001 (IEC: 20000, 5700K or 5000K standard)

Limited Warranty: 5 years on luminaire/10 years on Colorcast DataGuard™ finish

\*See [www.creeled.com/compatibility](http://www.creeled.com/compatibility) for warranty terms

Technical drawing of the Cree One Edge luminaire. The top view shows a rectangular unit with a width of 16.1" (416mm) and a height of 4.1" (104mm). The side view shows a depth of 3.1" (79mm). A small detail shows the mounting bracket with a hole diameter of 3/16" (5mm).

## Accessories

Part Number	Accessory Part	Need Additional Parts
24-00000-01	Beauty Plate MM PL17-1" 12" (304mm) Square MM PL17-1" 12" (304mm) Square Covers luminaire with its mounting wall plate	NA-5000000 1" (25mm) implementation of the minimum of 1/2 inch dead band is required

\* Need specify color

LED Count (x3)	Dim. X"	Height
02	8.1" (205mm)	29 in. 740g
04	11.9" (302mm)	29 in. 740g
06	13.8" (350mm)	30 in. 740g
08	15.5" (393mm)	31 in. 732g
10	17.2" (437mm)	31 in. 734g
12	18.9" (479mm)	31 in. 734g

## Ordering Information

example: 600-02-04-AMM-04-6-CL-50-00-00

Part	LED Count	Dim. X"	E	Color	Voltage	Color Options	Driver Current	Options
Product	Optic	Mounting	LED Count (x3)	E	UV	Color Options	Driver Current	Options
24M	24M	MM	02	E	UV	BL	200	DM 18° Beam Spreading
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
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24M	24M	MM	08	E	UV	BL	200	Options to enhance
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24M	24M	MM	10	E	UV	BL	200	Options to enhance
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24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
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24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
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24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M	MM	04	E	UV	BL	200	Options to enhance
24M	24M	MM	06	E	UV	BL	200	Options to enhance
24M	24M	MM	08	E	UV	BL	200	Options to enhance
24M	24M	MM	10	E	UV	BL	200	Options to enhance
24M	24M	MM	12	E	UV	BL	200	Options to enhance
24M	24M	MM	02	E	UV	BL	200	Options to enhance
24M	24M</							

## A361 SERIES

### DESCRIPTION

The arm shall be HCl A361-\_\_\_ (specify configuration) arm, consisting of a bent arm welded onto a pole adaptor. Multiple arms shall be welded to an aluminum pole adaptor with cast aluminum horizontal bars.

### MATERIALS

The arm shall be made of 2-3/8" OD, 0.154" thick aluminum anodized welded onto cast aluminum pole adaptor. An optional scot shall be made of 1-1/2" W x 1/4" thick aluminum flat bar. All hardware shall be temper resistant, stainless steel.

### CONFIGURATION

A variety of configurations is available, some of which are illustrated below. Those not illustrated are noted in the bottom left-hand corner. Non-standard configurations may be feasible, please consult factory for details.

### INSTALLATION

Arms shall feature pole adaptor with a decorative cast aluminum emblem. A 2" ID opening is provided on the future side. Arms are not pre-wired and shall be wired by the contractor.

### FINISH

All applicable parts shall receive a standard electrochemically applied thermoset, polyester powder coat smooth semi gloss finish with a four part corrosion inhibiting process.

### COLORS

The five standard RAL colors are listed below. Simply check off the color applicable to your project. Custom colors are available for an additional charge. Please supply a 2" x 2" paint chip.

- Black RAL 9011 ☐
- Green RAL 6005 ☐
- Bronze RAL 8019 ☐
- Grey RAL 7012 ☐
- White RAL 9016 ☐
- Custom ☐

**HCI**  
Heritage Casting & Fabricators  
223-3715 (910) 238-0468  
1290 Venture Drive Mesquiteville  
Ontario, LA 70454  
Fax (504) 238-0900  
Email [info@hclginting.com](mailto:info@hclginting.com)  
WEB [www.hclginting.com](http://www.hclginting.com)

### ADDITIONAL CONFIGURATIONS AVAILABLE

4A

4B

25.5"

45.5"

25"

6.5"

Weight: 13 lbs  
EPA: 1.52 sq ft

○ A361-1A-SCR

25.5"

45.5"

2"

1.0"

Weight: 11 lbs  
EPA: 1.45 sq ft

○ A361-1A

60"

45.5"

25"

Weight: 23 lbs  
EPA: 3.55 sq ft

○ A361-2A

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