

SITE DATA:

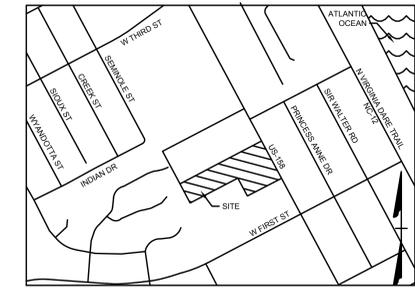
- OWNER:
DARE COUNTY
PO BOX 1000
MANTEO, NC 27954
ROBERT OUTTEN, COUNTY MANAGER
(252) 475-5800

TOWN OF KILL DEVIL HILLS
PO BOX 1719
KILL DEVIL HILLS, NC 27948
DEBBIE DIAZ, TOWN MANAGER
(252) 449-5300
- SITE INFORMATION:
PIN: 98841046027, 98841046027 & A PORTION OF 988410399451
D.B. 2276, P.C. 224 / D.B. 1041, P.C. 622 / D.B. 2201, P.C. 253
ZONING: COMMERCIAL
PROPOSED USE: FIRE/EMS
GROSS FLOOR AREA: 36,415 SF
SITE AREA: 4.47 AC (194,765 SF)
SITE ADDRESS: 1630 N CROATAN HWY
KILL DEVIL HILLS, NC 27948
- THIS SITE IS LOCATED IN FLOOD ZONE 'X' ACCORDING TO FIRM MAP NUMBER 3720888A00K, DATED JUNE 19, 2020. THE TOWN HAS ADOPTED A REGULATORY FLOOD PROTECTION ELEVATION OF 6'. ALL ELEVATIONS PER NAVD 1988.
- BUILDING SETBACKS:
FRONT: 30'
SIDE: 10'
REAR: 10'
- LOT COVERAGE CALCULATIONS:

EXISTING:
BUILDING = 16,696 SF (8.58%)
PAVEMENT = 67,221 SF (34.58%)
CONCRETE = 8,386 SF (4.31%)
GRAVEL = 604 SF (0.31%)
GREEN SPACE = 109,698 SF (56.22%)
TOTAL SITE AREA = 194,765 SF (100.0%)

PROPOSED:
BUILDING = 50,732 SF (26.05%)
PAVEMENT = 53,800 SF (27.62%)
CONCRETE = 3,168 SF (1.63%)
GRAVEL = 604 SF (0.31%)
PERMEABLE PAVERS = 20,219 SF (10.38%)
GREEN SPACE = 68,098 SF (34.95%)
TOTAL SITE AREA = 194,765 SF (100.0%)

TOTAL IMPERVIOUS COVERAGE = 108,542 SF (55.73%)
(NOTE: PERMEABLE PAVERS ARE NOT INCLUDED IN THE TOTAL IMPERVIOUS COVERAGE)
- PARKING:
REQUIRED: 1 PER PERSON ON STAFF PLUS 1/200 SF TRAINING AREA AND CUSTOMER SERVICE AREA
MAX STAFF ON SINGLE SHIFT: 36
2725 SF TRAINING AND CUSTOMER SERVICE: 14
TOTAL REQUIRED: 50
PROPOSED SPACES: 51 (INCLUDING 2 ADA SPACES)
ADDITIONAL PARKING TO BE PROVIDED OFF SITE THROUGH AGREEMENT WITH TOWN OF KILL DEVIL HILLS
- DISTURBED AREA WILL NOT EXCEED 3.28 ACRES
- ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN AN APPROVED LOCATION. ANY SOIL MATERIAL BROUGHT ON SITE SHALL COME FROM AN APPROVED MINE.
- TOPOGRAPHIC SURVEY PERFORMED BY TIMMONS GROUP IN MARCH 2022.



VICINITY MAP
NO SCALE

SITE PLANS FOR EMS STATION 1/ FIRE STATION 14

SHEET LIST

SHEET NUMBER	SHEET TITLE
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C1.1	DEMOLITION PLAN
C2.0	SITE PLAN
C3.0	GRADING PLAN
C3.1	EROSION CONTROL PLAN
C4.0	UTILITY PLAN
C5.0	LANDSCAPE PLAN
C6.0	SITE DETAILS
C6.1	STORMWATER DETAILS
C6.2	STORMWATER DETAILS
C6.3	EROSION CONTROL DETAILS
C6.4	WATER DETAILS
C6.5	SEWER DETAILS

SITE LOCATION

1630 N CROATAN HWY
KILL DEVIL HILLS, NC 27948

OWNER

DARE COUNTY
PO BOX 1000
MANTEO, NC 27954
CONTACT: ROBERT OUTTEN
PHONE: (252) 475-5800
EMAIL: outten@darenc.com

TOWN OF KILL DEVIL HILLS
PO BOX 1719
KILL DEVIL HILLS, NC 27948
CONTACT: DEBBIE DIAZ
PHONE: (252) 449-5300
EMAIL: debbie@kdhnc.com

CIVIL ENGINEER

TIMMONS GROUP
1805 WEST CITY DRIVE, UNIT E
ELIZABETH CITY, NC 27909
CONTACT: KIMBERLY HAMBY, PE
PHONE: (252) 621-5029
EMAIL: kim.hamby@timmons.com

ARCHITECT

OAKLEY COLLIER ARCHITECTS
109 CANDLEWOOD ROAD
ROCKY MOUNT, NC 27804
CONTACT: JOHN HAMM
PHONE: (252) 937-2500
EMAIL: jhamm@oakleycollier.com



NEW BUILDING FOR:
**DARE COUNTY
EMS STATION 1/ FIRE STATION 14**
1630 N CROATAN HWY
KILL DEVIL HILLS, NORTH CAROLINA



PERMIT
DRAWINGS
NOT FOR
CONSTRUCTION

GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all Dimensions.

Revisions	Date	Description
1	01-12-23	Addendum #1
2	02-16-23	Per Town & KDH/WTP comments
3	03-03-23	Per Town comments

Date	Project No.
12/21/22	52044.001
Created By	Sheet No.
BCD	C0.0
Checked By	Sheet Title
KDH	COVER SHEET



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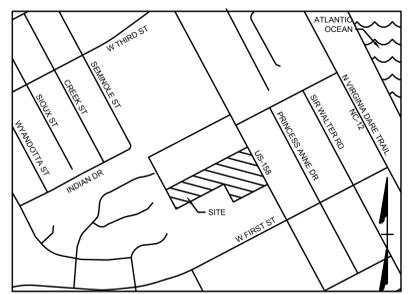
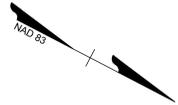
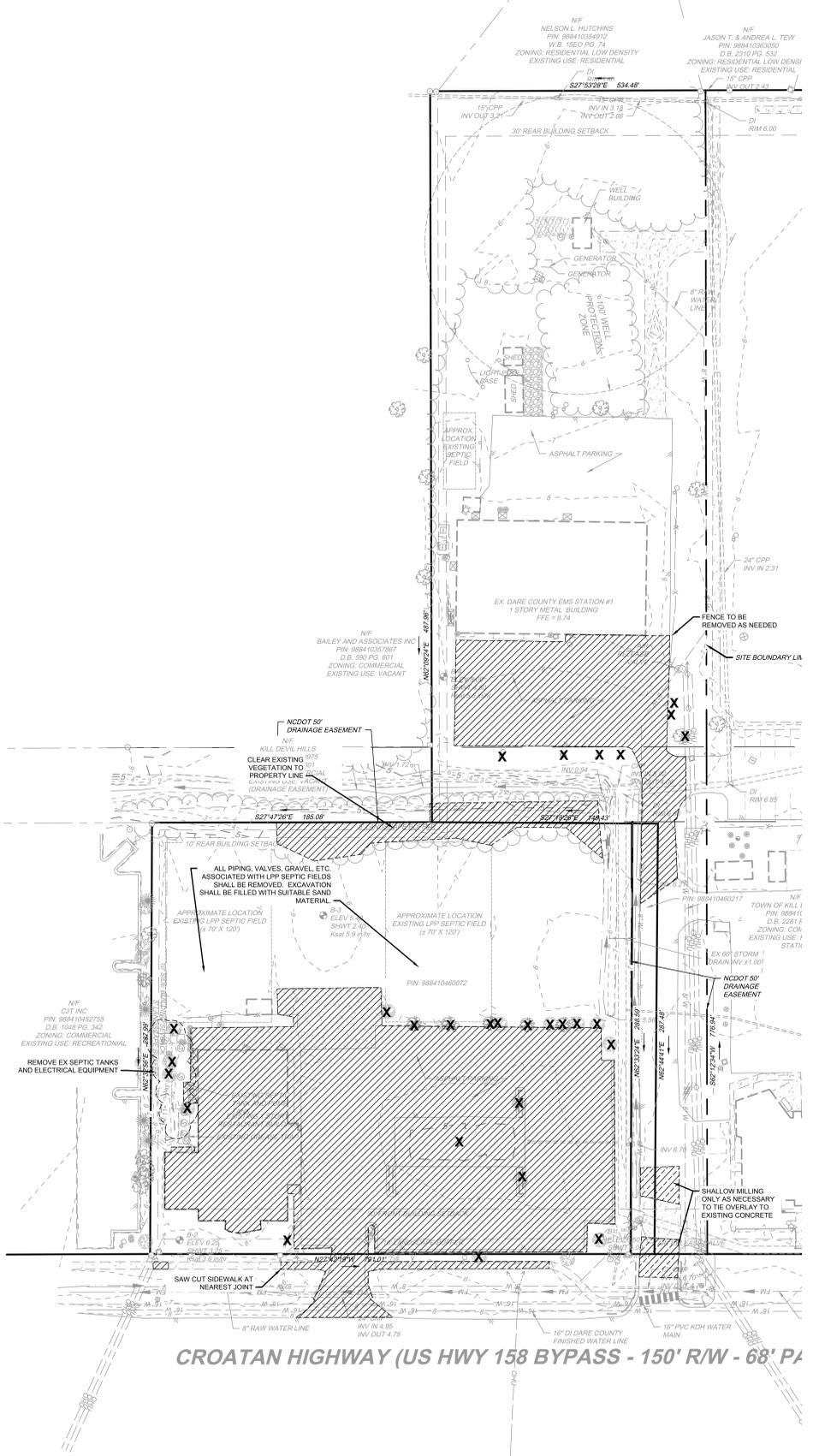
- OWNER:
DARE COUNTY
PO BOX 1000
MANTO, NC 27954
ROBERT CUTLER, COUNTY MANAGER
(252) 475-5800

TOWN OF KILL DEVIL HILLS
PO BOX 1719
KILL DEVIL HILLS, NC 27948
DEBBIE DIAZ, TOWN MANAGER
(252) 449-5300
- SITE INFORMATION:
PIN: 988410400217 & A PORTION OF 988410369451
D.B. 2076, PG. 224 / D.B. 1041, PG. 622 / D.B. 2281, PG. 283
ZONING: COMMERCIAL
PROPOSED USE: FIRE/EMS
GROSS FLOOR AREA: 35,415 SF
SITE AREA: 1.47 AC (194,765 SF)
SITE ADDRESS: 1630 N CROATAN HWY
KILL DEVIL HILLS, NC 27948
- THIS SITE IS LOCATED IN FLOOD ZONE 'X' ACCORDING TO FIRM MAP NUMBER 170268400K, DATED JUNE 19, 2020. THE TOWN HAS ADOPTED A REGULATORY FLOOD PROTECTION ELEVATION OF 6'. ALL ELEVATIONS PER NAVD 1988.
- BUILDING SETBACKS:
FRONT: 30'
SIDE: 10'
REAR: 10'
- LOT COVERAGE CALCULATIONS:
EXISTING:
BUILDING = 18,656 SF (9.58%)
PAVEMENT = 67,221 SF (34.52%)
CONCRETE = 8,386 SF (4.31%)
GRAVEL = 904 SF (0.46%)
GREEN SPACE = 109,698 SF (56.13%)
TOTAL SITE AREA = 194,765 SF (100.00%)

PROPOSED:
BUILDING = 50,732 SF (26.05%)
PAVEMENT = 53,800 SF (27.62%)
CONCRETE = 3,106 SF (1.59%)
GRAVEL = 904 SF (0.46%)
PERMEABLE PAVERS = 23,219 SF (11.92%)
GREEN SPACE = 66,004 SF (33.90%)
TOTAL SITE AREA = 194,765 SF (100.00%)
TOTAL IMPERVIOUS COVERAGE = 108,942 SF (56.73%)
(NOTE: PERMEABLE PAVERS ARE NOT INCLUDED IN THE TOTAL IMPERVIOUS COVERAGE)
- PARKING:
REQUIRED: 1 PER PERSON ON STAFF PLUS 1200 SF TRAINING AREA AND CUSTOMER SERVICE AREA.
MAX STAFF ON SINGLE SHIFT: 36
2725 SF TRAINING AND CUSTOMER SERVICE
TOTAL REQUIRED: 50
PROPOSED SPACES: 51 (INCLUDING 2 ADA SPACES)
ADDITIONAL PARKING TO BE PROVIDED OFF-SITE THROUGH AGREEMENT WITH TOWN OF KILL DEVIL HILLS
- DISTURBED AREA WILL NOT EXCEED 3.28 ACRES
- ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN AN APPROVED LOCATION. ANY SOIL MATERIAL BROUGHT ON SITE SHALL COME FROM AN APPROVED MINE.
- TOPOGRAPHIC SURVEY PERFORMED BY TIMMONS GROUP IN MARCH 2022.

DEMOLITION NOTES:

- SEE EROSION CONTROL PLAN PRIOR TO BEGINNING THIS PHASE OF DEMOLITION
- BUILDING SLABS, FOUNDATIONS AND APPURTENANCES SHALL BE REMOVED IN ENTIRETY
- UNDERGROUND UTILITIES (WATER, SEWER, GAS AND WIRE UTILITIES) WITHIN THE LIMITS OF DEMOLITION SHALL BE REMOVED IN ENTIRETY UNLESS OTHERWISE NOTED. REMOVAL/ABANDONMENT OF UTILITIES SHALL BE COORDINATED WITH THE UTILITY PROVIDER.
- TRENCHES AND EXCAVATIONS CREATED DURING DEMOLITION SHALL BE BACKFILLED WITH SELECT FILL MATERIAL TO EXISTING GRADE AND PROPERLY COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL SIDEWALKS, PAVEMENT AND CURB AND GUTTER BEING REMOVED SHALL BE SAW CUT AT LIMITS OF REMOVAL. IF A CONSTRUCTION JOINT IS LOCATED WITHIN OF LIMITS OF REMOVAL, REMOVE FEATURE TO THE JOINT LOCATION.
- TREES NOT NOTED TO BE REMOVED SHALL BE PROTECTED DURING DEMOLITION ACTIVITIES.
- CONTRACTOR SHALL NOTIFY OWNERS/OCCUPANTS OF SURROUNDING PROPERTIES OF ANY PLANNED DISRUPTION OF UTILITIES.
- SIDEWALK ALONG US 158 SHALL REMAIN OPEN AS LONG AS FEASIBLY POSSIBLE.
- WORK ALONG ENTRANCE ROAD AND IN FRONT OF EXISTING EMS STATION SHALL BE PHASED TO ALLOW CONTINUED ACCESS BY THE EMS DEPARTMENT.



VICINITY MAP
NO SCALE

LEGEND

	BENCHMARK
	IRON ROD FOUND (IRF)
	EX NATURAL GAS VALVE
	EX NATURAL GAS METER
	EX WATER METER
	EX FIRE HYDRANT
	EX WATER VALVE
	EX SPRINKLER VALVE
	EX SEWER MANHOLE
	EX SEWER CLEANOUT
	EX TELEPHONE PEDESTAL
	EX ELECTRIC VAULT
	EX POWER POLE
	EX GUY WIRE
	EX ELECTRIC BOX
	EX ELECTRIC METER
	EX DROP INLET
	EX SIGN
	EX FLAGPOLE
	EX BOLLARD
	EX TREE
	PROPERTY BOUNDARY
	RIGHT OF WAY
	ADJACENT PROPERTY BOUNDARY
	DRAINAGE EASEMENT
	EX FLOOD ZONE LINE
	EX EDGE OF PAVEMENT
	EX EDGE OF GRAVEL
	EX FENCE
	EX OVERHEAD UTILITY
	EX NATURAL GAS LINE
	EX FORCE MAIN
	EX 8" WATER LINE
	EX 12" WATER LINE
	EX 16" WATER LINE
	EX DITCH CENTERLINE
	EX TOP OF BANK
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	EX STORM PIPE
	EX EDGE OF TREE LINE
	AREA TO BE REMOVED
	AREA TO BE MILLED
	OBJECT TO BE REMOVED

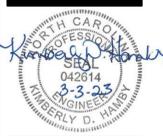
CROATAN HIGHWAY (US HWY 158 BYPASS - 150' R/W - 68' PA)

SCALE 1"=40'

OAKLEY COLLIER ARCHITECTS
OCA ARCHITECTS
107 Candlewood Road, Rocky Mount, NC 27954, P: 252.927.2800
1111 Hayes Street, Suite 109, Raleigh, NC 27604, P: 919.983.7700

TIMMONS GROUP
YOUR TRUST. OUR COMMITMENT.
100 West City Street
Elizabeth City, NC 27909
Tel: 252.333.3838
www.timmonsgrp.com
North Carolina License No. C-152

NEW BUILDING FOR:
**DARE COUNTY
EMS STATION 1/ FIRE STATION 14**
1630 N CROATAN HWY
KILL DEVIL HILLS, NORTH CAROLINA



PERMIT
DRAWINGS
NOT FOR
CONSTRUCTION

GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all dimensions.

Revisions:	
1	01-12-23 Addendum #1
2	02-16-23 Per Town & KDH/WTP comments
3	03-03-23 Per Town comments

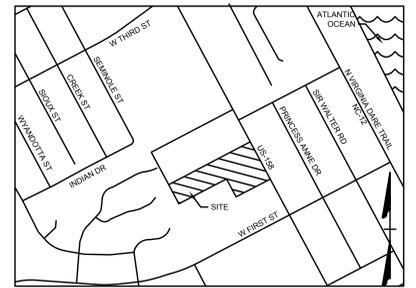
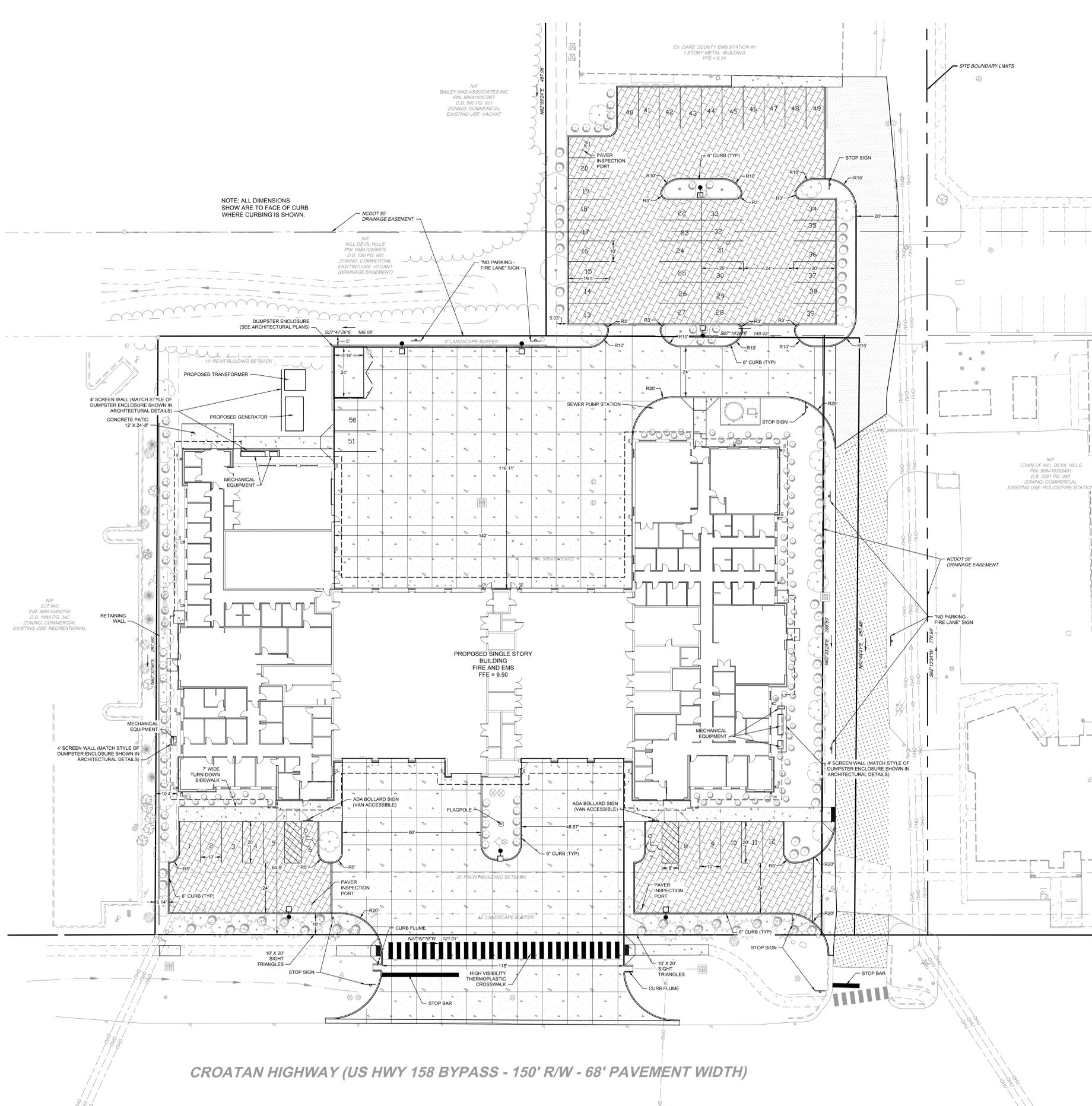
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Created By:	BCD	Sheet No.:	C1.1
Checked By:	KDH	Sheet Title:	DEMOLITION PLAN



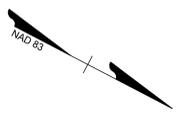
SITE DATA:

- OWNER:**
DARE COUNTY
PO BOX 1000
MANTO, NC 27954
ROBERT OUTTEN, COUNTY MANAGER
(252) 475-5800
- TOWN OF KILL DEVIL HILLS**
PO BOX 1719
KILL DEVIL HILLS, NC 27948
DEBBIE DIAZ, TOWN MANAGER
(252) 449-5300
- SITE INFORMATION:**
PIN: 988410460217, 988410460217 & A PORTION OF 988410369451
D.B. 2575, PG. 224 / D.B. 1041, PG. 622 / D.B. 2281, PG. 283
ZONING: COMMERCIAL
PROPOSED USE: FIRE/EMS
GROSS FLOOR AREA: 36,419 SF
SITE AREA: 4.47 AC (194,765 SF)
SITE ADDRESS: 1630 N CROATAN HWY
KILL DEVIL HILLS, NC 27948
- THIS SITE IS LOCATED IN FLOOD ZONE "X" ACCORDING TO FIRM MAP NUMBER 97209840K DATED JUNE 19, 2020. THE TOWN HAS ADOPTED A REGULATORY FLOOD PROTECTION ELEVATION OF 0' 8". ALL ELEVATIONS PER NAVD 1988.**
- BUILDING SETBACKS:**
FRONT: 30'
SIDE: 10'
REAR: 10'
- LOT COVERAGE CALCULATIONS:**
EXISTING:
BUILDING = 18,656 SF (9.58%)
PAVEMENT = 57,221 SF (29.38%)
CONCRETE = 8,306 SF (4.31%)
GRAVEL = 904 SF (0.46%)
GREEN SPACE = 109,598 SF (56.27%)
TOTAL SITE AREA = 194,765 SF (100.0%)
PROPOSED:
BUILDING = 50,732 SF (26.05%)
PAVEMENT = 53,800 SF (27.62%)
CONCRETE = 3,100 SF (1.59%)
GRAVEL = 904 SF (0.46%)
PERMEABLE PAVERS = 20,219 SF (10.38%)
GREEN SPACE = 60,000 SF (30.90%)
TOTAL SITE AREA = 194,765 SF (100.0%)
TOTAL IMPERVIOUS COVERAGE = 108,542 SF (55.73%)
(NOTE: PERMEABLE PAVERS ARE NOT INCLUDED IN THE TOTAL IMPERVIOUS COVERAGE)

- PARKING:**
REQUIRED: 1 PER PERSON ON STAFF PLUS 1/200 SF TRAINING AREA AND CUSTOMER SERVICE AREA
MAX STAFF ON SINGLE SHIFT: 36
2725 SF TRAINING AND CUSTOMER SERVICE: 14
TOTAL REQUIRED: 50
PROPOSED SPACES: 51 (INCLUDING 2 ADA SPACES)
ADDITIONAL PARKING TO BE PROVIDED OFF SITE THROUGH AGREEMENT WITH TOWN OF KILL DEVIL HILLS
- DISTURBED AREA WILL NOT EXCEED 3.28 ACRES**
- ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN AN APPROVED LOCATION. ANY SOIL MATERIAL BROUGHT ON SITE SHALL COME FROM AN APPROVED MINE.**
- TOPOGRAPHIC SURVEY PERFORMED BY TIMMONS GROUP IN MARCH 2022.**



VICINITY MAP
NO SCALE



LEGEND

- BENCHMARK
- IRON ROD FOUND (IRF)
- EX NATURAL GAS VALVE
- EX NATURAL GAS METER
- EX WATER METER
- EX FIRE HYDRANT
- EX WATER VALVE
- EX SPRINKLER VALVE
- EX SEWER MANHOLE
- EX SEWER CLEANOUT
- EX TELEPHONE PEDESTAL
- EX TELECOMM VAULT
- EX POWER POLE
- EX GUY WIRE
- EX ELECTRIC BOX
- EX ELECTRIC METER
- EX DROP INLET
- EX SIGN
- EX FLAGPOLE
- EX BOLLARD
- EX TREE
- PROP DROP INLET
- PROP JUNCTION BOX
- PROP FIRE HYDRANT
- PROP FDC
- PROP WATER VALVE
- PROP WATER METER
- PROP SEWER MANHOLE
- PROP SEWER CLEANOUT
- PROPERTY BOUNDARY
- RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- DRAINAGE EASEMENT
- EX FLOOD ZONE LINE
- EX EDGE OF PAVEMENT
- EX EDGE OF GRAVEL
- EX FENCE
- EX OVERHEAD UTILITY
- EX DITCH CENTERLINE
- EX TOP OF BANK
- EX EDGE OF TREE LINE
- PROP EDGE OF TREE LINE
- PROP DITCH CENTERLINE
- PROP PERMEABLE PAVERS
- PROP CONCRETE PAVEMENT
- PROP SIDEWALK
- PROP PAVEMENT OVERLAY
- PROP FULL DEPTH ASPHALT

CROATAN HIGHWAY (US HWY 158 BYPASS - 150' R/W - 68' PAVEMENT WIDTH)

SCALE 1"=20'
0 20' 40'

OAKLEY COLLIER ARCHITECTS
OCA ARCHITECTS
107 Candlewood Road, Rocky Mount, NC 27864 (P) 252.937.2800
1111 Hayes Street, Suite 109, Raleigh, NC 27604 (P) 919.983.7700

TIMMONS GROUP
YOUR VISION. OUR PASSION. YOUR SUCCESS.
1000 West City Street
Elizabeth City, NC 27909
Tel: 252.333.2838
www.timmonsgrp.com
North Carolina License No. C-1052

NEW BUILDING FOR:
DARE COUNTY
EMS STATION 1/ FIRE STATION 14
1630 N CROATAN HWY
KILL DEVIL HILLS, NORTH CAROLINA



PROFESSIONAL ENGINEER
042614
3-2-22
TIMBERLY D. HARRIS

PERMIT DRAWINGS
NOT FOR CONSTRUCTION

GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all Dimensions.

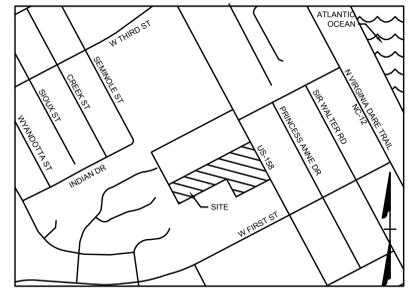
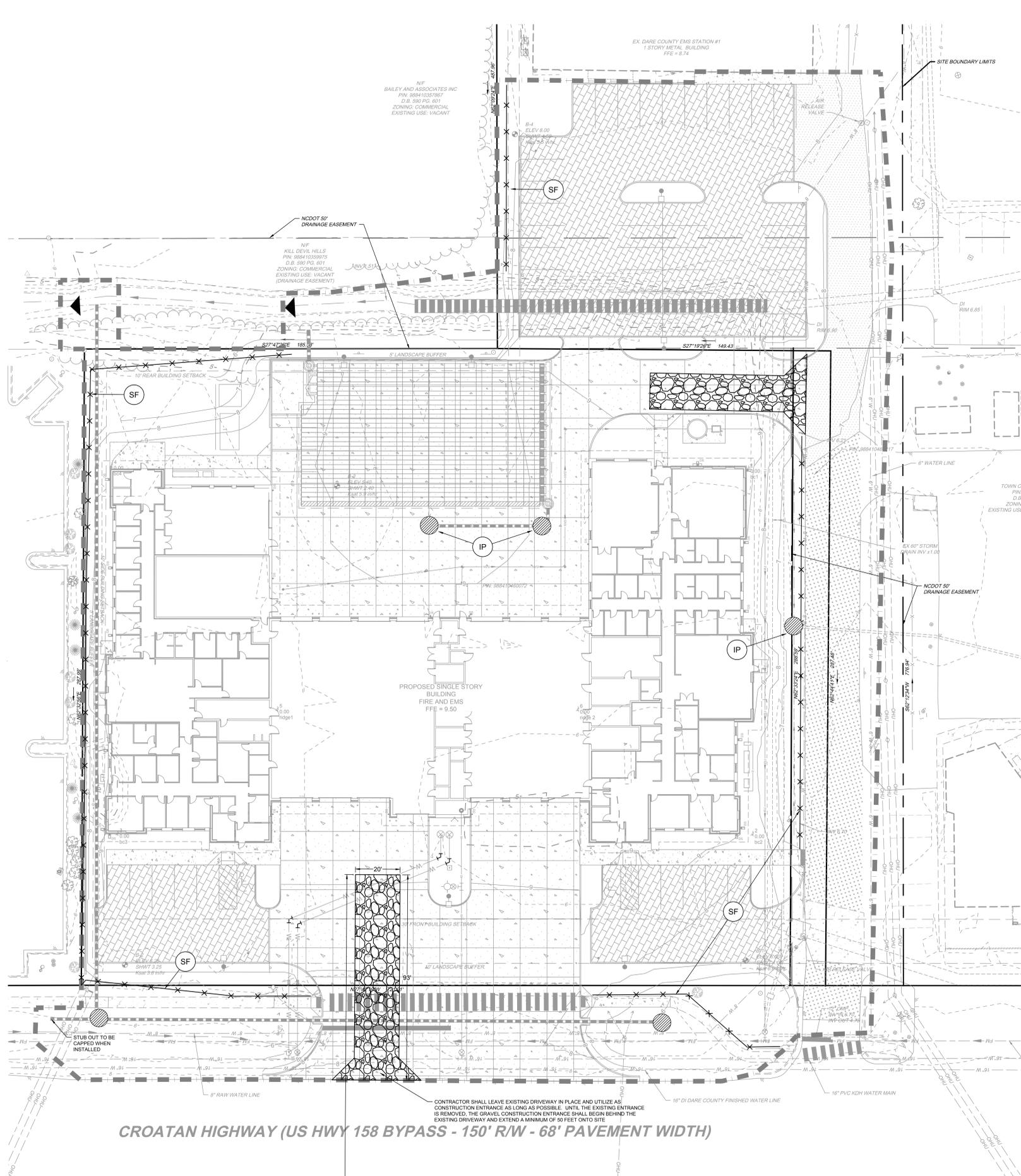
Revisions:
1 01-12-23 Addendum #1
2 02-16-23 Per Town & KDH/WTP comments
3 03-03-23 Per Town comments

Date	Project No.
12/21/22	52044.001
Created By	Sheet No.
BCD	C2.0
Checked By	Sheet Title
KDH	SITE PLAN



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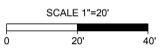
- SITE DATA:**
- OWNER:**
DARE COUNTY
PO BOX 1000
MANTO, NC 27954
ROBERT OUTTEN, COUNTY MANAGER
(252) 475-5800
 - TOWN OF KILL DEVIL HILLS**
PO BOX 1719
KILL DEVIL HILLS, NC 27948
DEBBIE DIAZ, TOWN MANAGER
(252) 449-5300
 - SITE INFORMATION:**
PIN: 988410400272, 988410400217 & A PORTION OF 988410369451
D.B. 2575, PG. 224 / D.B. 1041, PG. 622 / D.B. 2281, PG. 283
ZONING: COMMERCIAL
PROPOSED USE: FIRE/EMS
GROSS FLOOR AREA: 36,419 SF
SITE AREA: 4.47 AC (194,765 SF)
SITE ADDRESS: 1630 N CROATAN HWY
KILL DEVIL HILLS, NC 27948
 - THIS SITE IS LOCATED IN FLOOD ZONE "X" ACCORDING TO FIRM MAP NUMBER 97209840K, DATED LINE 19, 2020. THE TOWN HAS ADOPTED A REGULATORY FLOOD PROTECTION ELEVATION OF 0' 8". ALL ELEVATIONS PER NAVD 1988.**
 - BUILDING SETBACKS:**
FRONT: 30'
SIDE: 10'
REAR: 10'
 - LOT COVERAGE CALCULATIONS:**
EXISTING:
BUILDING = 18,656 SF (9.58%)
PAVEMENT = 57,221 SF (29.38%)
CONCRETE = 8,306 SF (4.31%)
GRAVEL = 904 SF (0.46%)
GREEN SPACE = 109,598 SF (56.27%)
TOTAL SITE AREA = 194,765 SF (100.0%)
PROPOSED:
BUILDING = 50,732 SF (26.05%)
PAVEMENT = 53,800 SF (27.62%)
CONCRETE = 3,100 SF (1.59%)
GRAVEL = 904 SF (0.46%)
PERMEABLE PAVERS = 20,219 SF (10.38%)
GREEN SPACE = 60,009 SF (30.93%)
TOTAL SITE AREA = 194,765 SF (100.0%)
TOTAL IMPERVIOUS COVERAGE = 108,542 SF (55.73%)
(NOTE: PERMEABLE PAVERS ARE NOT INCLUDED IN THE TOTAL IMPERVIOUS COVERAGE)
 - PARKING:**
REQUIRED: 1 PER PERSON ON STAFF PLUS 1/200 SF TRAINING AREA AND CUSTOMER SERVICE AREA
MAX STAFF ON SINGLE SHIFT: 36
2725 SF TRAINING AND CUSTOMER SERVICE: 14
TOTAL REQUIRED: 50
PROPOSED SPACES: 51 (INCLUDING 2 ADA SPACES)
ADDITIONAL PARKING TO BE PROVIDED OFF SITE THROUGH AGREEMENT WITH TOWN OF KILL DEVIL HILLS
 - DISTURBED AREA WILL NOT EXCEED 3.28 ACRES**
 - ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN AN APPROVED LOCATION. ANY SOIL MATERIAL BROUGHT ON SITE SHALL COME FROM AN APPROVED MINE.**
 - TOPOGRAPHIC SURVEY PERFORMED BY TIMMONS GROUP IN MARCH 2022.**



LEGEND

LOD	--- --	LIMIT OF DISTURBANCE
GCE	▨	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
SF	--- x ---	SILT FENCE
IP	●	INLET PROTECTION
CIP	▨	CULVERT INLET PROTECTION
	▲	CHECK DAM
	▨	JUTE MAT

NOTE: SEE SHEET C6.3 FOR EROSION CONTROL DETAILS



OAKLEY COLLIER ARCHITECTS
OCA ARCHITECTS
107 Condemned Road, Rocky Mount, NC 27964, P: 252.937.2800
1111 Haynes Street, Suite 109, Raleigh, NC 27664, P: 919.963.7700

TIMMONS GROUP
YOUR VISION. OURS. ACHIEVED. TERRAZZO GROUP, THE SHAWMUT GROUP AND THE ELIZABETH CITY OFFICE
100 West City Street, Suite 200
Raleigh, NC 27601
Tel: 352.523.2819
www.timmons.com
North Carolina License No. C-1052

NEW BUILDING FOR:
**DARE COUNTY
EMS STATION 1/ FIRE STATION 14**
1630 N CROATAN HWY
KILL DEVIL HILLS, NORTH CAROLINA



PERMIT DRAWINGS NOT FOR CONSTRUCTION

GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all dimensions.

- Revisions:
- 01-12-23 Addendum #1
 - 02-16-23 Per Town & KDHWWTP comments
 - 03-03-23 Per Town comments

Date: 12/21/22 Project No: 52044.001

Created by: BCD Sheet No: C3.1

Checked by: KDH
Sheet Title: EROSION & SEDIMENT CONTROL PLAN



SITE DATA:

- OWNER:
DARE COUNTY
PO BOX 1000
MANTO, NC 27954
ROBERT GUTTEN, COUNTY MANAGER
(252) 475-5800
- TOWN OF KILL DEVIL HILLS
PO BOX 1719
KILL DEVIL HILLS, NC 27948
DEBBIE DIAZ, TOWN MANAGER
(252) 449-5300
- THIS SITE IS LOCATED IN FLOOD ZONE "X" ACCORDING TO FIRM MAP NUMBER 170099AK00, DATED JUNE 19, 2020. THE TOWN HAS ADOPTED A REGULATORY FLOOD PROTECTION ELEVATION OF 8'. ALL ELEVATIONS PER NAVD 1985.
- BUILDING SETBACKS:
FRONT: 30'
SIDE: 10'
REAR: 10'
- LOT COVERAGE CALCULATIONS:
EXISTING:
BUILDING = 18,656 SF (9.59%)
PAVEMENT = 57,221 SF (29.38%)
CONCRETE = 8,386 SF (4.31%)
GRAVEL = 904 SF (0.46%)
GREEN SPACE = 109,998 SF (56.27%)
TOTAL SITE AREA = 194,765 SF (100.0%)

PROPOSED:
BUILDING = 50,732 SF (26.05%)
PAVEMENT = 53,800 SF (27.62%)
CONCRETE = 3,108 SF (1.59%)
GRAVEL = 904 SF (0.46%)
PERMEABLE PAVERS = 20,219 SF (10.38%)
GREEN SPACE = 66,004 SF (33.90%)
TOTAL SITE AREA = 194,765 SF (100.0%)

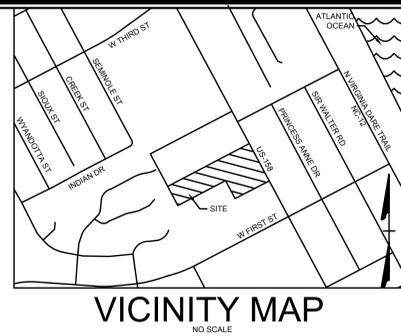
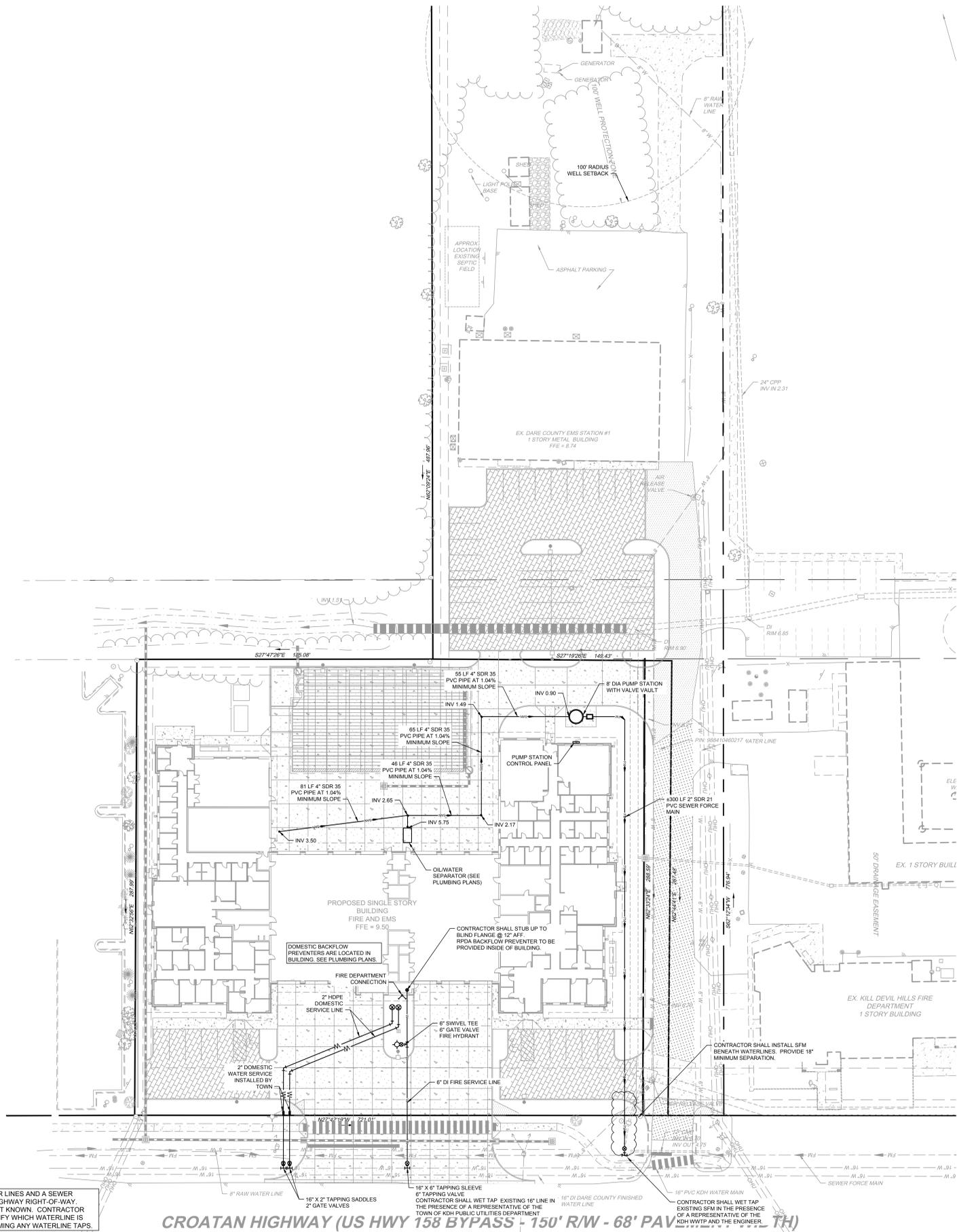
TOTAL IMPERVIOUS COVERAGE = 108,542 SF (55.73%)
NOTE: PERMEABLE PAVERS ARE NOT INCLUDED IN THE TOTAL IMPERVIOUS COVERAGE.

- PARKING:
REQUIRED: 1 PER PERSON ON STAFF PLUS 1200 SF TRAINING AREA AND CUSTOMER SERVICE AREA
MAX STAFF ON SINGLE SHIFT: 36
2725 SF TRAINING AND CUSTOMER SERVICE: 14
TOTAL REQUIRED: 50
PROPOSED SPACES: 91 (INCLUDING 2 ADA SPACES)
ADDITIONAL PARKING TO BE PROVIDED OFF SITE THROUGH AGREEMENT WITH TOWN OF KILL DEVIL HILLS
- DISTURBED AREA WILL NOT EXCEED 3.28 ACRES
- ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN AN APPROVED LOCATION. ANY SOIL MATERIAL BROUGHT ON SITE SHALL COME FROM AN APPROVED MINE.
- TOPOGRAPHIC SURVEY PERFORMED BY TIMMONS GROUP IN MARCH 2022.

UTILITY NOTES:

- EXISTING UNDERGROUND UTILITIES ARE SHOWN BASED ON INFORMATION AVAILABLE TO THE ENGINEER AND SHOULD NOT BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST IN THE AREA OF CONSTRUCTION PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS EXPENSE, ANY UTILITIES DAMAGED DURING CONSTRUCTION. CONTRACTOR SHALL CONTACT NC ONE CALL AT 811 FOR UTILITY LOCATION.
- IN THE EVENT THAT THE CONTRACTOR ENCOUNTERS SITE CONDITIONS THAT ARE DIFFERENT THAN DEPICTED ON THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND NOTIFY THE ENGINEER OF THE PROBLEM. THE ENGINEER OR OWNER ARE NOT FINANCIALLY RESPONSIBLE FOR SUCH WORK STOPPAGES OR TIME DELAYS RESULTING FROM ADDRESSING THE PROBLEM. THE CONTRACTOR ACCEPTS THIS BY ACCEPTING A CONTRACT TO PERFORM THIS WORK.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM WITH CURRENT STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, NCDOT, AND THE KILL DEVIL HILLS PUBLIC SERVICES DEPARTMENT.
- A SEDIMENT & EROSION CONTROL PLAN HAS BEEN APPROVED FOR THIS PROJECT. THE UTILITY CONTRACTOR SHALL NOT DISTURB THE EROSION CONTROL DEVICES AS INSTALLED FOR THIS PROJECT. ANY RELOCATION OF EROSION CONTROL DEVICES SHALL BE DONE BY ADVANCE WRITTEN NOTIFICATION TO THE GENERAL CONTRACTOR AND THE ENGINEER. THE UTILITY CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO LIMIT EROSION & SEDIMENT TRANSPORT IN HIS WORK AREA.
- MINIMUM CLEARANCES FOR WATER, SEWER AND STORM DRAINAGE SHALL MEET THE FOLLOWING CRITERIA: HORIZONTAL VERTICAL WATER AND SEWER 10' 18" (WATER ABOVE SEWER) (WHERE WATER AND SEWER CROSS AND WATER IS NOT ABOVE SEWER OR DOES NOT HAVE 18" CLEARANCE, BOTH WATER AND SEWER PIPES SHALL BE DUCTILE IRON FOR 10 FEET ON EACH SIDE OF THE CROSSING AND FULL JOINTS OF PIPE SHALL BE CENTERED ON THE CROSSING) (WHERE WATER AND STORM DRAINAGE CROSS AND WATER IS NOT ABOVE STORM DRAINAGE, WATER PIPES SHALL BE DUCTILE IRON FOR 10 FEET ON EACH SIDE OF THE CROSSING WITH A FULL JOINT CENTERED AT THE CROSSING) WATER AND STORM DRAINAGE SEWER AND STORM DRAINAGE SEPARATION BETWEEN SEWER AND STORM DRAIN CAN BE REDUCED BY UTILIZING DUCTILE IRON SEWER PIPE)
- NO PIPE MATERIAL SUBSTITUTIONS SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ALL WATER SERVICE INSPECTIONS SHALL BE COORDINATED WITH THE KILL DEVIL HILLS PUBLIC SERVICES DEPARTMENT AND THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE.
- ALL WATERMANS SHALL BE EITHER C-900 PVC OR DUCTILE IRON AS SHOWN ON PLANS. ALL PIPE SHALL COMPLY WITH THE REQUIREMENTS OF AWWA STANDARDS AND THE NATIONAL SANITATION FOUNDATION. ALL PIPE MUST BEAR THE NSF LOGO FOR POTABLE WATER.
- THRUST BLOCKING SHALL BE INSTALLED ON ALL BENDS OF 22 1/2" OR GREATER. (SEE THE SPECIFICATIONS AND DETAILS ON THRUST BLOCKINGS.)
- THE CONTRACTOR SHALL FIELD VERIFY THE SIZE AND MATERIAL OF EXISTING MAINS PRIOR TO ORDERING MATERIALS.
- DURING CONSTRUCTION, NO PIPE SHALL BE COVERED UNTIL INSPECTED BY KDH PUBLIC SERVICES. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE INSPECTION OF WATERLINE.
- THE CONTRACTOR SHALL SATISFY ALL BOND REQUIREMENTS OF THE DEPARTMENT OF TRANSPORTATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- ALL WATERMANS SHALL HAVE A MINIMUM OF 36" COVER.
- ALL PIPES AND SERVICES TO HAVE RUNNING ALONG AND WITH THE PIPE A CONTINUOUS LENGTH OF #12 SOLID COPPER WIRE AND A 3" WIDE TRACER TAPE AT ONE (1) FOOT BELOW THE FINISHED GRADE OF THE EXCAVATION FOR THE PIPE.
- WATERLINES SHALL BE PRESSURE TESTED AND CHLORINATED AS REQUIRED BY NCDOT. TESTING SHALL BE INSPECTED BY A REPRESENTATIVE OF THE KDH PUBLIC SERVICES DEPARTMENT AND/OR THE ENGINEER.
- UNDERGROUND WATERLINES SHALL BE INSTALLED PER NFPA REQUIREMENTS FOR THE SPRINKLER SYSTEM. THESE LINES SHALL BE PRESSURE TESTED AT 200 PSI FOR TWO HOURS AFTER WHICH THEY SHALL BE THOROUGHLY FLUSHED. THIS TESTING SHALL BE DONE IN THE PRESENCE OF THE FIRE MARSHAL.

NOTE: THERE ARE NUMEROUS WATER LINES AND A SEWER FORCE MAIN LOCATED WITHIN THE HIGHWAY RIGHT-OF-WAY. EXACT POSITION OF EACH LINE IS NOT KNOWN. CONTRACTOR SHALL FIELD LOCATE LINES AND VERIFY WHICH WATERLINE IS THE KDH 16" LINE PRIOR TO PERFORMING ANY WATERLINE TAPS.



LEGEND

- BENCHMARK
- IRON ROD FOUND (RR)
- EX NATURAL GAS VALVE
- EX NATURAL GAS METER
- EX WATER METER
- EX FIRE HYDRANT
- EX WATER VALVE
- EX SPRINKLER VALVE
- EX SPRINKLER HEAD
- EX SEWER MANHOLE
- EX SEWER CLEANOUT
- EX TELEPHONE PEDESTAL
- EX TELECOMM VAULT
- EX POWER POLE
- EX GUY WIRE
- EX ELECTRIC BOX
- EX ELECTRIC METER
- EX DROP INLET
- EX SIGN
- EX FLAGPOLE
- EX BOLLARD
- EX TREE
- PROP DROP INLET
- PROP JUNCTION BOX
- PROP FIRE HYDRANT
- PROP FDC
- PROP WATER VALVE
- PROP WATER METER
- PROP SEWER MANHOLE
- PROP SEWER CLEANOUT
- PROP LIGHT POLE
- PROPERTY BOUNDARY
- RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- DRAINAGE EASEMENT
- EX FLOOD ZONE LINE
- EX EDGE OF PAVEMENT
- EX EDGE OF GRAVEL
- EX FENCE
- OHU EX OVERHEAD UTILITY
- G EX NATURAL GAS LINE
- FM EX FORCE MAIN
- 8" W EX 8" WATER LINE
- 12" W EX 12" WATER LINE
- 16" W EX 16" WATER LINE
- EX DITCH CENTERLINE
- EX TOP OF BANK
- EX MAJOR CONTOUR
- EX MINOR CONTOUR
- EX STORM PIPE
- EX EDGE OF TREE LINE
- 5 PROP MAJOR CONTOUR
- 4 PROP MINOR CONTOUR
- PROP STORM PIPE
- RD PROP ROOF DRAIN LEADER
- W PROP WATER LINE
- FM PROP FORCE MAIN
- PROP EDGE OF TREE LINE
- PROP DITCH CENTERLINE
- PROP PERMEABLE PAVERS
- PROP CONCRETE PAVEMENT
- PROP SIDEWALK
- PROP PAVEMENT OVERLAY
- PROP FULL DEPTH ASPHALT

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ELIZABETH CITY, NC 27909
TEL: 252.333.2878
WWW.TIMMONSGROUP.COM
North Carolina License No. C-1452

NEW BUILDING FOR:
**DARE COUNTY
EMS STATION 1/ FIRE STATION 14**
1630 N CROATAN HWY
KILL DEVIL HILLS, NORTH CAROLINA

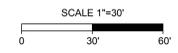


PERMIT DRAWINGS NOT FOR CONSTRUCTION

GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all Dimensions.

Revisions:	
1	01-12-23 Addendum #1
2	02-16-23 Per Town & KDH/WTP comments
3	03-03-23 Per Town comments

Date:	12/21/22	Project No.:	52044.001
Drawn By:	JBF	Sheet No.:	C4.0
Checked By:	KDH	Sheet Title:	UTILITY PLAN



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SITE DATA:

- OWNER:
DARE COUNTY
PO BOX 1000
MANTEO, NC 27954
ROBERT OUTTEN, COUNTY MANAGER
(252) 475-5800

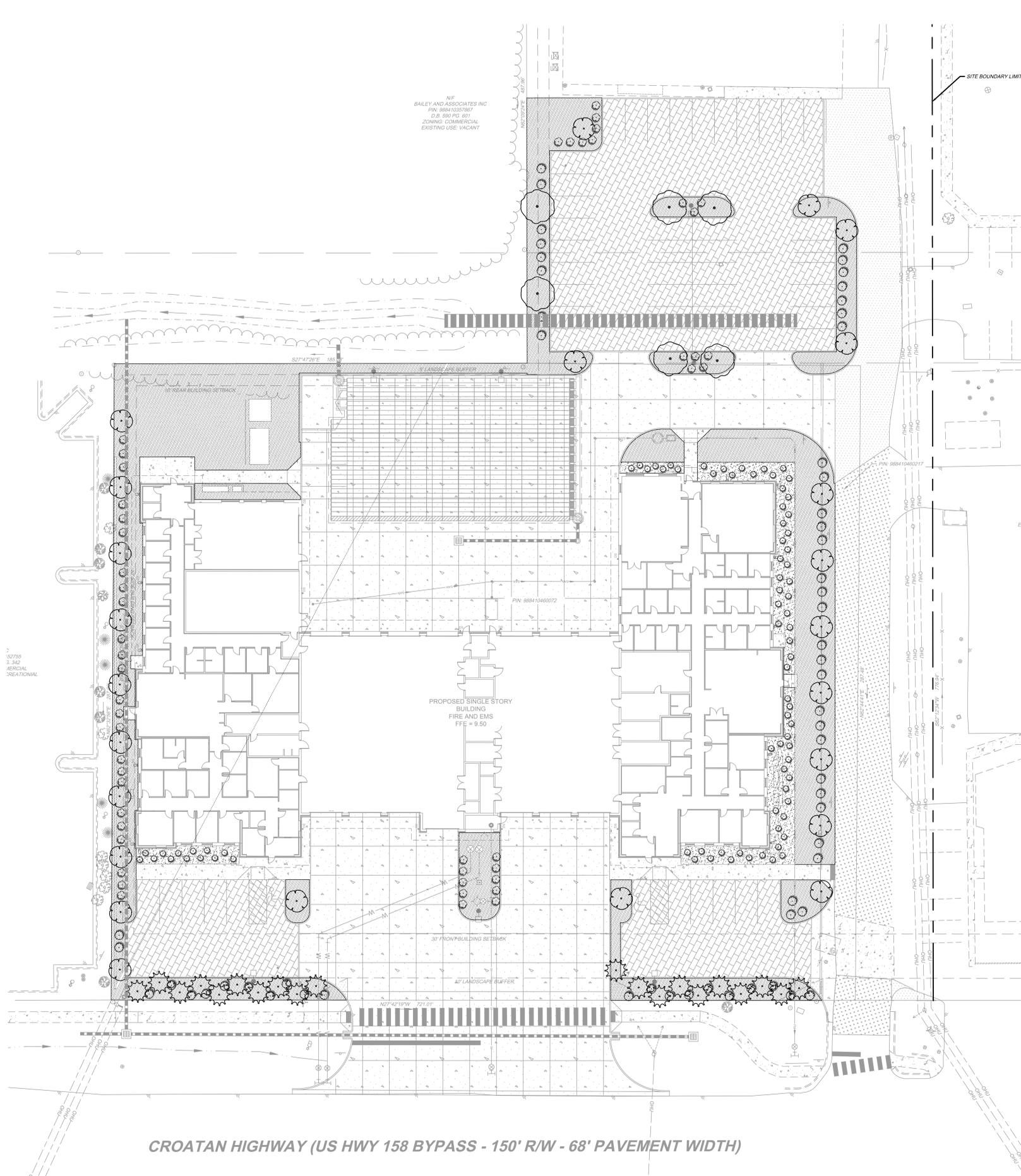
TOWN OF KILL DEVIL HILLS
PO BOX 1719
KILL DEVIL HILLS, NC 27948
DEBBIE DIAZ, TOWN MANAGER
(252) 449-5300
- SITE INFORMATION:
PIN: 988410400217, 988410400217 & A PORTION OF 988410369451
D.B. 2575, PG. 224 / D.B. 1041, PG. 622 / D.B. 2281, PG. 283
ZONING: COMMERCIAL
PROPOSED USE: FIRE/EMS
GROSS FLOOR AREA: 36,419 SF
SITE AREA: 4.47 AC (194,765 SF)
SITE ADDRESS: 1630 N CROATAN HWY
KILL DEVIL HILLS, NC 27948
- THIS SITE IS LOCATED IN FLOOD ZONE "X" ACCORDING TO FIRM MAP NUMBER 97209840K, DATED JUNE 19, 2020. THE TOWN HAS ADOPTED A REGULATORY FLOOD PROTECTION ELEVATION OF 0'. ALL ELEVATIONS PER NAVD 1988.
- BUILDING SETBACKS:
FRONT: 30'
SIDE: 10'
REAR: 10'
- LOT COVERAGE CALCULATIONS:

EXISTING:	
BUILDING =	18,656 SF (9.58%)
PAVEMENT =	57,221 SF (29.38%)
CONCRETE =	8,306 SF (4.31%)
GRAVEL =	904 SF (0.46%)
GREEN SPACE =	109,608 SF (56.27%)
TOTAL SITE AREA =	194,765 SF (100.0%)
PROPOSED:	
BUILDING =	50,732 SF (26.05%)
PAVEMENT =	53,800 SF (27.62%)
CONCRETE =	3,105 SF (1.59%)
GRAVEL =	904 SF (0.46%)
PERMEABLE PAVERS =	20,219 SF (10.38%)
GREEN SPACE =	66,005 SF (33.90%)
TOTAL SITE AREA =	194,765 SF (100.0%)

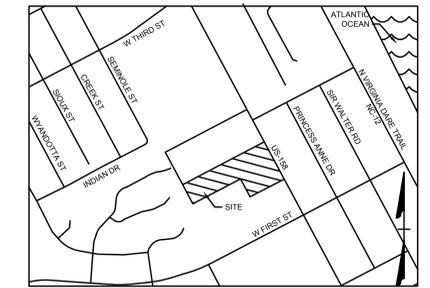
TOTAL IMPERVIOUS COVERAGE = 108,542 SF (55.73%)
(NOTE: PERMEABLE PAVERS ARE NOT INCLUDED IN THE TOTAL IMPERVIOUS COVERAGE)
- PARKING:
REQUIRED: 1 PER PERSON ON STAFF PLUS 1/200 SF TRAINING AREA AND CUSTOMER SERVICE AREA
MAX STAFF ON SINGLE SHIFT: 36
2725 SF TRAINING AND CUSTOMER SERVICE: 14
TOTAL REQUIRED: 50
PROPOSED SPACES: 51 (INCLUDING 2 ADA SPACES)
ADDITIONAL PARKING TO BE PROVIDED OFF SITE THROUGH AGREEMENT WITH TOWN OF KILL DEVIL HILLS
- DISTURBED AREA WILL NOT EXCEED 3.28 ACRES
- ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN AN APPROVED LOCATION. ANY SOIL MATERIAL BROUGHT ON SITE SHALL COME FROM AN APPROVED MINE.
- TOPOGRAPHIC SURVEY PERFORMED BY TIMMONS GROUP IN MARCH 2022.

LANDSCAPE NOTES:

- CANOPY TREES AN TREES WITHIN PARKING LOT SHALL BE A MINIMUM OF 8' IN HEIGHT AND HAVE A MINIMUM CALIPER OF 2" (MEASURED 6" ABOVE GRADE)
- UNDERSTORY TREES AND PERIMETER TREES SHALL BE 6' IN HEIGHT AND HAVE A MINIMUM CALIPER OF 1.5" (MEASURED 6" ABOVE GRADE)
- SHRUBS SHALL BE A MINIMUM OF 15" IN HEIGHT IN THE PERIMETER LANDSCAPING AND 24" IN HEIGHT IN ALL OTHER LOCATIONS
- LANDSCAPE AREAS AROUND TREES AND SHRUBS WHERE NO GRASS IS PLANTED SHALL BE COVERED WITH NATURAL MULCH AT A MINIMUM DEPTH OF 3"
- LANDSCAPE AREAS SHALL BE WATERED REGULARLY TO INSURE SURVIVABILITY OF ALL PLANTINGS
- LANDSCAPING SHALL BE INSTALLED SUCH THAT 2' OF SEPARATION IS MAINTAINED BETWEEN MATURE PLANTS AND PAVEMENT AND SO THERE IS 6' OF SEPARATION BETWEEN MATURE PLANTS AND ELECTRICAL TRANSFORMER
- LANDSCAPING SHALL BE INSTALLED AS SHOWN AND A LETTER SHALL BE PROVIDED TO THE PLANNING DIRECTOR STATING THAT PLANTINGS HAVE BEEN INSTALLED. SUBSTITUTIONS SHALL BE APPROVED BY THE PLANNING DIVISION.
- NORTH AND SOUTH PERIMETER BUFFERS SHALL CONTAIN 1 TREE PER 30 FEET AND 1 SHRUB PER 10 FEET
- FRONT BUFFER SHALL CONTAIN 1 TREE AND 1 SHRUB PER 10 FEET.



CROATAN HIGHWAY (US HWY 158 BYPASS - 150' R/W - 68' PAVEMENT WIDTH)



VICINITY MAP
NO SCALE

LANDSCAPE LEGEND

PLANT NAME	QTY
GOLDEN RAIN TREE KOELREUTERIA PANICULATA	6
CREPE MYRTLE LAGERSTROMIA INDICA	24
SERVICE BERRY AMELANCHIER CANADENSIS	20
DWARF YAUPON HOLLY ILEX VOMITORIA 'NANA'	56
CRANBERRY COTONEASTER COTONEASTER APICULATUS	49
ADAMS NEEDLE YUCCA FILAMENTOSA	80
MULCH	
SEEDED AREA	

LANDSCAPE CALCULATIONS:

LANDSCAPE REQUIRED: 10% OF PARKING LOT AREA
PARKING AREA = 19,835 SF
19,835 SF X 10% = 1,984 SF
1,984 SF PARKING LOT LANDSCAPE AREA REQUIRED
3,350 SF PARKING LOT LANDSCAPE AREA PROVIDED

TREES REQUIRED: 1 PER 10 PARKING SPACES
PARKING SPACES: 51
51 / 10 = 5 TREES REQUIRED
11 TREES PROVIDED

SOUTH PROPERTY LINE 10' BUFFER:
1 TREE PER 30 LF OF BUFFER
1 SHRUB PER 10 LF OF BUFFER
288 LF / 30 = 10 TREES REQUIRED
288 LF / 10 = 29 SHRUBS REQUIRED
10 TREES PROVIDED
29 SHRUBS PROVIDED

EAST PROPERTY LINE 5' BUFFER:
1 TREE PER 10 LF OF BUFFER
1 SHRUB PER 10 LF OF BUFFER
317 LF - 116 LF OF DRIVEWAY = 201 LF
201 LF / 10 = 20 TREES REQUIRED
201 LF / 10 = 20 SHRUBS REQUIRED
20 TREES PROVIDED
20 SHRUBS PROVIDED

WEST PROPERTY LINE 5' BUFFER:
EXISTING VEGETATION FULFILLS
LANDSCAPE BUFFER REQUIREMENTS

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1111 Haynes Street, Suite 109, Raleigh, NC 27604, P: 919.983.7700

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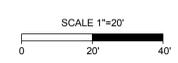


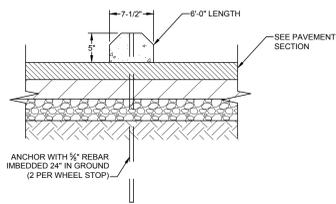
PERMIT DRAWINGS
NOT FOR CONSTRUCTION

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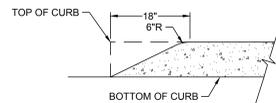
Revision:	1: 01-18-23 Addendum #1
	2: 02-16-23 Per Town & KDHWTP comments
Date:	Project No:
12/21/22	52044.001
Created by:	Sheet No.:
BCD	C5.0
Checked by:	Sheet Title:
KDH	LANDSCAPE PLAN

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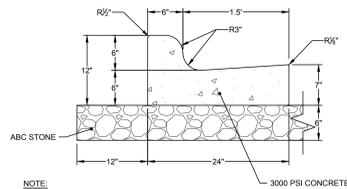




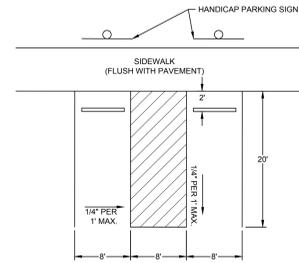
PRECAST BUMPER BLOCK (WHEEL STOP)
NO SCALE



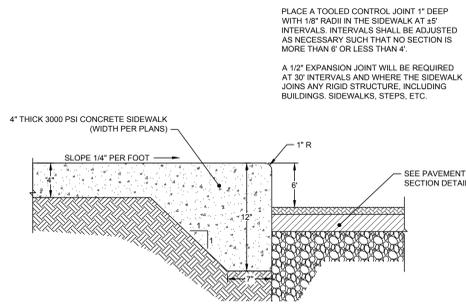
CURB WIPEDOWN
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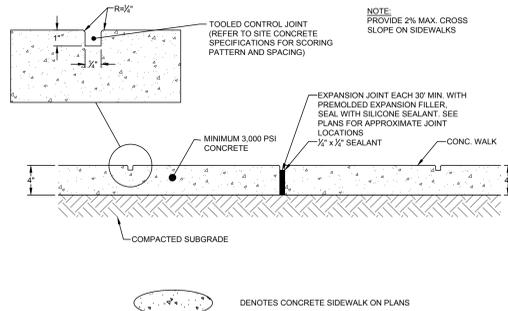
24" STANDARD CURB & GUTTER
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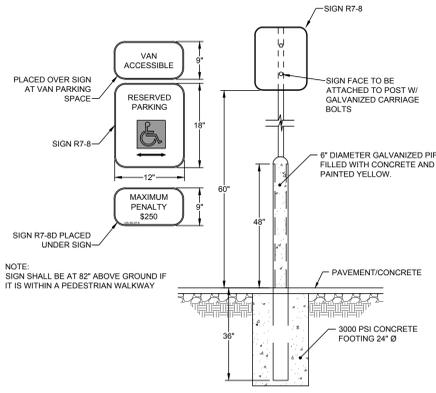
HANDICAP PARKING DETAIL
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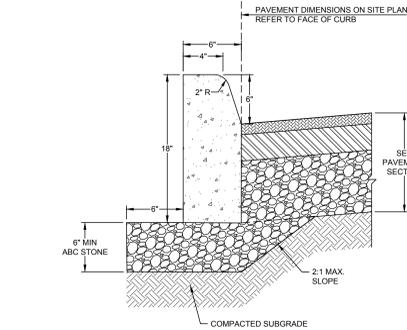
TURNDOWN SIDEWALK
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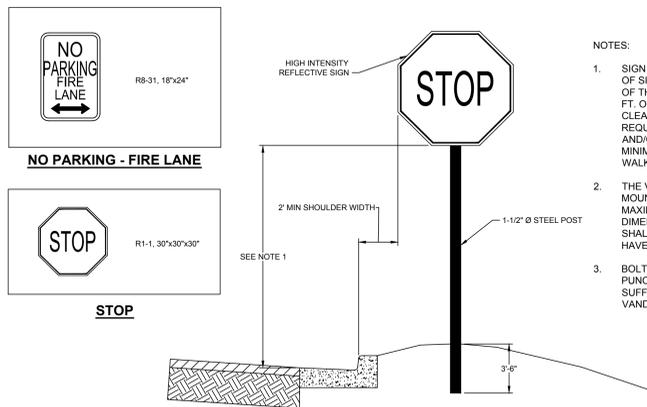
CONCRETE SIDEWALKS
NO SCALE



HANDICAP PARKING SIGN IN BOLLARD
NO SCALE

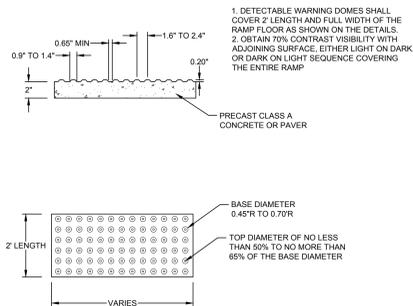


CURB 6" X 18"
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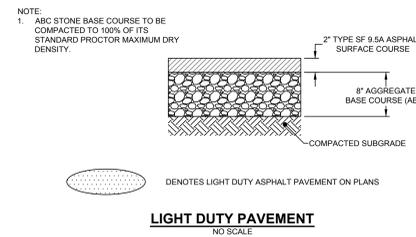


TYPICAL SIGN DETAIL
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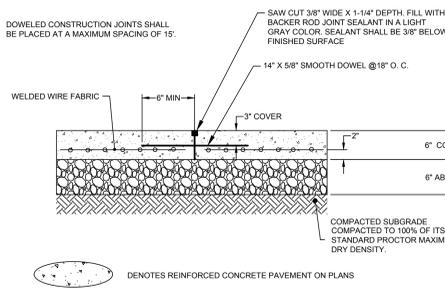
- NOTES:
- SIGN SHALL BE ERECTED WITH THE BOTTOM OF SIGN ASSEMBLY 6 FT. ABOVE THE EDGE OF THE TRAVEL LANE ON FREEWAYS AND 5 FT. ON OTHER ROUTES. THE VERTICAL CLEARANCE SHALL BE 7 FT. WHERE REQUIRED FOR PEDESTRIAN TRAFFIC AND/OR PARKED VEHICLES. OR A 6 FT. MINIMUM CLEARANCE TO THE SIDEWALK OR WALKING SURFACE.
 - THE VERTICAL DIMENSIONS BETWEEN MOUNTING HOLE CENTERS SHALL BE 30" MAXIMUM. THE VERTICAL AND HORIZONTAL DIMENSIONS BETWEEN MOUNTING HOLES SHALL BE TO THE WHOLE INCH. SIGN SHALL HAVE A MINIMUM OF 2 BOLTS PER SUPPORT.
 - BOLT THREADS SHALL BE DEFORMED WITH PUNCH AND CHISEL AFTER INSTALLATION SUFFICIENTLY TO REDUCE REMOVAL BY VANDALS.



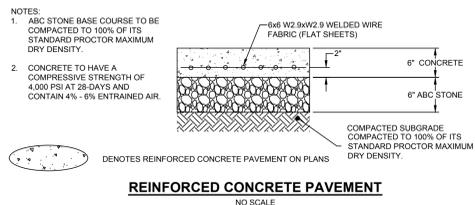
DETECTABLE WARNING DOMES
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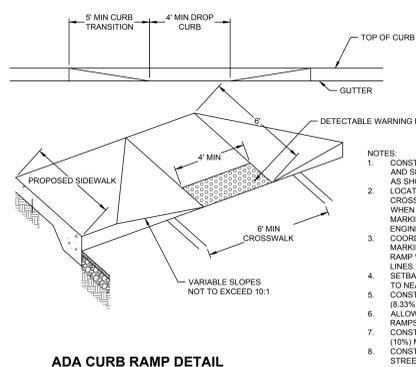
LIGHT DUTY PAVEMENT
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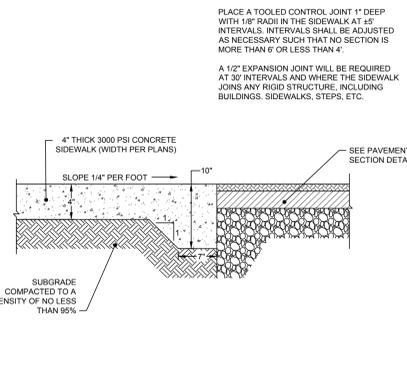
DOWELED CONSTRUCTION JOINT
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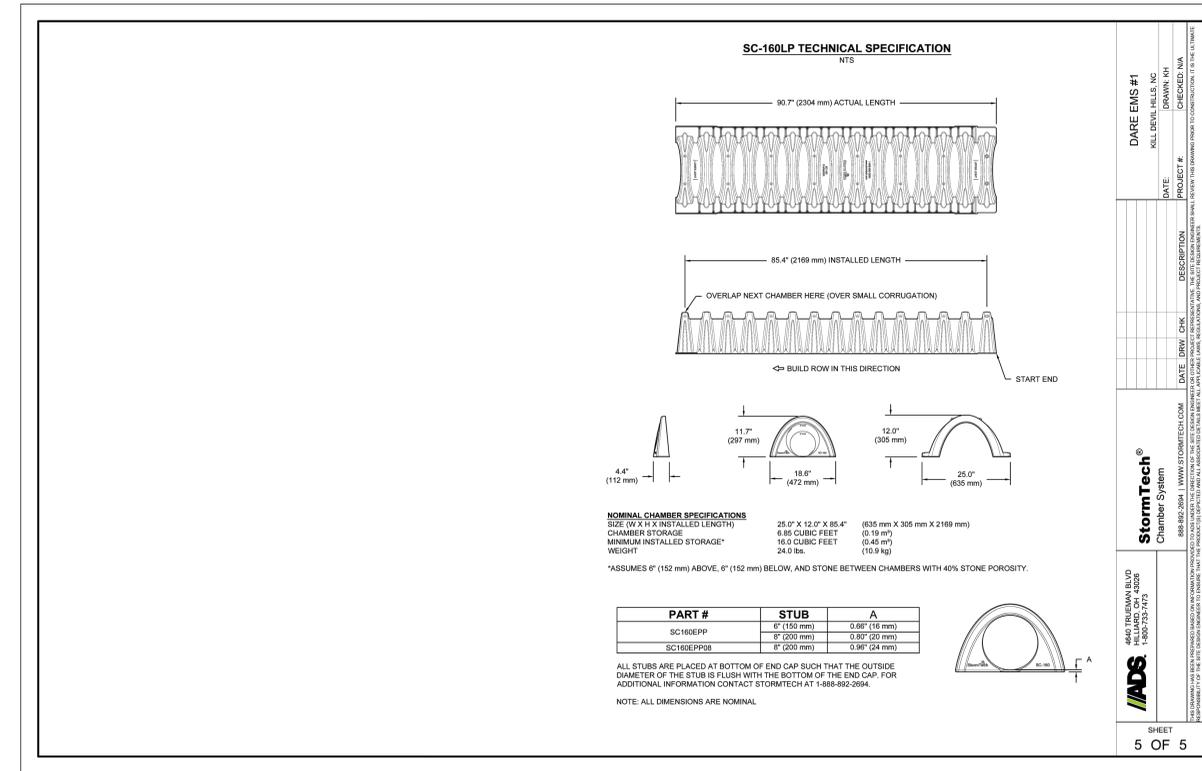
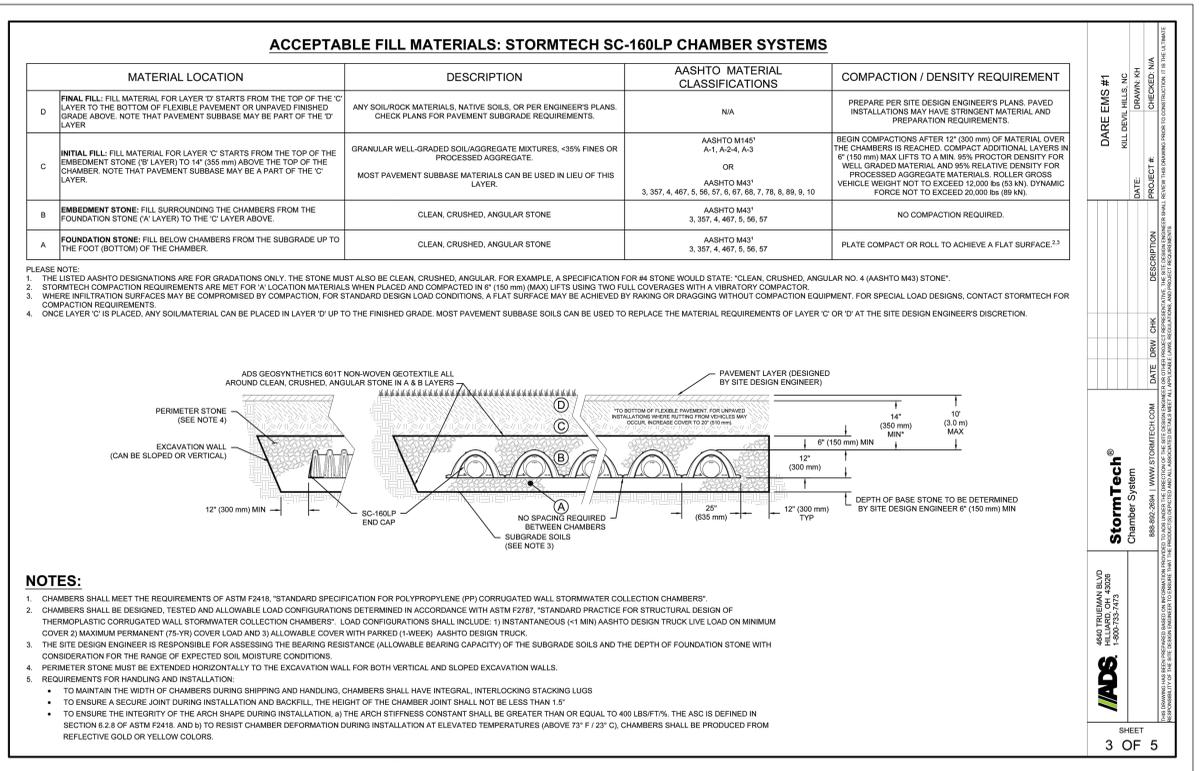
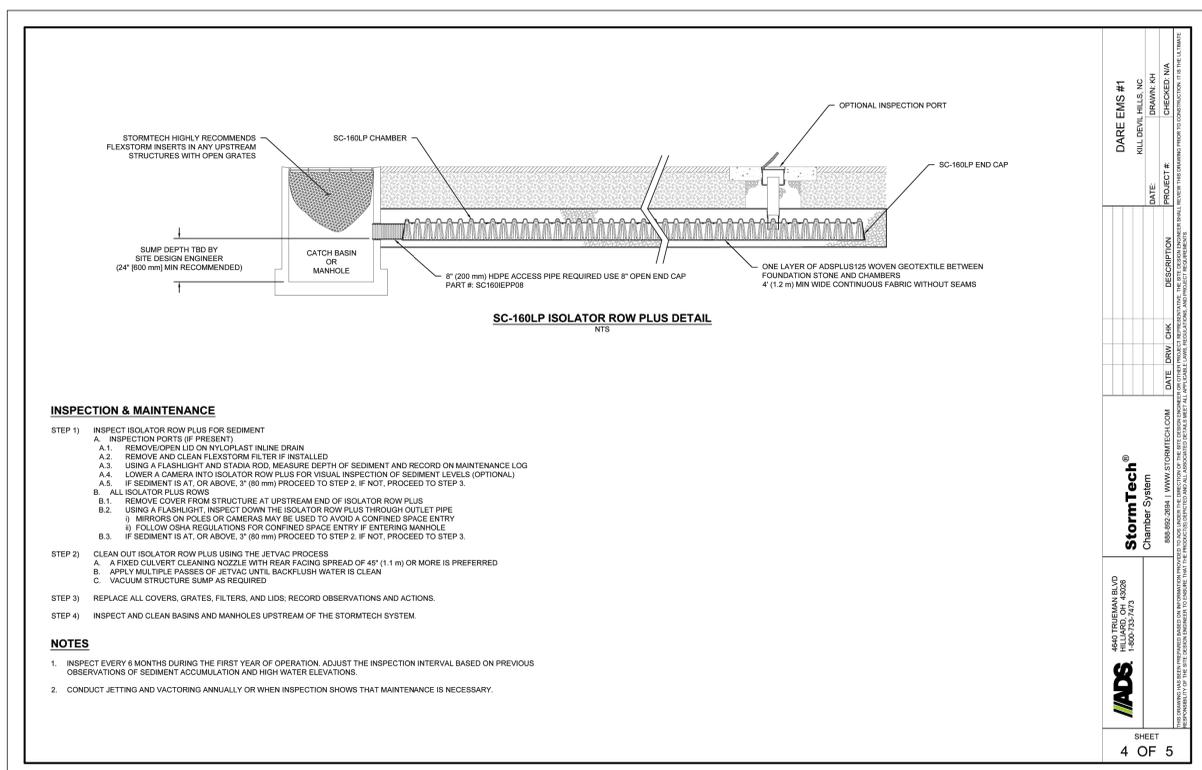
REINFORCED CONCRETE PAVEMENT
NO SCALE



ADA CURB RAMP DETAIL
NO SCALE



FLUSH SIDEWALK
NO SCALE



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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 4 and 5, 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.

Site Area Description	Required Ground Stabilization Timeframes	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 following:

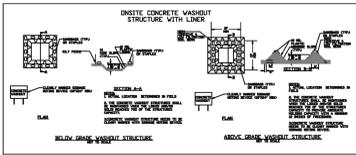
Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Roll-on erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul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

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

- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
 - Provide drip pans under any stored equipment.
 - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
 - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
 - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
 - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.
- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
 - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
 - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
 - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
 - Anchor all lightweight items in waste containers during times of high winds.
 - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
 - Dispose waste off-site at an approved disposal facility.
 - On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
 - Locate paint washouts at least 50 feet from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Contain liquid wastes in a controlled area.
 - Containment must be labeled, sized, and placed appropriately for the needs of site.
 - Prevent the discharge of soaps, solvents and other liquid wastes from construction sites.
- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
 - Provide staking or anchoring of portable toilets during periods of high winds or in high traffic areas.
 - Remove portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

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



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

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

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

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 the event of a storm event of equal to or greater than 1.0 inch 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 (Minimum Interval)	Inspection records must include:
(1) Rain gauge reading	Daily	1. Date and time of inspection. 2. Name of person performing the inspection. 3. Evidence of whether the measures were operating properly. 4. Description, evidence, and date of corrective actions taken.
(2) E&S 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. Evidence of whether the measures were operating properly. 5. Identification of maintenance needs for the measures. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outlets (SDCO)	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 outlets inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of whether the measures were operating properly. 5. Evidence of whether the measures were operating properly. 6. Identification of maintenance needs for the measures. 7. 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	1. Action taken to clean up or stabilize the sediment that has left the site. 2. Description, evidence, and date of corrective actions taken. 3. An evaluation of whether the measures were operating properly.
(5) Streams or wetlands on-site (before or after construction)	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 stream or wetland inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of whether the measures were operating properly. 5. Evidence of whether the measures were operating properly. 6. Identification of maintenance needs for the measures. 7. Description, evidence, and date of corrective actions taken.
(6) Ground stabilization 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. Evidence of whether the measures were operating properly. 5. Evidence of whether the measures were operating properly. 6. Identification of maintenance needs for the measures. 7. Description, evidence, and date of corrective actions taken.

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

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&S Plan Documentation

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

Item to Document	Documentation Requirements
(a) Each E&S measure has been installed and does not significantly deviate from the location, dimensions and relative elevations shown on the approved E&S plan.	Initial and date each E&S measure on a copy of the approved E&S plan or complete, date and sign an inspection report that lists each E&S measure shown on the approved E&S plan. This documentation is required upon the initial installation of the E&S measures or if the E&S measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S plan.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate completion with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S measures.	Initial and date a copy of the approved E&S plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&S plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record or form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the E&S plan and all inspection records shall be maintained for a period of three years after project completion and made available upon request. (40 CFR 122.41)

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences That Must be Reported

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref. 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref. 40 CFR 302.4 and G.S. 143-215.85).
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he 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"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the <i>NC 303(d) list</i> 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.
(b) Oil spills and release of hazardous substances per item 1(b) (1) above	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality as well as the quantity of the spill or release. Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the noncompliance, and its causes, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. (40 CFR 122.41(b)(7)) Division staff may waive the requirement for a written report on a case-by-case basis.
(c) Anticipated bypasses (40 CFR 122.41(m)(3))	<ul style="list-style-type: none"> A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and quantity of the bypass. Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality as well as the quantity of the bypass.
(d) Noncompliance with the conditions of this permit that may endanger health or the environment (40 CFR 122.41(b)(7))	<ul style="list-style-type: none"> Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the noncompliance, and its causes, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. (40 CFR 122.41(b)(7)) Division staff may waive the requirement for a written report on a case-by-case basis.

PERMANENT SEEDING SCHEDULE FOR COASTAL PLAIN

DATE	TYPE	BROADCAST SEEDING RATES
OCT 1 - APR 1	SERICEA LESPEDEZA	15 LBS/ACRE
AUG 30 - MAR 15	KY 31 TALL FESCUE	200-250 LBS/ACRE
AUG 15 - APR 15	RYE GRASS	40 LBS/ACRE
APR 15 - AUG 15	GERMAN MILLET	10 LBS/ACRE

TEMPORARY SEEDING SCHEDULE

DATE	TYPE	PLANTING RATES
DEC 1 - APR 15	ANNUAL LESPEDEZA (KOBLE IN PIEDMONT AND COASTAL PLAIN)	50 LBS/ACRE
APR 15 - AUG 15 (COASTAL PLAIN)	GERMAN MILLET	40 LBS/ACRE
AUG 15 - DEC 30 (COASTAL PLAIN)	RYE	120 LBS/ACRE

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS OF THE DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROVIDED ON ALL AREAS OF THE SITE WHICH ALL DISTURBED OR GRADED.

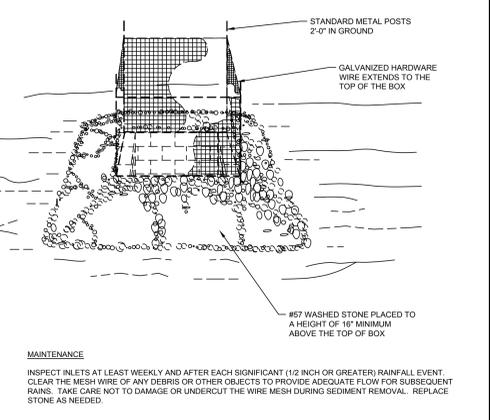
PROVIDE A GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY FOR SLOPES 3:1 OR FLATTER AND LESS THAN 50' IN LENGTH. FOR SLOPES 1:1 OR FLATTER OF ANY LENGTH (EXCEPT FOR PERIMETERS AND HQW ZONES), AND SLOPES NO STEEPER THAN 2:1 AND LESS THAN 10' IN LENGTH.

PROVIDE GROUND COVER (TEMPORARY OR PERMANENT) ON EXPOSED SLOPES WITHIN 7 CALENDAR DAYS FOR SLOPES STEEPER THAN 3:1 OR SLOPES 3:1 OR FLATTER GREATER THAN 80' IN LENGTH, FOR HIGH QUALITY WATER (HQW) ZONES, AND PERIMETER DIKES, SWALES, DITCHES AND SLOPES.

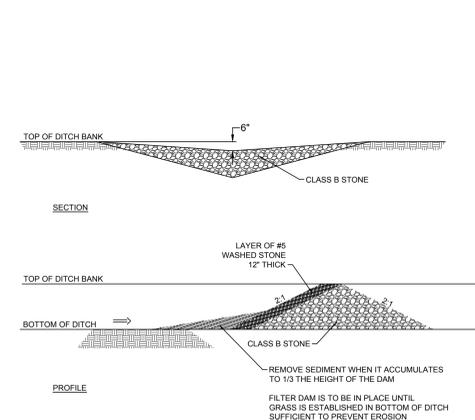
PROVIDE GROUND COVER (TEMPORARY OR PERMANENT) ON ALL EXPOSED SLOPES WITHIN 21 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING, AND, A PERMANENT GROUND COVER FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

THE CONTROL MEASURES SHALL BEGIN PRIOR TO ANY LAND DISTURBING ACTIVITY INCLUDING CLEARING, SHALL CONTINUE DURING CONSTRUCTION AND SHALL CONTINUE WITH THE NECESSARY MAINTENANCE UNTIL THE DISTURBED LAND IS STABILIZED. COMPLIANCE WITH LOCAL AND/OR STATE SOIL EROSION AND SEDIMENTATION CONTROL LAWS SHALL BE THE ENTIRE RESPONSIBILITY OF THE CONTRACTOR. THIS PARAGRAPH IS INTENDED TO SERVE ONLY AS A GUIDE TO THE CONTRACTOR FOR COMPLIANCE WITH SUCH LAWS, ORDERS, RULES AND REGULATIONS CONCERNING EROSION AND SEDIMENTATION CONTROL PROTECTION OF EXISTING STRUCTURES AND FACILITIES FROM SEDIMENTATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ITEMS TO BE PROVIDED SHALL INCLUDE, BUT ARE NOT LIMITED TO, CATCH BASINS, NATURAL WATERWAYS, DRAINAGE DITCHES, WALKS, DRIVES, ROADS, LAWNS, AND STREAMS.

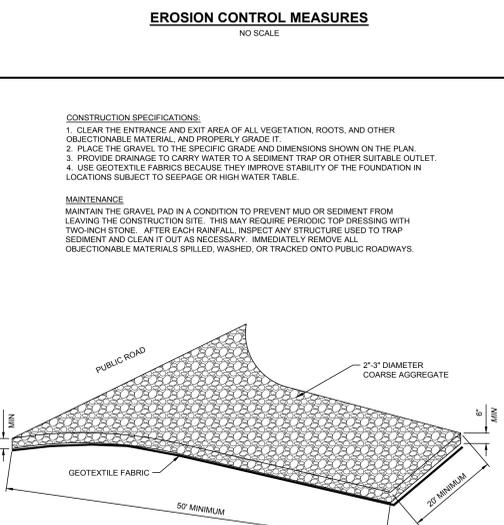
- CONSTRUCTION SEQUENCING**
- INSTALL EROSION CONTROL DEVICES AT SITE DISCHARGE POINTS AND ALL SILT FENCE TO PREVENT OFF SITE SEDIMENTATION.
 - PERFORM CLEARING DEMOLITION WORK AND BEGIN GRADING AND INSTALLATION OF DRAINAGE FEATURES.
 - INSTALL THE REMAINING SEDIMENT AND EROSION CONTROL PROTECTION.
 - INSTALL THE ASPHALT FOR THE PROPOSED PARKING & DRIVEWAYS.
 - PROVIDE GROUND COVER IN ACCORDANCE WITH DETAIL MARKED EROSION CONTROL MEASURES; THIS SHEET.
 - MONITOR AND MAINTAIN THE INSTALLED EROSION CONTROL MEASURES AND REPAIR AS NECESSARY.
 - REMOVE ANY REMAINING CONTROL DEVICES.



INLET PROTECTION
NO SCALE



CHECK DAM
NO SCALE



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT
NO SCALE

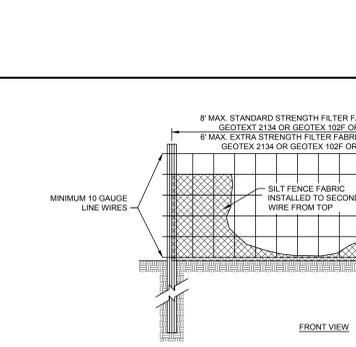
SEEDBED PREPARATION

CONSTRUCTION SPECIFICATIONS

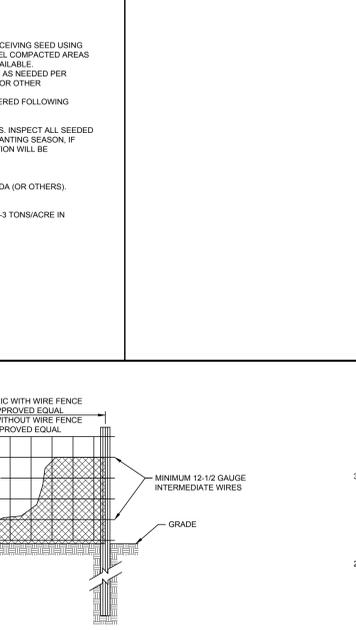
- PREPARE SOIL AS NECESSARY TO ESTABLISH AN ADEQUATE SEEDBED FOR RECEIVING SEED USING TILLAGE AND/OR REMOVAL OF DEBRIS (ROCKS, ROOTS, OBSTRUCTIONS), CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- SOIL SHALL RECEIVE LIME, FERTILIZER AND/OR SUPERPHOSPHATE UNIFORMLY AS NEEDED PER RECOMMENDATIONS FROM NORTH CAROLINA DEPARTMENT OF AGRICULTURE OR OTHER COMMERCIAL LABORATORY.
- SEED ON A FRESHLY PREPARED SEEDBED AND ENSURE SEED IS LIGHTLY COVERED FOLLOWING INSTALLATION.
- MULCH IMMEDIATELY AFTER SEEDING.
- CONTRACTOR SHALL SEED ALL AREAS THAT ARE DISTURBED WITHIN TWO DAYS. INSPECT ALL SEEDING AREAS AND MAKE SURE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON. IF POSSIBLE, AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETE, AN INSPECTION WILL BE COMPLETED TO DETERMINE IF ADDITIONAL SEEDING WILL BE REQUIRED.

*APPLY: FERTILIZER, LIME, AND MULCH SHALL BE APPLIED AT RATES RECOMMENDED BY NCDA (OR OTHERS) OTHERWISE, APPLY AS DESCRIBED BELOW.

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



SEDIMENT FENCE
NO SCALE



SILT FENCE
NO SCALE

- CONSTRUCTION SPECIFICATIONS
- USE SYNTHETIC FILTER FABRIC OF AT LEAST 96% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461.
 - SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0-120 DEGREES F.
 - ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB STEEL WITH A MINIMUM LENGTH OF 5'. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
 - FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

- MAINTENANCE
- INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
 - SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
 - REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN-OUT.
 - REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE AT THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

OAKLEY COLLIER ARCHITECTS
107 Carlewood Road, Rocky Mount, NC 27864 (P) 252.972.2800
1111 Hayes Street, Suite 109, Raleigh, NC 27604 (P) 919.963.7700

TIMMONS GROUP
10000 W. HARRIS AVE. SUITE 1000
RICHMOND, VA 23293
(804) 271-1234
www.timmons.com
North Carolina License No. C-1452

DARE COUNTY
EMS STATION 1/ FIRE STATION 14
1630 N CROATAN HWY
KILL DEVIL HILLS, NORTH CAROLINA

NORTH CAROLINA Environmental Quality

PERMIT DRAWINGS NOT FOR CONSTRUCTION

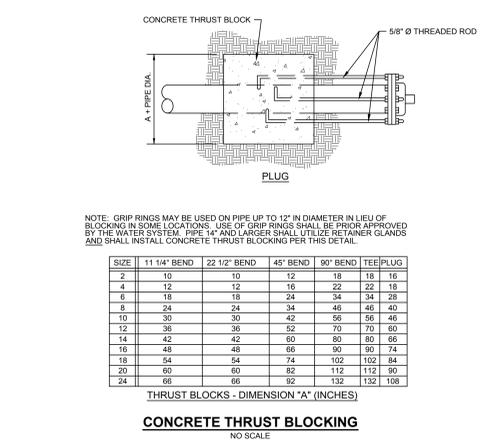
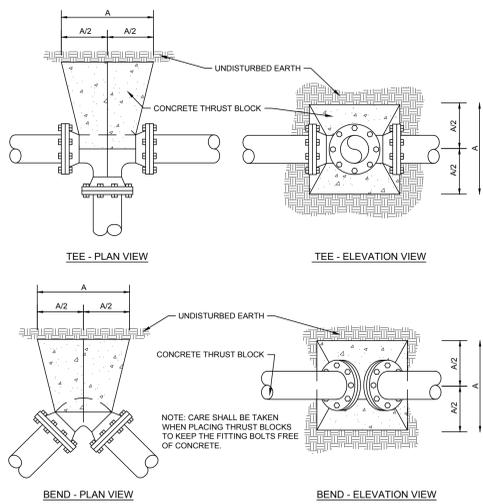
GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all Dimensions.

Revisions:
1 01-12-23 Addressed #1
2 02-16-23 Per Town & KDH/WTP comments
3 03-03-23 Per Town comments

Date: 1/22/22
Project No: 52044.001
County: BCD
Sheet No: C6.3
Checked by: KDH

Sheet Title:
EROSION & SEDIMENT CONTROL DETAILS



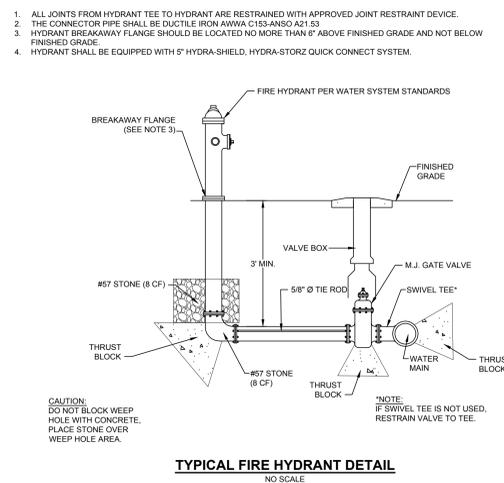


NOTE: GRIP RINGS MAY BE USED ON PIPE UP TO 12\"/>

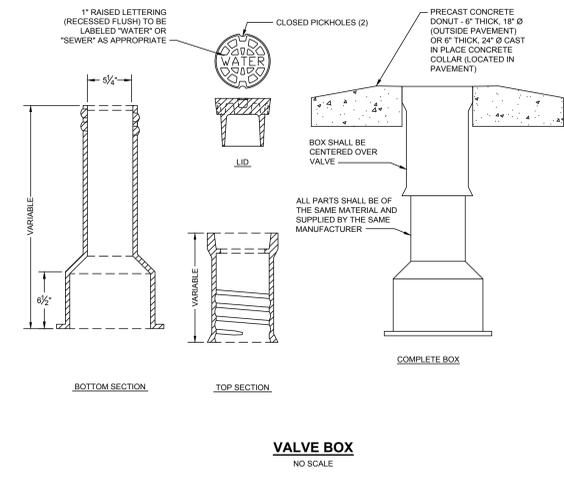
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2	10	10	12	18	18
4	12	12	16	22	22
6	18	18	24	34	34
8	24	24	34	46	46
10	30	30	42	56	56
12	36	36	52	70	60
14	42	42	60	80	66
16	48	48	66	90	74
18	54	54	74	102	84
20	60	60	82	112	90
24	66	66	92	132	108

THRUST BLOCKS - DIMENSION "A" (INCHES)

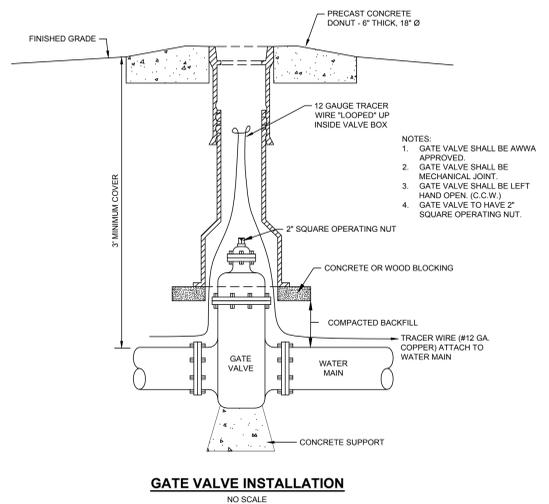
CONCRETE THRUST BLOCKING
NO SCALE



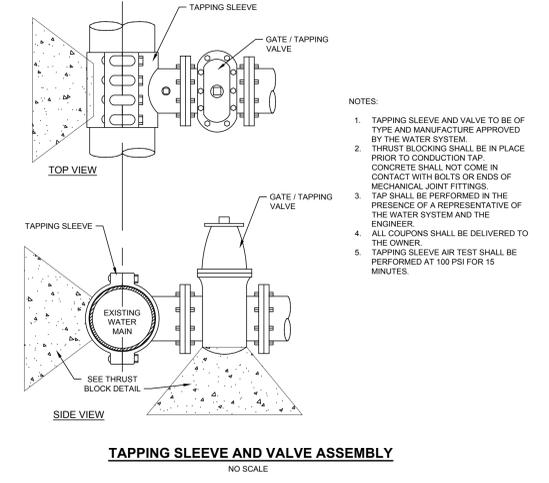
TYPICAL FIRE HYDRANT DETAIL
NO SCALE



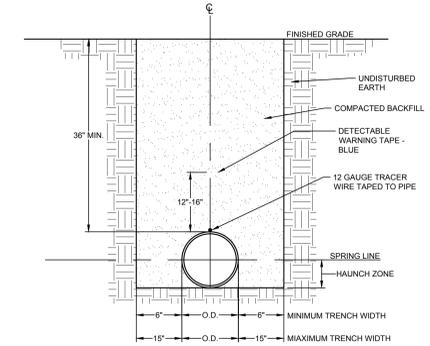
VALVE BOX
NO SCALE



GATE VALVE INSTALLATION
NO SCALE



TAPPING SLEEVE AND VALVE ASSEMBLY
NO SCALE



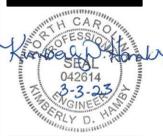
TYPICAL WATERLINE TRENCH DETAIL
NO SCALE

- FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND THE BRACING.
- BACKFILL IN AREAS TO REMAIN GRASSED MAY BE NATIVE MATERIAL. BACKFILL IN AREAS TO RECEIVE PAVEMENT OR BUILDING FOUNDATIONS SHALL BE SUITABLE NATIVE MATERIAL OR SELECT OFF-SITE MATERIAL.
- BACKFILL SHALL BE TAMPED IN 6\"/>
- BEDDING MATERIAL BENEATH TYPICAL TRENCH SHALL BE INSTALLED ONLY AS NECESSARY WHEN NATIVE SOILS ARE UNSTABLE.

- ALL JOINTS FROM HYDRANT TEE TO HYDRANT ARE RESTRAINED WITH APPROVED JOINT RESTRAINT DEVICE.
- THE CONNECTOR PIPE SHALL BE DUCTILE IRON AWWA C153-ANSI A21.53.
- HYDRANT BREAKAWAY FLANGE SHOULD BE LOCATED NO MORE THAN 6\"/>
- HYDRANT SHALL BE EQUIPPED WITH 5\"/>

- NOTES:
- GATE VALVE SHALL BE AWWA APPROVED.
 - GATE VALVE SHALL BE MECHANICAL JOINT.
 - GATE VALVE SHALL BE LEFT HAND OPEN (C.C.W.).
 - GATE VALVE TO HAVE 2\"/>

- NOTES:
- TAPPING SLEEVE AND VALVE TO BE OF TYPE AND MANUFACTURE APPROVED BY THE WATER SYSTEM.
 - THRUST BLOCKING SHALL BE IN PLACE PRIOR TO CONDUCTION TAP. CONCRETE SHALL NOT COME IN CONTACT WITH BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
 - TAP SHALL BE PERFORMED IN THE PRESENCE OF A REPRESENTATIVE OF THE WATER SYSTEM AND THE ENGINEER.
 - ALL COUPONS SHALL BE DELIVERED TO THE OWNER.
 - TAPPING SLEEVE AIR TEST SHALL BE PERFORMED AT 100 PSI FOR 15 MINUTES.



PERMIT DRAWINGS NOT FOR CONSTRUCTION

GENERAL NOTE:
Prior to construction start, Contractor shall verify & be responsible for all Dimensions.

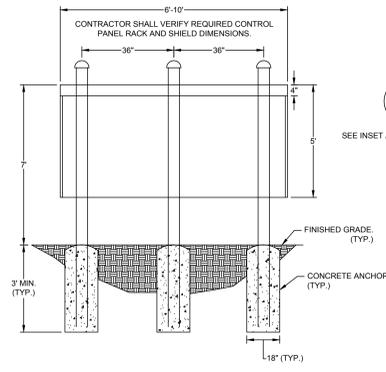
- Revisions:
- 01-12-23 Addendum #1
 - 02-16-23 Per Town & KDH/WTP comments
 - 03-03-23 Per Town comments

Date: 12/21/22 Project No: 52044.001

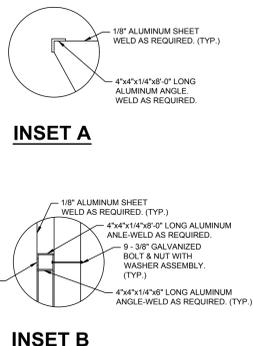
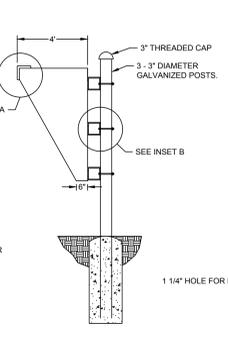
Created by: KDH Sheet No: C6.4

Checked by: KDH Sheet Title: WATER UTILITY DETAILS

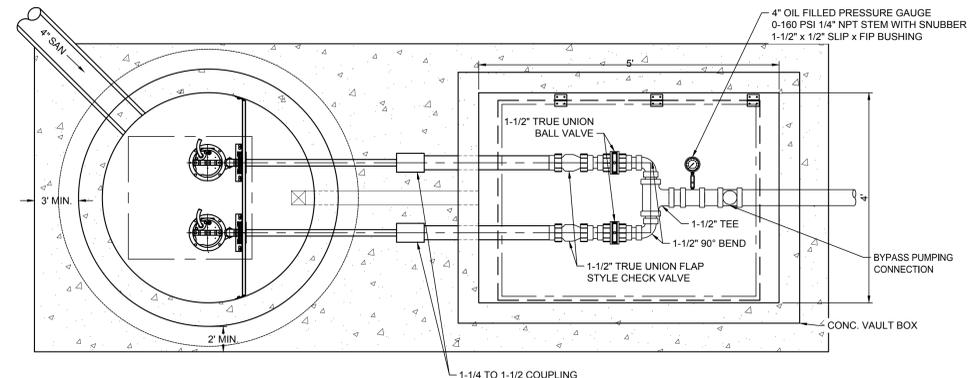




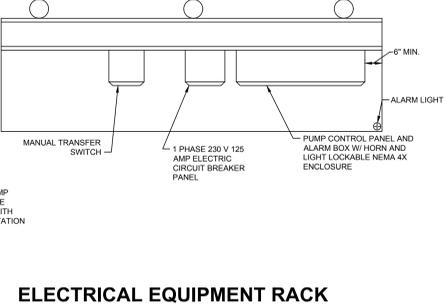
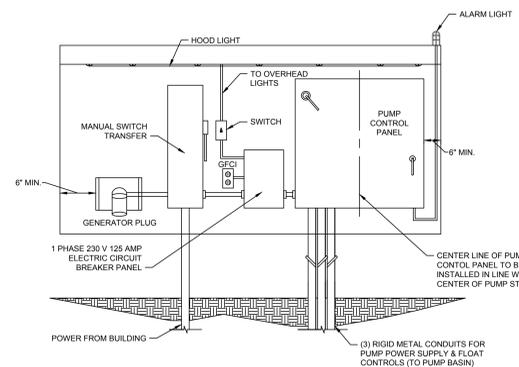
CONTROL PANEL RACK AND SHIELD
NO SCALE



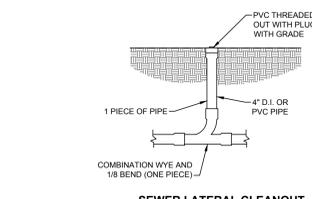
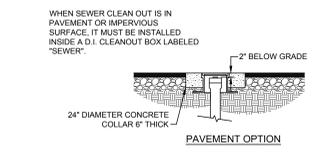
INSET A
INSET B



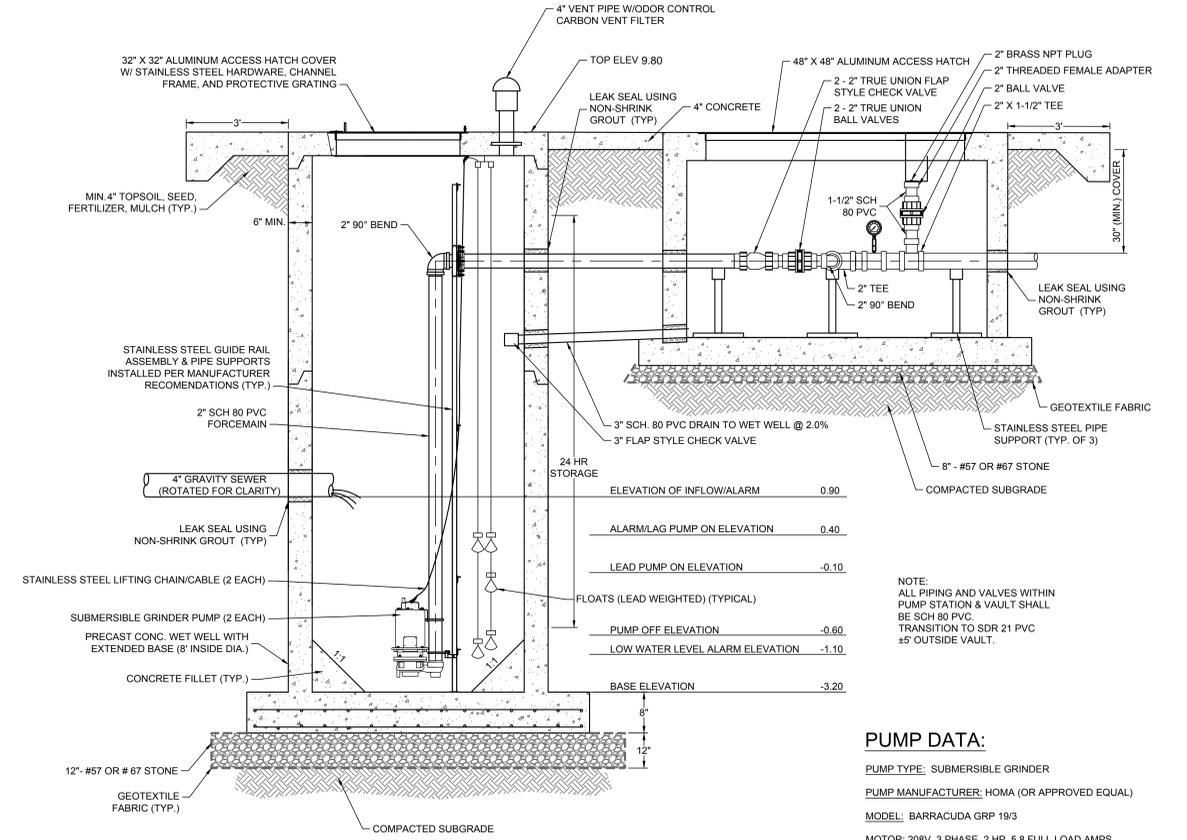
PUMP STATION PLAN VIEW
NTS



ELECTRICAL EQUIPMENT RACK
NO SCALE



SEWER LATERAL CLEANOUT
NO SCALE



PUMP STATION ELEVATION
NTS

PUMP DATA:
 PUMP TYPE: SUBMERSIBLE GRINDER
 PUMP MANUFACTURER: HOMA (OR APPROVED EQUIV)
 MODEL: BARRACUDA GRP 19/3
 MOTOR: 208V, 3 PHASE, 2 HP, 5.8 FULL LOAD AMPS
 OPERATING POINT: 5 GPM @ UNKNOWN TDH
 PUMP PROVIDED FOR PRICING PURPOSES ONLY AT THIS TIME. PUMP AND FORCE MAIN SIZING IS SUBJECT TO CHANGE UPON DETERMINATION OF TOTAL DYNAMIC HEAD BASED ON EXISTING SEWER FORCE MAIN CONDITIONS



PERMIT DRAWINGS
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Revisions:	
1 01-12-23 Addendum #1	
2 02-16-23 Per Town & KDH/WTP comments	
3 03-03-23 Per Town comments	
Date: 12/21/22	Project No: 52044.001
Drawn by: KDH	Sheet No: C6.5
Checked by: KDH	
Sheet Title: SEWER UTILITY DETAILS	