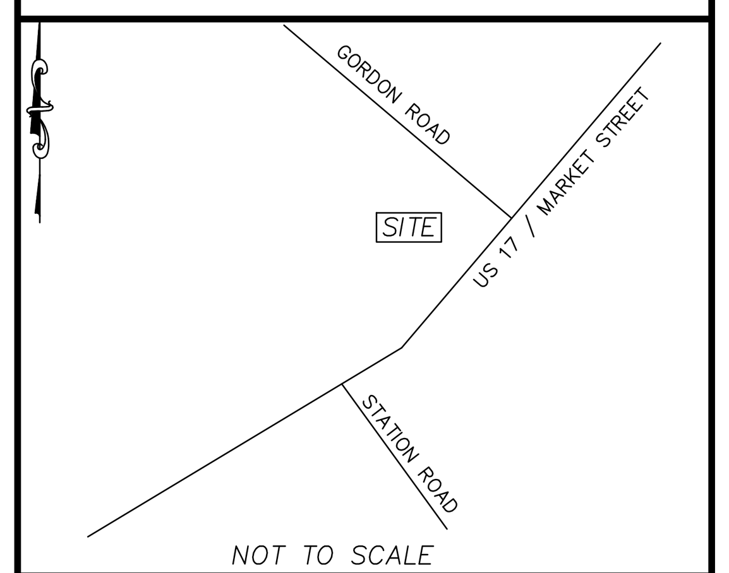
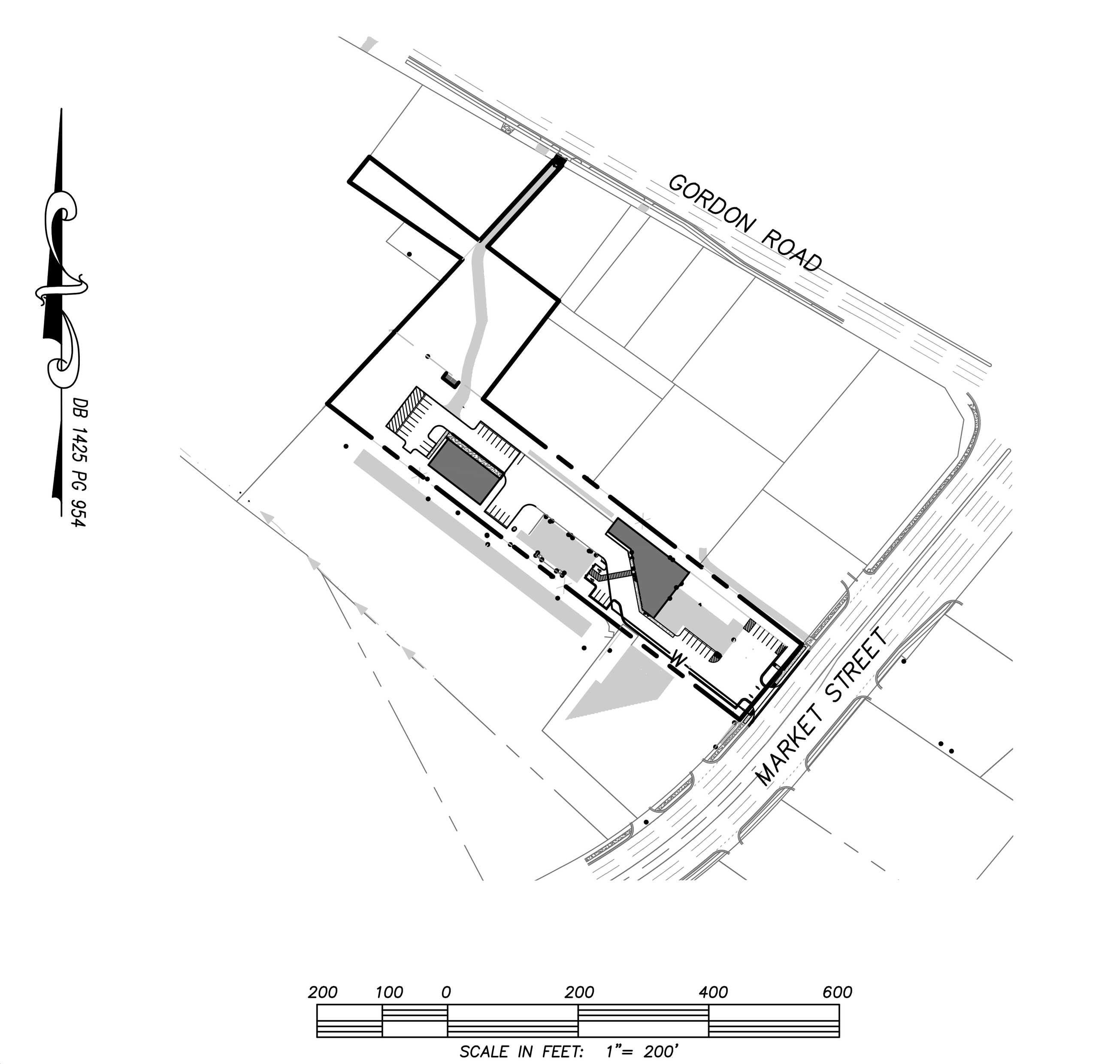
LOCATION MAP



CONSTRUCTION DRAWINGS for

WILMINGTON POWERSPORTS

LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA



GENERAL NOTES:

1. NEW HANOVER COUNTY PARCEL NUMBERS:
   PID = R04300-004-006-000
2. TOTAL PROJECT AREA: 118,872 SF (2.73 AC)
3. EXISTING ZONING DISTRICT: RB
4. CAMA LAND CLASSIFICATION: URBAN
5. THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720315800K, EFFECTIVE DATE 8/28/18
6. SITE ADDRESS: 6845 MARKET STREET
7. EXISTING IMPERVIOUS ONSITE = 46,589 SF
8. AS-BUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY PORT CITY GEOMATICS, LTD VERTICAL DATUM = 88
9. STORMWATER DRAINS TO NE CAPE FEAR RIVER, SC;SW 18-74-(61)
10. LAND OWNER - WPS HOLDINGS, LLC
    3549 GOVERNORS ISLAND DRIVE
    DENVER, NC 28037

WATER & SEWER USAGE NOTES:

CURRENT WATER USAGE - 1,000 GPD PROPOSED WATER USAGE - 2,000 GPD
CURRENT SEWER USAGE - 1,000 GPD PROPOSED SEWER USAGE - 2,000 GPD
*** BASED ON RECREATIONAL DEALERSHIPS - 15A NCAC 02T.0114 (C)
125 GAL / FIXTURE

LEGEND

EXISTING BOUNDARY
ADJACENT PARCELS
CONTOUR LINE & ELEVATION (21)
DRAINAGE FLOW
30' DRAINAGE EASEMENT (15')
PROPOSED DRAINAGE PIPE
PROPOSED SANITARY SEWER & MANHOLE (SS)
EXISTING SANITARY SEWER & MANHOLE (SS)
EXISTING WATERLINE (W)
PROPOSED WATERLINE (W)
EXISTING / PROPOSED STORM SEWER & CATCH BASIN
E.I.P. EXIST. IRON PIPE
WATER METER SERVICE CONNECTION
E.C.M. EXIST. CONCRETE MONUMENT
GATE VALVE
REDUCER
HANDICAP RAMP

INDEX TO DRAWINGS

SHEET No.	DESCRIPTION	DRAWING No.
1 OF 6	COVER SHEET	CD_COVER
2 OF 6	EXISTING BOUNDARY AND TOPOGRAPHY, ADJACENT TRAFFIC	CD_EX-COND
3 OF 6	SITE PLAN	SITE_PLAN
4 OF 6	GRADING PLAN	SITE_PLAN
5 OF 6	LANDSCAPE PLAN	SITE_PLAN
6 OF 6	STD DETAILS	SITE_PLAN
EC1 OF EC4	STORMWATER & EROSION CONTROL PLANS	EC1
EC2 OF EC4	STORMWATER & EROSION CONTROL PLANS	EC2
EC3 OF EC4	STORMWATER & EROSION CONTROL PLANS	EC3
EC4 OF EC4	STORMWATER & EROSION CONTROL PLANS	EC4
DA1 OF DA1	DRAINAGE AREAS	DA

OWNER:

WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

NOTES:

1. ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY GEOINNOVATION, PC.
2. THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES.
3. THIS PROPERTY IS LOCATED WITHIN ZONE "X" ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720315800K, EFFECTIVE DATE 8/28/18
4. THIS PROPERTY IS ZONED RB
5. CFPUA WATER
6. CFPUA SEWER
7. ALL CONSTRUCTION TO CONFORM TO NEW HANOVER COUNTY STANDARDS AND APPLICABLE STATE & LOCAL CODES.
8. CONTRACTOR TO COORDINATE ANY REQUIRED TRAFFIC CONTROL WITH CITY OF WILMINGTON AND OR NCDOT.
9. CARE SHALL BE TAKEN DURING FINAL GRADING TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TO RECEIVING STRUCTURES. ROOF DRAIN DOWNSPOUTS TO BE CONNECTED TO STORM DRAINAGE STUBOUTS OR DIRECTED TO STREET/PARKING AREAS.
10. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ANY RELOCATIONS, RE-ALIGNMENTS, DISCONNECTIONS OR CONNECTIONS OF EXISTING UTILITIES WITH APPLICABLE AUTHORITIES.
11. CLEARING AND GRUBBING OF SITE TO INCLUDE REMOVAL OF EXISTING CURB, ASPHALT, INLETS, AND ANY OTHER STRUCTURES INCLUDING TREES, STUMPS AND DEBRIS EXISTING ON SITE. TREES NOT REQUIRED TO BE CLEARED FOR CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE DIRECTED.
12. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
13. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
14. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE & CURB BOXES TO FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
15. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST AND EROSION DURING CONSTRUCTION AT HIS EXPENSE. PARKING AREAS SHALL BE WATERED TO CONTROL DUST WHEN ORDERED BY THE ENGINEER.
16. NO GEOTECHNICAL TESTING HAS BEEN PERFORMED ON SITE. NO WARRANTY IS MADE FOR SUITABILITY OF SUBGRADE, AND UNDERCUT AND ANY REQUIRED REPLACEMENT WITH SUITABLE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
17. CONTRACTOR TO ENSURE THAT PAVEMENT IS PLACED SO AS TO DRAIN POSITIVELY TO THE STREET INLETS AND CATCH BASINS. ALL FUTURE ROOF DRAIN DOWNSPOUTS TO BE DIRECTED TO THE STORM DRAINAGE STUBOUTS.
18. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
19. THIS PLAN IS FOR SITE GRADING, UTILITIES, SITING, AND DRAINAGE ONLY. SEE BUILDING PLANS FOR DETAILED HOOKUPS TO BUILDINGS, ETC.
20. CONTRACTOR AND BUILDER ARE RESPONSIBLE FOR COORDINATING FINISHED FLOOR ELEVATION OF ALL BUILDINGS WITH THE OWNER. ELEVATIONS GIVEN ARE MINIMUM GROUND ELEVATIONS AT THE BUILDING SITE AND DO NOT PURPORT TO BE FINISHED FLOOR. MINIMUM RECOMMENDED FF ELEVATIONS SHOWN ON PLANS.
21. AFFECTED NON-MUNICIPAL UTILITIES SHALL BE CONTACTED AND PROVIDED WITH PLANS AND OTHER PERTINENT INFORMATION, WHEN FEASIBLE, TO COORDINATE APPROPRIATE SCHEDULING AND PLACEMENT.
22. EXTREME CARE SHALL BE TAKEN TO ENSURE MINIMUM SEPARATIONS AT ALL UTILITY CROSSINGS.
23. MINIMUM SEPARATION SHALL BE MAINTAINED AS FOLLOWS:
    a. HORIZONTAL SEPARATION OF 10 FEET BETWEEN SANITARY SEWER AND WATER MAINS AND STORM SEWER.
    b. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND WATER OR WHERE SEWER LINE CROSSES ABOVE WATER MAIN, BOTH PIPES SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
    c. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10 FEET EITHER SIDE OF CROSSING.
    d. WHERE VERTICAL CLEARANCE IS LESS THAN 12" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING, AND BRIDGING SHALL BE INSTALLED PER APPLICABLE UTILITY AUTHORITY'S DETAILS.
    e. IN NO CASE SHALL THERE BE LESS THAN 18" OF SEPARATION BETWEEN OUTSIDE OF WATER MAIN AND OUTSIDE OF SEWER OR STORM DRAINAGE.
    f. MINIMUM COVER OF 36" SHALL BE PROVIDED FOR ALL BURIED WATER MAINS AND SANITARY SEWER MAINS.

CSD ENGINEERING
LICENSE # C-2710
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL
P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

COVER SHEET
WILMINGTON POWERSPORTS

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SITE PLAN for
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

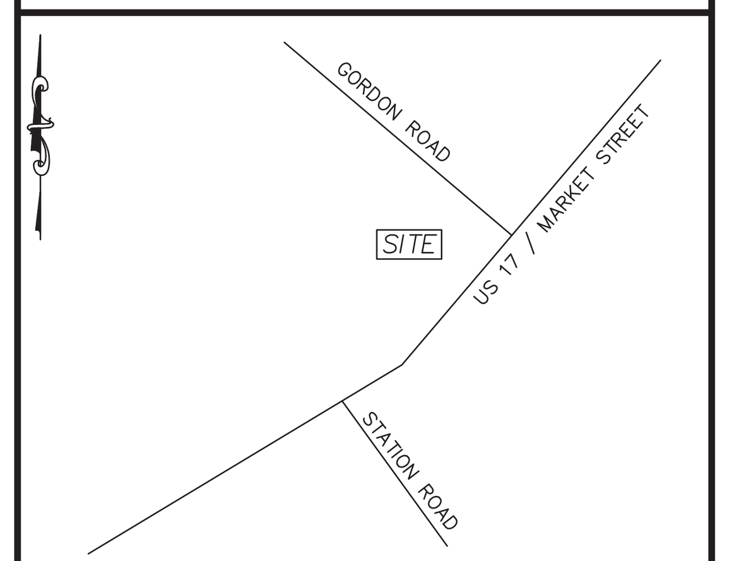
OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

NORTH CAROLINA PROFESSIONAL SEAL 025483 6/27/23 ENGINEER HOWARD S. RESNIK

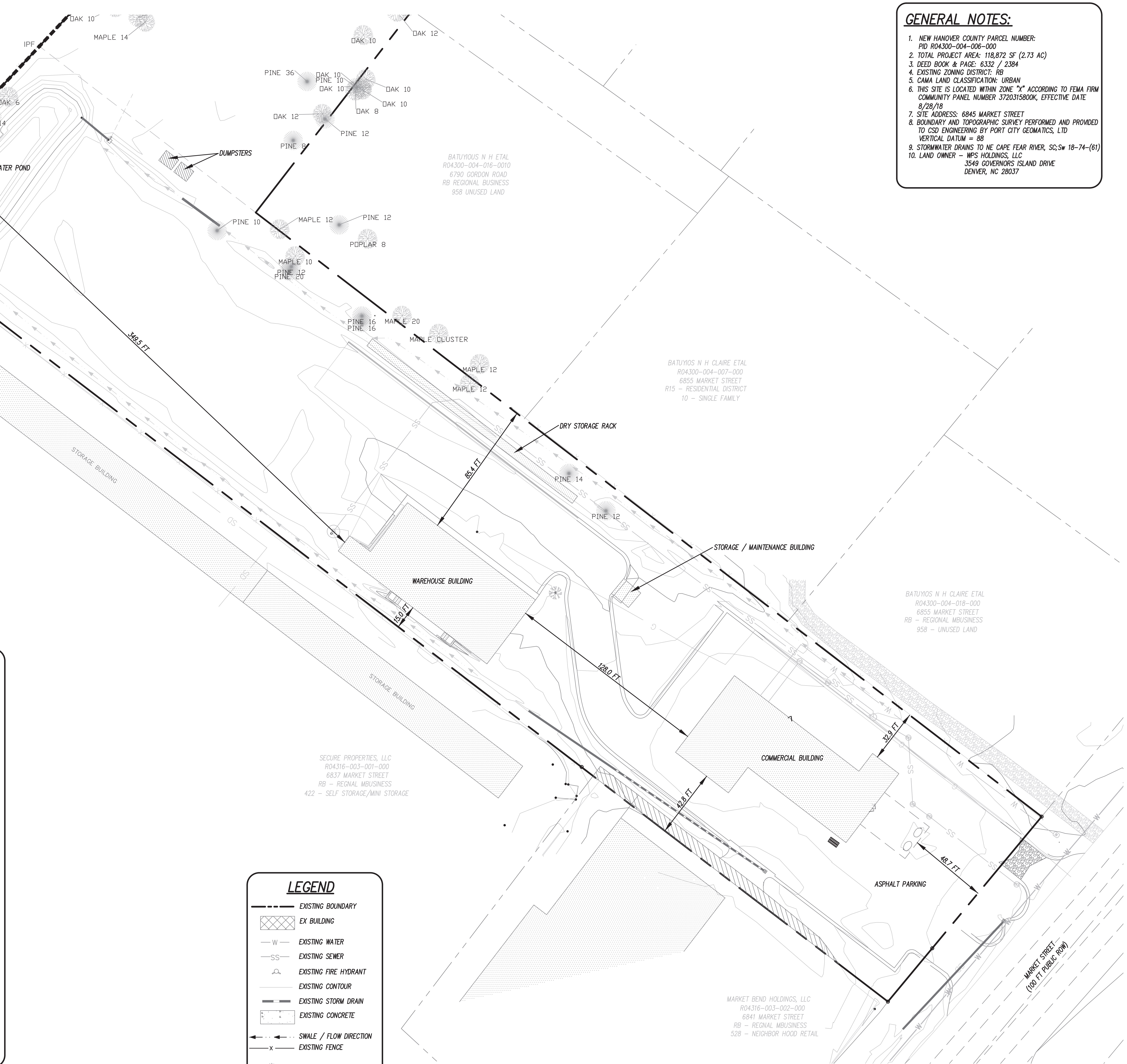
REV. NO.	REMARKS	BY	DATE
4	REVISED SITE EGRESS ROUTE	JSM	6/27/23
3	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	11/08/22
2	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	9/27/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

DATE: 6/16/22
HORZ. SCALE: 1" = 200'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

LOCATION MAP

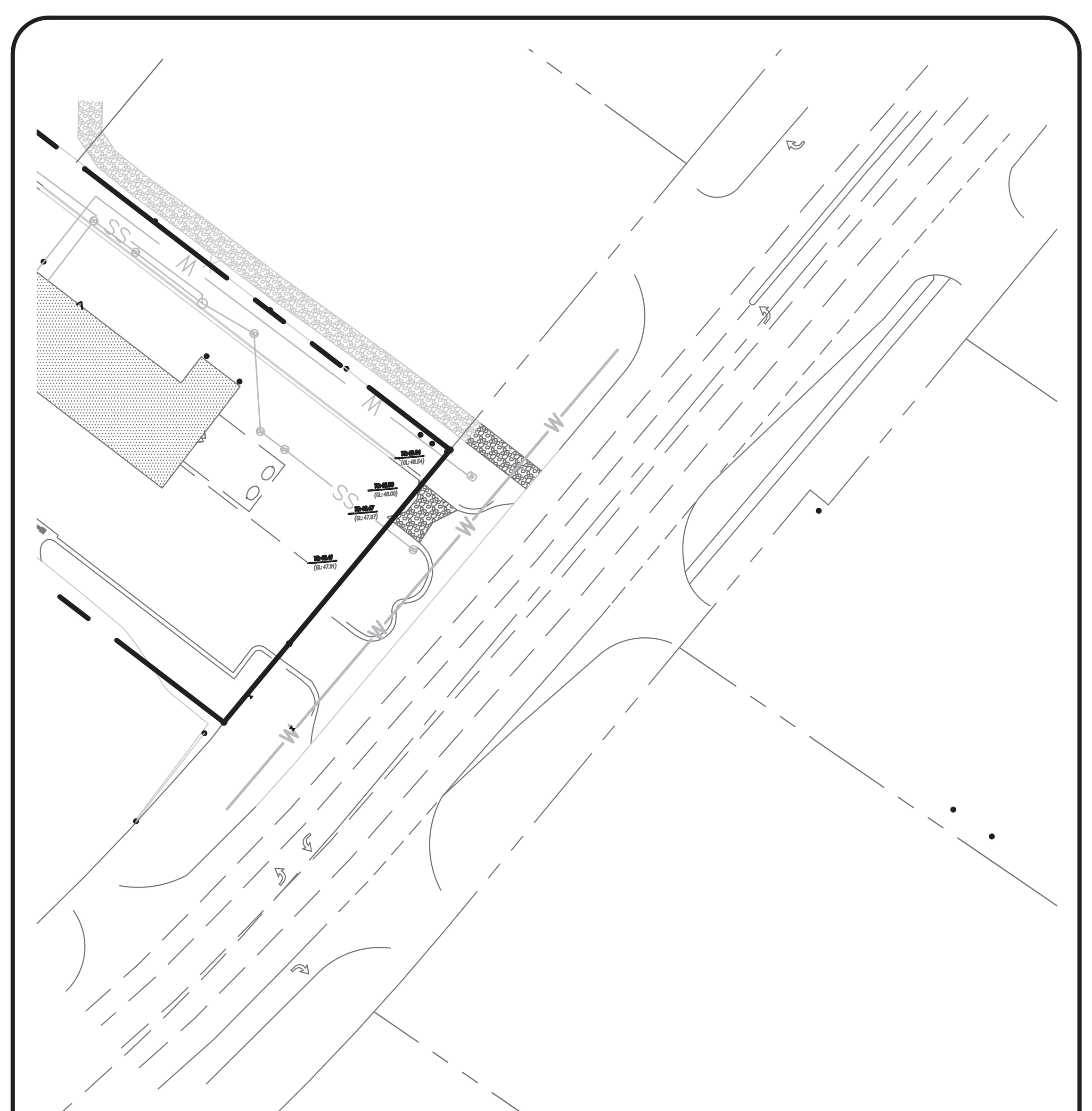


NOT TO SCALE



GENERAL NOTES:

1. NEW HANOVER COUNTY PARCEL NUMBER:
   PID R04300-004-006-000
2. TOTAL PROJECT AREA: 118,872 SF (2.73 AC)
3. DEED BOOK & PAGE: 6332 / 2384
4. EXISTING ZONING DISTRICT: RB
5. CAMA LAND CLASSIFICATION: URBAN
6. THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720315800K, EFFECTIVE DATE 8/28/18
7. SITE ADDRESS: 6845 MARKET STREET
8. BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY PORT CITY GEOMATICS, LTD
   VERTICAL DATUM = 88
9. STORMWATER DRAINS TO NE CAPE FEAR RIVER, SC;Sw 18-74-(61)
10. LAND OWNER - WPS HOLDINGS, LLC
    3549 GOVERNORS ISLAND DRIVE
    DENVER, NC 28037



EXISTING ROADWAY CONFIGURATION

NOT TO SCALE

LEGEND

- EXISTING BOUNDARY
- EX BUILDING
- EXISTING WATER
- EXISTING SEWER
- EXISTING FIRE HYDRANT
- EXISTING CONTOUR
- EXISTING STORM DRAIN
- EXISTING CONCRETE
- SWALE / FLOW DIRECTION
- EXISTING FENCE
- EXISTING TREES

30 15 0 30 60 90

SCALE IN FEET: 1"= 30'

CSD ENGINEERING

LICENSE # C-2710
ENGINEERING
LAND PLANNING
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P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

SITE INVEMTORY
for
WILMINGTON POWERSPORTS

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SITE PLAN for
WLMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV. NO.	REMARKS	BY	DATE
2	SEALED	JSM	11/08/22
1	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	9/29/22

DATE: 6/16/22

HORZ. SCALE: 1" = 30'
VERT. SCALE: N/A

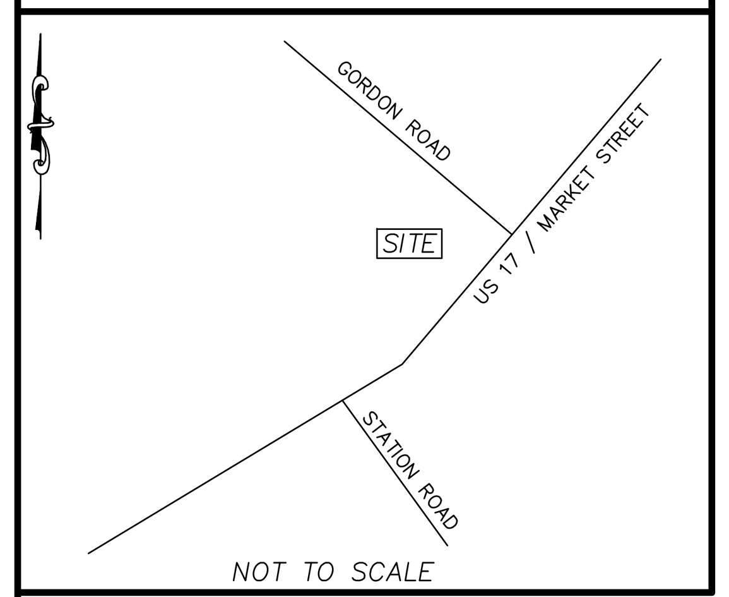
DRAWN BY: JSM

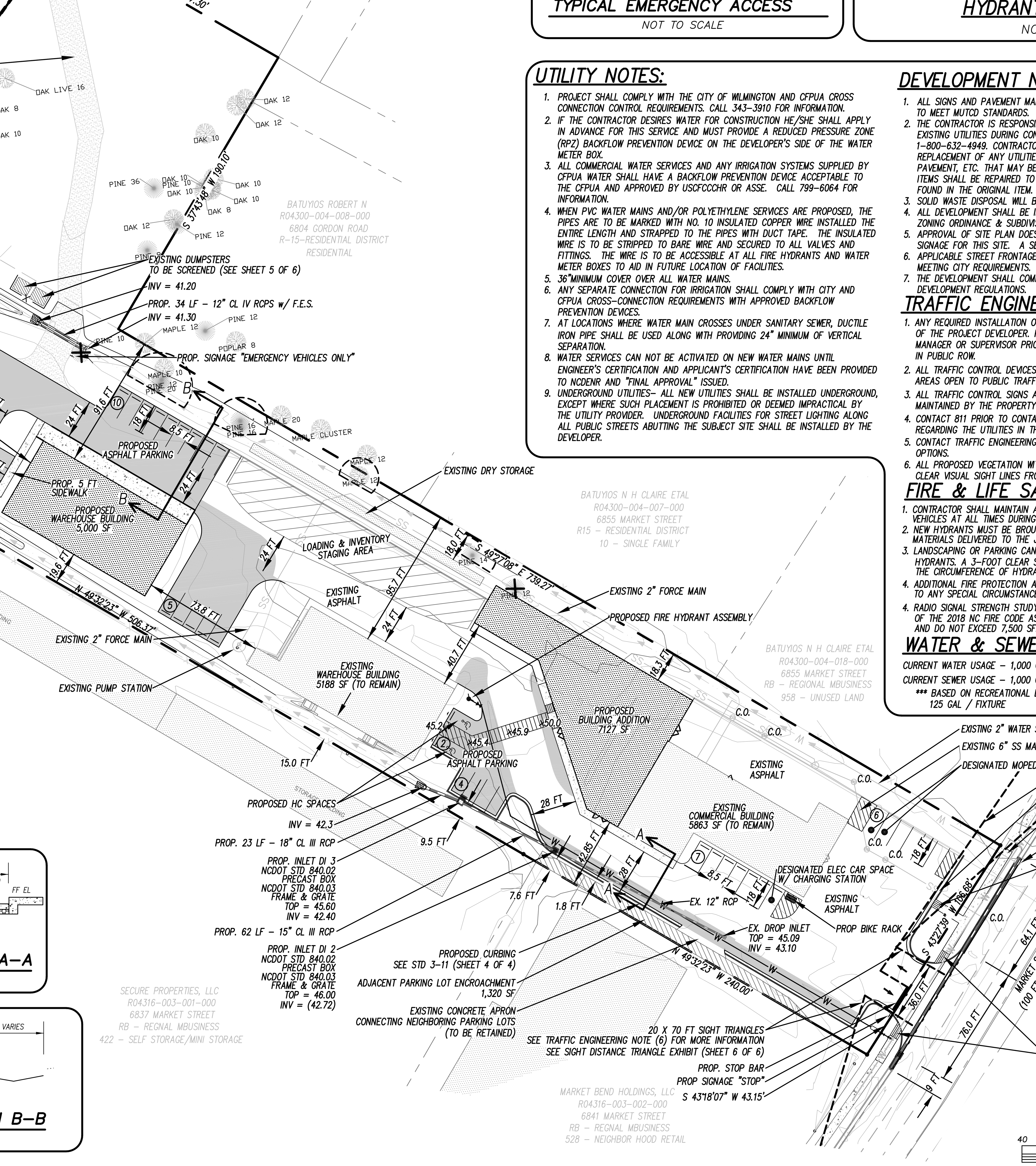
CHECKED BY: HSR

PROJECT NO.: 21-0554

Sheet No. 2 Of 6

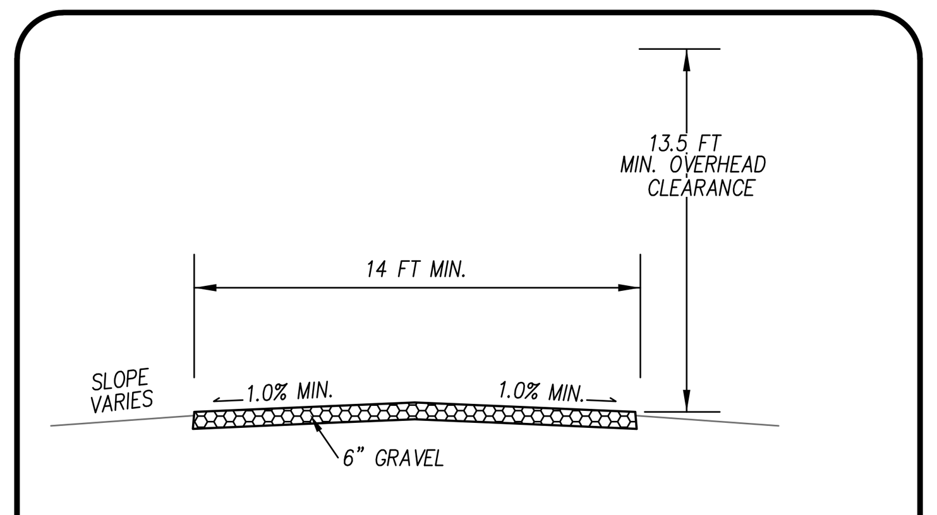
LOCATION MAP





VARIANCES REQUESTED:

1. DRIVEWAY MUST BE 75 FT FROM PROPERTY LINE. [CHAP VII (C) (2) (C) (2) OF COFW TECH STDS].
2. MAXIMUM DRIVEWAY WIDTH. [CHAPTER VII, C, PAGE 7-10 COFWTSSM].
3. MAXIMUM LENGTH OF A PRIVATE DRIVEWAY IS 500 LINEAR FEET. [CHAPTER VII, C, 4].



TYPICAL EMERGENCY ACCESS

NOT TO SCALE

HYDRANTS WITHIN 500 FT

NOT TO SCALE

GENERAL NOTES:

1. NEW HANOVER COUNTY PARCEL NUMBER: PID R04300-004-006-000
2. TOTAL PROJECT AREA: 120,660 SF (2.77 AC)
3. DEED BOOK & PAGE: 6332 / 2384
4. EXISTING ZONING DISTRICT: RB
5. CAMA LAND CLASSIFICATION: URBAN
6. THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720315800K, EFFECTIVE DATE 8/28/18
7. SITE ADDRESS: 6845 MARKET STREET
8. BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY PORT CITY GEOMATICS, LTD VERTICAL DATUM = 88
9. STORMWATER DRAINS TO SMITH CREEK, C;Sw 18-74-63
10. LAND OWNER - WPS HOLDINGS, LLC
    3549 GOVERNORS ISLAND DRIVE
    DENVER, NC 28037
11. CFPUA WATER AND SEWER
12. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOCO AT 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB AND GUTTER, SIDEWALK PANELS, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
14. SOLID WASTE DISPOSAL WILL BE TRASH TOTES.
15. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON ZONING ORDINANCE.
16. APPROVAL OF SITE PLAN DOES NOT CONSTITUTE APPROVAL OF PROPOSED SIGNAGE FOR THIS SITE. A SEPARATE SIGN PERMIT MUST BE OBTAINED.
17. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
18. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET NHC AND/OR NCDOT STANDARDS.
19. TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
20. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
21. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE.
22. SECTION 510 EMERGENCY RESPONDER RADIO COVERAGE FOR THE NEW BUILDING REQUIRED.
23. ALL NEW BUILDINGS SHALL COMPLY WITH APPENDIX J OF THE NC FIRE CODE, BUILDING INFORMATION SIGNS.
24. ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING WILL BE REPLACED.

UTILITY NOTES:

1. PROJECT SHALL COMPLY WITH THE CITY OF WILMINGTON AND CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. CALL 343-3910 FOR INFORMATION.
2. IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE/SHE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
3. ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CFPUA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ACCEPTABLE TO THE CFPUA AND APPROVED BY USCFCCCHR OR ASSE. CALL 799-6064 FOR INFORMATION.
4. WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE INSULATED WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS. THE WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
5. 36"MINIMUM COVER OVER ALL WATER MAINS.
6. ANY SEPARATE CONNECTION FOR IRRIGATION SHALL COMPLY WITH CITY AND CFPUA CROSS-CONNECTION REQUIREMENTS WITH APPROVED BACKFLOW PREVENTION DEVICES.
7. AT LOCATIONS WHERE WATER MAIN CROSSES UNDER SANITARY SEWER, DUCTILE IRON PIPE SHALL BE USED ALONG WITH PROVIDING 24" MINIMUM OF VERTICAL SEPARATION.
8. WATER SERVICES CAN NOT BE ACTIVATED ON NEW WATER MAINS UNTIL ENGINEER'S CERTIFICATION AND APPLICANT'S CERTIFICATION HAVE BEEN PROVIDED TO NCDENR AND "FINAL APPROVAL" ISSUED.
9. UNDERGROUND UTILITIES- ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND FACILITIES FOR STREET LIGHTING ALONG ALL PUBLIC STREETS ABUTTING THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.

DEVELOPMENT NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL U-LOCO AT 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB AND GUTTER, SIDEWALK PANELS, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
3. SOLID WASTE DISPOSAL WILL BE DUMPSTERS
4. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON ZONING ORDINANCE & SUBDIVISION REGULATIONS.
5. APPROVAL OF SITE PLAN DOES NOT CONSTITUTE APPROVAL OF PROPOSED SIGNAGE FOR THIS SITE. A SEPARATE SIGN PERMIT MUST BE OBTAINED.
6. APPLICABLE STREET FRONTAGES SHALL HAVE NATURAL VEGETATIVE SCREENING MEETING CITY REQUIREMENTS.
7. THE DEVELOPMENT SHALL COMPLY WITH ALL CITY TECHNICAL STANDARDS AND DEVELOPMENT REGULATIONS.

TRAFFIC ENGINEERING NOTES:

1. ANY REQUIRED INSTALLATION OR RELOCATION OF TRAFFIC SIGNS IS THE RESPONSIBILITY OF THE PROJECT DEVELOPER. PLEASE COORDINATE WITH CITY TRAFFIC SIGNS AND MARKINGS MANAGER OR SUPERVISOR PRIOR TO INSTALLATION OF ANY TRAFFIC SIGNS OR MARKINGS IN PUBLIC ROW.
2. ALL TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN THE ROW.
5. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
6. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES - 10 FT.

FIRE & LIFE SAFETY NOTES:

1. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
2. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
3. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
4. ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
4. RADIO SIGNAL STRENGTH STUDY NOT REQUIRED PER SECTION 510 OF THE 2018 NC FIRE CODE AS THE PROPOSED COMMERCIAL BLDGS ARE SINGLE STORY AND DO NOT EXCEED 7,500 SF.

WATER & SEWER USAGE NOTES:

CURRENT WATER USAGE - 1,000 GPD PROPOSED WATER USAGE - 2,000 GPD

CURRENT SEWER USAGE - 1,000 GPD PROPOSED SEWER USAGE - 2,000 GPD

*** BASED ON RECREATIONAL DEALERSHIPS - 15A NCAC 02T.0114 (C) 125 GAL / FIXTURE

SITE DATA:

PROPOSED LAND USE: RECREATIONAL VEHICLE SALES

IMPERVIOUS SURFACES -

EXISTING	
BUILDINGS -	11,215 SF
ASPHALT -	31,375 SF
CONCRETE -	3,999 SF
TOTAL -	46,589 SF

PROPOSED	
EX. BLD -	11,051 SF
PROP. BLD -	12,127 SF
EX. ASPHALT -	31,375 SF
PROP. ASPHALT -	18,686 SF
PROP. CONCRETE -	1,661 SF
TOTAL -	74,900 SF

LOT COVERAGE = 23,178 / 120,660 = 0.192 (19%)

TOTAL BUA = 74,900 / 120,660 = 0.621 OR 62% IMPERVIOUS

PARKING:
23,178 SF SHOWROOM = 23,178 / 300 = 77.3
& 1 SPACE PER EMPLOYEE; (77.3 + 4 = 81.3) 81 SPACES MAX.
46 SPACES PROVIDED

BUILDING HEIGHT: 28 FT

BUILDING TYPE: II-B

BUILDING SETBACKS:

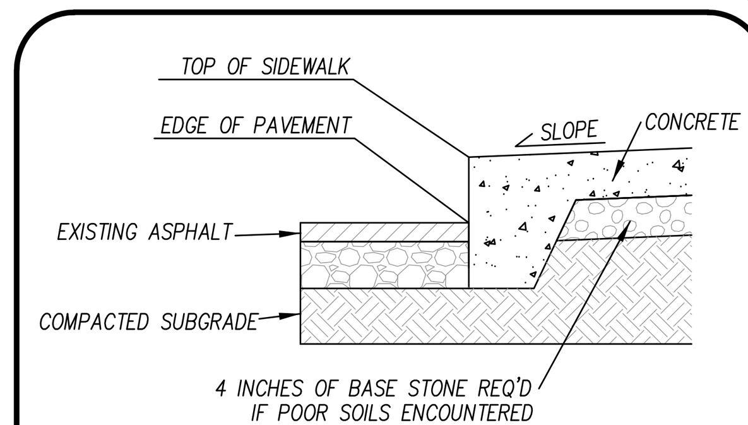
	REQUIRED	PROVIDED
FRONT	25 FT	84.2 FT
SIDE	0 FT (20 FT)	15.0 FT (SOUTH), 18.3 FT (NORTH)
REAR	15 FT	172.5 FT

SITE SOILS Mu & Le
SCS SOIL GROUP "A" PER USDA SOIL SURVEY WEBSITE

STORMWATER PERMITTING
SITE IS COVERED UNDER EXISTING STATE STORMWATER PERMIT SW8 950619 DATED AUGUST 11, 1995
PERMIT COVERS 74,900 SF OF BUA

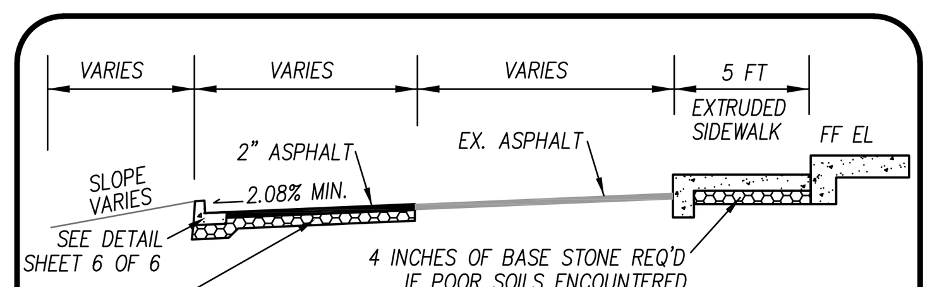
STORMWATER CLASSIFICATION

RECEIVING STREAM	SMITH CREEK
RIVER BASIN	CAPE FEAR
STREAM INDEX NUMBER	18-74-63
WATER CLASSIFICATION	C;Sw



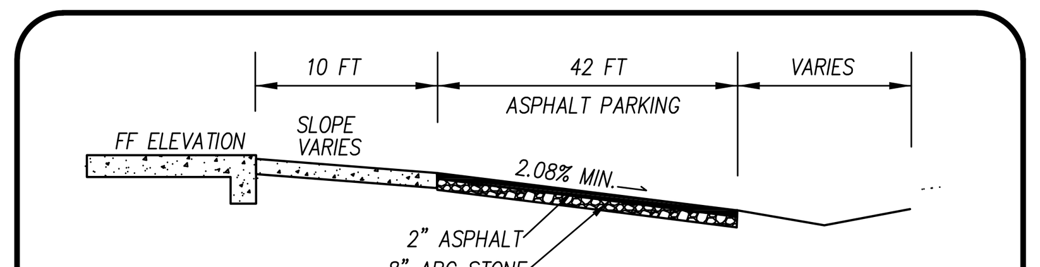
EXTRUDED SIDEWALK

NOT TO SCALE



TYPICAL PAVEMENT SECTION A-A

NOT TO SCALE



TYPICAL PAVEMENT SECTION B-B

NOT TO SCALE

LEGEND

- EXISTING BOUNDARY
- EXISTING BUILDING
- PROP. BUILDINGS
- EXISTING WATER
- EXISTING SEWER
- EXISTING FIRE HYDRANT
- EXISTING CONTOUR
- EXISTING STORM DRAIN
- EXISTING CONCRETE
- PROPOSED ASPHALT
- PROPOSED SWALE / FLOW DIRECTION
- EXISTING FENCE
- TREE REMOVAL
- TREE PROTECTION

CSD ENGINEERING

LICENSE # C-2710
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL

P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

SITE PLAN for WILMINGTON POWERSPORTS

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SITE PLAN for **WILMINGTON POWERSPORTS**
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

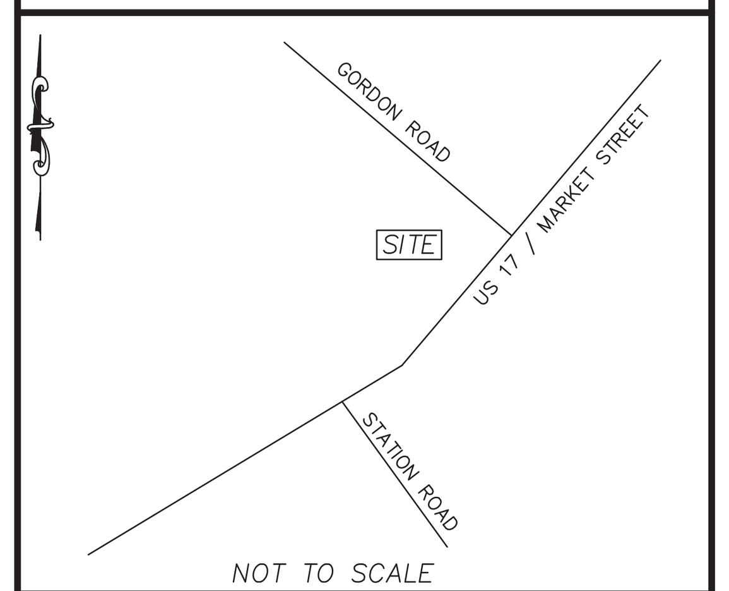
NORTH CAROLINA PROFESSIONAL SEAL 025483 6/27/23 ENGINEER HOWARD S. RESNIK

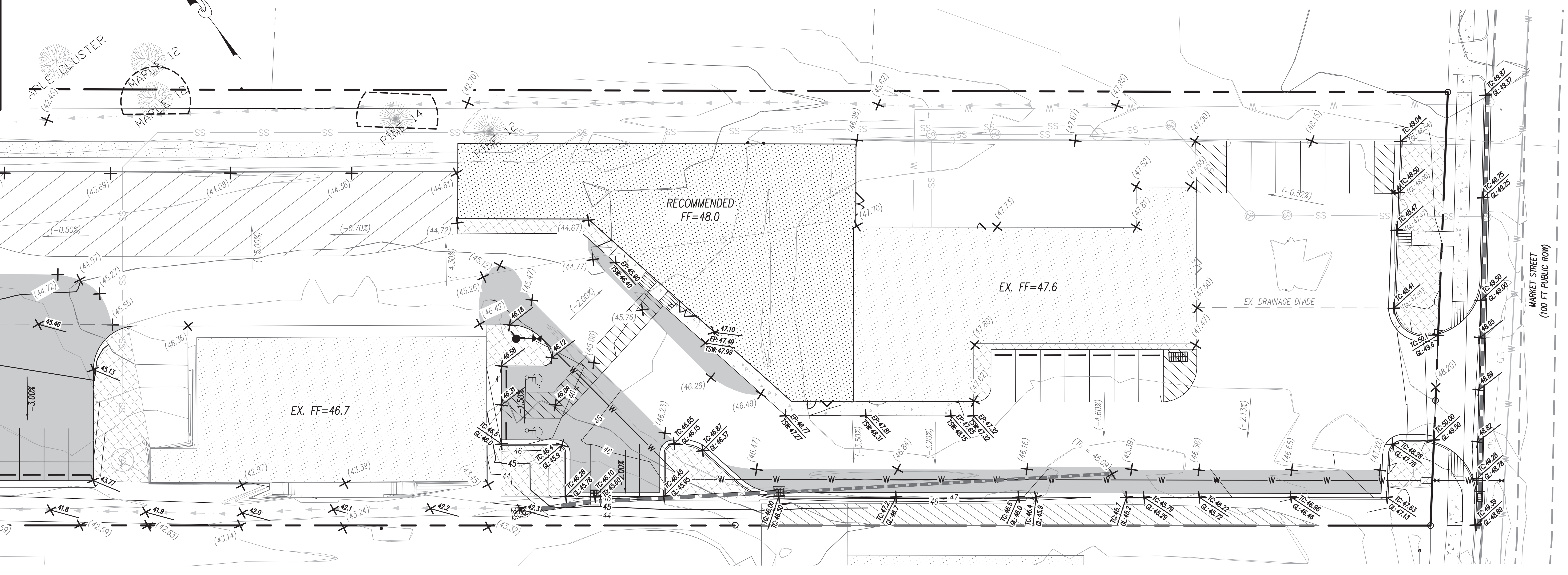
REV. NO.	REMARKS	BY	DATE
5	REVISED SITE EGRESS ROUTE	JSM	6/27/23
4	REVISED SIGHT DISTANCE TRIANGLES PER CITY TRAFFIC COMMENTS	JSM	12/16/22
3	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	11/08/22
2	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	9/29/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

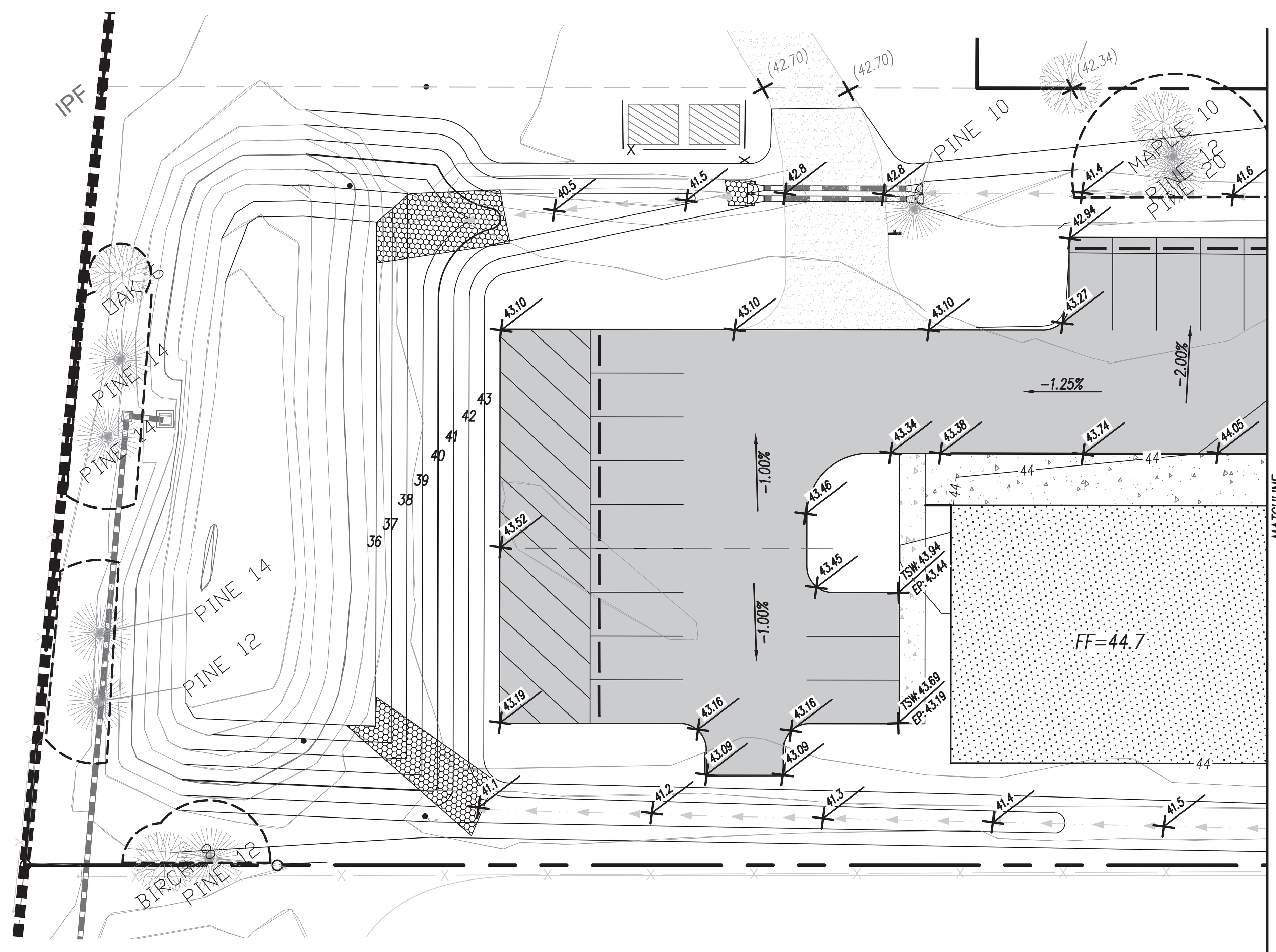
DATE: 6/16/22
HORZ. SCALE: 1" = 40'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. 3 of 6

LOCATION MAP

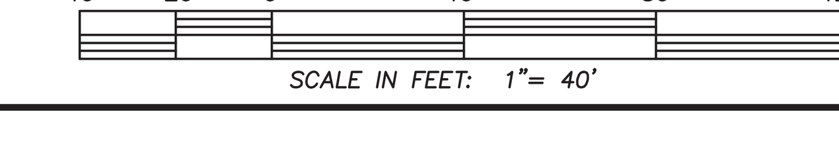






LEGEND

- EXISTING BOUNDARY
- EXISTING BUILDING
- PROP. BUILDINGS
- W — EXISTING WATER
- SS — EXISTING SEWER
- EXISTING FIRE HYDRANT
- EXISTING CONTOUR
- EXISTING STORM DRAIN
- EXISTING CONCRETE
- PROPOSED ASPHALT
- PROPOSED SWALE / FLOW DIRECTION
- x — EXISTING FENCE
- TREE PROTECTION



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GRADING PLAN for WILMINGTON POWERSPORTS

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SITE PLAN for
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

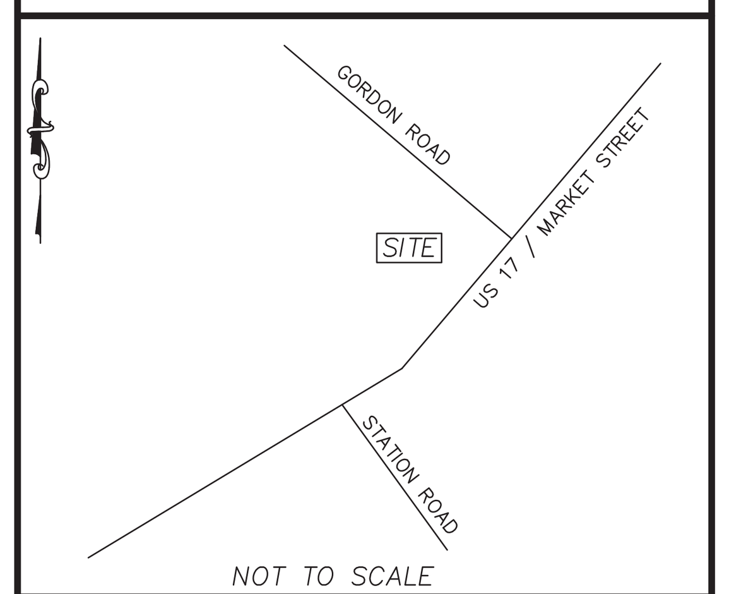
FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

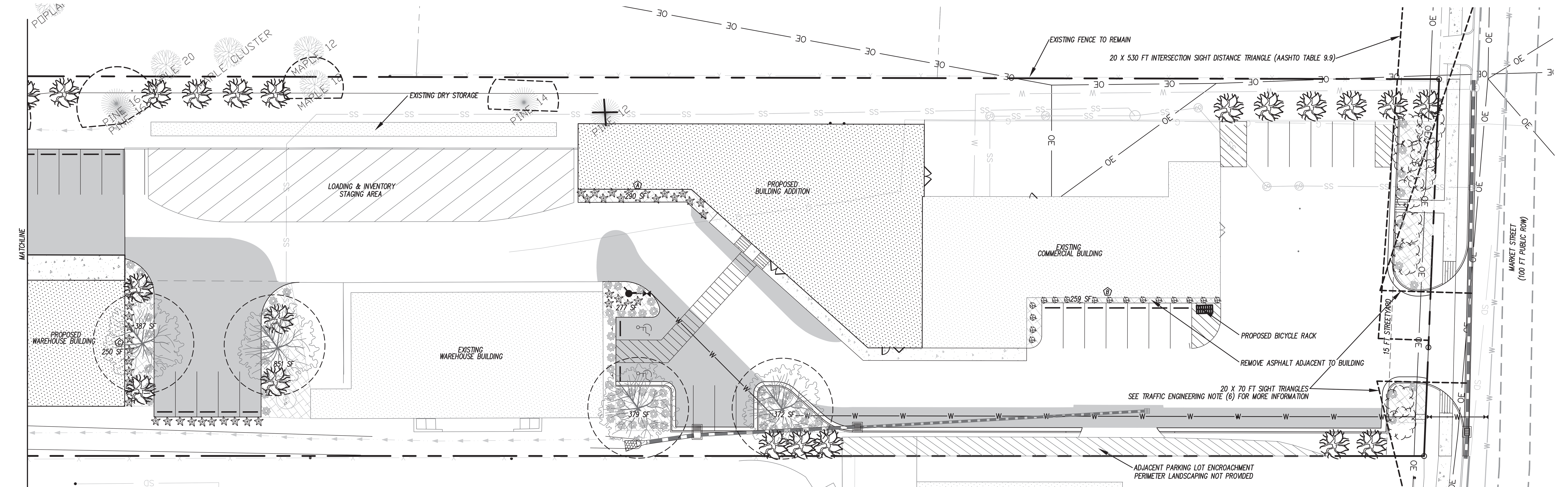
REV. NO.	REMARKS	BY	DATE
3	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	11/08/22
2	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	9/29/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

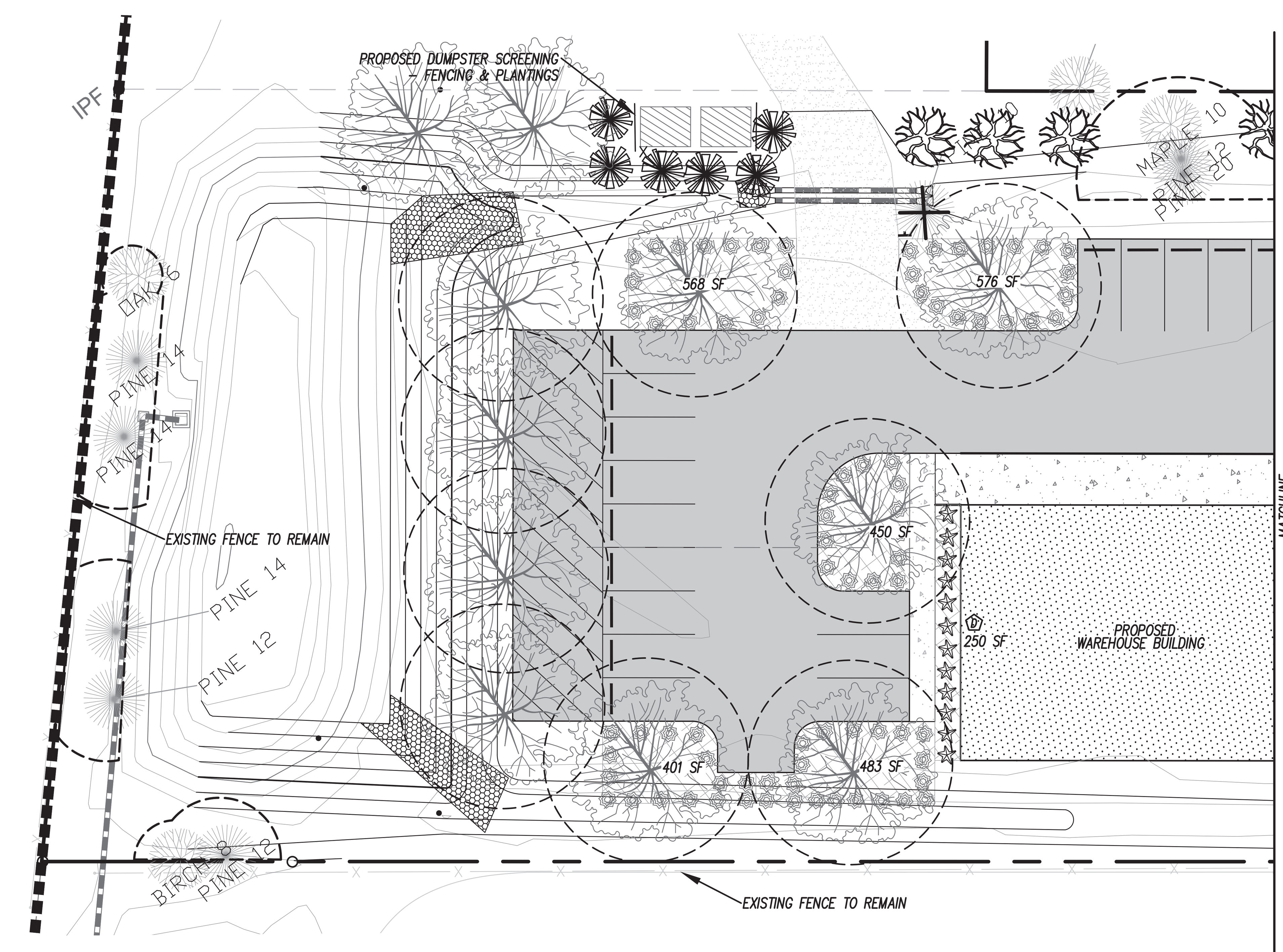
DATE: 6/16/22
HORZ. SCALE: 1" = 40'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. 4 Of 6

LOCATION MAP







LEGEND

- EXISTING BOUNDARY
- EXISTING BUILDING
- PROP. BUILDINGS
- EXISTING WATER
- EXISTING SEWER
- EXISTING FIRE HYDRANT
- EXISTING CONTOUR
- EXISTING STORM DRAIN
- EXISTING CONCRETE
- PROPOSED ASPHALT
- PROPOSED SWALE / FLOW DIRECTION
- EXISTING FENCE
- TREE REMOVAL
- TREE PROTECTION

LANDSCAPE CALCULATIONS:

1. REQUIREMENTS PER LANDSCAPING EXPANSION TABLE (SEC. 18–326)
2. GENERAL TREE REQUIREMENT:
   15 TREES PER DISTURBED ACRE; 1.14 AC * 15 = 21.0 OR 21 TREES REQ'D
3. STREETYARD LANDSCAPING [SEC. 18–319] AS FOLLOWS;
   –TWO (2) UNDERSTORY TREES FOR EVERY ONE HUNDRED (100) FEET OF PROPERTY FRONTAGE (UNDERSTORY TREES IN LIEU OF CANOPY TREES PER OVERHEAD UTILITY LINES)
   –SIX (6) UNDERSTORY TREES FOR EVERY ONE HUNDRED (100) FEET OF PROPERTY FRONTAGE
   –NINE (9) SHRUBS FOR EVERY ONE HUNDRED (100) FEET OF PROPERTY FRONTAGE
   150 FT FRONTAGE – 36 FT DRIVEWAY; (114 FT /100 = 1.14)
   UNDERSTORY TREES PROVIDED: 3 ;(2 * 1.14 = 2.28)
   UNDERSTORY TREES PROVIDED: 7 ;(6 * 1.14 = 6.84)
   SHRUBS PROVIDED: 11 ;(9 * 1.14 = 10.26)
4. PARKING LOT LANDSCAPING: [SEC. 18–321]:
   1 CANOPY TREE AND SHRUBBERY * 8 INTERIOR PARKING ISLANDS
   8 CANOPY TREES AND SHRUBS REQ'D;
   CANOPY TREES / SHADE TREES PLACED THROUGHOUT PARKING AREA TO AVOID CONFLICT WITH DESIGNED UTILITIES.
5. FOUNDATION LANDSCAPING: [SEC. 18–322]:
   (A) 2,400 SF BLDG FACE * 12% = 288 SF REQ'D FOUNDATION LANSCAPING. 290 SF FOUNDATION LANDSCAPING PROVIDED.
   (B) 2,070 SF BLDG FACE * 12% = 249 SF REQ'D FOUNDATION LANSCAPING. 259 SF FOUNDATION LANDSCAPING PROVIDED.
   (C) 1,000 SF BLDG FACE * 12% = 120 SF REQ'D FOUNDATION LANSCAPING. 250 SF FOUNDATION LANDSCAPING PROVIDED.
   (D) 1,000 SF BLDG FACE * 12% = 120 SF REQ'D FOUNDATION LANSCAPING. 250 SF FOUNDATION LANDSCAPING PROVIDED.
6. PARKING AREA SHADE CALCULATIONS: [SEC. 18–318]:
   17,347 SF PROPOSED PARKING AREA; 20% SHADE REQ'D; 17,347 * 0.2 = 3,469.4 SF OF REQ'D SHADE.
   4,064 SF OF SHADE AREA PROVIDED AT MATURITY.
7. TREES & SHRUBS IN THE SETBACK AREA SHALL BE MAINTAINED BY THE OWNER TO ENSURE THAT THE MATERIAL LIVES & PROSPERS.
8. PARKING AREA SCREENING:
   SHRUBBERY AND EXISTING PERIMETER FENCING PROVIDED FOR MAXIMUM OPACITY OF VEHICLE HEADLIGHTS.

GENERAL TREES

Quantity	Symbol	Scientific Name	Common Name	Container	Minimum Planting Size	Planting Remarks
20		Prunus serrulata	'Kwanzan' Flowering Cherry	B & B	8 FT HEIGHT	UNDER POWERLINES
6		Quercus virginiana	Southern Live Oak	B & B	2" CAL	CANOPY TREES

STREETYARD

Quantity	Symbol	Scientific Name	Common Name	Container	Minimum Planting Size	Planting Remarks
11		Ilex cornuta	Dwarf Burford Holly	3 Gal.	3 FT	STREETYARD
10		Cercis canadensis	American Redbud	B & B	8 FT HEIGHT	STREETYARD

PARKING ISLANDS

Quantity	Symbol	Scientific Name	Common Name	Container	Minimum Planting Size	Planting Remarks
5		Buxus microphylla	SPRINTER BOXWOOD	3 Gal.	24 IN	PARKING LOT
153		Ilex cornuta	Dwarf Burford Holly	3 Gal.	24 IN	PARKING LOT
9		Quercus virginiana	Southern Live Oak	B & B	2" CAL	CANOPY TREES
4		Cornus florida	Flowering Dogwood	B & B	8 FT	UNDER POWERLINES

DUMPSTER SCREENING

Quantity	Symbol	Scientific Name	Common Name	Container	Minimum Planting Size	Planting Remarks
6		Myrica cerifera	Wax Myrtle	7 Gal.	8 FT	DUMPSTER SCREEN

PARKING LOT SCREENING

Quantity	Symbol	Scientific Name	Common Name	Container	Minimum Planting Size	Planting Remarks
10		Buxus microphylla	SPRINTER BOXWOOD	3 Gal.	24 IN	

FOUNDATION PLANTING

Quantity	Symbol	Scientific Name	Common Name	Container	Minimum Planting Size	Planting Remarks
40		Buxus microphylla	SPRINTER BOXWOOD	3 Gal.	24 IN	
17		Juniperus horizontalis	BLUE RUG JUNIPER	1 Gal.	4 IN	

40 20 0 40 80 120
SCALE IN FEET: 1"= 40'

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LANDSCAPING PLAN for WILMINGTON POWERSPORTS

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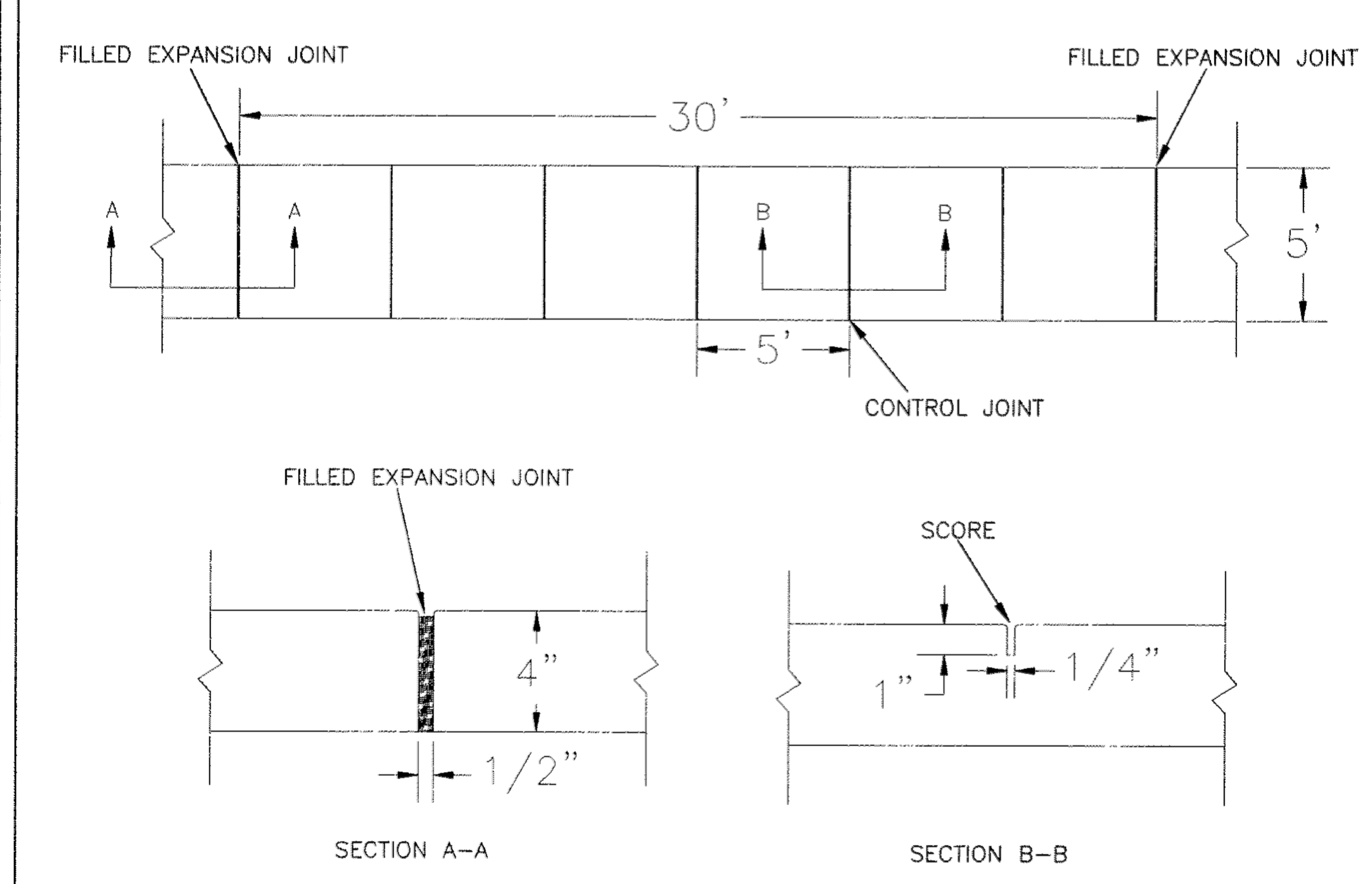
SITE PLAN for
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

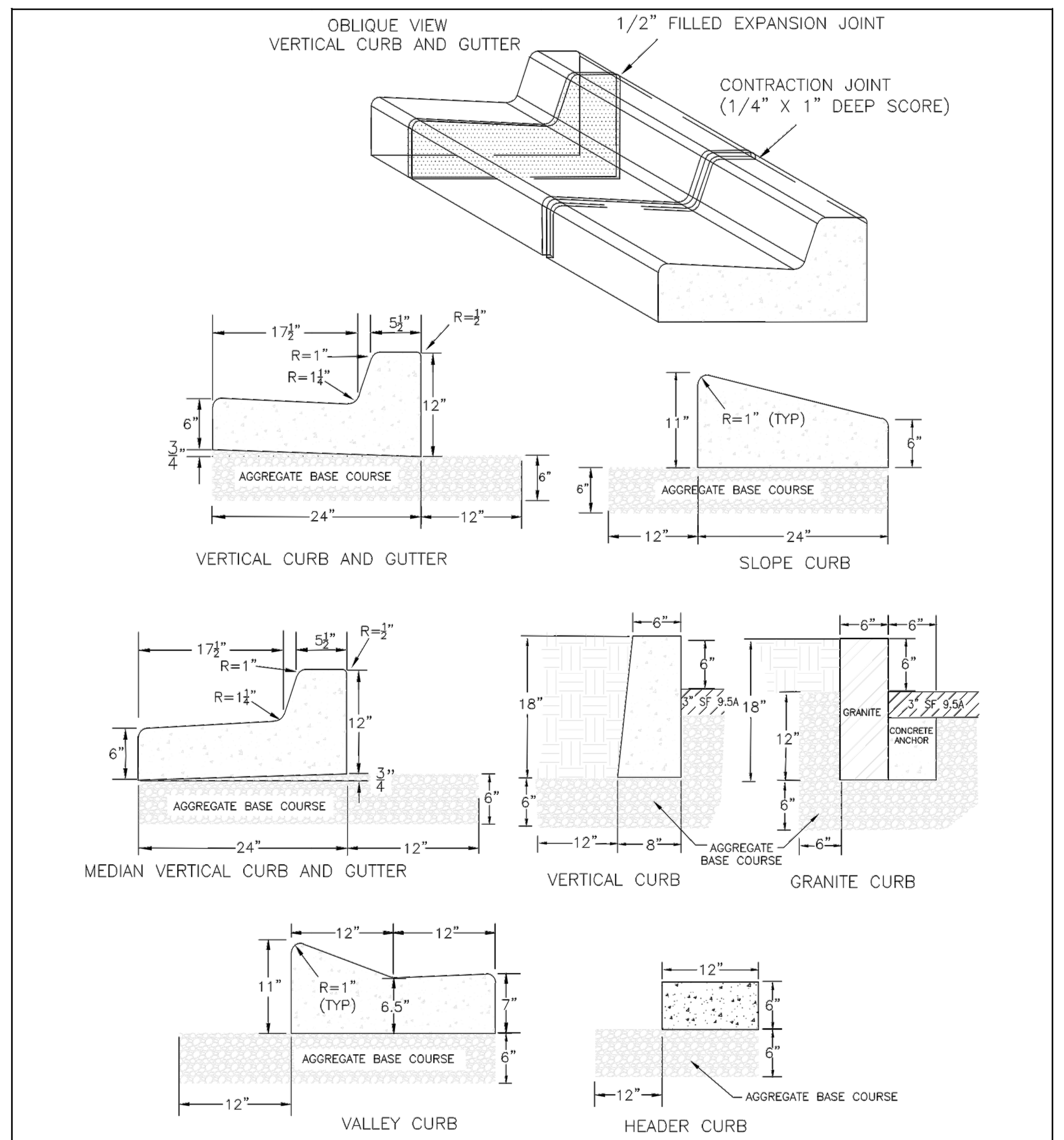
REV. NO.	REMARKS	BY	DATE
4	REVISED SIGHT DISTANCE TRIANGLES PER CITY TRAFFIC COMMENTS	JSM	12/15/22
3	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	11/08/22
2	REVISED PER CITY OF WILMINGTON PRE–TRC COMMENTS	JSM	9/29/22
1	REVISED PER CITY OF WILMINGTON PRE–TRC COMMENTS	JSM	7/18/22

DATE: 6/16/22
HORZ. SCALE: 1" = 40'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21–0554



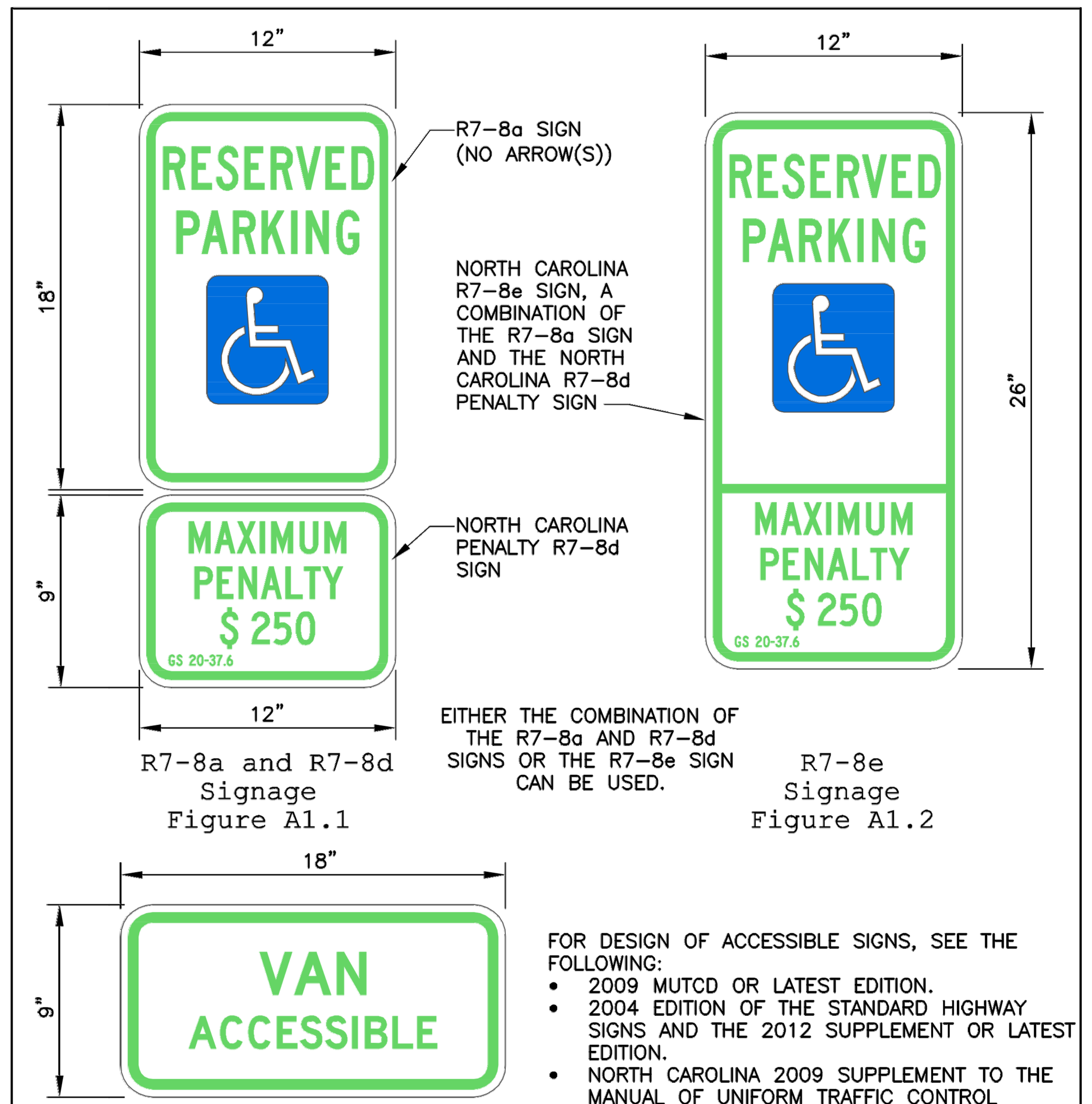
NOTES:
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" – 3,000 PSI.
5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

STANDARD DETAIL		
DATE: OCTOBER, 2010 DRAWN: PB/JSR CHECKED: DEC SCALE: NOT TO SCALE	SIDEWALK	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807 SD 3-10



NOTES:
1. EXPANSION JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS
2. 50' MAX EXPANSION JOINT SPACING, 10' MAX CONTRACTION JOINT SPACING
3. MINIMUM INSTALLATION LENGTH IS 5 FT.
4. CONCRETE TO BE 3000 PSI MIN
5. VERTICAL CURB AND GUTTER BASE CAN BE SLOPED 3/4" OR USE A FLAT BASE

STANDARD DETAIL		
DATE: AUGUST, 2011 DRAWN: PB/JSR CHECKED: DEC SCALE: NOT TO SCALE	CURBING	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807 SD 3-11



R7-8a and R7-8d Signage Figure A1.1

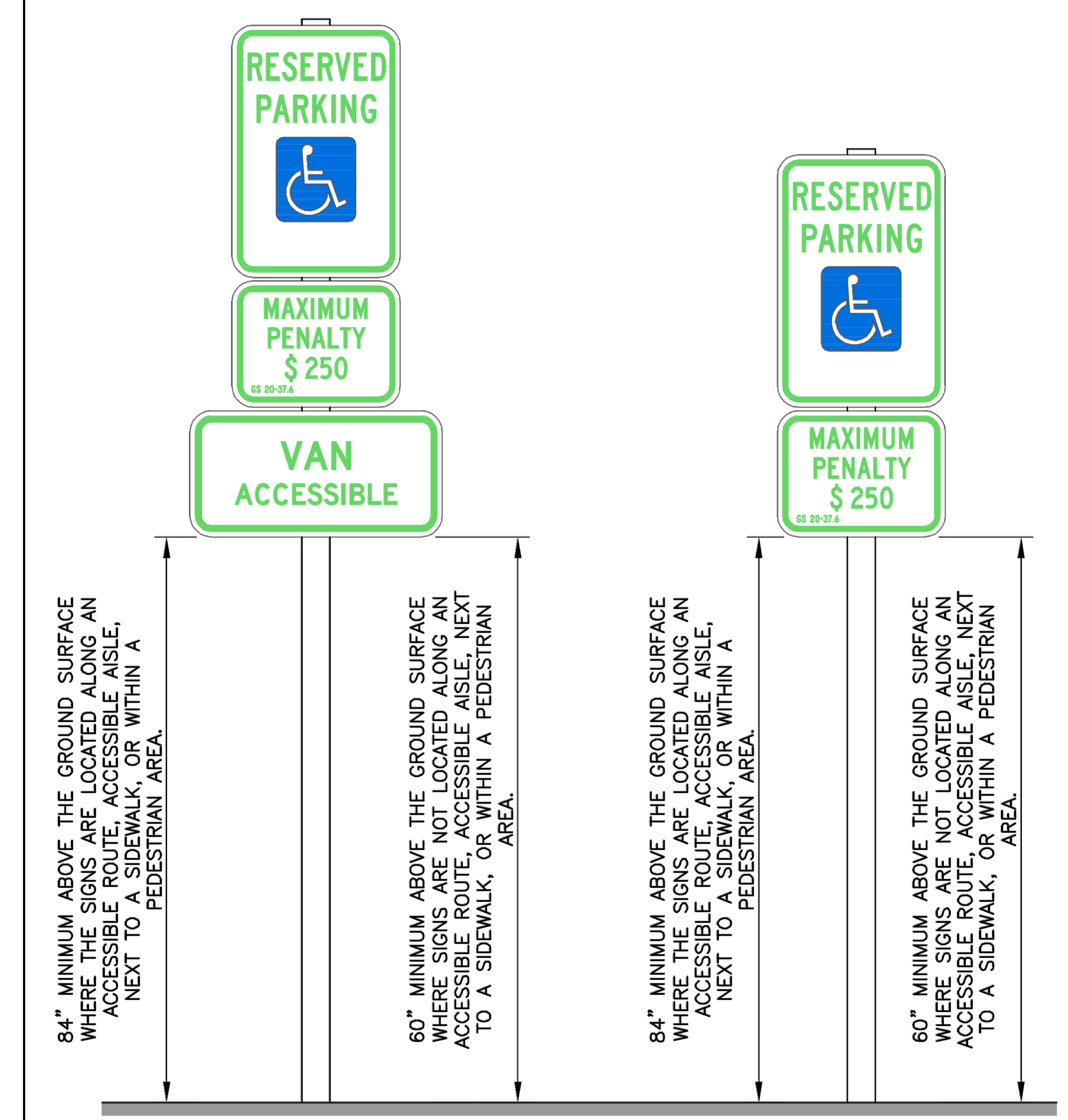
R7-8e Signage Figure A1.2

WHERE VAN ACCESSIBLE PARKING IS PROVIDED, THE VAN ACCESSIBLE (R7-8P) SIGN SHALL BE MOUNTED BELOW THE OTHER ACCESSIBLE PARKING SIGNS. (2009 EDITION MUTCD SECTION 2B.47)

R7-8P Signage Figure A1.3

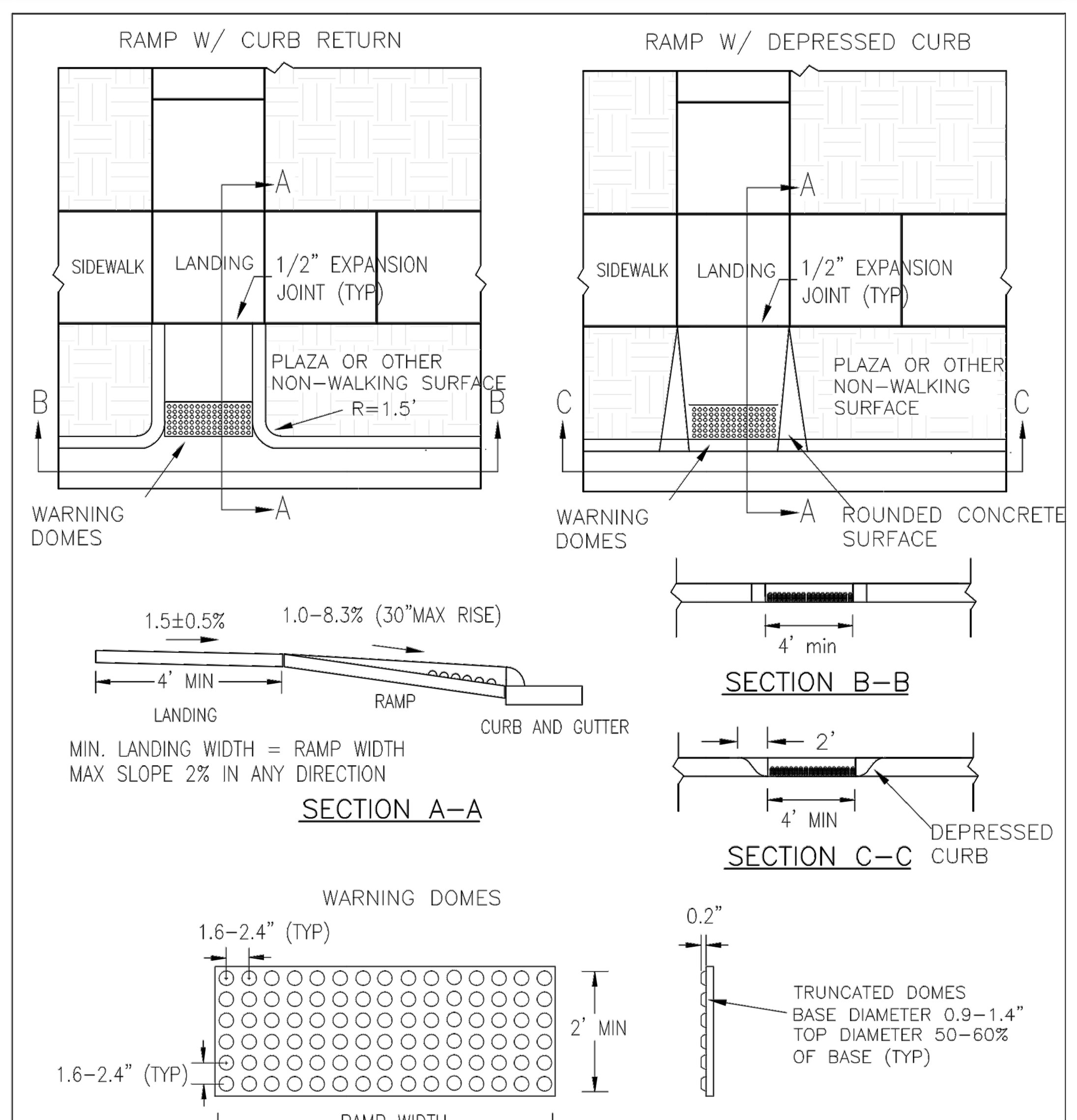
FOR DESIGN OF ACCESSIBLE SIGNS, SEE THE FOLLOWING:
- 2009 MUTCD OR LATEST EDITION.
- 2004 EDITION OF THE STANDARD HIGHWAY SIGNS AND THE 2012 SUPPLEMENT OR LATEST EDITION.
- NORTH CAROLINA 2009 SUPPLEMENT TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR LATEST EDITION
- NCDOT DRAWING H-1_S FOR SIGNS SP00075, SP00076, AND SP00077.

DATE: NOVEMBER 8, 2016 DRAWN BY: DALE THOMPSON CHECKED BY: RANDALL GLAZIER SCALE: NOT TO SCALE	ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A1 OF 5	CITY OF WILMINGTON TRAFFIC ENGINEERING P.O. Box 1810 • Wilmington, NC 28402 • (910) 341-7888



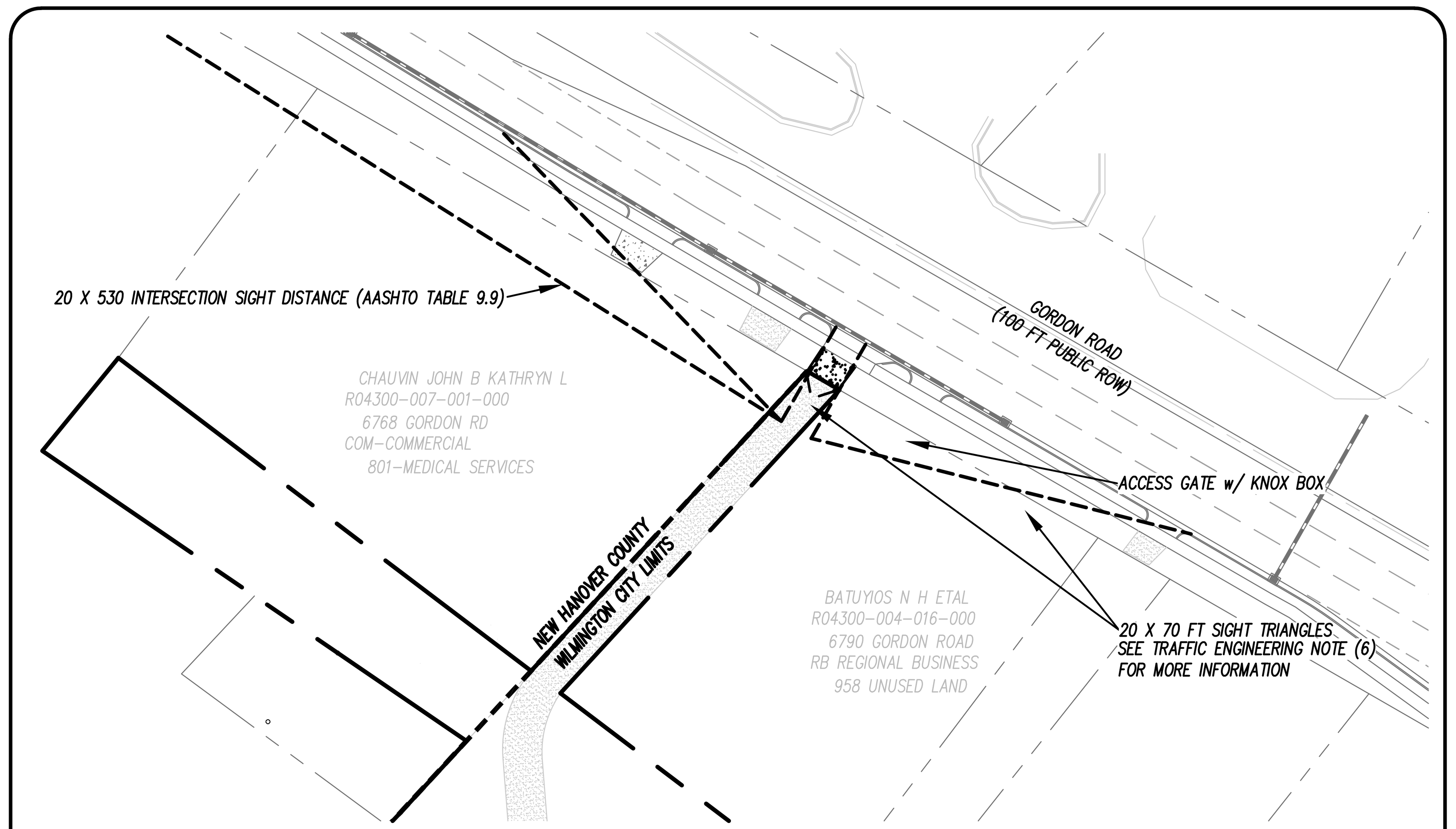
Signage Height Figure A2.1

DATE: NOVEMBER 8, 2016 DRAWN BY: DALE THOMPSON CHECKED BY: RANDALL GLAZIER SCALE: NOT TO SCALE	ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A2 OF 5	CITY OF WILMINGTON TRAFFIC ENGINEERING P.O. Box 1810 • Wilmington, NC 28402 • (910) 341-7888



WARNING DOME NOTES:
1. USE CONTRASTING COLORS, RED OR BLACK ON WHITE PAVEMENT.
2. USE CAST IN PLACE PAVERS FOR NEW CONSTRUCTION.
3. RUBBER MATS ARE PERMITTED FOR RETROFITS.
4. LANDING AND RAMP WIDTH MAY BE REDUCED TO 3' WHERE SPACE IS LIMITED AND DESIGN IS APPROVED BY THE CITY ENGINEER.

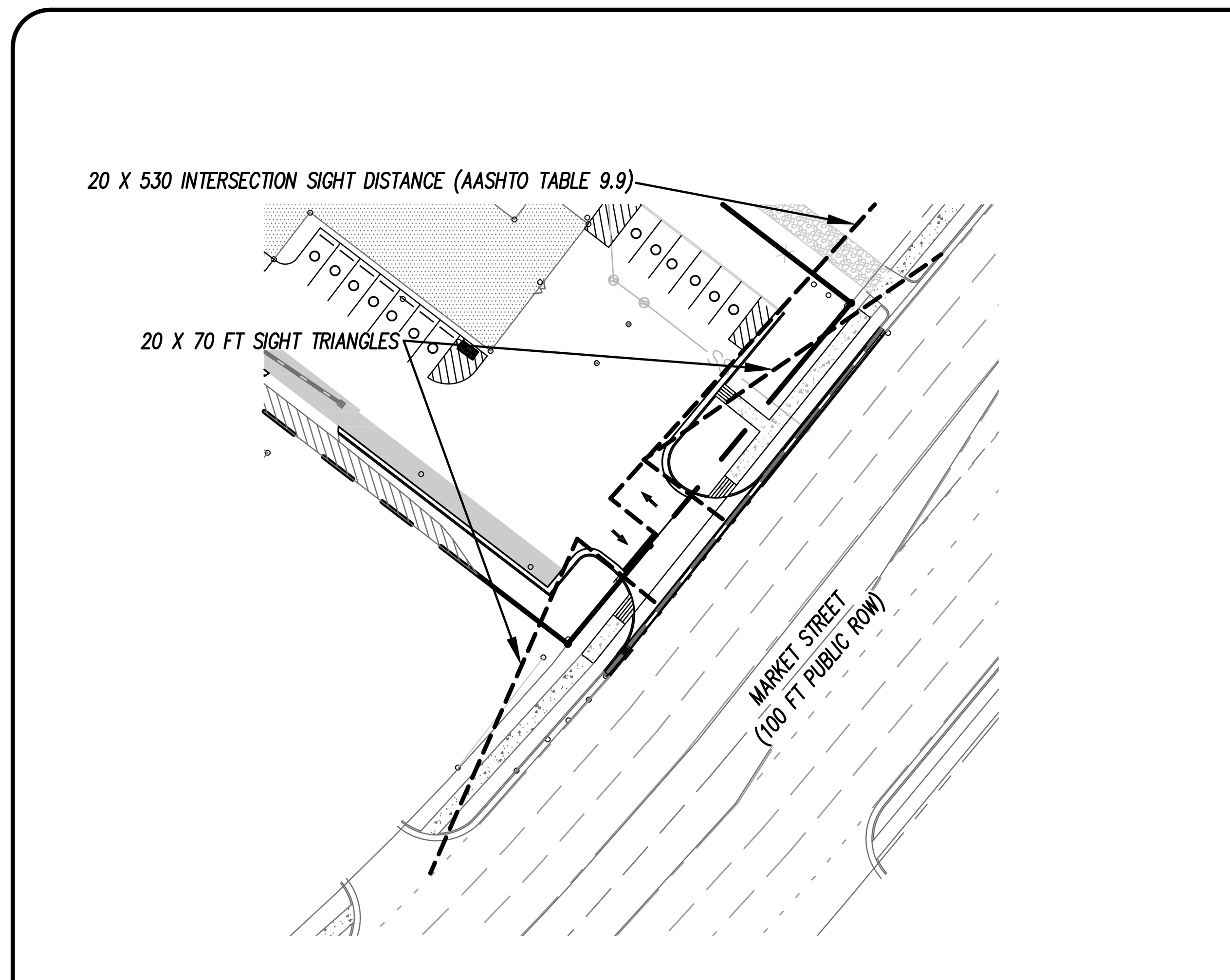
STANDARD DETAIL		
DATE: DECEMBER, 2010 DRAWN: PB/JSR CHECKED: DEC SCALE: NOT TO SCALE	PERPENDICULAR CURB RAMP ADJACENT TO PLAZA	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807 SD3-08



NOTE: ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES – 10 FT.

SIGHT DISTANCE TRIANGLES – GORDON ROAD

SCALE IN FEET: 1"= 50'



NOTE: ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES – 10 FT.

SIGHT DISTANCE TRIANGLES – MARKET STREET

SCALE IN FEET: 1"= 50'

50 25 0 50 100 150

SCALE IN FEET: 1"= 50'

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SITE DETAILS for WILMINGTON POWERSPORTS

SITE PLAN for WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

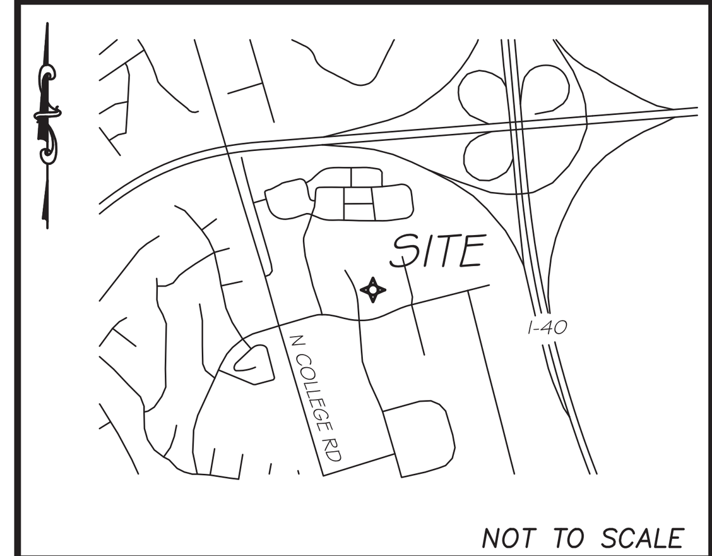
OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

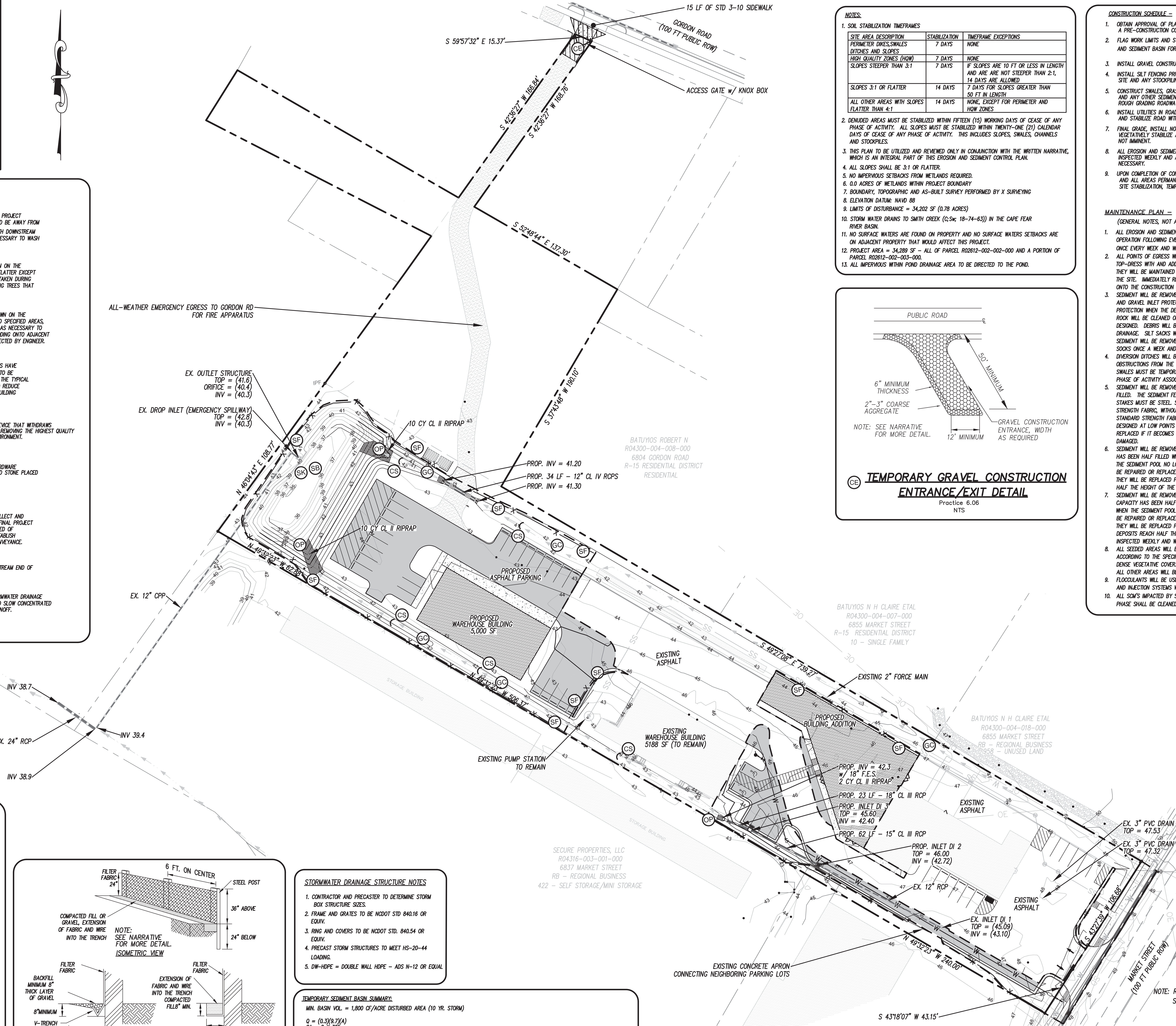
REV. NO.	REMARKS	BY	DATE
4	REVISED SITE EGRESS ROUTE	JSM	6/27/23
3	ADDED SIGHT DISTANCE TRIANGLES VIEWS TO SHEET	JSM	12/16/22
2	SEALED	JSM	11/08/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

DATE: 6/16/22
HORZ. SCALE: 1" = 50'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. 6 of 6

LOCATION MAP





PLANNED EROSION AND SEDIMENT CONTROL PRACTICES –

(CE) 1. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
Practice 6.06
SHALL BE INSTALLED AT THE ENTRANCES TO THE PROJECT FROM AN EXISTING ROADWAY. DRAINAGE SHOULD BE AWAY FROM THE ROAD AND EROSION WILL BE CONTROLLED WITH DOWNSTREAM PRACTICES. DURING WET WEATHER IT MAY BE NECESSARY TO WASH TRUCK TIRES AT THESE LOCATIONS.

2. LAND GRADING
Practice 6.02
GRADING SHOULD BE LIMITED TO AREAS AS SHOWN ON THE PLANS. CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER EXCEPT WHERE SPECIFICALLY INDICATED. CARE SHALL BE TAKEN DURING LAND GRADING ACTIVITIES NOT TO DAMAGE EXISTING TREES THAT ARE IDENTIFIED AS "TO BE PRESERVED".

(SF) 3. SEDIMENT FENCE
Practice 6.62
SEDIMENT FENCING SHOULD BE INSTALLED AS SHOWN ON THE PLAN, TO DELINEATE AND PROTECT WETLANDS AND SPECIFIED AREAS, AND AROUND ANY TEMPORARY STOCKPILE AREAS AS NECESSARY TO PREVENT ANY GRADED INTERIOR AREAS FROM ERODING ONTO ADJACENT LANDS OR ROADWAY, OR INTO INLETS, OR AS DIRECTED BY ENGINEER.

4. CONSTRUCTION ROAD STABILIZATION
PRACTICE 6.80
UPON REACHING FINAL GRADE AND AFTER UTILITIES HAVE BEEN INSTALLED, ROADWAY/PARKING AREAS ARE TO BE STABILIZED BY PLACING SUB-BASE AS SHOWN IN THE TYPICAL STREET CROSS-SECTION DETAIL ON THE PLAN, TO REDUCE EROSION AND DUST DURING THE REMAINDER OF BUILDING CONSTRUCTION.

(SK) 5. SKIMMER
PRACTICE 6.64
A SEDIMENTATION BASIN DEWATERING CONTROL DEVICE THAT WITHDRAWS WATER FROM THE BASINS WATER SURFACE, THUS REMOVING THE HIGHEST QUALITY WATER FOR DELIVERY TO THE UNCONTROLLED ENVIRONMENT.

(IP) 6. INLET PROTECTION
Practice 6.51
STORM SEWER INLET BARRIERS OF WIRE MESH HARDWARE CLOTH AROUND STEEEL POST SUPPORTING WASHED STONE PLACED AROUND OPENING OF A DROP INLET

(GC) 7. GRASS-LINED CHANNELS
PRACTICE 6.30
ALL OVERFLOW SWALES TO BE GRADED TO DESIGN CONFIGURATION,LINED WITH CENTIPEDE SOD, TO COLLECT AND CONVEY SITE WATER AS SHOWN ON PLAN. AFTER FINAL PROJECT STABILIZATION, SWALES TO BE RE-GRADED, CLEANED OF SILTATION AND LINED WITH CENTIPEDE SOD TO ESTABLISH ORIGINAL DESIGN CONTOURS FOR STORMWATER CONVEYANCE.

(OP) 8. OUTLET STABILIZATION
PRACTICE 6.41
RIPRAP APRONS WILL BE LOCATED AT THE DOWNSTREAM END OF ALL DISCHARGE PIPES TO PREVENT SCOUR.

(CS) 9. COMPOST SOCK
A 3-D TUBLAR CHECK DAM DEVICE USED IN STORMWATER DRAINAGE DITCHES ON/NEAR LAND DISTURBING ACTIVITIES TO SLOW CONCENTRATED DIRECTIONAL FLOW VELOCITY OF STORM WATER RUNOFF.

LEGEND

- EXISTING BOUNDARY
- ADJACENT PROPERTY LINES
- EXISTING/PROPOSED EASEMENT
- LIMITS OF DISTURBANCE
- (CE) CONSTRUCTION ENTRANCE
- (OP) OUTLET PROTECTION
- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (SB) SEDIMENT BASIN
- (GC) GRASSED CHANNEL
- (SK) SKIMMER
- (CS) COMPOST SOCK
- SWALE CENTERLINE & FLOW DIRECTION
- GS GROUND SHOT
- FL FLOW LINE

6 FT. ON CENTER
FILTER FABRIC
24"
STEEL POST
36" ABOVE
24" BELOW
COMPACTED FILL OR GRAVEL, EXTENSION OF FABRIC AND WIRE INTO THE TRENCH
NOTE: SEE NARRATIVE FOR MORE DETAIL.
ISOMETRIC VIEW
BACKFILL MINIMUM 8" THICK LAYER OF GRAVEL
8"MINIMUM
V-TRENCH
14"MINIMUM
SECTION
EXTENSION OF FABRIC AND WIRE INTO THE TRENCH
COMPACTED FILL8" MIN.
4"MINIMUM
SECTION

(SF) **SEDIMENT FENCE (SILT FENCE)**
Practice 6.62
NTS

STORMWATER DRAINAGE STRUCTURE NOTES

1. CONTRACTOR AND PRECASTER TO DETERMINE STORM BOX STRUCTURE SIZES.
2. FRAME AND GRATES TO BE NCDOT STD 840.16 OR EQUIV.
3. RING AND COVERS TO BE NCDOT STD. 840.54 OR EQUIV.
4. PRECAST STORM STRUCTURES TO MEET HS-20-44 LOADING.
5. DW-HDPE = DOUBLE WALL HDPE – ADS N-12 OR EQUAL

TEMPORARY SEDIMENT BASIN SUMMARY:

MIN. BASIN VOL. = 1,800 CF/ACRE DISTURBED AREA (10 YR. STORM)

Q = (0.3)(9.7)(A)
SA = Q X 325

(SEDIMENT MUST BE REMOVED TWICE A YEAR)

SEDIMENT BASIN	DRAINAGE AREA (ACRES)	DISTURBED AREA (ACRES)	MINIMUM BASIN VOLUME (CF)	VOLUME PROVIDED (CF)	10 YR FLOW (CFS)	MIN. SURFACE AREA (SF)	SURFACE AREA PROVIDED (SF)	SKIMMER SIZE	SKIMMER ORIFICE
1	0.56	0.56	1,008	2,153	1.6	530	4,025	1.5	1.0

NOTES:

1. SOIL STABILIZATION TIMEFRAMES

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES,SWALES DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY ZONES (HQW)	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10 FT OR LESS IN LENGTH AND ARE ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETER AND HQW ZONES

2. DENUDED AREAS MUST BE STABILIZED WITHIN FIFTEEN (15) WORKING DAYS OF CEASE OF ANY PHASE OF ACTIVITY. ALL SLOPES MUST BE STABILIZED WITHIN TWENTY-ONE (21) CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY. THIS INCLUDES SLOPES, SWALES, CHANNELS AND STOCKPILES.
3. THIS PLAN TO BE UTILIZED AND REVIEWED ONLY IN CONJUNCTION WITH THE WRITTEN NARRATIVE, WHICH IS AN INTEGRAL PART OF THIS EROSION AND SEDIMENT CONTROL PLAN.
4. ALL SLOPES SHALL BE 3:1 OR FLATTER.
5. NO IMPERVIOUS SETBACKS FROM WETLANDS REQUIRED.
6. 0.0 ACRES OF WETLANDS WITHIN PROJECT BOUNDARY
7. BOUNDARY, TOPOGRAPHIC AND AS-BUILT SURVEY PERFORMED BY X SURVEYING
8. ELEVATION DATUM: NAVD 88
9. LIMITS OF DISTURBANCE = 34,202 SF (0.78 ACRES)
10. STORM WATER DRAINS TO SMITH CREEK (C;Sw; 18-74-63)) IN THE CAPE FEAR RIVER BASIN.
11. NO SURFACE WATERS ARE FOUND ON PROPERTY AND NO SURFACE WATERS SETBACKS ARE ON ADJACENT PROPERTY THAT WOULD AFFECT THIS PROJECT.
12. PROJECT AREA = 34,289 SF – ALL OF PARCEL R02612-002-002-000 AND A PORTION OF PARCEL R02612-002-003-000.
13. ALL IMPERVIOUS WITHIN POND DRAINAGE AREA TO BE DIRECTED TO THE POND.

PUBLIC ROAD
50' MINIMUM
6" MINIMUM THICKNESS
2"-3" COARSE AGGREGATE
NOTE: SEE NARRATIVE FOR MORE DETAIL.
GRAVEL CONSTRUCTION ENTRANCE, WIDTH AS REQUIRED
12' MINIMUM

(CE) **TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT DETAIL**
Practice 6.06
NTS

CONSTRUCTION SCHEDULE –

1. OBTAIN APPROVAL OF PLAN AND ANY NECESSARY PERMITS, AND HOLD A PRE-CONSTRUCTION CONFERENCE PRIOR TO COMMENCING ANY WORK.
2. FLAG WORK LIMITS AND STAKE-OUT PARKING AREA, BUILDING PAD STORM DRAIN BOXES AND SEDIMENT BASIN FOR PRELIMINARY GRADING
3. INSTALL GRAVEL CONSTRUCTION ENTRANCES.
4. INSTALL SILT FENCING PRIOR TO ROUGH GRADING THE REMAINING SITE AND ANY STOCKPILING OF MATERIAL AND TOPSOIL NECESSARY.
5. CONSTRUCT SWALES, GRASS LINED CHANNELS, INSTALL SKIMMER AND ANY OTHER SEDIMENT CONTROL PRACTICES SHOWN, PRIOR TO ROUGH GRADING ROADWAYS AND SITE, STOCKPILING TOPSOIL AS NECESSARY.
6. INSTALL UTILITIES IN ROADWAY, ESTABLISH FINAL ROAD GRADES AND STABILIZE ROAD WITH STONE BASE COURSE.
7. FINAL GRADE, INSTALL NON-MUNICIPAL UTILITIES AS NEEDED, AND VEGETATIVELY STABILIZE AREAS WHERE BUILDING CONSTRUCTION IS NOT IMMINENT.
8. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER ANY RAINFALL, AND REPAIRED AS NECESSARY.
9. UPON COMPLETION OF CONSTRUCTION, THE ROADWAY IS TO BE PAVED AND ALL AREAS PERMANENTLY VEGETATIVELY STABILIZED. AFTER SITE STABILIZATION, TEMPORARY MEASURES ARE TO BE REMOVED.

MAINTENANCE PLAN –

(GENERAL NOTES, NOT ALL ITEMS ARE APPLICABLE TO THIS PROJECT)

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY 0.5" RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL PERIODICALLY TOP-DRESS WITH AND ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND WATTLES, BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER RAIN EVENT.
4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX, WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX, WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
6. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE THE 1ST BAFFLE.
7. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
8. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY AND MULCHED ACCORDING TO THE SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITH 15 WORKING DAYS.
9. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECTION SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.
10. ALL SCM'S IMPACTED BY SEDIMENTATION AND EROSION CONTROL DURING THE CONSTRUCTION PHASE SHALL BE CLEANED OUT AND CONVERTED TO ITS APPROVED DESIGN STATE.

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STORMWATER AND EROSION CONTROL PLAN FOR WILMINGTON POWERSPORTS

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STORMWATER AND EROSION CONTROL PLAN
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

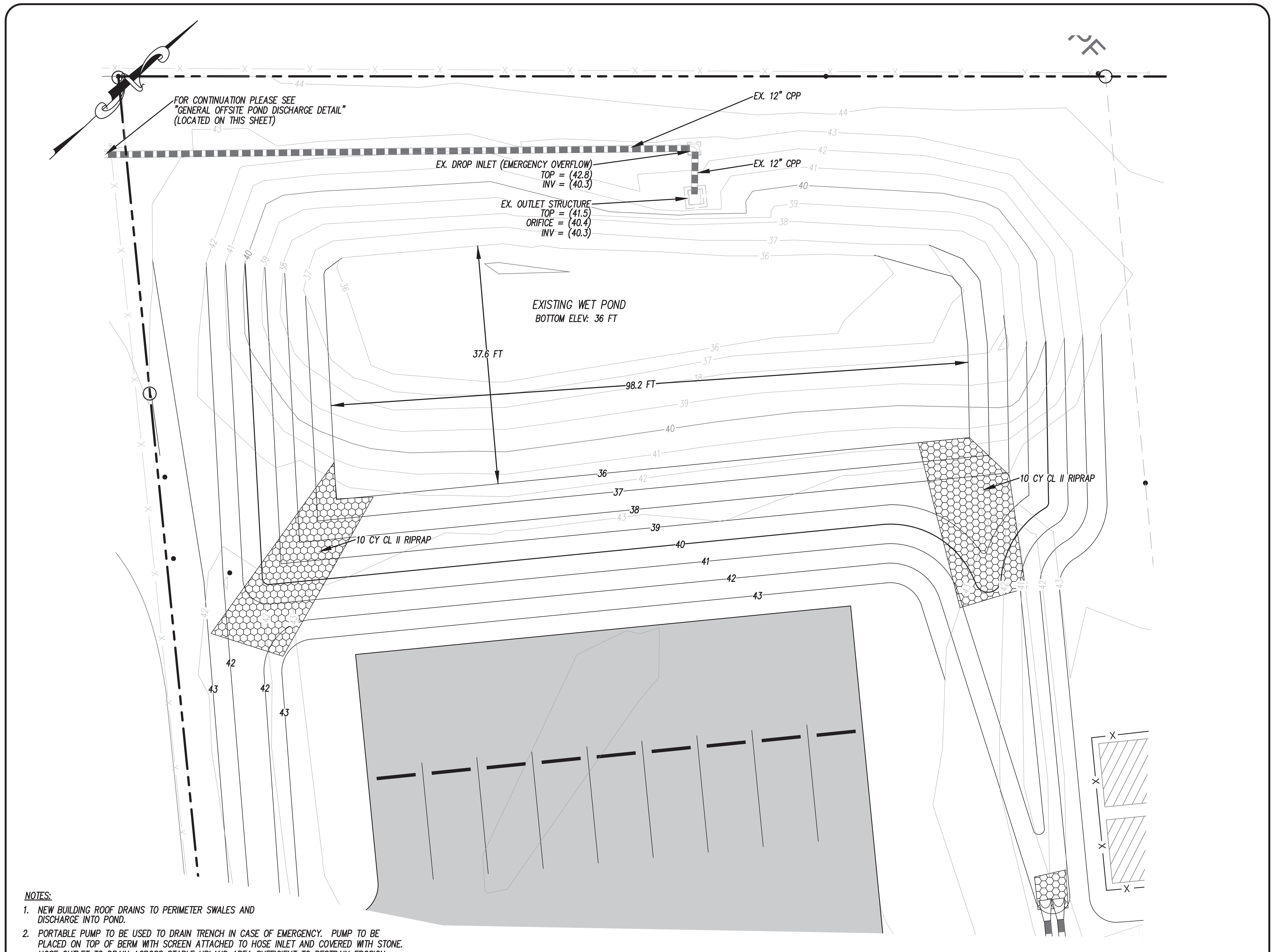
OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

NORTH CAROLINA PROFESSIONAL SEAL 025483 6/27/23 ENGINEER HOWARD S. RESNIK

REV. NO.	REMARKS	BY	DATE
4	REVISED SITE EGRESS ROUTE	JSM	6/27/23
3	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	11/08/22
2	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	9/29/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

DATE: 6/16/22
HORZ. SCALE: 1" = 40'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. EC1 Of EC4



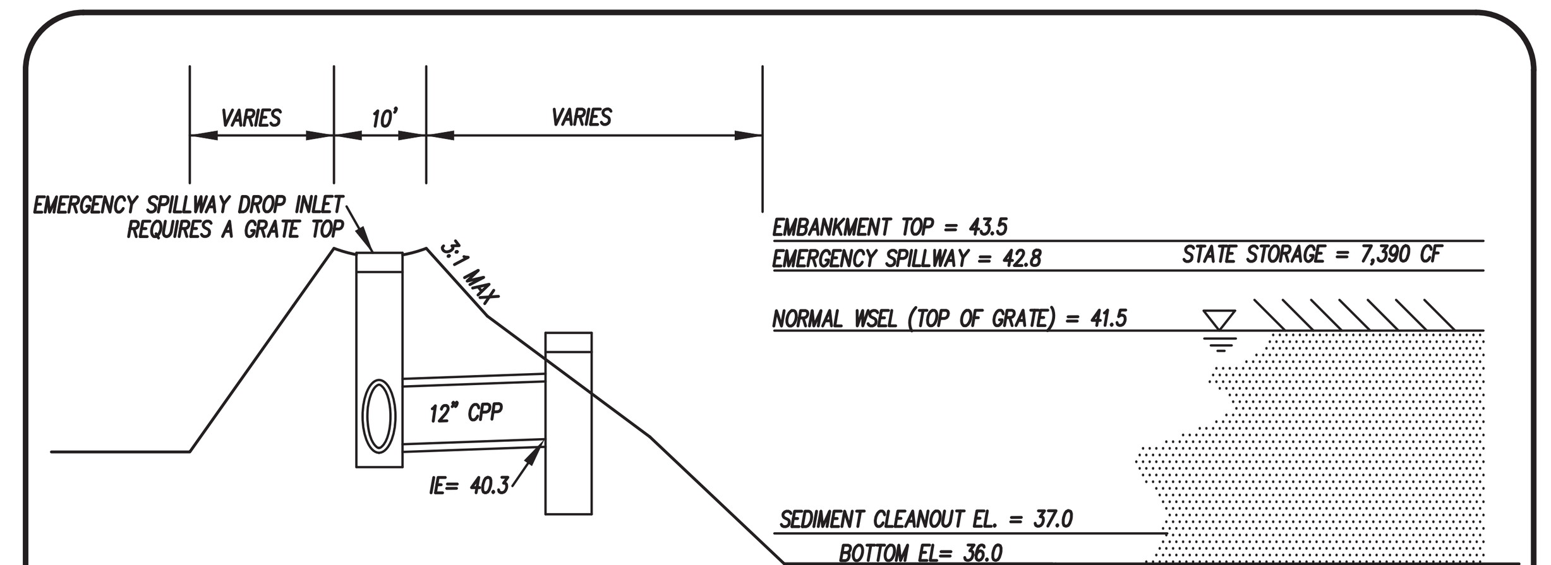
NOTES:

1. NEW BUILDING ROOF DRAINS TO PERIMETER SWALES AND DISCHARGE INTO POND.
2. PORTABLE PUMP TO BE USED TO DRAIN TRENCH IN CASE OF EMERGENCY. PUMP TO BE PLACED ON TOP OF BERM WITH SCREEN ATTACHED TO HOSE INLET AND COVERED WITH STONE. HOSE OUTLET TO DRAIN ACROSS STABLE UPLAND AREA SUFFICIENT TO RESTRAIN EROSION.
3. BASIN TO BE RECORDED IN A DRAINAGE EASEMENT IF NOT ALREADY RECORDED.
4. SITE IS COVERED UNDER EXISTING STATE STORMWATER PERMIT SW8 950619 DATED AUGUST 11, 1995

10 5 0 10 20 30
SCALE IN FEET: 1"= 10'

EXISTING WET POND

1" = 10'



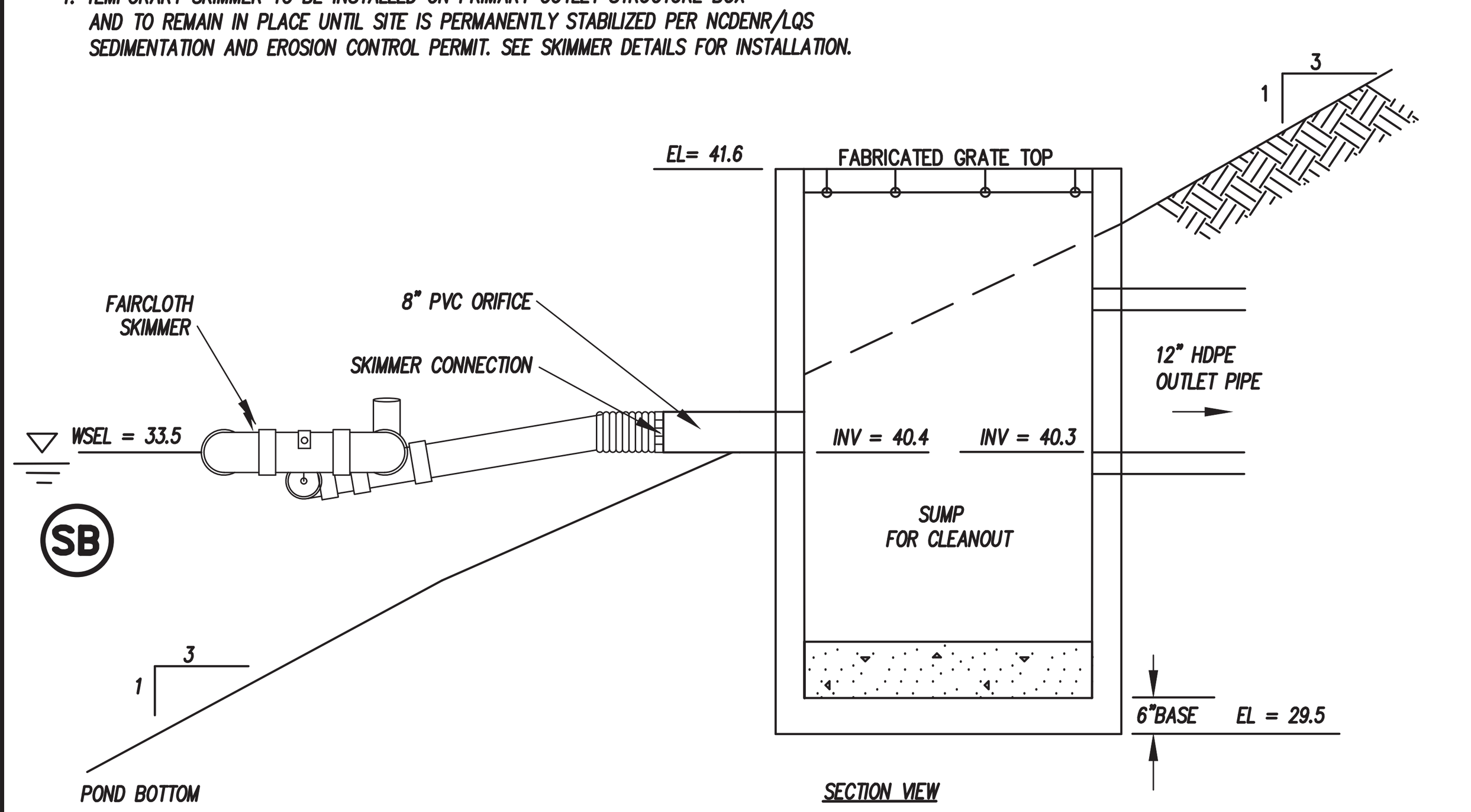
EXISTING EMBANKMENT SECTION

NOT TO SCALE

NOTE: DESIGN INVERTS AND VOLUMES PER CALCULATIONS PERFORMED BY PHILLIP G. TRIPP P.E., SEALED 7-24-1995

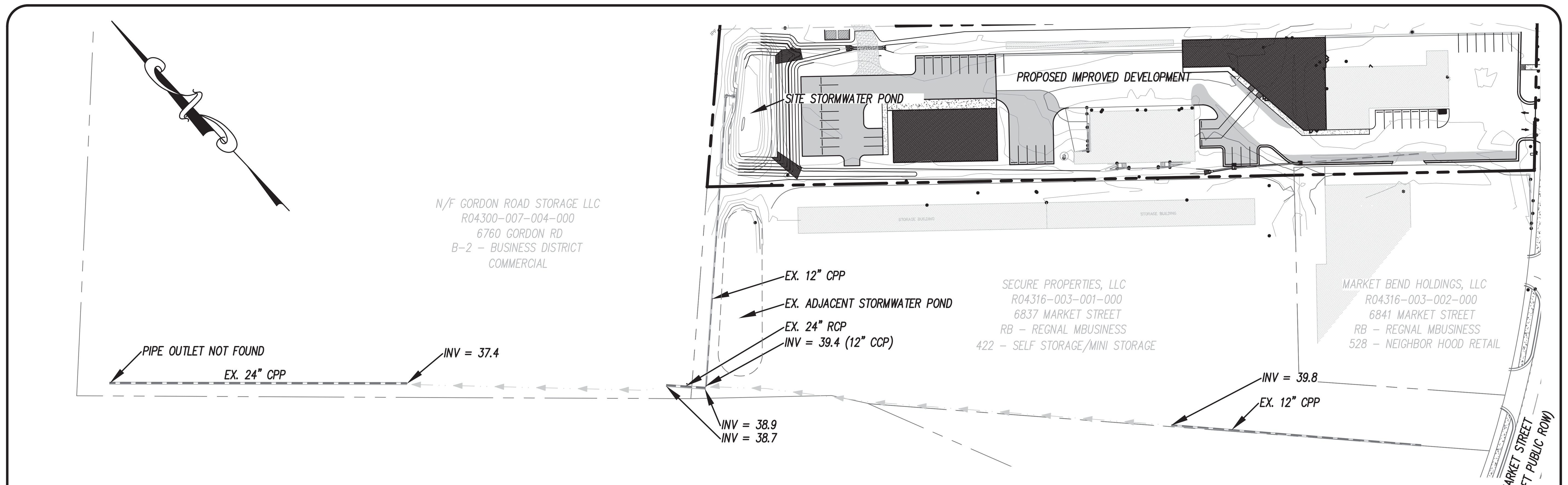
NOTES:

1. TEMPORARY SKIMMER TO BE INSTALLED ON PRIMARY OUTLET STRUCTURE BOX AND TO REMAIN IN PLACE UNTIL SITE IS PERMANENTLY STABILIZED PER NCDENR/LQS SEDIMENTATION AND EROSION CONTROL PERMIT. SEE SKIMMER DETAILS FOR INSTALLATION.



EXISTING WET POND OUTLET STRUCTURE DETAILS

NOT TO SCALE



OFFSITE POND DISCHARGE DETAIL

1" = 80'

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POND DETAILS FOR **WILMINGTON POWERSPORTS**

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POND DETAILS FOR
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV. NO.	REMARKS	BY	DATE
3	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	11/08/22
2	REVISED PER CITY OF WILMINGTON TRC COMMENTS	JSM	9/29/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

DATE: 6/16/22
HORZ. SCALE: 1" = 20'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. EC2 Of EC4

SK

Skimmer Sediment Basin

Specification 6.64.7 – Construction Specifications
MATERIALS

1. Clear, grub, and strip the area under the embankment of all vegetation and root mat. Remove all surface soil containing high amounts of organic matter and stockpile or dispose of it properly. Haul all objectionable material to the designated disposal area. Place temporary sediment control measures below basin as needed.
2. Ensure that fill material for the embankment is free of roots, woody vegetation, organic matter, and other objectionable material. Place the fill in lifts not to exceed 9 inches, and machine compact it. Over fill the embankment 6 inches to allow for settlement.
3. Shape the basin to the specified dimensions. Prevent the skimming device from settling into the mud by excavating a shallow pit under the skimmer or providing a low support under the skimmer of stone or timber.
4. Place the barrel (typically 4–inch Schedule 40 PVC pipe) on a firm, smooth foundation of impervious soil. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe. Place the fill material around the pipe spillway in 4–inch layers and compact it under and around the pipe to at least the same density as the adjacent embankment. Care must be taken not to raise the pipe from the firm contact with its foundation when compacting under the pipe haunches.

   Place a minimum depth of 2 feet of compacted backfill over the pipe spillway before crossing it with construction equipment. In no case should the pipe conduit be installed by cutting a trench through the dam after the embankment is complete.
5. Assemble the skimmer following the manufacturers instructions, or as designed.
6. Lay the assembled skimmer on the bottom of the basin with the flexible joint at the inlet of the barrel pipe. Attach the flexible joint to the barrel pipe and position the skimmer over the excavated pit or support. Be sure to attach a rope to the skimmer and anchor it to the side of the basin. This will be used to pull the skimmer to the side for maintenance.
7. Earthen spillways–Install the spillway in undisturbed soil to the greatest extent possible. The achievement of planned elevations, grade, design width, and entrance and exit channel slopes are critical to the successful operation of the spillway. The spillway should be lined with laminated plastic or impermeable geotextile fabric. The fabric must be wide and long enough to cover the bottom and sides and extend onto the top of the dam for anchoring in a trench. The edges may be secured with 8–inch staples or pins. The fabric must be long enough to extend down the slope and exit onto stable ground. The width of the fabric must be one piece, not joined or spliced; otherwise water can get under the fabric. If the length of the fabric is insufficient for the entire length of the spillway, multiple sections, spanning the complete width, may be used. The upper section(s) should overlap the lower section(s) so that water cannot flow under the fabric. Secure the upper edge and sides of the fabric in a trench with staples or pins. (Adapted from "A Manual for Designing, Installing and Maintaining Skimmer Sediment Basins." February, 1999. J. W. Faircloth & Son.).
8. Inlets–Discharge water into the basin in a manner to prevent erosion. Use temporary slope drains or diversions with outlet protection to divert sediment–laden water to the upper end of the pool area to improve basin trap efficiency
9. Erosion control–Construct the structure so that the disturbed area is minimized. Divert surface water away from bare areas. Complete the embankment before the area is cleared. Stabilize the emergency spillway embankment and all other disturbed areas above the crest of the principal spillway immediately after construction (References: Surface Stabilization).
10. After all the sediment–producing areas have been permanently stabilized, remove the structure and all the unstable sediment. Smooth the area to blend with the adjoining areas and stabilize properly (References: Surface Stabilization).

Inspect skimmer sediment basins at least weekly and after each significant (one–half 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.

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.

GC

Grass–Lined Channels

Specification # 6.30 – Construction Specifications

1. Remove all trees, brush, stumps, and other objectionable material from the foundation area and dispose of properly.
2. Excavate the channel and shape it to neat lines and dimensions shown on the plans plus a 0.2 ft overcut around the channel perimeter to allow for bulking during seedbed preparations and sod buildup.
3. Remove and properly dispose of all excess soil so that surface water may enter the channel freely.
4. The procedure used to establish grass in the channel will depend upon the severity of the conditions and selection of species. Protect the channel with mulch or a temporary liner sufficient to withstand anticipated velocities during the establishment period (Appendix 8.05).

Maintenance
During the establishment period, check grass–lined channels after every rainfall. After grass is established, periodically check the channel; check it after every heavy rainfall event. Immediately make repairs. It is particularly important to check the channel outlet and all road crossings for bank stability and evidence of piping or scour holes. Remove all significant sediment accumulations to maintain the designed carrying capacity. Keep the grass in a health, vigorous condition at all times, since it is the primary erosion protection for the channel (Practice 6.11, Permanent Seeding).

IP

HARDWARE CLOTH & GRAVEL INLET PROTECTION

Specification # 6.51 – Construction Specifications

1. Uniformly grade a shallow depression approaching the inlet.
2. Drive 5 FT steel post 2 FT into the ground surrounding the inlet.. Space post evenly around the perimeter of the inlet, a maximum of 4 FT apart.
3. Surround the posts wit wire mesh hardware cloth. Secure the wire mesh to steel posts at the top, middle, and bottom. Placing a 2 FT flap of the wire mesh. under the gravel for anchoring is recommended.
4. Place clean gravel (NC DOT #5 or #57 stone) on a 2:1 slope with a height of 16 inches around the wire, and smooth to an even grade.
5. Once the contributing drainage area has been stabilized , remove accumulated sediment, and establish final grading elevations.
6. Compact the area properly and stabilized it with ground cover.

Maintenance
Inspect inlets at least weekly and after each significant (0.5 in or greater) rainfall event. Clear the mesh wire of any debris or other objects to provide adequate flow for subsequent rains. Take care not to damage or undercut the wire mesh during sediment removal. Replace stone as needed.

Permanent Seeding

Specifications # 6.11 – Specifications

Seedbed Requirements
Establishment of vegetation should not be attempted on sites that are unsuitable due to inappropriate soil texture (Table 6.11a), poor drainage, concentrated overland flow, or steepness of slope until measures have been taken to correct these problems.
To maintain a good stand of vegetation, the soil must meet certain minimum requirements as a growth medium. The existing soil should have these criteria:

– Enough fine–grained (silt and clay) material to maintain adequate moisture and nutrient supply (available water capacity of at least .05 inches water to I inch of soil).
– Sufficient pore space to permit root penetration.
– Sufficient depth of soil to provide an adequate root zone. The depth to rock or impermeable layers such as hardpans should be 12 inches or more, except on slopes steeper than 2:1 where the addition of soil is not feasible.
– A favorable pH range for plant growth, usually 6.0–6.5.
– Freedom from large roots, branches, stones, large clods of earth, or trash of any kind. Clods and stones may be left on slopes steeper than 3:1 if they are to be hydroseeded.

If any of the above criteria are not met–i.e., if the existing soil is too coarse, dense, shallow or acidic to foster vegetation–special amendments are required. The soil conditioners described below may be beneficial or, preferably, topsoil may be applied in accordance with Practice 6.04, Topsoiling.

Soil Conditioners
In order to improve the structure or drainage characteristics of a soil, the following material may be added. These amendments should only be necessary where soils have limitations that make them poor for plant growth or for fine turf establishment (see Chapter 3, Vegetative Considerations).

Peat–Appropriate types are sphagnum moss peat, hypnum moss peat, reedsedge peat, or peat humus, all from fresh–water sources. Peat should be shredded and conditioned in storage piles for at least 6 months after excavation.
Sand–clean and free of toxic materials
Vermiculite–horticultural grade and free of toxic substances.
Rotted manure–stable or cattle manure not containing undue amounts of straw or other bedding materials.
Thoroughly rotted sawdust– free of stones and debris. Add 6 lb. Of nitrogen to each cubic yard.
Sludge–Treated sewage and industrial sludges are available in various forms: these should be used only in accordance with local, State and Federal regulations.

Species Selection
Use the key to Permanent Seeding Mixtures (Table 6.11b) to select the most appropriate seeding mixture based on the general site and maintenance factors. A listing of species, including scientific names and characteristics, is given in Appendix 8.02.

Seedbed Preparation
Install necessary mechanical erosion and sedimentation control practices before seeding, and complete grading according to the approved plan.
Lime and fertilizer needs should be determined by soil tests. Soil testing is performed free of charge by the North Carolina Department of Agriculture soil testing laboratory. Directions, sample cartons, and information sheets are available through county agricultural extension offices or from NCDA. Because the NCDA soil testing lab requires 1–6 weeks for sample turn–around, sampling must be planned well in advance of final grading. Testing is also done by commercial laboratories.
When soil test are not available, follow rates suggested on the individual specification sheet for the seeding mix chosen (Tables 6.11c through 6.11v).
Applications rates usually fall into the following ranges:
– Ground agricultural limestone
  Light–textured, sandy soils; 1–1 1/2 tons/acre
  Heavy textured, clayey soils 2–3 tons/acre
– Fertilizer:
  Grasses 800–1200 lb/acre of 10–10–10 (or the equivalent)
  Grass–legume mixtures: 800–1200 lb/acre of 5–10–10 (or the equivalent)
Apply lime and fertilizer evenly and incorporate into the top 4–6 inches of soil by disking or other suitable means. Operate machinery on the contour. When using a hydroseeder, apply lime and fertilizer to a rough, loose surface.

Roughen surfaces according to Practice 6.03, Surface Roughening.
Complete seedbed preparation by breaking up large clods and raking into a smooth, uniform surface (slope less than 3:1) Fill in or level depressions than can collect water. Broadcast seed into a freshly loosened seedbed that has not been sealed by rainfall.

Table 6.11s – Seeding No. 4CP for:
Well–Drained Sandy loams to Dry Sands, Coastal Plain; Low to Medium–Care Lawns
Seeding mixture
Species – Centipedegrass – Rate – 10–20 lb/acre (seed) or 33 bu/acre (sprigs)
Seeding dates – Mar. – June, (Sprigging can be done through July where water is available for irrigation.)
Soil amendments – Apply lime and fertilizer according to soil test, or apply 300 lb/acre 10–10–10.
Sprigging – Plant sprigs in furrows with a tractor–drown transplanter, or broadcast by hand.
Furrows should be 4–6 inches deep and 2ft apart. Place sprigs about 2 ft. apart in the row with one end at or above ground level (Figure 6.11d).
Broadcast at rates shown above, and press sprigs into the top 1 1/2 inches of soil with a disk set straight so that sprigs are not brought back toward the surface.

Mulch –
Maintenance – Fertilize very sparingly– 20 lb/acre nitrogen in spring with no phosphorus. Centipedegrass cannot tolerate high pH or excess fertilizer.

Maintenance
Table 6.11t – Seeding No. 5CP for: Well–Drained Sandy Loams to Dry Sands; Low
Seeding mixture

Species Rate	(lb/acre)
Pensacola Bahiagrass	50
Sericea lespedeza	30
Common Bermudagrass	10
German millet	10

Seeding notes
1. Where a neat appearance is desired, omit sericea
2. Use common Bermudagrass only on isolated sites where it cannot become a pest. Bermudagrass may be replaced with 5 lb/acre centipedgrass.

Seeding dates – Apr. 1 – July 15
Soil amendments – Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10–10–10 fertilizer.
Mulch
Apply 4,000 lb/acre grain straw or equivalent cover of another suitable mulch. Anchor by tacking with asphalt, roving and netting or by crimping with a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.
Maintenance – Refertilize the following Apr. with 50 lb/acre nitrogen. Repeat as growth requires. May be moved only once a year. Where a neat appearance is desired, omit sericea and now as often as needed.

Table 6.11v – Seeding No. 7CP for: Grass–lined Channels; Coastal Plain
Seeding Mixture
Species – Common Bermudagrass – Rate – 40–80 (1/2 lb/1,000 ft)
Seeding dates – Coastal Plain; Apr – July
Soil amendments – Apply lime and fertilizer according to soil tests, or apply 3,000 lb/acre ground agricultural limestone and 500 lb/acre 10–10–10 fertilizer.

Mulch – Use jute, excelsior matting, or other effective channel lining material to cover the bottom of channels and ditches. The lining should extend above the highest calculated depth of flow. On channel side slopes above this height, and in drainages not requiring temporary linings, apply 4,000 lb/acre grain straw and anchor straw by stapling netting over the top.
Mulch and anchoring materials must be allowed to wash down slopes where they can clog drainage devices.
Maintenance –A minimum of 3 weeks is required for establishment. Inspect and repair mulch frequently. Refertilize the following Apr. with 50 lb/acre

Refer to Appendix 8.02 for botanical names

CS

COMPOST SOCK

Specification # 6.66 – Construction Specifications

1. MATERIALS USED IN THE COMPOST SOCK MUST MEET THE SPECIFICATIONS OUTLINED ABOVE AND IN PRACTICE 6.18, COMPOST BLANKETS.
2. COMPOST SOCKS SHOULD BE LOCATED AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.
3. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF THE COMPOST SOCK.
4. COMPOST SOCKS SHOULD BE INSTALLED PARALLEL TO THE TOE OF A GRADED SLOPE, A MINIMUM OF 10 FEET BEYOND THE TOE OF THE SLOPE. SOCKS LOCATED BELOW FLAT AREAS SHOULD BE LOCATED AT THE EDGE OF THE LAND–DISTURBANCE. THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.
5. FILL SOCK NETTING UNIFORMLY WITH COMPOST TO THE DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
6. OAK OR OTHER DURABLE HARDWOOD STAKES 2" X 2" IN CROSS SECTION SHOULD BE DRIVEN VERTICALLY PLUMB, THROUGH THE CENTER OF THE COMPOST SOCK. STAKES SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACED IN A 4 INCH TRENCH. SEE FIGURE 6.66B. THE STAKES SHOULD BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCK.
7. IN THE EVENT STAKING IS NOT POSSIBLE (I.E., WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
8. IF THE COMPOST SOCK IS TO BE LEFT AS PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION USING THE SEEDING SPECIFICATION IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
9. COMPOST SOCKS ARE NOT TO BE USED IN PERENNIAL OR INTERMITTENT STREAMS.

MAINTENANCE:
INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER). REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.

Temporary Seeding

Specification # 6.10 – Specifications

Complete grading before preparing seedbeds and install all necessary erosion control practices, such as dikes, waterways and basins. Minimize steep slopes because they make seedbed preparation difficult and increase the erosion hazard. If soils become compacted during grading, loosen them to a depth of 6–8 inches using a ripper, harrow, or chisel plow.

Seedbed Preparation
Good seedbed preparation is essential to successful plant establishment. A good seedbed is well–pulverized, loose and uniform. Where hydroseeding methods are used, the surface may be left with a more irregular surface of large clods and stones.
Liming – Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1 1/2 tons/acre on coarse–textured soils and 2–3 tons/acres on fine–textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4–6 inches of soil. Soils with a pH of 6 or higher need not be limed.
Fertilizer– Base application rates on soil tests. When these are not possible, apply a 10–10–10 grade fertilizer at 700–1,000 lb./acre. Both fertilizer and lime should be incorporated into the top 4–6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.
Surface roughening– If recent tillage operations have resulted in a loose surface, additional roughening may not be required except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by disking, raking, harrowing, or other suitable methods, Groove or furrow slopes steeper than 3:1 on the contour before seeding (Practice 6:03, Surface Roughening).

Plant Selection
Select an appropriate species or species mixture from Table 6.10a, for seeding in late winter and early spring, Table 6.10b for summer, and Table 6.10c for fall.

Seeding
Evenly apply seed using a cyclone seeder (broadcast), drill, cultipacker seeder, or hydroseeder. Use seeding rates given in Table 6.10a–6.10c. Broadcast seeding and hyroseeding are appropriate for steep slopes where equipment cannot be driven. Hand broadcasting is not recommended because of the difficulty in achieving a uniform distribution. Small grains should be planted no more than 1 inch deep, and grasses and legumes no more than 1/2 inch. Broadcast seed must be covered by raking or chain dragging, and then lightly firmed with a roller or cultipacker. Hydroseeded mixtures should include a wood fiber (cellulose) mulch.

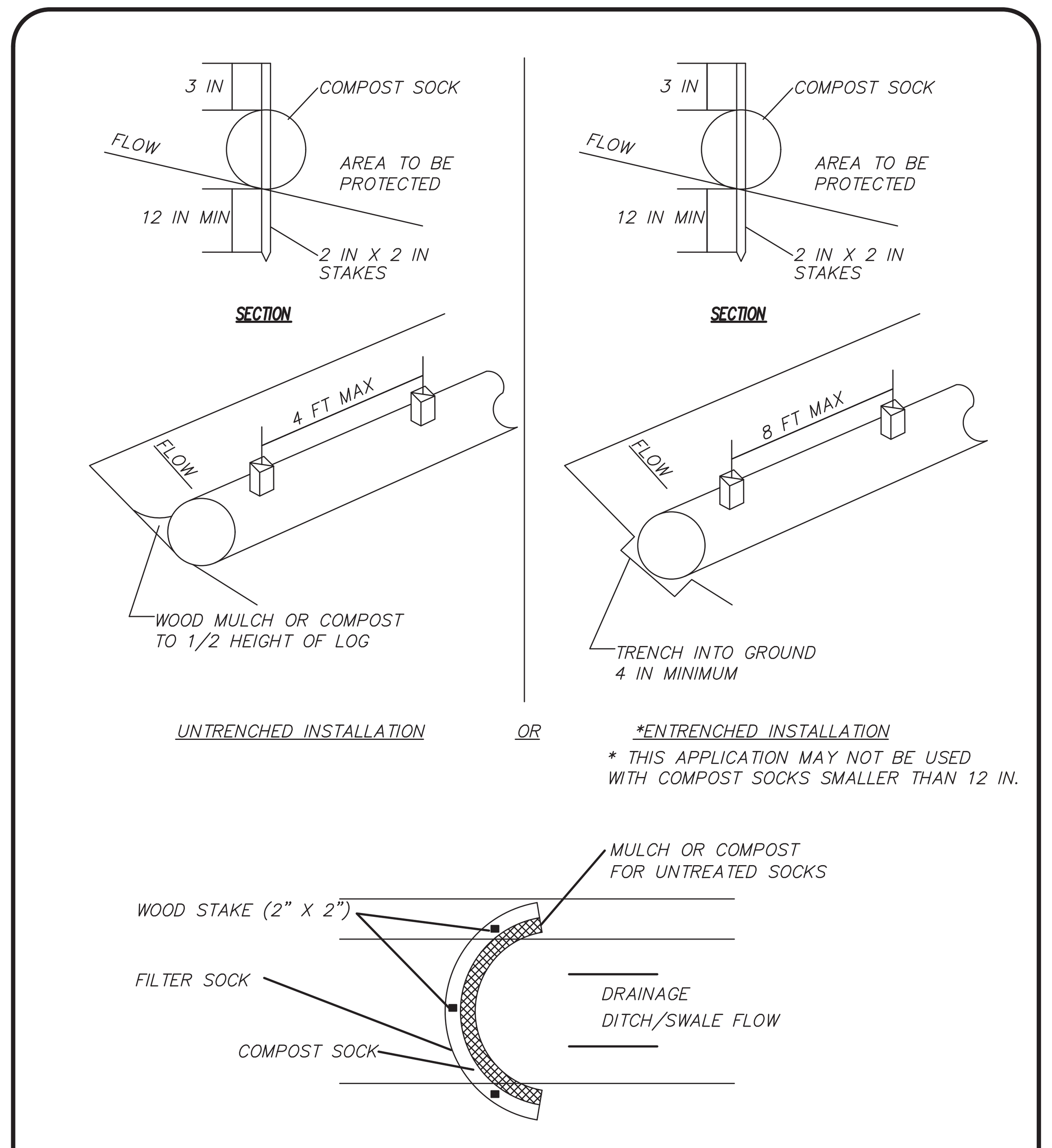
Table 6.10a – Temporary Seeding Recommendation for Late Winter and Early Spring
Seeding mixture
Species– Rye(grain), Annual lespedeza (Kobe in Piedmont and Coastal Plain
Rate (lb/acre)– 120
Omit annual lespedeza when duration of temporary cover is not to extend beyond June
Seeding dates–Coastal Plain – Dec. 1 – Apr. 15.
Soil amendments– Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10–10–10 fertilizer.
Mulch–Apply 4,000lb/acre straw. Anchor straw by tacking with asphalt, netting or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.
Maintenance – Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

Table 6.10b – Temporary Seeding Recommendations for Summer
Seeding mixture
Species–German millet
Rate(lb/acre)– 40
Seeding dates–Coastal Plain– Apr. 15–Aug. 15
Soil amendments–Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10–10–10 fertilizer.
Mulch –Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.
Maintenance–Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

Table 6.10c – Temporary Seeding Recommendation for Fall
Seeding mixture
Species–Rye(grain)
Rate(lb/acre) – 120
Seeding dates – Coastal Plain and Piedmont–Aug 15 – Dec. 30
Soil amendments – Follow soil tests or apply 2,000 lb./acre ground agricultural limestone and 1,000 lb/acre 10–10–10 fertilizer.
Mulch– Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.
Maintenance– Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March, if it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain)

Mulching

The use of appropriate mulch will help ensure establishment under normal conditions and is essential to seeding success under harsh site condition (Practice 6.14, Mulching). Harsh site conditions include:
–seeding in fall for winter cover (wood fiber mulches are not considered adequate for this use),
–slopes steeper than 3:1,
–excessively hot or dry weather,
–adverse soils(shallow, rocky, or high in clay or sand), and
–areas receiving concentrated flow.
If the area to be mulched is subject to concentrated waterflow, as in channels, anchor mulch with netting (Practice 6.14, Mulching).



CHANNEL SLOPE %	SPACING BETWEEN SOCKS (FEET) 8 INCH DIAMETER SOCK	12 INCH DIAMETER SOCK
1	67	100
2	33	50
3	22	33
4	17	25
5	13	20

COMPOST SOCK
PRACTICE 6.66
NOT TO SCALE

SF

Sediment Fence (Silt Fence)

Specification 6.62 – Construction Specifications
MATERIALS
1.Use a synthetic filter fabric or a pervious sheet of polypropylene, nylon, polyester, or polyethylene yarn, which is certified by the manufacturer or supplier as conforming to the requirements shown in Table 6.62b. 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 to 120 F.
2.Ensure that posts for sediment fences are 1.33 lb/linear ft steel with a minimum length of 4 ft. Make sure that steel post have projects to facilitate fastening the fabric.

3.For reinforcement of standard strength filter fabric, use wire fence with a minimum 14 gauge and a maximum mesh spacing of 6 inches.

Table 6.62b
Specifications For Sediment Fence Fabric
Physical Property Requirements
Filtering Efficiency – 85% (mm)
Tensile Strength at Standard Strength– 30 lb/lin in (min)
Extra Strength– 50 lb/lin in (mm)
Slurry Flow Rate – 0.3 gal/sq ft/min (min)
CONSTRUCTION
1.Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2.Ensure that the height of the sediment fence does not exceed 18 inches above the ground surface. (Higher fences may impound volumes of water sufficient to cause failure of the structure.)
3.Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with overlap to the next post.
4.Support standard strength filter fabric by wire mesh fastened securely to the up slope side of the posts using heavy duty wire staples at least 1 inch long, or tie wires. Extend the wire mesh support to the bottom of the trench.
5.When a wire mesh support fence is used, space posts a maximum of 8 ft apart. Support posts should be driven securely into the ground to a minimum of 18 inches.
6.Extra strength filter fabric with 6ft post spacing does not require wire mesh support fence. Staple or wire the filter fabric directly to posts.
7.Excavate a trench approximately 4 inches wide and 8 inches deep along the proposed line of posts and upslope from the barrier (figure 6.62a).
8.Backfill the trench with compacted soil or gravel placed over the filter fabric.
9.Do not attach filter fabric to existing trees.
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. Replace burlap every 60 days.
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 cleanout.
Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

Land Grading

Specification # 6.02 – Construction Specifications
1.Construct and maintain all erosion and sedimentation control practices and measures in accordance with the approved sedimentation control plan and construction schedule.
2.Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas.
3.Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil (Practice 6.04, Topsoiling).
4.Clear and grub areas to be filled to remove trees, vegetation, roots, or other objectionable material that would affect the planned stability of the fill.
5.Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.
6.Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related problems.
7.Do not incorporate frozen material or soft, mucky, or highly compressible materials into fill slopes.
8.Do not place fill on a frozen foundation, due to possible subsidence and slippage.
9.Keep diversions and other water conveyance measures free of sediment during all phases of development.
10.Handle seeps or springs encountered during construction in accordance with approved methods (Practice 6.81, Subsurface Drain).
11.Permanently stabilize all graded areas immediately after final grading is completed on each area in the grading plan. Apply temporary stabilization measures on all graded areas when work is to be interrupted or delayed for 30 working days or longer.
12.Ensure that topsoil stockpiles, borrow areas, and spoil areas are adequately protected from erosion with temporary and final stabilization measures, including sediment fencing and temporary seeding as necessary.

Maintenance
Periodically check all graded areas and the supporting erosion and sedimentation control practices, especially after heavy rainfalls. Promptly remove all sediment from diversions and other water–disposal practices. If washouts or breaks occur, repair them immediately. Prompt maintenance of small eroded areas before they become significant gullies is an essential part of an effective erosion and sedimentation control plan.

CE

Temporary Gravel Construction Entrance/Exit

Specification # 6.06 – Construction Specifications

1. Clear the entrance and exit area of all vegetation, roots and other objectionable material and properly grade it.
2. Place the gravel to the specific grade and dimensions shown on the plans and smooth it.
3. Provide drainage to carry water to a sediment trap or other suitable outlet.
4. Use geotextile fabrics because they improve stability of the foundation in locations subject to seepage or high water table.

Maintenance
Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2–inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.

CSD ENGINEERING
LICENSE # C–2710
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL
P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791–4441

STORMWATER AND EROSION PLAN FOR WILMINGTON POWERSPORTS

STORMWATER AND EROSION CONTROL PLAN
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: MPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV. NO.	REMARKS	BY	DATE
1		JSM	11/08/22

DATE: 6/16/22
HORZ. SCALE: N/A
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21–0554

Sheet No. EC3 Of EC4

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.

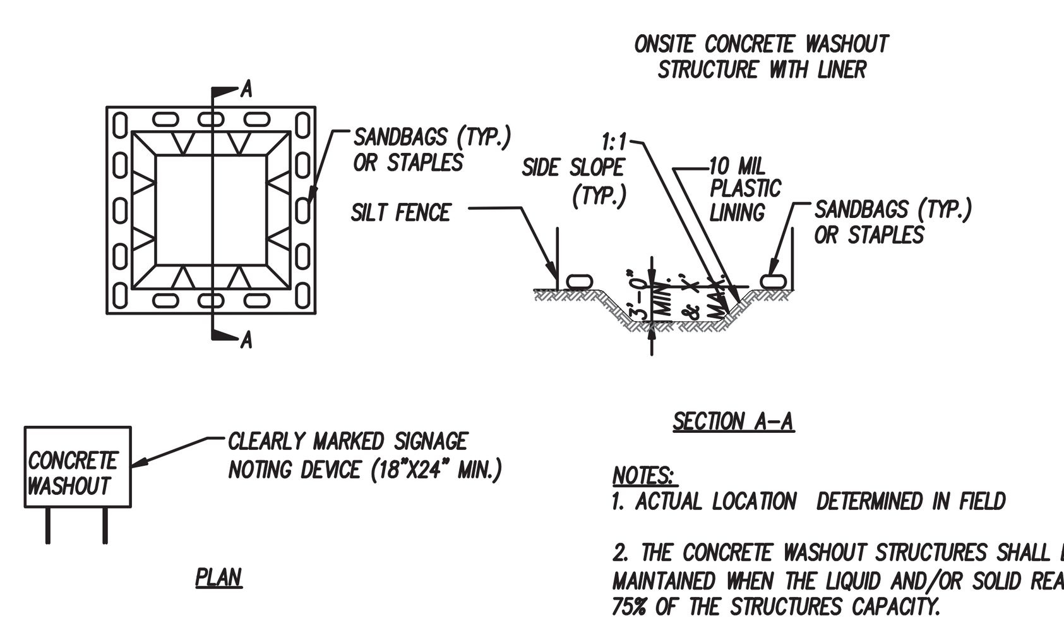
GROUND STABILIZATION SPECIFICATION

STABILIZE THE GROUND SUFFICIENTLY SO THAT RAIN WILL NOT DISLODGE THE SOIL. USE ONE OF THE TECHNIQUES IN THE TABLE BELOW:

TEMPORARY STABILIZATION	PERMANENT STABILIZATION
• TEMPORARY GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS • HYDROSEEDING • ROLLED EROSION CONTROL PRODUCTS WITH OR WITHOUT TEMPORARY GRASS SEED • APPROPRIATELY APPLIED STRAW OR OTHER MULCH • PLASTIC SHEETING	• PERMANENT GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS • GEOTEXTILE FABRICS SUCH AS PERMANENT SOIL REINFORCEMENT MATTING • HYDROSEEDING • SHRUBS 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 • ROLLED EROSION CONTROL PRODUCTS WITH GRASS SEED

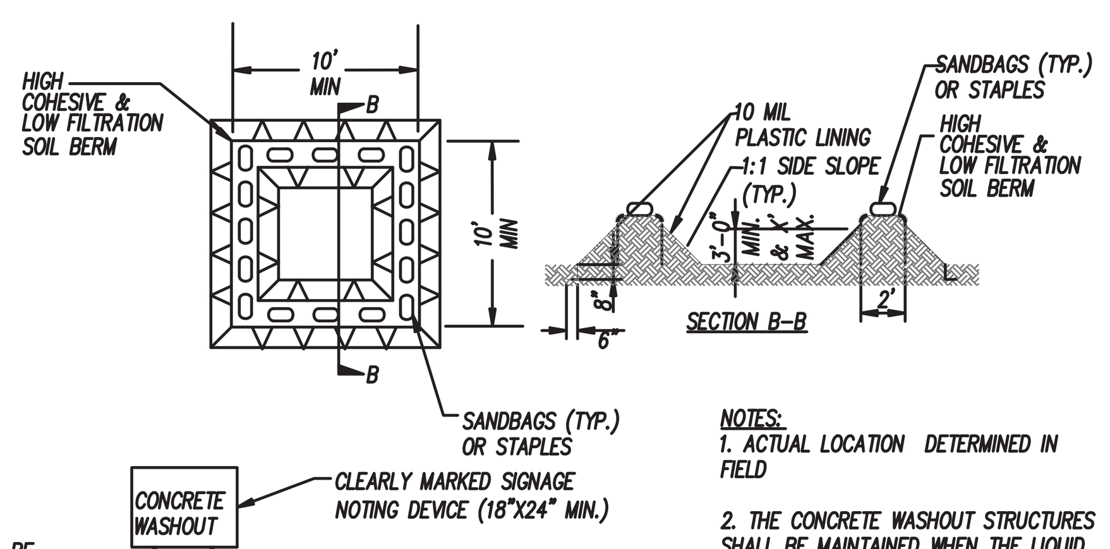
POLYACRYLAMIDES (PAMS) AND FLOCCULANTS
1. SELECT FLOCCULANTS THAT ARE APPROPRIATE FOR THE SOILS BEING EXPOSED DURING CONSTRUCTION, SELECTING FROM THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS.
2. APPLY FLOCCULANTS AT OR BEFORE THE INLETS TO EROSION AND SEDIMENT CONTROL MEASURES.
3. APPLY FLOCCULANTS AT 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.

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.



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

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.

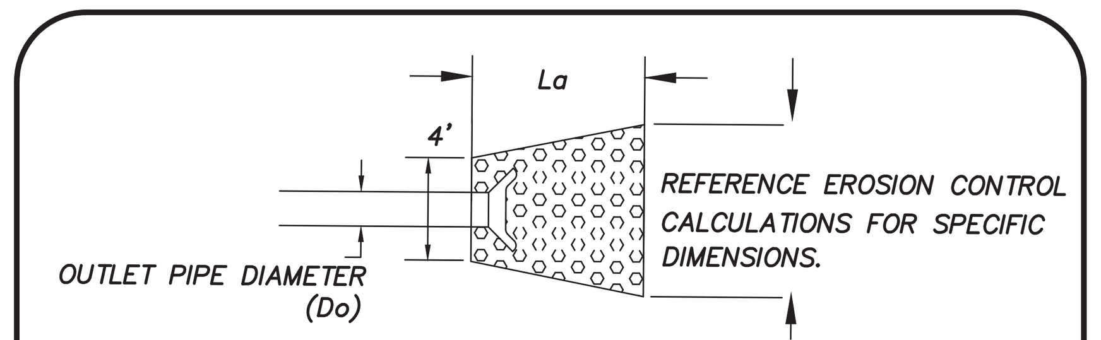
PORTABLE TOILETS
1. INSTALL PORTABLE TOILETS ON LEVEL GROUND, AT LEAST 50 FEET AWAY FROM STORM DRAINS, STREAMS OR WETLANDS UNLESS THERE IS NO ALTERNATIVE REASONABLY AVAILABLE. IF 50 FOOT OFFSET IS NOT ATTAINABLE, PROVIDE RELOCATION OF PORTABLE TOILET BEHIND SILT FENCE OR PLACE ON A GRAVEL PAD AND SURROUND 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.

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.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19

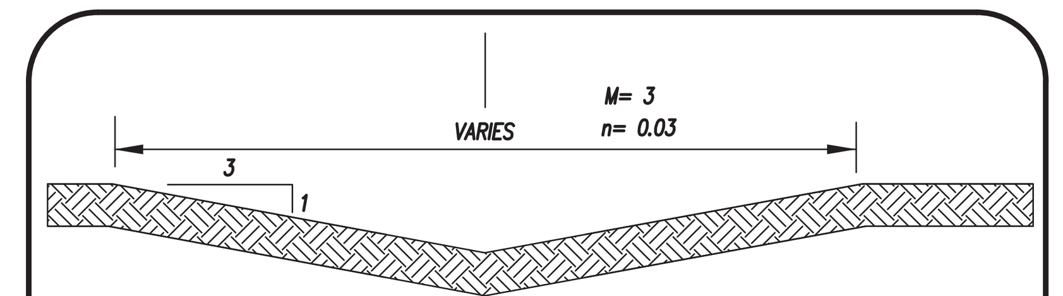


d50 = REFERENCE EROSION CONTROL CALCULATIONS
dMAX = REFERENCE EROSION CONTROL CALCULATIONS
La = REFERENCE EROSION CONTROL CALCULATIONS
MIN. APRON THICKNESS = 4.5"

NOTE: GEOTEX NONWOVEN FILTER FABRIC TO BE PLACED UNDER ALL STONE OUTLET PROTECTION.

RIP RAP DIMENSIONS			
STRUCTURE	L X W X D	CLASS	QTY
CB1 OUTFALL	9' X 6' X 1'	II	2 CY
EX. CULVERT 1	9' X 6' X 1'	II	2 CY
BASIN OUTFALL	9' X 6' X 1'	II	2 CY

(OP) OUTLET PROTECTION DETAIL
NOT TO SCALE



LINED WITH REINFORCING MATTING AND SEED PER SPECIFICATIONS. PERMANENT VEGETATION TO BE CENTIPEDE GRASS.

(GC) 3:1 GRASSED CHANNEL
NOT TO SCALE

PART III
SELF-INSPECTION, RECORD KEEPING 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 RAIN AMOUNTS IF NO DAILY RAIN GAUGE OBSERVATION ARE MADE DURING WEEKEND OR HOLIDAY PERIODS, AND NO INDIVIDUAL-DAY RAINFALL INFORMATION IS AVAILABLE, RECORD THE CUMULATIVE RAIN MEASUREMENT FOR THOS UN-ATTENDED DAYS (AND THIS WILL DETERMINE IF A SITE INSPECTION IS NEEDED). DAYS ON WHICH NO RAINFALL OCCURED 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,EVIDENT 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 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,EVIDENT 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 EXPLANATION 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 WETLANDS 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 OFFICER 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 TIME FRAME OR AN ASSURANCE THAT THEY WILL BE PROVIDED AS SOON AS POSSIBLE.

NOTE: THE RAIN INSPECTION RESETS THE REQUIRED 7 CALENDAR DAY INSPECTION REQUIREMENT.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC PLAN DOCUMENTATION

THE APPROVED E&SC PLAN AS WELL AS ANY APPROVED DEVIATION SHALL BE KEPT ON THE SITE. THE APPROVED E&SC PLAN MUST BE KEPT UP-TO-DATE THROUGHOUT THE COVERAGE UNDER THIS PERMIT. THE FOLLOWING ITEMS PERTAINING TO THE E&SC 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&SC MEASURE HAS BEEN INSTALLED AND DOES NOT SIGNIFICANTLY DEVIATE FROM THE LOCATIONS, DIMENSION AND RELATIVE ELEVATIONS SHOWN ONT HE APPROVED E&SC PLAN.	INITIAL AND DATE EACH E&SC MEASURE ON A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT THAT LIST EACH E&SC MEASURE SHOWN ON THE APPROVED E&SC PLAN. THIS DOCUMENTATION IS REQUIRED UPON THE INITIAL INSTALLATION OF THE E&SC MEASURES OR IF THE E&SC MEASURES ARE MODIFIED AFTER INITIAL INSTALLATION.
(B) A PHASE OF GRADING HAS BEEN COMPLETED.	INITIAL AND DATE A COPY OF THE APPROVED E&SC 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&SC PLAN.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLIANCE WITH APPROVED GROUND COVER SPECIFICATIONS.
(D) THE MAINTENANCE AND REPAIR REQUIREMENTS FOR ALL E&SC MEASURES HAVE BEEN PERFORMED.	COMPLETE, DATE AND SIGN AN INSPECTION FORM
(E) CORRECTIVE ACTIONS HAVE BEEN TAKEN TO E&SC MEASURES.	INITIAL AND DATE A COPY OF THE APPROVED E&SC 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&SC 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:

(A) THIS GENERAL PERMIT AS WELL AS THE CERTIFICATE OF COVERAGE, AFTER IT IS RECEIVED.

(B) RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS TWELVE MONTHS. THE PERMITTEE SHALL RECORD THE REQUIRED OBSERVATIONS ON THE INSPECTION RECORD FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT INCLUDES ALL THE REQUIRED ELEMENTS. USE OF ELECTRONICALLY-AVAILABLE RECORDS IN LIEU OF THE REQUIRED PAPER COPIES WILL BE ALLOWED IF SHOWN TO PROVIDE EQUAL ACCESS AND UTILITY AS THE HARD-COPY RECORDS.

3. DOCUMENTATION TO BE RETAINED FOR THREE YEARS ALL DATA USED TO COMPLETE THE E-NOI AND ALL INSPECTION RECORDS SHALL BE MAINTAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. [40 CFR 122.41]

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORD KEEPING AND REPORTING

SECTION C: REPORTING

1. OCCURRENCES THAT MUST BE REPORTED

PERMITTEES SHALL REPORT THE FOLLOWING OCCURRENCES:

(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND.

(B) 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).

(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.

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.

OCCURANCE	REPORTING TIME FRAMES (AFTER DISCOVERY) AND OTHER REQUIREMENTS.
(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND	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 STREM IS NAMED ON THE NC 303(D) LIST AS IMPAIRED FOR SEDIMENT-RELATED CAUSES, THE PREMITTEE MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING, INSPECTIONS OR APPLY MORE STRINGENT PRACTICES IF STAFF DETERMINE THAT ADDITIONA REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS.
(B) OIL SPILS AND RELEASE OF HAZARDOUS SUBSTANCES PER ITEM 1(B)-(C) ABOVE	WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION. THE NOTIFICATION SHALL INCLUDE INFORMATION ABOUT THE DATE, TIME, NATURE, VOLUME AND LOCATION OF THE SPILL OR RELEASE.
(C) ANTICIPATED BYPASSES (40 CFR 122.41(M)(3)	WITHIN 24 HOURS, AN ORAL OR ELECTRONIC NOTIFICATION. WITHIN 7 CALENDAR DAYS, A REPORT THAT INCLUDES AND EVALUATION OF THE QUALITY AND EFFECT OF THE BYPASS.
(E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT (40 CFR 122.41(I)(7)	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 DATE AND TIME, 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 REOCCURRENCE OF THE NONCOMPLIANCE. (40 CFR 122.10 (I)(6). DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS.

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 POINTS OF ALL 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.

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(910) 791-4441

STORMWATER AND EROSION CONTROL PLAN FOR **WILMINGTON POWERSPORTS**

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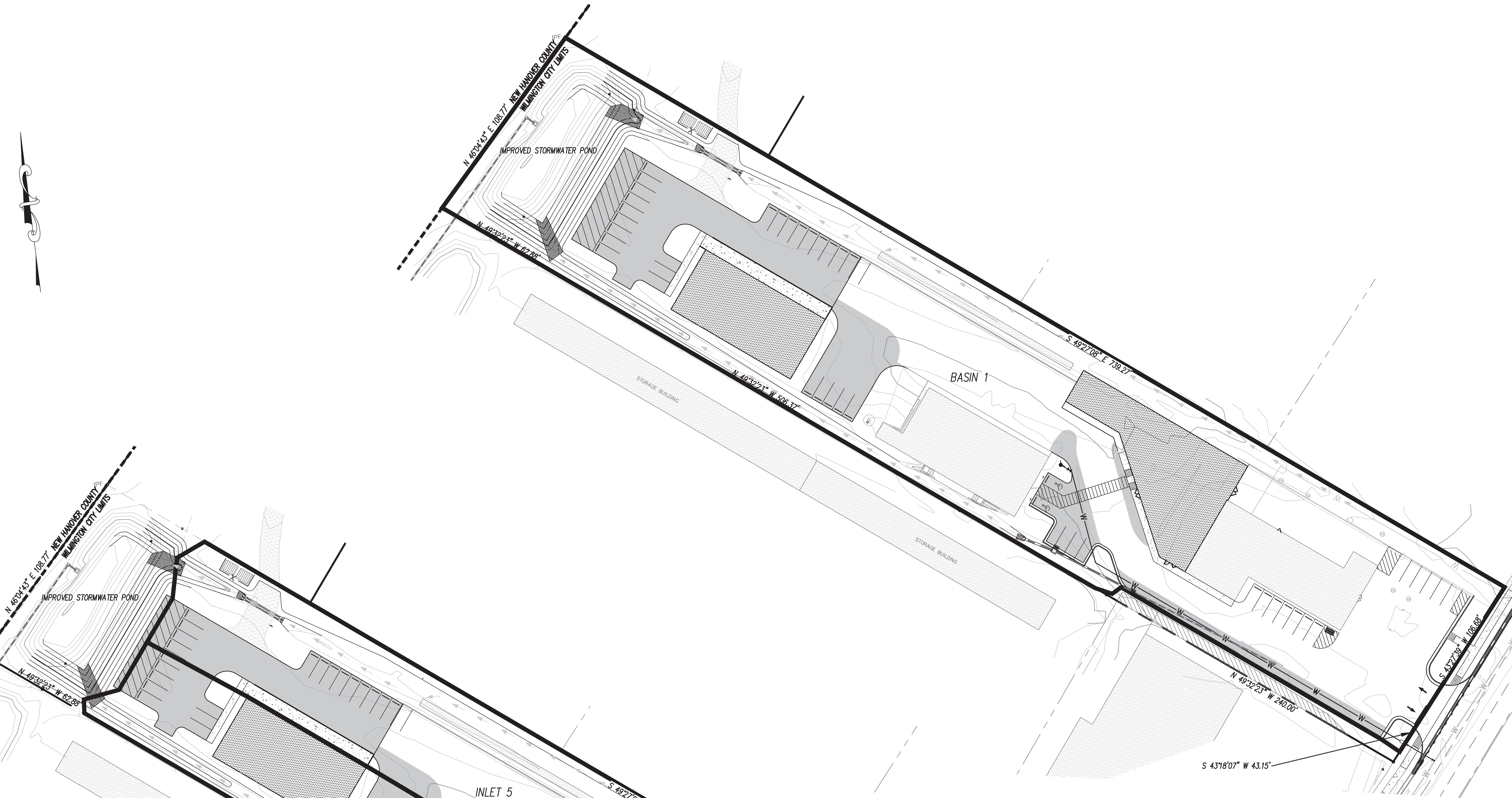
STORMWATER AND EROSION CONTROL PLAN
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

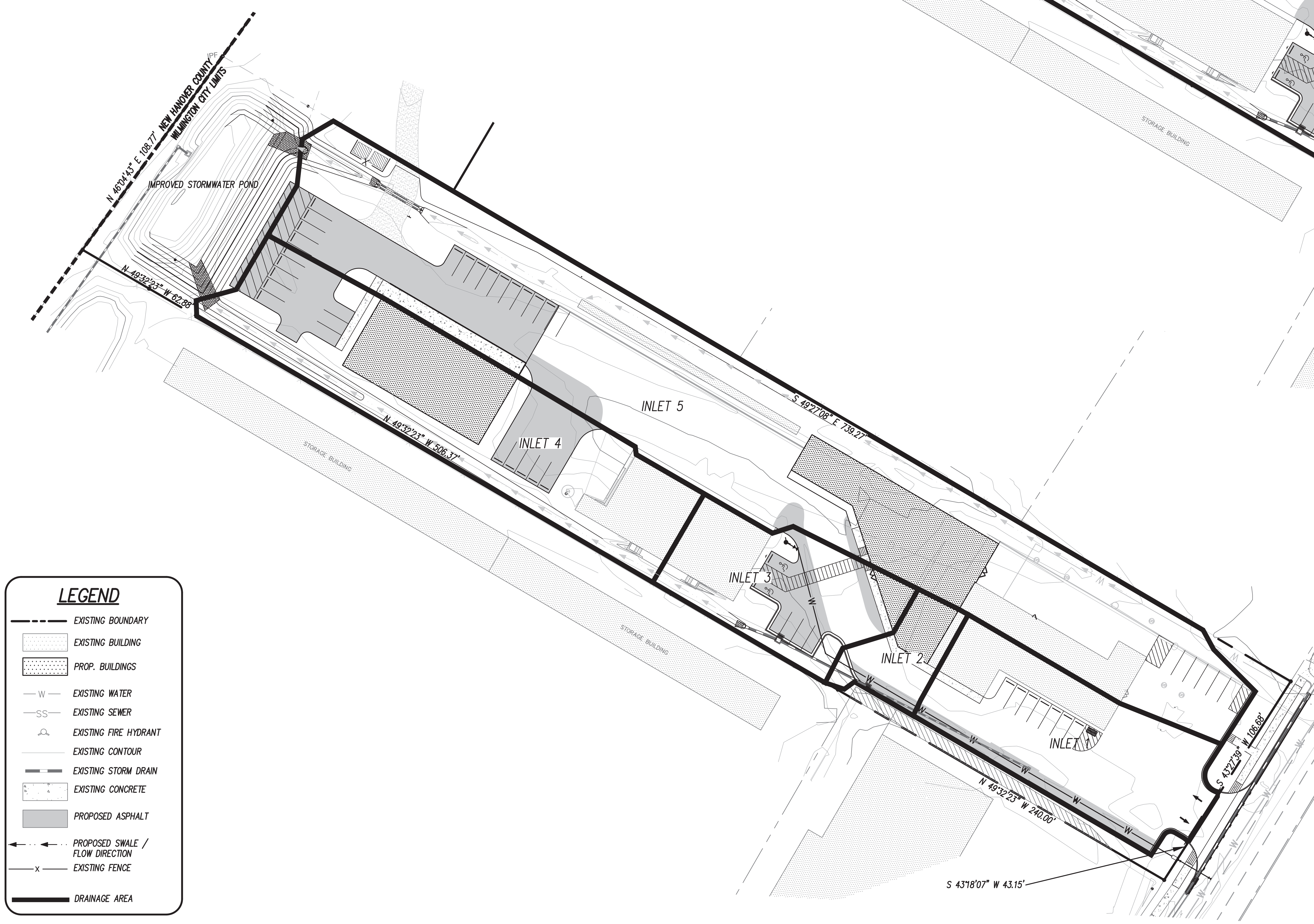
OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

REV. NO.	REMARKS	BY	DATE
1	SEALED	JSM	11/08/22

DATE: 6/16/22
HORZ. SCALE: N/A
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. EC4 Of EC4





POND	AREA
BASIN 1	120,660 SF (2.77 AC)

INLET	AREA
INLET 1	13,957 SF (0.32 AC)
INLET 2	3,348 SF (0.08 AC)
INLET 3	10,049 SF (0.23 AC)
INLET 4	22,345 SF (0.51 AC)
INLET 5	51,809 SF (1.19 AC)

40 20 0 40 80 120

SCALE IN FEET: 1"= 40'

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DRAINAGE AREA MAP for WILMINGTON POWERSPORTS

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DRAINAGE AREA MAP for
WILMINGTON POWERSPORTS
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: WPS HOLDINGS, LLC
3549 GOVERNORS ISLAND DRIVE
DENVER, NC 28037

NORTH CAROLINA PROFESSIONAL SEAL 035487 11/08/22 ENGINEER S. RESNIK

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

REV. NO.	REMARKS	BY	DATE
2	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	11/08/22
1	REVISED PER CITY OF WILMINGTON PRE-TRC COMMENTS	JSM	7/18/22

DATE: 6/16/22
HORZ. SCALE: 1" = 40'
VERT. SCALE: N/A
DRAWN BY: JSM
CHECKED BY: HSR
PROJECT NO.: 21-0554

Sheet No. DA1 Of DA1