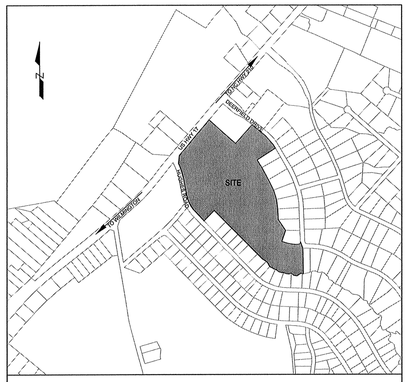
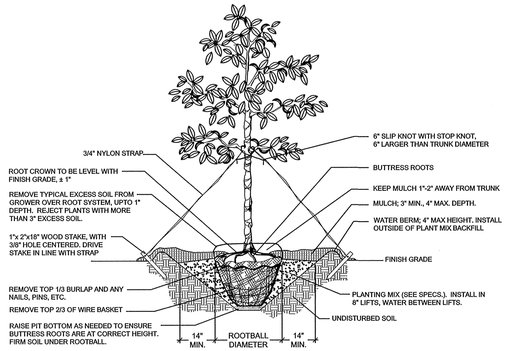


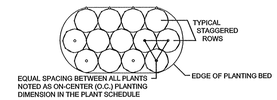
LOCATION MAP
SCALE: 1"=1,000'
NORTH



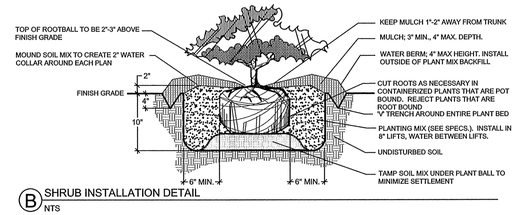
A SINGLE STEM TREE INSTALLATION DETAIL
NTS

NOTES:

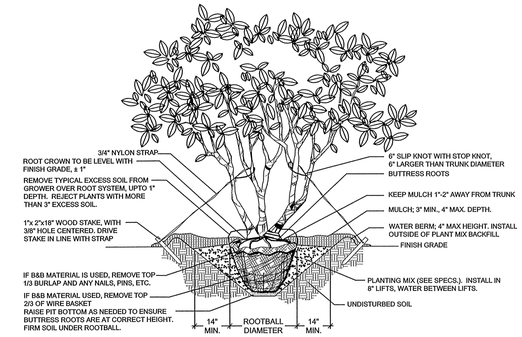
1. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
2. INSTALL TOP OF PLANT BALL 2" ABOVE ADJACENT GRADE
3. TAMP PLANT SOIL MIX FIRMLY IN 6" LIFTS AROUND PLANT BALL
4. SOAK PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



TYPICAL PLANTING BED LAYOUT



B SHRUB INSTALLATION DETAIL
NTS



C MULTI-STEM TREE INSTALLATION DETAIL
NTS

SITE INFORMATION

CURRENT LAND USE:	VACANT LAND
ZONING:	PD
PIN:	3282-14-3515-0000, 3282-14-6231-0000, 3282-14-8862-0000, 3282-14-1001-0000
PROPOSED USE:	COMMERCIAL
TOTAL SITE AREA:	24.26 ACRES
APPLICANT INFORMATION:	HEADWATERS PROPERTIES, LLC

COMMERCIAL DIMENSION REQUIREMENTS

MINIMUM LOT SIZE:	20,000 SF
FRONTYARD SETBACK:	5' MINIMUM
SIDEYARD SETBACK:	5' MINIMUM
CORNER SIDEYARD SETBACK:	5' MINIMUM
REAR SETBACK:	5' MINIMUM
MAXIMUM HEIGHT:	45'

ALL SEPARATION BETWEEN STRUCTURES PER PENDER COUNTY REQUIREMENTS.

BUFFER/ LANDSCAPE REQUIREMENTS

1. ALL LANDSCAPE WILL COMPLY WITH ARTICLE 8 OF THE PENDER COUNTY UDO.
2. REQUIRED BUFFER TYPES ARE AS FOLLOWS:
   - TYPE A-1 BUFFER: 15' DEPTH, 3 CANOPY TREES, 2 UNDERSTORY TREES AND A GRASS COVER OR OTHER APPROVED VEGETATIVE GROUND COVER OF AT LEAST 98% OR 32 SHRUBS PER 100 LF
   - TYPE A-3 BUFFER: 25' DEPTH, 1 CANOPY TREE, 2 UNDERSTORY TREES AND A GRASS COVER OF AT LEAST 98% OR 21 SHRUBS PER 100 LF
   - TYPE B-3 BUFFER: 20' DEPTH, 1 CANOPY TREE, 2 UNDERSTORY TREES AND A GRASS COVER OF AT LEAST 98% OR 15 SHRUBS PER 100 LF
   - TYPE C-4 BUFFER: 25' DEPTH, EVERGREEN HEDGE OF 6' HGT WITHIN 4 YEARS, 2 UNDERSTORY TREES AND GRASS COVER OF AT LEAST 98%

INTERIOR LANDSCAPING

1. SINGLE ROW PARKING TERMINALS CANNOT EXTEND MORE THAN 10 SPACES OR 120 FEET, WHICHEVER IS MORE RESTRICTIVE.
2. EACH ISLAND MUST INCLUDE A MINIMUM PERVIOUS AREA OF 300 SF WITH A MINIMUM WIDTH OF 12 FEET.
3. EACH ISLAND SHALL CONTAIN AT LEAST ONE (1) CANOPY TREE.
4. REQUIRED MAXIMUM TWO FOOT HIGH SCREENING SHRUBS SHALL BE UTILIZED THE ENTIRE LENGTH OF THE LANDSCAPE ISLAND, OR AS LIMITED BY SIGHT DISTANCES.

LANDSCAPE NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
2. TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS OR AS OTHERWISE DICTATED BY LOCAL REGULATIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES.
3. STAKE ALL TREES AS SHOWN IN DETAIL OR AS OTHERWISE DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
4. ALL PLANT MATERIAL SHALL MEET THE CURRENT VERSION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
5. NO EXISTING TREES SHALL BE REMOVED WITHOUT WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
6. SET ALL TREES IN 5" MINIMUM DIAMETER PINE STRAW MULCH BED.
7. ALL SHRUB BEDS AND/OR PLANTING AREAS EXCLUDING SEEDED AREAS SHALL BE MULCHED WITH 3 INCH MINIMUM AND 4 INCH MAXIMUM DEPTH PINE STRAW MULCH UNLESS OTHERWISE NOTED.
8. PLANTING SOIL MIX: MIX EXISTING SOIL WITH THE SOIL AMENDMENTS AND FERTILIZERS IN THE QUANTITIES RECOMMENDED BY THE SOIL TESTING LABORATORY, THIRD PARTY RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE OR AS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
9. ANY AND ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. FAILURE IN OBTAINING APPROVAL MAY RESULT IN LIABILITY TO THE CONTRACTOR.
10. THE CONTRACTOR SHALL REPLACE DEAD AND/OR UNHEALTHY PLANT MATERIAL WITHIN 12 MONTHS OF ACCEPTANCE OF THE INSTALLED MATERIAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
11. THE CONTRACTOR SHALL PREPARE ALL SEEDED AREAS TO ASSURE THAT THE SUBGRADE HAS BEEN RAKED AND ROLLED TO ACCEPT THE SEED. ALL TURF AREAS MUST BE IRRIGATED OR HAND WATERED. ALL TURF AREAS SHOULD PROVIDE A SMOOTH SURFACE FREE OF DIPS AND UNLEVELED GROUND. REFERENCE PLANT SCHEDULE FOR TURF SELECTION.
12. IF REQUIRED, IRRIGATION SHALL BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATION CONTRACTOR IN THE STATE OF NORTH CAROLINA.
13. THE CONTRACTOR IS RESPONSIBLE FOR HAND WATERING THE INSTALLED PLANT MATERIAL FOR A PERIOD OF 6 MONTHS FROM THE ACCEPTANCE FROM THE OWNER OR OWNER'S REPRESENTATIVE IF IRRIGATION HAS NOT BEEN INSTALLED. ALL MATERIAL INCLUDING TURF AREAS SHALL BE HAND WATERED ONCE WEEKLY OR AS NEEDED TO ENSURE SURVIVAL OF PLANTS.
14. CONTRACTOR IS RESPONSIBLE FOR REMOVING TRASH, DEBRIS AND EXCESS MATERIALS FROM THE JOB SITE ONCE THE PROJECT IS COMPLETE. SECURING ANY MATERIALS LEFT ON SITE DURING THE COURSE OF THE PROJECT IS THE CONTRACTOR'S RESPONSIBILITY.
15. IF AUTOMATIC IRRIGATION IS NEEDED, SYSTEM TO BE PROVIDED BY OWNER.
16. ALL TREE LOCATIONS WILL BE ADJUSTED AS NEEDED WITH LIGHT LOCATIONS.
17. ALL LANDSCAPE PLANTINGS WILL BE COMPLIANT WITH ARTICLE 8 THE PENDER COUNTY UDO.

PLANT SCHEDULE

TREES	QTY	COMMON NAME	SIZE
AMH	34	AMERICAN HOLLY Ilex opaca	2"CAL
LOK	47	SOUTHERN LIVE OAK Quercus virginiana	2"CAL
RED	12	RED MAPLE Acer rubrum	2"CAL
SCA	18	SCARLET OAK Quercus coccinea	2"CAL
TUS	54	RED CRAPE MYRTLE MULTI-TRUNK Lagerstroemia x 'Tuscarora'	10' H
WIL	14	WILLOW OAK Quercus phellos	2"CAL

SHRUBS	QTY	COMMON NAME	CONT
BUR	131	BURFORD HOLLY Ilex cornua 'Burfordii'	7 GAL
DYH	394	DWARF YAUPON Ilex vomitoria 'Nana'	7 GAL
WAX	23	WAX MYRTLE Myrica cerifera	7 GAL

Significant Tree Removal & Mitigation

significant tree mitigation per UDO Section 8.1.3.A.4; any significant tree removed shall be mitigated by planting 2 trees of the same species with a minimum cal. of 2"

Tree Type	*Survey Description & Cal. Inches*	*Quantity*	*Total Mitigation (# of 2" cal. Trees Req'd of each Species)*
American Holly	hol 6	3	
American Holly	hol 8	3	
American Holly	hol 10	6	
American Holly	hol 11	1	
American Holly	hol 12	2	
American Holly	hol 14	2	
2" cal. American Holly Mitigation Trees			34
Live Oak	oak 26	1	
Live Oak	oak 27	2	
Live Oak	oak 30	1	
Live Oak	quad oak 15 (sum of all trunks)	1	
Live Oak	twin oak 15 (sum of all trunks)	1	
Live Oak	twin oak 18 (sum of all trunks)	1	
2" cal. Live Oak Mitigation Trees			14
Red Maple	map 12	2	
Red Maple	map 14	2	
Red Maple	map 21	2	
2" cal.Red Maple Mitigation Trees			12
Willow Oak	oak 24	4	
Willow Oak	oak 25	2	
Willow Oak	oak 28	1	
2" cal. Willow Oak Mitigation Trees			14

MITIGATION NOTES

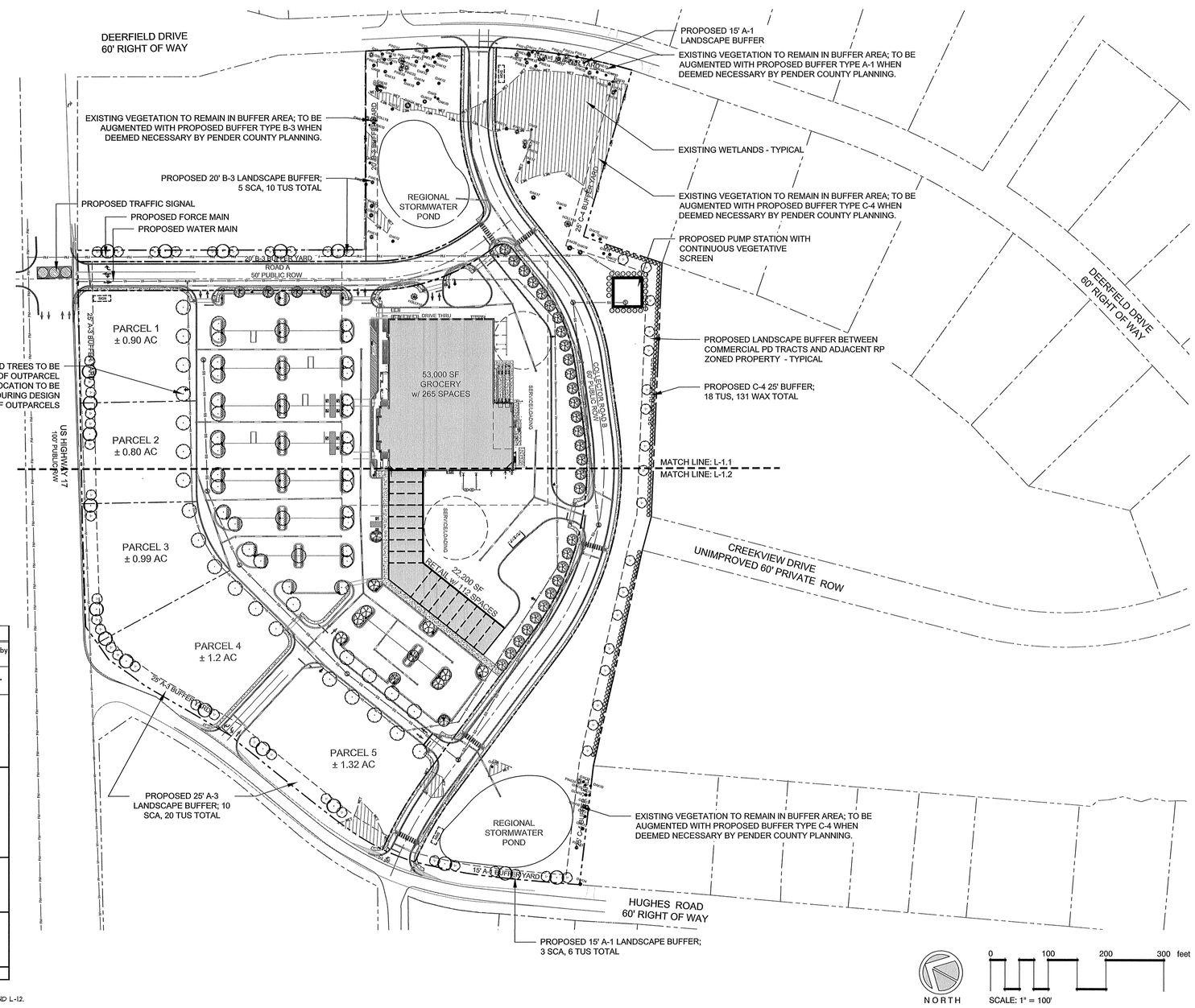
ALL REQUIRED MITIGATION TREES PROVIDED IN PROPOSED LANDSCAPE PLANS - SEE SHEETS L-1.1 AND L-1.2.

APPROVED BY PENDER COUNTY UNIFIED DEVELOPMENT ADMINISTRATOR.

SIGNATURE: _____

DATE: _____

SITE PLAN VALID FOR FIVE YEARS FROM APPROVAL DATE.



PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
Headwaters Properties, LLC
1131-B Military Cutoff Rd.
Wilmington, NC 28405

PARAMOUNTE
ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

PRELIMINARY PLAT - PHASE 1
OVERALL LANDSCAPE PLAN
HEADWATERS TOWN CENTER
PENDER COUNTY
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL LAYOUT:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 12/19/16
SCALE: 1" = 100'
DESIGNED: JCM
DRAWN: JCM
CHECKED: AHE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 1923 ENGINEER AARON H. ENDERESON
12/19/16

L-1.0

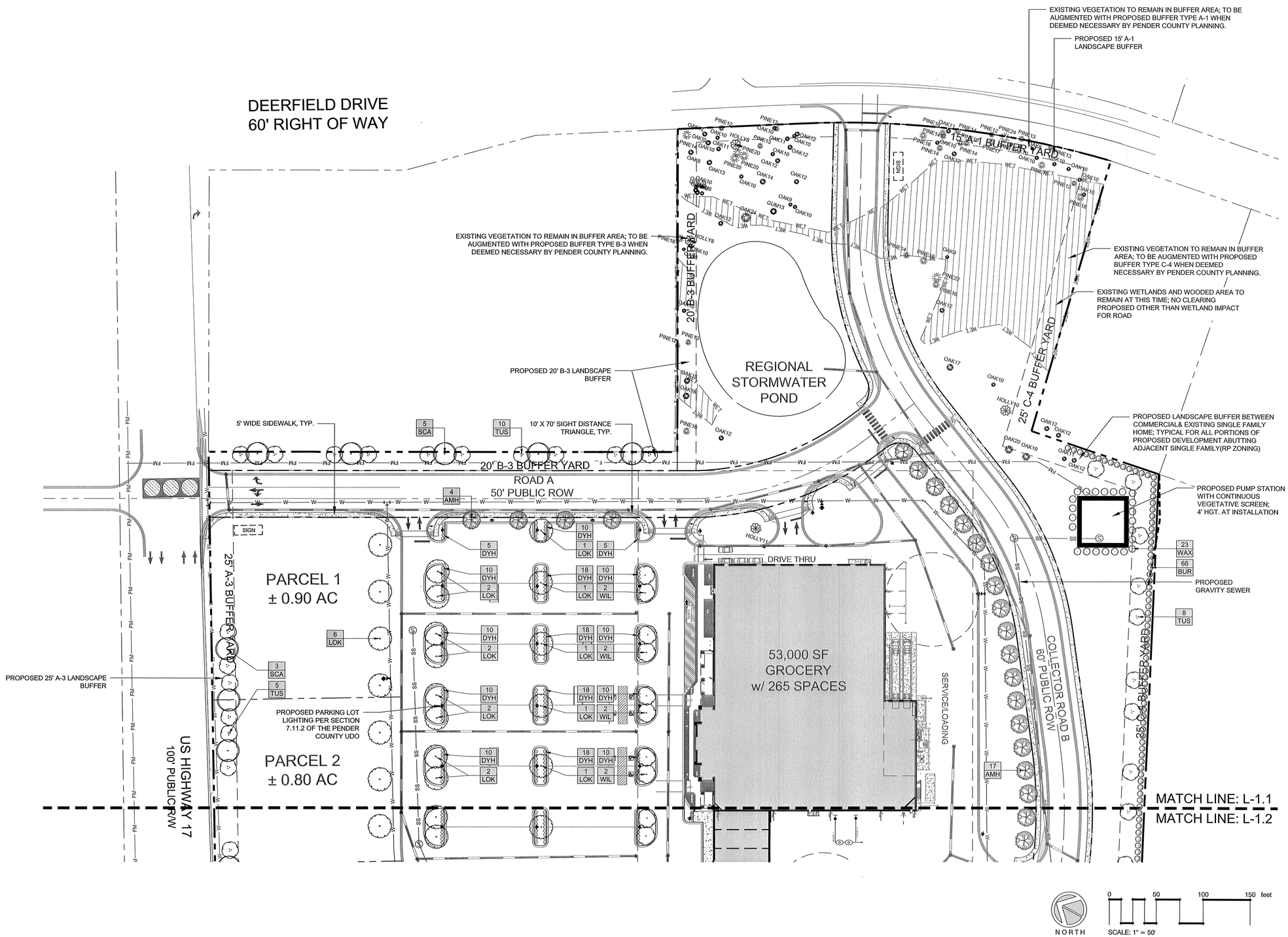
PEI JOB#: 16122.PE

APPROVED BY PENDER COUNTY UNIFIED DEVELOPMENT ADMINISTRATOR.

SIGNATURE: _____

DATE: _____

SITE PLAN VALID FOR FIVE YEARS FROM APPROVAL DATE.



PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

Headwaters Properties, LLC
1131-B Military Cutoff Rd.
Wilmington, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

LANDSCAPE PLAN ENLARGEMENT
PRELIMINARY PLAT - PHASE 1
HEADWATERS TOWN CENTER
PENDER COUNTY
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 12/19/16
SCALE: 1"= 50'
DESIGNED: JCM
DRAWN: JCM
CHECKED: AHE

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023 ANTHONY H. ENGEBRETSON
12/19/16

L-1.1

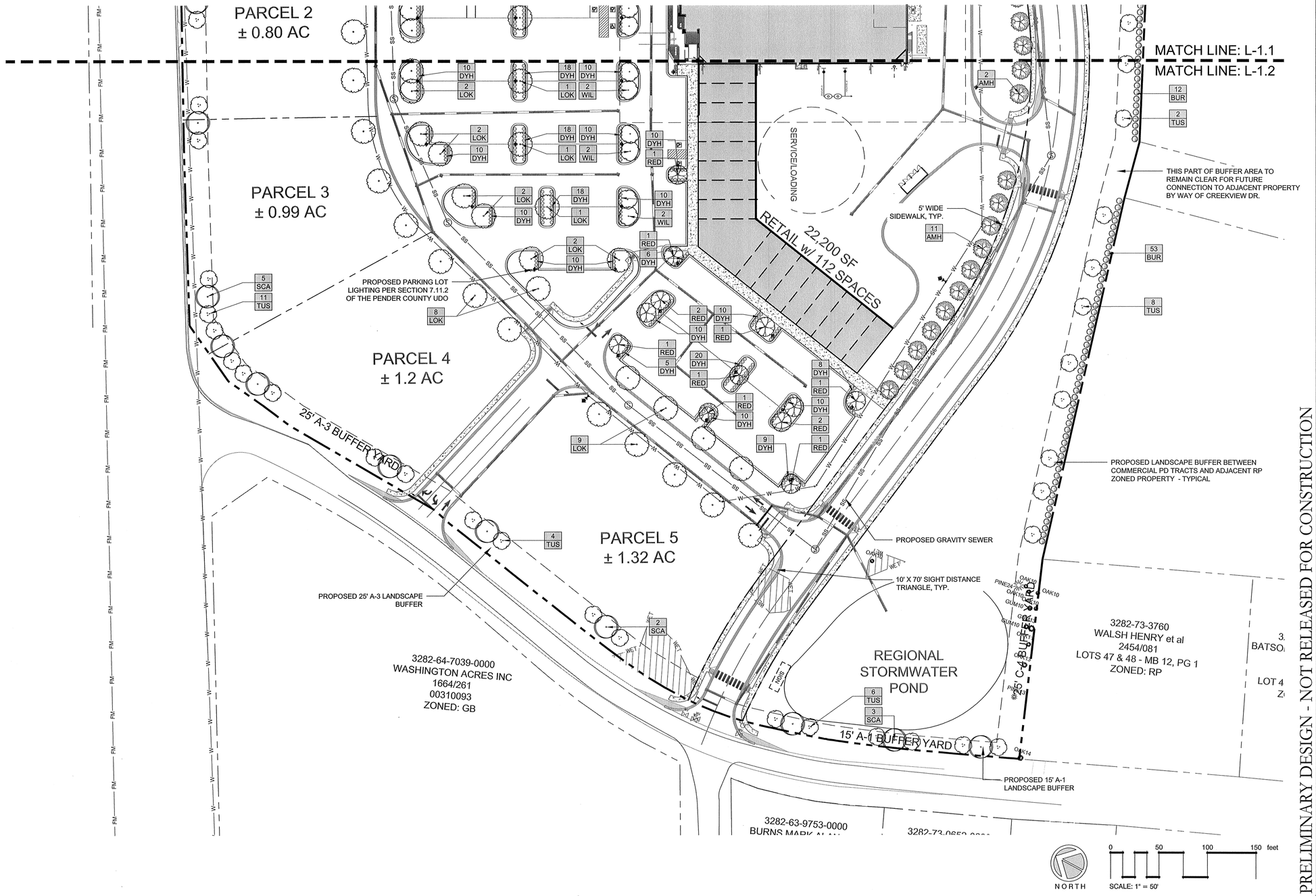
PEI JOB#: 16122.PE

APPROVED BY PENDER COUNTY UNIFIED DEVELOPMENT ADMINISTRATOR.

SIGNATURE: _____

DATE: _____

SITE PLAN VALID FOR FIVE YEARS FROM APPROVAL DATE.



PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

Headwaters Properties, LLC
1131-B Military Cutoff Rd.
Wilmington, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

LANDSCAPE PLAN ENLARGEMENT
PRELIMINARY PLAT - PHASE 1
HEADWATERS TOWN CENTER
PENDER COUNTY
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 12/17/16
SCALE: 1" = 50'
DESIGNED: JCM
DRAWN: AHE
CHECKED:

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18746 JOHN H. ENGEBRETSON
12/19/16

L-1.2

PEI JOB#: 16122.PE