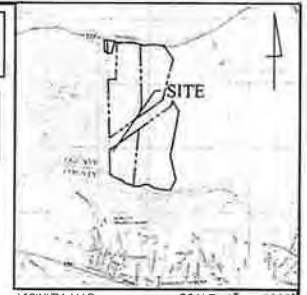


These drawings are the property of Landesign, Inc. Unauthorized reproduction for any purpose is an infringement upon copyright laws. Violators will be subject to prosecution to the fullest extent of the law.

CONTACT "MISS UTILITY"
48 HOURS PRIOR TO TRENCHING
1-800-257-7777



CHANNEL COMPUTATIONS

Job/Study Point: Denison Nursery Eastern Engineered Channel
Drainage Area to = 772,068 sqft or 17.7242 ac

Trees =	125,255 sqft or	2.8444 ac	+ 0.25 =	28.031
Nursery =	259,645 sqft or	5.9607 ac	+ 0.25 =	59.719
Grass =	386,164 sqft or	8.8182 ac	+ 0.25 =	86.041
				163.791

Woods C = 18.14124 / 772068 = 0.023
10y Solum Evers Runoff (C_u) = 3.28
10y Solum Evers Runoff (C_u) = 18.8758

Flow is still runoff reaches the channel

Slope = 0.00% @ 0.10%
Slope = 0.08

Manning's Coefficient (n) Grass Channel = 0.05

W = 1.483n / R^{0.585}
G_{0.05} =
W_{0.10} =
A_{0.05} =
A_{0.10} =
Q_{0.05} = 13.8 cfs

Stn	Bottom	Side Slope	W _{0.05}	A	Q _{0.05}	W _{0.10}	Q _{0.10}
0+00	20	3	22.58	9.72	13.6283	22.09	14.41
0+25							

It is the applicant's responsibility to obtain any state permits if required, for any construction activities covered by this plan which impact a State regulated wetland. Any changes to plans for the development whether required by the State or initiated by the applicant to meet State requirements, must be approved by AGSD.

The location of all utilities shown hereon is from field investigation and available records and cannot be guaranteed. Contractor should dig test pits to verify all utility crossings to verify exact locations.

ENGINEER'S CERTIFICATION

I hereby certify that the plan shown hereon conforms to the requirements of Subtitle 32, Division 2 of the Prince George's County, Building Code except for specific modifications and/or waivers, if any, as listed below.

I also certify that I have inspected this site and that drainage onto this site from other upgrade properties, and from this site onto other downgrade properties has been addressed in substantial accordance with applicable codes.

I also certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 42441, Expiration Date: 6-06-2018.

7-21-2017
Date

Jeffrey J. Felker
Md. Prof. Engineer #42441



DATE	REVISIONS



landesign
ENGINEERS • SURVEYORS • PLANNERS
2905 MITCHELLVILLE ROAD SUITE NO. 111
BOWIE, MARYLAND 20716
PH: (301) 249-6802 Fax: (301) 249-6804 email: landesign,inc@gmail.com

OWNER/DEVELOPER
DENISON NURSERY
8911 OYON HILL ROAD
FORT WASHINGTON, MD. 20744
CONTACT: ELBERT MONROE
PHONE: 301-440-0398

DRAINAGE AREA MAP

DENISON NURSERY & BULL RUN FAMILY, LLC
PARCEL 90 & PART OF PARCEL 7 ADMIN SPLIT
2807 & 3009 ACCOKEEK ROAD
TAX MAP 163 & 152, GRID A1&F4, PARCELS 007 & 090
WALDORF, MARYLAND 20601
LIBER 33578 FOLIO 547, LIBER 30084 FOLIO 561
5th TAX DISTRICT PRINCE GEORGE'S COUNTY, MARYLAND

DATE: July 21, 2017 SCALE: 1" = 100'
DESIGN BY: J.J.F. DRAWN BY: J.M.B.
CHECKED BY: J.J.F. SHEET NO: 6 OF 7
COMPUTER: E
FIELD BOOK: 263 JOB NO.: 15-051

B-3 STANDARDS AND SPECIFICATIONS FOR LAND GRADING

Objective
To provide the grading plan to be used as a temporary for building facilities and other uses.

Design
To provide the grading plan to be used as a temporary for building facilities and other uses.

Construction
To provide the grading plan to be used as a temporary for building facilities and other uses.

1. General
The grading plan shall be prepared in accordance with the following specifications:

2. Grading
The grading plan shall be prepared in accordance with the following specifications:

3. Erosion Control
The grading plan shall be prepared in accordance with the following specifications:

4. Sedimentation
The grading plan shall be prepared in accordance with the following specifications:

5. Final Grading
The grading plan shall be prepared in accordance with the following specifications:

B-4-3 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL ENHANCEMENT

Objective
To provide the soil preparation, topsoiling, and soil enhancement plan to be used as a temporary for building facilities and other uses.

Design
To provide the soil preparation, topsoiling, and soil enhancement plan to be used as a temporary for building facilities and other uses.

Construction
To provide the soil preparation, topsoiling, and soil enhancement plan to be used as a temporary for building facilities and other uses.

1. General
The soil preparation, topsoiling, and soil enhancement plan shall be prepared in accordance with the following specifications:

2. Soil Preparation
The soil preparation, topsoiling, and soil enhancement plan shall be prepared in accordance with the following specifications:

3. Topsoiling
The soil preparation, topsoiling, and soil enhancement plan shall be prepared in accordance with the following specifications:

4. Soil Enhancement
The soil preparation, topsoiling, and soil enhancement plan shall be prepared in accordance with the following specifications:

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

Objective
To provide the temporary stabilization plan to be used as a temporary for building facilities and other uses.

Design
To provide the temporary stabilization plan to be used as a temporary for building facilities and other uses.

Construction
To provide the temporary stabilization plan to be used as a temporary for building facilities and other uses.

1. General
The temporary stabilization plan shall be prepared in accordance with the following specifications:

2. Temporary Stabilization
The temporary stabilization plan shall be prepared in accordance with the following specifications:

3. Final Stabilization
The temporary stabilization plan shall be prepared in accordance with the following specifications:

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

Objective
To provide the permanent stabilization plan to be used as a temporary for building facilities and other uses.

Design
To provide the permanent stabilization plan to be used as a temporary for building facilities and other uses.

Construction
To provide the permanent stabilization plan to be used as a temporary for building facilities and other uses.

1. General
The permanent stabilization plan shall be prepared in accordance with the following specifications:

2. Permanent Stabilization
The permanent stabilization plan shall be prepared in accordance with the following specifications:

3. Final Stabilization
The permanent stabilization plan shall be prepared in accordance with the following specifications:

B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Objective
To provide the vegetative stabilization plan to be used as a temporary for building facilities and other uses.

Design
To provide the vegetative stabilization plan to be used as a temporary for building facilities and other uses.

Construction
To provide the vegetative stabilization plan to be used as a temporary for building facilities and other uses.

1. General
The vegetative stabilization plan shall be prepared in accordance with the following specifications:

2. Vegetative Stabilization
The vegetative stabilization plan shall be prepared in accordance with the following specifications:

3. Final Stabilization
The vegetative stabilization plan shall be prepared in accordance with the following specifications:

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MACHING

Objective
To provide the seeding and maching plan to be used as a temporary for building facilities and other uses.

Design
To provide the seeding and maching plan to be used as a temporary for building facilities and other uses.

Construction
To provide the seeding and maching plan to be used as a temporary for building facilities and other uses.

1. General
The seeding and maching plan shall be prepared in accordance with the following specifications:

2. Seeding and Maching
The seeding and maching plan shall be prepared in accordance with the following specifications:

3. Final Stabilization
The seeding and maching plan shall be prepared in accordance with the following specifications:

B-4-4 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Objective
To provide the incremental stabilization plan to be used as a temporary for building facilities and other uses.

Design
To provide the incremental stabilization plan to be used as a temporary for building facilities and other uses.

Construction
To provide the incremental stabilization plan to be used as a temporary for building facilities and other uses.

1. General
The incremental stabilization plan shall be prepared in accordance with the following specifications:

2. Incremental Stabilization
The incremental stabilization plan shall be prepared in accordance with the following specifications:

3. Final Stabilization
The incremental stabilization plan shall be prepared in accordance with the following specifications:

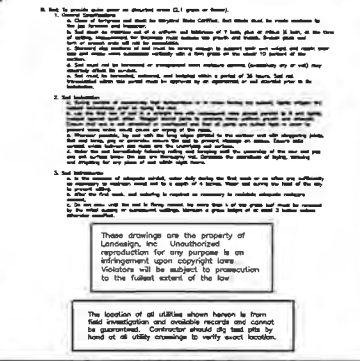
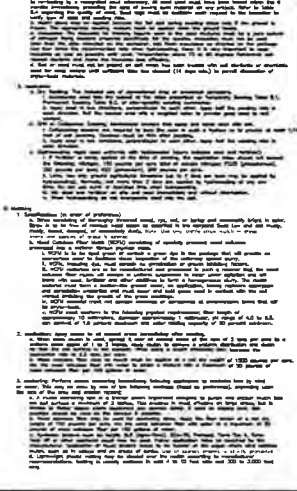
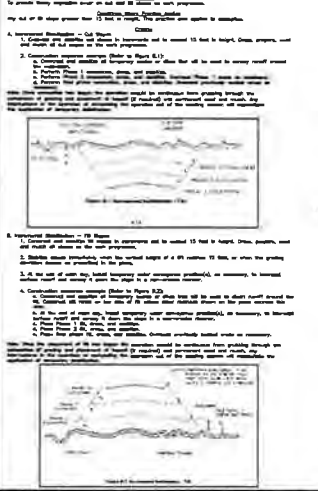


Table 1: Material Specifications

Material	Quantity	Unit	Notes
Gravel	1000	cu yd	
Crushed Stone	500	cu yd	
Topsoil	2000	cu yd	

Table 2: Construction Schedule

Activity	Start Date	End Date	Notes
Site Preparation	07/21/2017	08/15/2017	
Soil Preparation	08/15/2017	09/15/2017	
Vegetative Stabilization	09/15/2017	10/15/2017	

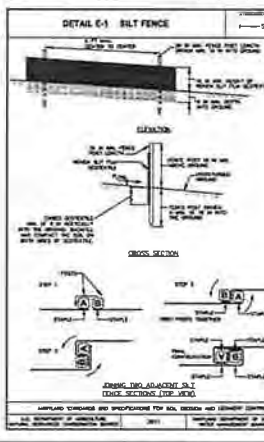
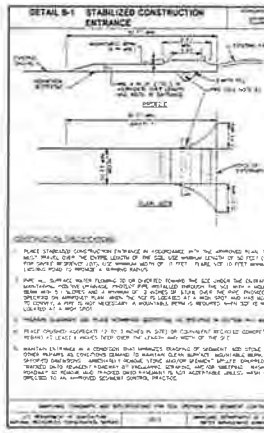
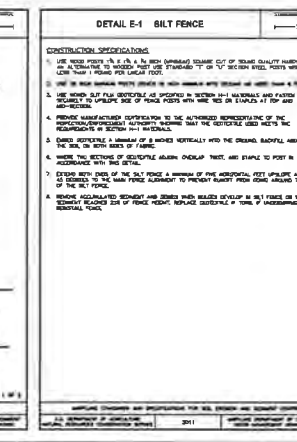
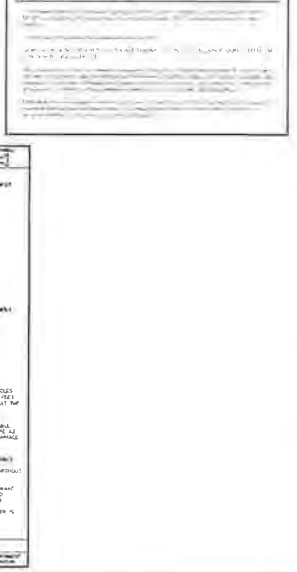


Table 3: Construction Specifications

Item	Specification
Gravel	100% crushed stone, No. 57
Crushed Stone	100% crushed stone, No. 42
Topsoil	100% topsoil, 15% organic matter



GENERAL NOTES (For Erosion and Sediment Control Plans Only)

- Refer to 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control, pp. H-2, H-3, H-4, H-5, H-6, H-7, H-8, H-9, H-10, H-11, H-12, H-13, H-14, H-15, H-16, H-17, H-18, H-19, H-20, H-21, H-22, H-23, H-24, H-25, H-26, H-27, H-28, H-29, H-30, H-31, H-32, H-33, H-34, H-35, H-36, H-37, H-38, H-39, H-40, H-41, H-42, H-43, H-44, H-45, H-46, H-47, H-48, H-49, H-50, H-51, H-52, H-53, H-54, H-55, H-56, H-57, H-58, H-59, H-60, H-61, H-62, H-63, H-64, H-65, H-66, H-67, H-68, H-69, H-70, H-71, H-72, H-73, H-74, H-75, H-76, H-77, H-78, H-79, H-80, H-81, H-82, H-83, H-84, H-85, H-86, H-87, H-88, H-89, H-90, H-91, H-92, H-93, H-94, H-95, H-96, H-97, H-98, H-99, H-100.
- With the approval of the sediment control inspector, minor field adjustments can and will be made to insure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the Prince George's Soil Conservation District.
- At the end of each working day, all sediment control practices will be inspected and left in satisfactory condition.
- Following notice and discontinuance of construction, sediment control practices will be removed. The contractor shall be responsible for the removal of all sediment control practices. The contractor shall be responsible for the removal of all sediment control practices. The contractor shall be responsible for the removal of all sediment control practices.
- Any variations from the sequence of construction noted on this plan requires the approval of the sediment control inspector and the Erosion and Sediment Control District prior to the initiation of the change.
- Contractor shall be responsible for the removal of all sediment control practices. The contractor shall be responsible for the removal of all sediment control practices. The contractor shall be responsible for the removal of all sediment control practices.
- PUMPING SEDIMENT LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. Any portable dewatering device must be located within the limits of disturbance.

OBSERVATION WELL TABULATION				
WELL NO.	NORTHING	EASTING	Top Elev.	Grd. Elev.
NO. 1	N 361561.7465	E 1325290.2096	129.24	126.25
NO. 2	N 361576.1445	E 1325254.4468	129.88	128.89
NO. 3	N 361823.6888	E 1324346.8378	127.01	122.80
NO. 4	N 362166.1887	E 1323843.0599	127.05	122.87
NO. 5	N 362457.4568	E 1323642.3888	127.28	124.28



- SITE INFORMATION**
1. Subject Site Description:
Owner: John P. Denison
Tax Map: 0152, Grid: 004, Parcel: 0080
Parcel: Liber 33578 Folio 547
Address: 2807 Accokeek Road, Waldorf, Maryland 20687
Prince George's County, Maryland
Tax Assessor's Number: 50-0412323
 2. Total Site Area: Parcel 0007: 2,362,288 Sq. Ft. or 53.7646 acres
Total Site Area: Parcel 0002: 4,434,248 Sq. Ft. or 101.8423 acres
 3. Existing Zoning: P-A
 4. Land Use:
a. Property located on AGC Map: 0887, H-4, H-3
b. BIOC Map: 2210523
 5. Property located on U.S.G.S. Planetary Quadrangle
a. Specific Section: 38223
b. Township Section: Various
 6. Gas Service: Washington Gas
 7. Sewage Disposal: Individual System (S-4) Prince George's County
 8. Water Supply: Individual Water (W-6) Prince George's County
 9. Easement: The Entire Subject Property is a "UNIT" Easement
 10. Horizontal Datum: NAD 1983/1981
Vertical Datum: MGD 1985
 11. The subject property is located in Zone "C", Areas of minimal flooding, Zone "F", Areas between banks of the 100 Year Flood and 500 Year Flood, or certain areas subject to 100 Year flooding with average depths less than one (1) foot, Zone "X2", Areas of 100 Year Flood, based flood elevations and flood hazard factors determined; Flood Insurance Program's Flood Insurance Rate Map as Community Flood #1402289 2005C; Effective Date: June 18, 1987.
 12. Existing Features based on a Field Run Topographic Survey performed by Landesign, Inc. in July, 2015 and aerial photography performed by Aerial Corporation in July, 2015.
 13. Shoreline markers to be located on a Field Run Survey performed by Landesign, Inc. in July, 2015 and data returned through the Land Records of Prince George's County, Maryland in Liber 30084 of Folio 561 and Liber 33578 of Folio 547.
 14. The results of a Field Investigation by Landesign, Inc.'s Qualified Professional have determined that: Seepholes, Trees, Forest, Non-Tidal Wetlands or Rare Threatened Species are not present on the property, except as shown.

These drawings are the property of Landesign, Inc. Unauthorised reproduction for any purpose is an infringement upon copyright laws. Visitors are subject to permission by the land owner of the site.

CONTACT "MSS UTILITY"
48 HOURS PRIOR TO TRENCHING
1-800-257-7777

It is the contractor's responsibility to obtain any state permits if required. For any construction activities covered by this plan which impact a state regulated wetland, the contractor shall, for the state of Maryland, obtain approval by the State or followed by the applicant to meet these requirements must be approved by AGDC.



JANUARY 12, 2017
DRAFT by Acorn Environmental

DATE	REVISIONS

Landesign
ENGINEERS • SURVEYORS • PLANNERS
2925 MITCHELLVILLE ROAD SUITE NO. 111
BOWNE, MARYLAND 20718
PH: (301) 248-8822 Fax: (301) 248-8804 e-mail: landesign@acornccat.net

OWNER/DEVELOPER
DENISON NURSERY
8911 COOK HILL ROAD
FORT WASHINGTON, MD 20744
CONTACT: JOHN P. DENISON
PHONE: [301-248-8822](tel:301-248-8822)

PRELIMINARY MITIGATION AREA

DENISON NURSERY & BULL RUN FAMILY, LLC
PARCEL 90 & PART OF PARCEL 7 ADMIN SPLIT
2807 & 3009 ACCOKEEK ROAD
TAX MAP 163 & 152, GRID A1&F4, PARCELS 007 & 090
LIBER 33578 FOLIO 547, LIBER 30084 FOLIO 561
5th TAX DISTRICT

DATE: July 20, 2015 SCALE: 1" = 100'
DESIGN BY: J.J.F. DRAWN BY: J.M.B.
CHECKED BY: J.J.F. SHEET NO: 3 OF 8
COMPUTER: E
FIELD BOOK: 263 JOB NO.: 15-051

SHEET TWO

Copyright
© 2004
No. 02-05196
10/02/04

MAP 152
CEL "A"
W Golf Course"
Plot No. 78)

George's County

Woman
Swamp

7.5
acre

TP1

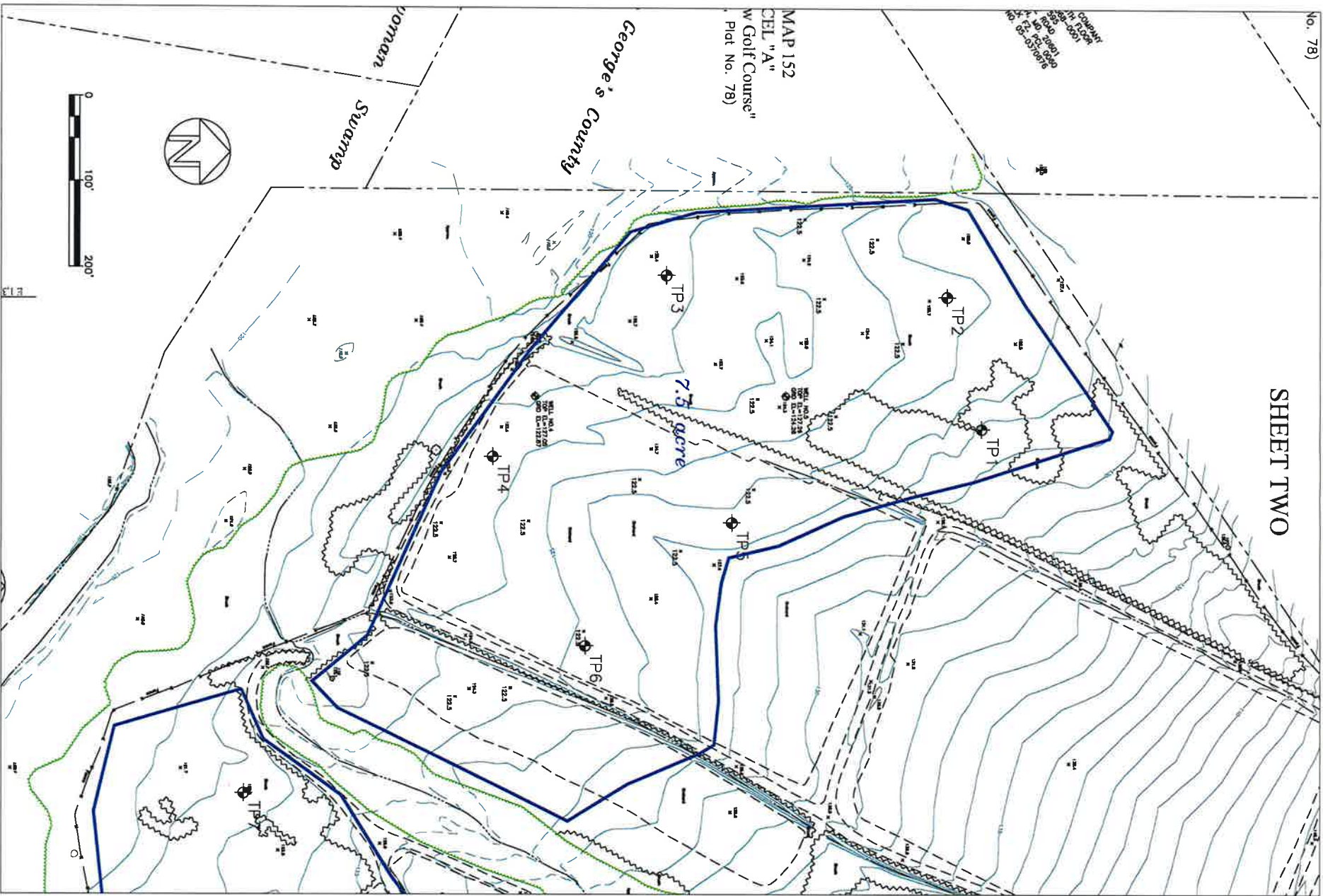
TP2

TP3

TP5



TP4

TP6



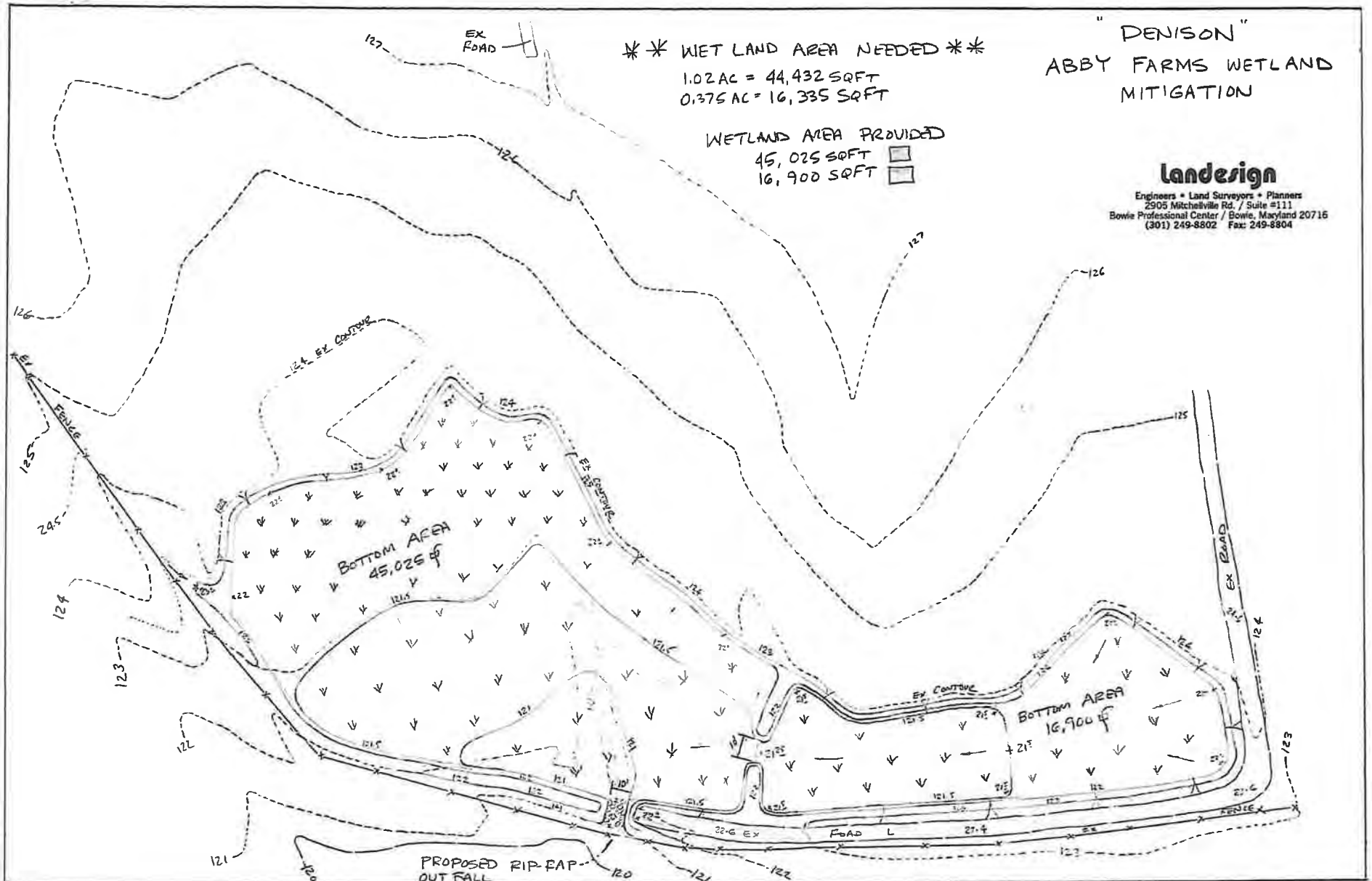
"DENISON"
 ABBY FARMS WETLAND
 MITIGATION

** WET LAND AREA NEEDED **
 1.02 AC = 44,432 SQFT
 0.375 AC = 16,335 SQFT

WETLAND AREA PROVIDED
 45,025 SQFT 
 16,900 SQFT 

landesign

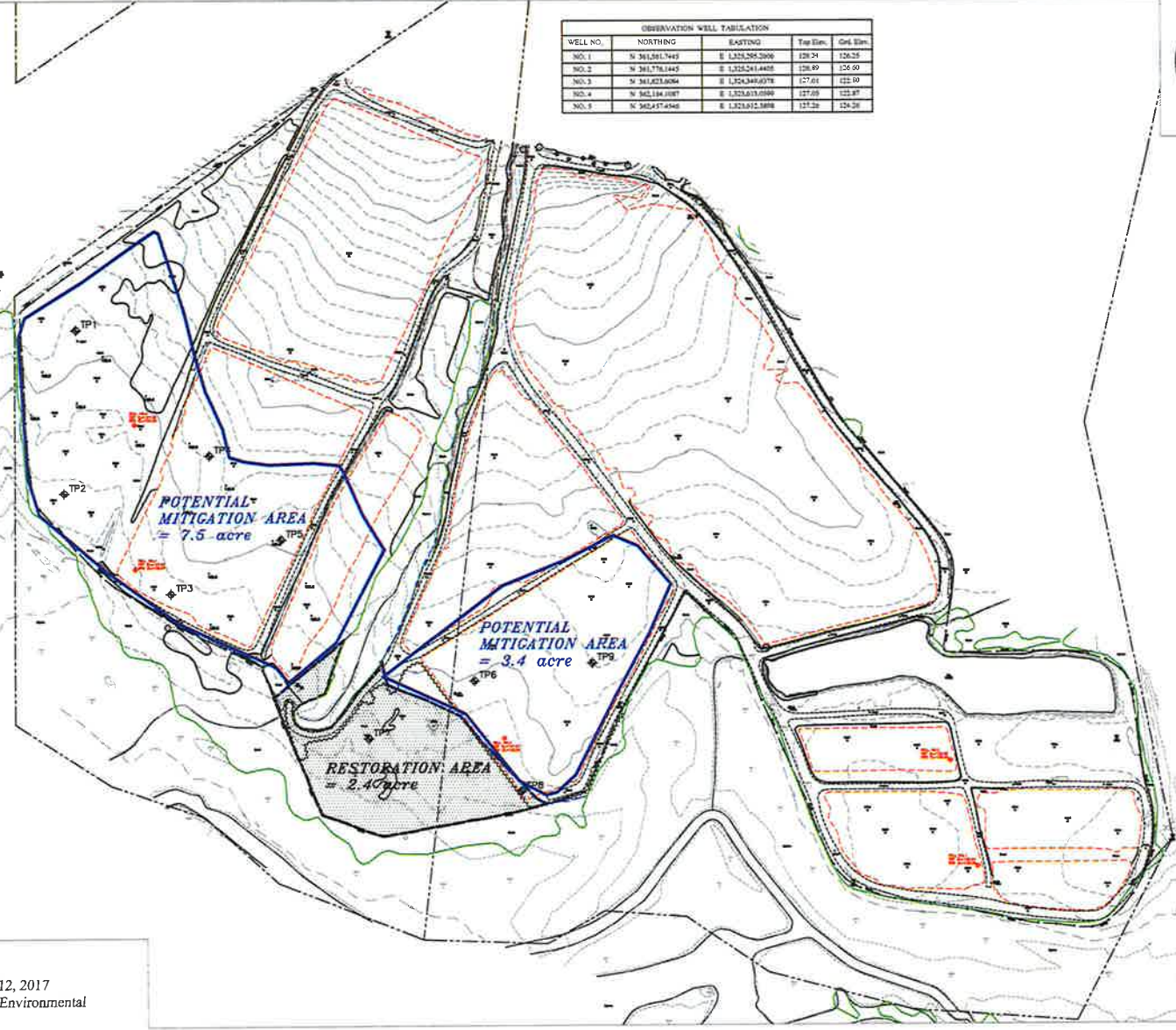
Engineers • Land Surveyors • Planners
 2905 Mitchellville Rd. / Suite #111
 Bowie Professional Center / Bowie, Maryland 20716
 (301) 249-8802 Fax: 249-8804



OBSERVATION WELL TABULATION				
WELL NO.	NORTHING	EASTING	Top Elev.	Org. Elev.
NO. 1	N 361,081.7443	E 1,325,295.2000	126.24	126.25
NO. 2	N 361,078.1443	E 1,325,241.4402	126.49	126.60
NO. 3	N 361,023.8064	E 1,324,349.6078	127.01	122.50
NO. 4	N 362,134.1087	E 1,323,813.0886	127.60	122.87
NO. 5	N 362,457.4940	E 1,323,612.5886	127.20	124.28



- SITE INFORMATION**
- Subject Site Description:
Owner: John S. Denison
Tax Map: 0152, Grid 004, Parcel 0080
Deed: Liber 33578 Folio 547
Address: 2807 ACCOKEEK ROAD, WALKERS, MARYLAND 20601
Prince George's County, Maryland
Tax Account Number: 00-0413003
 - Owner: Bull Run Family, LLC
Tax Map: 0163, Grid 004, Parcel 0007
Deed: Liber 30084 Folio 561
Address: 3009 ACCOKEEK ROAD, WALKERS, MARYLAND 20601
Prince George's County, Maryland
Tax Account Number: 00-0213333
 - Total Site Area Parcel 0007: 2,360,358 Sq. Ft. or 123,744.00 acres
Total Site Area Parcel 0008: 4,430,248 Sq. Ft. or 101,942.00 acres
Existing Zoning: R-A
 - Land Use:
1. Property located on ADC Mast: 3897, H-4, H-5
2. 4000 Grid 2373255
3. Property located on U.S.S.S. Pleistocene Quadrangle
4. District: Sensitive 30230
5. Landmark Service: Various
6. Gas Service: Washington Gas
7. Sewage Disposal: Individual System (S-4) Prince George's County
8. Water Supply: Individual Water (W-4) Prince George's County
9. Easement: The Entire Subject Property is a "WAP" Easement.
10. Horizontal Datum: NAD 1983/1981
Vertical Datum: NAVD 1988
 - The subject property is located in Zone "C". Areas of minimal flooding, Zone "B", Areas between limits of the 100 Year Flood and 500 Year Flood, or certain areas subject to 100 Year Flooding with average depths less than one (1) foot, Zone "A", Areas of 100 Year Flood, base flood elevations and flood hazard factors determined: Flood Insurance Program's Flood Insurance Rate Map on Community Panel 204228 0250C, Effective Date: June 15, 1987.
 - Existing Features based on a Field Run Topographic Survey performed by Landesign, Inc. in July, 2015 and Aerial Photography performed by Aerial Geomatics in July, 2015.
 - Boundary shown herein is based on a Field Run Survey performed by Landesign, Inc. in July, 2015 and Deeds recorded among the Land Records of Prince George's County, Maryland in Liber 30084 at Folio 561 and Liber 33578 at Folio 547.
 - The Results of a Field Investigation by Landesign, Inc.'s Qualified Professional has determined that Sculpin, Trout, Forest, Non-Tidal Wetlands or Rare Threatened Species are not present on the property, except as shown.



These drawings are the property of Landesign, Inc. Unrestricted reproduction for any purpose is an infringement upon copyright laws. Violators will be subject to prosecution to the fullest extent of the law.

CONTACT "MISS UTILITY"
48 HOURS PRIOR TO TRENCHING
1-800-237-7777

It is the user's responsibility to obtain any state permits if required, for any application activities covered by this plan, which should be a qualified professional has determined that Sculpin, Trout, Forest, Non-Tidal Wetlands or Rare Threatened Species are not present on the property, except as shown.



JANUARY 12, 2017
DRAFT by Acorn Environmental

DATE	REVISIONS

Landesign
ENGINEERS • SURVEYORS • PLANNERS
2909 MITCHELLVILLE ROAD SUITE NO. 111
BOWIE, MARYLAND 20716
Ph: (301) 249-8802 Fax: (301) 249-8804 e-mail: landesign,inc@comcast.net

OWNER/DEVELOPER
DENISON NURSERY
8911 OXON HILL ROAD
FORT WASHINGTON, MD 20744
CONTACT: JOHN P. DENISON
PHONE:

PRELIMINARY MITIGATION AREA

DENISON NURSERY & BULL RUN FAMILY, LLC
PARCEL 90 & PART OF PARCEL 7 ADMIN SPLIT
2807 & 3009 ACCOKEEK ROAD
TAX MAP 163 & 152, GRID A1&F4, PARCELS 007 & 090
LIBER 33578 FOLIO 547, LIBER 30084 FOLIO 561
5th TAX DISTRICT
PRINCE GEORGE'S COUNTY, MARYLAND

DATE: July 20, 2015 SCALE: 1" = 100'
DESIGN BY: J.J.F. DRAWN BY: J.M.B.
CHECKED BY: J.J.F. SHEET NO: 3 OF 8
COMPUTER: E FIELD BOOK: 263 JOB NO.: 15-051