MANASQUAN PLANNING BOARD MEETING AGENDA

DECEMBER 05, 2023 7:00 PM - TUESDAY

Please take notice that the Manasquan Planning Board will convene an in person meeting on December 05, 2023 7:00 PM at Borough Hall, Second Floor, 201 East Main Street, Manasquan, New Jersey. As a courtesy to the public this meeting may be attended via zoom. If the zoom meeting fails or gets disconnected the in-person meeting will continue without the zoom participants. You can access the meeting through the Zoom App by following the link below for your computer or phone.

Join Zoom Meeting

https://us06web.zoom.us/j/8243299920?pwd=QUxNUjlGbkNLQS9TRVBlWHVtbUd3Zz09

OR

Tel – 1-646 876 9923 US (New York) Meeting ID: 824 329 9920 Passcode: 365120

PUBLIC MEETING

Salute to the Flag Roll Call Sunshine Law Announcement

OLD/NEW BUSINESS

- 1. Approval of Vouchers
- 2. Regular Meeting Minutes November 16,2023
- 3. 126 Morris Avenue Request for 9 Month Extension Application #20-2022

RESOLUTION

4. #31-2023 Ocean Bay Developers, LLC - 10 Branin Avenue - Block 23 Lot 7.05 - Application #15-2023

APPLICATION

- 5. #13-2023 Kelly, Kathleen 163 McLean Avenue Block 158 Lot 11
- 6. #17-2023 Van Vleit, Shaun 39 S. Jackson Avenue Block 120 Lot 17.01
- 7. #18-2023 227 E. Main LLC 227 E. Main Street Block 89 Lot 1

OTHER BUSINESS

Comments from individual board members

ADJOURNMENT



July 27, 2023



Barbara Ilaria, Secretary Manasquan Borough Planning Board 201 East Main Street Manasquan, NJ 08736

Re: Boro File No. MSPB-R2110 Variance – Kelly Block 158, Lot 11 163 McLean Avenue R-1 Single-Family Residential Zone Borough of Manasquan, Monmouth County, NJ

Dear Ms. Ilaria:

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As per your request, I have reviewed the above-referenced application in accordance with the provisions of the Borough Land Development Ordinance. The documents reviewed in conjunction with this application include:

1. Pool Plot Plan prepared by Robert Burdick, PE, PP, of the R.C. Burdick, PE, PP, PC, dated May 30, 2023.

The property is located in the R-1 Residential Zone with frontage on McLean Avenue. With this application, the applicant proposes to construct a new 14' by 28' in-ground pool, concrete patio, stormwater recharge system, and associated site improvements. The application is deemed <u>complete</u> on July 27, 2023.

The following are our comments and recommendations regarding this application:

- 1. The property is located in the R-1 Residential Zone, where the existing and proposed residential use is permitted.
- 2. The following variances are required as part of this application:
 - a. A maximum lot coverage of 35% permitted, whereas a lot coverage of 68% is proposed (55.5% exists).
 - b. A minimum patio setback of 5 feet is required, whereas a setback of 2 feet is proposed (west side).
- 3. The following non-conformities exist on Lot 11 and will not be modified as part of this application:
 - a. A minimum front yard setback of 25 feet is required, whereas a setback of 17.35 feet exists.

Re: Boro File No. MSPB-R2110 Variance – Kelly Block 158, Lot 11

- 4. The applicant proposed to construct a concrete patio around the proposed pool which increases the lot coverage variance requested for the lot. The applicant may wish to consider a paver patio or other pervious surface to minimize the requested variance.
- 5. The pool mechanical equipment will be located in the rear yard to the east of the proposed pool.
- 6. The proposed grading of the lot does not appear that it will alter the existing drainage patterns, however the applicant's engineer should confirm this and indicate that there will be no negative effects to neighboring properties.
- 7. The plan provides for a recharge system consisting of two yard inlets and perforated pipe behind the pool and patio. The applicant should be aware that a two-foot separation from seasonal high groundwater must be maintained to the bottom of the proposed system.
- 8. The applicant should indicate if any trees are proposed to be removed as part of the application.
- 9. Any curb and sidewalk must be replaced along McLean Avenue as necessary.

Should you have any questions or desire any additional information, please do not hesitate to contact me.

Very truly yours,

ALBERT D. YODAKIS, P.E., P.P. PLANNING BOARD ENGINEER BOROUGH OF MANASQUAN

ADY:jy

 cc: George McGill, esq., Planning Board Attorney Robert Burdick, PE, PP R.C. Burdick, PE, PP, PC, 1023 Ocean Road, Point Pleasant, NJ 08742 Kathleen Kelly 163 McLean Avenue, Manasquan, NJ 08736 BOROUGH HALL 201 EAST MAIN STREET

EDWARD G. DONOVAN Mayor

THOMAS F. FLARITY Municipal Administrator



CONSTRUCTION DEPARTMENT

FRANK F. DiROMA Supervisor of Code Enforcement

> STEVEN J. WINTERS Construction Official

BOROUGH OF MANASQUAN COUNTY OF MONMOUTH NEW JERSEY 08736

| APPLICATION TO THE PLANNING ROARD |
|---|
|) |
| KEIN KEIN |
| *Applicant's Name: ATHIEEN YETTY |
| *Applicant's Address: 163 11 C LEAN HUE |
| *Telephone Number: Home: Cell: _201- 892-6559 |
| *e-mail Address: KATHY KELLY 0421@gmail |
| *Property Location: 163 MC LEAN AVE |
| *Block: Lot: |
| *Type of Application: <u>Swimming</u> Pool Bulk Variance, Non-Permitted Use- Conditional Use- Subdivision- Minor Subdivision- Major- Site Plan Approval |
| *Date of Zoning Officer's Denial Letter: <u>6-20-23</u> Attach Zoning Permit Application |
| *Plot Plan (Survey) not older than five (5) years, clearly indicating all buildings and setbacks. |
| *Is the Applicant the Landowner? $\sqrt{\epsilon}$ 5 |
| *Does the Applicant own any adjoining land? <u>No</u> |
| *Are the property taxes paid to date? $\sqrt{\epsilon}$ |
| *Have there been any previous applications to the Planning Board concerning this property?(Attach copy) |
| **Are there any Deed Restrictions, Easements, or Covenants affecting this |
| property?No |
| (Attach copy) |
| *The applicant agrees to be responsible for and pay for the costs entailed in the review of this application by any experts retained by the Planning Board for advice in this matter. |

Signature of Applicant or Agent

7-17-23 Date

06/2021

BOROUGH HALL 201 EAST MAIN STREET

EDWARD G. DONOVAN Mayor

THOMAS F. FLARITY Municipal Administrator 732-223-054---Fax 732-223-1300

FRANK F. DiROMA Supervisor of Code Enforcement

> STEVEN J. WINTERS Construction Official

CONSTRUCTION DEPARTMENT

BOROUGH OF MANASQUAN COUNTY OF MONMOUTH NEW JERSEY 08736

June 20, 2023

Kathleen Kelly 267 Ege Avenue Jersey City, NJ 07304

Re: Block: 158 Lot: 11 Zone: R-1 Flood Zone: AE BFE: 9ft. DFE: 10ft. 163 McLean Avenue

Dear Ms. Kelly:

On this date we reviewed your application for the following project.

Install an inground pool and concrete patio in the rear yard.

Pool plot plan prepared by Robert Burdick on May 30, 2023. Pool plans prepared by Robert Burdick and dated May 2023.

Application denied for the following reason(s):

Section 35-9.4- Front Setback – 25ft. Required 17.35ft. Existing

> Lot Coverage – 35% Permitted 55.5% Existing 68% Proposed

Section 35-11.8J – Requires that the patio must be setback a minimum of 5ft from the side property line.

Additional required documentation:

 Prior approval from the Shade Tree Committee regarding the removal of any trees as part of the project. If you have any questions, please call me at 732-223-0544, ext. 256

Sincerely, K

Richard Furey Zoning/Code Enforcement Officer



are per visual observation of physical features and/or mark outs and their location is approximate. The under signed professional are not responsible for the presence of (POUNDS PER 1000 SQUARE FEET MIX ∦1 TALL FESCUE (TURF TYPE) 6.0 PERENNIAL RYEGRASS 0,5

- underground utilities or structures if they are not visible or otherwise disclosed by any of the above data. Pool contractor shall utilize the serviced of CALL DIG (1-800-272-1000) to accurately locate utilities.
- 3) Pool to be secured by minimum 4' fence with self latching and closing gates by property owner. Fence and all construction shall comply with the International Building Code and the International Residential Code, New Jersey Edition, including ANSI/NSPI-5 Standards for Residential In Ground Swimming Pools, current edition. Where adjacent fences are used to secure the pool the applicant shall take full responsibility for repair or replacement should they be damaged or removed and shall seek a variation for the fence where required.
- 4) All electrical equipment must be located at least 10' from the swimming pool.
- 5) The contractor shall protect all existing structures from damage and/or failure by acceptable methods as may be required per OSHA and other regulatory agencies. The Design Engineer accepts no responsibility for the safety or adequacy of the existing structures.
- 6) The Design Engineer assumes no responsibility for pool construction in easements or required setback areas not shown on the survey provided to the Design Engineer. The pool contractor and property owner shall verify the pool layout and all dimensions prior to construction.
- 7) Property owner responsible for all environmental permits. The determination of the presence or absence of wetlands, stream encroachment lines, buffer lines or easements not shown on the survey supplied by the Property Owner was outside of the scope of the project.
- 8) By use of this Plan for the purpose of obtaining a Permit to construct, the Property Owner and Pool Company agree to the proposed pool location, concrete, operating equipment and grading associated with the proposed swimming pool.
- 9) Minimum 1.0%, maximum 4:1 grading provided in area that is to be disturbed by pool construction. Concrete areas to be minimum 0.5% grade.

 Pool filter discharge to be by flexible hose or filter to be cartridge filter with no discharge.

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| | No. Da | te | | Description | | By |
| Lot 11 Bloc Borough of Ma Monmouth Cou | k 158 nasquan nty, NJ | | Pool 163 M | Plot Pla cLean Avenu | n 1e | DATE: 5/30/2023 SCALE 1' = 20' |
| R.C. BU CONSULTING EN PLANNING ENVIR (732)89 | RDICK, NGINEERS SURV RONMENTAL PE 1023 OCEAN RC INT PLEASANT, NO 2-5050 FAX (| P.E., /EYORS RMITTING DAD J 08742 732)892-5888 | P.P., | P.C. ROBERT C. BUF P.A. PROFESSIONAL ENGINE N.J. PROFESSIONAL ENGINE N.J. PROFESSIONAL ENGINE | RDICK ER #049541-E ER #049541-E ER #049541-E | JOB No. 23-1347 Sheet 1 of 1 |



B.O.M. RECEIVED M&G _____ ADM _____ CLERK _____ CFO

OCT 12 2023

OTHER

October 11, 2023

Barbara Ilaria, Secretary Manasquan Borough Planning Board 201 East Main Street Manasquan, NJ 08736

Re: Boro File No. MSPB-R2140 Minor Subdivision – VanVliet Block 120, Lot 17.01 39 South Jackson Avenue R-2 Residential Zone Borough of Manasquan, Monmouth County, NJ

Dear Ms. Ilaria:

As per your request, I have reviewed the above-referenced application in accordance with the provisions of the Borough Land Development Ordinance. The documents reviewed in conjunction with this application include:

- 1. Survey of Property, prepared by David Von Steenburg, of Morgan Engineering & Surveying, dated May 4, 2023.
- 2. Minor Subdivision Plan, prepared by David Von Steenburg, of Morgan Engineering & Surveying, dated September 15, 2023.

Existing Lot 17.01 contains 10,000 square feet and fronts on Cedar Avenue and South Jackosn Avenue. With this application, the applicant intends to create two new conforming lots, proposed Lot 17.03 containing 5,000 square feet with frontage on Cedar Avenue, and proposed Lot 17.02 containing 5,000 square feet with frontage on Cedar Avenue and South Jackson Avenue.

The application is deemed <u>complete</u> as of October 11, 2023.

The following are our comments and recommendations regarding this application:

- 1. The property is located in the R-2 Residential Zone, where the existing and proposed residential lots are permitted.
- 2. The following variances are required as part of this application:
 - a. A minimum side yard setback of 5 feet is required, whereas a setback of 4.88 feet is proposed to the existing dwelling (west).
 - b. A maximum building coverage of 30% permitted, whereas a lot coverage of 31.2% is proposed on Lot 17.02.



Re: Boro File No. MSPB-R2140 Minor Subdivision – VanVliet Block 120, Lot 17.01

- 3. The following non-conformities exist and will not be modified as part of this application:
 - a. A minimum rear yard setback of 20 feet is required, whereas a setback of 6.51 feet exists to the existing dwelling.
 - b. A minimum side yard setback of 15 feet is required (corner lot), whereas a setback of 12.8 feet exists to the existing dwelling.
- 4. The applicant should indicate if the subdivision is to be filed by map or by deed. If filed by deed, copies of the deeds and deed descriptions must be submitted to our office and the Board Attorney for review. The deed descriptions must be prepared by a Professional Land Surveyor licensed in the State of New Jersey. If it is to be filed by map, all necessary revisions to the plat must be made so that it conforms to the current Title Recordation Law requirements.
- 5. A monument is shown to be set at the intersection of the proposed lot line and the right-of-way line of Cedar Avenue. A monument should also be set at the new lot line intersection at the rear of the property. I suggest any monuments be set prior to the map being signed by the Board. The applicant should indicate their intent of when the monument will be set. If they are proposed to be set after the perfection of the subdivision, a bond must be posted with the Borough.
- 6. The existing chain link fence which crosses the proposed property line should be removed. The wire fence along the western and rear property line also appears to meander onto adjacent lots.
- 7. The applicant should be aware that if any future does not meet the zoning requirements (setbacks, coverage, etc.), a separate application to the Board will be required. Grading plans and front yard landscaping plans will also be required.
- 8. The proposed revised lot numbers must be reviewed and approved by the tax office.
- 9. All necessary outside agency approvals must be obtained for this project. These may include, but not be limited to the following:
 - a. Monmouth County Planning Board Final Approval

Should you have any questions or desire any additional information, please do not hesitate to contact me.

Very truly yours,

ALBERT D. YODAKIS, P.E., P.P. PLANNING BOARD ENGINEER BOROUGH OF MANASQUAN



Re: Boro File No. MSPB-R2140 Minor Subdivision – VanVliet Block 120, Lot 17.01 October 11, 2023 Sheet 3

ADY:jy

 cc: George McGill, esq., Planning Board Attorney Timothy Middleton, esq. 2517 Highway 35, Building K, Suite 101, Manasquan, NJ 08736
 David VonSteenburg, PLS Morgan Engineering & Surveying, PO Box 5232, Toms River, NJ 08754
 Shaun VanVliet 51 Dale Drive, Chatham, NJ 07928 BOROUGH HALL 201 EAST MAIN STREET

EDWARD G. DONOVAN Mayor

THOMAS F. FLARITY Municipal Administrator Incorporated December 30, 1887

732-223-05 Fax 732-223-1300

CONSTRUCTION DEPARTMENT

BOROUGH OF MANASQUAN COUNTY OF MONMOUTH NEW JERSEY 08736 FRANK F. DIROMA Supervisor of Code Enforcement

STEVEN J. WINTERS Construction Official

August 16, 2023

Shaun VanVliet 51 Dale Drive Chatham, NJ 07928

Re: Block: 120 Lot: 17.01 Zone: R-2 Flood Zone: AE BFE: 9ft. DFE: 10ft. 39 South Jackson Avenue

Dear: Sir

On this date we reviewed your application for the following project.

Remove all of the encroachments on proposed lot 17.03 and subdivide Block 120 - Lot 17.01 into two fully conforming lots in the R-2 Zone. (Proposed Lot 17.02 - 5,000 s.f.) - (Proposed Lot 17.03 - 5,000 s.f.)

Application denied for the following reason(s):

Section 32-8.1 - Requires Planning Board approval for the proposed minor subdivision.

Survey prepared by David VonSteenburg on May 4, 2023. Minor subdivision plot plan prepared by David VonSteenburg on May 4, 2023.

Proposed Lot 17.02

Section 35-9.4 – Rear Setback – 20ft. Required 6.51ft. Proposed

- " Side Setback (Left) 5ft. Required 4.88ft. Proposed
- " Building Coverage 30% Permitted 31.2% Proposed

If you have any questions, please call me at 732-223-0544, ext. 256

Sincerely, R. F.

Richard Furey Zoning/Code Enforcement Officer

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BUYER'S ATTORNEY: GREGG PESCIOTTA, Esquire

| BESKIN PESCIUTTA, Esqs. | | | | |
|---|--|--|---|--|
| Filed Map Reference: | Filed Map Block: | Filed Map Lot: | Filing Date: | Filed Map No. |
| SECTION NO. 1 MANASQUAN SHORES BORO OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY | 11 | 17, 18, 19, & 2 | 0 04-25-1929 | 34-5 |
| IMPORTANT NOTES, PLEASE REVIEW: | | | | |
| I DECLARE THAT, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF, THIS MAP OR PLAN MADE ON 5 RULES AND REGULATIONS PROMULGATED BY THE STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEY THIS SURVEY DOES NOT PURPORT TO IDENTIFY BELOW GROUND ENCROACHMENTS, UTILITIES, SERVICES LINES OR IF ANY PORTION OF THE PROPERTY IS CLAIMED BY THE STATE OF NEW JERSEY AS TIDELANDS. ENVIRONMENTALL OFFSET DIMENSIONS FROM STRUCTURES TO PROPERTY LINES SHOWN HEREON ARE NOT TO BE USED TO RESETAB THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION REGARDING RECORD TITLE TO TRACT SHOWN HEREON WAS GAINED FROM A TITLE REPORT PROVIDED BY THE TITLE INSURER REFERENCE BUILDING SETBACK LINES SHOWN HEREON ARE FROM RECORDED DEEDS AND FILE DMAPS AND MAY NOT REFLECT PROPERTY CORNERS HAVE NOT BEEN SET AS PER CONTRACTUAL AGREEMENT. (N.J.A.C. 13:40-5.1(D)) | -4-23 by me or ui fors. Structures, wetland y sensitive areas, if LISH property lines. Easements, adjoinef 2ed hereon. Current zoning reg | NDER MY DIRECT SUPER PS, OR RIPARIAN RIGHTS ANY ARE NOT LOCATE RS AND OTHER DOCUME QUIREMENTS. | INSION IS IN ACCORDANC NO ATTEMPT WAS MADID D BY THIS SURVEY. NTS THAT MIGHT AFFECT DB OR-S | e with the e to determine the quality of 0158 PG 4403 |
| CERTIFICATE OF AUTHORIZATION: 24GA28229800 | | | | |
| P.O. BOX 5232 TOMS RIVER, N.J. 08754 TEL: 732-270-9690 FAX: 732-270-9691 www.morganengineeringllc.com | SUR | VEY OF | PROP | ERTY |
| $\int \partial \partial \partial$ | LOT 17.0 | 1 | BI | _OCK 120 |
| Cape | BOI | ROUGH OI | - MANASQ | UAN |
| DAVID J. VONSTEENBURG | COUNTY OF | | NE | W JERSEY |
| N.J. LIC. No. 34500 | Scale: Drawn E 1"=20' LS | By: Date: JOE 5-4-23 23 | #. CAD File # -03427 23-03427LS | Sheet # 1 OF 1 |



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8.0.M. RECEIVED

NOV 2 7 2023

November 22, 2023

PD_____CONST_____

Barbara Ilaria, Secretary Manasquan Borough Planning Board 201 East Main Street Manasquan, NJ 08736

Re: Boro File No. MSPB-R2150 Site Plan – 227 East Main St LLC Block 89, Lot 1 227 East Main Street BR-1 - Business Retail Zone Borough of Manasquan, Monmouth County, NJ

Dear Ms. Ilaria:

As per your request, I have reviewed the above-referenced application in accordance with the provisions of the Borough Land Development Ordinance. The documents reviewed in conjunction with this application include:

- 1. Architectural Floor Plans and Elevations prepared by Brendan McHugh, RA, of Brendan T. McHugh Architecture, dated August 9, 2023.
- 2. Preliminary and Final Major Site Plan prepared by Joseph Kociuba, PE, PP, of KBA Engineering Services, dated October 9, 2023.
- 3. Pre & Post Development Stormwater Management Report, including drainage area maps, prepared by Joseph Kociuba, PE, PP, of KBA Engineering Services, dated October 9, 2023.
- 4. Outbound and Topographic Survey prepared by Alan Boettger, PLS, of Clearpoint Services, LLC, dated March 6, 2023.

The property is located in the BR-1 Business Retail Zone with frontage on East Main Street. With this application, the applicant proposes to demolish the existing structures and construct a new three story, 1,080 square foot, mixed use building and parking area in the rear of the property which will contain nine parking stalls. Stormwater management improvements, landscaping, site lighting, and other associated site improvements are also proposed. Access to the site will be from East Main Street in the approximate location of the existing gravel driveway. The application is deemed <u>complete</u> on November 22, 2023.

The following are our comments and recommendations regarding this application:

<u>Zoning</u>

1. The property is located in the BR-1 - Business Retail Zone. The proposed mixed use, retail on the first floor with apartments above, is permitted in the zone.

Re: Boro File No. MSPB-R2150 Site Plan – 227 East Main St LLC Block 89, Lot 1

November 22, 2023 Sheet 2

- 2. The following bulk ('c') variances are required as part of this application:
 - a. A maximum lot coverage of 60% is permitted, whereas a lot coverage of 80.57% is proposed (50.71% exists).
 - b. A minimum front yard setback of 10 feet is required, whereas a setback of 3.29 feet is proposed to the balcony and 8 feet to the building.
 - c. A minimum parking stall size of 9' x 19' is required, whereas stalls of 9' x 18' are proposed.
 - d. A minimum two-way aisle width of 24 feet is required, whereas an aisle width of 8.67 feet at the building is proposed.
 - e. A total of ten parking stalls are required, whereas nine stalls are provided.
 - f. A parking area setback of 4 feet is required, whereas a setback of 1.18 feet is proposed to the southerly side property line, and 2.24 feet to the rear property line.
 - g. All parking area setbacks must be landscaped, whereas the northerly side parking lot setback is not landscaped.
- 3. The location of any freestanding and building mounted signage should be shown on the plan. Dimensions and setbacks for the signs should be provided.
- 4. The plans indicate that the building height will be less than the permitted 40 feet for the zone. The actual height, measured from the top of curb, should be provided.
- 5. The applicant should be prepared to discuss the hours of operation of the commercial operation, and proposed hours of site and signage lighting.
- 6. The submitted survey indicates an area of conveyance and potentially questionable title at the right-of-way of Main Street. This must be resolved as any additional right-of-way conveyance will potentially affect the lot area, setbacks, and coverages.

<u>Drainage</u>

7. There will be an increase in impervious coverage on the site from the new building and paved parking area. The project does not qualify as a major development per the NJDEP stormwater regulations so not all of the major development quantity reductions are required. The applicant proposes an underground recharge system consisting of a perforated pipe encased in stone and two inlets to address the increase in coverage. The building roof drains will also be directly connected to the system. It appears that with the proposed system there will still be an increase in runoff from the site for all design storms. The system should be modified so that there will be no increase in the peak runoff rates from the site.



Re: Boro File No. MSPB-R2150 Site Plan – 227 East Main St LLC Block 89, Lot 1 Item 7.

- 8. It appears that proposed drainage area PDA-1p will not reach the recharge system with the proposed grading. The proposed pavers in this area are also considered pervious lawn area. The paver area should be considered impervious coverage for the drainage calculations. Also, this area should either be regraded to drain to the recharge system or be excluded from the recharge system routing.
- 9. Proposed Inlet-1 is located partially within the public right-of-way of Main Street. The inlet should be relocated entirely on the applicant's property. This inlet will also serve as a "bubbler" overflow for the system during larger storms and will direct flow across the public sidewalk to Main Street. The applicant's engineer should be prepared to discuss this overflow which could create a safety issue in the public sidewalk.
- 10. Proposed Inlet-2 does not appear to show the entire inlet structure and thus the rear wall will be located less than a foot from the rear property line. A construction easement on the adjacent property may be necessary for the excavation of the system in this area. The entire inlet box should also be shown on the plans.
- 11. It appears that the proposed landscape wall will trap surface runoff on adjacent Lot 52 near the rear of the proposed building. The grading should be revised or the wall modified so as to not negatively impact adjacent properties.
- 12. The proposed westerly footings for the building appear to be located on or directly adjacent to the proposed recharge system. The impact of the system location on the footings should be explained and the plans revised as necessary.
- 13. A construction detail should be provided for the roof drain pipe connections to the recharge system.

<u>Traffic</u>

- 14. The proposed site layout only allows for a single lane of traffic to enter or exit the site from Main Street and along the proposed building. This aisle width requires a variance as previously indicated but also creates a traffic conflict and potential issue for traffic backing up on Main Street while waiting for a car to exit the site.
- 15. The site also has two parking spaces at the rear of the site which appear will have a difficult time turning around in the parking aisle to exit the site. The applicant's engineer should be prepared to discuss how these stalls will function with a full parking lot.
- 16. A loading area is not proposed in the parking area. The nature of anticipated deliveries should be explained and how any delivery vehicles or trash collection vehicles will navigate the site. The height of the porte cochere and its impact on delivery vehicles should also be explained.
- 17. A sight triangle should be provided at the entrance drive. Any signage or landscaping should also be shown and must be located outside of the sight triangle area.
- 18. A stop sign and stop bar should be provided for the entrance drive at Main Street.
- 19. A detail for the paver parking area and aisle must be provided.





Landscaping/Lighting

- 20. Landscaping is required for all parking areas and should be provided along the easterly lot line adjacent to Lot 52.
- 21. I suggest additional landscaping be provided for the frontage of the site.
- 22. All existing mature trees should be located on the survey and any trees to be removed must be indicated on the site plan.
- 23. The proposed parking lot lighting levels meet the minimum ordinance levels, however there is spillage onto adjacent properties. The lights should be adjusted to prevent spillage and all lighting luminaires should be shielded from view of adjacent properties.

Miscellaneous

- 24. The proposed dumpster area material is not labeled but appears to be of a pervious material. This area should be stabilized with asphalt or concrete. It also appears that a stabilized access is warranted from the parking lot to the rear shed and from the front door to the Main Street sidewalk. These areas should be indicated on the plans and any increase in impervious coverage included in the zoning table and drainage calculations.
- 25. The proposed limits of pavement repair in Main Street for utility connections and curb replacement should be shown on the plan. The extent of the excavation may require a half-width or full-width repaying of a portion of Main Street.
- 26. A detail for the public sidewalk repair should be provided. This should include a maximum cross slope of 1.5%.
- 27. All building mechanicals are proposed to be located on the flat roof.
- 28. Any new utilities must be located underground if possible.
- 29. All necessary outside agency approvals must be obtained for this project. These may include, but not be limited to the following:
 - a. Monmouth County Planning Board b. Freehold Soil Conservation District

Should you have any questions or desire any additional information, please do not hesitate to contact me.

Very truly yours,

ALBERT D. YODAKIS, P.E., P.P. PLANNING BOARD ENGINEER BOROUGH OF MANASQUAN

Item 7.

Re: Boro File No. MSPB-R2150 Site Plan – 227 East Main St LLC Block 89, Lot 1

November 22, 2023 Sheet 5

ADY:jy

cc: George McGill, esq., Planning Board Attorney
 C. Keith Henderson
 52 Abe Vorhees Drive, PO Box 260, Manasquan, NJ 08736
 Joseph Kociuba, PE, PP
 KBA Engineering Services, 2517 Route 35, Bldg E, Suite 203, Manasquan, NJ 08736
 Michael Rose
 227 East Main Street, Manasquan, NJ 08736

ENGINEERING

BOROUGH HALL 201 EAST MAIN STREET

EDWARD G. DONOVAN Mavor

THOMAS F. FLABITY Municipal Administrator Incorporated December 30, 1887

CONSTRUCTION DEPARTMENT

BOROUGH OF MANASQUAN COUNTY OF MONMOUTH NEW JERSEY 08736

732-223-0544 Fax 732-223-1300

FRANK F. DIROMA Supervisor of Code Enforcement

> STEVEN J. WINTERS Construction Official

APPLICATION TO THE PLANNING BOARD

*Applicant's Name: 227 East Main Street, LLC

*Applicant's Address: 216 The Terrace, Sea Girt, NJ 08750

*Telephone Number: Home: 732-223-0800 C.K. HendersoCell: Applicant: 732-245-0426

*e-mail Address: keith@hendersonlawfirmnj.com; christine@hendersonlawfirmnj.com; michaelrose18@gmail.com

*Property Location: 227 East Main Street

*Block: 89 Lot: 1

*Type of Application: Bulk Variances

Bulk Variance, Non-Permitted Use- Conditional Use- Subdivision- Minor Subdivision- Major-Site Plan Approval

*Date of Zoning Officer's Denial Letter: July 19, 2023 Attach Zoning Permit Application

*Plot Plan (Survey) not older than five (5) years, clearly indicating all buildings and setbacks.

*Is the Applicant the Landowner? Yes

*Does the Applicant own any adjoining land? No

*Are the property taxes paid to date? Yes

*Have there been any previous applications to the Planning Board concerning this property? No (Attach copy)

**Are there any Deed Restrictions, Easements, or Covenants affecting this

property? No

(Attach copy)

*The applicant agrees to be responsible for and pay for the costs entailed in the review of this application by any experts retained by the Planning Board for advice in this matter.

Signature of Applicant or Agent

October 26, 2023

Date

10/2023

www.manasquan-nj.gov

EDWARD G. DONOVAN Mayor

THOMAS F. FLARITY Municipal Administrator Incorporated December 30, 1887

CONSTRUCTION DEPARTMENT

BOROUGH OF MANASQUAN COUNTY OF MONMOUTH NEW JERSEY 08736 FRANK F. DiROMA Supervisor of Code Enforcement

> STEVEN J. WINTERS Construction Official

July 19, 2023

Keith Henderson, Esq. 52 Abe Voorhees Drive PO Box 260 Manasquan, NJ 08736

Re: Block: 89 Lot: 1 Zone: BR-1 227 East Main Street

Dear Sir:

On this date we reviewed your application for the following project.

Remove all of the structures on the property and construct a new three story mixed use building (Retail & 3 residential units) and a storage shed in the rear yard.

Application denied for the following reason(s):

Section 35-18.3 - Requires Planning Board approval for the proposed project.

Section 35-9.4 - Front Setback – 10ft. Required 3.37ft. Proposed

 Lot Coverage – 60% Permitted 77.9% Proposed

Section 35-13.2b – Parking Stalls – 9' x 19' Required 9' x 18' Proposed

> " - Aisle Width – 24ft. Required 8.17ft. Proposed

Section 35-13.4 – Parking Spaces – Retail (1,080s.f) = 4 Spaces - <u>Residential (3 Units) = 6 Spaces</u> 10 Spaces Required 9 Spaces Proposed Section 35-13.2c – Parking Area Setback – 4ft. Required from side and rear property lines. 3ft. Proposed

Additional required documentation:

- 1. Section 35-13.2c Requires that the parking area setback areas must be landscaped.
- 2. Plot plan revised to show location of any mechanical equipment.
- 3. Maximum building height for the proposed shed is 10ft.
- 4. Prior approval from the shade tree committee regarding the removal of any trees on the property.
- 5. Plot plan revised to comply with Section 28-1.3.
- 6. Plans must show compliance with Section 35-7.9.

If you have any questions, please call me at 732-223-0544, ext. 256

Sincerely,

Richard Furey Zoning/Code Enforcement Officer







| | INDEX OF SHEETS | | | | | | | | | |
|-----------|-----------------|--------------------|-----------|---------------------------------------|--|--|--|--|--|--|
| ISSUED | REVISED | SUMMARY | SHEET NO. | TITLE | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 1 OF 7 | TITLE SHEET | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 2 OF 7 | EXISTING CONDITIONS | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 3 OF 7 | LAYOUT PLAN | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 4 OF 7 | GRADING, DRAINAGE, & UTILITY PLAN | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 5 OF 7 | LIGHTING & LANDSCAPING PLAN | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 6 OF 7 | LIGHTING & LANDSCAPING DETAILS | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 7 OF 7 | CONSTRUCTION DETAILS | | | | | | |
| | | | | | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 1 OF 2 | SOIL EROSION & SEDIMENT CONTROL PLAN | | | | | | |
| 10/9/2023 | | INITIAL SUBMISSION | 2 OF 2 | SOIL EROSION & SEDIMENT CONTROL NOTES | | | | | | |

PRELIMINARY & FINAL MAJOR SITE PLAN BLOCK 89-LOT 1 BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY

PROPERTY OWNERS WITHIN 200 FT.

UTILITIES TO BE NOTIFIED

GENERAL NOTES:

- 1. THE PROPERTY IS KNOWN AS LOT 1 IN BLOCK 89 AS SHOWN ON SHEET 16 OF THE OFFICIAL TAX MAPS OF THE BOROUGH OF MANASQUAN, MONMOUTH COUNTY, N.J WITH A TOTAL TRACT AREA OF 0.17 ACRES (7,225.21 S.F.).
- 2. THE PROPERTY IS LOCATED IN THE "BR-1 BUSINESS RETAIL ZONE"
- 3. THE VERTICAL DATUM IS NAVD88. THE HORIZONTAL DATUM IS NAD83.
- MICHAEL AND CARA ROSE 4. OWNER/APPLICANT: 227 EAST MAIN STREET
 - MANASQUAN, NJ 08736
- 5. APPLICANT PROPOSES TO: CONSTRUCT A 3-STORY MIXED USE BUILDING W/ A BASEMENT W/ RETAIL ON THE FIRST FLOOR AND RESIDENTIAL USE ON THE SECOND AND THIRD FLOORS AND BASEMENT W/ ASSOCIATED PARKING.
- 6. NO FRESHWATER WETLANDS EXIST ON THE SITE.
- 7. PROPOSED WATER SERVICES TO BE CONNECTED TO MAIN IN MAIN STREET. EXACT LOCATIONS TO BE FIELD VERIFIED BY CONTRACTOR FOR CONFLICTS.
- 8. PROPOSED SEWER SERVICES TO BE CONNECTED TO MAIN IN MAIN STREET. EXACT LOCATIONS TO BE FIELD VERIFIED BY CONTRACTOR FOR CONFLICTS.
- 9. GAS, ELECTRIC, LIGHTING, CABLE AND TELEPHONE SERVICES, TO BE COORDINATED BY CONTRACTOR.
- 10. THE PROJECT PROPOSES LESS THAN 1/4 ACRE OF ADDITIONAL IMPERVIOUS COVERAGE AND PROPOSES DISTURBANCE OF LESS THAN 1 ACRE. THEREFORE THE STORMWATER MANAGEMENT REQUIREMENTS FOUND WITHIN THE TOWNSHIP ORDINANCE AND NJAC 7:8 DO NOT APPI Y
- 11. REFUSE PICKUP SHALL BE PROVIDED BY MANASQUAN BOROUGH DPW.
- 12. ALL PROPOSED CURBS SHALL BE DEPRESSED WHERE SIDEWALKS AND CROSSWALKS INTERSECT SAME AND HANDICAP RAMPS INSTALLED, EXCEPT WHERE INDICATED. 13. ALL TRAFFIC SIGNAGE AND STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 14. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERE TO.
- 15. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON IS NOT A SURVEY.
- 16. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL SIGNED AND SEALED BY THE ENGINEER AND STAMPED "ISSUED FOR CONSTRUCTION" AND UNTIL SUCH TIME AS ALL APPROVALS REQUIRED HAVE BEEN OBTAINED AND ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED. THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR MUNICIPAL ENGINEER.
- 17. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING REQUIRED TO AVOID CONFLICTS.
- 18. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY INCLUDING PROVISION OF ALL APPRORIATE SAFETY DEVICES AND TRAINING REQUIRED. ALL APPLICABLE OSHA SAFETY STANDARDS SHALL BE ADHERED TO. ANY TEMPORARY TRAFFIC CONTROL AND/OR SAFETY DEVICES SHOWN HEREON ARE REQUIRED AS A MINIMUM AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PROVISION OF ADDITIONAL SAFETY DEVICES AS MAY BE DETERMINED NECESSARY. K.B.A. ENGINEERING SERVICES TAKES NO RESPONSIBILITY FOR SITE OR TRAFFIC SAFETY.
- 20. THESE GENERAL NOTES APPLY TO ALL SHEETS IN THIS PLAN SET.

APPROVED BY BOROUGH OF MANASQUAN PLANNING BOARD

SECRETARY

ENGINEER

CHAIRMAN

DATE

DATE

DATE

REV. NO. DATE DESCRIPTION TITLE SHEET

PRELIMINARY AND FINAL MAJOR SITE PLAN 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE

> BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY



JOSEPH J. KOCIUBA, P.E., P.P.

P.E. License No.: GE45850

I CERTIFY THAT I AM THE OWNER OF THE SUBJECT PROPERTY AND AUTHORIZE THIS SITE PLAN APPLICATION TO BE SUBMITTED FOR REVIEW BY THE BOROUGH LAND USE BOARD

AS SHOWN DATE

10/9/2023

SHEET

1 OF 7

Item 7.



BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY PREPARED BY CLEARPOINT SERVICES LLC, DATED 3/6/2023, LAST REVISED 8/24/2023.

| | | DESCRIPTION | | | |
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| PRELI | MIN | ARY AND FI | NAL MAJOR S | ITE PI | LAN |
| | | 227 EAST M | AIN STREET | | |
| | | BLOCK 8 | 89 - LOT 1 | | |
| | | | | | |
| | | FOR MICHAEL | & CARA ROSE | | |
| | | BOROUGH OF | MANASQUAN | | |
| | M | ONMOUTH COL | INTY NEW IERSE | Y | |
| | | | 51(11)1(2)() <u>5</u> 1(6)2 | - | |
| | | | 2517 Route 35, Bldg E, Ste 203 | | |
| | ΛE | NGINEERING | P: (732)722.8555 F: (732)722.8557 | | |
| | \overline{S} | FRVICESILC | KBAengineers.com | | |
| | En | ICT VICLO LLC Igineering Planning | Certificate of Authority No.: 24GA28220500 | DRN | CHK |
| | | | | IJ | JJK |
| | | | | PROJEC | CT NO. |
| | | | | 2023 | -024 |
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| J JO | JLPI | I J. KUCIUDA | , Г.Ľ., Г.Г. | SHI | |
| | | P.E. LICENSE NO.: GE45 | 850 | 20 | vr / |

0 10 SCALE IN FEET (1"=10')



| | <u>ZONE BR-1 BUS</u> | INES | <u>SS_RETAIL</u> | | | |
|----------------------|----------------------------|------|-----------------------------|----|---------------------------|--|
| | REQUIRED/PERMITTED | | <u>EXISTING</u> | | PROPOSED | |
| | MIXED USE | * | MULTI-FAMILY | | MIXED USE | |
| | 5,000 S.F. | | 7,225.21 S.F. | | 7,225.21 S.F. | |
| AGE | 30 FT. | | 50 FT. | | 50 FT. | |
| TBACK (BUILDING) | 10 FT. | | 31.50 FT. | ** | 8.00 FT. (1) | |
| TBACK (BALCONY) | 10 FT. | | N/A | ** | 3.29 FT. (1) | |
| BACK | 3 FT. | | 8.7 FT. | | 3.00 FT. | |
| BACK | 5 FT. | | 79.4 FT. | | 89.10 FT. | |
| DING COVERAGE | 40 % (2,890.08 SF) | | 29.66 % (2,143 S.F.) | | 30.13 % (2,177 SF) | |
| ERVIOUS | 60 % (4,335.13 SF) | | 50.71 % (3,664 S.F.) | ** | 80.57 % (5,821 SF) | |
| SHT | 40 FT. (3 STY) | | < 40 FT / 3 STY | | < 40 FT / 3 STY | |
| | 9 STALLS (SEE TABLE BELOW) | | N/A | | 9 STALLS | |
| DE YARD SETBACK | 4 FT. | | XXXX | ** | 1.18 FT. | |
| MENT G.F.A. | 800 S.F. | | N/A | | T.B.D. | |
| TBACK FROM RES. ZONE | 15 FT. | | N/A | | N/A | |
|) SETBACK | 3 FT. | | N/A | | 3.32 FT. | |
| D SETBACK | 5 FT. | | N/A | | 5.00 FT. | |

(1) - MEASURED FROM ANTICIPATED STREET LINE - TO BE VERIFIED BY TITLE REVIEW

* - INDICATES EXISTING NON-CONFORMITY ****** - INDICATES VARIANCE REQUIRED

PER TOWNSHIP ORDINANCE 35–13.4 & RSISGARDEN APARTMENTS:1.8 PER UNIT 1 BEDROOM 2.0 PER UNIT 2 BEDROOM PROPOSED 3 TOTAL RESIDENTIAL UNITS: (2) SINGLE BEDROOM UNITS --> 3.6 STALLS (1) DOUBLE BEDROOM UNITS --> 2 STALLS 1 PER 300 S.F. OF G.F.A. TOTAL FIRST FLOOR RETAIL = 1,080 S.F. ---> 1,080 G.F.A. / 300 S.F. ---> 3.6 STALLS 3.6 + 2 + 3.6 = 8.6 STALLS --> 9 TOTAL PARKING STALLS REQUIRED 9 TOTAL PARKING STALLS PROPOSED

BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY PREPARED BY CLEARPOINT SERVICES, LLC, DATED 3/6/2023.

BUILDING INFORMATION TAKEN FROM ARCHITECTURAL PLANS PREPARED BY BRENDAN T. MCHUGH ARCHITECTURE.

1. PROPERTY IS NOT LOCATED IN A FLOOD ZONE PER FEMA PRELIMINARY & EFFECTIVE FIRM MAPS.

3. BUILDING HEIGHT MEASURED FROM FROM AVG. CURB GRADE TO ROOF PEAK.

4. THERE ARE NO EASEMENTS, DEDICATIONS, OR ENVIRONMENTAL CONSTRAINTS KNOWN.

5. PROJECT DESIGNED TO CONFIRM WITH ORDINANCES 28-1.3 & 35-7.9 WHERE APPLICABLE.

6. PRIOR TO CONSTRUCTION, ALTERATION, OR REMOVAL OF ANY SIDEWALK, DRIVEWAY APRON OR CURB OR ANY PART THEREOF WITHIN A PUBLIC RIGHT-OF-WAY, A PROPERTY OWNER SHALL OBTAIN A PERMIT ISSUED BY THE ZONING

7. ANY SIDEWALK, DRIVEWAY APRON OR CURB WHICH IS REMOVED SHALL BE PROMPTLY REPLACED IN ACCORDANCE WITH

8. NO CONCRETE SIDEWALK, DRIVEWAY APRON OR CURB SHALL BE REPLACED OR COVERED WITH ASPHALT. 9. WHENEVER A CURB CUT OR DRIVEWAY DEPRESSION IS REQUIRED, THE ENTIRE SECTION OR SECTIONS OR CURB OR CURB AND DRIVEWAY DEPRESSION SHALL BE REMOVED AND REPLACED. BREAKING AND CAPPING OR CURBING IS

10. ANY NEW OR RECONSTRUCTED CURBS, SIDEWALKS, OR DRIVEWAY APRONS SHALL BE CONSTRUCTED WITH CONCRETE; PROVIDED HOWEVER, SLATE OR BELGIAN BLOCK MAY BE UTILIZED IF THE ADJOINING CURB/SIDEWALK/APRON IS CONSTRUCTED OF THE SAME MATERIAL.

| REV. NO. DATE LAYOUT PLAN PRELIMINARY AND FINAL MAJOR SITE PLAN 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY DENGINEERING SERVICES LLC Engineering Planning JOSEPH J. KOCIUBA, P.E., P.P. JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 | | | | | | |
|---|---------------------------------------|--------|------------------------|--|--------|--------|
| REV. NO. DATE DESCRIPTION LAYOUT PLAN PRELIMINARY AND FINAL MAJOR SITE PLAN 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY DENGINEERING ENGINEERING Engineering Planning ZOTR RULE 25, BIG E, Ste 203 Manasquan, NJ 08736 CHICLES LLC Engineering Planning JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No: GE45850 | | | | | | |
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| LAYOUT PLAN LAYOUT PLAN PRELIMINARY AND FINAL MAJOR SITE PLAN 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY ENGINEERING SERVICES LLC Engineering Planning Image Regimeers.com PROJECT NO. JOSEPH J. KOCIUBA, P.E., P.P. PL License No.: GE45850 | | D 4 75 | DECODIDITION | | | |
| LAYOUT PLAN PRELIMINARY AND FINAL MAJOR SITE PLAN 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY DENGINEERING SERVICES LLC Engineering Planning DIRN CHK IJ JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No: GE45850 | REV. NO. | DATE | | | | |
| PRELIMINARY AND FINAL MAJOR SITE PLAN 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY | | | LAYOU | JT PLAN | | |
| 227 EAST MAIN STREET BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY 2517 Route 35, Bldg E, Ste 203 Manasquan, NJ 08736 Panasquan, NJ 08736 Panasqua | PRE | LIMIN | ARY AND FI | NAL MAJOR S | ITE PI | LAN |
| BLOCK 89 - LOT 1 FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY | | | 227 EAST M | IAIN STREET | | |
| FOR MICHAEL & CARA ROSE BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY | | | BLOCK 8 | 89 - LOT 1 | | |
| BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY | | | FOR MICHAEL | & CARA ROSE | | |
| MONMOUTH COUNTY, NEW JERSEY Services LLC Engineering Planning 2517 Route 35, Bldg E, Ste 203 Manasquan, NJ 08736 P: (732)722.8557 P: (732)722.8555 F: (732)722.8557 DRN CHIK U JUSEPH J. KOCCIUBA, P.E., P.P. DATE P.E. License No.: GE45850 SHEET 3. OF. 7 | | | BOROUGH OF | ⁵ MANASQUAN | | |
| JOSEPH J. KOCIUBA, P.E., P.P. P. License No.: GE45850 | | М | ONMOUTH COU | UNTY, NEW JERSE | Y | |
| Engineering Planning Certificate of Authority No.: 24GA28220500 DRN CHK JJK PROJECT NO. 2023-024 SCALE AS SHOWN DATE 10/9/2023 SHEET 3 OF 7 | K | BAE | NGINEERING | 2517 Route 35, Bldg E, Ste 203 Manasquan, NJ 08736 P: (732)722.8555 F: (732)722.8557 KBAengineers.com Plans@KBAengineers.com | | |
| JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 | | Er | ngineering Planning | Certificate of Authority No.: 24GA28220500 | DRN | CHK |
| JOSEPH J. KOCIUBA, P.E., P.P. PROJECT NO. 2023–024 SCALE AS SHOWN DATE 10/9/2023 SHEET 3 OF 7 | | | | | IJ | JJK |
| JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 JOSEPH J. KOCIUBA, P.E., P.P. B.E. License No.: GE45850 JOSEPH J. KOCIUBA, P.E., P.P. | | | | | PROJEC | CT NO. |
| JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 SCALE AS SHOWN DATE 10/9/2023 SHEET 3 OF 7 | | | | | 2023 | -024 |
| JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 BEL License No. | | | | | SCA | 4LE |
| JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 JOSEPH J. KOCIUBA, P.E., P.P. | | | | | AS S | HOWN |
| JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 JOSEPH J. KOCIUBA, P.E., P.P. | | | | | DA | TE |
| JUSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 3 OF 7 | — — — — — — — — — — — — — — — — — — — | | | | 10/9/ | /2023 |
| P.Ĕ. License No.: GE45850 3 OF 7 | | OSEPI | h j. kociuba | , P.E., P.P. | SHI | EET |
| | | | P.E. License No.: GE45 | 850 | 30 | F 7 |

| (| C | 10 | 20 |
|---|-------------------------|-----|----|
| | | | |
| S | SCALE IN FE (1"=10') | EET | |

| roject: | Proposed | Mixed-Use | Building | | | | | WAI Pr | oject No.: | GJ2320778.000 | |
|--------------|-----------|--------------|---------------|-----------|-------------------|--------------------------|---------------------------|------------------|---------------------|-----------------|-------------------------|
| ocation: | 227 – 227 | ' 1/2 East M | ain Street | (Block 89 | , Lot 1); Borough | of Manasquan, Mon | mouth County, NJ | | Client: | KBA Engineering | Services, LLC |
| Irface Eleva | ation: ± | 12.0 | feet | | Date Started: | 8/18/2023 | Wat | ter Depth | Elevation | Estimate | d Seasonal High |
| ermination I | Depth: | 13.0 | feet bgs | | Date Complet | ed: 8/18/2023 | | (feet bgs) | (feet) | Groundwate | er Depth Elevation |
| oposed Lo | cation: | SWM | | | Logged By: | TJ/ML | During: | 9.5 | 2.5 🕎 | (fe | eet bgs) (feet) |
| xcavating M | lethod: | Test Pit E | xcavation | | Contractor: | TS | At Completion | 8.0 | 4.0 🖾 | At Completion: | 8.0 4.0 |
| est Method: | | Visual Ob | servation | | Rig Type: | Komatsu | 24 Hours: | 1 | | | |
| SAMPLE | INFORM | ATION | DE | ртн | | | DESCRIPTION | | | | |
| Denth (feet) | Number | Type | | ant | HORIZON | | (Class | ification) | RIALS | | REMARKS |
| | | .,,,,,, | | | | | | | | | |
| | | | 0.0 | 0 - 0.8 | TOPSOIL | 10" Topsoil | | | | | |
| | | | | | | - | | | | | |
| | | | 10 | 0.0.4 | | Denuminte Velleur (40)/E | 6/6) LOAM +10% Com | h Maiata Casar | las ta Oaurah Ota | sture Diretia | |
| | | | - | 0.6 - 4 | DEPOSITS | Common Roots | . 6/6) LOAW; < 10% Grave | er; Moist; Granu | iar to Crumb Stri | cture; Plastic; | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | 2.0 | | | | | | | | |
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| | | | 4.0 | | | | | | | | |
| | | | | 4 - 8 | | Brownish-Yellow (10YF | 6/6) SAND; 10% Gravel; | Moist; Granula | ar Structure; Frial | ble; No Roots | |
| | | | | | | | | | | | |
| 4-6 | S-1 | BAG | 5.0 | | | | | | | | |
| 40 | | Dirio | | | | | | | | | |
| | | | - | | | | | | | | |
| | | | 6.0 | | | | | | | | |
| | | | | | | | | | | | Infiltration Test @ |
| | | | - | | | | | | | | 6.0 togs |
| | | | 7.0 | | | | | | | | Caving In from 6.0 fbgs |
| | | | | | | | | | | | |
| | | | - | | | | | | | | Coving In Continuously |
| | | | 8.0 | 7 | | | | | | | Between 6.0 fbgs and |
| | | | 1 –1 | 8 - 13 | | As Above, Grayish-Bro | wn (10YR 5/2), Wet | | | | 13.0 fbgs |
| | | | | | | | | | | | |
| | | | 9.0 | | | | | | | | |
| 8 - 10 | S-2 | BAG | | | | | | | | | |
| | | | 2 | | | | | | | | |
| | | | 10.0 | | | | | | | | |
| | | | 10.0 | | | | | | | | |
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| | | | L. 1 | | | | | | | | |
| | | | 12.0 | | | | | | | | |
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| | | | 130 T | | | | | | | | |
| | | | 13.0 | | | Soil Profile Pit SPP-1 T | erminated at a Depth of 1 | 3.0 Feet Below | Ground Surface | Due to Cave-In | |
| | | | | | | | | 2.5 1 00t D010W | _round ound06 | 22010 00/0-111 | |
| | | | L., T | | | | | | | | |
| | | | 14.0 | | | | | | | | |
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SPP-1 LOG

| M | /Hľ | TEST | ΓON | ٩F | SU | REC BSURFAC | ORD OF E EXPLORA | | | Soil Pr | ofile Pit No.: SPI Page 1 of |
|--|---|-----------------------------------|------------------|------------------|---|--|----------------------------|-------------------------------------|--|---|---|
| Project: | Proposer | d Mixed-Us | e Building | 1 | | | | WAL | Project No.: | GJ2320778.000 | |
| Location: | 227 - 22 | 7 ½ East M | ain Stree | , t (Block 89 | , Lot 1); Borougi | n of Manasquan, Mor | mouth County, NJ | | Client: | KBA Engineering | Services, LLC |
| Surface Elev Termination Proposed Lo Excavating N | ation: ± Depth: cation: //ethod: | 12.0 15.0 SWM Test Pit E | feet feet bgs | 1 | Date Started: Date Comple Logged By: Contractor: | ted: 8/17/2023 8/17/2023 TJ/ML TS | Wate (f | er Depth feet bgs) 9.5 8.0 | Elevation (feet) <u>2.5</u> ¥ 4.0 ¥ | Estimate Groundwate (fi At Completion: | d Seasonal High er Depth Elevation eet bgs) (feet) 8.0 4.0 |
| Test Method: | : | Visual Ob | servation | | Rig Type: | Komatsu | 24 Hours: | | ¥ | - | |
| SAMPLE | INFORM | | DE | PTH | | | | | | | |
| | | | | | HORIZON | | DESCRIPTION (Classi | OF MAI | ERIALS | | REMARKS |
| Depth (reet) | Number | туре | · · · | eet | | | | | | | |
| | | | 0.0 | 0 - 0 75 | TOPSOIL | 9" Topsoil | | | | | - |
| | | | _ | 0 0.70 | 1010012 | o ropoon | | | | | |
| | | | 1.0 - | 0.75 - 3 | COASTAL PLAIN | Brownish-Yellow (10YF | R 6/6) LOAM: <10% Gravel: | : Moist: Gra | nular to Crumb Stru | cture: Plastic: | |
| | | | _ | | DEPOSITS | Common Roots | | ,, | | | |
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| | | | 2.0 | | | | | | | | |
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| | | | 3.0 | 1 | | | | | | | |
| | | | | 3 - 8 | | Brownish-Yellow (10YF | R 6/6) SAND; 10% Gravel; I | Moist; Gran | ular Structure; Friat | ole; No Roots | |
| | | | - | - | | | | | | | |
| | | | 4.0 | | | | | | | | |
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| 3 - 6 | S-1 | BAG | - | İ | | | | | | | |
| | | | 5.0 | 1 | | | | | | | |
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| | | | 6.0 | | | | | | | | |
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| | | | 8.0 🦷 | 2 | | | | | | | |
| | | | | 8 - 13 | | As Above, Wet | | | | | |
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| | | | 13.0 | | | | | | | | |
| | | | | | | Soil Profile Pit SPP-2 | erminated at a Depth of 13 | 3.0 Feet Bel | ow Ground Surface | Due to Cave-In | |
| | | | 14.0 | 1 | | | | | | | |
| | | | 14.0 | 1 | | | | | | | |
| | | | _ | | | | | | | | |
| | | | 15.0 | | | | | | | | |
| | | | _ |] | | | | | | | |
| | L | <u> </u> | <u> </u> | L | I | | | | | | 1 |
| NOTES: bgs = bel | ow ground sur | rface, NA = Not | Applicable, I | NE = Not Enco | ountered, NS = Not Sur | veyed, P = Perched | | | | RECORI | OF SUBSURFACE EXPLOF 20778_SPPlogs 8/ |

SPP-2 LOG

| roject: Propose ocation: 227 – 2 urface Elevation: ermination Depth: roposed Location: xcavating Method: est Method: SAMPLE INFOR | ad Mixed-Use 27 ½ East M ± 12.0 14.0 SWM Test Pit E Visual Ob MATION | e Building lain Street (Block 89 feet feet bgs ixcavation servation DEPTH | Date Started: Date Started: Date Comple Logged By: Contractor: Rig Type: | WAI Project No.: GJ2320778.000 of Manasquan, Monmouth County, NJ Client: KBA Engineerin 8/18/2023 Water Depth Elevation (feet bgs) (feet) Estima Groundwa 1.1/102 During: 8/15 3.25 1 TS At Completion: 8/1 4.0 V Komatsu 24 Hours: T |) Ig Services, LLC ted Seasonal High Iter Depth Elevation (feet bgs) (feet) : <u>8.0</u> 4.0 |
|--|---|--|---|---|---|
| Depth (feet) Number 4 - 6 S - 1 | r Type | Feet 0.0 0.0.5 1.0 0.5-3.5 2.0 0.5-3.5 3.0 0.5-8 6.0 0.5-8 5.0 0.5-8 6.0 0.5-8 9.0 0.5-8 10.0 0.5-8 11.0 0.5-8 12.0 0.5-8 14.0 0.5-8 | TOPSOIL COASTAL PLAIN DEPOSITS | (Classification) 10" Topsoil Brownish-Vellow (10YR 6/6) LOAM; <10% Gravel; Moist; Granular to Crumb Structure; Plastic; Common Roots Brownish-Yellow (10YR 6/6) SAND; 10% Gravel; Moist; Granular Structure; Friable; No Roots As Above, Wet Soil Profile Pit SPP-3 Terminated at a Depth of 14.0 Feet Below Ground Surface Due to Cave-In | Infiltration Test @ 6.0 fbgs Caving In from 6.0 fbg |



| BLOCK 88 LOT 52 (FM & TM) BIT.CONC. PARKING LOTS | 2. 3. 4. 5. 6. 7. | ALL PROPOSED UTILITIES TO BE LOCATED UNDERGROUND IF POSSIBLE. NO SUMP PUMP OUTLET SHALL DRAIN OR BE PUMPED DIRECTLY OR INDIRECTLY ONTO A SIDEWALK OR PUBLIC STREET. A SUMP PUMP OUTLET MUST BE TERMINATED WITHIN THE A OF THE LOT ON WHICH IT IS LOCATED. IRRIGATION SPRINKLERS SHALL NOT DISCHARGE WATER ONTO A PUBLIC STREET. CONCRETE, ASPHALT AND PVER DRIVEWAYS MUST BE CROWNED TO DIRECT THE FLOW OF STORMWATER ONTO THE LOT ON WHICH THE IMPROVEMENTS ARE CONSTRUCTED. THERE SH BE NO CURB REVEAL AT THE EDGES OF A DRIVEWAY. THE LOT SHALL BE GRADED SO THAT STORMWATER DOES NOT FLOW ONTO NEIGHBORING PROPERTIES. WATER FROM ANY GUTTERS, DOWNSPOUTS, OR SUMP PUMPS MUST BE PIPED DIRECTLY IN DRYWELL OR SEEPAGE PIT WHICH IS DESIGNED TO CONTAIN STORMWATER RUNOFF FROM CO INCH OF PRECIPITATION IN A TWENTY-FOUR-HOUR PERIOD AND NO WATER SHALL ENTER | AREA HALL TO A DNE THE |
|---|----------------------------------|--|------------------------------------|
| × 12.4 | | MUNICIPAL SANITARY SEWER SYSTEM. 10 0 10 20 SCALE IN FEET (1"=10') | |
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| \int | | REV. NO. DATE DESCRIPTION GRADING DRAINAGE & LITILITY PLA | N |
| 12.0 12 | × 2.0 | PRELIMINARY AND FINAL MAJOR SITE PLA 227 EAST MAIN STREET BLOCK 89 - LOT 1 | 1 1 N |
| | \backslash | FOR MICHAEL & CARA ROSE | |
| | | BOROUGH OF MANASQUAN MONMOUTH COUNTY, NEW JERSEY | |
| BIT.CONC. PARKING LOTS | | ENGINEERING 2517 Route 35, Bldg E, Ste 203 Manasquan, NJ 08736 P: (732)722.8555 F: (732)722.8557 KBAengineers.com Plans@KBAengineers.com Certificate of Authority No.: 24GA28220500 DRN J PROJECT 2023-02 SCALE As SHOW DATE 10 (0) (200 DATE | CHK JJK NO. 24 2 WN |
| | | JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850 | 23 7 |
| | | | |

MAIN STREET. 2. ALL PROPOSED UTILITIES TO BE LOCATED UNDERGROUND IF POSSIBLE.

<u>PLAN NOTES</u> 1. PROPOSED PUBLIC SEWER AND WATER LATERAL SERVICES TO BE CONNECTED TO MAINS IN

(A)→ 12.0

× 12.6

SANITARY MANHOLE RIM 12.85 INV (A) 2.95 (8" PVC) INV (B) 2.95 (8" PVC) ^ 12.86 $\overline{(B)}^{(B)}$



× 12.3

12.4

27



PLANTING DETAILS

1. THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL/ ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH THE LAYOUT, GRADING AND LOCATION OF SURFACE & SUBSURFACE UTILITIES AND STRUCTURES.

ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER THE PEDESTRIAN AND VEHICULAR TRAFFIC FLOW. SEE SEASONAL PLANT LIST FOR PLANTING TIMES OF BULBS AND SEASONAL PLANTS. 3. THE CONTRACTOR SHALL COORDINATE WITH LIGHTING AND IRRIGATION CONTRACTORS REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL.

4. THE CONTRACTOR SHALL INSURE THAT HIS WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.

5. DURING PLANTING OPERATIONS, EXCESS WASTE MATERIALS SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE.

6. THE CONTRACTOR SHALL CALL N.J. UNDERGROUND UTILITY LOCATION SERVICE A MINIMUM OF THREE DAYS PRIOR TO ANY EXCAVATION. THE CONTRACTOR IS ADVISED OF THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE. THEIR EXACT LOCATION SHALL BE VERIFIED IN THE FIELD WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF ANY DIGGING OPERATIONS. IN THE EVENT THEY ARE UNCOVERED, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE OWNER. ANY DAMAGE OF UNREPORTED LINES SHALL NOT BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. . IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION OF TREE PITS, OTHER LOCATIONS FOR TREES SHALL BE MADE BY THE CONTRACTOR WITHOUT

ADDITIONAL COMPENSATION. NO CHANGES OF LOCATION SHALL BE MADE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, THE ENGINEER OR OWNER.

9. EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, EQUIPMENT, AND FURNISHINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSONS OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF THE WORK

10. IN THE EVENT OF VARIATIONS BETWEEN WRITTEN QUANTITIES SHOWN ON THE PLAN AND THE PLANT LIST, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOD AND SEED QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT OR ENGINEER FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT LIST.

11. PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS DESIGNATED IN THE FIELD. THE CONTRACTOR SHALL STAKE ALL MATERIAL LOCATED ON THE SITE FOR REVIEW AND/OR ADJUSTMENT BY THE LANDSCAPE ARCHITECT OR ENGINEER PRIOR TO PLANTING. ALL LOCATIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT OR ENGINEER BEFORE EXCAVATION. 12. PLANTS SHALL CONFORM TO CURRENT "AMERICAN STANDARDS FOR NURSERY STOCK" BY AMERICAN ASSOCIATION OF NURSERYMEN (AAN)

PARTICULARLY WITH REGARD TO SIZE, GROWTH, SIZE OF BALL, AND DENSITY OF BRANCH STRUCTURE. PLANT MATERIAL SHALL BE TAGGED AT THE SOURCE BY THE LANDSCAPE ARCHITECT OR ENGINEER UNLESS THIS REQUIREMENT IS SPECIFICALLY WAIVED. 13. ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHERPROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY NAME, SPECIES, AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTION BY

14. ANY MATERIAL AND/OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER IF IT DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. ALL RÉJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. 15. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN APPROVAL FROM THE TOWNSHIP ENGINEER.

16. THE LANDSCAPE ARCHITECT, ENGINEER OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.

17. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF ALL TREES SHALL BE DONE UTILIZING A METHOD AS INDICATED ON THE DOCUMENTS OR AGREED UPON BY THE LANDSCAPE ARCHITECT OR ENGINEER.

18. ALL PROPOSED TREES ARE TO BE INSTALLED EITHER ENTIRELY WITHIN PLANTING BEDS. PLANTING BED LINES ARE NOT TO BE OBSTRUCTED. ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BED AND TOP DRESSED WITH A 3-INCH THICK APPLICATION OF SHREDDED HARDWOOD MULCH. MULCH SHALL HAVE BEEN SHREDDED WITHIN THE LAST SIX MONTHS. 19. ALL PLANTING BEDS ADJACENT TO LAWN, SOD, OR SEEDED AREAS SHALL BE SPADE EDGED.

20. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT, ENGINEER OR OWNER'S REPRESENTATIVE. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, FERTILIZING, MULCHING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER.

. UPON COMPLETION OF ALL LANDSCAPING, INSPECTION FOR ACCEPTANCE OF THE WORK SHALL BE PERFORMED. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, ENGINEER OR OWNER FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION

2. PLANTER SOILS (IF AND WHERE REQUIRED) SHALL BE WELL-DRAINING AND FERTILE. SOILS SHALL BE SANDY-LOAM, FRIABLE MIX, FREE FROM EBRIS, ROCKS, ETC... SOIL TO BE 20% SAND AND 20% PEAT MIXED WITH 50% SELECTED WELL- DRAINED SOILS FROM THE SITE. BACKFILL SOILS SHALL BE AS NOTED ON THE PLANTING DETAILS.

23. ALL DISTRIBUTED AREAS OF THE SITE NOT PLANTED WITH SHRUBS OR GROUND COVER SHALL BE FINE GRADED AND SEEDED OR SODDED. 24. ALL PLANTING PROCEDURES SHALL CONFORM TO MUNICIPAL SPECIFICATIONS.

25. THIS PLAN IS TO BE USED FOR LANDSCAPING AND LIGHTING PURPOSES ONLY. THE CONTRACTOR SHALL EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINS ETC., AND NOTIFY THE OWNER ABOUT ANY DISCREPANCIES BEFORE STARTING WORK. 26. ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE AMERICAN STANDARD OF NURSERY STOCK (LATEST VERSION) AND SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY.

27. ALL PLANTS SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES & VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS AND ALL OTHER FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN. ALL PLANTS SHALL BE GRADE "A" NURSERY STOCK.

28. EXCAVATION NEAR EXISTING UTILITIES TO BE CAREFULLY PERFORMED BY HAND. ALL TREES SHALL BE LOCATED A MINIMUM OF 10' FROM ANY EXISTING OR PROPOSED UNDERGROUND UTILITIES.

29. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO THE FINISHED GRADE AS IT HAD TO EXISTING GRADE AT THE NURSERY. 30. FIELD ADJUST ALL PROPOSED PLANTING LOCATIONS TO AVOID ANY DAMAGE TO EXISTING UTILITIES, STRUCTURES, FACILITIES, AND VEGETATION. 31. ALL PLANTING MATERIAL IS TO BE GUARANTEED FOR A PERIOD OF 24 MONTHS FROM THE FINAL ACCEPTANCE OF THE PROJECT. IF ANY PLANTS ARE DEAD OR IN AN UNHEALTHY CONDITION BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE LANDSCAPE CONTRACTOR SHALL REPLACE THEM AT HIS EXPENSE

32. PRUNE NEWLY PLANTED TREES AS IF, AND AS DIRECTED BY THE LANDSCAPE ARCHITECT.

33. EVERGREEN TREES SHALL ONLY BE SHEARED IF, AND AS DIRECTED BY THE LANDSCAPE ARCHITECT.

INDICATED. TREE STAKES AND GUY WIRES SHALL BE REMOVED AFTER ONE GROWING SEASON.

34. PLANTS SHALL ONLY BE INSTALLED WHEN THE SOIL IS FROST FREE.

THE LANDSCAPE ARCHITECT, ENGINEER OR AGENT IN CHARGE.

35. UNDER NO CIRCUMSTANCES SHALL THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED. ALL PLANT MATERIAL PROVIDED IN THIS CONDITION SHALL BE REJECTED. 36. ALL DISTURBED AREAS TO BE TOPSOILED 4" THICK, FERTILIZED, SEEDED AND MULCHED. RELATIVELY LEVEL AREAS SHALL BE MULCHED WITH SMALL GRAIN STRAW. STEEPLY SLOPED AREAS SHALL BE TREATED AS SPECIFICALLY NOTED.

37. TOPSOIL SHALL BE NATURAL FRIABLE, FERTILE SOIL CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY. IT SHALL BE FREE OF LUMPS OF CLAY, STONES, ROOTS AND OTHER FOREIGN MATTER.

38. SHADE TREES LOCATED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BRANCH BELOW 7' ABOVE FINISHED GRADE. 39. ALL SHRUB MASSES SHALL FORM CONTINUOUS PLANTING BEDS AND SHALL BE MULCHED. FREESTANDING TREES SHALL BE BEDDED WITH A MULCH SAUCER, PER THE DETAILS.

40. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF BALL ONLY IF NON-JUTE ROPING IS USED. 41. THE DEPTH OF PLANTING PITS SHALL BE INCREASED BY 12" THROUGH THE ADDITION OF LOOSE AGGREGATE (3/4" TO 1-1/2" DIAMETER)

WHEREVER POOR DRAINAGE OCCURS OR WHERE DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER. 42. IF, AND WHERE STAKING IS REQUIRED, GUY WRES SHALL BE LOCATED SO THAT THEY WILL PUT UNDUE STRAIN ON BRANCH CROTCHES. WHERE USED, GUY TREES WITH WIRES TO THEIR SECOND BRANCH (MINIMUM ONE-THIRD HEIGHT OF TREE). USE TWO GUYS PER TREE UNLESS OTHERWISE

43. PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIMENS AND BE REASONABLY UNIFORM IN SIZE AND FORM.

44. MULCH, 3" IN DEPTH, SHALL BE DOUBLE-SHREDDED HARDWOOD MATERIAL NOT EXCEEDING 1 1/2" IN ITS GREATEST DIMENSION. 45. A PRE-EMERGENT WEED KILLER SHALL BE APPLIED TO ALL PLANTING BEDS AND MULCH SAUCERS FOR FREESTANDING TREES, IMMEDIATELY PRIOR TO THE APPLICATION OF MULCH ..

46. ALL PLANTS WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE ELEVATION OF CURB.

47. THE CONTRACTOR SHALL FERTILIZE ALL PLANT MATERIAL WITH 5-10-5 FERTILIZER, OR APPROVED EQUAL AT THE RATE SPECIFIED BY THE MANUFACTURER. ALL TURF AREAS SHALL BE LIMED AND FERTILIZED APPROPRIATELY FOR THE TYPES OF SOILS ON THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE SOIL ACIDITY AND A SOIL TEST CONDUCTED BY THE COUNTY SOIL DISTRICT OR EXTENSION SERVICE TO ESTABLISH THE SOIL'S LIME AND FERTILIZER RATES.

48. ONLY IF, AND WHERE REQUIRED BY THE MUNICIPALITY, TREES OVER SIX FEET IN HEIGHT MAY BE STAKED AT TIME OF INSTALLATION. 49. ALL WATER APPLIED TO PLANTED OR TURF AREAS SHALL BE FREE FROM IMPURITIES HARMFUL TO VEGETATION AND APPLIED AT A RATE OF 5 GALLONS OF WATER PER SQUARE YARD OF PLANT PIT IMMEDIATELY AFTER PLANTING AND INSTALLATION. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE IRRIGATION TO ALL PLANT MATERIALS AND LAWN AREAS INSTALLED AS PART OF THIS CONTRACT DURING THE CONSTRUCTION TIME PERIOD UP TO AND INCLUDING THE TIME PERIOD ESTABLISHED FOR PLANT MATERIAL SURVIVAL GUARANTEE. WATER APPLIED DURING THE GUARANTEE PERIOD SHALL BE AT THE RATE OF 1 INCH OF WATER PER WEEK, WITH AN ALLOWANCE FOR NATURAL PRECIPITATION AND RAINFALL.

50. BACKFILL MATERIAL FOR RAISED PLANT BEDS SHALL SHALL CONSIST OF NATURAL LOAM TOPSOIL, FREE FROM SUBSOIL, AND SHALL BE OBTAINED FROM AN AREA WHICH HAS NEVER BEEN STRIPPED. TOPSOIL SHALL HAVE BEEN REMOVED FROM A DEPTH OF NO MORE THAN 1 FOOT, OR LESS IF SUBSOIL IS ENCOUNTERED. TOPSOIL SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY HARD PAN, SODS, PARTIALLY DISINTEGRATED STONE, LIME CEMENT, TAR RESIDUES, CHIPS OR ANY OTHER UNDESIRABLE MATERIAL. 51. ALL PLANTS ARE SHOWN SEMI-MATURE SIZE ON PLANS. SIZES INDICATED IN PLANT LIST ARE SIZES AT TIME OF INSTALLATION.

52. PLANT MATERIAL SHOWN IN A MASS OR TOUCHING EACH OTHER SHALL BE ALLOWED TO GROW TOGETHER TO PERFORM AS A SCREEN OR A HEDGE. DO NOT PRUNE OR SHEER INTO INDIVIDUAL FREESTANDING PLANTS.

<u>LIGHTING NOTES</u>

- LIGHTING SHALL BE SHIELDED AND DIRECTED DOWN ONTO THE SITE SO AS NOT TO SHINE OR GLARE ONTO ADJACENT PROPERTY OR STREETS. LIGHTING SHALL NOT SHINE DIRECTLY OR REFLECT INTO WINDOWS OR SHINE ONTO STREETS AND
- DRIVEWAYS TO INTERFERE WITH DRIVER VISION. LIGHTS THAT HAVE A YELLOW, RED, GREEN, OR BLUE BEAM AND/OR THAT ROTATE,
- PULSATE, OR OPERATE INTERMITTENGLY ARE PROHIBITED. THE MAXIMUM HEIGHT OF LIGHTS SHALL BE 15 FEET MEASURED FROM THE
- SURROUNDING GRADE MERCURY VAPOR AND HIGH-PRESSURE SODIUM LIGHTING ARE NOT PERMITTED.
- 5. THE MAXIMUM COLOR TEMPERATURE OF ALL LIGHT FIXTURES SHALL BE 3,000K.











| | | | D-S ED / | eries Size Area Luminaire | Catalog Number Notes BAA Type Hit the Tab key or mous | e over the page to see all interactive o | dements. |
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| pecificat PA: ength: idth: eight H1: eight H2: reight: | "series (0.44 ft ² (0.04 m ²) 26.18" (66.5 cm) 14.06" (35.7 cm) 2.26" (5.7 cm) 2.26" (5.7 cm) 7.46" (18.9 cm) 23 lbs (10.4 kg) | | | H1 W | Introduc The mode highly refi with its en benefits o a high per luminaire. The photo with excel and lower photomet poles requ typical en service life | tion ern styling of the ned aesthetic the vironment. The f the latest in Ll formance, high ometric perform lent uniformity, power density. ry aids in reduc uired in area lig ergy savings of e of over 100,00 | e D-Series features a nat blends seamlessly D-Series offers the ED technology into efficacy, long-life nance results in sites greater pole spacing D-Series outstanding ing the number of hting applications, with 70% and expected 0 hours. |
| ordering sxoled | g Informa | tion | I | EXAMPLE: DSX0 LED | P6 40K 70CRI T3N | I MVOLT SPA N | ILTAIR2 PIRHN DDBXE |
| ries LED | | Color temperature ² | Color Rend Index ² | ering Distribution | | Voltage | Mounting |
| SXOLED Fo P1 P2 P3 P4 Rc P1 P1 | P5 P5 P6 P7 Dated optics 01 P121 11 P131 | (this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K | 70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI 80CRI | AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare ³ T4M Type IV medium T4LG Type IV low glare ³ TFTM Forward throw medium | T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control³ BLC4 Type IV backlight control³ LCC0 Left corner cutoff³ RCC0 Right corner cutoff³ | MV0LT (120V-277V) ⁴ HV0LT (347V-480V) ^{5,} XV0LT (277V-480V) ^{7,} 120 16, 24 208 16, 24 240 16, 24 247 16, 24 347 16, 24 480 16, 24 | Shipped included SPA Square pole mounting (#8 drilling, 3.5" min. SQ pole) RPA Round pole mounting (#8 drilling, 3" min. RND pole) SPA5 Square pole mounting (#5 drilling, 3" min. SQ pole) RPA5 Round pole mounting (#5 drilling, 3" min. RND pole) SPA8N Square narrow pole mounting (#8 drilling, 3" min. SQ pole) WBA Wall bracket ¹⁰ MA Mast arm adapter (mounts on 2.3/8" OD horizontal tenon) |
| ntrol options | | | | | Other options | | Finish (required) |
| h ipped installd LTAIR2 PIRHN IR ER ER5 | ed Light AIR gen 2 er ambient sensor, 8– sensor enabled at 2 High/low, motion/a height, ambient sen NEMA twist–lock re separate) ¹⁴ Five–pin receptacle | habled with bi-level motion / 40' mounting height, ambient fc. ^{11, 12, 18, 19} mbient sensor, 8–40' mounting sor enabled at 2fc ^{13, 18, 19} ceptacle only (controls ordered only (controls ordered separate) ^{14, 19} | PER7 FAO BL30 BL50 DMG | Seven-pin receptacle only (controls ordered separate) ^{14, 19} Field adjustable output ^{15, 19} Bi-level switched dimming, 30% ^{16, 19} Bi-level switched dimming, 50% ^{16, 19} 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ | Shipped installed HS Houseside shield (black fight) Left rotated optics 1 R90 Right rotated optics 1 CCE Coastal Construction 21 HA 50°C ambient operation 3 BAA Buy America(n) Act Com SF Single fuse (120, 277, 34 DF Double fuse (208, 240, 4) Shipped separately EGSR EGSDB Bird Spikes (field install r | 2 pliant 7V) ²⁴ 80V) ²⁴ ersible, field install g finish) equired) | DDBXDDark BronzeDBLXDBlackDNAXDNatural AluminumDWHXDWhiteDDBTXDTextured dark bronzeDBLBXDTextured blackDNATXDTextured natural aluminumDWHGXDTextured white |
| | THONIA SHTING. | One Lithonia Way © 2011-2023 Acuity | • Conyer Brands Lig | s, Georgia 30012 • Phone: 1-800-7(hting, Inc. All rights reserved. | BSDB Bird Spikes (field install r 5-SERV (7378) • www.lithor | equired) | DSX0-LE Rev. 09/05/2 Page 1 of |

POLE-MOUNTED LIGHT

| | D-Series Size 1 | Catalog Number | | | | |
|---|--|--|--|--|--|--|
| | LED Wall Luminaire | Notes | | | | |
| | | Туре | | | | |
| d"series | FRIENDLY | Hit the Tab key or mouse over the page to see all interactive elements. | | | | |
| Specifications | | Introduction | | | | |
| Luminaire | Back Box (BBW, E20WC) | The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount | | | | |
| Width: 13-3/4 Weight: 12 IDS (34.9 cm) (5.4 kg) | Width: 13-3/4 Dow 5 lbs (34.9 cm) Weight: (2.3 kg) | applications. It features a sleek, modern design | | | | |
| Depth: 10" (25.4 cm) | Depth: 4" E20WC 10 lbs (10.2 cm) Weight: (4.5 kg) | and is carefully engineered to provide long-lasting | | | | |
| Height: 6-3/8" (16.2 cm) | Height: 6-3/8" (16.2 cm) | and control options for customized performance. | | | | |
| | D W | With an expected service life of over 20 years of | | | | |
| | | nignttime use and up to /4% in energy savings over comparable 250W metal halide luminaires. | | | | |
| w | For 3/4" NPT side-entry | the D-Series Wall is a reliable, low-maintenance | | | | |
| | CONDUIT (DDAA OUIÀ) | lighting solution that produces sites that are exceptionally illuminated. | | | | |
| Ordering Information | | | | | | |
| DSXW1 LED | | | | | | |
| Series LEDs Drive Current | Color temperature Distribution Voltage M | lounting Control Options | | | | |
| DSXW1 LED 10C 10 LEDs (one engine) 350 350 mA 20C 20 LEDs (two engines) 1 700 700 mA 1000 1000 mA (1 A) 1 | 30K3000 KT2SType II ShortMVOLT 2S40K4000 KT2MType II Medium120 350K5000 KT3SType III Short208 3AMBPCAmber phosphor convertedT3MType III Medium240 3TFTMForward Throw Medium347 3.4480 3.4 | Shipped included Shipped installed (blank) Surface mounting bracket PE Photoelectric cell, button type ⁶ BBW Surface-mounted back box (for conduit entry) ⁵ PIR 180° motion/ambient light sensor, <15' mtg ht ^{1,7} PIRH 180° motion/ambient light sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{1,7} PIRHTFC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{1,7} E20WC Emergency battery backup (includes external component enclosure), CA Title 20 compliant ^{8,9} | | | | |
| | | | | | | |
| Other Options | Finish (required) | | | | | |
| Shipped installed Shipped sepa SF Single fuse (120, 277 or 347V) ^{3,10} BSW Bird DF Double fuse (208, 240 or 480V) ^{3,10} VG Vanda HS House-side shield ¹¹ DDL Diffus SPD Separate surge protection ¹² 24 24 | arately ¹¹ DDBXD Dark bronze DSSXD Sa deterrent spikes DBLXD Black DDBTXD Te al guard DNAXD Natural aluminum DBLBXD Te sed drop lens DWHXD White DNATXD Te | andstone DWHGXD Textured white extured dark bronze DSSTXD Textured sandstone extured black extured natural aluminum | | | | |
| Accessories NOTES Ordered and shipped separately. 1 20C 1000 DSXWHS U House-side shield (one per light engine) 3 Single fuse (DF) requi DSXWBSW U Bird-deterrent spikes PIRH. DSXWIVG U Vandal guard accessory 5 Back box so ordered at available w Photocont available w 7 Reference | is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V. iver operates on any line voltage from 120-277V (50/60 Hz). e (SF) requires 120, 277 or 347 voltage option. Double fuse res 208, 240 or 480 voltage option. able with 20C, 700mA or 1000mA. Not available with PIR or ships installed on fixture. Cannot be field installed. Cannot be s an accessory. trol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not with motion/ambient light sensors (PIR or PIRH). Motion Sensor table on page 3. | 8 Same as old ELCW. Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at <u>www.lithonia.com</u> 9 Not available with SPD. 10 Not available with E20WC. 11 Also available with E20WC. 12 Not available with E20WC. | | | | |
| One Lithon © 2013-2023 | ia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV () 8 Acuity Brands Lighting, Inc. All rights reserved. | 7378) • www.lithonia.com DSXW1-LED Rev. 1/18/23 | | | | |
| | BUILDING-MOUNTE | D LIGHT | | | | |

| | | D A TE | DECODIDITION | | | | |
|----|----------------------|--------------|------------------------|---|--------|-------------|--|
| RE | <u>v. nu.</u> | | LIGHTING | G DETAILS | | | |
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| | | | 227 EAST M | IAIN STREET | | | |
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| | | | FOR MICHAEL | & CARA ROSE | | | |
| | BOROUGH OF MANASQUAN | | | | | | |
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| | | | | 2517 Route 35, Bldg E, Ste 203 Manasguan, NJ 08736 | | | |
| | $\langle F$ | \mathbf{R} | NGINEERING | P: (732)722.8555 F: (732)722.8557 KBAengineers.com | | | |
| | | | ERVICES LLC | Plans@KBAengineers.com | | СНК | |
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CONCRETE VERTICAL CURB N.T.S.





┏4" WIDE, LONG−LIFE EPOXY PAINTED BLUE STRIPES





N.T.S.

JOSEPH J. KOCIUBA, P.E., P.P. P.E. License No.: GE45850

KBA

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ngineering | Planning Certificate of Authority No.: 24GA28220500

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STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

DEFINITION ESTABLISHMENT OF PERMANENT VEGETATIVE COVER ON EXPOSED SOILS WHERE PERENNIAL VEGETATION S NEED FOR LONG-TERM PROTECTION.

TO PERMANENTLY STABILIZE THE SOIL, ENSURING CONSERVATION OF SOIL AND WATER, AND TO ENHANCE THE ENVIRONMENT. WATER QUALITY ENHANCEMEN

SLOWS THE OVER-LAND MOVEMENT OF STORMWATER RUNOFF, INCREASES INFILTRATION AND RETAINS SOIL AND NUTRIENTS ON SITE, PROTECTING STREAMS OR OTHER STORMWATER CONVEYANCES. WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE A POTENTIAL FOR CAUSING OFF-SITE ENVIRONMENTAL DAMAGE. METHODS AND MATERIALS

I. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR I AND GRADING.
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. II. SEEDBED PREPARATION
- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED. ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1.000 SQUARE OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED. APPLY ONE-HALF THE RATE DESCRIBED ABOVE ING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH F 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. ONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED
- C. HIGH ACID PRODUCING SOILS. SOILS HAVING A pH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A pH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

III. SEEDING

- A. SELECT A MIXTURE FROM TABLE 4.2 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMANATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
 - 1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS STABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80& VEGETATIVE COVER WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE
 - 2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH HIGH TEMPERATURES, GENERALLY 85'F AND ABOVE. SEE TABLE 4-3 MIXTURES 1-7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.
 - 3. COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85'F. MANY GRASSES BECOME ACTIVE AT 65'F. SEE TABLE 4-3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.
- B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, OR CULTIPACKER SEEDER. EXCEPT FÒR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH. BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARY, AND IMPROVE SEEDING EMERGENCE, THIS S THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED
- D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR IRAILER-MOUNTED TANK. WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXIN(SEED. WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. <u>MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED</u>, SHORT-FIBERED MULCH MAY E APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH

IV. MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT
- A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT). THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED
- APPLICATION- SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
- 1. <u>PEG AND TWINE</u> DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKE MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TW BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- <u>MULCH NETTINGS</u> STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 3. <u>CRIMPER (MULCH ANCHORING TOOL)</u> A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSAL BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY, OR STRAW
- a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE
- b. USE ONE OF THE FOLLOWING:
- (1) ORGANIC AND VEGETABLE BASED BINDERS NATURALLY OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY URING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS, MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE
- (2) SYNTHETIC BINDERS HIGH-POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS
- NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
- B. WOOD-FIBER OR PAPER-FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS, (PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS. USED AT THE RATE OF 1.500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. <u>MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED</u>, USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN
- C. PELLETIZED MULCH COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS. WHEN APPLIED TO A SEEDED AREA AND WATERED. FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT TH RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCI ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

V. IRRIGATION (WHERE FEASIBLE

IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES. VI. TOPDRESSING

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A- SEEDBED PREPARATION IN THIS STANDARD. NO FOLLOW-UP OF TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED VII. ESTABLISHING PERMANENT VEGETATIVE STABLIZATION

THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT RE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4-2 ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A <u>REPORT OF COMPLIANCE</u> FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR

OTHERWISE MISMANAGED. TABLE 4-2 PERMANENT STABLIZATION MIXTURES FOR VARIOUS USES

| | PLANTING MIXTURES BY SOIL DRAINAGE CLASS (SEE TABLE 4-3) | | | | | | | | | |
|--|--|---|---|--|--|--|--|--|--|--|
| APPLICATION | EXCESSIVELY <u>DRAINED</u> | WELL TO MODERATELY WELL <u>DRAINED</u> | SOMEWHAT POORLY TO POORLY <u>DRAINED</u> | | | | | | | |
| RESIDENTIAL/ COMMERCIAL LOTS | 10, 12, 15 | 6, 10, 12, 13, 14, 15 | 16 | | | | | | | |
| POND AND CHANNEL BANKS, DIKES, BERMS, AND DAMS | 2, 5, 6, 10 | 5, 6, 7, 8, 9, 15 | 2, 8, 16, 17 | | | | | | | |
| DRAINAGE DITCHES, SWALES, DETENTION BASINS | 2, 9, 11 | 2, 7, 9, 11, 12, 17 | 2, 9, 16, 17 | | | | | | | |
| FILTER STRIPS | 12 | 11, 12 | 11, 12 | | | | | | | |
| GRASSES, WATERWAY, SPILLWAYS | 2, 3, 9, 10, 12 | 6, 7, 9, 10, 11, 12 | 2, 9, 11, 12 | | | | | | | |
| RECREATION AREAS, ATHLETIC FIELDS | 5, 12, 15, 18 | 12, 13, 14, 15, 18 | 16 | | | | | | | |
| SPECIAL PROBLEM SITES STEEP SLOPES AND BANKS, ROADSIDES, BORROW AREAS | 2, 3, 4, 6 | 2, 3, 5, 7, 8, 9, 10, 15, 18 | 2, 9, 10, 11, 12 | | | | | | | |
| SAND AND GRAVEL PITS, SANITARY LANDFILLS | 1, 2, 3, 4, 6, 20 | 1, 2, 3, 4, 5, 6, 8, 15, 20 | 2, 8 | | | | | | | |
| DREDGED MATERIAL, SPOILBANKS, BORROW AREAS | 2, 3, 6, 20 | 2, 3, 6, 11 | 2, 8 | | | | | | | |
| STREAMBANKS & SHORELINES | 2, 8, 20, 21A | 2, 8, 19B, 20, 21A, 21B | 2, 8, 19A, 21A,B,C,D | | | | | | | |
| UTILITY RIGHTS-OF-WAY | 3, 7, 180 | 3, 7 | 8, 9, 17 | | | | | | | |

1. REFER TO SOIL SURVEYS FOR DRAINAGE CLASS DESCRIPTIONS. 2. REFER TO SOIL BIONENGINEERING STANDARD FOR ADDITIONAL SEED MIXTURES. 4. SEE APPENDIX E FOR DESCRIPTION OF TURF GRASSES AND CULTIVARS.

TABLE 4-3 SEED MIXTURES (PERMANENT SEED MIXTURES #14 OR #15 PREFERRED)

| | PLANTING RATE | | PLANTING DATES O= Optimal planting period A= Acceptable PLanting Period | | | | | | | | | | | |
|--|----------------------------|---------------------------------|---|------------------|----------------|-------------------|------------------|----------------|-----------------|------------------|----------------|--------------|---|--|
| SEED MIXTURE | PLAN (P | OUNDS) | ZON | E 5b, | 6s | | ONE 6 | ib ib | ZON | NE 7a | , b | IANCE L/4 | REMARKS | |
| | LBS PER ACRE | LBS/ 1,000 SQ. FEET | 3/15- 5/31 | 6/1- 7/31 | 8/1- 10/1 | 3/1- 4/30 | 5/1- 8/14 | 8/15- 10/15 | 2/1- 5 4/30 | 5/1- 8/14 | 8/15- 10/30 | MAINTEN | | |
| | | | WA | rm se | EASO | N SEE | D MIX | TURE | | | | | 1 | |
| 1. SWITCHGRASS AND/ OR COASTAL PANICGRASS PLUS OR FLATPEA | 15 15 20 | .35 .35 .45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ο | C-D | | |
| 2. DEERTOUNGE OR SWICHGRASS REDTOP | 15 15 1 | .35 .35 .1 | 0 | | | 0 | | | 0 | | | C-D | USE DEERTONGUE IF pH <4.0. SWITCHGRASS IS SUPERIOR WILDLIFE PLANT. USE FOR WATERWAYS. REDTOP PROVIDES QUICK COVER. | |
| 3. SWITCHGRASS DEERTOUNGE LITTLE BLUESTEM SHEEP FESCUE PLUS PARTRIDGE PEA | 15 10 20 20 10 | .35 .25 .45 .45 .25 | 0 | | | 0 | | | 0 | | | C-D | PINELANDS MIXTURE | |
| 4. SWITCHGRASS BIG BLUESTEM LITTLE BLUESTEM SAND LOVEGRASS COASTAL PANICGRASS | 10 5 5 4 10 | .25 .10 .10 .10 .25 | 0 | | | 0 | | | 0 | | | C-D | NATIVE WARM-SEASON MIXTURE. | |
| 5. BERMUDAGRASS ZOYSIAGRASS (SEED) ZOYSIAGRASS (SPRIGS) | 15 30 | .35 .70 | 0 | | | 0 | | | 0 | | | C-D | BERMUDAGRASS HAS SUPERIOR SALT TOLERANCE. ZOYSIA HAS GREATER WEAR TOLERANCE | |
| | 1 | I | COOL | SEAS | SON S | SEED N | I AIXTUF | RE | 1 | | | | I | |
| 6. FINE FESCUE (BLEND) HARD FESCUE CHEWINGS FESCUE STRONG CREEPING RED FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS PLUS WHITE CLOVER (SEE NOTE AT RIGHT) | 45 20 5 | .1 .5 .1 | | | | | | | | | | B-D | WHITE CLOVER CAN BE REMOVED WHEN USED TO ESTABLISH LAWNS | |
| 7. STRONG CREEPING RED FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS OR REDTOP PLUS WHITE CLOVER | 130 50 20 10 5 | 3 1 .5 .25 .10 | A | A ⁵ | 0 | A | A5 | 0 | A | A⁵ | 0 | B-D | SUTIABLE WATERWAY MIX. CANADA BLUEGRASS MORE DROUGHT TOLERANT. USE REDTOP FOR INCREASED DROUGHT TOLERANCE. | |
| 8. TALL FESCUE (TURF-TYPE) OR STRONG CREEPING RED FESCUE OR PERENNIAL RYEGRASS FLATPEA | 30 30 30 25 | .7 .7 .7 .60 | 0 | A ⁶ | | 0 | A ⁶ | | 0 | A ⁶ | | B-D | TALL FESCUE BEST SELECTED FOR DROUGHTY CONDTIONS. USE CREEPING RED FESCUE IN HEAVY SHADE. USE FLATPEA TO SUPPRESS WOODY VEGETATION. | |
| 9. DEERTONGUE REDTOP WILD RYE (ELYMUS) SWITCHGRASS | 20 2 15 25 | .45 .05 .35 .60 | 0 | | | 0 | | | 0 | | | C-D | NATIVE WET MIX. | |
| 10.TALL FESCUE (TURF-TYPE) PERENNIAL RYEGRASS OR WHITE CLOVER | 265 20 5 | 6 5 .10 | ο | A ⁵ | A ⁵ | 0 | A ⁵ | A5 | 0 | A5 | A5 | C-D | WHITE CLOVER CAN BE EXCLUDED ON LAWN SITES. | |
| 11. KENTUCKY BLUEGRASS TURF-TYPE TALL FESCUE | 45 22 | 1 5 | A | A ⁵ | 0 | A | A ⁵ | 0 | A | A ⁵ | 0 | C-D | FILTER STRIPS USE FOR NUTRIENT UPTAKE. | |
| 12.TURF-TYPE TALL FESCUE (BLEND OF 3 CULTIVARS) | 350 | 8 | A | A⁵ | 0 | A | A⁵ | 0 | A | A⁵ | 0 | C-D | USE IN A MANAGED FILTER STRIP FOR NUTRIENT UPTAKE. | |
| 13.HARD FESCUE AND/OR CHEWING FESCUE AND/OR STRONG CREEPING RED FESCUE PERENNIAL RYEORASS KY. BLUEGRASS (BLEND) | 175 45 45 | 4 1 1 | A | A ⁵ | 0 | A | A ⁵ | 0 | А | A ⁵ | 0 | A-C | GENERAL LAWN/ RECREATION. | |
| 14.TALL FESCUE KY. BLUEGRASS (BLEND) PERENNIAL RYEGRASS | 265 20 20 | 6 .50 .50 | A | A ⁵ | 0 | A | A ⁵ | 0 | A | A5 | ο | A-B | ATHLETIC FIELD/ 3 CULTIVAR MIX OF KENTUCKY BLUEGRASS. | |
| 15.HARD FESCUE CHEWING FESCUE STRONG CREEPING RED FESCUE PERENNIAL RYEGRASS | 130 45 45 10 | 3 1 1 .25 | A | A5 | 0 | A | A ⁵ | 0 | A | A ⁵ | ο | C-D | LOW-MAINTENANCE FINE FESCUE MIX. | |
| 16.ROUGH BLUEGRASS STRONG CREEPING RED FESCUE | 90 130 | 2 3 | A | A⁵ | 0 | A | A5 | 0 | A | A5 | 0 | C-D | MOIST SHADE. | |
| 17.CREEPING BENTGRASS CREEPING RED FESCUE ALKALI SALTGRASS | 45 45 45 | 1 1 1 | A | A ⁵ | 0 | A | A ⁵ | o | A | A⁵ | 0 | B-D | USE BENTGRASS UNDER WETTER CONDTIONS. SALTGRASS WILL ONLY PERSISENT UNDER SALINE CONDTIONS. | |
| 18.HARD OR SHEEP FESCUE N.E. WILDFLOWER MIXTURE | 25 12 | .60 .35 | 0 | A | 0 | 0 | A | 0 | 0 | A | 0 | C-D | REGIONAL WILDFLOWER MIX HYDROSEEDING NOT RECOMENDED. | |
| 19.a. SMOOTH COORDGRASS b. SALTMEADOW CORDGRASS | VEG VEG | | | | | 0 | BEFORE JULY 1 | | 0 | BEFORE JULY 1 | | D | PLANTED IN THE INTERTIDAL ZONE. PLANTED ABOVE MEAN HIGH TIDE. | |
| 20 AMERICAN BEACH GRASS COASTAL PANICGRASS | VEG 20 | .45 | | | | BEFORE APRIL 1 | | | 0 | | | D | MAY BE INTERSEEDED BETWEEN ROWS OF BEACHGRASS | |
| 21.a. PURPLEOSIER WILLOW b. DWARF WILLOW c. REDOSIER DOGWOOD D. SILKY DOGWOOD | VEG VEG VEG VEG | | | BEFORE MAY 10 | | BEFORE MAY 10 | | | BEFORE MAY 1 | | | D | ALSO REFER TO CHAPTERS 16 AND 18 OF USDA NRCS ENGINEERING FIELD HANDBOOK | |

- 1. SEE APPENDIX B FOR DESCRIPTION OF TURF GRASS MIXTURES AND CULTIVARS. THE ACTUAL AMOUNT OF WARM-SEASON GRASS MIXTURE USED IN TABLE 3 (SEED MIX 1-7) SHALL BE ADJUSTED TO REFLECT THE
- AMOUNT OF PLS AS DETERMINED BY GERMINATION TESTING RESULTS. NO ADJUSTMENT IS REQUIRED FOR COOL-SEASON GRASSES (SEED MIXTURES 8-20). 2. SEEDING MIXTURES AND/OR RATES NOT LISTED ABOVE MAY BE USED IF RECOMMENDED BY THE LOCAL SOIL CONSERVATION DISTRICT, NATURAL RESOURCES CONSERVATION SERVICE; RECOMMENDATIONS OF RUTGERS COOPERATIVE EXTENSION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. LEGUMES (WHITE
- CLOVER, FLATPEA, LESPEDEZA) SHOULD BE MIXED WITH PROPER INNOCULANT PRIOR TO PLANTING. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL ETHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE OF THE SEEDED AREA AND MOWED ONCE. GRASS SEED MIXTURE CHECKED BY THE STATE SEED ANALYST, NEW JERSEY DEPARTMENT OF AGRICULTURE, TRENTON, NEW JERSEY, WILL ASSURE THE PURCHASER THAT THE MIXTURE OBTAINED IS THE MIXTURE
- DRDERED, PURSUANT TO THE NJ STATE SEED LAW, N.J.S.A. 4:8-17.13 ET. SEQ. 4. MAINTENANCE LEVEL: A. INTENSIVE MOWING, (2-4 DAYS), FERTILIZATION. LIME, PEST CONTROL AND IRRIGATION (EXAMPLES -HIGH-MAINTENANCE LAWNS, COMMERCIAL AND RECREATION AREAS, PUBLIC FACILITIES). B. FREQUENT MOWING, (4-7 DAYS), OCCASIONAL FERTILIZATION, LIME AND WEED CONTROL (EXAMPLES -

HOME LAWNS, COMMERCIAL SITES, SCHOOL SITES).

- C. PERIODIC MOWING, (7-14 DAYS). OCCASIONAL FERTILIZATION AND LIME (EXAMPLES HOME LAWNS, PARKS). D. INFREQUENT OR NO MOWING, FERTILIZATION AND LIME THE FIRST YEAR OF ESTABLISHMENT (EXAMPLES -ROADSIDES, RECREATION AREAS, PUBLIC OPEN SPACES). 5. SUMMER SEEDINGS SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MIXES INCLUDING WHITE CLOVER
- REQUIRE THAT AT LEAST SIX WEEKS OF GROWING SEASON REMAIN AFTER SEEDING TO ENSURE ESTABLISHMENT BEFORE FREEZING CONDITIONS

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

DEFINITION ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER ON SOILS EXPOSED FOR PERIODS OF TWO TO SIX MONTHS, WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS.

O TEMPORARILY STABILIZE THE SOIL AND REDUCE DAMAGE FROM WIND AND WATER EROSION UNTIL PERMANENT STABILIZATION IS ACCOMPLISHED.

WATER QUALITY ENHANCEMENT PROVIDES TEMPORARY PROTECTION AGAINST THE IMPACTS OF WIND AND RAIN, SLOWS THE OVER LAND MOVEMENT OF STORMWATER RUNOFF. INCREASES INFILTRATION AND RETAINS SOIL AND NUTRIENTS ON SITE. PROTECTING STREAMS OR OTHER STORMWATER CONVEYANCES. WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE THE POTENTIAL FOR CAUSING OFF-SITE ENVIRONMENTAL DAMAGE.

- METHODS AND MATERIAL I. SITE PREPARATION
- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, P. 19-1
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42
- C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.) II. SEEDBED PREPARATION
- A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDED IS PREPARED.
- C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
- D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS, REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG, 1-1. III. SEEDING
- A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7.2

TABLE 7-2 TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH

| | SEEDI (P | ING RATES ¹ OUNDS) | OPTIMI BASED ON | OPTIMUM SEED | | |
|---------------------------------|-------------|----------------------------------|----------------------------|------------------------------|------------------------------|----------|
| SEED SELECTIONS | PER ACRE | PER 1,000 SQ. FEET | ZONE 5b, 6s | ZONE 6b | ZONE 7a, b | (INCHES) |
| COOL SEASON GRASSES | | | | | | |
| PERENNIAL RYEGRASS | 100 | 1.0 | 3/15 TO 6/1 8/1 TO 9/15 | 3/1 TO 5/15 8/15 TO 10/1 | 2/15 TO 5/1 8/15 TO 10/15 | 0.5 |
| SPRING OATS | 86 | 2.0 | 3/15 TO 6/1 8/1 TO 9/15 | 3/15 TO 5/15 8/15 TO 10/1 | 2/15 TO 5/1 8/15 TO 10/15 | 1.0 |
| WINTER BARLEY | 96 | 2.2 | 8/1 TO 9/15 | 8/15 TO 10/1 | 8/15 TO 10/15 | 1.0 |
| ANNUAL RYEGRASS | 100 | 1.0 | 3/15 TO 6/1 8/1 TO 9/15 | 3/15 TO 6/1 8/15 TO 10/1 | 2/15 TO 5/1 8/15 TO 10/15 | 0.5 |
| WINTER CEREAL RYE | 112 | 2.8 | 8/1 TO 11/1 | 8/1 TO 11/15 | 8/1 TO 12/15 | 1.0 |
| WARM SEASON GRASSES | | | | | | |
| PEARL MILLET | 20 | 0.5 | 6/1 TO 8/1 | 5/15 TO 8/15 | 5/1 TO 9/1 | 1.0 |
| MILLET (GERMAN OR HUNGARIAN) | 30 | 0.7 | 6/1 TO 8/1 | 5/15 TO 8/15 | 5/1 TO 9/1 | 1.0 |

- 1. SEEDING RATE FOR WARM SEASON GRASS, SELECTIONS 5-7 SHALL ADJUSTED TO REFLECT THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT IS
- REQUIRED FOR COOL SEASON GRASSES. 2. MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE
- OR SEEDED AREA CAN BE IRRIGATED 3. PLANT HARDINESS ZONE (SEE FIGURE 7-1, PG. 7-4).
- 4. TWICE THE DEPTH FOR SANDY SOILS.

- B. CONVENTIONAL SEEDING APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, OR CULIPACKER SEEDER, EXCEPT FOR DRILLED. HYDROSEEDED. OR CULTIPACKED SEEDINGS. SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.
- C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMF FOR MIXING SEED. WATER. AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDED MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION IV MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH, HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
- D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE THIS IS THE PREFERRED METHOD, WHEN PERFORMED ON THE CONTOUR. SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL MAXIMIZED. IV. MULCHING

MULCHING IS REQUIRED ON ALL SEEDING, MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

A. STRAW OR HAY, UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT). THE RATE OF APPLICATION IS 3 TONS PER ACRE, MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED. APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WIL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FOOT SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION

- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS. PEG AND TWINE: DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE
- 2. MULCH NETTINGS, STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 3. CRIMPER (MULCH ANCHORING TOOL), A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERAT IN THE CONTOUR OF THE SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS
- 4. LIQUID-MULCH BINDERS MAY BE USED TO ANCHOR HAY OR STRAW MULCH. a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE. b. USE ONE OF THE FOLLOWING:
 - (1) ORGANIC AND VEGETABLE BASED BINDERS NATURALLY OCCURRING. POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC FEFECT OR IMPEDE GROWTH OF TUREGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
 - (2) SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHAL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS. NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION

B. WOOD-FIBER OR PAPER-FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS, OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT. WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS FERTILIZERS, AND COLORING AGENTS, THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ÓN SMALL LAWN OR RENOVATION ARE SEEDED AREAS WHERE WATER-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIERS AGENT ARE NO PRACTICAL OR DESIRABLE

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

STANDARD FOR STABILIZATION WITH MULCH ONLY

DEFINITION STABILIZING EXPOSED SOILS WITH NON-VEGETATIVE MATERIALS EXPOSED FOR PERIODS LONGER THAN 14 DAYS PURPOSE TO PROTECT EXPOSED SOIL SURFACES FROM EROSION DAMAGE AND TO REDUCE OFFSITE

ENVIRONMENTAL DAMAGE. WATER QUALITY ENHANCEMENT PROVIDES TEMPORARY MECHANICAL PROTECTION AGAINST WINDFALL OR RAINFALL INDUCED

SOIL EROSION UNTIL PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED. WHERE APPLICABLE

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO EROSION, WHERE THE SEASON AND OTHER CONDITIONS MAY NOT BE SUITABLE FOR GROWING AN EROSION-RESISTANT COVER OR WHERE STABILZATION IS NEEDED FOR A SHORT PERIOD UNTIL MORE SUITABLE PROTECTION CAN BE APPLIED.

METHODS AND MATERIALS I. SITE PREPARATION

- A. GRADE, AS NEEDED AND FEASIBLE, TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42. II. PROTECTIVE MATERIALS
- A. UNROTTED SMALL GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIEDOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
- C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES RECOMMENDED BY THE MANUFACTURER.
- D. WOOD-FIBER OR PAPER-FIBER MULCH AT A RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER
- E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON OR PLASTIC, MAY BE USED
- F. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
- G. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.

III. MULCH ANCHORING -SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF THE SLOPES.

- A. PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS
- B. MULCH NETTINGS STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER HAY OR STRAW MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG
- C. CRIMPER MULCH ANCHORING COULTER TOOL A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE HIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT ITS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOI PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE DONE ON THE CONTOUR D. LIQUID-MULCH BINDERS
- 1. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE
- SHOULD BE UNIFORM IN APPEARANCE. 2. USE OF ONE OF THE FOLLOWING
- (a) ORGANIC & VEGETABLE BASED BINDERS NATURALLY OCCURRING POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE
 - PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTO-TOXI EFFECT OR IMPEDE GROWTH OR TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER. SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLI
- WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR SIBLE IN WATER, IT SHALL BE APPLIED AT RATES WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

STANDARD FOR TREE PROTECTION DURING CONSTRUCTION

THE PROTECTION OF TREES FROM ENVIRONMENTAL AND MECHANICAL INJURY DURING CONSTRUCTION ACTIVITIES. PURPOS

TO PROTECT TREES FOR EROSION AND SEDIMENT CONTROL, SHADE, AESTHETICS, WILDLIFE, DUST CONTROL, NOISE ABATEMENT, AND OXYGEN PRODUCTION.

WATER QUALITY ENHANCEMENT LIMITING AREAS OF SITE DISTURBANCE AND RE-VEGETATING WITH PERMANENT COVER, MINIMIZES OFF SITE AND NEGATIVE DOWNSTREAM WATER QUALITY IMPACTS CAUSED BY STORMWATER RUNOFF. MATURE TREES PROVIDE STRUCTURAL STABILITY FOR SOILS, PROMOTE PROPER WATER MOVEMENT THROUGH THE SOIL PROFILE AND MODERATE CHANGES IN TEMPERATURE ALONG STREAMS AND OTHER WATER BODIES. WHERE APPLICABLE

ON NEW DEVELOPMENT SITES WITH EXISTING TREES.

- METHODS AND MATERIALS RECONNAISSANCE SHOULD BE PERFORMED LAND CLEARING BEGINS TO IDENTIFY DEAD AND WEAK TREES TO BE REMOVED AND HEALTHY TREES TO REMAIN. TO CREATE AESTHETICALLY PLEASING DEVELOPMENT SITE WITH VEGETATION RATHER THAN THE PRESENCE OF DEAD OR DYING TREES. INVENTORY THE SITE AND CLEARLY MARK THE TREES AND STANDS OF TREES TO BE SAVED. CONSIDER RELOCATING STREETS, HOUSES, OR OTHER STRUCTURES IF NECESSARY AND FEASIBLE. ONCE CLEARING BEGINS AND DAMAGE TO THE TREES OCCURS, VALUABLE SPECIMENS
- A. CHARACTERISTICS OF TREES TO BE PROTECTED AND SAVED. THE FOLLOWING LISTS CHARACTERISTICS SHOULD BE EVALUATED BEFORE DECIDING TO REMOVE OR PROTECT A TREE. 1. TREE VIGOR
 - TREE HEALTH IS THE OVERALL CONDITION OF THE TREE. A TREE OF LOW VIGOR IS MORE SUSCEPTIBLE TO DAMAGE BY ENVIRONMENTAL CHANGES THAN HEALTHY TREES AND IS MORE SUSCEPTIBLE TO INSPECT AND DISEASE ATTACKS. INDICATIONS OF POOR VIGOR INCLUDE THE DYING OF THE TOPS OF BRANCHES ENTIRE LIMBS, SMALL ANNUAL TWIG GROWTH, STUNNED LEAF SIZE, SPARSE FOLIAGE, AND POOR FOLIAGE COLOR. AVOID SAVING HOLLOW OR ROTTEN TREES, TREES CRACKED, SPLIT, LEANING OR CROOKED, OOZING SAP OR WITH BROKEN TOPS. USE WOODCHIPS GENERATED FROM REMOVAL OF TREES OF POOR HEALTH AND SPREAD THEM AROUND THE ROOT ZONES TO HELP PROTECT THE TREES THAT REMAIN.
- 2. TREE AGE
- LARGE, PICTURESQUE TREES MAY BE AESTHETICALLY VALUABLE THAN SMALLER, YOUNG TREES, BUT ALSO REQUIRE MORE EXTENSIVE PROTECTION MEASURES. IF LEAVING AN OLDER TREE, BE SURE IT IS SOUND AND
- 3. SPECIES (THE RIGHT TREE FOR THE RIGHT LOCATIONS) MANY SPECIES OF TREES FOUND IN NEW JERSEY WOODLANDS ARE NOT SUITABLE FOR SHADE TREE USES AROUND BUILDINGS. AVOID PROTECTING TREES THAT ARE SHORT-LIVED, BRITTLE, HAVE SOFT WOOD, MESSY LEAVES, FRUIT, OR ARE FREQUENTLY ATTACKED BY INSECTS AND DISEASE. TREE ROOT SYSTEMS WHICH DO NOT ADAPT WELL TO CUTS AND FILLS MAY NOT BE A SUITABLE ALTERNATIVE. THE FOLLOWING ARE SEVERELY AFFECTED BY COMPACTED CONSTRUCTION FILLS: ASPEN, BEECH, PAPER BIRCH, EASTERN RED CEDAR, BLACK WHITE OAK, PINES, AND TULIPTREE. SEE TABLE 9-1 FOR A MORE COMPLETE LIST OF CONSTRUCTION IMPACTS TO INDIVIDUAL TREE SPECIES.
- 4. RESISTANT TO INSECTS AND DISEASES SUMMER. THE FOLLOWING ARE SUSCEPTIBLE TO INSECTS (I) AND DISEASE (D): WHITE ASH (D), BIRCH (I),
- MOUNTAIN ASH (D), SASSAFRAS (I), SCHOLARTREE (D), REDBUD (D). 5. TREE AESTHETICS
- 6. SPRING AND AUTUMN COLORATION
- NO AUTUMN COLOR. SUCH AS WALNUT, LOCUST, AND SYCAMORE. 7. WILDLIFE BENEFITS
- ARE MORE VALUABLE FOR FOOD.
- 8. WILDLIFE BENEFITS (TUPELO), SWEETGUM, YEWS, ZELKOVA

MULCH, IN VALLEYS AND AT CRESTS OF BANKS. REMAINDER OF AREA

CHERRY, DOGWOOD, KATSURA TREE, LINDEN, PAPERBARK MAPLE, SUGAR MAPLE, BLACK OAK, PIN OAK, RED OAK,

AVOID LEAVING TREES IN HIGHLY VISIBLE AREAS OR SPECIMENS THAT ARE FREQUENT TARGETS OF INSECTS AND DISEASES. AMERICAN ELM, FOR EXAMPLE, COULD BE LOST DUE TO DUTCH ELM DISEASE, WILD CHERRY, ANOTHER EXAMPLE, IS A FAVORITE HOST OF THE TENT CATERPILLAR, WHICH CAUSES DEFOLIATION OF THE TREES IN EARLY BUTTERNUT (D), CRABAPPLES (D), SOME ELMS (D), HAWTHORN (D), HEMLOCK (I), LINDEN (I), SUGAR MAPLE (D),

CHOOSE TREES THAT ARE AESTHETICALLY PLEASING, EXHIBITING GOOD SHAPE AND FORM, AVOID LEANING, CROOKED AND MISSHAPEN TREES. OCCASIONALLY, AN ODD-SHAPED TREE OR ONE OF UNUSUAL FORM MAY ADD INTEREST TO THE LANDSCAPE IF STRATEGICALLY LOCATED. BE SURE THE TREE IS STRUCTURALLY SOUND AND VIGOROUS.

SPECIES DIFFER IN FALL COLOR. SOME ARE BRIGHT RED, OTHERS ORANGE AND YELLOW. OTHER SPECIES EXHIBIT

FAVOR TREES THAT ARE PREFERRED BY WILDLIFE FOR FOOD, COVER, AND NESTING. A MIXTURE OF EVERGREENS AND HARDWOODS IS BENEFICIAL. EVERGREEN TREES ARE IMPORTANT FOR COVER DURING THE WINTER MONTHS. THE HARDWOODS

IREE SPECIES VARY GREATLY TO SUSCEPTIBILITY TO AIR POLLUTION. SYMPTOMS VARY FROM BROWNING ON THE EDGES OF THE LEAVES AND NEEDLES, TO STUNTING OF GROWTH, TO DEATH OF THE TREE. THE FOLLOWING SHOW TOLERANCE TO URBAN STRESS AND ARE LIKELY TO PRESENT PROBLEMS WITH SIDEWALKS: BALDCYPRESS, CORKTREE, AMUR MAPLE KENTUCKY COFFEE TREE, CRABAPPLE, DAWN REDWOOD, GINKGO (MALE), GOLDENRAINTREE, HACKBERRY, HAWTHORN, HONEYLOCUST, EUROPEAN HORNBEAM, HORSECHESTNUT, LINDENS, OAKS (EXCLUDING PIN), PEAR, SCHOLARTREE, SOURGUM

9. SPECIES LONGEVITY

FAVOR TREES WHOSE LIFE SPAN IS LONG, SUCH AS OAK, BEECH, AND TULIP POPLAR. SHORT-LIVED TREES; (BLACK LOCUST, GRAY BIRCH, ASPEN) SHOULD BE AVOIDED FOR USE AS SHADE, LAWN OR SPECIMEN TREES. ALTHOUGH SOME SHORT-LIVED TREES HAVE AN ATTRACTIVE FORM OF PLEASING COLORATION IN THE SPRING OF FALL, SUCH TREES MAY NOT LIVE FOR A LONG TIME AND THUS MAY NOT BE WORTH PRESERVING

B. CRITERIA FOR PROTECTING REMAINING TREES:

- 1. GENERAL MECHANICAL DAMAGE SEE FIGURE 9.3 FOR CORRECT ROOT ZONE CALCULATION AND PLACEMENT OF TREE PROTECTION. 2. BOX TREES WITHIN 25 FEET OF A BUILDING SITE TO PREVENT MECHANICAL INJURY. FENCING OR OTHER BARRIER SHOULD BE INSTALLED BEYOND THE CRITICAL ROOT RADIUS, SEE FIGURE 9-3. TREE ROOT SYSTEMS COMMONLY EXTEND WELL BEYOND THE DRIP
- 3. BOARDS WILL NOT BE NAILED TO TREES DURING BUILDING OPERATIONS.
- 4. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA INSIDE THE PROTECTED ROOT ZONE (PRZ)
- 5. DAMAGED TRUNKS OR EXPOSED ROOTS SHOULD HAVE DAMAGED BARK REMOVED IMMEDIATELY AND NO PAINT SHALL BE APPLIED EXPOSED ROOTS SHOULD BE COVERED WITH TOPSOIL IMMEDIATELY AFTER EXCAVATION IS COMPLETE, ROOTS SHALL BE PRUNED D GIVE A CLEAN, SHARP SURFACE AMENABLE TO HEALING. ROOTS EXPOSED DURING HOT WEATHER SHOULD BE IRRIGATED TO PREVENT PERMANENT TREE INJURY. CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER OR LICENSED TREE EXPERT.
- 6. TREE LIMB REMOVAL, WHERE NECESSARY, WILL BE DONE AS NATURAL TARGET PRUNING TO REMOVE THE DESIRED BRANCH AS CLOSE AS POSSIBLE TO THE BRANCH COLLAR. THERE SHOULD BE NO FLASH CUTS. FLUSH CUTS DESTROY A MAJOR DEFENSE SYSTEM OF THE TREE. EE FIGURE 9-1. NO TREE PAINT SHALL BE APPLIED. ALL CUTS SHALL BE MADE AT THE OUTSIDE EDGE OF THE BRANCH COLLAR (FIG 9-1 AND 9-2). CUTS MADE TOO FAR BEYOND THE BRANCH COLLAR MAY LEAD TO EXCESS SPOUTING. CRACKS AND ROT. REMOVAL OF A "V" CROTCH SHOULD BE CONSIDERED FOR FREE STANDING SPECIMEN TREES (SEE FIGURE 9-2) TO AVOID FUTURE SPLITTING DAMAGE.
- NOTE: FOR MORE SPECIFIC DATA ON CERTAIN TREE CHARACTERISTICS BY SPECIES, SEE TABLE 9.1, TREE CHARACTERISTICS, OR CONSULT WITH A LICENSED PROFESSIONAL TREE EXPERT, SOIL CONSERVATION DISTRICT OR RUTGERS COOPERATIVE EXTENSION.

Figure 9-1- Removal of Tree Limb

Figure 9-2 - Removal of "V" Crotch





Figure 9-3: Root Protection During Construction Guide





. Protecting Trees from Construction Damage- A Homeowners Guide, Gary R. Johnson, University Of Minnesota Extension Service, Saint Paul, MN





227 EAST MAIN STREET MIXED USE NEW CONSTRUCTION MANASQUAN, NEW JERSEY 08736

LIST OF DRAWINGS :

A-0.1 ARCHITECTURAL SITE PLAN & PROJECT INFORMATION A-0.2 BASEMENT & FIRST FLOOR PLANS A-0.3 SECOND & THIRD FLOOR PLANS A-0.4 ROOF PLAN W/ MECHANICAL ROOF DECK A-0.5 NORTHEAST & NORTH WEST ELEVATIONS A-0.6 SOUTHWEST & SOUTHEAST ELEVATIONS

ARCHITECTURAL SITE PLAN SCALE: ½" = 1°-0"

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 $\frac{\text{BASEMENT PLAN}}{\text{SCALE: } \mathcal{I}_4^{"} = 1^{\circ} 0^{"}}$



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SHEET 2 OF 6

2 SINGLE BEDROOM UNITS <u>SECOND FLOOR PLAN</u> Scale: 74" = 1°-0"

<u>FULL</u> <u>BATH</u> (13'-6" x 7'-8") ____*___'H*₽.HT. WASH. DRY. <u>||.|.C.</u> (|3'-6" × 7'-8") <u>4-STOP</u> ELEVATOR \otimes r<_____ MECH. ROOF DECK ACCESS <u>M.|.C.</u> (5'-0" x ||'-6") PRM. |<u>BATH</u> |(8'-2" x ||'-2") TUB 60"x30" PRIMARY BEDROOM (13'-6" × 15'-6") r--+----HMH AHU KING 76"×80" _____ **[6]:+6);\$X[X]:**\$X

43'-6" OVERALL THIRD FLOOR

ltem 7.

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AS NOTED issue date **8/9/23**

PROJECT NUME

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A-0.3

SHEET 3 OF 6

 $\frac{ROOF PLAN WITH}{MECHANICAL DECK}$

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| BRENDAN T. MCHUGH A R C H I T E C T U R E Io6 UNION AVENUE MANASQUAN, NJ 08736 TEL: 732.722.7737 BIM@MCHUGHARCHITECTURE.COM WWW.MCHUGHARCHITECTURE.COM | |
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| SHEET TITLE ROOF PLAN WITH MECHANICAL ROOF DECL SCALE AS NOTED ISSUE DATE 8/9/23 PROJECT NUMBER 2230 SHEET 4 OF 6 | PLANNING BOARD SUBMISSION SET |

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 $\frac{\text{NORTHWEST ELEVATION}}{\text{SCALE: } \mathcal{Y}_{4}^{*} = 1^{\circ} 0^{*}}$

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| OUTHEAST | ELEVATION |
|-----------------------|-----------|
| CALE: V_4 " = 1'-0" | |

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ltem 7.

- ACCORDANCE WITH THE EXISTING CODE OF PRACTICE ADOPTED BY THE N.J. STATE
- 8. OFFSETS SHOWN HEREON ARE NOT TO BE USED AS A BASIS FOR ANY CONSTRUCTION
- PHOTOGRAMMETRIC MAPPING, REMOTE SENSING, AIRBORNE/MOBILE LASER SCANNING AND OTHER SIMILAR PRODUCTS, TOOLS OR TECHNOLOGIES AS THE BASIS FOR SHOWING THE LOCATION OF CERTAIN FEATURES (EXCLUDING BOUNDARIES) WHERE GROUND MEASUREMENTS WERE NOT OTHERWISE NECESSARY TO LOCATE THOSE
- 12. NOTE: THE PROPERTY SHOWN HEREIN HAD VEHCILES/PILED ITEMS/DEBRIS IN SPOTS WHEN THE SURVEY WAS PERFORMED. DETAILS ARE THEREFORE LIMITED TO THOSE

MANASQUAN, MONMOUTH COUNTY, NEW JERSEY, BEING KNOWN AS LOT 1 IN BLOCK 89 AS SHOWN ON THE OFFICIAL TAX MAP OF THE

MAIN STREET (VARIED WIDTH), WHERE THE SAME IS INTERSECTED

- 3) N 33°34'03" E A DISTANCE OF 150.45' TO A POINT, IN THE SAID
- 4) S 49°56'57" E A DISTANCE OF 50.00', ALONG THE SAID LINE OF

