

PRELIMINARY & FINAL MAJOR SITE PLAN

FOR

FULFILL FOOD BANK

BLOCK 2301, LOT 01

TAX MAP SHEET #23

3300 ROUTE 66

NEPTUNE, MONMOUTH COUNTY, NEW JERSEY

PROPERTY OWNERS WITHIN 200'

Block	Lot	Qualifier	Location	Owner	Owner Street	Owner City/State/Zip	Additional Lots
2201	29		788 WAYSIDE RD	788 WAYSIDE INC	788 WAYSIDE RD	NEPTUNE, NJ 07753	
2201	30		790 WAYSIDE RD	FULFILLER, FREDERICK C & BARBARA L	794 WAYSIDE RD	NEPTUNE, NJ 07753	
2201	31		794 WAYSIDE RD	FULFILLER, FREDERICK C & BARBARA L	794 WAYSIDE RD	NEPTUNE, NJ 07753	
2201	32		2990 ROUTE 66	EXTRA SPACE PROP. EIGHTY FOUR, LLC	PO BOX 71920/9890 S 2300E	SALT LAKE CITY, UTAH 84171	
2201	1		3300 ROUTE 66	FOOD BANK OF MONMOUTH & OCEAN CO	3300 ROUTE 66	NEPTUNE, NJ 07753	
2201	2		789 WAYSIDE RD	BELL ATLANTIC/PROP TAX'S DUFFPHELPS	PO BOX 2749	ADDISON, TEXAS 75001	
2201	3		783 WAYSIDE RD	FIRST FINANCIAL FEDERAL CREDIT UNION	PO BOX 1172	TOMS RIVER, NJ 08754	
2201	11		12 SHERWOOD DR	CORFUZALDRIN & LOUVETTE	12 SHERWOOD DRIVE	NEPTUNE, NJ 07753	
2201	12		1 PROVINCIAL PL	COMMODORE, PAUL S	1 PROVINCIAL PL	NEPTUNE, NJ 07753	
2201	13		1 PROVINCIAL PL	DUROGENE, RAVIN & MARIE	1 PROVINCIAL PL	NEPTUNE, NJ 07753	
2201	14		5 PROVINCIAL PL	SDMONS, SANDRAM	5 PROVINCIAL PL	NEPTUNE, NJ 07753	
2201	87		3304 ROUTE 66	WARDY-ANTO, IRA D & CHEN, CHIN YEN	3304 ROUTE 66	NEPTUNE, NJ 07753	
2201	88		ROUTE 66	TOWNSHIP OF NEPTUNE	PO BOX 1125	NEPTUNE, NJ 07754	
2202	1		11 SHERWOOD DR	GRIFFIN, PATRICK & SHERYL	11 SHERWOOD DRIVE	NEPTUNE, NJ 07753	

UTILITY CONTACTS

New Jersey-American Water Company, Inc.
Attn: Donna Short GIS Supervisor
1025 Laurel Oak
Voorhees, N.J. 08043

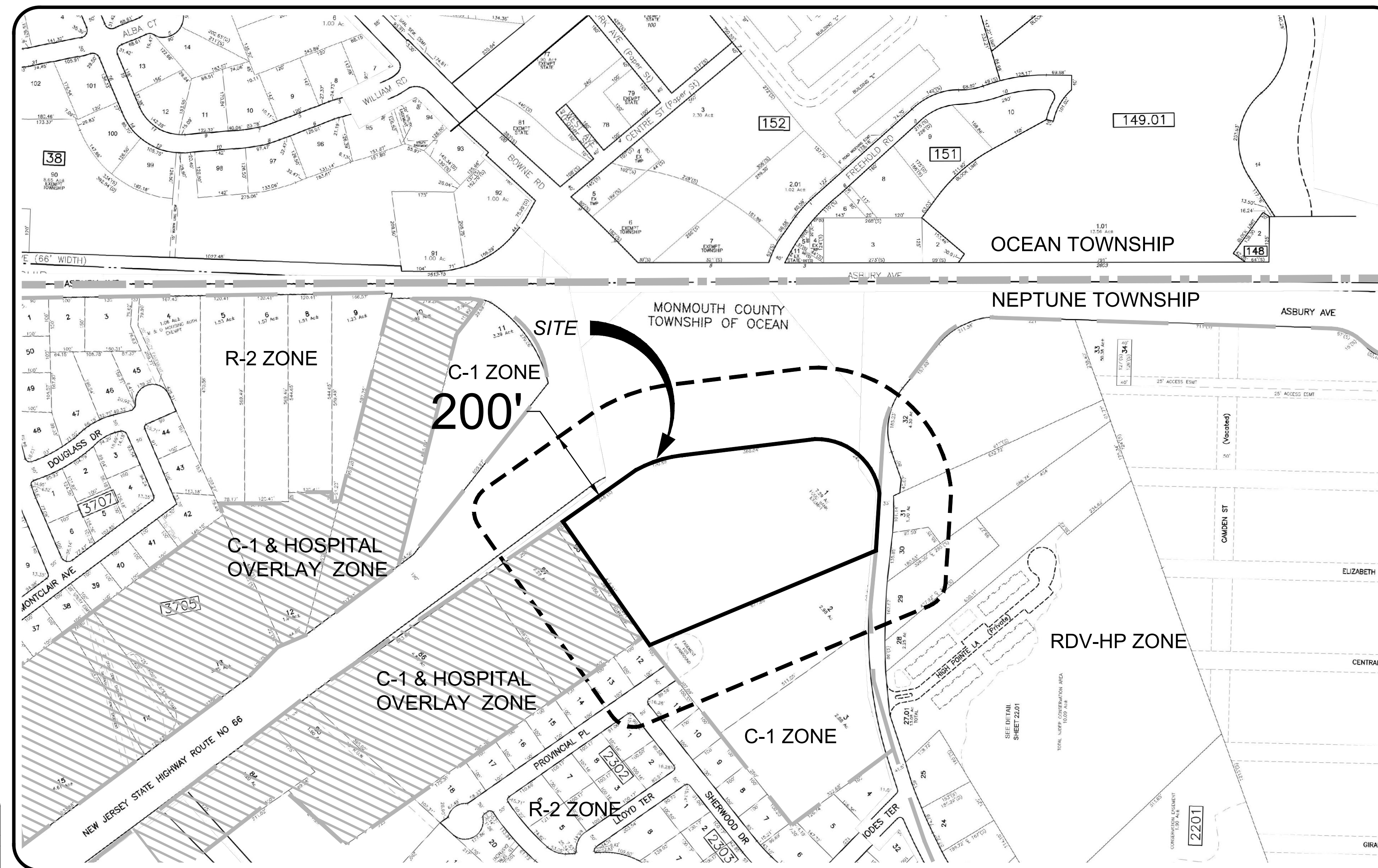
Jersey Central Power & Light Company
Attn: Land Use Matters
300 Madison Avenue
Morristown, N.J. 07960

Verizon
Legal Department 17th Floor
C/O Land Use Matters
540 Broad Street
Newark, N.J. 07102

Monmouth Cablevision
Attn: Land Use Matters
1501 18th Avenue
Wall Twp, N.J. 07719

New Jersey Natural Gas Company
Attn: Right of Way Department
1415 Weymouth
Wall Twp, N.J. 07719

NEPTUNE TOWNSHIP SEWERAGE AUTHORITY
634 OLD CORLES AVENUE
NEPTUNE CITY, NJ 07753



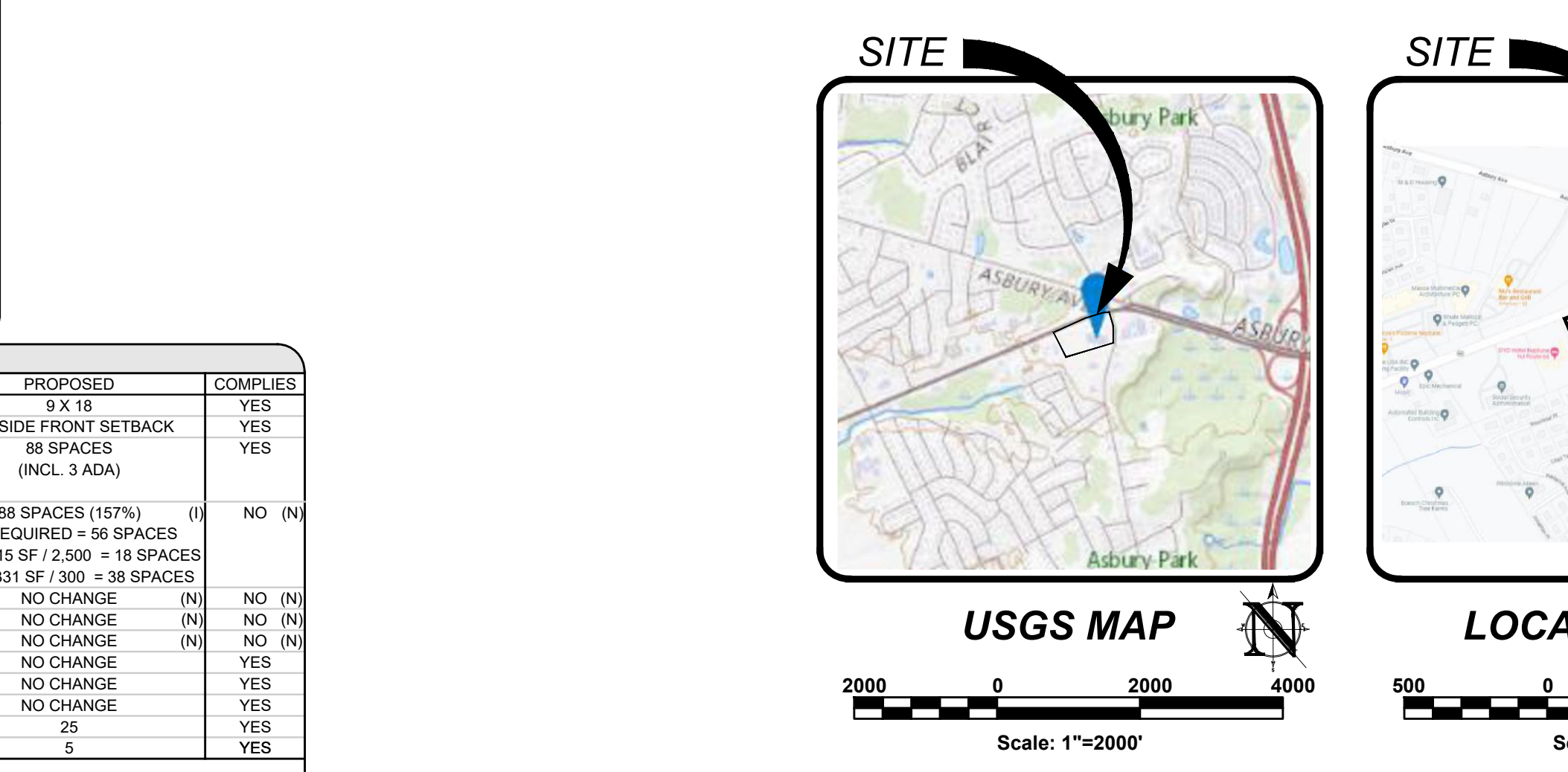
ZONING COMPLIANCE CHART

C-1 (PLANNED COMMERCIAL DEVELOPMENT) ZONE (§ 404.04)
CIVIC & SOCIAL ORGANIZATIONS; PERMITTED USE

REQ. SECTION	STANDARD	REQUIRED	EXISTING	PROPOSED	COMPLES
SCHED. B	MIN. LOT AREA (AC)	2.5	7.21	NO CHANGE	YES
SCHED. B	MIN. LOT WIDTH (FT)	600	2094.7	NO CHANGE	YES
SCHED. B	MIN. LOT FRONTAGE (FT)	500	2064.7	NO CHANGE	YES
SCHED. B	MIN. LOT DEPTH (FT)	600	824.2	NO CHANGE	YES
PRINCIPAL BUILDING					
SCHED. B	MIN. FRONT YARD SETBACK (IN ROUTE 66) (FT)	50	74.4	NO CHANGE	YES
SCHED. B	MIN. FRONT YARD SETBACK (WAYSIDE ROAD) (FT)	50	61.1	NO CHANGE	YES
SCHED. B	MIN. REAR YARD SETBACK (FT)	40	132.8	NO CHANGE	YES
SCHED. B	MIN. SIDE YARD SETBACK (ONE SIDE) (FT)	30	387.6	NO CHANGE	YES
SCHED. B	MIN. SIDE YARD SETBACK (BOTH SIDES) (FT)	N/A	N/A	NO CHANGE	YES
SCHED. B	MAX. BUILDING HEIGHT (FT)	40	34.63	NO CHANGE	YES
SCHED. B	MAX. BUILDING HEIGHT (STORES)	2	1.12	NO CHANGE	YES
LOT COVERAGE					
SCHED. B	MAX. BUILDING COVERAGE (%)	30	12.7	15.3	YES
SCHED. B	MAX. TOTAL LOT COVERAGE (%)	65	36.8	42.2	YES
SCHED. B	MIN. IMPROVABLE AREA (SF)	84,800	223,400	223,400	YES
SCHED. B	MIN. IMPROVABLE AREA DIAMETER OF CIRCLE (FEET)	189	>189	NO CHANGE	YES
SCHED. B	MAX. FLOOR AREA RATIO	0.60	0.13	0.17	YES
(N) EXISTING NON-COMFORMITY (I) IMPROVED CONDITION (X) VARIANCE / NON-COMFORMITY ELIMINATED (E) EXISTING VARIANCE (P) PROPOSED WAIVER					
(1) THIS PERTAINS TO AN EXISTING STRUCTURE WHICH WAS NOT MADE AVAILABLE TO THIS OFFICE (2) PER ORD. #01-11 BUILDING HEIGHT IS THE VERTICAL DISTANCE MEASURED FROM THE AVERAGE ELEVATION OF THE PROPOSED FINISHED GRADE AT ALL CORNERS OF THE BUILDING TO THE TOP OF THE HIGHEST ROOF BEAMS ON A FLAT OR GABLE ROOF, THE DECK LEVEL ON A MANSARD ROOF, AND THE AVERAGE HEIGHT BETWEEN THE EAVES AND THE RIDGE LEVEL FOR GABLE, HIP, AND GAMBREL ROOFS.					
EXISTING BUILDING HEIGHT: AVERAGE GRADE: 112.08 + 112.36 + 112.00 + 112.34 + 112.53 / 6 = 112.26 BUILDING HEIGHT: 148.89 - 112.26 = 34.63					

PARKING, DRIVEWAY & LOADING COMPLIANCE CHART (§ 412.17)

ORD. SECTION	STANDARD	REQUIRED	EXISTING	PROPOSED	COMPLES
412.17.B	STALL SIZE (FT)	9' X 18'	9' X 18'	9' X 18'	YES
412.18	PARKING PROHIBITED IN FRONT SETBACK	OUTSIDE FRONT SETBACK	OUTSIDE FRONT SETBACK	OUTSIDE FRONT SETBACK	YES
TABLE 4.2	NUMBER OF PARKING SPACES	TOTAL = 56 SPACES	85 SPACES	86 SPACES	YES
	WAREHOUSE & DISTRIBUTION FACILITY: 1 PER 2,500 SF OF GFA	43,315 SF / 2,500 = 18 SPACES	11,331 SF / 300 = 38 SPACES	11,331 SF / 300 = 38 SPACES	YES
	OFFICE: 1 PER 300 SF OF GFA	11,331 SF / 300 = 38 SPACES	11,331 SF / 300 = 38 SPACES	11,331 SF / 300 = 38 SPACES	YES
412.17.F	MAX. NUMBER OF PARKING SPACES	85 SPACES (181%)	86 SPACES (197%)	86 SPACES (197%)	(N)
	WAREHOUSE & DISTRIBUTION FACILITY: 1 PER 2,500 SF OF GFA	REQUIRED = 47 SPACES	REQUIRED = 47 SPACES	REQUIRED = 47 SPACES	(N)
	OFFICE: 1 PER 300 SF OF GFA	33,754 SF / 2,500 = 14 SPACES	11,331 SF / 300 = 38 SPACES	11,331 SF / 300 = 38 SPACES	(N)
514.8.9	MIN. AISLE WIDTH (PERPENDICULAR PARKING) (FT)	24	23.6	23.6	(N)
TABLE 5.2	MIN. WAREHOUSE DRIVEWAY WIDTH (TWO WAY) (FT)	26	26	26	(N)
TABLE 5.2	MAX. WAREHOUSE DRIVEWAY WIDTH (TWO WAY) (FT)	30	54.41	NO CHANGE	(N)
411.04.E	MIN. FRONT YARD SETBACK (FT)	15	>15	NO CHANGE	YES
506.1.1	MIN. SIDE YARD SETBACK (FT)	10	193.3	NO CHANGE	YES
506.1.1	MIN. REAR YARD SETBACK (FT)	10	40.5	NO CHANGE	YES
514.8.3	MIN. PARKING SETBACK TO BUILDING (FT)	10	17.3	25	YES
TABLE 4.1	MIN. WAREHOUSE LOADING BERTHS (20,000 TO 39,999 SF)	4	5	5	YES
(N) EXISTING NON-COMFORMITY (I) IMPROVED CONDITION (X) VARIANCE / NON-COMFORMITY ELIMINATED (E) EXISTING VARIANCE (P) PROPOSED WAIVER					
(1) THIS PERTAINS TO AN EXISTING STRUCTURE WHICH WAS NOT MADE AVAILABLE TO THIS OFFICE					



ZONE
C-1 = PLANNED COMMERCIAL DEVELOPMENT
R-2 = LOW DENSITY SINGLE-FAMILY RESIDENTIAL
RDV-HP = HIGH POINTS - ROUTE 18 REDEVELOPMENT AREA
HOSPITAL SUPPORT OVERLAY

GENERAL NOTES

- SUBJECT PROPERTY**
TAX MAP #23, BLOCK #2301, LOT #1, TOWNSHIP OF NEPTUNE, MONMOUTH COUNTY, NEW JERSEY
CENTER SITE COORDINATES: 508.614 N 614.372 E
- PURPOSE OF THIS PLAN SET**
THIS PLAN SET HAS BEEN PREPARED FOR THE PURPOSE OF PRELIMINARY/FINAL SITE PLAN MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THE PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL FINAL APPROVALS HAVE BEEN OBTAINED AND ALL THE CONDITIONS OF THE APPROVALS HAVE BEEN SATISFIED.
- SURVEY DATA**
SURVEY INFORMATION CONTAINED HEREON IS BASED ON A FIELD SURVEY PERFORMED BY INSITE SURVEYING, LLC, ENTITLED "BOUNDARY PARTIAL TOPO SURVEY OF BLOCK 2301, LOT 1, 3300 ROUTE 66", BEING DATED 03/17/23, LAST REVISED 08/18/23.
HORIZONTAL DATUM: NAD83 VERTICAL DATUM: NAVD83
- BASE FLOOD ELEVATION**
FOR ANY EXCAVATION IN NEW JERSEY, THE CONTRACTOR MUST CALL NEW JERSEY ONE CALL SERVICE AT 1-800-272-1000 FOR A MARKOUT REQUEST NO LESS THAN THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.
- ARCHITECTURAL INFORMATION**
ARCHITECTURAL INFORMATION CONTAINED HEREON IS BASED ON PLANS PREPARED BY REDCOM DESIGN & CONSTRUCTION, ENTITLED "FULFILL FOOD BANK", BEING DATED 05/11/23, LAST REVISED 01/10/24.
- UNDERGROUND UTILITIES NOTIFICATION**
FOR ANY EXCAVATION IN NEW JERSEY, THE CONTRACTOR MUST CALL NEW JERSEY ONE CALL SERVICE AT 1-800-272-1000 FOR A MARKOUT REQUEST NO LESS THAN THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.
- VERIFICATION OF UTILITIES**
THE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES AND FACILITIES (INCLUDING BUT NOT LIMITED TO SANITARY SEWERS, STORM SEWERS, POTABLE WATER LINES AND APPURTENANCES, NATURAL GAS LINES, ELECTRIC, TELEPHONE AND CABLE LINES AND UNDERGROUND STORAGE TANKS) THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF THE WORK ARE SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER, AND THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATION AND ELEVATION OF THESE UTILITIES OR OTHER CONSTRUCTION OBSTACLES IMPACTED BY NEW CONSTRUCTION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, PRIOR TO CONSTRUCTION, OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROJECT DESIGN.
- SPECIFICATIONS**
UNLESS OTHERWISE NOTED HEREON, ALL SITE WORK SHALL BE CARRIED OUT IN CONFORMANCE WITH THE PROVISIONS OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- CONSTRUCTION REQUIREMENTS**
 - ALL CONSTRUCTION AND DEMOLITION SHALL CONFORM WITH ANY APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. CONTRACTOR HAS SOLE RESPONSIBILITY FOR SITE SAFETY WAITS, MEANS AND METHODS OF CONSTRUCTION, AND SHALL CONFORM TO AND ABIDE BY ALL CURRENT OSHA STANDARDS OR REGULATIONS. SAFE CONSTRUCTION PRACTICES REMAIN THE OBLIGATION OF THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL PERFORM ALL WORK IN A FINISHED AND WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES.
 - THE CONTRACTOR SHALL PROVIDE NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS AS MAY BE NECESSARY WITHIN THE PROJECT FOR THE PROTECTION AND THE SAFETY OF THE PUBLIC AND MAINTAIN THROUGHOUT CONSTRUCTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CLEANUP WITHIN THE CONSTRUCTION AREA AND SHALL DISPOSE OF DEBRIS IN ACCORDANCE WITH ANY LOCAL, STATE OR FEDERAL REGULATIONS.
 - ANY DAMAGE TO PUBLIC STREETS, CURBS, SIDEWALKS AND UTILITIES AS A RESULT OF SITE CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR.
- CONSTRUCTION PERMITS/INSPECTIONS**
CONTRACTOR RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS INCLUDING ROAD OPENING PERMITS, PREPARATION OF TRAFFIC CONTROL PLANS, INSTALLATION AND MAINTENANCE OF TRAFFIC CONTROL AND COORDINATION OF ALL INSPECTIONS REQUIRED BY THE TOWNSHIP OF NEPTUNE, MONMOUTH COUNTY, NJ, AND ANY OTHER APPLICABLE AGENCY HAVING JURISDICTION OVER THE PROJECT.
- ADA COMPLIANCE**
 - ALL SITE IMPROVEMENTS LOCATED ON THE PRIVATE PROPERTY SHALL BE IN COMPLIANCE WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, STANDARDS FOR PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES, TITLE III.
 - ALL SITE IMPROVEMENTS LOCATED WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN COMPLIANCE WITH THE CURRENT PUBLIC RIGHTS-OF-WAY ACCESS ADVISORY COMMITTEE GUIDELINES.
 - ALL PROPOSED IMPROVEMENTS ARE IN ACCORDANCE WITH ADA REQUIREMENTS.
- STORMWATER POLLUTION PREVENTION PLAN**
 - SOIL EROSION PLANS HAVE BEEN PREPARED TO ADDRESS EROSION AND SEDIMENT CONTROL COMPONENT OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPP) AT TIME OF DESIGN. ALL OTHER COMPONENTS OF THE SWPP AND GENERAL STORMWATER PERMIT NO. NJ000823 TO BE RESPONSIBILITY OF THE DEVELOPER/OWNER/SITE CONTRACTOR.
 - CONTRACTOR/DEVELOPER MUST PREPARE AND FOLLOW A STORMWATER POLLUTION PREVENTION PLAN FOR THE DURATION OF THE PROJECT.
- OVERALL CONSTRUCTION DOCUMENTS**
THIS PLAN SET CONSISTS OF MULTIPLE SHEETS. INDIVIDUAL PAGES SHALL NOT BE UTILIZED FOR CONSTRUCTION ON THEIR OWN AS NOTES AND INFORMATION PROVIDED ON OTHER SHEETS MAY IMPACT WORK REQUIREMENTS. CONTRACTOR SHALL REVIEW AND UTILIZE ENTIRE PLAN SET FOR CONSTRUCTION.
- DESIGN STANDARDS**
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NEPTUNE TOWNSHIP DESIGN STANDARDS AND DETAILS.
- SOIL**
NO SOIL SHALL BE REMOVED FROM THE SITE WITHOUT THE WRITTEN APPROVAL OF THE DIRECTOR OF ENGINEERING AND PLANNING.
- LOCATION OF UTILITIES**
ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
- CONSTRUCTION STANDARDS**
DURING CONSTRUCTION, THE APPLICANT SHALL COMPLY WITH SOLID WASTE, PUBLIC HEALTH AND NOISE CODES.

PROJECT INFORMATION
PROJECT NAME: FULFILL FOOD BANK
PROJECT LOCATION: BLOCK 2301, LOT 1, TAX MAP #23, 3300 ROUTE 66, TOWNSHIP OF NEPTUNE, MONMOUTH COUNTY, NJ
OWNER/APPLICANT: FOOD BANK OF MONMOUTH & OCEAN COUNTY, 3300 ROUTE 66, TOWNSHIP OF NEPTUNE, NJ 07753
APPLICANT'S PROFESSIONALS: SURVEYOR: INSITE SURVEYING, LLC, 1955 NJ 34 #1A, WALL TOWNSHIP, NJ 07719; ARCHITECT: REDCOM DESIGN AND CONSTRUCTION, LLC, 433 NORTH AVE EAST, P.O. BOX 160, WESTFIELD, NJ 07090; ATTORNEY: JENNIFER S. KRIMKO, ESQ., ANSHELL GRIFFIN & AARON, PC, 1500 LAWRENCE AVENUE - CNT807, OCEAN, NJ 07712

CALL BEFORE YOU DIG!
NJ ONE CALL: 800-272-1000
www.insiteeng.net

INSITE
Engineering & Surveying
INSITE Engineering, LLC
CERTIFICATE OF AUTHORIZATION: 24GA28082200
1955 ROUTE 34 SUITE 1A WALL, NJ 07719
732-531-7100 (PH) 732-531-7344 (FAX)
www.insiteeng.net

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AUTHORITY: IF THIS DOCUMENT DOES NOT CONTAIN THE SIGNATURE AND RAISED SEAL OF THE PROFESSIONAL, IT IS NOT AN ORIGINAL.
Christopher M. Bednarski, P.E.
PROFESSIONAL ENGINEER
N.J.E.C. NO. 2465925649

REVISIONS

Rev. #	Date	Comment
1	01/10/24	REVISED PER FSDO & CLIENT COMMENTS
2	08/21/23	PLANNING BOARD SUBMISSION
3	08/21/23	REV PER CLIENT COMMENTS
4	08/21/23	INITIAL RELEASE

PLANNING BOARD APPROVAL

APPROVED BY THE TOWNSHIP OF NEPTUNE PLANNING BOARD

SCALE: AS SHOWN
DATE: 05/10/23
JOB #: 23-2111-01
CAD #: 23-2111-01/1

FOR CONSTRUCTION

PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN
TITLE SHEET
C100

OWNER/APPLICANT

I HEREBY CERTIFY THAT I AM THE OWNER/APPLICANT OF THE PROPERTY WHICH IS THE SUBJECT OF THIS APPLICATION AND THAT I CONSENT TO THE FILING OF THIS SUBDIVISION PLAN WITH THE NEPTUNE TOWNSHIP PLANNING BOARD.

OWNER	DATE

NOTARY PUBLIC

SWORN AND SUBSCRIBED TO BEFORE ME THIS 10TH DAY OF JANUARY

NOTARY PUBLIC	DATE

INDEX OF SHEETS

SHEET #	TITLE SHEET	INITIAL RELEASE	REV. DATE
C100	TITLE SHEET	05/10/23	01/10/24
C101	EXISTING CONDITIONS PLAN	05/10/23	01/10/24
C201	SITE PREPARATION PLAN	05/10/23	01/10/24
C301	TURNING MOVEMENT PLAN: DELIVERY	05/10/23	01/10/24
C302	TURNING MOVEMENT PLAN: FIRE TRUCK	01/10/24	01/10/24
C400	GRADING, DRAINAGE, & UTILITIES PLAN	05/10/23	01/10/24
C800	LANDSCAPE AND LIGHTING PLAN	05/23/23	01/10/24
C901	LANDSCAPE AND LIGHTING DETAILS	05/23/23	01/10/24
C902	CONSTRUCTION DETAILS	05/10/23	01/10/24
C903	SOIL EROSION & SEDIMENT CONTROL PLAN	05/10/23	01/10/24
C904	SOIL EROSION & SEDIMENT CONTROL NOTES	05/10/23	01/10/24
C905	SOIL EROSION & SEDIMENT CONTROL DETAILS	05/10/23	01/10/24

PROJECT INFORMATION

PROJECT NAME: FULFILL FOOD BANK

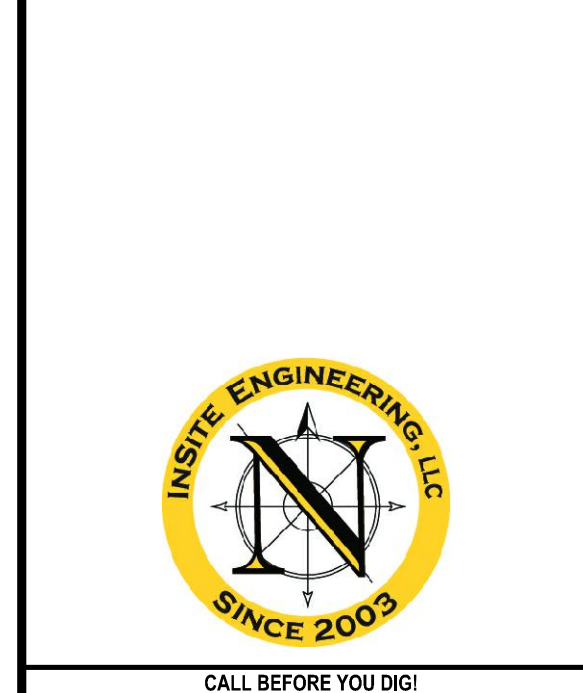
PROJECT LOCATION: BLOCK 2301, LOT 1, TAX MAP #23, 3300 ROUTE 66, TOWNSHIP OF NEPTUNE, MONMOUTH COUNTY, NJ



OWNER/APPLICANT: FOOD BANK OF MONMOUTH & OCEAN COUNTY, 3300 ROUTE 66, TOWNSHIP OF NEPTUNE, NJ 07753

APPLICANT'S PROFESSIONALS: SURVEYOR: INSITE SURVEYING, LLC; ARCHITECT: FREEMAN DESIGN AND CONSTRUCTION, LLC; ATTORNEY: JENNIFER S. KRIMKO, ESQ.

CALL BEFORE YOU DIG: NJ ONE CALL, 800.275.1900



INSITE Engineering, LLC. CERTIFICATE OF AUTHORIZATION: 24G248083200

CAUTION: THIS DOCUMENT DOES NOT CONTAIN THE BOUNDARY AND ADJACENT REAL OF THE PROFESSIONAL. IT IS NOT AN ORIGINAL AND MAY HAVE BEEN REPRODUCED.

Christopher M. Bednarski, PROFESSIONAL ENGINEER, NJ P.E. NO. 24G09256400

REVISIONS

Table with columns for Date, Description, and Checked by. Includes revision 1: REVISED PER FSD & CLIENT COMMENTS.

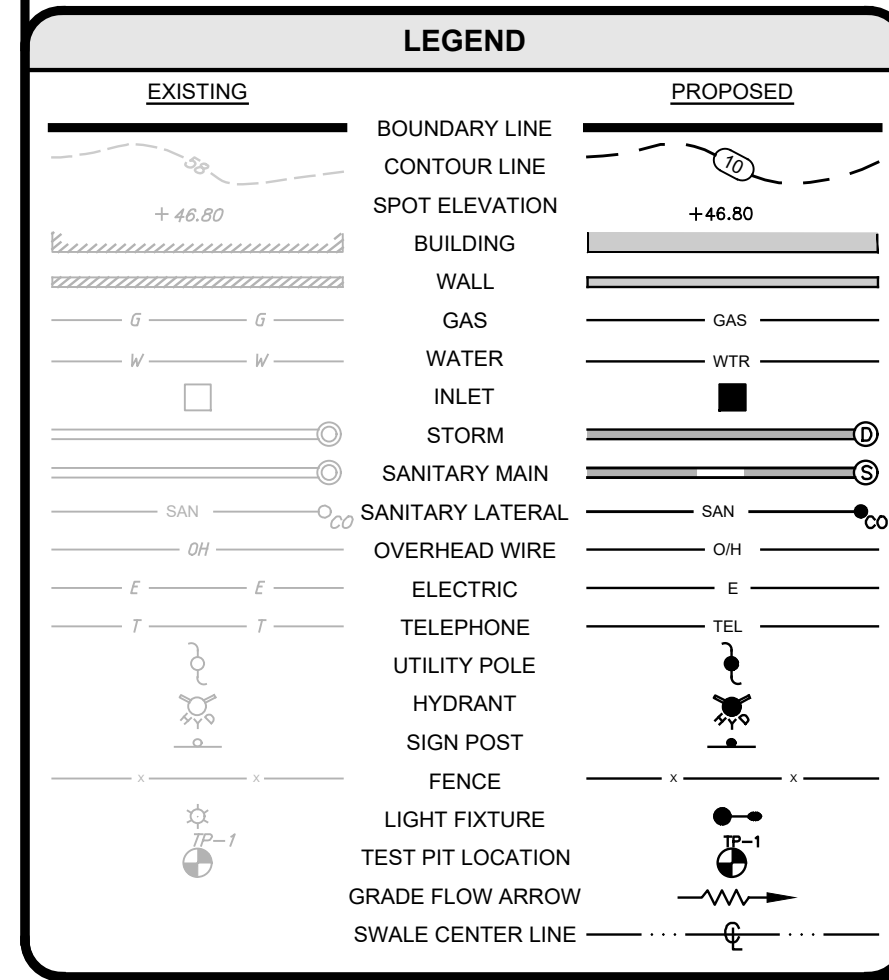
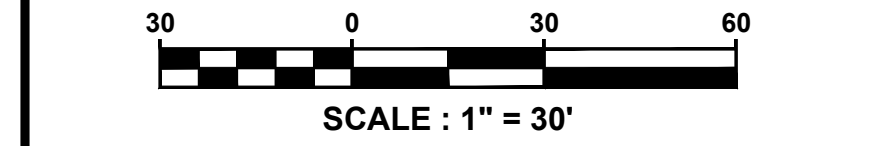
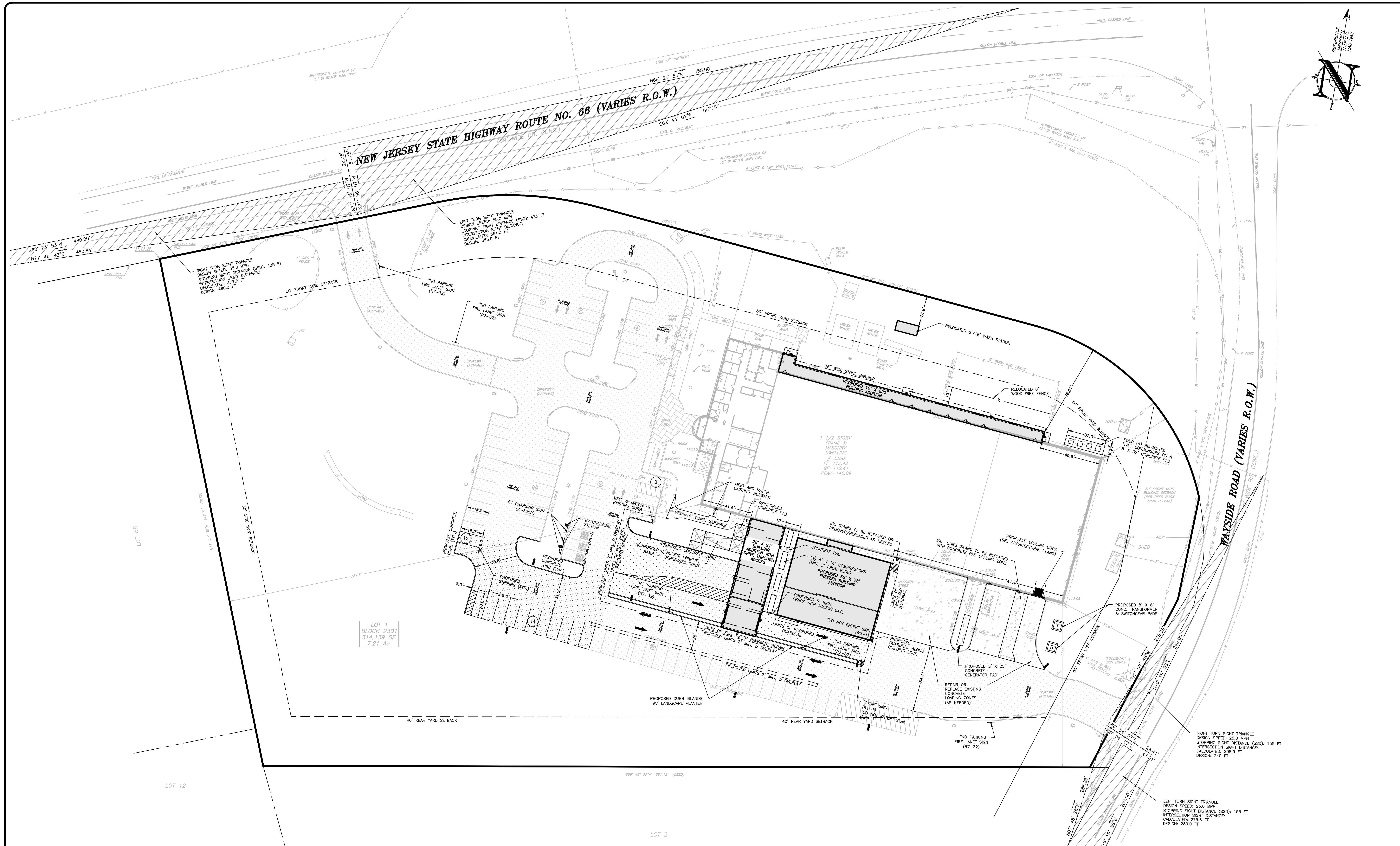
APPROVED BY: FOR CONSTRUCTION

PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

SHEET TITLE: SITE LAYOUT PLAN

SHEET NO.: C300



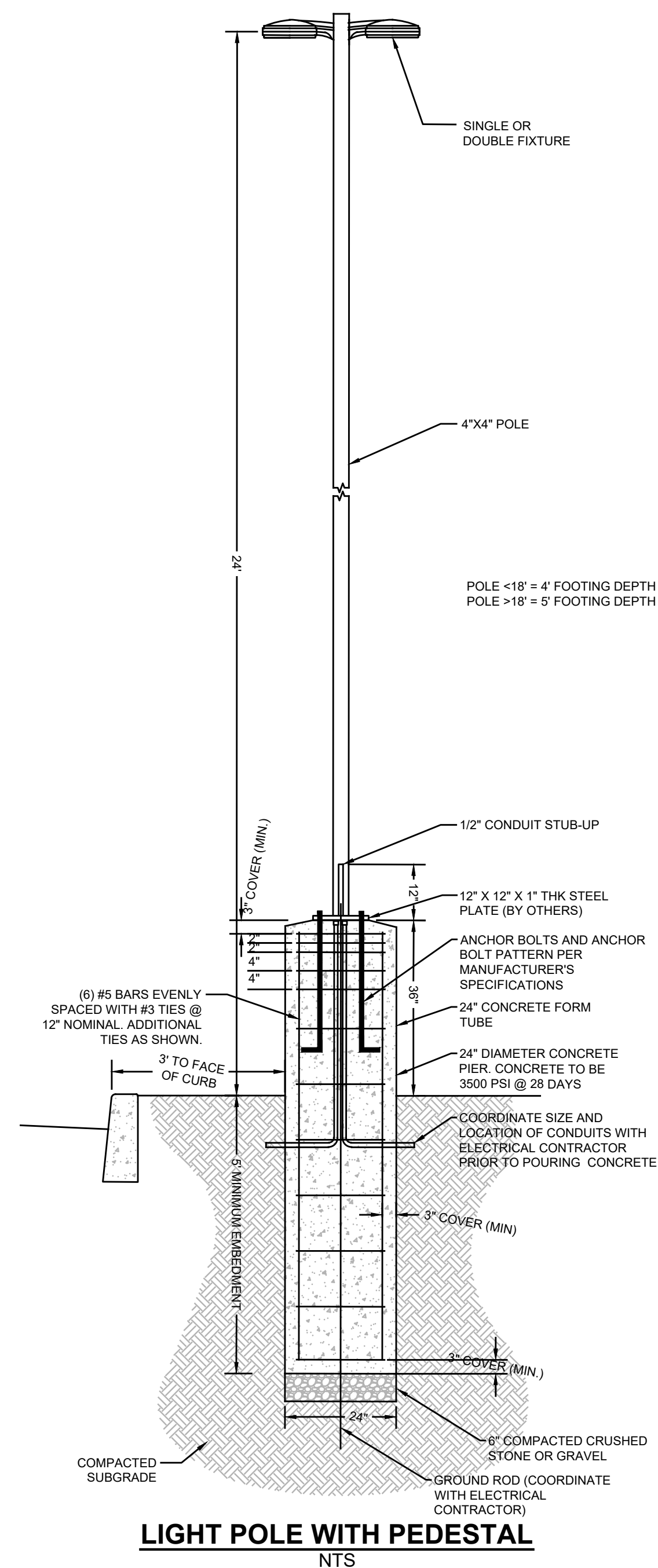
ZONING COMPLIANCE CHART for C-1 (PLANNED COMMERCIAL DEVELOPMENT) ZONE. Table with columns for Ord Section, Standard, Required, Existing, Proposed, and Complies.

LOT COVERAGE CALCULATIONS table showing existing and proposed square footages for various building and parking areas.

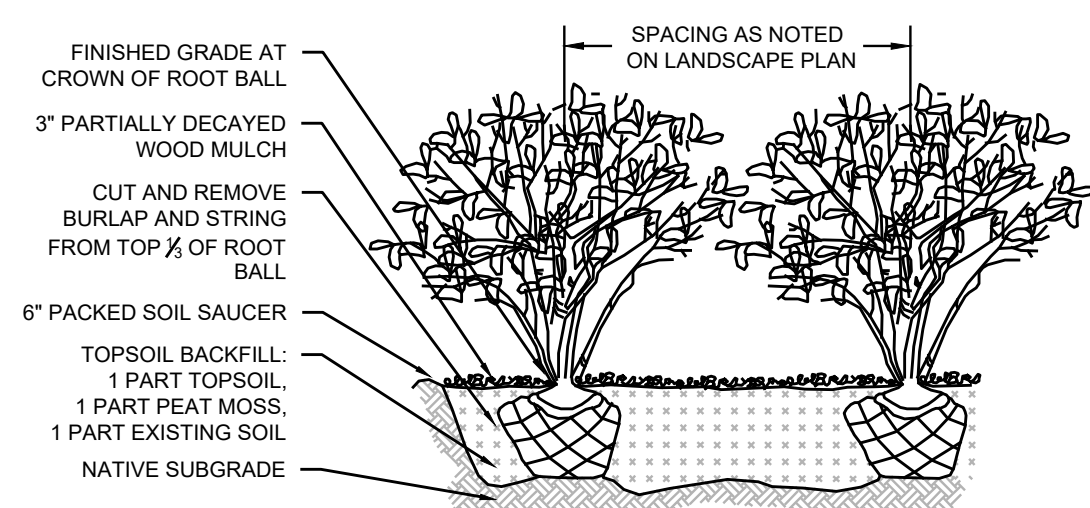
PARKING, DRIVEWAY & LOADING COMPLIANCE CHART (412.17). Table with columns for Ord Section, Standard, Required, Existing, Proposed, and Complies.

ELECTRIC VEHICLE PARKING SUMMARY (P.L. 1975, c. 291). Table with columns for Section, Standard, Proposed, and Complies.

SEE SHEET C101 FOR PLAN NOTES



LIGHT POLE WITH PEDESTAL NTS



- NOTES:
- DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
 - WATER THOROUGHLY IMMEDIATELY FOLLOWING PLANTING.

SHRUB PLANTING NTS

D-Series Size 0 LED Area Luminaire

Specifications

EPA: 0.44 ft² (0.04 m²)
 Length: 26.18" (663 mm)
 Width: 14.06" (357 mm)
 Height H1: 2.26" (57 mm)
 Height H2: 7.44" (188 mm)
 Weight: 23 lbs (10.4 kg)

Ordering Information

EXAMPLE: DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAR2 PIRHN DDBXD

Series	LED	Color Temperature	Color Rendering Index	Distribution	Voltage	Mounting		
DSX0 LED	Forward optics	P1 P5	30K 3000K	70CRI	T15 Type I short	SWGL (277V-480V)		
		P2 P6	40K 4000K	70CRI	T2W Type I medium	SWGL (277V-480V)		
		P3 P7	50K 5000K	70CRI	T3W Type I medium	SWGL (277V-480V)		
		P4 P8	50K 5000K	70CRI	T3W Type I low beam	SWGL (277V-480V)		
		Retained optics (optical)		40K 4000K		70CRI	T4W Type II medium	SWGL (277V-480V)
		Retained optics (optical)		50K 5000K		70CRI	T3W Forward beam medium	SWGL (277V-480V)
	Retained optics (optical)		40K 4000K		80CRI	T4W Type II low beam	SWGL (277V-480V)	
	Retained optics (optical)		50K 5000K		80CRI	T3W Forward beam medium	SWGL (277V-480V)	
	Retained optics (optical)		40K 4000K		80CRI	T4W Type II low beam	SWGL (277V-480V)	
	Retained optics (optical)		50K 5000K		80CRI	T3W Forward beam medium	SWGL (277V-480V)	
	Retained optics (optical)		40K 4000K		80CRI	T4W Type II low beam	SWGL (277V-480V)	
	Retained optics (optical)		50K 5000K		80CRI	T3W Forward beam medium	SWGL (277V-480V)	

Control options

Shipped installed

Accessories

One Lithonia Way • Cary, Georgia 30012 • Phone: 1-800-705-SERV (378) • www.lithonia.com
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D-Series Size 1 LED Wall Luminaire

Specifications

Width: 13.31" (338 mm)
 Depth: 10" (254 mm)
 Height: 6.31" (160 mm)

Weight: 12 lbs (5.4 kg)

Back Box (BBW, E20WC)
 Width: 13.31" (338 mm)
 Depth: 4" (102 mm)
 Height: 6.31" (160 mm)

Weight: 5 lbs (2.3 kg)
 Weight: 10 lbs (4.5 kg)

Ordering Information

EXAMPLE: DSXW1 LED 2C 200K 100K 40K T3M MVOLT DDBTXD

Series	LED	Color Temperature	Distribution	Voltage	Mounting	
DSXW1 LED	100% LEDs	100 10000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	
		100 10000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	
		100 10000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	
		100 10000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	
		100 10000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	
		100 10000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	
	200% LEDs	200 20000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	SWGL (277V-480V)
		200 20000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	SWGL (277V-480V)
		200 20000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	SWGL (277V-480V)
		200 20000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	SWGL (277V-480V)
		200 20000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	SWGL (277V-480V)
		200 20000K	T25 Type II short	SWGL (277V-480V)	SWGL (277V-480V)	SWGL (277V-480V)

Control options

Shipped installed

Accessories

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Ordering Information

Accessories

Shield Accessories

Drilling

Tenon Mounting Slipfitter

Slipfitter	1.5" Dia	2.0" Dia	2.5" Dia	3.0" Dia	3.5" Dia
1.5" Dia	AS5-150	AS5-200	AS5-250	AS5-300	AS5-350
2.0" Dia	AS70-150	AS70-200	AS70-250	AS70-300	AS70-350
2.5" Dia	AS100-150	AS100-200	AS100-250	AS100-300	AS100-350

DSX0 Area Luminaire - EPA

Mounting Type	1.5" Dia	2.0" Dia	2.5" Dia	3.0" Dia	3.5" Dia
DSX0 with SPA	0.44	0.88	0.96	1.18	1.18
DSX0 with PIRHN	0.33	1.0	1.0	1.28	1.28
DSX0 with PIRHN	0.33	1.0	1.0	1.28	1.28
DSX0 with SPA	0.44	1.28	1.28	1.67	1.28

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Temp	1.0	1.25	1.50
0°C	1.0	1.0	1.0
10°C	0.97	0.97	0.97
20°C	0.94	0.94	0.94
30°C	0.91	0.91	0.91
40°C	0.88	0.88	0.88
50°C	0.85	0.85	0.85

Electrical Load

Temp	1.0	1.25	1.50	1.75	2.00
0°C	1.0	1.0	1.0	1.0	1.0
10°C	0.97	0.97	0.97	0.97	0.97
20°C	0.94	0.94	0.94	0.94	0.94
30°C	0.91	0.91	0.91	0.91	0.91
40°C	0.88	0.88	0.88	0.88	0.88
50°C	0.85	0.85	0.85	0.85	0.85

Projected LED Lumen Maintenance

Temp	1.0	1.25	1.50	1.75	2.00
0°C	1.0	1.0	1.0	1.0	1.0
10°C	0.97	0.97	0.97	0.97	0.97
20°C	0.94	0.94	0.94	0.94	0.94
30°C	0.91	0.91	0.91	0.91	0.91
40°C	0.88	0.88	0.88	0.88	0.88
50°C	0.85	0.85	0.85	0.85	0.85

Photometric Diagrams

Options and Accessories

FEATURES & SPECIFICATIONS

INSTALLATION

WARRANTY

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PROJECT INFORMATION

FULFILL FOOD BANK

fulfill

PROJECT LOCATION

BLOCK 2001, LOT 1
 TAX MAP #23
 3300 ROUTE 66
 TOWNSHIP OF NEPTUNE, NJ
 MONMOUTH COUNTY, NJ

OWNER/APPLICANT

FOOD BANK OF MONMOUTH & OCEAN COUNTY
 3300 ROUTE 66
 TOWNSHIP OF NEPTUNE, NJ 07753

APPLICANT'S PROFESSIONALS

SURVEYOR

INSITE SURVEYING, LLC
 1555 NJ 28 #14
 WALL TOWNSHIP, NJ 07719

ARCHITECT

NECOM DESIGN AND CONSTRUCTION, LLC
 433 NORTH AVE EAST
 P.O. BOX 160
 WESTFIELD, NJ 07090

ATTORNEY

JENNIFER S. KRIMKO, ESQ.
 ANSELL GRIMM & AARON, PC
 1500 LAWRENCE AVENUE, CN7807
 OCEAN, NJ 07712

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NJ ONE CALL 800-252-1900

UTILITY COMPANIES

AT&T
 CON Edison
 COMCAST
 SWEET'S
 T&E P&S
 W&P

INSITE ENGINEERING, LLC

INSITE ENGINEERING, LLC
 Engineering • Surveying • Planning

CERTIFICATE OF AUTHORIZATION: 24GA28083200

1955 ROUTE 34, SUITE 1A, WALL, NJ 07719
 732-531-7100 (PH) 732-531-7244 (FAX)
 info@insiteeng.net

LICENSED IN: NEW JERSEY, NEW YORK, PENNSYLVANIA, DELAWARE, CONNECTICUT, NORTH CAROLINA, COLORADO, & DISTRICT OF COLUMBIA

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN THE SIGNATURE AND REGISTERED SEAL OF THE PROFESSIONAL, IT IS NOT AN ORIGINAL AND MAY BE REPRODUCED.

Christopher M. Bednarski, P.E.
 PROFESSIONAL ENGINEER
 NJPE LIC. NO. 24659256400

REVISIONS

Rev #	Date	Comments
1	05/10/23	REVISED PER FSDC & CLIENT COMMENTS
2	05/10/23	PLANNING BOARD SUBMISSION
3	05/10/23	REVISED PER CLIENT COMMENTS
4	05/10/23	REVISED PER CLIENT COMMENTS

SCALE: AS SHOWN DESIGNED BY: **STC**

DATE: 05/10/23 DRAWN BY: **STC**

JOB # 23-2111-01 CHECKED BY: **CMB**

CAUTION: NOT FOR CONSTRUCTION

APPROVED BY:

PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

SHEET TITLE: LANDSCAPE AND LIGHTING DETAILS

SHEET NO: C601

SOIL EROSION AND SEDIMENT CONTROL NOTES

- 1. THE FIELD EROSION AND SEDIMENT CONTROL PLAN SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
4. N.J.S.A. 15:27-12.1 (S.E.C.) REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL. IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN FILED. UPON RECEIPT FROM THE DISTRICT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS. PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE RESTORATION.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO STATE STANDARD FOR STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROAD GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (E. STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROAD GRADING AND INSTALLATION OF IMPROVEMENTS TO STABLE OF STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
8. THE STANDARD FOR STABILIZATION CONSTRUCTION CONSISTS OF ONE INCH TO TWO INCH (1" - 2") STONE OR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR OUT TO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
10. PERMANENT VEGETATION IS TO BE SEEDING OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR REGRADED IN SUCH A MANNER THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RESTORE VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND COVER SHALL BE EMPLOYED.
11. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED UNDER LIMESTONE APPLIED AT THE RATE OF 1/2 TON PER 100 SQUARE FEET OF SURFACE AREA AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 6 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT PRODUCTION. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
13. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT PRODUCTION. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
14. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL. CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND SCARPINGS, SEE STANDARDS 11 THROUGH 42.
15. IMMEDIATELY PRIOR TO SEEDING OR SODDING 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.).
16. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #16. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

- 1. 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, PG. 18-1.
B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND SCARPINGS. SEE STANDARDS 11 THROUGH 42.
C. IMMEDIATELY PRIOR TO SEEDING OR SODDING 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.).
2. SEEDING
A. APPLY GOOD LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SERVICE. SOIL SAMPLES MUST BE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICE. FERTILIZER SHALL BE APPLIED AT THE RATE OF 50 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 15-30-10 OR EQUIVALENT WITH 5% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIMING RATES SHALL BE ESTABLISHED VIA SOIL TESTING. 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 LINE AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED 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.

- 3. SEEDING
A. TEMPORARY VEGETATIVE SEEDING COVER SHALL CONSIST OF PERENNIAL, HERBACEOUS AND/OR ANNUAL UNIFORMLY AT A RATE OF 1 POUND PER 1,000 SF (100 LB/AC) WITH AN OPTIMUM SEED DEPTH OF 1/2" (WHICH DEPTH IS APPLIED UNIFORMLY) IN ACCORDANCE WITH TABLE 7.2, PAGE 7.
B. CONVENTIONAL SEEDING, APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTRIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDING OR CULTRIPACKED SEEDING, SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/2 TO 1/2 INCH BY RAKING OR GRAGGING. 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 PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 11 MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEEDS OFTEN DO NOT REACH THE SURFACE AND ARE NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS DURING 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, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD, WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
4. 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 DETERMINED ACCORDING TO THIS MULCHING REQUIREMENT.
A. STRAW OR HAY UNMOTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (75 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER OR SPRAYING AN ADHESIVE AGENT, THE RATE OF APPLICATION SHALL BE 1/2 TON PER ACRE. MULCH-BINDERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FIRE OR LAWN DUE TO THE PRESENCE OF WEED SEEDS.
B. APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 90% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITH 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:
1. PEG AND TWINE DRIVE: 1/4 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 CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS, STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOVED.
3. CRUMPER (ANCHORING TOOL) A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH TO 4 INCHES INTO THE SOIL, SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. USE TO ANCHOR MULCH TO AREAS TRAVELLED 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 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 EFFECT OR IMPEDRE GROWTH OF TURFGRASS. 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, MISIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TIGHT UNTIL GERMINATION OF GRASS.
NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
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 PRODUCT MANUFACTURER AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE USED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
C. PELLETED MULCH-COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN COLOPHEN, TACKIFIERS, FERTILIZERS AND COLORING AGENTS, THE DRY PELLETS WHEN APPLIED TO A SEEDBED AREA AND WATERED, FORMA MULCH MAT. PELLETED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LB/1,000 SQUARE FEET AND ACTIVATED WITH 1/2 TO 1/4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWNS OR RENOVATION AREAS. SEEDED AREAS WHERE WEED-SEEDS FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 1/2 TO 1/4 INCHES OF WATER AFTER SPREADING PELLETED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.
5. 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 SEEDING ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON CRAGGY SITES.
6. TOP DRESSING
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 TOP DRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE CROSSLN NITROGEN DEFICIENCY EXISTS IN THE SOIL, TO THE EXTENT THAT TURF FAILURE MAY DEVELOP IN THAT RANGE. TOP DRESS 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 CROSSLN NITROGEN DEFICIENCY IN THE TURF IS ALLEVIATED.
7. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION
THE QUALITY OF PERMANENT VEGETATION RESULTS WITH THE CONTRACTOR, THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4.3 ARE PRESCRIBED 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 REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS BTR VEGETATIVE COVER OF THE SEEDS SPECIES AND MOVED ONCE. NOTE THIS DESIGNATION OF MOVED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED.

- 8. PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION
1. 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, PG. 18-1.
B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND SCARPINGS. SEE STANDARDS 11 THROUGH 42.
C. IMMEDIATELY PRIOR TO SEEDING OR SODDING 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.).
2. SEEDING
A. APPLY GOOD LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SERVICE. SOIL SAMPLES MUST BE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICE. FERTILIZER SHALL BE APPLIED AT THE RATE OF 50 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 15-30-10 OR EQUIVALENT WITH 5% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIMING RATES SHALL BE ESTABLISHED VIA SOIL TESTING. 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 LINE AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILED 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.
3. SEEDING
A. TEMPORARY VEGETATIVE SEEDING COVER SHALL CONSIST OF PERENNIAL, HERBACEOUS AND/OR ANNUAL UNIFORMLY AT A RATE OF 1 POUND PER 1,000 SF (100 LB/AC) WITH AN OPTIMUM SEED DEPTH OF 1/2" (WHICH DEPTH IS APPLIED UNIFORMLY) IN ACCORDANCE WITH TABLE 7.2, PAGE 7.
B. CONVENTIONAL SEEDING, APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTRIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDING OR CULTRIPACKED SEEDING, SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/2 TO 1/2 INCH BY RAKING OR GRAGGING. 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 PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 11 MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEEDS OFTEN DO NOT REACH THE SURFACE AND ARE NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS DURING 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, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD, WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
4. 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 DETERMINED ACCORDING TO THIS MULCHING REQUIREMENT.
A. STRAW OR HAY UNMOTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (75 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER OR SPRAYING AN ADHESIVE AGENT, THE RATE OF APPLICATION SHALL BE 1/2 TON PER ACRE. MULCH-BINDERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FIRE OR LAWN DUE TO THE PRESENCE OF WEED SEEDS.
B. APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 90% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITH 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:
1. PEG AND TWINE DRIVE: 1/4 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 CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS, STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOVED.
3. CRUMPER (ANCHORING TOOL) A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH TO 4 INCHES INTO THE SOIL, SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. USE TO ANCHOR MULCH TO AREAS TRAVELLED 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 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 EFFECT OR IMPEDRE GROWTH OF TURFGRASS. 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, MISIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TIGHT UNTIL GERMINATION OF GRASS.
NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
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 PRODUCT MANUFACTURER AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE USED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
C. PELLETED MULCH-COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN COLOPHEN, TACKIFIERS, FERTILIZERS AND COLORING AGENTS, THE DRY PELLETS WHEN APPLIED TO A SEEDBED AREA AND WATERED, FORMA MULCH MAT. PELLETED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LB/1,000 SQUARE FEET AND ACTIVATED WITH 1/2 TO 1/4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWNS OR RENOVATION AREAS. SEEDED AREAS WHERE WEED-SEEDS FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 1/2 TO 1/4 INCHES OF WATER AFTER SPREADING PELLETED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.
5. 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 SEEDING ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON CRAGGY SITES.
6. TOP DRESSING
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 TOP DRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE CROSSLN NITROGEN DEFICIENCY EXISTS IN THE SOIL, TO THE EXTENT THAT TURF FAILURE MAY DEVELOP IN THAT RANGE. TOP DRESS 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 CROSSLN NITROGEN DEFICIENCY IN THE TURF IS ALLEVIATED.
7. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION
THE QUALITY OF PERMANENT VEGETATION RESULTS WITH THE CONTRACTOR, THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4.3 ARE PRESCRIBED 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 REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS BTR VEGETATIVE COVER OF THE SEEDS SPECIES AND MOVED ONCE. NOTE THIS DESIGNATION OF MOVED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED.

APPLYING THE FULL 1/2 TO 1/4 INCHES OF WATER AFTER SPREADING PELLETED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

- 1. 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.
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 3 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.
2. SEEDING PREPARATION
A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SERVICE. SOIL SAMPLES MUST BE AVAILABLE FROM THE LOCAL RUTGERS CO-OPERATIVE EXTENSION OFFICE. FERTILIZER SHALL BE APPLIED AT THE RATE OF 50 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 15-30-10 OR EQUIVALENT WITH 5% 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 DURING SEEDBED PREPARATION AND RESTAY ANOTHER ONE-HALF APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
B. WORK LINE AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
C. HIGH ACID PRODUCING SOIL, SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF 10" INCHES OF SOIL HAVING A PH OF 6 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.
3. SEEDING
A. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION RATE OF LESS THAN 80%. SEEDS WITHIN 12 MONTHS OLD ARE RE-TESTED.
SEED MIXTURE
PLANTING RATE
LETTUCE (L) 1000
HARD RESCUE AND/OR STROME CREeping RED RESCUE PERENNIAL RYEGRASS KENTUCKY BLUEGRASS 1 (45) 1 (45)
ACCOMPANY SEEDING DATAS: 2/1-4/00 AND 5/1-8/14
OPTIMAL SEEDING DATES: 6/15-10/30
SUMMER SEEDING SHALL ONLY BE CONDUCTED WHEN SITE IS IRRIGATED
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 ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS BTR VEGETATIVE COVER WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOVED ONCE.
2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES. GENERALLY 80°F AND ABOVE. SEE TABLE 4.3 MIXTURES 1-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR 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 80°F. MANY GRASSES BECOME ACTIVE AT 60°F. SEE TABLE 4.3 MIXTURES 21-30. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PURE LIVE SEED (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 CULTRIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDING OR CULTRIPACKED SEEDING, 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, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS 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 TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 11 MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEEDS OFTEN DO NOT REACH THE SURFACE AND ARE NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS DURING GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
4. 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 DETERMINED ACCORDING TO THIS MULCHING REQUIREMENT.
A. STRAW OR HAY UNMOTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (75 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER OR SPRAYING AN ADHESIVE AGENT, THE RATE OF APPLICATION SHALL BE 1/2 TON PER ACRE. MULCH-BINDERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEEDS.
APPLICATION: SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 80% 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 WITH 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:
1. PEG AND TWINE DRIVE: 1/4 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 CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS, STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOVED.
3. CRUMPER (ANCHORING TOOL) A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH TO 4 INCHES INTO THE SOIL, SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. USE TO ANCHOR MULCH TO AREAS TRAVELLED 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 SLL 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 EFFECT OR IMPEDRE GROWTH OF TURFGRASS. 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, MISIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TIGHT UNTIL GERMINATION OF GRASS.
NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT 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 OR PAPER CONTAINING NO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, IN NEW JERSEY JANUARY 2010 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. MULCH SHALL NOT BE USED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.
C. PELLETED MULCH-COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN COLOPHEN, TACKIFIERS, FERTILIZERS AND COLORING AGENTS, THE DRY PELLETS WHEN APPLIED TO A SEEDBED AREA AND WATERED, FORMA MULCH MAT. PELLETED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LB/1,000 SQUARE FEET AND ACTIVATED WITH 1/2 TO 1/4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWNS OR RENOVATION AREAS. SEEDED AREAS WHERE WEED-SEEDS FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 1/2 TO 1/4 INCHES OF WATER AFTER SPREADING PELLETED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.
5. 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 SEEDING ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON CRAGGY SITES.
6. TOP DRESSING
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 TOP DRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE CROSSLN NITROGEN DEFICIENCY EXISTS IN THE SOIL, TO THE EXTENT THAT TURF FAILURE MAY DEVELOP IN THAT RANGE. TOP DRESS 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 CROSSLN NITROGEN DEFICIENCY IN THE TURF IS ALLEVIATED.
7. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION
THE QUALITY OF PERMANENT VEGETATION RESULTS WITH THE CONTRACTOR, THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4.3 ARE PRESCRIBED 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 REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS BTR VEGETATIVE COVER OF THE SEEDS SPECIES AND MOVED ONCE. NOTE THIS DESIGNATION OF MOVED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED.

CONSTRUCTION SEQUENCE

Table with 2 columns: PHASE and DURATION. It lists construction steps such as '1. INSTALL TEMPORARY SOIL EROSION FACILITIES', '2. SITE DEMOLITION', '3. RUGH CLEARING AND GRADING', etc., with corresponding durations like 'IMMEDIATELY', '1 WEEK', '2 WEEKS', etc.

*TEMPORARY SEEDING SHALL ALSO BE PERFORMED WHEN NECESSARY IN ACCORDANCE WITH NOTE NO. 1 OF THE SOIL EROSION AND SEDIMENT CONTROL NOTES.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES THROUGH CONSTRUCTION. THE PROPERTY OWNERS SHALL ASSURE THIS RESPONSIBILITY AFTER CONSTRUCTION IS COMPLETED AND CERTIFICATES OF OCCUPANCY ARE ISSUED. THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DIRECTED BY THE DISTRICT INSPECTOR. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ROADWAYS CLEAN AT ALL TIMES. ANY SEDIMENT SPILLED OR TRACKED ON THE ROADWAY WILL BE CLEANED UP IMMEDIATELY, OR AT MINIMUM, BY THE END OF EACH WORK DAY. DUST GENERATION SHALL BE CONTROLLED ON A

