PRELIMINARY MAJOR SITE PLAN

FOR

261 ETRA RD, LLC

PROPOSED WAREHOUSE

BLOCK 22.02, LOT 10; TAX MAP SHEET 19 - LATEST REV. DATED 10/1963

261 ETRA ROAD,

TOWNSHIP OF EAST WINDSOR

MERCER COUNTY, NEW JERSEY

200' PROPERTY OWNERS LIST

PROPERTY OWNER	BLOCK	LOT
EAST WINDSOR TOWNSHIP 16 LANNING BOULEVARD EAST WINDSOR, NJ 08520	22.02	9
BAPS NORTHEAST (TX) PO BOX 519 WINDSOR, NJ 08561	22.02	11.01
HERZFELD HELEN & BURTON ROBERT L 7 PHILYET DR EAST WINDSOR, NJ 08520	30	2
POSTORINO EUGENE J & ANDREA M 4 PHILYET DR EAST WINDSOR, NJ 08520	30	3
DEMARCO, REYNOLD 3 PHILYET DR EAST WINDSOR, NJ 08520	30	8
GELLER, SAMUEL & BEVERLY 5 PHILYET DR EAST WINDSOR, NJ 08520	30	9
EAST WINDSOR TOWNSHIP 16 LANNING BLVD EAST WINDSOR, NJ 08520	30	12
HERZOG, RONALD 11 STANFORD COURT EAST WINDSOR, NJ 08520	30.01	1

ALSO TO BE NOTIFIED:

AT&T
R.A. WAGNER
175 WEST MAIN ST
FREEHOLD, NJ 07728

MERCER COUNTY PLANNING BOARD
ADMINISTRATION BLDG.
P.O. BOX 8068
TRENTON, NJ 08650-8068

COMCAST CABLEVISION
GENERAL MANAGER
P.O. BOX 795, 90 LAKE DR
EAST WINDSOR, NJ 08520

PSE&G
CORPORATE SECRETARY
P.O. BOX 800
NEWARK, NJ 07101

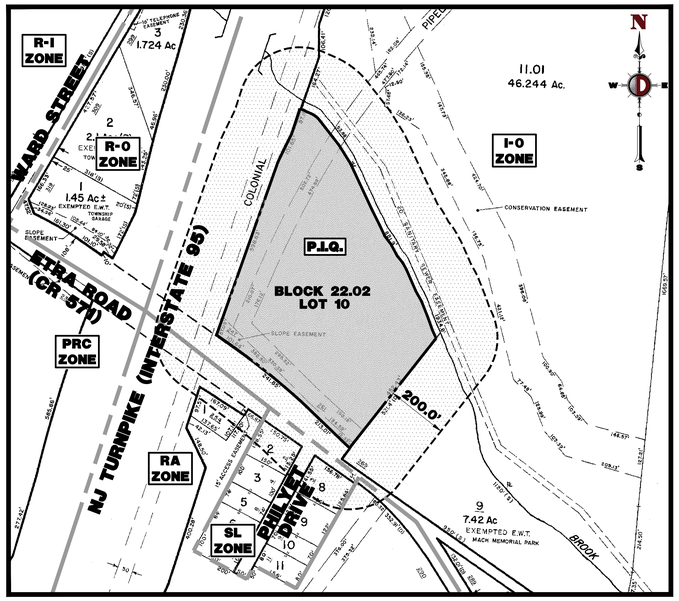
DEPARTMENT OF TRANSPORTATION
STATE OF NEW JERSEY
1035 PARKWAY AVE.
TRENTON, NJ 08650

TRANSCONTINENTAL GAS PIPE LINE CORP.
DISTRICT MANAGER
3200 SOUTH WOOD AVE
LINDEN, NJ 07036-0005

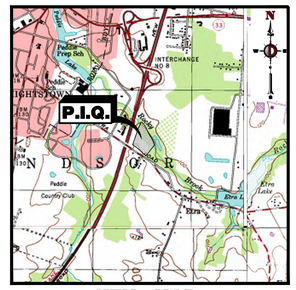
EAST WINDSOR UTILITIES AUTHORITY
MR.TOD FRYER, GENERAL MANAGER
7 WILTSHIRE DR
EAST WINDSOR, NJ 08520

VERIZON
CORPORATE SECRETARY
540 BROAD STREET
NEWARK, NJ 07101

JCP&L C/O GPU ENERGY
CORPORATE SECRETARY
300 MADISON AVE
MORRISTOWN, NJ 07962



AREA MAP
1" = 200'



KEY MAP
1" = 2000'

DRAWING INDEX

PLANNING BOARD APPROVAL

APPROVED BY THE PLANNING BOARD OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

CHAIRMAN — DATE

SECRETARY — DATE

BOARD ENGINEER — DATE

PREPARED BY

DYNAMIC ENGINEERING CONSULTANTS, P.C.

1904 MAIN STREET

LAKE COMO, NJ 07719

WWW.DYNAMICEC.COM

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Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.789.6400 | Delray Beach, Florida T: 561.921.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.595.4400

TITLE: COVER SHEET

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No:	2871-99-003
DATE:	10/14/2021
DRAWN BY:	MFZ
SCALE:(H) AS (V) SHOWN	
DESIGNED BY:	TAZ
CHECKED BY:	TJM
CHECKED BY:	_
SHEET No:	1 OF 19
Rev. #	0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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Call before you dig
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

By / Comments / Date / Rev.

GRAPHIC SCALE

−100 0 50 100 200 400

(IN FEET)

1 INCH = 100 FT.

THE AERIAL IMAGE DEPICTED ON THIS PLAN IS BASED ON IMAGERY PREPARED BY DIGITAL GLOBE, GEO EYE AND USDA FARM SERVICE AGENCY. THIS IMAGERY WAS PROVIDED BY GOOGLE MAPS ON 05/14/2021. THE CONDITIONS OF THE SITE AND SURROUNDING AREAS MAY HAVE CHANGED SINCE THE DATE OF AERIAL PHOTOGRAPHY AND THEREFORE THIS PLAN MAY NOT ACCURATELY REFLECT ALL CURRENT EXISTING CONDITIONS.

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Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
www.dynamicec.com

TITLE: AERIAL MAP

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: MFZ
SCALE:(H) 1"=100' (V)
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: —
SHEET No: 2 OF 19

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
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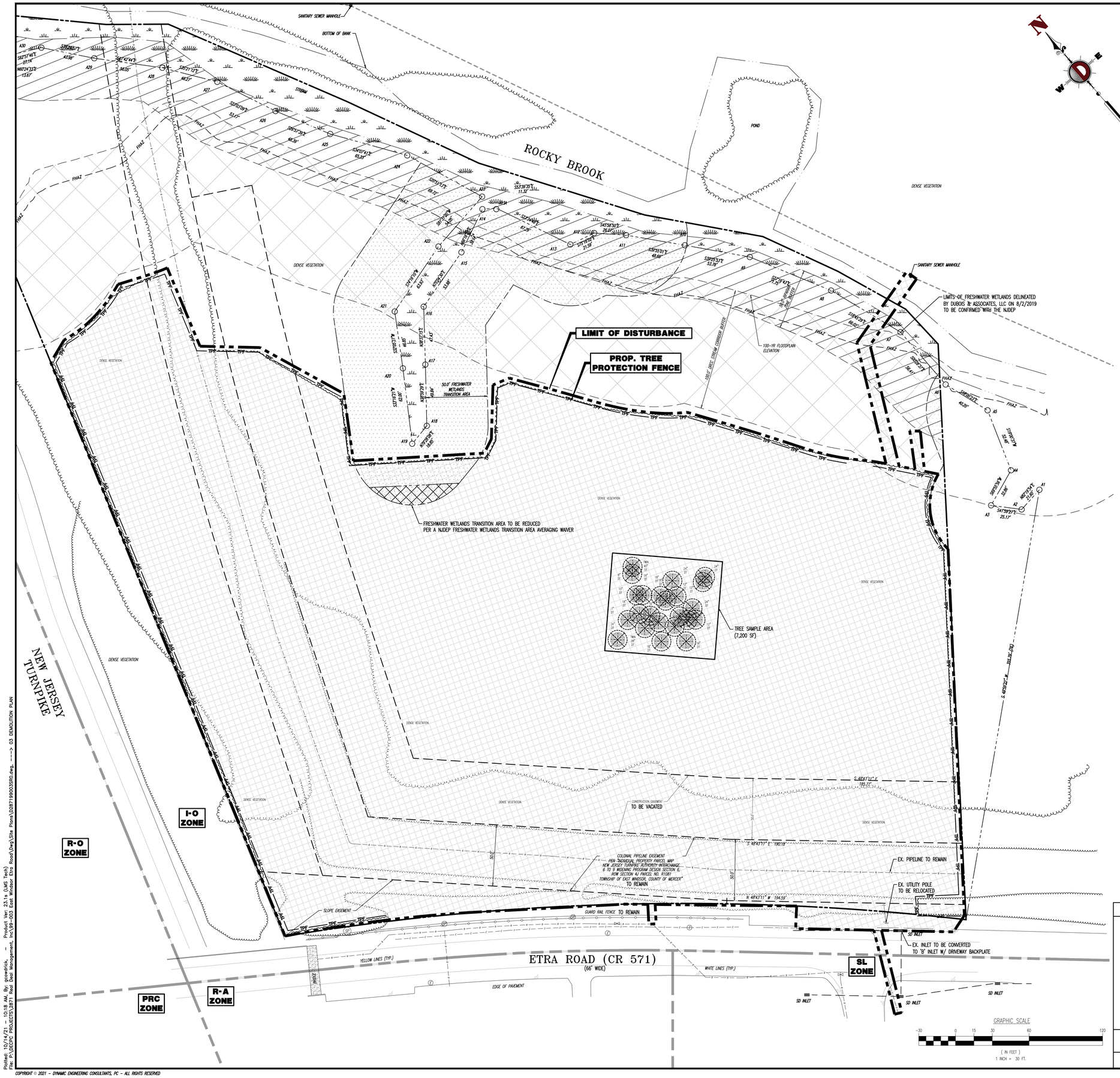
Rev.	Date	Comments	By
0			

Rev. # 0

Plotted: 10/14/21 – 9:54 AM By: gcowdrick, — Product Ver: 23.1s (LMS Tech)
File: P:\2021\2871-99-003\CAD\Real Deed Management, Inc\Qtr 2\63 Etra Rd\Misc Site Plans\Dwg\Site Plans\20211990003540.dwg, ----> AERIAL MAP



DEMOLITION NOTES

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
2. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
3. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
4. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND BY MEANS OF HOISTS, DERRICKS OR OTHER SUITABLE METHODS.
6. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER.
7. LOCATE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
8. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES, IF APPLICABLE).
9. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION SYSTEMS, INCLUDING BASEMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN ONE FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASEMENT FLOOR SLABS, SEAL ALL OPEN UTILITY LINES WITH CONCRETE. CONTRACTOR TO REVIEW STRUCTURE PRIOR TO DEMOLITION TO DETERMINE IF BASEMENT, CRAWL SPACE OR ANY SUB-STRUCTURE EXISTS. ANY SUB-STRUCTURE, INCLUDING BASEMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGEWAYS IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.
11. REFRAIN FROM USING ANY EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.

NOTES
1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE MAIN FOR WATER, AT THE CLEAN-OUT FOR SEWER AND THE SHUT-OFF VALVE OR MAIN FOR GAS IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY REQUIREMENTS.
4. ALL EXISTING DEBRIS SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS.

TREE REPLACEMENT NOTES

1. TREE REPLACEMENT REQUIREMENTS
   A. TREE REMOVAL CALCULATION (§ 124-7.a):

SIZE OF TREE	TREE SAMPLE AREA	NO. OF TREES	NO. OF TREES PER ACRE	WOODED AREA LIMIT OF DISTURBANCE	NO. OF TREES TO BE REMOVED
GREATER THAN 5" AND UP TO 12" CALIPER	7,200 SF	9	54.45	4.54 Ac (197,868 SF)	248
GREATER THAN 12" AND UP TO 18" CALIPER	7,200 SF	7	42.35	4.54 Ac (197,868 SF)	193
GREATER THAN 18" AND UP TO 24" CALIPER	7,200 SF	4	24.2	4.54 Ac (197,868 SF)	110
GREATER THAN 24" IN CALIPER	7,200 SF	2	12.1	4.54 Ac (197,868 SF)	55

   B. ANY LIVING TREE REMOVED SHALL BE REPLACED BASED ON THE FOLLOWING: (§ 124-7.a)

SECTION	REQUIREMENTS	REPLACEMENT TREE CALCULATION	REPLACEMENT TREES PROVIDED
§124-7.a	THERE SHALL BE ONE (1) REPLACEMENT TREE OF 2 – 2-1/2" IN CALIPER REQUIRED FOR EVERY TREE REMOVED GREATER THAN 5" AND UP TO 12" IN CALIPER OR $240.00/TREE REMOVED	(248 TREES REMOVED)*(1 REPLACEMENT TREE/TREE REMOVED) = 248 REPLACEMENT TREES OF 2 – 2-1/2" CALIPER REQUIRED	233 TREES WITH 2 – 2-1/2" CALIPER PROVIDED AND $3,600.00 REQUIRED
	THERE SHALL BE ONE (1) REPLACEMENT TREE OF 3 – 3-1/2" IN CALIPER REQUIRED FOR EVERY TREE REMOVED GREATER THAN 5" AND UP TO 12" IN CALIPER OR $480.00/TREE REMOVED	(248 TREES REMOVED)*(1 REPLACEMENT TREE/TREE REMOVED) = 248 REPLACEMENT TREES OF 3 – 3-1/2" CALIPER REQUIRED	$119,040.00 REQUIRED
	THERE SHALL BE TWO (2) REPLACEMENT TREES OF 2-1/2 – 3" IN CALIPER REQUIRED FOR EVERY TREE REMOVED GREATER THAN 12" AND UP TO 18" IN CALIPER OR $440.00/TREE REMOVED	(193 TREES REMOVED)*(2 REPLACEMENT TREES/TREE REMOVED) = 386 REPLACEMENT TREES OF 2-1/2 – 3" CALIPER REQUIRED	$84,920.00 REQUIRED
	THERE SHALL BE THREE (3) REPLACEMENT TREES OF 3" IN CALIPER REQUIRED FOR EVERY TREE REMOVED GREATER THAN 18" AND UP TO 24" IN CALIPER OR $840.00/TREE REMOVED	(110 TREES REMOVED)*(3 REPLACEMENT TREES/TREE REMOVED) = 330 REPLACEMENT TREES OF 3" CALIPER REQUIRED	$92,400.00 REQUIRED
	THERE SHALL BE FOUR (4) REPLACEMENT TREES OF 3" IN CALIPER REQUIRED FOR EVERY TREE REMOVED GREATER THAN 24" IN CALIPER OR $1,680.00/TREE REMOVED	(55 TREES REMOVED)*(4 REPLACEMENT TREES/TREE REMOVED) = 220 REPLACEMENT TREES OF 3" CALIPER REQUIRED	$92,400.00 REQUIRED
			TOTAL: $392,360.00 REQUIRED

   C. THE APPLICANT WILL RECEIVE A ONE FOR ONE REPLACEMENT TREE CREDIT SHOULD STANDS OF TEN OR MORE TREES GREATER THAN FIVE INCHES IN CALIPER BE PRESERVED WITHIN THE LIMIT OF DISTURBANCE LINE. THE TOWNSHIP ZONING OFFICER SHALL DETERMINE THE LIMIT OF DISTURBANCE LINE FOR APPLICATION OF REPLACEMENT TREE CREDIT PROVISIONS OF THIS SUBSECTION. (§ 124-7.b)
   D. ALL REPLACEMENT TREES SHALL BE PLANTED ON SITE IN ACCORDANCE WITH THE FOREGOING; HOWEVER, IF ONE OR MORE OF THE FOLLOWING CONDITIONS EXIST, SOME OR ALL OF THE REPLACEMENT TREES MAY BE PLANTED OFF SITE: (§ 124-7.c)
      i. THE SITE IN QUESTION CANNOT PHYSICALLY ACCOMMODATE THE TOTAL REPLACEMENT AMOUNT OF TREES, AND THE APPLICANT CONTRIBUTES AN AMOUNT EQUAL TO THE CALCULATED MONETARY VALUE OF THE UNREPLACED REMOVED TREES TO THE TREE ESCROW FUND. OR (§ 124-7.c.1)
      ii. THE ZONING OFFICER AND APPLICANT AGREE IN WRITING THAT THE APPLICANT SHALL MAKE PAYMENT TO THE TREE ESCROW FUND BASED UPON THE ABOVE CHART, OR (§ 124-7.c.2)
      iii. THE ZONING OFFICER AND APPLICANT AGREE IN WRITING THAT THE APPLICANT SHALL PLANT REPLACEMENT TREES OFF-SITE ON MUNICIPALLY OWNED PROPERTY. (§ 124-7.c.3)

DEMOLITION PLAN LEGEND

- PROPOSED LIMIT OF DISTURBANCE LINE
- TPF TPF – PROPOSED TREE PROTECTION FENCE LINE
- EXISTING IMPROVEMENTS TO BE REMOVED UNLESS OTHERWISE NOTED
- TREES TO REMAIN
- TREES TO BE REMOVED
- TREES TO BE TRANSPLANTED/RELOCATED

LIMIT OF DISTURBANCE = 270,301 SF. (6.205 Ac.)

WOODED AREA LIMIT OF DISTURBANCE = 197,868 SF. (4.542 Ac.)

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PROJECT: 261 ETRA RD., LLC
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

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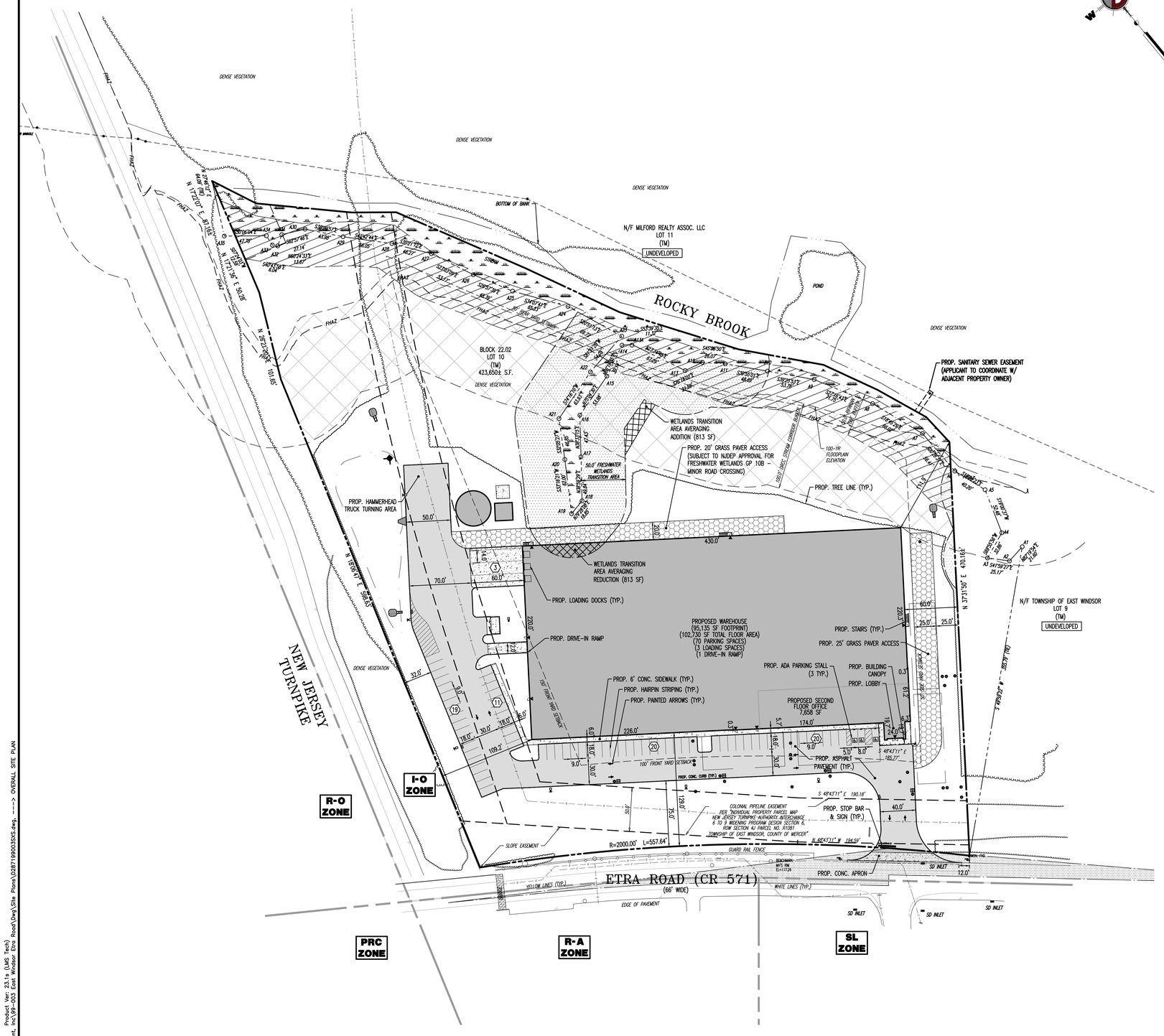
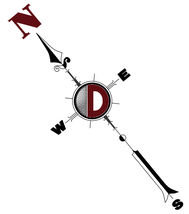
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Plotted: 10/14/21 – 10:18 AM By: gcowdrick – Product Ver: 23.1s (LMS Tech)
File: P:\2021\21-2871-99-003\CAD\21-2871-99-003 Etra Road Development, Inc\99-003 East Windsor Etra Road\Dwg\Site Plans\\2871990003SRD.dwg, ---> 03 DEMOLITION PLAN





GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:
   OUTBOUND & TOPOGRAPHIC SURVEY PLAN, PREPARED 08/19/2019
   EVERGREEN SURVEYING, LLC
   2705 W. COUNTY LINE ROAD, SUITE B
   JACKSON, NJ 08527
   SURVEYOR FILE NO: 19-32032
2. APPLICANT: 261 ETRA RD, LLC
   1 INTERNATIONAL BOULEVARD, SUITE 410
   MAHWAH NJ, 07495
3. OWNER: RAMOS, OSCAR & MICHAEL R
   482-14 AKOLA STREET
   KIHEI, HI 96753
4. PARCEL DATA: BLOCK 22.02, LOT 10
   261 ETRA ROAD
   TOWNSHIP OF EAST WINDSOR
   MERCER COUNTY, NJ
5. ZONE: ZONE I-O (INDUSTRIAL OFFICE ZONE)
6. EXISTING USE: UNDEVELOPED LAND
7. PROPOSED USE: WAREHOUSE **(PERMITTED USE)** (§ 20-19.1.c)
8. SCHEDULE OF ZONING REQUIREMENTS (§ 20-19.4)

ZONE REQUIREMENT	ZONE I-O	EXISTING	PROPOSED
MINIMUM LOT AREA	4 Ac	425,212 SF (9.76 Ac)	425,212 SF (9.76 Ac)
MINIMUM LOT WIDTH	350 FT	609.0 FT	609.0 FT
MINIMUM FRONT YARD SETBACK (ETRA ROAD)	100 FT [1]	N/A	121.3 FT
MINIMUM FRONT YARD SETBACK (NEW JERSEY TURNPIKE)	150 FT [2]	N/A	109.2 FT **(V)**
MINIMUM REAR YARD SETBACK	50 FT [3]	N/A	111.9 FT
MINIMUM SIDE YARD SETBACK	50 FT [3]	N/A	60.0 FT
MINIMUM COMBINED SIDE YARD SETBACK (PRINCIPAL BUILDING)	N/A	N/A	169.2 FT
MINIMUM STREET YARD SETBACK (ACCESSORY BUILDING)	200 FT	N/A	394.1 FT
MINIMUM REAR YARD SETBACK (ACCESSORY BUILDING)	50 FT	N/A	242.2 FT
MINIMUM SIDE YARD SETBACK (ACCESSORY BUILDING)	50 FT	N/A	178.4 FT
MINIMUM PRINCIPAL BUILDING SETBACK (ACCESSORY BUILDING)	20 FT	N/A	39.4 FT
MAXIMUM BUILDING HEIGHT	60 FT	N/A	≤ 60 FT
MAXIMUM BUILDING COVERAGE (BY BUILDINGS & CANOPIES)	30%	N/A	22.4% (95,135 SF)
MAXIMUM IMPERVIOUS COVERAGE	75%	N/A	39.0% (166,052 SF)
MAXIMUM FLOOR AREA RATIO	0.25	N/A	0.242

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

[1] FROM ALL OTHER PUBLIC STREETS, A FRONT YARD OF 100 FEET AND A LANDSCAPE STRIP OF 50 FEET. (§ 20-19.4.a.2)
[2] ALONG MILFORD ROAD, THE NEW JERSEY TURNPIKE, AND OLD YORK ROAD, A FRONT YARD OF 150 FEET AND A LANDSCAPE STRIP OF 100 FEET. (§ 20-19.4.a.1)
[3] THE MINIMUM SIDE AND REAR YARD LANDSCAPE BUFFER SHALL BE 50 FEET, EXCEPT THAT WHEN ADJACENT TO A RESIDENTIAL DISTRICT A 100 FOOT LANDSCAPE BUFFER SHALL BE PROVIDED. (§ 20-19.4.b)

9. PARKING REQUIREMENTS
   A. FOR AN OFFICE BUILDING, THERE SHALL BE ONE (1) SPACE FOR EACH 200 SQUARE FEET OF GROSS FLOOR AREA. (§ 19A-2.3.b.7)
   B. FOR AN INDUSTRIAL BUILDING, THERE SHALL BE ONE (1) SPACE FOR EACH 1,000 SQUARE FEET OF GROSS FLOOR AREA, PLUS ADDITIONAL SPACES AT RATIO FOR THAT PORTION USED FOR OFFICES (§ 19A-2.3.b.8)
   C. PARKING CALCULATION:

OFFICE: (7,658 SF)*(1 PARKING SPACES/200 SF)	= 39 SPACES
WAREHOUSE: (95,072 SF)*(1 PARKING SPACES/1,000 SF)	= 95 SPACES
TOTAL REQUIRED	= 134 SPACES
TOTAL PROPOSED	= 70 SPACES **(V)**

   D. IN COMPUTING THE NUMBER OF PARKING SPACES REQUIRED, IF THE COMPUTATION SHALL RESULT IN A FRACTION, A SPACE SHALL BE REQUIRED FOR EACH FRACTION. (§19A-2.3.F)
   E. ALL COMMERCIAL AND INDUSTRIAL OFF-STREET PARKING AREAS SHALL BE BORDERED BY LANDSCAPE AREAS CONTAINING TREES, SHRUBS, AND LANDSCAPE BERMS TO SHIELD AUTOMOBILES FROM VIEW. WHENEVER FEASIBLE, THE PLANNING BOARD SHALL REQUIRE THAT AT LEAST TEN PERCENT OF THE TOTAL PAVED PARKING LOT AREA SHALL BE USED FOR INTERIOR LANDSCAPING TO INCLUDE SUCH THINGS AS TREES AND SHRUBS. (§ 19A-2.3.h) **(V)**
   F. PARKING BAYS SHALL BE SEPARATED FROM ACCESS OR CIRCULATION DRIVES BY A TEN FOOT WIDE PLANTING ISLAND OR AREA FOR THE FULL WIDTH OF A BAY AT THE ENDS OF ROWS. THE PARKING LOT SHALL, WHERE POSSIBLE BE SUBDIVIDED INTO MODULAR PARKING BAYS OR LOTS OF NOT GREATER THAN 80 SPACES EACH. THESE MODULES SHALL BE SEPARATED BY A LANDSCAPE ISLAND OF A MINIMUM TEN FOOT WIDTH. WHEN APPROPRIATE, PEDESTRIAN WALKWAYS SHALL BE PROVIDED ON THESE ISLANDS. A SINGLE LINE OF ROW WITHIN A BAY SHOULD BE NO MORE THAN 20 SPACES IN LENGTH. (§ 19A-2.3.h)
   G. SEPARATE SIDEWALKS FOR PEDESTRIANS TRAVELLING TO AND FROM PARKING BAYS SHALL BE PROVIDED IN THE LANDSCAPE PLANTING STRIPS, AND WHERE SUCH WALKWAYS CROSS ACCESS DRIVES, CROSSWALKS SHALL BE CLEARLY IDENTIFIED BY PAINTED LINES OR OTHER SUITABLE MEANS. (§ 19A-2.3.i)
   H. THE MINIMUM STALL WIDTH AND DEPTH SHALL BE 9 AND 18 FEET RESPECTIVELY. (§ 22-9.2.a)
   I. FOR A PARKING ANGLE OF 90 DEGREES, THE AISLE WIDTH SHALL BE 24 FEET FOR ONE-WAY TRAFFIC AND 24 FEET FOR TWO-WAY TRAFFIC. (§22-9.2.b)
   J. SPACES SHALL BE STRIPED WITH LINES FOUR INCHES WIDE, AND DOUBLE STRIPED BETWEEN SPACES WITH LINES TWO FEET ON CENTER. A HARPIN STRIPING CONFIGURATION SHALL BE MADE AT THE HEAD OF THE DOUBLE STRIPE. (§ 22-9.2.c)
   K. EVERY COMMERCIAL OR INDUSTRIAL BUILDING OR GROUP OF CONTIGUOUS BUILDINGS ON A SINGLE LOT THE TOTAL GROSS FLOOR AREA OF WHICH IS OVER 20,000 SQUARE FEET AND THE FACADE(S) OF WHICH ABUTS ON A PUBLIC STREET OR WHICH IS OTHERWISE SERVICED BY A PUBLIC STREET ACCESS DRIVE SEPARATED FROM SUCH PARKING AREA BY A PEDESTRIAN WALKWAY, SHALL HAVE A STORE LINE WITH EACH PARKING AREA ABUTTING SUCH FACADE OR WALKWAY FOR ONE LANE SHUTTLE BUS AT LEAST 12 FEET WIDE AND SHALL BE SO DESIGNED AS TO PROVIDE FULL ACCESS TO EVERY SIDE OF THE BUILDING BORDERING ON A PARKING AREA FOR FIRE AND OTHER EMERGENCY VEHICLES. THE PERIMETER OF FIRE LANES SHALL BE CLEARLY DELINEATED IN PAINT AND THE WORDS "FIRE LANE" SHALL BE PLACED ADJACENT THERETO AT LEAST EVERY 100 LINEAR FEET. THE FIRE LANE SHALL NOT INCLUDE LOADING AREAS AS APPROVED PURSUANT TO ANY DEVELOPMENT APPLICATIONS. (§ 22-9.2.d) **(W)**

10. LOADING REQUIREMENTS
    A. FOR A WAREHOUSE BETWEEN 20,000 TO 40,000 SQUARE FEET, THERE SHALL BE THREE (3) LOADING SPACES. (§19A-2.4.A);
    B. FOR MANUFACTURING, WHOLESALE OR AN INDUSTRIAL ESTABLISHMENT OF 40,000 TO 60,000 SQUARE FEET THERE SHALL BE FOUR (4) LOADING SPACES. THERE SHALL BE ONE (1) LOADING SPACE FOR EACH ADDITIONAL 50,000 SQUARE FEET OVER 60,000 SQUARE FEET. (§19A-2.4.a);
    C. LOADING CALCULATION:

(60,000 SF)*(4 SPACES/60,000 SF)	= 4 SPACES
(42,654 SF)*(1 SPACE/50,000 SF)	= 1 SPACE
TOTAL REQUIRED	= 5 SPACES
TOTAL PROPOSED	= 3 SPACES **(V)**

    D. EACH SPACE SHALL NOT BE LESS THAN 12 FEET IN WIDTH AND 70 FEET IN LENGTH AND 15 FEET VERTICAL CLEARANCE. WHERE MORE THAN TWO LOADING SPACES ARE REQUIRED, ALL ADDITIONAL SPACES SHALL NOT BE LESS THAN 12 FEET IN WIDTH AND 60 FEET IN LENGTH, WITH 15 FEET VERTICAL CLEARANCE. ALL AREAS FOR LOADING AND UNLOADING OF DELIVERY TRUCKS AND OTHER VEHICLES AND FOR THE SERVICING OF ESTABLISHMENTS OR SHOPS BY REFUSE COLLECTION, FUEL AND OTHER SERVICE VEHICLES SHALL HAVE ADEQUATE AND UNOBSTRUCTED ACCESS FROM A STREET, SERVICE DRIVEWAY OR ALLEY AND SHALL BE SO ARRANGED THAT THEY MAY BE USED WITHOUT: (§ 19A-2.4.b)
       i. BLOCKING OR OTHERWISE INTERFERING WITH THE USE OF AUTOMOBILE ACCESSWAYS, PARKING FACILITIES, FIRE LANES OR PEDESTRIAN WAYS. (§ 19A-2.4.b.1)
       ii. BACKING OUT ONTO A STREET. (§ 19A-2.4.b.2)
    E. ALL OFF-STREET LOADING/UNLOADING AREAS SHOULD BE SCREENED FROM PUBLIC VIEW.. (§19A-2.4.c)

11. DRIVEWAY REQUIREMENTS
    A. EACH LOT AND/OR PROPERTY SHALL HAVE NO MORE THAN ONE "ENTRANCE ONLY" AND ONE "EXIT ONLY" DRIVEWAY PER EXISTING ROAD FRONTAGE. (§ 19A-2.3.m)
    B. PORTLAND CEMENT CONCRETE APRONS SHALL BE CONSTRUCTED BETWEEN THE CURB AND SIDEWALK AT ALL DRIVEWAYS. (§22-6.a)
    C. FOR A COMMERCIAL/INDUSTRIAL USE, THE CURBLINE OPENING SHALL BE 24-50 FEET AND THE DRIVEWAY WIDTH SHALL BE 15-34 FEET FOR ONE-WAY OPERATION. (§ 22-8.4.B)
    D. FOR A COMMERCIAL/INDUSTRIAL USE, THE CURBLINE OPENING SHALL BE 24-46 FEET FOR TWO-WAY OPERATION. (§ 22-8.4.B) **(W)**

12. BUFFER REQUIREMENTS
    A. A PARKING LOT ACCESSORY TO A PERMITTED USE AND HAVING SPACES FOR FIVE OR MORE AUTOMOBILES SHALL BE SCREENED FROM THE ADJACENT PROPERTY BY A LANDSCAPE BUFFER NOT LESS THAN TEN FEET IN WIDTH. ANY LANDSCAPE BUFFER REQUIREMENT OF THIS SECTION SHALL BE SUBJECT TO ANY MORE STRINGENT REQUIREMENTS OF THE DISTRICT IN WHICH SUCH LOT IS LOCATED. THIS AREA SHALL RECEIVE LANDSCAPE ARCHITECTURAL TREATMENT. (§ 19A-2.3.k)
    B. A PERMANENT LANDSCAPED AREA, KNOWN AS A BUFFER AREA, SHALL BE LOCATED BETWEEN ANY PORTION OF ANY PARKING LOT OR ANY PROPERTY LINE WHICH IS ADJOINING OR OPPOSITE RESIDENTIAL USES. THE BUFFER AREA SHALL BE PLANTED WITH A VISUALLY EFFECTIVE SCREEN AS SET FORTH IN THE TECHNICAL STANDARDS. THE BUFFER AREA SHALL BE AN AREA OF LAND AT LEAST 25 FEET IN WIDTH DEVOTED TO NATURAL PLANTINGS: I.E., HEDGES, GRASS AND OTHER SUITABLE GROUND COVER, OTHER SUITABLE SHRUBBERY AND EARTH MOUNDING, AND EVERGREEN TREES AS SET FORTH IN THE TECHNICAL STANDARDS. (§19A-2.3.k)
    C. A PARKING LOT ACCESSORY TO A PERMITTED USE AND HAVING SPACES FOR FIVE (5) OR MORE AUTOMOBILES, SHALL BE SCREENED FROM THE ADJACENT PROPERTY BY A LANDSCAPE BUFFER NOT LESS THAN TEN (10) FEET IN WIDTH EXCEPT WHERE THE PLANNING BOARD SHALL DETERMINE IN CONNECTION WITH SITE PLAN REVIEW THAT SUCH LANDSCAPE BUFFER IS NOT NECESSARY OR PRACTICABLE. ANY LANDSCAPE BUFFER REQUIREMENT OF THIS SECTION SHALL BE SUBJECT TO ANY MORE STRINGENT REQUIREMENTS OF THE DISTRICT IN WHICH SUCH LOT IS LOCATED AND THE REQUIREMENTS OF THE TECHNICAL STANDARDS. (§20-5.3.3)
    D. ALONG MILFORD ROAD, THE NEW JERSEY TURNPIKE, AND OLD YORK ROAD, A FRONT YARD OF 150 FEET AND A LANDSCAPE STRIP OF 100 FEET. (§20-19.4.a.1) **(V)**
    E. FROM ALL OTHER PUBLIC STREETS, A FRONT YARD OF 100 FEET AND A LANDSCAPE STRIP OF 50 FEET. (§20-19.4.a.2)
    F. TO PROVIDE IMMEDIATE BUFFERING, VISUAL RELIEF, AND SCALE FOR LARGE OFFICE, COMMERCIAL, AND INDUSTRIAL BUILDINGS LARGER SIZE TREES SHALL BE PROVIDED NEAR THE BUILDING PERIMETER (WITHIN 75 FEET). THE QUANTITY OF TREES SHALL BE EQUAL TO ONE TREE FOR EACH 40 FEET OF GENERAL BUILDING PERIMETER FOR 1-2 STORY BUILDINGS. THE MINIMUM TREE SIZE SHALL BE 4-4.5 INCHES IN CALIPER. (§22-27.9.b)

13. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.

14. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.

15. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.

16. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.

17. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.

18. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.

19. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

20. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

21. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.

22. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

23. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

24. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C. NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING BUT NOT LIMITED TO CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR ON THIS PROJECT SHALL BE RESPONSIBLE FOR ITS ACTS AND THOSE OF ITS EMPLOYEES AND SUBCONTRACTORS. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

25. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL HAVE THE AUTHORITY TO REJECT OR DISAPPROVE AND TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH THE TRADES AND CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

26. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.

27. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.

28. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, THEN IT SHALL BE REQUIRED THAT THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALITIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ALL SUCH COSTS AND ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALITIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

29. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

30. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIDING OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.

31. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.

32. CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND MUST BE COORDINATED WITH ARCHITECTURAL FLOOR PLANS PRIOR TO CONSTRUCTION. THE HANDICAP ACCESSIBLE PARKING SPACES AND THE ASSOCIATED RAMPS AND ACCESSIBLE ROUTE MUST COMPLY WITH NJAC 5:23-7 AND THE HANDICAP PARKING SPACES MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400

TITLE: OVERALL SITE PLAN

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No:	2871-99-003
DATE:	10/14/2021
DRAWN BY:	GMC
SCALE: (H) 1"=50' (V)	
DESIGNED BY:	TAZ
CHECKED BY:	TJM
CHECKED BY:	_
SHEET No:	4 OF 19

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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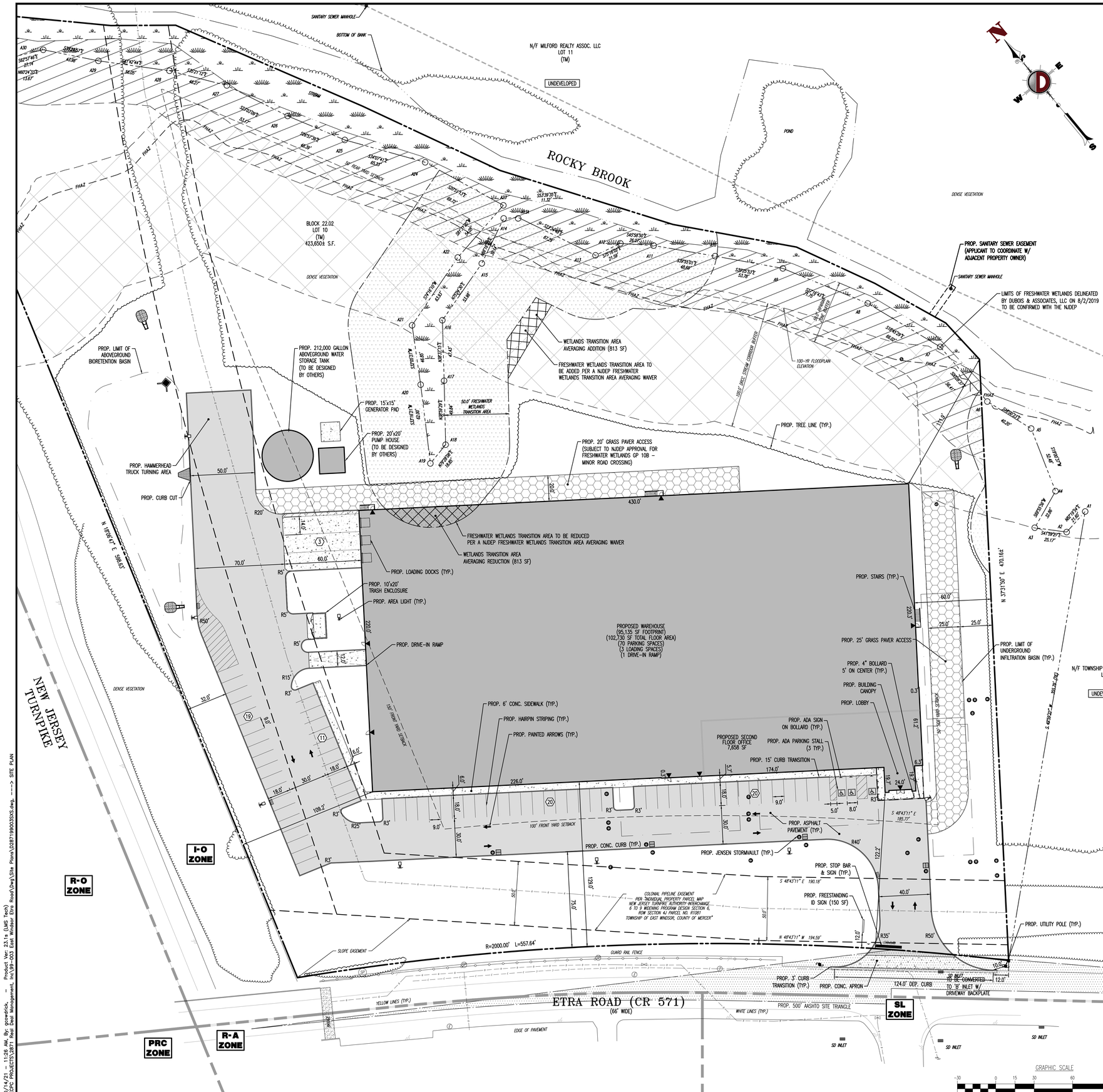
Rev. # 0

Plotted: 10/14/21 — 11:28 AM By: gcswirds — Product Ver: 23.1s (LMS Tech)
File: P:\DOCS_PROJECTS\2871 Real Management, Inc\99-003 East Windsor, Etra Road\Dwg\Site Plans\D28719900SYS.dwg, ---> OVERALL SITE PLAN



GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:
   OUTBOUND & TOPOGRAPHIC SURVEY PLAN, PREPARED 08/19/2019
   CLEARPOINT SERVICES, LLC
   2705 W. COUNTY LINE ROAD, SUITE B
   JACKSON, NJ 08527
   SURVEYOR FILE NO.: 19-32032
2. APPLICANT: 261 ETRA RD, LLC
   1 INTERNATIONAL BOULEVARD, SUITE 410
   MAHWAH NJ, 07495
3. OWNER: RAMOS, OSCAR A. & MICHAEL R
   482-A KAOLA STREET
   KIHEI, HI 96753
4. PARCEL DATA: BLOCK 22.02, LOT 10
   261 ETRA ROAD
   TOWNSHIP OF EAST WINDSOR
   MERCER COUNTY, NJ
5. ZONE: ZONE I-O (INDUSTRIAL OFFICE ZONE)
6. EXISTING USE: UNDEVELOPED LAND
7. PROPOSED USE: WAREHOUSE **(PERMITED USE)** (§ 20-19.1.c)
8. SCHEDULE OF ZONING REQUIREMENTS (§ 20-19.4)

ZONE REQUIREMENT	ZONE I-O	EXISTING	PROPOSED
MINIMUM LOT AREA	4 Ac	425,212 SF (9.76 Ac)	425,212 SF (9.76 Ac)
MINIMUM LOT WIDTH	350 FT	609.0 FT	609.0 FT
MINIMUM FRONT YARD SETBACK (ETRA ROAD)	100 FT [1]	N/A	121.3 FT
MINIMUM FRONT YARD SETBACK (NEW JERSEY TURNPIKE)	150 FT [2]	N/A	109.2 FT **(V)**
MINIMUM REAR YARD SETBACK	50 FT [3]	N/A	111.9 FT
MINIMUM SIDE YARD SETBACK	50 FT [3]	N/A	60.0 FT
MINIMUM COMBINED SIDE YARD SETBACK (PRINCIPAL BUILDING)	N/A	N/A	169.2 FT
MINIMUM STREET YARD SETBACK (ACCESSORY BUILDING)	200 FT	N/A	394.1 FT
MINIMUM REAR YARD SETBACK (ACCESSORY BUILDING)	50 FT	N/A	242.2 FT
MINIMUM SIDE YARD SETBACK (ACCESSORY BUILDING)	50 FT	N/A	178.4 FT
MINIMUM PRINCIPAL BUILDING SETBACK (ACCESSORY BUILDING)	20 FT	N/A	39.4 FT
MAXIMUM BUILDING HEIGHT	60 FT	N/A	≤ 60 FT
MAXIMUM BUILDING COVERAGE (BY BUILDINGS & CANOPIES)	30%	N/A	22.4% (95,135 SF)
MAXIMUM IMPERVIOUS COVERAGE	75%	N/A	39.0% (166,052 SF)
MAXIMUM FLOOR AREA RATIO	0.25	N/A	0.242

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

[1] FROM ALL OTHER PUBLIC STREETS, A FRONT YARD OF 100 FEET AND A LANDSCAPE STRIP OF 50 FEET. (§ 20-19.4.a.2)
[2] ALONG MILFORD ROAD, THE NEW JERSEY TURNPIKE, AND OLD YORK ROAD, A FRONT YARD OF 150 FEET AND A LANDSCAPE STRIP OF 100 FEET. (§ 20-19.4.a.1)
[3] THE MINIMUM SIDE AND REAR YARD LANDSCAPE BUFFER SHALL BE 50 FEET, EXCEPT THAT WHEN ADJACENT TO A RESIDENTIAL DISTRICT A 100 FOOT LANDSCAPE BUFFER SHALL BE PROVIDED. (§ 20-19.4.b)

9. PARKING REQUIREMENTS
   A. FOR AN OFFICE BUILDING, THERE SHALL BE ONE (1) SPACE FOR EACH 200 SQUARE FEET OF GROSS FLOOR AREA. (§ 19A-2.3.b.7)
   B. FOR AN INDUSTRIAL BUILDING, THERE SHALL BE ONE (1) SPACE FOR EACH 1,000 SQUARE FEET OF GROSS FLOOR AREA, PLUS ADDITIONAL SPACES AT RATIO FOR THAT PORTION USED FOR OFFICES (§ 19A-2.3.b.8)
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   D. IN COMPUTING THE NUMBER OF PARKING SPACES REQUIRED, IF THE COMPUTATION SHALL RESULT IN A FRACTION, A SPACE SHALL BE REQUIRED FOR EACH FRACTION. (§19A-2.3.f)
   E. ALL COMMERCIAL AND INDUSTRIAL OFF-STREET PARKING AREAS SHALL BE BORDERED BY LANDSCAPE AREAS CONTAINING TREES, SHRUBS, AND LANDSCAPE BERMS TO SHIELD AUTOMOBILES FROM VIEW WHENEVER FEASIBLE. THE PLANNING BOARD SHALL REQUIRE THAT AT LEAST TEN PERCENT OF THE TOTAL PAVED PARKING LOT AREA SHALL BE USED FOR INTERIOR LANDSCAPING TO INCLUDE SUCH THINGS AS TREES AND SHRUBS. (§ 19A-2.3.h) **(V)**
   F. PARKING BAYS SHALL BE SEPARATED FROM ACCESS OR CIRCULATION DRIVES BY A TEN FOOT WIDE PLANTING ISLAND OR AREA FOR THE FULL WIDTH OF A BAY AT THE ENDS OF BOWS. THE PARKING LOT SHALL WHERE POSSIBLE BE SUBDIVIDED INTO MODULAR PARKING BAYS OR LOTS OF NOT GREATER THAN 80 SPACES EACH. THESE MODULES SHALL BE SEPARATED BY A LANDSCAPE ISLAND OF A MINIMUM TEN FOOT WIDTH. WHEN APPROPRIATE, PEDESTRIAN WALKWAYS SHALL BE PROVIDED ON THESE ISLANDS. A SINGLE LINE OF ROW WITHIN A BAY SHOULD BE NO MORE THAN 20 SPACES IN LENGTH. (§ 19A-2.3.h)
   G. SEPARATE SIDEWALKS FOR PEDESTRIANS TRAVELLING TO AND FROM PARKING BAYS SHALL BE PROVIDED IN THE LANDSCAPE PLANTING STRIPS, AND WHERE SUCH WALKWAYS CROSS ACCESS DRIVES, CROSSWALKS SHALL BE CLEARLY IDENTIFIED BY PAINTED LINES OR OTHER SUITABLE MEANS. (§ 19A-2.3.i)
   H. THE MINIMUM STALL WIDTH AND DEPTH SHALL BE 9 AND 18 FEET RESPECTIVELY. (§ 22-9.2.a)
   I. FOR A PARKING ANGLE OF 90 DEGREES, THE AISLE WIDTH SHALL BE 24 FEET FOR ONE-WAY TRAFFIC AND 24 FEET FOR TWO-WAY TRAFFIC. (§22-9.2.b)
   J. SPACES SHALL BE STRIPED WITH LINES FOUR INCHES WIDE, AND DOUBLE STRIPED BETWEEN SPACES WITH LINES TWO FEET ON CENTER. A HAIRPIN STRIPING CONFIGURATION SHALL BE MADE AT THE HEAD OF THE DOUBLE STRIPE. (§ 22-9.2.c)
   K. EVERY COMMERCIAL OR INDUSTRIAL BUILDING OR GROUP OF CONTIGUOUS BUILDINGS ON A SINGLE LOT THE TOTAL GROSS FLOOR AREA OF WHICH IS OVER 20,000 SQUARE FEET AND THE FACADE(S) OF WHICH ABUTS(S) ON A PUBLIC STREET SHALL HAVE AT LEAST ONE (1) DIRECT ACCESS DRIVEWAY THAT IS AT LEAST 25 FEET WIDE TO EACH PARKING BAY ADJOINING SUCH ROADWAY. THE AISLE SHALL BE AT LEAST 25 FEET WIDE AND SHALL BE SO DESIGNED AS TO PROVIDE FULL ACCESS TO EVERY SIDE OF THE BUILDING BORDERING ON A PARKING AREA FOR FIRE AND OTHER EMERGENCY VEHICLES. THE PERIMETER OF FIRE LANES SHALL BE CLEARLY DELINEATED IN PAINT AND THE WORDS "FIRE LANE" SHALL BE PLACED ADJACENT THERETO AT LEAST EVERY 100 LINEAR FEET. THE FIRE LANE SHALL NOT INCLUDE LOADING AREAS AS APPROVED PURSUANT TO ANY DEVELOPMENT APPLICATIONS. (§ 22-9.2.d) **(V)**

10. LOADING REQUIREMENTS
    A. FOR A WAREHOUSE BETWEEN 20,000 TO 40,000 SQUARE FEET, THERE SHALL BE THREE (3) LOADING SPACES. (§19A-2.4.d)
    B. FOR MANUFACTURING, WHOLESALE, OR AN INDUSTRIAL ESTABLISHMENT OF 40,000 TO 60,000 SQUARE FEET THERE SHALL BE FOUR (4) LOADING SPACES. THERE SHALL BE ONE (1) LOADING SPACE FOR EACH ADDITIONAL 50,000 SQUARE FEET OVER 60,000 SQUARE FEET. (§19A-2.4.e)
    C. LOADING CALCULATION:

(60,000 SF)*(4 SPACES/60,000 SF)	= 4 SPACES
(42,654 SF)*(1 SPACE/50,000 SF)	= 1 SPACE
TOTAL REQUIRED	= 5 SPACES
TOTAL PROPOSED	= 3 SPACES **(V)**

    D. EACH SPACE SHALL NOT BE LESS THAN 12 FEET IN WIDTH AND 30 FEET IN LENGTH AND 15 FEET VERTICAL CLEARANCE. WHERE MORE THAN TWO LOADING SPACES ARE REQUIRED, ALL ADDITIONAL SPACES SHALL NOT BE LESS THAN 12 FEET IN WIDTH AND 60 FEET IN LENGTH, WITH 15 FEET VERTICAL CLEARANCE. ALL AREAS FOR LOADING AND UNLOADING OF DELIVERY TRUCKS AND OTHER VEHICLES AND FOR THE SERVICING OF ESTABLISHMENTS OR SHOPS BY REFUSE COLLECTION, FUEL AND OTHER SERVICE VEHICLES SHALL HAVE ADEQUATE AND UNOBSTRUCTED ACCESS FROM A STREET, SERVICE DRIVEWAY OR ALLEY AND SHALL BE SO ARRANGED THAT THEY MAY BE USED WITHOUT: (§ 19A-2.4.b)
       i. BLOCKING OR OTHERWISE INTERFERING WITH THE USE OF AUTOMOBILE ACCESSWAYS, PARKING FACILITIES, FIRE LANES OR PEDESTRIAN WAYS. (§ 19A-2.4.b.1)
       ii. BACKING OUT ONTO A STREET. (§ 19A-2.4.b.2)
    E. ALL OFF-STREET LOADING/UNLOADING AREAS SHOULD BE SCREENED FROM PUBLIC VIEW. (§19A-2.4.c)

11. DRIVEWAY REQUIREMENTS
    A. EACH LOT AND/OR PROPERTY SHALL HAVE NO MORE THAN ONE "ENTRANCE ONLY" AND ONE "EXIT ONLY" DRIVEWAY PER EXISTING ROAD FRONTAGE. (§ 19A-2.3.m)
    B. PORTLAND CEMENT CONCRETE APRONS SHALL BE CONSTRUCTED BETWEEN THE CURB AND SIDEWALK AT ALL DRIVEWAYS. (§22-6.a)
    C. FOR A COMMERCIAL/INDUSTRIAL USE, THE CURBLINE OPENING SHALL BE 24-50 FEET AND THE DRIVEWAY WIDTH SHALL BE 15-34 FEET FOR ONE-WAY OPERATION. (§ 22-8.4.B)
    D. FOR A COMMERCIAL/INDUSTRIAL USE, THE CURBLINE OPENING SHALL BE 26-50 FEET AND THE DRIVEWAY WIDTH SHALL BE 24-46 FEET FOR TWO-WAY OPERATION. (§ 22-8.4.B) **(V)**

12. BUFFER REQUIREMENTS
    A. A PARKING LOT ACCESSORY TO A PERMITTED USE AND HAVING SPACES FOR FIVE OR MORE AUTOMOBILES SHALL BE SCREENED FROM THE ADJACENT PROPERTY BY A LANDSCAPE BUFFER NOT LESS THAN TEN FEET IN WIDTH. ANY LANDSCAPE BUFFER REQUIREMENT OF THIS SECTION SHALL BE SUBJECT TO ANY MORE STRINGENT REQUIREMENTS OF THE DISTRICT IN WHICH SUCH LOT IS LOCATED. THIS AREA SHALL RELEASE LANDSCAPE ARCHITECTURAL TREATMENT. (§ 19A-2.3.h)
    B. A STORMWATER BASIN AREA, KNOWN AS A BUFFER AREA, SHALL BE LOCATED, BETWEEN ANY PORTION OF ANY PARKING LOT OR ANY PROPERTY LINE WHICH IS ADJOINING OR OPPOSITE RESIDENTIAL USES. THE BUFFER AREA SHALL BE PLANTED WITH A VISUALLY EFFECTIVE SCREEN AS SET FORTH IN THE TECHNICAL STANDARDS. THE BUFFER AREA SHALL BE AN AREA OF LAND AT LEAST 25 FEET IN WIDTH DEVOTED TO NATURAL PLANTINGS I.E. HEDGES, GRASS AND OTHER SUITABLE GROUND COVER, OTHER SUITABLE SHRUBBERY AND EARTH MOUNDING, AND EVERGREEN TREES AS SET FORTH IN THE TECHNICAL STANDARDS. (§19A-2.3.k)
    C. A PARKING LOT ACCESSORY TO A PERMITTED USE AND HAVING SPACES FOR FIVE OR MORE AUTOMOBILES SHALL BE SCREENED FROM THE ADJACENT PROPERTY BY A LANDSCAPE BUFFER NOT LESS THAN TEN (10) FEET IN WIDTH. ANY LANDSCAPE BUFFER REQUIREMENT OF THIS SECTION SHALL BE SUBJECT TO ANY MORE STRINGENT REQUIREMENTS OF THE DISTRICT IN WHICH SUCH LOT IS LOCATED AND THE REQUIREMENTS OF THE TECHNICAL STANDARDS. (§20-5.3.3)
    D. ALONG MILFORD ROAD, THE NEW JERSEY TURNPIKE, AND OLD YORK ROAD, A FRONT YARD OF 150 FEET AND A LANDSCAPE STRIP OF 100 FEET. (§20-19.4.a.1) **(V)**
    E. FROM ALL OTHER PUBLIC STREETS, A FRONT YARD OF 100 FEET AND A LANDSCAPE STRIP OF 50 FEET. (§20-19.4.a.2)
    F. TO PROVIDE IMMEDIATE BUFFERING, VISUAL RELIEF, AND SCALE FOR LARGE OFFICE, COMMERCIAL, AND INDUSTRIAL BUILDINGS LARGER SIZE TREES SHALL BE PROVIDED NEAR THE BUILDING PERIMETER (WITHIN 75 FEET). THE QUANTITY OF TREES SHALL BE EQUAL TO ONE TREE FOR EVERY 40 FEET OF GENERAL BUILDING PERIMETER. FOR 1-2 STORY BUILDINGS, THE MINIMUM TREE SIZE SHALL BE 4-4.5 INCHES IN CALIPER. (§22-27.9.6)

SIGNAGE CHART

SIGN	REQUIREMENTS		PROPOSED	
FREESTANDING	NUMBER OF SIGNS:	ONE	NUMBER OF SIGNS:	ONE
	MAXIMUM SIGN AREA:	150 SF [1]	SIGN AREA:	150 SF
	MAXIMUM SIGN HEIGHT:	25 FT	SIGN HEIGHT:	25 FT
	MINIMUM SIGN SETBACK:	[2][3]	SIGN SETBACK:	
	– FRONT YARD	12 FT	– FRONT YARD	12 FT
	– SIDE YARD	5 FT	– SIDE YARD	111.2 FT
	– REAR YARD	5 FT	– REAR YARD	446.9 FT
	MINIMUM CLEARANCE:	14 FT [3] [4]	SIGN CLEARANCE:	14 FT
FAÇADE	NUMBER OF FAÇADE SIGNS:	ONE [5][6]	NUMBER OF SIGNS:	TBD
	MAXIMUM FAÇADE SIGN AREA:	10% OF FAÇADE AREA [7] [16,000 SF]*(10%) = 1,600 SF	SIGN AREA:	TBD
	MINIMUM CLEARANCE:	[8]	SIGN CLEARANCE:	TBD
	MAX. PROJECTION:	18 IN [8]	PROJECTION:	TBD
DIRECTIONAL	NUMBER OF SIGNS:	ONE [9]	NUMBER OF DIRECTIONAL SIGNS:	0
	MAXIMUM SIGN AREA:	16 SF	DIRECTIONAL SIGN AREA:	N/A

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

[1] THE TOTAL PERMITTED AREA OF A FREESTANDING SIGN SHALL NOT EXCEED ONE SQUARE FOOT OF SIGN AREA FOR EACH LINEAR FOOT OF STREET FRONTAGE ABUTTING THE DEVELOPED PORTION OF SAID PARCEL PROVIDED THAT NO SIGN SHALL EXCEED 150 SQUARE FEET. (§ 20-5.16.7.B.1)
[2] WHERE PREMISES ZONED FOR COMMERCIAL OR INDUSTRIAL USE ARE WITHIN 50 FEET OF THE NEAREST BOUNDARY OF ANY PREMISES ZONED FOR RESIDENTIAL USE ON THE SAME PUBLIC RIGHT-OF-WAY, FREESTANDING SIGNS SHALL NOT BE ERECTED WITHIN 50 FEET OF A RESIDENTIAL ZONE. (§ 20-5.16.7.B.6)
[3] ALL FREESTANDING SIGNS SHALL BE PLACED SO AS NOT TO IMPEDE FULL VISION OF ONCOMING TRAFFIC FROM ANY EXIT ONTO A ROADWAY AT A DISTANCE OF TWO AND ONE-HALF TO TEN FEET ABOVE THE GRADE OF SUCH ROADWAY AT ANY POINT IN THE AREA OF THE EXIT WHERE AN EXITING VEHICLE IS LIKELY TO BE AS IT MOVES ONTO THE ROADWAY. NO SIGN STRUCTURE SHALL BE PLACED IN ANY PARKING AREA OR IN ANY AREA USED FOR VEHICULAR TRAFFIC. (§ 20-5.16.7.B.9)
[4] WHERE A FREESTANDING SIGN PROJECTS OVER A VEHICULAR TRAFFIC AREA, SUCH AS A DRIVEWAY OR PARKING LOT AISLE, THE MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND THE GROUND SHALL BE 14 FEET, IF THE AREA IS RESTRICTED AGAINST TRUCK TRAFFIC, THE MINIMUM CLEARANCE SHALL BE TEN FEET. (§ 20-5.16.7.B.7)
[5] ONE FAÇADE SIGN IS PERMITTED FOR EACH OCCUPANCY WITHIN A DEVELOPED PARCEL; HOWEVER, IF SUCH A BUILDING IS NOT PART OF A SHOPPING CENTER AND IS SITUATED ON A CORNER PROPERTY OR OTHERWISE HAS FRONTAGE ON MORE THAN ONE STREET, ONE ADDITIONAL FAÇADE SIGN FOR EACH OCCUPANCY WILL BE PERMITTED ON THE ABUTTING WALL, PROVIDED THAT EACH FAÇADE SIGN IS NO LARGER THAN THE SIZE OF THE SIGN PERMITTED ON THE SMALLER OF THE TWO BUILDING WALLS, AND PROVIDED FURTHER THAT NO ILLUMINATED SIGN SHALL BE DIRECTED FACING A RESIDENTIAL ZONE AND THAT NO SIGN SHALL EXTEND BEYOND THE FAÇADE OF A BUILDING OR EXTEND HIGHER THAN THE HIGHEST ELEVATION OF THE FAÇADE TO WHICH IT IS ATTACHED. IN THE DETERMINATION OF ALLOWABLE FAÇADE SIGNS FOR INDIVIDUAL OCCUPANTS, ONE FAÇADE SIGN SHALL BE PERMITTED FOR EACH FAÇADE OF A BUILDING WHICH HAS A PUBLIC ENTRANCE, BUT IN ANY EVENT NO FAÇADE OF A BUILDING WILL BE PERMITTED TO HAVE MORE THAN ONE FAÇADE SIGN FOR EACH OCCUPANCY. EACH BUILDING WHICH HAS MULTIPLE OCCUPANCY SHALL BE PERMITTED ONE ADDITIONAL FAÇADE SIGN WHICH CAN SERVE AS AN IDENTIFICATION OF THE BUILDING, SUCH SIGN SHALL NOT EXCEED 5% OF THE AREA OF THE FAÇADE TO WHICH IT IS ATTACHED, AND SUCH SIGN SHALL BE COUNTED TOWARD THE 10% STANDARD SET FORTH IN PARAGRAPH A2 HEREIN. (§ 20-5.16.7.A.3)
[6] ONE IDENTIFICATION FAÇADE SIGN FOR EACH BUILDING OF MULTIPLE OCCUPANCY PROVIDED THAT EACH TENANT HAS ITS OWN PRIMARY ENTRANCE DOOR DIRECTLY FROM THE OUTSIDE. THE SIGN SHALL BE OF INDIVIDUAL LETTERS UP TO BUT NOT EXCEEDING THREE FEET IN HEIGHT. THE TOTAL AREA SHALL NOT EXCEED FOUR SQUARE FEET AND IT SHALL BE PLACED FLAT AGAINST THE WALL OF THE BUILDING ADJACENT TO THE TENANT'S PRIMARY ENTRANCE DOOR. (§ 20-5.16.7)
[7] THE TOTAL DISPLAY AREA OF ALL FAÇADE SIGNS ON ANY FAÇADE OF ANY BUILDING SHALL NOT EXCEED 10% OF THE AREA INCLUDING WINDOWS AND DOORS OF THE FAÇADE OF THE BUILDING TO WHICH THE SIGN IS ATTACHED. IF THERE ARE MULTIPLE OCCUPANTS IN A BUILDING, SUCH AS IN A SHOPPING CENTER, THE 10% STANDARD SHALL APPLY ONLY TO THAT PORTION OF THE BUILDING FAÇADE ASSOCIATED WITH AN INDIVIDUAL OCCUPANT. (§ 20-5.16.7.A.2)
[8] FAÇADE SIGNS SHALL NOT PROJECT MORE THAN 18 INCHES FROM THE BUILDING FACADE TO WHICH IT IS ATTACHED, PROVIDED WHEN A SIGN EXTENDS MORE THAN THREE INCHES FROM THE FACE OF THE WALL THE BOTTOM OF THE SIGN SHALL NOT BE CLOSER THAN NINE FEET FROM THE GROUND LEVEL AT THE SIGN. (§ 20-5.16.7.A.1)
[9] A SECOND DIRECTIONAL SIGN SHALL BE PERMITTED IF THERE IS A SECOND DOOR ENTRANCE. (§ 20-5.16.B.c.4)

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TITLE: SITE PLAN

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No:	2871-99-003
DATE:	10/14/2021
DRAWN BY:	GMC
SCALE: (H) 1"=30' (V)	
DESIGNED BY:	TAZ
SHEET No:	5 OF 19
CHECKED BY:	TJM
CHECKED BY:	–
Rev. #	0

THOMAS J. MULLER, PROFESSIONAL ENGINEER, NEW JERSEY LICENSE No. 52179
JOHN A. PALUS, PROFESSIONAL ENGINEER, NEW JERSEY LICENSE No. 41975

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Plotted: 10/14/21 – 11:28 AM By: gcswirsk — Product Ver: 23.1s (LMS Tech)
File: P:\2021\2871-99-003\CAD Files\Site Development\Site Plans\D2871990035YS.dwg, ---> SITE PLAN

GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY EFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. THE OWNER SHALL RETAIN DYNAMIC EARTH, LLC (908-879-7095) OR ALTERNATE QUALIFIED GEOTECHNICAL ENGINEER TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND ANY FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO COMPARE RESULTS TO DESIGN CRITERIA.
10. CONTRACTOR IS TO REMOVE EXISTING UNSUITABLE OR OVERLY COMPACT SOIL OR ROCK AS NEEDED TO ACHIEVE REQUIRED PERMEABILITY AS DIRECTED BY THE OWNER'S GEOTECHNICAL ENGINEER, AND NEW FILL, IF NEEDED, SHALL HAVE AN IN PLACE PERMEABILITY GREATER THAN OR EQUAL TO THE DESIGN CRITERIA.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

GRADING/UTILITY GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)	
OFF-SITE PROPERTY LINES	
EXIST. CABLE LINE	PROP. CABLE LINE
EXIST. ELECTRIC LINE	PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE	PROP. FIBER OPTIC LINE
EXIST. GAS LINE	PROP. GAS LINE
EXIST. OVERHEAD WIRES	PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE	PROP. TELEPHONE LINE
EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)	PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
EXIST. WATER LINE	PROP. WATER LINE
EXIST. SANITARY SEWER LINE	PROP. SANITARY SEWER LINE
EXIST. STORM DRAIN LINE	PROP. STORM DRAIN LINE
EXIST. MINOR CONTOUR & ELEVATION	
EXIST. MAJOR CONTOUR & ELEVATION	PROP. FINISH GRADE CONTOUR & ELEVATION
EXIST. MONITORING WELL	
APPROX. TEST PIT LOCATION	
EXIST. SPOT ELEVATIONS	PROP. GRADE SPOT ELEV.
EXIST. GUTTER ELEV.	PROP. TOP OF CURB & FINISHED GRADE ELEV.
EXIST. TOP OF CURB ELEV.	
EXIST. FINISH FLOOR ELEV.	PROP. FINISHED FLOOR ELEV.
EXIST. GARAGE FLOOR ELEV.	PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
EXIST. FIRE HYDRANT	
EXIST. WATER VALVE	
EXIST. GAS VALVE	PROP. TOP OF EXTENDED CURB, (CH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (CL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB
EXIST. GAS METER	
EXIST. ELECTRIC METER	
EXIST. ELECTRIC BOX	PROP. DIRECTION OF DRAINAGE FLOW ARROW
EXIST. CLEAN OUT	PROP. WATER VALVE
EXIST. WELL	PROP. GAS VALVE
EXIST. WATER SHUT OFF VALVE	PROP. STORM CLEANOUT
EXIST. TELEPHONE BOX	PROP. SANITARY CLEANOUT
EXIST. CABLE TV BOX	PROP. AREA LIGHT
EXIST. UTILITY POLE	PROP. OUTLET CONTROL STRUCTURE
EXIST. GUY WIRE	PROP. DRAINAGE MANHOLE
EXIST. LIGHT POLE	PROP. SANITARY SEWER MANHOLE
EXIST. BUILDING LIGHT	PROP. "A" INLET
EXIST. SHOE BOX LIGHT	PROP. "B" INLET
EXIST. COBRA LIGHT POLE	PROP. "C" INLET
EXIST. TRAFFIC SIGNAL POLE	PROP. YARD INLET
EXIST. MANHOLE	PROP. FLARED END SECTION
EXIST. "A" INLET	PROP. HEADWALL
EXIST. "B" INLET	
EXIST. "C" INLET	
EXIST. YARD INLET	
EXIST. FLARED END SECTION	
EXIST. HEADWALL	

GRAPHIC SCALE

−30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

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TITLE: GRADING PLAN

PROJECT: 261 ETRA RD., LLC
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: GMC
SCALE:(H) 1"=30' (V)
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 6 OF 19
Rev. # 0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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Plotted: 10/14/21 – 9:55 AM, By: gcowdrick, — Product Ver: 23.1s (LMS Tech)
File: P:\DOCS_PROJECTS\2871 Real Deal Management, Inc\99-003 East Windsor, Etra Road\Dwg\Site Plans\\2871990003SVD.dwg, ---> 06 GRADING PLAN

DRAINAGE NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
2. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
3. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
4. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
5. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
6. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

PIPE CROSSINGS

PIPE CROSSING X1	PIPE CROSSING X2	PIPE CROSSING X3
15" RCP: BOP: 110.02 15" RCP: TOP: 109.46 SEPARATION: 0.56" CONCRETE ENCASEMENT REQUIRED	15" RCP PIPE: BOP: 107.47 15" RCP: TOP: 105.55 SEPARATION: 1.92"	15" RCP: BOP: 108.92 15" RCP: TOP: 108.08 SEPARATION: 0.84" CONCRETE ENCASEMENT REQUIRED

GRADING/UTILITY GRAPHIC LEGEND

	PROPERTY LINE (PARCEL IN QUESTION)		OFF-SITE PROPERTY LINES
C C	EXIST. CABLE LINE	C	PROP. CABLE LINE
E E	EXIST. ELECTRIC LINE	E E	PROP. ELECTRIC LINE
FO FO	EXIST. FIBER OPTIC LINE	FO	PROP. FIBER OPTIC LINE
G G	EXIST. GAS LINE	G G	PROP. GAS LINE
OH OH	EXIST. OVERHEAD WIRES	OH	PROP. OVERHEAD WIRES
T T	EXIST. TELEPHONE LINE	T T	PROP. TELEPHONE LINE
UGET UGET	EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)	UGET	PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
W W	EXIST. WATER LINE	W	PROP. WATER LINE
S OR S	EXIST. SANITARY SEWER LINE	S OR S	PROP. SANITARY SEWER LINE
	EXIST. STORM DRAIN LINE		PROP. STORM DRAIN LINE
117	EXIST. MINOR CONTOUR & ELEVATION		
110	EXIST. MAJOR CONTOUR & ELEVATION	XX	PROP. FINISH GRADE CONTOUR & ELEVATION
MW	EXIST. MONITORING WELL		
TP #1	APPROX. TEST PIT LOCATION		
× 8.9	EXIST. SPOT ELEVATIONS	(C: 000.00)	PROP. GRADE SPOT ELEV.
×TC: 8.90	EXIST. GUTTER ELEV.	TC: 000.00 G: 000.00	PROP. TOP OF CURB & FINISHED GRADE ELEV.
×TC: 8.90 ×FF: 8.90	EXIST. TOP OF CURB ELEV. EXIST. FINISH FLOOR ELEV.	FF: 000.00	PROP. FINISHED FLOOR ELEV.
×GF: 8.90	EXIST. GARAGE FLOOR ELEV.		
	EXIST. FIRE HYDRANT	TW: 000.00 CA: 000.00	PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
	EXIST. WATER VALVE		
	EXIST. GAS VALVE	TC: 000.00 CH: 000.00 CL: 000.00	PROP. TOP OF EXTENDED CURB, (CH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (CL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB
	EXIST. GAS METER		
	EXIST. ELECTRIC METER		
	EXIST. ELECTRIC BOX		PROP. DIRECTION OF DRAINAGE FLOW ARROW
	EXIST. CLEAN OUT		PROP. WATER VALVE
	EXIST. WELL		PROP. GAS VALVE
	EXIST. WATER SHUT OFF VALVE		PROP. STORM CLEANOUT
	EXIST. TELEPHONE BOX		PROP. SANITARY CLEANOUT
	EXIST. CABLE TV BOX		PROP. AREA LIGHT
	EXIST. UTILITY POLE		PROP. OUTLET CONTROL STRUCTURE
	EXIST. GUY WIRE		PROP. DRAINAGE MANHOLE
	EXIST. LIGHT POLE		PROP. SANITARY SEWER MANHOLE
	EXIST. BUILDING LIGHT		PROP. 'A' INLET
	EXIST. SHOE BOX LIGHT		PROP. 'B' INLET
	EXIST. COBRA LIGHT POLE		PROP. 'C' INLET
	EXIST. TRAFFIC SIGNAL POLE		PROP. YARD INLET
	EXIST. MANHOLE		PROP. FLARED END SECTION
	EXIST. "A" INLET		PROP. HEADWALL
	EXIST. "B" INLET		
	EXIST. "C" INLET		
	EXIST. YARD INLET		
	EXIST. FLARED END SECTION		
	EXIST. HEADWALL		

GRAPHIC SCALE

−30 0 15 30 60 120

(IN FEET)

1 INCH = 30 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.419.4400

TITLE: DRAINAGE PLAN

PROJECT: 261 ETRA RD, LLC
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No:	2871-99-003
DATE:	10/14/2021
DRAWN BY:	GMC
SCALE: (H) 1"=30' (V)	
DESIGNED BY:	TAZ
CHECKED BY:	TJM
CHECKED BY:	_
SHEET No:	7 OF 19
Rev. #	0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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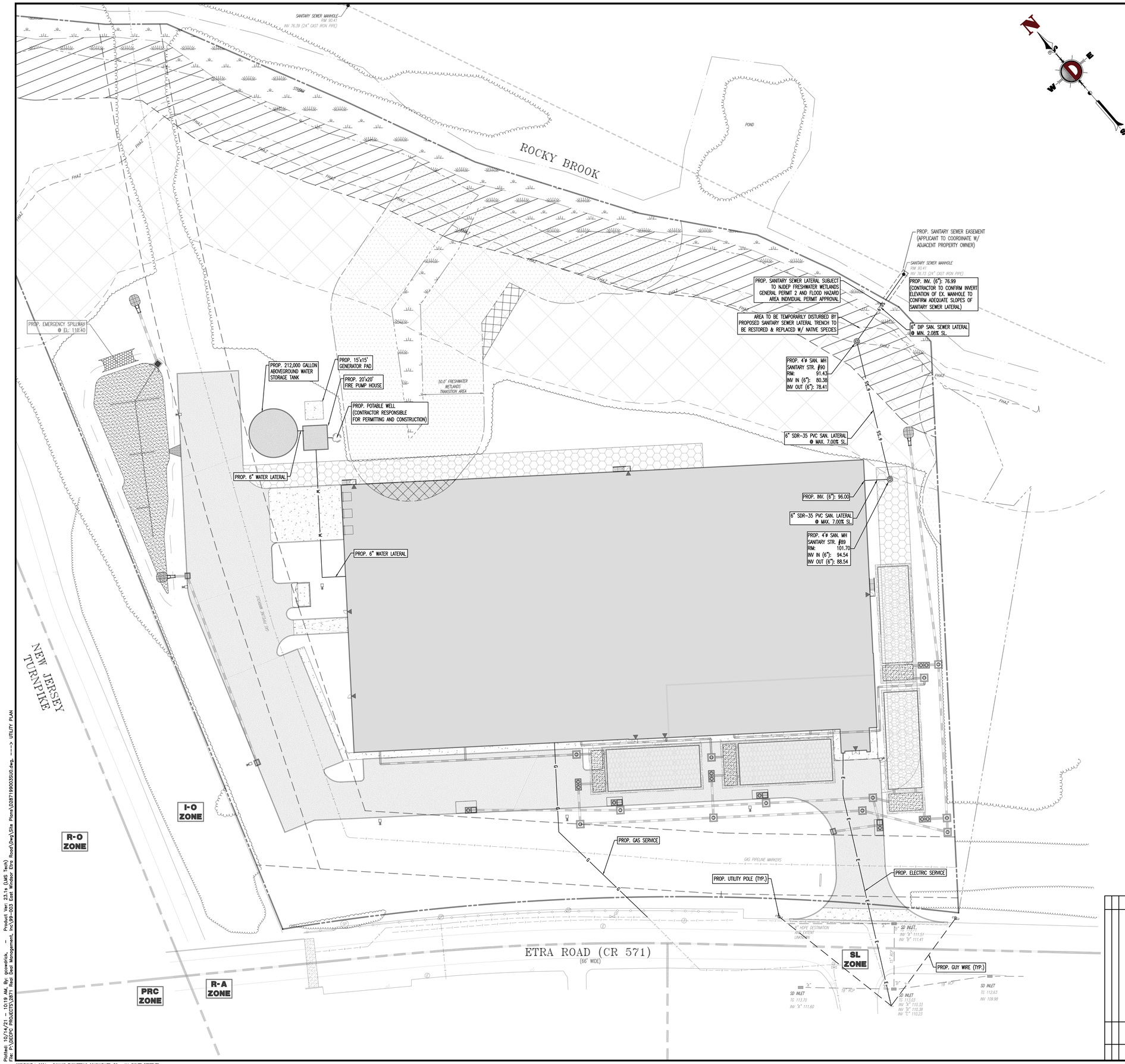
Plotted: 10/14/21 – 10:18 AM, By: gcandrick, Product Ver: 23.1 ■ (LMS Tech)
File: X:\JOBS\2-PROJECTS\2871 Real Deal Management, Inc\99-003 East Windsor, Etra Road\Dwg\Site Plans\02871990035CO.dwg, ---> 07 DRAINAGE PLAN



UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
4. WATER SERVICE MATERIALS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
5. ALL WATER MAIN SHALL BE CEMENT-LINED, CLASS 52 DUCTILE IRON PIPE, UNLESS OTHERWISE DESIGNATED.
6. THE MINIMUM DIAMETER FOR DOMESTIC WATER SERVICES SHALL BE 1 INCH.
7. SEWER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. WHERE THIS IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER MAIN AT LEAST 18 INCHES BELOW THE WATER MAIN. ALL SEWER MAINS SHALL BE SDR-35 PVC PIPE UNLESS OTHERWISE DESIGNATED.
8. ALL SEWER PIPE INSTALLED WITH LESS THAN 3 FEET OF COVER, GREATER THAN 20 FEET OF COVER OR WITHIN 18 INCHES OF A WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. ALL DUCTILE IRON SEWER PIPE SHALL BE CEMENT-LINED, CLASS 52 PIPE, FURNISHED WITH SEWER COAT, OR APPROVED EQUAL.
9. WHERE SANITARY SEWER LATERALS ARE GREATER THAN 10' DEEP AT CONNECTION TO THE SEWER MAIN, CONCRETE DEEP LATERAL CONNECTIONS ARE TO BE UTILIZED.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF THE EXISTING SEWER MAIN, STRUCTURES AND APPURTENANCES DURING CONNECTION.
11. LOCATION & LAYOUT OF GAS, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
12. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
13. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AUTHORITY'S RULES AND REGULATIONS.
14. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
15. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
16. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
17. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
18. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

EXISTING UTILITY NOTES

EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION. IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

GRADING/UTILITY GRAPHIC LEGEND

PROPERTY LINE (PARCEL IN QUESTION)	
OFF-SITE PROPERTY LINES	
EXIST. CABLE LINE	PROP. CABLE LINE
EXIST. ELECTRIC LINE	PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE	PROP. FIBER OPTIC LINE
EXIST. GAS LINE	PROP. GAS LINE
EXIST. OVERHEAD WIRES	PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE	PROP. TELEPHONE LINE
EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)	PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
EXIST. WATER LINE	PROP. WATER LINE
EXIST. SANITARY SEWER LINE	PROP. SANITARY SEWER LINE
EXIST. STORM DRAIN LINE	PROP. STORM DRAIN LINE
EXIST. MINOR CONTOUR & ELEVATION	
EXIST. MAJOR CONTOUR & ELEVATION	PROP. FINISH GRADE CONTOUR & ELEVATION
EXIST. MONITORING WELL	
APPROX. TEST PIT LOCATION	
EXIST. SPOT ELEVATIONS	PROP. GRADE SPOT ELEV.
EXIST. GUTTER ELEV.	PROP. TOP OF CURB & FINISHED GRADE ELEV.
EXIST. TOP OF CURB ELEV.	
EXIST. FINISH FLOOR ELEV.	PROP. FINISHED FLOOR ELEV.
EXIST. GARAGE FLOOR ELEV.	PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
EXIST. FIRE HYDRANT	
EXIST. WATER VALVE	
EXIST. GAS VALVE	PROP. TOP OF EXTENDED CURB, (CH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB
EXIST. GAS METER	
EXIST. ELECTRIC METER	
EXIST. ELECTRIC BOX	PROP. DIRECTION OF DRAINAGE FLOW ARROW
EXIST. CLEAN OUT	PROP. WATER VALVE
EXIST. WELL	PROP. GAS VALVE
EXIST. WATER SHUT OFF VALVE	PROP. STORM CLEANOUT
EXIST. TELEPHONE BOX	PROP. SANITARY CLEANOUT
EXIST. CABLE TV BOX	PROP. AREA LIGHT
EXIST. UTILITY POLE	PROP. OUTLET CONTROL STRUCTURE
EXIST. GUY WIRE	PROP. DRAINAGE MANHOLE
EXIST. LIGHT POLE	PROP. SANITARY SEWER MANHOLE
EXIST. BUILDING LIGHT	PROP. "A" INLET
EXIST. SHOE BOX LIGHT	PROP. "B" INLET
EXIST. COBRA LIGHT POLE	PROP. "C" INLET
EXIST. TRAFFIC SIGNAL POLE	PROP. YARD INLET
EXIST. MANHOLE	PROP. FLARED END SECTION
EXIST. "A" INLET	PROP. HEADWALL
EXIST. "B" INLET	
EXIST. "C" INLET	
EXIST. YARD INLET	
EXIST. FLARED END SECTION	
EXIST. HEADWALL	

GRAPHIC SCALE

−30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4588 | Bethlehem, Pennsylvania T: 610.395.4400

TITLE: UTILITY PLAN

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: GMC
SCALE:(H) 1"=30" (V)
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: _
SHEET No: 8 OF 19
Rev. # 0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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Rev. Date Comments

Plotted: 10/14/21 — 10:19 AM, By: gcowdrick, — Product Ver: 23.1s (LMS Tech)
File: P:\DOCS\2871\PROJECTS\2871 Real Development, Inc\SP-#393 East Windsor\Site Plans\Dwg\Dwg\Site Plans\D2871990393SU0.dwg, ---> UTILITY PLAN

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
AR	10	ACER RUBRUM	RED MAPLE	2 1/2–3" CAL.	B+B
CLK	4	CLADRASTIS KENTUKEA	AMERICAN YELLOWWOOD	2 1/2–3" CAL.	B+B
PLO	6	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2 1/2–3" CAL.	B+B
SJR	6	STYPHNOLOBIUM JAPONICA 'REGENT'	REGENT JAPANESE PAGODATREE	2 1/2–3" CAL.	B+B
	26				
ORNAMENTAL TREE(S)					
AC	3	AMELANCHER CANADENSIS	MULTI STEM SHADBLOW SERVICEBERRY	8–10'	B+B
CCFP	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	2–2 1/2" CAL.	B+B
	3				
EVERGREEN TREE(S)					
CLY	14	X CUPRESSOCYPARIS LEYLANDII	LEYLAND CYPRESS	6–7'	B+B
PAB	73	PICEA ABIES	NORWAY SPRUCE	6–7'	B+B
PAB2	7	PICEA ABIES	NORWAY SPRUCE	5–6'	B+B
PO	57	PICEA OMORIKA	SERBIAN SPRUCE	6–7'	B+B
PO2	19	PICEA OMORIKA	UNKNOWN	5–6'	B+B
PS	13	PINUS STROBUS	EASTERN WHITE PINE	6–7'	B+B
PS2	14	PINUS STROBUS	EASTERN WHITE PINE	5–6'	B+B
	197				
EVERGREEN SHRUB(S)					
ICS	22	ILEX CRENATA 'STEEDS'	STEEDS JAPANESE HOLLY	30–36"	#3 CAN
RGS	6	RHODODENDRON X GABLE 'STEWARTSTONIAN'	STEWARTSTONIAN AZALEA	18–24"	#3 CAN
TMD	41	TAXUS X MEDIA 'DENSIFORMIS'	DENSIFORMIS YEW	24–30"	B+B
VR	63	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3–4'	B+B
	132				
DECIDUOUS SHRUB(S)					
CAR	28	CLETHRA ALNIFOLIA 'ROSEA'	PINK SUMMERSWEET CLETHRA	24–30"	#3 CAN
CS	2	CORNUS SERICEA	REDOSIER DOGWOOD	2–3'	B+B
MP	16	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	30–36"	B+B
PFHF	38	POTENTILLA FRUTICOSA 'KURPINPA'	HAPPY FACE PINK PARADISE CINQUEFOIL	24–30"	#3 CAN
VOC	4	VIBURNUM OPULUS 'COMPACTUM'	COMPACT EUROPEAN CRANBERRYBUSH	30–36"	B+B
	88				
GROUND COVER					
JS	74	JUNIPERUS CHINENSIS VAR. SARGENTII	SARGENT JUNIPER	15–18" SPRD.	#3 CAN

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

	RAIN GARDEN BASIN RIM & SIDE PLANT MIX		Mature Size		
AT	*Asclepias tuberosa*	Butterfly Weed	18"-24"	LP50 plugs	18" o.c.
CAM	*Carex amphibola*	Eastern Narrowleaf Sedge	1'-2'	LP32 plugs	18" o.c.
CP	*Carex pensylvanica*	Pennsylvania Sedge	8"-12"	LP32 plugs	18" o.c.
CV	*Coreopsis verticillata*	Coreopsis	18"-24"	deep root plugs	18" o.c.
EP	*Echinacea purpurea*	Purple Coneflower	2'-3'	LP50 plugs	18" o.c.
MD	*Monarda bradburiana*	Eastern Beebalm	1'-2'	LP50 plugs	18" o.c.
PS	*Phlox stolonifera 'Blue Ridge'*	Creeping Phlox	1'-2'	deep root plugs	18" o.c.
RF	*Rudbeckia fulgida 'Goldsturm'*	Black-eyed Susan	2'-3'	LP50 plugs	18" o.c.

	RAIN GARDEN BASIN BOTTOM PLANT MIX		Mature Size		
AT	*Asclepias incarnata*	Swamp Milkweed	3'-5'	LP50 plugs	18" o.c.
ASN	*Aster novae-angliae*	New England Aster	3'-5'	LP50 plugs	18" o.c.
CE	*Carex emoryi*	Emory's Sedge	18"-24"	deep root plugs	18" o.c.
CG	*Chelone glabra*	Turtlehead	2'-4'	LP50 plugs	18" o.c.
EV	*Elymus virginicus*	Virginia Wildrye	2'-3'	LP50 plugs	18" o.c.
ED	*Eupatorium dubium 'Little Joe'*	Joe Pye Weed	4'-5'	LP32 plugs	18" o.c.
IRV	*Iris versicolor*	Blue Flag Iris	2'-4'	LP50 plugs	18" o.c.
LC	*Lobelia cardinalis*	Cardinal Flower	2'-4'	LP50 plugs	18" o.c.

PLANTING SPECIFICATIONS

1. SCOPE OF WORK:
   A. THIS WORK SHALL CONSIST OF PERFORMING, CLEARING AND SOIL PREPARATION, FINISH GRADING, PLANTING AND DRAINAGE, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT.
2. MATERIALS
   A. GENERAL – ALL MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION (D.O.T.) MANUAL OF ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) OR APPROVED EQUAL.
   B. PLANTS – ALL PLANTS SHALL BE HEALTHY OF NORMAL GROWTH, WELL ROOTED, FREE FROM DISEASE AND INSECTS.
   C. TOPSOIL – LOAMY SILT, HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, pH RANGE BETWEEN 4.5 – 7, BE FREE OF DEBRIS, ROCKS LARGER THAN TWO INCHES (2") IN DIA., WOOD, ROOTS, VEGETATIVE MATTER AND CLAY CLODS.
   D. MULCH – FOUR (4") INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH.
3. FERTILIZER AND SOIL CONDITIONER – PLANTED AREAS
   A. ORGANIC FERTILIZER – SHALL BE PROCESSED SEWER SLUDGE WITH MINIMAL CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID, EQUAL TO "NITROHUMUS".
   B. ORGANIC FERTILIZER OR SOIL CONDITIONER – SHALL BE 10-6-4 "POWER" AND ORGANIC BASE MATERIALS COMPRISED OF DECOMPOSED ANIMAL AND VEGETABLE MATTER AND COMPOSTED TO SUPPORT BACTERIAL CULTURES, CONTAINING NO POULTRY OR HUMAN WASTE. GUARANTEED ANALYSIS (5–3–1): NITROGEN 5%, PHOSPHATE 3%, POTASH 1%. OR EQUAL AND 155 HUMIC ACID.
4. GENERAL WORK PROCEDURES
   A. LANDSCAPE WORK SHALL COMMENCE AS SOON AS THOSE PORTIONS OF THE SITE ARE AVAILABLE, CONTRACTOR TO UTILIZE WORKMANLIKE STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH DAY'S WORK. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STORED OR DISPOSED OF. ALL PAVED SURFACES SHALL BE SWEPT CLEAN AT THE END OF EACH DAYS WORK.
5. WEEDING
   A. BEFORE AND DURING PRELIMINARY GRADING AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
6. TOPSOILING
   A. CONTRACTOR TO PROVIDE A 4" THICK TOPSOIL LAYER IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO PRODUCE A 4" UNIFORM THICKNESS. TOPSOIL SHALL NOT BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. ADDITIONAL TOPSOIL SHALL BE IMPORTED TO FURNISH AN ANALYSIS OF ON-SITE TOPSOIL UTILIZED IN ALL PLANTING AREAS. ADJUST pH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM.
7. SOIL CONDITIONING:
   A. CULTIVATE ALL AREAS TO BE PLANTED TO A DEPTH OF 6". ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE. SPREAD EVENLY IN ALL PLANTING AREAS AND TILL (2 DIRECTIONS) INTO TOP 4" WITH THE FOLLOWING PER 1,000 SQ. FT.:
      20 POUNDS NITROPHOSKA
      100 POUNDS AGRICULTURAL GYPSUM
      20 POUNDS NITROPHOSKA BLUE 38-0-0 BLUE CHIP
   SOIL MODIFICATIONS:
   A. THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. USE COMPOSTED BARK, RECYCLED YARD WASTE OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND FREE OF PIECES WITH IDENTIFIABLE LINE OR WOOD STRUCTURE AND NO LARGER THAN 1 IN. WITH A pH HIGHER THAN 7.5.
   B. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF GYPSUM IS ADDED TO BIND THE SAND. SAND CONTENT TO MORE THAN 50% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.
   C. MODIFY LIGHT SANDY SOILS BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
8. PLANTING
   A. PLANTING TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE EXCAVATING PITS. MAKE NECESSARY ADJUSTMENTS AS DIRECTED.
   A. "PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACK FILLED WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
      1 PART PEAT MOSS BY VOLUME
      1 PART COW MANURE BY VOLUME
      3 PARTS TOPSOIL BY VOLUME
      21 GRAM 'AGRIFORM' PLANTING TABLETS AS FOLLOWS:
         2 TABLETS PER 1 GAL. PLANT
         3 TABLETS PER 5 GAL. PLANT
         4 TABLETS PER 15 GAL. PLANT
         LARGER PLANTS (2") TWO TABLETS PER 1/2" DIAM. OF TRUNK CALIPER
   B. PREPARED SOIL SHALL BE TAMPED FIRMLY AT BOTTOM OF PIT. FILL PREPARED SOIL AROUND BALL OF PLANT 1/2 WAY, AND INSERT PLANT TABLETS. COMPLETE BACK FILL AND WATER THOROUGHLY.
   C. ALL PLANTS SHALL BE SET SO THAT, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE AS THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED.
   D. PREPARE RAISED EARTH BASIN AS WIDE AS PLANTING HOLE OF EACH TREE.
   E. WATER IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACK FILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
   F. PRUNE ALL PROPERLY PLANTED TREES AND SHRUBS WITH A MINIMUM OF PRUNING. A MIN. OF 7 BRANCHING HEIGHT.
9. GROUND COVER
   A. ALL GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING GROUND COVER.
   B. ALL GROUND COVER OF GROUND COVER SHALL BE AS SHOWN ON THE DRAWINGS.
   C. SPACING VARIETY DEPENDING GROUND COVER, CONTRACTOR SHALL THOROUGHLY WATER GROUND COVER.
   D. ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT BEFORE FINAL LANDSCAPE INSPECTION. GROUND COVER AREAS SHALL BE WEEDED PRIOR TO APPLYING PRE-EMERGENT. PRE-EMERGENT TO BE APPLIED AS PER MANUFACTURER'S RECOMMENDATION.
10. FINISH GRADING
    A. ALL AREAS WILL BE RECEIVED BY THE CONTRACTOR AT SUBSTANTIALLY PLUS/MINUS 1 FOOT OF FINISH GRADE.
    B. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE, UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT. SOIL AREAS ADJACENT TO THE BUILDINGS SHALL SLOPE AWAY.
    C. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER.
11. GUARANTEE
    A. CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM ACCEPTANCE OF JOB. OWNER TO SECURE A MAINTENANCE BOND FROM THE CONTRACTOR FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE COMMENCEMENT OF THE GUARANTEE PERIOD AND PASSES A FINAL INSPECTION BY THE OWNER OR HIS REPRESENTATIVE.
12. CLEANUP
    A. UPON THE COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
    B. MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS. TIGHTEN AND REPAIR STAKES AND SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY WITH HERBICIDE AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
    C. MAINTAIN LAWNS BY MOWING, FERTILIZING, WEEDING, MOWING, AND OTHER OPERATIONS SUCH AS ROLLING, RESEARING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.
13. MAINTENANCE (ALTERNATE BID) COST PER MONTH AFTER INITIAL 90–DAY MAINTENANCE PERIOD.

PLANTING NOTES

1. PLANT MATERIAL SHALL BE FURNISHED AND INSTALLED AS INDICATED; INCLUDING ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, INCIDENTALS, AND CLEAN–UP.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS, AND BE FREE FROM DEFECTS AND INJURIES.
4. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
5. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE (1) YEAR FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT ELAPSED BEFORE REPLACEMENT.
6. INSPOFAR AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT THE PLANTS FROM DRYING OUT OR OTHER DAMAGE DURING THE INTERIM PERIOD. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE DURING THIS PERIOD WILL BE REJECTED.
7. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (REV. 2001) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
8. MULCH SHALL BE PLACED AROUND PLANTS TO A DEPTH OF THREE INCHES (3") AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. MULCH PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONERS AS STATED IN PLANTING SPECIFICATIONS.
9. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE IN A MANNER THAT WILL INJURE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
10. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH "ANTI–PRUF" OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.
11. NO PLANTS, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
12. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.
13. ALL INJURED ROOTS SHALL BE PRUNED TO MAKE CLEAN ENDS BEFORE PLANTING UTILIZING CLEAN, SHARP TOOLS. IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER OF TREES WILL NOT BE CUT BACK, LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED.
14. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
15. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES AS A RESULT OF CONSTRUCTION OPERATIONS. ALL EXISTING TREES SHALL BE FERTILIZED WITH A REGULAR GARDEN FERTILIZER (5–10–5) UPON COMPLETION OF WORK. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR TO ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH SHARP TOOLS AND FILLED AROUND WITH TOPSOIL. COMPLETELY SATURATE THESE AREAS WITH WATER. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR IS TO PROTECT ALL EXISTING TREES BY CONSTRUCTING TREE PROTECTION FENCE AT THE LIMIT OF DISTURBANCE OR BEFORE ANY EQUIPMENT ENTERS THE SITE, WHICHEVER IS FIRST.
16. ALL PLANTING BEDS SHALL BE MULCHED WITH 4" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.
17. NEW PLANTING AREAS AND SOD SHALL BE ADEQUATELY WATERED TO ESTABLISH THE PROPOSED PLANTS AND LAWN.
18. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE AS SHOWN ON THE APPROVED LANDSCAPE PLAN MUST BE INSTALLED, INSPECTED AND APPROVED BY THE MUNICIPAL LANDSCAPE ARCHITECT. THE MUNICIPAL ENGINEER AND LANDSCAPE ARCHITECT SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER AS REQUIRED BY OR ASSOCIATED WITH A SUBDIVISION OR SITE PLAN APPROVAL BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT SHALL BE INSTALLED DURING THE FOLLOWING PLANTING SEASONS:

TYPE	DATES
PLANTS	3/15 TO 12/15
LAWN	3/15 TO 6/15
	9/15 TO 12/1

FURTHERMORE, THE FOLLOWING TREE VARIETIES SHALL NOT BE PLANTED DURING THE FALL PLANTING SEASON DUE TO THE HAZARDS ASSOCIATED WITH DIGGING THESE TREES IN THIS SEASON.

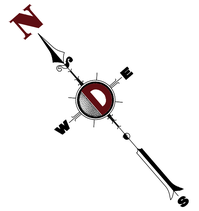
ACER RUBRUM	POPULUS VARIETIES
BETULA VARIETIES	PRUNUS VARIETIES
CARPINUS VARIETIES	PYRUS VARIETIES
CRATAEGUS VARIETIES	QUERCUS VARIETIES
KOELREUTERIA	SALIX WEEPING VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRODENDRON TULIPIFERA	ZELKOVA VARIETIES
PLATANUS ACERIFOLIA	

ANY PLANTINGS INSTALLED IN CONFLICT WITH THIS REQUIREMENT MUST RECEIVE THE WRITTEN APPROVAL BY THE MUNICIPAL ENGINEER OR LANDSCAPE ARCHITECT, PRIOR TO PLANTING. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL REQUIRE REMOVAL OF THE PLANTING IN QUESTION. THIS REQUIREMENT DOES NOT APPLY TO SEEDING OR SODDING OR PLANTINGS SPECIFICALLY FOR SOIL STABILIZATION PURPOSES. THE PLANTING ASSOCIATED WITH ANY LOT GIVEN A CERTIFICATE OF OCCUPANCY OUTSIDE THESE PERIODS SHALL BE PROVIDED DURING THE PREVIOUS OR NEXT APPROPRIATE SEASON.
19. ALL DISTURBED AREAS TO BE TREATED WITH TOPSOIL SEED SOD STABILIZATION METHOD.

LANDSCAPING REQUIREMENTS

1. A. ALL COMMERCIAL AND INDUSTRIAL OFF–STREET PARKING AREAS SHALL BE BORDERED BY LANDSCAPE AREAS CONTAINING SHADE TREES, SHRUBS, AND LANDSCAPE BERMS TO SHIELD AUTOMOBILES FROM VIEW, AS SET FORTH IN THE TECHNICAL STANDARDS. WHENEVER FEASIBLE, THE PLANNING BOARD SHALL REQUIRE THAT AT LEAST TEN PERCENT OF THE TOTAL PAVED PARKING LOT AREA SHALL BE USED FOR INTERIOR LANDSCAPING TO INCLUDE SUCH THINGS AS TREES AND SHRUBS. SUCH INTERIOR LANDSCAPING SHALL BE DISTRIBUTED THROUGHOUT THE PARKING LOT IN PLANTING ISLANDS TO PROVIDE THE MAXIMUM SHADE AND BUFFER FROM NOISE AND GLARE. PARKING AISLES SHALL BE SEPARATED BY PLANTING ISLANDS OR CIRCULATION DRIVES BY A 7TH FOOT WIDE PLANTING ISLAND OR AREA FOR THE FULL WIDTH OF A BAY AT THE ENDS OF ROWS. THE PARKING LOT SHALL WHERE POSSIBLE BE SUBDIVIDED INTO MODULAR PARKING BAYS OR LOTS OF NOT GREATER THAN 80 SPACES EACH. WHERE THESE MODULES SHALL BE SEPARATED BY A LANDSCAPE ISLAND OF A MINIMUM TEN FOOT WIDTH WHEN APPROPRIATE, PEDESTRIAN WALKWAYS SHALL BE PROVIDED ON THESE ISLANDS. A SINGLE LINE OF ROW WITH A DOUBLE WIDTH SHALL BE NO MORE THAN 20 SPACES IN LENGTH. (§ 194–2.3.a)
   B. SHADE TREES SHALL BE PROVIDED WITHIN THE RIGHT–OF–WAY OR EASEMENT GRANTED TO THE TOWNSHIP BY THE OWNER OR APPLICANT FOR THE PLANTING AND MAINTENANCE OF TREES ALONG BOTH SIDES OF A STREET IN THE PLANTING AREA PROVIDED BETWEEN THE STREET CURB AND THE SIDEWALK AS PER SUBSECTION 22–4.3, AND AT A SPACING OF BETWEEN 35 AND 50 FEET BETWEEN TREES. THE TREES SHALL BE PLANTED SO AS NOT TO INTERFERE WITH UTILITIES, ROADWAYS, SIDEWALKS, SIGHT LINES, SIGHT DISTANCES, DRIVEWAYS, AND SHALL BE PLANTED LONGER THAN EIGHT FEET TO FIRE HYDRANTS. (§ 22–27.2.s.1)
   C. ALL TREES SHALL HAVE A MINIMUM SIZE OF TWO AND ONE–HALF TO THREE INCHES CALIPER. THE TOWNSHIP RESERVES THE RIGHT TO INSPECT ALL TREES PRIOR TO DIGGING IN THE NURSERY. THE NURSERY SHALL BE WITHIN 100 MILES RADIUS OF EAST WINDSOR TOWNSHIP. APPROVED MATERIAL WILL BE AFFIXED WITH A SEALED IDENTIFICATION TAG. THE TOWNSHIP RESERVES THE RIGHT TO REINSPECT ALL TREES AND THEY ARE BROUGHT INTO THE PLANTING SITE FOR PLANTING OPERATIONS. THE PURPOSE IS TO RE–EXAMINE MATERIAL FOR MECHANICAL DAMAGE, BROKEN SECTIONS OR BRANCHES, AND DEFECTIVE ROOT BALLS RESULTING FROM POOR DIGGING OR ROUGH HANDLING. APPROVAL OF THE ORIGINAL INSPECTION WILL ALSO BE MADE AT THE TIME. (§ 22–27.2.s.2)
   D. SUBSEQUENT OR REPLACEMENT PLANTS SHALL CONFORM TO THE TYPE OF EXISTING TREE IN A GIVEN AREA, PROVIDED THAT, IF ANY DEVIATION IS ANTICIPATED, IT MUST BE DONE ONLY WITH THE PERMISSION OF THE TOWNSHIP SHADE TREE COMMISSION AND/OR TOWNSHIP LANDSCAPE ARCHITECT. IN A NEWLY PLANTED (OR DEVELOPED) AREA, ONE TYPE OF TREE SHOULD BE USED ON A GIVEN STREET, UP TO FIFTY CONTIGUOUS TREES OF THE SAME VARIETY, UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE TOWNSHIP SHADE TREE COMMISSION AND/OR TOWNSHIP LANDSCAPE ARCHITECT. (§ 22–27.2.s.3)
   E. CULTIVATED TREE VARIETIES WHICH EXHIBIT DESIRABLE CHARACTERISTICS SUCH AS FULL SYMMETRICAL FORM, DEEP NON–EARASE ROOT SYSTEM, TOLERANCE OF POTENTIAL DROUGHT AND ROAD SALT SHOULD BE UTILIZED. THE BRANCHING HABIT SHALL BE TREE FORM AND SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (ANSI Z60.1–1996, OR LATER REVISION). ALL TREES SHALL BE BALLED AND BURLAPPED. NURSERY GROWN TREES TO SPECIES AND VARIETY NATIVE TO THE REGION SHALL BE PREFERRED BY THE TOWNSHIP SHADE TREE COMMISSION AND/OR TOWNSHIP LANDSCAPE ARCHITECT. (§ 22–27.2.s.4)
   F. TREES PLANTED IN CLOSE PROXIMITY TO PARKING AREAS SHALL BE OF SUCH SIZE TO BE PRUNED TO A SEVEN FOOT BRANCHING HEIGHT WITH ONE MAIN TRUNK WITHIN A CLEAR PLANTING STRIP, MEASURED FROM THE CURB. (§ 22–27.2.s.5)
   G. TREES SHALL NOT BE PLANTED WITHIN A SIGHT TRIANGLE OR DISTANCE AREA MUST BE APPROVED BY THE TOWNSHIP ENGINEER. (§ 22–27.2.s.6)
   H. PRESERVATION OF EXISTING TREES IS ENCOURAGED AND SHALL BE CREDITED TOWARD THE REQUIREMENTS OF § 22–27.2.s.8. MATURE WOODLANDS, CONSERVATION AREAS, OR WETLANDS. IT REVERTS THE DISTURBED AREA TO A REVEGETATED, STABLE, LOW MAINTENANCE, NATURAL LANDSCAPE ASSET OVER TIME. (§ 22–27.5.h.)
      i. THE AREA SHALL BE GRADED GRADUALLY TO BLEND INTO THE SURROUNDING LANDSCAPE AND THE DESIGN OF THE SITE, I.E. PROVIDE AN INFORMAL MEANDERING EDGE WITH VARYING SLOPES, AND GENTLE BERMING IN LOCATIONS EMULATING A NATURAL DEPRESSION. (§ 22–27.5.h.1)
      ii. THE AREA SHALL BE PLANTED WITH SHADE TREES ON THE PERIMETER, BANKS AND INTERIOR OF THE BASIN AT THE RATE OF ONE TREE FOR EVERY 500 SQUARE FEET OF AREA AND A MINIMUM OF TEN TREES. OF THIS QUANTITY TEN PERCENT SHALL BE TWO AND ONE–HALF TO THREE INCHES CALIPER, 30 PERCENT SHALL BE TWO TO TWO AND ONE–HALF INCHES CALIPER, AND 60 PERCENT SHALL BE EIGHT TO TEN FOOT HEIGHT, ONE TO ONE AND ONE QUARTER INCH CALIPER BARE ROOT WHIPS. (§ 22–27.5.h.2) (M)
      iii. THE TREES SHALL BE PLANTED IN GROVES AND SPACED FIVE FEET TO 20 FEET ON CENTER WITHIN THESE GROVES. THE GROUND PLANE SHALL BE SEEDED WITH A NATURALIZATION, WILDFLOWER, AND/OR MEADOW SEED MIX. ALL WOODY AND HERBACEOUS PLANTS SHALL BE SPECIES INDIGENOUS TO THE AREA AND/OR TOLERANT OF TYPICAL WET/DRY FLOODPLAIN CONDITIONS. (§ 22–27.5.h.3)
      iv. ALL ENGINEERED BASIN STRUCTURES (I.E. CULVERTS, OUTLET STRUCTURES AND FLOW CHANNELS) SHALL BE DESIGNED TO BLEND INTO THE LANDSCAPE IN TERMS OF CONSTRUCTION MATERIALS, COLOR, GRADING, AND PLANTING. (§ 22–27.5.h.4)
      v. PLANTINGS SHALL NOT BE LOCATED WITHIN 20 FEET OF A LOW FLOW CHANNEL, OR OUTLET OR INLET STRUCTURE TO ALLOW FOR MAINTENANCE. (§ 22–27.5.h.5)
      vi. PROVISION FOR EMERGENCY ACCESS AS WELL AS GENERAL MAINTENANCE OF THE BASINS SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP ENGINEER. PLANTINGS SHALL BE DESIGNED TO DISCOURAGE YET NOT HINDER VEHICULAR ACCESS. (§ 22–27.5.h.6)
      vii. PLANTINGS ARE NOT PERMITTED UPON ANY DIKES ASSOCIATED WITH A DETENTION BASIN UNLESS APPROVED BY THE TOWNSHIP ENGINEER. (§ 22–27.5.h.7)
   I. DURING THE SITE PLANNING PROCESS IT IS APPROPRIATE TO PRESERVE VALUABLE AND UNIQUE NATURAL AMENITIES TO THE MAXIMUM EXTENT POSSIBLE AND DESIGNATE THEM AS PRESERVATION OPEN SPACE. (§ 22–27.6.a.)
   J. NUISANCE LANDSCAPE TREATMENT IS APPROPRIATE IN LANDSCAPE BUFFER AREAS OR LANDSCAPE STRIPS PROVIDED BETWEEN AREAS OF COMMERCIAL OR HIGHER DENSITY RESIDENTIAL DEVELOPMENT AND ADJACENT RESIDENTIAL USES OR ZONES WHERE A CONTINUOUS VISUAL SCREEN IS APPROPRIATE. (§ 22–27.6.a.1)
      i. QUANTITIES AND TYPES OF SUPPLEMENTAL PLANTINGS MUST RESPOND TO THE DEFICIENCIES OF EXISTING VE

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY



GENERAL NOTES

1. THIS LIGHTING PLAN ILLUSTRATES ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) APPROVED METHODS. ACTUAL SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. ALL EXISTING CONDITIONS LIGHTING LEVELS ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES AND/OR ACTUAL FIELD MEASUREMENTS TAKEN WITH A LIGHT METER. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHTING LEVELS MAY DIFFER AND THE LIGHTING LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED AS APPROXIMATE.
3. CONDUITS SHALL BE INSTALLED A MINIMUM OF 2 FEET BEHIND GUIDERAIL POSTS.
4. ALL WIRING METHODS AND EQUIPMENT CONSTRUCTION SHALL CONFORM TO THE CURRENT NATIONAL ELECTRICAL CODE.
5. REFER TO ARCHITECTURAL PLANS FOR SITE LIGHTING DIAGRAM.

LIGHTING REQUIREMENTS

A. ALL PARKING AREAS AND WALKWAYS THERETO AND APPURTENANT PASSAGEWAYS AND DRIVEWAYS SERVING COMMERCIAL, PUBLIC, OFFICE OR OTHER USES HAVING COMMON OFF-STREET PARKING AND/OR LOADING AREAS SHALL BE ADEQUATELY ILLUMINATED FOR SECURITY AND SAFETY PURPOSES. (§ 19A-2.7.A)
B. UNLESS SPECIFICALLY APPROVED AS PART OF A SUBMITTED SITE PLAN DEVELOPMENT APPLICATION BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT, AS THE CASE MAY BE, NO LIGHTING SHALL BE ATTACHED TO THE ROOF OR EXTERIOR WALLS OF A BUILDING. (§ 19A-2.7.B)
C. ANY LIGHTING WITHIN A BUILDING SHALL BE OF AN INTENSITY AND SHALL BE DESIGNED AND FOCUSED TO ELIMINATE, TO THE MAXIMUM EXTENT PRACTICABLE, ANY EMISSION OF LIGHTING OUTSIDE OF THE BUILDING. ALL LIGHTING OUTSIDE OF A BUILDING SHALL BE PROVIDED VIA LIGHTING FIXTURES APPROVED BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT, AS THE CASE MAY BE, AS PART OF AN APPROVAL FOR A SUBMITTED SITE PLAN DEVELOPMENT APPLICATION. (§ 19A-2.7.C)
D. THE APPLICANT IS REQUIRED TO SUBMIT A LIGHTING PLAN INDICATING THE LOCATION OF THE LIGHTING FIXTURES, THE DIRECTION OF ILLUMINATION, THE WATTAGE AND ISOLUX CURVES FOR EACH FIXTURE, THE HOURS OF OPERATION OF THE LIGHTING AND THE DETAILS OF THE LIGHTING POLES AND THE LUMINAIRES. (§ 19A-2.7.D)
E. THE LIGHTING IS TO BE PROVIDED BY FIXTURES WITH A MOUNTING HEIGHT NOT HIGHER THAN 25 FEET, MEASURED FROM THE GROUND LEVEL TO THE CENTERLINE OF THE LIGHT SOURCE. (§ 19A-2.7.D.1)
F. THE LIGHTING FIXTURES ARE TO INCLUDE NON-GLARE LIGHTS WITH RECESSED LENSES FOCUSED DOWNWARD AND WITH "CUT-OFF" SHIELDS AS APPROPRIATE IN ORDER TO MITIGATE AGAINST ADVERSE IMPACTS UPON ADJACENT AND NEARBY PROPERTIES, THE SAFETY OF TRAFFIC ALONG ADJACENT ROADWAYS AND OVERHEAD SKYGLOW. (§ 19A-2.7.D.2)
G. THE LIGHT INTENSITY PROVIDED AT GROUND LEVEL SHALL BE INDICATED IN FOOTCANDLES ON THE SUBMITTED PLANS AND SHALL AVERAGE NOT LESS THAN FIVE-TENTHS FOOTCANDLES AT INTERSECTIONS AND THREE-TENTHS FOOTCANDLES ELSEWHERE IN THE AREA TO BE ILLUMINATED, AND SHALL AVERAGE NOT MORE THAN ONE FOOTCANDLE THROUGHOUT THE AREA TO BE ILLUMINATED. (§ 19A-2.7.D.2)
H. EXCEPT FOR ANY LIGHTING DETERMINED BY THE PLANNING BOARD OR ZONING BOARD OF ADJUSTMENT, AS THE CASE MAY BE, TO BE NECESSARY AND/OR ADVISABLE TO SECURITY PURPOSES, ALL OTHER LIGHTING IS TO BE CONTROLLED BY CIRCUIT TIMERS SO THAT THE LIGHTS ARE AUTOMATICALLY TURNED OFF AFTER BUSINESS HOURS. (§ 19A-2.7.D.4)
I. NO USE, OPERATION OR ACTIVITY SHALL PRODUCE AN ILLUMINATION IN EXCESS OF 1.0 FOOTCANDLES IN A RESIDENTIAL DISTRICT. IN ALL DISTRICTS, LIGHT INTENSITIES OF ALL ILLUMINATION SOURCES SHALL BE KEPT AS LOW AS POSSIBLE AND SHALL NOT INTERFERE, ANNOY, CAUSE DEFORMITY, OR CAUSE LOSS OF VISUAL PERFORMANCE TO PERSONS AND ANIMALS ON ADJACENT PROPERTIES. (§ 22-14.2)

LIGHTING LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
	1	A-4	25 FT	SINGLE	1.000	HUBBELL OUTDOOR LIGHTING	CIMMARRON CL1 AREA LIGHT TYPE 4	CL1-90L-4K-4-105
	7	A-4-HSS	25 FT	SINGLE	1.000	HUBBELL OUTDOOR LIGHTING	CIMMARRON CL1 AREA LIGHT TYPE 4	CL1-90L-4K-4-105-BC

ISO CURVES ARE MAINTAINED AND SHOWN AT 0.5 AND 0.1 FC.

(FM) - FLUSH MOUNT FOUNDATION (PED) - PEDESTAL FOUNDATION

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

STATISTICAL AREA SUMMARY

LABEL	AVERAGE	MAXIMUM	MINIMUM	DESCRIPTION
PAVEMENT AREA	2.43	8.4	0.1	CALCULATION WITHIN PAVEMENT AREA

GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)

1 INCH = 30 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.799.6400 | Destroy Beach, Florida T: 561.951.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4588 | Bethlehem, Pennsylvania T: 610.395.4400

TITLE: LIGHTING PLAN

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: GMC
SCALE:(H) 1"=30" (V)
DESIGNED BY: TAZ
SHEET No: 10
CHECKED BY: TJM
CHECKED BY: –
OF 19
Rev. # 0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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No.	Date	Comments

THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

ROCKY BROOK

POND

SANITARY SEWER MANHOLE
RIM 90.41
INV 76.39 (24" CAST IRON PIPE)

PROP. SANITARY SEWER EASEMENT
(APPLICANT TO COORDINATE W/
ADJACENT PROPERTY OWNER)

SANITARY SEWER MANHOLE
RIM 90.41
INV 76.73 (24" CAST IRON PIPE)

LIMIT OF DISTURBANCE

PROP. TREE PROTECTION FENCE

PROP. EMERGENCY SPILLWAY
@ El. 111.65

PROP. GENERATOR PAD

PROP. PUMPHOUSE
FF: 110.15

50.0' FRESHWATER WETLANDS TRANSITION AREA

PROP. STAIRS
8-6" RISERS
TS: 116.00
BS: 112.00

PROP. BIORETENTION BASIN
TOB 110.50
BOB: 108.88

PROP. FLUSH CURB
G: 110.50

TOP OF BASIN 110.50

BOTTOM OF BASIN 108.88

DEP. CURB
TC: 111.37
G: 111.25

TC: 111.80
G: 111.30

TC: 111.80
G: 111.10

PROP. TYPE 'B' INLET #62
TC: 113.32
GRT: 112.82

TC: 113.00
G: 112.50

G: 114.50

G: 114.80

PROP. STOCKPILE LOCATION

220.0'

PROPOSED WAREHOUSE
(95,135 SF FOOTPRINT)
(102,730 SF TOTAL FLOOR AREA)
(70 PARKING SPACES)
(3 LOADING SPACES)
(1 DOME-IN RAMP)

LOBBY FF: 116.00
1ST FLOOR FF: 116.00
2ND FLOOR FF: 131.00

PROPOSED SECOND FLOOR OFFICE
FF: 128.50

PROP. STAIRS
11-6" RISERS
TS: 116.00
BS: 110.50

G: 112.00

430.0'

G: 99.10

PROP. STAIRS
12-6" RISERS
TS: 116.00
BS: 110.00

220.0'

PROP. 4'X4' DBL UG OCS #59
RIM: 114.03

PROP. 5'X5' STORM MH #60
RIM: 110.24

PROP. 5'X5' STORM MH #33
RIM: 114.75

PROP. 5'X5' STORM MH #9
RIM: 115.28

PROP. 4'X4' DBL UG OCS #66
RIM: 116.00

PROP. 5'X5' STORM MH #54
RIM: 115.91

PROP. 5'X5' STORM MH #53
RIM: 115.84

PROP. JENSEN 7'X17.5'
STORMVAULT #8
TC: 115.17
GRT: 114.67

PROP. 5'X5' STORM MH #52
RIM: 116.00

PROP. 5'X5' STM MH #4
TC: 117.75
GRT: 117.25

PROP. 5'X5' STORM MH #3
RIM: 117.16

PROP. 5'X5' STORM MH #11
RIM: 117.36

PROP. JENSEN 9.5'X17.5'
STORMVAULT #1
TC: 117.50
GRT: 117.00

PROP. 4'X4' DBL UG OCS #4
RIM: 117.17

PROP. 5'X5' STORM MH #5
RIM: 117.03

PROP. 5'X5' STM MH #5
RIM: 116.80

PROP. TYPE 'B' INLET #61
TC: 115.93
GRT: 115.43

PROP. TYPE 'B' INLET #7
TC: 115.17
GRT: 114.67

PROP. INLET PROTECTION

PROP. STABILIZED CONSTRUCTION ENTRANCE

WET BY:
G: 115.16

HP: 115.71

SD INLET
TC 113.03
INV "A" 110.53
INV "B" 110.58
INV "C" 110.23

SD INLET
TC 112.63
INV 109.98

SD INLET
TC 113.70
INV "A" 111.60

6" HDPE DEDICATION

CURB
TC: 114.00
G: 113.80

NEW JERSEY TURNPIKE

ETRA ROAD (CR 571)
(66' WIDE)

I-O ZONE

R-O ZONE

PRC ZONE

R-A ZONE

SL ZONE

EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER
- PROP. HAYBALE SEDIMENT BARRIER

LIMIT OF DISTURBANCE = 270,301 SF. (6.205 Ac.)

GRAPHIC SCALE
-30 0 15 30 60 120
(IN FEET)
1 INCH = 30 FT.

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Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
www.dynamicnec.com

TITLE: SOIL EROSION AND SEDIMENT PLAN

PROJECT: **261 ETRA RD., LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: GMC
SCALE:(H) 1"=30" (V)
DESIGNED BY: TAZ
SHEET No: 11 OF 19
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THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

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No.	Date	Comments
Rev. #	0	

Plotted: 10/14/21 - 10:29 AM By: gcworlick
Plot Table: P:\DOCS_PROJECTS\2871 Real Management, Inc\99-003 East Windsor Etra Road\Dwg\Site Plans\D28719900SESD.dwg, ----> 11 SOIL EROSION AND SEDIMENT PLAN
Product Ver: 23.1s (LMS Tech)

MERCER COUNTY SCD REQUIRED SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO STARTING LAND DISTURBANCE ACTIVITY. NOTICE MAY BE MAILED, FAXED OR EMAILED TO:
   MCSCD, 500 HUGHES DRIVE, HAMILTON SQUARE, NJ 08690
   PHONE: 609-586-7300 FAX: 609-586-7117 EMAIL: MERCERSCD@VALIC.COM
2. IF APPLICABLE, A COPY OF THE NJPDES PERMIT (NJG0088323) FOR THE NJDEP ONLINE PERMITTING SYSTEM (NJWPA) AUTHORIZING THE DISCHARGE OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER A NJPDES STORMWATER GENERAL PERMIT NO. NJ0088323 FOR THE DISCHARGE OF STORMWATER FROM SITES DISTURBING ONE OR MORE ACRES AT ALL TIMES. THIS PERMIT MUST BE OBTAINED PRIOR TO THE STARTING OF SOIL DISTURBANCE. THE ONLINE APPLICATION PROCESS WILL REQUIRE ENTRY OF AN SCD CERTIFICATION CODE, WHICH IS PROVIDED BY THE SOIL CONSERVATION DISTRICT UPON CERTIFICATION OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
3. THE MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
4. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, INCLUDING AN INCREASE IN THE LIMIT OF DISTURBANCE, WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.
5. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON SITE AT ALL TIMES.
6. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AS OUTLINED WITHIN THE SEQUENCE OF CONSTRUCTION ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NJ. IF LANGUAGE CONTAINED WITHIN ANY OTHER PERMIT FOR THIS PROJECT IS MORE RESTRICTIVE THAN (BUT NOT CONTRADICTORY TO) ANY LANGUAGE CONTAINED WITHIN THESE NOTES OR ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, THEN THE MORE RESTRICTIVE PERMIT REQUIREMENTS SHALL BE FOLLOWED.
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A 150' TO 238' CLEAN STONE TRACKING PAD AT ALL CONSTRUCTION ENTRANCES/EXITS. THE TRACKING PAD SHALL BE A MINIMUM OF 10 FEET WIDE, BUT SHALL BE AS WIDE AS THE FULL WIDTH OF ALL POINTS OF INGRESS AND EGRESS, AND LONG ENOUGH TO ACCOMMODATE ON SITE CONDITIONS, BUT NOT LESS THAN 50 FEET. AS REQUIRED BY THE STANDARD, THE PAD SHALL INCLUDE ROADWAY CROWNING AT ACCESS POINTS WITHIN PROPERTY BOUNDARIES. IF THERE IS NO EXISTING ROAD THEN A 20 FT LONG PAVED TRANSITION SHALL BE PROVIDED BETWEEN THE EDGE OF PAVEMENT AND THE STONE ACCESS PAD.
9. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING, PROVIDED THAT ALL OTHER REQUIREMENTS RELATED TO DETENTION BASINS, SWALES AND THE SEQUENCE OF CONSTRUCTION HAVE BEEN MET.
10. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 14 DAYS AND NOT SUBJECT TO CONSTRUCTION ACTIVITY WILL IMMEDIATELY RECEIVE TEMPORARY STABILIZATION. IF THE SEASON PREVENTS ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER, OR IF THE AREA IS NOT TOPSOILED, THEN THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS. SLOPED AREAS IN EXCESS OF 3H:1V SHALL BE PROVIDED WITH EROSION CONTROL BLANKETS. CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES, ROADWAY EMBANKMENTS, ENVIRONMENTALLY SENSITIVE AREAS) WILL RECEIVE TEMPORARY STABILIZATION IMMEDIATELY AFTER INITIAL DISTURBANCE OR ROUGH GRADING
11. ANY STEEP SLOPES (I.E. SLOPES GREATER THAN 3:1) RECEIVING PIPELINE OR UTILITY INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS.
12. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING AND TOPSOILING. ALL AGRONOMIC REQUIREMENTS CONTAINED WITHIN THE STANDARDS AND ON THE CERTIFIED PLAN SHALL BE EMPLOYED. MULCH WITH BINDER, IN ACCORDANCE WITH THE STANDARDS, SHALL BE USED ON ALL SEEDED AREAS. SAW CUT TACO AND/OR BACO USED FOR SEED, LIME AND FERTILIZER, AND PRESS THEM TO THE DISTRICT INSPECTOR TO VERIFY THAT MATERIALS AND RATES MEET THE STANDARDS.
13. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROWING COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, THEN NON-VEGETATIVE MEANS OF PERMANENT GROUND COVER WILL HAVE TO BE EMPLOYED.
14. DURING THE COURSE OF CONSTRUCTION, SOIL COMPACTION MAY OCCUR WITHIN HAUL ROUTES, STAGING AREAS AND OTHER PROJECT AREAS. IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING, COMPACTED SURFACES SHOULD BE SCARIFIED AT 75 1/2" IMMEDIATELY PRIOR TO TOPSOIL APPLICATION. THIS WILL HELP ENSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
15. PRIOR TO SEEDING, TOPSOIL SHALL BE WORKED TO CREATE A PROPER SEEDBED. THIS SHALL INCLUDE RAKING OF THE TOPSOIL AND REMOVAL OF DEBRIS AND STONES, ALONG WITH OTHER REQUIREMENTS OF THE STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION.
16. 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 BURIED WITH LIMESTONE IN ACCORDANCE WITH THE STANDARD AND BE COVERED WITH A MINIMUM OF 12" OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO TOPSOIL APPLICATION AND SEEDBED PREPARATION. IF THE AREA IS TO RECEIVE TREE OR SHRUB PLANTINGS, OR IS LOCATED ON A SLOPE, THEN THE AREA SHALL BE COVERED WITH A MINIMUM OF 24" OF SOIL HAVING A PH OF 5 OR MORE.
17. MULCHING TO THE STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONAL ROCS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING. PERMANENT STABILIZATION MUST THEN BE COMPLETED DURING THE OPTIMUM SEEDING SEASON IMMEDIATELY FOLLOWING THE CONDITIONAL ROC OR THE COMPLETION OF WORK IN A GIVEN AREA.
18. HYDROSEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY. GOOD SEED-TO-SOIL CONTACT AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF THE SEEDING OPERATION, HYDROMULCH SHOULD BE APPLIED AT A MINIMUM RATE OF 1500 LBS. PER ACRE. IN SOCIETY HILL AT TWIN RIVERS, HYDRO-MULCH AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS. THE USE OF HYDROMULCH IN SUMMER MONTHS IS PROHIBITED.
19. THE CONSTRUCTION ENTRANCE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF THE CONSTRUCTION PROJECT. ALL SEDIMENT WASHED, DROPPED, TRACKED OR SPILLED ONTO PAVED SURFACES SHALL BE IMMEDIATELY REMOVED.
20. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDYING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION, AND FOR EMPLOYING ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AT THE REQUEST OF THE MERCER COUNTY SOIL CONSERVATION DISTRICT.
21. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
22. ALL DETENTION / RETENTION BASINS MUST BE FULLY CONSTRUCTED (INCLUDING OF ALL STRUCTURAL COMPONENTS SUCH AS OUTLET CONTROL STRUCTURES) AND PERMANENTLY STABILIZED PRIOR TO PAVING OR PRIOR TO THE ADDITION OF ANY IMPERVIOUS SURFACES. PERMANENT STABILIZATION INCLUDES, BUT MAY NOT BE LIMITED TO, TOPSOIL, SEED, STRAW MULCH AND BINDERS OR EROSION CONTROL BLANKETS ON ALL SLOPES, AND AGRONOMIC REQUIREMENTS AS SPECIFIED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN. INSTALLATION OF THE OUTFLOW CONTROL STRUCTURES AND DISCHARGE STORM DRAINAGE PIPING, LOW FLOW CHANNELS, CONDUIT OUTLET PROTECTION, EMERGENCY SPILLWAYS, AND LAP RING PROTECTION.
23. THE RIDING SURFACE OF ALL UTILITY TRENCHES WITHIN PAVED AREAS SHALL BE 3/4" CLEAN STONE OR BASE PAVEMENT UNTIL SUCH TIME AS FINAL PAVEMENT HAS BEEN INSTALLED. TEMPORARY SOIL RIDING SURFACES ARE PROHIBITED.
24. ALL CONSTRUCTION DEWATERING (TRENCHES, EXCAVATIONS, ETC.) MUST BE DONE THROUGH AN INLET OR OUTLET FILTER IN ACCORDANCE WITH THE STANDARD FOR DEWATERING OR AS DEFICTED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN. DISCHARGE LOCATIONS FOR THE DEWATERING OPERATION MUST CONTAIN PERENNIAL VEGETATION OR SIMILAR STABLE SURFACE.
25. ALL SWALES OR CHANNELS THAT WILL RECEIVE RUNOFF FROM PAVED SURFACES MUST BE PERMANENTLY STABILIZED PRIOR TO THE INSTALLATION OF PAVEMENT. IF THE SEASON PREVENTS THE ESTABLISHMENT OF PERMANENT STABILIZATION, THE SWALES OR CHANNELS MAY BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE STANDARDS.
26. NO BUILDING SHALL BE OCCUPIED WITHOUT A TEMPORARY OR TEMPORARY CERTIFICATE OF OCCUPANCY BE ISSUED BY THE MUNICIPALITY BEFORE THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN SATISFIED. THEREFORE, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS MUST BE COMPLETED BEFORE THE DISTRICT ISSUES A REPORT OF COMPLIANCE OR CONDITIONAL REPORT OF COMPLIANCE, WHICH MUST BE FORWARDED TO THE MUNICIPALITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY, RESPECTIVELY.

MERCER COUNTY SOIL CONSERVATION DISTRICT
500 HUGHES DRIVE
HAMILTON SQUARE., NJ. 08690

SEQUENCE OF CONSTRUCTION:

PHASE 1: INSTALL STONE ANTI-TRACKING PAD AND OTHER SOIL EROSION SEDIMENT CONTROL MEASURES INCLUDING DOWN SLOPE PERIMETER HAY BALES AND SILT FENCING.
PHASE 2: CLEAR AND ROUGH GRADE FOR NEW BUILDING SITE AND OTHER STRUCTURES REQUIRING EXCAVATION.
PHASE 3: EXCAVATION, CONSTRUCTION, AND STABILIZATION OF DETENTION BASIN(S). EXCAVATE AND INSTALL UNDERGROUND PIPING AND DRAINAGE STRUCTURES.
PHASE 4: EXCAVATE FOR BUILDING FOUNDATION.
PHASE 5: COMPLETE BUILDING CONSTRUCTION.
PHASE 6: EXCAVATE AND INSTALL ON SITE IMPROVEMENTS INCLUDING CURBING, UNDERGROUND PIPING, AND DRAINAGE STRUCTURES.
PHASE 7: FINAL GRADING ON SITE.
PHASE 8: INSTALL PAVING, CONCRETE, AND FINAL VEGETATION INCLUDING SEEDING AND LANDSCAPING.

STANDARD FOR STABILIZATION WITH MULCH ONLY

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. 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.
2. 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 TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE 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.
   B. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
   C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
   D. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.
   E. 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.
   F. 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 WITH 0-33 IS RECOMMENDED.
3. 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 IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.
   A. PEG AND TWINE
   B. MULCH NETTING
   C. CRIMPER MULCH ANCHORING COULTER TOOL
   D. LIQUID MULCH-BINDERS

STANDARD FOR PERMANENT STABILIZATION WITH SOD

METHODS AND MATERIALS

1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
2. SOD SHOULD BE FREE OF WEEDS AND OBJECTIONABLE GRASS WEEDY GRASSES.
3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH.)
4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
5. FOR DRAUGHT SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD.
6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

I. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING, PAGE 4.11.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPTOR DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE-SILTING BASINS. SEE STANDARDS 4.2 THROUGH 4.16.

II. SOIL PREPARATION
   A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR UNMARKED SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN AND INCORPORATED INTO THE SURFACE 4". IN ADDITION, 300 POUNDS 38–0–0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP-DRESSING. APPLY LIMESTONE AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS/1000 SQ. FT
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

   PULVERIZED DOLOMITE LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK–TRENTON LINE.
   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 OTHER SUITABLE EQUIPMENT. FREE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FIRM SEEDBED IS PREPARED.
   C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
   D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE–TILLED AND FIRMED AS ABOVE.

III. SOD PLACEMENT
   A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LUGGING THE FACINGS INTO THE SOIL WILL PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
   B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
   C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
   D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
   E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
   F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

IV. TOP–DRESSING
   IF SLOW RELEASE NITROGEN IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW–UP OF TOP DRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP.

   TOP–DRESS WITH 10–0–10 OR EQUIVALENT AT 400 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.

STANDARD FOR DUST CONTROL

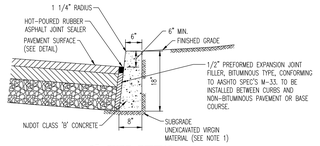
DEFINITION – THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.
PURPOSE – TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON–AND OFF– SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
WHERE APPLICABLE – THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:
MULCHES – SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY
VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD.
SPRAY–ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT	7:1	COARSE SPRAY	1,200
EMULSION LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

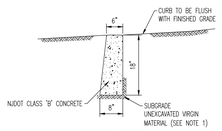
TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL–TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING – TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
CALCIUM CHLORIDE – SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.
STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

STANDARD FOR 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. 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.).
2. SEEDBED PREPARATION
   A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS 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, 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 STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTHS
      – COOL SEASON GRASSES:
      (1) PERENNIAL RYEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 0.5 INCHES.
      (2) SPRING OATS – 86 LBS / ACRE; PLANT BETWEEN MARCH 1 AND MAY 15 BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
      (3) WINTER BARLEY – 96 LBS / ACRE; PLANT BETWEEN AUGUST 15 AND OCTOBER 1; AT A DEPTH OF 1.0 INCHES.
      (4) ANNUAL RYEGRASS – 100 LBS / ACRE; PLANT BETWEEN MARCH 1 AND JUNE 15 BETWEEN AUGUST 1 AND SEPTEMBER 15; AT A DEPTH OF 0.5 INCHES.
      (5) WINTER CEREAL RYE – 112 LBS / ACRE; PLANT BETWEEN AUGUST 1 AND NOVEMBER 15; AT A DEPTH OF 1.0 INCHES.
      –WARM SEASON GRASSES:
      (1) PEARL MILLET – 20 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES.
      (2) MILLET (GERMAN OR HUNGARIAN) – 30 LBS / ACRE; PLANT BETWEEN MAY 15 AND AUGUST 15; AT A DEPTH OF 1.0 INCHES.
   B. CONVENTIONAL SEEDING: APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDER 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 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 4 MULCHING) 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.
4. 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. STRA



6" CURB REVEAL



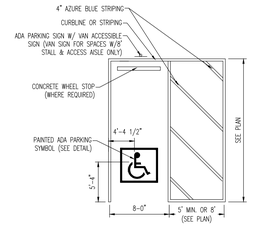
FLUSH CURB

NOTES:

1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTOM-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
3. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
4. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
5. THESE SPECIFICATIONS ALSO MEET RSIS DESIGN STANDARDS.

CONCRETE CURB DETAIL

NOT TO SCALE

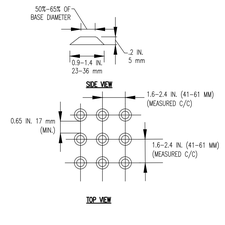


NOTES:

1. PAVEMENT STRIPING FOR ALL ADA PARKING SPACES SHALL BE PAINTED AZURE BLUE.
2. WHERE AN ADA PARKING STALL MEETS A STANDARD PARKING STALL, AN AZURE BLUE AND WHITE PAVEMENT STRIPE SHALL BE PAINTED.
3. ALL PAVEMENT STRIPING, MARKINGS AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.

ADA STALL MARKINGS DETAIL

NOT TO SCALE



NOTES:

1. DETECTABLE WARNINGS SHALL BE A PRE-MANUFACTURED ARMOUR TILE TACTILE SYSTEM OR APPROVED EQUIVALENT.
2. WARNING SURFACE SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT PER LATEST A.D.A. ACCESSIBILITY GUIDELINES.
3. CONTRACTOR TO COORDINATE SPECIFIC SYSTEM AND MATERIALS UTILIZED WITH THE ENGINEER TO ENSURE LOCAL, STATE AND A.D.A. COMPLIANCE PRIOR TO CONSTRUCTION.
4. DETECTABLE WARNING SURFACE SHALL BE IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.

DETW - 06/05

TRUNCATED DOME PATTERN FOR A.D.A. DETECTABLE WARNING SURFACE

NOT TO SCALE

NOTES:

1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.

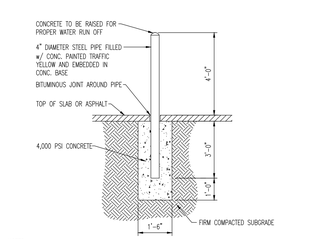
2.) COUNTER SLOPES OF ADJOINING GUTTERS AND PAVEMENT SHALL NOT BE STEEPER THAN 1:20 WITH A MAX. CROSS SLOPE OF 2%.

3. A LEVEL LANDING AREA(MAX. SLOPE 2% IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF THE RAMP. THE LANDING CLEAR LENGTH SHALL BE 36" MIN AND THE CLEAR WIDTH SHALL BE AS WIDE AS THE RAMP.

4.) CURB RAMPS, PAVEMENT MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

A.D.A. PARALLEL CURB RAMP DETAIL

NOT TO SCALE



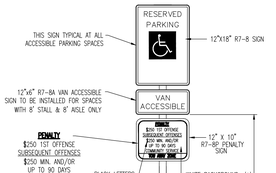
NOTES:

1. BOLLARD MUST RESIST A FORCE OF 12,000 POUNDS APPLIED 30" ABOVE THE DRIVING SURFACE.
2. BOLLARDS REQUIRED AS DEPICTED ON SITE PLAN DRAWINGS. TYPICALLY LOCATED AT BUILDING CORNERS, TRANSFORMERS, FIRE HYDRANTS, EXTERIOR WATER METER, GAS METER, FIRE DEPARTMENT CONNECTIONS, AND TRASH ENCLOSURES.

DETW - 06/05

4" BOLLARD DETAIL

NOT TO SCALE



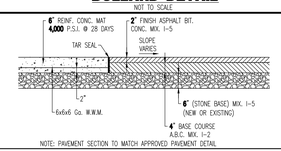
NOTES:

1.) IF AT THE TIME OF CONSTRUCTION THE STATE OF NEW JERSEY HAS APPROVED FINES/PENALTIES DIFFERENT THAN THOSE INDICATED ON THIS DETAIL, CONTRACTOR IS TO PROVIDE SIGNAGE INDICATING THE CURRENT FINES/PENALTIES AS APPROVED BY THE STATE OF NEW JERSEY.

2.) VAN ACCESSIBLE SIGN SHALL BE 60" MINIMUM ABOVE FINISHED GRADE WHERE APPLICABLE. WHEN VAN ACCESSIBLE IS NOT REQUIRED, R7-8 SIGN SHALL BE SET AT 60" MINIMUM ABOVE FINISHED GRADE.

A.D.A. PARKING SIGN ON BOLLARD DETAIL

NOT TO SCALE



NOTE: PAVEMENT SECTION TO MATCH APPROVED PAVEMENT DETAIL

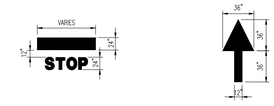
CONCRETE & PAVING DETAIL

NOT TO SCALE

NOTE: SEE CURB DETAIL FOR MATERIAL SPECIFICATIONS, BEDDING REQUIREMENTS, ETC.

VERTICAL CURB TAPER DETAIL

NOT TO SCALE



NOTE: SEE SITE PLAN FOR LOCATION & NUMBER OF CURB CUTS

TYPICAL CURB CUT TAPER DETAIL

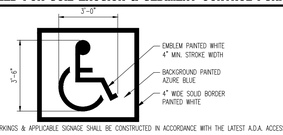
NOT TO SCALE

NOTE: ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT. ALL PAINT TO BE THERMOPLASTIC.

PAINTED MARKING DETAILS

NOT TO SCALE

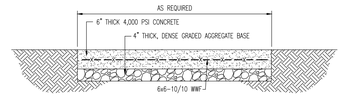
THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY



NOTE: ALL PAVEMENT STRIPING, MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

PAINTED A.D.A. PARKING SYMBOL DETAIL

NOT TO SCALE

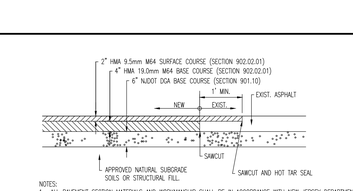


NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED, (6% WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE.
5. ALL FRAMEWORK, AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS, AS WELL AS THE ACI AND UNIFORM BUILDING CODE.
6. EXPANSION JOINTS 1/2" WIDE OF PREMOULDED BITUMINOUS MATERIALS SHALL BE INSTALLED.

CONCRETE PAD DETAIL

NOT TO SCALE

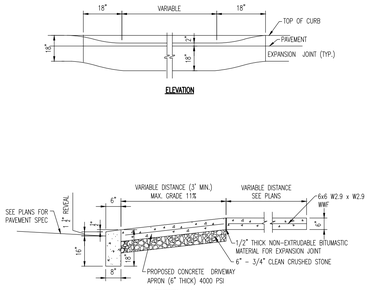


NOTES:

1. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2019.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
4. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

PAVING DETAIL

NOT TO SCALE

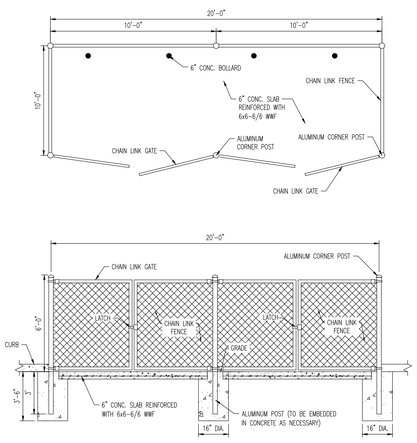


ELEVATION

SECTION A-A

DEPRESSED CURB & CONCRETE APRON AT DRIVEWAY DETAIL

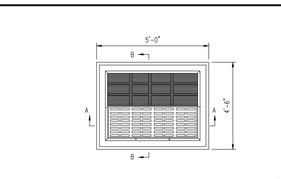
NOT TO SCALE



NOTE: CONTRACTOR TO BE RESPONSIBLE FOR CROSS BRACING & GATE SUPPORTS.

CHAIN LINK FENCE TRASH ENCLOSURE DETAIL

NOT TO SCALE



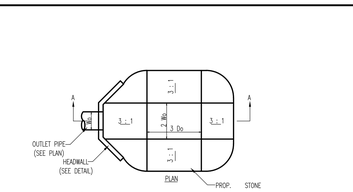
NOTE:
1. MAX. CROSS SLOPE 1/4" PER FOOT PITCHED AWAY FROM BUILDING.
2. PROVIDE 1/2" WIDE PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' INTERVALS.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH.
4. PROVIDE A BROOM FINISH TO PROVIDE A SLIP RESISTANT WEARING SURFACE IN ACCORDANCE WITH A.D.A. REGULATIONS. FINISH THE EDGES OF THE GROOVES USING AN EDGING TOOL WITH A 1/4" RADIUS.

CURB AND WALK DETAIL AT BUILDING

NOT TO SCALE

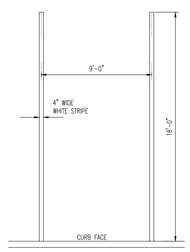
DRIVEWAY BACKPLATE DETAIL

NOT TO SCALE



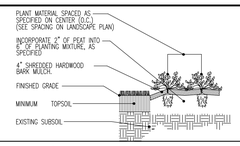
PREFORMED SCOUR HOLE DETAIL

NOT TO SCALE



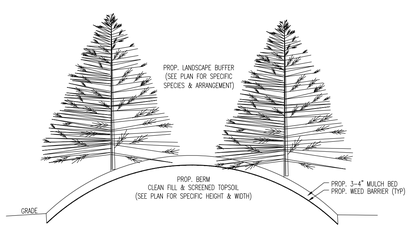
PARKING STALL STRIPING DETAIL

NOT TO SCALE



PERENNIAL/GROUND COVER PLANTING DETAIL

NOT TO SCALE



NOTE: BERM TO RECEIVE TOP GRADE WEED BARRIER & MULCH PER TOWNSHIP ORD. SECT. ********

LANDSCAPE BERM BUFFER DETAIL

NOT TO SCALE

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.598.4400

TITLE: CONSTRUCTION DETAILS

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No:	2871-99-003
DATE:	10/14/2021
DRAWN BY:	GMC
SCALE:(H) NOT TO (V) SCALE	
DESIGNED BY:	TJZ
SHEET No:	13
CHECKED BY:	TJM
	OF 19
CHECKED BY:	_
Rev. #	0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

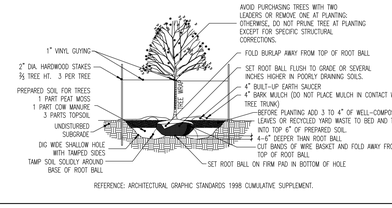
811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATION, DIGGING, OR ANY OPERATION PREPARING TO DISTURB THE EARTH'S SURFACE SEVERAL IN ANY STATE.
Dig with Confidence
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Rev. | Date | Comments | By

Plotted: 10/14/21 – 9:57 AM, By: gcwelch, — Product Ver: 23.1a (LMS Tech)
File: K:\ACPE - PROJECTS\2871 Real Deal Management, Inc\99-003, East Windsor, Etra Road\Dwg\Site Plans\(2871)99003S00.dwg, ---> 13 CONSTRUCTION DETAILS

THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

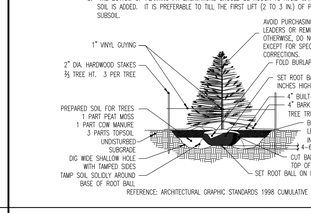
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ½ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

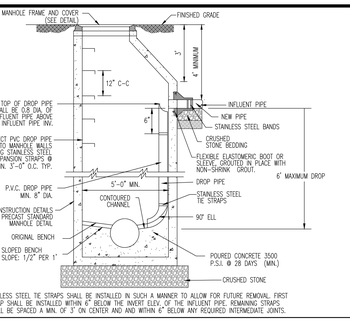
DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL ROPE FROM TRUNK & TOP OF ROOT BALL FOLD BURLAP BACK ½ FROM TOP ROOT BALL
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.



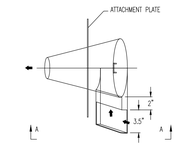
REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

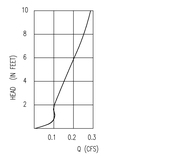


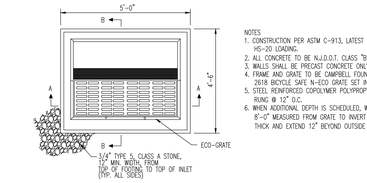
NOTES:
1. STAINLESS STEEL TIE STRAPS SHALL BE INSTALLED IN SUCH A MANNER TO ALLOW FOR FUTURE REMOVAL. FIRST STRAP SHALL BE INSTALLED WITHIN 6" BELOW THE INVERT ELEV. OF THE INFLUENT PIPE. REMAINING STRAPS SHALL BE SPACED A MIN. OF 3' ON CENTER AND AND WITHIN 6" BELOW ANY REQUIRED INTERMEDIATE JOINTS.

NOT TO SCALE



TOP VIEW

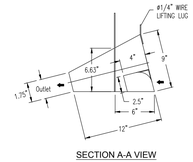




NOTES
1. CONSTRUCTION PER ASTM C-913, LATEST REVISION & HS-20 LOADING.
2. ALL CONCRETE TO BE N.J.D.O.T. CLASS "B" CONCRETE.
3. WALLS SHALL BE PRECAST CONCRETE ONLY.
4. FRAME AND GRATE TO BE CAMPBELL FOUNDRY CO., NO. 2618 BICYCLE SAFE N-ECO GRATE SET IN CONC.
5. STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG @ 12" O.C.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW 8'-0" MEASURED FROM GRATE TO INVERT SHALL BE 12" THICK AND EXTEND 12" BEYOND OUTSIDE OF WALL.

3/4" TYPE 5, CLASS A STONE, 12" MIN. WIDTH, FROM TOP OF FOOTING TO TOP OF INLET (TYP. ALL SIDES)

NOT TO SCALE



SECTION A-A VIEW

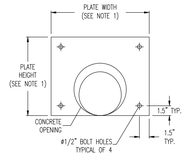
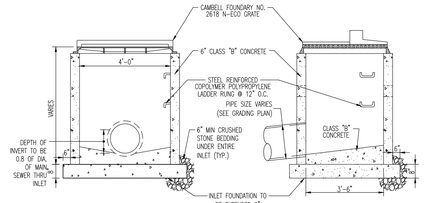


PLATE DETAIL
Cone omitted for clarity



SECTION A-A
"THROUGH" INLET DETAIL

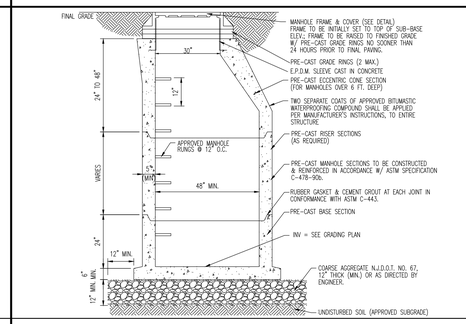
SECTION B-B
TERMINAL INLET DETAIL

NOTES
1. ATTACHMENT PLATE WIDTH AND HEIGHT VARIES BASED ON CONCRETE OPENING SIZE
2. OUTLET SIZE = ø3" MINIMUM
3. ALL WELDS CONTINUOUS UNLESS NOTED OTHERWISE MATERIALS: 12 GA. 304L STAINLESS STEEL

DATA - BASE

CONTECH FLUIDIC-CONE HYDROBRAKE MODEL FC08 WITH PLATE ATTACHMENT & BOX INLET
NOT TO SCALE

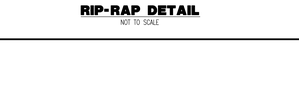
TYPE 'B' INLET
NOT TO SCALE



THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

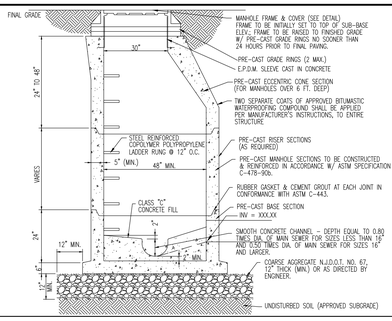
PLAN

W1	L1	W2	ø50	TH
X'	X'	X'	X"	X"

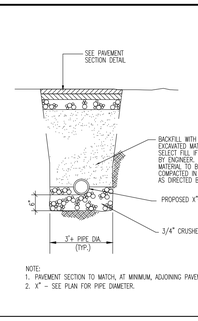


SECTION

NOTE:
1. FILTER FABRIC SHALL MEET THE MINIMUM REQUIREMENTS SET FORTH IN THE STANDARDS FOR SOIL EROSION AND SEDIMENTATION CONTROL IN NJ.

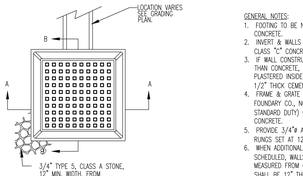


PRECAST SANITARY MANHOLE
NOT TO SCALE

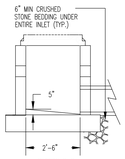


NOTE:
1. PAVEMENT SECTION TO MATCH, AT MINIMUM, ADJOINING PAVEMENT.
2. X" – SEE PLAN FOR PIPE DIAMETER.

SANITARY SEWER TRENCH DETAIL
NOT TO SCALE



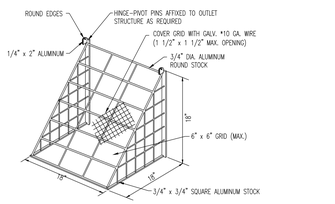
SECTION A-A
"THROUGH" INLET DETAIL



SECTION B-B
"TERMINAL" INLET DETAIL

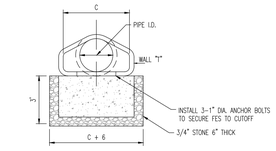
2 X 2 YARD INLET DETAIL
NOT TO SCALE

RIP-RAP DETAIL
NOT TO SCALE

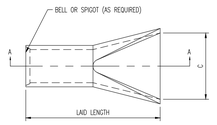


NOTE: FOR 3" TO 15" PRIMARY ORIFICES

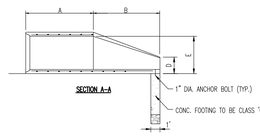
TRASH RACK DETAIL
NOT TO SCALE



END VIEW



PLAN

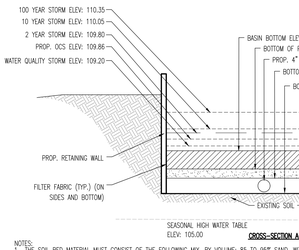


SECTION A-A

INSIDE DIA. IN.	A IN.	B IN.	C IN.	D IN.	E IN.	LAID LENGTH FT.	WEIGHT	WALL "T" IN.
12	49	24	24	4	13	6.00	530	2
15	46	27	30	6	16	6.08	740	2 1/4
18	46	27	36	9	19	6.08	990	2 1/2
21	38	35	42	9	22	6.08	1280	2 3/4
24	30	44	48	9 1/2	25	6.17	1520	3
27	26	48	54	10 1/2	28	6.17	1930	3 1/4
30	20	54	60	12	31	6.17	2190	3 1/2
36	35	63	72	15	37	8.17	4100	4
42	35	63	72	21	43	8.17	5380	4 1/2
48	26	72	84	24	49	8.17	6550	5
54	35	65	90	27	55	8.33	8040	5 1/2
60	39	60	96	30	61	8.25	8750	6

LS/300 lbf

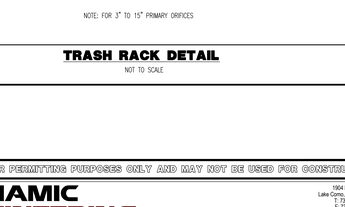
CONCRETE FLARED END SECTIONS
NOT TO SCALE



CROSS-SECTION A-A

NOTES:
1. THE SOIL BED MATERIAL MUST CONSIST OF THE FOLLOWING MIX, BY VOLUME: 85 TO 90% SAND, WITH NO MORE THAN 25% OF THE SAND AS FINE OR VERY FINE SANDS; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT. THE ENTIRE MIX MUST THEN BE AMENDED WITH 3 TO 5% ORGANICS, BY WEIGHT. PRE-MIXED SOIL MUST BE CERTIFIED TO BE CONSISTENT WITH THE REQUIREMENT ABOVE BY EITHER THE VENDOR OR BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY. THE CONTENT OF ANY SOIL MIXED ON-SITE MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF NEW JERSEY. IN ADDITION, THE ENGINEER MUST BE PRESENT WHILE THE SOIL IS MIXED. THE PH OF THE SOIL BED MATERIAL IS RECOMMENDED TO RANGE FROM 5.5 TO 6.5. THE SOIL BED MUST BE A MINIMUM OF 18 – 24 INCHES IN DEPTH. THE SOIL BED MATERIAL MUST BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES. ADDITIONAL MATERIALS MAY BE NECESSARY TO ACCOUNT FOR SETTLING OVER TIME.
2. BASIN CONSTRUCTION MUST NOT COMPACT SOILS BELOW BASIN BOTTOM.
3. CONTRACTOR OR OWNER TO ENGAGE QUALIFIED GEOTECHNICAL ENGINEER TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO CONFIRM RESULTS TO DESIGN CRITERIA.
4. TOPSOIL AND UNSUITABLE MATERIALS ARE TO BE STRIPPED FROM BASIN BOTTOM AREA AND REPLACED WITH SUITABLE MATERIAL PROVIDING PERMEABILITY RATES CONSISTENT WITH THAT OF THE SUBSURFACE SOILS ZONE OF INFILTRATION. CONTRACTOR SHALL PROVIDE A RECORD OF THE REPLACEMENT MATERIAL USED AND ITS CORRESPONDING PERMEABILITY RATE. REFER TO THE TEST PIT AND/OR SOIL BORING RECORDS AND STORMWATER MANAGEMENT REPORT TO CONFIRM THE DEPTH OF THE ZONE OF INFILTRATION.
5. BASIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW JERSEY STORMWATER BEST MANAGEMENT PRACTICES MANUAL, CHAPTER 9.7– SMALL–SCALE BIORETENTION SYSTEMS (MARCH 2021)
6. SAND LAYER SHALL CONSIST OF CLEAN MEDIUM AGGREGATE CONCRETE SAND (AASHTO M–6/ASTM C–33)
7. THE GRAVEL LAYER MUST HAVE SUFFICIENT DEPTH TO PROVIDE AT LEAST 3 INCHES OF GRAVEL BOTH ABOVE AND BELOW THE PIPE NETWORK AND MUST CONSIST OF 0.5 TO 1.5 INCH CLEAN, BROKEN STONE OR PEA GRAVEL (AASHTO M–43).

BIORETENTION BASIN DETAIL
NOT TO SCALE



NOTE: FOR 3" TO 15" PRIMARY ORIFICES

TRASH RACK DETAIL
NOT TO SCALE

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Newtown, Pennsylvania T: 267.685.0276 | Pittsburgh, Pennsylvania T: 215.235.4888 | Bethlehem, Pennsylvania T: 610.395.4400

TITLE: CONSTRUCTION DETAILS

PROJECT: 261 ETRA RD., LLC
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: GMC
SCALE:(H) NOT TO (V) SCALE
DESIGNED BY: TAZ
SHEET No: 14
CHECKED BY: TJM
CHECKED BY: –
OF 19

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

PROTECT YOURSELF
ALL STATE'S RIGHT, REGULATIONS AT CONTRACTORS, DESIGNERS, OR ANY PERSON PERFORMING EXCAVATION WORK SHALL CONTACT ONE CALL BEFORE YOU DIG
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Rev. # 0

No.	Date	Comments

Plotted: 10/14/21 – 11:26 AM, By: gcwidrick
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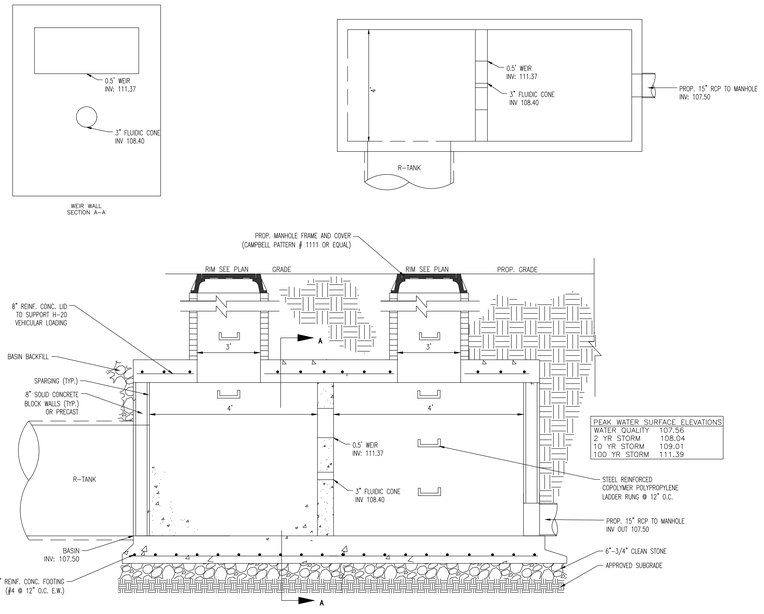
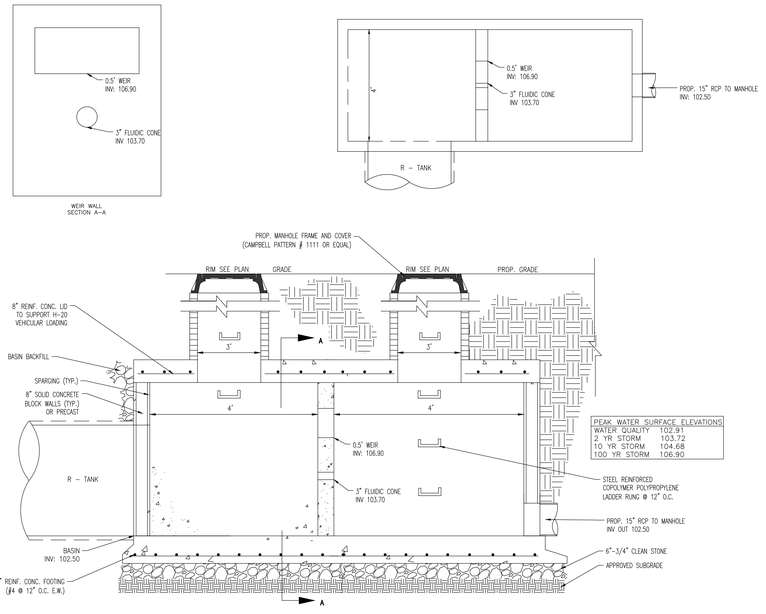
Product Ver: 23.1s (LMS Tech)



OUTLET STRUCTURE A DETAIL

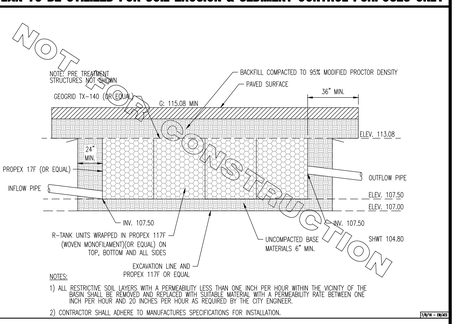
NOT TO SCALE



OUTLET STRUCTURE B DETAIL

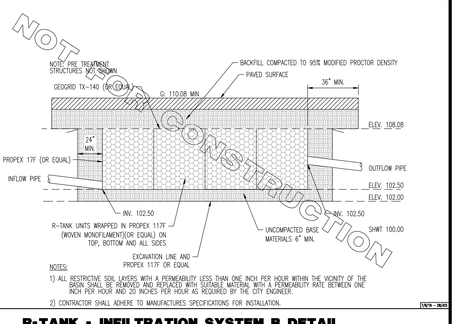
NOT TO SCALE

THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY



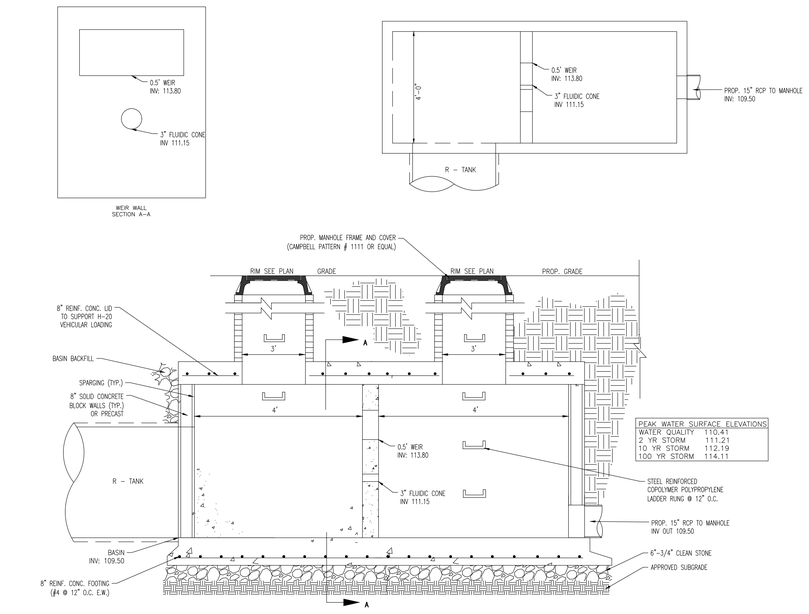
R-TANK - INFILTRATION SYSTEM A DETAIL

NOT TO SCALE



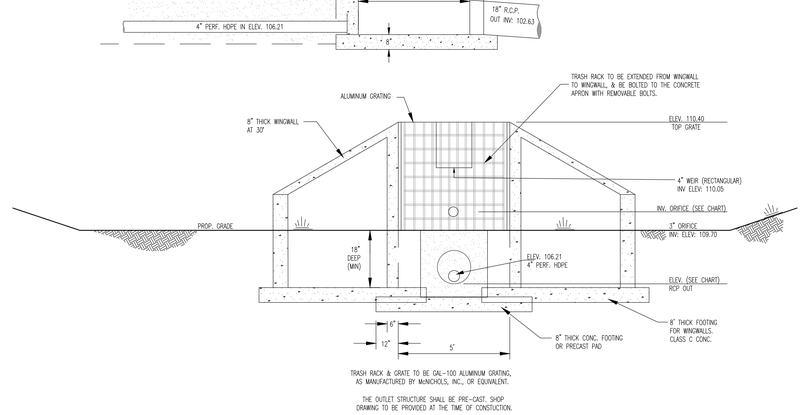
R-TANK - INFILTRATION SYSTEM B DETAIL

NOT TO SCALE



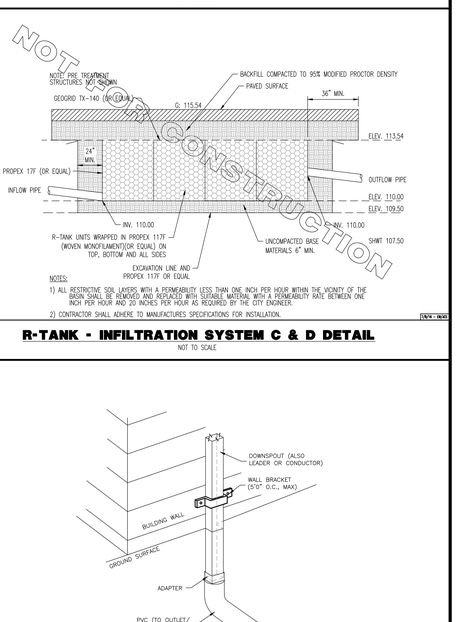
OUTLET STRUCTURE C & D DETAIL

NOT TO SCALE



OUTLET CONTROL STRUCTURE DETAIL (BIORETENTION BASIN WEST)

NOT TO SCALE



R-TANK - INFILTRATION SYSTEM C & D DETAIL

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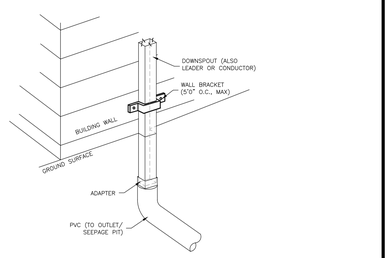
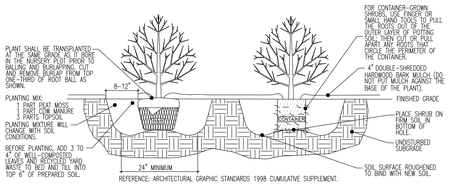


ROOF DRAIN WITH TEE & OVERFLOW DETAIL

NOT TO SCALE

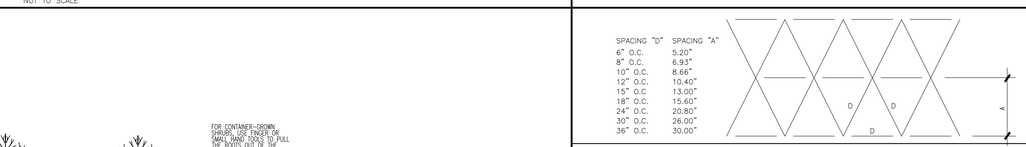


REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

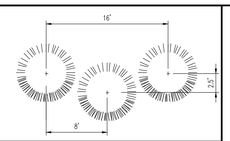
NOT TO SCALE

SPACING "D"	SPACING "A"
6" O.C.	5.20"
8" O.C.	6.93"
10" O.C.	8.66"
12" O.C.	10.40"
15" O.C	13.00"
18" O.C.	15.60"
24" O.C.	20.80"
30" O.C.	26.00"
36" O.C.	30.00"



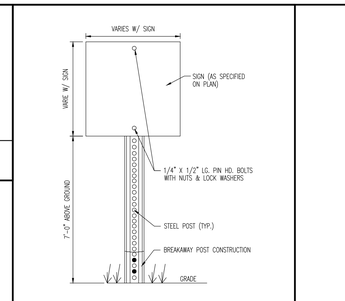
PERENNIAL GROUNDCOVER/SPACING DETAIL

NOT TO SCALE



EVERGREEN SCREENING SPACING DETAIL

NOT TO SCALE



SIGN POST DETAIL

NOT TO SCALE

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

No.	Date	Comments	By

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1904 Main Street
Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
www.dynamicnj.com

TITLE:

CONSTRUCTION DETAILS

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Plotted: 10/14/21 - 9:57 AM, By: gcwodick, Product Ver: 23.1s (LMS Tech)
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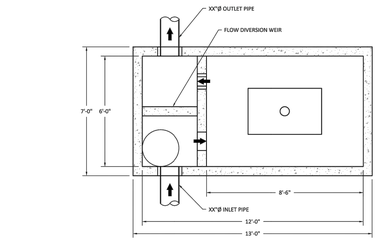
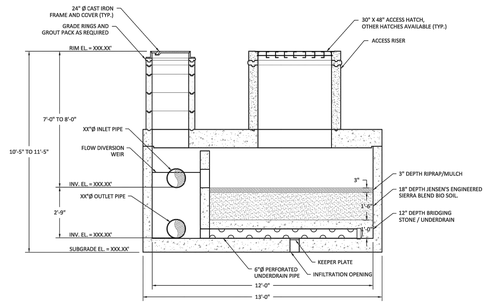


PLAN VIEW
SCALE: 1"=60"



PPRIFLE VIEW w/ SECTION
SCALE: 1"=40'

STORMVAULT BIOFILTRATION (SVBF) MODEL: SVBF-UV 6X8.5

HYDRAULIC and TREATMENT DATA:

BIO SOIL MEDIA UNITIZED TREATMENT FLUX RATE / HYDRAULIC SURFACE AREA LOADING RATE (HSLR)	193-IN/HR (2-GPM/FT²)
TREATMENT CHAMBER SURFACE AREA	51-FT²
MODEL SVBF-UV 6X8.5, PEAK TREATMENT FLOW RATE	0.227-CFS
	102-GPM

JENSEN BIORETENTION & INFILTRATION TREE/PLANTER ***STORMVAULT BIOFILTRATION* SIZED TO TREAT THE ENTIRE SQDF AT A RATE OF 193-INCHES/HR WHEN USING JENSEN'S ENGINEERED SIERRA BLEND BIO SOIL.

1. JENSEN'S ***STORMVAULT BIOFILTRATION (SVBF)*** DESIGNED AND SIZED TO TREAT THE ENTIRE SQDF.
2. CAPTURED WATER QUALITY CONSTITUENTS:
   - TOTAL SUSPENDED SOLIDS (TSS)
   - PHOSPHORUS
   - TOTAL AND DISSOLVED COPPER
   - TOTAL AND DISSOLVED ZINC
   - OIL & GREASE
   - FECAL COLIFORM

CONSTRUCTION & INSTALLATION NOTES:

1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS IN FIELD PRIOR TO INSTALLATION.
2. THE CONNECTION BETWEEN THE INTERNAL DRAIN PIPING OF THE ***SVBF*** SHALL BE MADE USING CONNECTORS CONFORMING TO ASTM C923, AS MADE BY KOR-N-SEAL, A-LOK, OR APPROVED EQUAL AND SHALL BE WATERTIGHT.
3. CONTRACTOR MAY ALSO GROUT ALL PIPE PENETRATIONS IN PRECAST CONCRETE OPENINGS IN FIELD AS NECESSARY.
4. CONTRACTOR TO PROVIDE FIELD POUR OF CURB TO THE ELEVATIONS SHOWN ON THE SITE DRAWINGS AS NECESSARY.
5. THE CONNECTION BETWEEN THE STORM DRAIN LINE AND THE ***SVBF*** SHALL BE MADE USING A RESILIENT CONNECTOR CONFORMING TO ASTM C923, AS MADE BY KOR-N-SEAL, A-LOK, OR APPROVED EQUAL AND SHALL BE WATERTIGHT.
6. VEGETATION, FOUNDATION, SUBGRADE, AND BACKFILL TO BE DESIGNED BY OTHERS.
7. ***SVBF*** CAN READILY BE RECONFIGURED AS AN OPEN TOP SWALE SYSTEM TO RECEIVE SURFACE FLOW FROM ALL SIDES, ELIMINATING TOP SLAB AND TREE GRATE.
8. ***SVBF*** MAY BE DEPLOYED WITH UNFINISHED TOP OF WALLS TO BE POURED IN FIELD ALLOWING FOR CONSTRUCTION OF CONTINUOUS STREETSCAPE AND LANDSCAPE FEATURES.
9. INLETS THROUGH CURB CAN BE LOCATED ON ANY SIDE OF THE BOX AND THEIR DIMENSIONS VARY PER DESIGN.

MATERIALS & DESIGN PARAMETERS:

1. ALL DIMENSIONS ARE IN DECIMAL INCHES.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH f'c = 5,000-psi AT 28-DAYS.
3. THE PORTLAND CEMENT USED IN THE PRECAST SECTION SHALL MEET THE REQUIREMENTS OF TYPE II/V HIGH SULFATE RESISTANT CEMENT IN ACCORDANCE WITH ASTM CLASS M C-150.
4. VAULT SECTIONS DESIGNED AND MANUFACTURED IN ACCORDANCE WITH ASTM C857 & C858
5. ALL PRECAST CONCRETE COMPONENTS TO BE MANUFACTURED IN AN NPCA CERTIFIED PLANT.
6. IF REQUIRED, JENSEN WILL FURNISH VAULT WITH FLUID-APPLIED WATERPROOFING COATING AROUND ENTIRE INSIDE SURFACE OF ***SVBF.***
7. BRIDGING STONE SHALL BE CLEAN, WASHED.
8. ALL PVC PIPE SHALL CONFORM TO ASTM D 3034 (SDR-35) PIPE.
9. GROUNDWATER ELEVATION IS ASSUMED TO BE BELOW THE BOTTOM OF PRECAST STRUCTURE. CONTACT JENSEN STORMWATER SYSTEMS FOR HIGH GROUNDWATER CONDITIONS.
10. STANDARD CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE READILY AVAILABLE. CONTACT JENSEN STORMWATER SYSTEMS FOR CUSTOM DESIGNS, www.jensenengineeredsystems.com.
11. FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN STORMWATER SYSTEMS.
12. JENSEN STORMWATER SYSTEMS TO PROVIDE ALL MATERIALS AS SHOWN, UNLESS OTHERWISE NOTED.
13. ALL CONCRETE COMPONENT THICKNESSES, DIMENSIONS, AND JOINT ORIENTATIONS MAY VARY ACROSS JENSEN PRECAST'S MANUFACTURING FACILITIES.

TITLE SHEET: PLAN AND PROFILE VIEW

PROJECT: PROPOSED SELF STORAGE, WINDSOR, NJ

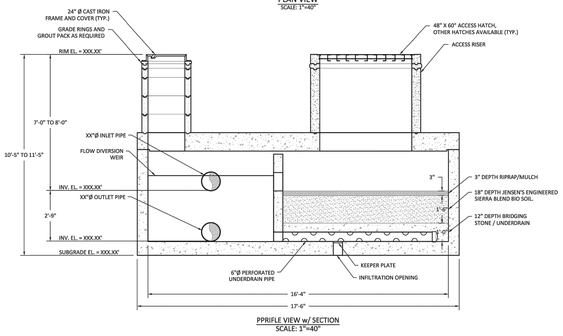
JENSEN PRECAST ENVIRONMENTAL SYSTEMS
521 DUNN CIRCLE, SPARKS, NV 89431-6312
(877) 649-0095 FAX (775) 442-2013
www.jensenengineeredsystems.com

ORIG. DWG. DATE:	REV. DWG. DATE:	SCALE:	SHEET SIZE:	DRAWN BY:	SHEET NUMBER:
07/19/2021	XX/XX/XXXX	AS SHOWN	11 X 17	S.T.	SHEET NO._2_OF _3_

STORMVAULT BIOFILTRATION - SVBF-UV 6.5x8 DETAIL

NOT TO SCALE

PLAN VIEW
SCALE: 1"=60"



PPRIFLE VIEW w/ SECTION
SCALE: 1"=40'

STORMVAULT BIOFILTRATION (SVBF) MODEL: SVBF-UV 8.3X9

HYDRAULIC and TREATMENT DATA:

BIO SOIL MEDIA UNITIZED TREATMENT FLUX RATE / HYDRAULIC SURFACE AREA LOADING RATE (HSLR)	193-IN/HR (2-GPM/FT²)
TREATMENT CHAMBER SURFACE AREA	75-FT²
MODEL SVBF-UV 8.3X9, PEAK TREATMENT FLOW RATE	0.334-CFS
	150-GPM

JENSEN BIORETENTION & INFILTRATION TREE/PLANTER ***STORMVAULT BIOFILTRATION* SIZED TO TREAT THE ENTIRE SQDF AT A RATE OF 193-INCHES/HR WHEN USING JENSEN'S ENGINEERED SIERRA BLEND BIO SOIL.

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   - TOTAL AND DISSOLVED COPPER
   - TOTAL AND DISSOLVED ZINC
   - OIL & GREASE
   - FECAL COLIFORM

CONSTRUCTION & INSTALLATION NOTES:

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STORMVAULT BIOFILTRATION - SVBF-UV 8.3x9 DETAIL

NOT TO SCALE

Cimarron CL1

Area/Site Lighting

AREA/SITE

*3000K and warmer CCTs only

Stylish vertically finned die-cast solid top housing and lower heat sink optimize heat dissipation;
- Isolated electrical compartment with integral heat sinking for cooler operation and longer driver life
- Drivers have greater than 90% power factor and less than 20% THD
- 0-10V dimming driver standard, order CD option to have dimming leads extended
- Automatic thermal self protection
- 20KA surge protection with an end of life LED indicator
- 60,000 hours life (L90 @ 40˚C)*
- Shipped with upswept or straight arm for uniform look and ease of installation
- -40 deg C to 40 deg C ambient operation
- Lektrocote TGIC polyester powder coat finish
- 3000K, 80 CRI; 4000K, 70 CRI; 5000K, 67 CRI
- Stainless steel bezel(s)
- Choice of 72 high brightness LED configurations with individual acrylic lenses aimed to produce IES type II, III, IV and V distributions and auto optics
- Backlight control option reduces spill light behind pole by 85%, doesn't change fixture appearance or EPA
- IP65
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- Increased lumen ouput with use of 350mA driver (90L only)
- DesignLights Consortium (DLC) qualified, consult DLC website for more details: http://www.designlights.org/QPL
- Turtle friendly Amber available

MADE-TO-ORDER ORDERING INFORMATION

CL1 – ___ – ___ – ___ – ___ – ___ – ___ – ___ – ___

SERIES
- CL1 Cimarron LED

NO. OF LEDS
- 90L 90 High brightness LEDs
- 60L 60 High brightness LEDs
- 30L 30 High brightness LEDs

VOLTAGE
- U[1] Universal 120V-277V, 50/60 Hz
- 1 120V
- 2 208V
- 3 240V
- 4 277V
- 5 480V, 60 Hz
- F 347V, 60 Hz
- E[1] 220V, 50 Hz

CCT
- 3K 3000K (KX3)
- 4K 4000K (KX4)
- 5K 5000K (KX5)
- AM[2] Amber (590 nm available for "Turtle Friendly" applications (consult factory)

DRIVE CURRENT
- Leave blank for 700mA (standard)
- 035 350mA Amber CCT only
- 105 1050mA (not for use with 30L)

COLOR
- DB Dark Bronze
- BL Black
- WH White
- GR Gray
- PS Platinum Silver
- CC Custom Color

MOUNTING
- A Arm mount construction (5" straight rigid arm included & acceptable for 90° configurations)
- AD Decorative arm mount const. (6" decorative upswept arm incl. & acceptable for 90° configurations)
- MAF Mast arm fitter for mounting to standard 2 3/8" mast arm bracket, includes 6" straight rigid arm

DISTRIBUTION
- 2 Type II
- 3 Type III
- 4 Type IV
- 5S Type V Short
- 5M Type V Medium
- 5W Type V Wide
- 2L Type II Rotated 90° left
- 3L Type III Rotated 90° left
- 4L Type IV Rotated 90° left
- 2R Type II Rotated 90° right
- 3R Type III Rotated 90° right
- 4R Type IV Rotated 90° right
- 1A Auto Front Row Type I
- 1AR Auto Front Row Type I Rotated 90° right
- 1AL Auto Front Row Type I Rotated 90° left
- 2A Auto Front Row Type II
- 2AR Auto Front Row Type II Rotated 90° right
- 2AL Auto Front Row Type II Rotated 90° left

OPTIONS
- BC[3] Backlight control
- CD Continuous dimming
- WBP Wall bracket
- RPA3[4] 3" Round pole adapter
- RPA4[4] 4" Round pole adapter
- RPA5[4] 5" Round pole adapter
- RPA6[4] 6" Round pole adapter
- F(X)[1] Fusing (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V, 5-480V, F-347V)
- VG Vandal guard
- 7PR Photocell receptacle (7-pin ANSI C136.41–2013 receptacle for use with standard Twist-Lock® photocontrols, mounting caps, and ANSI C136.10 external photocontrol sensors. Select SCL option to add occupancy sensing capability when using with compatible external wireless devices.

PIR MOTION/OCCUPANCY CONTROL OPTIONS
- SCD_R[5,7,8] On/Off control (line voltage device not for use with 7PR receptacle option and external wireless control devices)
- SCL_R[5,7,8] Add-on occupancy sensor for use with ext. wireless control device connected thru 7PR receptacle. Consult control manufacturer for compatibility.
- SCP_R[5,6,7,8] Programmable dimming control (line voltage device not for use with 7PR receptacle option and external wireless control devices). A minimum of one SCP-REMOTE accessory remote control required for configuration (Standard lens with greater sensitivity; motion detection radius equal to .75 X lumiante mounting height (approx. distance)
- SWP[9] SiteSync Pro Commission
- SWPM[9,10] SiteSync Pro Commission w/ Sensor

WIRELESS CONTROL OPTIONS
- WSB[8] wSCAPE Fixture Module, in-fixture relay for wireless lighting control
- WDSC[8] wSCAPE Fixture Module, in-fixture relay for wireless lighting control and motion/occupancy control

Notes:
1 – Fuse option not available with universal voltage
2 – Select F3 fusing option for 220V
3 – Recommended for Type IEE and IV distributions only
4 – Available in 350mA drive current only Type IV, 5M
5 – 0-10V fully adjustable dimming with automatic daylight harvesting. Requires 0-10V dimming driver and minimum of one SCP-REMOTE control to program dimming settings (see accessories)
6 – Not available with SWP option
7 – Not available with BCD or WDSC
8 – Not available with SCD, SCL, or SCP
9 – Specify mounting style, 5' straight, 6', 40 • 5' to 40' tapered round pole, or 5' tapered square pole (see http://www.hubbellpowersystems.com/cl1/SiteSync for more details

ADDITIONAL ACCESSORIES ON PG. 227

*See specification page for complete fixture data

Visit www.hubbelloutdoor.com/products for up-to-date availability information

Cimarron CL1

Area/Site Lighting

AREA/SITE

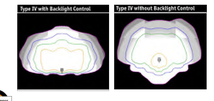
PERFORMANCE INFORMATION

Series Number	Equivalency MH	Equivalency HPS	Energy Savings	Delivered Lumens Type 2	Type 3	Type 4	Type 5M	Type 5S	Type 5W	System Watts 120V-277V	System Watts 347V-480V	Lumens Per Watt	CCT
CL1-30L-4K	175w	150w	67%	7,639	7,635	7,726	7,862	8,291	7,591	70	80	117	4000K
CL1-60L-4K	320w	250w	62%	14,984	14,977	15,154	15,421	16,263	14,891	135	150	119	4000K
CL1-90L-4K	400w	400w	52%	22,035	22,026	22,286	22,678	23,916	21,899	205	225	115	4000K
CL1-90L-4K-105	750w	750w	60%	29,380	29,367	29,714	30,237	31,888	29,198	325	350	97	4000K
CL1-30L-5K	175w	150w	26%	8,021	8,036	8,412	8,182	8,706	7,991	70	80	123	5000K
CL1-60L-5K	350w	250w	66%	15,733	15,764	16,500	16,048	17,076	15,674	135	150	125	5000K
CL1-90L-5K	400w	400w	52%	23,137	23,182	24,265	23,601	25,112	23,051	205	225	121	5000K
CL1-90L-5K-105	750w	750w	60%	30,849	30,909	32,353	31,467	33,483	30,734	325	350	103	5000K

Consult specification sheet for additional performance information

Backlight Control

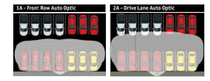
For those LED projects that require minimal light behind the pole, Hubbell Outdoor Lighting has a solution – Backlight Control. This unique system, designed specifically for LED lighting, will virtually eliminate the light spill behind the pole and is available on Cimarron LED CL1 and CL1S models. (See CL1 and CL1S page(s) for ordering information)



- Reduce light 85% behind the pole – Industry leading performance
- No change to fixture appearance or EPA
- Achieves impressive Backlight-Uplight-Glare (BUG) rating
- Neighbor-friendly lighting
- 2013 IES Progress Report Award winner

Automotive Dealership Optics

For Automotive Dealership applications Hubbell Outdoor Lighting has developed two optics designed for enhanced and proper lighting of the auto dealership merchandise the front row 1A and interior rows 2A (See CL1 distribution information for details)



Optic 1A
- Maximum illumination on front row display
- Maximum pole spacing

Optic 2A
- Excellent front row illumination and drive lane
- Optimal uniformity for drive lane and interior rows

Visit www.hubbelloutdoor.com/products for up-to-date availability information

LIGHTING DETAIL

NOT TO SCALE

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Civil/Land Development Engineers
1904 Main Street
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Allen, Texas T: 972.534.2100 | Austin, Texas T: 512.646.2444 | Houston, Texas T: 281.789.6400 | Destin, Florida T: 561.972.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.398.4400

TITLE: CONSTRUCTION DETAILS

PROJECT: 261 ETRA RD, LLC
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DRAWN BY: GMC
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: _
DATE: 10/14/2021
SCALE: (H) NOT TO (V) SCALE
SHEET No: 16 OF 19
Rev. # 0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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Rev.	Date	Comments	By

THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY

ROCKY BROOK

FHAZ

PROP. SANITARY SEWER EASEMENT (APPLICANT TO COORDINATE W/ ADJACENT PROPERTY OWNER)

50.0' FRESHWATER WETLANDS TRANSITION AREA

430.0'

220.0'

220.3'

0.3'

61.2'

6.3'

19.1'

19.1'

24.0'

174.0'

226.0'

PROPOSED WAREHOUSE
(95,135 SF FOOTPRINT)
(102,730 SF TOTAL FLOOR AREA)
(70 PARKING SPACES)
(3 LOADING SPACES)
(1 DRIVE-IN RAMP)

PROPOSED SECOND FLOOR OFFICE
7,658 SF

BUS - Interstate Semi-Trailer

NEW JERSEY TURNPIKE

I-O ZONE

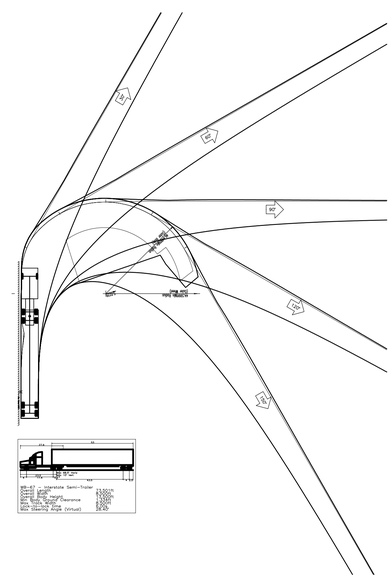
R-O ZONE

PRC ZONE

R-A ZONE

SE ZONE

ETRA ROAD (CR 571)
(66' WIDE)



GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

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No.	Revision / Comments	Date

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.595.4400

TITLE:

VEHICLE CIRCULATION PLAN (WB-67)

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.03, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DRAWN BY: GMC
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: _

DATE: 10/14/2021
SCALE: (H) 1"=30" (V)
SHEET No: 17 OF 19
Rev. # 0

THOMAS J. MULLER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 52179

JOHN A. PALUS
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 41975

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File: K:\Docs_PROJECTS\2871 Real Deal Management, Inc\99-003 East Windsor Etra Road\Dwg\Site Plans\D2871990035VD.dwg, ---> 17 VEHICLE CIRCULATION PLAN (WB-67)

THIS PLAN TO BE UTILIZED FOR VEHICLE CIRCULATION PURPOSES ONLY

ROCKY BROOK

PROP. SANITARY SEWER EASEMENT (APPLICANT TO COORDINATE W/ ADJACENT PROPERTY OWNER)

50.0' FRESHWATER WETLANDS TRANSITION AREA

FHAZ

430.0'

220.0'

220.3'

PROPOSED WAREHOUSE
(95,135 SF FOOTPRINT)
(102,730 SF TOTAL FLOOR AREA)
(70 PARKING SPACES)
(3 LOADING SPACES)
(1 DRIVE-IN RAMP)

PROPOSED SECOND FLOOR OFFICE
7,658 SF

226.0'

174.0'

24.0'

61.2'

0.3'

6.3'

19.1'

19.1'

NEW JERSEY TURNPIKE

I-O ZONE

R-O ZONE

PRC ZONE

R-A ZONE

SI ZONE

ETRA ROAD (CR 571)
(66' WIDE)

WB-67 — Interstate Semi-Trailer 13.500in
Overall Length 73.500ft
Overall Body Length 53.000ft
Min. Turning Radius 45.000ft
Steering Angle 50.00
Max Steering Angle (Virtual) 28.65

GRAPHIC SCALE

-30 0 15 30 60 120

(IN FEET)
1 INCH = 30 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

No.	Revision / Comments	Date	By

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TITLE:

VEHICLE CIRCULATION PLAN (WB-67)

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.03, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DRAWN BY: GMC
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: –

DATE: 10/14/2021
SCALE: (H) 1"=30" (V)
SHEET No: 18 OF 19
Rev. # 0

THOMAS J. MULLER
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NEW JERSEY LICENSE No. 52179

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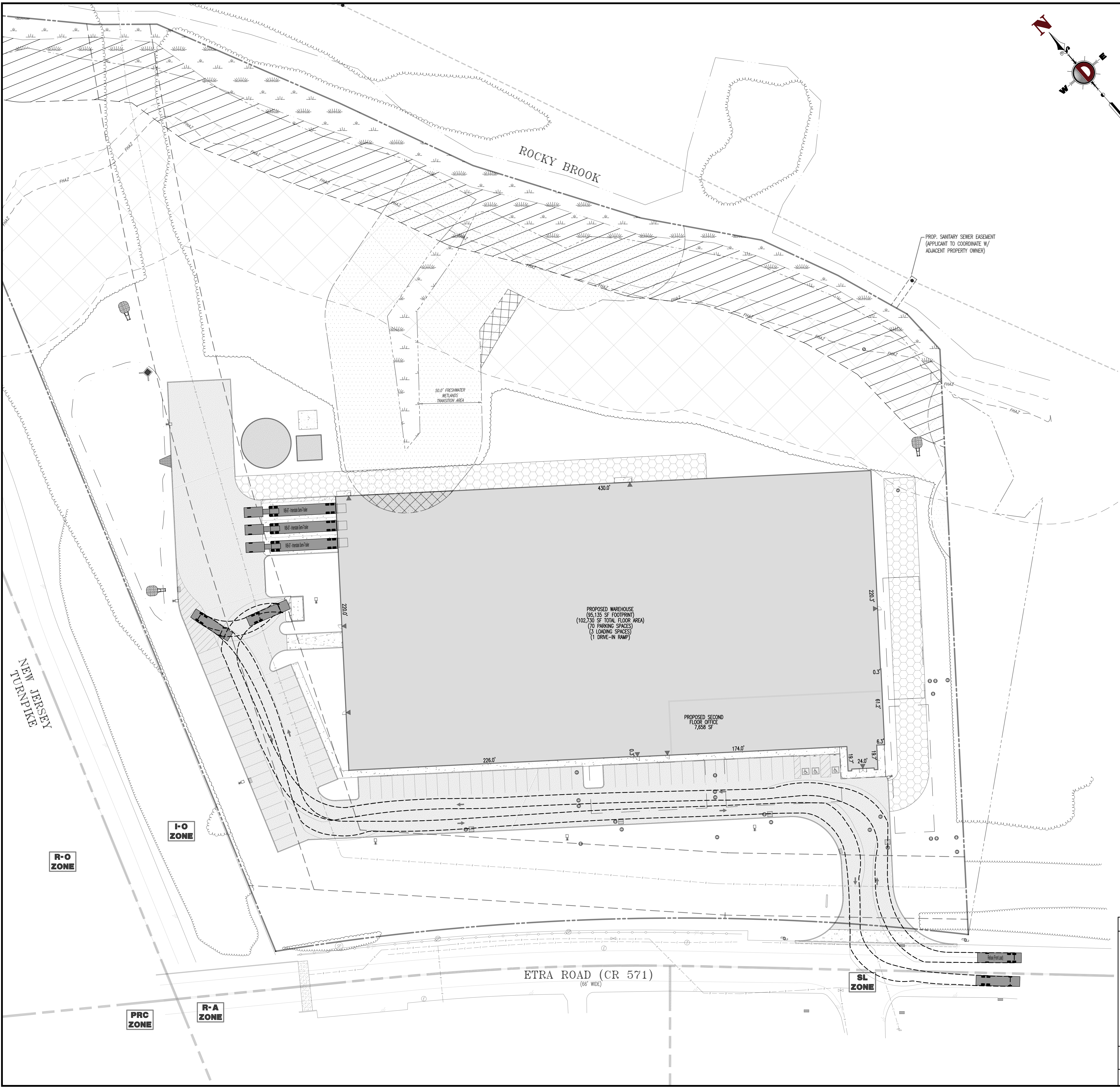

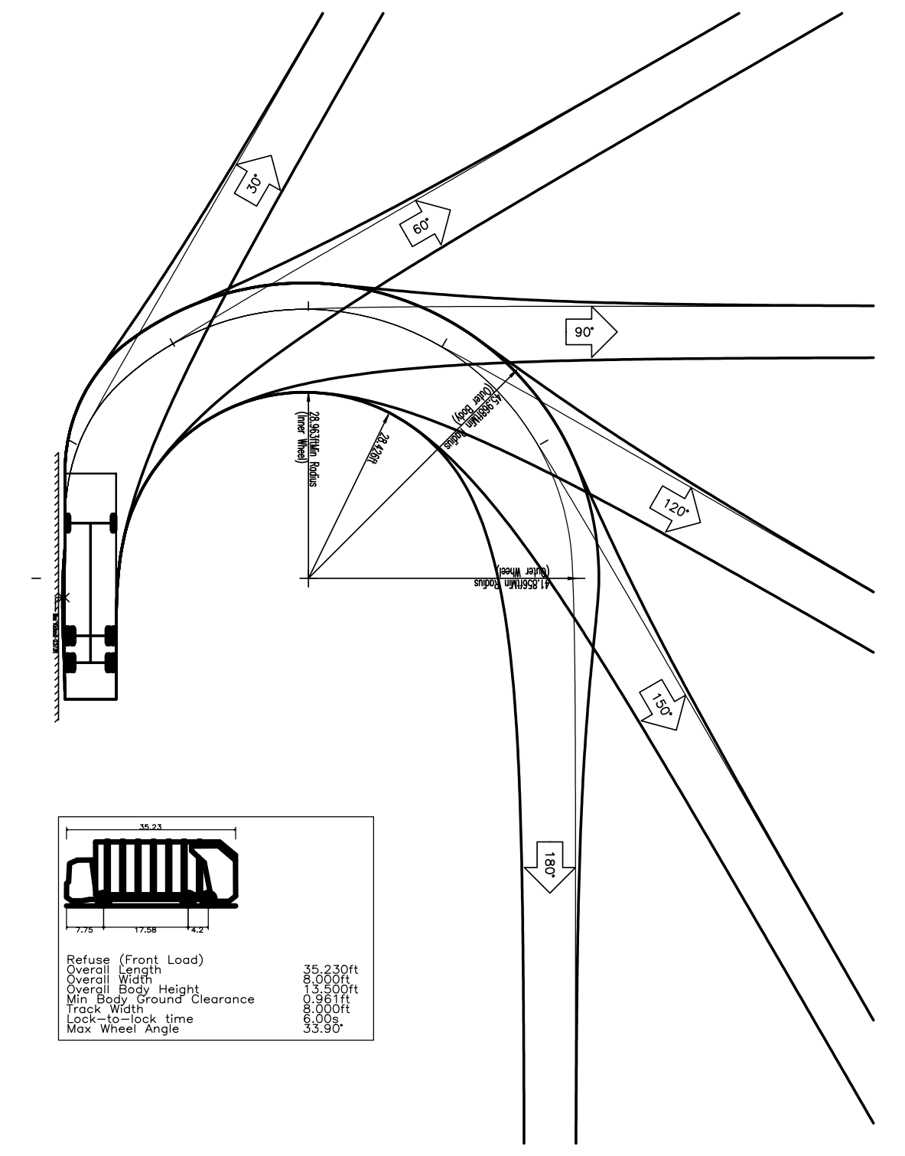

Refuse (Front Load)	
Overall Length	35.230ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	0.961ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Max Wheel Angle	33.90°

GRAPHIC SCALE

(IN FEET)
1 INCH = 30 FT.

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Rev.	Date	Comments	By

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TITLE:
VEHICLE CIRCULATION PLAN (TRASH TRUCK)

PROJECT: **261 ETRA RD, LLC**
PROPOSED WAREHOUSE
BLOCK 22.02, LOT 10
261 ETRA ROAD (CR 571)
TOWNSHIP OF EAST WINDSOR, MERCER COUNTY, NEW JERSEY

JOB No: 2871-99-003
DATE: 10/14/2021
DRAWN BY: GMC
SCALE: (H) 1"=30' (V)
DESIGNED BY: TAZ
CHECKED BY: TJM
CHECKED BY: –
SHEET No: **19** OF 19
Rev. # 0

THOMAS J. MULLER
Thomas J. Muller
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File: P:\DECPC PROJECTS\2871 Real Deal Management, Inc\99-003 East Windsor Etra Road\Dwg\Site Plans\D287199003SV0.dwg, ---> VEHICLE CIRCULATION PLAN (TRASH TRUCK)