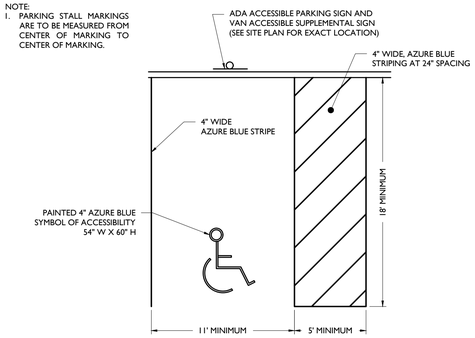
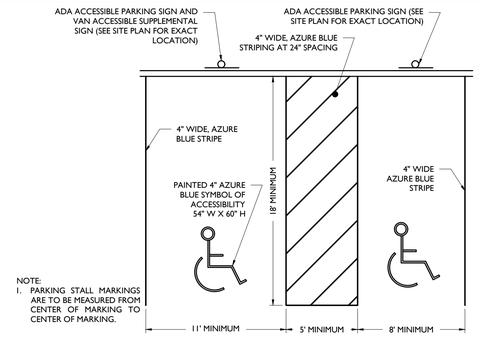
NOTE:
1. PARKING STALL MARKINGS ARE TO BE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING.



ACCESSIBLE PARKING STALL MARKINGS

NOT TO SCALE

1

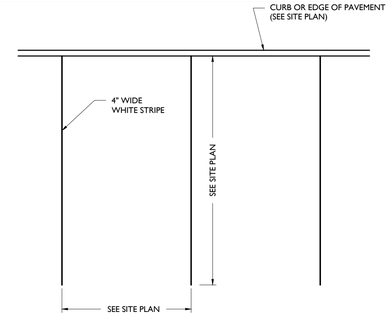


NOTE:
1. PARKING STALL MARKINGS ARE TO BE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING.

ACCESSIBLE PARKING STALL MARKINGS

NOT TO SCALE

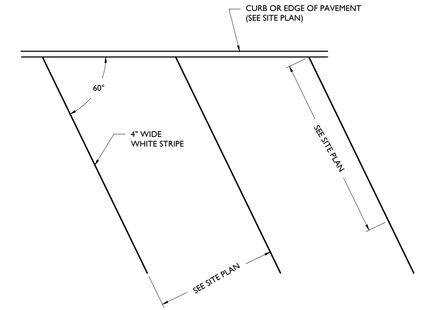
2



PARKING STALL MARKINGS

NOT TO SCALE

3



ANGLED PARKING STALL MARKINGS

NOT TO SCALE

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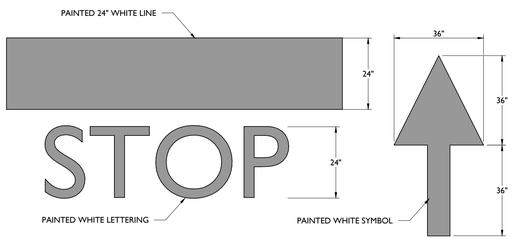
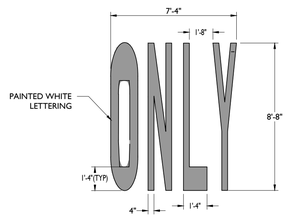


STOP BAR & ARROW DETAILS

NOT TO SCALE

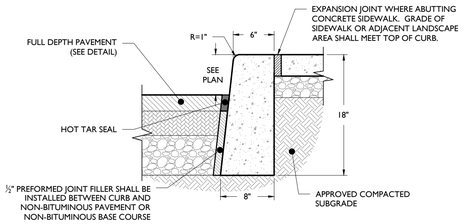
5



"ONLY" DETAIL

NOT TO SCALE

6



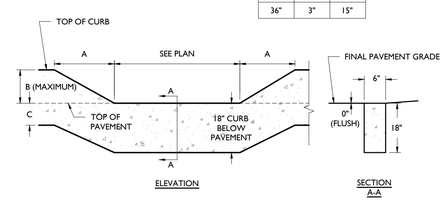
CONCRETE CURB DETAIL

NOT TO SCALE

NOTES:
1. CONCRETE SHALL BE 3500 PSI AT 28 DAYS, AIR-ENTRAINED.
2. TRANSVERSE EXPANSION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED ½" FROM SURFACE.
3. HALF DEPTH CONTRACTION JOINTS SHALL BE PROVIDED AT 10 FOOT INTERVALS.
4. 18" CURB DEPTH SHALL BE MAINTAINED AT DEPRESSED OR FLUSH CURBED AREAS.

7

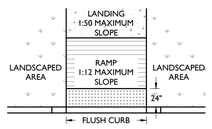
FLUSH CURB DIMENSIONS		
A	B	C
72"	6"	12"
60"	5"	13"
48"	4"	14"
36"	3"	15"



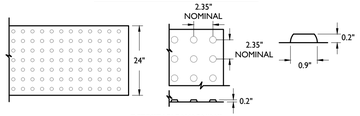
FLUSH CURB DETAIL

NOT TO SCALE

8



CURB RAMP WITH DETECTABLE WARNING



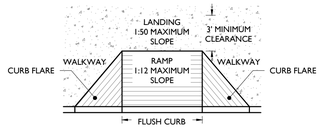
DETECTABLE WARNING

CURB RAMP DETAIL

NOT TO SCALE

NOTES:
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%
2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
3. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
4. VISUAL CONTRAST: THERE SHALL BE A MINIMUM OF 70% CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE.
5. DETECTABLE WARNING STRIP REQUIRED WHERE RAMP DIRECTS PEDESTRIAN TRAFFIC TOWARDS VEHICLE TRAVEL WAY. WARNING STRIP SHALL BE CAST-IN-PLACE.
6. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL

9

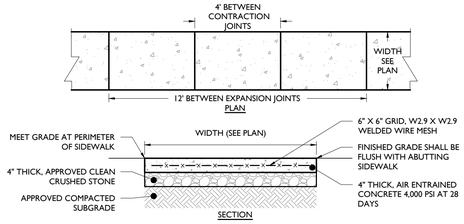


CURB RAMP WITH FLARES DETAIL

NOT TO SCALE

NOTES:
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 1:50 SLOPE.
2. WHERE A 60" X 60" LANDING EXISTS AT THE TOP OF RAMP, RAMP FLARE SHALL NOT EXCEED 1:10 SLOPE. WHERE LANDING IS NOT PROVIDED RAMP FLARE SHALL NOT EXCEED 1:12 SLOPE.
3. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
4. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.

10

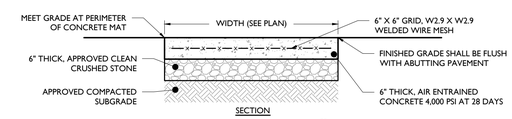


REINFORCED CONCRETE WALKWAY DETAIL

NOT TO SCALE

NOTES:
1. MAXIMUM CROSS SLOPE SHALL BE ¼" PER FOOT.
2. ¼" EXPANSION JOINTS SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED ¼" FROM THE SURFACE
3. 1" DEEP BY ½" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT 4' INTERVALS.
4. EXPANSION JOIN SHALL BE PROVIDED WHERE ADJACENT TO A BUILDING.

11

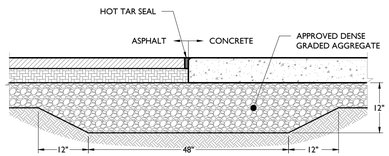


REINFORCED 6" CONCRETE MAT

NOT TO SCALE

NOTES:
1. ½" EXPANSION JOINTS WITH WATER SEAL SHALL BE PROVIDED AT 12' INTERVALS WITH PRE-MOLDED, BITUMINOUS JOINT FILLER, RECESSED ¼" FROM THE SURFACE. LONGITUDINAL REBAR TO BE CUT AT EXPANSION JOINTS.
2. 1" DEEP BY ½" WIDE, TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT MID-POINT BETWEEN EXPANSION JOINTS OR 6' INTERVALS MAX.
3. CONCRETE SHALL RECEIVE BROOM FINISH.
4. ALL EXPOSED CORNERS TO HAVE 12" CHAMFER.

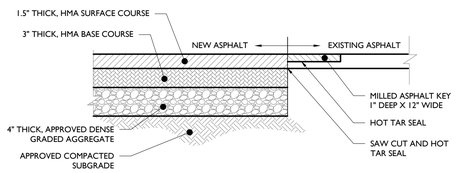
12



CONCRETE TO ASPHALT TRANSITION DETAIL

NOT TO SCALE

13

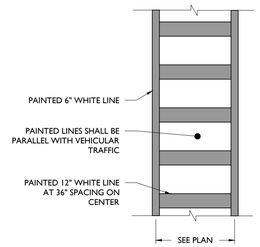


FULL DEPTH ASPHALT PAVEMENT DETAIL

NOT TO SCALE

NOTE:
HMA MIX AND DENSE GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

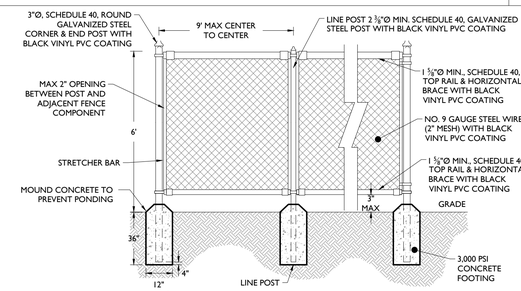
14



CROSSWALK DETAIL

NOT TO SCALE

15



6' HIGH CHAIN LINK FENCE

NOT TO SCALE

NOTES:
1. CONTRACTOR TO PROVIDE ALL HARDWARE NECESSARY FOR FENCE CONSTRUCTION AND OPERATION, PER SITE DESIGN. INSTALLATION SHALL COMPLY WITH MANUFACTURER'S REQUIREMENTS.
2. FENCE DETAIL ONLY APPLIES TO FENCE WITHOUT PRIVACY SLATS.
3. FENCE TO BE INSTALLED FOLLOWING SITE GRADING.
4. FENCE TO BE INSTALLED ONE FOOT WITHIN PROPERTY LINE WHERE SHOWN ON PROPERTY LINE ON SITE PLAN.
5. VIBRATE OR TAMP BACKFILL FOR CONSOLIDATION SURROUNDING FENCE POSTS.

16

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
6	05/10/2021	PC	REVISED PER NJDEP COMMENTS
5	04/22/2021	PC	REVISED PER MUNICIPAL COMMENTS
4	04/02/2021	PC	REVISED PER NJDEP COMMENTS
3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

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Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 70.1, LOT 1 (TAX MAP SHEET 7)
704 N.J. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY
JEFFREY A. MARTELL
No. GE47290
PROFESSIONAL ENGINEER
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No. 47290
LICENSED PROFESSIONAL ENGINEER

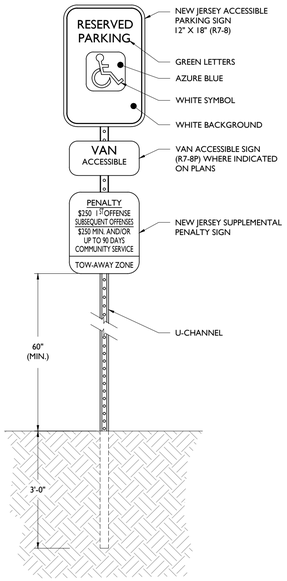
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-14

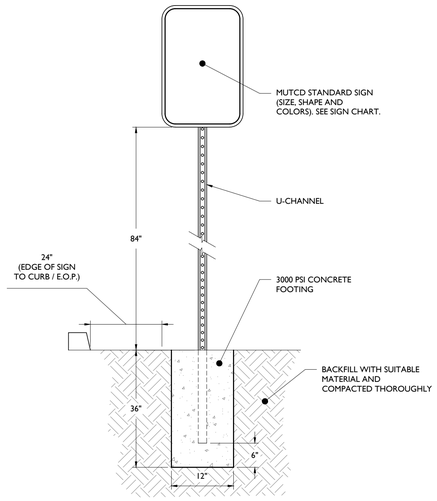
\\US.STONEFIELDENG.COM\SHARE\PROJECTS\PRI\200\PRI-200142 EDGEWOOD PROPERTIES - 704 ROUTE 35, NEPTUNE - NJ\CADD\PLOT\LOP 1-14-DETL.DWG



ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE

1



SIGN POST DETAIL

NOT TO SCALE

2

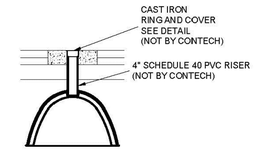
M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)	STOP	WHITE	RED	36"x36"	GROUND
DO NOT ENTER (R5-1)	DO NOT ENTER	RED	WHITE	30"x30"	GROUND

NOTE:
1. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED.
2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND "YIELD" (R1-2) SIGNS.

SIGN DATA TABLE

NOT TO SCALE

3



INSPECTION PORT DETAIL

NOT TO SCALE

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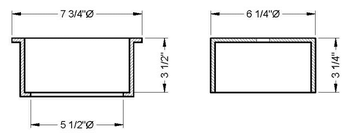


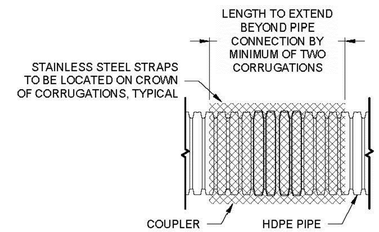
RING AND COVER DETAIL

NOT TO SCALE

INSTALLATION NOTES

1. CHAMBERMAXX INSTALLATION GUIDE TO BE REVIEWED BY CONTRACTOR PRIOR TO INSTALLATION.
2. PRIOR TO PLACING BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, UNSUITABLE MATERIAL SHALL BE REMOVED AND BROUGHT BACK TO GRADE WITH FILL MATERIAL AS APPROVED BY THE ENGINEER OF RECORD. ONCE THE FOUNDATION PREPARATION IS COMPLETE, THE BEDDING MATERIAL CAN BE PLACED.
3. THE SCOUR PROTECTION NETTING TO EXTEND 1'-0" BEYOND OUTSIDE EDGE OF INLET CHAMBERS.
4. COVER ANY OPEN VOID SPACES GREATER THAN 3/4" ON CHAMBERS WITH A NON-WOVEN GEOTEXTILE TO PREVENT INFILTRATION OF BACKFILL MATERIAL.
5. STONE EMBEDMENT MATERIAL SHALL BE INSTALLED TO 95% STANDARD PROCTOR DENSITY AND PLACED IN 6-INCH TO 8-INCH LIFTS SUCH THAT THERE IS NO MORE THAN A TWO LIFT DIFFERENTIAL BETWEEN ANY OF THE CHAMBERS AT ANY TIME. GRANULAR BACKFILL MATERIAL SHALL BE COMPACTED TO 90% S.P.D. BACKFILLING SHALL BE ADVANCED ALONG THE LENGTH OF THE CHAMBER ROWS AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING AND DISPLACEMENT OF THE CHAMBERS. THE MINIMUM CHAMBER SPACING MUST BE MAINTAINED.
6. REFER TO CHAMBERMAXX INSTALLATION GUIDE FOR TEMPORARY CONSTRUCTION LOADING GUIDELINES.
7. IT IS ALWAYS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.
8. GENERAL INSTALLATION METHODS AND MATERIALS TO BE IN ACCORDANCE WITH ASTM D2321.

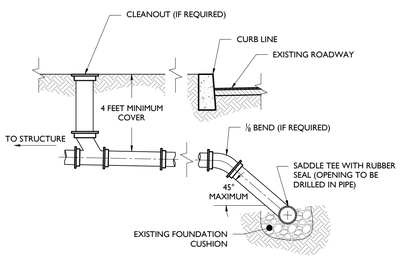
5



HDPE COUPLER DETAIL

NOT TO SCALE

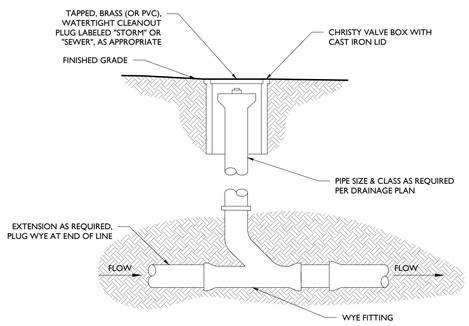
6



SEWER CONNECTION DETAIL

NOT TO SCALE

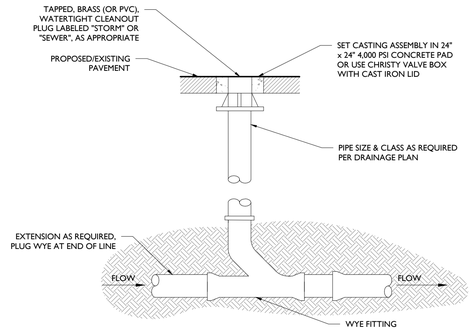
7



SOFTSCAPE CLEAN-OUT

NOT TO SCALE

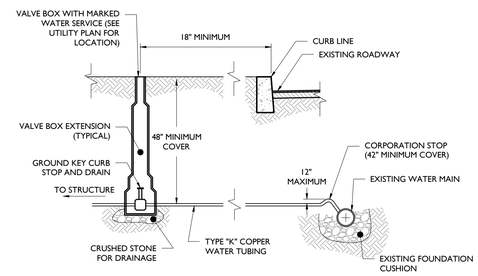
8



HARDSCAPE CLEAN-OUT

NOT TO SCALE

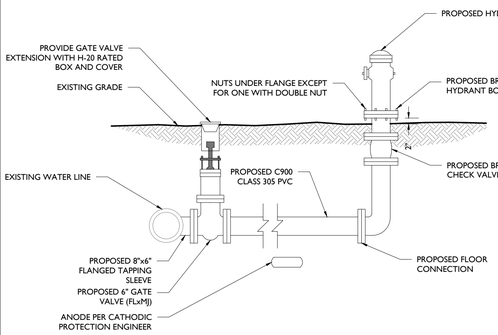
9



WATER CONNECTION DETAIL

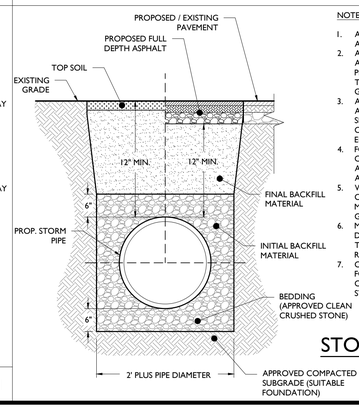
NOT TO SCALE

10



FIRE HYDRANT INSTALLATION

11



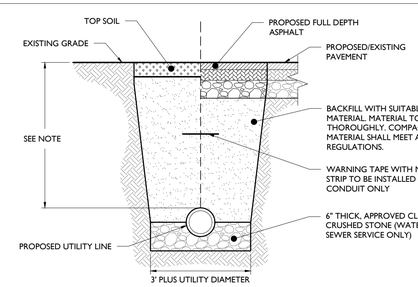
NOTES:

1. ALL PIPE SYSTEM INSTALLATIONS SHALL MEET ALL APPLICABLE STANDARDS AND SPECIFICATIONS.
2. ALL HDPE PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS" (LATEST EDITION).
3. ALL RCP PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C76-15, "STANDARD SPECIFICATION FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE" (LATEST EDITION).
4. FOR NON HDPE OR RCP PIPE INSTALLATIONS, CONTRACTOR SHALL INSTALL PIPE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS.
5. WHERE THE TRENCH BOTTOM IS UNSTABLE, CONTRACTOR SHALL PROVIDE SUITABLE BACKFILL MATERIAL AS REQUIRED BY ENGINEER OR PER GEOTECH RECOMMENDATIONS.
6. MINIMUM COVER IN TRAFFIC AREAS IS 12" UP TO 48" DIAMETER PIPE AND 24" FOR 54" - 60" DIAMETER PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT.
7. CONTRACTOR SHALL INSTALL SUITABLE MATERIAL FOR INITIAL AND FINAL BACKFILL. BACKFILL COMPACTION SHOULD MEET ALL APPLICABLE STANDARDS AND SPECIFICATIONS.

STORM TRENCH DETAIL

NOT TO SCALE

12



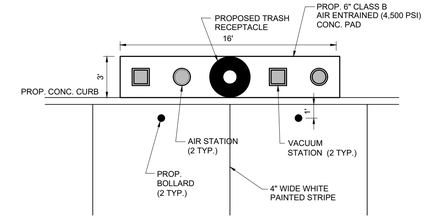
UTILITY TRENCH DETAIL

NOT TO SCALE

NOTE:

MINIMUM PIPE COVER SHALL BE AS FOLLOW:
- ELECTRIC SERVICE - PER APPLICABLE LUTILITY AUTHORITY
- GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
- SEWER SERVICE - 36" MINIMUM
- WATER SERVICE - 48" MINIMUM

13



NOTE:
ALL CONCRETE CURB, SIDEWALK, AND APRON DETAILS MUST MEET THE SPECIFICATIONS OF NJDOT CLASS B CONCRETE.

AIR/VACUUM STATION DETAIL

NOT TO SCALE

14

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
6	05/10/2021	PC	REVISED PER NJDEP COMMENTS
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2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

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PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 701, LOT 1 (TAX MAP SHEET 7)
704 N.J. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY
JEFFREY A. MARTELL
No. GE47290
PROFESSIONAL ENGINEER
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No. 47290
LICENSED PROFESSIONAL ENGINEER

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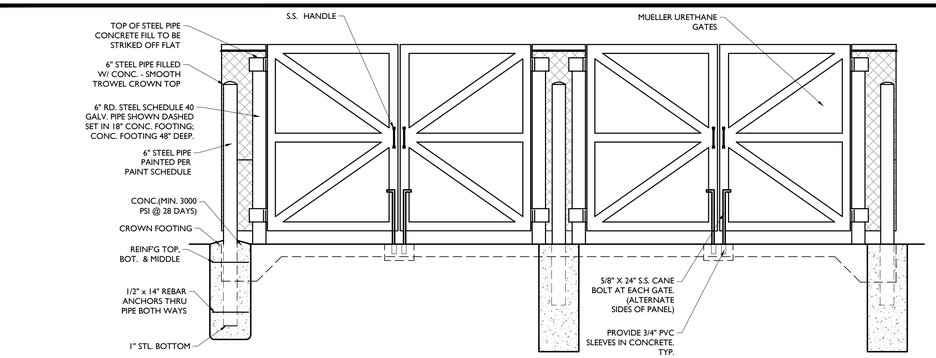
SCALE: AS SHOWN | PROJECT ID: PRI-200142

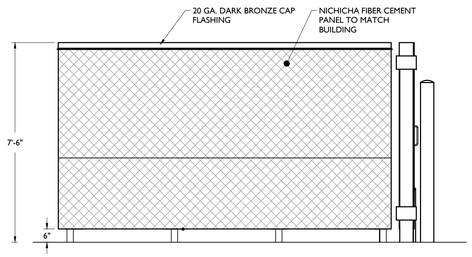
TITLE: CONSTRUCTION DETAILS

DRAWING: C-15

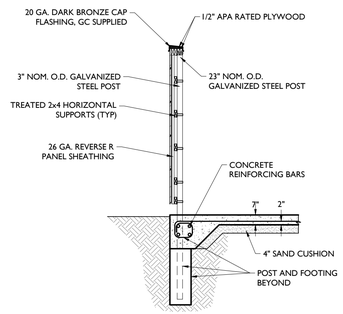
\\US.STONEFIELDENG.COM\SHARE\EPHACE\TOWN\NJ\200PRI\200142 EDGEWOOD PROPERTIES - 704 ROUTE 35 - NEPTUNE - NJ\CADD\PLOT\DP-14-DETL.DWG



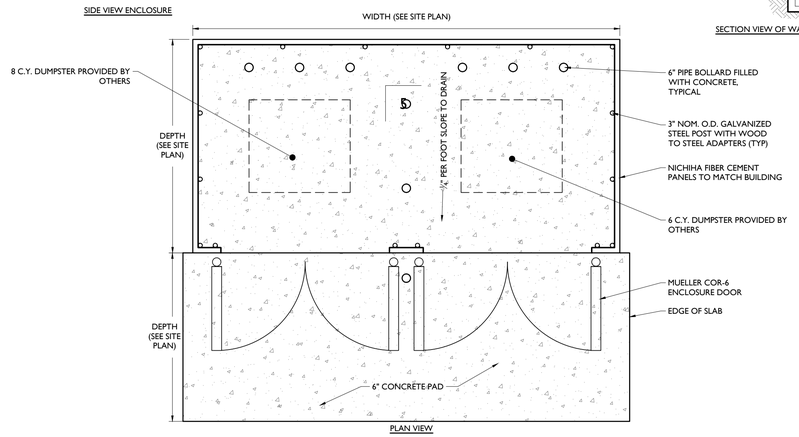
FRONT VIEW OF GATE



SIDE VIEW ENCLOSURE



SECTION VIEW OF WALL AND FOUNDATION

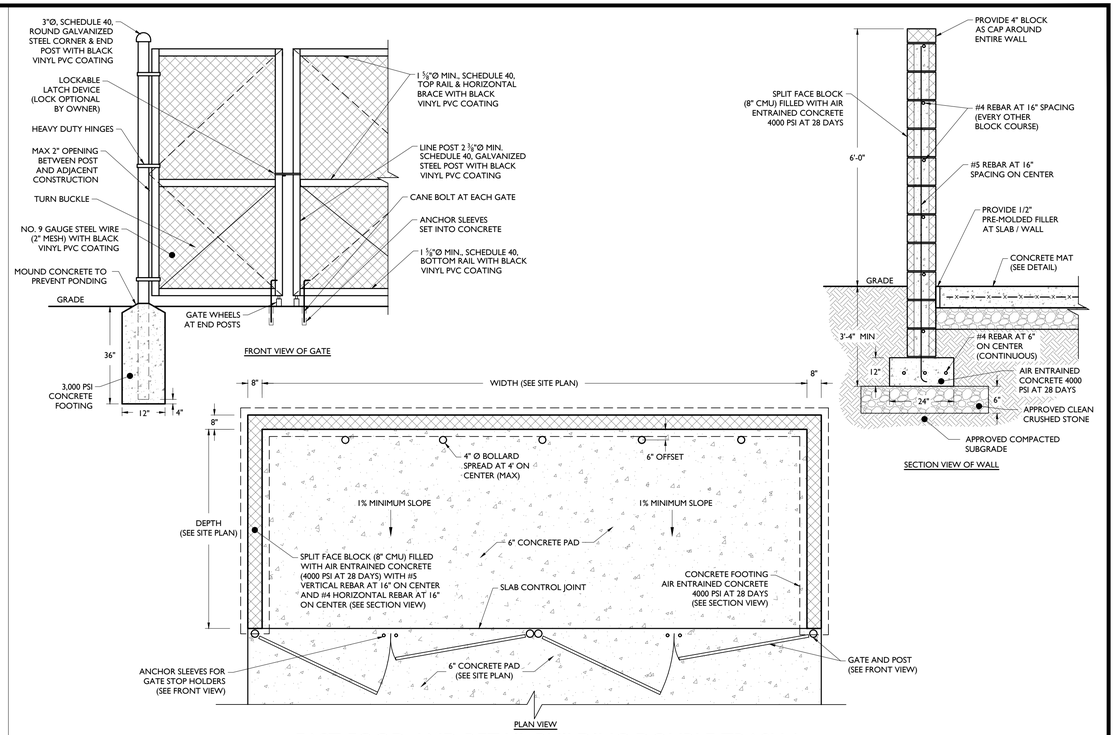


PLAN VIEW

DOUBLE TRASH / RECYCLE ENCLOSURE DETAIL

NOT TO SCALE

1



FRONT VIEW OF GATE

SECTION VIEW OF WALL

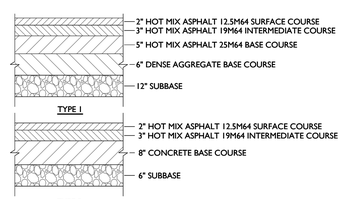
PLAN VIEW

NOTE:
BLOCK COLOR TO MATCH BUILDING OR AS SPECIFIED BY OWNER

FAST FOOD AND RETAIL BUILDING DOUBLE TRASH / RECYCLE ENCLOSURE DETAIL

NOT TO SCALE

2



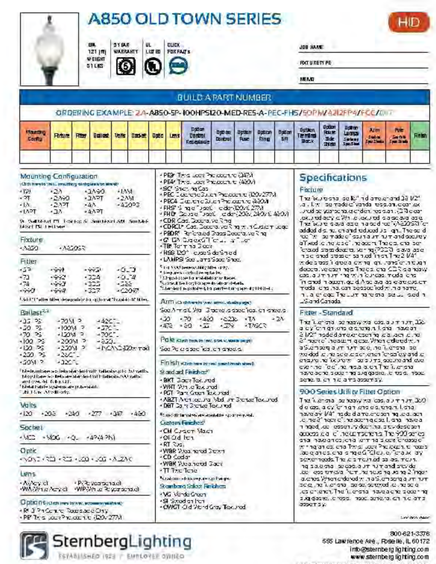
NJDOT PAVEMENT SECTION AND REPAIR STRIP DETAIL

(FOR USE WITHIN NJDOT ROW)

NOT TO SCALE

NOTES:
1. FOR AREAS 5.0 FEET OR MORE IN WIDTH, USE TYPE 1.
2. FOR AREAS LESS THAN 5.0 FEET IN WIDTH WHEN PROPER ASPHALT COMPACTION IS NOT POSSIBLE, USE TYPE 2.
3. IF PAVEMENT CONSTRUCTION ENCROACHES ON EXISTING TRAVEL LANES, THE ENTIRE LANE SHALL BE MILLED AND RESURFACED.
4. FOR MILLING AND RESURFACING, USE HOT MIX ASPHALT 12.5 ME SURFACE COURSE, 2" THICK.
5. SAW CUT PAVEMENT PRIOR TO EXCAVATION.
6. UNDERCUT SOFT SUBGRADE AREAS AND REPLACE WITH ADDITIONAL DENSE GRADED AGGREGATE BASE COARSE.
7. UNIFORMLY SPRAY TACK COAT WHEN PLACING HOT MIX ASPHALT ON PAVED SURFACE.
8. USE POLYMERIZED JOINT ADHESIVE FOR LONGITUDINAL JOINT OF THE NEW SURFACE COARSE WITH EXISTING HOT MIX ASPHALT, CURB, OR ANY VERTICAL SURFACE ALONG THE NEW SURFACE.
9. EXISTING CONCRETE PAVEMENT SHOULD BE REPAIRED IN KIND FOR FULL WIDTH OF LANE IN ACCORDANCE WITH THE STANDARD DETAIL CD-451.
10. DENSE GRADED AGGREGATE BASE COARSE AND SUBBASE SHOULD EXTEND A MINIMUM OF 3" BEYOND THE OUTER EDGE OF THE PROPOSED CURB.
11. REPAIR ANY ASPHALT PAVEMENTS, WHICH EXHIBIT HIGH SEVERITY CRACKING, POTHOLES, OR OTHER DAMAGE IN ACCORDANCE WITH 401.03.01.D OF 2007 NJDOT SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION (ITEM NO. 401021M).
12. IF ANY PAVEMENT CONSTRUCTION (WIDENING, NEW/RESETTING CURB ETC.) ENCROACH AN EXISTING TRAVEL LANE, THEN MILL 2" OF EXISTING PAVEMENT AND RESURFACE WITH 2" THICK HOT MIX ASPHALT 12.5ME SURFACE COURSE THE FULL WIDTH OF THAT TRAVEL LANE ALONG NEW CONSTRUCTION WITHOUT ANY JOINTS.
13. UNDERCUT SOFT SUBGRADE AREAS AND REPLACE WITH ADDITIONAL SUBBASE WHERE THE WATER TABLE IS NOT ENCOUNTERED WITHIN THE DEPTH OF EXCAVATION.
14. SHOULD THE EXISTING CORE THICKNESS SHOW ASPHALT DEPTH LESS THAN 8", THIS PAVEMENT SECTION SHALL BE USED.
15. CONTRACTOR TO EXCAVATE AND REPLACE ANY UNSTABLE MATERIAL WITH SUBBASE.

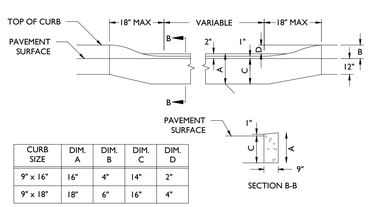
5



STREET LIGHT FIXTURE SPECIFICATION (FIXTURE 'E')

NOTE:
OR TOWNSHIP APPROVED EQUAL FIXTURE.

6



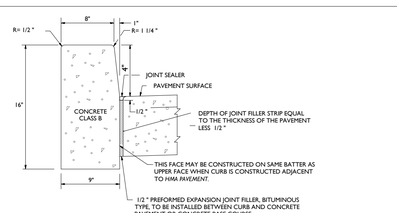
CURB SIZE	DIM. A	DIM. B	DIM. C	DIM. D
9" x 16"	16"	4"	14"	2"
9" x 18"	18"	6"	16"	4"

NJDOT METHOD OF DEPRESSING CURB AT DRIVEWAYS

(FOR USE WITHIN NJDOT ROW)

NOT TO SCALE

3



NJDOT 9"X16" CONCRETE / WHITE CONCRETE VERTICAL CURB

(FOR USE WITHIN NJDOT ROW)

NOT TO SCALE

NOTES:
TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20 FEET APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS-IMPREGNATED FIBER JOINT FILLER RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

EXPANSION JOINTS THRU AND ADJACENT TO THE CURB SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CURB.

4

ISSUE	DATE	BY	DESCRIPTION
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4	04/02/2021	PC	REVISED PER NJDEP COMMENTS
3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

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PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 701, LOT 1 (TAX MAP SHEET 7)
704 N.J. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY JEFFREY A. MARTELL No. GE47290 PROFESSIONAL ENGINEER

JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE NO. GE47290
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

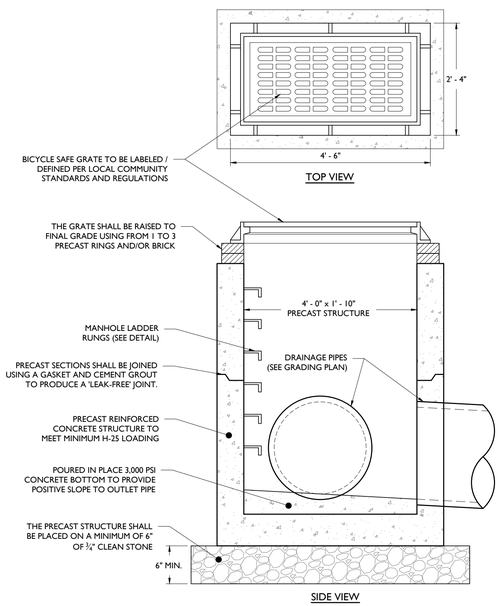
SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE: CONSTRUCTION DETAILS

DRAWING: C-16

I:\S_STONEFIELD\NJ\C_COMMUNITY\PROJECTS\M\M200PRI-200142 EDGEWOOD PROPERTIES - 704 ROUTE 35, NEPTUNE, NJ\CADD\CD-LOP-14-DETL.DWG

NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
2. FRAME AND GRATE TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
3. ALL JOINTS TO BE WATER-TIGHT.
4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.

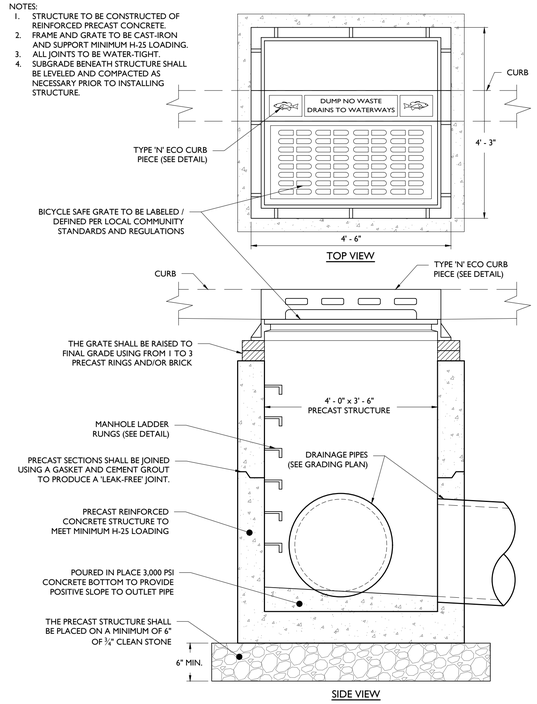


TYPE 'A' STORM INLET DETAIL

NOT TO SCALE

1

NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
2. FRAME AND GRATE TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
3. ALL JOINTS TO BE WATER-TIGHT.
4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.

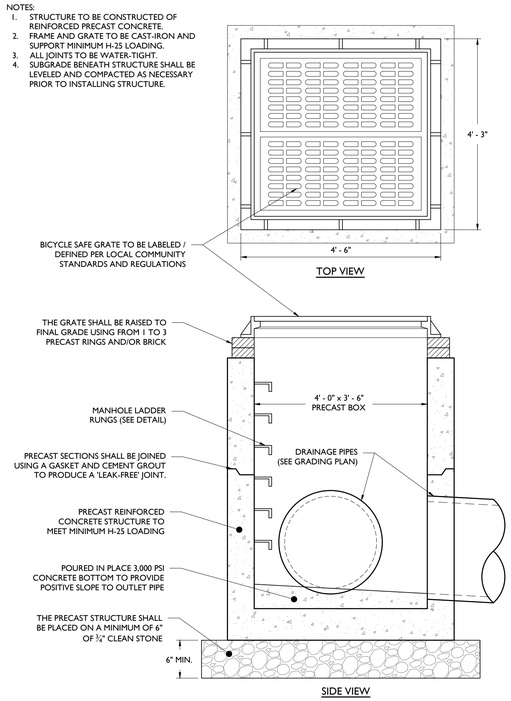


TYPE 'B' STORM INLET DETAIL

NOT TO SCALE

2

NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
2. FRAME AND GRATE TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
3. ALL JOINTS TO BE WATER-TIGHT.
4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.

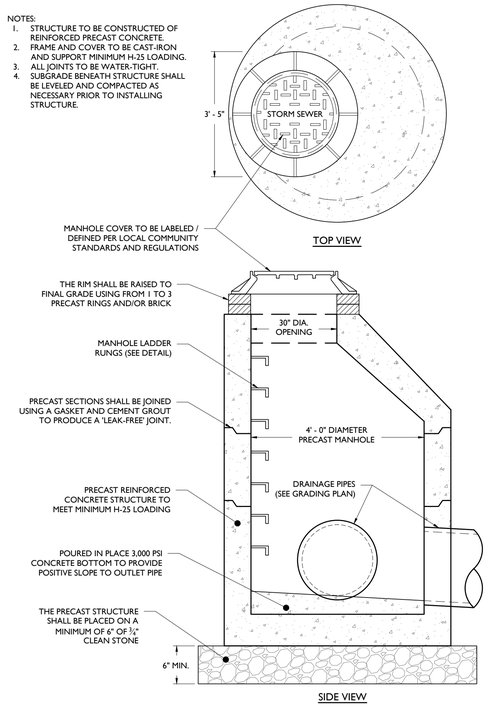


TYPE 'E' STORM INLET DETAIL

NOT TO SCALE

3

NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
2. FRAME AND COVER TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
3. ALL JOINTS TO BE WATER-TIGHT.
4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.

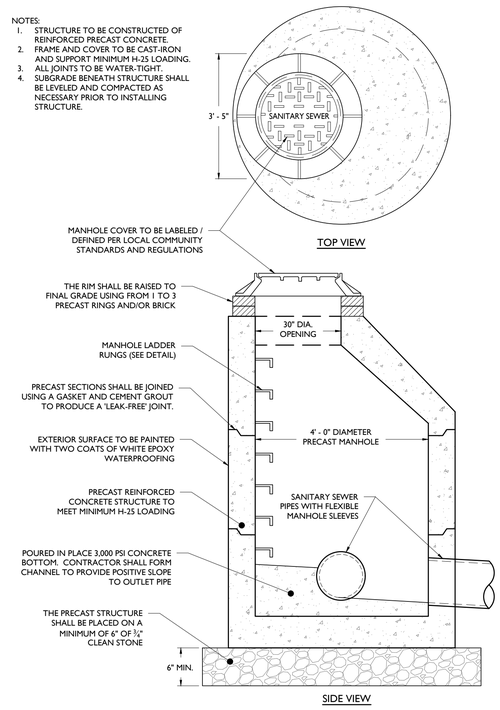


STORM MANHOLE DETAIL

NOT TO SCALE

4

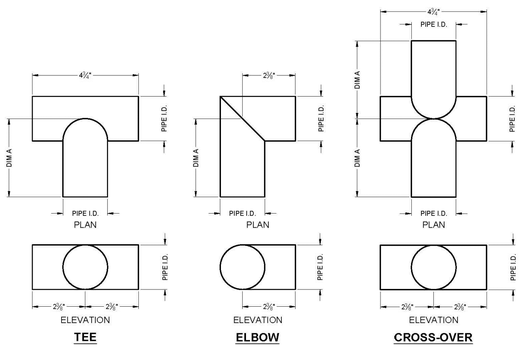
NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
2. FRAME AND COVER TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
3. ALL JOINTS TO BE WATER-TIGHT.
4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.



SANITARY MANHOLE DETAIL

NOT TO SCALE

5



STANDARD MANIFOLD COMPONENT TO SCALE				
	AVAILABLE DIAMETERS - INCHES			
TEE	12	15	18	24
ELBOW	12	15	18	24
DIM A	42	42	48	48

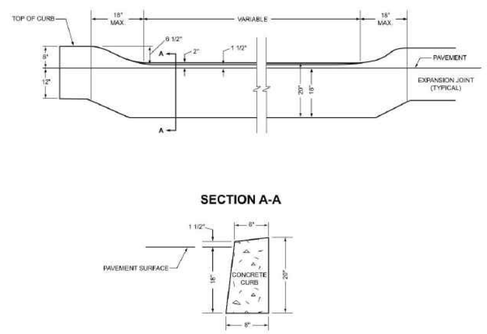
GENERAL NOTES:
1. FITTING MATERIAL TO BE MANUFACTURED FROM CORRUGATED HIGH DENSITY POLYETHYLENE, AASHTO M294 PIPE.
2. FITTINGS TO BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENOT TO SCALE OF AASHTO M294.
3. FITTINGS DESIGNED TO PROTRUDE 6" INTO THE END OF THE INLET CHAMBERS.
4. MANIFOLD TEE AND ELBOW JOINOT TO SCALE TO BE CONNECTED UTILIZING HDPE COUPLERS.

TYPICAL MANIFOLD DETAIL

NOT TO SCALE

6

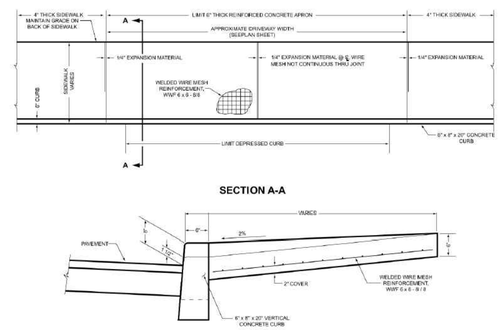
DEPRESSED CURB DETAIL



MONMOUTH COUNTY STANDARD DEPRESSED CURB DETAIL

7

CONCRETE APRON DETAIL



MONMOUTH COUNTY STANDARD CONCRETE APRON DETAIL

8

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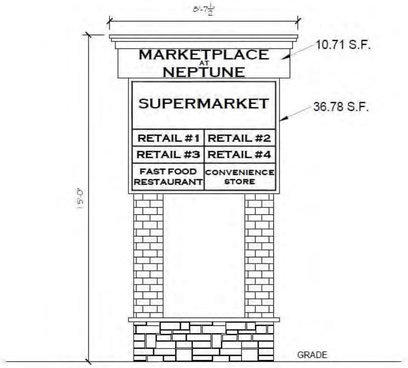
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE: CONSTRUCTION DETAILS

DRAWING: C-17

\\US.STONEFIELDENG.COM\SHARE\EPINACTIONVIRNJ\200PRI-200142 EDGEWOOD PROPERTIES - 704 ROUTE 35, NEPTUNE - NJ\CADDATA\PLOT\LDP-1-4-C17-L.DWG

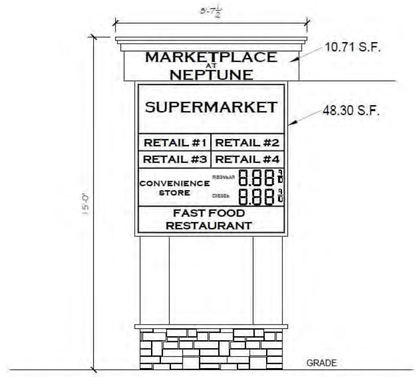


PYLON SIGN No. 1
ASBURY AVE

PYLON SIGN #1 DETAIL

NOT TO SCALE

1

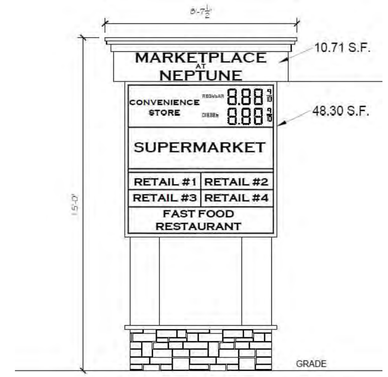


PYLON SIGN No. 2
RT 35 (CIRCLE)

PYLON SIGN #2 DETAIL

NOT TO SCALE

2

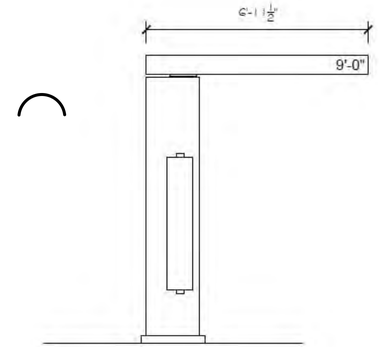


PYLON SIGN No. 3
RT 35

PYLON SIGN #3 DETAIL

NOT TO SCALE

3

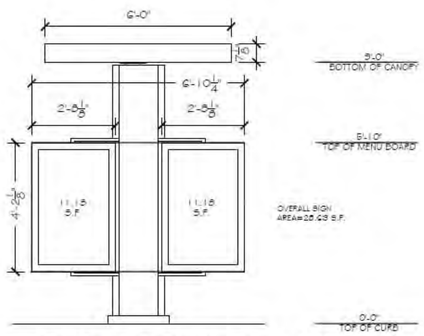


MENU BOARD SIDE VIEW

MENU BOARD SIDE VIEW DETAIL

NOT TO SCALE

4

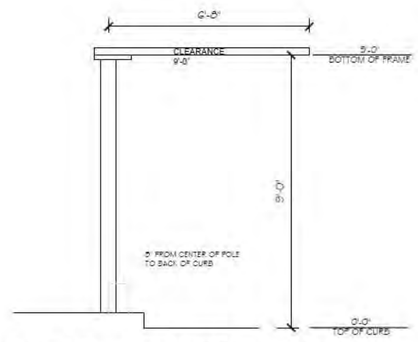


MENU BOARD DETAIL

MENU BOARD FRONT VIEW DETAIL

NOT TO SCALE

5

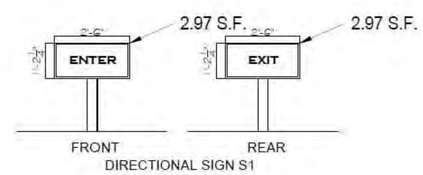


CLEARANCE BAR DETAIL

CLEARANCE BAR DETAIL

NOT TO SCALE

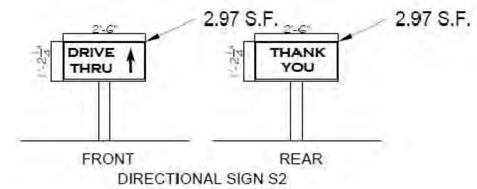
6



S1 DIRECTIONAL SIGN DETAIL

NOT TO SCALE

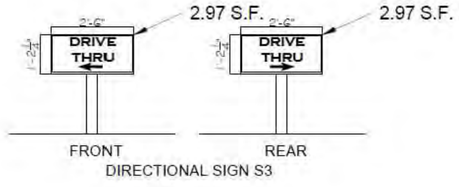
7



S2 DIRECTIONAL SIGN DETAIL

NOT TO SCALE

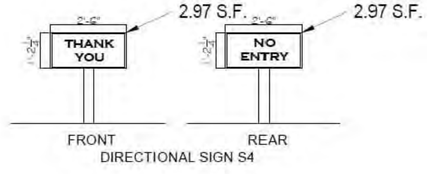
8



S3 DIRECTIONAL SIGN DETAIL

NOT TO SCALE

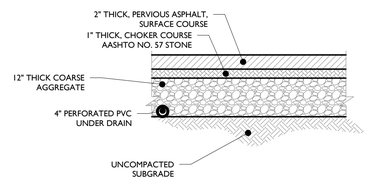
9



S4 DIRECTIONAL SIGN DETAIL

NOT TO SCALE

10

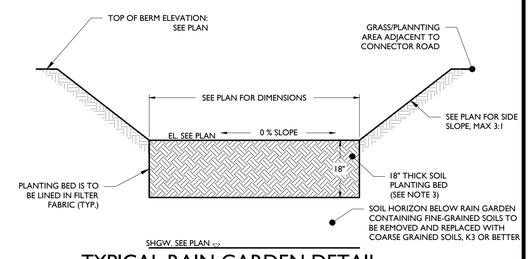


NOTE:
ALL COURSES AND GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION SPECIFICATIONS.

PERVIOUS PAVEMENT WITH UNDER DRAIN DETAIL

NOT TO SCALE

11



TYPICAL RAIN GARDEN DETAIL

NOT TO SCALE

NOTES:
1. BIORETENTION AREA CONSTRUCTION MUST NOT COMPACT SOILS BELLOW SOIL BED BOTTOM.
2. THE PLANTING SOIL BED SHALL CONSIST OF THE FOLLOWING MIX: 85%-95% SANDS WITH <25% OF THE SANDS CLASSIFIED AS FINE OR VERY FINE, <15% SILT AND CLAY WITH 2%-5% CLAY CONTENT. THE MIX SHALL BE AMENDED WITH 5%-7% ORGANICS. pH LEVELS SHALL RANGE FROM 5.5 TO 6.5. THE SOIL MIX MUST BE CERTIFIED BY EITHER THE VENDOR OR A LICENSED PROFESSIONAL ENGINEER DURING ONSITE MIXING.
3. THE PLANTING SOIL BED SHALL BE PLACED IN 12" TO 18" LIFTS.

12

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15 Spring Street, Princeton, NJ 08542
Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC
PROP IMPROVEMENTS

BLOCK 701, LOT 1 (TAX MAP SHEET 7)
70 N.J. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY
JEFFREY MARTELL
No. GE47290
PROFESSIONAL ENGINEER
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE NO. 47290
LICENSED PROFESSIONAL ENGINEER

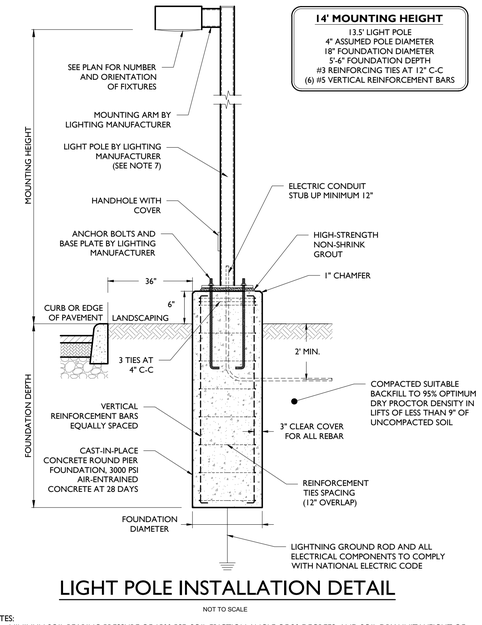
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-18

\\US-STONEFIELDENG.COM\SHARE\PRINCETON\PRI\200199-200143 EDGEWOOD PROPERTIES - 70N ROUTE 35, NEPTUNE, NJ\CADD\PLOT\DP-14-DETL.DWG



LIGHT POLE INSTALLATION DETAIL

NOT TO SCALE

NOTES:

1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF, SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.
2. CAST-IN-PLACE CONCRETE SHALL BE CONSOLIDATED USING VIBRATOR.
3. ALL REBAR TO BE NEW GRADE 60 STEEL.
4. PRE-CAST PIERS ACCEPTABLE UPON WRITTEN APPROVAL OF SHOP DRAWING BY ENGINEER.
5. CONCRETE TO BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO INSTALLING LIGHT POLE. POURED CONCRETE MIX REQUIRED TO OBTAIN 80% OF DESIGN STRENGTH PRIOR TO INSTALLING LIGHT POLE.
6. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" (WITHIN 1" TOLERANCE).
7. POLE SHALL BE RATED FOR 10 MPH HIGHER THAN MAXIMUM WIND SPEED 33FT ABOVE GROUND FOR THE AREA BASED ON ANSI/ASCE 7-93.
8. POUR TO BE TERMINATED AT A FORM.
9. WORK SHALL CONFORM TO ACI BEST PRACTICES FOR APPROPRIATE TEMPERATURE AND WEATHER CONDITIONS.
10. CONTRACTOR TO TEMPORARILY SUPPORT ADJACENT SOIL AND STRUCTURES DURING EXCAVATION IF REQUIRED.

1

Cree Edge™ Series

LED Area/Flood Luminaire

Product Description

The Cree Edge Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weatherright LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, Spice, or Side Arm (details on page 2). Includes a leaf/debris guard.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

DA Mount

Performance Summary

Utilizes Betal.ED® Technology
Patented NanoOptic® Product Technology
Made in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard
Limited Warranty*: 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish

*See www.cree.com/lighting/product/warranty for warranty terms

LED Count (x10)	Dim. "A"	Weight
02	13.1" (330mm)	21 lbs. (13kg)
04	13.1" (330mm)	24 lbs. (11kg)
06	14.1" (361mm)	27 lbs. (13kg)
08	16.1" (410mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)
20	28.1" (713mm)	43 lbs. (20kg)
24	32.1" (814mm)	48 lbs. (22kg)

Accessories

Field-Installed

Bird Spikes
SA-BRDSPK

Backlight Control Shields
SA-SHELD-4
- Four pack
- Expanded stainless steel

Hand-Held Remote
SA-SRDR5W
- For successful implementation of the programmable multi-level options, a minimum of one hand-held remote is required

Ordering Information

Example: ARC T0G 2W AA T2 E UL, SV 350

Product	Optic	Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
ARC T0G	T1 Type I Short 2W Type II Medium 2WB Type II Medium w/BLS 2WP Type II Medium w/PrkWrld 2S Type II Short	2SB Type II Short w/BLS 2SP Type II Short w/PrkWrld 3W Type III Medium 3WB Type III Medium w/BLS 3WP Type III Medium w/PrkWrld 4W Type IV Medium 4WB Type IV Medium w/BLS 4WP Type IV Medium w/PrkWrld	4W Type IV Medium AS Adjustable Arm DA Direct Arm DAL Direct Arm Long SA Side Arm - Available with 40-080 LEDs SAL Side Arm Long - Available with 40-080 LEDs SR Spice	02 04 06 08 10 12 14 16 20 24	1	UL Universal 120-277V UH Universal 347-480V	WH White (standard) BZ Bronze BK Black SV Silver MS Metallic PB Platinum Bronze	700 700mA 525 525mA 350 350mA - Available with 20-80 LEDs 250 250mA - Available with 20-80 LEDs	40K 4000K Color Temperature - Color temperature per luminaire DIM 0-10V Dimming - Control by others - Refer to dimming spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability and additional information - Can't exceed specified drive current F Fuse - Refer to fuse spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability and additional information HL Multi-Level - Refer to HL spec sheet for details - Requires HL - Not available with other options P Photocell - Refer to photocell spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability and additional information R Photocell Receptacle - Refer to photocell spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability with HL options
FLD ERG	T5 5V Wide 2V Type II 2S Type II	4D 4Q Flood 5D 5Q Flood 7D 7Q Flood						

* Reference DIN and pole configuration suitability data beginning on page 3

BetaLED TECHNOLOGY
US: www.cree.com/lighting T (800) 236-6800 F (262) 504-5415
Rev. Date: V1 05/06/2015
CREE

AREA LIGHT FIXTURE SPECIFICATION (FIXTURE 'A')

2

Cree Edge™ Series

LED Area/Flood Luminaire

Product Description

The Cree Edge Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weatherright LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, Spice, or Side Arm (details on page 2). Includes a leaf/debris guard.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

DA Mount

Performance Summary

Utilizes Betal.ED® Technology
Patented NanoOptic® Product Technology
Made in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard
Limited Warranty*: 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish

*See www.cree.com/lighting/product/warranty for warranty terms

LED Count (x10)	Dim. "A"	Weight
02	13.1" (330mm)	21 lbs. (13kg)
04	13.1" (330mm)	24 lbs. (11kg)
06	14.1" (361mm)	27 lbs. (13kg)
08	16.1" (410mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)
20	28.1" (713mm)	43 lbs. (20kg)
24	32.1" (814mm)	48 lbs. (22kg)

Accessories

Field-Installed

Bird Spikes
SA-BRDSPK

Backlight Control Shields
SA-SHELD-4
- Four pack
- Expanded stainless steel

Hand-Held Remote
SA-SRDR5W
- For successful implementation of the programmable multi-level options, a minimum of one hand-held remote is required

Ordering Information

Example: ARC T0G 2W AA T2 E UL, SV 350

Product	Optic	Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
ARC T0G	T1 Type I Short 2W Type II Medium 2WB Type II Medium w/BLS 2WP Type II Medium w/PrkWrld 2S Type II Short	2SB Type II Short w/BLS 2SP Type II Short w/PrkWrld 3W Type III Medium 3WB Type III Medium w/BLS 3WP Type III Medium w/PrkWrld 4W Type IV Medium 4WB Type IV Medium w/BLS 4WP Type IV Medium w/PrkWrld	4W Type IV Medium AS Adjustable Arm DA Direct Arm DAL Direct Arm Long SA Side Arm - Available with 40-080 LEDs SAL Side Arm Long - Available with 40-080 LEDs SR Spice	02 04 06 08 10 12 14 16 20 24	1	UL Universal 120-277V UH Universal 347-480V	WH White (standard) BZ Bronze BK Black SV Silver MS Metallic PB Platinum Bronze	700 700mA 525 525mA 350 350mA - Available with 20-80 LEDs	40K 4000K Color Temperature - Color temperature per luminaire DIM 0-10V Dimming - Control by others - Refer to dimming spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability and additional information - Can't exceed specified drive current F Fuse - Refer to fuse spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability and additional information HL Multi-Level - Refer to HL spec sheet for details - Requires HL - Not available with other options P Photocell - Refer to photocell spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability and additional information R Photocell Receptacle - Refer to photocell spec sheet for availability with HL options - Not available with HL multi-level options. Refer to multi-level spec sheet for availability with HL options
FLD ERG	T5 5V Wide 2V Type II 2S Type II	4D 4Q Flood 5D 5Q Flood 7D 7Q Flood						

* Reference DIN and pole configuration suitability data beginning on page 3

BetaLED TECHNOLOGY
US: www.cree.com/lighting T (800) 236-6800 F (262) 504-5415
Rev. Date: V1 05/06/2015
CREE

AREA LIGHT FIXTURE SPECIFICATION (FIXTURE 'B' & 'C')

3

Cree Edge™ Series

LED Security Wall Pack Luminaire

Product Description

The Cree Edge™ wall mount luminaire has a slim, low profile design. The luminaire and caps are made from rugged die cast aluminum with integral, weatherright LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a leaf/debris mounting box for installation over standard and mud rings, including gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard.
Applications: General area and security lighting

Performance Summary

Patented NanoOptic® Product Technology
Assembled in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard.
Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

*See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed

Bird Spikes
SA-BRDSPK

Beauty Plate
WM-PLT2™ - 12" (305mm) Square
WM-PLT4™ - 12" (305mm) Square
- Covers holes left by mounted wall packs

Hand-Held Remote
SA-SRDR5W
- For successful implementation of the programmable multi-level options, a minimum of one hand-held remote is required

* Heat capacity adder

LED Count (x10)	Dim. "A"	Weight
02	9.9" (251 mm)	26 lbs. (9.1kg)
04	11.9" (303mm)	22 lbs. (10.0kg)
06	13.9" (353mm)	25 lbs. (11.3kg)
08	15.9" (404mm)	27 lbs. (12.2kg)
10	17.9" (455mm)	31 lbs. (14.1kg)
12	19.9" (505mm)	32 lbs. (14.5kg)

Ordering Information

Example: SEC-E00-2M-WM-06-E-UL-DV-700

Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
SEC-E00	2M Type II Medium 2MB Type II Medium w/BLS 5M Type V Short	WM Wall Mount	02 04 06 08 10 12	E	UL Universal 120-277V UH Universal 347-480V 34 347V	WH White BK Black SV Silver	350 350mA 525 525mA 700 700mA - Available with 20-80 LEDs 1050 1050mA - Available with 20-80 LEDs	DIM 0-10V Dimming - Control by others - Refer to dimming spec sheet for details - Can't exceed specified drive current F Fuse - Refer to FML spec sheet for availability with FML options - Not available for U.S. applications only - When code dictates fusing use time delay fuse ML Multi-Level - Refer to FML spec sheet for details - Requires FML - Not available with other options P Photocell - Refer to photocell spec sheet for availability with FML options - Not available with FML FML Programmable Multi-Level - Refer to FML spec sheet for details - Intended for downlight applications of 18' tall - Photocell by others - Refer to FML spec sheet for availability with HL options 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire

US: lighting.cree.com T (800) 236-6800 F (262) 504-5415
Rev. Date: V5 01/09/2019
Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7307
CREE

WALL MOUNT LIGHT FIXTURE SPECIFICATION (FIXTURE 'D')

4

CAN-304-5M-RS

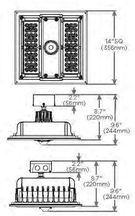
304 Series™ Canopy Luminaire – Type V Medium – Recessed Mount for Single Skin Canopies

Product Description

Luminaire housing is constructed from rugged die cast aluminum components. LED driver is mounted in a sealed weatherright center chamber that allows for access from below the fixture. Luminaire housing incorporates integral high performance heatsink fins specifically designed for LED canopy application. Luminaire mounts directly to the canopy deck and is secured in place with die-cast aluminum trim frame. Luminaire housing is provided with factory applied foam gasket and provides for a watertight seal between luminaire housing and canopy deck. Integral junction box allows ease of installation without need to open luminaire. Suitable for use in single skin canopies with 16" (406 mm) wide panels. See 227 Series for canopies using 12" (305mm) deck sections. Designed for canopies of 19 – 22 gauge (maximum 0.040" [1mm] thickness).

Performance Summary

Utilizes BetaLED® Technology
Patented NanoOptic® Product Technology
Made in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CCT: 5700K (+ / - 500K) Standard, 4000K (+ / - 500K)
Limited Warranty*: 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish



Ordering Information

Example: CAN-304-5M-RS-04-E-UL-SV-350-OPTIONS

CAN-304	5M	RS		E				
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
CAN-304	5M Type V Medium	RS Recessed Single Skin	04 06	E	UL Universal 120-277V UH Universal 347-480V	WH White (standard) SV Silver BK Black BZ Bronze PB Platinum Bronze	700 700mA 525 525mA 350 350mA	40K 4000K Color Temperature - Color temperature per luminaire DIM 0-10V Dimming - Control by others - Refer to dimming spec sheet for availability and additional information - Can't exceed specified drive current F Fuse - When code dictates fusing use time delay fuse - Not available with all multi-level options. Refer to multi-level spec sheet for availability and additional information ML Multi-Level - Refer to multi level spec sheet for availability and additional information

* See www.cree.com/lighting/product/warranty for warranty terms
* Requires marked spacing 48" (1,219mm) x 24" (610mm) x 3" (76mm); (48" [1,219mm] luminaire to luminaire, 24" [610mm] luminaire to side wall, 6" [152mm] above luminaire.

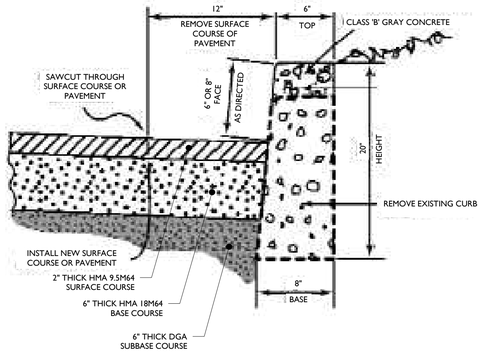
BetaLED TECHNOLOGY
www.cree.com/lighting T (800) 236-6800 F (262) 504-5415
Rev. Date: 06/26/13
CREE

CANOPY MOUNT LIGHT FIXTURE SPECIFICATION (FIXTURE 'E')

5

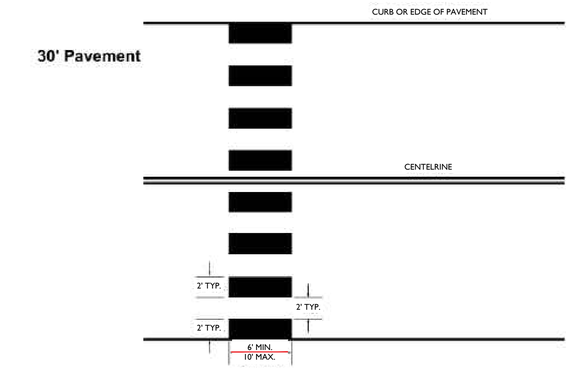
TYPICAL COUNTY CURB & PAVEMENT SECTION

(REPLACE CURB IN PLACE - NO ROAD WIDENING)



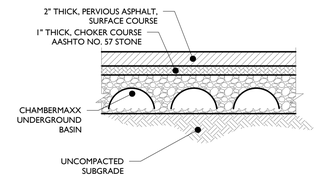
MONMOUTH COUNTY STANDARD CURB AND PAVEMENT SECTION DETAIL

6



MONMOUTH COUNTY STANDARD CROSSWALK DETAIL

7

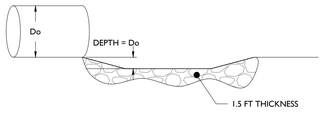


NOTE:
ALL COURSES AND GRADED AGGREGATE SHALL CONFORM TO STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION SPECIFICATIONS.

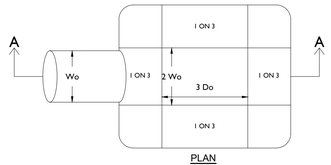
PERVIOUS PAVEMENT OVER BASIN DETAIL

NOT TO SCALE

8



SECTION A - A



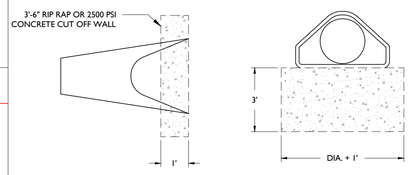
PLAN

OUTLET	Do	D	BOTTOM LENGTH	BOTTOM WIDTH	TOP LENGTH	TOP WIDTH	Do50
FES-1	2.5'	2.5'	7.5'	5.0'	13.5'	11.0'	4-6"

PREFORMED SCOUR HOLE

NOT TO SCALE

9



FLARED END SECTION DETAIL

NOT TO SCALE

10

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
6	05/10/2021	PC	REVISED PER NJDEP COMMENTS
5	04/22/2021	PC	REVISED PER MUNICIPAL COMMENTS
4	04/02/2021	PC	REVISED PER NJDEP COMMENTS
3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com
15 Spring Street, Princeton, NJ 08542
Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 70.1, LOT 1 (TAX MAP SHEET 7)
70 NJ. ROUTE 33
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY
JEFFREY A. MARTELL
No. GE47290
PROFESSIONAL ENGINEER
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No. 47290
LICENSED PROFESSIONAL ENGINEER

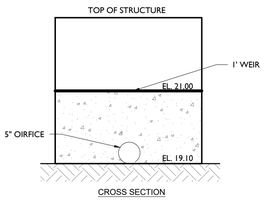
STONEFIELD engineering & design

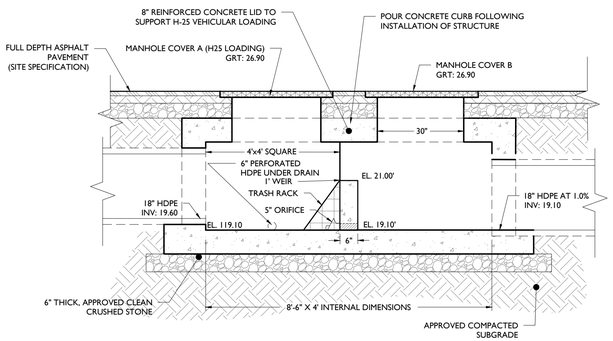
SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE: CONSTRUCTION DETAILS

DRAWING: C-19

U:\S_STONEFIELDENG.COM\SHARE\PROJECTS\PRI\200142_EDGEWOOD_PROPERTIES_-_70A_ROUTE_33_NEPTUNE_NJ\CADD\PLOT\LDP-14-CETL.DWG

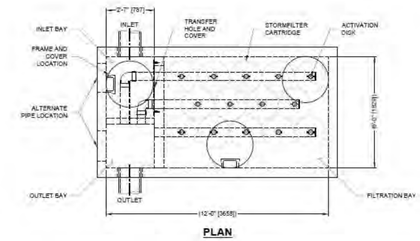




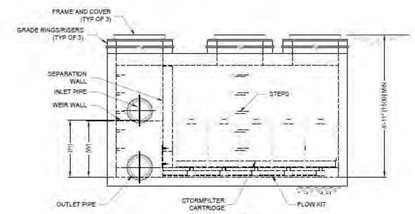
UNDERGROUND OUTLET STRUCTURE (OCS) DETAIL - BASIN 1A

NOT TO SCALE

1



PLAN



ELEVATION

The Stormwater Management StormFilter®

"THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,482,616; 5,498,326; 5,512,187; 5,607,596; 5,607,606; 5,607,607; 5,607,608; 5,640,647; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING."

STORMFILTER DESIGN NOTES

- STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD
- A 6' x 12' (1829 x 3658) PEAK DIVERSION STYLE STORMFILTER IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (18) AND IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR A RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS NOTED OTHERWISE

CARTRIDGE SIZE (in. [mm])	27 [686]			18 [457]			LOW DROP		
RECOMMENDED HYDRAULIC DROP (ft) (ft. [mm])	3.00 [930]			2.3 [701]			1.6 [549]		
HEIGHT OF WEIR (W) (ft. [mm])	3.00 [914]			2.25 [686]			1.75 [533]		
SPECIFIC FLOW RATE (gpm/sf [L/min/ft²])	2 [1.36]	1.67* [1.13]*	1 [0.68]	2 [1.36]	1.67* [1.13]*	1 [0.68]	2 [1.36]	1.67* [1.13]*	1 [0.68]
CARTRIDGE FLOW RATE (gpm [L/s])	22.5 [1.42]	18.75 [1.19]	11.25 [0.71]	15 [0.95]	12.53 [0.79]	7.5 [0.47]	10 [0.63]	8.35 [0.53]	5 [0.32]

* 1.67 gpm/sf [1.13 L/s/m²] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY

FRAME AND GRATE
(24" SQUARE)
(NOT TO SCALE)

FRAME AND COVER
(30" ROUND)
(NOT TO SCALE)

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
CARTRIDGE FLOW RATE			
CARTRIDGE SIZE (27, 18, LOW DROP (LD))			
MEDIA TYPE (PERLITE, ZPG, PSORB)			
NUMBER OF CARTRIDGES REQUIRED			
INLET BAY RIM ELEVATION			
FILTER BAY RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES/SPECIAL REQUIREMENTS:			

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7.1 [178]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS. SPECIFIC FLOW RATE SHALL BE 2 GPM/SF [1.36 L/s/m²] (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF [13.39 L/s/m³] OF MEDIA (MAXIMUM).

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. ALTERNATE DIMENSIONS ARE IN MILLIMETERS [mm] UNLESS NOTED OTHERWISE.
4. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.CONTECHES.com
5. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
6. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 2' - 12' [3048] AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES
A. ANY SUBGRADE BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER OPENING COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

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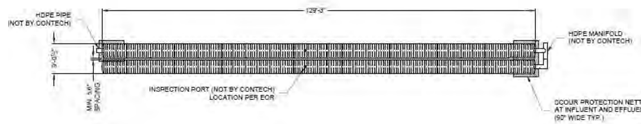
SFPD0612 (6' x 12')
PEAK DIVERSION STORMFILTER
STANDARD DETAIL

UNDERGROUND BASIN 1A MTD SPECIFICATIONS

NOT TO SCALE

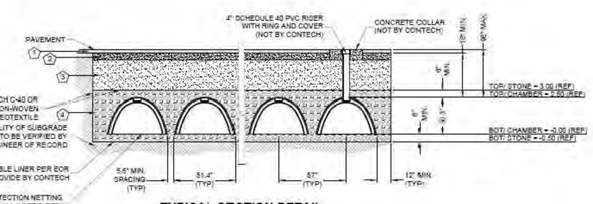
2



ASSEMBLY
SCALE: 1"=20'
CHAMBER STORAGE: 1,703 CF
STONE STORAGE: 1,318 CF
TOTAL STORAGE: 3,021 CF

NOTE:
- MINIMUM COVER IS 18 INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT
- 12 INCH STONE PERIMETER TYPICAL
- ENTIRE STORAGE ENVELOPE TO BE WRAPPED IMPERMEABLE LINER (NOT PROVIDED BY CONTECH)
- UNDERDRAIN NOT PROVIDED BY CONTECH

GENERAL NOTES
1. ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS AND INLETS SHALL BE VERIFIED BY THE ENGINEER OF RECORD.
2. PRIOR TO INSTALLATION OF THE CHAMBERMAXX SYSTEM A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED. THOSE REQUIRED TO ATTEND ARE THE SUPPLIER OF THE SYSTEM, THE GENERAL CONTRACTOR, SUB-CONTRACTORS AND THE ENGINEER.
3. CHAMBERMAXX CHAMBERS ARE MANUFACTURED FROM POLYPROPYLENE PLASTIC.
4. CHAMBERMAXX SYSTEM TO MEET AASHTO HS20/HS25 LIVE LOADING, PER AASHTO LRFD SECTION 12.
5. ACCESS COVERS TO MEET AASHTO HS20/HS25 LIVE LOADING.
6. MINIMUM COVER IS 18-INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR COVER HEIGHTS GREATER THAN 96-INCHES CONTACT YOUR LOCAL REPRESENTATIVE.
7. ALL PARTS PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.
8. FOR INFORMATION ON PRE-TREATMENT SYSTEMS, REFERENCE CONTECH PRE-TREATMENT SYSTEM STANDARD DETAILS OR CONTACT YOUR LOCAL REPRESENTATIVE.
9. CHAMBERMAXX BY CONTECH ENGINEERED SOLUTIONS (800) 925-5240

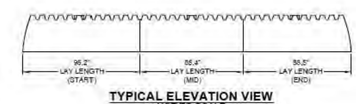


TYPICAL SECTION DETAIL
NOT TO SCALE

KEY
1. FLEXIBLE PAVEMENT.
2. GRANULAR ROAD BASE.
3. ANY SUITABLE NATIVE OR GENERAL BACKFILL. SEE ENGINEER PLANS.
4. THE BACKFILL MATERIAL SHALL BE FREE-DRAINING ANGULAR WASHED STONE 3/4" - 2" PARTICLE SIZE. MATERIAL SHALL BE PLACED IN 6"-10" MAXIMUM LIFTS. MATERIAL SHALL BE WORKED INTO THE CHAMBER SPACING BY MEANS OF SHOVEL-SLICING, RODDING, AIR-TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE PROJECT ENGINEER OR THEIR REPRESENTATIVE IS SATISFIED WITH THE LEVEL OF COMPACTION. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY CHAMBER IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE CHAMBERS. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT, AND MAINTAIN BALANCED LOADING ON ALL CHAMBERS IN THE SYSTEM, DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. CONTACT YOUR LOCAL CONTECH REPRESENTATIVE FOR DETAILS.



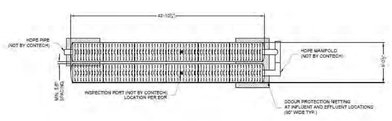
TYPICAL ELEVATION VIEW
NOT TO SCALE

UNDERGROUND BASIN 1A SPECIFICATIONS

NOT TO SCALE

3

NOTE: SOIL HORIZON BELOW DRYWELLS CONTAINING FINE-GRAINED SOILS TO BE REMOVED AND REPLACED WITH COARSE GRAINED SOILS, K3 OR BETTER



ASSEMBLY
SCALE: 1"=10'
CHAMBER STORAGE: 571 CF
STONE STORAGE: 462 CF
TOTAL STORAGE: 1,033 CF

NOTE:
- MINIMUM COVER IS 18 INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT
- 12 INCH STONE PERIMETER TYPICAL
- ENTIRE STORAGE ENVELOPE TO BE WRAPPED IMPERMEABLE LINER (NOT PROVIDED BY CONTECH)
- UNDERDRAIN NOT PROVIDED BY CONTECH

GENERAL NOTES
1. ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS AND INLETS SHALL BE VERIFIED BY THE ENGINEER OF RECORD.
2. PRIOR TO INSTALLATION OF THE CHAMBERMAXX SYSTEM A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED. THOSE REQUIRED TO ATTEND ARE THE SUPPLIER OF THE SYSTEM, THE GENERAL CONTRACTOR, SUB-CONTRACTORS AND THE ENGINEER.
3. CHAMBERMAXX CHAMBERS ARE MANUFACTURED FROM POLYPROPYLENE PLASTIC.
4. CHAMBERMAXX SYSTEM TO MEET AASHTO HS20/HS25 LIVE LOADING, PER AASHTO LRFD SECTION 12.
5. ACCESS COVERS TO MEET AASHTO HS20/HS25 LIVE LOADING.
6. MINIMUM COVER IS 18-INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR COVER HEIGHTS GREATER THAN 96-INCHES CONTACT YOUR LOCAL REPRESENTATIVE.
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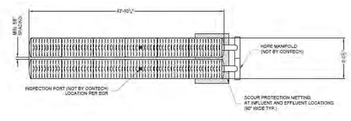
8. FOR INFORMATION ON PRE-TREATMENT SYSTEMS, REFERENCE CONTECH PRE-TREATMENT SYSTEM STANDARD DETAILS OR CONTACT YOUR LOCAL REPRESENTATIVE.
9. CHAMBERMAXX BY CONTECH ENGINEERED SOLUTIONS (800) 925-5240

DRY WELL 1C SPECIFICATION



ASSEMBLY
SCALE: 1"=10'
CHAMBER STORAGE: 571 CF
STONE STORAGE: 462 CF
TOTAL STORAGE: 1,033 CF

NOTE:
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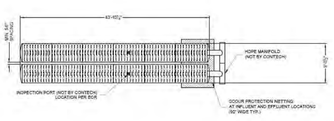
DRY WELL 1B SPECIFICATION



ASSEMBLY
SCALE: 1"=10'
CHAMBER STORAGE: 571 CF
STONE STORAGE: 462 CF
TOTAL STORAGE: 1,033 CF

NOTE:
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DRY WELL 2B SPECIFICATION

4

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
6	05/10/2021	PC	REVISED PER NJDEP COMMENTS
5	04/22/2021	PC	REVISED PER MUNICIPAL COMMENTS
4	04/02/2021	PC	REVISED PER NJDEP COMMENTS
3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com
15 Spring Street, Princeton, NJ 08542
Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 701, LOT 1 (TAX MAP SHEET 7)
704 N.J. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY
JEFFREY A. MARTELL
No. GE47290
PROFESSIONAL ENGINEER
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No. 47290
LICENSED PROFESSIONAL ENGINEER

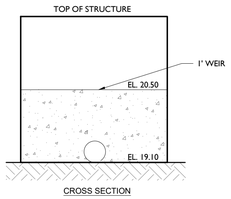
STONEFIELD engineering & design

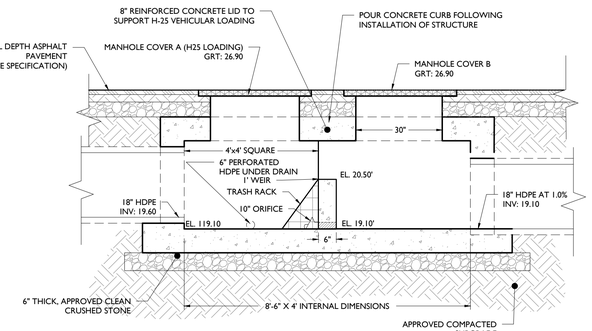
SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-20

I:\S-STONEFIELDENG.COM\SHARE\PROJECTS\PRI\200PRI-200142 EDGEWOOD PROPERTIES - 704 ROUTE 35, NEPTUNE, NJ\CAD\OUTLOOK-1-NOTILDWG

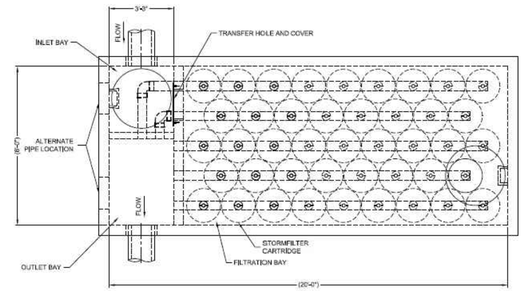




UNDERGROUND OUTLET STRUCTURE (OCS) DETAIL - BASIN 1B

NOT TO SCALE

1

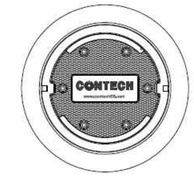


PLAN

STORMFILTER DESIGN TABLE

- THE 8' x 20' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE, PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

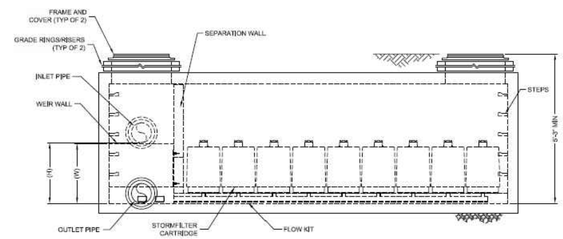
CARTRIDGE HEIGHT	27"		18"		LOW DROP	
SYSTEM HYDRAULIC DROP (H - REQ'D, MIN.)	3.05'		2.3'		1.8'	
HEIGHT OF WEIR (W)	3.00'		2.25'		1.75'	
TREATMENT BY MEDIA SURFACE AREA	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			*
WATER QUALITY FLOW RATE (cfs)			*
PEAK FLOW RATE (cfs)			*
RETURN PERIOD OF PEAK FLOW (yrs)			*
# OF CARTRIDGES REQUIRED			*
CARTRIDGE FLOW RATE			*
MEDIA TYPE (CSF, PHILLITE, ZPG)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE	*	*	*
OUTLET PIPE	*	*	*
INLET BAY RIM ELEVATION			*
FILTER BAY RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH		HEIGHT
	*		*
NOTES/SPECIAL REQUIREMENTS:			



ELEVATION

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES.** FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **37 SECONDS.**
SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM).** SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM).**

GENERAL NOTES
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4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

Stormfilter

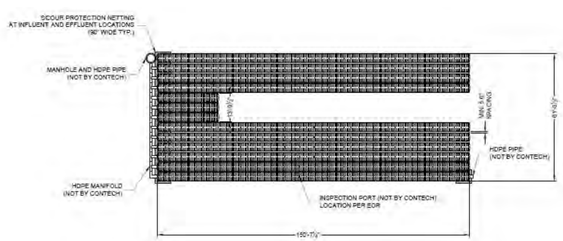
CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

THE STORMWATER MANAGEMENT STORMFILTER
8' x 20' PEAK DIVERSION STORMFILTER
STANDARD DETAIL

UNDERGROUND BASIN 1B MTD SPECIFICATIONS

NOT TO SCALE

2



NOTE:
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- 12 INCH STONE PERIMETER TYPICAL
- ENTIRE STORAGE ENVELOPE TO BE WRAPPED IMPERMEABLE LINER (NOT PROVIDED BY CONTECH)
- UNDERDRAIN NOT PROVIDED BY CONTECH

ASSEMBLY
SCALE: 1"=30'
CHAMBER STORAGE: 10,504 CF
STONE STORAGE: +8,033 CF
TOTAL STORAGE: 18,537 CF

GENERAL NOTES:
1. ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS AND INLETS SHALL BE VERIFIED BY THE ENGINEER OF RECORD.
2. PRIOR TO INSTALLATION OF THE CHAMBERMAXX SYSTEM A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED. THOSE REQUIRED TO ATTEND ARE THE SUPPLIER OF THE SYSTEM, THE GENERAL CONTRACTOR, SUB-CONTRACTORS AND THE ENGINEER.
3. CHAMBERMAXX CHAMBERS ARE MANUFACTURED FROM POLYPROPYLENE PLASTIC.
4. CHAMBERMAXX SYSTEM TO MEET AASHTO HS20-44 HIGH LIVE LOADING, PER AASHTO LRFD SECTION 12.
5. ACCESS COVERS TO MEET AASHTO HS20-44 HIGH LIVE LOADING.
6. MINIMUM COVER IS 18-INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR COVER HEIGHTS GREATER THAN 96-INCHES CONTACT YOUR LOCAL REPRESENTATIVE.
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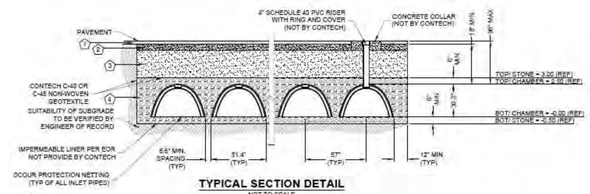
UNDERGROUND BASIN 1B SPECIFICATIONS

NOT TO SCALE



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KEY:
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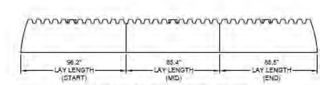
2. GRANULAR ROAD BASE.
3. ANY SUITABLE NATIVE OR GENERAL BACKFILL, SEE ENGINEER PLANS.
4. THE BACKFILL MATERIAL SHALL BE FREE-DRAINING ANGULAR WASHED STONE 3/4" - 2" PARTICLE SIZE. MATERIAL SHALL BE PLACED IN 8"-12" MAXIMUM LIFTS. MATERIAL SHALL BE WORKED INTO THE CHAMBER SPACING BY MEANS OF SHOVEL-GUIDING, RODDING, AIR-TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE PROJECT ENGINEER OR THEIR REPRESENTATIVE IS SATISFIED WITH THE LEVEL OF COMPACTION. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY CHAMBER IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE CHAMBERS. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT, AND MAINTAIN BALANCED LOADING ON ALL CHAMBERS IN THE SYSTEM, DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. CONTACT YOUR LOCAL CONTECH REPRESENTATIVE FOR DETAILS.



TYPICAL ELEVATION VIEW
NOT TO SCALE

CHAMBERMAXX DESIGN DETAILS

FEATURE	START CHAMBER	MIDDLE CHAMBER	END CHAMBER
OVERALL CHAMBER HEIGHT - mm [IN]	770 [30.3]	770 [30.3]	770 [30.3]
OVERALL CHAMBER WIDTH - mm [IN]	1306 [51.4]	1306 [51.4]	1306 [51.4]
ACTUAL LENGTH - mm [IN]	2500 [98.4]	2311 [91.0]	2337 [92.0]
INSTALLED LAY LENGTHS - mm [IN]	2443 [96.2]	2169 [85.4]	2248 [88.5]
CHAMBER STORAGE VOLUME - m³ [CF]	1.421 [50.2]	1.338 [47.2]	1.307 [46.2]
CHAMBER STORAGE PER LINEAR FOOT - m³/m [CF/LF]	0.582 [6.3]	0.618 [6.6]	0.582 [6.3]
*MIN. INSTALLED CHAMBER VOLUME - m³ [CF]	2.211 [78.1]	2.127 [75.1]	2.098 [74.1]
*MIN. INSTALLED CHAMBER VOLUME PER LINEAR FOOT - m³/m [CF/LF]	0.905 [9.7]	0.981 [10.6]	0.934 [10.0]
CHAMBER WEIGHT - kg [LB]	37.85 [83]	33.11 [73]	34.47 [76]

*152 mm [6"] OF STONE ABOVE AND BELOW CHAMBER, 152 mm [6"] CHAMBER SPACING AND 40% POROSITY

UNDERGROUND BASIN 1B SPECIFICATIONS

NOT TO SCALE

3

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
6	05/10/2021	PC	REVISED PER NJDEP COMMENTS
5	04/22/2021	PC	REVISED PER MUNICIPAL COMMENTS
4	04/02/2021	PC	REVISED PER NJDEP COMMENTS
3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

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MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY JEFFREY MARCELL No. GE47290 PROFESSIONAL ENGINEER

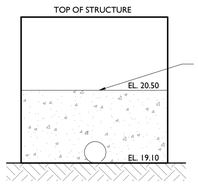
JEFFREY A. MARCELL, P.E.
NEW JERSEY LICENSE NO. GE47290
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

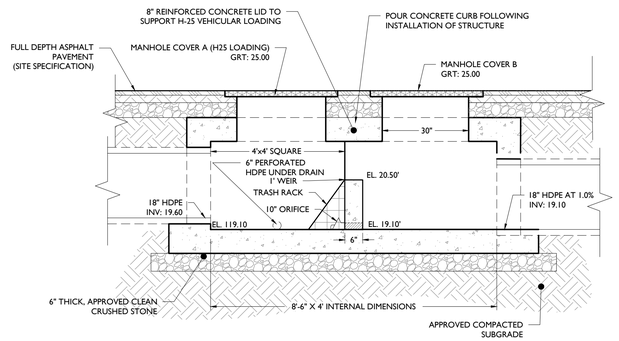
SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-21



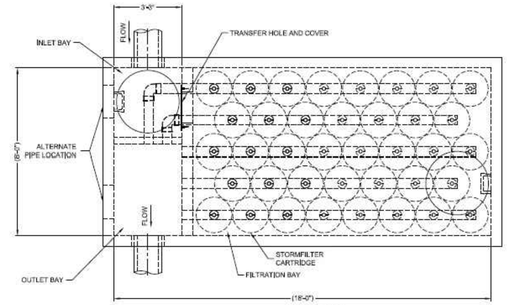
CROSS SECTION



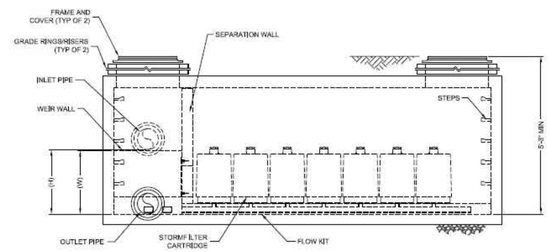
UNDERGROUND OUTLET STRUCTURE (OCS) DETAIL - BASIN 1C

NOT TO SCALE

1



PLAN

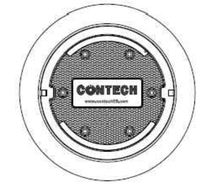


ELEVATION

STORMFILTER DESIGN TABLE

- THE 8' x 18' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
SYSTEM HYDRAULIC DROP (H - REQD. MIN.)	3.05'		2.3'		1.8'	
HEIGHT OF WEIR (W)	3.00'		2.25'		1.75'	
TREATMENT BY MEDIA SURFACE AREA	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (CSF, PERLITE, ZPG)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE	*	*	*
OUTLET PIPE	*	*	*

INLET BAY RIM ELEVATION	*
FILTER BAY RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

PERFORMANCE SPECIFICATION:
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 1INCHES.** FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **37 SECONDS.** SPECIFIC FLOW RATE SHALL BE **2 GPM/SF (MAXIMUM)**. SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM).**

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS, ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES:
A. ANY SUBGRADE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

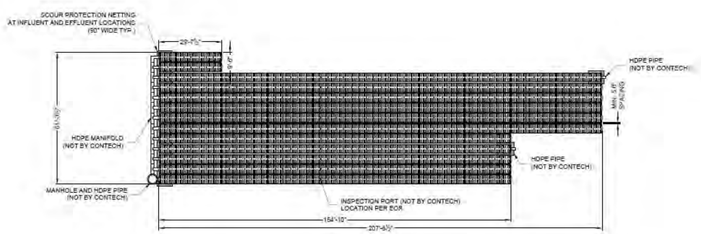
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

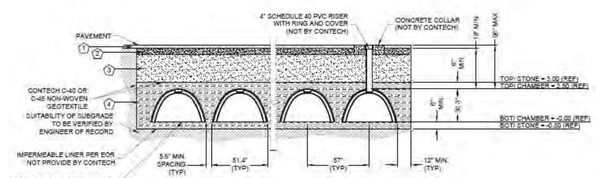
THE STORMWATER MANAGEMENT STORMFILTER
8' x 18' PEAK DIVERSION STORMFILTER
STANDARD DETAIL

UNDERGROUND BASIN 1C MTD SPECIFICATIONS

NOT TO SCALE

2





TYPICAL SECTION DETAIL
NOT TO SCALE

KEY
1. FLEXIBLE PAVEMENT.
2. GRANULAR ROAD BASE.
3. ANY SUITABLE NATIVE OR GENERAL BACKFILL. SEE ENGINEER PLAND.
4. THE BACKFILL MATERIAL SHALL BE FREE-DRAINING ANGULAR WASHED STONE 3/4" - 2" PARTICLE SIZE. MATERIAL SHALL BE PLACED IN 6"-10" MAXIMUM LIFTS. MATERIAL SHALL BE WORKED INTO THE CHAMBER SPACING BY MEANS OF SHOVEL-SLICING, RODDING, AIR-TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE PROJECT ENGINEER OR THEIR REPRESENTATIVE IS SATISFIED WITH THE LEVEL OF COMPACTION. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY CHAMBER IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

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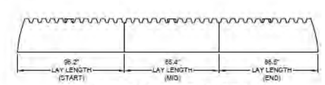
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. CONTACT YOUR LOCAL CONTECH REPRESENTATIVE FOR DETAILS.



TYPICAL ELEVATION VIEW
NOT TO SCALE

NOTE:
- MINIMUM COVER IS 18 INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT
- 12 INCH STONE PERIMETER TYPICAL
- ENTIRE STORAGE ENVELOPE TO BE WRAPPED IMPERMEABLE LINER (NOT PROVIDED BY CONTECH)
- UNDERDRAIN NOT PROVIDED BY CONTECH

ASSEMBLY
SCALE: 1"=30'
CHAMBER STORAGE: 14,040 CF
STONE STORAGE: ~8,600 CF
TOTAL STORAGE: 22,640 CF

GENERAL NOTES
1. ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS AND INLETS SHALL BE VERIFIED BY THE ENGINEER OF RECORD.
2. PRIOR TO INSTALLATION OF THE CHAMBERMAXX SYSTEM A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED. THOSE REQUIRED TO ATTEND ARE THE SUPPLIER OF THE SYSTEM, THE GENERAL CONTRACTOR, SUB-CONTRACTORS AND THE ENGINEER.
3. CHAMBERMAXX CHAMBERS ARE MANUFACTURED FROM POLYPROPYLENE PLASTIC.
4. CHAMBERMAXX SYSTEM TO MEET AASHTO HS20/HN25 LIVE LOADING, PER AASHTO LRFD SECTION 12.
5. ACCESS COVERS TO MEET AASHTO HS20/HN25 LIVE LOADING.
6. MINIMUM COVER IS 18-INCHES TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR COVER HEIGHTS GREATER THAN 96-INCHES CONTACT YOUR LOCAL REPRESENTATIVE.
7. ALL PARTS PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.
8. FOR INFORMATION ON PRE-TREATMENT SYSTEMS, REFERENCE CONTECH PRE-TREATMENT SYSTEM STANDARD DETAILS OR CONTACT YOUR LOCAL REPRESENTATIVE.
9. CHAMBERMAXX BY CONTECH ENGINEERED SOLUTIONS (800) 925-5240

CHAMBERMAXX DESIGN DETAILS

FEATURE	START CHAMBER	MIDDLE CHAMBER	END CHAMBER
OVERALL CHAMBER HEIGHT - mm [IN]	772 [30.3]	770 [30.3]	770 [30.3]
OVERALL CHAMBER WIDTH - mm [IN]	1306 [51.4]	1306 [51.4]	1306 [51.4]
ACTUAL LENGTH - mm [IN]	2500 [98.4]	2311 [91.0]	2337 [92.0]
INSTALLED LAY LENGTHS - mm [IN]	2443 [96.2]	2169 [85.4]	2245 [88.5]
CHAMBER STORAGE VOLUME - m³ [CF]	1.421 [50.2]	1.335 [47.2]	1.307 [46.2]
CHAMBER STORAGE PER LINEAR FOOT - m³/m [CF/LF]	0.662 [6.3]	0.616 [5.6]	0.585 [5.3]
*MIN. INSTALLED CHAMBER VOLUME - m³ [CF]	2.211 [78.1]	2.127 [75.1]	2.098 [74.1]
*MIN. INSTALLED CHAMBER VOLUME PER LINEAR FOOT - m³/m [CF/LF]	0.905 [9.7]	0.981 [10.6]	0.934 [10.0]
CHAMBER WEIGHT - kg [LB]	37.65 [83]	33.11 [73]	34.47 [76]

*152 mm [6"] OF STONE ABOVE AND BELOW CHAMBER, 142 mm [5.6"] CHAMBER SPACING AND 40% POROSITY

UNDERGROUND BASIN 1C SPECIFICATIONS

NOT TO SCALE

3

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3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

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www.stonefieldeng.com
15 Spring Street, Princeton, NJ 08542
Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 701, LOT 1 (TAX MAP SHEET 7)
704 N. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY JEFFREY MARTELL No. GE47290 PROFESSIONAL ENGINEER

JEFFREY D. MARTELL, P.E.
NEW JERSEY LICENSE NO. GE47290
LICENSED PROFESSIONAL ENGINEER

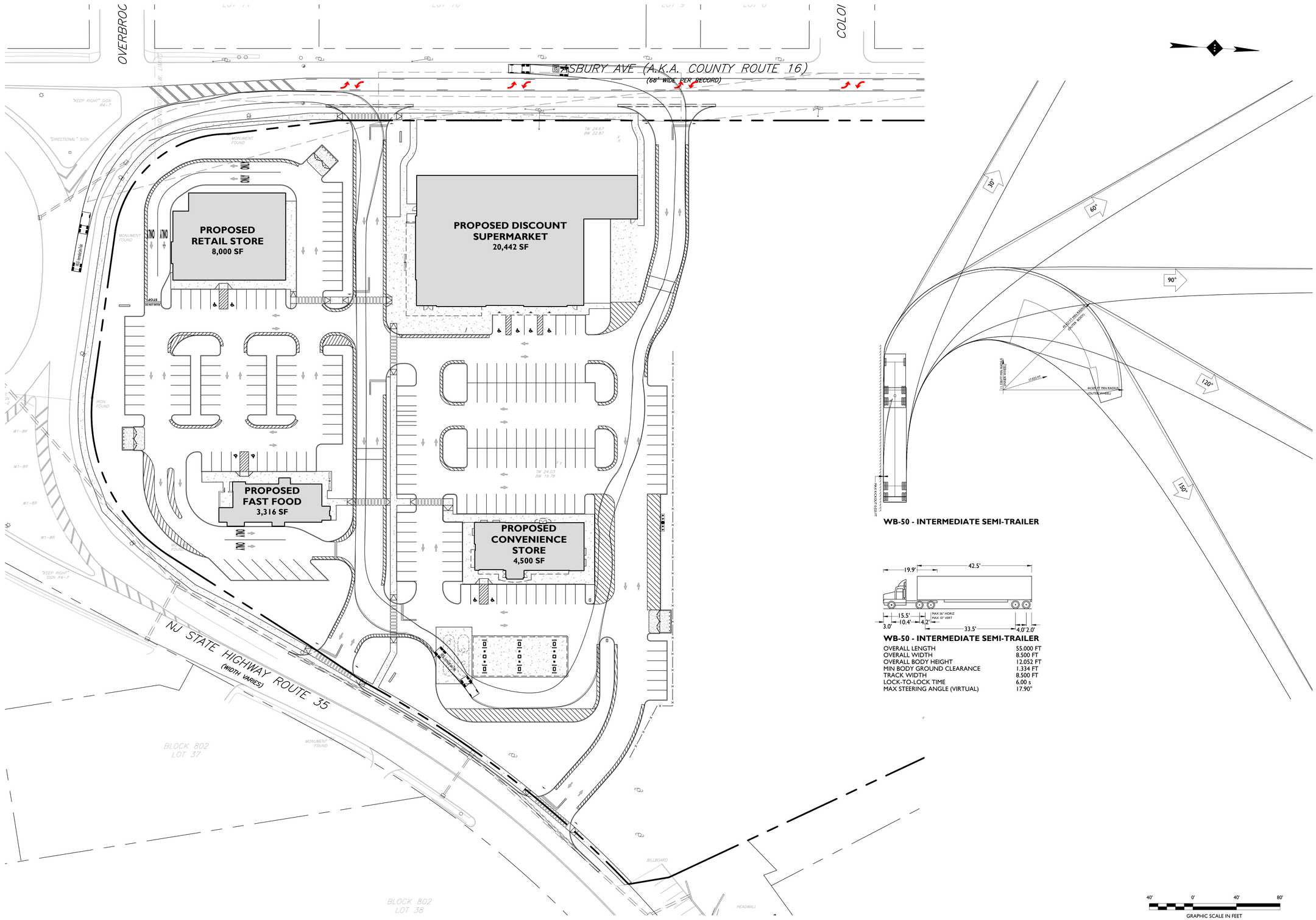
STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: PRI-200142

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-22

U:\STONEFIELDENG.COM\SHARE\PRINCETON\PRI\200142\DESIGN\CAD\PRINCETON-PRI-ROUTE 35_NEPTUNE_NEC-ASCOT-DOT-LOP-14-CFT.DWG



WB-50 (DELIVERY AND FUEL SERVICE TRUCK)

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
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JEFFREY MARTELL
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JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No: 47290
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

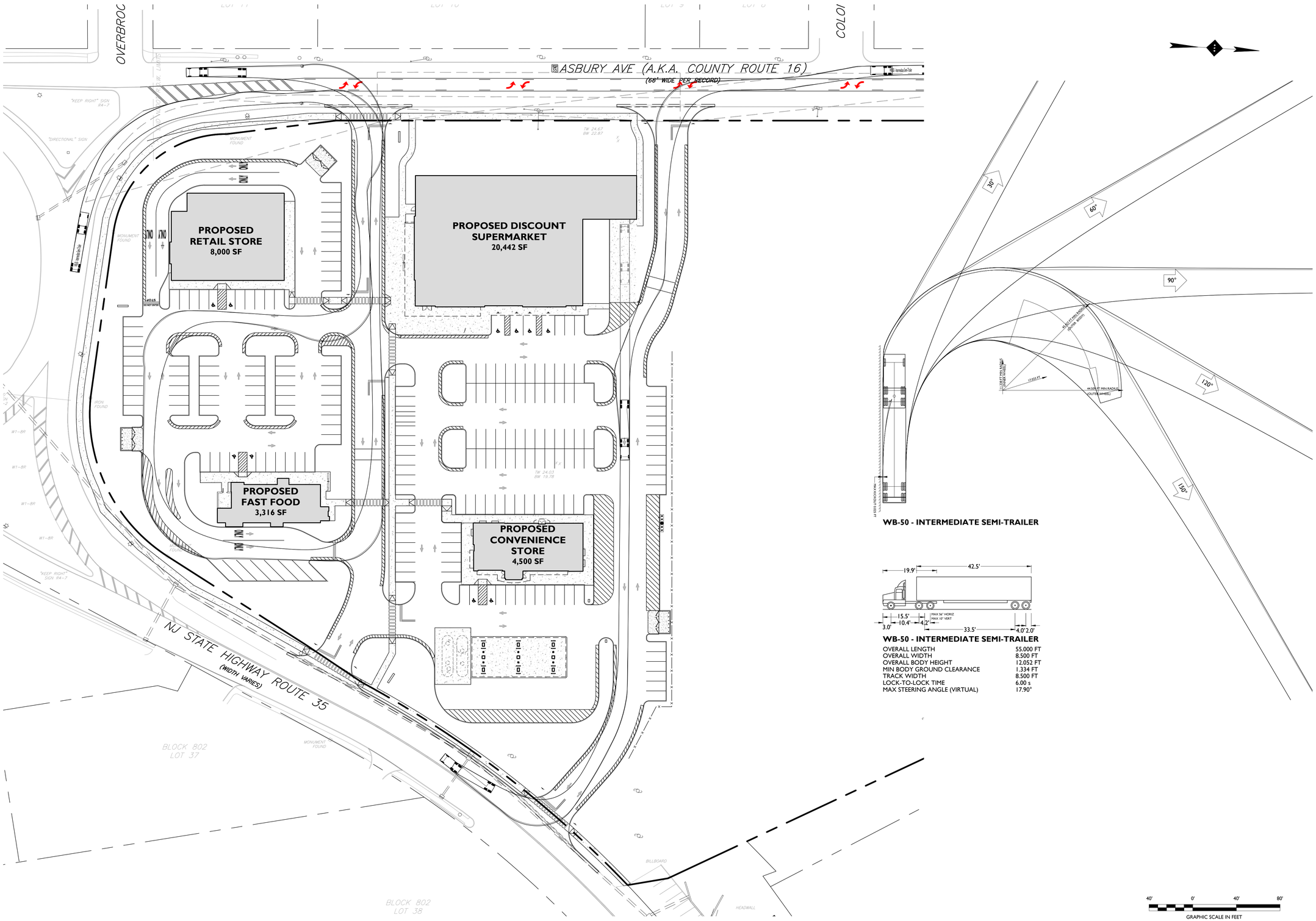
SCALE: 1" = 40' | PROJECT ID: PRI-200142

TITLE:

VEHICULAR CIRCULATION PLANS

DRAWING:

C-23



WB-50 (DELIVERY TRUCK)

ISSUE	DATE	BY	DESCRIPTION
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STONEFIELD engineering & design

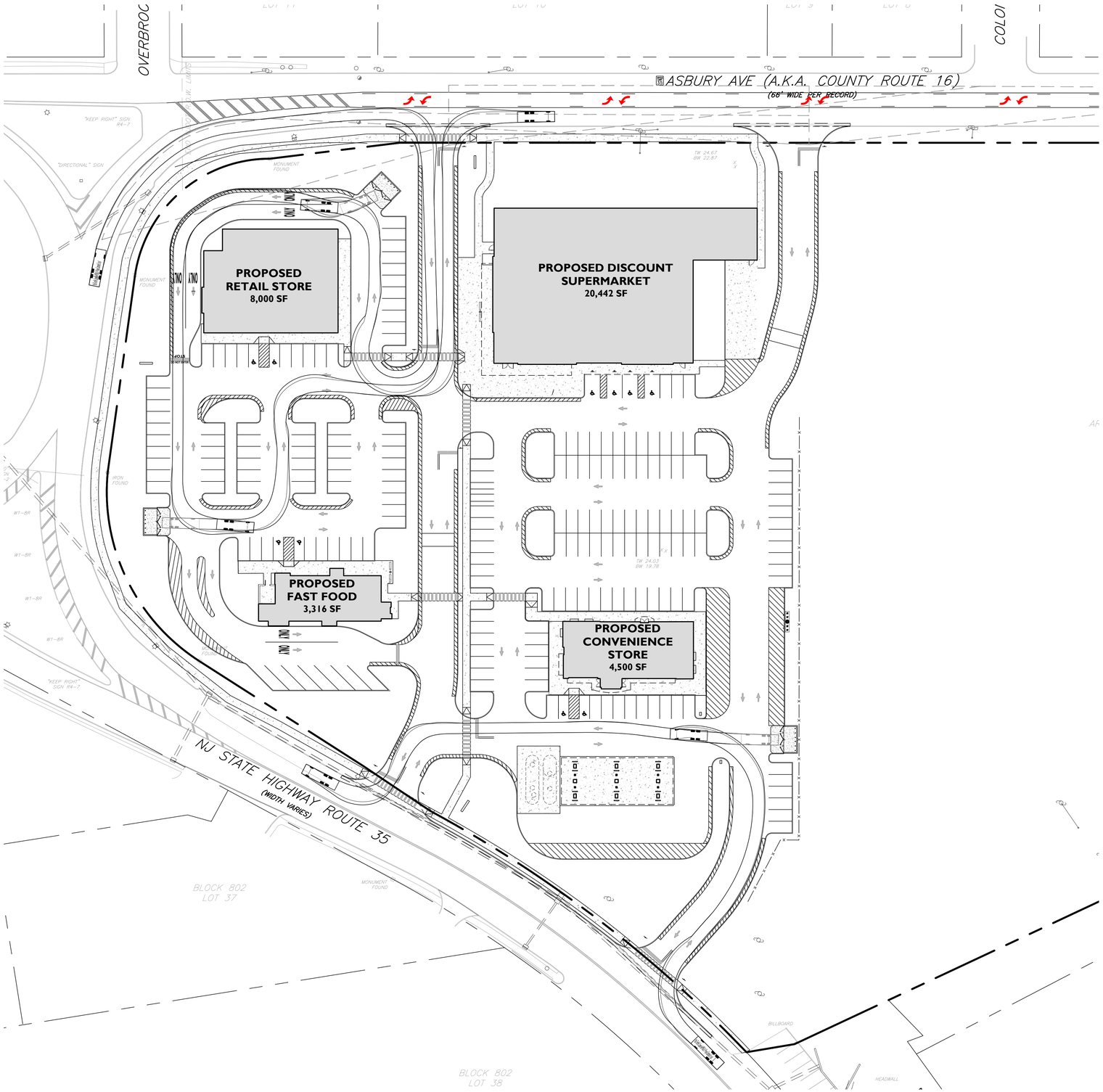
SCALE: 1" = 40' | PROJECT ID: PRI-200142

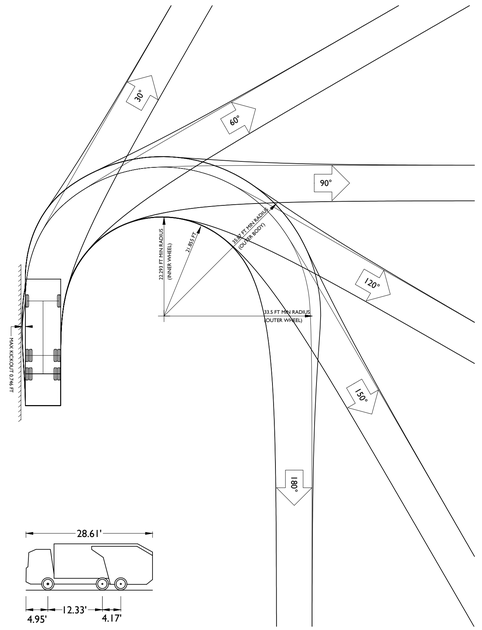
TITLE:

VEHICULAR CIRCULATION PLANS

DRAWING:

C-24





MACK TERRAPRO CABOVER REFUSE VEHICLE

OVERALL LENGTH	28.613 FT
OVERALL WIDTH	8.000 FT
OVERALL BODY HEIGHT	10.48 FT
MIN BODY GROUND CLEARANCE	1.311 FT
TRACK WIDTH	8.000 FT
LOCK-TO-LOCK TIME	6.00 s
CURB TO CURB TURNING RADIUS	33.500 FT

40' 0' 40' 80'
GRAPHIC SCALE IN FEET
1" = 40'

REFUSE VEHICLE

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
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5	04/22/2021	PC	REVISED PER MUNICIPAL COMMENTS
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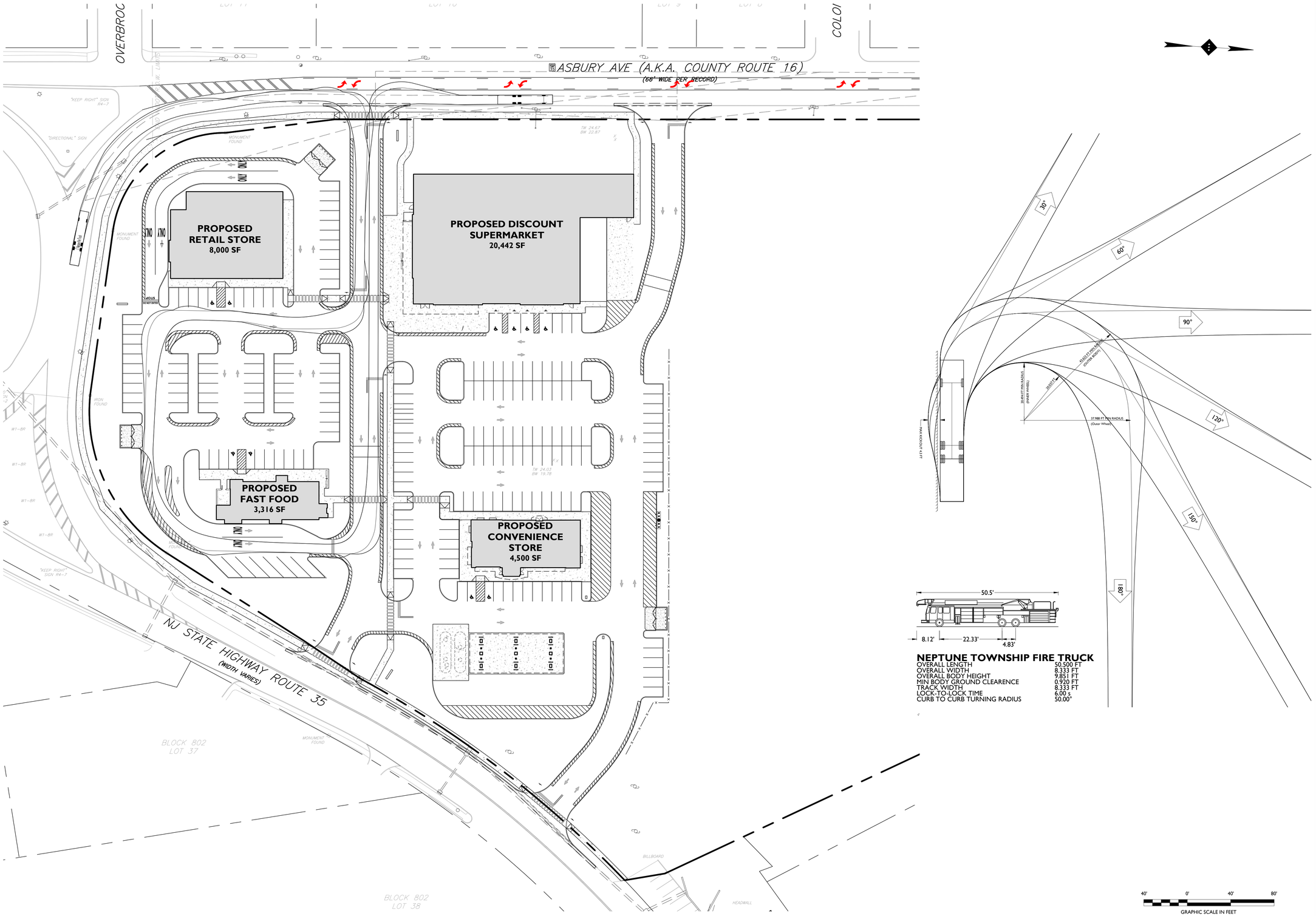
PROFESSIONAL ENGINEER
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No. 47290
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 40' | PROJECT ID: PRI-200142

TITLE:
VEHICULAR CIRCULATION PLANS

DRAWING:
C-25



NEPTUNE TOWNSHIP FIRE TRUCK

OVERALL LENGTH	50.500 FT
OVERALL WIDTH	8.333 FT
OVERALL BODY HEIGHT	9.851 FT
MIN BODY GROUND CLEARENCE	0.920 FT
TRACK WIDTH	8.333 FT
LOCK-TO-LOCK TIME	6.00 s
CURB TO CURB TURNING RADIUS	50.00'

NEPTUNE TOWNSHIP FIRE TRUCK

ISSUE	DATE	BY	DESCRIPTION
7	05/13/2021	PC	REVISED PER TOWNSHIP
6	05/10/2021	PC	REVISED PER NJDEP COMMENTS
5	04/22/2021	PC	REVISED PER MUNICIPAL COMMENTS
4	04/02/2021	PC	REVISED PER NJDEP COMMENTS
3	03/10/2021	AMB	TOWNSHIP SUBMISSION
2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com
15 Spring Street, Princeton, NJ 08542
Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLANS

M&M NEPTUNE, LLC

PROP IMPROVEMENTS

BLOCK 701, LOT 1 (TAX MAP SHEET 7)
704 N. ROUTE 35
TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY, NEW JERSEY

STATE OF NEW JERSEY
JEFFREY A. MARTELL
No. GE47290
PROFESSIONAL ENGINEER
LICENSED

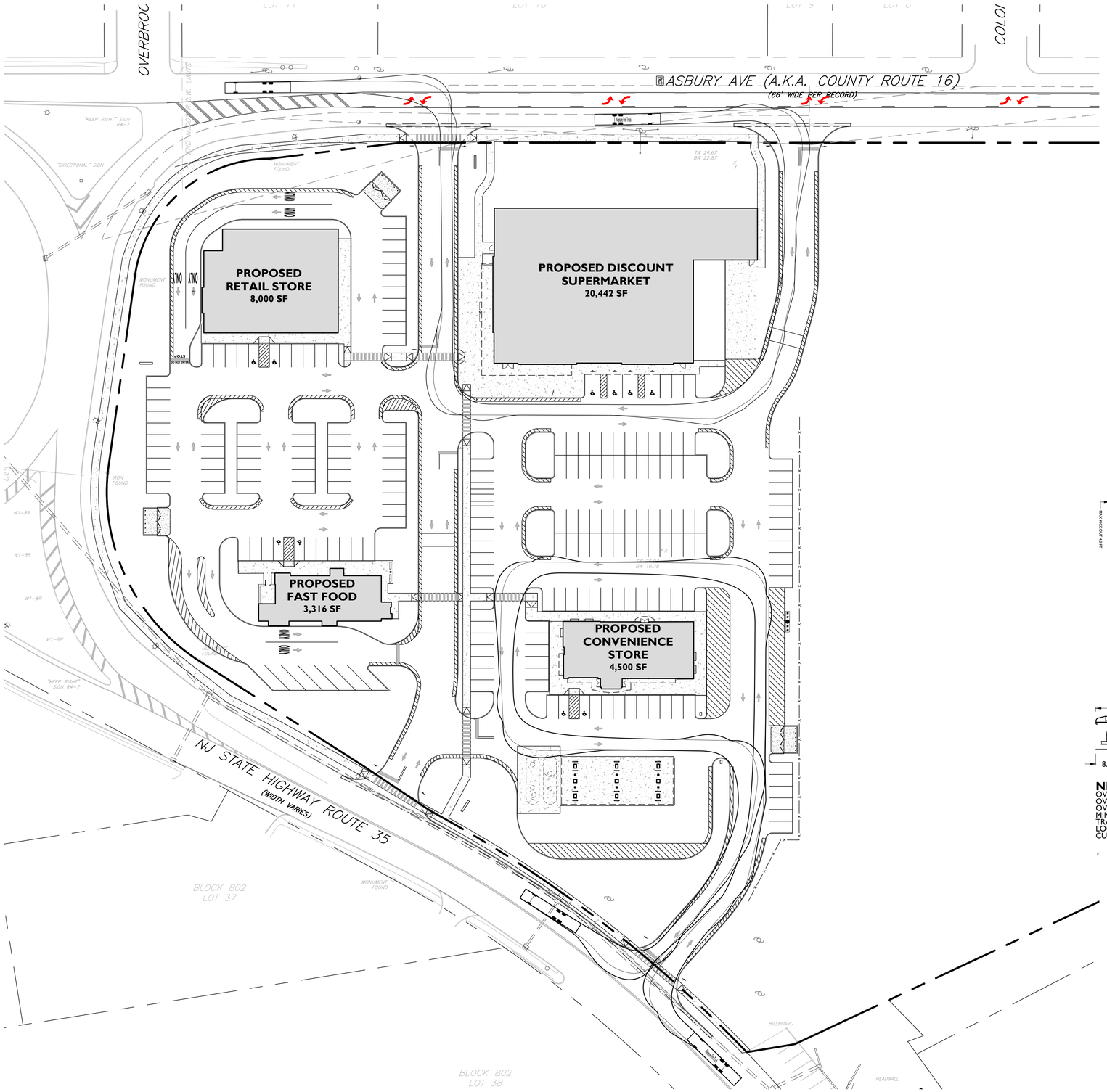
JEFFREY A. MARTELL, P.E.
NEW JERSEY LICENSE No: 47290
LICENSED PROFESSIONAL ENGINEER

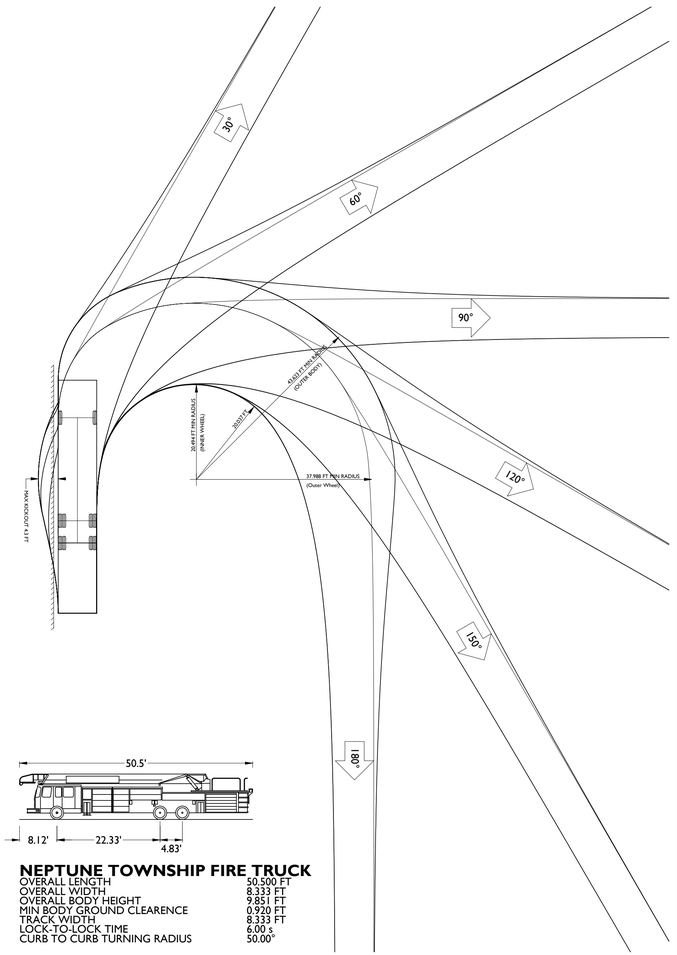
STONEFIELD engineering & design

SCALE: 1" = 40'
PROJECT ID: PRI-200142

TITLE:
VEHICULAR CIRCULATION PLANS

DRAWING:
C-26





NEPTUNE TOWNSHIP FIRE TRUCK

OVERALL LENGTH	50.500 FT
OVERALL WIDTH	8.333 FT
OVERALL BODY HEIGHT	9.851 FT
MIN BODY GROUND CLEARENCE	0.920 FT
TRACK WIDTH	8.333 FT
LOCK-TO-LOCK TIME	6.00 s
CURB TO CURB TURNING RADIUS	50.00'

40' 0' 40' 80'
GRAPHIC SCALE IN FEET
1" = 40'

NEPTUNE TOWNSHIP FIRE TRUCK

ISSUE	DATE	BY	DESCRIPTION
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2	01/27/2021	AMB	COUNTY SUBMISSION
1	12/29/20	PC	FIRST SUBMISSION

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LICENSED PROFESSIONAL ENGINEER

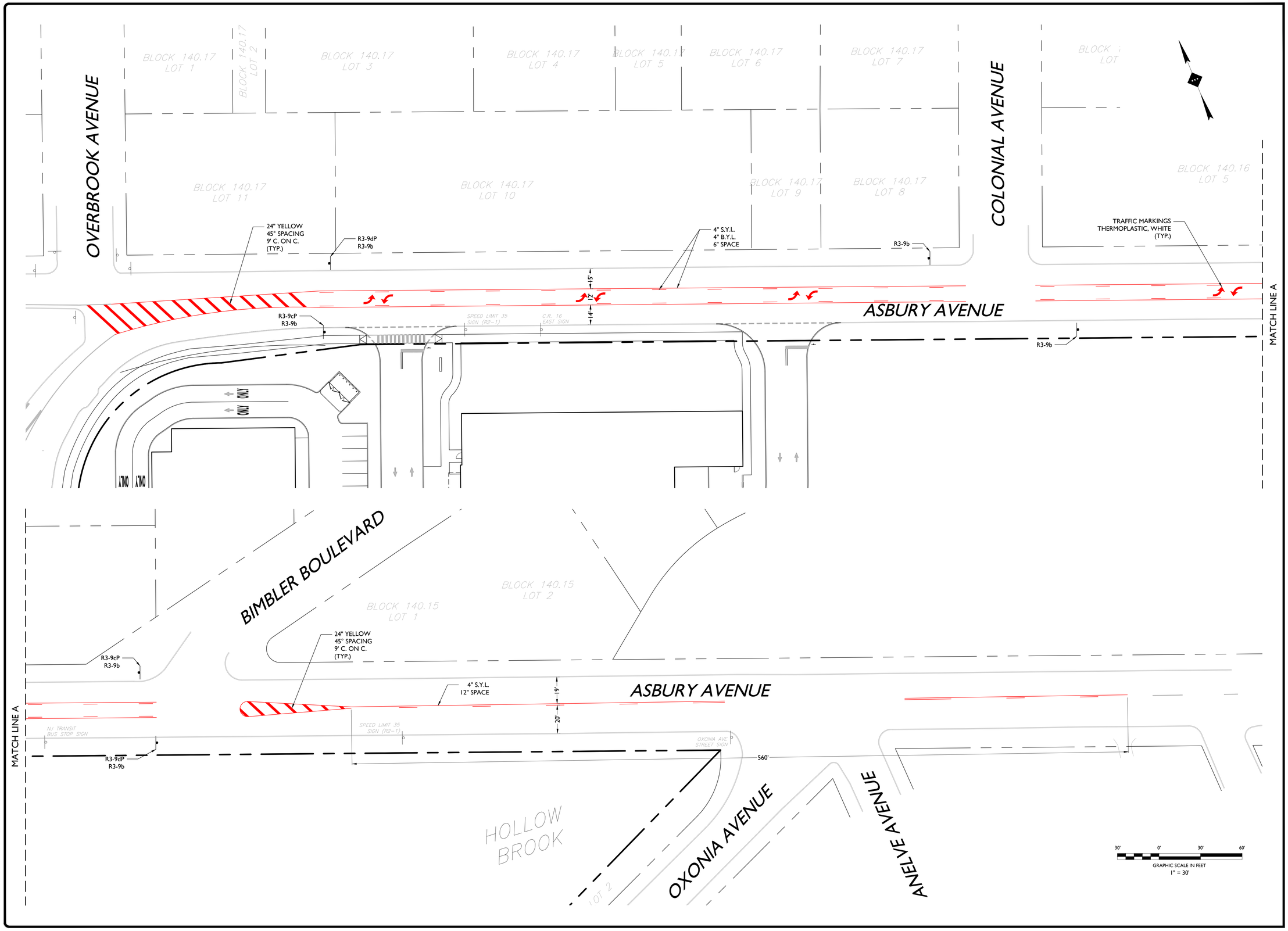
STONEFIELD engineering & design

SCALE: 1" = 40'
PROJECT ID: PRI-200142

TITLE:
VEHICULAR CIRCULATION PLANS

DRAWING:
C-27

\\LUST\DWFIELDENG.COM\MAIN\FILES\PRINCETON\PRI\200PRI-200142 EDGEWOOD PROPERTIES - 704 ROUTE 35, NEPTUNE, NJ\CADD\PLOT\LDP-20-24-TRUCK.DWG



ISSUE	DATE	BY	DESCRIPTION
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NEW JERSEY LICENSE No. 47290
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: PRI-200142

TITLE:

ROADWAY IMPROVEMENT PLAN

DRAWING:

C-28

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