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#### **TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS**

PROJECT:

RAM HOTELS, INC.

PROJECT NO.:

16-21

PROJECT LOCATION:

SECTION 97, BLOCK 2, LOT 37

**REVIEW DATE:** 

17 APRIL 2017

**MEETING DATE:** 

20 APRIL 2017

PROJECT REPRESENTATIVE: MECURIO-NORTON-TAROLLI-MARSHALL

- 1. Final location for fire hydrant should be coordinated with Town of Newburgh Code Enforcement Officer.
- 2. City of Newburgh Flow Acceptance Letter is outstanding and must be received prior to any approvals. Stormwater Facilities Control Maintenance Agreement should be executed prior to stamping of final plans. Final agreement regarding shared access to the two lot subdivision from the common access drive should be completed.

Respectfully submitted.

McGoey, Hauser and Edsall Consulting Engineers, D.P.C.

Patrick J. Hines Principal

PJH/kbw

45 Main Street · P.O. Box 166 Pine Bush, New York 12566

Tel: (845) 744-3620 Fax: (845) 744-3805 Email: mntm@mntm.co

### Mercurio-Norton-Tarolli-Marshall

William G. Norton, L.S. Alphonse Mercurio, L.S.

Lawrence J. Marshall, P.E. John Tarolli, P.E., L.S.

Zachary A. Peters, P.E. Kenneth W. Vriesema, L.S.

April 7, 2017

Planning Board Town of Newburgh 308 Gardnertown Road Newburgh, NY 12550 AFO 1 ~ 2017

Re: Job No. 4015

Lands of Newburgh Auto Park, LLC

Tax Map Parcel: 97-2-37 Town of Newburgh, Unity Place <u>Subdivision & Hotel Site Plan</u>

Town of Newburgh Project No. 2016-21

**Dear Board Members:** 

Enclosed please find the following items in reference to the above-captioned project:

- 1. Twelve (12) copies of the revised Site Plan
- 2. Twelve (12) copies of the lighting cut sheets

The plans have been revised as follows to address the Town of Newburgh Planning Board engineer's comments dated March 16, 2017:

- A water valve has been provided on the water line near the connection to the existing water main. If any additional valves are required or desired, please advise and we will add them to the site plan.
- 2. Sheets 3 and 4 have been relabeled as requested.
- A meeting with the Town of Newburgh Code Enforcement Officer has been unable to be scheduled. A hydrant has been added to the fire suppression line near the location where the water line enters the building. If this hydrant is required to be relocated, please advise.
- 4. To date, the City of Newburgh Flow Acceptance letter has not been received.
- 5. The proposed pavement cross sections have been revised to reflect only the pavements intended to be used on the site.

The applicant will prepare a standard stormwater control facilities maintenance agreement and submit it for review.

iprap stone with minimum 6 inch stone has been specified to be installed around the let to the bioretention basin. The stone will extend a minimum of 10 feet from the pipe let and will be a minimum of 14 inches thick.

bea gravel diaphragm has been shown on the plans at the edge of pavement. A detail vided on Sheet 7 of the plan set.



- 9. Landscaping has been added to the bioretention basin in accordance with NYSDEC requirements. The landscaping for the basin has been provided on Sheet 10.
- 10. The applicant intends to install a 4 foot high black vinyl coated chainlink fence around the detention pond. The fence location has been shown on the site plan.
- 11. The typical storm sewer trench detail has been revised to include language regarding pavement replacement in paved areas.
- 12. The shared access agreement is currently being drafted by the applicant's attorney and will be submitted for review as soon as it is complete.

The plans have been revised as follows to address the Town of Newburgh Planning Board traffic engineer's comments dated March 14, 2017:

- 1. No revisions/responses are required for this comment.
- 2. The sight distances for the proposed driveways have been added to Sheet 12 of the site
- 3. The existing striping on Unity Place has been specified to be revised to allow a two-way left turn lane. Sheet 12 of the site plan set has been added specifying the proposed
- 4. The applicant intends to include language in the shared access agreement that will allow Lot 2 to grade into Lot 1 for the purpose of constructing the connecting road.

The plans have been revised as follows to address the Town of Newburgh Planning Board

1. We met with Karen Arent on March 31, 2017 and reviewed the proposed landscaping. The landscape plan has been revised to reflect the desired changes.

Please place this project on the April 20, 2017 agenda for the scheduled Public Hearing.

If you have any questions or concerns, please feel free to contact me at (845) 744-3620 or by

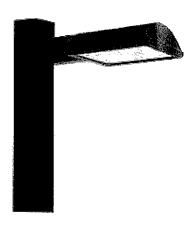
Sincerely,

Lawrence J. Marshall, P.E.

LM/lm

cc: Karen Arent Patrick Hines Michael Donnelly, Esq. Ken Wersted, PE





Specification grade area lights available in IES Type III distributions. For use for roadway, general parking and other area lighting applications where a larger pool of lighting is required. Mounts to 4" square steel poles at 20-35'. Patent pending thermal management system. 5 Year Warranty.

Color: Bronze

Weight: 32.0 lbs

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Driver Info		LED Info	
Type:	Constant Current	Watts:	50W
120V:	0.46A	Color Temp:	4000K
208V:	0.27A	Color Accuracy:	81 CRI
240V:	0,23A	L70 Lifespan:	100000
277V:	0.20A	Lumens:	4,216
Input Watts:	52W	Efficacy:	82 LPW
Efficiency:	97%		

#### **Technical Specifications**

#### Electrical

#### **Dimming Driver:**

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

#### Driver

Constant Current, Class 2, 1400mA, 100-277V, 50-60Hz, 0.8A, Power Factor 99%

#### THD

6.9% at 120V, 7.5% at 277V

#### **Surge Protection:**

6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2.

#### Listings

#### **UL Listing:**

Suitable for wet locations as a downlight.

#### IESNA LM-79 & IESNA LM-80 Testing:

RAB LED fixtures have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

#### Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

#### **DLC Listed**

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

DLC Product Code: PEU5MZUW

#### **LED Characteristics**

#### Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

#### LEDs:

Multi-chip, high-output, long-life LEDs

#### **Color Consistency:**

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

#### Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

#### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

#### Construction

#### IES Classification:

The Type III distribution is ideal for roadway, general parking and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

#### IP Rating:

Ingress Protection rating of IP66 for dust and water

#### **Ambient Temperature:**

Suitable for use in 40°C ambient temperatures.

#### **Cold Weather Starting:**

The minimum starting temperature is -40°C/-40°F

#### **Thermal Management:**

Superior thermal management design with external Air-Flow fins provides maximum operational life, even in high ambient temperature environments.

#### Effective Projected Area:

EPA = 0.75

#### Housina:

Die cast aluminum housing, lens frame and mounting

#### Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screws.

#### Reflector:

Specular vacuum-metallized polycarbonate

#### Gaskets:

High temperature silicone gaskets

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

#### Green Technology:

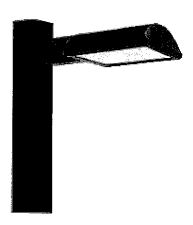
Mercury and UV free. RoHS compliant components, Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### California Title 24:

See ALED3T50/PC, ALED3T50/PCS or ALED3T50/PCT for a 2013 California Title 24 compliant model.





Specification grade area lights available in IES Type IV distributions. Suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. Mounts to 4" square steel poles at 20-35'. Patent pending management system. 5 Year Warranty.

Color: Bronze

Weight: 32.0 lbs

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-	Driver Info		LED Info	
į	Type:	Constant Current	Watts:	50W
	120V:	0.46A	Color Temp:	4000K
mi c dan	208V:	0.27A	Color Accuracy:	82 CRI
AD 10,000	240V:	0.23A	L70 Lifespan:	100000
-	277V:	0.20A	Lumens:	4,677
1	Input Watts:	52W	Efficacy:	90 LPW
1	Efficiency:	97%		

#### **Technical Specifications**

#### Electrical

#### **Dimming Driver:**

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

#### Driver:

Constant Current, Class 2, 1400mA, 100-277V, 50-60Hz, 0.8A, Power Factor 99%

#### THD:

6.9% at 120V, 7.9% at 277V

#### Surge Protection:

6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2.

#### Listings

#### **UL Listing:**

Suitable for wet locations as a downlight.

#### IESNA LM-79 & IESNA LM-80 Testing:

RAB LED fixtures have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

#### Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

#### DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.

DLC Product Code: PSQ1RHAG

#### LED Characteristics

#### Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

#### LEDs:

Multi-chip, high-output, long-life LEDs

#### Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

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#### Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

#### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015

#### Construction

#### **IES Classification:**

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semiCircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

#### Effective Projected Area:

EPA = 0.75

#### IP Rating:

Ingress Protection rating of IP66 for dust and water

#### **Ambient Temperature:**

Suitable for use in 40°C ambient temperatures.

#### **Cold Weather Starting:**

The minimum starting temperature is -40°C/-40°F

#### Thermal Management:

Superior thermal management design with external Air-Flow fins provides maximum operational life, even in high ambient temperature environments.

#### Housing:

Die cast aluminum housing, lens frame and mounting

#### Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screws.

#### Reflector:

Specular vacuum-metallized polycarbonate

#### Gaskets:

High temperature silicone gaskets

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

#### **Green Technology:**

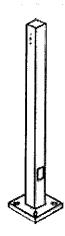
Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### California Title 24:

See ALED4T50/PC, ALED3T50/PCS or ALED3T50/PCT for a 2013 California Title 24 compliant model.





Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 137.0 lbs

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Lamp Info		Ballast Info	
Type:	N/A	Type:	N/A
Watts:	OW	120V:	N/A
Shape/Size:	N/A	208V:	N/A
Base:	N/A	240V:	N/A
ANSI:	N/A	277V:	N/A
Hours:	N/A	Input Watts:	ow
Lamp Lumens:	N/A		
Efficacy:	N/A		

#### **Technical Specifications**

#### Listings

#### **CSA Listed:**

Suitable for wet locations.

#### Construction

#### Shaft:

46,000 p.s.i, minimum yield,

#### Hand Holes:

Reinforced with grounding lug and removable cover.

#### Base Plates:

Slotted base plates 36,000 p.s.i.

#### Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage.

#### Color:

Bronze powder coating.

#### Height:

20 FT.

#### Weight:

137 lbs.

#### Gauge:

11

#### Wall Thickness:

1/8".

#### Shaft Size:

4".

#### **Hand Hole Dimensions:**

3" x 5".

#### **Bolt Circle:**

8 1/2".

#### Base Dimension:

8".

#### **Anchor Bolt:**

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

#### Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available.

#### Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge.

#### MaxEPA's/Max Weights:

70MPH 8.3 ft\_/240 lb 80MPH 5.6 ft\_/165 lb

90MPH 3.6 ft\_/110 lb

100MPH 2.2 ft\_/75 lb

110MPH 1.0 ft\_/45 lb

120MPH 0.2 ft\_/20 lb.

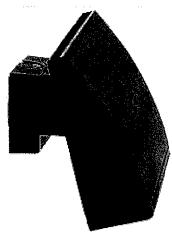
#### Other

#### Terms of Sale:

Pole Terms of Sale is available.

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LED 52W Wallpacks. 3 cutoff options. Patent Pending thermal management system. 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze

Weight: 17.6 lbs

Project:	Type:	
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COCCUSATION COLUMN	Driver Info		LED Info		
X::W::X:	Type:	Constant Current	Watts:	52W	
10/15	120V:	0.52A	Color Temp:	4000K	
i	208V:	0.37A	Color Accuracy:	82 CRI	
	240V:	0.32A	L70 Lifespan:	100000	
-	277V;	0.28A	Lumens:	4,584	
MATTER.	Input Watts:	60W	Efficacy:	76 LPW	
www.hees.h	Efficiency:	87%	·		

#### **Technical Specifications**

#### Electrical

#### **Dimming Driver:**

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

#### Driver

Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

#### THD:

4.4% at 120V, 13.2% at 277V

#### **Surge Protection:**

6kV

#### Listings

#### **UL Listing:**

Suitable for wet locations.

#### IESNA LM-79 & LM-52 Testing:

RAB LED Luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-52, and have received the Department of Energy "Lighting Facts" label.

#### **LED Characteristics**

#### LEDs:

Two (2) multi-chip, high-output, long-life LEDs.

#### Lifespan:

100,000-hour LED lifespan based on IES LM-52 results and TM-21 calculations.

#### Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

#### Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

#### **Color Uniformity:**

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377.2011.

#### Construction

#### Cold Weather Starting:

Minimum starting temperature is -40°F / -40°C

#### **Maximum Ambient Temperature:**

Suitable for use in 104°F (40°C) ambient temperatures

#### Thermal Management:

Superior thermal management with external Air-Flow fins.

#### Housing:

Precision die cast aluminum housing, lens frame.

#### Mounting:

Die-cast aluminum wall bracket with (5) 1/2" conduit openings with plugs. Two-piece bracket with tether for ease of installation and wiring.

#### Arm:

Die-cast aluminum with wiring access plate.

#### Lens:

Tempered glass.

#### Reflector:

Specular vacuum metallized polycarbonate.

#### Gaskets:

High-temperature silicone gaskets, including a wiring plug gasket, seal out moisture.

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

#### Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### California Title 24:

See WPLED52/BL for a 2013 California Title 24 compliant product. Any additional component requirements will be listed in the Title 24 section under technical specifications on the product page.

#### Patents:

The WPLED design is protected by patents in the U.S. Pat D653,377, Canada Pat. 142252, China Pat. ZL201130356930.8, and Mexico Pat. 36921 and pending patent in TW.

#### Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

#### **Buy American Act Compliant:**

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.





12, 18 and 26 Watt SLIM wallpacks are ultra efficient and deliver impressive light distribution with a compact low-profile design that's super easy to install as a downlight or uplight.

Color: Bronze

Weight: 4.5 lbs

Project:	Туре:
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Prepared By:	Date:

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	Driver Info		LED Info	
	Туре:	Constant Current	Watts:	12W
	120V:	0.12A	Color Temp:	4000K
	208V:	0.08A	Color Accuracy:	82 CRI
-	240V:	0.07A	L70 Lifespan:	100000
	277V:	0.06A	Lumens:	1,399
	Input Watts:	13W	Efficacy:	104 LPW
	Efficiency:	89%		
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#### **Technical Specifications**

#### Electrical

#### **Dimming Driver:**

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 5%.

#### Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz., 4KV surge protection, 350mA, 100-240VAC 0.3-0.15 Amps, 277VAC 0.15Amps, Power Factor 99%.

#### THD:

10.1% at 120V

#### Listings

#### **UL Listing:**

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

#### **ADA Compliant:**

SLIM™ is ADA Compliant.

#### Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

#### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

#### Construction

#### IP Rating:

Ingress Protection rating of IP66 for dust and water

#### **Cold Weather Starting:**

The minimum starting temperature is -40°C/-40°F

#### **Maximum Ambient Temperature:**

Suitable for use in 104°F (40°C) ambient temperatures

#### **Thermal Management:**

Superior heat sinking with internal Air-Flow fins.

#### Housing:

Precision die-cast aluminum housing.

#### Mounting:

Heavy-duty mounting bracket with hinged housing for easy installation.

#### **Recommended Mounting Height:**

Up to 8 ft.

#### Lens:

Tempered glass lens.

#### Reflector:

Specular thermoplastic,

#### Gaskets:

High-temperature silicone

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

#### Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### **LED Characteristics**

#### LED:

Multi-chip, long-life LED.

#### Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

#### Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

#### Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

#### **Color Uniformity:**

RAB's range of CCT (Correlated Color Temperature) follows the guidelines for the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

#### Other

#### California Title 24:

SLIM12 complies with 2013 California Title 24 building and electrical codes as a residential outdoor fixture. See SLIM12/PC for a model that complies as a commercial outdoor non-pole-mounted fixture\_\_≤\_30 Watts.

#### Patents:

The design of the SLIM™ is protected by patents in U.S. Pat D681,864, and pending patents in Canada, China, Taiwan and Mexico.





LED bollard with architectural quality and strength at an affordable price point. Square post and head. Available in 12, 18 and 24 Watt versions that provide 90, 180, 270 and 360 degree lighting patterns.

Color: Bronze

Weight: 21.8 lbs

Project:	Туре:
Prepared By:	Date:
**************************************	NSAP

Driver Info		LED Info	
Туре:	Constant Current	Watts:	12W
120V:	0.13A	Color Temp:	4000K
208V:	0.09A	Color Accuracy:	83 CRI
240V:	A80.0	L70 Lifespan:	100000
277V:	0.07A	Lumens:	600
Input Watts:	15W	Efficacy:	39 LPW
Efficiency:	79%		

#### **Technical Specifications**

#### Listings

#### **UL Listing:**

Suitable for wet locations.

#### IESNA LM-79 & IESNA LM-80 Testing:

RAB LED fixtures have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

#### **LED Characteristics**

#### LEDs:

6W multi-chip, long-life LEDs

#### Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

#### Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

#### Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

#### **Color Uniformity:**

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015

#### Electrical

#### Driver:

Constant Current, Class2, 100-277V, 50/60 Hz, 4kV Surge Protection, 100-240VAC 0.3-0.15 A, 277VAC 0.3 A.

#### THD:

11% at 120V

#### **Dimming Driver:**

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

#### Construction

#### **Ambient Temperature:**

Suitable for use in 40°C (104°F) ambient temperatures

#### **Cold Weather Starting:**

Minimum starting temperature is -40°F/-40°C

#### **Thermal Management:**

Cast aluminum Thermal Management system for optimal heat sinking. The BLED is designed for cool operation, maximum efficiency and long life by minimizing LED junction temperature.

#### Housing:

Die-cast aluminum with extruded aluminum bollard shaft

#### Lens:

Clear, vandal-resistant polycarbonate

#### Mounting:

Four (4) anchor bolts provided for concrete pad mounting. Internal base support has leveling screws.

#### Reflector:

Specular polycarbonate

#### Gaskets:

High-temperature silicone gaskets seal out moisture gaskets seal out moisture

#### Gaskets:

High-temperature silicone gaskets seal out moisture

#### **Anchor Bolt:**

Anchor Bolt Dimension is available.

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

#### Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### California Title 24:

BLED12 complies with 2013 California Title 24 building and electrical codes as a commercial outdoor non-pole-mounted fixture < 30 Watts when used with a photosensor control. Select catalog number PCS900(120V) or PCS900/277 to order a photosensor.

#### Patents:

The design of BLED is protected by patents pending in US, Canada, China, Taiwan and Mexico.

#### Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

#### Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

#### HNLED18NA/D10





Bullet shape die cast aluminum flood with 18 Watt LED Light Engine, Comes with narrow spotlight reflector installed.

Color: Bronze

Weight: 4.6 lbs

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Tuna:

Driver Info		LED Info	
Type:	Constant Current	Watts:	18W
120V:	0.17A	Color Temp:	4000K
208V:	0.11A	Color Accuracy:	81 CRI
240V:	0.10A	L70 Lifespan:	100000
277V:	0.09A	Lumens:	1,513
Input Watts:	20W	Efficacy:	76 LPW
Efficiency:	91%		

#### **Technical Specifications**

#### Listings

#### **UL Listing:**

Suitable for wet locations. Suitable for ground mounting.

#### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

#### Electrical

#### Driver:

Constant Current, 500mA, Class 2 120-277V with 4kV surge protection, 120V: 0.17A, 208V: 0.11A, 240V: 0.10A, 277V: 0.09A, 50/60Hz THD < 20%, Power Factor: 99%

#### THD:

9.8% at 120V

#### Dimming Driver:

Driver includes dimming control for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%

#### Optical

#### **NEMA Type:**

2H x 2V Beam Spread.

#### **LED Characteristics**

#### LEDs:

Multi-chip, high-output, long-life LEDs

#### Color Stability:

RAB LEDs exceed industry standards for chromatic stability.

#### Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Project

#### Construction

#### **Cold Weather Starting:**

The minimum starting temperature is -40°F (-40°C)

#### **Thermal Management:**

Superior heat sinking with external Air-Flow fins

#### Housing:

Precision die-cast aluminum housing, lens frame and mounting arm

#### Reflector:

Semi-specular, vacuum-metalized polycarbonate

#### Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screws.

#### Gaskets:

High-temperature silicone gaskets

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

#### **Green Technology:**

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### California Title 24:

HNLED18 comply with 2013 California Title 24 building and electrical codes as a commercial outdoor non-pole-mounted fixture ≤ 30 Watts when used with a photosensor control. Select catalog number PCS900 (120V) or PCS1900/277 (277V) to order a photosensor.

#### Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

#### **Buy American Act Compliant:**

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act

#### Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods— Buy American Act— Construction Materials (October 2010).

#### GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.





Same small package. Bigger output. Replaces 50W MR16 Floodlight.

Color: Bronze

Weight: 1.5 lbs

Project:	Туре:
nda 894 - Adam Burdin - Charles da Charles and Charles	e todani.
Prepared By:	Date:
. ZIBB	organization for the control of the

Driver Info		LED Into	
Type:	Constant Current	Watts:	8W
120V:	0.14	Color Temp:	4000K
208V:	0.09	Color Accuracy:	82 CRI
240V:	0.08	L70 Lifespan:	N/A
277V:	N/A	Lumens:	469
Input Watts:	7W	Efficacy:	66 LPW
Efficiency:	N/A		

#### **Technical Specifications**

#### Listings

#### **UL Listing:**

Suitable for wet locations. Suitable for ground mounting.

#### IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

#### **LED Characteristics**

#### LED:

High-output, long-life LED

#### **Color Consistency:**

4-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

#### Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

#### **Color Uniformity:**

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2015.

#### Electrical

#### Driver:

Constant Current, Class 2, 50/60 Hz, 100-240VAC: 0.20Amps

#### Optical

#### Spot Lens:

Optional spot lens enables a tool-less conversion to a NEMA Type 3H  $\times$  3V. Great for accent lighting or grazing buildings for an artistic touch.

#### Narrow Spot Lens:

Optional narrow spot lens enables a tool-less conversion to a NEMA Type 3H x 3V. Great for accent lighting or grazing buildings for an artistic touch.

#### Construction

#### **Cold Weather Starting:**

Minimum starting temperature is -40°F/-40°C.

#### **Ambient Temperature:**

Suitable for 40°C (104°F) ambient temperatures

#### Thermal Management:

Optimized using computational fluid dynamics software to ensure long LED and driver lifespan

#### Housing:

Precision die-cast aluminum, lens frame and mounting

#### Lens:

Microprismatic diffuser produces a smooth distribution and low glare.

#### Gaskets:

High temperature silicone

#### Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals

#### Green Technology:

Mercury and UV free, RoHS compliant components, Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

#### California Title 24:

LFLED8 complies with 2013 California Title 24 building and electrical codes as a commercial outdoor non-pole-mounted fixture < 30 Watts when used with a photosensor control. Select catalog number PCS900(120V) or PCS900/277 to order a photosensor.

#### Patents:

The design of the LFLED is protected by Taiwan Patent 01510966 and pending patents in US, Canada, China, and Mexico.

#### Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

#### **Buy American Act Compliant:**

This product is a COTS item manufactured in the United States, and is compliant with the Buy American

#### Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods—Buy American Act-- Construction Materials (October 2010).

#### GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

#### Equivalency:

Equivalent to 50W MR16.





Bullet shape die cast aluminum flood with 18 Watt LED Light Engine. Comes with flood reflector installed.

Color: Bronze

Weight: 4.8 lbs

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Driver Info		LED Info	
Туре:	Constant Current	Watts:	18W
120V:	0.17A	Color Temp:	4000K
208V:	0.11A	Color Accuracy:	82 CRI
240V:	0.10A	L70 Lifespan:	100000
277V:	0.09A	Lumens:	1,733
input Watts:	20W	Efficacy:	88 LPW
Efficiency:	91%		

#### **Technical Specifications**

#### Listings

#### **UL Listing:**

Suitable for wet locations. Suitable for ground mounting.

#### IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

#### Electrical

#### Driver:

Constant Current, 500mA, Class 2 120-277V with 4kV surge protection, 120V: 0.17A, 208V: 0.11A, 240V: 0.10A, 277V: 0.09A, 50/60Hz THD < 20%, Power Factor: 99.4%

#### THD:

9.9% at 120V

#### **Dimming Driver:**

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

#### Optical

#### **NEMA Type:**

NEMA Beam Spread of 5H x 5V

#### **LED Characteristics**

#### LEDs:

Multi-chip, high-output, long-life LEDs

#### Color Stability:

RAB LEDs exceed industry standards for chromatic stability.

Project:

#### **Color Uniformity:**

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

#### Construction

#### Cold Weather Starting:

Minimum starting temperature is -40° F (-40° C)

#### Thermal Management:

Superior heat sinking with external Air-Flow fins

#### Housing:

Precision die-cast aluminum housing, lens frame and mounting arm

#### Reflector

Semi-specular, vacuum-metalized polycarbonate

#### Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screws.

#### Gaskets:

High-temperature silicone gaskets

#### Finish

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

#### Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Other

#### Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

#### **Buy American Act Compliant:**

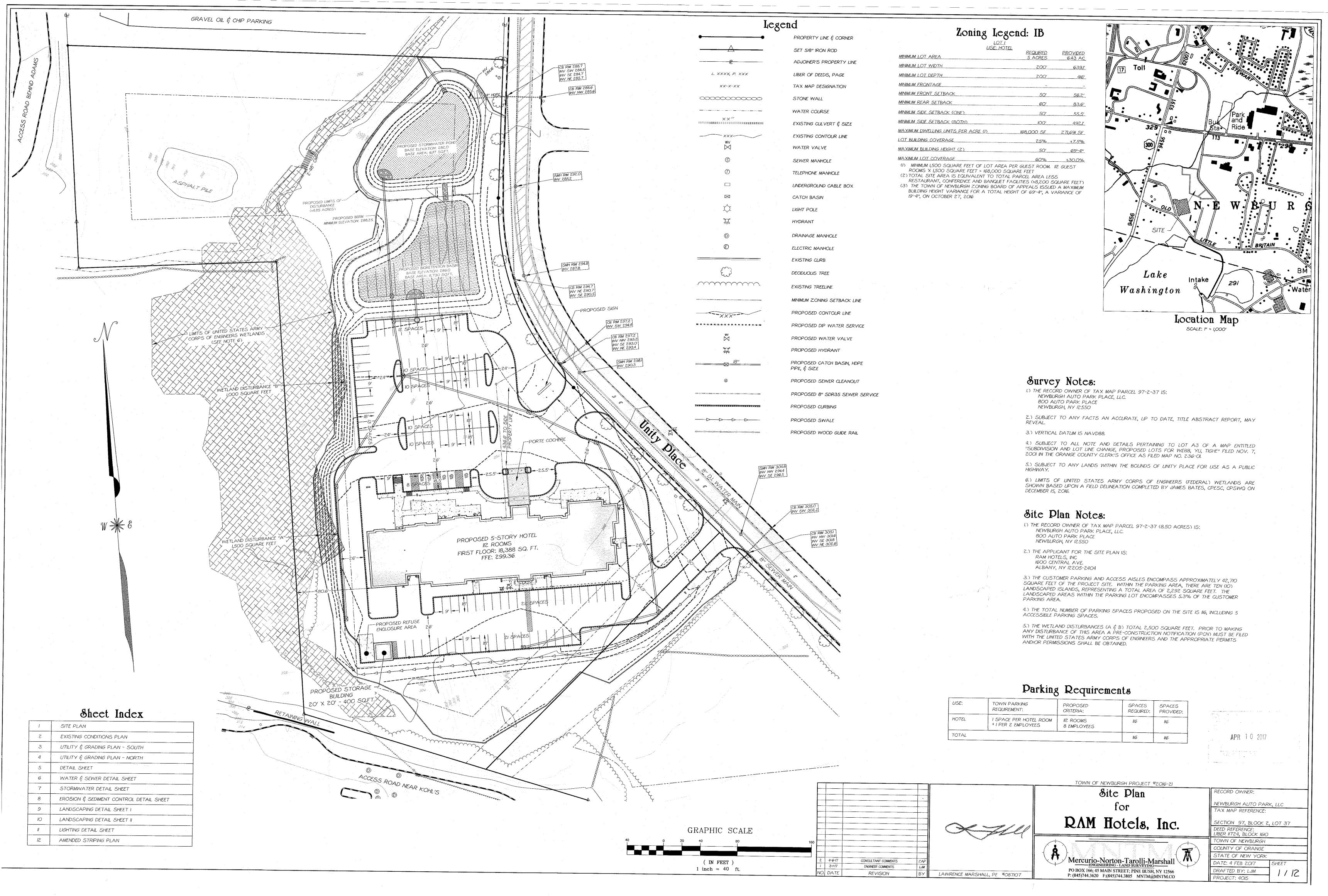
This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act

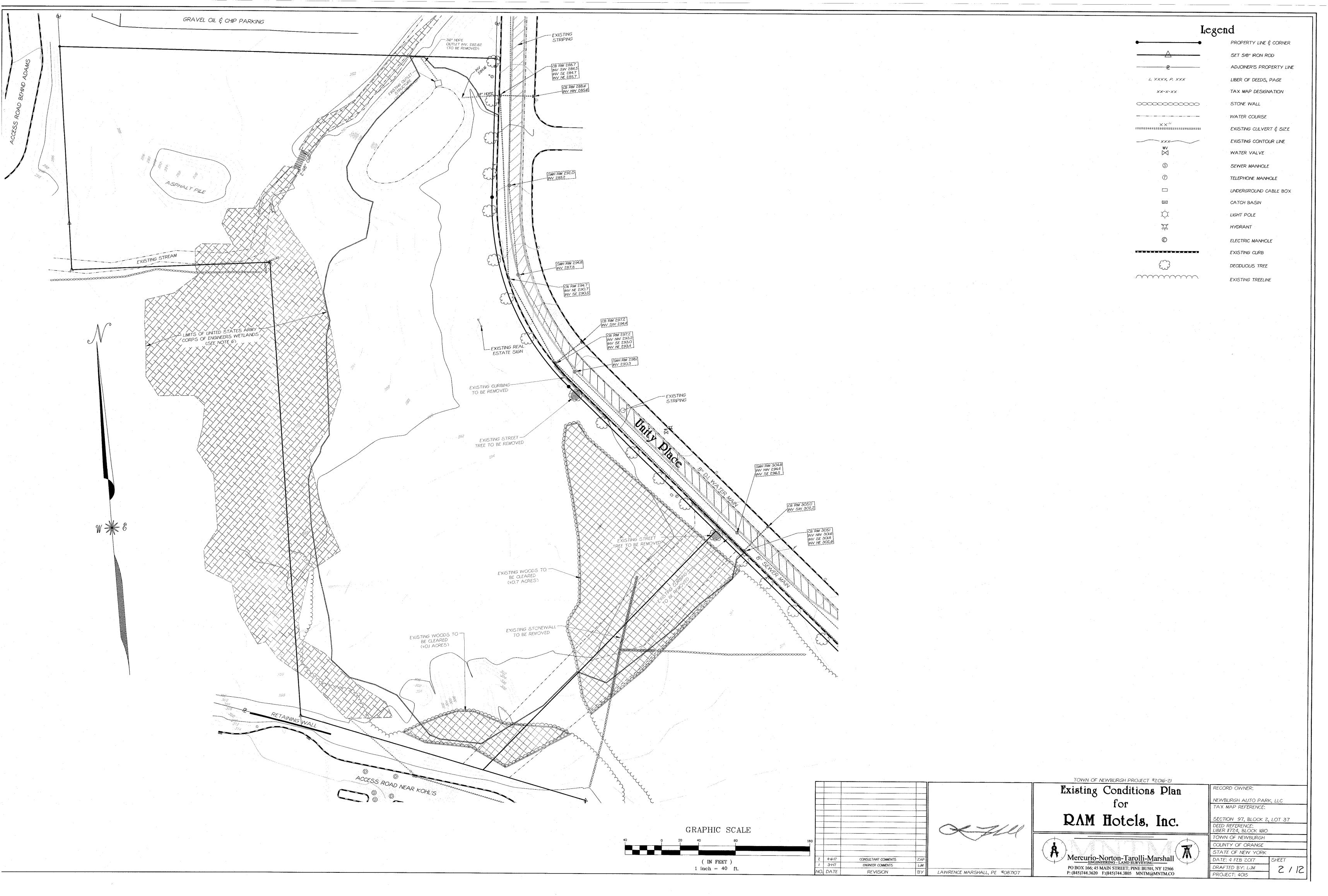
#### Recovery Act (ARRA) Compliant:

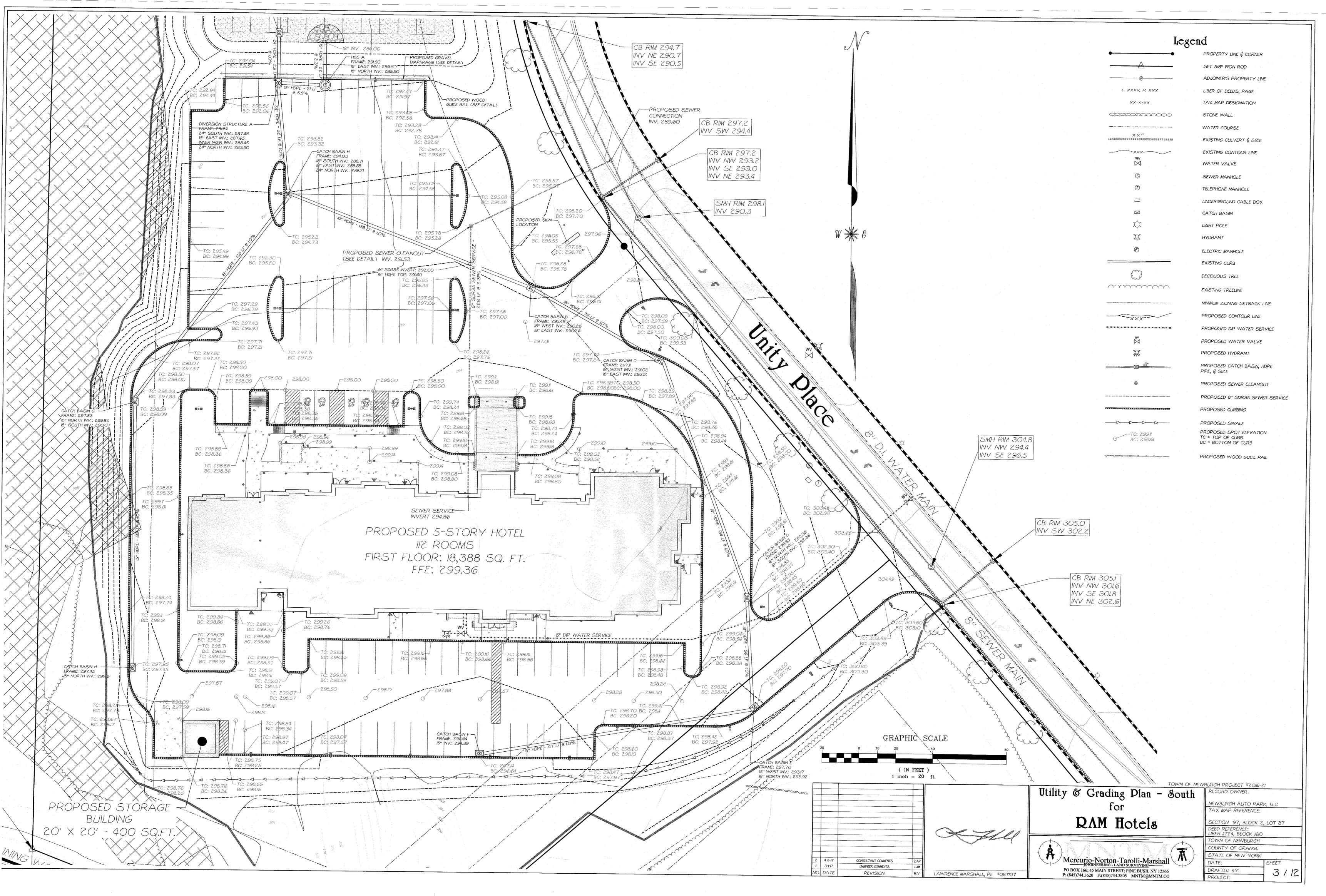
This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

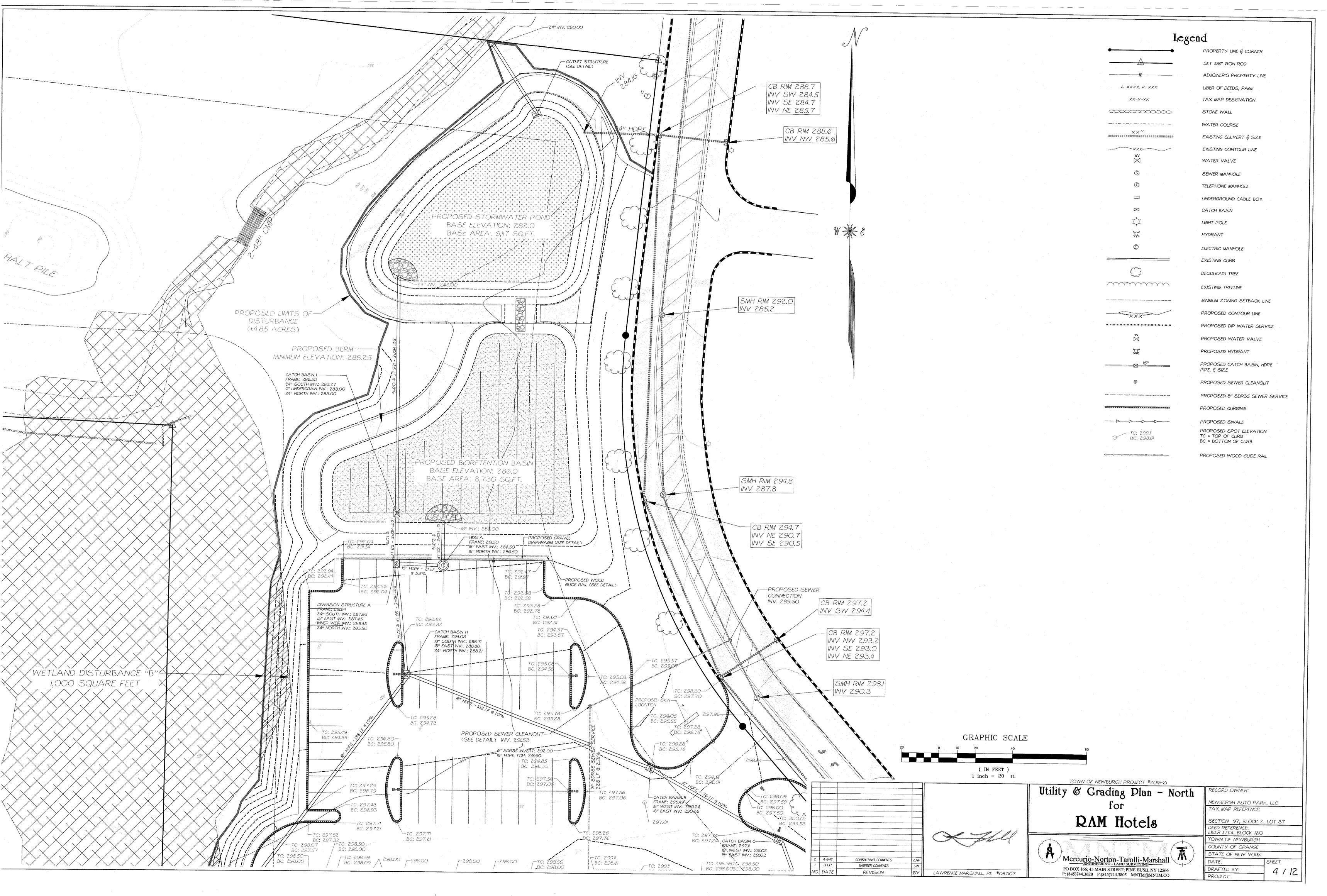
#### GSA Schedule:

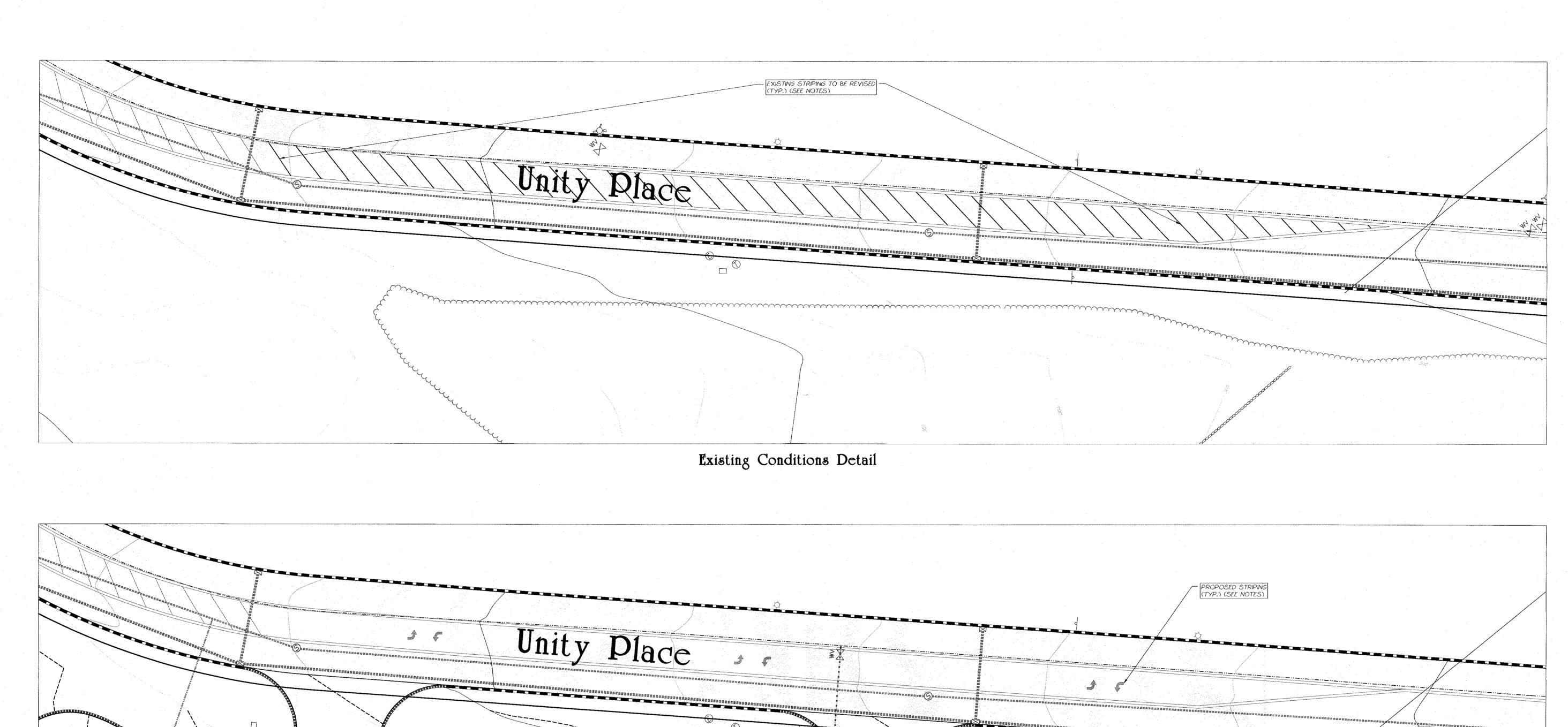
Suitable in accordance with FAR Subpart 25.4.

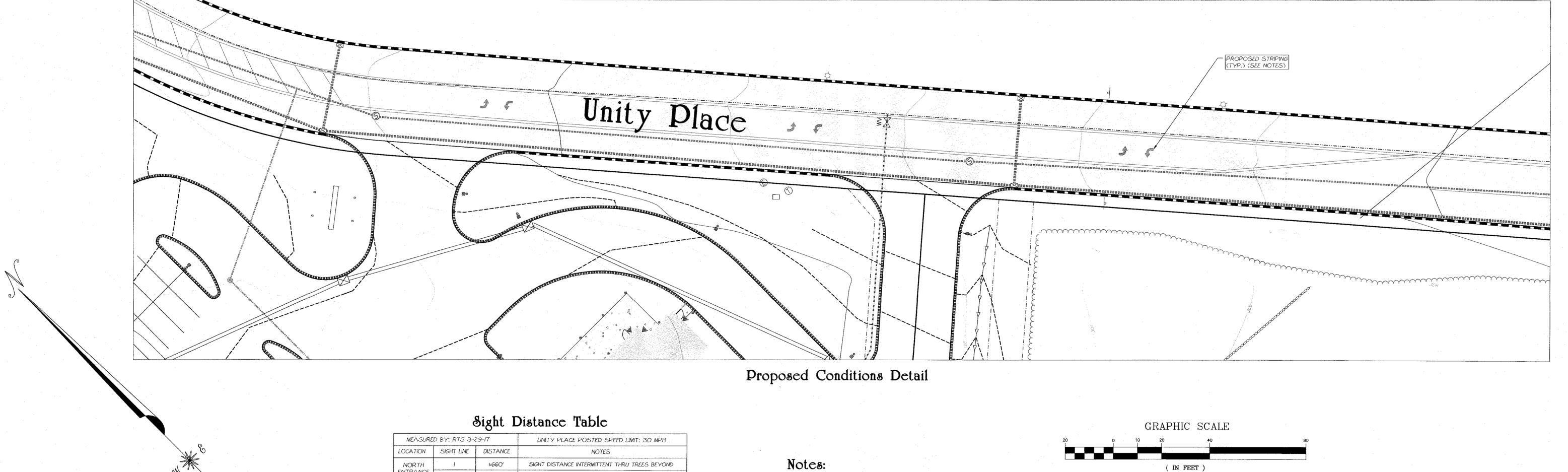










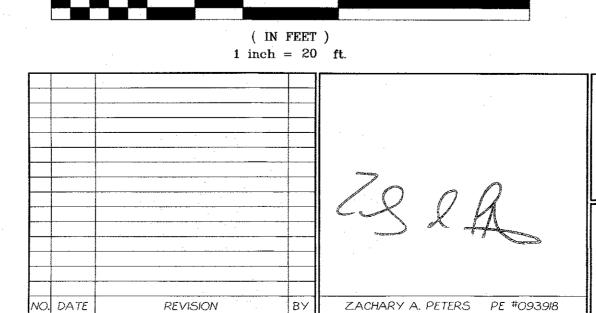


LOCATION	SIGHT LINE	DISTANCE	NOTES
NORTH	. 1	±660'	SIGHT DISTANCE INTERMITTENT THRU TREES BEYOND
ENTRANCE	2	±800′	SIGHT DISTANCE INTERMITTENT THRU TREES BEYOND
SOUTH	1	±475′	SIGHT DISTANCE INTERMITTENT THRU TREES BEYOND
ENTRANCE	2	±600'	SIGHT DISTANCE INTERMITTENT THRU TREES BEYOND

SOUTHWESTERLY DIRECTION

I.) EXISTING STRIPING TO BE REMOVED SHALL BE REMOVED IN ACCORDANCE WITH TOWN OF NEWBURGH HIGHWAY SUPERINTENDENT SPECIFICATIONS.

2.) PROPOSED STRIPING TO BE PAINTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH ROAD SPECIFICATIONS.



TOWN OF NEWBURGH PROJECT #2016-21 Amended Striping Plan for

**RAM** Hotels

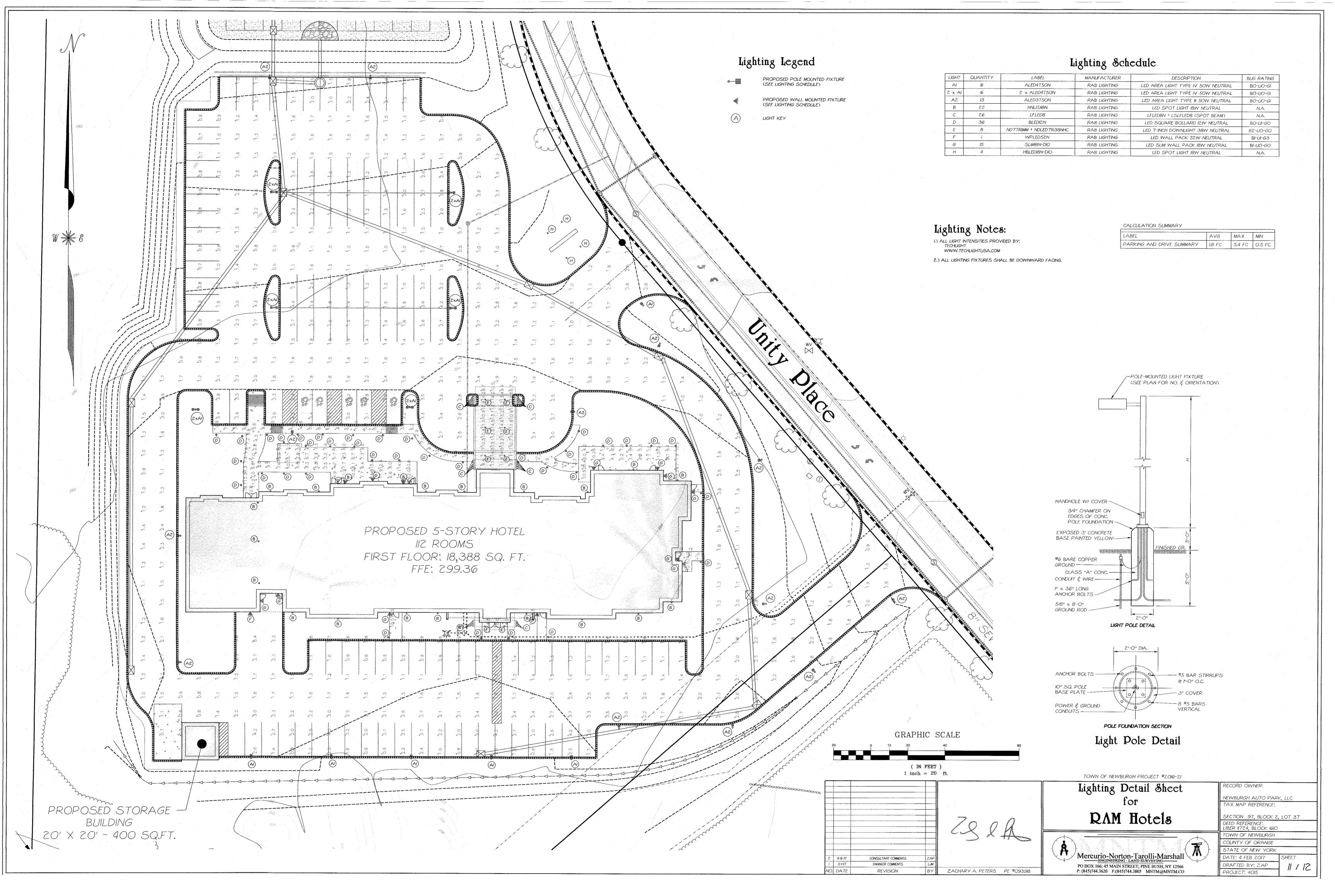
Mercurio-Norton-Tarolli-Marshall

Mercurio-Norton-Tarolli-Marshall

AS MAIN STREET; PINE BUSH, NY 12566 PO BOX 166; 45 MAIN STREET; PINE BUSH, NY 12566 P: (845)744.3620 F:(845)744.3805 MNTM@MNTM.CO

RECORD OWNER: NEWBURGH AUTO PARK, LLC TAX MAP REFERENCE: SECTION 97, BLOCK 2, LOT 37 DEED REFERENCE: LIBER 11724, BLOCK 1610 TOWN OF NEWBURGH COUNTY OF ORANGE STATE OF NEW YORK

DATE: 4 FEB 2017 DRAFTED BY: ZAP PROJECT: 4015



- PROPOSED CHAIN LINK FENCE (SEE DETAIL)

Stormwater Planting Table

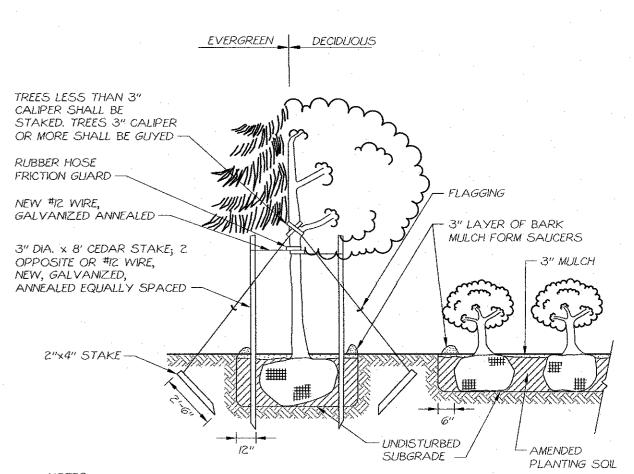
KEY	COMMON NAME	BOTANICAL NAME	QUANTITY	TYPE	HARIDNESS ZONE	PLANTING SIZE	MATURE SIZE
Ac	SHADBLOW SERVICEBERRY	AMELANCIER CANADENSIS	19	DECIDUOUS SHRUBS	3 - 7	8' - 10' HGT.	20' - 30'
Vd	ARROWWOOD VIBURNUM	VIBURNUM DENTATUM	18	DECIDUOUS SHRUBS	3 - 8	24" - 30"	5' ~ 9'
Са	SILKY DOGWOOD	CORNUS AMOMIUM	15	DECIDUOUS SHRUBS	5 - 8	24" - 30"	6' - 10'

\*THIS TABLE APPLIES ONLY TO THE PLANTINGS WITHIN THE PROPOSED BIORETENTION BASIN

### Landscaping Notes

- I. ALL DISTURBED AREAS NOT ENCUMBERED BY LANDSCAPING MULCH, PAVEMENT, CONCRETE, OR OTHER IMPERVIOUS COVER, OR AREAS NOT OTHERWISE SPECIFIED, SHALL BE STABILIZED WITH BLUE GRASS BLEND, WITH THE FOLLOWING
- SPECIFICATIONS:

  25% FESTUCA RUBRA COMMUTATA (CHEWINGS FESCUE)
  15% LOLIUM PERENNE (PERENNIAL RYEGRASS)
  60% POA PRATENSIS (KENTUCKY BLUEGRASS)
- 2. SEEDING SHALL BE PERFORMED AT A RATE OF FIVE (5) LBS. PER ACRE.



- NOTES:

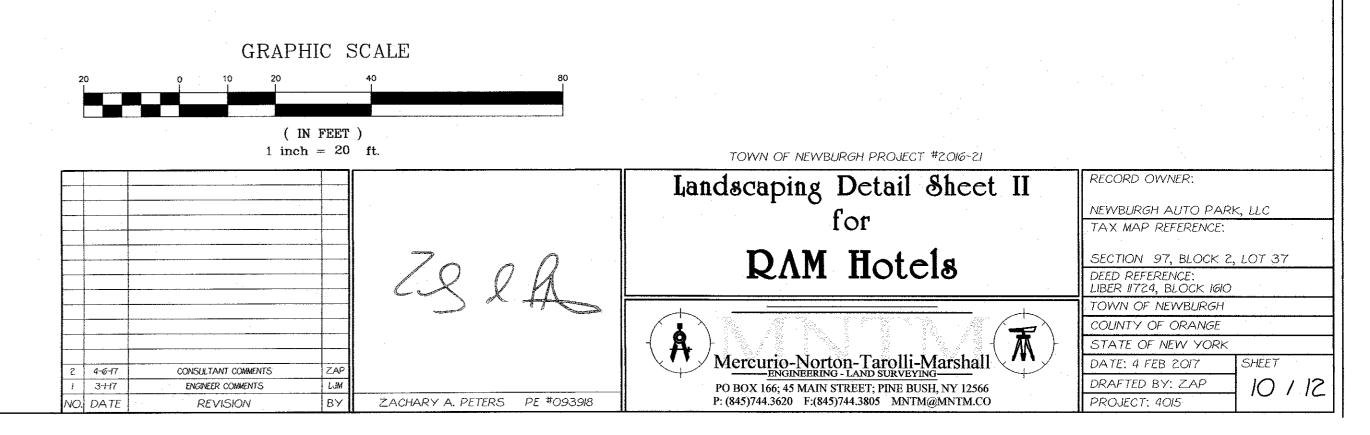
  I. ALL PLANT MATERIAL SHALL BE HEALTHY AND FULL AT TIME OF PLANTING

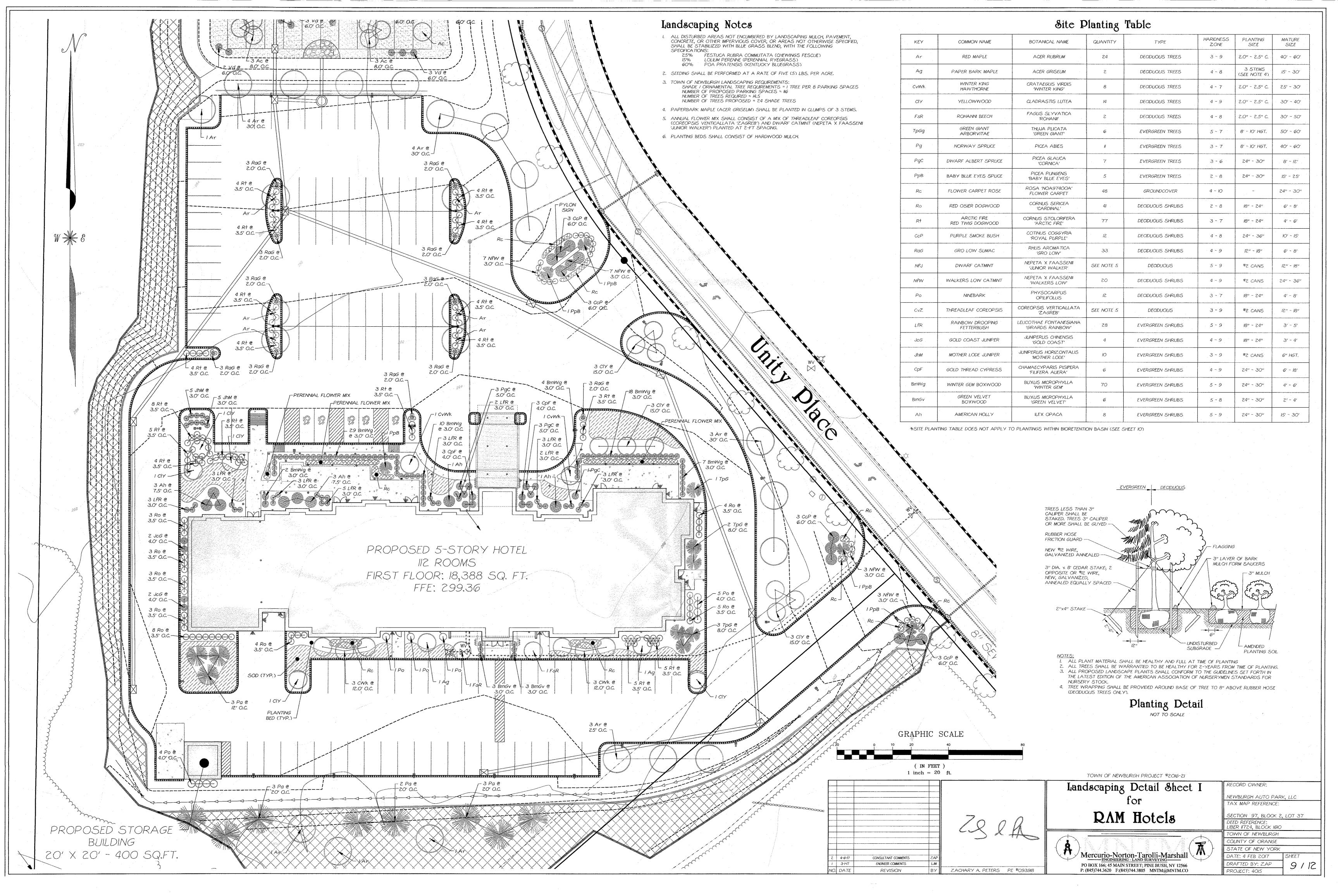
  2. ALL TREES SHALL BE WARRANTIED TO BE HEALTHY FOR 2-YEARS FROM TIME OF PLANTING.

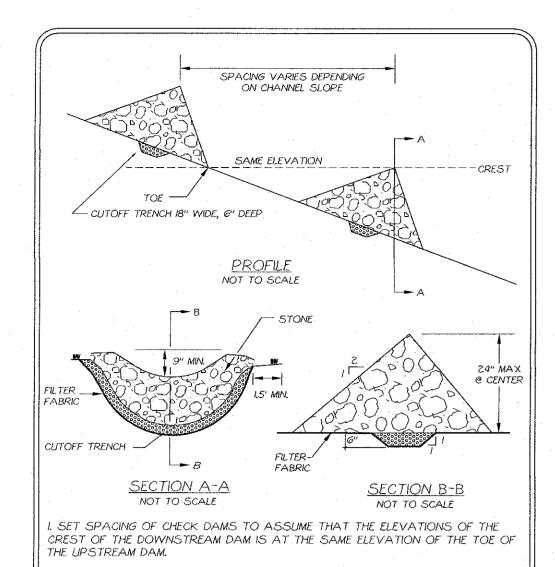
  3. ALL PROPOSED LANDSCAPE PLANTS SHALL CONFORM TO THE GUIDELINES SET FORTH IN
  THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS FOR
- NURSERY STOCK.

  4. TREE WRAPPING SHALL BE PROVIDED AROUND BASE OF TREE TO 8" ABOVE RUBBER HOSE (DECIDUOUS TREES ONLY).

Planting Detail







2. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO

3. INSTALL IN ROAD SWALES AFTER SWALE IS SHAPED. CHECK DAMS SHALL

BE MAINTAINED LINTIL ROAD IS PAVED & SWALES ARE STABILIZED. REMOVE

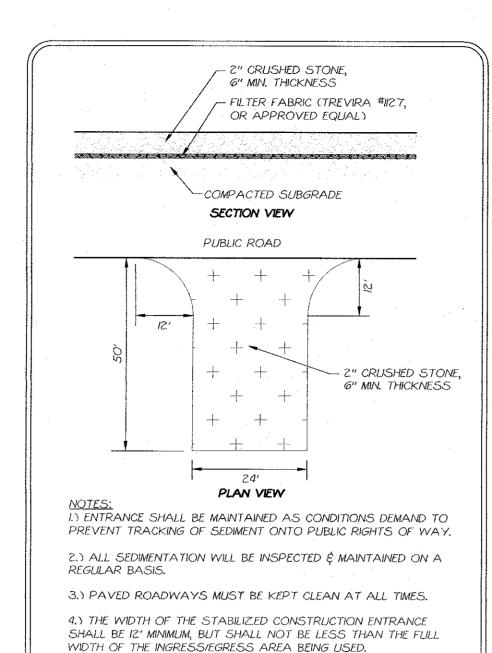
4. EXACT LOCATION OF TEMPORARY CHECK DAMS TO BE DETERMINED IN THE

Temporary Check Dam Detail

CHECK DAMS AFTER PAVEMENT & SWALE STABILIZATION IS COMPLETED.

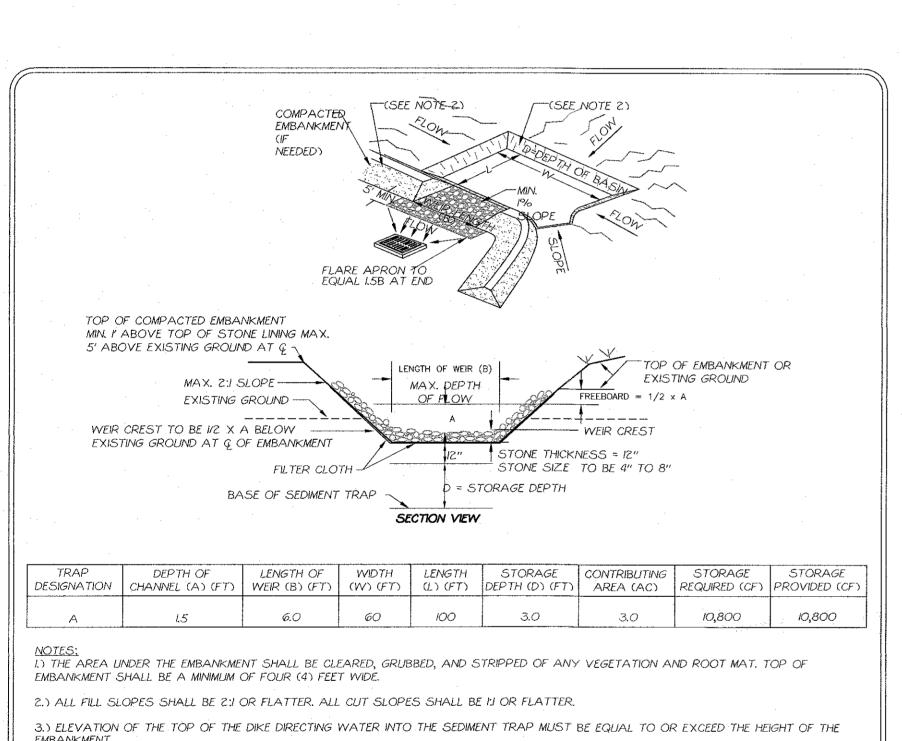
PREVENT CUTTING AROUND THE DAM.

FIELD BASED UPON SITE CONDITIONS.



Stabilized Construction

Entrance Detail



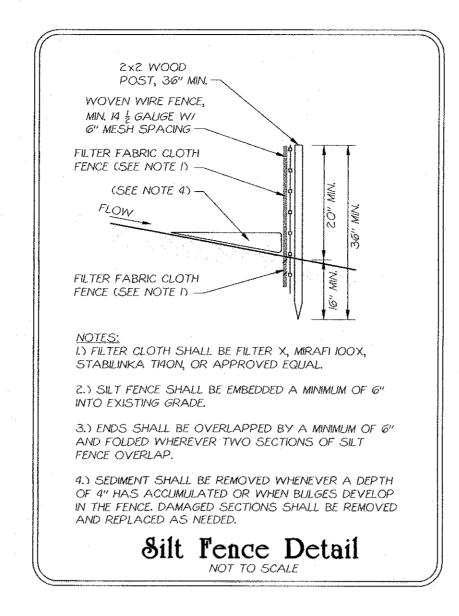
4.) VOLUME OF SEDIMENT STORAGE SHALL BE 3,600 CUBIC FEET PER ACRE OF CONTRIBUTING DRAINAGE AREA. STORAGE AREA PROVIDED SHALL BE COMPUTED USING THE VOLUME AVAILABLE BEHIND THE OUTLET CHANNEL, UP TO AN ELEVATION OF ONE (I) FOOT BELOW THE LEVEL 5.) FILTER CLOTH SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO THE PLACEMENTS OF STONE. SECTIONS OF FABRIC SHALL OVERLAP AT LEAST ONE (I) FOOT WITH UPHILL SECTION ON YOP, FABRIC SHALL BE EMBEDDED AT LEAST SIX (6) INCHES INTO EXISTING GROUND AT THE ENTRANCE OF THE OUTLET CHANNEL.

6.) SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED MORE THAN HALF OF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED ON TOP OF OR NEXT TO PREVIOUSLY EXCAVATED MATERIAL AND STABILIZED IMMEDIATELY.

7.) THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRED AS NECESSARY.

8.) THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED ONCE THE TRIBUTARY DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

Temporary RipRap Outlet Sediment Trap Detail



### Erosion & Sediment Control Notes:

I.) DUST CONTROL SHALL BE PROVIDED IN TIMES OF DRY WEATHER. AREAS SHALL BE SPRAYED WITH WATER TO PREVENT DUST FROM TRANSFERRING TO ADJACENT PROPERTIES.

2.) THE PROPOSED AREA OF DISTURBANCE IS APPROXIMATELY 4.7 ACRES. AN ADDITIONAL ±1.0 ACRES OF CLEARING IS PROPOSED FOR SITE VISIBILITY.

NO MORE THAN FIVE (5) ACRES SHALL BE DISTURBED AT ANY ONE TIME.

3.) THE BIORETENTION AREA SHALL BE PROTECTED FROM SEDIMENT DURING CONSTRUCTION. THE LOW-FLOW OUTLET IN THE DIVERSION STRUCTURE SHALL BE TEMPORARILY PLUGGED DURING CONSTRUCTION TO PREVENT SEDIMENT ACCUMULATION WITHIN THE TREATMENT FACILITIES.

### Soil Restoration Specifications

SOIL RESTORATION AS SPECIFIED IN THE CHART BELOW SHALL BE APPLIED TO ALL AREAS DISTURBED DURING THE CONSTRUCTION PROCESS.

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT	COMMENTS/EXAMPLES
NO SOIL DISTURBANCE	RESTORATION NOT PERMITTED	PRESERVATION OF NATURAL FEATURES
MINIMAL SOIL DISTURBANCE	RESTORATION NOT REQUIRED	CLEARING AND GRUBBING
AREAS WHERE TOPSOIL IS STRIPPED ONLY-NO CHANGE IN GRADE	AERATE * AND APPLY 6 INCHES OF TOPSOIL	PROTECT AREA FROM ANY ON GOING CONSTRUCTION ACTIVITIES
AREAS OF CUT OR FILL	APPLY FULL SOIL RESTORATION	
HEAVY TRAFFIC AREAS ON SITE (ESPECIALLY IN A ZONE 5-25 FEET AROUND BUILDINGS BUT NOT WITHIN A 5 FOOT PERIMETER AROUND FOUNDATION WALLS)	APPLY FULL SOIL RESTORATION (RESTORATION/DECOMPACTION AND COMPOST ENHANCEMENT)	
AREAS WHERE RUNOFF REDUCTION AND-OR INFILTRATION PRACTICES ARE APPLIED	RESTORATION NOT REQUIRED, BUT MAY BE APPLIED TO ENHANCE THE REDUCTION SPECIFIED FOR APPROPRIATE PRACTICES	KEEP CONSTRUCTION EQUIPMENT FROM CROSSING THESE AREAS. TO PROTECT NEWLY INSTALLED PRACTICE FROM ANY ONGOING CONSTRUCTION ACTIVITIES CONSTRUCT A SINGLE PHASE OPERATION FENCE AREA
REDEVELOPMENT PROJECTS	SOIL RESTORATION IS REQUIRED ON REDEVELOPMENT PROJECTS IN AREAS WHERE EXISTING IMPERVIOUS AREA WILL BE CONVERTED TO PREVIOUS AREA.	:

\*AERATION INCLUDES THE USE OF MACHINES SUCH AS TRACTOR-DRAWN IMPLEMENTS WITH COULTERS MAKING A NARROW SLIT IN THE SOIL, A ROLLER WITH MANY SPIKES MAKING INDENTATIONS IN THE SOIL, OR PRONGS WHICH FUNCTION LIKE A MINI-SUBSOILER.

FULL SOIL RESTORATION SPECIFICATIONS:

) SOIL RESTORATION SHALL BE PERFORMED DURING THE LANDSCAPING PHASE OF THE PROJECT. SOIL RESTORATION SHALL INCLUDE THE FOLLOWING STEPS:

A. APPLY 3" OF COMPOST OVER SUBSOIL.

B. TILL COMPOST INTO SUBSOIL TO A MINIMUM DEPTH OF 12". . C. REMOVE ALL STONE/ROCK MATERIAL GREATER THAN 4" IN SIZE.

D. APPLY 6" OF TOPSOIL. E. VEGETATE IN ACCORDANCE WITH THE LANDSCAPING PLAN.

L) COMPOST SHALL BE AGED AND FROM PLANT DERIVED MATERIALS, FREE OF WEEDS, SEEDS, WATER, AND

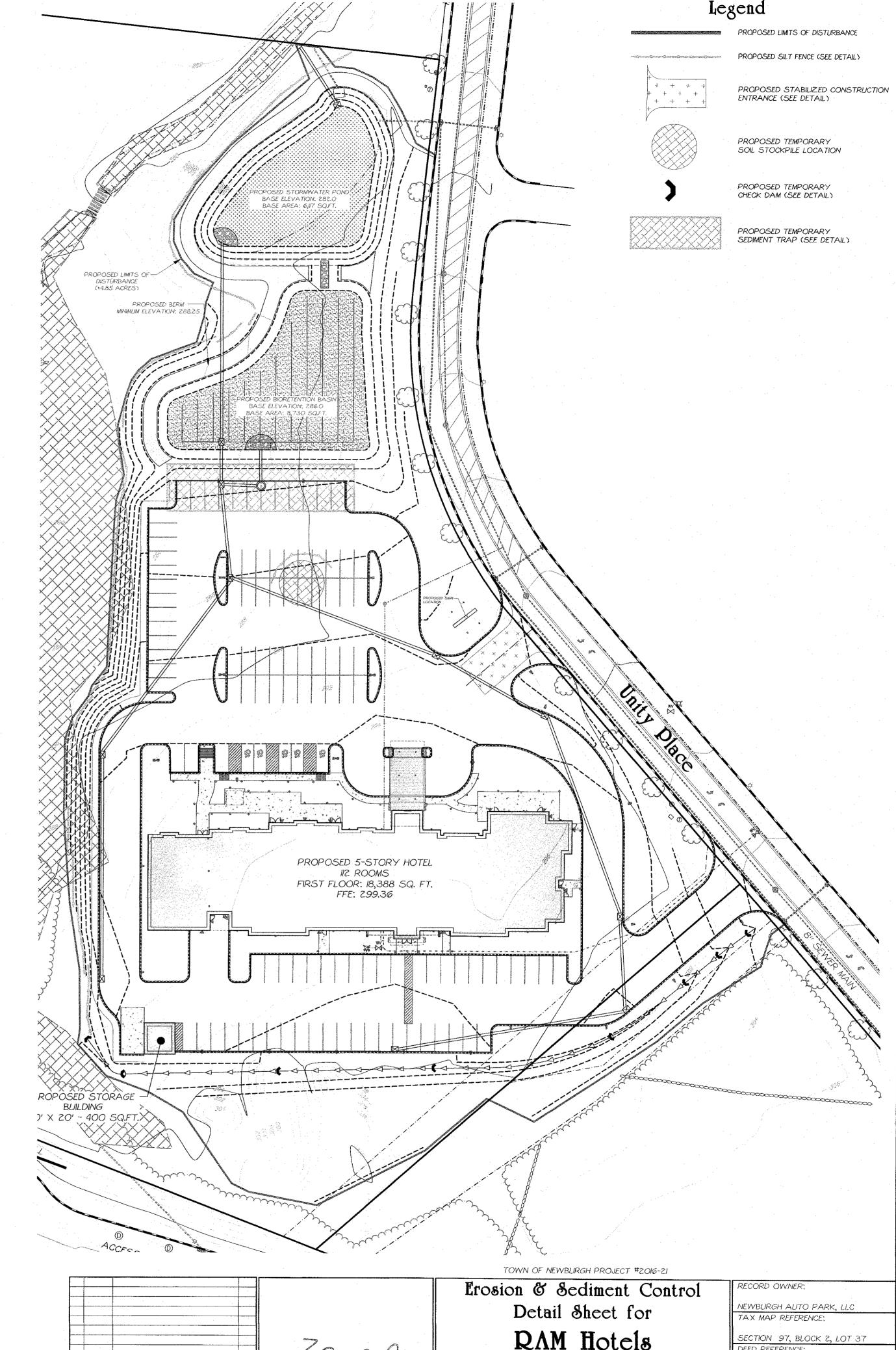
DUST. COMPOST SHOULD PASS THROUGH A HALF INCH SCREEN AND HAVE SUITABLE PH FOR PLANT GROWTH.

) MAINTENANCE SHALL INCLUDE THE FOLLOWING:

A. INSPECTIONS AFTER EACH STORM EVENT GREATER THAN HALF-INCH FOR THE FIRST SIX MONTHS. B. RESEEDING OF BARE OR ERODING AREAS TO ESTABLISH A STABILIZED COVER. C. WATER ONCE EVERY THREE DAYS FOR THE FIRST MONTH, THEN PROVIDE A HALF INCH OF WATER PER

4.) VEGETATED AREAS SHALL BE KEPT FREE OF VEHICULAR AND FOOT TRAFFIC.

5.) DOLLAR GENERAL LANDSCAPING NOTES SHALL APPLY IN CASES OF MORE STRINGENT REQUIREMENTS.



CONSULTANT COMMENTS

ZACHARY A. PETERS PE #093918

ENGINEER COMMENTS

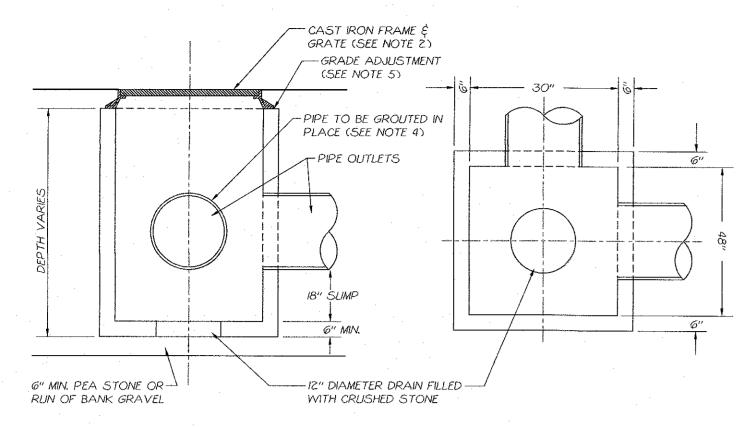
REVISION

Mercurio-Norton-Tarolli-Marshall PO BOX 166; 45 MAIN STREET; PINE BUSH, NY 12566

P: (845)744.3620 F:(845)744.3805 MNTM@MNTM.CO

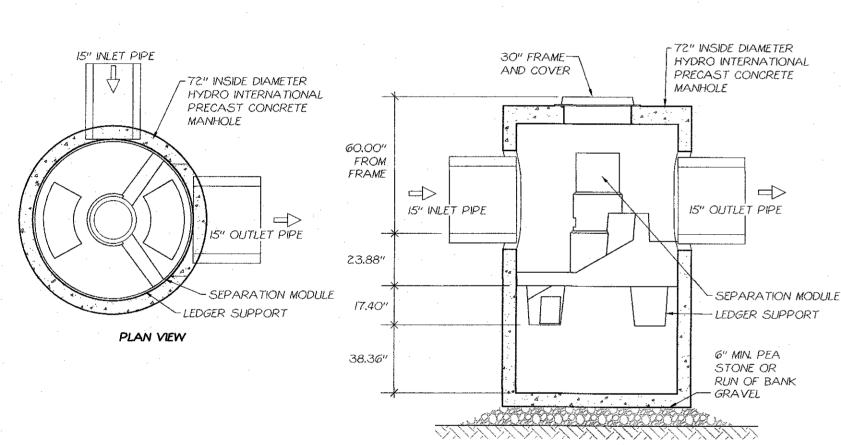
DEED REFERENCE: LIBER 11724, BLOCK 1610 TOWN OF NEWBURGH COUNTY OF ORANGE STATE OF NEW YORK DATE: 4 FEB 2017 DRAFTED BY: ZAP

PROJECT: 4015



- NOTES:
  1) BASINS SHALL BE PRECAST CONCRETE CATCH BASIN, MODEL CB-30x48, AS MANUFACTURED BY WOODARDS CONCRETE PRODUCTS, BULLVILLE, NY, OR APPROVED EQUAL.
- 2) CATCH BASIN SHALL BE EQUIPPED WITH A FLAT TOP FRAME AND GRATE, MODEL GRATE-30x48. GRATES SHALL BE BICYCLE GRATES. FRAMES AND GRATES AS MANUFACTURED BY WOODARDS CONCRETE PRODUCTS. BULLVILLE, NY, OR APPROVED EQUAL.
- 3) STEPS SHALL BE PROVIDED 12" ON CENTER WHEN DEPTH OF BASIN EXCEEDS 4'-O".
- 4) CONNECTIONS BETWEEN BASIN AND PIPE SHALL BE MADE BY FILLING THE SPACE AROUND EACH PIPE WITH MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIAL, OR CONCRETE REPAIR MATERIAL.
- 5) GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 2.5" SHALL BE MADE WITH BEDDING MATERIAL MEETING THE REQUIREMENTS OF MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIALS OR CONCRETE REPAIR MATERIAL. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP. TO 6" SHALL BE MADE WITH COMBINATION OF PRECAST CONCRETE PAVERS AND BEDDING MATERIALS. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 12" SHALL BE MADE WITH CAST-IN-PLACE CONCRETE OR A COMBINATION OF PRECAST CONCRETE ADJUSTMENT ELEMENTS AND BEDDING MATERIALS.

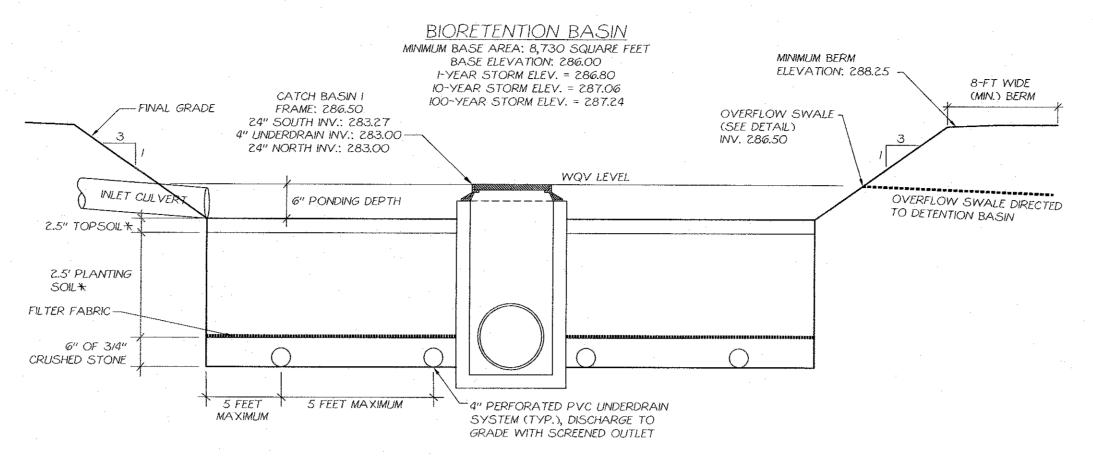
### Typical Catch Basin Detail



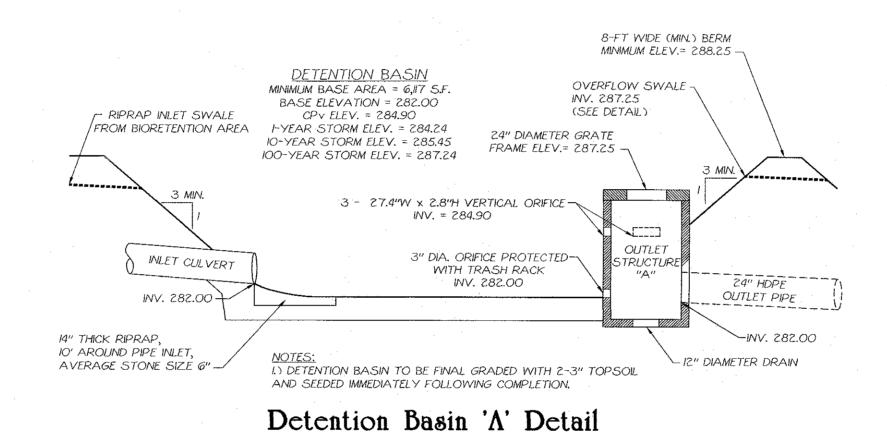
### NOTES:

- CROSS SECTION VIEW I) PROPOSED UNIT IS A HYDRO INTERNATIONAL FIRST DEFENSE HC STORWMATER TREATMENT DEVICE - MODEL: 6-FT.
- 2) DETAIL PROVIDED IS NOT INTENDED TO BE USED FOR CONSTRUCTION. CONSTRUCTION DRAWINGS TO BE PREPARED BY HYDRO INTERNATIONAL STORMWATER SOLUTIONS, 94 HUTCHINS DRIVE, PORTLAND, ME; (207) 756-6200)
- 3) CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.
- 4) CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIAMETER, AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRIATION.
- 5) GENERAL ARRANGEMENT DRAWINGS ONLY. CONTACT HYDRO INTERNATIONAL FOR SITE SPECIFIC FABRICATION DRAWINGS.
- A. THE TREATMENT SYSTEM SHALL USE AN INDUCED VORTEX TO SEPARATE POLLUTANTS FROM STORMWATER RUNOFF. B. THE TREATMENT SYSTEM SHALL FIT WITHIN THE LIMITS OF EXCAVATION (AREA AND DEPTH) AS SHOWN IN THE PROJECT PLANS AND WILL
- NOT EXCEED THE DIMENSIONS FOR THE DESIGN FLOW RATE OF 3.38 CFS. C. THE TREATMENT SYSTEM SHALL REMOVE GREATER THAN OR EQUAL TO 90% OF TSS BASED ON THE TARGET PARTICLE SIZE (TPS) OF 106
- MICRONS AND/OR 80% OF TSS BASED ON THE TPS OF 230 MICRONS AT 2.2 CFS AND 3.8 CFS, RESPECTIVELY. D. THE TREATMENT SYSTEM SHALL CONVEY THE PEAK ON-LINE FLOW RATES OF UP TO 32 CFS WITHOUT CAUSING UPSTREAM SURCHARGE CONDITIONS & FULL-SCALE INDEPENDENT LABORATORY SCOUR TESTING SHALL DEMONSTRATE EFFLUENT CONTROL OF LESS THAN OR EQUAL TO 5 MG/L FOR ALL FLOWS UP TO 200% OF MTFR-106.
- E. THE TREATMENT SYSTEM SHALL BE CAPABLE OF CAPTURING AND RETAINING FINE SILT AND SAND SIZE PARTICLES. ANALYSIS OF CAPTURED SEDIMENT FROM FULL-SCALE FIELD INSTALLATIONS SHALL DEMONSTRATE PARTICLE SIZES PREDOMINATELY IN THE ZO-MICRON

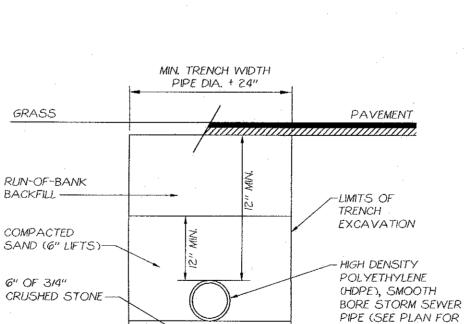
# Typical Hydrodynamic Separator Detail



### Bioretention Area Detail

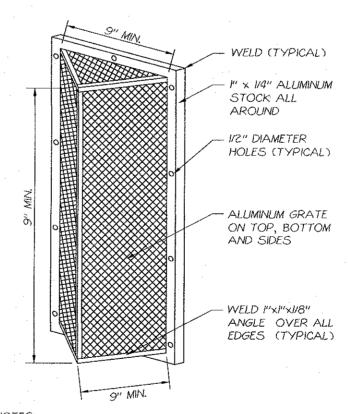


NOT TO SCALE



1.) ALL STORM SEWER PIPING SHALL BE SMOOTH-BORE HIGH DENSITY POLYETHYLENE (HDP), UNLESS OTHERWISE NOTED. 2.). STORM SEWER CULVERTS SHALL BE EQUIPPED WITH FLARED END SECTIONS AT ALL OPEN INLET/OULET LOCATIONS.

Typical Storm Sewer Trench Detail



NOTES: I.) TRASH RACK TO BE CENTERED OVER OPENING. 2.) TRASH RACK SHALL BE CONSTRUCTED FROM ALUMINUM.

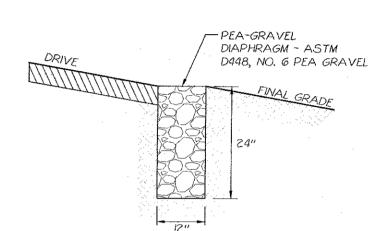
3.) TRASH RACK SHALL BE INSTALLED A MINIMUM OF 2" BELOW THE BOTTOM OF THE ORIFICE SO AS TO NOT BLOCK THE ORIFICE.

# Trash Rack Detail

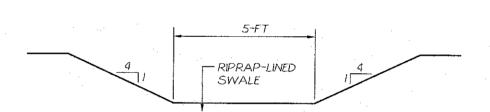
### Permeable Soil Notes

PERMEABLE SOIL NOTES: \*PLANTING SOIL SHALL BE A SANDY LOAM, LOAMY SAND, LOAM, OR A LOAM/SAND MIX (CONTAINING 35-60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHALL BE LESS THAN 25% BY VOLUME. SOILS SHALL FALL WITHIN THE SM, OR ML CLASSIFICATIONS OF THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST LO FEET PER DAY (0.5"/HR) IS REQUIRED. THE SOIL SHALL BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER I" IN DIAMETER AND BRUSH OR SEEDS FROM NOXIOUS WEEDS. PLACEMENT OF THE PLANTING SOIL SHALL BE IN LIFTS OF 12 TO 18", LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET). THE SOIL SPECIFICATIONS ARE AS FOLLOWS:

PARAMETER	VALUE
PH RANGE	5.2 TO 7.0
ORGANIC MATTER	1.5 TO 4.0%
MAGNESIUM	35 LBS. PER ACRE, MIN.
PHOSPHORUS	75 LBS. PER ACRE, MIN.
POTASSIUM.	85 LBS. PER ACRE, MIN.
SOLUBLE SALTS	500 PPM
CLAY	10 TO 25%
SILT	30 TO 55%
SAND	35 TO 60%

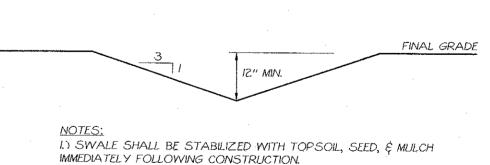


Gravel Diaphragm Detail

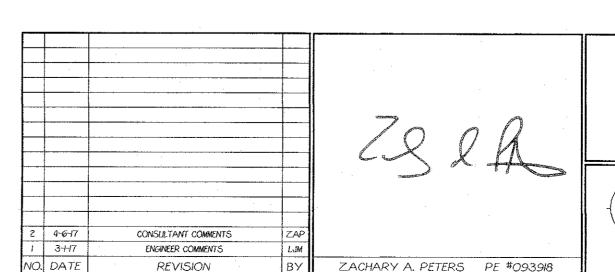


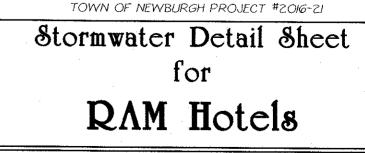
I.) SWALE SHALL BE CONSTRUCTED WITH A SLOPE OF 1% TO THE OUTLET. 2.) SWALE SHALL BE STABILIZED WITH 6" RIPRAP, A MINIMUM OF 15" DEEP.

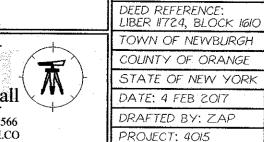
Overflow Swale Detail



Diversion Swale Detail NOT TO SCALE







RECORD OWNER:

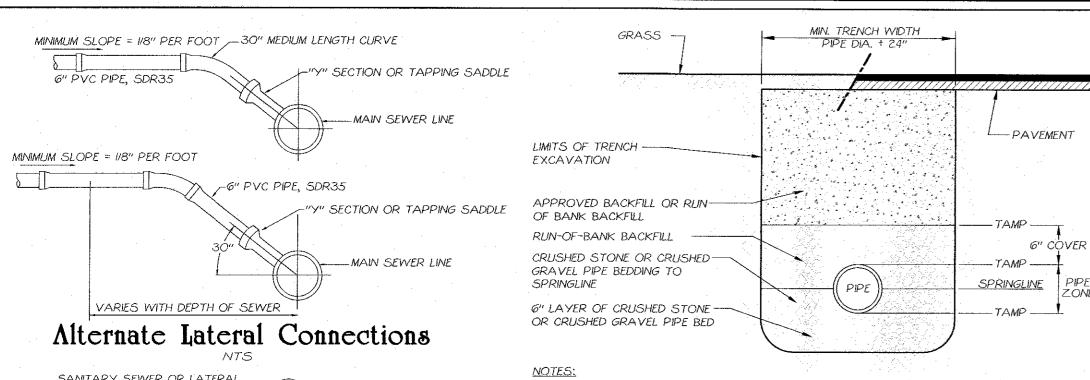
TAX MAP REFERENCE:

NEWBURGH AUTO PARK, LLC

SECTION 97, BLOCK 2, LOT 37

SHEET

Mercurio-Norton-Tarolli-Marshall PO BOX 166; 45 MAIN STREET; PINE BUSH, NY 12566 P: (845)744.3620 F:(845)744.3805 MNTM@MNTM.CO



SANITARY SEWER OR LATERAL OR STORM SEWER (PIPE TO BE 150 PSI PRESSURE RATED) -WATERMAIN

SANITARY SEWER OR

LATERAL OR STORM SEWER -

18" MINIMUM VERTICAL CLEARANCE. NO EXCEPTION WITHOUT WRITTEN PERMISSION OF COUNTY DEPARTMENT OF HEALTH Storm / Sanitary Sewer-watermain Crossing

PPE JOINTS TO BE

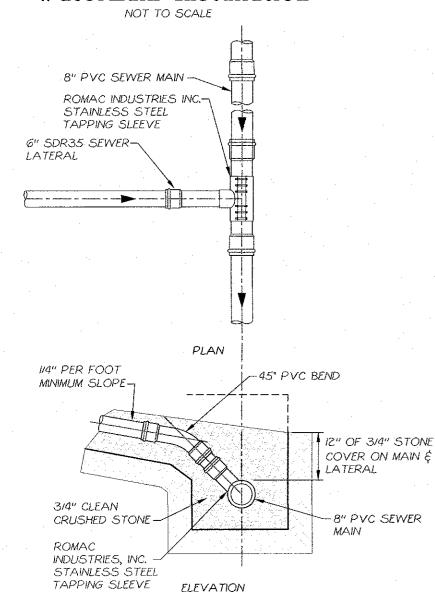
EQUIDISTANT FROM

CROSSING POINT

-SANITARY SEWER OR LATERAL OR STORM SEWER WATERMAIN OR SERVICE CONNECTION -

10' MINIMUM LATERAL SEPARATION. NO EXCEPTION WITHOUT

Parallel Sanitary Sewer / Storm Sewer Watermain Installation



I.) FIELD LOCATION AND ALIGNMENT OF NEW SADDLE TO BE APPROVED BY THE TOWN OF NEWBURGH WATER/SEWER SUPERINTENDENT PRIOR TO INSTALLATION. 2.) NEW STAINLESS STEEL TAPPING SLEEVE ON EXISTING SANITARY SEWER MAIN IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS, TOWN OF NEWBURGH CODE,

Sanitary Sewer Lateral Tap Detail

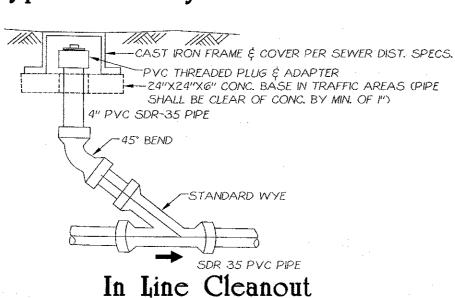
THIS DETAIL NOT FOR ORANGE COUNTY DEPARTMENT OF HEALTH REVIEW OR APPROVAL

I) RUN-OF-BANK BACKFILL SHALL BE INSTALLED IN 6" LIFTS & COMPACTED TO 95% PROCTOR DENSITY. RUN OF BANK GRAVEL SHALL NOT CONTAIN STONES LARGER THAN 4".

2) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE RUN-OF-BANK GRAVEL AND SHALL BE SEEDED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.

3) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 4" ITEM 4 LEVELING COURSE, 3" ASPHALT

Typical Sanitary Sewer Trench Detail



# Town of Newburgh Sewer System Notes:

NEWBURGH SANITARY SEWER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH SEWER DEPARTMENT. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDEC AND THE TOWN OF NEWBURGH.

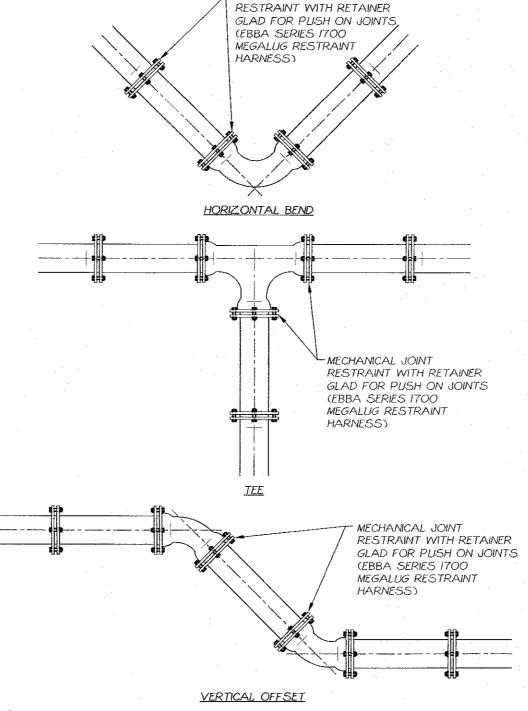
2) ALL SEWER PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH SEWER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH SEWER

3) ALL GRAVITY SANITARY SEWER SERVICE LINES SHALL BE 4 INCHES IN DIAMETER OR LARGER AND SHALL BE SDR-35 PVC PIPE CONFORMING TO ASTM D-3034-89. JOINTS SHALL BE PUSH-ON WITH ELASTOMERIC RING GASKET CONFORMING ASTM D-3212, FITTINGS SHALL BE AS MANUFACTURED BY THE PIPE SUPPLIER OR EQUAL AND SHALL HAVE A BELL AND SPIGOT CONFIGURATION COMPATIBLE WITH THE PIPE.

4) THE SEWER MAIN SHALL BE TESTED IN ACCORDANCE WITH TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH

5) THE FINAL LAYOUT OF THE PROPOSED WATER ANDIOR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHLL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

- MECHANICAL JOINT



NOTE: I) ALL RESTRAINING GLANDS TO BE IN ACCORDANCE WITH TOWN OF NEWBURGH STANDARDS.

2) ALL PIPES SHALL BE STANDARD PUSH ON BELL JOINTS.

-MECHANICAL JOINT WITH

BREAK OFF NUTS (TYP.)

PROVIDE PIPE LENGTH REQUIRED TO RESTRICT FITTING FROM

MOVEMENT (TYP.)

5

4

PIPE SIZE

BEND ANGLE

TYPE OF TEE

\$ of GM, SM

SW, GW

RETAINER GLAND BY EBAA "MEGA

LUG" SERIES 1100 OR APPROVED

EQUAL WITH WEDGE BOLTS AND

10

3/4" THREADED TIE ROD (TYP.)

### Water Main Pipe Thrust Restraint Detail

-DUCTILE IRON PIPE (TYP.)

2

TABLE A - REQUIRED RESTRAINED LENGTH FOR 8" DUCTILE IRON PIPE (ALL VALUES IN FEET UNLESS OTHERWISE NOTED

Water Main Pipe Restraint Tables

22.5 DEGREE

H BEND | V BEND (UP) | V BEND (DN) | H BEND | V BEND (UP) | V BEND (DN) | H BEND | V BEND (UP) | V BEND (DN)

NOTES:

D THRUST BLOCKING IS NOT PERMITTED

DEFLECTIONS ALSO.

PIPE TRENCH DETAIL.

2) PIPE RESTRAINING TO BE USED FOR VERTICAL

3) SEE TABLES A & B FOR REQUIRED RESTRAINED LENGTH

FOR DUCTILE IRON PIPE. ALL MINIMUM RESTRAINT LENGTHS

LENGTHS ARE NOT VALID AT HIGHER TESTING PRESSURES.

BASED UPON A TESTING PRESSURE OF 100 PSI, MINIMUM

4) PIPE BEDDING SHALL BE IN ACCORDANCE WITH WATER

5) THE CONTRACTOR SHALL PERFORM SOIL TEST TO

DETERMINE SOIL TYPE(S) INDICATED ON TABLE A.

### Water System Notes:

I) CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH.

2) ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA CI5I/AZI,5I FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.

3) THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EWWA IRON MEGALUG SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER

4) ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AWWA CIIO/AZI/O FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AWWA CI53/A2I.53 FOR DUCTILE IRON COMPACT FITTINGS, LATEST REVISION.

5) ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).

6) TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-615 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM: TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.

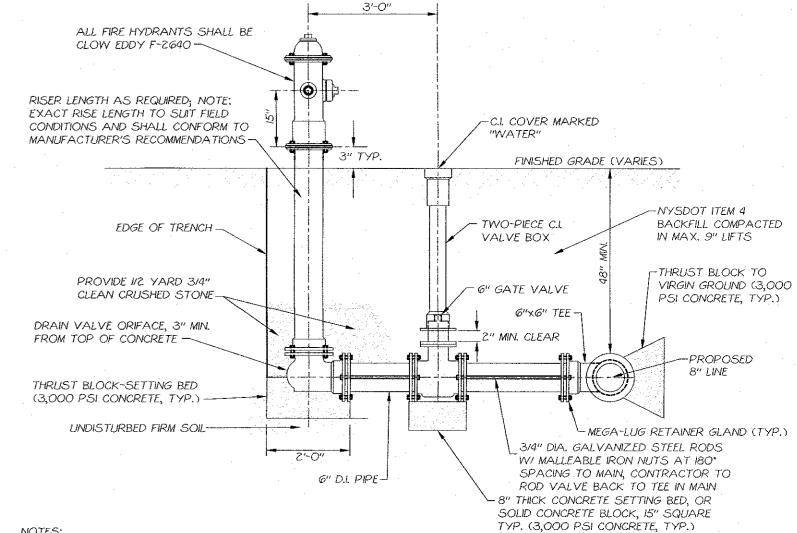
7) ALL HYDRANTS SHALL BE CLOW-EDDY F-2640 CONFORMING TO AWWA STANDARD C-502, LATEST REVISION. ALL HYDRANTS SHALL INCLUDE A 5-1/4 INCH MAIN VALVE OPENING, TWO 2-1/2 INCH DIAMETER NPT HOSE NOZZLES, ONE 4 INCH NPT STEAMER NOZZLE, A 6 INCH DIAMETER INLET CONNECTION AND A 1 1/2 INCH PENTAGON OPERATING NUT. ALL HYDRANTS SHALL OPEN LEFT (COUNTER-CLOCKWISE). HYDRANTS ON MAINS TO BE DEDICATED TO THE TOWN SHALL BE EQUIPMENT YELLOW. HYDRANTS LOCATED ON PRIVATE PROPERTY SHALL BE RED.

8) ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-1502ON FOR 3/4 AND I INCH, MUELLER H-1500ON OR B-2500ON FOR I I/2 AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1502-2N FOR 3/4 AND I INCH AND MUELLER B-25204N FOR I I/2 AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10314N FOR 3/4 AND I INCH AND MUELLER H-10310N FOR I I/2 AND 2 INCH SIZES.

9) ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. IO) THE WATER MAIN SHALL BE TESTED. DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS.

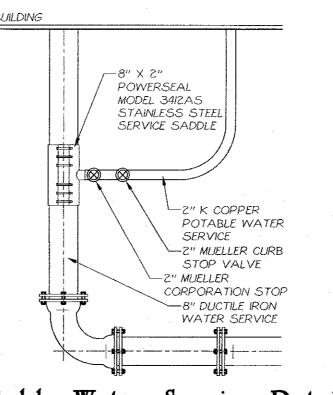
ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.

II) THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.



1) HYDRANTS SHALL BE DRY-BARREL HYDRANTS, TYPE MUELLER SUPER CENTURION, IN ACCORDANCE WITH AWWAC502. HYDRANTS SHALL HAVE A MAIN VALVE SIZE OPENING OF FIVE INCHES NOMINAL, ONE (1) FOUR-AND-A-HALF-INCH NST PUMPER NOZZLE, TWO (2) TWO-AND-A-HALF-INCH NST HOSE NOZZLES, A ONE-AND-ONE-HALF-INCH PENTAGON OPERATING NUT AND A SIX-INCH MECHANICAL JOINT INLET SHOW CONNECTION WITH ACCESSORIES. THE HYDRANT DIRECTION OF OPENING SHALL BE LEFT (COUNTERCLOCKWISE). 2.) ALL TEES, VALVES, AND FITTINGS TO INCLUDE RESTRAINT IN THE FORM OF MEGA-LUG RETAINER GLANDS AND RODS.

### 3.) IF HIGH GROUND WATER IS ENCOUNTERED, THE HYDRANT DRAIN HOLE SHOULD BE PLUGGED AND THE HYDRANT MARKED OR LABELLED TO INDICATE THTAT THE BARREL MUST BE PUMPED OUT AFTER USE TO PREVENT DAMAGE FROM FREEZING. Typical Fire Hydrant Assembly Detail



Potable Water Service Detail

EE (8X6)

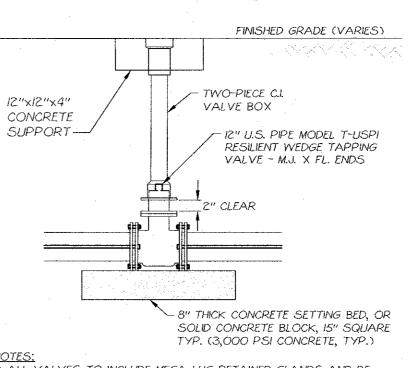
DEAD END

19

24

19

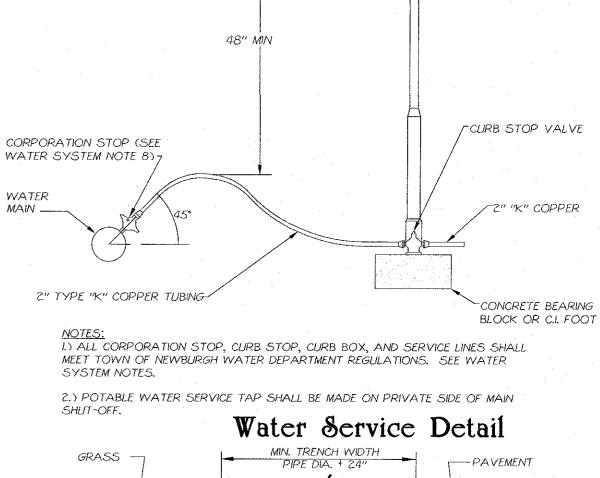
23

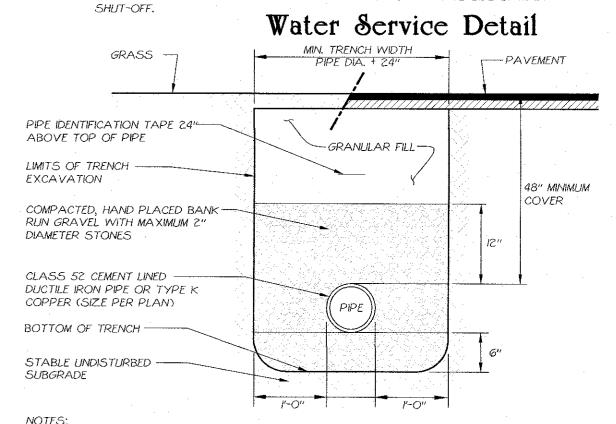


I.) ALL VALVES TO INCLUDE MEGA-LUG RETAINED GLANDS AND BE RODDED BACK TO THE ADJACENT TEE IN THE WATER MAIN. INLINE VALVES NEED NOT BE RODDED. CONTRACTOR TO UTILIZE 3/4" DIA. GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 180° SPACING.

2.) WATER MAIN VALVES FOR FOUR-INCH THROUGH FORTY-EIGHT-INCH SHALL BE RESILIENT WEDGE GATE VALVES AS MANUFACTURED BY MUELLER, MODEL #A-2360. VALVES SHALL BE PROVIDED WITH AN

### Typical Water Valve Detail



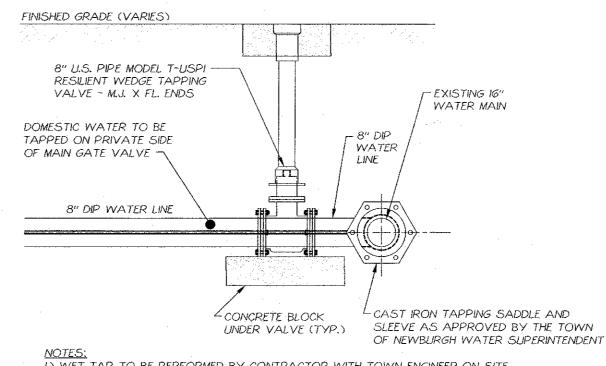


1) GRANULAR FILL SHALL CONSIST OF SELECT GRANULAR FILL OR SUITABLE ON-SITE EXCAVATED SOIL (LARGEST STONE SHALL BE LESS THAN 3"). GRANULAR FILL SHALL BE INSTALLED IN 6" LIFTS \$ COMPACTED TO 95% PROCTOR DENSITY.

2) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE RUN-OF-BANK GRAVEL AND SHALL BE SEEDED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.

3) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 4" ITEM 4 LEVELING COURSE, 3" ASPHALT BINDER COURSE, AND HIZ" ASPHALT TOP COURSE.

# Typical Water Pipe Bedding Detail



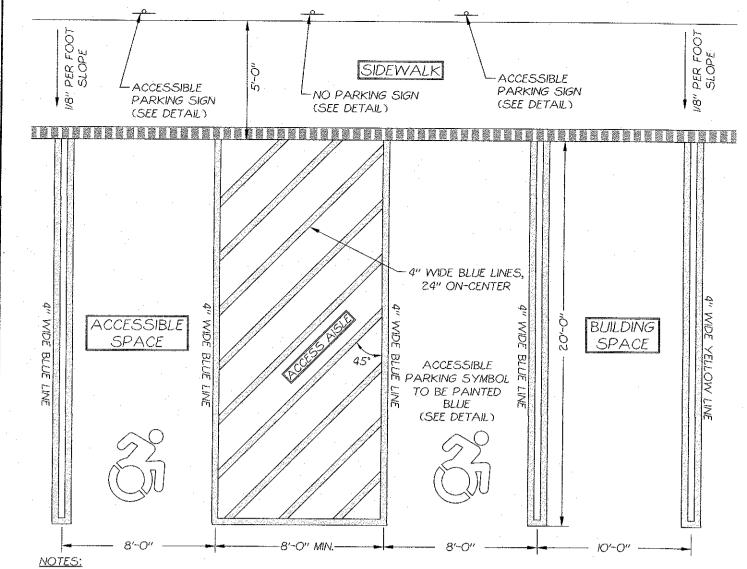
I.) WET TAP TO BE PERFORMED BY CONTRACTOR WITH TOWN ENGINEER ON SITE. 2.) CONTRACTOR TO CONTACT TOWN OF NEWBURGH WATER DEPARTMENT FOR ALL INSTALLATION REQUIREMENTS.

3.) TAPPING SLEEVE SHALL BE SELECTED TO FIT EXISTING PIPE MATERIAL (CAST IRON, DUCTILE IRON, A.C.) AND OUTSIDE DIAMETERS.

4.) MEGA LUGS TO BE USED ON ALL MECHANICAL JOINT FITTINGS. Water Wet Tap Detail

CONSULTANT COMMENTS ENGINEER COMMENTS REVISION LAWRENCE MARSHALL, PE #087107





1.) ALL ACCESSIBLE RAMP AND ACCESS AISLES SHALL MEET ALL CURRENT CODES AND ADAAG REGULATIONS.

2.) PROPOSED ACCESS RAMP SHALL CONSIST OF COLORED TOOLED/SERRATE SLIP RESISTANT SURFACING AND/OR TACTILE WARNING DEVICE AS REQUIRED BY AMERICANS WITH DISABILITIES ACT ACCESSBILITY GUIDELINES AND CODE REGULATIONS.

3.) PROPOSED STRIPING TO BE PAINTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

CURBING & BOLLARDS: TWO (2) COATS SHERWIN WILLIAMS - KEM 4000 ACRYLIC ALKYD ENAMEL, SAFETY

YELLOW B55Y300

PARKING LOT STRIPING & WHEELSTOPS: TOP COAT SHERWIN WILLIAMS - PRO MAR TRAFFIC MARKING PAINT,

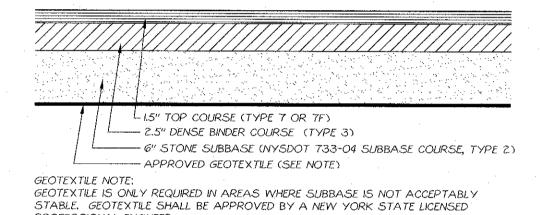
YELLOWTM5494

ACCESSIBLE STRIPING & DETAIL: TOP COAT SHERWIN WILLIAMS - PRO MAR TRAFFIC MARKING PAINT, "H.C." BLUE

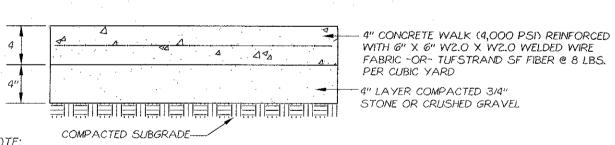
4.) STANDARD PARKING SPACES VARY IN SIZE, STANDARD SPACES ALONG FRONT OF BUILDING ARE 9' X 18.5'

SPACES (EXCEPT ACCESSIBLE SPACES AND AISLE). ALL OTHER SPACES ARE 9' X 18' SPACES.

# Accessible & Building Parking Space Striping Detail



# Standard Asphalt Pavement Section

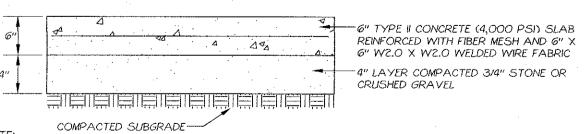


NOTE:

1) CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 15 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD. CONSTRUCTION JOINTS SHALL BE CUT OR FORMED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE STANDARDS AND JOINT SEALANT RECOMMENDATIONS

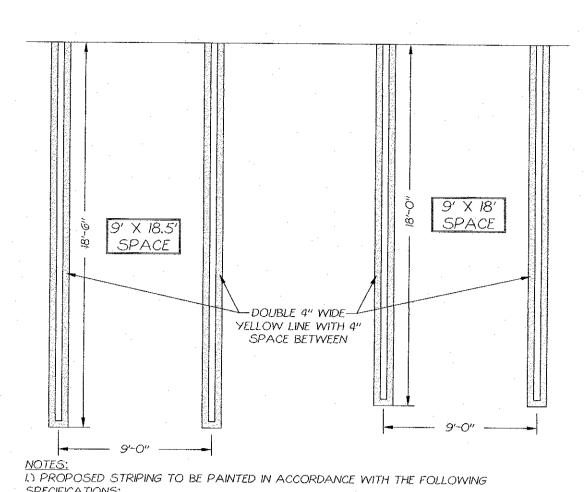
2) STANDARD CONCRETE SHALL BE UTILIZED ONLY FOR SIDEWALKS. ALL OTHER CONCRETE AREAS SHALL CONFORM TO HEAVY DUTY CONCRETE PAVEMENT SPECIFICATIONS.

### Standard Concrete Pavement Detail

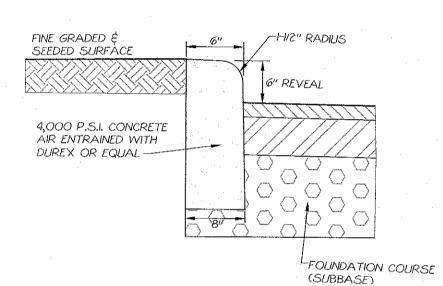


D CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN IZ FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD. CONSTRUCTION JOINTS SHALL BE CUT OR FORMED IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE STANDARDS AND JOINT SEALANT RECOMMENDATIONS 2) HEAVY DUTY CONCRETE SHALL BE UTILIZED FOR THE AREA WITHIN THE REFUSE ENCLOSURE AND ID FEFT REYOND THE ENCLOSURE GATE.

Heavy Duty Concrete Pavement Detail



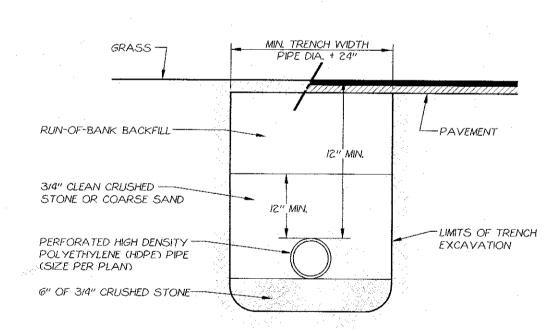
# Parking Lot striping & wheelstops: top coat sherwin williams - pro mar traffic marking paint, yellow tms494 Parking Space Striping Detail



NOTES:
1.) CURB SHALL BE CAST IN PLACE. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMLAR MATERIAL SHALL BE INSTALLED WHERE REQUIRED (AT CURB BOXES, CATCH BASINS, BRIDGES, ETC.). CONTRACTION (CONTROL) JOINTS SHALL BE INSTALLED AT 20' INTERVALS.

### 2.) THIS DETAIL SHALL BE UTILIZED FOR INSTALLATION OF CURBING WITHIN PROJECT SITE (CURBED ISLANDS, ETC.).

Standard Curb Detail

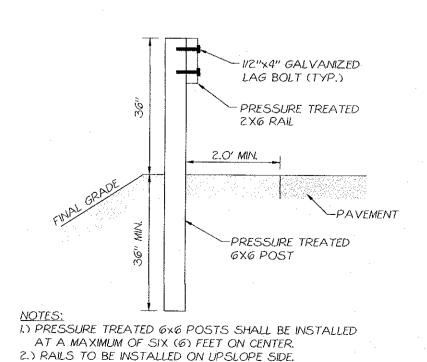


NOTES: IN RUN-OF-BANK BACKFILL SHALL REPASSALLED IN 6" LIFTS & COMPACTED TO 95% PROCTOR DENSITY. RUN OF BANK GRAVEL SHALL NOT CONTAIN STONES LARGER THAN 4".

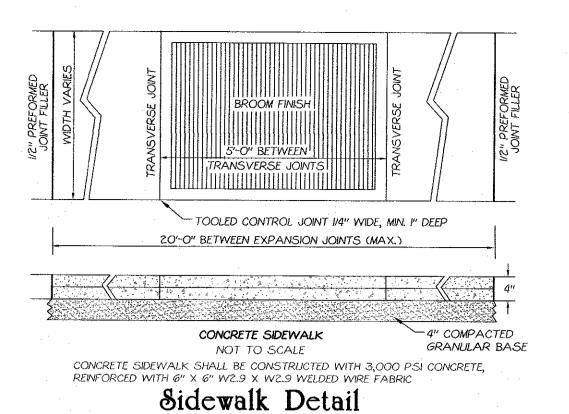
2) IN LAWN AREAS, A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE PLACED ON TOP OF THE RUN-OF- BANK GRAVEL AND SHALL BE SEEDED AND MULCHED WITH SEED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.

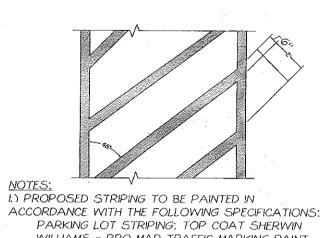
3) IN PAVED AREAS, THE EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. REPLACEMENT OF THE PAVEMENT SHALL BE COMPLETED WITH A MINIMUM OF 4" ITEM 4 LEVELING COURSE, 3" ASPHALT BINDER COURSE, AND 1-1/2"

# Typical Storm Sewer Trench Detail



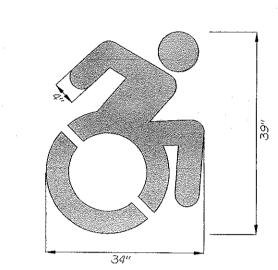
Typical Wood Guide Rail Detail



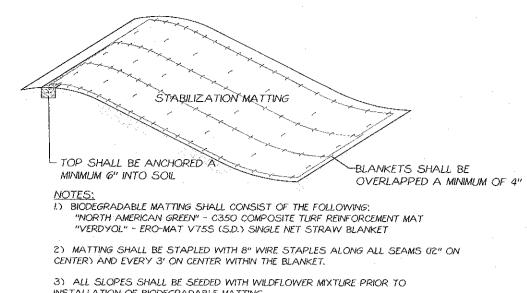


williams - pro mar traffic marking paint, yellowtm5494

Island Striping Detail



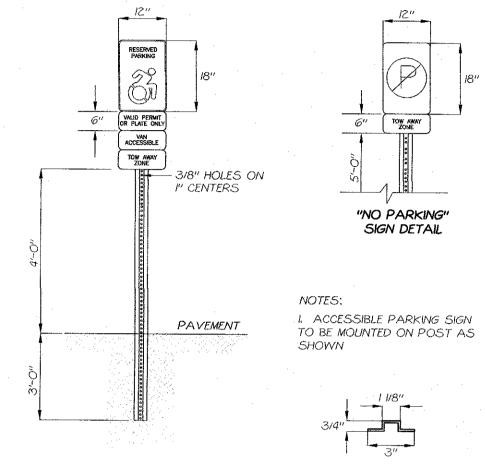
Accessibile Parking Symbol



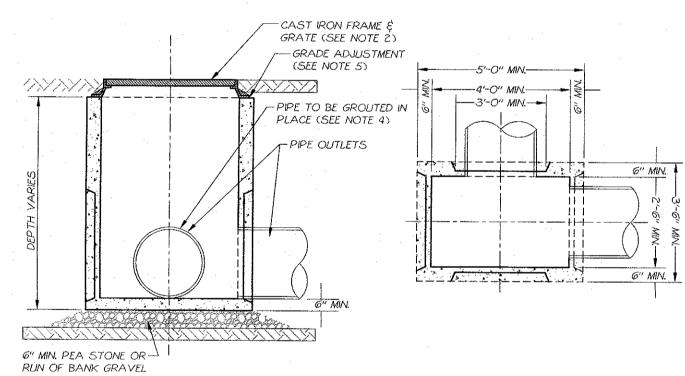
3) ALL SLOPES SHALL BE SEEDED WITH WILDFLOWER MIXTURE PRIOR TO INSTALLATION OF BIODEGRADABLE MATTING.

4) BIODEGRADABLE MATTING SHALL BE INSTALLED ON ALL DISTURBED SLOPES AT THE REAR OF THE BUILDING GREATER THAN 3 HORIZONTAL TO I VERTICAL.

8lope Stabilization Detail



Sign Details



NOTES:
D BASINS SHALL HAVE A MINIMUM OF HZO LOADING STRENGTH.

2) CAST IRON FRAME AND GRATE SHALL BE ABLE TO WITHSTAND H2O LOADING. GRATES SHALL BE BICYCLE GRATES. OPENINGS SHALL BE A MINIMUM OF 24" DIAMETER OR 24"X24" RECTANGULAR OPENING.
3) STEPS SHALL BE PROVIDED I2" ON CENTER WHEN DEPTH OF BASIN EXCEEDS 4'-O".
4) CONNECTIONS BETWEEN BASIN AND PIPE SHALL BE MADE BY FILLING THE SPACE AROUND EACH PIPE WITH MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIAL, OR CONCRETE REPAIR MATERIAL.

5) GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 2.5" SHALL BE MADE WITH BEDDING MATERIAL MEETING THE REQUIREMENTS OF MORTAR FOR CONCRETE MASONRY, CONCRETE GROUTING MATERIALS OR CONCRETE REPAIR MATERIAL. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 6" SHALL BE MADE WITH COMBINATION OF PRECAST CONCRETE PAVERS AND BEDDING MATERIALS. GRADE ADJUSTMENT FOR TOP SLABS AND/OR FRAMES AND GRATES OF UP TO 12" SHALL BE MADE WITH CAST-IN-PLACE CONCRETE OR A COMBINATION OF PRECAST CONCRETE ADJUSTMENT ELEMENTS AND

On-Site Catch Basin Detail

