GENERAL NOTES FOR ROADS

1. The Right-of-Way width, pavement widths, and easement widths are found on the Avon Subdivision Control Ordinance. Greater widths may be provided. The Contractor shall review the plat and the plans to confirm the various widths indicated on the plans and shall report any discrepancy to the Town Building Official prior to proceeding with construction.

2. No exception from standard pavement sections shall be made except as shown on the plans. Wherever in the Specifications "Indiana Department of Transportation, or "Department," it is referenced, it shall be read in conjunction with the Indiana Standard Specifications. Wherever there is a conflict between the Town of Avon Construction Standards and INDOT Standard Specifications, the Town of Avon Construction Standards shall hold over the INDOT Standard Specifications.

3. The Indiana Department of Transportation (INDOT) Standard Specifications, Sections 105.04, 105.05, 108.4, and 200-901 shall be followed for all projects. Sections 502 through 506, 901, 905, and 910 of the specific reference is to all projects. See applicable detailed plans for this section. Current INDOT Standard Drawings shall be used for all materials and structures where applicable and as shown on the plans. Whenever in the Specifications "Indiana Department of Transportation, or "Department," it is referenced, it shall be read in conjunction with the Indiana Standard Specifications. Wherever there is a conflict between the Town of Avon Construction Standards and INDOT Standard Specifications, the Town of Avon Construction Standards shall hold over the INDOT Standard Specifications.

4. Wherever proprietary brands are specified, all proprietary material shall be installed in the Town of Avon and the Contractor shall be subject to the approval of the Town Building Official and the Town of Avon Construction Standards shall hold over the INDOT Standard Specifications.

5. EXISTING UTILITIES: Contractor shall verify the exact location of all existing utilities at least 24 hours prior to any excavation work. Contractor shall be responsible for any damage. The Contractor shall be responsible for repairing or replacing damaged utilities to the satisfaction of the Town of Avon and owner of the affected utility.

6. The current Indiana Standard Specifications is based upon the experience of the Town of Avon to ensure the orderly development of the land. Strict adherence to the designated location is required. Requests to change the location of the proposed utilities shall be submitted in writing to the Town Building Official. Utilities not meeting these requirements shall be removed and replaced as directed by the Town Building Official.

7. Compacted granular backfill in accordance with the most recent INDOT Standard Specifications shall be required whenever the trench opening encroaches with a depth of less than 2 feet or proposed street or sidewalk. Compacted or granular material shall be constructed 6 months after backfilling of trench. See detail Sheet 2.

8. Installation of, or provisions for the installation of, all underground utilities (including those required for residential development) shall be placed under pavement areas shall be established prior to the start of construction of the paving.

9. All construction activities shall comply with the Erosion Control Requirements of the Indiana Department of Environmental Management and Indiana Department of Natural Resources (INDR), and all other governmental agencies or agencies providing the required permits. This includes, but is not limited to, the requirements of Indiana Department of Natural Resources (INDR) and Indianapolis Storm Water Permit (IN-151128) for Indianapolis Storm Water Protection Plans shall be current with the United States Environmental Protection Agency and with the Indiana Storm Water Protection Plan. Conformance is required.

10. All Subgrade Compaction shall be determined by the Town Building Official. All Subgrade & Fill material shall be at least 100 percent of the maximum dry density in accordance with ASTM D698. Compaction tests shall be performed by an INDOT approved independent laboratory on all fill as placed by the Contractor's expierence. Tests shall be submitted to the Town Building Official prior to placing any material on the subbase subgrade. One passing in-place density test shall be completed for each lift to every 400 linear feet of traffic lane. The Contractor shall notify the inspecting engineer concerning the testing schedule at least 48 hours in advance.

11. Advancing of subgrade shall be determined solely by the Town, based on a Contractor performed profile with a fully loaded tractor dolly. All proffility shall be performed on all street subgrades prior to placing aggregate, installing curbs, or placing pavement materials. Aggregate sections are to be subgraded proportional to placing HMA pavement materials. All areas shall be regraded if eroded or regraded prior to placing the top lift of new material. All earthwork shall conform to the current INDOT Standard Specifications. Construction traffic is specifically prohibited from transferring the aggregate and HMA pavement areas except for the placement of export pavement materials. Alternate construction traffic access shall be provided.

12. All material shall come from INDOT certified plants and sources. INDOT Section 402 shall apply with the exceptions noted herein. The current version of INDOT Specifications, Requiernents Special Provisions, and Supplementary Specifications are applicable. Binders shall be PG 64-22 for Local and Collector Streets’ Intersections and Base and for the INDOT Collector Street Surface and Arterial Street Surface and Intersections shall be PG 70-42.

13. Recycled Asphalt Material (RAP): Recycled materials, up to 50%, may be used as a substitute for a portion of the new material required to produce the HMA mixture. When using more than 15% RAP the PG 64-22 binder content shall be changed as follows: PG 64-22 to PG 58-26 PG 70-42 to PG 72-26

14. Place Test Coat in accordance with the most recent INDOT Standard Specifications for asphalt pavement sections.

15. Wherever rigid pavement is to be used, the Contractor shall submit a detailed Paving Plan to the Town Building Official. The Paving Plan shall show the location and type of joints to be used in the construction. Concrete materials and methods, including the location and type of jointing, shall meet the requirements of the most recent INDOT Standard Specifications and Details.

16. Wherever subgrade stabilization is to be used, the Contractor shall submit a written plan detailing the application method. This method must comply with INDOT Standard Specifications, State of Indiana Environmental Standards, and be approved by the Town Building Official.

17. Shoulder pavement sections shall be the same as the road pavement sections.

18. Road Classifications are based on the Avon Subdivision Control Ordinance. See detail Sheet 2.

19. Pavement Fabric for pavement tie-in shall be supplied by an INDOT approved independent laboratory. Concrete placed for rigid pavement and curbs shall be tested for compliance with the current INDOT Specifications. Tests shall be performed by an INDOT approved independent laboratory at the Contractor’s expense. As a minimum, the testing quality measurement shall be performed. Concrete compressive strength at 7 days and 28 days. These tests shall be performed every 2,500 tons and at least once per day. In the event of non-conforming, the Town Building Official shall have the right to reject the Town Building Official's repertition of these tests as necessary to verify the quality of the finished product.

RESIDENTIAL DRIVES

1. All residential driveways shall be made with the requirements of the American Current Standards and the most recent INDOT Standard Specifications and Standards Drawings. Mix proportions required for driveway sections shall be performed at time of initial construction.

2. Driveway widths shall not be divided in accordance with the prior approval of the Town Building Official.

3. Concrete drives require control joints at a minimum of every 10 feet in advance.

PAVEMENT DESIGN NOTES AND DIAGRAM

CONCRETE SECTION

CURB & GUTTER

INTEGRAL CURB

Pavement fabric for pavement tie-in shall be supplied by an independent laboratory. Concrete placed for rigid pavement and curbs shall be tested for compliance with the current INDOT Specifications. Tests shall be performed by an INDOT approved independent laboratory at the Contractor’s expense. As a minimum, the testing quality measurement shall be performed. Concrete compressive strength at 7 days and 28 days.

Businesses and Collectors

CONCRETE SECTION (1/1)

ARTERIAL STREETS (PRIMARY AND SECONDARY)

SUBGRADE TREATMENT (SEE PAVEMENT CONSTRUCTION, NOTE 1)

Pavement Design Diagram / Schedule (For Thoroughfare and/or Subdivision Roads)

TOWN OF AVON CONSTRUCTION STANDARDS

Pavement Design Diagram / Schedule (For Thoroughfare and/or Subdivision Roads)

Pavement Design Diagram / Schedule (For Thoroughfare and/or Subdivision Roads)

CONCRETE SECTION (1/1)

ASPHALT SECTION

CONCRETE SECTION (1/1)

CONCRETE SECTION (1/1)

CONCRETE SECTION (1/1)

CONCRETE SECTION (1/1)

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ROLLER COMPACTED CONCRETE (RCC) REQUIREMENTS

4. Testing
Conventional ASTM testing methods used to fabricate test specimens shall not be used for RCC pavement testing. Specimen creation shall involve vibrating the fresh RCC sample on a vibrating table (VEBE table or those meeting the requirements of the relative density test of cohesionless soils using ASTM D-425 or D-4249 and meeting the requirements of ASTM C-192) under a surcharge of between 1 to 7 psi or compacting with a compaction hammer following the procedure in ASTM D-1557. Future testing requirements are being determined by ASTM Subcommittee C09.45 and may change these testing procedures in the future. Flexural strength shall be determined by sawing beam specimens while compression strength shall be determined by coring the pavement at 7, 14, 28 and 90 days. Grelation tests shall be run on 3 times daily or every 50 cubic yards. Aggregate moisture tests shall be taken daily using a microwave oven.

5. Compaction
RCC pavement shall be compacted with a 10 ton drum vibratory roller immediately after the concrete is placed. Roller compaction involves making two static passes on the concrete surface to seat the surface before vibratory rolling begins. Four or more vibratory passes are made until compaction is met. After vibratory compaction is complete, a 10 to 20 ton rubber tire roller may be used to tighten the surface texture per direction from the Town of Avon. If the rubber tire roller is used, a static roller shall be used to remove any roller marks left behind.

6. Joint Compaction
Transverse joints shall be sawed at a spacing of 30 feet. The depth of the sawed joint shall range from 1/4 to 1/2 of the pavement depth. The resulting joints shall be sealed. All completed joints shall have the same texture density and smoothness as the other sections of pavement. Sawing of joints shall be performed to the required alignment without chipping, spalling, heaving, or cracking of the concrete.

7. Base Course
Prior to placing operations, the base course shall be checked for density and grade. The grade shall be checked to ensure the proper thickness is laid for the base course.,Joints shall be saw cut 1/8" wide and 1" deep.

8. Surface Smoothness
Surface smoothness shall be checked using a straightedge or profilmeter. Tolerances shall range from 1/4" to 3/8" deviation from a 10' straight edge.
NOTES:
1. DEDICATED LEFT TURN LANE REQUIRED BY THE TOWN.
2. RESIDENTIAL = 47' MIN.
3. COMMERCIAL/INDUSTRIAL = 57' MIN.
4. MINIMUM TURN DECELERATION LANE REQUIREMENTS:
   - WIDTH = 12'
   - LENGTH (RESIDENTIAL) = 100' MIN.
   - LENGTH (COMMERCIAL/INDUSTRIAL) = 150' MIN.
   * SUBJECT TO TOWN DISCRETION AND TO SPEED LIMIT
5. ROW AND ROAD WIDTH REQUIREMENTS PER ROAD CLASSIFICATION
6. LENGTH DEPENDENT ON APPLICABLE LANE SHIFT TAPER RATE FOR THE DESIGN SPEED OF THE EXISTING ROADWAY, USE INDOT CRITERIA FOR LANE SHIFT TAPER RATE.

NOT TO SCALE
COMMERCIAL DRIVE TO PUBLIC ROAD ENTRANCE REQUIREMENTS - OPTION 1
NOTE:
- THIS DRAWING REPRESENTS THE MINIMUM REQUIREMENTS FOR A NEW PUBLIC ROAD ENTRANCE. LANDS AND/OR LARGER ACCELERATION AND DECELERATION LANES MAY BE REQUIRED WHEN DESIRED NEEDED BY THE TOWN OF AVON TO ADEQUATELY SERVE THE ANTICIPATED TRAFFIC. LENGTH OF ACCELERATION AND DECELERATION LANES MAY BE REDUCED WHEN APPROPRIATE AT THE DISCRETION OF THE TOWN.

NOT TO SCALE
COMMERCIAL DRIVE TO PUBLIC ROAD ENTRANCE REQUIREMENTS - OPTION 2
NOTE:
- THIS DRAWING REPRESENTS THE MINIMUM REQUIREMENTS FOR A NEW PUBLIC ROAD ENTRANCE. LANDS AND/OR LARGER ACCELERATION AND DECELERATION LANES MAY BE REQUIRED WHEN DESIRED NEEDED BY THE TOWN OF AVON TO ADEQUATELY SERVE THE ANTICIPATED TRAFFIC. LENGTH OF ACCELERATION AND DECELERATION LANES MAY BE REDUCED WHEN APPROPRIATE AT THE DISCRETION OF THE TOWN.
1. Polyvinyl Chloride (PVC) Pipe (FLEXIBLE PIPE TRENCH)
   1. PVC pipe may be used for stormwater conveyance systems in new development and commercial development or public rights-of-way.
   2. PVC pipe of 12-inches through 15-inches in diameter may be used as outlined in Practice D-2321 for a summation of cut special classes prepared for public rights-of-way, subject to the bedding requirements for flexible pipe. No solvent cement joints shall be allowed except all requirements of ASTM F-687, and shall have a minimum wall thickness for 150 psi. PVC pipe greater than 15-inches in diameter shall meet all requirements of ASTM F-687. PVC pipe shall meet all recommended practice requirements defined in ASTM F-687.
   3. The minimum wall thickness for pipes of 12-inches through 15-inches in diameter shall conform to AWWA C105/A21.5, polyethylene pipe material, and AWWA C151, Pressure Class 350, with push-on joints unless otherwise specified.
   4. Pipe shall have a minimum pipe stiffness of 40 psi per inch for each inch measured at 5 percent deflection and tested in accordance with Practice D-2419.

2. Polypropylene Pipe (FLEXIBLE PIPE TRENCH)
   1. PP pipe may be used for stormwater conveyance systems in new development and commercial development or public rights-of-way, except as noted.
   2. PP pipe of 12-inches through 26-inches in diameter may be used in the public-right-of-way of local streets, subject to the bedding requirements for flexible pipe. No solvent cement joints shall be allowed except for those found in AASHTO specifications.
   3. AASD-N 1.4-H polypropylene pipe is acceptable for use in the installation of gravity storm sewer systems through or less than 30-inch diameter. The pipe shall be double wall corrugated polypropylene pipe with an anti-microbial biocide to mitigate microbiologically influenced corrosion. Single-wall pipe shall not be used.
   4. Material and performance requirements shall conform to AASHTO M-294 and F2881, or ASTM F-2881 and F2453. PVC pipe shall have a minimum pipe stiffness of 40 psi per 5% deflection.
   5. Only manufactured fittings shall be installed in accordance with ASTM D-2321. Installed pipe shall not exceed a deflection of 5%.

3. HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE (FLEXIBLE PIPE TRENCH)
   1. HDPE pipe may be used for stormwater conveyance systems in new development and commercial development or public rights-of-way, except as noted.
   2. HDPE Overhead Conduit pipe shall have a minimum wall thickness for 150 psi. HDPE pipe greater than 36-inches in diameter shall not be allowed as embedment or backfill materials.
   3. Requirements for test methods, dimensions, and markings are to be in accordance with ISO 14326 for polyethylene pipe for use in underground applications where necessary to resist utility conflicts or collateral works which are not necessarily stormwater related.
   4. Material and performance requirements shall conform to AASHTO M-294 and F2881.

4. Ductile Iron Pipe (FLEXIBLE PIPE TRENCH)
   1. Ductile Iron pipe shall not be used without the written authorization of the Town Building Official.
   2. Ductile Iron pipe shall conform to the current requirements of AWWA C101, Pressure Class 350, with push-on joints unless otherwise specified.
   3. Ductile Iron pipe shall not be used without the written authorization of the Town Building Official.
   4. The interior of the pipe shall be clean, smooth and free from injurious substances.
   5. The maximum deflection of pipe joints shall conform to AWWA C105/A21.5 for new construction and installation of gravity storm sewers for pipes sizes of 12-inch or greater. The maximum deflection for pipe joints for all other pipe sizes shall not exceed 10 degrees.

5. Coupling bands shall be hugger bands.
   6. Installation shall be in accordance with ASTM recommended practice D-3211.

PVC PIPE INSTALLATION AND REFERENCES
   1. Pipe shall be furnished circular or a pipe-shape as required and shall be delivered in continuous welded seam extending from end to end of each pipe. PVC pipe shall be furnished circular or a pipe-shape as required and shall be delivered in continuous welded seam extending from end to end of each pipe.
   2. Each end of such pipe with a welded seam shall have two circular corrugations referred to permit joining with hugger bands.

RISK TUBE CONSTRUCTION NOTES
Pipe to Structure Connections
1. Core drill new pipe penetration into existing structure at the proper location where the pipe enters the structure.
2. For concrete pipe, fill the annular space between the pipe and structure interior and exterior walls with grout.
3. For HDPE and PVC pipe, install flexible neoprene molded boot or resilient seal to secure the pipe in the structure wall. Grouted connections may be acceptable in accordance with building authorities.
4. Connect sheet steel surface drainage and swale underdrains to inlet, manholes, or distinctive to open ditch.

Connection to Existing Rear Yard Surface Drain
1. Where approved by Town Building Official, install new pump sump service connection to existing rear yard surface drain using appropriate leak proof fitting where shown and as specified.

Field Quality Control
General
1. Provide all necessary equipment and instrumentation required for proper completion of the testing of manholes and piping systems.
2. All tests shall be made in the presence of the Town Building Official. Preliminary tests made by the Contractor without the Town Building Official’s approval shall not be accepted. Notify the Town Building Official at least 36 hours in advance of the test.
3. If the Contractor’s test is not accepted, the Town Building Official shall be advised. Adjustment and repairs shall be made prior to resubmission.
4. All manholes and piping systems shall be tested in accordance with these test methods in addition to any test required by OSHA, State or Local plumbing codes and/or building authorities.

Testing and Acceptance
1. All defects in piping systems shall be repaired and/or accepted. Notify the Town Building Official at least 36 hours in advance of the test.
2. Perform testing in presence of Town Building Official.
3. Deflection Test for Flexible Pipes.
   a. PVC
   b. HDPE
   c. PP
4. Perform deflection test on all storm sewer pipe after the final backfill has been in place for at least 30 days.
5. All manhole and piping systems shall be tested in accordance with these test methods in addition to any test required by OSHA, State or Local plumbing codes and/or building authorities.

FLexible Pipe Trench Detail
PVC, PP, HDPE, AL2CMP, AND DIP PIPE

Rigid Pipe Trench Detail
RCP
STORM MANHOLE AND INLET DETAILS

PRECAST STORM MANHOLE

NOT TO SCALE

TYPE "C" MODIFIED

12" MAX.
ECCENTRIC CONE, CONCENTRIC CONE, OR PRECAST COVER

PRECAST MANHOLE SECTIONS

CEMENT MORTAR

4'-0" DIA.

2'-0" DIA.

NOTES:
1. FOR ECCENTRIC AND CONCENTRIC CONE HEIGHTS, SEE CONE HEIGHTS TABLE ON INDOT STANDARD DRAWING E 720-MHST-08

PRECAST STORM MANHOLE TYPES "J", "K", "L", "M", AND "N" MODIFIED

36"

36"

6"

24"

6"

24"

6"

11"

49"

MAX.

8"

DIA.

NOTES:
2. SEE INDOT STANDARD DRAWING E 720-MHST-06 FOR DETAILS A, B AND C.

MANHOLE PIPE SIZES

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<th>TYPE</th>
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<th>DIAMETER &quot;F&quot; (FT. IN.)</th>
<th>MAX. PIPE SIZE, RT. ANGLE TO MAINLINE (IN.)</th>
<th>MAX. PIPE SIZE FOR MAINLINE (IN.)</th>
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<td>B</td>
<td>36 TO 48</td>
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<td>L</td>
<td>48 TO 54</td>
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<tr>
<td>M</td>
<td>54 TO 72</td>
<td>9'-0&quot;</td>
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<td>N</td>
<td>72 TO 84</td>
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NOTES:
1. IN ACCORDANCE WITH INDOT SPECIFICATIONS
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI.
3. PRECAST ADJUSTING SECTIONS ONLY.

TOWN OF AVON CONSTRUCTION STANDARDS
OCTOBER 2017

NOT TO SCALE

PRECAST INLET
TYPE "A" (MODIFIED)

36"

6"

24"

6"

NOTES:
1. AGGREGATE TO BE PLACED AROUND PIPE INLET
2. VARIOUS 6" MIN.
3. 1'-0" TO 6'-0" VARIABLE

PRECAST INLET TYPE "B"

36"

6"

24"

6"

NOTES:
1. 1'-11" MAX.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI.
3. PRECAST ADJUSTING SECTIONS ONLY.

PRECAST INLET TYPE "C"

36"

6"

24"

6"

NOTES:
1. 1'-0" MAX.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI.
3. PRECAST ADJUSTING SECTIONS ONLY.
STORM INLET AND CASTING DETAILS

NOTES:
1. IN ACCORDANCE WITH INDOT SPECIFICATIONS
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI
3. PRECAST ADJUSTING SECTIONS ONLY.

OPEN PAVEMENT MOCURED

NOTES:
1. IN ACCORDANCE WITH INDOT SPECIFICATIONS
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI
3. PRECAST ADJUSTING SECTIONS ONLY.

INLET CAPACITY OF SELECTED STORM CASTINGS

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<th>INLET TYPE</th>
<th>DESCRIPTION</th>
<th>CI</th>
<th>MINIMUM GRADE OPEN AREA (IN SQ FT)</th>
<th>DRAINAGE FLOW CONCUSSIVE AREA (IN SQ FT)</th>
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NOTES:
1. IN ACCORDANCE WITH INDOT SPECIFICATIONS
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI
3. PRECAST ADJUSTING SECTIONS ONLY.

COMPARABILITY OF DRAINAGE STRUCTURES AND CASTINGS

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NOTES:
1. IN ACCORDANCE WITH INDOT SPECIFICATIONS
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH 4000 PSI
3. PRECAST ADJUSTING SECTIONS ONLY.
1. Street Lighting should consist of furnishing and installing street lighting per the following specifications and in accordance with INDOT Specifications Section 801 and Duke Energy requirements.

2. Poles shall be installed such that the luminaire is oriented perpendicular to the nearest curb line, and post door is positioned away from the roadway.

3. Light poles shall have one luminaire arm, side mounted on the top of the pole. A photo shall be included. Pole and luminaire exterior shall be finished with black powder coated finish.

4. Lighting Service Port equipment shall conform to NEC requirements for a Type II Lighting Service Point, plus Duke Energy requirements for a permanent underground service enclosure with a single meter position. The service enclosure shall be mounted on a single, aluminum pad. Installation shall be in accordance with INDOT Specification Section 807 and Duke Energy recommendations.

5. Materials shall be manufactured by Kim Lighting or approved equal.

   a. Structural Series 1
      - STL: 3031B (SFH42K/BL251NGOFF/TP/RPA30-6188)
      - Mounting: A1
      - Failure:
         - (a) Housing Size: STL
         - (b) Distribution: 3 – Type B
         - (c) Option: P = PicoPalm
         - (d) Current: 70 = 700 mA

   b. Electrical Module:
      - (a) Source: BL = BL-LEDs
      - (b) Color Temperature: 4K = 4000K
      - (c) Voltage: 24V = 240V
      - (d) Finish: BL = Black

   c. Photocell Control:
      - (a) BLADES (TYP.)
      - (b) GAUGE SQUARE
      - (c) A-FIXED
      - (d) AFFIX SIGN

   d. Voltage: 240V = 240V

6. Street lights in the town’s right of way or on town property shall be metered. Coordinate with town building official on case by case basis to set up new account.

SIGN REQUIREMENTS

1. Stop sign:
   a. Designation: Regulatory sign “STOP” R1-1 (MUTCD Table 2D-1).
   b. Design: Stop sign shall be constructed of high-intensity reflectorized sheeting and shall comply with the urban standards established in the Manual on Uniform Traffic Control Devices (MUTCD Sect 2A-25).
   c. Retroreflectivity and Illumination:
      - (a) Step sign shall be retroreflective or illuminated to show the same shape and similar color by both day and night. The requirements for sign illumination shall not be considered to be satisfied by street or highway lighting (MUTCD Sect 2A-27).
      - (b) Minimum reflectivity shall be at or above the minimum levels for white letters and white background on MUTCD (MUTCD Sect 2A-08, and table 2A-3).
      - (c) Shape: Stop sign shall be octagonal (MUTCD, Sect 2B-05) and the corners shall not be rounded (MUTCD Sect 2A-14).
      - (d) Color and Border: Stop signs shall have a white legend and white border on a black background. No two-sided stop signs will be permitted.
      - (e) Dimensions: Stop signs shall be 20” x 20” (MUTCD, Table 2B-1).
      - (f) Test: Stop sign lettering shall be all upper-case letters that are 17” tall (MUTCD).
      - (g) Mounting: The minimum height of stop signs, measured vertically from the bottom of the sign to the edge of the roadway, shall be 7’ 6” (MUTCD Sect 2A-18).

   a. Location: Stop sign shall be located on the right-hand side of the roadway where they are easily recognized and understood by road users. (MUTCD Sect 2A-16)