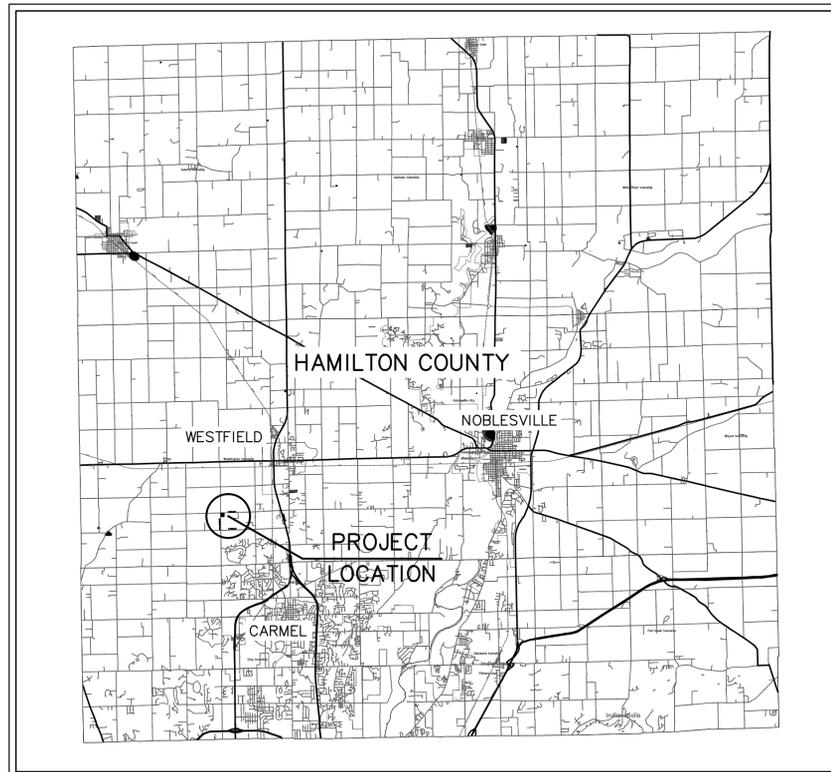
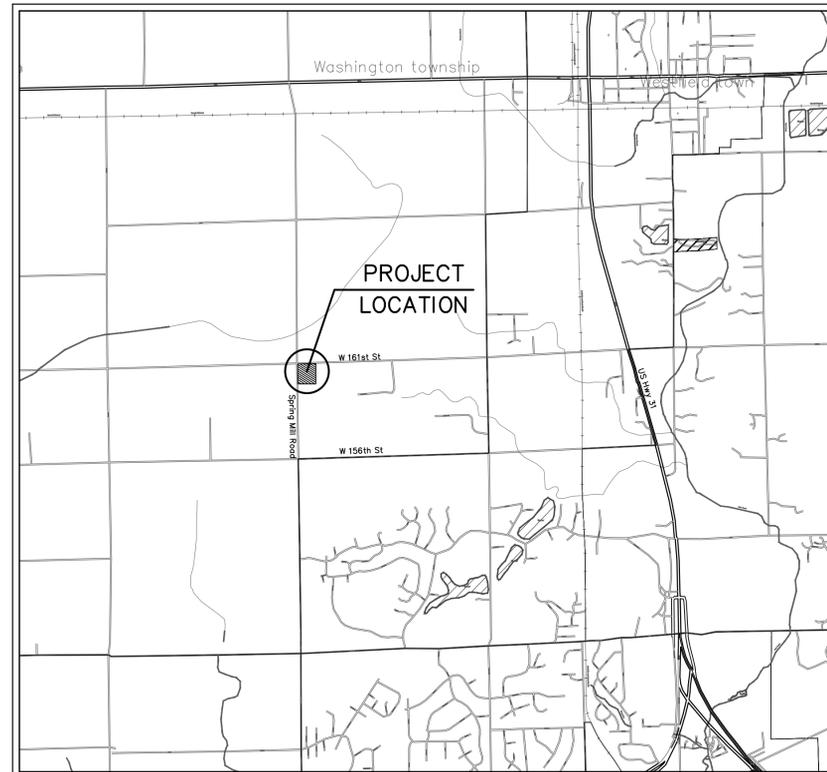


# CONSTRUCTION PLANS FOR CVS / PHARMACY

## STORE #10591 161st STREET AND SPRINGMILL ROAD WESTFIELD, INDIANA



LOCATION MAP  
NOT TO SCALE



VICINITY MAP  
NOT TO SCALE

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PLAN DATE: 05/29/2015

**NOTE:**  
1. ALL CONTRACTORS SHALL REVIEW CITY OF WESTFIELD STANDARDS AND SPECIFICATIONS PRIOR TO BIDDING ON THIS PROJECT. ADDITIONAL SPECIFICATIONS, NOT INCLUDED IN THIS SET OF PLANS, MAY BE REQUIRED. <http://www.westfield.in.gov/egov/apps/document/center.egov?view=item;id=50>

2. THE PRESENCE OF A CITY OF WESTFIELD REVIEW AND ACCEPTANCE STAMP ON PLANS DOES NOT RELIEVE THE CONTRACTOR OR DEVELOPER FROM COMPLIANCE OF THE "CITY OF WESTFIELD CONSTRUCTION STANDARDS, LATEST EDITION". THIS REVIEW ONLY DESIGNATES THAT THE GENERAL CONFORMANCE WITH DESIGN AND SPECIFICATIONS HAVE BEEN MET. FIELD CHANGES MAY BECOME NECESSARY IN ORDER TO COMPLY WITH THE DETAILED CITY OF WESTFIELD SPECIFICATIONS.

**NOTE:**  
DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH THE HAMILTON COUNTY SURVEYOR'S OFFICE AND THE CITY OF WESTFIELD CONSTRUCTION SPECIFICATIONS AND STANDARD DETAILS.

**NOTE:**  
THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING ALL PROPERTY CORNERS AND BENCHMARKS OR RELOCATING ANY AND ALL BENCHMARKS IF NEEDED TO FACILITATE CONSTRUCTION.

**CAUTION !!**  
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

1-800-382-5544  
CALL TOLL FREE  
- INDIANA UNDERGROUND -

### UTILITY CONTACTS

**CITY OF WESTFIELD - PUBLIC WORKS**  
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WESTFIELD WASHINGTON SCHOOLS  
322 WEST MAIN STREET  
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**COMMUNICATIONS**  
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**ELECTRIC**  
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TIM HARDIN  
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INDIANAPOLIS, INDIANA 46220  
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STEVE KREBS  
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INDIANAPOLIS, INDIANA 46220  
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**INDIANA GAS / VECTREN**  
RESA GLOVER & CHAD MILLER  
P.O. BOX 1700  
NOBLESVILLE, INDIANA 46061  
(317) 776-5550

**CITIZENS GAS OF WESTFIELD**  
RICH MILLER  
2150 DR. MARTIN LUTHER KING DRIVE  
INDIANAPOLIS, INDIANA 46202  
(317) 927-4684

**SANITARY SEWER AND WATER**  
CITIZENS WESTFIELD  
HARRY NIKIDES  
2150 DR. MARTIN LUTHER KING DRIVE  
INDIANAPOLIS, INDIANA 46202  
(317) 927-4338

**FIBER OPTIC**  
WESTFIELD IFN  
BRUCE SPECK  
5520 WEST 76TH STREET  
INDIANAPOLIS, INDIANA 46268

PLANS PREPARED FOR:

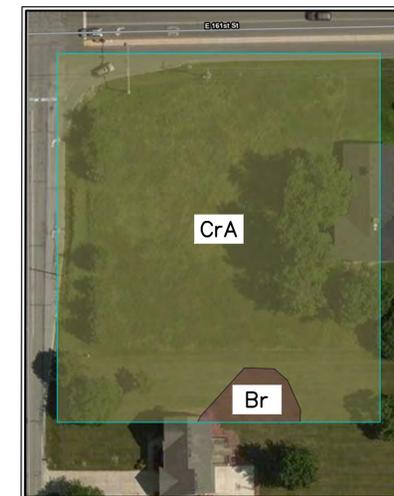
**TMC INDIANA 2, LLC**  
501 PENNSYLVANIA PKWY, SUITE 160  
INDIANAPOLIS, IN 46280

PHONE: (317) 705-8800

PLANS PREPARED BY:

**AMERICAN STRUCTUREPOINT INC.**

7260 SHADELAND STATION  
INDIANAPOLIS, IN 46256-3957  
TEL 317.547.5580 FAX 317.543.0270  
www.structurepoint.com



SOILS MAP  
NOT TO SCALE

REV	DATE	DESCRIPTION
1	7-10-2015	TAC COMMENTS
2	8-27-2015	PER OWNER
3	9-23-2015	CITY COMMENTS

**APPROVAL PENDING  
NOT FOR CONSTRUCTION**

JARED L. WILKERSON, P.E.

**C001**  
JOB# 2007.01007

GENERAL NOTES

- A.Design data provided in electronic format is for information purposes only and should be used at your own risk, and is provided without representations and warranties. Any conflict between the information reflected on the latest revision of the sealed plan sheets and that provided via electronic format shall be resolved in favor of the sealed plot sheets.
B.Utilities: There may be additional existing utilities not shown on these plans. Existing utilities are shown in an approximate manner only and the Engineer assumes no responsibility for locations shown.
C.Temporary Provisions: Sequence the work and provide temporary measures as needed to maintain access to the site through all entrances at all times during construction.
D.Equipment Storage: Do not park equipment or store materials in state, county, or city right-of-way.
E.Notify the Engineer in writing of any discrepancies between the existing conditions in the field and the survey shown on the plans before proceeding with any new construction.
F.Obtain all required construction related permits, including demolition permit, before starting work.
G.Approval of these plans does not constitute approval of any land disturbing activities within wetland areas.
H.Signs (location, number, and size) are not approved under the general development permit.
I.No certificate of occupancy will be issued until all site improvements have been completed on the site.
J.Comply with all applicable state, federal, and local building and utility installation codes.
K.Do not deviate from these plans and specifications without prior written approval from the Engineer of record.
L.Work within D.O.T. right-of-way:
1. All pavement markings within D.O.T. right-of-way shall be thermoplastic and in accordance with D.O.T. specifications.
2. Re-establish all right-of-way area, which is damaged or disturbed, to original condition or better.
3. All work in D.O.T. right-of-way shall comply with D.O.T. specifications.
M. Arrange high intensity lighting to conceal the source of light from public view and prevent interference with traffic.
N.Ensure correct horizontal and vertical alignment of all ties between proposed and existing pavements, curb and gutter, sidewalks, walls, and utilities before beginning work.

TRAFFIC CONTROL

- A.If Drawings do not indicate site specific traffic control measures, Contractor shall be responsible for providing a temporary traffic control plan in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition.
B.All temporary traffic control signage and markings shall be installed prior to construction and maintained during construction in accordance with the MUTCD, latest edition.
C.Contact property owners to be affected by construction and coordinate temporary driveway closures and sequencing.
D.Control dust as necessary to prevent interference with traffic.
E.Inspect traffic control devices on a daily basis to ensure placement of barricades and function of lights is maintained throughout construction.
F.Coordinate all lane closures with the local jurisdiction having authority.

STRUCTURE & SITE DEMOLITION

- A.Verify that utilities have been disconnected and capped before starting demolition operations.
B.Verify that hazardous materials have been remediated before proceeding with building demolition operations.
C.Environmental & Geotechnical: Review all project environmental and geotechnical reports and become familiar with all issues before demolition.
D.Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.
1. Arrange to shut off indicated utilities with utility companies.
2. If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
E.Do not commence demolition operations until temporary erosion and sediment control and plant-protection measures are in place.
F.Obtain the Demolition Permit from the local authority prior to starting demolition activities.
G.Existing Facilities: Protect adjacent walkways, loading docks, building entries, and other building facilities during demolition operations.
H.Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations.
I.Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated.
J.Remove temporary barriers and protections where hazards no longer exist.
K.Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction.
L.Do not burn demolished materials unless special written permission is obtained from Owner and Engineer.
M.Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

SITE CLEARING

- 1.1 PROJECT CONDITIONS
A.Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
B.Environmental & Geotechnical: Review all project environmental and geotechnical reports and become familiar with all issues before site clearing.
C.Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
D.Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
1.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL
A.Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
B.Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
C.Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
D.Remove erosion and sedimentation controls when site is stabilized and restore and stabilize areas disturbed during removal.
1.3 TREE AND PLANT PROTECTION
Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Engineer.
1.4 EXISTING UTILITIES
A.Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place. Arrange with utility companies to shut off indicated utilities.
B.Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner

- or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify utility owner not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without utility owner's written permission.
C.Pothole existing water lines and depths to the Engineer for review.
1.5 CLEARING AND GRUBBING
Remove obstructions, concrete, asphalt, trees, shrubs, and other vegetation to permit installation of new construction.
1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
2. Grind down stumps and remove roots, obstructions, and debris to a depth of 12 inches below exposed subgrade.
3. Use only hand methods for grubbing within protection zones.
4. The subgrade to remain shall be compacted to 95% Standard Proctor maximum dry density following clearing and grubbing activities.
1.6 TOPSOIL STRIPPING
A.Remove sod and grass before stripping topsoil.
B.Strip topsoil in a manner to prevent intermingling with underlying subsoil or other waste materials.
C.Stackpile topsoil away from edge of excavations without intermixing with subsoil.
D.Dispose of surplus topsoil.
SITE WATER DISTRIBUTION
Section 500 of the Town of Dyer Standard Specifications shall apply for all materials, installation, testing, disinfection and inspection.
1.1 GENERAL
A.Regulatory Requirements:
1. Comply with requirements of utility company supplying water.
2. Comply with standards of authorities having jurisdiction for potable-water-service piping, including materials, installation, testing, and disinfection.
B.Piping materials shall bear label, stamp, or other markings of specified testing agency.
C.Interruption of Existing Water-Distribution Service: Notify Owner at least 2 days prior to interruption of existing water services.
D.Coordinate with utility company for required inspections and for connection of water main and services before starting construction.
1.2 COPPER TUBE AND FITTINGS
A.Soft Copper Tube: ASTM B 88, Type K, water tube, annealed temper.
B.Compact Fittings:
1. NPS 2 and Smaller: Wrought-copper fitting with EPDM O-ring seal in each end.
2. NPS 2-1/2 to NPS 4: Bronze fitting with stainless-steel grip ring and EPDM O-ring seal in each end.
B.Bronze Flanges: ASME B 16.24, Class 150, with solder-joint end.
C.Copper Unions: MSS SP-123, cast-copper-alloy, hexagonal-stock body with ball-and-socket, metal-to-metal seating surfaces, and solder-joint or threaded ends.
1.3 DUCTILE-IRON PIPE AND FITTINGS
A.Mechanical-Joint, Ductile-Iron Pipe: AWWA C151, with mechanical-joint bell and plain spigot end unless grooved or flanged ends are indicated.
1. Mechanical-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
2. Glands, Gaskets, and Bolts: AWWA C111, ductile- or gray-iron glands, rubber gaskets, and steel bolts.
B.Push-on-Joint, Ductile-Iron Pipe: AWWA C151, with push-on-joint bell and plain spigot end unless grooved or flanged ends are indicated.
C.Flanges: ASME 16.1, Class 125, cast iron.
1.4 PVC PIPE AND FITTINGS
A.PVC, Schedule 40 Pipe: ASTM D 1785. PVC, Schedule 40 Socket Fittings: ASTM D 2466.
B.PVC, AWWA Pipe: AWWA C900, Class 200, with bell end with gasket, and with spigot end.
C.Mechanical-Joint, Ductile-Iron Fittings: AWWA C110, ductile- or gray-iron standard pattern or AWWA C153, ductile-iron compact pattern.
1.5 GATE VALVES
AWWA, Cast-Iron Gate Valves: Nonrising-Stem, Resilient-Seated Gate Valves: Gray- or ductile-iron body and bonnet, with bronze or gray- or ductile-iron gate, resilient seats, bronze stem, and stem nut.
1) Standard: AWWA C509.
2) Minimum Pressure Rating: 200 psig.
3) End Connections: Mechanical joint.
4) Interior Coating: Complying with AWWA C550.
1.6 GATE VALVE ACCESSORIES AND SPECIALTIES
A.Tapping-Sleeve Assemblies: Sleeve and valve compatible with drilling machine.
1) Standard: MSS SP-60.
2) Tapping Sleeve: Cast- or ductile-iron or stainless-steel, two-piece bolted sleeve with flanged outlet for new branch connection.
3) Valve: AWWA, cast-iron, nonrising-stem, resilient-seated gate valve with one raised face flange mating tapping-sleeve flange.
B.Valve Boxes: Comply with AWWA M44 for cast-iron valve boxes.
1.7 BACKFLOW PREVENTERS
Double-Check, Detector-Assembly Backflow Preventers:
1. Standards: ASSE 1048 and UL listed or FMG approved.
2. Operation: Continuous-pressure applications.
3. Pressure Loss: 5 psig maximum, through middle 1/3 of flow range.
4. Body: Cast iron with interior lining complying with AWWA C550 or that is FDA approved.
5. End Connections: Flanged.
6. Configuration: Designed for horizontal, straight through flow.
1.8 WATER METER BOXES
Description: Cast-iron body and cover for disc-type water meter, with lettering "WATER METER" in cover, and with slotted, open-bottom base section of length to fit over service piping.
1.9 CONCRETE VAULTS
Description: Precast, reinforced-concrete vault, designed for A-16 load designation according to ASTM C 857 and made according to ASTM C 858.
1. Ladder: ASTM A 36/A 36M, steel or polyethylene-encased steel steps.
2. Manhole: ASTM A 48/A 48M Class No. 35A minimum tensile strength, gray-iron traffic frame and cover.
a. Dimension: 24-inch minimum diameter, unless otherwise indicated.
3. Drain: ASME A112.6.3, cast-iron floor drain with outlet of size indicated.
1.10 FIRE HYDRANTS
Dry-Barrel Fire Hydrants: Freestanding, with one NPS 4-1/2 and two NPS 2-1/2 outlets, 5-1/4-inch main valve, drain valve, and NPS 6 mechanical-joint inlet.
2. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems according to requirements of authorities having

- 1. Standard: AWWA C502.
2. Pressure Rating: 250 psig.
1.11 FIRE DEPARTMENT CONNECTIONS
Fire Department Connections: Freestanding, with cast-bronze body, thread inlets according to NFPA 1963 and matching local fire department hose threads, and threaded bottom outlet.
1.12 VALVE APPLICATIONS
Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply:
1. Underground Valves, NPS 3 and Larger: AWWA, cast-iron, nonrising-stem, resilient-seated gate valves with valve box.
2. Use the following for valves in vaults and aboveground:
a. Gate Valves, NPS 2 and Smaller: Bronze, nonrising stem.
b. Gate Valves, NPS 3 and Larger: AWWA, cast iron, OS&Y rising stem, resilient seated.
c. Check Valves: AWWA C508, swing type.
1.13 FIELD QUALITY CONTROL
A.Piping Tests: Conduct piping tests before joints are covered and after concrete thrust blocks have hardened sufficiently.
B.Hydrostatic Tests: Test at not less than one-and-one-half times working pressure for two hours.
C.Disinfection: Clean and disinfect potable water mains as directed by the local authority.
D.Prepare reports of testing activities and submit to the Engineer for approval.
1.14 IDENTIFICATION
Install continuous underground detectable warning tape during backfilling of trench for underground water-distribution piping.
SITE SANITARY SEWERS
All sanitary sewer construction and testing shall conform to Town of Dyer Standard Specifications.
1.1 PROJECT CONDITIONS
A.Interruption of Existing Sanitary Sewerage Service: Coordinate as required with the local sanitary sewer authority before starting construction.
B.Utility Locator Service: Notify utility locator service for area where Project is located before beginning sanitary sewer installation operations.
1.2 DUCTILE-IRON, GRAVITY SEWER PIPE AND FITTINGS
A.Pipe: ASA A-21.52, CL 52 minimum, for push-on joints.
B.Compact Fittings: AWWA C153, ductile iron, for push-on joints.
C.Gaskets: AWWA C111, rubber.
1.3 PVC PIPE AND FITTINGS
PVC Gravity Sewer Piping: ASTM D-3034 SDR 26 minimum, per DDS Section 301.
1.4 CLEANOUTS
A.Cast-Iron Cleanouts:
1. Description: ASME A112.36.2M, round, gray-iron housing with clamping device and round, secured, acrotated, gray-iron cover.
2. Top-Loading Classification: Traffic rated, Heavy Duty, in all paved areas and areas subject to vehicular traffic.
3. Sewer Pipe Fitting and Riser to Cleanout: ASTM A 74, Service class, cast-iron soil pipe and fittings.
B.PVC Cleanouts: PVC body with PVC threaded plug.
1.5 MANHOLES
A.Standard Precast Concrete Manholes:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section as required to prevent flotation.
4. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
5. Riser Sections: 4-inch minimum thickness, of length to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated; with top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
8. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step.
9. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step.
10. Adjusting Rings: Interlocking HDPE rings, with level or sloped edge in thickness and diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.
11. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.
B.Manhole Frames and Covers:
1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser, with 4-inch-minimum-width flange and 26-inch-diameter cover.
2. Material: ASTM A 536, Grade 60-40-18 ductile iron unless otherwise indicated.
1.6 IDENTIFICATION
1. Use warning tape or detectable warning tape over ferrous piping.
2. Provide metallic tracer wire on PVC pipe for future location purposes, per DDS Section 303.0, use detectable warning tape over edges of underground manholes.
1.7 FIELD QUALITY CONTROL
A.Inspect interior of piping to determine whether line displacement or other damage has occurred.
1. Defects requiring correction include the following:
a. Alignment: Less than full diameter of inside of pipe is visible between structures.
b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
d. Infiltration: Water leakage into piping.
e. Exfiltration: Water leakage from or around piping.
2. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
3. Reinspect and repeat procedure until results are satisfactory.
B.Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems according to requirements of authorities having

- jurisdiction.
3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours advance notice.
4. Submit a separate report for each test to the Engineer for approval.
5. Air Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
a. Test plastic gravity sewer piping according to ASTM F 1417.
b. Manholes: Perform hydraulic test according to ASTM C 969.
C.Leaks and loss in test pressure constitute defects that must be repaired.
D.Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

SITE STORM UTILITY DRAINAGE PIPING

- 1.1 PIPE AND FITTINGS-GENERAL
1. All stormwater pipe, inlets, headwalls, and related appurtenances shall meet local D.O.T. standards.
2. All stormwater pipe shall be installed in accordance with pipe manufacturers instructions.
1.2 STEEL PIPE AND FITTINGS
Corrugated-Steel Pipe and Fittings: ASTM A 760/A 760M, Type I with fittings of similar form and construction as pipe.
1. Standard-Joint Bands: Corrugated steel.
2. Coating: Aluminum or Bituminous.
1.3 PE PIPE AND FITTINGS
1. Corrugated PE Drainage Pipe and Fittings NPS 3 to NPS 10: AASHTO M 252M; NPS 12 to NPS 48: AASHTO M 294M Type S, with smooth watertway for coupling joints.
2. Slihting Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with tube and fittings.
1.4 PVC CORRUGATED PIPE AND FITTINGS
Corrugated PVC Drainage Pipe and Fittings NPS 4 to NPS 36: Smooth interior, ASTM F949, 46 PSI stiffness when tested in accordance with ASTM D2412. PVC compound having a minimum cell classification of 12454 as defined in ASTM D1784.
1.5 CONCRETE PIPE AND FITTINGS
1. Reinforced-Concrete Sewer Pipe and Fittings: ASTM C 76, Bell-and-spigot or tongue-and-groove ends and gasketed joints with ASTM C 443, rubber gaskets or sealant joints with ASTM C 990, bitumen or butyl-rubber sealant.
2. Cast-Iron Area Drains: ASME A112.6.3 gray-iron round body with anchor flange and round grate.
1.6 MANHOLES
A.Standard Precast Concrete Manholes:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section as required to prevent flotation.
4. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
5. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated, and top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
8. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step.
9. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step.
B.Manhole Frames and Covers:
1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser with 4-inch-minimum-width flange and 26-inch-diameter cover.
2. Material: ASTM A 536, Grade 60-40-18 ductile iron unless otherwise indicated.
1.7 INLET & JUNCTION BOXES
Standard Precast Concrete:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
3. Riser Sections: 4-inch minimum thickness, 48-inch diameter, and lengths to provide depth indicated.
4. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
5. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
6. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step.
7. Pipe Connectors: ASTM C 923, resilient, of size required, for each pipe connecting to base section.
1.8 STORMWATER DETENTION STRUCTURES
A.Cast-in-Place Concrete, Stormwater Detention Structures: Constructed of reinforced-concrete bottom, walls, and top; designed according to ASTM C 890 for A-16 (AASHTO HS20-44), heavy-traffic, structural loading; of depth, shape, dimensions, and appurtenances indicated.
1. Ballast: Increase thickness of concrete as required to prevent flotation.
2. Grade Rings: Include two or three reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch-diameter frame and cover.
3. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step.
4. Form and cast wiers and pipe openings as indicated on Drawings.
B.Manhole Frames and Covers: ASTM A 536, Grade 60-40-18, ductile-iron castings designed for heavy-duty service.
1.9 PIPE OUTLETS
A.Pre-Cast Head Walls: Pre-Cast reinforced concrete, with apron and tapered sides.
B.Slope Paved Head Walls: cast-in-place reinforced concrete as shown on Drawings.
C.Riprap Basins: Broken, irregularly sized and shaped, graded stone according to NSSGA's "Quarried Stone for Erosion and Sediment Control." Minimum stone size and dimensions as shown on Drawings.
1.10 PIPING INSTALLATION
A.Install locator wire or tape 6-inches above all non-metallic piping.
B.Install bedding and backfill in accordance with pipe manufacturers instructions.
C.Begin installation at downstream piping connection to outfall point.

- 1.11 PE PIPE AND FITTINGS
1. Corrugated PE Drainage Pipe and Fittings NPS 3 to NPS 10: AASHTO M 252M; NPS 12 to NPS 48: AASHTO M 294M Type S, with smooth watertway for coupling joints.
2. Slihting Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with tube and fittings.
1.4 PVC CORRUGATED PIPE AND FITTINGS
Corrugated PVC Drainage Pipe and Fittings NPS 4 to NPS 36: Smooth interior, ASTM F949, 46 PSI stiffness when tested in accordance with ASTM D2412. PVC compound having a minimum cell classification of 12454 as defined in ASTM D1784. Fittings: Smooth interior, ASTM F949, Section 5.2.3 or F794, Section 7.2.4. Joints shall be made with integrally-formed bell and spigot gasketed connections. Manufacturer shall provide documentation showing no leakage when gasketed pipe joints are tested in accordance with ASTM D3212. Elastomeric seals (gaskets) shall meet ASTM F477.
1.5 CONCRETE PIPE AND FITTINGS
1. Reinforced-Concrete Sewer Pipe and Fittings: ASTM C 76, Bell-and-spigot or tongue-and-groove ends and gasketed joints with ASTM C 443, rubber gaskets or sealant joints with ASTM C 990, bitumen or butyl-rubber sealant. Class III, Wall B.
2. Cast-Iron Area Drains: ASME A112.6.3 gray-iron round body with anchor flange and round grate. Include bottom outlet with inside calk or spigot connection, of sizes indicated.
1.6 MANHOLES
A.Standard Precast Concrete Manholes:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section as required to prevent flotation.
4. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
5. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated, and top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
8. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 48 inches.
B.Manhole Frames and Covers:
1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser with 4-inch-minimum-width flange and 26-inch-diameter cover. Include indented top design with lettering cast into cover, using wording equivalent to "STORM SEWER."
2. Material: ASTM A 536, Grade 60-40-18 ductile iron unless otherwise indicated.
1.7 INLET & JUNCTION BOXES
Standard Precast Concrete:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
3. Riser Sections: 4-inch minimum thickness, 48-inch diameter, and lengths to provide depth indicated.
4. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
5. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
6. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of catch basin to finished grade is less than 48 inches.
7. Pipe Connectors: ASTM C 923, resilient, of size required, for each pipe connecting to base section.
1.8 STORMWATER DETENTION STRUCTURES
A.Cast-in-Place Concrete, Stormwater Detention Structures: Constructed of reinforced-concrete bottom, walls, and top; designed according to ASTM C 890 for A-16 (AASHTO HS20-44), heavy-traffic, structural loading; of depth, shape, dimensions, and appurtenances indicated.
1. Ballast: Increase thickness of concrete as required to prevent flotation.
2. Grade Rings: Include two or three reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch-diameter frame and cover.
3. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of structure to finished grade is less than 48 inches.
4. Form and cast wiers and pipe openings as indicated on Drawings.
B.Manhole Frames and Covers: ASTM A 536, Grade 60-40-18, ductile-iron castings designed for heavy-duty service.
1.9 PIPE OUTLETS
A.Pre-Cast Head Walls: Pre-Cast reinforced concrete, with apron and tapered sides.
B.Slope Paved Head Walls: cast-in-place reinforced concrete as shown on Drawings.
C.Riprap Basins: Broken, irregularly sized and shaped, graded stone according to NSSGA's "Quarried Stone for Erosion and Sediment Control." Minimum stone size and dimensions as shown on Drawings.
1.10 PIPING INSTALLATION
A.Install locator wire or tape 6-inches above all non-metallic piping.
B.Install bedding and backfill in accordance with pipe manufacturers instructions.
C.Begin installation at downstream piping connection to outfall point.

- 1. Description: ASME A112.36.2M, round, gray-iron housing with clamping device and round, secured, acrotated, gray-iron cover. Include gray-iron ferrule with inside calk or spigot connection and countersunk, tapered-thread, brass closure plug.
2. Top-Loading Classification: Traffic rated, Heavy Duty, in all paved areas and areas subject to vehicular traffic.
3. Sewer Pipe Fitting and Riser to Cleanout: ASTM A 74, Service class, cast-iron soil pipe and fittings.
B.PVC Cleanouts: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping. Use in Light Duty applications where there is pedestrian traffic only or in landscaped areas.
1.5 MANHOLES
A.Standard Precast Concrete Manholes:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
4. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
5. Riser Sections: 4-inch minimum thickness, of length to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated; with top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
8. Resilient Pipe Connectors: ASTM C 923, cast or fitted into manhole walls, for each pipe connection.
9. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 48 inches.
10. Adjusting Rings: Interlocking HDPE rings, with level or sloped edge in thickness and diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.
11. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.
B.Manhole Frames and Covers:
1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser, with 4-inch-minimum-width flange and 26-inch-diameter cover. Include indented top design with lettering cast into cover, using wording equivalent to "SANITARY SEWER."
2. Material: ASTM A 536, Grade 60-40-18 ductile iron unless otherwise indicated.
1.6 IDENTIFICATION
1. Use warning tape or detectable warning tape over ferrous piping.
2. Provide metallic tracer wire on PVC pipe for future location purposes, per DDS Section 303.0, use detectable warning tape over edges of underground manholes.
1.7 FIELD QUALITY CONTROL
A.Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
1. Defects requiring correction include the following:
a. Alignment: Less than full diameter of inside of pipe is visible between structures.
b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
d. Infiltration: Water leakage into piping.
e. Exfiltration: Water leakage from or around piping.
2. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
3. Reinspect and repeat procedure until results are satisfactory.
B.Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems according to requirements of authorities having

- jurisdiction.
3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours advance notice.
4. Submit a separate report for each test to the Engineer for approval.
5. Air Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction, UNI-B-6, and the following:
a. Test plastic gravity sewer piping according to ASTM F 1417.
b. Manholes: Perform hydraulic test according to ASTM C 969.
C.Leaks and loss in test pressure constitute defects that must be repaired.
D.Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.
SITE STORM UTILITY DRAINAGE PIPING
1.1 PIPE AND FITTINGS-GENERAL
1. All stormwater pipe, inlets, headwalls, and related appurtenances shall meet local D.O.T. standards.
2. All stormwater pipe shall be installed in accordance with pipe manufacturers instructions.
1.2 STEEL PIPE AND FITTINGS
Corrugated-Steel Pipe and Fittings: ASTM A 760/A 760M, Type I with fittings of similar form and construction as pipe.
1. Standard-Joint Bands: Corrugated steel.
2. Coating: Aluminum or Bituminous.
1.3 PE PIPE AND FITTINGS
1. Corrugated PE Drainage Pipe and Fittings NPS 3 to NPS 10: AASHTO M 252M; NPS 12 to NPS 48: AASHTO M 294M Type S, with smooth watertway for coupling joints.
2. Slihting Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with tube and fittings.
1.4 PVC CORRUGATED PIPE AND FITTINGS
Corrugated PVC Drainage Pipe and Fittings NPS 4 to NPS 36: Smooth interior, ASTM F949, 46 PSI stiffness when tested in accordance with ASTM D2412. PVC compound having a minimum cell classification of 12454 as defined in ASTM D1784. Fittings: Smooth interior, ASTM F949, Section 5.2.3 or F794, Section 7.2.4. Joints shall be made with integrally-formed bell and spigot gasketed connections. Manufacturer shall provide documentation showing no leakage when gasketed pipe joints are tested in accordance with ASTM D3212. Elastomeric seals (gaskets) shall meet ASTM F477.
1.5 CONCRETE PIPE AND FITTINGS
1. Reinforced-Concrete Sewer Pipe and Fittings: ASTM C 76, Bell-and-spigot or tongue-and-groove ends and gasketed joints with ASTM C 443, rubber gaskets or sealant joints with ASTM C 990, bitumen or butyl-rubber sealant. Class III, Wall B.
2. Cast-Iron Area Drains: ASME A112.6.3 gray-iron round body with anchor flange and round grate. Include bottom outlet with inside calk or spigot connection, of sizes indicated.
1.6 MANHOLES
A.Standard Precast Concrete Manholes:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
2. Diameter: 48 inches minimum unless otherwise indicated.
3. Ballast: Increase thickness of precast concrete sections or add concrete to base section as required to prevent flotation.
4. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and separate base slab or base section with integral floor.
5. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.
6. Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated, and top of cone of size that matches grade rings.
7. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
8. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 48 inches.
B.Manhole Frames and Covers:
1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser with 4-inch-minimum-width flange and 26-inch-diameter cover. Include indented top design with lettering cast into cover, using wording equivalent to "STORM SEWER."
2. Material: ASTM A 536, Grade 60-40-18 ductile iron unless otherwise indicated.
1.7 INLET & JUNCTION BOXES
Standard Precast Concrete:
1. Description: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
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7. Pipe Connectors: ASTM C 923, resilient, of size required, for each pipe connecting to base section.
1.8 STORMWATER DETENTION STRUCTURES
A.Cast-in-Place Concrete, Stormwater Detention Structures: Constructed of reinforced-concrete bottom, walls, and top; designed according to ASTM C 890 for A-16 (AASHTO HS20-44), heavy-traffic, structural loading; of depth, shape, dimensions, and appurtenances indicated.
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3. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of structure to finished grade is less than 48 inches.
4. Form and cast wiers and pipe openings as indicated on Drawings.
B.Manhole Frames and Covers: ASTM A 536, Grade 60-40-18, ductile-iron castings designed for heavy-duty service.
1.9 PIPE OUTLETS
A.Pre-Cast Head Walls: Pre-Cast reinforced concrete, with apron and tapered sides.
B.Slope Paved Head Walls: cast-in-place reinforced concrete as shown on Drawings.
C.Riprap Basins: Broken, irregularly sized and shaped, graded stone according to NSSGA's "Quarried Stone for Erosion and Sediment Control." Minimum stone size and dimensions as shown on Drawings.
1.10 PIPING INSTALLATION
A.Install locator wire or tape 6-inches above all non-metallic piping.
B.Install bedding and backfill in accordance with pipe manufacturers instructions.
C.Begin installation at downstream piping connection to outfall point.

NOTE: CONTRACTOR TO FOLLOW THE MORE STRINGENT OF EITHER THE CITY SPECIFICATIONS, UTILITY PROVIDER SPECIFICATIONS OR THE SPECIFICATIONS SHOWN HEREIN. MATERIAL TYPES, PARTS SUCH AS VALVES, HYDRANTS, ETC. MUST FOLLOW UTILITY PROVIDER REQUIREMENTS.

PRINT DATE: 9/29/15 PLOT SCALE: 1:25000 DRAWING FILE: P:\IN2007\1007A.D. DRAWINGS\CIVIL.C. CONSTRUCTION DOCUMENTS\2007\1007A.CE.C002-C003.SPEC.DWG

CVS pharmacy
13,225 TYPE-B CHAMFER DRIVE-THRU
STORE NUMBER: 10591
161ST STREET AND SPRING MILL ROAD WESTFIELD, INDIANA
PROJECT TYPE: NEW STORE
DEAL TYPE: CS PROJECT NUMBER: 071776

ARCHITECT OF RECORD

CONSULTANT: AMERICAN STRUCTUREPOINT INC.
7260 SHADELAND STATION INDIANAPOLIS, INDIANA 46256 p(317) 547-5580 f(317) 543-0270 www.structurepoint.com

DEVELOPER: TMC Indiana 2, LLC
501 Pennsylvania Pkwy. Suite 160 Indianapolis, Indiana 46280 Phone (317) 705-8800 Contact: Craig Forgey

SEAL: APPROVAL PENDING NOT FOR CONSTRUCTION

Table with 3 columns: REVISIONS, TAC COMMENTS, PER OWNER, CITY COMMENTS. Includes dates like 07-10-2015, 08-27-2015, 09-23-2015.

PLANNING MGR: JLW
DRAWING BY: RCB
DATE: 05-29-2015
JOB NUMBER: 2007.01007
TITLE: CIVIL SPECIFICATIONS
SHEET NUMBER: C002
COMMENTS:

PRINT DATE: 9/29/15 PLOT SCALE: 1:2,500 DRAWING FILE: P:\IN2007\1007A.DRAWINGS\CIVIL.C - CONSTRUCTION DOCUMENTS\20071007A.CE.C002 - C003.SPEC.DWG DRAWING BY: BREBGER EDIT DATE: 9/24/15 - 8:19 AM EDITED BY: BREBGER

D. Construct all headwalls flush with existing and proposed embankment slopes.

#### 1.11 CLEANING

- A. Clean interior of piping of dirt and superfluous materials. Flush with potable water.
- B. Clean accumulated sediment from stormwater pipes, conveyance channels, and pond once site is stabilized with vegetation.

#### EARTH MOVING

##### 1.1 PROJECT CONDITIONS

- A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth moving operations.
- B. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures are in place.
- C. Do not commence earth moving operations until plant-protection measures are in place.
- D. Do not commence earth moving operations without reviewing and making provisions for all Geotechnical recommendations made in the project Geotechnical Report. Comply with recommendations in the geotechnical report regarding general site preparation, building pad preparation, pavement sections, fill, and excavation.
- E. Retain a copy of the project Geotechnical Report at the work site at all times. Any discrepancies between these specifications and the project Geotechnical Report shall be resolved in favor of the project Geotechnical Report.
- F. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- G. Protect and maintain erosion and sedimentation controls during earth moving operations.

##### 1.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
- C. Design and provide dewatering system using accepted and professional methods consistent with current industry practice. Provide dewatering system of sufficient size and capacity to control groundwater in a manner that preserves strength of foundation soils, does not cause instability or raveling of excavation slopes, and does not result in damage to existing structures. Lower water level in advance of excavation by utilizing wells, wellpoints, or similar positive control methods. Maintain the groundwater level to a minimum of two (2) feet below excavations. Provide piezometers as directed by the Engineer to document that the groundwater level is being maintained.
- D. By acceptable means, contractor shall control all water regardless of source and is responsible for proper disposal of the water. No additional payment will be made for any supplemental measures to control seepage, groundwater, or artesian head.
- E. Open pumping with sumps and ditches shall be allowed, provided it does not result in boils, loss of fines, softening of the ground, or instability of slopes. Sumps shall be located outside of load bearing areas so the bearing surfaces will not be disturbed. Water containing silt in suspension shall not be pumped into sewer lines or adjacent water bodies. During normal pumping and upon development of wells(s), levels of fine sand or silt in the discharge of water shall not exceed five (5) ppm.
- F. Continuously maintain excavations in a dry condition with positive dewatering methods during preparation of subgrade, installation of pipe, and construction of structures until the critical period of construction and/or backfill is completed to prevent damage of subgrade support, piping, structure, side slopes, or adjacent facilities for flotation or other hydrostatic pressure imbalance.
- G. When construction is complete, properly remove all dewatering equipment from the site, including wells and related temporary electrical service.

##### 1.3 SUBGRADE

- A. Notify Project Geotechnical Engineer when excavations have reached required subgrade.
- B. If Project Geotechnical Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Project Geotechnical Engineer, and replace with compacted backfill or fill as directed.
- D. In heavy duty pavement areas, the gravel aggregate base shall be extended under the curb and gutter section to provide additional stability for truck travel.

##### 1.4 UTILITY TRENCH BEDDING AND BACKFILL

- A. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
  - B. Use Class B bedding under all PVC piping.
  - C. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit.
  - D. Backfill all utilities under roadways and traffic areas with crushed stone.
- ##### 1.5 COMPACTION OF SOIL BACKFILLS AND FILLS
- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tamps.
  - B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure. Compact soil materials as indicated on drawings or as indicated in the project Geotechnical Report.
  - C. Provide construction phase monitoring and testing as recommended in the project Geotechnical Report. Provide test reports to the Engineer for review and approval.

##### 1.6 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
  1. Provide a smooth transition between adjacent existing grades and new grades.
  2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Landscape Islands: Fill all curbed islands to top of curb with topsoil and apply seed and mulch unless drawings indicate otherwise.
- C. Slopes: Do not create cut or fill slopes steeper than 2h:1v without obtaining special written permission from the Engineer of Record and project Geotechnical Engineer.

##### 1.7 PROTECTION

- Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris. See erosion and sediment control plan and notes for further information.

#### ASPHALT PAVING

##### 1.1 FIELD CONDITIONS

- Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
  1. Prime Coat: Minimum surface temperature of 60 deg F.
  2. Tack Coat: Minimum surface temperature of 60 deg F.
  3. Slurry Coat: Comply with weather limitations in ASTM D 3910.
  4. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
  5. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

##### 1.2 ASPHALT MATERIALS

- A. Refer to Project Geotechnical Report and project drawings for required asphalt material design.
- B. Aggregates shall meet the requirements of the local Department of Transportation.
- C. Reclaimed Asphalt Pavement (RAP) shall not be used in the mix design.

##### 1.3 PATCHING

- A. Asphalt Pavement: Sawcut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into perimeter of adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.

- B. Tack Coat: Before placing patch material, apply tack coat uniformly to vertical asphalt surfaces abutting the patch. Apply at a rate of 0.05 to 0.15 gal./sq. yd.
  1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

- C. Placing Patch Material: Fill excavated pavement areas with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.
- ##### 1.4 SURFACE PREPARATION
- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving. Sawcut existing pavement to the joint to provide vertical faces between new and existing surfaces.
  - B. Emulsified Asphalt Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.10 to 0.30 gal./sq. yd. per inch depth. Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure.
    1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
    2. Protect primed substrate from damage until ready to receive paving.
  - C. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.02 to 0.08 gal./sq. yd.
    1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
    2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

##### 1.5 PLACING HOT-MIX ASPHALT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
  1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
  2. Place hot-mix asphalt surface course in single lift.
  3. Spread mix at a minimum temperature of 250 deg F.
  4. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
  5. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.

##### 1.6 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
- B. Construct smooth transitions between new and existing paving sections.

##### 1.7 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers. Complete compaction before mix temperature cools to 185 deg F.
  1. Initial Lift: Average of 92% of maximum theoretical density.
  2. Top Surface Lift: Average of 93% of maximum theoretical density.
  3. Tolerance: +2.0%, -1.0% of any individual test.
- B. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- C. Erect barricades to protect paving from traffic for at least 24 hours after placement for the binder course, and at least 72 hours after placement for the final wearing surface.
- D. If the ambient air temperature is in excess of 90 degrees Fahrenheit during the 72 hour protection period, the pavement surface shall be flooded with water to rapidly cool the pavement at least once per day.

##### 1.8 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Conduct tests and reports specified in the project Geotechnical Report.
- C. Testing agency must inspect and approve the subgrade, each fill layer, and the subbase and base course.
- D. Promptly send test reports to the Engineer for review and approval.
- E. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

#### CONCRETE PAVING

##### 1.1 PROJECT CONDITIONS

- Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

##### 1.2 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets.
- B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- C. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.
- D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified, and as follows:

##### 1.3 CONCRETE MATERIALS

- A. Cementitious Material: Use cementitious materials, of same type, brand, and source throughout Project.
- B. Normal-Weight Aggregates: ASTM C 33, uniformly graded. Provide aggregates from a single source.
  1. Maximum Course-Aggregate Size: 1 inch nominal.
  2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

##### 1.4 RELATED MATERIALS

- Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber in preformed strips.

##### 1.5 WHEEL STOPS

- Wheel Stops: Precast, air-entrained concrete, 2500-psi minimum compressive strength. Provide chamfered corners and drainage slots on underside and holes for anchoring to substrate.

##### 1.6 SIDEWALKS

- Sidewalks: Slope sidewalks away from building with a 2% cross-slope unless Drawings indicate otherwise.

##### 1.7 PREPARATION

- Remove loose material from compacted subbase surface immediately before placing concrete.

##### 1.8 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining welds to prevent continuous laps in either direction.
- E. Zinc-Coated Reinforcement: Use galvanized-steel wire ties to fasten zinc-coated reinforcement. Repair cut and damaged zinc coatings with zinc repair material.

##### 1.9 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.

1. When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated.
2. Ensure forms provide correct horizontal and vertical alignment between new and existing

- pavements, sidewalks, curb and gutter, etc.

- B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.

1. Continue steel reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of paving strips unless otherwise indicated.
2. Provide tie bars at sides of paving strips where indicated.
3. Keyed Joints: Provide preformed keyway-section forms or bulkhead forms with keys unless otherwise indicated. Embed keys at least 1-1/2 inches into concrete.
4. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.

- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.

1. Locate expansion joints at intervals of 30 feet unless otherwise indicated.
2. Extend joint fillers full width and depth of joint.
3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
6. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.
3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.

- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

##### 1.10 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Promptly send test reports to the Engineer for review and approval.
- C. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed by the General Contractor's testing agency according to the following requirements:
  1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
  2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
  3. Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
  4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when it is 80 deg F and above, and one test for each composite sample.
  5. Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
  6. Compressive-Strength Tests: ASTM C 39/C 39M; test one specimen at seven days and two specimens at 28 days. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at 28 days.

- D. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- E. Test results shall be reported in writing to Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- F. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Engineer.
- G. Concrete paving will be considered defective if it does not pass tests and inspections.
- H. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

##### 1.11 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Engineer.
- B. Drill test cores, where directed by Engineer, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive.
- C. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Compaction inspections.

#### PAVEMENT MARKINGS

##### 1.1 QUALITY ASSURANCE

- Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of state D.O.T. or local municipality for pavement-marking work.

##### 1.2 FIELD CONDITIONS

- Environmental Limitations: Proceed with pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F for alkyl materials, 55 deg F for water-based materials, and not exceeding 95 deg F.

##### 1.3 PAVEMENT-MARKING PAINT

- A. Pavement-Marking Paint: Alkyl-resin type, lead and chromate free, ready mixed, complying with AASHTO M 248; colors complying with FS TT-P-1952. Color: As indicated.
- B. All pavement marking within D.O.T. right-of-way shall be thermoplastic and in accordance with D.O.T. specifications.

##### 1.4 PAVEMENT MARKING

- Apply temporary pavement marking before traffic is allowed on any newly paved area or as site conditions dictate. Allow final wearing surface to age for a minimum of 30 days before applying final permanent pavement marking.

##### 1.5 PROTECTING AND CLEANING

- A. Protect pavement markings from damage and wear during remainder of construction period.
- B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

#### CHAIN LINK FENCES AND GATES

##### 1.1 PROJECT CONDITIONS

- Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

##### 1.2 WARRANTY

- Special Warranty: Manufacturer's standard form in which Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.

##### 1.3 CHAIN-LINK FENCE FABRIC

- General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:

1. Fabric Height: As indicated on Drawings.
2. Steel Wire Fabric: Wire with a diameter of 0.148 inch.
  - a. Mesh Size: 2 inches.
  - b. Polymer-Coated Fabric: ASTM F 668, over zinc-coated steel wire. Color: Black, complying with ASTM F 934.
3. Selvage: Twisted top and knuckled bottom.

##### 1.4 FENCE FRAMING

- Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 based on the following:

1. Fence Height: As indicated on Drawings.
2. Material
  - a. Line Post: 1.9 inches in diameter.
  - b. End, Corner and Pull Post: 2.375 inches.
3. Horizontal Framework Members: top rails complying with ASTM F 1043. Top Rail: 1.66 inches in diameter.
4. Brace Rails: Comply with ASTM F 1043.
5. Metallic Coating for Steel Framing: Type A, consisting of not less than minimum 2.0-oz./sq. ft. average zinc coating per ASTM A 123/A 123M or 4.0-oz./sq. ft. zinc coating per ASTM A 653/A 653M.

##### 1.5 TENSION WIRE

- Metallic-Coated Steel Wire: 0.177-inch-diameter, marcelled tension wire complying with ASTM A 817 and ASTM A 824, with the following metallic coating: Type II, zinc coated (galvanized) by hot-dip process, with the following minimum coating weight: Matching chain-link fabric coating weight.

##### 1.6 SWING GATES

- A. General: Comply with ASTM F 900 for gate posts and single or double swing gate types.

1. Gate Leaf Width: As indicated.
2. Gate Fabric Height: As indicated.

##### B. Pipe and Tubing:

1. Zinc-Coated Steel: Comply with ASTM F 1043 and ASTM F 1083; protective coating and finish to match fence framing.
  2. Gate Posts: Round tubular steel.
  3. Gate Frames and Bracing: Round tubular steel.
- C. Frame Corner Construction: assembled with corner fittings.
  - D. Hardware:
    1. Hinges: 360-degree inward and outward swing.
    2. Latches: permitting operation from both sides of gate with provision for padlocking accessible from both sides of gate.

##### 1.7 FITTINGS

- A. General: Comply with ASTM F 626.

- B. Post Caps: Provide for each post. Provide line post caps with loop to receive tension wire or top rail.

- C. Rail and Brace Ends: For each gate, corner, pull, and end post.

##### D. Rail Fittings: Provide the following:

1. Top Rail Sleeves: Pressed-steel or round-steel tubing not less than 6 inches long.
  2. Rail Clamps: Line and corner boulevard clamps for connecting rails in the fence line-to-line posts.
- E. Tension and Brace Bands: Pressed steel.
  - F. Tension Bars: Steel, length not less than 2 inches shorter than full height of chain-link fabric. Provide one bar for each gate and end post, and two for each corner and pull post, unless fabric is integrally woven into post.
  - G. Truss Rod Assemblies: Steel, hot-dip galvanized after threading rod and turnbuckle or other means of adjustment.

- H. Tie Wires, Clips, and Fasteners: According to ASTM F 626. Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following: Hot-Dip Galvanized Steel: 0.148-inch-diameter wire; galvanized coating thickness matching coating thickness of chain-link fence fabric.

##### 1.8 GROUT AND ANCHORING CEMENT

- A. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer, for exterior applications.

##### 1.9 ADJUSTING

- Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

# CVS pharmacy

13,225 TYPE-B  
CHAMFER DRIVE-THRU

STORE NUMBER: 10591  
161ST STREET AND SPRING HILL ROAD  
WESTFIELD, INDIANA

PROJECT TYPE: NEW STORE  
REAL TYPE:  
CS PROJECT NUMBER: 071776

#### ARCHITECT OF RECORD

#### CONSULTANT:



AMERICAN  
STRUCTUREPOINT  
INC.

7260 SHADELAND STATION  
INDIANAPOLIS, INDIANA 46256  
p(317) 547-5580 f(317) 543-0270  
www.structurepoint.com

#### DEVELOPER:

TMC Indiana 2, LLC  
501 Pennsylvania Pkwy.  
Suite 160  
Indianapolis, Indiana 46280  
Phone (317) 705-8800  
Contact: Craig Forgey

#### SEAL:

APPROVAL PENDING  
NOT FOR CONSTRUCTION

#### REVISIONS:

NO.	DESCRIPTION	DATE
1	TAC COMMENTS	07-10-2015
2	PER OWNER	08-27-2015
3	CITY COMMENTS	09-23-2015

PLANNING MGR: JLW

DRAWING BY: RCB

DATE: 05-29-2015

JOB NUMBER: 2007.01007

TITLE:

CIVIL  
SPECIFICATIONS

PRINT DATE: 9/29/15 PLOT SCALE: 1:2.5849 EDIT DATE: 9/24/15 - 5:08 PM DRAWING FILE: P:\IN2007\1007\03\_DRAWINGS\CIVIL\C - CONSTRUCTION DOCUMENTS\200701007\CE.C004.GND.WG

**GENERAL NOTES**

- ALL WORK TO CONFORM TO FEDERAL, STATE AND LOCAL REGULATIONS.
- CONTRACTOR SHALL KEEP ADJOINING PROPERTIES CLEAN OF CONSTRUCTION DEBRIS AND CONSTRUCTION TRAFFIC AT ALL TIMES.
- THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE BASE SURVEY CONTROL POINTS DURING DEMOLITION AND CONSTRUCTION.
- ALL UTILITY INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR. CONTACT ENGINEER IMMEDIATELY IF ANY VARIATION EXISTS.
- MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION AND CONSTRUCTION OPERATIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

**DEMOLITION NOTES**

- CLEAR AND GRUB ALL TREES AND VEGETATION NECESSARY FOR CONSTRUCTION.
- PROTECT TREES TO REMAIN DURING CONSTRUCTION.
- PLANT MATERIALS TO REMAIN, TO BE PROTECTED BY TREE FENCE WHICH ENCOMPASSES IT'S DRIP LINE. NO CONSTRUCTION EQUIPMENT, MATERIALS OR DEBRIS SHALL BE LOCATED WITHIN TREE PROTECTION BOUNDARIES. NO DEMOLITION CAN OCCUR UNTIL TREE PROTECTION IS APPROVED BY THE OWNER.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, FENCES, CONCRETE, ASPHALT PAVEMENT AND OTHER MISCELLANEOUS APPURTENANCES OFF SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
- DEMOLISH FOUNDATIONS AND OTHER BELOW-GRADE CONSTRUCTION, INCLUDING CONCRETE SLABS, TO A DEPTH OF NOT LESS THAN 48 INCHES BELOW LOWEST FOUNDATION LEVEL.
- COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION OF STRUCTURES, WITH COMPACTED GRANULAR BACKFILL.
- THE USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
- CONDUCT DEMOLITION AND CONSTRUCTION OPERATIONS TO ENSURE MINIMAL INTERFERENCE WITH STREETS, WALKS AND OTHER ADJACENT OCCUPIED FACILITIES.
- DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
- ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION AND CONSTRUCTION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT STRUCTURES AND OTHER FACILITIES AND INJURY TO PERSONS.
- PROMPTLY REPAIR DAMAGE TO ADJACENT FACILITIES CAUSED BY DEMOLITION AND CONSTRUCTION OPERATIONS.
- ALL UTILITIES TO BE REMOVED SHALL BE DISCONNECTED AND CAPPED AT THE NEAREST CONNECTION POINT.
- NO ON-SITE BURNING IS PERMITTED.
- CONTRACTOR SHALL USE MEASURES TO CONTROL DUST AT ALL TIMES.
- DEMOLITION ITEMS INCLUDE BUT ARE NOT LIMITED TO DEMOLITION ITEMS INDICATED ON THIS PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OR RELOCATE ITEMS WHICH INTERFERE WITH NEW CONSTRUCTION.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING DEMOLITION.

**SITE NOTES**

- ALL PARKING STRIPES ARE TO BE 4" PAINTED (WHITE). ADA ACCESSIBLE PARKING STRIPES SHALL BE 4" PAINTED (BLUE).
- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR FACE OF CURB, UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE TO FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE.
- ALL DIMENSIONS ARE PARALLEL WITH, OR PERPENDICULAR TO BASE LINES, PROPERTY LINES OR BUILDING LINES, UNLESS OTHERWISE NOTED.
- PROVIDE SMOOTH TRANSITIONS FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.
- RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE THE EXISTING PAVEMENT OR LAWNS ARE DAMAGED DURING CONSTRUCTION FROM TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS AFTER CONSTRUCTION WORK IS COMPLETE.
- EXISTING PAVEMENT TO BE SAW CUT IN ALL AREAS WHERE INDICATED NEW PAVEMENT TO JOIN EXISTING.
- THE EDGE OF THE EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING ASPHALT.
- CONCRETE SAW CUTTING SHALL BE DONE AS SOON AS POURED CONCRETE HAS CURED AND CAN SUPPORT WEIGHT. PROVIDE A NEAT CUT WHICH IS TRUE IN ALIGNMENT.
- ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.
- RADIAL JOINTS SHALL BE NO SHORTER THAN 1.5'.
- CONTRACTOR SHALL USE A THICKENED EXPANSION JOINT AROUND THE PERIMETER OF ANY BLOCK OUT IN THE CONCRETE PAVING.
- ALL CONSTRUCTION JOINTS SHALL BE SAWN, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED WITH THE APPROPRIATE SEALANT ACCORDING TO MANUFACTURER'S DIRECTIONS.
- ALL MATERIALS TO BE IN ACCORDANCE WITH LOCAL DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS RELATIVE TO MATERIAL, MIX, PLACEMENT AND WORKMANSHIP.
- ALL SIDEWALKS SHALL COMPLY WITH ADA STANDARDS. MAXIMUM CROSS SLOPE OF 1:50 AND MAXIMUM LONGITUDINAL SLOPE OF 1:20.
- CHAMFER ALL ENDS OF CURBS.

**GRADING NOTES**

- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
- CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE AT HIS/HER OWN COST.
- AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL SHALL BE PERFORMED BY A LOADED TANDEM PNEUMATIC TIRE DUMP TRUCK MINIMUM GROSS VEHICLE WEIGHT OF 22 TONS. THE TIRES SHALL BE OPERATED AT INFLATION PRESSURES BETWEEN 70-80 PSI UNLESS OTHERWISE NOTED BY THE GEOTECHNICAL ENGINEER. THE TIRES SHALL BE INFLATED WITH AIR ONLY, NO LIQUID SHALL BE USED. THE PROOFROLL SHALL BE COMPLETED UNDER INSPECTION OF SOILS FIRM TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, STANDING WATER CONDITIONS.
- ALL PROPOSED SPOT ELEVATIONS OR CONTOURS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- CONTRACTOR TO PERPETUATE ANY SUBSURFACE DRAIN TILES OR PIPES ENCOUNTERED DURING CONSTRUCTION AND PROVIDE POSITIVE OUTLET TO DOWNSTREAM RECEIVING SYSTEM. CONTRACTOR TO NOTIFY THE ENGINEER WITH ANY CIRCUMSTANCES WHERE THIS CANNOT BE ACCOMPLISHED.
- DUE TO SITE CONSTRAINTS, THE EARTHWORK FOR THE SITE AS DESIGNED MAY OR MAY NOT BALANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE EXISTING CONDITIONS AND INCLUDE IN THEIR BID ALL EARTHWORK COSTS INCLUDING IMPORTS AND/OR EXPORTS NECESSARY TO MAKE THE SITE BALANCE.
- CONTRACTOR TO STABILIZE EXPOSED EARTH AS INDICATED BY THE STORMWATER POLLUTION PREVENTION PLAN OR GOVERNING AUTHORITY.

**UTILITY NOTES**

- SITE UTILITIES SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
- CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE.
- ALL UTILITY MATERIALS AND INSTALLATION SHALL CONFORM TO LOCAL STANDARDS FOR EACH UTILITY AGENCY HAVING JURISDICTION.
- TRENCHES FOR ALL UTILITY LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF THE TOP OF THE TRENCH IS WITHIN 5 FEET OF PAVEMENT.
- CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES AND CONDUITS TO AVOID CONFLICTS AND PROVIDE REQUIRED MINIMUM DEPTHS OF COVER. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL BENDS WITH THRUST BLOCKS REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS.
- IN THE EVENT OF A CONFLICT BETWEEN WATER LINES AND STORM DRAINS, THE CONTRACTOR SHALL EITHER ADJUST THE WATER LINE DOWNWARD IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S RECOMMENDATIONS ON PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED OR THE CONTRACTOR SHALL PROVIDE APPROPRIATE BENDS AND CROSSINGS.
- ALL COORDINATES AND DIMENSIONS ARE TO THE CENTERLINE OF UTILITIES AND STRUCTURES.
- ALL STORM INLET CASTINGS TO BE STAMPED "DUMP NO WASTE - DRAINS TO WATERWAY".

**EROSION CONTROL NOTES**

- CONTRACTOR SHALL INSTALL ALL PERIMETER SILT FENCE AND SEDIMENT CONTROL BARRIERS PRIOR TO CLEARING AND GRADING.
- THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
- LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING RE-GRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
- SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN RECEIVING WATER. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
- WASTE AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTE AND UNUSED BUILDING MATERIALS IS REQUIRED.
- SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
- SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE-DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
- IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
- THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, IN, MAP NUMBER 18057C0120G, DATED NOVEMBER 19, 2014.
- SCHEDULE OF EARTHWORK ACTIVITIES:
  - THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. UN-VEGETATED AREAS THAT ARE SCHEDULED OR LIKELY TO BE LEFT INACTIVE FOR FIFTEEN (15) DAYS OR MORE MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITH MEASURES APPROPRIATE FOR THE SEASON TO MINIMIZE EROSION POTENTIAL. ALTERNATIVE MEASURES TO SITE STABILIZATION ARE ACCEPTABLE IF THE PROJECT SITE OWNER OR THEIR REPRESENTATIVE CAN DEMONSTRATE THEY HAVE IMPLEMENTED EROSION AND SEDIMENT CONTROL MEASURES ADEQUATE TO PREVENT SEDIMENT DISCHARGE.
  - TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.
  - INSTALL INLET PROTECTION AROUND INLETS IMMEDIATELY UPON COMPLETION OF THE STRUCTURE. REMOVE INLET PROTECTION FOR PAVING OPERATION. REPLACE INLET PROTECTION AFTER PAVING IS COMPLETE. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON SEEDED AREAS BEHIND THE CURB.
- PRIOR TO COMPLETION OF THE PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND PONDS TO DESIGNED GRADES.
- CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROL BARRIERS ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE WESTFIELD PUBLIC WORKS DEPARTMENT INSPECTOR

**ENVIRONMENTAL AND GEOTECHNICAL FINDINGS NOTES**

- CONTRACTOR SHALL REFER TO THE PHASE I ENVIRONMENTAL SITE ASSESSMENT PREPARED BY ALT & WITZIG FILE: 15N0557 DATED JULY 31, 2015 FOR INFORMATION ON ENVIRONMENTAL FINDINGS ON THE SITE.
- CONTRACTOR TO REFER TO THE GEOTECHNICAL ENGINEERING REPORT NAMED "SUBSURFACE INVESTIGATION & GEOTECHNICAL RECOMMENDATIONS: ALT & WITZIG FILE: 15N0510" DATED AUGUST 6, 2015" FOR INFORMATION ON HOW TO ADEQUATELY ADDRESS AND HANDLE SOIL CONDITIONS AS WELL AS REQUIRED SOIL PLACEMENT AND COMPACTION REQUIREMENTS.



**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
**181ST STREET AND SPRING MILL ROAD**  
**WESTFIELD, INDIANA**  
**PROJECT TYPE: NEW STORE**  
**DEAL TYPE:**  
**CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**

**CONSULTANT:**



**DEVELOPER:**

TMC Indiana 2, LLC  
 501 Pennsylvania Pkwy.  
 Suite 160  
 Indianapolis, Indiana 46280  
 Phone (317) 705-8800  
 Contact: Craig Forgy

**SEAL:**



**REVISIONS:**

△	TAC COMMENTS	07-10-2015
△	PER OWNER	08-27-2015
△	CITY COMMENTS	09-23-2015

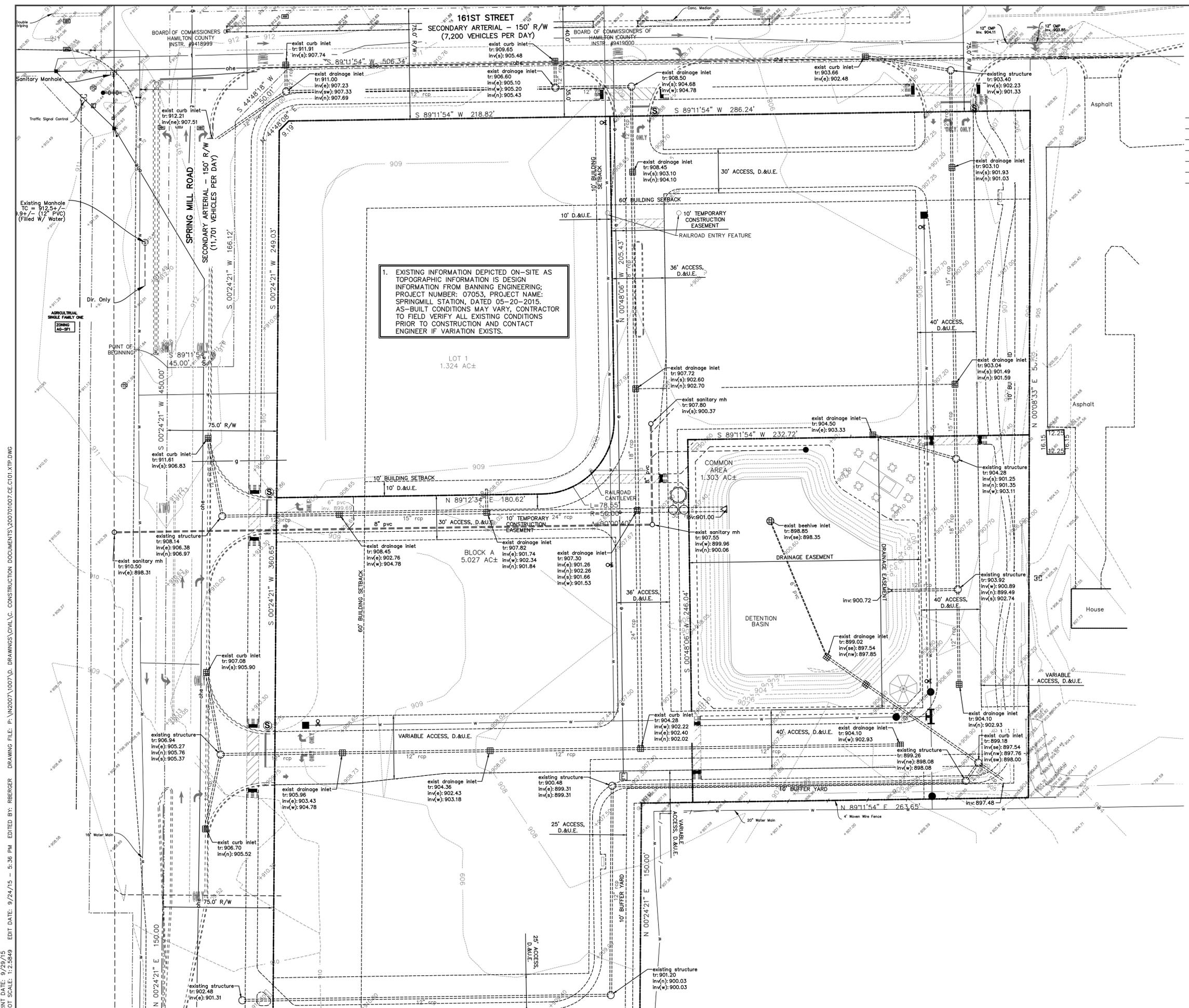
**PLANNING MGR:** JLV  
**DRAWING BY:** RCB  
**DATE:** 05-29-2015  
**JOB NUMBER:** 2007.01007  
**TITLE:**

**GENERAL NOTES**

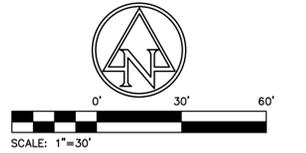
**SHEET NUMBER:**

**C004**

**COMMENTS:**



1. EXISTING INFORMATION DEPICTED ON-SITE AS TOPOGRAPHIC INFORMATION IS DESIGN INFORMATION FROM BANNING ENGINEERING; PROJECT NUMBER: 07053, PROJECT NAME: SPRINGMILL STATION, DATED 05-20-2015. AS-BUILT CONDITIONS MAY VARY, CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND CONTACT ENGINEER IF VARIATION EXISTS.



**EXISTING LEGEND**

—S	SANITARY SEWER	⊕	SIGN
—W	WATER MAIN	⊙	STORM MANHOLE
—ST	STORM SEWER	⊚	STORM INLET
—G	GAS LINE	⊠	TELEPHONE MANHOLE
—OHE	OVERHEAD UTILITIES	⊞	TELEPHONE BOX
—UFO	FIBER OPTIC	⊠	TRAFFIC SIGNAL CONTROLLER
—X	FENCE LINE	⊠	TRAFFIC SIGNAL MANHOLE
⊠	ELECTRIC METER	⊠	TRAFFIC SIGNAL POLE
⊠	FIRE HYDRANT	⊠	WATER METER
⊠	GAS METER	⊠	WATER VALVE
⊠	GAS VALVE	⊠	WELL
⊠	GUY WIRE	⊠	GS UNIT
⊠	HAND HOLE	⊠	TREE
⊠	MAIL BOX	⊠	BUSH
⊠	UTILITY POLE		

**LEGAL DESCRIPTION**

That portion of the Southwest Quarter of Section 11, Township 18 North, Range 3 East of the Second Principal Meridian, Washington Township, Hamilton County, Indiana, described as follows

Considering the east line of said Southwest Quarter as South 00 degrees 24 minutes 21 seconds West (assumed bearing) and all bearing contained within being relative thereto.

Commencing at a mag nail with "BANNING ENG FIRM #0060" tag set (herein referred to as "mag nail") marking the northwest corner of said Quarter Section; thence South 00 degrees 24 minutes 21 seconds West along the west line thereof 241.12 feet to the POINT OF BEGINNING, said point being the southwest corner of the land of the Board of Commissioners of Hamilton County as described in Instrument Number 9418999 in the Office of the Recorder of said county; thence continue South 00 degrees 24 minutes 21 seconds West along said westline 450.00 feet; thence North 89 degrees 11 minutes 54 seconds East parallel with the north line of said Southwest Quarter 325.00 feet; thence North 00 degrees 24 minutes 21 seconds West along said north line 150.00 feet; thence North 89 degrees 11 minutes 54 seconds East parallel with said north line 253.65 feet; thence North 00 degrees 08 minutes 33 seconds East 501.07 feet to the southeast corner of the land of the Board of Commissioners of Hamilton County as described in Instrument Number 9419001 in said county records; thence along the south line thereof and the south line of said Board per Instrument Numbers 9419000 and 9418999 in said county records, being parallel with said north line of the Quarter Section South 89 degrees 11 minutes 54 seconds West 506.34 feet (the remaining courses are along the south and east lines of said land of the Board per Instrument Number 9418999); thence South 44 degrees 48 minutes 18 seconds West 50.01 feet; thence South 00 degrees 24 minutes 21 seconds West parallel with said west line 166.12 feet; thence South 89 degrees 11 minutes 54 seconds West parallel with said north line 45.00 feet to the POINT OF BEGINNING, containing 7.654 acres, more or less.

**DEVELOPER:**

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**BENCHMARK B 112**  
 ELEV. 924.24 NAVD 88  
 ALONG STATE HIGHWAY 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL AT WESTFIELD AND ABOUT 1.0 MILE EAST OF THE CROSS ROAD AT EAGLE TOWN 0.25 MILE EAST OF THE JUNCTION WITH A ROAD LEADING NORTH, 24 FEET SOUTHWEST OF THE SOUTHWEST CORNER OF A BARN, 4 FEET EAST OF A FENCE CORNER, 1.3 FEET SOUTH OF A WHITE WOODEN WITNESS POST AND ABOUT LEVEL WITH THE HIGHWAY, A STANDARD DISK, STAMPED B 112 1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE GROUND.

**TBM 10**  
 A CUT SQUARE IN THE SOUTH END OF THE MEDIAN IN THE ENTRANCE TO CHASE BANK BEING SET ON THE NORTH SIDE OF WEST 161ST STREET 340 FEET EAST OF THE CENTERLINE OF SPRINGMILL ROAD. ELEV=908.20

**TBM 11**  
 A CUT SQUARE IN THE SOUTH SIDE OF A CONCRETE TRAFFIC POLE AT THE SOUTHWEST CORNER OF THE INTERSECTION OF 161ST STREET AND SPRINGMILL ROAD. ELEV 911.955

**NOTES:**

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1-800-382-5544  
 CALL TOLL FREE  
 — INDIANA UNDERGROUND —



**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
**161ST STREET AND SPRING MILL ROAD WESTFIELD, INDIANA**  
**PROJECT TYPE: NEW STORE**  
**DEAL TYPE:**  
**CS PROJECT NUMBER: 071776**

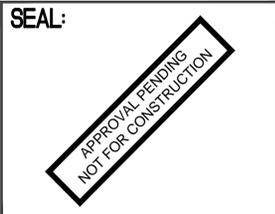
**ARCHITECT OF RECORD**

**CONSULTANT:**

**AMERICAN STRUCTUREPOINT INC.**  
 7260 SHADELAND STATION  
 INDIANAPOLIS, INDIANA 46256  
 p:(317) 547-5580 f:(317) 543-0270  
 www.structurepoint.com

**DEVELOPER:**

TMC Indiana 2, LLC  
 501 Pennsylvania Pkwy.  
 Suite 160  
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 Phone (317) 705-8800  
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**REVISIONS:**

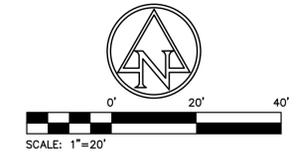
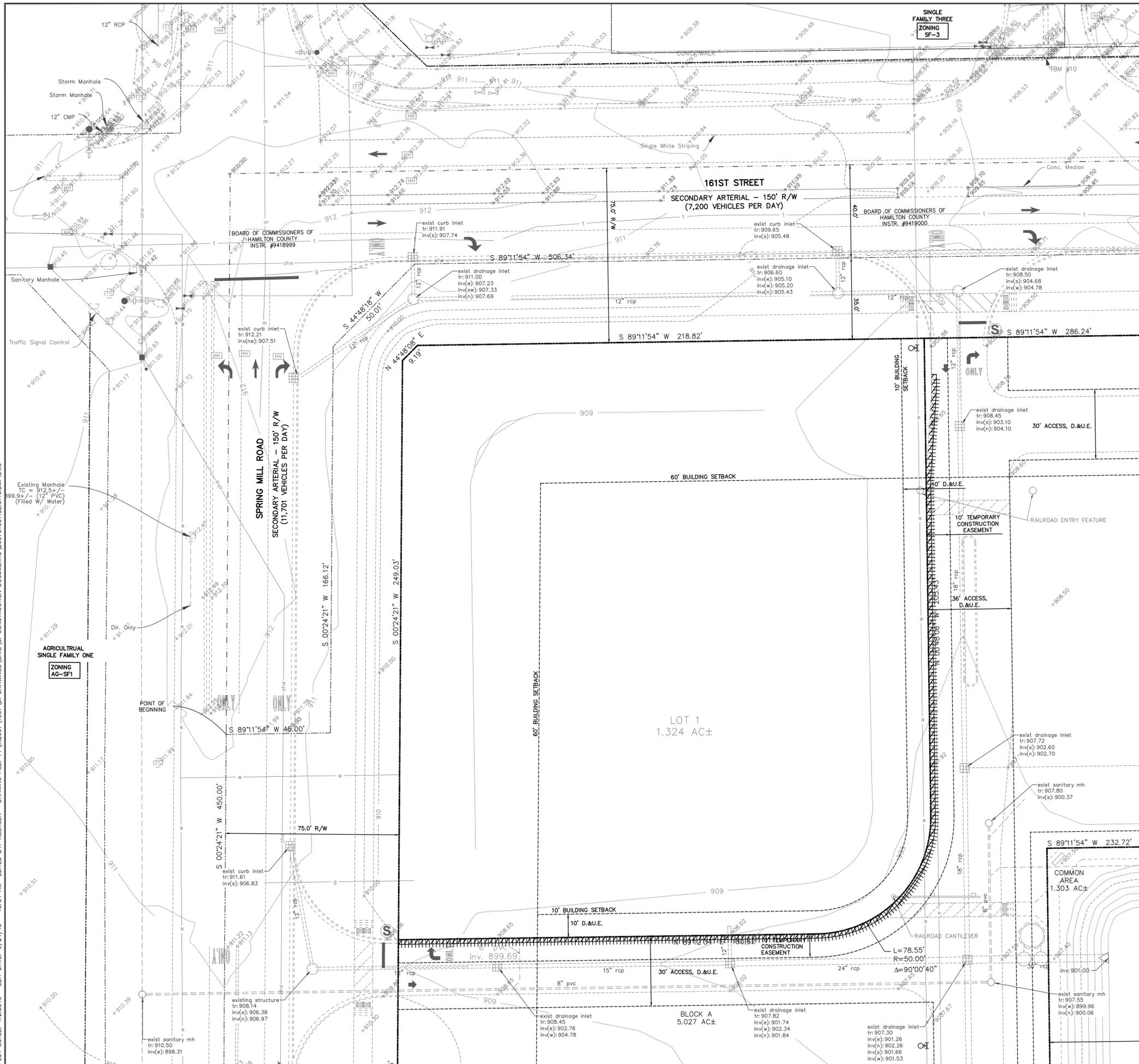
⚠	TAC COMMENTS	07-10-2015
⚠	PER OWNER	08-27-2015
⚠	CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW  
**DRAWING BY:** RCB  
**DATE:** 05-29-2015  
**JOB NUMBER:** 2007.01007  
**TITLE:**

**EXISTING TOPOGRAPHY**  
**SHEET NUMBER:**  
**C101**  
**COMMENTS:**

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 EDIT DATE: 9/24/15 EDIT BY: REBERGER

PRINT DATE: 9/29/15 PLOT SCALE: 1/2"=5'-0" EDIT DATE: 9/24/15 - 10:54 AM EDITED BY: REBERGER DRAWING FILE: P:\IN2007\1007\1007.D CONSTRUCTION DOCUMENTS\200701007.CE.C110.DWG



**EXISTING LEGEND**

—S—	SANITARY SEWER	⊕	SIGN
—W—	WATER MAIN	⊙	STORM MANHOLE
—ST—	STORM SEWER	⊠	STORM INLET
—G—	GAS LINE	⊕	TELEPHONE MANHOLE
—OHE—	OVERHEAD UTILITIES	⊕	TELEPHONE BOX
—FO—	FIBER OPTIC	⊕	TRAFFIC SIGNAL CONTROLLER
—X—	FENCE LINE	⊕	TRAFFIC SIGNAL MANHOLE
⊕	ELECTRIC METER	⊕	TRAFFIC SIGNAL POLE
⊕	FIRE HYDRANT	⊕	WATER METER
⊕	GAS METER	⊕	WATER VALVE
⊕	GAS VALVE	⊕	WELL
⊕	GUY WIRE	⊕	AC UNIT
⊕	HAND HOLE	⊕	TREE
⊕	MAIL BOX	⊕	BUSH
⊕	UTILITY POLE		

**DEMOLITION LEGEND**

▨	EXISTING ASPHALT TO BE REMOVED
	PAVEMENT TO BE SAWCUT



**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
**161ST STREET AND SPRING MILL ROAD**  
**WESTFIELD, INDIANA**  
**PROJECT TYPE: NEW STORE**  
**DEAL TYPE:**  
**CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**

**CONSULTANT:**  
  
 AMERICAN STRUCTUREPOINT INC.  
 7260 SHADELAND STATION  
 INDIANAPOLIS, INDIANA 46256  
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 Contact: Craig Forgy

**SEAL:**

**BENCHMARK B 112**  
 ELEV. 924.24 NAVD 88  
 ALONG STATE HIGHWAY 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL AT WESTFIELD AND ABOUT 1.0 MILE EAST OF THE CROSS ROAD AT EAGLE TOWN, 0.25 MILE EAST OF THE JUNCTION WITH A ROAD LEADING NORTH, 24 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A BARN, 4 FEET EAST OF A FENCE CORNER, 1.3 FEET SOUTH OF A WHITE WOODEN WITNESS POST AND ABOUT LEVEL WITH THE HIGHWAY. A STANDARD DISK, STAMPED B 112 1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE GROUND.

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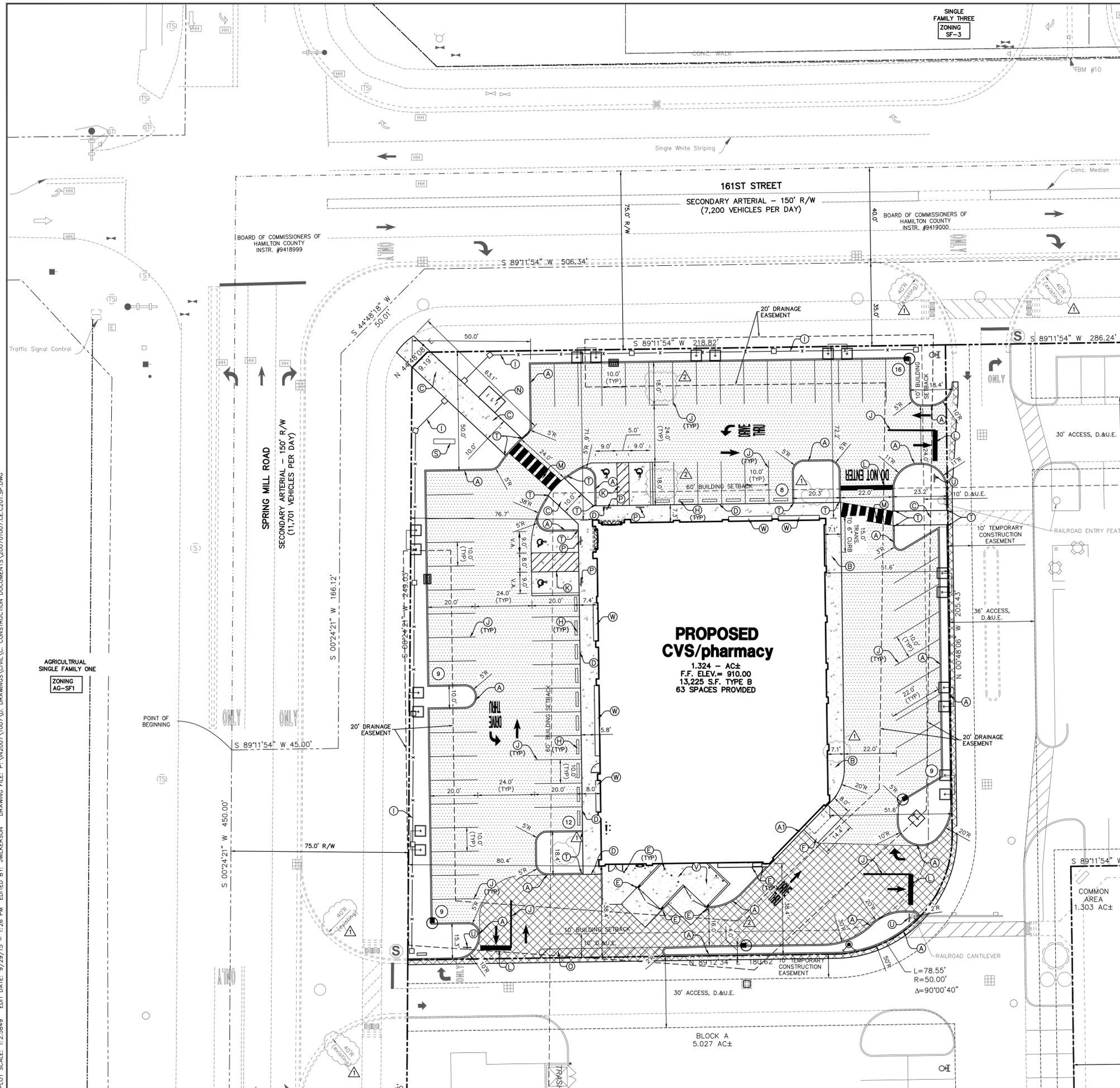
1-800-382-5544  
 CALL TOLL FREE  
 - INDIANA UNDERGROUND -

**REVISIONS:**  
 ⚠ TAC COMMENTS 07-10-2015  
 ⚠ PER OWNER 08-27-2015  
 ⚠ CITY COMMENTS 09-23-2015

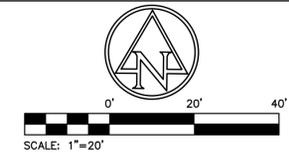
**PLANNING MGR:** JLW  
**DRAWING BY:** RCB  
**DATE:** 05-29-2015  
**JOB NUMBER:** 2007.01007  
**TITLE:**

**DEMOLITION PLAN**  
**SHEET NUMBER:**  
**C110**  
**COMMENTS:**

PRINT DATE: 9/29/15 9:29:15 AM EDIT DATE: 9/29/15 1:26 PM EDITED BY: JMW/EPSON DRAWING FILE: P:\IN2007\1007.D DRAWINGS\CIVIL\CONSTRUCTION DOCUMENTS\200701007.CE.C201.SP.DWG  
 PLOT SCALE: 1:2,500



SINGLE FAMILY THREE ZONING SF-3



**EXISTING LEGEND**

- S — SANITARY SEWER
- W — WATER MAIN
- ST — STORM SEWER
- G — GAS LINE
- OHE — OVERHEAD UTILITIES
- UFO — FIBER OPTIC
- X — FENCE LINE
- E — ELECTRIC METER
- F — FIRE HYDRANT
- G — GAS METER
- G — GAS VALVE
- G — GUY WIRE
- H — HAND HOLE
- M — MAIL BOX
- U — UTILITY POLE
- 4 — SIGN
- ⊕ — STORM MANHOLE
- ⊕ — STORM INLET
- ⊕ — TELEPHONE MANHOLE
- ⊕ — TELEPHONE BOX
- ⊕ — TRAFFIC SIGNAL CONTROLLER
- ⊕ — TRAFFIC SIGNAL MANHOLE
- ⊕ — TRAFFIC SIGNAL POLE
- ⊕ — WATER METER
- ⊕ — WATER VALVE
- ⊕ — WELL
- ⊕ — AC UNIT
- ⊕ — TREE
- ⊕ — BUSH

**PROPOSED SITE LEGEND**

- LIGHT DUTY PAVEMENT
- HEAVY DUTY PAVEMENT
- CONCRETE
- DIRECTIONAL ARROWS, PAINTED WHITE
- DRIVE THRU
- 6" STRAIGHT CONCRETE CURB
- 8" STRAIGHT CONCRETE CURB
- COMBINED WALK & CURB
- CONCRETE SIDEWALK
- FLUSH CONCRETE SIDEWALK
- 6" DIA. STEEL PIPE BOLLARD
- CONCRETE PAD
- CONCRETE PAVEMENT
- CONCRETE PARKING BUMPER
- FENCE (SEE ARCHITECTURAL PLANS)
- 4" SOLID WHITE, PAINT LINE
- 4" SOLID BLUE, PAINT LINE (A.D.A. SPACE)
- 24" STOP BAR, WHITE, PAINT
- 24" WHITE, THERMOPLASTIC, PEDESTRIAN CROSSING
- BIKE RACK (3 SPACES)
- 4" SOLID YELLOW, PAINT LINE
- ADA PARKING SIGN (VAN ACCESSIBLE AS NOTED)
- PYLON SIGN
- CURB TAPER
- STOP SIGN
- TRASH ENCLOSURE (SEE ARCHITECTURAL PLANS)
- PLANTER BED
- A.D.A. ACCESSIBLE PARKING SYMBOL
- PAINTED BLUE
- CONCRETE TRANSFORMER PAD
- LIGHT POLE

PARKING ANALYSIS	
CVS S.F.:	13,225 SF
PARKING PROVIDED :	59 SPACES
A.D.A. PARKING PROVIDED:	4 SPACES
( INCLUDES 1 VAN ACCESSIBLE )	
<b>TOTAL PARKING PROVIDED =</b>	<b>63 SPACES</b>

- NOTES:**
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**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
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**CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**

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**SEAL:**

**REVISIONS:**

	TAC COMMENTS	07-10-2015
	PER OWNER	08-27-2015
	CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW  
**DRAWING BY:** RCB  
**DATE:** 05-29-2015  
**JOB NUMBER:** 2007.01007  
**TITLE:**

**SITE PLAN**  
**SHEET NUMBER:**

**C201**

**COMMENTS:**



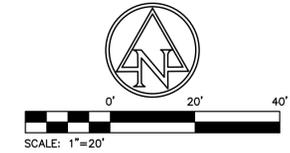
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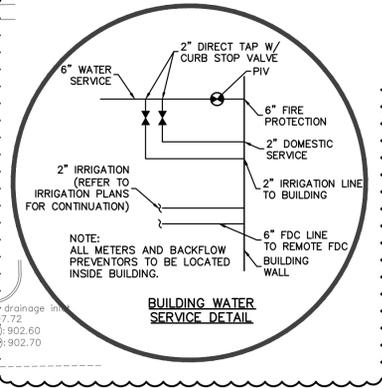
STORM STRUCTURE DATA TABLE  
 NOTE: ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE-DRAINS TO WATERWAY"

STR. NO.	STRUCTURE / CASTING TYPE	T.O.R.	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE (%)	CONNECT TO STRUCT	REMARKS
1	TYPE "J" INLET / R-3287-10V	908.47		12" RCP 904.50 (E) [2]	125'	12"	0.56%	2	
2	TYPE "C" MANHOLE / R-3287-10V	908.16	12" RCP 903.80 (W) [1]	12" RCP 903.70 (S) [3]	185'	12"	0.34%	3	FLAT TOP REQUIRED
3	TYPE "C" MANHOLE / R-3287-10V	908.00	12" RCP 903.06 (N) [2]	15" RCP 902.96 (SW) [6]	90'	15"	0.48%	6	FLAT TOP REQUIRED
4	TYPE "J" INLET / R-3287-10V	908.47		12" RCP 904.60 (S) [5]	145'	12"	0.35%	5	
5	TYPE "C" MANHOLE / R-3287-10V	908.18	12" RCP 904.10 (N) [4]	15" RCP 903.50 (E) [6]	133'	15"	0.35%	6	FLAT TOP REQUIRED
6	TYPE "C" MANHOLE / R-3287-10V	908.68	15" RCP 903.03 (W) [5] 15" RCP 902.53 (NE) [3]	18" RCP 901.93 (S) [EXISTING]	16'	18"	0.55%	EXISTING	FLAT TOP REQUIRED. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF EXISTING STUB PRIOR TO ORDERING MATERIALS.



- EXISTING LEGEND**
- S- SANITARY SEWER
  - W- WATER MAIN
  - ST- STORM SEWER
  - G- GAS LINE
  - OHE- OVERHEAD UTILITIES
  - UFO- FIBER OPTIC
  - X- FENCE LINE
  - ELECTRIC METER
  - ⊕ FIRE HYDRANT
  - ⊕ GAS METER
  - ⊕ GAS VALVE
  - ⊕ GUY WIRE
  - ⊕ HAND HOLE
  - ⊕ MAIL BOX
  - ⊕ UTILITY POLE
  - ⊕ SIGN
  - ⊕ STORM MANHOLE
  - ⊕ STORM INLET
  - ⊕ TELEPHONE MANHOLE
  - ⊕ TELEPHONE BOX
  - ⊕ TRAFFIC SIGNAL CONTROLLER
  - ⊕ TRAFFIC SIGNAL MANHOLE
  - ⊕ TRAFFIC SIGNAL POLE
  - ⊕ WATER METER
  - ⊕ WATER VALVE
  - ⊕ WELL
  - ⊕ AC UNIT
  - ⊕ TREE
  - ⊕ BUSH

- PROPOSED UTILITY LEGEND**
- SS SANITARY LATERAL
  - G GAS LINE
  - E ELECTRIC LINE
  - T TELEPHONE LINE
  - W WATER LINE
  - RD ROOF DRAIN
  - 20 LF OF 4" PERFORATED PVC UNDERDRAIN GAS METER
  - ELECTRICAL TRANSFORMER
  - VALVE
  - WATER METER PIT
  - POST INDICATOR VALVE
  - HYDRANT
  - FIRE DEPARTMENT CONNECTION WITH BUILDING ADDRESS
  - STM C.O. W/ 4" PVC SDR35 ROOF DRAIN @ 2.08% MIN. SLOPE INVERT: 906.50
  - 6" PVC SDR35 ROOF DRAIN @ 1.04% MIN. SLOPE
  - 10" PVC SDR35 ROOF DRAIN @ 1.04% MIN. SLOPE
  - 6" PVC SDR35 SAN. LATERAL @ 1.04% MIN. SLOPE
  - 4" PVC ROOF DRAIN @ 2.08% MIN. SLOPE
- NOTES:**
- (A) NOT USED
  - (B) 2" DOMESTIC WATER LINE CONNECTION TO BUILDING (REDUCE AS REQUIRED FOR BUILDING CONNECTION.)
  - (C) 6" FIRE SPRINKLER LINE CONNECTION TO BUILDING
  - (D) FIRE DEPARTMENT CONNECTION
  - (E) ELECTRIC SERVICE (1)-1" PVC CONDUIT WITH PULL WIRES AND (3)-4" PVC CONDUITS WITH PULL WIRES
  - (F) TELEPHONE SERVICE (1)-4" PVC CONDUIT WITH PULL WIRES
  - (M) COORDINATE CONNECTION WITH UTILITY COMPANY.
  - (N) 6" FIRE PROTECTION LINE TO FDC
  - (X) POTENTIAL UTILITY CONFLICT (ALL WATER/SANITARY/STORM CROSSINGS TO HAVE A MINIMUM OF 18" VERTICAL CLEARANCE. CONTACT ENGINEER IF CONFLICTS EXIST. RELOCATE EXISTING UTILITIES AS REQUIRED.)



**BENCHMARK B 112**  
 ELEV. 924.24 NAVD 88  
 ALONG STATE HIGHWAY 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL AT WESTFIELD AND ABOUT 1.0 MILE EAST OF THE CROSS ROAD AT EAGLE TOWN, 0.25 MILE EAST OF THE JUNCTION WITH A ROAD LEADING NORTH, 24 FEET SOUTHWEST OF THE SOUTHWEST CORNER OF A BARN, 4 FEET EAST OF A FENCE CORNER, 1.3 FEET SOUTH OF A WHITE WOODEN WITNESS POST AND ABOUT LEVEL WITH THE HIGHWAY. A STANDARD DISK, STAMPED B 112 1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE GROUND.

**TBM 10**  
 A CUT SQUARE IN THE SOUTH END OF THE MEDIAN IN THE ENTRANCE TO CHASE BANK BEING SET ON THE NORTH SIDE OF WEST 161ST STREET 340 FEET EAST OF THE CENTERLINE OF SPRINGMILL ROAD. ELEV=908.20

**TBM 11**  
 A CUT SQUARE IN THE SOUTH SIDE OF A CONCRETE TRAFFIC POLE AT THE SOUTHWEST CORNER OF THE INTERSECTION OF 161ST STREET AND SPRINGMILL ROAD. ELEV 911.955

**NOTE:**

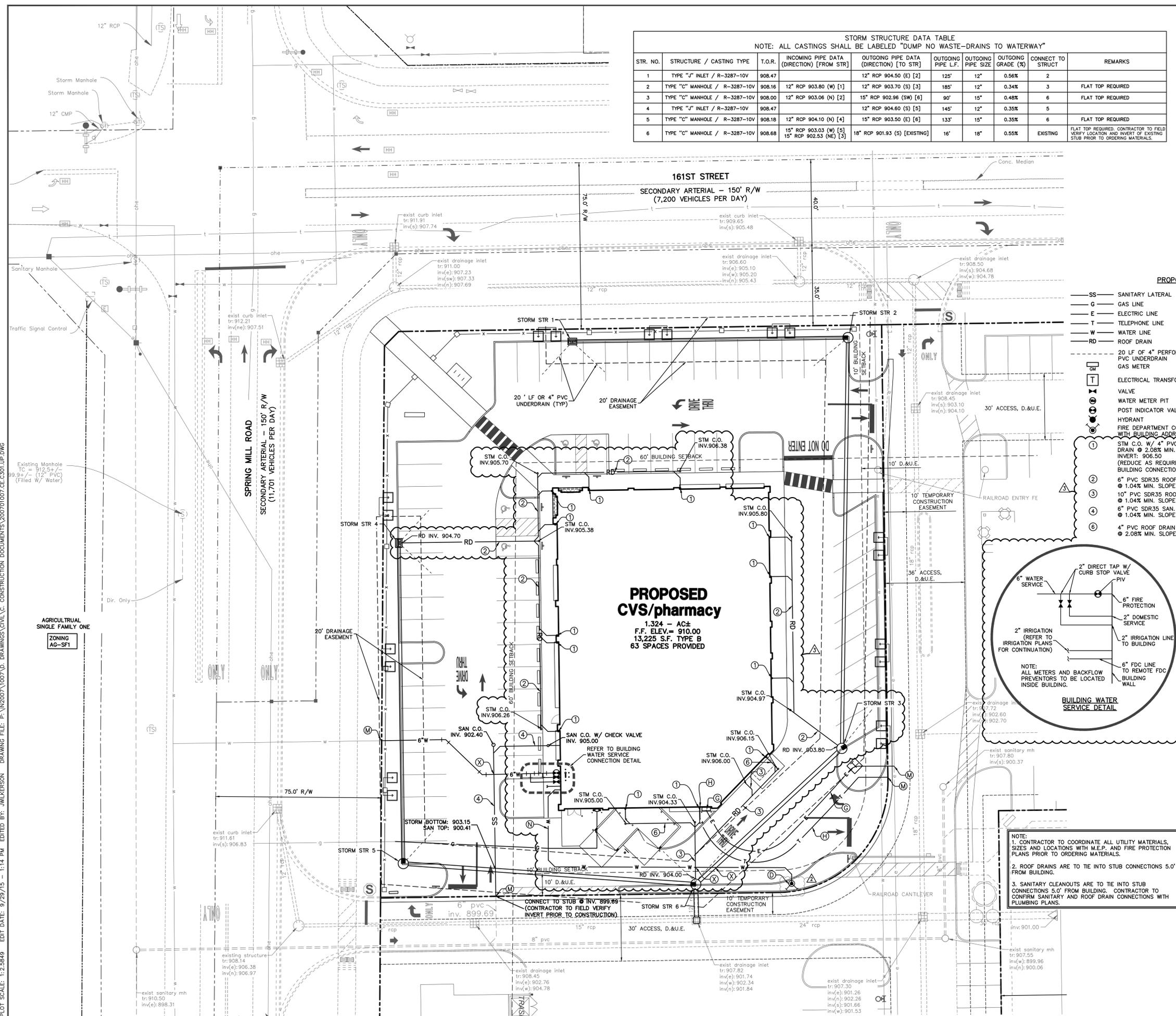
- CONTRACTOR TO COORDINATE ALL UTILITY MATERIALS, SIZES AND LOCATIONS WITH M.E.P. AND FIRE PROTECTION PLANS PRIOR TO ORDERING MATERIALS.
- ROOF DRAINS ARE TO THE INTO STUB CONNECTIONS 5.0' FROM BUILDING.
- SANITARY CLEANOUTS ARE TO BE TIE INTO STUB CONNECTIONS 5.0' FROM BUILDING. CONTRACTOR TO CONFIRM SANITARY AND ROOF DRAIN CONNECTIONS WITH PLUMBING PLANS.

**NOTES:**

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.
- EXISTING INFORMATION DEPICTED ON-SITE AS TOPOGRAPHIC INFORMATION IS DESIGN INFORMATION FROM SURVEYING ENGINEERING; PROJECT NUMBER: 07053, PROJECT NAME: SPRINGMILL STATION, DATED 05-20-2015. AS-BUILT CONDITIONS MAY VARY. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND CONTACT ENGINEER IF VARIATION EXISTS.

**CAUTION !!**  
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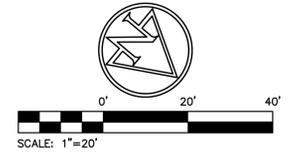
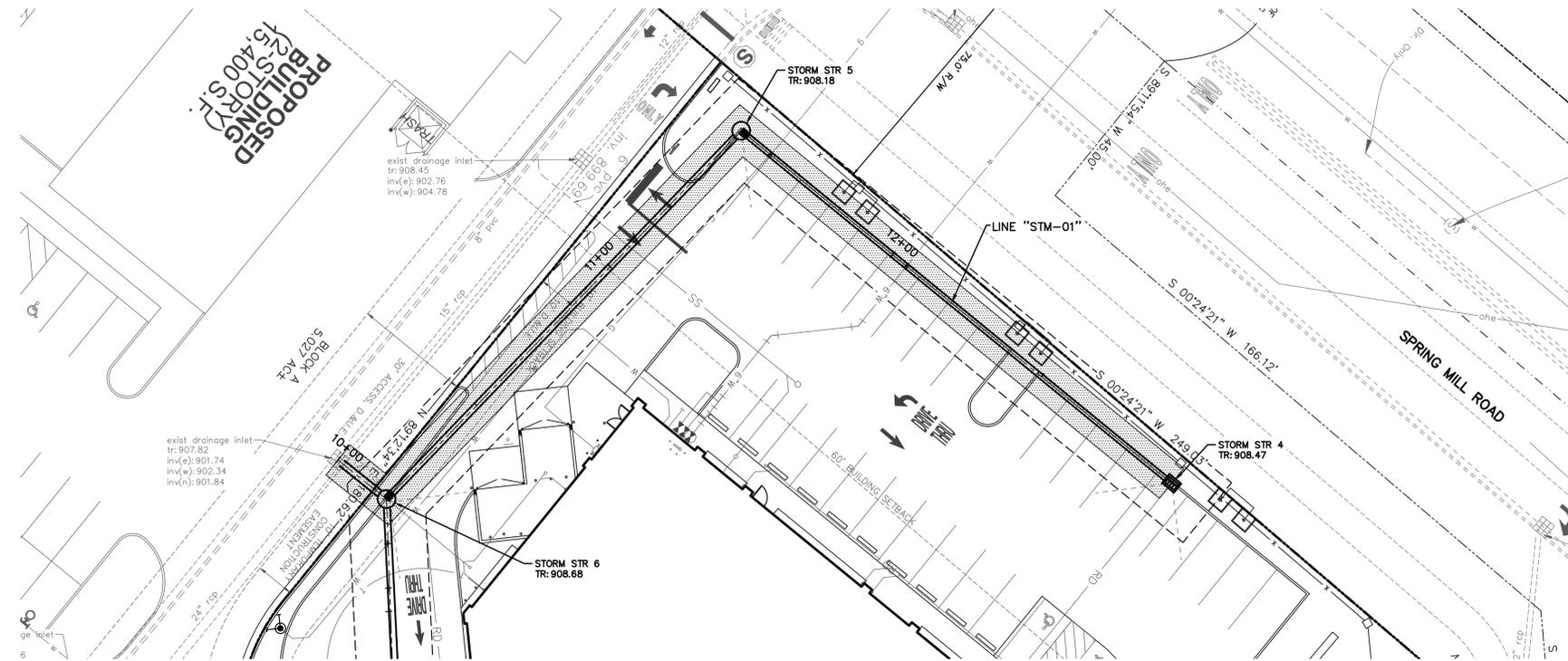
1-800-382-5544  
 CALL TOLL FREE  
 - INDIANA UNDERGROUND -



PRINT DATE: 9/29/15 PLOT SCALE: 1:25000 DRAWING FILE: P:\IN2007\1007\007\DRAWINGS\CIVIL\CONSTRUCTION DOCUMENTS\2007\01007\CE\C301\UP.DWG  
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PRINT DATE: 9/29/15  
 PLOT SCALE: 1:2,500  
 DRAWING FILE: P:\2007\1007\CONSTRUCTION DOCUMENTS\2007\1007\CE\C410.STMPR.DWG  
 DRAWING BY: FBERGER  
 EDIT DATE: 9/24/15 - 1:19 PM  
 EDITED BY: FBERGER

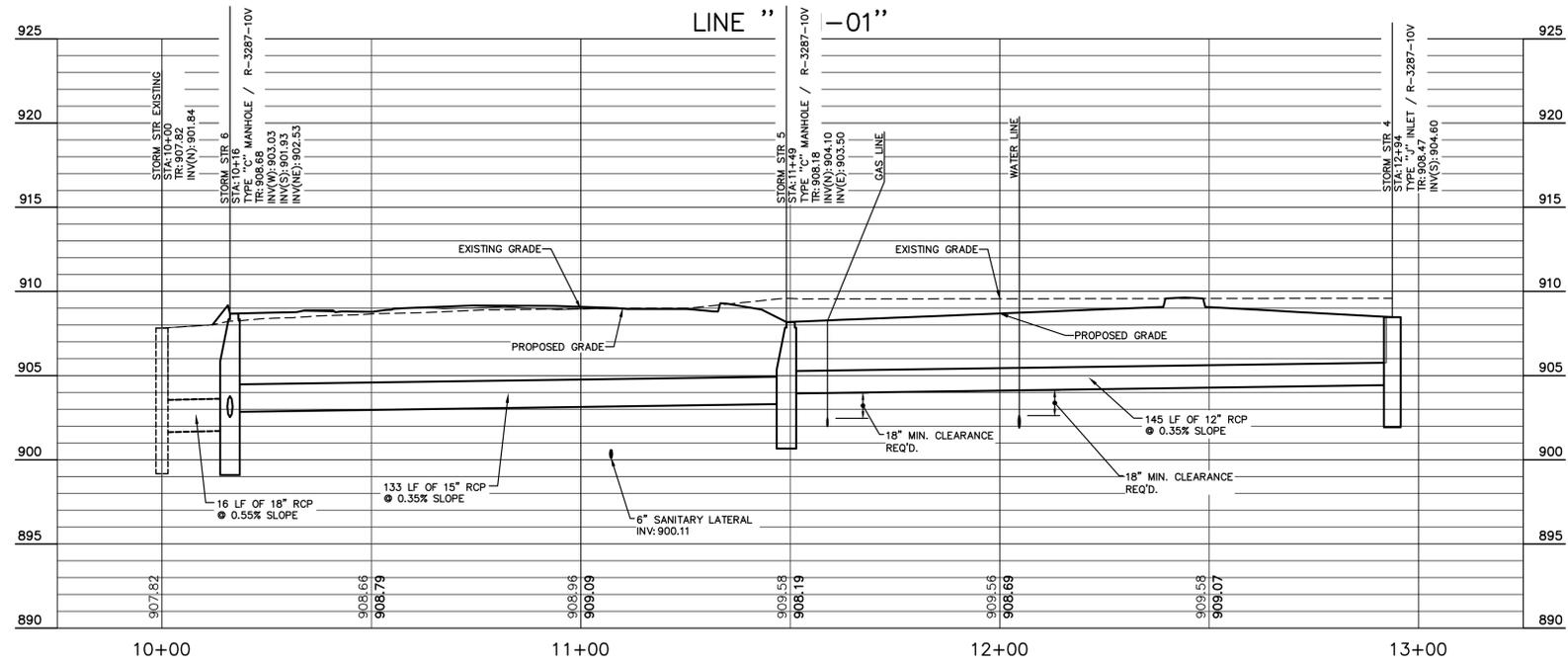


**EXISTING LEGEND**

—S—	SANITARY SEWER	⊕	SIGN
—W—	WATER MAIN	⊙	STORM MANHOLE
—ST—	STORM SEWER	■	STORM INLET
—G—	GAS LINE	⊕	TELEPHONE MANHOLE
—OHE—	OVERHEAD UTILITIES	⊕	TELEPHONE BOX
—UFO—	FIBER OPTIC	⊕	TRAFFIC SIGNAL CONTROLLER
—X—	FENCE LINE	⊕	TRAFFIC SIGNAL MANHOLE
⊕	ELECTRIC METER	⊕	TRAFFIC SIGNAL POLE
⊕	FIRE HYDRANT	⊕	WATER METER
⊕	GAS METER	⊕	WATER VALVE
⊕	GAS VALVE	⊕	WELL
⊕	GUY WIRE	⊕	AC UNIT
⊕	HAND HOLE	⊕	TREE
⊕	MAIL BOX	⊕	BUSH
⊕	UTILITY POLE		

**PROPOSED LEGEND**

—SS—	SANITARY LATERAL
—G—	GAS LINE
—E—	ELECTRIC LINE
—T—	TELEPHONE LINE
—W—	WATER LINE
—RD—	ROOF DRAIN
⊕	HYDRANT



- STORM SEWER NOTES:**
- ALL CASTINGS SHALL BE LABELED "DUMP NO WATER - DRAINS TO WATERWAY"
  - MANNINGS COEFFICIENT  $n = 0.12$
  - THE GRANULAR BACKFILL AREAS SHOWN IN PLAN VIEW ARE AN ESTIMATE PROVIDED BY THE ENGINEER. EXACT LIMITS OF GRANULAR BACKFILL ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON TRENCH WIDTH AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.



**BENCHMARK B 112**  
 ELEV. 924.24 NAVD 88  
 ALONG STATE HIGHWAY 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL AT WESTFIELD AND ABOUT 1.0 MILE EAST OF THE CROSS ROAD AT EAGLE TOWN, 0.25 MILE EAST OF THE JUNCTION WITH A ROAD LEADING NORTH, 24 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A BARN, 4 FEET EAST OF A FENCE CORNER, 1.3 FEET SOUTH OF A WHITE WOODEN WITNESS POST AND ABOUT LEVEL WITH THE HIGHWAY. A STANDARD DISK, STAMPED B 112 1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE GROUND.

**TBM 10**  
 A CUT SQUARE IN THE SOUTH END OF THE MEDIAN IN THE ENTRANCE TO CHASE BANK BEING SET ON THE NORTH SIDE OF WEST 161ST STREET 340 FEET EAST OF THE CENTERLINE OF SPRINGMILL ROAD, ELEV=908.20

**TBM 11**  
 A CUT SQUARE IN THE SOUTH SIDE OF A CONCRETE TRAFFIC POLE AT THE SOUTHEAST CORNER OF THE INTERSECTION OF 161ST STREET AND SPRINGMILL ROAD, ELEV 911.955

- NOTES:**
- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
  - CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.
  - EXISTING INFORMATION DEPICTED ON-SITE AS TOPOGRAPHIC INFORMATION IS DESIGN INFORMATION FROM BANNING ENGINEERING; PROJECT NUMBER: 07053, PROJECT NAME: SPRINGMILL STATION, DATED 05-20-2015. AS-BUILT CONDITIONS MAY VARY. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND CONTACT ENGINEER IF VARIATION EXISTS.

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 1-800-382-5544  
 CALL TOLL FREE  
 — INDIANA UNDERGROUND —



**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
**161ST STREET AND SPRING MILL ROAD**  
**WESTFIELD, INDIANA**  
**PROJECT TYPE: NEW STORE**  
**DEAL TYPE:**  
**CS PROJECT NUMBER: 071776**

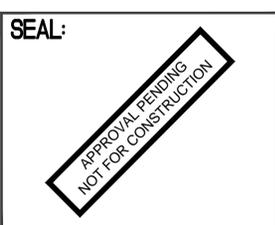
**ARCHITECT OF RECORD**

**CONSULTANT:**

7260 SHADELAND STATION  
 INDIANAPOLIS, INDIANA 46256  
 p:(317) 547-5580 f:(317) 543-0270  
 www.structurepoint.com

**DEVELOPER:**

TMC Indiana 2, LLC  
 501 Pennsylvania Pkwy.  
 Suite 160  
 Indianapolis, Indiana 46280  
 Phone (317) 705-8800  
 Contact: Craig Forgy



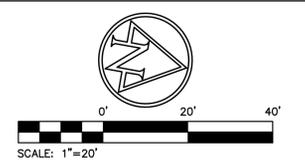
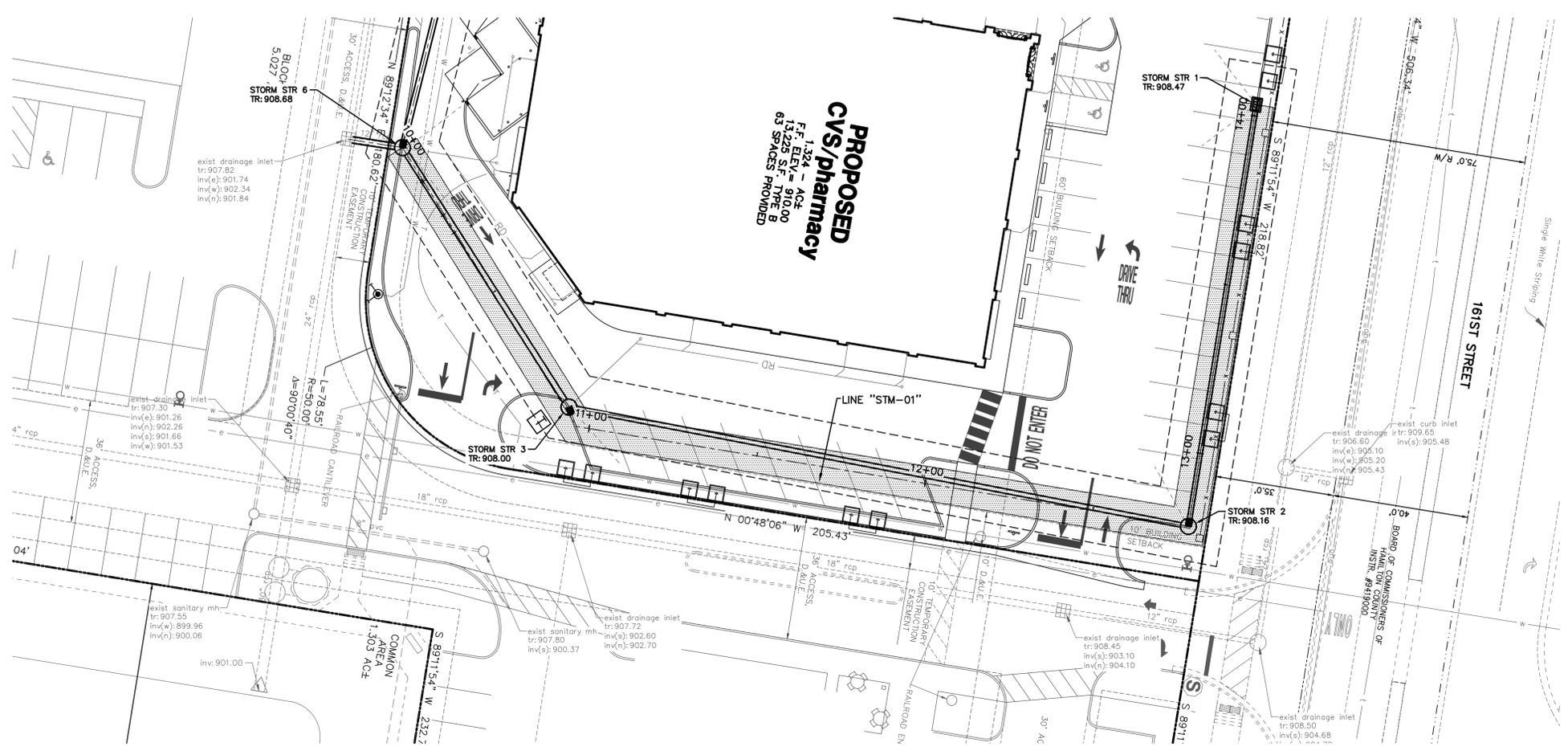
**REVISIONS:**

△	TAC COMMENTS	07-10-2015
△	PER OWNER	08-27-2015
△	CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW  
**DRAWING BY:** RCB  
**DATE:** 05-29-2015  
**JOB NUMBER:** 2007.01007  
**TITLE:**

**STORM SEWER PLAN & PROFILE**  
**SHEET NUMBER:**  
**C410**  
**COMMENTS:**

PRINT DATE: 9/29/15 PLOT SCALE: 1/2"=8'49" EDIT DATE: 9/24/15 - 1:19 PM. DRAWING FILE: P:\2007\1007\007\CONSTRUCTION DOCUMENTS\2007\1007\CE-C410.STMPR.DWG



- EXISTING LEGEND**
- S SANITARY SEWER
  - W WATER MAIN
  - ST STORM SEWER
  - G GAS LINE
  - OHE OVERHEAD UTILITIES
  - UFO FIBER OPTIC
  - X FENCE LINE
  - ELECTRIC METER
  - FIRE HYDRANT
  - GAS METER
  - GAS VALVE
  - GUY WIRE
  - HAND HOLE
  - MAIL BOX
  - UTILITY POLE
  - 4 SIGN
  - ⊙ STORM MANHOLE
  - ⊙ STORM INLET
  - ⊙ TELEPHONE MANHOLE
  - ⊙ TELEPHONE BOX
  - ⊙ TRAFFIC SIGNAL CONTROLLER
  - ⊙ TRAFFIC SIGNAL MANHOLE
  - ⊙ TRAFFIC SIGNAL POLE
  - ⊙ WATER METER
  - ⊙ WATER VALVE
  - ⊙ WELL
  - ⊙ AC UNIT
  - ⊙ TREE
  - ⊙ BUSH

- PROPOSED LEGEND**
- SS SANITARY LATERAL
  - G GAS LINE
  - E ELECTRIC LINE
  - T TELEPHONE LINE
  - W WATER LINE
  - RD ROOF DRAIN
  - HYDRANT

- STORM SEWER NOTES:**
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  - MANNINGS COEFFICIENT n = 0.12
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**BENCHMARK B 112**  
 ELEV. 924.24 NAVD 88  
 ALONG STATE HIGHWAY 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL AT WESTFIELD AND ABOUT 1.0 MILE EAST OF THE CROSS ROAD AT EAGLE TOWN, 0.25 MILE EAST OF THE JUNCTION WITH A ROAD LEADING NORTH, 24 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A BARN, 4 FEET EAST OF A FENCE CORNER, 1.3 FEET SOUTH OF A WHITE WOODEN WITNESS POST AND ABOUT LEVEL WITH THE HIGHWAY. A STANDARD DISK, STAMPED B 112 1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE GROUND.

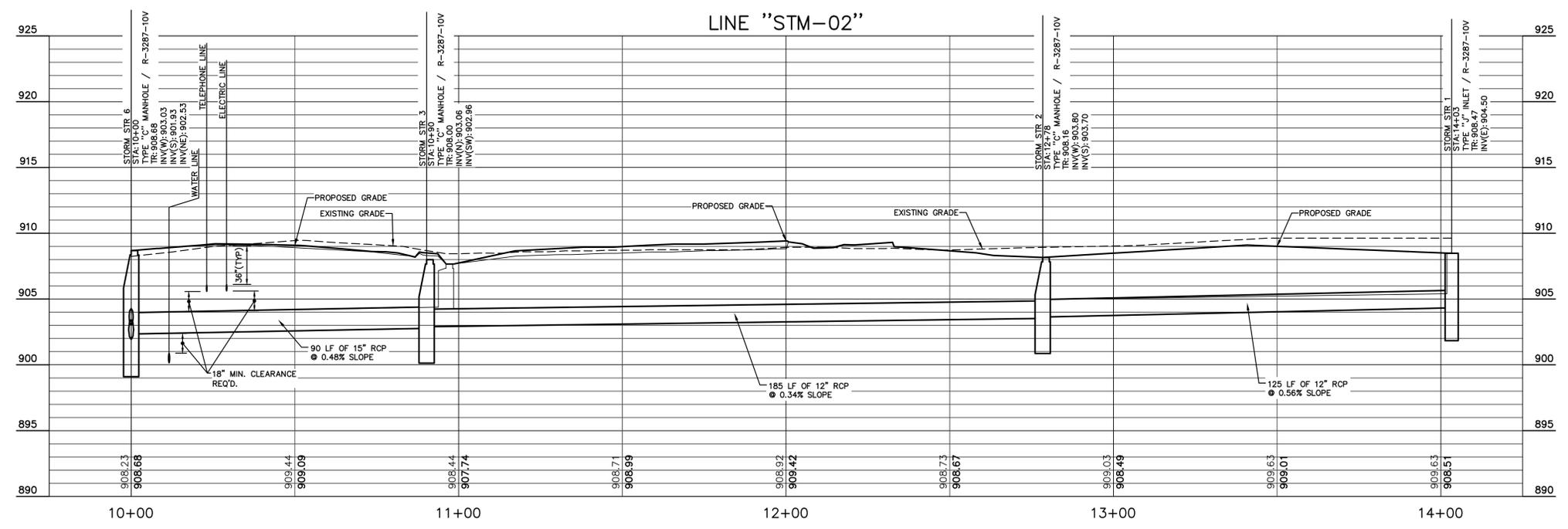
**TRM 10**  
 A CUT SQUARE IN THE SOUTH END OF THE MEDIAN IN THE ENTRANCE TO CHASE BANK BEING SET ON THE NORTH SIDE OF WEST 161ST STREET 340 FEET EAST OF THE CENTERLINE OF SPRINGMILL ROAD. ELEV=908.20

**TRM 11**  
 A CUT SQUARE IN THE SOUTH SIDE OF A CONCRETE TRAFFIC POLE AT THE SOUTHEAST CORNER OF THE INTERSECTION OF 161ST STREET AND SPRINGMILL ROAD. ELEV 911.955

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1-800-382-5544  
 CALL TOLL FREE  
 - INDIANA UNDERGROUND -



**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
**161ST STREET AND SPRING MILL ROAD WESTFIELD, INDIANA**  
**PROJECT TYPE: NEW STORE**  
**DEAL TYPE:**  
**CS PROJECT NUMBER: 071776**

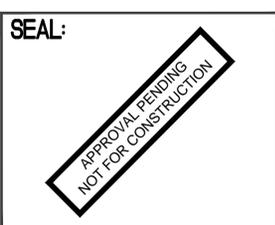
**ARCHITECT OF RECORD**

**CONSULTANT:**

AMERICAN STRUCTUREPOINT INC.  
 7260 SHADELAND STATION  
 INDIANAPOLIS, INDIANA 46256  
 p:(317) 547-5580 f:(317) 543-0270  
 www.structurepoint.com

**DEVELOPER:**

TMC Indiana 2, LLC  
 501 Pennsylvania Pkwy.  
 Suite 160  
 Indianapolis, Indiana 46280  
 Phone (317) 705-8800  
 Contact: Craig Forgy

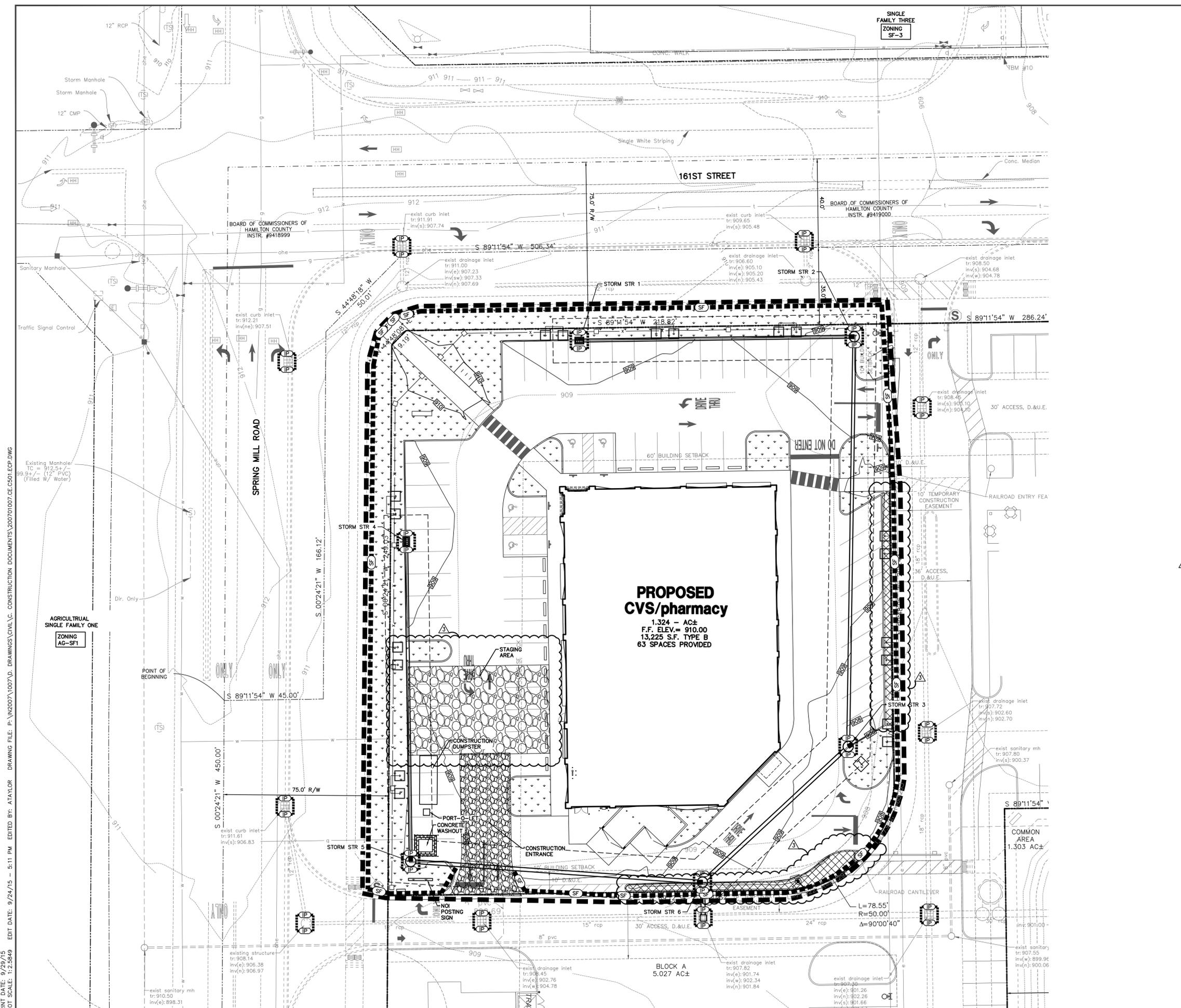


- REVISIONS:**
- |   |               |            |
|---|---------------|------------|
| △ | TAC COMMENTS  | 07-10-2015 |
| △ | PER OWNER     | 08-27-2015 |
| △ | CITY COMMENTS | 09-23-2015 |

**PLANNING MGR:** JLW  
**DRAWING BY:** RCB  
**DATE:** 05-29-2015  
**JOB NUMBER:** 2007.01007  
**TITLE:** STORM SEWER PLAN & PROFILE  
**SHEET NUMBER:**

**C411**

**COMMENTS:**



0' 20' 40'

SCALE: 1"=20'

**EXISTING LEGEND**

—S—	SANITARY SEWER	⊕	SIGN
—W—	WATER MAIN	⊙	STORM MANHOLE
—ST—	STORM SEWER	⊕	STORM INLET
—G—	GAS LINE	⊕	TELEPHONE MANHOLE
—OHE—	OVERHEAD UTILITIES	⊕	TELEPHONE BOX
—UFO—	FIBER OPTIC	⊕	TRAFFIC SIGNAL CONTROLLER
—X—	FENCE LINE	⊕	TRAFFIC SIGNAL MANHOLE
⊕	ELECTRIC METER	⊕	TRAFFIC SIGNAL POLE
⊕	FIRE HYDRANT	⊕	WATER METER
⊕	GAS METER	⊕	WATER VALVE
⊕	GAS VALVE	⊕	WELL
⊕	GUY WIRE	⊕	AC UNIT
⊕	HAND HOLE	⊕	TREE
⊕	MAIL BOX	⊕	BUSH
⊕	UTILITY POLE		

**PROPOSED EROSION CONTROL LEGEND**

⊕	SILT FENCE
⊕	INLET PROTECTION
⊕	PERMANENT SEEDING
⊕	EROSION CONTROL BLANKET
⊕	GRAVEL CONSTRUCTION ENTRANCE
⊕	STAGING AREA
⊕	CONSTRUCTION LIMITS

**NOTE:**

1. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE WPWD INSPECTOR.

**BENCHMARK B 112**  
 ELEV. 924.24 NAVD 88  
 ALONG STATE HIGHWAY 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL AT WESTFIELD AND ABOUT 1.0 MILE EAST OF THE CROSS ROAD AT EAGLE TOWN, 0.25 MILE EAST OF THE JUNCTION WITH A ROAD LEADING NORTH, 24 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A BARN, 4 FEET EAST OF A FENCE CORNER, 1.3 FEET SOUTH OF A WHITE WOODEN WITNESS POST AND ABOUT LEVEL WITH THE HIGHWAY. A STANDARD DISK, STAMPED B 112 1946 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE GROUND.

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 A CUT SQUARE IN THE SOUTH END OF THE MEDIAN IN THE ENTRANCE TO CHASE BANK, BEING SET ON THE NORTH SIDE OF WEST 161ST STREET 340 FEET EAST OF THE CENTERLINE OF SPRINGMILL ROAD, ELEV=908.20

**TBM 11**  
 A CUT SQUARE IN THE SOUTH SIDE OF A CONCRETE TRAFFIC POLE AT THE SOUTHEAST CORNER OF THE INTERSECTION OF 161ST STREET AND SPRINGMILL ROAD, ELEV 911.955

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1-800-382-5544  
 CALL TOLL FREE  
 — INDIANA UNDERGROUND —



**13,225 TYPE-B CHAMFER DRIVE-THRU**

**STORE NUMBER: 10591**

**161ST STREET AND SPRING MILL ROAD WESTFIELD, INDIANA**

**PROJECT TYPE: NEW STORE**

**DEAL TYPE: CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**

**CONSULTANT:**

**AMERICAN STRUCTUREPOINT INC.**

7260 SHADELAND STATION  
 INDIANAPOLIS, INDIANA 46256  
 P:(317) 547-5580 F:(317) 543-0270  
 www.structurepoint.com

**DEVELOPER:**

TMC Indiana 2, LLC  
 501 Pennsylvania Pkwy.  
 Suite 160  
 Indianapolis, Indiana 46280  
 Phone (317) 705-8800  
 Contact: Craig Forgy

**SEAL:**

APPROVAL PENDING  
 NOT FOR CONSTRUCTION

**REVISIONS:**

⊕	TAC COMMENTS	07-10-2015
⊕	PER OWNER	08-27-2015
⊕	CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW

**DRAWING BY:** RCB

**DATE:** 05-29-2015

**JOB NUMBER:** 2007.01007

**TITLE:** EROSION CONTROL PLAN

**SHEET NUMBER:**

**C501**

**COMMENTS:**

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 EDIT DATE: 9/24/15 5:11 PM EDITED BY: ATAYLOR

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DRAFTING: P. VANCE, EDITED BY: BREBERG, PRINT DATE: 9/26/15, PLOT SCALE: 1:2500

**SITE NAME**  
The area scheduled for construction is known as "CVS Pharmacy" (hereinafter referred to as the "Project").

**PROJECT LOCATION**  
The property is located at the southeast corner of 161st Street and Springmill Road in Westfield, IN at a latitude of 40°01'12.8" N and a longitude of 86°09'49.4" W.

**OWNER'S INFORMATION**  
Name: TMC Indiana 2, LLC  
Address: 501 Pennsylvania Pkwy, Suite 160 Indianapolis, IN 46280  
Representative: Craig Forgy  
Title: Regional Representative  
Telephone: 317-705-8800

**OPERATOR'S INFORMATION**  
Name: TMC Indiana 2, LLC  
Address: 501 Pennsylvania Pkwy, Suite 160 Indianapolis, IN 46280  
Representative: Craig Forgy  
Title: Regional Representative  
Telephone: 317-705-8800

**NOTICE OF INTENT**  
All parties defined as owners or operators must submit a Notice of Intent (NOI) at least 48 hours prior to commencement of on-site construction activities. Submittal of late NOIs is not prohibited; however, authorization under the construction general permit is only for discharges that occur after permit coverage is granted. Unpermitted discharges may be subject to enforcement actions by the EPA. For the purposes of this permit, an operator is defined as any party meeting either of the following requirements:  
a) The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications.  
b) The party has operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions.

**A2 11" x 17" PLAT**  
Refer to the Site Plan.

**A3 PROJECT NARRATIVE**  
The project consists of a 13,225 sqft proposed CVS/Pharmacy on the 1.3244-acre on the southeast corner of 161st Street and Springmill Road in Westfield, IN. The site will consist of constructing drives, parking lot, utilities and building.

**A4 VICINITY MAP**  
Refer to Title Sheet

**A5 LEGAL DESCRIPTION OF THE PROJECT SITE**  
Refer to Existing Topography Sheet.

**A6 LOCATION OF ALL LOTS AND PROPOSED SITE IMPROVEMENTS**  
The site will not be subdivided; therefore, there are no individual lots on the property. The proposed site improvements are shown on the included plans.

**A7 HYDROLOGIC UNIT CODE (HUC)**  
05120201120060 and 05120201090030

**A8 STATE AND FEDERAL WATER QUALITY PERMITS**  
Not applicable

**A9 SPECIFIC POINT WHERE STORMWATER DISCHARGE WILL LEAVE THE SITE**  
STORMWATER DRAINAGE FROM THE SITE WILL BE CONVEYED BY A PROPOSED STORM SEWER TO THE SOUTHERN PORTION OF THE SITE.

**A10 LOCATION AND NAME OF ALL WETLANDS, LAKES, AND WATERCOURSES ON AND ADJACENT TO THE SITE**  
NO WETLANDS, LAKES OR WATERCOURSES HAVE BEEN IDENTIFIED ON THE SITE THAT MAY BE IMPACTED BY STORMWATER DISCHARGES AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES.

**A11 IDENTIFICATION OF ALL RECEIVING WATERS**  
Unnamed Tributary to Cool Creek is the ultimate receiving water for the project area.

**A12 IDENTIFICATION OF ALL POTENTIAL DISCHARGES TO GROUND WATER**  
There are no locations on site where surface water may be discharged into ground water.

**A13 100-YEAR FLOODPLAINS, FLOODWAYS, AND FLOODWAY FRINGES**  
The lot is not located in a floodplain as indicated on the Hamilton County, IN, Flood Insurance Rate Map 18057C0120G dated November 19, 2014.

**A14 PRE-CONSTRUCTION AND POST-CONSTRUCTION ESTIMATE OF PEAK DISCHARGE**  
Pre-construction 10-year discharge: 3.11 cfs  
Post-construction 10-year discharge: 6.15 cfs

**A15 ADJACENT LAND USE**  
North: Commercial  
East: Commercial  
South: Commercial  
West: Agricultural

**A16 LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS**  
Approximate boundaries of disturbed areas are as identified on the Erosion Control Plan.

**A17 IDENTIFICATION OF EXISTING VEGETATIVE COVER**  
Approximate areas of existing vegetative cover are as shown on the existing topography sheets.

**A18 SOILS MAP INCLUDING SOIL DESCRIPTION AND LIMITATIONS**  
The Natural Resources Conservation Service (NRCS) Web Soil Survey of Clark County, Indiana, indicates Urban Land - Udarents loamy substratum are located on the site.  
The on-site soil will be treated as recommended by the geotechnical engineer if the conditions are unsuitable for the proposed construction. Remedial treatments may include, but are not limited to, removal of unsuitable soil and backfilling with engineered material, installation of a geobarrier within or under the pavement system, or treatment of the subgrade with lime.

**A19 LOCATIONS, SIZE, AND DIMENSIONS FOR PROPOSED STORMWATER SYSTEMS**  
Locations of stormwater systems: Refer to the Utility Plan or Storm Sewer Plan and Profiles  
Size of storm sewer: Refer to the Utility Plan or Storm Sewer Plan and Profiles  
Details of storm inlets and manholes: Refer to Site Details

**A20 PLANS FOR ANY OFF-SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT**  
There will be no offsite construction activities associated with this project.

**A21 LOCATIONS OF PROPOSED SOIL STOCKPILES AND/OR BORROW/DISPOSAL**  
Excess soil shall be immediately stockpiled, surrounded with silt fence and seeded and/or removed from the construction site in accordance with all applicable laws. If topsoil stockpiles are anticipated for this project, they are shown on the Erosion Control Plan.

**A22 EXISTING SITE TOPOGRAPHY**  
Refer to the Existing Topography Plan

**A23 PROPOSED FINAL SITE TOPOGRAPHY**  
Refer to the Grading Plan

**B1 DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH CONSTRUCTION ACTIVITIES**  
The following potential pollutant sources may be associated with construction activities on site:  
1. Material storage areas (more specifically described below)  
2. Construction waste materials  
3. Fuel storage areas and fueling stations  
4. Exposed soils  
5. Leaking vehicles and equipment  
6. Sanitary waste from temporary toilet facilities  
7. Litter  
8. Windblown dust  
9. Soil tracking off site from construction equipment  
The following construction materials may be staged or stored on site at various points during development of the site:  
1. Structural fill  
2. Pavement Base Stone  
3. HDPE, PVC, RCP or Ductile Iron pipe  
4. Precast concrete, HDPE or PVC drainage and sanitary structures  
5. Rock rip-rap

**B2 SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND-DISTURBING ACTIVITIES**  
1. Schedule pre-construction meeting with City of Westfield DPW.  
2. Install construction entrance.  
3. Utilize the gravel construction entrance for installation of the perimeter silt fence. Add stone if needed.  
4. Post the NOI at the entrance. Add protection measures to existing inlets.  
4. Install staging area, fueling station, material storage area and concrete truck washout.  
5. Strip the top soil and grade.  
6. Complete the cut and fills on the site. Final grade and seed the pond slopes. Install check dams or stabilize the slopes with erosion control blankets.  
7. Prior to building construction install stone surface for paved areas.  
8. Building pads left dormant for more than 15 days, must be temporarily seeded.  
9. Start building construction. Install staging area for building materials.  
10. Install storm sewer and other utilities. Provide inlet protection immediately upon completion of the inlet and install riprap outlet protection prior to installing outlets. Final grade and stabilize slopes when inlets are functioning.  
11. Seed the perimeter of the site.  
12. Complete utility installation, curbs, paving and building construction.  
13. Install landscaping plant material and stabilize all disturbed areas.  
14. Remove all erosion and sediment control practices when areas have a uniform grass cover.

**B3 STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS**  
Construction entrances will be in place prior to any site construction or demolition. Entrances are shown on the Erosion Control Plan, refer to the Erosion Control Details for details.

**B4 SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS**  
Sheet flow areas will be protected by seed and mulch or hydroseeding. Erosion control blankets will be installed on sloped areas where the slope exceeds 6:1 (horizontal to vertical). Silt Fencing will be utilized to prevent sedimentation from leaving the site. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details.

**B5 SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS**  
Proposed swales will be stabilized with erosion control blankets, and rock donuts will be installed to slow runoff to inlets. Straw bales and silt fences will not be allowed as concentrated flow protection measures. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details.

**B6 STORM SEWER INLET PROTECTION MEASURE LOCATIONS AND SPECIFICATIONS**  
The contractor shall install appropriate inlet protection measures at each inlet. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details. Straw bales will not be allowed as inlet protection measures.

**B7 RUNOFF CONTROL MEASURES**  
None.

**B8 STORMWATER OUTLET PROTECTION SPECIFICATIONS**  
Stormwater outlets will be protected by riprap aprons to prevent scour erosion. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details.

**B9 GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS**  
Rip rap aprons at outlets will be utilized to prevent grade destabilization. Refer to the Erosion Control Plan for locations and the Erosion Control Details for details.

**B10 LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE**  
Refer to the Erosion Control Plan for locations of each stormwater quality measure and the Erosion Control Details.

**B11 TEMPORARY SURFACE STABILIZATION METHODS APPROPRIATE FOR EACH SEASON**  
Surface stabilization is required on any bare or thinly vegetated area that is scheduled or likely to remain inactive for a period of 15 days or more.  
Refer to the Temporary Seeding Detail within Erosion Control Details for specifics on soil amendments, seed mixtures and mulching.

**B12 PERMANENT SURFACE STABILIZATION SPECIFICATIONS**  
A. Loosen lawn area to a minimum depth of 6 inches. Mix soil amendments and fertilizers with topsoil at rates specified. Organic soil amendments such as peat, compost or manure shall be applied at 2" depth evenly over soil and incorporated into the top 6" of topsoil. Provide fertilizer with percentage of nitrogen required to provide not less than 1 pound of actual nitrogen per 1,000 sq. ft. of lawn area and not less than 4 percent phosphoric acid and 2 percent potassium. At least 50 percent of nitrogen to be organic form. Delay mixing of fertilizer if planting will not follow plan of planting soil within a few days.  
B. Fertilizer for lawns: provide a fast release fertilizer with a composition of 1 lb per 1,000 sq. ft. of actual nitrogen, 4 percent phosphorus, and 2 percent potassium by weight.  
C. Slow-release fertilizer for trees and shrubs: granular fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus and potassium made up of a composition by weight of 5 percent.  
D. Grade lawn and grass areas to a smooth, even surface with loose, uniformly fine texture. Limit fine grading to areas that can be planted within immediate future. Remove trash, debris, stones larger than 1 inch diameter, and other objects that may interfere with planting or maintenance operations. Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds 5 miles per hour.  
E. Distribute seed evenly over entire area by sowing equal quantity in 2 directions at right angles to each other.  
F. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with a fine spray.  
G. Install erosion control blankets as indicated on the plan.  
H. Protect seeded areas against erosion by spreading clean, seed-free straw mulch after completion of seeding operations. Spread uniformly to form a continuous blanket not less than 1-1/2 inches loose measurements over seeded areas.  
I. Water newly planted lawn areas and keep moist until new grass is established. Immediately repair any lawn areas disturbed by construction activities including tree and shrub installation.  
J. Refer to the Permanent Seeding Details within the Erosion Control Detail Sheet, for timing of permanent seeding, grass seed specifications and mulching specifications.

**B13 MATERIAL HANDLING AND SPILL PREVENTION PLAN**  
**Solid Waste Disposal**  
No solid material, including building materials, is permitted to be discharged to surface waters or buried on site. All solid waste materials, including disposable materials incidental to the construction activity, must be collected in containers or closed dumpsters. The collection containers must be emptied periodically and the collected material hauled to a landfill permitted by the State and/or appropriate local municipality to accept the waste for disposal.  
A foreman or supervisor should be designated in writing to oversee, enforce, and instruct construction workers on proper solid waste procedures.  
**Hazardous Waste**  
Whenever possible, minimize the use of hazardous materials and generation of hazardous wastes. All hazardous waste materials will be disposed in the manner specified by federal, state, or local regulations or by the manufacturer.  
Use containment berms in fueling and maintenance areas and where potential for spills is high.  
A foreman or supervisor should be designated in writing to oversee, enforce and instruct construction workers on proper hazardous waste procedures. The location of any hazardous waste storage areas should be indicated on the stormwater pollution prevention plan by the operator following on-site location of the facility.  
**Dust Control/Off-Site Vehicle Tracking**  
During construction, water trucks should be used, as needed, by each contractor or subcontractor to reduce dust. After construction, the site should be stabilized to reduce dust.  
Construction traffic should enter and exit the site at a Construction Entrance with a rock pad or equivalent device. The purpose of the rock pad is to minimize the amount of soil and mud that is tracked onto existing streets. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts.

**Sanitary/Septic**  
Contractors and subcontractors must comply with all state and local sanitary sewer, portable toilet, or septic system regulations. Sanitary facilities shall be provided at the site by each contractor or subcontractor throughout construction activities. The sanitary facilities should be utilized by all construction personnel and be serviced regularly. All expenses associated with providing sanitary facilities are the responsibility of the contractors and subcontractors. The location of any sanitary facilities should be indicated on the stormwater pollution prevention plan by the operator following on-site location of said facilities.  
**Water Source**  
Water used to establish and maintain grass, to control dust, and for other construction purposes must originate from a public water supply or private well approved by the State or local health department.  
**Equipment Fueling and Storage Areas**  
Equipment fueling, maintenance, and cleaning should only be completed in protected areas (i.e., bermed area). Leaking equipment and maintenance fluids will be collected and not allowed to discharge onto soil where they may be washed away during a rain event.  
Equipment wash down (except for wheel washes) should take place within an area surrounded by a berm. The use of detergents is prohibited.  
**Hazardous Material Storage**  
Chemicals, paints, solvents, fertilizers, and other toxic or hazardous materials should be stored in their original containers (if original container is not resealable, store the products in clearly labeled, waterproof containers). Except during application, the containers should be kept in trucks or in bermed areas within covered storage facilities. Runoff from such materials shall be collected, removed from the site, and disposed of in accordance with the federal, state, and local regulations.  
As may be required by federal, state or local regulations, the Contractor should have a Hazardous Materials Management Plan and/or Hazardous Materials Spill and Prevention Program in place. A foreman or supervisor should be designated in writing to oversee, enforce, and instruct construction workers on proper hazardous materials storage and handling procedures. The location of any hazardous material storage areas should be indicated on the stormwater pollution prevention plan by the operator following on-site location of the storage areas.  
**Material Handling and Spill Prevention**  
Discharges of hazardous substances or oil into stormwater is subject to reporting requirements. In the event of a spill of a hazardous substance, the operator is required to notify the National Response Center (1-800-424-8802) to properly report the spill. In addition, the operator shall submit a written description of the release (including the type and amount of material released, the date of the release, the circumstances of the release, and the steps to be taken to prevent future spills) to the local governing authority. The SWPPP must be revised within 14 calendar days after the release to reflect the release, stating the information above along with modifications to minimize the possibility of future occurrences. Each contractor and subcontractor is responsible for complying with these reporting requirements.  
**Concrete Washout**  
All concrete trucks waste material shall be completely contained and disposed in accordance with all local, state, and federal regulations. A pit or container is required when cleaning concrete chutes.  
**Spill Response Plan**  
Minor - Small spills that typically involve oil, gasoline, paint, hydraulic fluid, etc., can be controlled by the first responder at the discovery of the spill.  
• Contain spill to prevent material from entering storm or ground water. Do not flush with water or bury.  
• Use absorbent material to clean-up spill material and any subsequently contaminated soil and dispose of properly.  
Semi-Significant Spills - Approximately ten gallons or less of pollutant with no contamination of ground or surface waters. Minor spills can be generally controlled by the first responder with help from other site personnel. This response may require other operations to stop to make sure the spill is quickly and safely addressed. At the discovery of the spill:  
• Contain spill to prevent material from entering storm or ground water. Do not flush with water or bury.  
• Use absorbent material to clean-up spills and dispose of properly. Spills on impervious surfaces should be disposed of as soon as possible to prevent migration deeper into the soil and groundwater. Dispose of contaminated soils or absorbents properly.  
• Contact 911 if the spill could be a safety issue.  
• Contact supervisors and designated site inspectors immediately.  
• Contaminated solids are to be removed to an approved landfill.  
Major or Hazardous Spills - More than ten gallons, there is the potential for death, injury or illness to humans or animals, or has the potential for surface or groundwater pollution.  
• Control or contain the spill without risking bodily harm. Temporarily plug storm drains if possible to prevent migration of the spill into the stormwater system.  
• Immediately contact the local Fire Department at 911 to report any hazardous material spill.  
• Contact supervisors and designated site inspectors immediately. Governing authorities responsible for storm water facilities should be contacted as well. The contractor is responsible for having these contact numbers available at the job site. A written report should be submitted to the owner as soon as possible.  
• As soon as possible but within 2 hours of discovery, contact the local agency responsible for spill management. The following information should be noted for future reports to the agency:  
• Name, address and phone number of person making the spill report  
• The location of the spill  
• The time of the spill  
• Identification of the spilled substance  
• Approximate quantity of the substance that has been spilled or may be further spilled  
• The duration and source of the spill  
• Name and location of the damaged waters  
• Name of spill response organization  
• What measures were taken in the spill response  
• Other information that may be significant  
Additional regulations or requirements may be present. A spill response professional should be consulted to make sure all appropriate and required steps have been taken. Contaminated solids should only be removed from the site after approval is given by the appropriate agency.

**B14 MONITORING AND MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE**  
**Inspection Schedule/Reporting**  
All impacted areas, as well as all erosion and sediment control devices, will be inspected every seven (7) calendar days and within 24 hours after a rainfall of 0.5 inch or greater. Where sites have been final or temporarily stabilized or on sites where runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or frozen ground exists), such inspections shall be conducted at least once every month.  
Inspections shall be conducted and a written report prepared, by a designated and qualified person familiar with the USEPA NPDES Storm Water General Permit, this SWPPP, and the Project.  
Inspection reports shall be completed including scope of the inspection, name(s) and qualifications of personnel making the inspection, the date of the inspection, observations relating to the implementation of the SWPPP, and any actions taken as a result of incidents of noncompliance noted during the inspection. The inspection report should state whether the site was in compliance or identify any incidents of noncompliance. The contractor shall keep a copy of the inspection reports on site and permanently for a period of two years following construction. The on-site reports may be requested by inspections conducted by the local governing authority.  
**Construction Entrance**  
Locations where vehicles exit the site shall be inspected for evidence of off-site sediment tracking. Each contractor and subcontractor shall be responsible for maintaining the Construction Entrance and other controls as described in this SWPPP.  
**Material Storage Inspections**  
Inspectors must evaluate areas used for storage of materials that are exposed to precipitation. The purpose is to ensure that materials are protected and/or impounded so that pollutants cannot discharge from storage areas. Off-site material storage areas used solely by the subject project are considered to be part of the project and must be included in the erosion control plans and the site inspection reports.  
**Soil Stabilization Inspections**  
Seeded areas will be inspected to confirm that a healthy stand of vegetation is maintained. The site has achieved final stabilization once all areas are covered with pavement or have a stand of vegetation with at least 70% of the background vegetation density. The density of 70% or greater must be maintained to be considered as stabilized. The operator or their representative will water, fertilize, and reseed disturbed areas as needed to achieve this goal.  
**Erosion and Sediment Control Inspections**  
All controls should be inspected at least once every seven (7) calendar days and following any storm event of 0.5 inch or greater. The following is a list of inspection/maintenance practices that will be used for specific controls:  
1. Geotextiles/Erosion Control Mats: Missing or loose matting must be replaced or re-anchored.  
2. Inlet Protection: If silt fence inlet protection is to be used, sediment should be removed when it reaches approximately one-half the height of the fence. If a sump is used, sediment should be removed when the volume of the basin is reduced by 50%.  
3. Diversion Swales: Clean debris or other obstructions as needed. Damage from storms or normal construction activities (i.e., tire ruts) shall be repaired immediately.  
4. Mulching: Inspect for thin or bare spots caused by natural decomposition or weather-related events. Mulch in high traffic areas should be replaced on a regular basis to maintain uniform protection.  
5. Sediment Trap: Accumulated silt shall be removed and the basin shall be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to one-half of its original storage capacity. The removed sediment shall be stockpiled or redistributed in areas that are protected from erosion.  
6. Sediment Basin: Inspect frequently to check for damage and to ensure obstructions are not diminishing the effectiveness of the structures. Sediment shall be removed and the basin shall be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to 20% of its original storage capacity. The removed sediment shall be stockpiled or redistributed in areas that are protected from erosion.  
7. Silt Fence: Removal of built-up sediment will occur when the sediment reaches one-third the height of the fence.  
8. Stabilized Construction Entrance: Periodic re-grading and top dressing with additional stone.  
9. Straw Bales: Replace straw bales that show signs of deterioration.  
10. Vegetation: Protect newly seeded areas from excessive runoff and traffic until vegetation is established. Establish a watering and fertilizing schedule.  
11. Good Housekeeping: Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges through screening of outfalls and daily pickup of litter.  
In the event that sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize adverse impacts. An example of this may be the situation where sediment has washed into the street and could be carried into the storm sewers by the next rainfall

and/or pose a safety hazard to users of public streets. Modifications/Revisions to SWPPP.  
Based on inspection results, any necessary modification to this SWPPP shall be implemented within seven calendar days of the inspection. A modification is necessary if a control measure or operational procedure does not provide adequate pollutant control. All revisions shall be recorded on a Record of Revisions within seven calendar days of the inspection.  
It is the responsibility of the operator to maintain effective pollutant discharge controls. Physical site conditions or contractor/subcontractor practices could make it necessary to install more controls than were originally planned. For example, localized concentrations of surface runoff or unusually steep areas could require additional silt barrier or other structural controls. Assessing the need for and installing additional controls will be a continuing contractor/subcontractor responsibility until final stabilization is achieved. Contractors and subcontractors implementing this SWPPP must remain alert to the need to periodically refine and update this SWPPP in order to accomplish the intended goals.  
**Notice of Termination**  
Compliance of the site with the General Construction Permit remains the responsibility of all operators that have submitted an NOI until such time as they have submitted a Notice of Termination (NOT). The permittee's authorization to discharge under the General Construction Permit terminates at midnight of the day the NOT is signed.  
All permittees must submit an NOI within thirty (30) days after one or more of the following conditions have been met:  
1. Final stabilization has been achieved on all portions of the site for which the permittee was responsible.  
2. Another operator/permittee has assumed control over all areas of the site that have not been finally stabilized.  
3. In residential construction operations, temporary stabilization has been completed and the residence has been transferred to the homeowner.

**B15 EROSION AND SEDIMENT CONTROL SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS**  
Since the entire site is under a single ownership, there are not any individual building lots.

**C1 DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE**  
The proposed land use is a retail pharmacy. The pollutants and sources of each pollutant normally expected from this type of land use are listed below:  
Pollutant Source: Passenger vehicles, delivery vehicles.  
Type of Pollutant: Oil, gasoline, diesel fuel, any hydrocarbon associated with vehicular fuels and lubricants, grease, antifreeze, windshield cleaner solution, brake fluid, brake dust, rubber, glass, metal and plastic fragments, grit, road de-icing materials.  
Pollutant Source: Building  
Type of Pollutant: Cleaning solutions or solvents, leaks from HVAC equipment, grit from roof drainage, aggregate or rubber fragments from roofing system.  
Pollutant Source: Trash dumpster  
Type of Pollutant: Cleaning solutions or solvents, litter (paper, plastic, general refuse associated with distribution operations), uneaten food products, bacteria.  
Pollutant Source: Parking lot  
Type of Pollutant: Any pollutant associated with vehicular sources, grit from asphalt wearing surface, bituminous compounds from periodic maintenance (sealing, resurfacing and patching), pavement de-icing materials, paint fragments from parking stall stripes, concrete fragments, wind-blown litter from off-site sources, elevated water temperatures from contact with impervious surfaces.  
Pollutant Source: Lawn and landscape areas  
Type of Pollutant: Fertilizers, soil, organic material (leaves, mulch, grass clippings)

**C2 SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION**  
Permanent vegetation, Existing Dry Detention Basin, and good housekeeping measures will remain after construction is completed. The purpose of the these measures is to provide post-construction stormwater quality.  
**C3 DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER QUALITY MEASURES**  
**Permanent Vegetation**  
Topsoil will be placed in lawn areas and seeded with grass, and graded not to exceed 3:1 slopes. Proposed landscape trees and shrubs will also be added. These Bio areas will act as a natural filter strip to help improve storm water quality. The vegetated areas will slow the velocities of storm water runoff, reduce sediment runoff, and reduce problems associated with mud or dust from bare soils.  
**Existing Dry Detention Basin**  
Basins collect, temporarily hold, and gradually release excess storm water from storm events. Detention is achieved through the use of an outlet structure that regulates the rate of storm water outflow.  
**Good Housekeeping Measures**  
Good Housekeeping measures such as regular street sweeping, installation of trash receptacles, and reduction in fertilizer overspray can be incorporated by the owner and/or occupant.

**C4 LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE**  
The following items are stormwater quality measures that will be installed during construction. These items will remain in place after construction is completed and are considered to serve an incidental function as post-construction stormwater quality BMPs.  
**Permanent Vegetation**  
Permanent vegetation will be planted in the parking lot islands and around the perimeter of the property.  
**Existing Dry Detention Basin**  
Existing Dry Detention Basin is located at the southeast corner of the overall development.

**C5 DESCRIPTION OF MAINTENANCE GUIDELINES FOR POST-CONSTRUCTION STORMWATER QUALITY MEASURES**  
Maintenance requirements for the stormwater quality measures which will remain in place after construction is complete, are described below.  
**Permanent Vegetation**  
Permanent vegetation requires little maintenance if properly designed. Mow as needed during the growing season; inspect for erosion problems twice during the first year, annually thereafter, and remove trash and debris annually or more frequently if needed.  
**Detention Ponds (Wet or Dry)**  
Inspect periodically as needed or at least every six months. Sediment shall be disposed of off site in accordance with all applicable laws. Areas that show sign of erosion shall be stabilized with erosion control blanket and/or seed as necessary.  
**Good Housekeeping Measures**  
Good Housekeeping measures such as inspecting inlet castings, storm structures, and installation of trash receptacles to keep storm structures clear of trash and debris. Remove trash and debris annually or more frequently if needed.



**13,225 TYPE-B CHAMFER DRIVE-THRU**

**STORE NUMBER: 10591**

**161ST STREET AND SPRING MILL ROAD WESTFIELD, INDIANA**

**PROJECT TYPE: NEW STORE**

**FINAL TYPE: CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**



7260 SHADELAND STATION  
INDIANAPOLIS, INDIANA 46256  
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**DEVELOPER:**

TMC Indiana 2, LLC  
501 Pennsylvania Pkwy.  
Suite 160  
Indianapolis, Indiana 46280  
Phone (317) 705-8800  
Contact: Craig Forgy

**SEAL:**

APPROVAL PENDING  
NOT FOR CONSTRUCTION

**REVISIONS:**

▲	TAC COMMENTS	07-10-2015
▲	PER OWNER	08-27-2015
▲	CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW

**DRAWING BY:** RCB

**DATE:** 05-29-2015

**JOB NUMBER:** 2007.01007

**TITLE:**

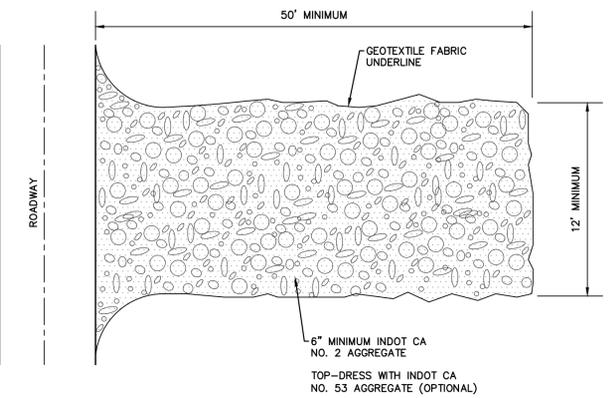
**STORMWATER POLLUTION PREVENTION PLAN**

**SHEET NUMBER:**

C510

**COMMENTS:**

PRINT DATE: 9/29/15 PLOT SCALE: 1:2,500 DRAWING FILE: P:\IN2007\1007\0.D. DRAWINGS\CIVIL.C. CONSTRUCTION DOCUMENTS\200701007\CE.C520-C521.LCD.DWG EDIT DATE: 9/24/15 - 3:21 PM EDITED BY: A.TAYLOR



**SPECIFICATIONS**  
**LOCATION**  
 • AVOID LOCATING ON STEEP SLOPES OR AT CURVES IN PUBLIC ROADS.

**DIMENSIONS**  
 • WIDTH: TWELVE (12) FEET MINIMUM OR FULL WIDTH OF ENTRANCE/EXIT DRIVE, WHICHEVER IS GREATER.  
 • LENGTH: FIFTY (50) FEET MINIMUM OR FULL LENGTH OF DRIVE, WHICHEVER IS GREATER.  
 • THICKNESS: SIX (6) INCHES MINIMUM.

**MATERIALS**  
 • ONE (1) TO TWO AND ONE-HALF (2-1/2) INCH DIAMETER WASHED AGGREGATE (INDOT CA NO. 2).  
 • ONE-HALF (1/2) TO ONE AND ONE-HALF (1-1/2) INCH WASHED AGGREGATE (INDOT CA NO. 53); OPTIONAL, USED PRIMARILY WHERE THE PURPOSE OF THE PAD IS TO KEEP SOIL FROM ADHERING TO VEHICLE TIRES.  
 • GEOTEXTILE FABRIC UNDERLAYMENT (USED AS A SEPARATE LAYER TO PREVENT INTERMIXING OF AGGREGATE AND THE UNDERLYING SOIL MATERIAL AND TO PROVIDE GREATER BEARING STRENGTH WHEN ENCOUNTERING WET CONDITIONS OR SOILS WITH SEASONAL HIGH WATER TABLE LIMITATIONS).

**INSTALLATION**  
 1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.  
 2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.  
 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.  
 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.  
 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.  
 6. TOP-DRESS THE DRIVE WITH WASHED AGGREGATE (INDOT CA NO. 53).  
 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

**MAINTENANCE**  
 • INSPECT DAILY.  
 • RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.  
 • TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.  
 • IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.  
 • FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

**GRAVEL CONSTRUCTION ENTRANCE**  
**(SITES LESS THAN TWO ACRES)**  
 NOT TO SCALE (REV. 11/13)

**SEEDING SPECIFICATIONS**  
**SEEDBED PREPARATION**  
 • GRADE AND APPLY SOIL AMENDMENTS.

**SEEDING FREQUENCY**  
 • SEED FINAL GRADED AREAS DAILY WHILE SOIL IS STILL LOOSE AND MOIST.

**DENSITY OF VEGETATIVE COVER**  
 • NINETY PERCENT OR GREATER OVER THE SOIL SURFACE.

**MATERIALS**  
 • SOIL AMENDMENTS - SELECT MATERIALS AND RATES AS DETERMINED BY A SOIL TEST (CONTACT YOUR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE AND SOIL INFORMATION, INCLUDING AVAILABLE SOIL TESTING SERVICES) OR 400 TO 600 POUNDS OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT, CONSIDER THE USE OF REDUCED PHOSPHOROUS APPLICATION WHERE SOIL TESTS INDICATE ADEQUATE PHOSPHOROUS LEVELS IN THE SOIL PROFILE.  
 • SEED - SELECT APPROPRIATE PLANT SPECIES SEED OR SEED MIXTURES ON THE BASIS OF SOIL TYPE, SOIL pH, REGION OF THE STATE, TIME OF YEAR, AND INTENDED LAND USE OF THE AREA TO BE SEEDDED (SEE TABLE 1).  
 • MULCH - STRAW, HAY, WOOD FIBER, ETC. (TO PROTECT SEEDBED, RETAIN MOISTURE, AND ENCOURAGE PLANT GROWTH), ANCHORED TO PREVENT REMOVAL BY WIND OR WATER OR COVERED WITH PREMANUFACTURED EROSION CONTROL BLANKETS.

**SEEDING APPLICATIONS**  
**SITE PREPARATION**  
 1. GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE.  
 2. ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION. (COMPOST MATERIAL MAY BE ADDED TO IMPROVE SOIL MOISTURE HOLDING CAPACITY, SOIL FRIABILITY, AND NUTRIENT AVAILABILITY.)

**SEEDBED PREPARATION**  
 1. TEST SOIL TO DETERMINE pH AND NUTRIENT LEVELS.  
 2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.  
 3. TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OR RAKE, OPERATED ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL.

**SEEDING**  
 OPTIMUM SEEDING DATES ARE MARCH 1 TO MAY 10 AND AUGUST 10 TO SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. SEEDING OUTSIDE OR BEYOND OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OR OVERSEEDING MAY BE REQUIRED IF ADEQUATE SURFACE COVER IS NOT ACHIEVED. RESEEDING OR OVERSEEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH MULCH.  
 1. SELECT A SEEDING MIXTURE AND RATE FROM TABLE 1. SELECT SEED MIXTURE BASED ON SITE CONDITIONS, SOIL pH, INTENDED LAND USE, AND EXPECTED LEVEL OF MAINTENANCE.  
 2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE-HALF INCH. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING. THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS. (IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.)  
 3. MULCH ALL SEEDBED AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. CONSIDER USING EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS.

**SEEDING MAINTENANCE**  
 • INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED.  
 • CHARACTERISTICS OF A SUCCESSFUL STAND INCLUDE VIGOROUS DARK GREEN OR BLuish-GREEN SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.  
 • CHECK FOR EROSION OR MOVEMENT OF MULCH.  
 • REPAIR DAMAGED, BARE, GULLED, OR SPARSLEY VEGETATED AREAS AND THEN FERTILIZE, RESEED, AND APPLY AND ANCHOR MULCH.  
 • IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY, MOISTURE CONDITION, AND MULCH APPLICATION; REPAIR AFFECTED AREAS EITHER BY OVERSEEDING OR PREPARING A NEW SEEDBED AND RESEEDING. APPLY AND ANCHOR MULCH ON THE NEWLY SEEDBED AREAS.  
 • IF VEGETATION FAILS TO GROW, CONSIDER SOIL TESTING TO DETERMINE SOIL pH OR NUTRIENT DEFICIENCY PROBLEMS. (CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE.)  
 • IF ADDITIONAL FERTILIZATION IS NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL TEST RECOMMENDATIONS.  
 • ADD FERTILIZER THE FOLLOWING GROWING SEASON. FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS.  
 • FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION. FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE-HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.

TABLE 1. PERMANENT SEEDING RECOMMENDATIONS

THIS TABLE PROVIDES SEVERAL SEED MIXTURE OPTIONS. ADDITIONAL SEED MIXTURES ARE AVAILABLE COMMERCIALY. WHEN SELECTING A MIXTURE, CONSIDER INTENDED LAND USE AND SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G., SOIL pH AND DRAINAGE), SLOPE ASPECT, AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

OPEN LOW-MAINTENANCE AREAS (REMAINING IDLE MORE THAN SIX MONTHS)

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. PERENNIAL RYEGRASS -WHITE CLOVER*	70 LBS. 2 LBS.	5.6 TO 7.0
2. PERENNIAL RYEGRASS -TALL FESCUE**	70 LBS. 50 LBS.	5.6 TO 7.0
3. TALL FESCUE** -WHITE CLOVER*	70 LBS. 2 LBS.	5.5 TO 7.5

STEEP BANKS AND CUTS, LOW-MAINTENANCE AREAS (NOT MOWED)

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. SMOOTH BROME GRASS -RED CLOVER**	35 LBS. 20 LBS.	5.5 TO 7.0
2. TALL FESCUE** -WHITE CLOVER*	50 LBS. 2 LBS.	5.5 TO 7.5
3. TALL FESCUE** -RED CLOVER*	50 LBS. 20 LBS.	5.5 TO 7.5
4. ORCHARD GRASS -RED CLOVER** -WHITE CLOVER*	30 LBS. 20 LBS. 2 LBS.	5.6 TO 7.0
5. CROWNVEITCH** -TALL FESCUE**	12 LBS. 30 LBS.	5.6 TO 7.0

LAWNS AND HIGH-MAINTENANCE AREAS

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. BLUEGRASS	140 LBS.	5.5 TO 7.0
2. PERENNIAL RYEGRASS (TURF TYPE)	60 LBS. 90 LBS.	5.6 TO 7.0
3. TALL FESCUE (TURF TYPE)** -BLUEGRASS	170 LBS. 30 LBS.	5.6 TO 7.5

CHANNELS AND AREAS OF CONCENTRATED FLOW

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL pH
1. PERENNIAL RYEGRASS -WHITE*	150 LBS. 2 LBS.	5.5 TO 7.0
2. KENTUCKY BLUEGRASS -SMOOTH BROMEGRASS -SWITCHGRASS -TIMOTHY -PERENNIAL RYEGRASS -WHITE CLOVER**	20 LBS. 10 LBS. 3 LBS. 4 LBS. 10 LBS. 2 LBS.	5.5 TO 7.5
3. TALL FESCUE* -WHITE CLOVER**	150 LBS. 2 LBS.	5.5 TO 7.5
4. TALL FESCUE** -PERENNIAL RYEGRASS -KENTUCKY BLUEGRASS	150 LBS. 20 LBS. 20 LBS.	5.5 TO 7.5

\*FOR BEST RESULTS: (A) LEGUME SEED SHOULD BE INOCULATED; (B) SEEDING MIXTURES CONTAINING LEGUMES SHOULD PREFERABLY BE SPRING-SEEDED, ALTHOUGH THE GRASS MAY BE FALL-SEEDED AND THE LEGUME FROST-SEEDED; AND (C) IF LEGUMES ARE FALL-SEEDED, DO SO IN EARLY FALL.

\*\*TALL FESCUE PROVIDES LITTLE COVER FOR, AND MAY BE TOXIC TO SOME SPECIES OF WILDLIFE. THE INDIANA DEPARTMENT OF NATURAL RESOURCES RECOGNIZES THE NEED FOR ADDITIONAL RESEARCH ON ALTERNATIVES SUCH AS BUFFALOGRAASS, ORCHARDGRASS, SMOOTH BROMEGRASS, AND SWITCHGRASS. THIS RESEARCH, IN CONJUNCTION WITH DEMONSTRATION AREAS, SHOULD FOCUS ON EROSION CONTROL CHARACTERISTICS, WILDLIFE TOXICITY, TURF DISABILITY, AND DROUGHT RESISTANCE.

**NOTES:**  
 1. AN OAT OR WHEAT COMPANION OR NURSE CROP MAY BE USED WITH ANY OF THE ABOVE PERMANENT SEEDING MIXTURES, AT THE FOLLOWING RATES:  
 A. SPRING OATS - ONE-FOURTH TO THREE-FOURTHS BUSHEL PER ACRE  
 B. WHEAT - NO MORE THAN ONE-HALF BUSHEL PER ACRE  
 2. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

**PERMANENT SEEDING WITH MULCH**  
 NOT TO SCALE (REV. 11/13)

**MULCH SPECIFICATIONS**  
**MATERIALS**

TABLE 1. SLOPE STEEPNESS RESTRICTIONS

MATERIAL*	RATE PER ACRE	COMMENTS
STRAW OR HAY	2 TONS	SHOULD BE DRY, FREE OF UNDESIRABLE SEEDS. SPREAD BY HAND OR MACHINE. MUST BE CRIMPED OR ANCHORED (SEE TABLE 2).
WOOD FIBER OR CELLULOSE	1 TON	APPLY WITH A HYDRAULIC MULCH MACHINE AND USE WITH TACKING AGENT.

\*MULCHING IS NOT RECOMMENDED IN CONCENTRATED FLOWS. CONSIDER EROSION CONTROL BLANKETS OR OTHER STABILIZATION METHODS.

**COVERAGE**  
 • THE MULCH SHOULD HAVE A UNIFORM DENSITY OF AT LEAST 75 PERCENT OVER THE SOIL SURFACE.  
**ANCHORING**

TABLE 2. MULCH ANCHORING METHODS

ANCHORING METHOD*	HOW TO APPLY
MULCH ANCHORING TOOL OR FARM DISK (DULL, SERRATED, AND BLADES SET STRAIGHT)	CRIMP OR PUNCH THE STRAW OR HAY TWO TO FOUR INCHES INTO THE SOIL. OPERATE MACHINERY ON THE CONTOUR OF THE SLOPE.
CLEATING WITH DOZER TRACKS	OPERATE DOZER UP AND DOWN SLOPE TO PREVENT FORMATION OF RILLS BY DOZER CLEATS.
WOOD HYDROMULCH FIBERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
SYNTHETIC TACKIFIERS, BINDERS, OR SOIL STABILIZERS	APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
NETTING (SYNTHETIC OR BIODEGRADABLE MATERIAL)	INSTALL NETTING IMMEDIATELY AFTER APPLYING MULCH. ANCHOR NETTING WITH STAPLES. EDGES OF NETTING STRIPS SHOULD OVERLAP WITH EACH UP-SLOPE STRIP OVERLAPPING FOUR TO SIX INCHES OVER THE ADJACENT DOWN-SLOPE STRIP. BEST SUITED TO SLOPE APPLICATIONS. IN MOST INSTANCES, INSTALLATION DETAILS ARE SITE SPECIFIC, SO MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED.

\*ALL FORMS OF MULCH MUST BE ANCHORED TO PREVENT DISPLACEMENT BY WIND AND/OR WATER.

**MULCH APPLICATION**

1. APPLY MULCH AT THE RECOMMENDED RATE SHOWN IN TABLE 1.  
 2. SPREAD THE MULCH MATERIAL UNIFORMLY BY HAND, HAYFORK, MULCH BLOWER, OR HYDRAULIC MULCH MACHINE. AFTER SPREADING, NO MORE THAN 25 PERCENT OF THE GROUND SHOULD BE VISIBLE.  
 3. ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION. THE MULCH CAN BE ANCHORED USING ONE OF THE METHODS LISTED BELOW.  
 a. CRIMP WITH A MULCH ANCHORING TOOL. A WEIGHTED FARM DISK WITH DULL SERRATED BLADES SET STRAIGHT, OR TRACK CLEATS OF A BULLDOZER,  
 b. APPLY HYDRAULIC MULCH WITH SHORT CELLULOSE FIBERS,  
 c. APPLY A LIQUID TACKIFIER, OR  
 d. COVER WITH NETTING SECURED BY STAPLES.

**MULCH MAINTENANCE**

• INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.  
 • CHECK FOR EROSION OR MOVEMENT OF MULCH; REPAIR DAMAGED AREAS, RESEED, APPLY NEW MULCH AND ANCHOR THE MULCH IN PLACE.  
 • CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.  
 • IF EROSION IS SEVERE OR RECURRING, USE EROSION CONTROL BLANKETS OR OTHER MORE SUBSTANTIAL STABILIZATION METHODS TO PROTECT THE AREA.



**13,225 TYPE-B CHAMFER DRIVE-THRU**

**STORE NUMBER: 10591**  
**181ST STREET AND SPRING MILL ROAD**  
**WESTFIELD, INDIANA**

**PROJECT TYPE: NEW STORE**  
**DEAL TYPE:**  
**CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**

**CONSULTANT:**

7260 SHADELAND STATION  
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**DEVELOPER:**

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**SEAL:**



**REVISIONS:**

△ TAC COMMENTS	07-10-2015
△ PER OWNER	08-27-2015
△ CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW

**DRAWING BY:** RCB

**DATE:** 05-29-2015

**JOB NUMBER:** 2007.01007

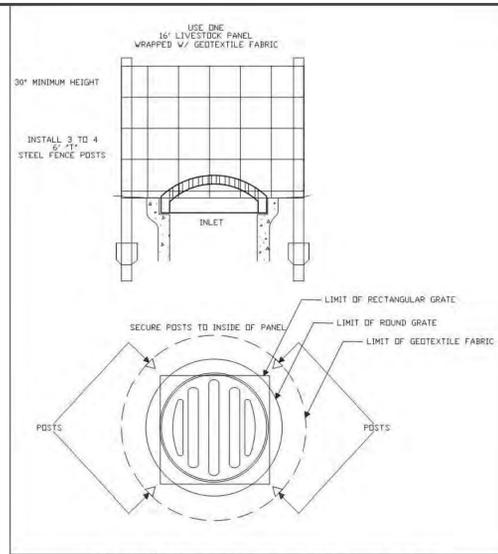
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**SHEET NUMBER:**

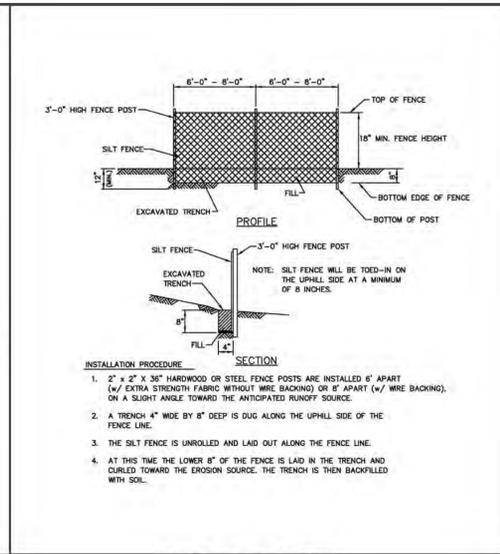
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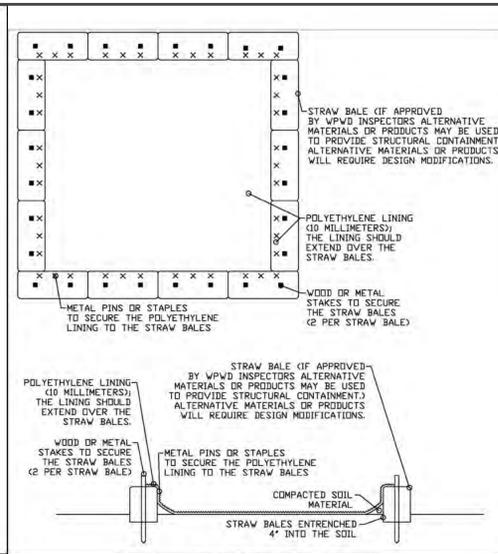
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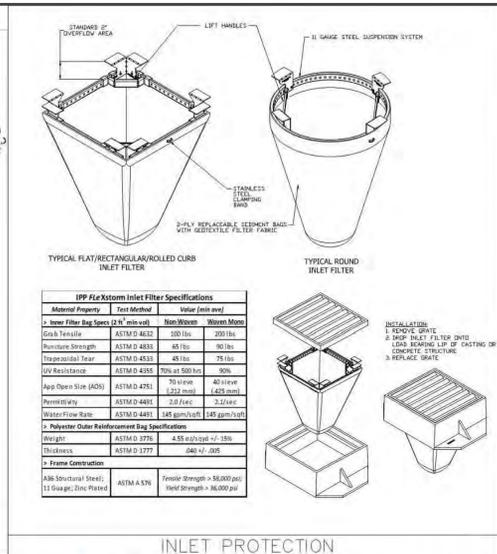
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 No. 1000002 STATE OF INDIANA PROFESSIONAL ENGINEER  
 Neil B. VanTass 4/1/13 DATE  
 FIGURE EC-1



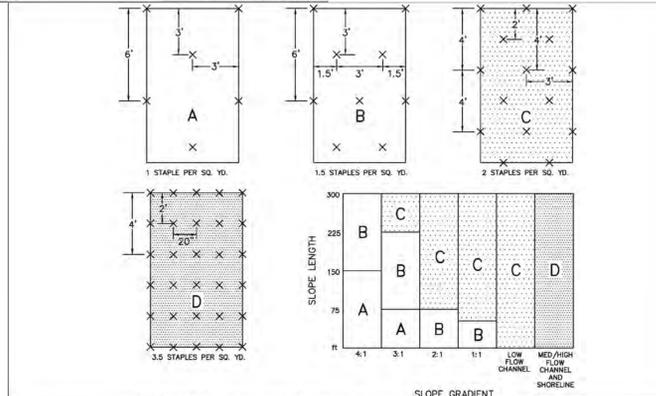
SILT FENCE DETAIL  
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 FIGURE EC-4



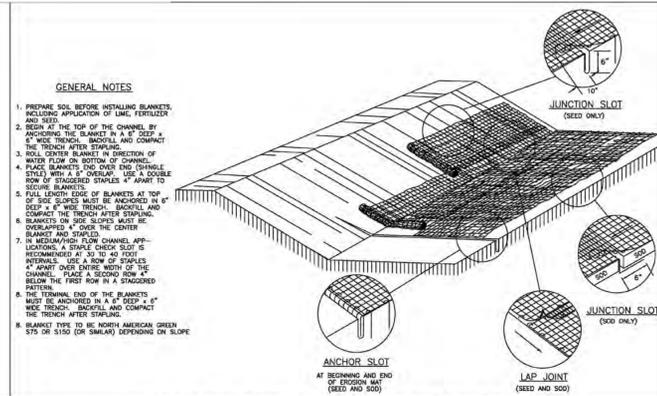
CONCRETE WASHOUT DETAIL  
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 No. 1000002 STATE OF INDIANA PROFESSIONAL ENGINEER  
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 FIGURE EC-5



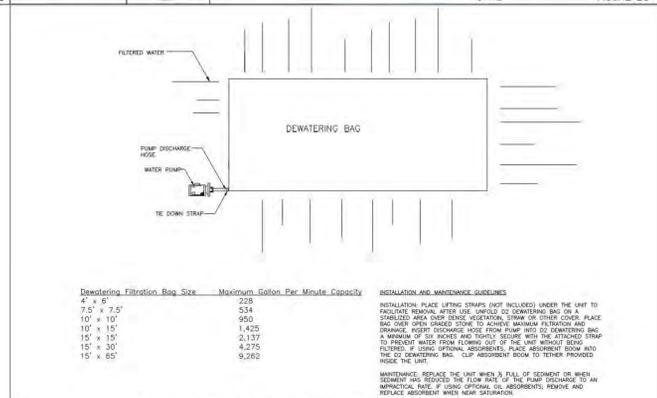
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 Neil B. VanTass 4/1/13 DATE  
 FIGURE EC-6



EROSION CONTROL MAT - STAPLE GUIDE  
 CITY OF WESTFIELD, INDIANA  
 No. 1000002 STATE OF INDIANA PROFESSIONAL ENGINEER  
 Neil B. VanTass 4/1/14 DATE  
 FIGURE EC-3



EROSION CONTROL MAT - SLOPE DETAIL  
 CITY OF WESTFIELD, INDIANA  
 No. 1000002 STATE OF INDIANA PROFESSIONAL ENGINEER  
 Neil B. VanTass 4/1/14 DATE  
 FIGURE EC-4



DEWATERING DETAIL AND SIZE CHART  
 CITY OF WESTFIELD, INDIANA  
 No. 1000002 STATE OF INDIANA PROFESSIONAL ENGINEER  
 Neil B. VanTass 4/1/14 DATE  
 FIGURE EC-5



13,225 TYPE-B  
 CHAMFER DRIVE-THRU  
 STORE NUMBER: 10591  
 101ST STREET AND SPRING MILL ROAD  
 WESTFIELD, INDIANA  
 PROJECT TYPE: NEW STORE  
 DEAL TYPE:  
 CS PROJECT NUMBER: 071776

ARCHITECT OF RECORD

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SEAL:



REVISIONS:

△	TAC COMMENTS	07-10-2015
△	PER OWNER	08-27-2015
△	CITY COMMENTS	09-23-2015

PLANNING MGR: JLW

DRAWING BY: RCB

DATE: 05-29-2015

JOB NUMBER: 2007.01007

TITLE:  
**EROSION CONTROL  
 DETAILS**

SHEET NUMBER:

**C521**

COMMENTS:

Diagram 1: Bicycle Rack Type.

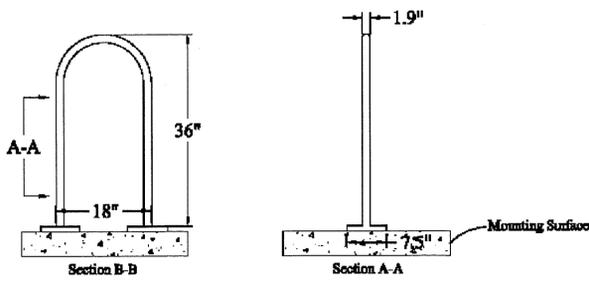
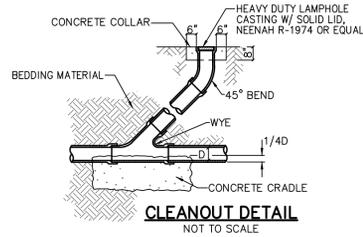
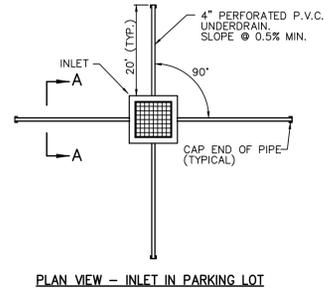
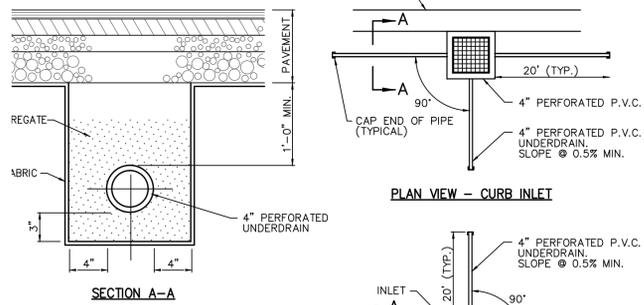
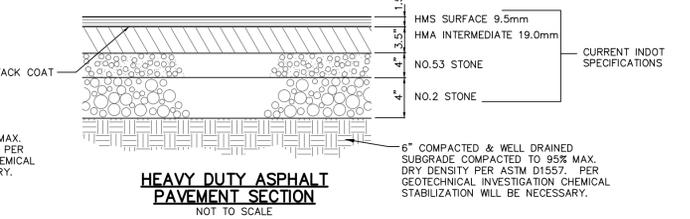
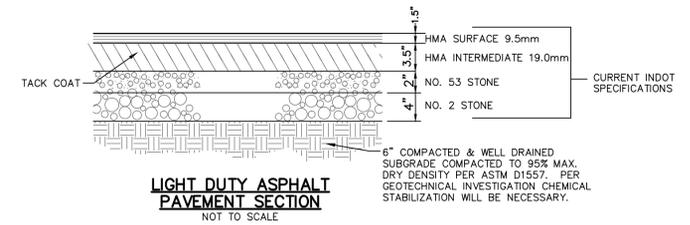
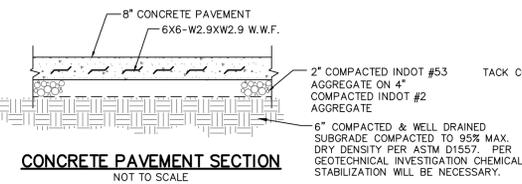
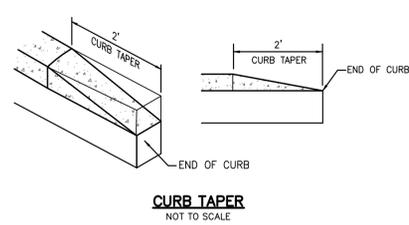
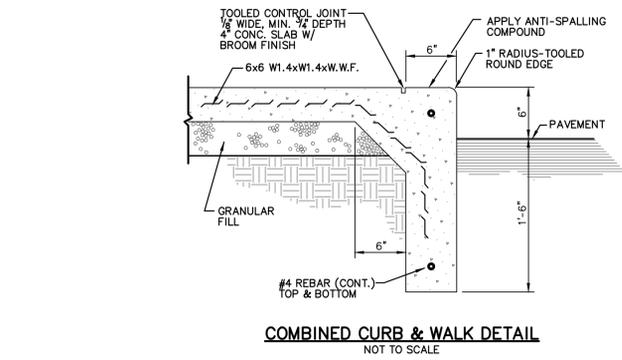
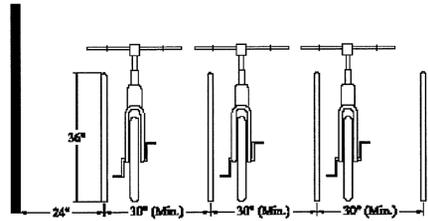
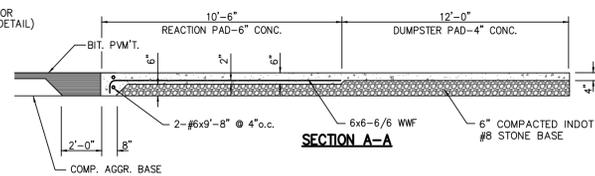


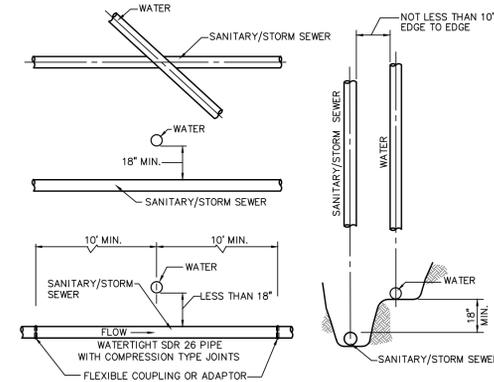
Diagram 2: Bicycle Parking Location and Design.



NOTE: CLASS "A" BEDDING TO BE UTILIZED FOR ALL CLEANOUT INSTALLATIONS (SEE DETAIL)

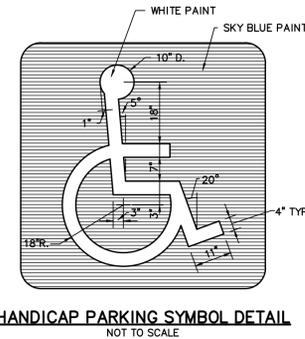


TRASH PAD DETAIL NOT TO SCALE

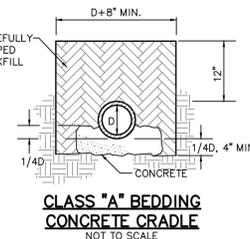


- NOTES:
1. WHEN LATERAL SEPARATION IS 10' OR GREATER NO VERTICAL CLEARANCE IS NEEDED
  2. ALL CROSSINGS AND SEPARATIONS TO BE 327 IAC, ARTICLES 3 & 8
  3. WHEN HORIZONTAL SEPARATION IS LESS THAN 10' OR VERTICAL SEPARATION IS LESS THAN 18", SANITARY PIPE MUST BE WATERTIGHT SDR 26 WITH COMPRESSION TYPE JOINTS.
  4. CONTRACTOR SHALL VERIFY THAT MORE STRINGENT SEPARATION REQUIREMENTS DO NOT EXIST WITH THE JURISDICTIONAL WATER UTILITY. IF THEY DO EXIST, CONTRACTOR SHALL FOLLOW THE MORE STRINGENT REQUIREMENTS.

MIN. CROSSOVER & SEPARATION REQUIREMENTS FOR WATER & SANITARY/STORM SEWERS NOT TO SCALE



HANDICAP PARKING SYMBOL DETAIL NOT TO SCALE



CLASS "A" BEDDING CONCRETE CRADLE NOT TO SCALE



- GREEN - ILLUMINATING TAPE (LETTERS)
- BLUE - ILLUMINATING TAPE (SYMBOL BLOCK)
- WHITE - ILLUMINATING TAPE (BACKGROUND)
- GREEN - ILLUMINATING TAPE (ARROW)
- GREEN - ILLUMINATING TAPE (BORDER)

7' MIN. OR PER STATE OR LOCAL CODE

3" ROUND POST PAINTED BLACK \*\* PROVIDE POST CAP AT TOP OF SIGN POST.

6" STEEL PIPE BOLLARD FILLED WITH 3000 PSI CONCRETE PAINTED YELLOW \*\*

CROWN CONCRETE TO PREVENT PONDING

PAVEMENT

COMPACTED SUBGRADE\*\*\*

6" MIN. CONCRETE FOOTING\*\*\*

NATIVE MATERIAL

3'-6" MIN. OR TO MIN. FROST DEPTH IF GREATER\*\*\*

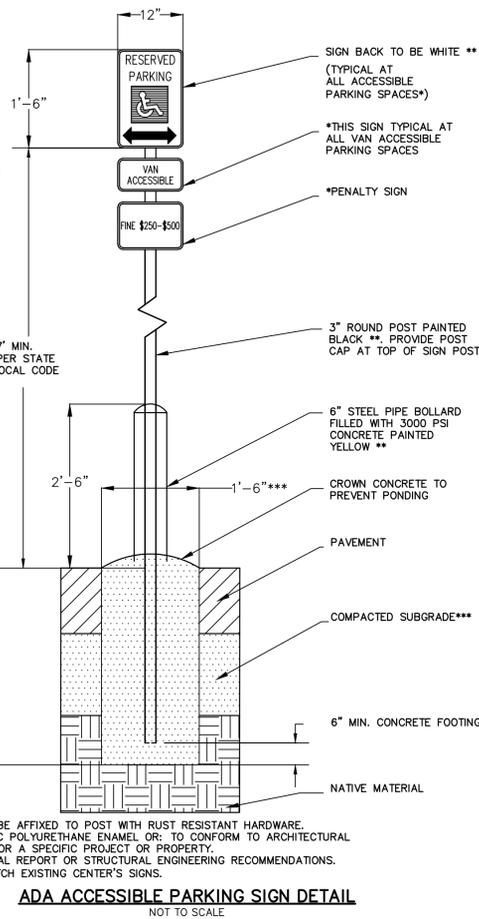
2'-6" 1'-6"\*\*\*

1'-6" 12"

RESERVED PARKING

VAN ACCESSIBLE

FINE \$250-\$500



- \*\* ALL SIGNS ARE TO BE AFFIXED TO POST WITH RUST RESISTANT HARDWARE.
- \*\* SATIN FINISH, ACRYLIC POLYURETHANE ENAMEL OR: TO CONFORM TO ARCHITECTURAL DESIGN CRITERIA FOR A SPECIFIC PROJECT OR PROPERTY.
- \*\*\* OR: PER GEOTECHNICAL REPORT OR STRUCTURAL ENGINEERING RECOMMENDATIONS.

ADA ACCESSIBLE PARKING SIGN DETAIL NOT TO SCALE

**CVS**  
pharmacy

13,225 TYPE-B  
CHAMFER DRIVE-THRU  
STORE NUMBER: 10591  
181ST STREET AND SPRING MILL ROAD  
WESTFIELD, INDIANA  
PROJECT TYPE: NEW STORE  
DEAL TYPE:  
CS PROJECT NUMBER: 071776

ARCHITECT OF RECORD

CONSULTANT:  
**AMERICAN**  
**STRUCTUREPOINT**  
INC.  
7260 SHADELAND STATION  
INDIANAPOLIS, INDIANA 46256  
P:(317) 547-5580 F:(317) 543-0270  
www.structurepoint.com

DEVELOPER:  
TMC Indiana 2, LLC  
501 Pennsylvania Pkwy.  
Suite 160  
Indianapolis, Indiana 46280  
Phone (317) 705-8800  
Contact: Craig Forgy

SEAL:  
APPROVAL PENDING  
NOT FOR CONSTRUCTION

REVISIONS:  
TAC COMMENTS 07-10-2015  
PER OWNER 08-27-2015  
CITY COMMENTS 09-23-2015

PLANNING MGR: JLW  
DRAWING BY: RCB  
DATE: 05-29-2015  
JOB NUMBER: 2007.01007  
TITLE:

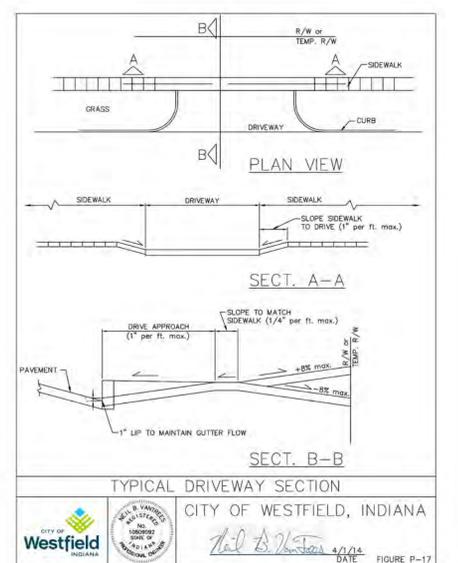
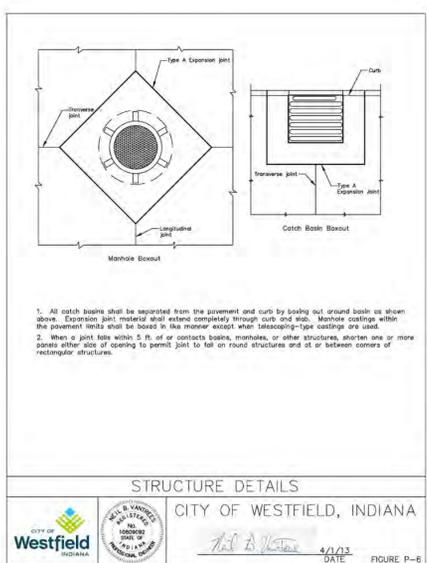
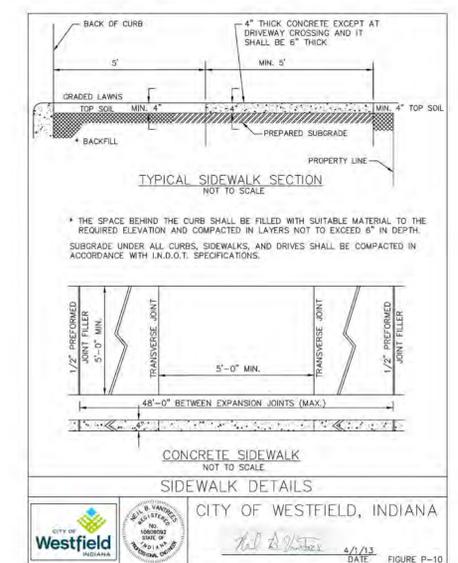
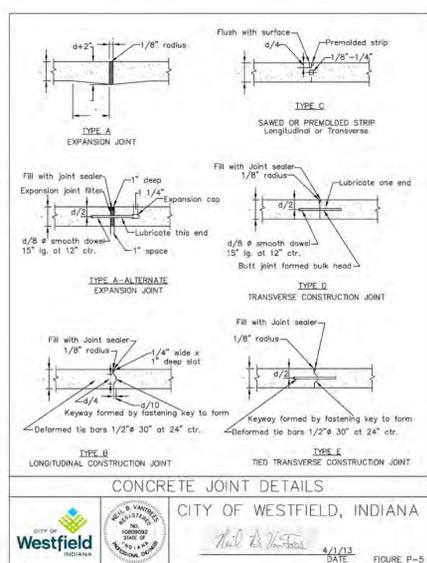
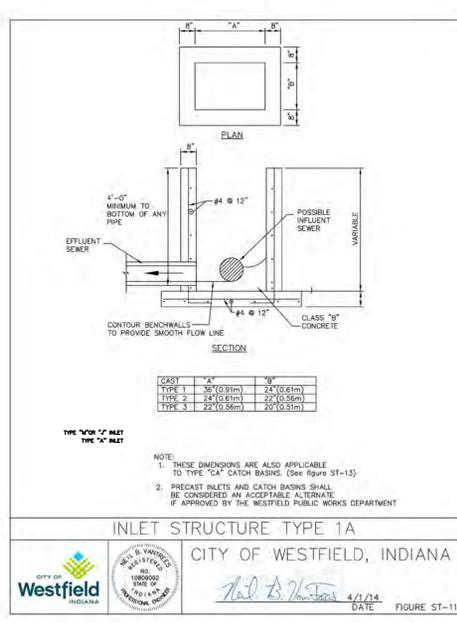
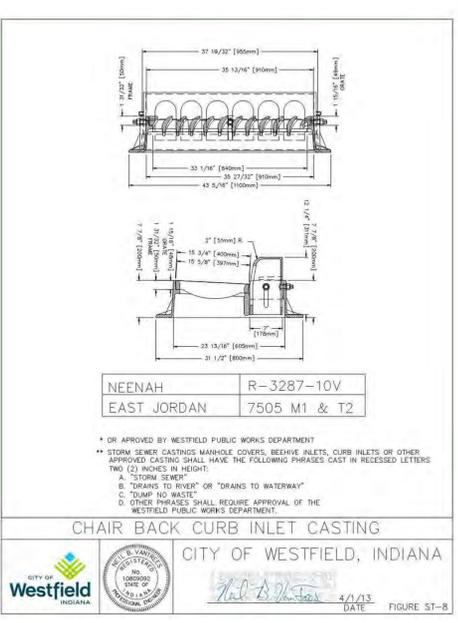
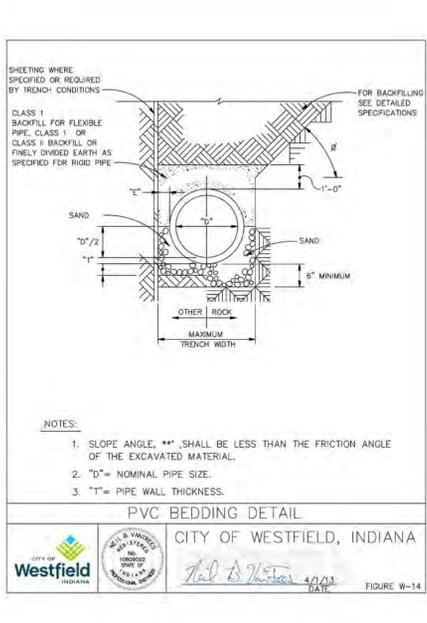
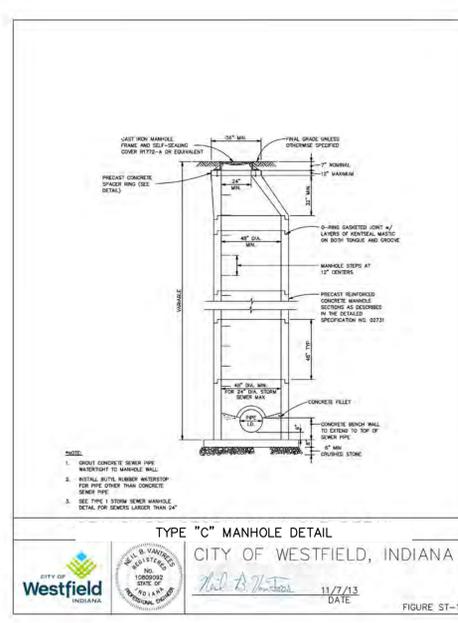
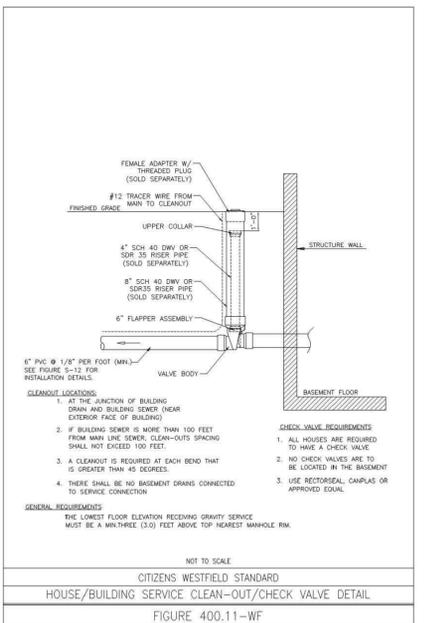
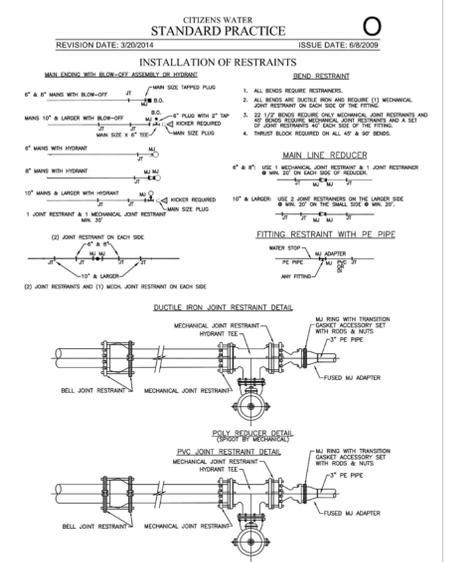
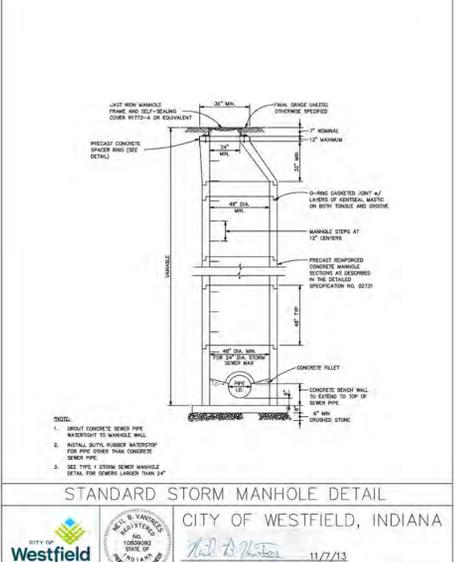
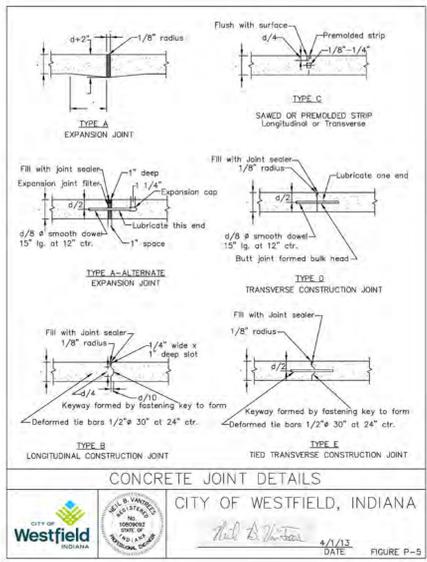
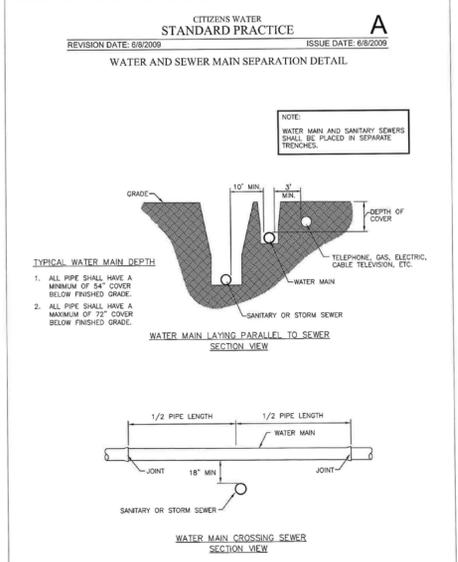
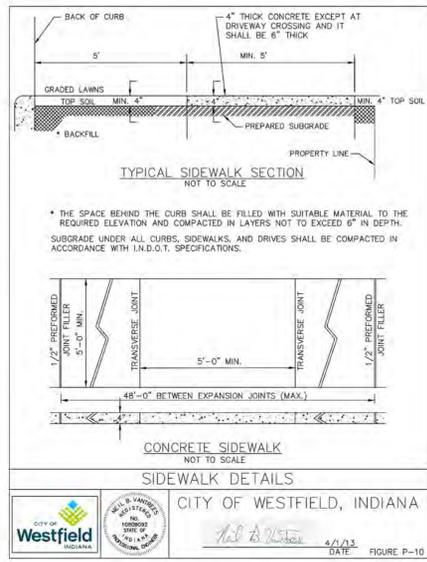
SITE  
DETAILS

SHEET NUMBER:

C601

COMMENTS:

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**CVS pharmacy**

**13,225 TYPE-B CHAMFER DRIVE-THRU**

**STORE NUMBER: 10591**

**1887 STREET AND SPRING MILL ROAD WESTFIELD, INDIANA**

**PROJECT TYPE: NEW STORE**

**DEAL TYPE: CS PROJECT NUMBER: 071776**

ARCHITECT OF RECORD

**CONSULTANT:**

**AMERICAN STRUCTUREPOINT INC.**

7260 SHADELAND STATION  
INDIANAPOLIS, INDIANA 46256  
p:(317) 547-5580 f:(317) 543-0270  
www.structurepoint.com

**DEVELOPER:**

TMC Indiana 2, LLC  
501 Pennsylvania Pkwy.  
Suite 160  
Indianapolis, Indiana 46280  
Phone (317) 705-8800  
Contact: Craig Forgy

**SEAL:**

**APPROVAL PENDING NOT FOR CONSTRUCTION**

**REVISIONS:**

△ TAC COMMENTS	07-10-2015
△ PER OWNER	08-27-2015
△ CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW

**DRAWING BY:** RCB

**DATE:** 05-29-2015

**JOB NUMBER:** 2007.01007

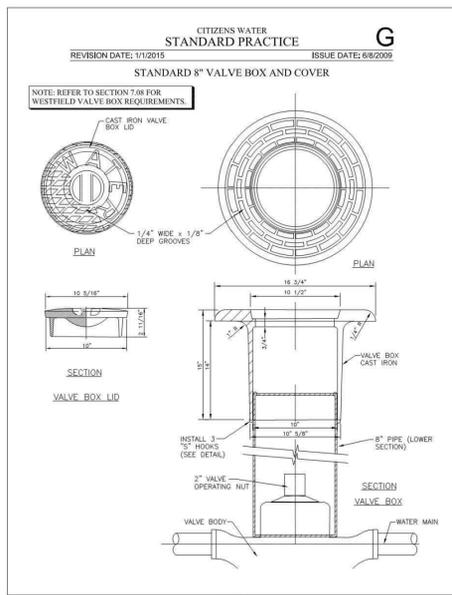
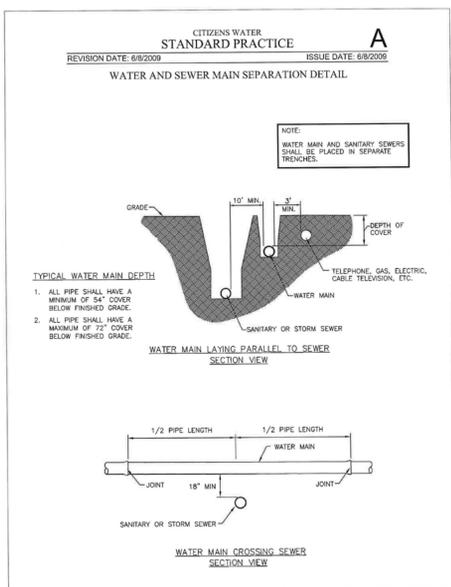
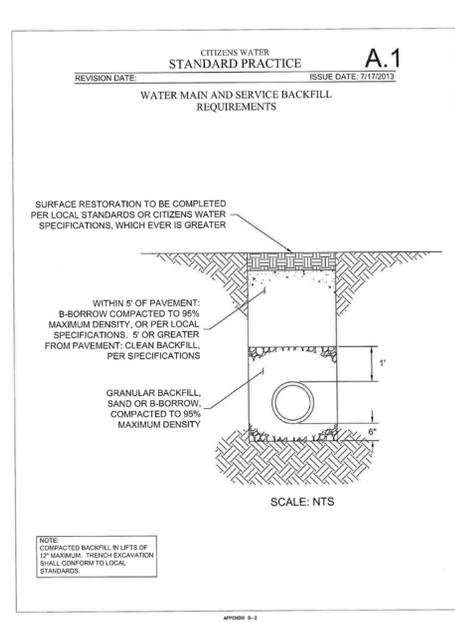
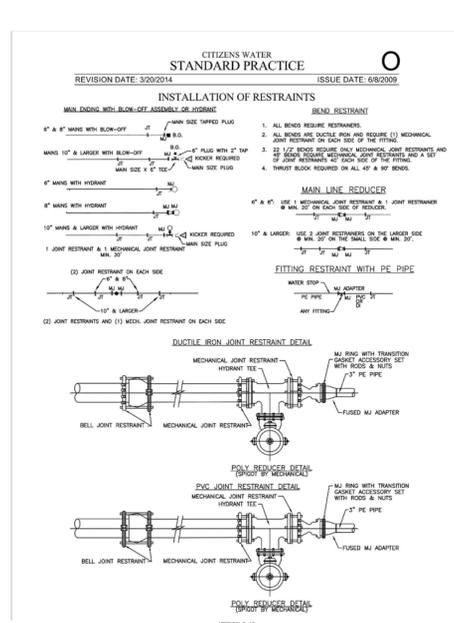
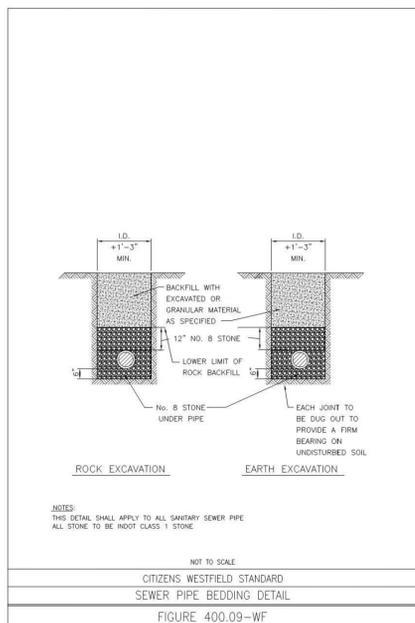
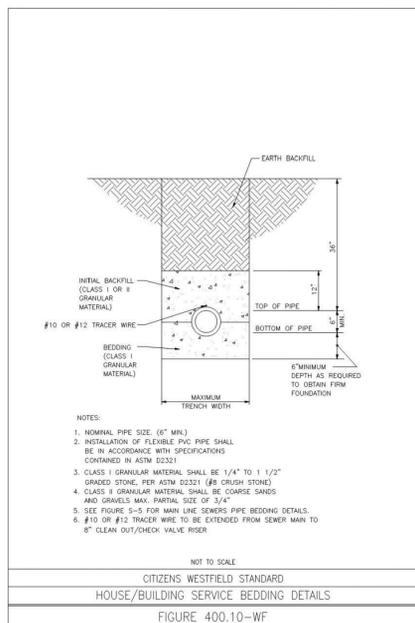
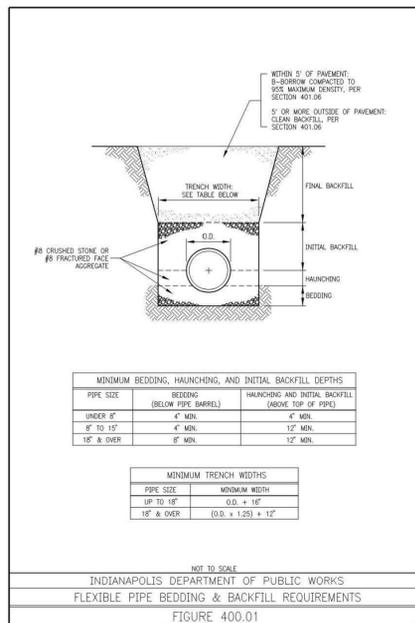
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**C602**

COMMENTS:

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**CVS**  
pharmacy

**13,225 TYPE-B CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
**1887 STREET AND SPRING MILL ROAD WESTFIELD, INDIANA**  
**PROJECT TYPE: NEW STORE**  
**DEAL TYPE: CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**

**CONSULTANT:**

**AMERICAN STRUCTUREPOINT INC.**  
 7260 SHADELAND STATION  
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 P:(317) 547-5580 F:(317) 543-0270  
 www.structurepoint.com

**DEVELOPER:**

TMC Indiana 2, LLC  
 501 Pennsylvania Pkwy.  
 Suite 160  
 Indianapolis, Indiana 46280  
 Phone (317) 705-8800  
 Contact: Craig Forgy

**SEAL:**

APPROVAL PENDING  
 NOT FOR CONSTRUCTION

**REVISIONS:**

△	TAC COMMENTS	07-10-2015
△	PER OWNER	08-27-2015
△	CITY COMMENTS	09-23-2015

**PLANNING MGR:** JLW

**DRAWING BY:** RCB

**DATE:** 05-29-2015

**JOB NUMBER:** 2007.01007

**TITLE:**  
**SITE DETAILS**

**SHEET NUMBER:**

**C603**

**COMMENTS:**

CHAPTER 03400 STORM SEWER PIPES AND OPEN CULVERT MATERIALS

SECTION 03401 GENERAL

03401.01 Introduction

This section covers all work necessary for the construction of the storm sewer piping systems and related items complete, including catch basins and inlet drains, manholes, junction chambers, diversion chambers, outfall structures, and miscellaneous structures.

This specification covers the following types of materials for storm sewers, culverts, underdrains, inlet drains, conduits, and miscellaneous applications:

- 1. Reinforced Concrete Pipe and Fittings
2. Polyvinyl Chloride Pipe (PVC)
3. Corrugated Metal Pipe
4. Structural Plate Arches
5. Aluminum or Aluminized Steel Pipe and Structural Plate
6. Multi-Plate Pipe and Pipe Arches
7. PVC Composite Pipe
8. Corrugated Polyethylene Pipe-SSD (Perforated and Non-Perforated)

All lots shall have access to a subsurface or storm drain or open ditch.

Storm sewer systems shall have a maximum of four hundred (400) feet between structures.

This specification requires project plans and construction specifications to be submitted to and approved by all appropriate regulatory agencies prior to beginning any work.

Before construction and before fabrication, the Contractor shall submit to the Westfield Public Works Department (WPWD) for approval calculations on the thickness or strength class and drawings showing pipe lengths, joints, and other construction and installation details.

Pipe Marking

Each length of pipe shall bear the name or trademark of the manufacturer, the location of the plant, and the date of manufacture. Each length shall likewise be marked to designate the class or strength of the pipe. The marking shall be made on the exterior or interior of the pipe barrel near the bell or groove end and shall be plainly visible.

The minimum diameter of all storm sewers shall be 12 inches. When the minimum 12 inch diameter pipe will not limit the rate of release to the required amount, the rate of release for detention storage shall be controlled by an orifice plate or other device, subject to acceptance of the WPWD.

03400-1

Pipe shall be furnished circular or as a pipe-arch shape as required and shall be fabricated with helical corrugations and a continuous welded seam extending from end to end of each length of pipe.

Each end of each pipe with the welded seam shall have two annular corrugations referred to permit joining with lugger bands.

Coupling bands shall be lugger bands.

Multiple-Pipe and Pipe Arches

Multiple pipe and pipe arch structures shall be in accordance with AASHTO M-167. They shall be made with steel sections with corrugations 6 inches wide by 2 inches deep running at right angles to the section.

Bolts and nuts shall be special heat-treated galvanized 3/4 inch diameter bolts in accordance with ASTM specifications.

Multiple pipe and pipe arches shall be designed in accordance with the manufacturer's design criteria and in accordance with the drawings.

Detailed instructions regarding erection shall be furnished by the manufacturer.

PVC Composite Pipe and Fittings

ABS or PVC composite pipe and fittings shall conform to ASTM D2880, Latest Revision.

Corrugated Polyethylene Pipe and Fittings

Corrugated polyethylene pipe shall comply with the requirements for materials, test methods, dimensions, and marking in accordance with AASHTO M-252 for pipe diameters 6" - 10".

The resin material shall meet ASTM D3350 cell classification 335400C.

The pipe lengths shall be connected using a gasketed, bell and spigot joint. This joint shall consist of a factory installed, gasketed ductile bell polyethylene coupling, a factory welded bell or integral bell.

The pipe shall be shipped with a removable wrap to protect the gasket. Provide lubrication to the joint prior to pushing together. At least two (2) corrugations of the spigot end must insert into the bell end.

All HDPE pipe shall be certified through the Plastic Pipe Institute (PPI) Third Party Certification Program. All HDPE pipe delivered and installed shall bear the Third Party Administered PPI Seal.

Subsurface Drain Tiles

Double wall, smooth bore perforated, corrugated polyethylene tile, manufactured under specification ASTM F601 shall be required for all subsurface drain tile installed in swales.

Double wall, smooth bore perforated, corrugated polyethylene drain tile shall be required for curb sub-grade drainage.

Polyethylene tile shall possess male and female pipe ends, which allow the construction of overlapping gasket pipe joints, in conformance with the requirements of ASTM D3312. The

03400-6

03501.10 Laying Pipe

All pipes shall be re-inspected for soundness and damage due to handling immediately before being lowered into the trench. Any pipe found to be unsound or damaged will be rejected and shall be removed immediately from the site of the work.

Except by permission of the WPWD may not be 100 feet of trench shall be opened at any one time. Not more than 30 feet of trench may be opened in advance of the completed pipe laying operation, and not more than one street crossing may be obstructed by the same trench at any one time.

No portion of a storm sewer pipe, open culvert, manhole, inlet, or subsurface drain tile system shall be installed directly or indirectly onto frozen ground or with frozen backfill materials.

Where ground water is encountered, the contractor shall make every effort necessary to secure a dry trench bottom prior to installation of the storm water system. The contractor shall be responsible to maintain the groundwater level below the base of the excavation. The City or the Westfield Public Works Department, will not assume any liability for the actions of the Developer or Contractor in the performance of the required dewatering operation. If these conditions outlined in this section cannot be achieved, the WPWD may terminate installation until such efforts can be achieved.

All pipes shall be laid accurately to the required line and grade as shown on the drawings, and in the manner prescribed by the pipe manufacturer and appropriate ASTM Specifications, to form a close, concentric joint with the adjoining pipe and to bring the invert of each section to the required grade. The supporting of pipe on blocks will not be permitted.

Pipe laying shall precede upgrade, beginning at the lower end of the sewer.

Practically, watertight work is required, and the Contractor shall construct the sewers with the type of joint specified.

Joints between precast sections shall be sealed with (1) An approved rubber gasket manufactured and installed in accordance with ASTM C-443, latest revision, (2) A hot mastic or asphaltic mastic (Kont Seal or approved equal) conforming to AASHTO M-196 and Federal Specification SS-521-A, or (3) mortar or heavy rubber sealant on the outside and (4) mortar sealed on the inside and finished smooth.

The annular space between the pipe and precast structure walls shall be filled inside and outside with a grout mixture composed of 2 parts of fine aggregate and one part of Portland Cement or Class "A" Concrete. Columns shall be formed around the annular space between the pipe and precast structure and trowel and broom finished.

All pipes shall be laid to the line and grade as shown on the drawings. Variations from a uniform line and grade as shown on the drawings shall be cause for the lay to be rejected.

The ends of the pipe shall be satisfactorily cleaned just before laying, and the joint shall be made in a satisfactory manner in accordance with the recommendations of the manufacturer on the particular type of joint. All joint work shall be done by experienced workmen.

All pipes shall be bedded as described in this specification under Pipe Bedding. Bell holes shall be excavated in advance of pipe laying so the entire pipe barrel will bear uniformly on the prepared subgrade.

Each length of pipe shall be mechanically pulled "home" with a winch or come-along against the section previously laid and held in place until the trench and bedding are prepared for the next pipe section. Care shall be taken in laying the pipe so not to damage the bell or the spigot end of

03500-4

CHAPTER 03400 STORM SEWER PIPES AND OPEN CULVERT MATERIALS

SECTION 03401 GENERAL

03401.01 Introduction

This section covers all work necessary for the construction of the storm sewer piping systems and related items complete, including catch basins and inlet drains, manholes, junction chambers, diversion chambers, outfall structures, and miscellaneous structures.

This specification covers the following types of materials for storm sewers, culverts, underdrains, inlet drains, conduits, and miscellaneous applications:

- 1. Reinforced Concrete Pipe and Fittings
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6. Multi-Plate Pipe and Pipe Arches
7. PVC Composite Pipe
8. Corrugated Polyethylene Pipe-SSD (Perforated and Non-Perforated)

All lots shall have access to a subsurface or storm drain or open ditch.

Storm sewer systems shall have a maximum of four hundred (400) feet between structures.

This specification requires project plans and construction specifications to be submitted to and approved by all appropriate regulatory agencies prior to beginning any work.

Before construction and before fabrication, the Contractor shall submit to the Westfield Public Works Department (WPWD) for approval calculations on the thickness or strength class and drawings showing pipe lengths, joints, and other construction and installation details.

Pipe Marking

Each length of pipe shall bear the name or trademark of the manufacturer, the location of the plant, and the date of manufacture. Each length shall likewise be marked to designate the class or strength of the pipe. The marking shall be made on the exterior or interior of the pipe barrel near the bell or groove end and shall be plainly visible.

The minimum diameter of all storm sewers shall be 12 inches. When the minimum 12 inch diameter pipe will not limit the rate of release to the required amount, the rate of release for detention storage shall be controlled by an orifice plate or other device, subject to acceptance of the WPWD.

03400-1

gasket material shall conform to all requirements of ASTM F477. As an alternative, pipe joints utilizing external coupling bands will be accepted provided the minimum AASHTO requirements for sanding and lightening are also achieved.

Storm sewer pipe shall be of the size shown on the drawings and shall meet all requirements of these specifications. Subsurface drains in swales shall have clean-outs installed every 300 feet, changes in direction, high points, and dead ends.

03400-7

pipe. Mechanical means consisting of a cable placed inside the pipe with a winch, jack, or come-along shall be considered to pull the pipe home where pushing the pipe will result in a joint going completely home and staying in place.

The Contractor shall use laser beam equipment, surveying instruments, or other proven techniques to maintain accurate alignment and grade.

Open excavation shall be satisfactorily protected at all times. At the end of each day's work, the open ends of all pipes shall be protected against the entrance of animals, children, earth, or debris by bulkheads or stoppers. The bulkheads or stoppers shall be performed to allow passage of water into the installed pipe line to prevent flotation of the pipe line. Any earth or other material that may find entrance into the main sewer or into any lateral sewer through any such open end of unbraced trench must be removed at the Contractor's expense. The cost of all such plugs, and the labor connected therewith, must be included in the regular bid for the sewer.

Storm sewer which outlets into a Hamilton County Regulated Drain shall be approved, inspected, and constructed per the latest standards of the Hamilton County Surveyor's Office.

Each pipe section shall be laid in a firm foundation of bedding material and haunched and backfilled with care.

Prior to pipe installation, carefully bring bedding material to grade along the entire length of pipe to be installed. To provide adequate support for the pipe, the following bedding procedures shall be followed.

When angular 1/4 to 1/2 inch (6 to 12 mm) clean graded stone, slag, or crushed stone material is used for bedding, little or no compaction is necessary due to the nature of the angular particles. A depth of 4 to 6 inches is generally sufficient to provide uniform bedding. If Class I material is used for bedding, it must also be utilized for haunching up to or higher than the spring line of the pipe to avoid loss of side support through migration of Class II haunching material into the bedding.

1. Take care with coarse sands and gravels and maximum size 20 mm (3/4 inch) materials, to provide uniform compacted bedding. Excavate the bedding material or place it to a point above the pipe bottom, determining such point by the depth of loose material resulting in the preparation of the bedding and the amount of compaction that will be required to bring the material to grade. Use hand or mechanical tamping to compact the bedding material to a minimum 85% Standard Proctor Density.

2. Slightly damp material will generally result in maximum compaction with a minimum of effort. If water is added to improve compaction or if water enters in the trench, take care to avoid saturation of Class II material, which could result in additional stability problems. Check grade of bedding after compaction.

Bedding material shall have a minimum thickness beneath the pipe of 4 inches (100 mm) or one-eighth of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe one-sixth of the outside diameter of the pipe.

The rigid pipe, such as concrete or ductile iron, backfill between the bedding material and a plane 12 inches (300 mm) over the top of the pipe shall be hand placed finely divided curd, free from debris and stones, or granular backfill if required.

For flexible pipe, corrugated metal pipe, the placement of bedding material or haunching around the pipe must be done with care. The ability of the pipe to withstand bedding in a trench depends a large part on the method employed in its installation. If crushed stone, pea gravel, or

03500-5

Catch basins and curb inlet structures which are two (2) feet in size shall not have a depth deeper than four (4) feet from the invert of the lowest pipe to the lowest part of the rim elevation of the casting. All heave castings on a two (2) foot by two (2) foot box shall have a square rise with a round hole. All structures which do not meet these criteria shall be a manhole type, which is forty-eight (48) inches in diameter.

Catchins

Cast iron or ductile iron frames and gratings for catch basins and drain inlets shall be as shown on the drawings. Bearing surfaces shall be clean and shall provide uniform contact. Castings shall be tough, close-grained gray iron, swast, smooth, clean, free from blisters, blow holes, slushmarks, cold shuts, and all defects and shall conform to ASTM A48 Class 30-B.

During construction, precautionary measures such as adequate screening of grates shall be maintained to deter earth and other materials from entering the drains.

The reinforcing castings type are required:

- 1. Manholes - Neneah R 1772 A or equivalent
2. Beehive Inlets - Neneah R 4342 or equivalent
3. "Roll Curb" Inlets - Neneah 3501 - TR or TL or equivalent
4. "Chair Back" Curb Inlet - Neneah 3287 - 10V or equivalent
5. Other types shall require approval of the WPWD.

Curb inlet castings which possess open backs or have grate bars parallel to traffic flow (are not "bicycle" safe) will not be accepted by the WPWD.

Storm sewer casting manhole covers, beehive inlets, curb inlets or other approved casting shall have the following thickness cast in recessed letters two (2) inches in height:

- 1. "Storm Sewer"
2. "Drains to River" or "Drains to Waterway"
3. "Dump No Waste"
4. Other phrases shall require approval of the WPWD.

All casting frames shall have a horizontal bearing surface around the entire perimeter of the frame in order to support the cover or grate.

Bench Walls

Bench walls shall be shaped and formed for a clean transition with proper hydraulics to allow the smooth conveyance of flow through the structure. The bench wall shall be formed a defined channel, to a minimum height of the spring line of the pipe.

Bench walls shall be formed using full depth Class "A" concrete. Solid concrete block, stone or sand shall not be permitted as a base or filler for the construction of the bench wall.

03400-3

CHAPTER 03500 INSTALLATION OF STORMWATER FACILITIES

SECTION 03501 GENERAL

03501.01 Pipe

Pipe grade shall be such that, in general, a minimum of 2.0 feet of cover is maintained over the top of the pipe. If the pipe is to be placed under pavement, then the minimum pipe cover shall be 2.5 feet from top of pavement to top of pipe. Uniform slopes shall be maintained between inlets, manholes and inlets to manholes. Final grade shall be set with full consideration of the capacity required, sedimentation problems, and other design parameters. Minimum and maximum allowable slopes shall be those capable of producing velocities of between 2.5 and 16 feet per second, respectively, when the sewer is flowing full. Maximum permissible velocities for various storm sewer materials are listed in Table 03501-1. A minimum of 18 inches of vertical separation between storm sewers, water and sanitary sewers shall be required. When this is not possible, the sanitary sewer must be encased in concrete or ductile iron within 5 feet, each side, of the crossing concrete and in relation to the waterline, water class pipe must be located for the storm and sanitary sewers. Minimum horizontal separation between storm sewers, water and sanitary sewers shall be 10.0 feet and 8.0 feet to the structures.

03501.04 Installation and Workmanship

Bedding and backfill materials around storm sewer pipes, subsurface drains, and the associated structures shall be according to the City of Westfield Public Works Department Standards and Specifications. The specifications for the construction of storm sewers and subsurface drains, including backfill requirements, shall be consistent with those set forth in the latest edition of the INDOT Standard Specifications. Additionally, ductile iron pipe shall be laid in accordance with American Water Works Association (AWWA) C-600 and clay pipe shall be laid in accordance with either American Society of Testing Materials (ASTM) C-12 or the appropriate American Association of State Highway and Transportation Officials (AASHTO) specifications. Disposal on newly installed storm systems will not be allowed. Also, infiltration from cracks, missing pieces, and joints shall not be allowed. Variations from these standards must be justified and receive approval from the WPWD. Notification must be made to WPWD inspectors at least 48 hours prior to installation. All structures shall require inspection prior to backfill.

03501.05 Special Hydraulic Structures

Rear yard swales shall have a minimum slope of 2% gradient. Swales less than a 2% gradient are required to have double wall, smooth bore perforated drain tile installed two (2) feet below the invert of the swale. Minimum swale slope shall be greater than 1% gradient. Subsurface drains shall have a minimum slope of 0.5% gradient.

03501.06 Connections to Storm Sewer System

Proposed road grades will be required to be graded within two (2) inches of the proposed sub-grade prior to installation of SSD. Trench width shall be a minimum of three (3) inches on both sides of the SSD, with a minimum trench width of twelve (12) inches.

03501.02 Alignment

Storm sewers shall be straight between manholes and/or inlets.

03501.03 Manholes and Inlets

All manholes and inlets must be pre-stamped with an appropriate message per the City of Westfield Public Works Department Standards and Specifications. Manholes and/or inlets shall be installed to provide human access to continuous underground storm sewers for the purpose of inspection and maintenance. The casting access minimum inside diameter shall be no less than 22 inches or a rectangular opening of no less than 22 inches by 22 inches. Manholes shall be provided of the following locations:

- 1. Where two or more storm sewers converge.
2. Where pipe size or the pipe material changes.
3. Where a change in horizontal alignment occurs.
4. Where a change in pipe slope occurs.

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Reinforced Concrete Pipe and Fittings

Reinforced concrete pipe and fittings shall conform to ASTM C76, latest revision, for circular pipe and ASTM C509 for elliptical pipe.

Reinforced concrete pipe and fittings for normal conditions shall be reinforced in accordance with ASTM C76, Class III, IV or V, Wall B (minimum). Acceptance shall be on the basis of Subsection 4.1.1 of ASTM C76.

Circumferential reinforcing in circular pipe shall be required. Only with approval from the WPWD is elliptical reinforcing or combination of elliptical and circumferential reinforcing or pipe circular reinforcing shall be permitted, in circular pipe.

Concrete pipe shall be steam cured and shall not be shipped from point of manufacture for at least five days after having been cast.

Joints shall conform to the requirements of ASTM C443. Gaskets shall be of an oil resistant type having a maximum swell of 90% when tested in accordance with ASTM D477. Lubricant for jointing shall be approved by gasket manufacturer.

All rubber gaskets shall be similar to and equal to "Pre-Set" or "Tylow" conforming to ASTM Designation C443, latest revision. The gasket shall be attached to the spigot of the pipe and shall be the sole element depended upon to make the joint flexible and practically watertight.

Heavy rustic joint sealant in pipe or rowed applied from specifically made for permanently sealing joints in manhole and groove concrete sewer pipe. The material shall adhere tightly to the pipe surface and form a tight, flexible joint. The material shall have been in use for at least five years. Test results and material specifications shall be submitted to the WPWD and shall be approved prior to use on the project.

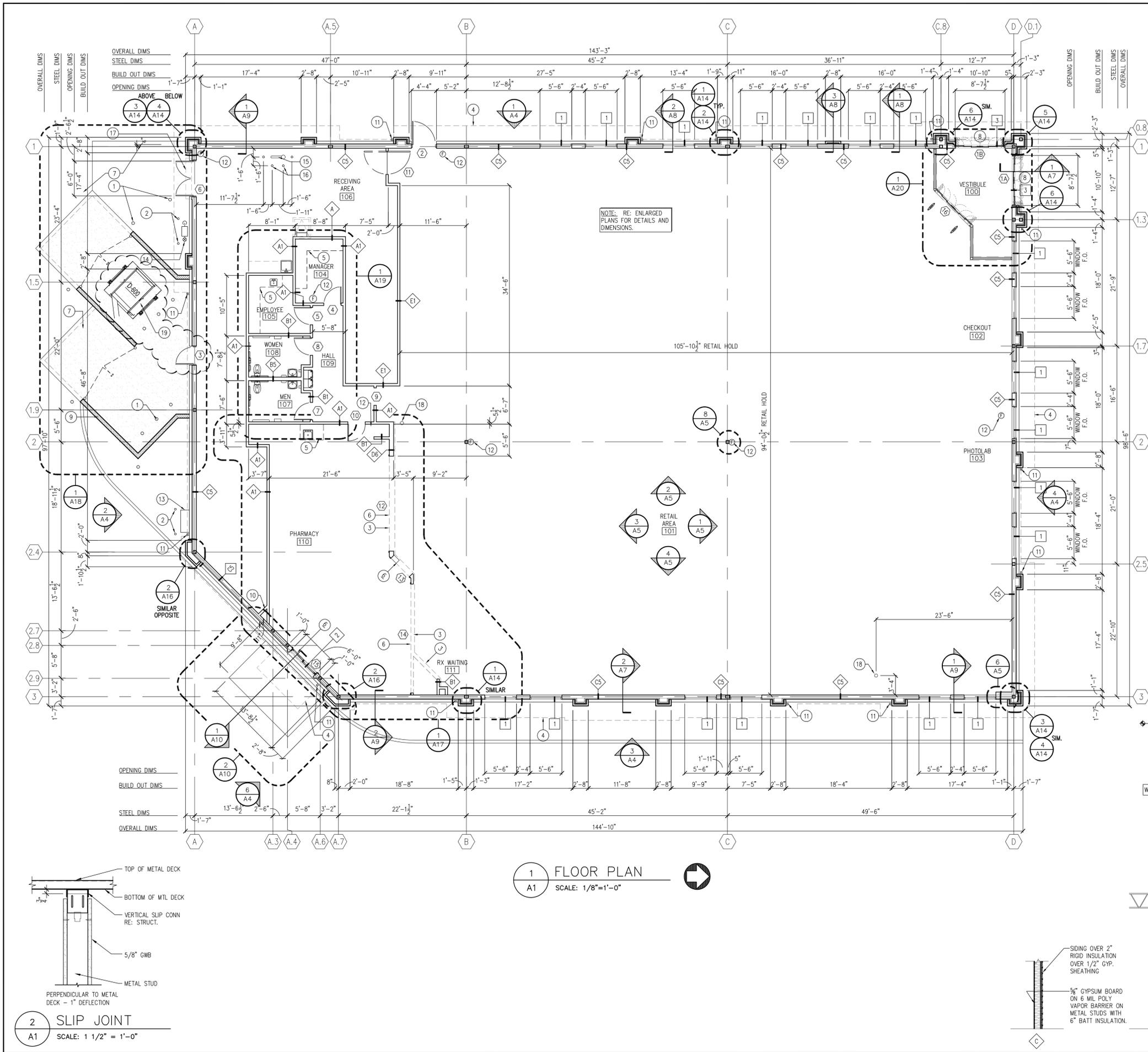
Polyvinyl Chloride Pipe and Fittings

Polyvinyl chloride (PVC) pipe and fittings shall comply with ASTM D3034.

Corrugated Metal Pipe and Pipe Arches

The following specifications shall govern the manufacture of the corrugated steel pipe and pipe arches:

- 1. Specification for Zinc Co



**NOTES BY SYMBOL**

- ① 6" PIPE BOLLARD - RE: 4/A18 AND EXTERIOR FINISH SCHEDULE.
- ② 4" PIPE BOLLARD - RE: 4/A18 AND EXTERIOR FINISH SCHEDULE.
- ③ FACE OF SOFFIT / VALANCE ABOVE - RE: WALL SECTIONS.
- ④ FACE OF CANOPY / ROOF LINE ABOVE.
- ⑤ CABINET BY MILLWORK SUPPLIER - RE: FIXTURE PLAN F1
- ⑥ COILING GRILLE
- ⑦ 6" THICK CONCRETE PAD FOR COMPACTOR AND LOADING AREA - RE: STRUCTURAL DRAWINGS.
- ⑧ PROVIDE HAND TROWELED CONTROL JOINTS AT ENTRY CONCRETE.
- ⑨ COMPACTOR/DUMPSTER ENCLOSURE
- ⑩ INSULATE CHASE WALLS WITH 3 1/2" BATT INSULATION
- ⑪ DOWNSPOUT LEADER - WITH DOWNSPOUT GUARD RE: 6/A18
- ⑫ PROVIDE LISTED AND LABELED DRY-CHEMICAL UL-RATED FIRE EXTINGUISHER, RE: SPECS.
- ⑬ ELECTRICAL METER AND DISCONNECT BY UTILITY CO. RE: ELEC
- ⑭ GAS METER, RE: PLUMBING
- ⑮ FIRE RISER: COORDINATE BOLLARD LOCATION WITH FIRE RISER LOCATION
- ⑯ 4" PIPE BOLLARD, SURFACE MOUNTED RE: 10/A18
- ⑰ RAIN CANOPY RE: 3/A13
- ⑱ FLOOR CLEANOUT, RE: PLUMBING
- ⑲ VERTICAL COMPACTOR

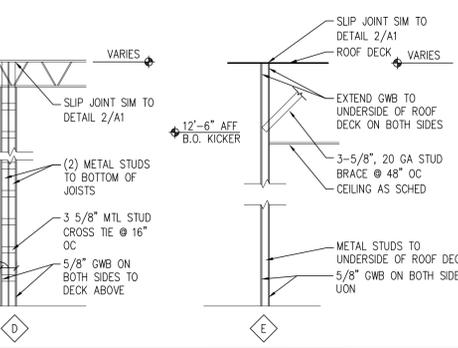
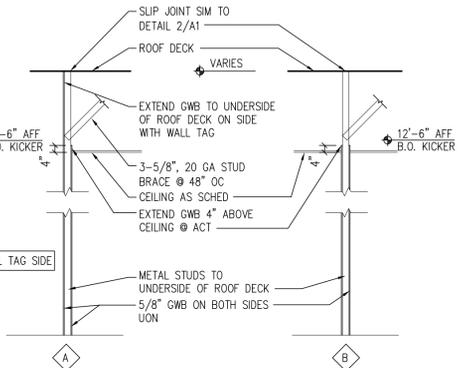
**LEGEND**

- X WINDOW DESIGNATION RE: SHEET A21
- X INDICATES DOOR-RE: SHEET A21 FOR DOOR SCHEDULE
- XX PARTITION TYPE - RE: THIS SHEET
- XX STUD DESIGNATION WALL MATERIAL
- X FLOOR PLAN NOTES THIS SHEET
- XXX FINISH DESIGNATION - RE: SHEET A21

**PARTITION TYPES**

STUD DESCRIPTION	GA
1 3 5/8" @ 24" OC	20
2 6" @ 24" OC	20
3 1-1/2" 72" FURRING @ 24" OC	24
4 2 5/8" @ 24" OC	20
5 6" @ 16" OC	18
6 3 5/8" @ 16" OC	20

NOTE: PROVIDE MOISTURE RESISTANT GYP BD @ ALL WET AREAS  
NOTE: REFER TO FLOOR PLANS FOR LOCATION OF PARTITION TYPES



**1 FLOOR PLAN**  
SCALE: 1/8"=1'-0"

**2 SLIP JOINT**  
SCALE: 1 1/2" = 1'-0"

**CVS pharmacy**  
**COLONIAL TYPE B-13225-RIGHT CHAMFER DRIVE-THRU**  
**STORE NUMBER: 10591**  
 161st ST. & SPRINGMILL RD. WESTFIELD, IN  
**PROJECT TYPE: NEW CONSTRUCTION**  
**DEAL TYPE: FFS**  
**CS PROJECT NUMBER: 071776**

**ARCHITECT OF RECORD**  
**NORR**  
 ARCHITECTS-ENGINEERS-PLANNERS

**CONSULTANT:**  
**AMERICAN STRUCTUREPOINT**  
 American Structurepoint  
 7260 Shadeland Station  
 Indianapolis, IN 46256  
 TEL (000) 000-0000

**DEVELOPER:**  
 T.M.  
**CROWLEY & ASSOCIATES**  
 501 Pennsylvania Pkwy  
 Suite 160  
 Indianapolis, IN 46280  
 TEL (317) 819-0110

**SEAL:**

**REVISIONS:**

09-18-2015	PERMIT SET
10-05-2015	ADDENDUM 2

CVS PROJECT MANAGER: R. SMART  
 DRAWING BY: D.CADARET  
 DATE: 09-18-2015  
 JOB NUMBER: JCDT.15.0225.00  
 TITLE:

**FLOOR PLAN & DETAILS**  
 SHEET NUMBER: **A1**  
 COMMENTS: