

# **FRIEDMAN FAMILY DENTISTRY**

**Docket Nos. 1008-DP-06 & 1008-SIT-06**



**August 2, 2010  
Westfield-Washington Township  
Advisory Plan Commission**

Applicant: Friedman Properties, LLC

Attorneys – Nelson & Frankenberger, P.C.

Attn: James E. Shinaver, Attorney

844-0106

Attn: Jon C. Dobosiewicz,

Professional Land Planner

844-0106

## **TABLE OF CONTENTS**

1. Explanation of Request
2. Site Location Exhibit
3. Architectural Building Elevations
4. Signage Plans
5. Lighting Plan
6. Engineered Development Plans

# **TAB 1**

## **EXPLANATION OF REQUEST**

The applicant, Friedman Properties, LLC, is requesting approval to allow the construction of an office building. The property is located on the south side of SR 32 between Shady Nook Road and Gray Road and is outlined on the aerial photograph included under Tab 2. It is zoned under the GB – General Business classification of the Westfield-Washington Township Zoning Ordinance.

The development includes the construction of a 7,000 square foot office building and associated driveway and parking area adjacent to and south of the existing Indiana Members Credit Union. The building will be occupied by a dental office and other professional/general office tenants.

The request for Development Plan and Site Plan approval is fully detailed in this submittal. Included are (i) an aerial photograph with an overlay of the site plan, (ii) colored building elevations, (iii) signage plans, (iv) lighting plans, and (v) reduced-size engineered development plans.

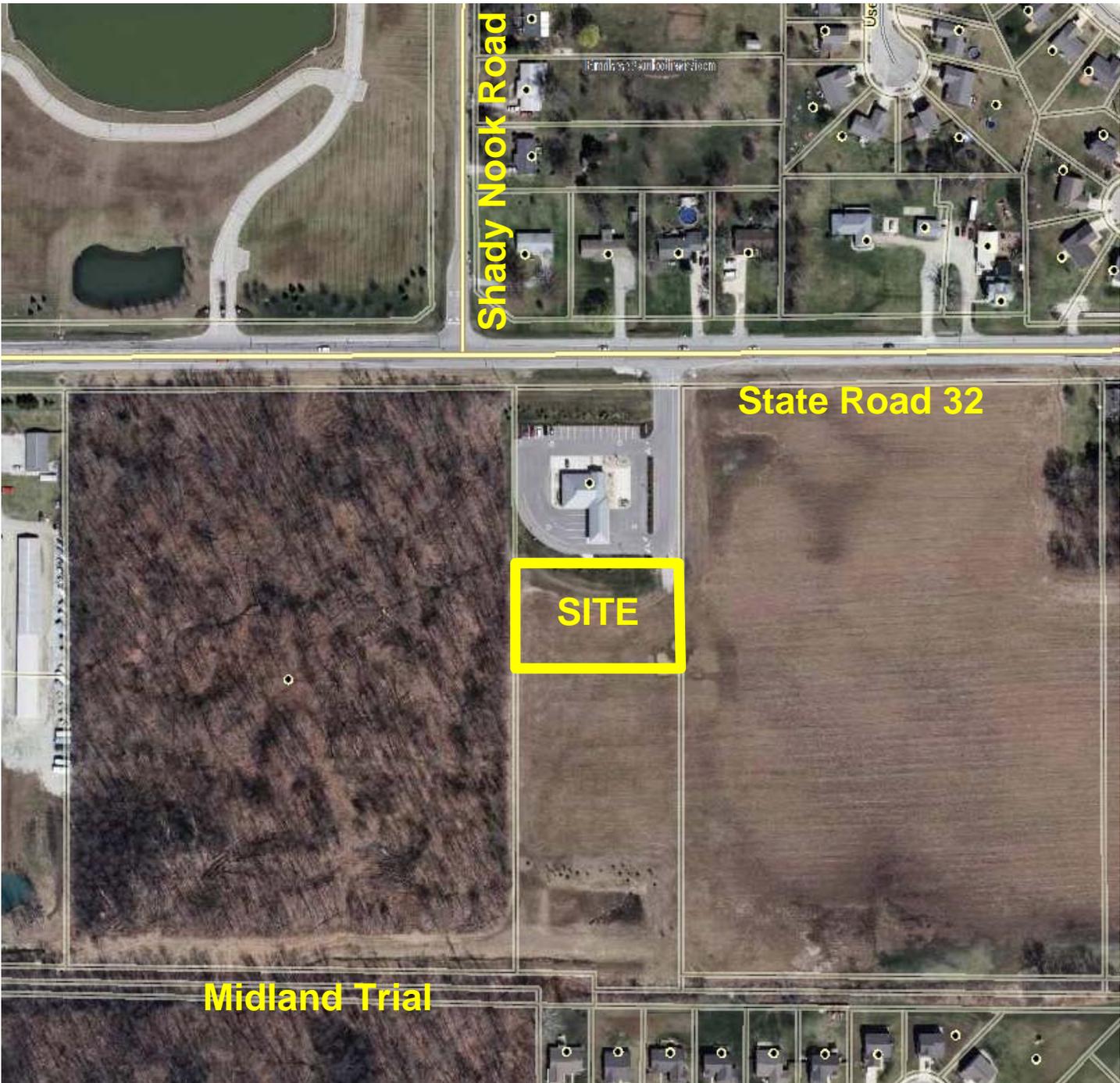
We look forward to presenting this request to the Plan Commission on August 2, 2010.

Respectfully submitted,

James E. Shinaver

Jon C. Dobosiewicz

# TAB 2



**Site Location Map – Aerial Photograph**

# **TAB 3**



# F r i e d m a n   F a m i l y   D e n t i s t r y

State Road 32 :: Westfield, Indiana

C U R R A N

**ARCHITECTURE**

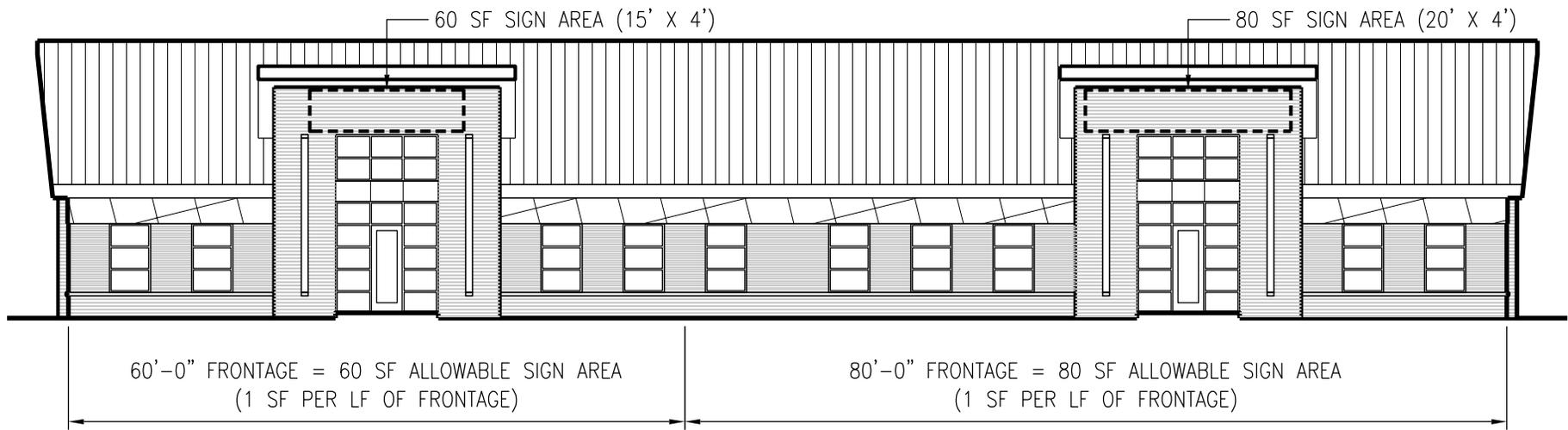
[WWW.CURRAN-ARCHITECTURE.COM](http://WWW.CURRAN-ARCHITECTURE.COM)

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# **TAB 4**



PROPOSED SIGNAGE TO BE  
 INDIVIDUAL LETTERS, INTERNALLY  
 ILLUMINATED AND POST MOUNTED  
 TO BRICK VENEER.

SIGN ELEV

1/16" = 1'-0"

6/25/10

**FRIEDMAN FAMILY DENTISTRY  
 NORTH ELEVATION - SIGNAGE  
 WESTFIELD, INDIANA**

802 MULBERRY STREET  
 NOBLESVILLE, INDIANA 46060  
 317 . 773 . 9804 VOICE  
 317 . 773 . 9828 FAX

**CURRAN  
 ARCHITECTURE**

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10625 ST. RD. 10 • ARGOS, IN 46501 • 574-892-5000 [vanadco.com](http://vanadco.com)

- Newly Constructed Tenant Sign Cabinet Added to Existing Monument Sign
- 60 Sq. Ft. Total Signage

FILE: IndMemCu Wfield AddTenants.cdrV11(mac)

SCALE: 3/8"=1'

DATE: 08-24-09

DRAWN BY: *CCR*

# **TAB 5**



# **TAB 6**

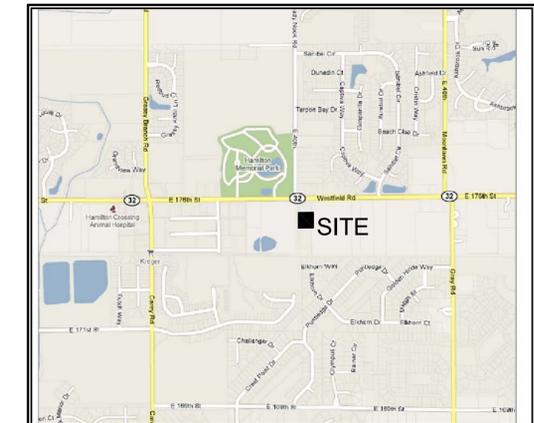
# CIVIL CONSTRUCTION PLANS FOR FRIEDMAN PROFESSIONAL OFFICE

4011 EAST SR 32 (APPROX.)  
NOBLESVILLE, INDIANA 46062



PROJECT VICINITY

CONSTRUCTION PLAN INDEX	
C0.0	TITLE SHEET
C1.0	EXISTING CONDITIONS TOPOGRAPHIC SURVEY (BY OTHERS)
C2.0	SITE PLAN
C3.0	GRADING & DRAINAGE PLAN
C4.0	STORMWATER POLLUTION PREVENTION PLAN
C4.1	STORMWATER POLLUTION PREVENTION DETAILS
C4.2	STORMWATER POLLUTION PREVENTION NOTES
C5.0	UTILITY PLAN
C7.0	GENERAL DETAILS
C7.1	GENERAL DETAILS
C8.0	SITE LIGHTING/PHOTOMETRIC PLAN (BY OTHERS)
C9.0	SPECIFICATIONS
L1.0	LANDSCAPE PLAN



VICINITY MAP  
SCALE: 1" = 1500'  
NORTH

REFERENCE DRAWINGS

CITY OF WESTFIELD PUBLIC WORKS STANDARD CONSTRUCTION DETAILS/SPECS.

PROJECT DEVELOPER/OWNER:

JODY FRIEDMAN  
3144 EAST SR 32  
WESTFIELD, INDIANA 46074

ENGINEER:



643 Massachusetts Avenue, Suite 200  
Indianapolis, Indiana 46204  
Ph: (317) 423-3305 Fax: (317) 423-3306

SURVEYOR:

MILLER SURVEYING INC.  
948 CONNER STREET  
NOBLESVILLE, INDIANA 46060  
PH. # (317) 773-2644 FAX 773-2694



PRE-CONSTRUCTION MEETING

CONTRACTOR SHALL SCHEDULE A STORMWATER INFRASTRUCTURE PRE-CONSTRUCTION MEETING WITH THE CITY OF WESTFIELD ENGINEERING AND PUBLIC WORKS DEPARTMENT PRIOR TO ANY CONSTRUCTION ON THE SITE BEING STARTED.

COMPLIANCE NOTE

THE CONSTRUCTION OF THIS DEVELOPMENT SHALL COMPLY WITH ALL CITY OF WESTFIELD CONSTRUCTION SPECIFICATIONS AND STANDARD DETAILS.

DRAINAGE TILE NOTE

ALL DRAINAGE TILES ENCOUNTERED ON PROJECT SITE WILL BE PROVIDED A POSITIVE OUTLET.

REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY



*Brian S. Cross*  
DATE: 06/29/2010

CSG PROJECT NUMBER  
CAX.003

DRAWING NUMBER  
**C0.0**  
SHEET 1 OF 13

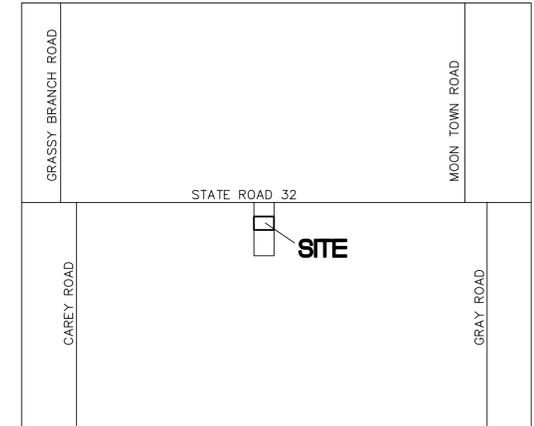
# STATE ROAD 32

NORTH LINE OF THE N.E. 1/4, SECTION 5-18-4, S 89°47'03" W 2669.95'

# TOPOGRAPHICAL SURVEY

PART OF THE N.E. QUARTER, SECTION 5, TOWNSHIP 18 NORTH, RANGE 4 EAST  
WASHINGTON TOWNSHIP, HAMILTON COUNTY, INDIANA

## VICINITY MAP NOT TO SCALE



## LAND DESCRIPTION

DESCRIPTION OF REAL ESTATE PER INSTRUMENT #2009059416

PART OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 18 NORTH, RANGE 4 EAST OF THE SECOND PRINCIPLE MERIDIAN, HAMILTON COUNTY, INDIANA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 18 NORTH, RANGE 4 EAST; THENCE ON THE NORTH LINE OF SAID SECTION 5, SOUTH 89 DEGREES 47 MINUTES 02 SECONDS EAST 207.55 FEET; THENCE SOUTH 00 DEGREES 32 MINUTES 57 SECONDS WEST 340.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 00 DEGREES 32 MINUTES 57 SECONDS WEST 170.00 FEET; THENCE NORTH 89 DEGREES 47 MINUTES 02 SECONDS WEST 258.08 FEET; THENCE NORTH 00 DEGREES 32 MINUTES 55 SECONDS EAST 170.00 FEET; THENCE SOUTH 89 DEGREES 47 MINUTES 02 SECONDS EAST 258.08 FEET TO THE POINT OF BEGINNING, CONTAINING 1.0 ACRES, MORE OR LESS.

## LEGEND

- EXISTING FENCE
- FIRE HYDRANT
- WATER VALVE
- CLEANOUT
- BM / TBM
- SOIL BORING LOCATION
- ELECTRIC PEDESTAL
- EXISTING FLOWER
- EXISTING BUSH
- EXISTING TREE
- EXISTING TREE

## BENCHMARK INFORMATION

HORIZONTAL AND VERTICAL CONTROL:

COORDINATE SYSTEM:  
US STATE PLANE 1983 (AT GROUND)

PROJECT DATUM:  
WORLD GEODETIC SYSTEM (WGS 1984)

VERTICAL DATUM  
NAVD 88

ZONE:  
INDIANA EAST 1301

GEIOD MODEL:  
GEIOD03 (CONUS)

COORDINATE UNITS US SURVEY FEET  
DISTANCE UNITS US SURVEY FEET  
HEIGHT UNITS US SURVEY FEET

TBM#7000  
MAG NAIL SET  
ELEV: 862.51

## POINT INVENTORY

POINT #	REMARKS
100	N.W. CORNER N.E. 1/4 SECTION 5-18-4
101	N.E. CORNER N.E. 1/4 SECTION 5-18-4
102	S.W. CORNER N.E. 1/4 SECTION 5-18-4
104,105	IRON ROD WITH WRIGHT CAP FOUND
106,107	COMPUTED MATHEMATICALLY NOT POINT FOUND OR SET

"THIS DRAWING IS NOT INTENDED TO BE REPRESENTED AS A RETRACEMENT OR ORIGINAL BOUNDARY SURVEY, A ROUTE SURVEY OR A SURVEYOR LOCATION REPORT"

## UTILITY NOTE

THIS SURVEY REFLECTS ABOVE GROUND INDICATIONS OF EXISTING UTILITIES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

## FLOOD ZONE DEFINITION

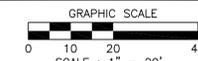
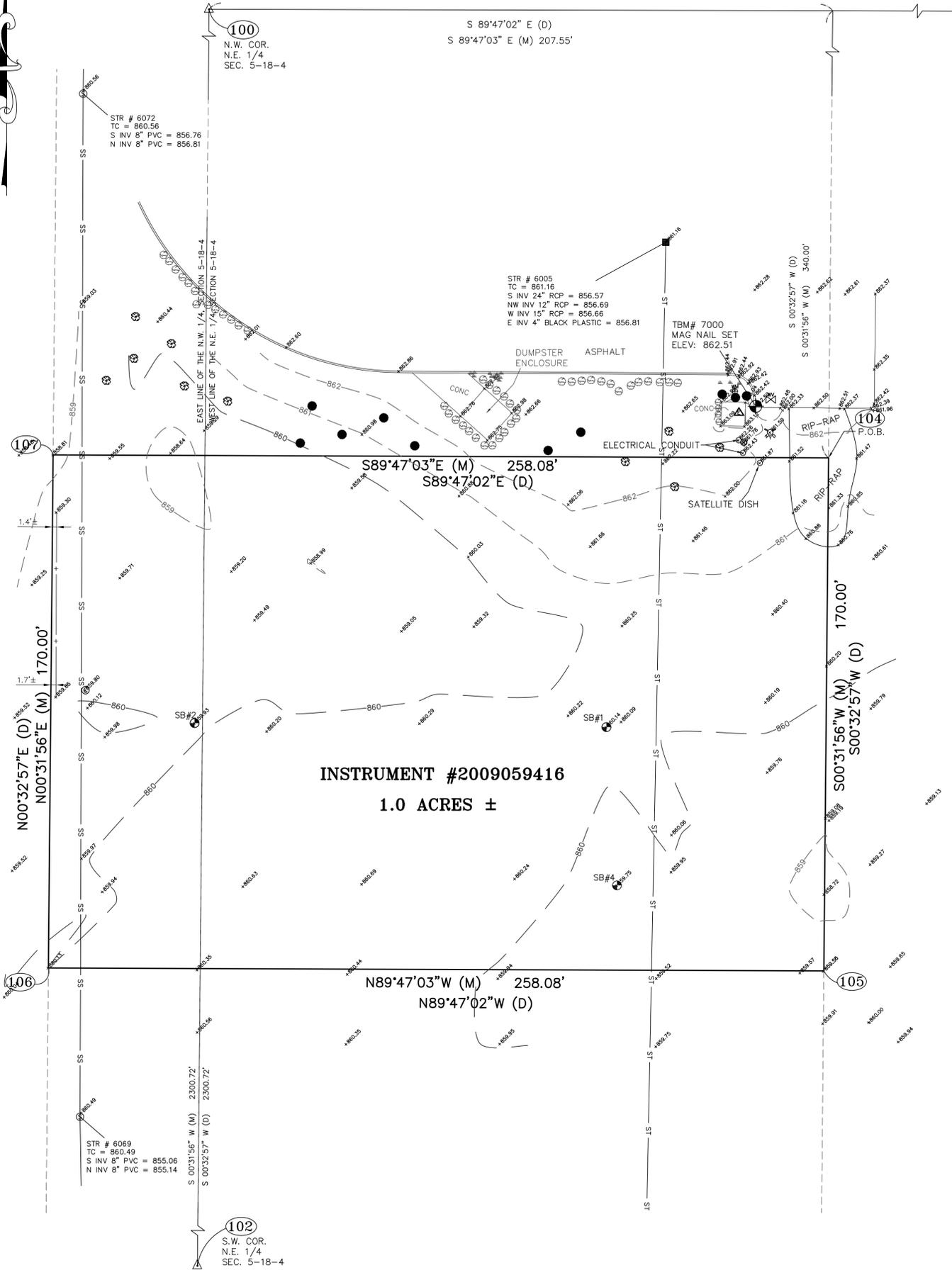
ZONE	EXPLANATION
"X"	AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

THE SUBJECT PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE PROGRAM AS PER SCALED INTERPRETATION OF FLOOD RATE MAP #18057C0140F. AREA IN ZONE "X" MAP DATED FEB. 19, 2003.

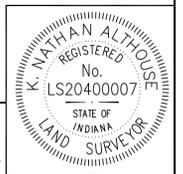
THE WITHIN PLAT AND SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE POLICY AND ARE THEREFORE SUBJECT TO ANY STATEMENT OF FACTS REVEALED BY EXAMINATION OF SCHEDULE "A" AND SCHEDULE "B" OF A TITLE POLICY.

THIS SURVEY PLAT HAS BEEN PREPARED FOR USE ON THIS PARTICULAR PROJECT AND FOR THE EXCLUSIVE USE OF THE PERSON(S) OR ENTITY HEREON NAMED AND IS NOT CERTIFIED TO OR TO BE USED BY ANY OTHER PARTY. THE EVIDENCE, POSSESSION, OWNERSHIP, CONDITIONS ETC. COULD CHANGE CONSTANTLY AND THE USE OF THIS SURVEY IS LIMITED ONLY TO THE DATE INDICATED HEREIN.

THE LOCATION OF THE TITLE LINES AND CORNERS ARE SUBJECT TO THE EVIDENCE FOUND IN THE PERFORMANCE OF THIS SURVEY. ADDITIONAL EVIDENCE PRESENTED TO MILLER SURVEYING, INC. MAY ALTER THE LOCATION OF THE TITLE LINES AND CORNERS.



*K. Nathan Althous*  
R.L.S. LS20400007 DATE: 5/17/2010



**MILLER SURVEYING INC.**  
948 CONNER STREET  
NOBLESVILLE INDIANA 46060  
PH. # (317) 773-2644 FAX 773-2694

REV. DATE	BY	DESCRIPTION

LOCATION: PART OF THE NORTHEAST QUARTER, SECTION 5, T18N, R4E WASHINGTON TWP., HAMILTON COUNTY, INDIANA	DRAWN BY: BDD SCALE: 1" = 20'	CHK'D BY: KNA FIELD BOOK: 562
FIELD WORK COMPLETED: 5/14/2010	DATE: 5/17/2010	PAGE: 160
CLIENT: CIVIL SITE GROUP	JOB NUMBER: B33045	SURVEY 4 FILE: 18
DESCRIPTION: TOPOGRAPHICAL SURVEY		CROSS

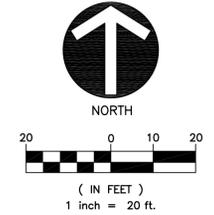
**TOPOGRAPHIC & BOUNDARY NOTE**

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN ALTA/ACSM SURVEY DATED 06/03/2010 (JOB # IMCUWESTFIELD) PREPARED BY T. WRIGHT CORPORATION, & TOPOGRAPHIC SURVEY, DATED 05/17/2010 (JOB # B33045) PREPARED BY MILLER SURVEYING, INC. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

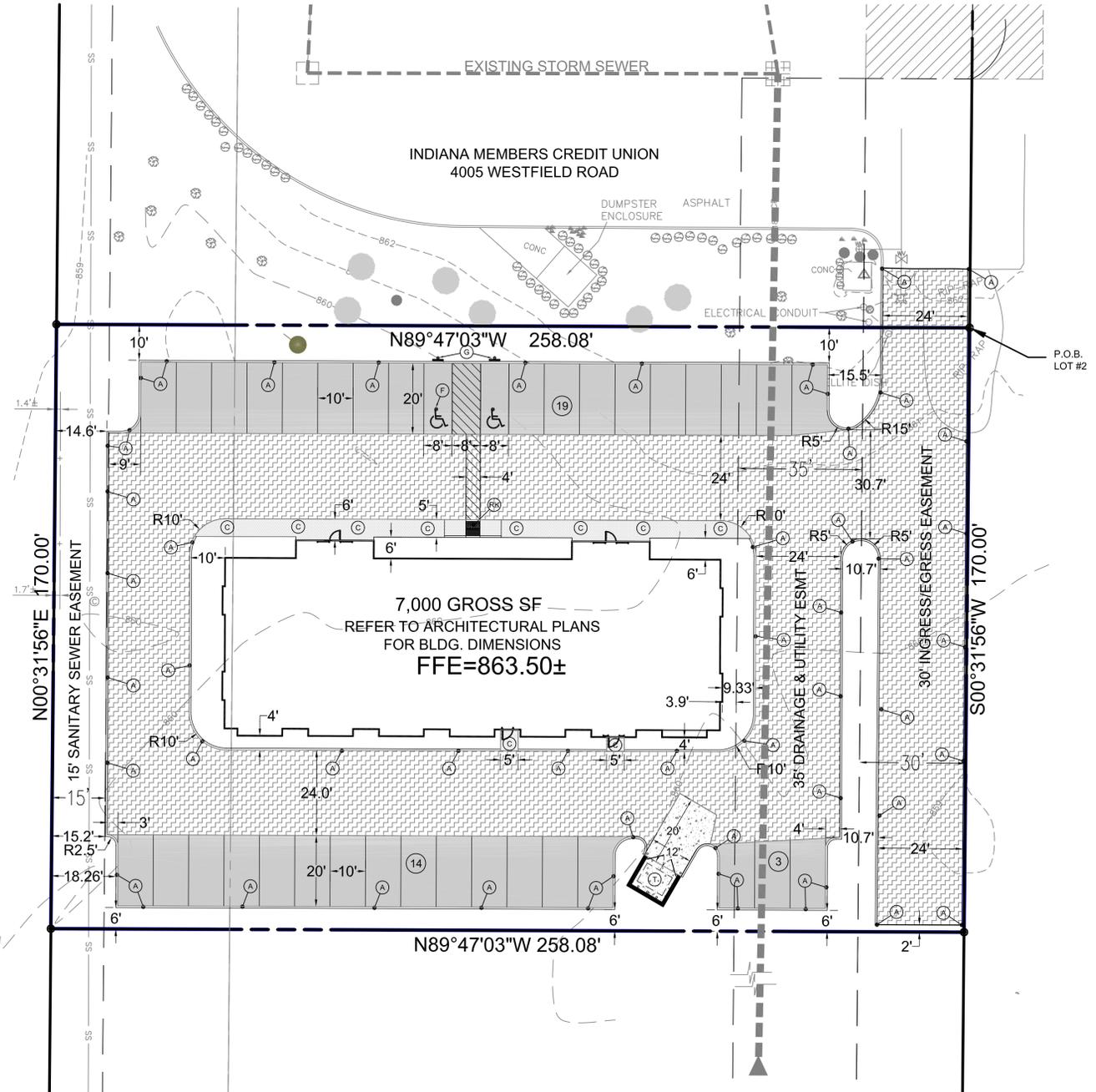
**LAND DESCRIPTION**

Part of the Northeast and Northwest Quarter of Section 5, Township 18 North, Range 4 East of the Second Principal Meridian, Hamilton County, Indiana, being more particularly described as follows:  
Commencing at a mag nail and washer set inscribed "Wright 9700013", said point being North 89 degrees 47 minutes 03 seconds West 2669.95 feet from a 1" rebar marking the Northeast corner of the Northeast Quarter; thence South 89 degrees 47 minutes 03 seconds East (assumed bearing) along the North line of said Northeast Quarter 207.55 feet; thence South 00 degrees 31 minutes 56 seconds West parallel with the West line of the said Northeast Quarter 340.00 feet to a rebar and cap set inscribed "Wright 9700013" also being the POINT OF BEGINNING of this described parcel; thence continuing South 00 degrees 31 minutes 56 seconds West parallel with the West line of the said Northeast quarter 170.00 feet to a rebar and cap set inscribed "Wright 9700013"; thence North 89 degrees 47 minutes 03 seconds West and parallel with the North line of said Northeast quarter section 258.08 feet to a rebar and cap set inscribed "Wright 9700013"; thence North 00 degrees 31 minutes 56 seconds East parallel with the East line of the said Northwest Quarter 170.00 feet to a rebar and cap set inscribed "Wright 9700013"; thence South 89 degrees 47 minutes 03 seconds East parallel with the North line of said Northeast Quarter 258.08 feet to the POINT OF BEGINNING of this described parcel, containing 1.01 acres more or less.  
Subject to all pertinent easements, restrictions and right of ways.

REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY



- LEGEND:**
- PROPERTY BOUNDARY
  - PROPOSED LIGHT DUTY ASPHALT PAVEMENT. SEE DETAIL 03/C7.0
  - PROPOSED HEAVY DUTY ASPHALT PAVEMENT. SEE DETAIL 02/C7.0
  - PROPOSED CONCRETE PAVEMENT SEE DETAIL 01/C7.0
  - PROPOSED PAINTED DIAGONAL STRIPED ISLAND

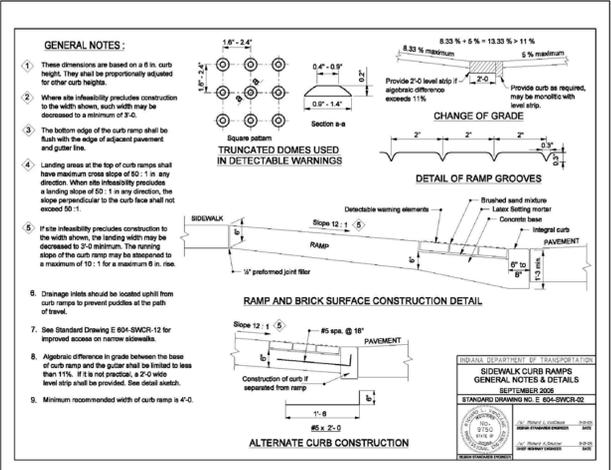
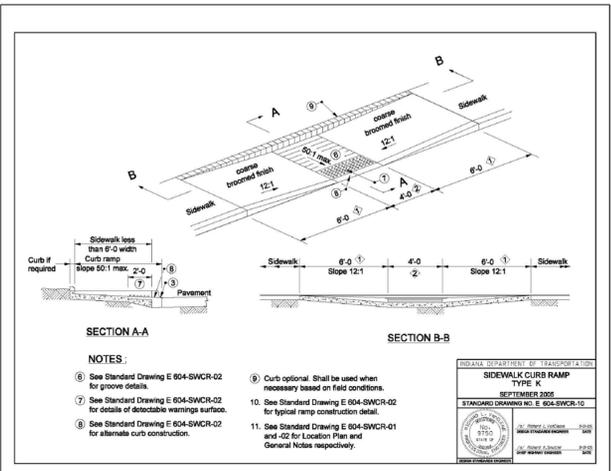


- SITE LAYOUT NOTES**
- ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY, OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
  - ALL PARKING STRIPES ARE TO BE 4" PAINTED WHITE. UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS, OR SPECIFICATIONS.
  - ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB/SIDEWALK, RADI TO BACK OF CURB, WHERE APPLICABLE.
  - ALL DIMENSIONS ARE TO OUTSIDE FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL BUILDING DIMENSIONS.
  - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD DIMENSIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
  - PROVIDE SMOOTH TRANSITION FROM NEWLY PAVED AREAS TO EXISTING AREAS AS NECESSARY. ALL AREAS WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE FREE OF ALL LOOSE DEBRIS. THE EDGE OF EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING.
  - ALL EXCAVATED AREAS TO BE SEEDED AND/OR SODDED AFTER FINISH GRADING UNLESS OTHERWISE NOTED. ALL NEWLY SODDED/SEEDED AREAS SHALL HAVE A MINIMUM OF 4" OF TOPSOIL. HOLD SOIL DOWN 1" FROM PAVEMENT ELEVATION. CONTRACTOR TO SUPPLY STRAW MULCH WHERE GRASS SEED HAS BEEN PLANTED.
  - RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS HAVE DAMAGED EXISTING PAVEMENT, LAWNS OR OTHER IMPROVEMENTS DURING CONSTRUCTION, AFTER CONSTRUCTION WORK IS COMPLETE.
  - ALL UTILITY TRENCHES WITHIN 5 FEET OF PAVEMENT SHALL BE COMPLETELY BACKFILLED WITH GRANULAR BACKFILL.
  - ALL RADII INDICATED SHALL BE CONSTRUCTED AS CIRCULAR ARCS.
  - ALL PARKING SPACE DIMENSIONS ARE TO BE 10' WIDE BY 18' DEEP UNLESS OTHERWISE SPECIFIED.

- PLAN NOTES:**
- (A) 6" CONCRETE CURB. SEE DETAIL 02/C2.0
  - (B) RESERVED
  - (C) COMBINED CURB & WALK. SEE DETAIL 04/C7.0
  - (D) CONCRETE WALK. SEE DETAIL 05/C7.0
  - (E) TYPICAL PARKING SPACE MARKING. SEE DETAIL 06/C7.0
  - (F) TRAFFIC SIGNAGE. SEE DETAIL 15 & 16/C7.0
  - (G) INDOT CURB RAMP - TYPE K. SEE DETAIL 01/C2.0
  - (H) NEW TRASH ENCLOSURE. REFER TO ARCH. PLANS

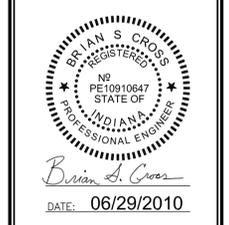
**DEVELOPMENT SUMMARY**

GROSS SQUARE FOOTAGE: = 7,000 S.F.  
 TOTAL SITE AREA = 1.01 AC +/-  
 ZONING = GB - GENERAL BUSINESS  
 PARKING SPACES REQUIRED = 35 (1 SPACE/200 SF)  
 PARKING SPACES PROVIDED = 36  
 ANTICIPATED CONSTRUCTION START/COMPLETION DATE  
 SEPTEMBER, 2010 / DECEMBER, 2010



**CURRAN ARCHITECTURE**  
 802 MULBERRY STREET, STE B-1  
 NOBLESVILLE, INDIANA 46060

**CIVIL SITE GROUP, INC.**  
 Suite 200  
 643 Massachusetts Avenue  
 Indianapolis, Indiana 46204  
 Ph: (317) 423-3305 Fax: (317) 423-3306



DWN BY: BSC  
 CHKD. BY: EAG  
 SCALE: 1" = 20'  
 DATE: 06/29/10

**FRIEDMAN PROFESSIONAL OFFICE**  
 4011 EAST SR 32 (APPROX.)  
 NOBLESVILLE, INDIANA 46062

**SITE PLAN**

PROJECT NUMBER  
**CAX.003**

DRAWING NUMBER  
**C2.0**  
 SHEET 3 OF 13

**TOPOGRAPHIC & BOUNDARY NOTE**

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN ALTA/ACSM SURVEY DATED 06/03/2010 (JOB # IMJUNESTFIELD) PREPARED BY T. WRIGHT CORPORATION; & TOPOGRAPHIC SURVEY, DATED 05/17/2010 (JOB #: B33045) PREPARED BY MILLER SURVEYING, INC. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

ALL CONCRETE PIPE JOINTS SHALL BE CONTINUOUS O-RING RUBBER GASKET CONFORMING TO ASTM C 443

**BENCHMARK**

COORDINATE SYSTEM: US STATE PLANE 1983 (AT GROUND)  
PROJECT DATUM: WORLD GEODETIC SYSTEM (WGS 1984)  
VERTICAL DATUM NAVD 88  
ZONE: INDIANA EAST 1301  
GEOID MODEL: GEOID03 (CONUS)  
COORDINATE UNITS: US SURVEY FEET  
DISTANCE UNITS: US SURVEY FEET  
HEIGHT UNITS: US SURVEY FEET  
  
TBM#7000  
MAG NAIL SET  
ELEV: 862.51

**FLOOD NOTE**

THIS LOT DOES NOT LIE IN A SPECIAL FLOOD HAZARD ZONE AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, MAP NUMBER 18057C0140F, DATED FEBRUARY 19, 2003.  
REFERENCE NFIP FIRM MAP #18057C0140 F  
EFFECTIVE DATE: FEBRUARY 19, 2003

**REVISION RECORD**

REV	DATE	DESCRIPTION	DES BY	APP BY



**LEGEND:**

- PROPOSED SPOT ELEVATION
- PROPOSED CURB ELEVATION
- MATCH EXISTING GRADE
- TOP OF CURB/STORM CASTING ELEVATION
- BOTTOM OF CURB ELEVATION
- EDGE OF PAVEMENT ELEVATION
- TOP OF WALL ELEVATION
- STORM SEWER INVERT ELEVATION
- PROPOSED GRADE BREAK
- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED STORM SEWER
- PROPOSED STORM STRUCTURE
- PROPOSED DRAINAGE SWALE
- TRENCH PAVEMENT BACKFILL/REPAIR SEE DETAIL 01/C5.0

**GRADING NOTES**

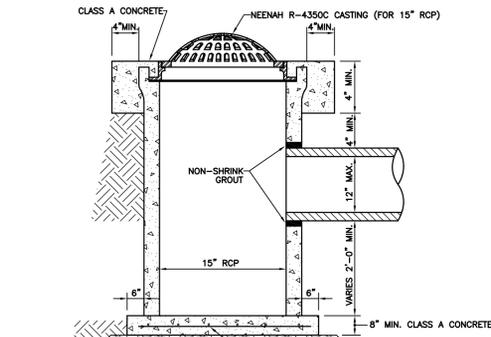
- ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- 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 IS 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.
- TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH ENGINEERED GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY "POCKETS" OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBGRADING AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PARKING AREAS 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, "BIRO BATH" CONDITIONS.
- ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- FLOW LINE ELEVATIONS GIVEN AT END OF CONCRETE END SECTIONS.
- SIDEWALK AGAINST BUILDING SHALL SLOPE AWAY FROM BUILDING AT 1.04% SLOPE MIN.

**PLAN NOTES:**

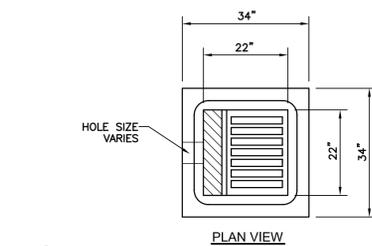
- (R1) APPROX. 90 LF OF 8" PVC (SDR35 @0.50% MIN. SLOPE) ROOF DRAIN LEADER WITH RISERS, ADAPTERS FOR DOWNSPOUTS, BENDS, FITTINGS, & CLEANOUTS AT BENDS > 22.5' FOR ROOF DOWNSPOUTS
- (R2) APPROX. 95 LF OF 8" PVC (SDR35 @0.50% MIN. SLOPE) ROOF DRAIN LEADER WITH RISERS, ADAPTERS FOR DOWNSPOUTS, BENDS, FITTINGS, & CLEANOUTS AT BENDS > 22.5' FOR ROOF DOWNSPOUTS

**NOTE**

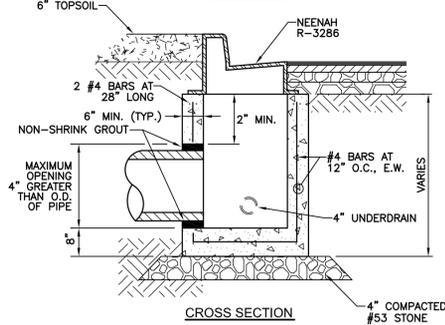
DEPENDING ON THE CONSTRUCTION SEASON, MOISTURE CONTENT AND PROPERTIES OF THE SOILS ON SITE, CHEMICAL MODIFICATIONS AND/OR LIME STABILIZATION MAY BE REQUIRED. SEE SHEET C9.0 FOR SPECIFICATIONS.



01 PIPE CATCH BASIN DETAIL WITH BEEHIVE INLET NOT TO SCALE



02 CURB INLET TYPE "A" NOT TO SCALE



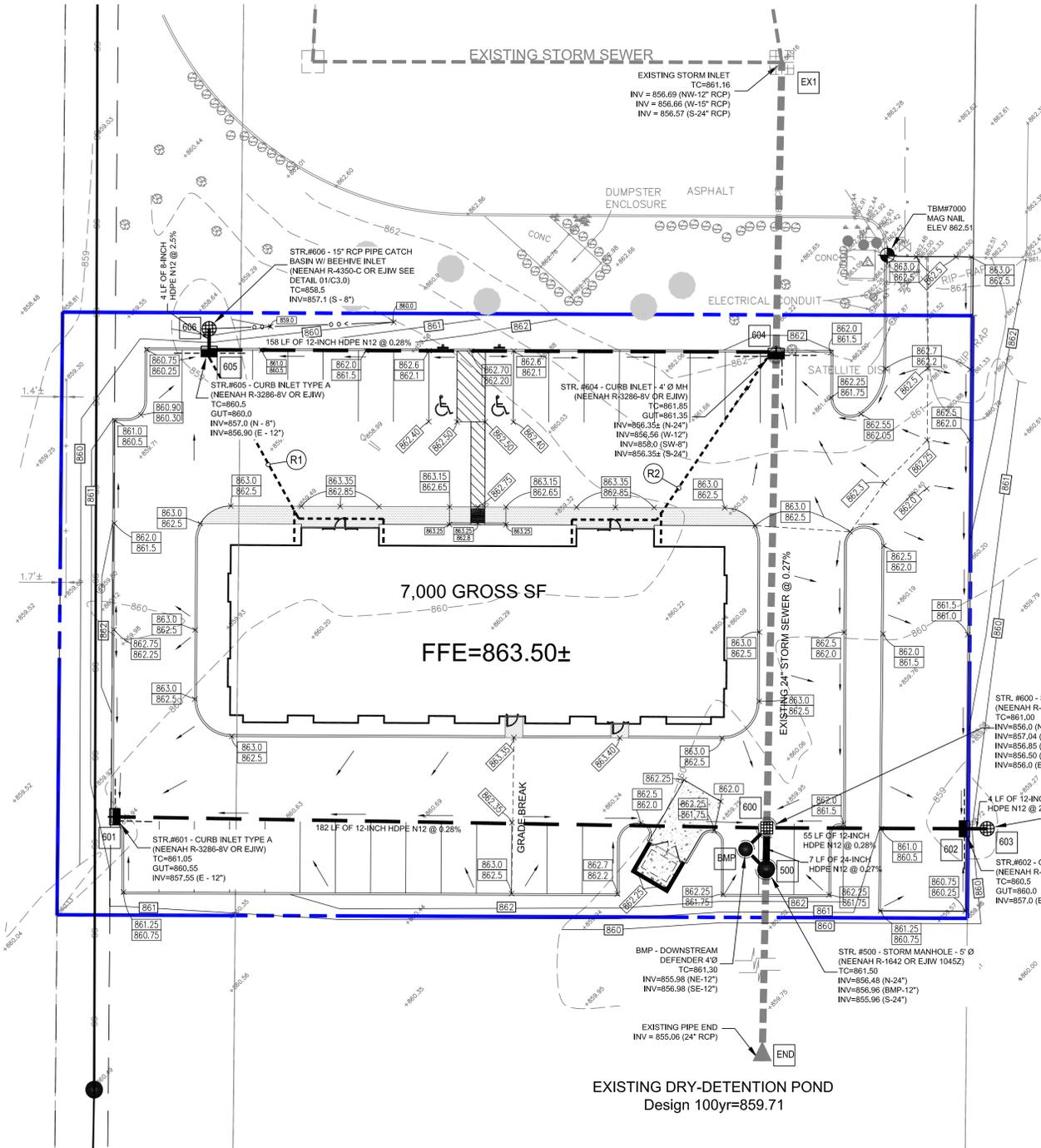
03 4" PIPE UNDERDRAIN UNDER PAVEMENT NOT TO SCALE

**INSTALLATION REQUIRED**

- EXTENDING 15' FROM STORM INLETS OR MANHOLE WHERE SHOWN ON THE UTILITY & GRADING PLAN.
- PIPE MATERIAL PER INDIANA DEPT. OF TRANSPORTATION SPECS. No. 718.02



03 4" PIPE UNDERDRAIN UNDER PAVEMENT NOT TO SCALE



EXISTING DRY-DETENTION POND  
Design 100yr=859.71

**CURRAN ARCHITECTURE**  
802 MULBERRY STREET, STE B-1  
NOBLESVILLE, INDIANA 46060

**CIVIL SITE GROUP, INC.**  
643 Massachusetts Avenue, Suite 200  
Indianapolis, Indiana 46204  
Ph: (317) 423-3305 Fax: (317) 423-3306

BRIAN S. CROSS  
REGISTERED  
NO. PE10910647  
STATE OF INDIANA  
PROFESSIONAL ENGINEER  
*Brian S. Cross*  
DATE: 06/29/2010

DWN BY: BSC  
CHKD. BY: EAG  
SCALE: 1" = 20'  
DATE: 06/29/10

**FRIEDMAN PROFESSIONAL OFFICE**  
4011 EAST SR 32 (APPROX.)  
NOBLESVILLE, INDIANA 46062

**GRADING & DRAINAGE PLAN**

PROJECT NUMBER  
**CAX.003**

DRAWING NUMBER  
**C3.0**  
SHEET 4 OF 13



**TOPOGRAPHIC & BOUNDARY NOTE**

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN ALTA/ACSM SURVEY DATED 06/03/2010 (JOB # IMCUNESTFIELD) PREPARED BY T. WRIGHT CORPORATION; & TOPOGRAPHIC SURVEY, DATED 05/17/2010 (JOB # B33045) PREPARED BY MILLER SURVEYING, INC. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

**FLOOD NOTE**

THIS LOT DOES NOT LIE IN A SPECIAL FLOOD HAZARD ZONE AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, MAP NUMBER 18057C0140F, DATED FEBRUARY 19, 2003. REFERENCE NFIP FIRM MAP #18057C0140 F EFFECTIVE DATE: FEBRUARY 19, 2003

**STORM SEWER INLET NOTE**

ALL STORMWATER DRAINAGE CASTINGS SHALL BE LABELLED WITH ENVIRONMENTAL MESSAGING "DUMP NO WASTE"

**DEVELOPMENT SUMMARY**

TOTAL SITE AREA = 1.01 ACRES +/-  
TOTAL DISTURBED AREA = 1.3 ACRES +/-

**OWNER / EROSION CONTROL CONTACT:**

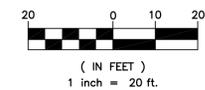
JODY FRIEDMAN  
PHONE: 317-867-0757  
3144 EAST SR 32  
WESTFIELD, INDIANA 46074

**ENGINEER:**

CIVIL SITE GROUP, INC.  
643 MASSACHUSETTS AVENUE  
SUITE 200  
INDIANAPOLIS, INDIANA 46204  
(317) 423-3305

**REVISION RECORD**

REV	DATE	DESCRIPTION	DES BY	APP BY



**GENERAL NOTES**

- CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF INDIANAPOLIS INFRASTRUCTURE PROJECT MANAGER PRIOR TO COMMENCING WITH CONSTRUCTION.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE STANDARDS.
- ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL UTILITY LOCATIONS BEFORE CONSTRUCTION BEGINS.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL EXISTING ELEVATIONS BEFORE CONSTRUCTION BEGINS.

**LEGEND:**

- PROPERTY BOUNDARY
- PROPOSED SWALE FLOWLINE
- TOP OF CURB GRADE PAVEMENT GRADE
- PAVEMENT OR EARTH GRADE
- CONSTRUCTION LIMITS
- Existing Contour
- Check Dam/Sediment Filter - Spacing at 100' within swales (Rock Check Dam).
- PROPOSED SILT FENCE-Typical in all areas where sediment could leave the site. SEE FIG. EC-4
- PERMANENT SEEDING WITH STRAW MULCH - TYPICAL AFTER FINAL GRADING IS COMPLETED.
- NURSERY SOD / LANDSCAPE AREA
- PROPOSED EROSION CONTROL BLANKET SEE DETAIL 05/C4.1; FIG. EC-2, EC-3
- Point where stormwater will leave the site.
- Inlet Protection - Typical for all paved area inlets. SEE DETAIL 01 & 02/C4.1; FIG. EC-1
- PROPOSED CONTOUR
- PROPOSED GRAVEL CONSTRUCTION ENTRANCE SEE DETAIL 03/C4.1

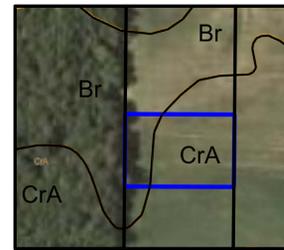
**GRADING NOTES**

- ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- 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 IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY.

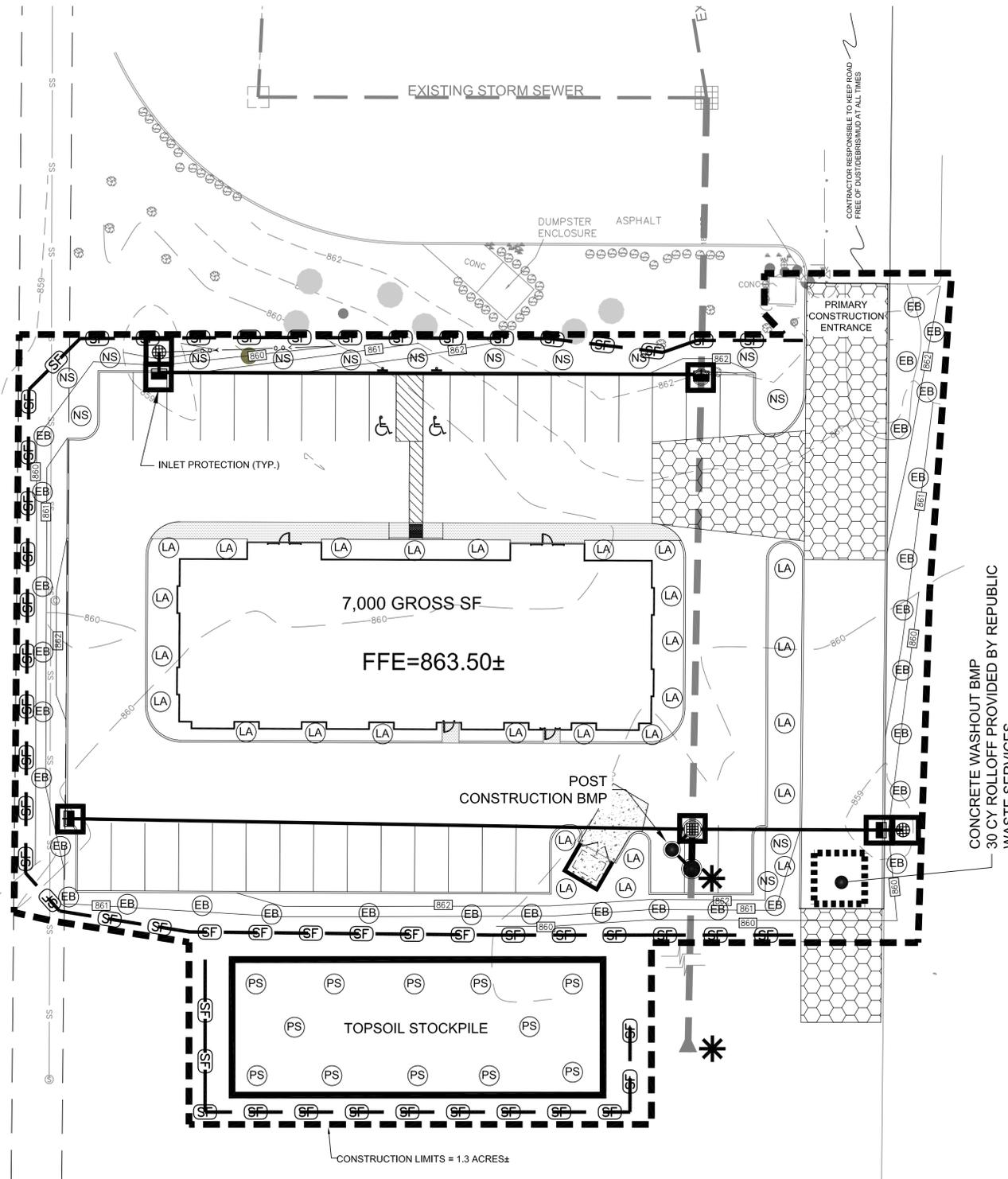
**ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR**

**SOILS DESCRIPTIONS & LIMITATIONS**

- Crosby Silt Loam (CrA - 74% Site)** The Crosby series consists of very deep, somewhat poorly drained soils that are moderately deep to dense till on till plains. These soils formed in loamy till that can be capped with up to 22 inches of loess or silty material. Permeability is moderate to moderately slow in and above the argillic horizon and slow or very slow below the argillic horizon. Slope ranges from 0 to 6 percent. Subject soil does not present any foreseeable limitations to the proposed development. Subject soil does not present any foreseeable limitations to the proposed development.
- Brookston Silty Clay Loam (Br - 26% Site)** The Brookston series consists of very deep, poorly drained soils formed in up to 20 inches of silty material and the underlying loamy till in depressions on till plains and moraines. Permeability is moderate in the subsoil and moderately slow in the underlying material. Slope ranges from 0 to 3 percent. Subject soil does not present any foreseeable limitations to the proposed development.

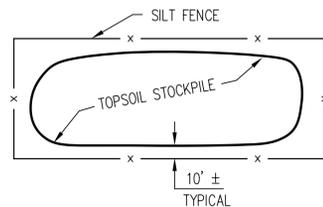


**SOILS MAP SCALE: 1" = 200'**



**EROSION CONTROL NOTES**

- ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
- LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
- 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 WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
- SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN THE RECEIVING STREAM. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
- WASTES AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORMWATER RUNOFF. PROPER DISPOSAL OF ALL WASTES AND UNUSED BUILDING MATERIALS IS REQUIRED.
- SEDIMENT BEING TRACED 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 REDISTRIBUTED 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.
- ALL EXISTING STRUCTURES, FENCING, TREES AND ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF-SITE. BURNING IS NOT ALLOWED ON-SITE.
- 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 SOON AS POSSIBLE. TEMPORARY VEGETATION OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS IF PERMANENT VEGETATION CANNOT BE SEEDING WITHIN 14 DAYS OR ACTIVITY CEASES FOR MORE THAN 21 DAYS OR AS DIRECTED BY THE ENGINEER.
  - TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIME 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.



**TYPICAL TOPSOIL STOCKPILE**

**CIVIL SITE GROUP, INC.**  
802 MULBERRY STREET, STE B-1  
NOBLESVILLE, INDIANA 46060  
Ph: (317) 423-3305 Fax: (317) 423-3306

**BRIAN S. CROSS**  
REGISTERED PROFESSIONAL ENGINEER  
NO. PE10910647  
STATE OF INDIANA  
DATE: 06/29/2010

DWN BY: BSC  
CHKD. BY: EAG  
SCALE: 1" = 20'  
DATE: 06/29/10

**FRIEDMAN PROFESSIONAL OFFICE**  
4011 EAST SR 32 (APPROX.)  
NOBLESVILLE, INDIANA 46062

**SWPPP PLAN**

PROJECT NUMBER  
**CAX.003**

DRAWING NUMBER  
**C4.0**  
SHEET 5 OF 13

**FERTILIZER NOTE**

**DO NOT USE PHOSPHOROUS CONTAINING FERTILIZERS UNLESS SOIL TESTS SHOW A PHOSPHOROUS DEFICIENCY.**

**SEEDBED PREPARATION**

APPLY LIME TO RAISE THE pH TO THE LEVEL NEEDED FOR SPECIES BEING SEED. APPLY 23 POUNDS OF 12-12-12 ANALYSIS FERTILIZER (OR EQUIVALENT) PER 1000 SQ. FT. (APPROXIMATELY 1000 POUNDS PER ACRE) OR FERTILIZE ACCORDING TO TEST. APPLICATION OF 150 LBS. OF AMMONIUM NITRATE ON AREAS LOW IN ORGANIC MATTER AND FERTILITY WILL GREATLY ENHANCE VEGETATIVE GROWTH.

WORK THE FERTILIZER AND LIME INTO THE SOIL TO A DEPTH OF 2-3 INCHES WITH A HARROW, DISK OR RAKE OPERATED ACROSS THE SLOPE AS MUCH AS POSSIBLE.

**SEEDING**

SELECT A SEED MIXTURE BASED ON PROJECTED USE OF THE AREA (SEE PERMANENT SEED MIXTURE CHART). WHILE CONSIDERING BEST SEEDING DATES, IF PERMANENT SEEDING IS NOT PERMITTED USE TEMPORARY SEEDING. UNTIL PERMANENT SEEDING CAN BE APPLIED, IF TOLERANCES ARE A PROBLEM, SUCH AS SALT TOLERANCE OF SEEDINGS ADJACENT TO STREETS AND HIGHWAYS, SEE SEED TOLERANCE CHART.

SPECIES	SOIL CONDITION		SHADE TOLERANCE	CLOSE MOWING TO 2-3" 1/2 INCHES	TRAMPING TOLERANCE	FERTILITY NEEDS	WINTER HARDINESS	FLOODING TOLERANCE (DAYS)	MATURE HEIGHT (INCHES)	EMERGENCE TIME (DAYS)	SOIL TOLERANCE	
	WET	DRY									GEN.	SPRAY
CREeping RED FESCUE FESTUCA RUBRA	2	1	2	1	1	1	1	20-25	12-18	7-21		S
KENTUCKY BLUEGRASS POA PROTENSIS	2	1	2	1	1	1	1	20-35	12-18	10-20		MT
TALL FESCUE FESTUCA L. ARUNDINACEA	2	1	1	1	1	1	1	24-35	24-36	5-14		T
PERENNIAL RYEGRASS LOLLUM PERENNE	2	1	2	-	2	2	2	15-20	12-18	5-10		MT
CROWNVEtCH CORONILLA VARLA	-	1	1	2	-	-	-	5-10	24	14-21		T
RED CLOVER TRIFOLIUM PROTENSE	-	1	-	2	-	-	-	7-10	18	5-10	S	S

**RANKING:**  
1 GOOD  
2 MEDIUM  
- NOT TOLERANT

**SALT TOLERANCE (TO BOTH SOIL SALTS & SPRAY)**

T TOLERANCE  
MT MEDIUM TOLERANCE  
S SLIGHT TOLERANCE

**FERTILIZER NOTE**

**DO NOT USE PHOSPHOROUS CONTAINING FERTILIZERS UNLESS SOIL TESTS SHOW A PHOSPHOROUS DEFICIENCY.**

**SEED TOLERANCE**

SPECIES	SEEDING RATE		SUITABLE pH	SITE SUITABILITY *		
	LBS/ACRE	LBS/1000 SQ. FT.		DROUGHTY	WELL DRAINED	WET
<b>LEVEL AND SLOPING, OPEN AREAS</b>						
1. TALL FESCUE	35	.8	5.5-8.3	2	1	2
2. TALL FESCUE	25	.6	5.5-8.3		1	
3. KENTUCKY BLUEGRASS	15	.4	5.8-7.5	2	1	
4. CREEPING RED FESCUE	15	.4	5.8-7.5			
5. TALL FESCUE	35	.8	5.5-8.3	2	1	
EMERALD CROWNVEtCH**	10	.25				
<b>STEEP BANKS AND CUTS</b>						
4. TALL FESCUE	15	.4	5.8-7.5	2	1	2
KENTUCKY BLUEGRASS	25	.6	5.5-8.3		1	
5. TALL FESCUE	35	.8	5.5-8.3	2	1	
6. KENTUCKY BLUEGRASS	40	.9	5.8-7.5	2	1	
7. PERENNIAL RYEGRASS	170	4.0	5.0-7.5		1	
8. TALL FESCUE	170	4.0	5.5-8.3	2	1	2
<b>LAWNS AND HIGH MAINTENANCE AREAS</b>						
6. KENTUCKY BLUEGRASS	40	.9	5.8-7.5	2	1	
7. PERENNIAL RYEGRASS	170	4.0	5.0-7.5		1	
8. TALL FESCUE	170	4.0	5.5-8.3	2	1	2

\* 1 - PREFERRED 2 - WILL TOLERATE \*\* INOCULATE WITH SPECIFIC INOCULANT.

**SEED TOLERANCE CHART**

**REVISION RECORD**

REV	DATE	DESCRIPTION	DES BY	APP BY

**TEMPORARY SEEDING DATES**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WHEAT OR RYE												
OATS												
ANNUAL RYEGRASS												

**PERMANENT SEEDING DATES**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
NON-IRRIGATED*												
IRRIGATED												
DORMANT SEEDING**												

IRRIGATION NEEDED DURING THIS PERIOD. TO CONTROL EROSION AT TIMES OTHER THAN IN THE SHADED AREAS. USE MULCH.

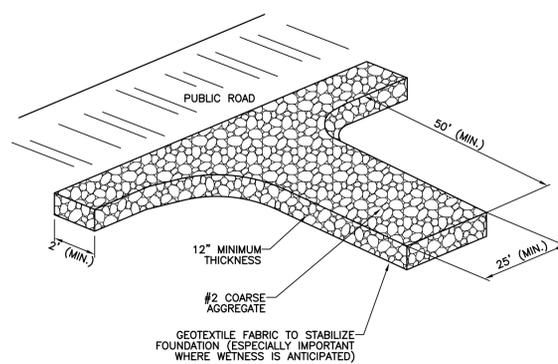
\* LATE SUMMER SEEDING DATES MAY BE EXTENDED 5 DAYS IF MULCH IS APPLIED.

\*\* INCREASE SEEDING APPLICATION BY 50%.

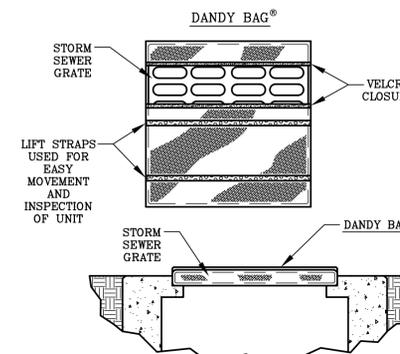
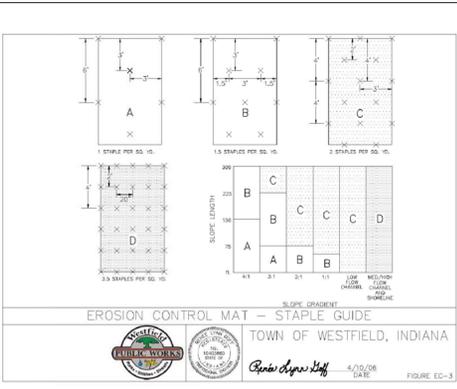
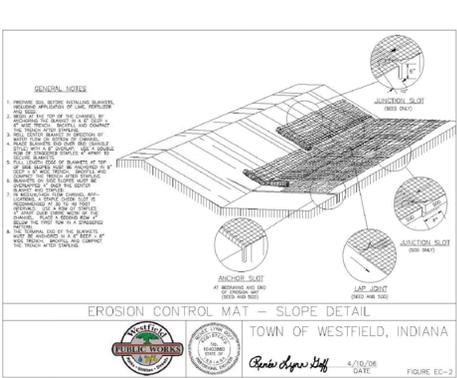
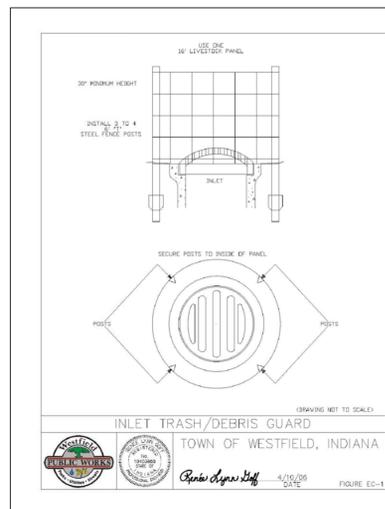
**TEMPORARY SEEDINGS**

TYPE OF SEED	1000 SQ. FT. ACRE	REMARKS
WHEAT OR RYE	3.5 LBS. 2 BU.	COVER SEED 1" TO 1 1/2" DEEP
SPRING OATS	2.3 LBS. 3 BU.	COVER SEED 1" DEEP
ANNUAL RYEGRASS	1 LB. 40 LB.	COVER SEED 1/4" DEEP

\* NOT NECESSARY WHERE MULCH IS APPLIED.



**TEMPORARY CONSTRUCTION ENTRANCE**  
NOT TO SCALE

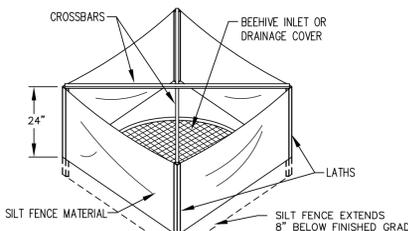


NOTE: THE DANDY BAG® WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4832	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4832	%	2.5 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3766	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	95
Apparent Opening Size	ASTM D 4751	mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4481	l/min/m² (gal/min/ft²)	5907 (145)
Permeability	ASTM D 4491	sec	2.1

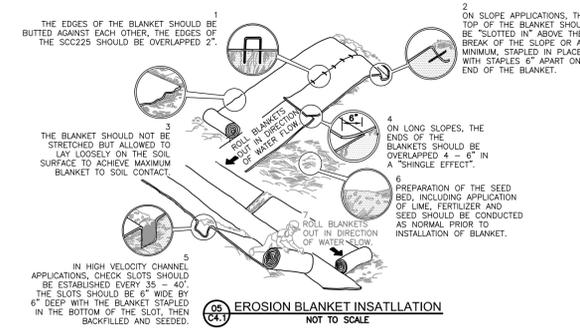
\*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows

**STORM INLET BAG PROTECTION**  
NOT TO SCALE



**SILT FENCE INLET PROTECTION**  
NOT TO SCALE

TYPE	LONGEVITY	MAX. SLOPE	APPLICATION
S75	10 MONTHS	3:1	LOW FLOW SWALES
DS75	60 DAYS	3:1	LOW FLOW SWALES
S150	10 MONTHS	2:1	MODERATE DISCHARGE SWALES
DS150	60 DAYS	2:1	MODERATE DISCHARGE SWALES
SC150	2 YEARS	1:1	MEDIUM DISCHARGE SWALES
C125	3 YEARS	>1:1	HIGH DISCHARGE SWALES



**EROSION BLANKET INSATLLATION**  
NOT TO SCALE

EROSION CONTROL MEASURE	MAINTENANCE	INSTALLATION SEQUENCE
STONE ENTRANCE	AS NEEDED	PRIOR TO CLEARING AND GRADING
SILT FENCE	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
EXISTING INLET PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TREE PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TEMPORARY DIVERSIONS	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	ALONG WITH ROUGH GRADING
TEMPORARY SEEDING	WATER AS NEEDED	AFTER ROUGH GRADING
PERMANENT SEEDING	WATER AS NEEDED	AFTER FINISH GRADING - AS SOON AS PRACTICAL UPON COMPLETION
EROSION CONTROL MATTING	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING - AS SOON AS PRACTICAL UPON COMPLETION
ROCK CHECK DAM	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING - AS SOON AS PRACTICAL UPON COMPLETION
INLET PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER EACH INLET IS PLACED
REMOVAL OF TREE PROTECTION	N/A	AFTER PERMANENT SEEDING
REMOVAL OF STRAW BALES	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF INLET PROTECTION	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF SILT FENCE	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED

**EROSION CONTROL MEASURES MAINTENANCE REQUIREMENTS**

**EROSION CONTROL BLANKET (SURFACE APPLIED) MAINTENANCE REQUIREMENTS:**

- DURING VEGETATIVE ESTABLISHMENT, INSPECT AFTER STORM EVENTS FOR ANY EROSION BELOW THE BLANKET.
- IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE BLANKET COVERING IT, ADD SOIL, RE-SEED THE AREA, AND RE-LAY AND STAPLE THE BLANKET.
- AFTER VEGETATIVE ESTABLISHMENT, CHECK THE TREATED AREA PERIODICALLY.

**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE MAINTENANCE REQUIREMENTS:**

- INSPECT ENTRANCE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER STORM EVENTS OR HEAVY USE.
- RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
- TOP DRESS WITH CLEAN STONE AS NEEDED.
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN.
- REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.

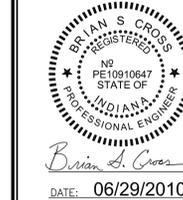
**ROCK CHECK DAM MAINTENANCE REQUIREMENTS:**

- INSPECT ROCK CHECK DAMS AFTER EACH STORM EVENT AND PROMPTLY REMOVE ANY SEDIMENT DEPOSITS TO ENSURE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN, TAKING CARE NOT TO UNDERMINE THE ENTRENCHED CHANNELS.
- INSPECT PERIODICALLY FOR DETERIORATION OR DAMAGE FROM CONSTRUCTION ACTIVITIES AND REPAIR IMMEDIATELY.
- AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ALL ROCK CHECK DAMS AND SEDIMENT, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE IT.

**SILT FENCE MAINTENANCE REQUIREMENTS:**

- INSPECT THE SILT FENCE PERIODICALLY AND AFTER EACH STORM EVENT.
- IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
- REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
- TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
- AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.

**CURRAN ARCHITECTURE**  
802 MULBERRY STREET, STE B-1  
NOBLESVILLE, INDIANA 46060



DWN BY: BSC  
CHKD. BY: EAG  
SCALE: 1" = 20'  
DATE: 06/29/10

**FRIEDMAN PROFESSIONAL OFFICE**  
4011 EAST SR 32 (APPROX.)  
NOBLESVILLE, INDIANA 46062

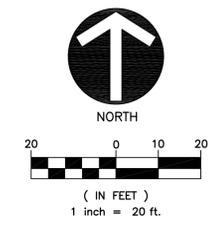
**SWPP DETAILS**

PROJECT NUMBER  
**CAX.003**

DRAWING NUMBER  
**C4.1**  
SHEET 6 OF 13



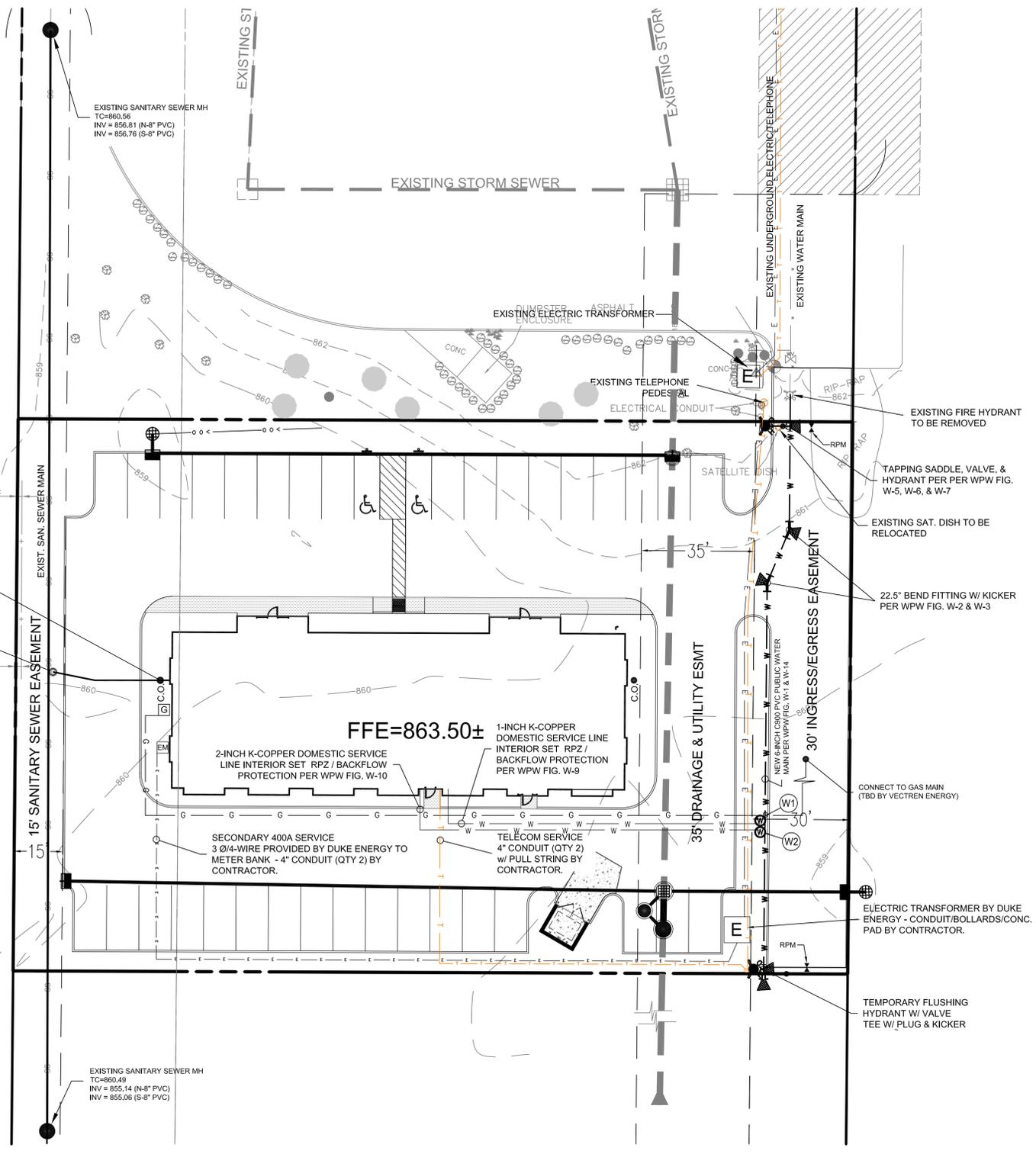
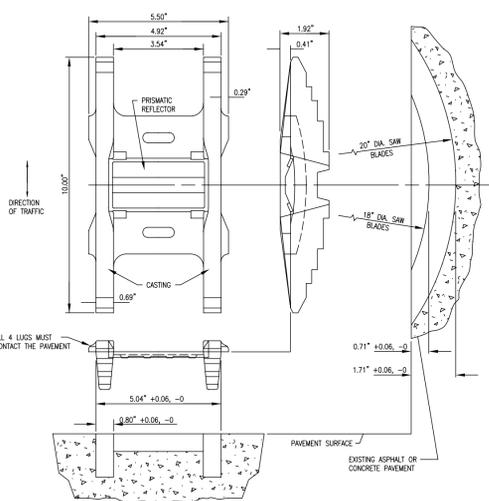
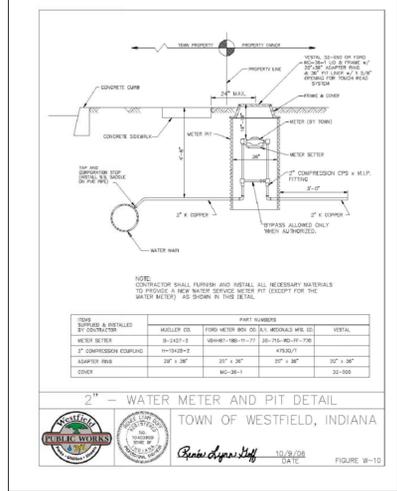
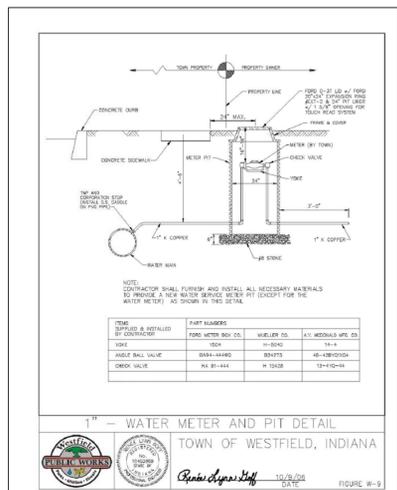
REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY



- LEGEND:**
- PROPERTY BOUNDARY
  - PROPOSED SANITARY SEWER LINE
  - PROPOSED WATERLINE
  - PROPOSED GATE VALVE
  - PROPOSED GAS SERVICE LINE
  - PROPOSED ELECTRIC SERVICE LINE
  - PROPOSED TELEPHONE LINE
  - PROPOSED STORM SEWER
  - PROPOSED SUB-SURGACE ROOF DRAIN
  - PROPOSED STORM STRUCTURE
  - PROPOSED SANITARY SEWER CLEANOUT SEE DETAIL 13/C7.0
  - PROPOSED GAS METER
  - PROPOSED ELECTRIC BLDG. METERS
  - PRIMARY 3 # ELECTRIC TRANSFORMER BY DUKE ENERGY - CONDUIT/BOLLARDS/CONC. PAD BY CONTRACTOR.
  - PROPOSED RPM - BLUE REFLECTOR. SEE SHEET C5.0

**UTILITY NOTES**

- IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO THEIR PHASE OF WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES FOR PROPER STAKE LOCATIONS FOR EACH UTILITY BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER OR THE ENGINEER OF ANY CHANGES, OMISSIONS, OR ERRORS FOUND ON THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.
- STANDARD SPECIFICATIONS FOR THE LOCAL GOVERNING AGENCY SHALL APPLY FOR ALL SANITARY SEWERS, STORM SEWERS, AND WATER MAINS.
- ANY PART OF THE SANITARY OR STORM SEWER TRENCHES RUNNING UNDER PAVED AREAS TO BE BACKFILLED WITH GRANULAR MATERIAL.
- ALL WATER MAINS TO HAVE A 54" MINIMUM COVER OVER TOP OF PIPE.
- STERILIZATION OF WATER MAIN SHALL BE IN ACCORDANCE WITH STATE BOARD OF HEALTH REQUIREMENTS. (APPLIES TO COMMERCIAL ONLY)
- CONTRACTOR RESPONSIBLE TO INSTALL ALL UNDERGROUND CONDUIT PER UTILITY COMPANY'S SPECIFICATIONS.
- CONTRACTOR RESPONSIBLE FOR RESTORATION TO ALL AREAS AFFECTED DURING CONSTRUCTION. REFER TO THE CITY OF INDIANAPOLIS DPW - STANDARDS FOR RESTORATION REQS.
- CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AT ANY PROPOSED CROSSING AND PROVIDE EXISTING TOP OF PIPE ELEVATIONS WITHIN 10 DAYS OF NOTICE TO PROCEED. PROVIDE CONCRETE CRADLE AS REQUIRED FOR ANY VERTICAL SEPARATION LESS THAN 18 INCHES.



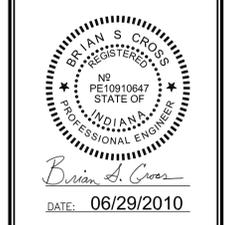
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COORDINATE SYSTEM: US STATE PLANE 1983 (AT GROUND)  
PROJECT DATUM: WORLD GEODETIC SYSTEM (WGS 1984)  
VERTICAL DATUM NAVD 88  
ZONE: INDIANA EAST 1301  
GEOID MODEL: GEOID03 (CONUS)  
COORDINATE UNITS: US SURVEY FEET  
DISTANCE UNITS: US SURVEY FEET  
HEIGHT UNITS: US SURVEY FEET

TBM#7000  
MAG NAIL SET  
ELEV: 862.51

- PLAN NOTES:**
- (W1) 1-INCH DOMESTIC SERVICE LINE TO SINGLE 1" METER. WESTFIELD PUBLIC WORKS APPROVED INTERIOR SET RPZ BACKFLOW DEVICE (I.E. AMES, WATTS) IS REQUIRED AT THE POINT OF ENTRY INTO THE BUILDING FOR EACH SERVICE LINE & INSTALLED PER 327 IAC 10-8-7. SEE WPW FIG. W-9
  - (W2) 2-INCH DOMESTIC SERVICE LINE TO SINGLE 2" METER. WESTFIELD PUBLIC WORKS APPROVED INTERIOR SET RPZ BACKFLOW DEVICE (I.E. AMES, WATTS) IS REQUIRED AT THE POINT OF ENTRY INTO THE BUILDING FOR EACH SERVICE LINE & INSTALLED PER 327 IAC 10-8-7. SEE WPW FIG. W-10

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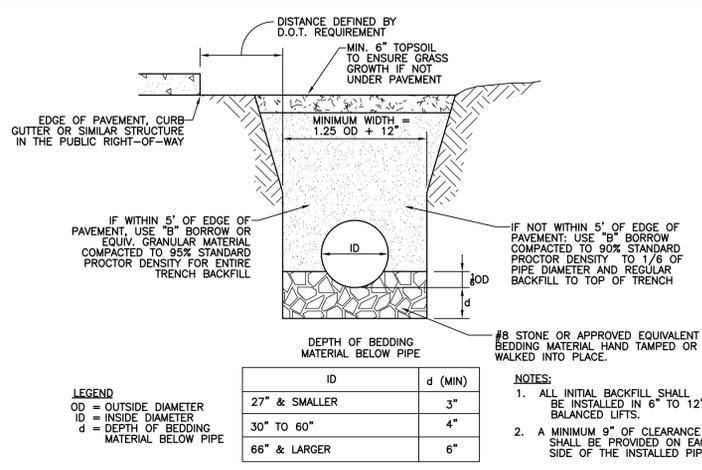
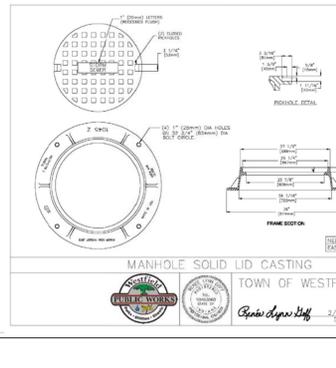
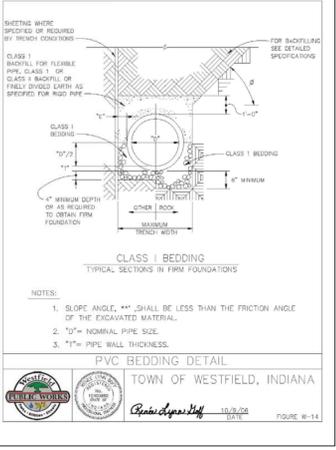
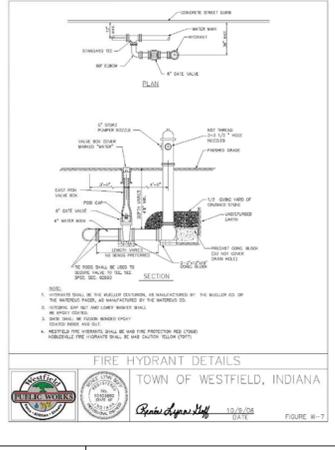
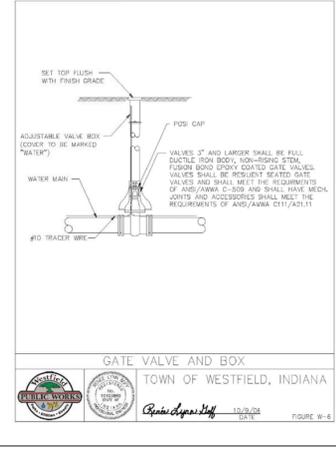
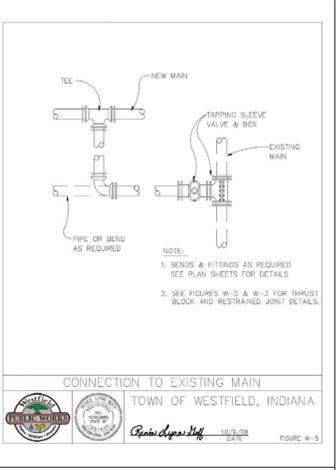
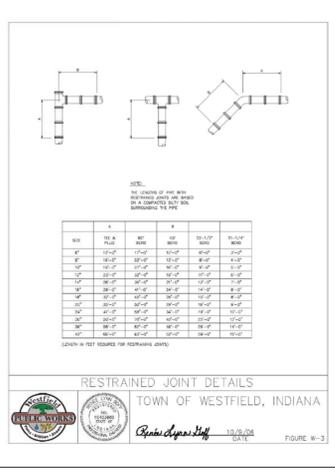
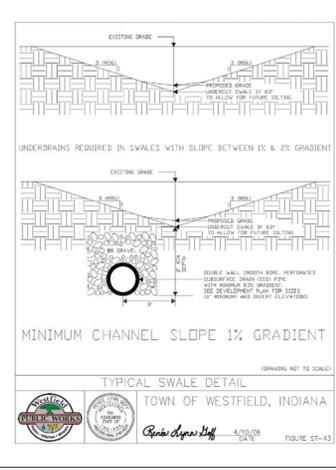
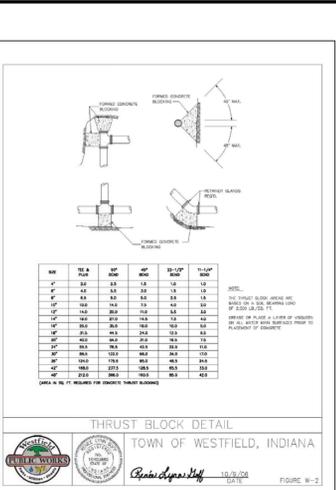
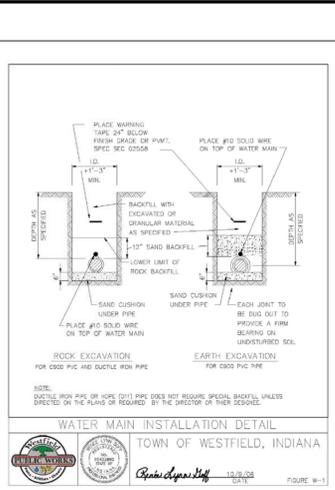
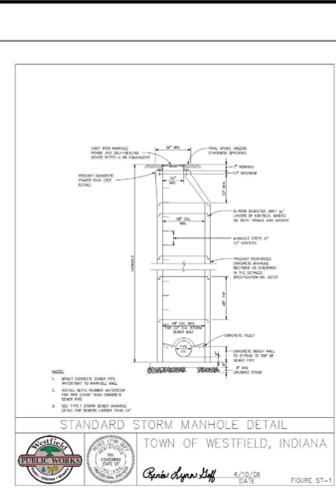
**UTILITY PLAN**

PROJECT NUMBER  
**CAX.003**

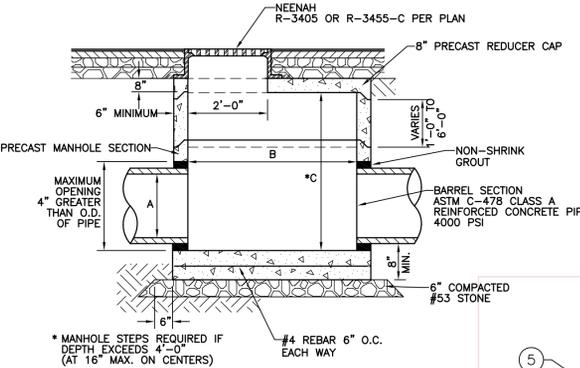
DRAWING NUMBER  
**C5.0**  
SHEET 8 OF 13



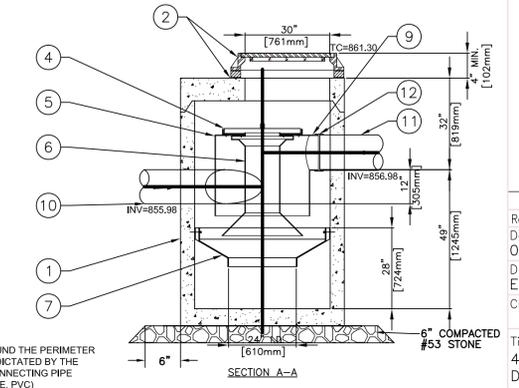
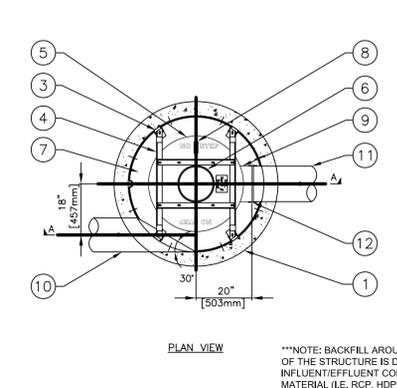
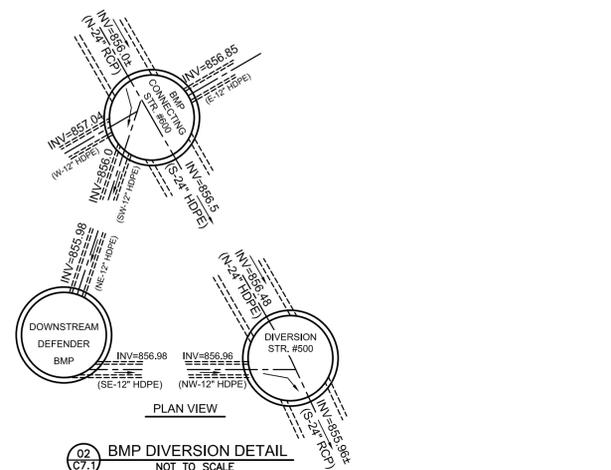
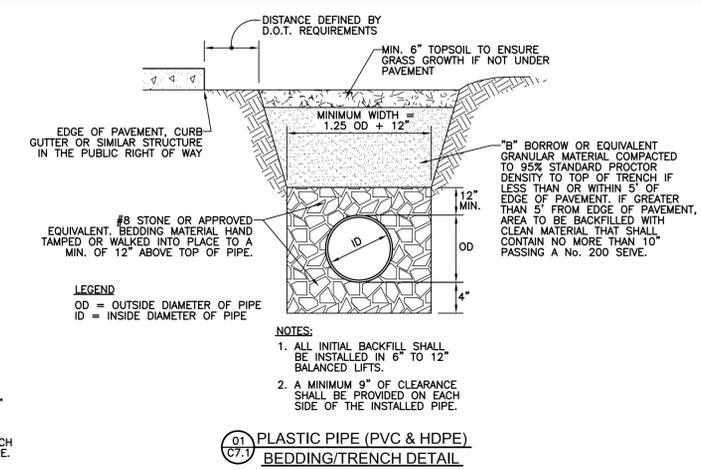




DIMENSIONS (INCHES)			
A	B	C	
(MAX.)	(I.D.)	(MIN.)	
18	48	25	
21	48	28	
24	48	31	
27	60	34	
30	60	38	
33	60	41	
36	60	44	
42	60	50	



**PAVEMENT MANHOLE**  
NOT TO SCALE



PARTS LIST			
ITEM	SIZE	I.D.	DESCRIPTION
1	48 in.	1219mm	CONCRETE MANHOLE
2	30 in.	761mm	MANHOLE LID, FRAME & COVER
3			LEDGER ANGLE (TYP.)
4			SUPPORT FRAME
5			DIP PLATE
6			CENTER SHAFT & CONE
7			BENCHING SKIRT
8			FLOATABLES LID W/ VENT
9	12 in.	305mm	OVERFLOW PIPE STUB
10	12 in.	305mm	TANGENTIAL INLET PIPE (BY OTHERS)
11	12 in.	305mm	OVERFLOW PIPE (BY OTHERS)
12			PIPE COUPLING (BY OTHERS)

**EQUIPMENT PERFORMANCE**

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

- Performance objectives: The unit shall be capable of treating the peak flow rate listed below.
  - Peak treatment flow: 3.5 cfs [85 l/s]
  - Depth of flow in overflow pipe at 1.3 cfs: 3.5 in. [204mm]
  - Estimated headloss\* at 1.3 cfs: 2.2 in. [127mm]
- Sediment storage capacity: 0.70 Cu. yd. [0.54 cu.m.]
- Oil storage capacity: 70 Gal. [265 liters]
- Sediment shall be stored in a zone that is isolated from the main flow path and protected from reentrainment by a benching skirt.

\*Headloss is defined as the difference between static water level at the inlet of the Downstream Defender to the free water surface in the overflow pipe, assuming free discharge.

Dimensions are general and intended for guidance only. The orientation of the inlet pipe and overflow pipe can be adjusted to site requirements. See site plan for orientation.

Rev	By	Date	Description
05/17/05	NTS	05/17/05	NTS

Checked Prod. Approved by

Title  
4-FT DIA. [1219mm]  
DOWNSTREAM DEFENDER

STANDARD UNIT

GENERAL ARRANGEMENT

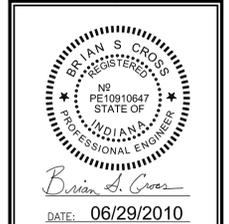


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CAD Ref: 4GA1  
Project No.  
Drawing No. 4GA1 Rev.

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**FRIEDMAN PROFESSIONAL OFFICE**  
4011 EAST SR 32 (APPROX.)  
NOBLESVILLE, INDIANA 46062

**GENERAL DETAILS**

PROJECT NUMBER  
**CAX.003**

DRAWING NUMBER  
**C7.1**  
SHEET 10 OF 13

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EARTHWORK

1. SCOPE OF WORK

A. Extent: The work required under this section consists of all excavating, filling, rough grading and related items necessary to complete the work indicated on the drawings and described in the specifications. The Contractor shall notify in writing the owners and the Engineer of any changes, errors or omissions found on the plans or in the field before work is started or resumed.

1. In general, the items of work to be performed under this section shall include: clearing and grubbing, removal of trees and stumps (where required), protection of trees to remain, stripping and storage of topsoil, fill composition and rough grading of entire site.

2. Excavated material that is suitable may be used for fills. All unsuitable material and all surplus excavated material not required shall be removed from the site. The location of dump and length of haul shall be the Contractor's responsibility.

3. Provide and place any additional fill material from off the site as may be necessary to produce the grades required. Fill obtained from off site shall be of kind and quality as specified for fills herein and the source approved by the Owner.

4. The Contractor shall accept the site as he finds it and shall remove all structures, materials and debris from the site prior to starting excavation.

B. Work not included: The following items of related work are specified and included in other sections of these specifications:

- 1. Excavation, grading and backfilling for utility lines
2. Storm drainage systems
3. Sanitary sewer systems
4. Streets and paving
5. Water supply system

2. BENCH MARKS

Maintain carefully all bench marks, monuments and other reference points; if disturbed or destroyed, Contractor shall contact engineer. Replacement shall be at Contractor's expense.

3. REMOVAL OF TREES

A. Remove all trees and stumps from area to be occupied by road and surfaced areas. Removal of trees outside these areas shall only be done as noted on drawings or approved by the Owner.

B. All brush, stumps, wood and other refuse from the trees shall be removed to a suitable disposal area off of the site. Disposal by burning shall not be permitted unless proper permits are obtained (where applicable). Burial pits shall be approved by the owner and the Engineer, if permitted.

4. PROTECTION OF TREES

A. General Protection: The Contractor shall be responsible for the protection of tops, trunks and roots of existing trees on the project site that are to remain. Existing trees subject to construction damage shall be boxed, fenced or otherwise protected before any work is started; do not stockpile within branch spread. Remove interfering branches without injury to trunks and cover scars with tree paint.

5. HANDLING OF TOPSOIL

A. Remove all organic material from the areas to be occupied by buildings, roads, walks and parking areas. Pile and store topsoil at a location where it will not interfere with construction operations. Topsoil shall be reasonably free from subsoil, debris, weeds, grass, stones, etc..

B. After completion of site grading and subsurface utility installation, top soil shall be replaced in areas designated on the erosion control plan for seeding and/or sod. Any remaining topsoil shall be used for finished grading around structures and landscaping areas.

6. DISPOSITION OF UTILITIES:

A. Rules and regulations governing the respective utilities shall be observed in executing all work under this section.

B. If active utilities are encountered but not shown shown on the drawings, the Engineer shall be advised before work is continued.

C. Inactive and abandoned utilities encountered in excavating and grading operations shall be reported to the Engineer. They shall be removed, plugged or capped as directed by the Utility Company or the Engineer.

D. It shall be the responsibility of each contractor to verify all existing utilities and conditions pertaining to his phase of the work. It shall also be the contractor's responsibility to contact the owners of the various utilities before work is started.

7. SITE GRADING:

A. Grades: Contractor shall perform all cutting, filling, compacting of fills and rough grading required to bring entire project area to grade as shown on the drawings.

B. Rough Grading: The tolerance for paved areas shall not exceed 0.10 feet plus or minus above the established subgrade. All other areas shall not exceed 0.10 feet plus or minus the established grade. All banks and other breaks in grade shall be rounded at top and bottom.

C. Compaction Requirements:

1. All areas under building pads and paved areas shall be compacted to 100% standard proctor density.
2. All other fill areas shall be compacted to 90% standard proctor density.

3. All areas where cut is necessary to meet the condition of active utilities, sewers and other drains encountered in the sewer installation. Repair to the satisfaction of the owner any damage to existing active improvements.

B. EARTH WORK BALANCE

A. The Contractor shall confirm all earthwork quantities prior to start of construction. If an excess or shortage of earth is encountered, the Contractor shall confirm with the Owner and Engineer the requirements for stockpiling, removal or importing of earth.

B. Minor adjustments to the grades may be required to earthwork balances when minor excess material or shortages are encountered. It is recognized by the parties hereto that the calculations of the Engineer in determining earthwork quantities shall be accomplished in accordance with the American Society of Civil Engineers Standards for such calculations. Further, that these calculations are subject to the interpretations of soil borings as the physical limits of the various soil types, the allowable variation in finish grade and compaction permitted the contractor, and that all of these parameters may cause either an excess or shortage of actual earthwork materials to complete the project. If such an actual minor excess or shortage of materials occurs, the contractor shall contact the Engineer to determine if adjustment can be made to correct the imbalance of earth.

9. TESTING

A. Contractor shall hire at Contractor's expense an independent soil testing service to assure soil compaction with scope of testing to be approved by the Engineer. Copies of test results shall be submitted to the Engineer.

SANITARY SEWER SYSTEMS

1. SCOPE OF WORK

A. The work under this section includes all sanitary sewers, manholes, cleanouts and related items including excavating and backfilling, necessary to complete the work shown in the drawings, starting five feet outside the building walls. The ends of sewers shall be tightly plugged or capped at the terminal points, adjacent to buildings, through the exterior walls of the building drain as specified in the plumbing and architectural drawings. One set of approved plans shall be on the job site at all times.

2. MATERIALS

A. Polyvinyl Chloride Pipe (PVC)

1. 6"-15" PVC pipe shall be SDR 35 and conform to ASTM D3034, with a minimum classification of 12454 or 12364. Greater than 15" PVC pipe shall conform to ASTM F679, with a minimum cell classification of 12454-C.

2. All fittings and joints shall be compression type flexible gasketed joints, and manufactured and installed in accordance with the pipe manufacturer's specifications. No solvent cement joints shall be allowed.

B. Ductile Iron Pipe

1. Ductile iron (DI) pipe must meet ASTM A-746 or AWWA C151 with exterior asphaltic coating per AWWA C151 and interior asphaltic coating meeting AWWA C151 or polyethylene lining complying with ASTM 1-1248 of nominal 40 mil thickness. Thickness design must be in accordance with AWWA C150.

2. Joint on DI pipe must be the integral bell type gasketed joint meeting AWWA C111 mechanical joint (MJ) meeting AWWA C111, or ANSI 125 lb. flanged joint. Accessories for mechanical and flanged joints must be alloy steel. T-head bolt and hex nut of Coarse Thread Series Class 2A (External) and Class 2B (Internal) per ANSI B1.1.

C. Manholes

1. Precast reinforced concrete manhole sections and steps and related items shall conform to ASTM C-478 latest revision. Exterior of manhole shall be waterproofed with Bitisatic material.

2. Castings shall be of uniform quality, free from blow holes, porosity, hard spots, shrinkage distortion or other defects. They shall be smooth and well-cleaned by shot-blasting or by some other approved method. They shall be coated with asphalt paint which shall result in a smooth coating.

3. Joints - Manhole sections shall be joined with a nominal 1/2" size butyl rubber rubber base gasket material, conforming to AASHTO M-198 and Federal Specification SS-S-210a. Joint conforms to ASTM C-443.

4. Manholes shall include steps. Manhole steps shall be polypropylene coated steel reinforcing or an approved non-corrosive fiberglass material. The polymer polypropylene shall meet the requirements of ASTM D-4101 with deformed 3/8" dia. or larger reinforcing steel conforming to ASTM A-615, Grade 60. Steps shall be a maximum of 18" from top, 24" from bottom and 16" spacing between.

5. Manholes shall be bedded on a granular foundation. The granular foundation shall be compacted with vibratory tamps.

3. APPLICATION

A. Permits and Codes - The intent of this section of the specifications is that the contractor's bid on the work covered herein shall be based upon the drawings and specifications but that the work shall comply with all applicable codes and regulations as amended by any laws. Contractor shall furnish all bonds necessary to get permits for cuts and connections to existing sewers.

The Contractor shall be responsible for obtaining or verifying all permits or portions of this project prior to starting construction. The Contractor shall notify the local or county inspector or utility superintendent 48 hours prior to commencement of sanitary construction.

B. Local Standards - The term "local standards" as used herein means the standards of design and construction of the respective municipal department or utility company.

C. Existing Improvements - Maintain in operating condition all active utilities, sewers and other drains encountered in the sewer installation. Repair to the satisfaction of the owner any damage to existing active improvements.

D. Workmanship - To conform to all local, state and national codes and to be approved by all local and state agencies having jurisdiction.

E. Trenching - Lay all pipe in open trenches, except when the local authority gives written permission for tunneling, or backing of pipe. Open trench sufficiently ahead of pipe-laying to reveal any obstructions. The width of the trench shall be the inside pipe diameter plus 4 inches for 12 inches above the pipe. Sheet and brace the trench as necessary to protect workmen and adjacent structures. All trenching to comply with Occupational Safety and Health Administration Standards. Open trenches shall be properly protected and/or barricaded when left unattended. Keep trenches free from water while construction is in progress. Under no circumstances shall pipe or appurtenances be laid in standing water. Conduct the discharge from trench dewatering to drains or natural drainage channels.

F. Special Supports - Whenever, in the opinion of the Engineer, the soil at or below the pipe grade is unsuitable for supporting sewers and appurtenances specified in this section, such special support, in addition to those shown or specified, shall be provided as the Engineer may direct, and the contract will be adjusted.

G. Backfilling - For a depth of at least 12 inches above the top of the pipe, backfill with 12" of crushed stone or crushed rock aggregate. Compact this backfill thoroughly, taking care not to disturb the pipe. For the remaining trench depth, backfill with earth or granular material containing stones or rocks not over 4 inches. Backfill under and within 5' of walks, parking areas, driveways and streets shall be granular material only - thoroughly compacted, by approved methods.

H. Flow Channels - The flow channels within manholes shall be an integral part of the precast base. The channels shall be shaped and formed for a clean transition with proper hydraulics to allow the smooth conveyance of flow through the manhole. The bench wall shall be formed to the crown of the inlet and outlet pipes to form a U shaped channel. The bench wall shall slope back from the crown at 1/2 inch per foot to the manhole wall. No brick, rock or sand fillers will be allowed.

I. Infiltration - The contractor shall furnish necessary equipment to test sewers for infiltration. Infiltration rates shall not exceed the Local Standards. All sanitary sewer lines upon completion will be required to pass a low pressure air test, unless otherwise directed by the City Engineer. Said test shall be conducted according to NCEI Standard Method, and shall be witnessed by an inspector authorized by the City Engineer. Infiltration under test shall not exceed 100 gallons per inch of inside diameter of sewer pipe per mile of sewer in 24 hours and it shall include all appurtenances within the section being tested such as manholes, house connections, etc.

J. Flushing Sewers - Flush all sanitary sewers except building sewers with water to obtain free flow through each line. Remove all silt and trash from appurtenances just prior to acceptance of work.

K. Plastic Sewer Pipe Installation - Plastic sewer pipe shall be installed in accordance with ASTM D2321 per latest revision and plastic pipe shall exceed on 11 point mandrel test deflection of 5%. All sewer mains shall be lapped at the time the mandrel test is conducted. All mains shall be installed in accordance with the local governing jurisdiction.

L. Storm Water Connections - No roof drains, footing drains and/or surface water drains may be connected to the sanitary sewer systems, including temporary connections during construction.

M. Waterline Crossing - Water and sewer line crossings and separations shall be in accordance with Ten States Standards and local and state codes. Waterlines and sanitary sewers shall maintain a minimum of 10 foot horizontal separation and a minimum of 18 inches vertical separation at crossings. Otherwise, sanitary sewer within 10 feet of waterlines shall be constructed of water grade ductile iron pipe with mechanical joints and fittings. One length of sewer pipe should be centered at the waterline crossing so that no joint is closer than 10 feet to the waterline.

N. Utilities - It shall be the responsibility of each contractor to verify all existing utilities and conditions pertaining to his phase of the work. It shall also be the contractor's responsibility to contact the owners of the various utilities before work is started. The contractor shall notify in writing the owners and the engineer of any changes, errors or omissions found on these plans or in the field before work is started or resumed.

O. Service Laterals - Individual building service lines shall be 6 inches in diameter and of material equal to that specified in 2A of this section. Service lines shall be connected to the main sewer by a wye at locations generally shown within these plans. Service lines shall be extended to a distance of 5 feet beyond the right-of-way line and within 5 feet of the existing ground surface. The ends shall be plugged and sealed with a water tight cap. Sewer service lines shall be marked with 2 1/4" painted green and extending from the lateral end to 3' above grade.

P. New Sanitary Sewer Main Construction - Contractor shall record length and dimensions of each service line stub from nearest downstream manhole measure along the sanitary sewer main. The locations of manholes and service lines along with any other construction changes are to be incorporated on the original construction drawings as as-built locations and submitted to the Engineer as soon after completion of construction as possible, not to exceed 30 days.

Q. Field Testing - All manholes must be vacuum tested after installation, repair or modification in accordance with ASTM 1244-93 Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test.

STORM SEWER SYSTEMS

1. SCOPE OF WORK

The work under this section includes all storm sewers, storm water inlets, and related items, including excavating and backfilling, necessary to complete the work shown on the drawings. All work and materials shall meet local specifications.

2. MATERIALS

A. Storm Sewers

1. Reinforced concrete sewer pipe shall conform to ASTM C-76 latest revision, with joints conforming to ASTM C-443 latest revision when storm pipe is located within public right-of-way.

2. Aluminumized type 2 corrugated steel pipe shall be manufactured in accordance with AASHTO M36 (Type I with 2 2/3" x 1/2" corrugations for 12" and 15" diameters; Type II with 3/4" x 3/4" x 7 1/2" corrugations for 18" diameter and larger). The pipe shall be formed from an aluminumized steel type 2 coil that conforms to AASHTO M274. The minimum gage thickness of the pipe shall be as follows:

Table with 2 columns: Diameter, Gage. Rows: 12" - 36", 42" - 48", 54" - 84".

3. High density polyethylene pipe shall perform to AASHTO M252 and M294 type B specifications, latest revision, and shall have material specifications conforming to ASTM D1248 or D3350, latest revision.

B. Manholes

1. Precast reinforced concrete manhole sections and steps shall conform to ASTM C-478 latest revision.

2. Casting shall be of uniform quality, free from blow holes, porosity, hard spots, shrinkage distortion or other defects. They shall be smooth and well cleaned by shot-blasting or by some other approved method. They shall be coated with asphalt paint, which shall result in a smooth coating, tough and tenacious when cold, not tacky or brittle. They shall be gray iron meeting ASTM A-48 latest revision.

3. Joints - Manhole sections shall be jointed with rubber type gaskets. The rubber type gaskets shall meet ASTM C-443 latest revision. When manhole and storm pipe are continuously in water.

4. Shop Drawings - Contractor to submit storm sewer structure precast drawings to engineer for approval prior to installation.

C. SUBDRAINS

1. Perforated plastic pipe subdrains shall conform to ASTM F-405, AASHTO M-252 (4" to 10" pipe).

3. APPLICATION

A. Permits and Codes - The intent of this section of the specifications is that the contractor's bid on the work covered herein shall be based upon the drawings and specifications but that the work shall comply with all applicable codes and regulations as amended by any laws. Contractor shall furnish all bonds necessary to get permits for cuts and connections to existing sewers.

B. Local Standards - The term "Local Standards" as used herein means the standards of design and construction of the respective municipal department or utility company.

C. Existing Improvements - Maintain in operating condition all active utilities, sewers and other drains encountered in the sewer installation. Repair to the satisfaction of the owner any damage to existing active improvements.

D. Workmanship - To conform to all local, state and national codes and to be approved by all local and state agencies having jurisdiction.

E. Trenching - Lay all pipe in open trenches, except when the local authority gives written permission for tunneling. Open trench sufficiently ahead of pipe laying to reveal any obstructions. The width of the trench shall be the inside pipe diameter plus 24 inches for 12 inches above the pipe. Sheet and brace trench as necessary to protect workmen and adjacent structures. All trenching to comply with Occupational Safety and Health Administration Standards. Keep trenches free from water while construction is in progress. Under no circumstances shall pipe or appurtenances be laid in standing water. Conduct the discharge from trench dewatering to drains or natural drainage channels.

F. Special Supports - Whenever in the opinion of the Engineer, the soil at or below the pipe grade is unsuitable for supporting sewers and appurtenances specified in this section, such special support, in addition to those shown or specified, shall be provided as the Engineer may direct, and the contract will be adjusted.

G. Backfilling - For a depth of at least 12 inches above the top of the pipe, backfill with earth or granular material free from large stones, rock fragments, roots or sod. Tamp this backfill thoroughly, taking care not to disturb the pipe. For the remaining trench depth, backfill with earth or granular material containing stones or rocks not larger than 4 inches. Backfill under and within 5' of paved areas shall be granular material only and shall conform to local standards - thoroughly compacted by approved methods.

H. Manhole Inverts - Construct manhole flow channels of concrete sewer pipe or brick, smoothly finished and of semicircular section conforming to the inside diameter of the connecting sewers. Make changes in size or grade gradually and changes in direction by true curves. Provide such channels for all connecting sewers at each manhole.

I. Subdrains - All subdrains shall be of the size shown on the plans and shall be constructed to the grades shown. All drains constructed off-site as part of the outlet drain will be located as shown.

J. Utilities - It shall be the responsibility of each contractor to verify all existing utilities and conditions pertaining to his phase of the work. It shall also be the contractor's responsibility to contact the owners of the various utilities before work is started. The contractor shall notify in writing the owners or the engineer of any changes, errors or omissions found on these plans or in the field before work is started or resumed.

STREETS AND PAVING

1. SCOPE OF WORK

A. The work required under this section includes all concrete and bituminous paving and related items necessary to complete the work indicated on drawings and described in the specifications, including but not limited to:

All streets, parking areas in contract limits Curbs and gutters. Sidewalks and concrete slabs, exterior steps.

2. MATERIALS

A. Concrete - Concrete shall be ready-mixed concrete and shall be a mix of proportioned fine and coarse aggregates with Portland cement and water. Minimum cement content shall be 6 bags per cubic yard of concrete and maximum water content shall be 5.5 U.S. gallons per sack of cement, including moisture in the aggregate. Slump for normal weight concrete shall be a maximum of 4 inches and a minimum of 2 inches. The slump of machine place concrete shall be no less than 1-1/4 inches nor more than 3 inches. Standard test ASTM C-143 shall be used to measure slump. Compressive strength of concrete at 28 days shall be 4000 psi. All exterior concrete shall have air entrainment of 5% to 8% by volume per ASTM C-260. Retempering delivered concrete will not be allowed. Concrete will be composed of:

- 1. Portland cement - Conforming to ASTM C-150, Type IA or Type IIA.
2. Aggregates: Conforming to ASTM C-33
3. Water - Shall be clear and free from injurious amounts of oils, acids, alkalis, organic materials or other deleterious substances.

B. Welded Steel Wire Fabric - Where required for concrete reinforcement shall conform to ASTM A185.

C. Premolded Joint Filler - Shall be of non-extruding type meeting ASTM D-544 except that premolded joint filler used in concrete work during construction may be either non-extruding or resilient.

D. Bituminous Pavement Materials - All materials proposed for the construction of bituminous pavements shall comply with the Indiana Department of Transportation specifications, per latest revision.

E. Compacted Aggregate Subbase: Shall be crushed stone or gravel. Crushed gravel shall be a minimum of 35% crushed material. Chart shall be limited to a maximum of 8% of the total. Material shall be free from an excess of flat, elongated, thinly laminated, soft or disintegrated pieces, and shall be free from fragments coated with dirt. Compacted aggregate shall be graded as follows:

Table with 2 columns: Sieve Size, % Passing. Rows: 1-1/2", 3/4", 1/2", #8, #30, #200.

3. APPLICATION

A. Grading - Do any necessary grading in addition to that performed in accordance with Earthwork Section, to bring subgrades, after final soil compaction, to the required grades and sections for site improvement.

B. Preparation of Subgrade - Remove spongy and otherwise unsuitable material and replace with stable material. No traffic will be allowed on prepared subgrade prior to paving.

C. Compaction of Subgrade - The final 12 inches below the subgrade shall be compacted to at least 100% of the maximum dry density as determined by the provisions of AASHTO T-99. Water shall be prevented from standing on the compacted subgrade.

D. Compacted Aggregate Subbase - The thickness shown on the drawings is the minimum thickness of the fully compacted subbase. Compaction shall be accomplished by rolling with a smooth wheeled roller weighing 8 to 10 tons. Compact to 95% standard proctor density (ASTM D698).

E. Bituminous Pavement - Hot asphalt concrete pavement shall be as specified in Section 400-410 of the Indiana Department of Transportation Specifications latest revisions. Paving will not be permitted during unfavorable weather or when the temperature is not in compliance with section 401.03 of the INDOT Specifications.

F. Utility Structures - Check for correct elevation of all manhole covers, valve boxes and similar structures located within areas to be paved, and make, or have made, any necessary adjustments in such structures.

G. Placing Concrete

1. Subgrade - Place concrete only on a moist, compacted subgrade or base free from loose material. Place no concrete on a muddy or frozen subgrade.

2. Forms - All forms shall be free from warp, tight enough to prevent leakage and substantial enough to maintain their shape and position without sagging, settling, or shifting when concrete is placed. Forms shall be clean and coated with form release before placement of concrete.

3. Placing Concrete - Concrete shall be deposited so as to require as little retarding as practicable. When concrete is to be placed at an atmospheric temperature of 35 degrees F. or less, paragraph 702.10 of the Indiana Department of Transportation Specifications latest revision shall be followed.

REVISION RECORD table with columns: REV, DATE, DESCRIPTION, DES BY, APP BY.

H. Concrete Curb

1. Expansion Joints - Shall be 1/2 inch thick premolded at ends of all returns and at a maximum spacing of 100 feet.

2. Concrete Joints - Unless otherwise provided, contraction joints shall be sawed joints spaced 20 feet on center.

3. Finish - Tamp and screed concrete as soon as placed, and fill any honey combed places. Finish square corners to 1/4" radius and other corners to radii shown.

I. Concrete Walks and Exterior Steps

1. Slopes - Provide 1/4 inch per foot cross slope. Make adjustments in slopes at walk intersections as necessary to provide proper drainage.

2. Dimensions - Walks and steps shall be one course construction and of widths and details shown on the drawings.

3. Finish - Screed concrete and trowel with a steel trowel to a hard dense surface after surface water has disappeared. Apply medium broom finish and scribe control joints at 5 foot spacing. Provide 1/2" expansion joints where sidewalks intersect, and at a maximum spacing of 48 feet between expansion joints.

J. Curing Concrete - Except as otherwise specified, cure all concrete by one of the methods described in Section 501.17 of the Indiana Department of Transportation Specifications, latest revision.

UTILITIES

1. WATER

A. All water mains shall be installed and tested in accordance with local standards and requirements.

2. GAS

Gas mains shown in the plans are for information only. The local gas utility is responsible for final design and installation of new gas mains.

3. OTHER UTILITIES

Electric, Telephone, and CATV lines shown in the plans are for information only. The local utility companies are responsible for final design and installation of their respective utility lines.

4. IDENTIFICATION / LOCATION

Furnish and install "Identification Tape" and "Location Wire" over the centerline of buried utilities.

A. Identification Tape

1. Inert Polyethylene with minimum thickness of 4-mils and shall have a 1-mil thick metallic foil core. Tape width shall be a minimum of 3-inches and a maximum of 6-inches. Imprinted text shall be "Caution Caution - Utility Buried Below" and should repeat itself once every 2 feet, for the entire pipe length. Install approximately 2 feet below final grade over centerline of pipe.

2. "Terra Tape" as manufactured by Reef Industries, Inc., Houston, TX, or approved equal.

B. Location Wire

1. Location wire shall be a 10 gauge insulated, solid copper wire. The wire shall be contiguous with no fabricated, or field constructed connections interrupting the wires continuity from end to end of pipe.

2. Location wire shall be taped to the top of the buried pipe.

PER INDOT SPECIFICATION SECTION 215-"CHEMICAL MODIFICATION OF SOILS":

- 215.01 - DESCRIPTION
THIS WORK SHALL CONSIST OF THE MODIFICATION OF SOILS BY UNIFORMLY MIXING DRY PORTLAND CEMENT, FLY ASH, LIME, OR A COMBINATION OF THE MATERIALS WITH SOIL TO AID IN ACHIEVING THE WORKABILITY OF SOILS HAVING AN EXCESSIVE MOISTURE CONTENT.
215.02 - MATERIALS
215.03 - TESTING AND MIX DESIGN
215.04 - STORAGE AND HANDLING
215.05 - WEATHER LIMITATIONS
215.06 - PREPARATION OF SOILS
215.07 - SPREADING OF CHEMICAL MODIFIERS
215.08 - MIXING
215.09 - COMPACTION
215.10 - MEASUREMENT
215.11 - BASIS OF PAYMENT

SECTION 913 - "SOIL TREATMENT MATERIALS":
913.01 - WATER
913.02 - CALCIUM CHLORIDE
913.03 - SODIUM CHLORIDE
913.04 - LIME

EXTERIOR STEPS/HANDRAILS PER ADAAG 4.9

4.9.2 Treads and Risers. On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. Stair treads shall be no less than 11 (280 mm) wide, measured from riser to riser. Open risers are not permitted.

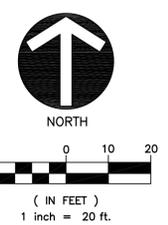
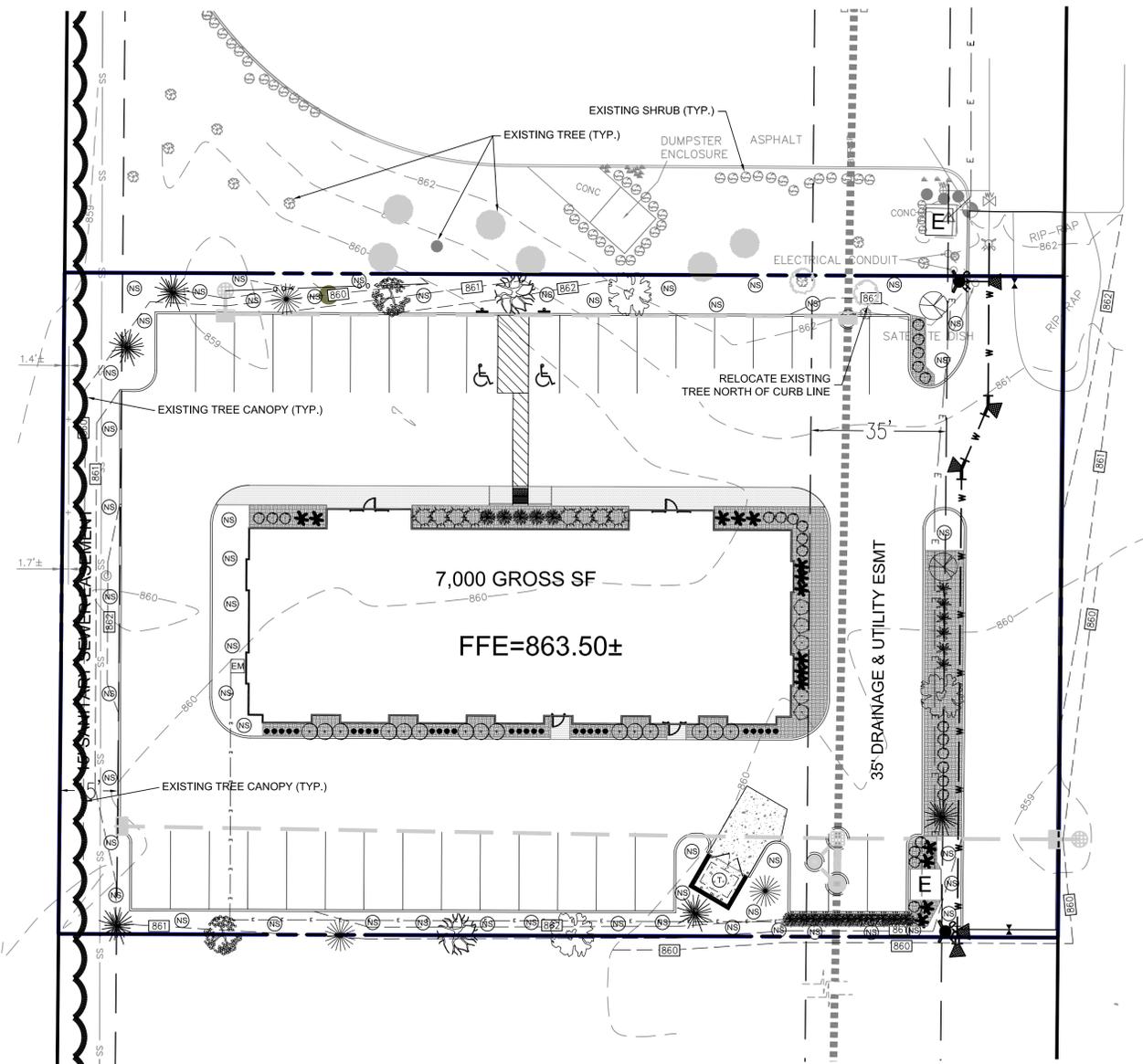
4.9.3 Nosings. The undersides of nosings shall not be abrupt. The radius of curvature at the leading edge of the tread shall be no greater than 1/2 (13 mm). Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal. Nosings shall project no more than 1-1/2 (38 mm).

4.9.4 Handrails. Stairways shall have handrails at both sides of all stairs. Handrails shall comply with 4.26 and shall have the following features:
(1) Handrails shall be continuous along both sides of stairs. The inside handrail on switchback or dogleg stairs shall always be continuous.
(2) If handrails are not continuous, they shall extend at least 12 (305 mm) beyond the top riser and at least 12 (305 mm) plus the width of one tread beyond the bottom riser. At the top, the extension shall be parallel with the floor or ground surface. At the bottom, the handrail shall continue to slope for a distance of the width of one tread from the bottom riser; the remainder of the extension shall be horizontal. Handrail extensions shall comply with 4.4.
(3) The clear space between handrails and wall shall be 1-1/2 (38 mm).
(4) Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.
(5) Top of handrail gripping surface shall be mounted between 34 (865 mm) and 965 (mm) above stair nosings.
(6) Ends of handrails shall be either rounded or returned smoothly to floor, wall or post.
(7) Handrails shall not rotate within their fittings.

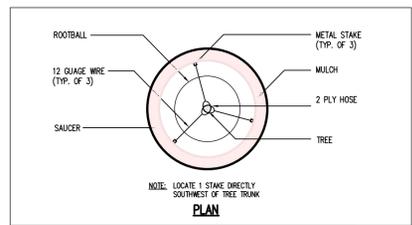
CURRAN ARCHITECTURE
802 MULBERRY STREET, STE B-1
NOBLESVILLE, INDIANA 46060
CIVIL SITE GROUP, INC.
643 Massachusetts Avenue, Suite 200
Indianapolis, Indiana 46204
Ph: (317) 423-3305 Fax: (317) 423-3306

INDIANAPOLIS REGISTERED PROFESSIONAL ENGINEER
BRUCE S. CROSS
NO. PE10910647
STATE OF INDIANA
DATE: 06/29/2010

DWN BY: BSC
CHKD. BY: EAG
SCALE: 1" = 20'
DATE: 06/29/10



REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY



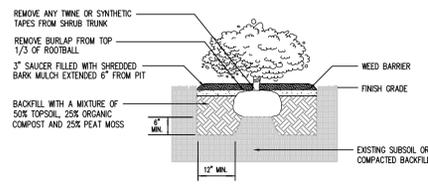
**LEGEND:**  
 MULCH BED

**PLAN NOTES:**  
 (1) TRASH ENCLOSURE - SEE ARCHITECTURAL PLAN FOR DETAIL  
 (NS) NURSERY SOD

**TREE STAKING DETAIL**  
 SCALE: NOT TO SCALE

**PLANTING SCHEDULE**

SYMBOL	Quantity	Species
	3	NORWAY SPRUCE - 6' HEIGHT
	5	AUSTRIAN PINE - 6' HEIGHT
	2	GLEDITSIA TRICANTHOS var. INERMIS IMPCOLE - "IMPERIAL HONEY LOCUST" MIN 2" CAL.
	2	ACER RUBRUM "OCTOBER GLORY" (Min. 2" Caliper 12" Above F.G. & 8' Height)
	3	Tilia cordata "Chancellor" Littleleaf Linden (Min. 2" Caliper 12" Above F.G. & 8' Height)
	2	"JAPANESE LILAC TREE" - 2" Caliper 6" Above F.G.
	6	Myrica pennsylvanica Northern Bayberry (Min. 18" Height)
	15	Physocarpus capitus Diabolo Ninebark (Min. 18" Height)
	5	Viburnum rhytidophyllum Leatherleaf Viburnum (Min. 18" Height)
	8	ELYONYMUS ALATUS "COMPACTUS" - "BURNING BUSH-COMPACTA" #2 CONT.
	16	"GREEN VELVET BOXWOOD" - 18" HIGH, 3' O.C. - TYP.
	15	"DWARF FOUNTAIN GRASS"
	24	JUNIPERUS CHINENSIS - "SEA GREEN" 18" HIGH, 3' O.C. - TYP.
	28	"HAPPY RETURNS DAY LILY"



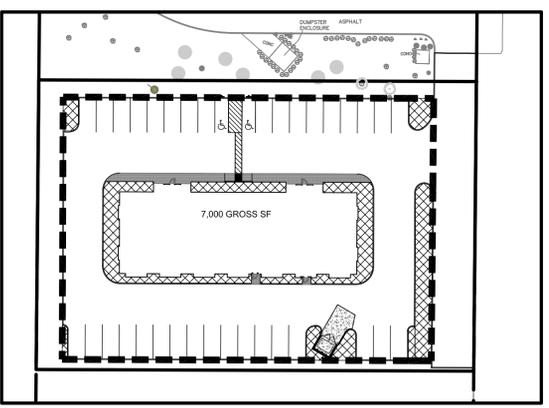
**SHRUB DETAIL**  
 SCALE: NOT TO SCALE

**LEGEND:**  
 LANDSCAPE AREA  
 PARKING LOT PERIMETER = 33,581 SF

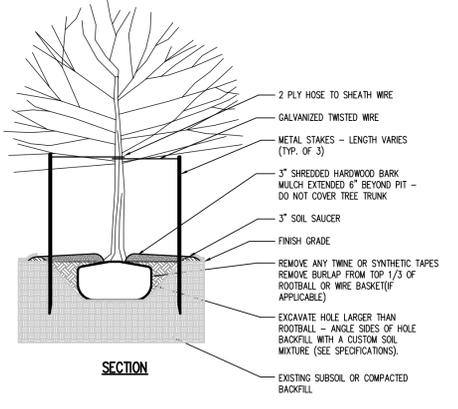
7.5% INTERIOR REQUIRED:  
 33,581 \* 0.075 = 2,519 SF  
 LANDSCAPE AREA PROVIDED: 4,071 SF

**LANDSCAPE NOTES:**  
 All species of plant materials and substitutions thereof are subject to acceptance by the City of Westfield Community Development Department and approval of the Owner(s) or a representative of the Owner(s).  
 All plant materials are to be warranted for a period of no less than one year from final acceptance by the Owner(s) or a representative of the Owner(s).  
 All plant material is to be planted in a manner that ensures its survival. Any environmental or other type of situation that is noted by the landscape Contractor that could potentially injure the plant or shorten its longevity is to be made known to the Owner(s) and potential substitutions or corrections to the situation can be made at no expense to the Contractor.  
 All materials falling the one year warranty period are to be replaced at the expense of the Landscape Contractor.  
 Any deviation from responsible landscape practices and the City of Westfield Ordinances will result in the immediate termination of the Landscape Contract and the Contractor will pay all costs associated with the corrections.  
 All plant material is to come from respectable sources within 100 miles of the site on which it is being installed. If no source for a plant species or acceptable substitute is available within this area, the project Landscape Architect/Engineer is to be notified immediately to make a determination of possible options.  
 All plant material is subject to approval by the project Landscape Architect/Engineer prior to installation and may be rejected for reasons of health, aesthetics, size or other reasonable causes.  
 The Landscape Contractor is responsible for the timely installation of all material in his contract. Should there be a delay due to weather or other unforeseeable, natural circumstances, the timeline will be adjusted.  
 IRRIGATION CONTRACTOR IS RESPONSIBLE TO SUPPLY WATER METER PIT, SERVICE TAPS AT PUBLIC MAIN, AND ALL APPURTENANCES REQUIRED BY THE WATER SERVICE PROVIDER.

**SPECIES NOTE**  
 THE SPECIES OF THE TREES AND SHRUBS SHOWN ON THIS LANDSCAPE PLAN ARE SUBJECT TO CHANGE BASED ON SEASONAL AVAILABILITY. ALL SUBSTITUTIONS WILL BE OF SPECIES APPROVED BY THE CITY OF WESTFIELD.



**PARKING LOT LANDSCAPING AREA**  
 SCALE: 1"=50'



**DECIDUOUS TREE DETAIL**  
 SCALE: NOT TO SCALE

**TOPOGRAPHIC & BOUNDARY NOTE**

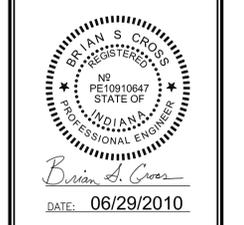
ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN ALTA/ACSM SURVEY DATED 06/03/2010 (JOB #: IMCUNWESTFIELD) PREPARED BY T. WRIGHT CORPORATION; & TOPOGRAPHIC SURVEY, DATED 05/17/2010 (JOB #: B33045) PREPARED BY MILLER SURVEYING, INC. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

**ENGINEER:**  
 CIVIL SITE GROUP, INC.  
 643 MASSACHUSETTS AVENUE  
 SUITE 200  
 INDIANAPOLIS, INDIANA 46204  
 (317) 423-3305

**SURVEYOR:**  
 MILLER SURVEYING, INC.  
 948 CONNER STREET  
 NOBLESVILLE, INDIANA 46060  
 (317) 773-2644



**CURRAN ARCHITECTURE**  
 802 MULBERRY STREET, STE B-1  
 NOBLESVILLE, INDIANA 46060  
**CIVIL SITE GROUP, INC.**  
 643 Massachusetts Avenue, Suite 200  
 Indianapolis, Indiana 46204  
 Ph: (317) 423-3305 Fax: (317) 423-3306



DWN BY: BSC  
 CHKD. BY: EAG  
 SCALE: 1" = 20'  
 DATE: 06/29/10

**FRIEDMAN PROFESSIONAL OFFICE**  
 4011 EAST SR 32 (APPROX.)  
 NOBLESVILLE, INDIANA 46062  
**LANDSCAPE PLAN**

PROJECT NUMBER  
**CAX.003**  
 DRAWING NUMBER  
**L1.0**  
 SHEET 13 OF 13

**LANDSCAPE NOTE**  
 ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE CITY OF WESTFIELD ZONING ORDINANCE. THE MINIMUM LANDSCAPING IMPROVEMENTS ARE SUBJECT TO FINAL INSPECTION.