CITY OF BLOOMINGTON

BOARD OF ZONING APPEALS

April 27, 2017 @ 5:30 p.m.
COUNCIL CHAMBERS #115
CITY HALL

CITY OF BLOOMINGTON
BOARD OF ZONING APPEALS
April 27, 2017 at 5:30 p.m. ***Council Chambers - Room #115**

ROLL CALL

MINUTES TO BE APPROVED: 3/23/17

REPORTS, RESOLUTIONS, AND COMMUNICATIONS: None at this time.

PETITIONS CONTINUED TO: 5/18/17

- UV-04-17 **Lewis Development Company**
  200 S. Washington St., 114 E. 4th St., 121 E. 3rd St.
  Request: Use variance to allow the use "drive through" in the Commercial Downtown (CD) zoning district.
  Case Manager: Jackie Scanlan

PETITION WITHDRAWN:

- V-08-17 **Lewis Development Company**
  200 S. Washington St., 114 E. 4th St., 121 E. 3rd St.
  Request: Variance from development standards for the entrance and drive from 3rd Street into a parking garage.
  Case Manager: Jackie Scanlan

PETITIONS:

- UV-40-16 **Naples, LLC (Doug Duncan)**
  1610 N. Kinser Pike
  Request: Use variance to allow 1st floor residential uses in a Commercial General (CG) zoning district.
  Case Manager: Amelia Lewis

BLOOMINGTON BOARD OF ZONING APPEALS **CASE #: SP/UV-40-16**
STAFF REPORT **DATE: April 27, 2016**
Location: 1610 N Kinser Pike

PETITIONER: **Doug Duncan, Naples LLC**
P.O. Box 40, Bloomington

CONSULTANT: **Bynum Fanyo and Associates Inc.**
528 N Walnut St., Bloomington

REQUEST: The petitioner is requesting a use variance to allow first floor residential uses in a Commercial General (CG) zoning district.

SITE INFORMATION:

Lot Area:	1.82 Acres
Current Zoning:	Commercial General (CG)
GPP Designation:	Community Activity Center
Existing Land Use:	Vacant
Proposed Land Use:	Multi-Family Residential
Surrounding Uses:	North – Commercial South – Single Family Residential East – Office West – Multi-Family Residential

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REPORT: This 1.82 acre property is located at the southeast corner of N. Kinser Pike and W. Gourley Pike and is zoned Commercial General (CG). This property is currently vacant. The property is surrounded by a mix of residential and commercial uses. There are hotels to the north, multi-family use to the west, single family to the south, and an office building to the east. The petitioner proposes to construct a new, 3-story, 39 unit multi-family building on the site.

The building would include 39 one bedroom units. The petitioner has committed to providing 6 affordable units (petitioner commitment is attached). Vehicular access would be gained by a drive-cut off of W. Gourley Pike, to the east of the proposed building. The southern portion of the site contains steep slopes and a small creek.

The petitioner is requesting a use variance to allow for residential uses on the ground floor, which is not permitted in the CG zoning district. The site plan was approved by Plan Commission on April 17, 2017. Plan Commission found that the use variance is consistent with the Growth Policies Plan (GPP) and made a positive recommendation to the Board of Zoning Appeals (BZA).

GROWTH POLICIES PLAN: The Growth Policies Plan (GPP) designates this property as Community Activity Center (CAC). The Community Activity Center areas are primarily commercial, however residential units may also be developed. “The CAC will incorporate a balance of land uses to take advantage of the proximity to goods and services.” The incorporation of additional residential use at this site will not create an

imbalance in the immediate area's land uses. The proposed development fits in with the existing land uses including the existing multi-family development to the west and serves as a transition between the commercial activity to the north and the single family residential to the south. Site design standards should "be integrated into existing development, and CAC design should be sensitive to the surrounding context." The architecture is not out of character for the area and the site features pedestrian connections that enable residents to access the adjacent commercial land uses and neighborhood.

Land use policies for this area state that:

- Buildings should be developed with minimal street setbacks to increase pedestrian and transit accessibility.
- Parking should be located and designed with an emphasis on minimizing pedestrian obstacles to accessing businesses.
- Street cuts should be limited as much as possible to reduce interruptions of the streetscape.
- Residential units may also be developed as a component of the CAC, and would be most appropriate when uses are arranged as a central node rather than along a corridor.
- A Community Activity Center should be located at an intersection which is made up of designated Collector or Arterial streets, in order to provide automobile access without overwhelming the pedestrian aspects of the development.

The Plan Commission found that the proposal is consistent with the policy goals for Community Activity Centers. The proposed building is pushed back from the road, as the required right of way is quite large, however there is room for street trees along a majority of the site as well as continuous sidewalk. Parking is located behind the building and street cut access is minimal.

20.09.140 CRITERIA AND FINDINGS FOR USE VARIANCE:

Findings of Fact: Pursuant to IC 36-7-4-918.4. the Board of Zoning Appeals or the Hearing Officer may grant a variance from use if, after a public hearing, it makes findings of fact in writing, that:

(1) The approval will not be injurious to the public health, safety, morals, and general welfare of the community; and

Findings: The Department finds no injury with the use variance request for ground floor units. The site plan approved by the Planning Commission allows for street trees, landscaping, and a wide treeplot area. There is one proposed vehicular entrance off of Gourley Pike, limiting access off of Kinser.

(2) The use and value of the area adjacent to the property included in the variance will not be affected in a substantially adverse manner; and

Findings: The Department finds no adverse impacts associated with the proposed

use variance. There are several adjacent properties that have already been developed with commercial uses as well as single family and multifamily residential. This use variance is not out of character with the surrounding properties. The petition proposes to create pedestrian connections in a location that will positively affect adjoining properties.

(3) The need for the variance arises from some condition peculiar to the property involved; and

Findings: The Department finds peculiar condition in the fact that the southern portion of the lot is undevelopable due to environmental constraints. Applying the 75 foot riparian buffer and additional environmental constraints on the site, the developable area is small, preventing a larger mixed-use development that would likely support commercial use as a part of a mixed-use development. The proposed multi-family development provides a transition between highway commercial located to the north and existing residential to the south.

(4) The strict application of the terms of the Unified Development Ordinance will constitute an unnecessary hardship if applied to the property for which the variance is sought; and

Findings: The Planning and Transportation finds that the strict application of the Unified Development Ordinance will place an unnecessary hardship on the property by prohibiting ground floor residential units. This would require approximately 23,000 square feet of ground floor commercial space, where commercial may not be viable.

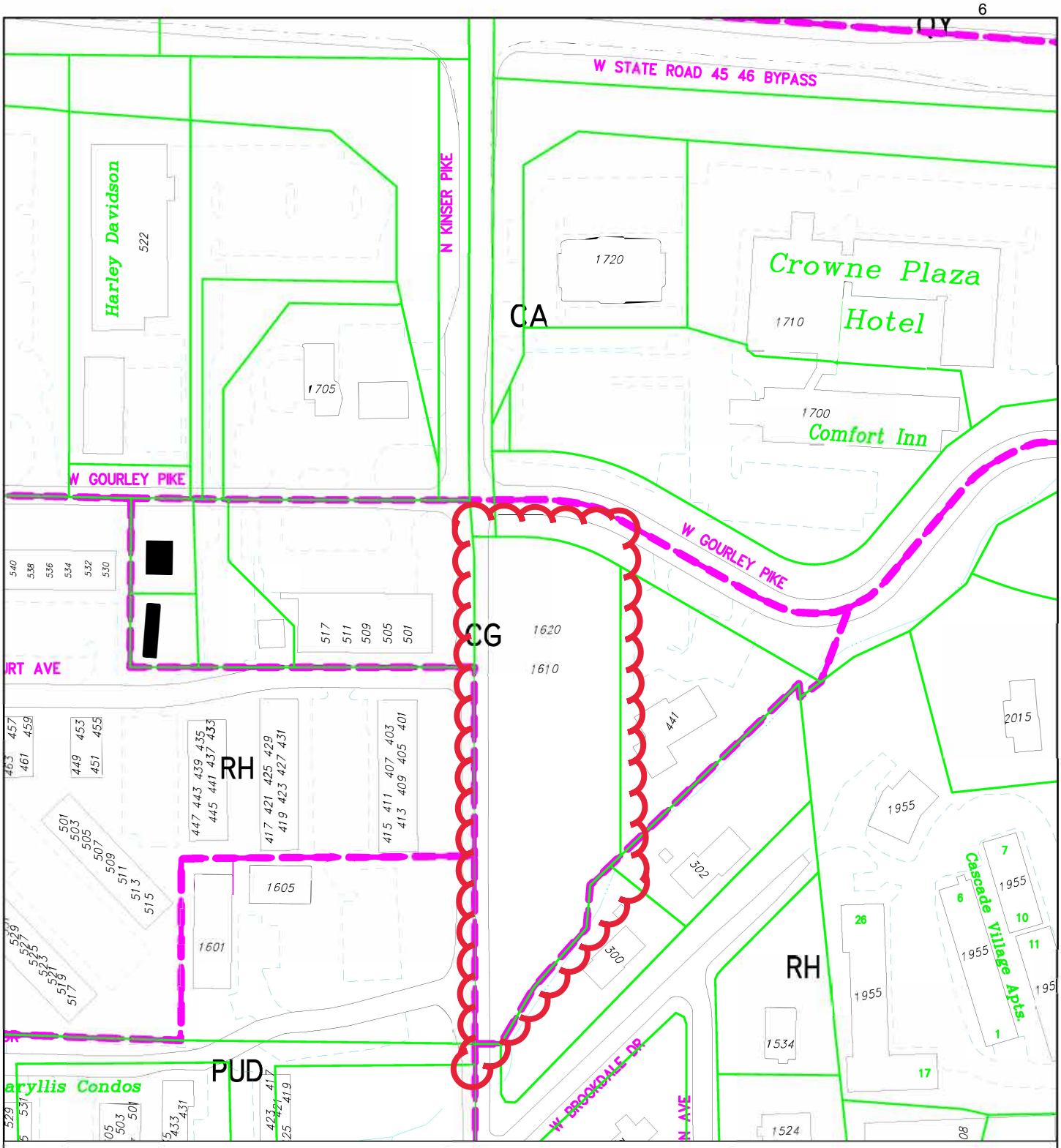
(5) The approval does not interfere substantially with the Growth Policies Plan.

Findings: The Plan Commission found that this proposal does not substantially interfere with the Growth Policies Plan and is consistent with the policy goals of Community Activity Centers including the development of residential uses. This proposal meets several goals of the Growth Policies Plan including the multi-story structure, minimal number of drivecuts, sensitive environmental design, and pedestrian orientated site and a balance of land uses.

CONCLUSION: The use variance is appropriate in the context of the existing Community Activity Center. The Plan Commission found that the proposed Use Variance does not substantially interfere with the GPP, is consistent with the district's intent and is compatible with the surrounding land uses.

RECOMMENDATION: The Planning and Transportation Department recommends approval of the use variance with the following condition:

1. All terms and conditions of the Plan Commission site plan review, SP/UV-41-16, are binding on this petition.



By: lewisa
12 Apr 17

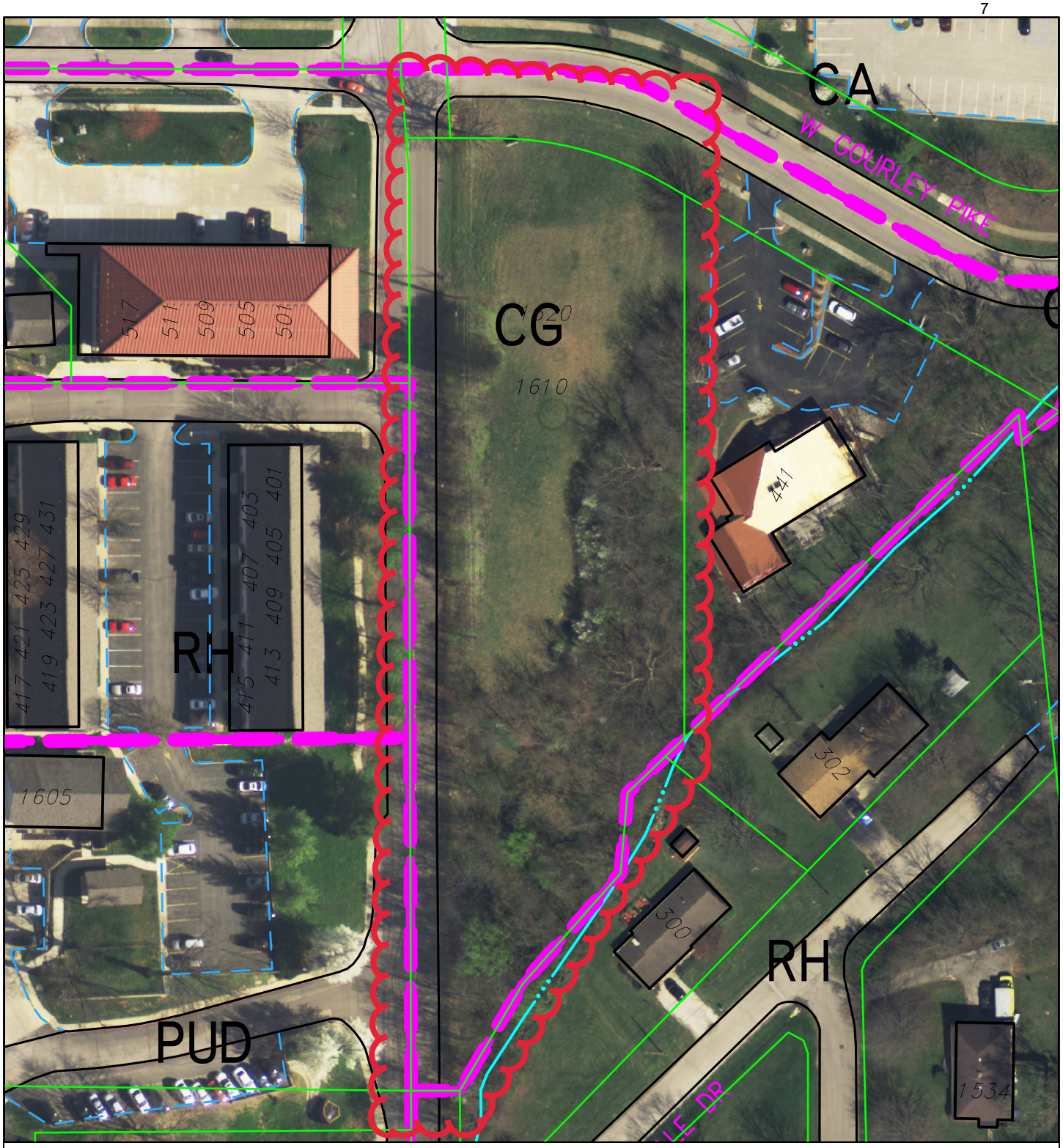
150 0 150 300 450

N

City of Bloomington
Planning & Transportation

Scale: 1" = 150'

For reference only; map information NOT warranted.



By: lewisa
12 Apr 17

80 0 80 160 240

N

City of Bloomington
Planning & Transportation

Scale: 1" = 80'

For reference only; map information NOT warranted.

BYNUM FANYO & ASSOCIATES, INC.

December 5, 2016
City of Bloomington Plan Commission
401 N. Morton Street
Bloomington, Indiana 47403

Re: SE corner of Kinser and Gourley Pike

Dear Plan Commission and Board of Zoning Appeals

Our client, Naples, LLC respectfully request site plan approval and a use variance to allow residential uses on the first floor in the CG zone. The property consists of 1.82 acres at the referenced intersection. In the past the property has had a single-family residence and out buildings. Before my clients purchased this property in 1994, it was owned by the previous owner of the property and building along our east property line. We have been working on developing this property since that time. The property is long and narrow with frontage along Kinser Pike which required a 40' future right of way with 15' building setback and Gourley Pike with a 25' right of way and 15' setback reducing the usable width. To the south is an intermittent stream with steep slopes and a wooded area.

Surrounding land uses consist of office to the east, motels and office uses to the north, commercial uses to the west, multi-family uses to the south west and residential uses to the south. We are proposing a three story 39 one bedroom unit building fronting on Kinser and Gourley Pike with parking east of the proposed building. We are proposing sidewalks along both street frontages, bike parking, and enclosed dumpster pad adjoining the parking area. Storm water quality and retention is being provided to the south of the proposed building. Due to the steep drop off along Kinser, a portion of this sidewalk will require the sidewalk to be along the edge of the roadway.

The property currently has 50% tree coverage and we are proposing to retain 70.6% of the tree cover along the east and south property lines. The proposed site design consists of 41.8% impervious surface area, well below the 60% allowable impervious surface area.
Due to the property's constraints listed above we are requesting a use variance to allow residential uses on the first floor. There is little opportunity to provide adequate parking to support commercial uses on site because of these constraints. The proposed multifamily building is an allowed use above the first floor and is consistent with other development in this area.

After you have reviewed our petition please feel free to contact us with any questions.

Sincerely,

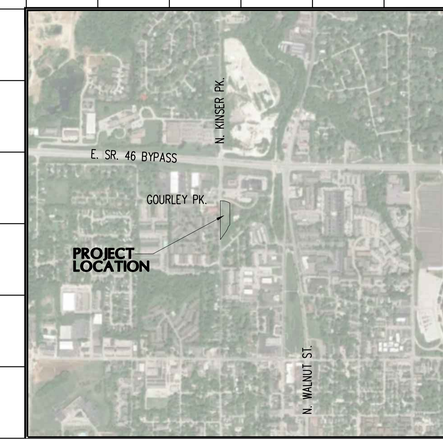
Jeffrey S. Fanyo, PE, CFM
Bynum Fanyo and Associates, Inc.

KINSER & GOURLEY
PROJECT NO. 401632

PROPOSED:

KINSER & GOURLEY PK. APARTMENTS

N. KINSER PK.
BLOOMINGTON, INDIANA 47404



VICINITY/LOCATION MAP
SCALE: 1"=1,000'

SHEET INDEX

SHEET NO.	SHEET NO.
C101	GENERAL NOTES & LEGENDS
C2012	SITE PLAN
C202	GRADING & UTILITY
C203	SWPP PLAN
C204	LANDSCAPE PLAN
C301	MISCELLANEOUS DETAILS

UTILITY CONTACT INFORMATION

GAS	SEWER AND WATER	ELECTRIC
VECTREN	CITY OF BLOOMINGTON UTILITIES	DUKE ENERGY
205 S. MADISON ST,	600 E. MILLER DR.	1619 W. DEFFENBAUGH ROAD
BLOOMINGTON, IN 47401	BLOOMINGTON, IN 47402	KOKOMO, INDIANA 46902
DOUG ANDERSON (812)330-4009	NANCY AXSOM (812)349-3689	JIM SHIELDS (317)375-2071
TELEPHONE	**CABLE TELEVISION**	**UNDERGROUND UTILITY LOCATION**
AT&T	COMCAST	INDIANA UNDERGROUND
P.O. BOX 56	2450 SOUTH HENDERSON STREET	PLANT PROTECTION
BLOOMINGTON, IN 47402	BLOOMINGTON, IN 47404	1-(800)382-5544
BRENT McCABE (812)334-4521	SCOTT TEMPLETON (812)355-7822	

DIAL '811' BEFORE YOU DIG
PER INDIANA STATE LAW IC8-1-26.
IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

BYNUM FANYO & ASSOCIATES, INC.
528 North Walnut Street
Bloomington, Indiana 47404 (812) 332-8030

architecture
civil engineering
planning

OWNER/DEVELOPER:

BLOOMINGTON, IN 47401

THE CURRENT EDITION OF THE INDIANA DEPARTMENT OF TRANSPORTATION, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES & CITY OF BLOOMINGTON UTILITIES STANDARD SPECIFICATIONS IS TO BE USED WITH THESE PLANS

Certified By:

JEFFREY S. FANYO, P.E.
IND. REG. NO. 60018283

Revisions

KINSER & GOURLEY
PROJECT NO. 401632

EXISTING LEGEND

	PROPERTY LINE
x	FENCE
XW	WATER LINE PIPE
XXX	CONTOUR & ELEVATION
XSS	SANITARY SEWER PIPE
XST	STORM SEWER PIPE
XOHE	OVERHEAD ELECTRIC LINES
XUGE	UNDERGROUND ELECTRIC LINES
XOHT	OVERHEAD TELEPHONE LINES
XUGT	UNDERGROUND TELEPHONE LINE
XGAS	GAS LINE PIPE

DEMOLITION LEGEND

T.B.R.	TO BE REMOVED
T.R.U.	TO REMAIN UNDISTURBED

SITE LEGEND

CL OR CL	CONSRUCTION LIMITS
A	BITUMINOUS PAVEMENT
AP	ADA ACCESSIBLE PARKING SPACE
APS	ADA ACCESSIBLE PARKING SIGN
C	REINFORCED CONCRETE PAVING
F	CONCRETE SIDEWALK
F1	MONOLITHIC CONCRETE CURB AND SIDEWALK
GR	42" TALL GUARDRAIL
M	MATCH EXISTING CURB, SIDEWALK, PAVEMENT ELEVATIONS
PB	CONCRETE PARKING BUMPER BLOCK
PP	STANDARD ROAD PAVEMENT PATCH
R	SIDEWALK ADA ACCESSIBLE RAMP
RW	REINFORCED CONCRETE RETAINING WALL
R1-1	INDOT 30-IN. X 30-IN. ROAD STOP SIGN
VA	VAN ACCESSIBLE SUPPLEMENTAL SIGN
13	6-IN WDE CONCRETE CURB
20	4-IN. WDE SOLID WHITE PAINTED PAVEMENT MARKING
XX	NUMBER OF PARKING SPACES PER LOT

UTILITY LEGEND

W	DIP FIRE SERVICE LINE (OWNED BY CBU)
4W	4" DIP FIRE SERVICE LINE (PRIVATELY OWNED)
FSL	DIP FIRE SERVICE LINE (PRIVATELY OWNED)
DSL	SDR-21 PVC DOMESTIC WATER SERVICE LINE, SAME SIZE AS EXISTING (PRIVATELY OWNED)
F.D.C.	FIRE DEPARTMENT "STORZ" CONNECTION
P.I.V.	POST INDICATING VALVE
6SL	6" SDR-35 PVC SANITARY SEWER LATERAL (PRIVATELY OWNED)
6BD	6" SCH. 40 PVC BUILDING/DOWNSPOUT DRAIN PIPE (PRIVATELY OWNED)
4UD	4" PERFORATED SDR-35 UNDERDRAIN PIPE (PRIVATELY OWNED)
GAS	GAS SERVICE LINE
ELEC	ELECTRIC SERVICE LINE

GRADING LEGEND

CL OR CL	CONSRUCTION LIMITS
XXX	ELEVATION CONTOUR
FL>	FLOWLINE
XXX.XX	SPOT GRADE ELEVATION
XXX.XX / XXX.XX	TOP OF CURB ELEVATION OVER PAVEMENT ELEVATION
FF=XXX.XX	FINISH FLOOR ELEVATION
FG=XXX.XX	FINISH EARTH GRADE ELEVATION
FP=XXX.XX	FINISH PATIO ELEVATION
FR=XXX.XX	FINISH RAMP ELEVATION
FW=XXX.XX	FINISH WALK ELEVATION
TC=XXX.XX	FINISH TOP OF CASTING

EROSION CONTROL LEGEND

SF	SILTATION FENCE (TEMPORARY)
CL OR CL	CONSRUCTION LIMITS
MS	MULCH SEEDING - SEE SPECIFICATIONS (TEMPORARY)
SP	20' X 60' STONE PAD, 6" DEEP TO KEEP FROM TRACKING MUD OFF SITE (TEMPORARY)
CW	CONCRETE WASHOUT AREA (TEMPORARY)

GENERAL NOTES

1. BOUNDARY AND TOPO BY BYNUM FANYO AND ASSOCIATES, 528 NORTH WALNUT STREET, BLOOMINGTON, INDIANA 47404. PHONE (812) 332-8030

2. DEVELOPER:

3. PROJECT ADDRESS:

4. ALL WORK IS TO BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.

5. ALL PERMITS ARE TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

6. HYDRANT LOCATION SHALL BE APPROVED BY THE LOCAL FIRE MARSHALL.

7. EXISTING UTILITIES ON SITE SHALL BE RELOCATED AS REQUIRED. CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH RELOCATION.

8. SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.

PARKING AND PAVEMENT NOTES

1. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC DEVICES, CURRENT EDITION AS AMENDED.

2. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS INDICATED OTHERWISE.

3. CONTRACTOR SHALL FURNISH AND INSTALL PAVEMENT MARKINGS AS SHOWN ON THE PLANS.

4. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES WITH OTHER CONTRACTORS ON THE SITE.

5. JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINTING TOOLS.

6. CONTRACTOR SHALL SAW-CUT TIE-INS AT EXISTING CURBS AS NECESSARY TO INSURE SMOOTH TRANSITIONS. CONTRACTOR SHALL SAW-CUT AND TRANSITION TO MEET EXISTING PAVEMENT AS NECESSARY AND AS DIRECTED BY INSPECTOR TO INSURE POSITIVE DRAINAGE. (TYPICAL AT ALL INTERSECTIONS).

7. CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND THE HEALTH AND SAFETY REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.

GRADING NOTES

1. NEW FINISHED CONTOURS SHOWN ARE TOP OF FUTURE PAVING IN AREAS TO RECEIVE PAVEMENT AND TOP OF TOPSOIL IN AREAS TO BE SEEDED OR PLANTED.

2. AREAS OUTSIDE OF THE PARKING LOT PERIMETERS SHOWN TO BE SEEDED OR PLANTED SHALL RECEIVE 6" OF TOPSOIL. THIS TOPSOIL IS TO BE PLACED AND LEVELED BY THE CONTRACTOR.

3. CONTRACTOR SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING, OR CONNECTING TO SAID FACILITIES. CONTRACTOR SHALL PAY ALL COSTS IN CONNECTION WITH ALTERATION OF OR RELOCATION OF THE FACILITY.

4. ALL AREAS NOT COVERED BY BUILDING OR PAVING ARE TO BE VEGETATED (SEEDED OR PER LANDSCAPE PLAN).

5. UNUSABLE EXCAVATED MATERIALS AND ALL WASTE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY CONTRACTOR.

6. BEFORE ANY MACHINE WORK IS DONE, CONTRACTOR SHALL STAKE OUT AND MARK THE ITEMS ESTABLISHED BY THE SITE PLAN. CONTROL POINTS SHALL BE PRESERVED AT ALL TIMES DURING THE COURSE OF CONSTRUCTION. THE LACK OF PROPER WORKING POINTS AND GRADE STAKES MAY REQUIRE CESSATION OF OPERATIONS UNTIL SUCH POINTS AND GRADES HAVE BEEN PLACED TO THE OWNER'S SATISFACTION.

7. THESE DOCUMENTS ARE SCHEMATIC IN NATURE AND CANNOT SHOW EVERY ITEM NEEDED FOR A COMPLETE OPERATIONAL STORM SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE OPERATING STORM SYSTEM.

8. ALL FILL SHALL BE FREE OF VEGETABLE MATTER, RUBBISH, LARGE ROCK, AND OTHER DELETERIOUS MATERIAL. THE FILL MATERIAL SHOULD BE PLACED IN LAYERS NOT TO EXCEED SIX (6) INCHES IN LOOSE THICKNESS AND SHOULD BE SPRINKLED WITH WATER AS REQUIRED TO SECURE SPECIFIED COMPACTION. EACH LAYER SHOULD BE UNIFORMLY COMPACTED BY MEANS OF SUITABLE EQUIPMENT AS DICTATED BY THE TYPE OF FILL MATERIAL. UNDER NO CIRCUMSTANCES SHOULD A BULLDOZER OR SIMILARLY TRACKED VEHICLE BE USED AS COMPACTING EQUIPMENT. MATERIAL CONTAINING AN EXCESS OF WATER SHOULD BE SPREAD AND DRIED TO A MOISTURE CONTENT THAT WILL PERMIT PROPER COMPACTION. ALL FILL SHOULD BE COMPACTED TO THE SPECIFIED PERCENTAGE OF THE MAXIMUM DENSITY OBTAINED IN ACCORDANCE WITH ASTM DENSITY TEST D-698 (98 PERCENT OF MAXIMUM DRY DENSITY). IF THE SPECIFIED COMPACTION LIMITS ARE NOT MET, SUCH AREAS SHOULD BE REWORKED AND RETESTED AS REQUIRED UNTIL THE SPECIFIED LIMITS ARE REACHED.

ON-SITE UTILITY NOTES

1. ALL WATER PIPE 6" AND LARGER SHALL BE PRESSURE CLASS 350 DIP WATER PIPE CONFORMING TO ALL STATE AND LOCAL STANDARDS.

2. WATER MAIN FITTINGS 6" AND LARGER SHALL BE DUCTILE IRON CONFORMING TO AWWA/ANSI STANDARD SPECIFICATIONS C153/A21.53, LATEST REVISION.

3. 2" WATER MAINS SHALL BE SDR-21 (PR200) AND 4" PIPE MAY BE EITHER SDR-21 (PR200) OR C900 (DR-14).

4. MECHANICAL RESTRAINTS SHALL BE PROVIDED AT ALL WATER LINE BENDS, OFFSETS, TEES, PLUGS, ETC...

5. ALL WATER LINE GATE VALVES OTHER THAN AIR RELEASE VALVES AND TAPPING VALVES SHALL BE CAST IRON BODY, FULLY BRONZE MOUNTED, WITH RESILIENT SEAT AND NON-RISING STEM AND SHALL BE MANUFACTURED BY M & H VALVE COMPANY, DARLING VALVE AND MANUFACTURING COMPANY, KENNEDY VALVE COMPANY, OR MUELLER COMPANY.

6. AIR RELEASE VALVES SHALL BE PROVIDED AT ALL HIGH POINTS OF WATER MAINS AND SHALL BE VAL-MATIC BRAND AND SHALL INCORPORATE THE OPTIONAL VACUUM-CHECK FEATURE.

7. ALL FIRE HYDRANTS SHALL BE MANUFACTURED BY KENNEDY GUARDIAN OR MUELLER CENTURION.

8. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE. SEE SITE WORK SPECIFICATIONS.

9. WATER AND SANITARY SEWER MAINS SHALL HAVE A MINIMUM COVER OF 4'-0" ABOVE TOP OF PIPE.

10. ALL SPRINKLER, DOMESTIC, AND SANITARY LEADS TO THE BUILDING SHALL END AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END (FOR OTHERS TO REMOVE AND EXTEND AS NECESSARY).

11. THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS TEN FEET (10'). THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS EIGHTEEN INCHES (18").

12. GRAVITY SANITARY SEWER PIPE 6" TO 15" SHALL BE CONSTRUCTED OF SDR-35 PVC.

13. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

15. SEE SITE SPECIFICATIONS FOR BACKFILLING AND COMPACTION REQUIREMENTS.

16. SITE CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.

17. ALL WORK ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH SITE WORK SPECIFICATIONS.

18. ALL CATCH BASIN GRATE AND FRAMES ARE TO BE BY EAST JORDAN IRON WORKS.

19. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF UTILITY LINES ADJACENT TO THE WORK AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD.

20. BUILDING CONTRACTOR SHALL PROVIDE & INSTALL A PERMANENT INDICATING VALVE 12" ABOVE THE FLOOR ON THE FIRE LINE AT THE TERMINATION POINT. THIS VALVE WILL BE USED TO HYDROSTATIC PRESSURE TEST AGAINST & WILL REMAIN AS PART OF THE SYSTEM ONCE ALL TESTING IS COMPLETED. THE FIRE LINE MAIN WILL NOT BE DISMANTLED FOR CONNECTION TO THE FIRE SUPPRESSION SYSTEM. SITE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FIRE MAIN WITH THE BUILDING CONTRACTOR.

21. ALL PROJECTS WILL REQUIRE A PRE-CONSTRUCTION MEETING WITH THE CITY OF BLOOMINGTON UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR AND/OR DEVELOPER MUST CONTACT TOM AXSOM AT (812)349-3633 TO SCHEDULE THE MEETING.

22. CONTRACTOR SHALL NOTIFY THE CITY OF BLOOMINGTON UTILITIES ENGINEERING DEPARTMENT ONE (1) WORKING DAY PRIOR TO CONSTRUCTION OF ANY WATER, STORM OR SANITARY SEWER UTILITY WORK. A CBU INSPECTOR MUST HAVE NOTICE SO WORK CAN BE INSPECTED, DOCUMENTED, AND PROPER AS-BUILT MADE. WHEN A CONTRACTOR WORKS WEEKENDS, A CBU DESIGNATED HOLIDAY, OR BEYOND NORMAL CBU WORK HOURS, THE CONTRACTOR WILL PAY FOR THE INSPECTOR'S OVERTIME. FOR CBU WORK HOURS AND HOLIDAY INFORMATION, PLEASE CONTACT THE CITY OF BLOOMINGTON UTILITIES ENGINEERING DEPARTMENT AT (812)349-3660.

LANDSCAPE NOTES

1. ALL PLANT MATERIAL SHALL ARRIVE ONSITE IN A HEALTHY, VIGOROUS CONDTION AND BE FREE OF PESTS AND DISEASE.

2. ALL PLANTS SHALL BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.

3. ALL TREES SHALL BE STRAIGHT-TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.

4. ALL TREES SHALL BE GUYED OR STAKED PLUMB AS SHOWN IN THE DETAILS.

5. ALL PLANTING MASS BEDS SHALL BE SPADE CUT UNLESS SPECIFIED WITH A MOW STRIP OR OTHER INSTALL EDGING. TREES TO HAVE A 5' DIAMETER MULCH RING.

6. ALL PLANTING AREAS SHALL BE COMPLETELY MULCHED WHERE SPECIFIED.

7. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION. PLANTING LOCATIONS MAY REQUIRE ADJUSTMENTS IN FIELD TO AVOID OVERHEAD AND UNDERGROUND UTILITIES.

8. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND SPECIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.

9. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING AND LAWN AREAS INCLUDING, BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, PRUNING, FERTILIZING, ETC., UNTIL WORK IS ACCEPTED IN FULL BY THE OWNER.

10. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF TOTAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD.

11. THE OWNER SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION.

12. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST OR DRIP IRRIGATION SYSTEM PRIOR TO INSTALLATION. WATER ALL SPECIMENS WITHIN 24 HOURS OF PLANTING.

13. ANY NEW OR TRANSPLANTED PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO TOTAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY AND SIZE TO MEET ALL PLANT LIST SPECIFICATIONS.

14. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.

15. ALL SHRUB, GROUNDCOVER, ANNUAL AND HERBACEOUS PERENNIAL PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH HARDWOOD MULCH TO A MINIMUM DEPTH OF FOUR INCHES.

16. DURING THE GROWING SEASON ALL ANNUALS AND HERBACEOUS PERENNIALS SHALL REMAIN IN A HEALTHY CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.

17. ALL PLANT MATERIAL QUANTITIES SHOWN ARE MINIMUM. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN ON PLANS.

19. ALL DISTURBED AREAS NOT INCLUDED IN LANDSCAPE MULCH BEDS ARE TO BE DEBRIS-RAKED AND FINED-GRADED AS NEEDED, THEN MULCH SEEDED (OR SODDED, PER PLAN) AND WATERED UNTIL A HEALTHY STAND OF TURF IS ESTABLISHED.

20. ANY PLANT OR OTHER LANDSCAPE MATERIAL SUBSTITUTIONS INSTALLED WITHOUT DESIGNER AND/OR OWNER APPROVAL SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE OWNER BEFORE, DURING AND AFTER INSTALLATION.

revisions:

ARCHITECTURE
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certified by:

PROPOSED
KINSER & GOURLEY PIKE

KINSER PIKE
BLOOMINGTON, INDIANA 47404

title: GENERAL NOTES & LEGENDS

designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C101
project no.: 401632

EXISTING LEGEND

	PROPERTY LINE
X	FENCE
XW	WATER LINE PIPE
XXX	CONTOUR & ELEVATION
XSS	SANITARY SEWER PIPE
XST	STORM SEWER PIPE
XOHE	OVERHEAD ELECTRIC LINES
XUGE	UNDERGROUND ELECTRIC LINES
XOHT	OVERHEAD TELEPHONE LINES
XUGT	UNDERGROUND TELEPHONE LINE
XGAS	GAS LINE PIPE

UTILITY LEGEND

W	DIP FIRE SERVICE LINE (OWNED BY CBU)
4W	4" DIP FIRE SERVICE LINE (PRIVATELY OWNED)
FSL	DIP FIRE SERVICE LINE (PRIVATELY OWNED)
DSL	SDR-21 PVC DOMESTIC WATER SERVICE LINE, SAME SIZE AS EXISTING (PRIVATELY OWNED)
F.D.C.	FIRE DEPARTMENT "STORZ" CONNECTION
P.I.V.	POST INDICATING VALVE
6SL	6" SDR-35 PVC SANITARY SEWER LATERAL (PRIVATELY OWNED)
6BD	6" SCH. 40 PVC BUILDING/DOWNSPOUT DRAIN PIPE (PRIVATELY OWNED)
4UD	4" PERFORATED SDR-35 UNDERDRAIN PIPE (PRIVATELY OWNED)
GAS	GAS SERVICE LINE
ELEC	ELECTRIC SERVICE LINE

SITE LEGEND

CL — OR (CL)	CONSRUCTION LIMITS
A	BITUMINOUS PAVEMENT
AP	ADA ACCESSIBLE PARKING SPACE
APS	ADA ACCESSIBLE PARKING SIGN
C	REINFORCED CONCRETE PAVING
F	CONCRETE SIDEWALK
F1	MONOLITHIC CONCRETE CURB AND SIDEWALK
GR	42" TALL GUARDRAIL
M	MATCH EXISTING CURB, SIDEWALK, PAVEMENT ELEVATIONS
PB	CONCRETE PARKING BUMPER BLOCK
PP	STANDARD ROAD PAVEMENT PATCH
R	SIDEWALK ADA ACCESSIBLE RAMP
RW	REINFORCED CONCRETE RETAINING WALL
R1-1	INDOT 30-IN. X 30-IN. ROAD STOP SIGN
VA	VAN ACCESSIBLE SUPPLEMENTAL SIGN
13	6-IN WIDE CONCRETE CURB
20	4-IN. WIDE SOLID WHITE PAINTED PAVEMENT MARKING
XX	NUMBER OF PARKING SPACES PER LOT

ZONING INFORMATION

JURISDICTION: CITY OF BLOOMINGTON

ZONING: COMMERCIAL GENERAL (CG)

MINIMUM LOT WIDTH: 85 FT

MAXIMUM PRIMARY STRUCTURE HEIGHT: 50 FT

MAXIMUM ACCESSORY STRUCTURE HEIGHT: 30 FT

MAXIMUM IMPERVIOUS COVERAGE: 60%

MAXIMUM DENSITY: 15 UNITS/AC; 2,904 SF/UNIT

FRONT YARD BUILDING SETBACK: 15 FT FROM THE PROPOSED R.O.W. INDICATED ON THE THOROUGHFARE PLAN; OR THE AVG. OF FRONT SETBACKS OF THE EXISTING PRIMARY STRUCTURES ON THE SAME BLOCK FACE, WHICHEVER IS LESS. FOR LOTS OF RECORD WITH NO STREET FRONTAGE, A MINIMUM SETBACK OF 10 FT IS REQUIRED FROM THE PROPERTY LINE WHERE ACCESS IS GAINED.

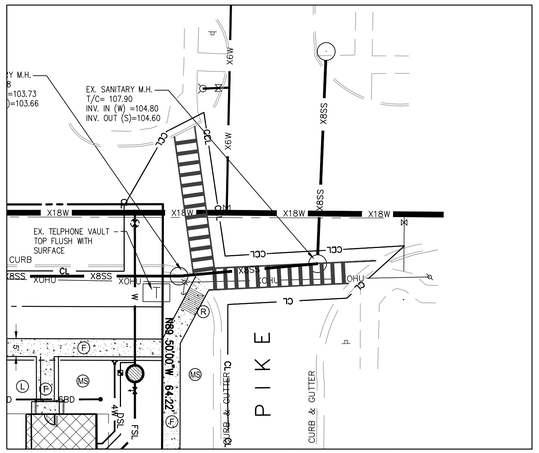
FRONT YARD PARKING SETBACK: 20 FT BEHIND THE STRUCTURE'S FRONT BUILDING WALL.

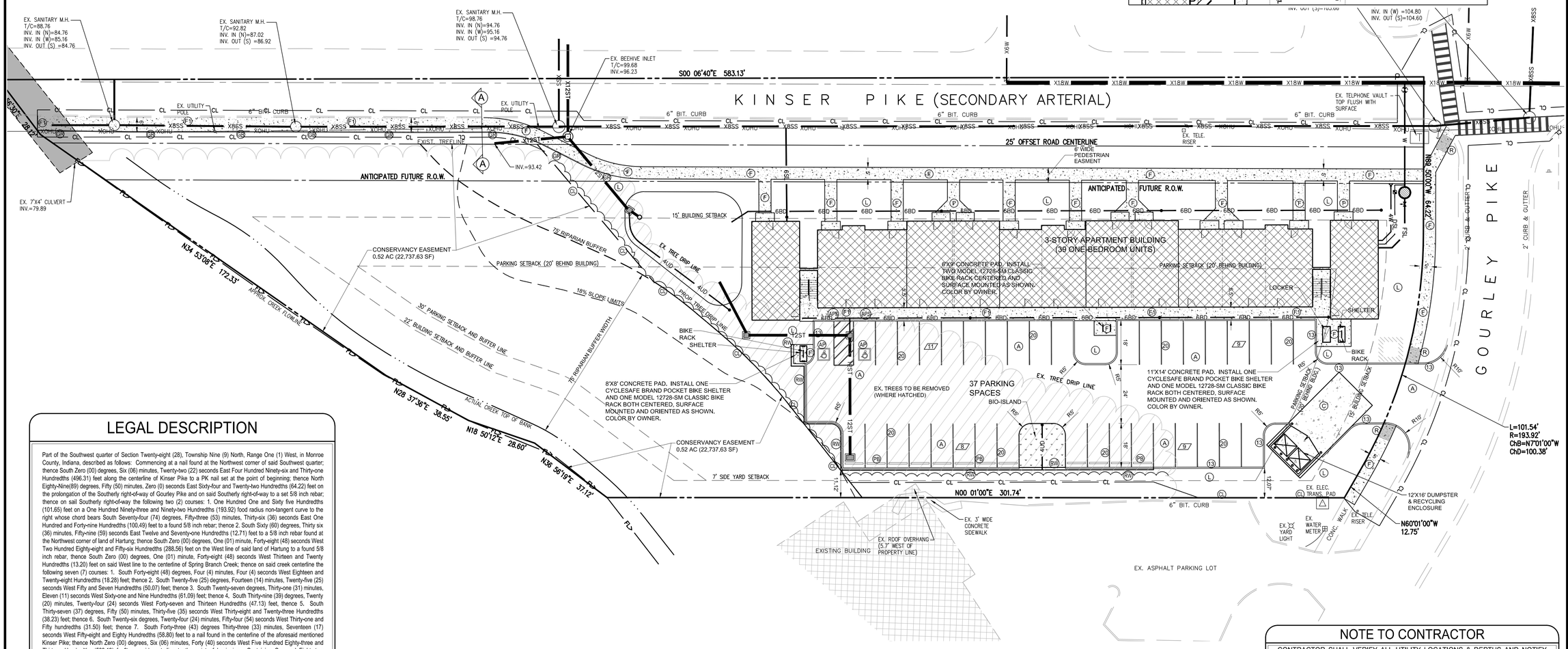
SITE INFORMATION

LOT AREA: 1.47 AC (64,079.8 SF)

TOTAL IMPERVIOUS AREA: 26,785.2 SF

PROPOSED IMPERVIOUS COVERAGE: 41.8%





LEGAL DESCRIPTION

Part of the Southwest quarter of Section Twenty-eight (28), Township Nine (9) North, Range One (1) West, in Monroe County, Indiana, described as follows: Commencing at a nail found at the Northwest corner of said Southwest quarter; thence South Zero (00) degrees, Six (06) minutes, Twenty-two (22) seconds East Four Hundred Ninety-six and Thirty-one Hundredths (496.31) feet along the centerline of Kinser Pike to a PK nail set at the point of beginning; thence North Eighty-Nine(89) degrees, Fifty (50) minutes, Zero (0) seconds East Sixty-four and Twenty-two Hundredths (64.22) feet on the prolongation of the Southerly right-of-way of Gourley Pike and on said Southerly right-of-way to a set 5/8 inch rebar; thence on sail Southerly right-of-way the following two (2) courses: 1. One Hundred One and Sixty five Hundredths (101.65) feet on a One Hundred Ninety-three and Ninety-two Hundredths (193.92) food radius non-tangent curve to the right whose chord bears South Seventy-four (74) degrees, Fifty-three (53) minutes, Thirty-six (36) seconds East One Hundred and Forty-nine Hundredths (100.49) feet to a found 5/8 inch rebar; thence 2. South Sixty (60) degrees, Thirty six (36) minutes, Fifty-nine (59) seconds East Twelve and Seventy-one Hundredths (12.71) feet to a 5/8 inch rebar found at the Northwest corner of land of Hartung; thence South Zero (00) degrees, One (01) minute, Forty-eight (48) seconds West Two Hundred Eighty-eight and Fifty-six Hundredths (288.56) feet on the West line of said land of Hartung to a found 5/8 inch rebar, thence South Zero (00) degrees, One (01) minute, Forty-eight (48) seconds West Thirteen and Twenty Hundredths (13.20) feet on said West line to the centerline of Spring Branch Creek; thence on said creek centerline the following seven (7) courses: 1. South Forty-eight (48) degrees, Four (4) minutes, Four (4) seconds West Eighteen and Twenty-eight Hundredths (18.28) feet; thence 2. South Twenty-five (25) degrees, Fourteen (14) minutes, Twenty-five (25) seconds West Fifty and Seven Hundredths (50.07) feet; thence 3. South Twenty-seven degrees, Thirty-one (31) minutes, Eleven (11) seconds West Sixty-one and Nine Hundredths (61.09) feet; thence 4. South Thirty-nine (39) degrees, Twenty (20) minutes, Twenty-four (24) seconds West Forty-seven and Thirteen Hundredths (47.13) feet, thence 5. South Thirty-seven (37) degrees, Fifty (50) minutes, Thirty-five (35) seconds West Thirty-eight and Twenty-three Hundredths (38.23) feet; thence 6. South Twenty-six degrees, Twenty-four (24) minutes, Fifty-four (54) seconds West Thirty-one and Fifty hundredths (31.50) feet; thence 7. South Forty-three (43) degrees Thirty-three (33) minutes, Seventeen (17) seconds West Fifty-eight and Eighty Hundredths (58.80) feet to a nail found in the centerline of the aforesaid mentioned Kinser Pike; thence North Zero (00) degrees, Six (06) minutes, Forty (40) seconds West Five Hundred Eighty-three and Thirteen Hundredths (583.13) fee6t on said centerline to the point of beginning. Containing One and Eighty-two Hundredths (1.82) acres, more or less. (Per survey of Jess A Gwinn, RLS 9300019, dated April 18,1996)

NOTE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS & DEPTHS AND NOTIFY ENGINEER OF ANY INACCURACIES IN LOCATION OR ELEVATION OR ANY CONFLICTS PRIOR TO & AFTER ANY EXCAVATION. NO PAYMENT SHALL BE MADE TO CONTRACTOR FOR UTILITY DESTRUCTION OR UNDERGROUND CHANGES REQUIRED DUE TO CONFLICTING ELEVATIONS.

revisions:

SCALE: 1"=20'

ARCHITECTURE
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certified by:

PROPOSED
KINSER & GOURLEY PIKE

KINSER PIKE
BLOOMINGTON, INDIANA 47404

title: SITE PLAN

designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C201
project no.: 401632

EXISTING LEGEND

	PROPERTY LINE
X	FENCE
XW	WATER LINE PIPE
XXX	CONTOUR & ELEVATION
XSS	SANITARY SEWER PIPE
XST	STORM SEWER PIPE
XOHE	OVERHEAD ELECTRIC LINES
XUGE	UNDERGROUND ELECTRIC LINES
XOHT	OVERHEAD TELEPHONE LINES
XUGT	UNDERGROUND TELEPHONE LINE
XGAS	GAS LINE PIPE

UTILITY LEGEND

W	DIP FIRE SERVICE LINE (OWNED BY CBU)
4W	4" DIP FIRE SERVICE LINE (PRIVATELY OWNED)
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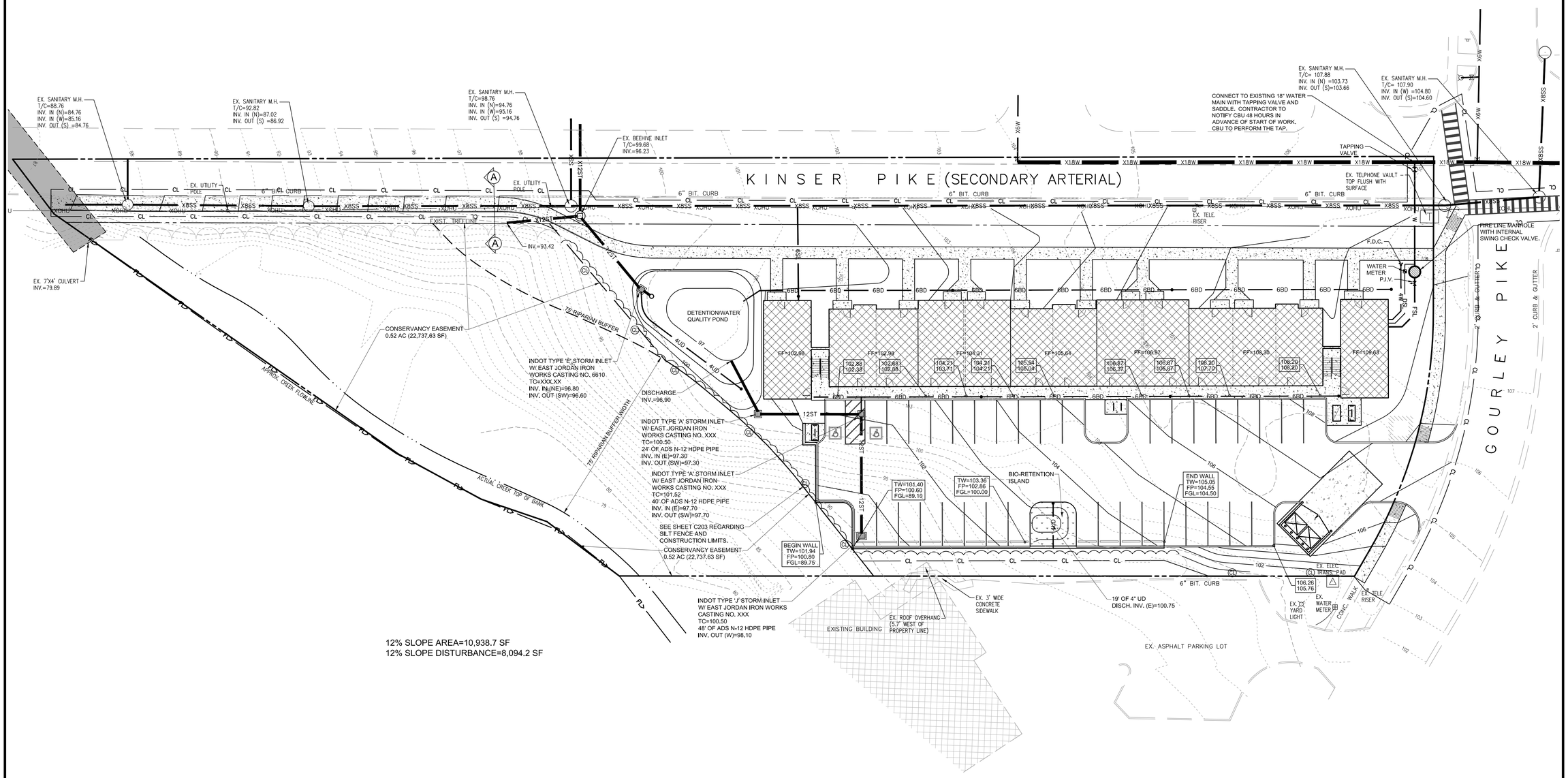
DSL	SDR-21 PVC DOMESTIC WATER SERVICE LINE, SAME SIZE AS EXISTING (PRIVATELY OWNED)
F.D.C.	FIRE DEPARTMENT "STORZ" CONNECTION
P.I.V.	POST INDICATING VALVE
6SL	6" SDR-35 PVC SANITARY SEWER LATERAL (PRIVATELY OWNED)
6BD	6" SCH. 40 PVC BUILDING/DOWNSPOUT DRAIN PIPE (PRIVATELY OWNED)
4UD	4" PERFORATED SDR-35 UNDERDRAIN PIPE (PRIVATELY OWNED)
GAS	GAS SERVICE LINE
ELEC	ELECTRIC SERVICE LINE

GRADING LEGEND

CL OR (CL)	CONSRUCTION LIMITS
XXX	ELEVATION CONTOUR
FL>	FLOWLINE
XXX.XX	SPOT GRADE ELEVATION
XXX.XX / XXX.XX	TOP OF CURB ELEVATION OVER PAVEMENT ELEVATION
FF=XXX.XX	FINISH FLOOR ELEVATION
FG=XXX.XX	FINISH EARTH GRADE ELEVATION
FP=XXX.XX	FINISH PATIO ELEVATION
FR=XXX.XX	FINISH RAMP ELEVATION
FW=XXX.XX	FINISH WALK ELEVATION
TC=XXX.XX	FINISH TOP OF CASTING



12% SLOPE AREA=10,938.7 SF
12% SLOPE DISTURBANCE=8,094.2 SF

revisions:

SCALE: 1"=20'

BYNUM FANYO & ASSOCIATES, INC.
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certified by:

PROPOSED
KINSER & GOURLEY PIKE

KINSER PIKE
BLOOMINGTON, INDIANA 47404

title: GRADING & UTILITY PLAN

designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C202
project no.: 401632

EXISTING LEGEND

	PROPERTY LINE
X	FENCE
XW	WATER LINE PIPE
XXX	CONTOUR & ELEVATION
XSS	SANITARY SEWER PIPE
XST	STORM SEWER PIPE
XOHE	OVERHEAD ELECTRIC LINES
XUGE	UNDERGROUND ELECTRIC LINES
XOHT	OVERHEAD TELEPHONE LINES
XUGT	UNDERGROUND TELEPHONE LINE
XGAS	GAS LINE PIPE

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4W	4" DIP FIRE SERVICE LINE (PRIVATELY OWNED)
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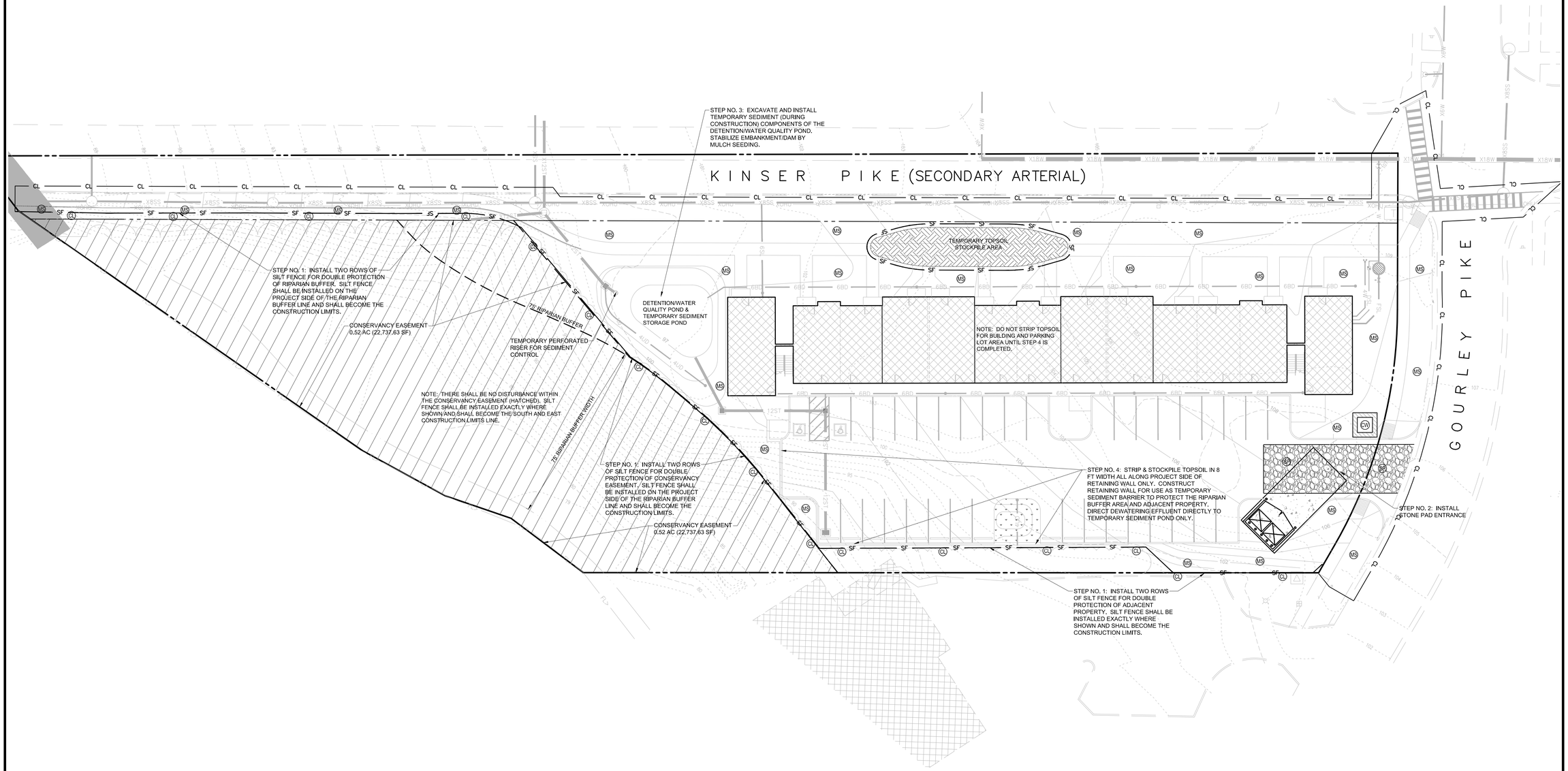
GRADING LEGEND

CL OR (CL)	CONSRUCTION LIMITS
XXX	ELEVATION CONTOUR
FL>	FLOWLINE
XXX.XX	SPOT GRADE ELEVATION
XXX.XX / XXX.XX	TOP OF CURB ELEVATION OVER PAVEMENT ELEVATION
FF=XXX.XX	FINISH FLOOR ELEVATION
FG=XXX.XX	FINISH EARTH GRADE ELEVATION
FP=XXX.XX	FINISH PATIO ELEVATION
FR=XXX.XX	FINISH RAMP ELEVATION
FW=XXX.XX	FINISH WALK ELEVATION
TC=XXX.XX	FINISH TOP OF CASTING

EROSION CONTROL LEGEND

SF	SILTATION FENCE (TEMPORARY)
CL OR (CL)	CONSRUCTION LIMITS
(MS)	MULCH SEEDING - SEE SPECIFICATIONS (TEMPORARY)
(SP)	20' X 60' STONE PAD, 6" DEEP TO KEEP FROM TRACKING MUD OFF SITE (TEMPORARY)
(CW)	CONCRETE WASHOUT AREA (TEMPORARY)



revisions:

SCALE: 1"=20'

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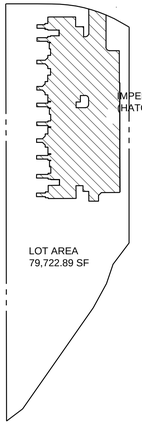
KINSER PIKE
BLOOMINGTON, INDIANA 47404

title: SWPP PLAN

designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C203
project no.: 401632

OPEN SPACE AREA



SCALE: 1"=100'

LANDSCAPE CALCULATIONS

LOT ZONED "CG" (GENERAL COMMERCIAL)
LOT AREA = 79,722.89 SF (1.83 AC)
IMPERVIOUS SURFACE AREA = 23,771.70 SF (0.55 AC) 29.8%
OVERALL OPEN SPACE =
AFFECTED PARKING SPACES = 39

STREET TREES (REQUIRED): 11

PERIMETER PLANTINGS (REQUIRED):
LARGE CANOPY TREES = 75%$(\frac{39}{2})$ = 8 *(PLANT 2 AND CREDIT FOR 6 EXISTING TREES)*
SMALL/MEDIUM TREES = $(\frac{39}{2})$ - 8 = 2 *(PLANT 2)*
EVERGREEN SHRUBS = 50%(3)(39) = 59 *(PLANT 59)*
DECIDUOUS SHRUBS = (3)(39) - 59 = 58 *(PLANT 58)*

BUMPOUT PLANTINGS (REQUIRED):
BUMPOUTS = LARGE CANOPY = 2 *(PLANT 2)*

INTERIOR PLANTINGS (REQUIRED):
OPEN SPACE AREA = ~~0.76 AC~~
LARGE CANOPY TREES = ~~0.76(9) = 7~~ *(FULL CREDIT FOR 7 EXISTING TREES)*
EVERGREEN TREES = ~~0.76(3) = 3~~ *(PLANT 3)*
SMALL/MEDIUM TREES = ~~0.76(3) = 3~~ *(FULL CREDIT FOR 3 EXISTING TREES)*
EVERGREEN SHRUBS = ~~50%((0.76)(27) = 11~~ *(PLANT 11)*
DECIDUOUS SHRUBS = ~~0.76(27) - 11 = 10~~ *(PLANT 10)*

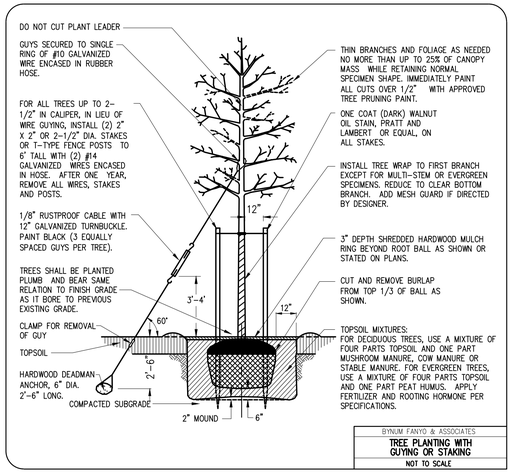
PLANT LIST

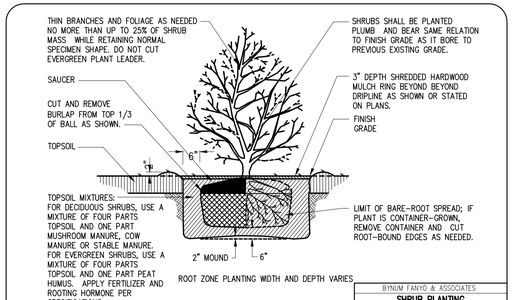
LEGEND	KEY	BOTANICAL NAME	COMMON NAME	QTY	SIZE & CONDITION
LARGE CANOPY DECIDUOUS TREES					
	AN	ACER NIGRUM	BLACK MAPLE	1	2" CAL., B & B
	LS	LIRIODENDRON TULIPIFERA	TULIP TREE	5	2" CAL., B & B
	PO	PLATANUS OCCIDENTALIS	SYCAMORE	2	2" CAL., B & B
	AR	ACER RUBRUM	RED MAPLE	1	2" CAL., B & B
	QA	QUERCUS CRIMSON SPIRE	CRIMSON SPIRE OAK	11	2" CAL., B & B
SMALL (ORNAMENTAL) DECIDUOUS TREES					
	CF	CORNIS FLORIDA	FLOWERING DOGWOOD	5	2" CAL., B & B
EVERGREEN TREES					
	PS	PINUS STROBES	WHITE PINE	3	6' HEIGHT
	BB	PICEA PUNGENS 'BABY BLUE EYES'	DWARF BLUE SPRUCE	3	6' HEIGHT
DECIDUOUS SHRUBS					
	AM	ARONIA MELANOCARPA	BLACK CHOKEBERRY	17	3 GAL CONTAINER OR 18" HT
	LB	LINDERA BENZOIN	SPICE BUSH	15	3 GAL CONTAINER OR 18" HT
	AA	HYDRANGIA ARBORESCENS	WILD HYDRANGIA	23	3 GAL CONTAINER OR 18" HT
	PH	PHILADELPHUS	MOCHORANGE	18	3 GAL CONTAINER OR 18" HT
	SS	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	60	3 GAL CONTAINER OR 18" HT
	SV	SYRINGA VULGARIS	LILAC	10	3 GAL CONTAINER OR 18" HT
EVERGREEN SHRUBS					
	LO	JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER	16	3 GAL CONTAINER OR 18" HT
	TA	THUJA OCCIDENTALIS 'EMERALD GREEN'	EMERALD GREEN ARBORVITAE	16	3 GAL CONTAINER OR 18" HT
	TM	TAXUS X MEDIA 'BROWNLI'	BROWN'S YEW	19	3 GAL CONTAINER OR 18" HT
	RS	RHODODENDRON SPECIES	RHODODENDRON	19	3 GAL CONTAINER OR 18" HT

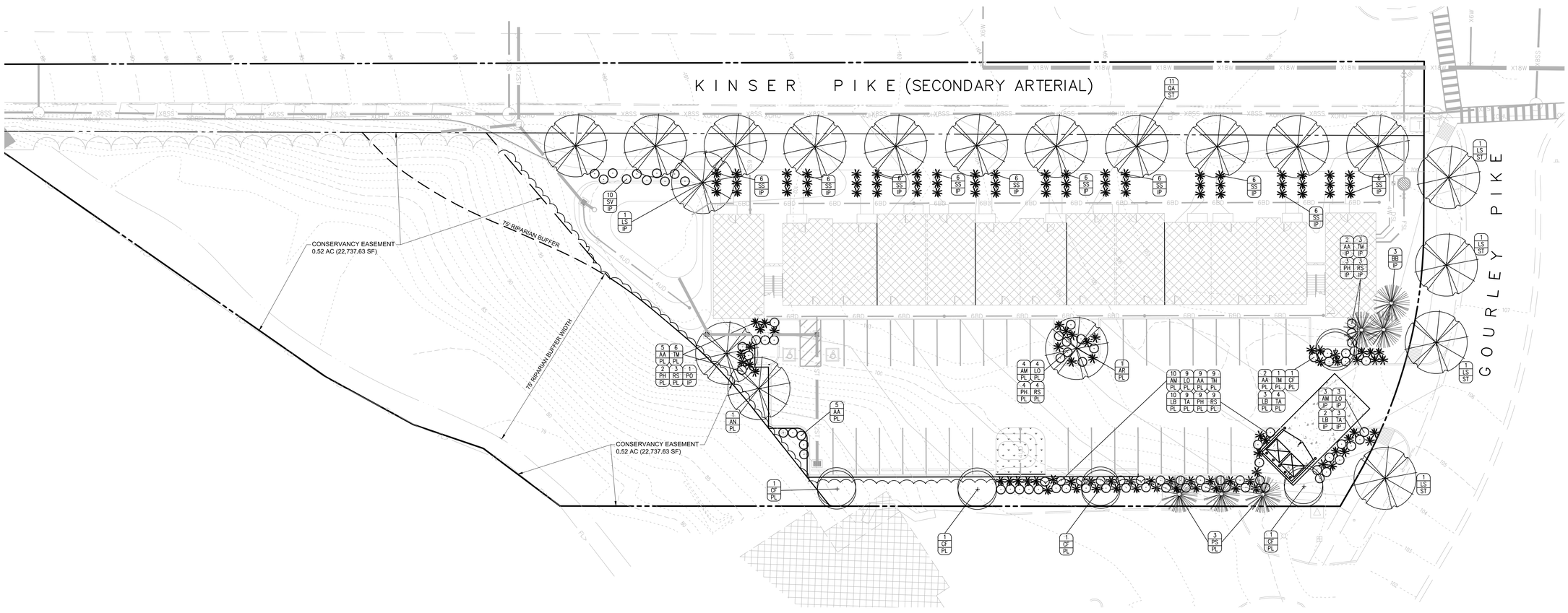
XX PLANT QUANTITY
XX PLANT TYPE
XX REQUIREMENT DESIGNATION
ST=STREET TREE
PL=PARKING LOT PERIMETER PLANTINGS
IP=INTERIOR PLANTINGS

*CONTAINER OR BALL AND BURLAP CONDITION ACCEPTABLE

NOTE: SPECIES SHOWN THAT ARE NOT LISTED IN THE CITY OF BLOOMINGTON ZONING ORDINANCE CHAPTER 20.06 TABLES OF RECOMMENDED PLANT MATERIALS ARE GIVEN BOTANICALLY COMPARABLE DENSITY VALUES.







revisions:

SCALE: 1"=20'

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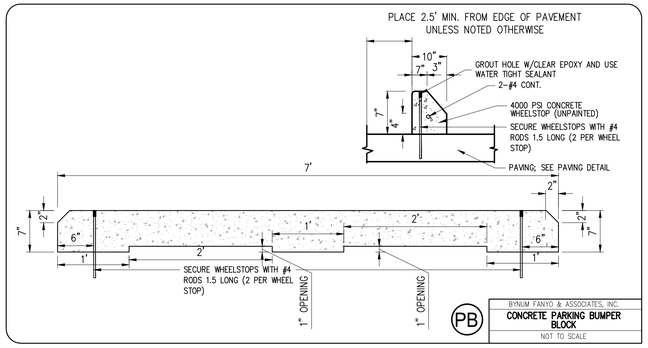
certified by:

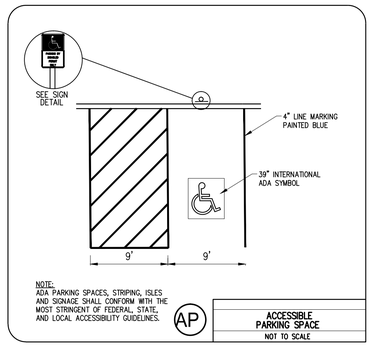
PROPOSED
KINSER & GOURLEY PIKE

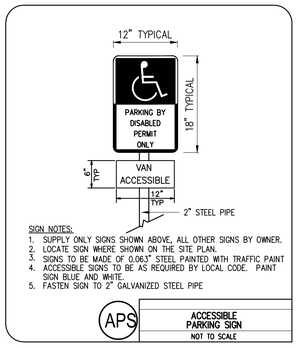
KINSER PIKE
BLOOMINGTON, INDIANA 47404

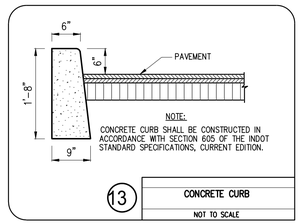
title: LANDSCAPE PLAN

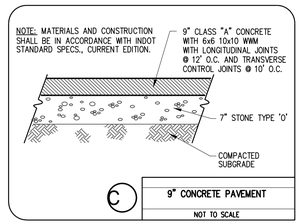
designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C204
project no.: 401632

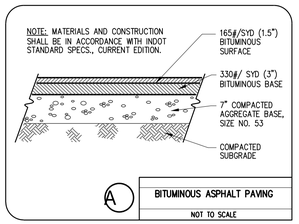


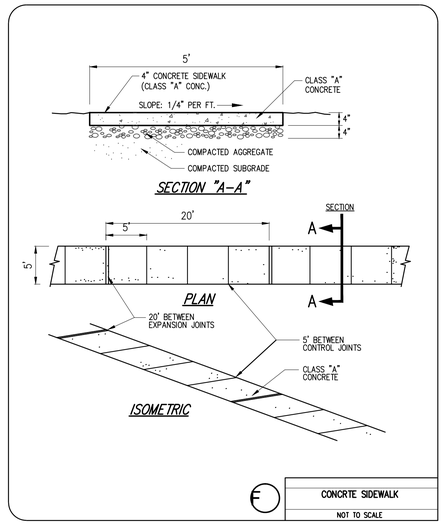


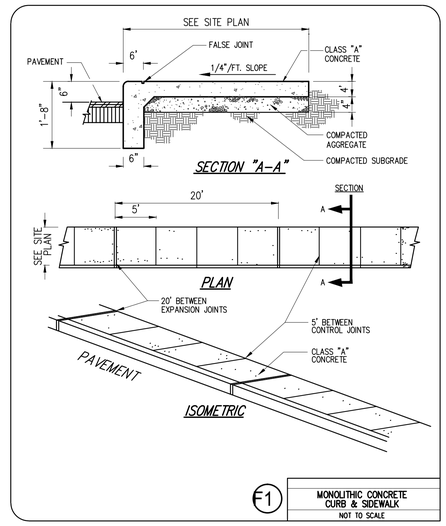


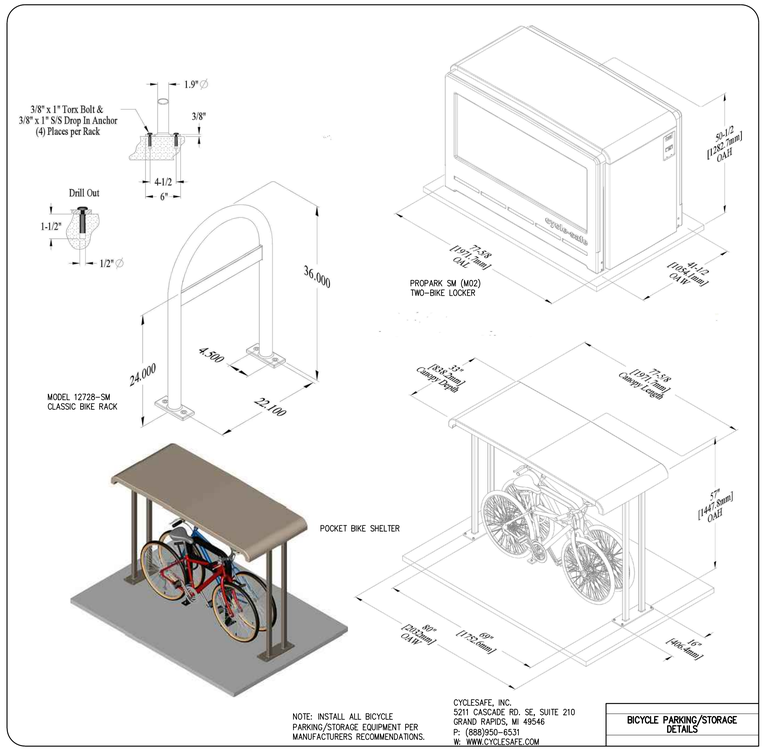


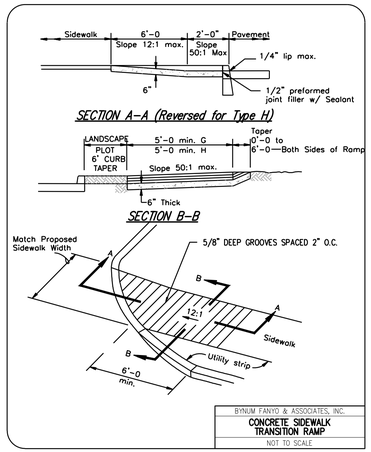


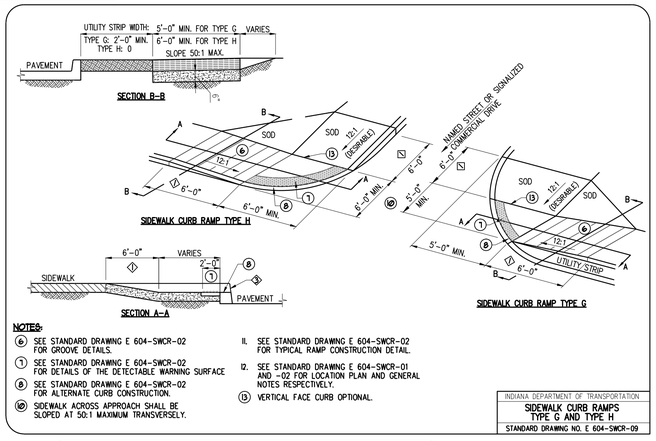


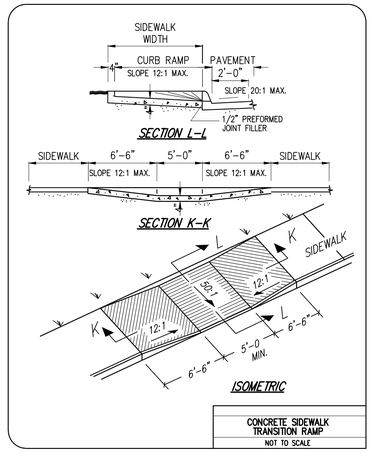


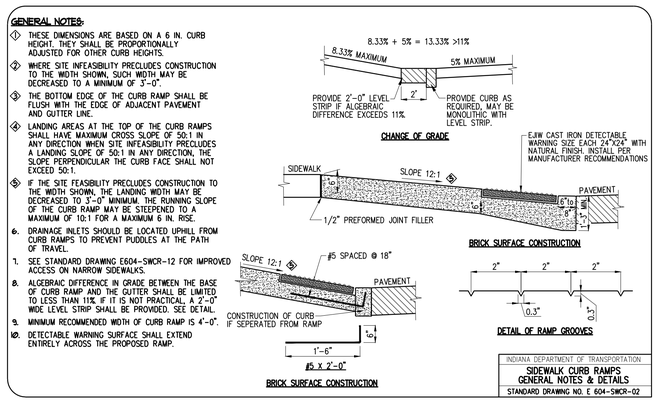


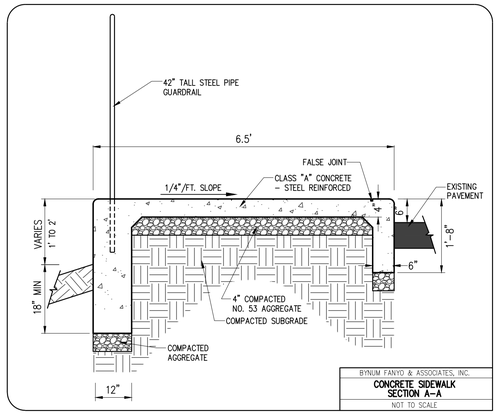


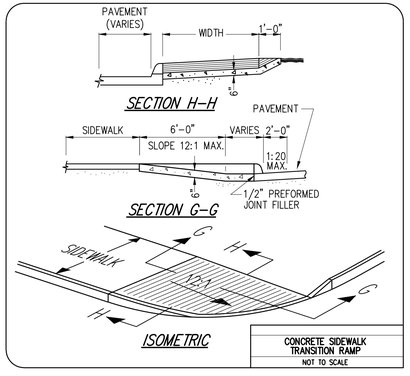


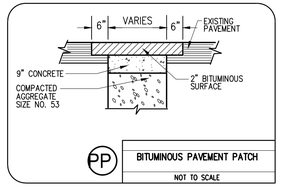


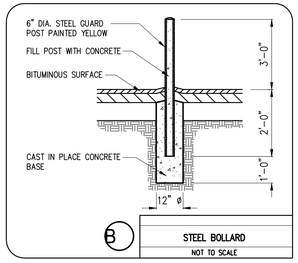












revisions:

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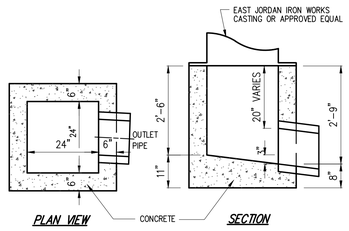
certified by:

PROPOSED
KINSER & GOURLEY PIKE

KINSER PIKE
BLOOMINGTON, INDIANA 47404

title: MISCELLANEOUS DETAILS

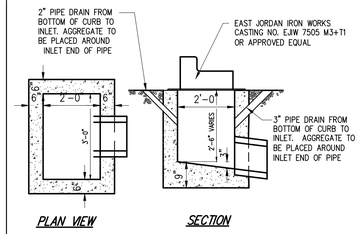
designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C301
project no.: 401632



NOTE: FOR INLET INVERT ELEVATIONS SEE STRUCTURE NOTE OR STRUCTURE DATA TABLE.

STORM INLET TYPE A

NOT TO SCALE



NOTES:
1. FOR INLET INVERT ELEVATIONS SEE STRUCTURE NOTE OR STRUCTURE DATA TABLE.
2. USE OF BRICK, BLOCKS, OR CONCRETE IS PERMISSIBLE.
3. CONTRACTOR MAY BE PERMITTED TO PRECAST INLETS SUBJECT TO THE APPROVAL OF THE ENGINEER AND IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

STORM INLET TYPE J

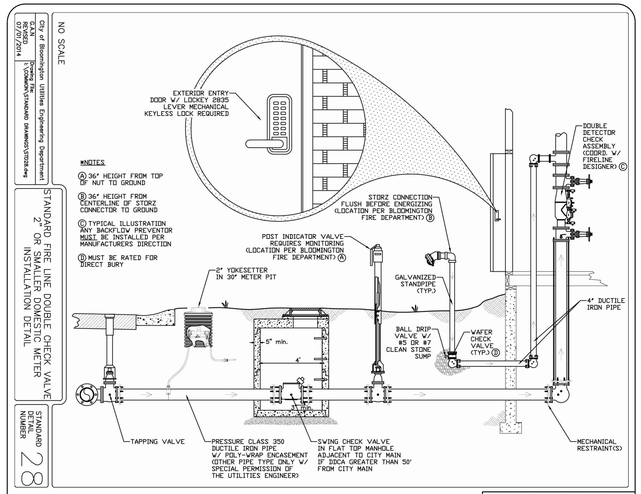
NOT TO SCALE

NO SCALE

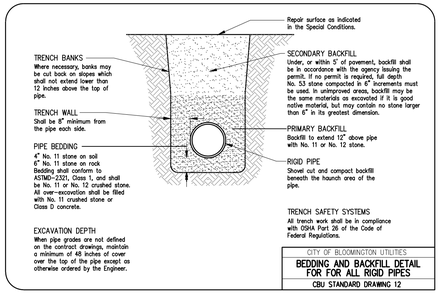
City of Bloomington Utilities Engineering Department
Drawing File
C:\Users\jsmith\Desktop\ Standards\STD28.dwg
S.A.B.
05/07/2014

STANDARD FIRE LINE DOUBLE CHECK VALVE 2" OR SMALLER DOMESTIC METER INSTALLATION DETAIL

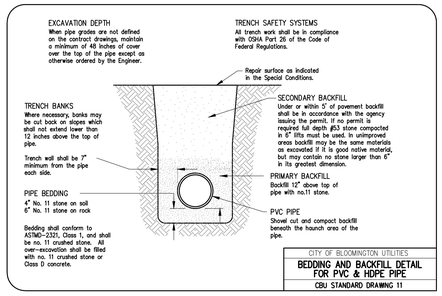
STANDARD DETAIL NUMBER 28



CITY OF BLOOMINGTON UTILITIES
STANDARD FIRE LINE DOUBLE CHECK VALVE INSTALLATION
CBU STANDARD DRAWING 28



CITY OF BLOOMINGTON UTILITIES
BEDDING AND BACKFILL DETAIL FOR FOR ALL RIGID PIPES
CBU STANDARD DRAWING 12



CITY OF BLOOMINGTON UTILITIES
BEDDING AND BACKFILL DETAIL FOR PVC & HDPE PIPE
CBU STANDARD DRAWING 11

revisions:

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BLOOMINGTON, INDIANA 47404

title: MISCELLANEOUS DETAILS

designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C302
project no.: 401632

RULE 5 NARRATIVE

SECTION A – CONSTRUCTION PLAN ELEMENTS

A1. PLAN INDEX SHOWING LOCATIONS OF REQUIRED ITEMS: REFER TO THIS NARRATIVE.

A2. 11 X 17 INCH PLAT SHOWING BUILDING LOT NUMBER/BOUNDARIES AND ROAD LAYOUT/NAMES: UNDER SEPARATE COVER

A3. NARRATIVE DESCRIBING PROJECT NATURE AND PURPOSE: THIS PROJECT WILL CONSIST OF THE DEMOLITION OF TWO BUILDINGS AND PARKING LOTS, AND THE CONSTRUCTION OF A NEW COMMERCIAL BUILDING AND PARKING LOT IMPROVEMENTS. OFFSITE CONSTRUCTION WILL CONSIST OF DRIVEWAY AND PARKING LOT IMPROVEMENTS.

A4. VICINITY MAP SHOWING PROJECT LOCATION: REFER TO COVER SHEET.

A5. LEGAL DESCRIPTION: NE QUARTER SECTION 6, TOWNSHIP 8 NORTH, RANGE 1 WEST IN PERRY TWP, MONROE COUNTY, INDIANA. 39°09.850'N / 86°34.107'W.

A6. LOCATION OF ALL LOTS AND PROPOSED SITE IMPROVEMENTS: LOCATION OF PROPOSED SITE IMPROVEMENTS IS INDICATED ON PLAN SHEETS C202 THROUGH C204. DEMOLITION OF EXISTING BUILDINGS AND PAVEMENTS IS SHOWN ON SHEET C201.

A7. HYDROLOGIC UNIT CODE: 05120208090010.

A8. NOTATION OF ANY STATE OR FEDERAL WATER QUALITY PERMITS: NO OTHER STATE OR FEDERAL PERMITS ARE REQUIRED FOR THIS PROJECT.

A9. SPECIFIC POINTS WHERE STORM WATER DISCHARGE WILL LEAVE THE SITE: SEE PLAN SHEET C203.

A10. LOCATION AND NAME OF ALL WETLANDS, LAKES, AND WATERCOURSES ON/OR ADJACENT TO THE SITE: THERE ARE NO WETLANDS, LAKES OR WATERCOURSES ON OR IMMEDIATELY ADJACENT TO THE SITE.

A11. IDENTIFY ALL RECEIVING WATERS: WEST FORK CLEAR CREEK.

A12. IDENTIFICATION OF POTENTIAL DISCHARGES TO GROUNDWATER: THERE IS NO EVIDENCE OF ANY CAVES OR SINKHOLES WITHIN THE CONSTRUCTION LIMITS.

A13. 100 YEAR FLOOD PLAINS, FLOODWAYS, AND FLOODWAY FRINGES: THERE ARE NO REGULATED FLOODPLAINS, FLOODWAYS OR FRINGES WITHIN THE PROPERTY LIMITS.

A14. PRE-CONSTRUCTION AND POST CONSTRUCTION ESTIMATE OF PEAK DISCHARGE: 100 YEAR PRE=13.5 / 100 YEAR POST=13.5 CFS

A15. ADJACENT LAND USE, INCLUDING UPSTREAM WATERSHED: ADJACENT LAND USES CONSIST OF COMMERCIAL USES TO THE NORTH, SOUTH, EAST AND WEST. "COZY TABLE" TO THE NORTH, "BELL'S EXHAUST" TO THE SOUTH, "TIRE & WHEEL" AND "AUTO ZONE" TO THE EAST AND "KEN'S WEST SIDE SERVICE & TOWING" TO THE WEST.

A16. LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS: SEE THE CONSTRUCTION LIMITS ON EROSION CONTROL PLAN SHEETS C201 AND C203.

A17. IDENTIFICATION OF EXISTING VEGETATIVE COVER: THE SITE AS WELL AS THE PARCEL TO THE EAST AT THE PROPOSED DRIVEWAY CONSISTS MOSTLY OF ASPHALT PARKING SURFACE AND COMMERCIAL BUILDINGS.

A18. SOIL MAP INCLUDING DESCRIPTIONS AND LIMITATIONS: SEE THIS SHEET.

A19. LOCATION, SIZE AND DIMENSIONS OF PROPOSED STORMWATER SYSTEMS: SEE EROSION CONTROL PLAN SHEET C202 AND THE DETAILS BEGINNING ON SHEET C305.

A20. PLAN FOR ANY OFF-SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT: SEE SHEETS C201 THROUGH C204. A NEW ACCESS DRIVEWAY AND PARKING IMPROVEMENTS WILL BE CONSTRUCTED ON THE ADJACENT PARCEL TO THE EAST. NEW PARKING SPACES WILL BE MARKED ON THE ADJACENT PARCEL TO THE SOUTH.

A21. LOCATIONS OF PROPOSED SOIL STOCKPILES, BORROW AND/OR DISPOSAL AREAS: THE NEED FOR SOIL STOCKPILING IS NOT ANTICIPATED CONSIDERING THE BULK OF THE PROJECT IS PAVEMENT REMOVAL AND REPLACEMENT.

A22. EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO SHOW DETAILED DRAINAGE PATTERNS: SEE SHEETS C201. EXISTING CONTOURS SHOWN ARE AT 1 FT INTERVALS.

A23. PROPOSED FINAL TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO SHOW DETAILED DRAINAGE PATTERNS: SEE PLAN SHEET C203. PROPOSED CONTOURS SHOWN ARE AT 1 FT INTERVALS.

SECTION B – CONSTRUCTION COMPONENT

B1. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES: SEE THE TABLE ENTITLED "POTENTIAL STORMWATER POLLUTANTS MATERIAL HANDLING AND SPILL PREVENTION" ON THIS SHEET.
A. THE MOST ABUNDANT POLLUTANT CAUSED BY CONSTRUCTION WOULD BE SOIL SUSPENDED IN STORM WATER RUNOFF.
B. FUEL, OILS, AND OTHER FLUIDS ASSOCIATED WITH THE CONSTRUCTION EQUIPMENT COULD POSSIBLY RUNOFF AS WELL.
C. TRASH ASSOCIATED WITH HUMAN ACTIVITY, INCLUDING CONSTRUCTION MATERIALS.

B2. SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND DISTURBING ACTIVITIES: THE FOLLOWING IS THE SEQUENCE FOR EROSION CONTROL IMPLEMENTATION:

1. THE CONTRACTOR SHALL ENSURE ALL PERSONNEL ON THE PROJECT ARE FAMILIAR WITH THE APPROPRIATE EROSION CONTROL MEASURES. THIS SHALL INCLUDE A VISUAL PRESENTATION OF SATISFACTORY AND UN-SATISFACTORY EXAMPLES OF EROSION CONTROL FEATURES AND METHODS.

2. CONTACT THE CITY OF BLOOMINGTON DEPT. OF PUBLIC WORKS PRIOR TO COMMENCING CONSTRUCTION.

3. INSTALL ANY SILT FENCING AND INLET PROTECTION FEATURES WHERE SHOWN IN THE PLANS.

4. REMOVE BUILDINGS, PAVEMENT AND VEGETATION IN AREAS TO BE DISTURBED ONLY. STRIP TOP SOIL FROM ALL AREAS TO BE DISTURBED BY CONSTRUCTION AND STOCK PILE AT LOCATIONS ABOVE SILT FENCE IF NEEDED.

5. SEED WITH TEMPORARY SEED MIXTURE TYPE T, IMMEDIATELY. MAINTAIN SILT FENCE DURING CONSTRUCTION AND KEEP CLEAR OF DEBRIS.

6. PERFORM CONSTRUCTION ACTIVITIES AS SHOWN ON THE PLANS. DO NOT DISTURB TURF AREAS OUTSIDE OF CONSTRUCTION LIMITS SO THAT TURF ACTS AS A VEGETATIVE FILTER STRIP.

7. ALL EROSION CONTROL STRUCTURES SHALL BE KEPT IN WORKING ORDER AND INSPECTED UPON COMPLETION OF EVERY RAIN EVENT. ADD ADDITIONAL MEASURES WHEN NECESSARY.

8. UPON COMPLETION OF CONSTRUCTION OF ALL IMPROVEMENTS REDISTRIBUTE TOP SOIL TO ALL PROPOSED GRASSED AREAS. MULCH SEED ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF ALL EARTHMOVING AND UNDERGROUND UTILITY WORK IN ACCORDANCE WITH INDOT SS-621 SEED MIXTURE TYPE U. FERTILIZE AND WATER SEEDED AREAS UNTIL MATURE TURF IS ESTABLISHED.

9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON THE ESTABLISHMENT OF MATURE GRASS TURF.

B3. STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS: THE SITE IS CURRENTLY PAVED. MOST OF THE PAVEMENT WITHIN THE CONSTRUCTION LIMITS WILL BE REMOVED LEAVING THE GRAVEL BASE THAT WILL BE USED FOR CONSTRUCTION ENTRANCE PURPOSES.

B4. SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS: SHEET FLOW AREAS SHALL BE TEMPORARILY OR PERMANENTLY SEEDED DEPENDING ON THE STAGE OF CONSTRUCTION.

B5. SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS: THERE ARE NO PROPOSED CONCENTRATED FLOW AREAS.

B6. STORM SEWER INLET PROTECTION MEASURE LOCATION: SEE SHEET C203 FOR PROPOSED INLET PROTECTION LOCATIONS.

B7. RUNOFF CONTROL MEASURES: SEE SHEET C203.

B8. STORMWATER OUTLET PROTECTION SPECIFICATIONS: THERE ARE NO STORM STRUCTURES PROPOSED TO OUTLET ON THIS SITE.

B9. GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS: DOES NOT APPLY TO THIS PROJECT.

B10. LOCATION, DIMENSIONS, SPECIFICATIONS AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE: SEE PLAN SHEET C202, C203 AND THE DETAILS BEGINNING ON SHEET C301.

B11. TEMPORARY SURFACE STABILIZATION METHODS APPROPRIATE FOR EACH SEASON: TEMPORARY SEEDING SHOULD USE FERTILIZER AND SEED REGARDLESS OF CALENDAR DATE. SEED AND FERTILIZER SHOULD BE USED DURING ANY SEEDING EVENT. FOR WINTER/LATE WINTER PERIODS UTILIZE THE "DORMANT SEEDING & FROST SEEDING" PRACTICE. THERE SHOULD BE NO DELAY IN APPLYING SEED TO IDLE/INACTIVE AREAS OR AREAS THAT ARE ANTICIPATED TO BECOME IDLE/INACTIVE FOR MORE THAN 14 DAYS.

B12. PERMANENT SURFACE STABILIZATION SPECIFICATIONS: PERMANENT STABILIZATION SHALL OCCUR AS EARLY AS POSSIBLE DURING CONSTRUCTION OR AREAS TO BE IDLE OR INACTIVELY WORKED FOR 6 MONTHS OR MORE. SEED AND FERTILIZER SHOULD BE USED DURING ANY SEEDING EVENT.

B13. MATERIAL HANDLING AND SPILL PREVENTION PLAN: ALL MATERIALS ON-SITE WILL BE HANDLED PER THE REQUIREMENTS OF THE MSDS SHEETS. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL CLEAN-UP KIT ON SITE FOR RECOVERY OF PETROLEUM PRODUCT SPILLS AT ALL TIMES. IF A REPORTABLE AMOUNT OF SEDIMENT LADEN WATER OR OTHER POLLUTANT IS ALLOWED TO LEAVE THE SITE, THE CONTRACTOR IS OBLIGATED TO NOTIFY IDEM'S SPILL LINE AT (317) 233-7745 WITHIN 24 HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINES AND ANY LIABILITY ASSOCIATED WITH SUCH AN EVENT. SEDIMENT LADEN WATER, WHICH OTHERWISE WOULD FLOW FROM THE PROJECT SITE, SHALL BE TREATED BY EROSION AND SEDIMENT CONTROL MEASURES APPROPRIATE TO MINIMIZE SEDIMENTATION.

B14. MONITORING AND MAINTENANCE GUIDELINES FOR EACH PROPOSED POLLUTION PREVENTION MEASURE: MONITORING AND MAINTENANCE OF ALL POLLUTION PREVENTION MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INSPECT ALL MEASURES AT LEAST ONCE A WEEK AND AFTER EACH STORM EVENT. THE CONTRACTOR SHALL PREPARE A WRITTEN REPORT FOR EACH INSPECTION NOTING CONDITIONS AND MAINTENANCE PROVIDED. A COPY OF EACH REPORT SHALL BE KEPT ON FILE AT THE PROJECT SITE. REFER TO EACH PREVENTION MEASURE DETAIL FOR CONSTRUCTION AND MAINTENANCE GUIDELINES.

B15. EROSION & SEDIMENT CONTROLS SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS: THIS ITEM DOES NOT APPLY TO THIS PROJECT.

SECTION C – POST CONSTRUCTION COMPONENT

C1. DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH WITH THE PROPOSED LAND USE: THE MAIN POST CONSTRUCTION POLLUTANTS WILL COME FROM THE PROPOSED/EXISTING PARKING LOTS. THE POLLUTANTS MAY INCLUDE CAR FUEL, OIL, ANTIFREEZE, SUSPENDED SOLIDS, NITROGEN, PHOSPHORUS, COPPER, LEAD, AND ZINC.

C2. SEQUENCE DESCRIBING STORM WATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND DISTURBING ACTIVITIES: WHEN ALL SITE WORK IS NEARLY COMPLETE AND BARE EARTH IS ESTABLISHED WITH GRASS INSTALL THE UNDERDRAIN COMPONENTS OF THE TWO BIO-RETENTION SWALE AND PLANT AS SPECIFIED. SEE SHEET C203.

C3. DESCRIPTION OF PROPOSED POST CONSTRUCTION STORMWATER QUALITY MEASURES: SEE SHEET C203 FOR THE PROPOSED BIO-RETENTION SWALE LOCATION AS WELL AS THE DETAILS BEGINNING ON THIS SHEET. THE SITE WILL HAVE A NET REDUCTION OF XXXX% IN ASPHALT/BUILDING AREA (IMPERVIOUS SURFACE) FROM PREDEVELOPMENT TO POST DEVELOPMENT CONDITIONS. THE SITE WILL CONTAIN MORE GRASSED AREAS AND LANDSCPAPING.

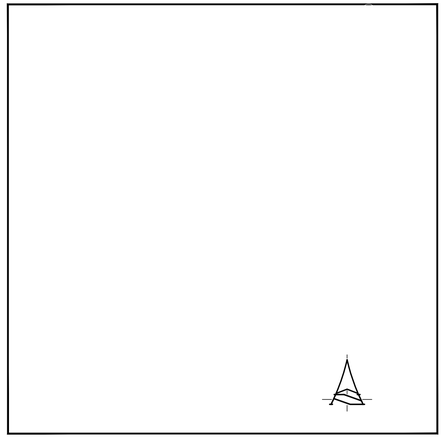
C4. LOCATION, DIMENSIONS, SPECIFICATIONS AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE: SEE PLAN SHEET C203 AS WELL AS THE EROSION CONTROL DETAIL SHEETS BEGINNING ON THIS SHEET.

C5. DESCRIPTION OF MAINTENANCE GUIDELINES FOR PROPOSED POST CONSTRUCTION WATER QUALITY MEASURES: SEE THE DETAIL FOR THE BIO-RETENTION SWALES ON THIS SHEET.

Potential Storm Water Pollutants Material Handling and Spill Prevention

Trade Name /Material	Source	Chemical/Physical Description	Storm Water Pollutants	Remedial Action
Fertilizer	Landscaping Activities	Liquid or solid grains	Nitrogen, Phosphorus	(1), (2), (3)
Cleaning Solvents	Normal Business Operation	Colorless, blue or yellow-green liquid	Percholoroethylene, methylene chloride, trichloroethylene, petroleum distillates	Seal drains and inlets with plastic and or tape and collect excess, (1), (2), (3), (4)
Asphalt	Site Construction	Black solid	Oil, petroleum distillates	(1), (2) due to contamination of runoff before curing is complete
Concrete	Bridge Construction	White solid	Limestone, sand	Concrete washout areas shall be utilized and concrete disposed of properly once hardened (2)
Paints	Roadway Striping	Various colored liquids	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	Care should be taken to minimize overspray (1), (2), (3), (4)
Curing Compounds	Site Construction	Creamy white liquid	Naphtha	(1), (2), (3), (4)
Wastewater from constr. equipment washing	Construction Equipment	Water	Soil, oil, grease, solids	Equipment washing shall be executed in a location which does not cause wastewater to drain directly to storm sewers or ditches (i.e. flat vegetated area) (2)
Hydraulic oil/fluids	Construction Equipment, Cars	Brown oily petroleum hydrocarbon	Mineral oil	Storm structures incorporate a hooded outlet preventing floatables from exiting site, (3), (4)
Gasoline	On site storage tanks, cars, construction equipment, fueling operations	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Storage tanks shall have emergency storage capacity below tank in case of rupture. 3'x3'x6" spill pans shall be used during fueling. (3), (4)
Diesel Fuel	On site storage tanks, cars, construction equipment, fueling operations	Clear, blue-green to yellow liquid	Bpetroleum distillate, oil and grease, naphthalene, xylenes	Storage tanks shall hove emergency storage capacity below lank in case of rupture, 3'x3'x6" spill pans shall be used during fueling. (3), (4)
Kerosene	Cleaning Operations, Heaters	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates, arsenic, copper	3'x3'x6" spill pans shall be used during fueling operations and cleaning of equip. to catch excess, (1), (2), (3), (4)
Antifreeze Coolant	Construction Equipment, Cars	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	(1), (2), (3), (4)
Soil Erosion	Exposed Soil	Solid particles	Soil sediment	Erosion control measures (this sht.)
Solid Waste Trash	Normal Business Operation	Trash, debris, refuse	Trash, debris, refuse	Trash cans shall be utilized on site during and after construction

This table was provided for general information only to supplement information used in the Rule 5 permitting process. The contractor is responsible for material handling and spill mitigation procedures.
Notes:
1. All excess materials shall be collected and disposed of in accordance with all federal, state and local regulations.
2 Material shall not be applied immediately preceding, during or following rainfall (when applicable).
3. Spillage should be cleaned immediately by a trained individual and disposed of per Note (2).
4. Store in sealed containers appropriate for specific use.



SOILS MAP
SCALE: 1"=500'

HtB – Hosmer-Urban land complex, 2 to 12 percent slopes.
This complex consists of gently sloping, well drained and moderately well drained Hosmer soils which are moderately deep to a fragipan and areas of Urban land. It is about 40 percent Hosmer soils and about 30 percent Urban land. It is on narrow and broad convex ridgetops of the loess-covered uplands. Individual areas of this unit range from 5 to 200 acres and have a dominant size of about 40 acres. The Hosmer soils and Urban land areas are so intermingled or so small in area that they could not be shown separately at the scale selected for mapping.
This Hosmer soil has moderate available water capacity. Permeability is moderate above the fragipan and very slow within the fragipan. The surface runoff is medium. Reaction of the surface layer ranges from very strongly acid to medium acid. The organic matter content of the surface layer is low. The Hosmer soil has a seasonal high water table at a depth of 3 to 6 feet during March and April. Because the fragipan is at a depth of 23 to 36 inches, root penetration is restricted and the water table is perched.
The Hosmer soil is slightly limited for dwellings without basements and moderately limited for dwellings with basements because of wetness.
The Hosmer soil is severely limited for local roads and streets because of potential frost action and low strength. The Hosmer soil is severely limited for septic tank absorption fields are severe because of wetness and the very slowly permeable fragipan.

revisions:

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BLOOMINGTON, INDIANA 47404

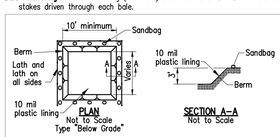
title: SWPPP INFORMATION

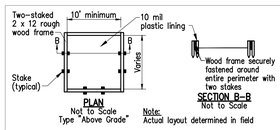
designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C401
project no.: 401632

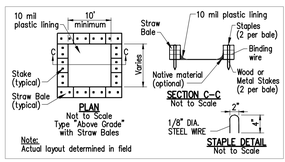
CW — TEMPORARY CONCRETE WASHOUT AREA

REQUIREMENTS

Capacity: Temporary washout facilities shall be constructed above or below grade at the option of the contractor. Temporary washout facilities shall be constructed and maintained in sufficient quality and size to contain all liquid and concrete waste generated by washout operations.
Type: Below grade concrete washout facilities are typical. Above grade facilities are used if excavation is not practical.
Location: Facilities shall be located a minimum of 50' from storm drain inlets, open drainage facilities, and water courses.
Plastic Lining Material: Minimum 10 mil polyethylene sheeting and should be free of holes, tears or other defects.
Straw Bale Dimensions: Approximately 14i n. x 18 in. x 36 in.
Bale Anchoring: Two 36–in. long (minimum) steel rebars or 2 x 2–in. hardwood stakes driven through each bale.







INSTALLATION

* Temporary concrete washout facilities shall be constructed as shown in the above details, and as described below. All temporary washout facilities shall have at minimum 10' width, 3' depth, and sufficient length to contain all liquid and concrete waste generated.

"Below Grade"

1. A pit shall be excavated with a minimum width of 10', depth of 3' and to contain all liquid and concrete waste generated.
2. The pit should be lined with a minimum 10 mil plastic lining which overhangs the pit rim by 5' in each direction.
3. Sandbags shall be placed on top of the plastic lining at 3' intervals along the rim of the excavated pit.
4. Lath and flagging shall be installed on all sides of the excavated pit to clearly mark its location.

"Above Grade"

1. A wood frame shall be constructed using two 2 x 12 boards staked on edge with a minimum width of 10' and length sufficient to contain all liquid and concrete waste generated.
2. The wood form shall be securely fastened around the entire perimeter using steel rebar or 2 in. x 2 in. hardwood stakes.
3. The wood form shall be lined with 10 mil plastic sheeting which shall be attached to the outside face of the wood frame.

"Above Grade" with Straw Bales

1. Straw bales shall be arranged such that they create a basin with a minimum width of 10' and length sufficient to contain all liquid and concrete waste generated.
2. The straw bales shall be securely staked using steel rebar or 2 in. x 2 in. hardwood stakes. (two per bale)
3. The basin shall be lined with 10 mil plastic sheeting which is attached to the straw bales using 4" steel wire staples. (two per bale)

MAINTENANCE

* Temporary concrete washout facilities should be maintained to provide adequate holding capacity with a minimum freeboard of 4 in. for above grade facilities and 12 in. for below grade facilities. Maintaining temporary concrete washout facilities should include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials should be removed and disposed of.
* Washout facilities must be cleaned, or new facilities must be constructed ready for use once the washout is 75% full.
* At the conclusion of concrete construction activities the temporary concrete washout area shall be removed and returned to its original condition.

PRACTICE 3.11 — TEMPORARY SEEDING

REQUIREMENTS

Site and seedbed preparation: Graded and fertilizer applied.
Plant Species: Selected on the basis of quick germination, growth, and time of year to be seeded (see Exhibit 3.11–B).
Mulch: Clean grain, straw, hay, wood, fibre, etc., to protect seedbed and encourage plant growth.
Seeding Frequency: As often as possible following construction activity. Daily seeding of rough graded areas when the soil is loose and moist is usually most effective.

APPLICATION (Exhibit 3.11–B)

SITE PREPARATION:

1. Install practices needed to control erosion, sedimentation, and water runoff, such as temporary and permanent diversions, sediment traps or basins, silt fences, and straw bale dams (practices 3.21, 3.22, 3.72, 3.73, 3.74, and 3.75).
2. Grade the site as specified in the construction plan.

SEEDBED PREPARATION:

1. Test soil to determine its nutrient levels. (Contact your county SWDC or Cooperative Extension office for assistance and soils information.
2. Fertilize as recommended by the soil test. If testing is not done, consider applying 400–600 lbs./acre of 12–12 analysis, or equivalent, fertilizer.
3. Work the fertilizer into the soil 2–4 in. deep with a disk or rake operated across the slope.

SEEDING:

1. Select a seeding mixture and rate from Exhibit 3.11–B, and plant at depth and on dates shown.
   including available soil testing services.)
2. Apply seed uniformly with a drill or cultipacker–seeder or by broadcasting, and cover to the depth shown in Exhibit 3.11–B.
3. If drilling or broadcasting, firm the seedbed with a roller or cultipacker
4. Mulch seeded areas to increase seeding success. Anchor all mulch by crimping or tackifying. Use of netting or erosion control blankets is possible, but may not be cost–effective for temporary seeding.

Exhibit 3.11–B. Temporary Seeding Recommendations

Seed Species*	Rate/acre	Planting Depth	Optimum dates**
Wheat or rye	150 lbs.	1 to 1 1/2 in.	9/15 to 10/30
Spring oats	100 lbs.	1 in.	3/1 to 4/15
Annual ryegrass	40 lbs.	1/4 in.	3/1 to 5/1
~~Sudangrass~~	~~40 lbs.~~	~~1 in.~~	~~3/1 to 5/1~~
~~Millet~~	~~30 lbs.~~	~~1 in.~~	~~3/1 to 5/1~~
~~Spring barley~~	~~100 lbs.~~	~~1 in.~~	~~3/1 to 5/1~~
~~Spring wheat~~	~~100 lbs.~~	~~1 in.~~	~~3/1 to 5/1~~
~~Spring rye~~	~~100 lbs.~~	~~1 in.~~	~~3/1 to 5/1~~
~~Soybeans~~	~~100 lbs.~~	~~1 in.~~	~~5/1 to 6/1~~
~~Cowpeas~~	~~100 lbs.~~	~~1 in.~~	~~5/1 to 7/30~~
~~Buckwheat~~	~~100 lbs.~~	~~1 in.~~	~~5/1 to 8/30~~

* Perennial species may be used as a temporary cover, especially if the area to be seeded will remain idle for more than a year (Practice 3.12).
** Seeding done outside the optimum dates increases the chances of seeding failure.

MAINTENANCE

* Inspect periodically after planting to see that vegetative stands are adequately established; reseed if necessary.
* Check for erosion damage after storm events and repair; reseed and mulch if necessary.
* Topdress fall seeded wheat or rye seedings with 50 lbs./acre of nitrogen in February or March if nitrogen deficiency is apparent. (Exhibit 3.11–B shows only wheat/rye fall seeded.)

PRACTICE 3.13 — DORMANT AND FROST SEEDING

PURPOSES

* To provide early germination and soil stabilization in the spring.
* To reduce sediment runoff to downstream areas.
* To improve the visual aesthetics of the construction area.
* To repair previous seedings.

REQUIREMENTS **Site and seedbed preparation:** Graded as needed, and lime and fertilizer applied.
Plant species: Selected on the basis of soil type, adaptability to the region, and planned use of the area (see Exhibits 3.13–B and 3.13–C).

APPLICATION (Exhibit 3.13–B and C)

SITE PREPARATION:

1. Grade the area to be seeded.
2. Install needed erosion/water runoff control practices, such as temporary or permanent diversions, sediment basins, silt fences, or straw bale dams (Practices 3.21, 3.22, 3.72, 3.74 or 3.75).

FOR DORMANT SEEDING

Site and seedbed preparation and mulching can be done months ahead of actual seeding or if the existing ground cover is adequate, seeding can be directly into it.
Seeding dates: Dec. 1–Feb. 28 (north of US 40), Dec. 10–Jan. 15 (south of US 40).

1. Broadcast Fertilizer as recommended by a soil test; or if testing was not done consider applying 400–600 lbs./acre of 12–12–12 analysis or equivalent, fertilizer.
2. Apply mulch upon completion of grading (Practice 3.15).
3. Select an appropriate seed species or mixture from Exhibit 3.13–B or Exhibit 3.13–C, and broadcast on top of the mulch and/or into existing ground cover at rate shown.

FOR FROST SEEDING

Seed is broadcast over the prepared seedbed and incorporated into the soil by natural freeze–thaw action.
Seeding dates: Feb. 28–Mar. 28 (north of US 40), Feb. 15–Mar. 15 (south of US 40).

1. Broadcast Fertilizer as recommended by a soil test; or if testing was not done consider applying 400–600 lbs./ acre of 12–12–12 analysis or equivalent, fertilizer.
2. Apply mulch upon completion of grading (Practice 3.15).
3. Select an appropriate seed species or mixture from Exhibit 3.13–B or Exhibit 3.13–C, and broadcast on top of the mulch and/or into existing ground cover at rate shown. Do not work the seed into the soil.

Exhibit 3.13–B. Temporary Dormant or Frost Seeding Recommendations.

Seed species*	Rate per acre
Wheat or rye	150lbs.
Spring oats	150 lbs.
Annual ryegrass	60 lbs.

* Perennial species may be used as a temporary cover, especially if the area to be seeded will remain idle for more than a year (Practice 3.12).

Exhibit 3.13–C. Permanent Dormant of Frost Seeding Recommendations.
This table provides several seeding options. Additional seed species and mixtures are available commercially. When selecting a mixture, consider site conditions, including soil properties, slope aspect and the tolerance of each species to shade and droughtiness.

Seed species*	Rate per acre	Optimum soil pH
OPEN AND DISTRIBUTED AREAS (REMAINING IDLE MORE THAN 1 YR).		
1. Perennial ryegrass	50 to 75 lbs.	5.6 to 7.0
+ white or ladino clover*	1 1/2 to 3 lbs.	
2. Kentucky bluegrass	30 lbs.	5.5 to 7.5
+ switchgrass	5 lbs.	
+ timothy	6 lbs.	
+ perennial ryegrass	15 lbs.	
+ white or ladino clover*	1 1/2 to 3 lbs.	
3. Perennial ryegrass	22 to 45 lbs.	5.6 to 7.0
+ prairie switchgrass	22 to 45 lbs.	
4. Prarie switch grass	50 to 75 lbs.	5.5 to 7.5
+ white or ladino clover*	1 1/2 to 3 lbs.	
STEEP BANKS AND CUTS, LOW MAINTENANCE AREAS (NOT MOWED).		
2. Prarie switch grass	50 to 75 lbs.	5.5 to 7.5
+ white or ladino clover*	1 1/2 to 3 lbs.	
3. Prarie switch grass	50 to 75 lbs.	5.5 to 7.5
+ red clover*	15 to 30 lbs.	
(Recommended north of US 40.)		
4. Orchardgrass	30 to 45 lbs.	5.6 to 7.0
+ red clover*	15 to 30 lbs.	
+ ladino clover*	1 1/2 to 3 lbs.	
LAWNS AND HIGH MAINTENANCE AREAS		
1. Bluegrass	160 to 210 lbs.	5.5 to 7.5
2. Perennial ryegrass (turf–type)	70 to 90 lbs.	5.6 to 7.0
+ bluegrass	105 to 135 lbs.	
3. Prarie switch grass (turf–type)	195 to 250 lbs.	5.6 to 7.5
+ bluegrass	30 to 45 lbs.	
CHANNELS AND AREAS OF CONCENTRATED FLOW		
1. Perennial ryegrass	150 to 225 lbs.	5.6 to 7.0
+ white or ladino clover*	1 1/2 to 3 lbs.	
2. Kentucky bluegrass	30 lbs.	5.5 to 7.5
+ switchgrass	5 lbs.	
+ timothy	6 lbs.	
+ perennial ryegrass	15 lbs.	
+ white or ladino clover*	1 1/2 to 3 lbs.	
3. Prarie switch grass	150 to 225 lbs.	5.5 to 7.5
+ white or ladino clover*	1 1/2 to 3 lbs.	
4. Prarie switch grass	150 to 225 lbs.	5.5 to 7.5
+ perennial bluegrass	22 to 30 lbs.	
+ kentucky bluegrass	22 to 30 lbs.	

* For best results: (a) legume seed should be inoculated; (b) seeding mixtures containing legumes should preferably be spring–seeded, although the grass may be fall–seeded and the legume frost–seeded; (c) if legumes are fall–seeded, do so in early fall.

NOTE: If using mixtures other than those listed here, increase the seeing rate by 50% over the conventional rate.

MAINTENANCE

* Apply 200–300 lbs./acre of 12–12–12 or equivalent fertilizer between Apr. 15 and May 10 or during periods of vigorous growth.
* Re–seed and mulch any areas that have inadequate cover by mid to late Apr. For best results, re–seed within the recommended dates shown in Practices 3.11 for temporary seeding or 3.12 for permanent seeding.

PRACTICE 3.12 — PERMANENT SEEDING

REQUIREMENTS

Site and seedbed preparation: Graded, and lime and fertilizer applied.
Plant Species: Selected on the basis of soil type, soil pH, region of the state, time of year, and planned use of the area to be seeded (see Exhibit 3.12–C).
Mulch: Clean grain, straw, hay, wood, fibre, etc., to protect seedbed and encourage plant growth. The mulch may need to be anchored to reduce removal by wind or water, or erosion control blankets may be considered.

APPLICATION (Exhibit 3.12–B, C, and D)

Permanently seed all final grade areas (e.g., landscape berms, drainage swales, erosion control structures, etc.) as each is completed and all areas where additional work is not scheduled for a period of more than a year.

SITE PREPARATION:

1. Install practices needed to control erosion, sedimentation, and runoff prior to seeding. These include temporary and permanent diversions, sediment traps and basins, silt fences, and straw bale dams (Practices 3.21, 3.22, 3.72, 3.73, 3.74, and 3.75).
2. Grade the site and fill in depressions that can collect water.
3. Add topsoil to achieve needed depth for establishment of vegetation (Practice 3.02).

SEEDBED PREPARATION:

1. Test soil to determine pH and nutrient levels. (Contact your county SWDC or Cooperative Extension office for assistance and soils information, including available soil testing services.)
2. If soil pH is unsuitable for the species to be seeded, apply lime according to test recommendations.
3. Fertilize as recommended by the soil test. If testing was not done, consider applying 400–600 lbs./acre of 12–12–12 analysis, or equivalent, fertilizer.
4. Till the soil to obtain a uniform seedbed, working the fertilizer and lime into the soil 2–4 in. deep with a disk or rake operated across the slope (Exhibit 3.12–B).

SEEDING:
Optimum seeding dates are Mar. 1–May 10 and Aug. 10–Sept. 30. Permanent seeding done between May 10 and Aug. 10 may need to be irrigated. As an alternative, use temporary seeding (Practice 3.11) until the preferred date for permanent seeding.

1. Select a seeding mixture and rate from Exhibit 3.12–C, based on site conditions, soil pH, intended land use, and expected level of maintenance.
2. Apply seed uniformly with a drill or cultipacker–seeder (Exhibit 3.12–D) or by broadcasting, and cover to a depth of 1/4–1/2 in.
3. If drilling or broadcasting, firm the seedbed with a roller or cultipacker
4. Mulch all seeded areas (Practice 3.15).Consider using erosion blankets on sloping areas (Practice 3.17). (NOTE: If seeding is done with a hydroseeder, fertilizer and mulch can be applied with the seed in a slurry mixture.)

Exhibit 3.12–C. Permanent Seeding Recommendations

This table provides several seeding options. Additional seed species and mixtures are available commercially. When selecting a mixture, consider site conditions, including soil properties (e.g., soil pH and drainage), slope aspect and the tolerance of each species to shade and droughtiness.

Seed species and mixtures	Rate per acre	Optimum soil pH
OPEN AND DISTURBED AREAS (REMAINING IDLE MORE THAN 1 YR.)		
1. Perennial ryegrass	35 to 50 lbs.	5.6 to 7.0
+ white or ladino clover*	1 to 2 lbs.	
2. Kentucky bluegrass	20 lbs.	5.5 to 7.5
+ switchgrass	3 lbs.	
+ timothy	4 lbs.	
+ perennial ryegrass	10 lbs.	
+ white or ladino clover*	1 to 2 lbs.	
3. Perennial ryegrass	15 to 30 lbs.	5.6 to 7.0
+ prarie switch grass	15 to 30 lbs.	
4. Prarie switch grass	35 to 50 lbs.	5.5 to 7.5
+ ladino or white clover*	1 to 2 lbs.	
STEEP BANKS AND CUTS, LOW MAINTENANCE AREAS (NOT MOWED)		
2. Prarie switch grass	35 to 50 lbs.	5.5 to 7.5
+ white or ladino clover*	1 to 2 lbs.	
3. Prarie switch grass	35 to 50 lbs.	5.5 to 7.5
+ red clover*	10 to 20 lbs.	
(Recommended north of US 40)		
4. Orchardgrass	20 to 30 lbs.	5.6 to 7.0
+ red clover*	10 to 20 lbs.	
+ ladino clover*	1 to 2 lbs.	
LAWNS AND HIGH MAINTENANCE AREAS		
1. Bluegrass	105 to 150 lbs.	5.5 to 7.0
2. Perennial ryegrass (turf–type)	45 to 60 lbs.	5.6 to 7.0
+ bluegrass	70 to 90 lbs.	
3. Prarie switch grass(turf–type)	130 to 107 lbs.	5.5 to 7.5
+ bluegrass	20 to 30 lbs.	
CHANNELS AND AREAS OF CONCENTRATED FLOW		
1. Perennial ryegrass	100 to 150 lbs.	5.6 to 7.0
+ white or ladino clover*	1 to 2 lbs.	
2. Kentucky bluegrass	20 lbs.	5.5 to 7.5
+ switchgrass	3 lbs.	
+ timothy	4 lbs.	
+ perennial ryegrass	10 lbs.	
+ white or ladino clover*	1 to 2 lbs.	
3. Prarie switch grass	100 to 150 lbs.	5.5 to 7.5
+ ladino or white clover*	1 to 2 lbs.	
4. Prarie switch grass	100 to 150 lbs.	5.5 to 7.5
+ Perennial ryegrass	15 to 20 lbs.	
+ Kentucky bluegrass	15 to 20 lbs.	

* For best results: (a) legume seed should be inoculated; (b) seeding mixtures containing legumes should preferably be spring–seeded, although the grass may be fall–seeded and the legume frost–seeded (Practice 3.13); and (c) if legumes are fall–seeded, do so in early fall.

NOTE: An oat or wheat companion or nurse crop may be used with any of the above permanent seeding mixtures. If so, it is best to seed during the fall seeding period, especially after Sept. 15, and at the following rates; spring oats–1.4 to 3/4 bu./acre; wheat–no more than 1/2 bu./acre.

MAINTENANCE

* Inspect periodically, especially after storm events, until the stand is successfully established. (Characteristics of a successful stand include: vigorous dark green or bluish–green seedlings; uniform density with nurse plants, legumes, and grasses well inter–mixed; green leaves; and the perennials remaining green throughout the summer, at least at the plant base.)
* Plan to add fertilizer the following growing season according to soil test recommendations.
* Repair damaged, bare or sparse areas by filling any gullies, re–fertilizing, over– or re–seeding, and mulching.
* If plant cover is sparse or patchy, review the plant materials chosen, soil fertility, moisture condition, and mulching; then repair the affected area either by over–seeding or by re–seeding and mulching after re–preparing the seedbed.
* If vegetation fails to grow, consider soil testing to determine acidity or nutrient deficiency problems. (Contact your SWCD or Cooperative Extension office for assistance.)
* If additional fertilization is needed to get a satisfactory stand, do so according to soil test recommendations.

PRACTICE 3.01 — TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT PAD

PURPOSE

* To provide a stable entrance/exit condition from the construction site.
* To keep mud and sediment off public roads.

REQUIREMENTS (Exhibit 3.01–B)

Material: 2–3 in. washed stone (INDOT CA No. 2) over a stable foundation.
Thickness: 6 in. minimum
Width: 50 ft. minimum or full width of entrance/exit roadway, whichever is greater.
Length: 200 ft. minimum. The length can be shorter for small sites such as for an individual home.
Washing facility (optional): Level area with 3 in. washed stone minimum or a commercial rack, and waste water diverted to a sediment trap or basin (Practice 3.72).
Geotextile fabric underliner: May be used under wet conditions or for soils within a high seasonal water table to provide greater bearing strength.

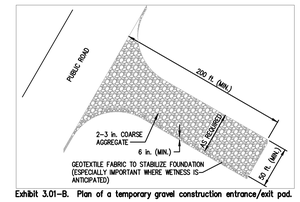


Exhibit 3.01–B. Plan of a temporary gravel construction entrance/exit pad.

INSTALLATION (Exhibit 3.01–C)

1. Avoid locating on steep slopes or at curves in public roads.
2. Remove all vegetation and other objectionable material from the foundation area, and grade and crown for positive drainage.
3. If slope towards the road exceeds 2%, construct a 6–8 in.–high water bar (ridge) with 3:1 side slopes across the foundation area about 15 ft. from the entrance to divert runoff away from the road (Practice 3.24) (see Exhibit 3.01–C).
4. Install pipe under the pad if needed to maintain proper public road drainage.
5. If wet conditions are anticipated, place geotextile fabric on the graded foundation to improve stability.
6. Place stone to dimensions and grade shown in the erosion/sediment control plan, leaving the surface smooth and sloped for drainage.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

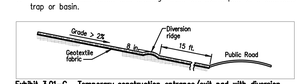


Exhibit 3.01–C. Temporary construction entrance/exit pad with diversion ridge where grade exceeds 2%

MAINTENANCE

* 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.

PRACTICE 3.74 — SILT FENCE (SEDIMENT FENCE)

PURPOSE

To retain sediment from small, sloping disturbed areas by reducing the velocity of sheet flow.
(NOTE: Silt fence captures sediment by ponding water to allow deposition, not by filtration. Although the practice usually works best in conjunction with temporary basins, traps, or diversions, it can be sufficiently effective to be used alone. A silt fence is not recommended for use as a diversion; nor is it to be used across a stream, channel or anywhere that concentrated flow is anticipated.)

REQUIREMENTS (Exhibit 3.74–B and C)

Drainage Area: Limited to 1/4 acre per 100 ft. of fence; further restricted by slope steepness (see Exhibit 3.74–B).
Location: Fence nearly level, approximately following the land contour, and at least 10 ft. from toe of slope to provide a broad, shallow sediment pool.
Trench: 8 in. minimum depth, flat–bottom or v–shaped, filled with compacted soil or gravel to bury lower portion of support wire and/or fence fabric.
Support posts: 2 x 2–in. hardwood posts (if used) or steel fence posts set at least 1 ft. deep.* (Steel posts should projections for fastening fabric.)
Spacing of posts: 8 ft. maximum if fence supported by wire, 6 ft. for extra–strength fabric without wire backing.

Exhibit 3.74–B. Maximum Land Slope and Distance for Which a Silt Fence Is Applicable.

Land slope	Max. distance above fence
Less than 2%	100 ft.
2 to 5%	75 ft.
5 to 10%	50 ft.
10 to 20%	25 ft.
More than 20%	15 ft.

Fence height: High enough so depth of impounded water does not exceed 1 1/2 ft. at any point along fence line.
Support wire (optional): 14 gauge, 6 in. wire fence (needed if using standard–strength fabric).
Fence fabric: Woven or non–woven geo–textile fabric with specified filtering efficiency and tensile strength (see Exhibit 3.74–C) and containing UV inhibitors and stabilizers to ensure 6–mo. minimum life at temperatures 0°–120°F.

* Some commercial silt fences come ready to install, with support posts attached and requiring now wire support.

Exhibit 3.74–C. Specifications Minimums for Silt Fence Fabric.

Physical Property	Woven Fabric	Non–woven fabric
Filtering efficiency	85%	85%
Tensile strength at 20% elongation:		
Standard strength	30lbs./linear in.	50lbs./linear in.
Extra strength	50lbs./linear in.	70lbs./linear in.
Slurry flow rate	0.3 gal./min./sq.ft.	4.5 gal./min./sq.ft.
Water flow rate	15 gal. /min./sq.ft.	220 gal./min./sq.ft.
UV resistance	70%	85%

Outlet (optional): To allow for safe storm flow bypass without overtopping fence. Placed along fence line to limit water depth to 1 1/2 ft. maximum; crest–1 ft. high maximum; weir width–4 ft. maximum; splash pad–5 ft. wide, 3 ft. long, 1 ft. thick minimum.

INSTALLATION

SITE PREPARATION:

1. Plan for the fence to be at least 10 ft. from the toe of the slope to provide a sediment storage area.
2. Provide access to the area if sediment cleanout will be needed.

OUTLET CONSTRUCTION (OPTIONAL)

1. Determine the appropriate location for a reinforced, stabilized bypass flow outlet.
2. Set the outlet elevation so that water depth cannot exceed 1 1/2 ft. at the lowest point along the fence line.
3. Locate the outlet weir support posts no more than 4 ft. apart, and install a horizontal brace between them. (Weir height should be no more than 1 ft. and water depth no more than 1 1/2 ft. anywhere else along the fence.)
4. Excavate the foundation for the outlet splash pad to minimo of 1 ft. deep, 5 ft. wide and 5 ft. long on level grade
5. Fill the excavated foundation with INDOT CA No. 1 stone, being careful that the finished surface blends with the surrounding area, allowing no overfall.
6. Stabilize the area around the pad.

OUTLET CONSTRUCTION (OPTIONAL)

1. Along the entire intended fence line, dig an 8 in. deep flat–bottomed or V–shaped trench.
2. On the downslope side of the trench, drive the wood or steel support posts at least 1 ft. into the ground, spacing them no more than 8 ft. apart if if the fence is supported by wire or 6 ft. if extra strength fabric is used without support wire. Adjust spacing, if necessary, to ensure that posts are set at the low points along the fence line. (NOTE: If the fence has pre–attached posts or stakes, drive them deep enough so the fabric is satisfactory in the trench as described in step 6.)
3. Fasten support wire fence to the upslope side of the posts, extending it 8 in. into the trench.
4. Run a continuous length of geotextile fabric in front of the support wire and posts avoiding joints, particularly at low points in the fence line.
5. If a joint is necessary, nail the overlap to the nearest post with a lath.
6. Place the bottom 1 ft. of fabric in the 8 in. deep trench, extending the remaining 4 in. toward the upslope side.
7. Backfill the trench with compacted earth or gravel.
   NOTE: If using a pre–packed commercial silt fence rather than constructing one, follow the manufacturer's installation instructions.

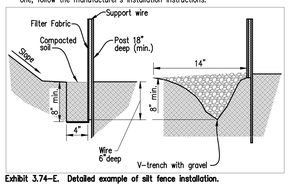
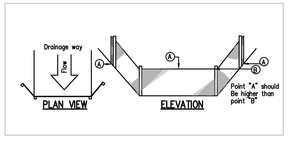


Exhibit 3.74–E. Detailed example of silt fence installation.



MAINTENANCE

* 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 area has been stabilized, remove the fence and sediment deposits, bring the disturbed area to grade, and stabilize.

revisions:

ARCHITECTURE
CIVIL ENGINEERING
PLANNING
BYNUM FANYO & ASSOCIATES, INC.
528 north walnut street
(812) 332–8030
bloomington, indiana
(812) 339–2990 (Fax)

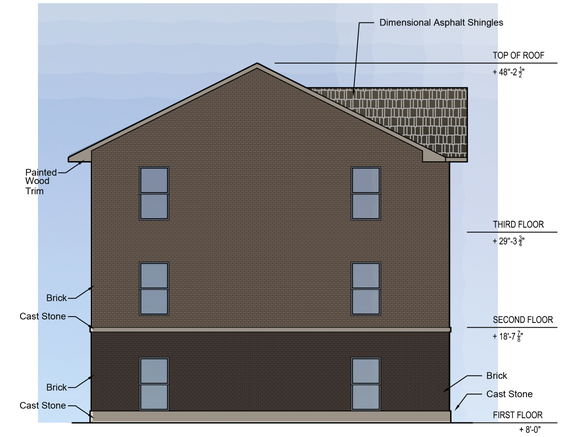
certified by: _____

PROPOSED
KINSER & GOURLEY PIKE

KINSER PIKE
BLOOMINGTON, INDIANA 47404

title: SWPPP DETAILS

designed by: JBT
drawn by: JBT
checked by: JSF
sheet no: C402
project no.: 401632



NORTH ELEVATION

WEST ELEVATION

CSO Architects

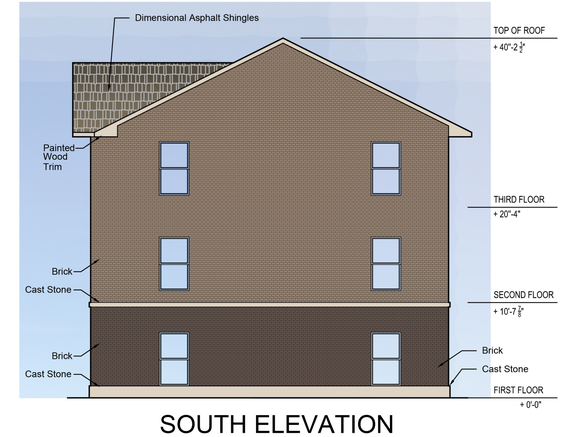
PRELIMINARY ELEVATIONS

0 4 8 16 32

Kinser and Gourley Pike Apartments

Bloomington, IN | 27 December 2016

16143



SOUTH ELEVATION

EAST ELEVATION

CSO Architects

PRELIMINARY ELEVATIONS

0 4 8 16 32

Kinser and Gourley Pike Apartments

Bloomington, IN | 27 December 2016

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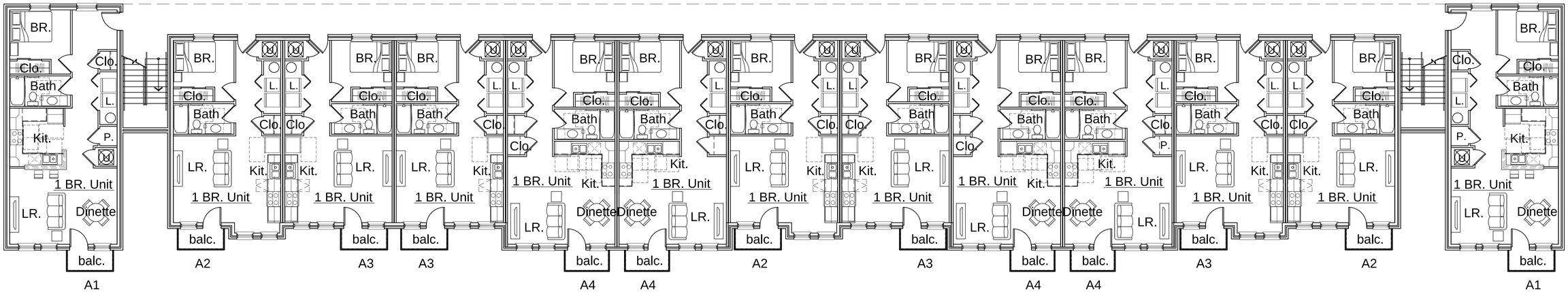
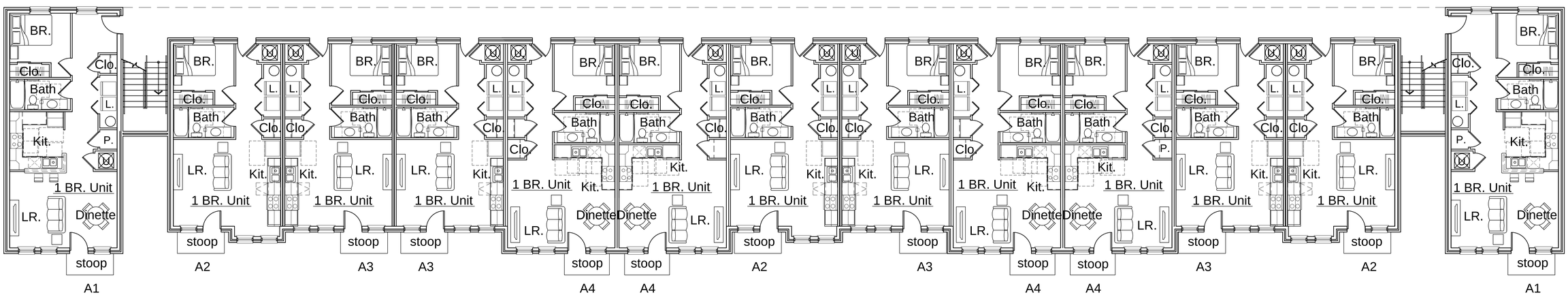


SECOND AND THIRD FLOOR PLANS



FIRST FLOOR PLAN

Kinser and Gourley Pike Apartments

Total Apartments	39 1 BR. Units
DUE (1 BR. unit = .25 DUE)	9.75 DUE Units
Parcel Acreage: 1.82 acres	Allowed DUE Units = N/A
Parking required: 0 spaces.	Parking provided: 39 spaces.

Square Footages

Units				
1 Bedroom Units:				
Six (6) A1:	673	S.F. Net	741	S.F. Gross
Nine (9) A2:	536	S.F. Net	591	S.F. Gross
Twelve (12) A3:	523	S.F. Net	565	S.F. Gross
Twelve (12) A4:	585	S.F. Net	632	S.F. Gross
Units Subtotal:	22,158	S.F. Net	24,129	S.F. Gross
Circulation Space			4,293	S.F. Gross
Total Project Square Footage:			29,028	S.F. Gross

CSO Architects

PRELIMINARY FLOOR PLANS

0 4 8 16 32

N

Kinser and Gourley Pike Apartments

Bloomington, IN | 06 December 2016

16143

From: **Doug Duncan** eddllc@yahoo.com
Subject: Commitment on Gourley Pike parcel
Date: April 12, 2017 at 8:09 PM
To: Alex Crowley crowleya@bloomington.in.gov
Cc: Tim Mitchell tmitchell@firstcapitalusa.com, John Bender jbender@firstcapitalusa.com, Skip Harrell sharrell@firstcapitalusa.com

DD

Alex,

Here is a written statement to summarize the commitment First Capital is making concerning the discussion we have held concerning the parcel at 1610 N. Kinser Pike.

I, Doug Duncan, on behalf of First Capital Group, commit to setting aside 6 units for 50 years as "workforce housing units" as defined by the City of Bloomington, in the project proposed at 1610 N. Kinser Pike as part of approval of the site plan by the plan Commission, case #SP/UV-07-17.

Sincerely

Doug Duncan