

CONSTRUCTION DOCUMENTS

ENGINEER'S PROJECT NO. 6613
NOVEMBER 13, 2009

SHEET INDEX

C100	TITLE SHEET
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C201	SELECTIVE SITE DEMOLITION PLAN
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C602	SITE DETAILS

SPECIFICATIONS

CITY OF BLOOMINGTON STANDARD SPECIFICATIONS
INDOT STANDARD SPECIFICATIONS



A1 PROJECT LOCATION MAP
NTS

S. MADISON STREET - PROSPECT TO THIRD SIDEWALK IMPROVEMENTS

OWNER'S ADDRESS:

CITY OF BLOOMINGTON
CITY HALL SHOWERS BUILDING
401 NORTH MORTON STREET, SUITE 130
BLOOMINGTON, INDIANA 47401

PROJECT ADDRESS:

MADISON STREET
BLOOMINGTON, INDIANA 47403

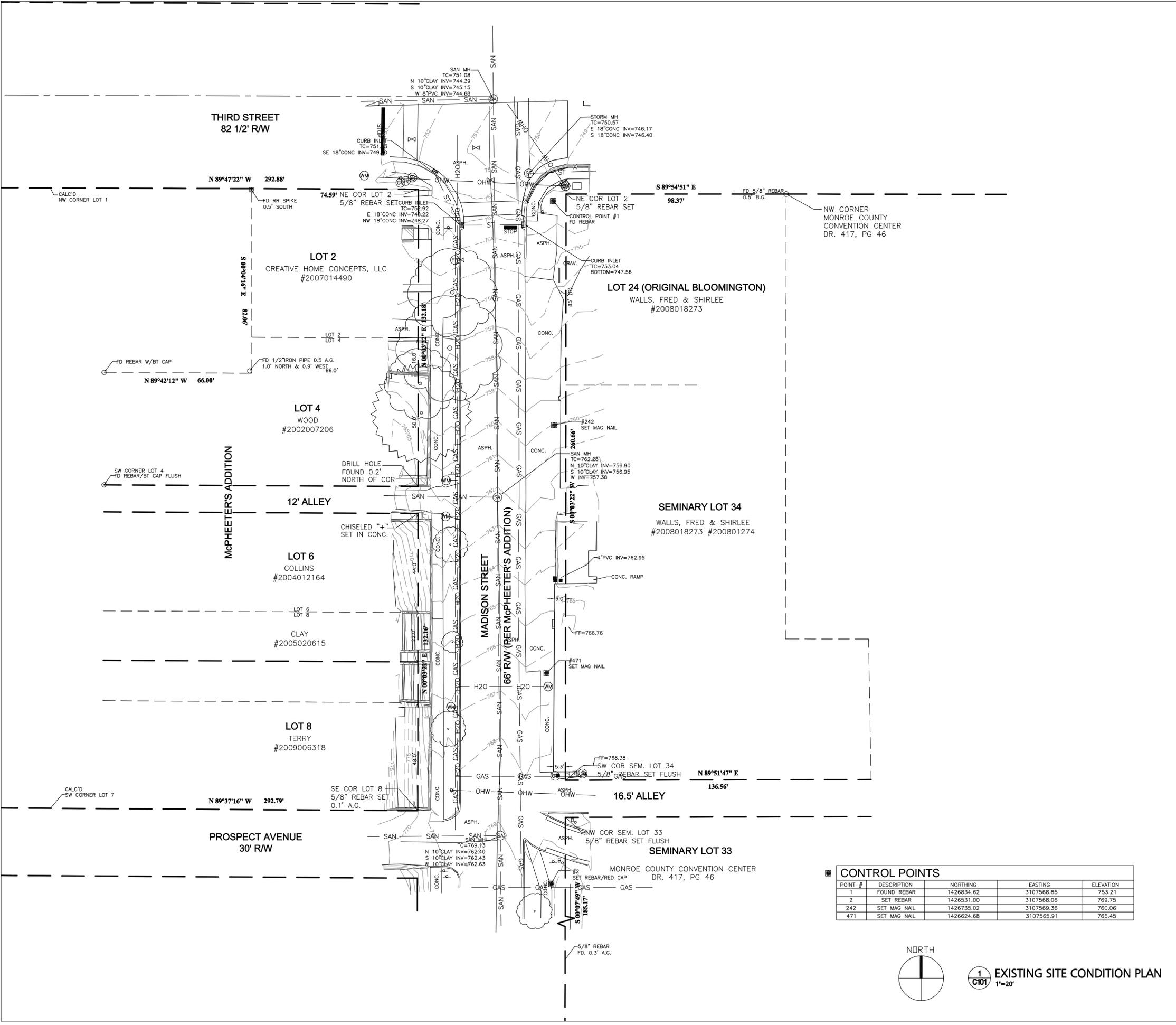
STAMPS & APPROVALS:



Bledsoe Riggert Guerrettaz
LAND SURVEYING • CIVIL ENGINEERING

1351 West Tapp Road
Bloomington, Indiana 47403

Phone: 812-336-8277
Fax: 812-336-0817



CONTROL POINTS

POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	FOUND REBAR	1426834.62	3107568.85	753.21
2	SET REBAR	1426531.00	3107568.06	769.75
242	SET MAG NAIL	1426735.02	3107569.36	760.06
471	SET MAG NAIL	1426624.68	3107565.91	766.45



EXISTING SITE CONDITION PLAN
1"=20'

GENERAL SITE NOTES

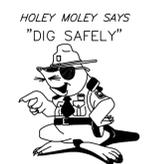
- THIS PLAN SHOWS APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES BASED ON FIELD LOCATES BY INDIANA UNDERGROUND PLANT PROTECTION AND INFORMATION PROVIDED BY LOCAL UTILITY COMPANIES. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL UTILITIES AND NOTIFY ARCHITECT/ENGINEER OF ANY AND ALL DISCREPANCIES.
- CONTRACTOR TO VERIFY FIELD CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING WORK.

UTILITY CONTACTS

- AT&T
Brent McCabe - (812) 334-4521
- DUKE ENERGY
Tammy Gardner - (812) 337-3038
Kerry Ducker - (812) 337-3035
- CITY OF BLOOMINGTON UTILITIES
Nancy Axsom - (812) 349-3689
- VECTREN
Gary Hopkins - (812) 330-4031
Neil Mendenhall - (812) 330-4008
- COMCAST
Scott Templeton - (812) 355-7822

LEGEND

- UGE/OHE — UNDERGROUND/OVERHEAD ELECTRIC
- H2O — UNDERGROUND WATER
- SAN — SANITARY SEWER
- GAS — UNDERGROUND GAS
- UGC — UNDERGROUND COMMUNICATIONS
- FIB. OPT. — FIBER OPTIC
- UT — UNDERGROUND TELEPHONE
- OHW — OVERHEAD WIRES
- ST — STORM SEWER
- — EXISTING CONTOURS
- ☉ LIGHT POLE
- ⊙ UTILITY POLE
- ↓ GUY WIRE
- WV ○ WATER VALVE
- WM ○ WATER METER
- WS ○ WATER SPIGOT
- SANITARY MANHOLE
- POST
- X — FENCE LINE
- TR ○ TELEPHONE RISER
- MB □ MAILBOX
- GV ○ GAS VALVE
- FIRE HYDRANT
- 2" PINE ○ TREE
- SHRUB
- STREET SIGN
- GM ○ GAS METER
- ST ○ STORM MANHOLE
- STORM INLET
- GR ○ GAS RISER
- CO ○ CLEAN OUT
- MH ○ MANHOLE
- EM ○ ELECTRIC METER
- DS ○ DOWNSPOUT
- SA ○ SANITARY MANHOLE
- SG ○ SIGNAL MANHOLE
- SP ○ SIGNAL POLE



"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544
CALL TOLL FREE
PER INDIANA STATE LAW 18B-1-28,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.

1351 West Tapp Road
Bloomington, Indiana 47403
Phone: 812.336.8277
Fax: 812.336.0817
www.brgcivil.com

BLOOMINGTON BEDFORD PAOLI



City of Bloomington
South Madison Street -
Prospect to Third
Sidewalk Improvements

Bloomington, Indiana 47403

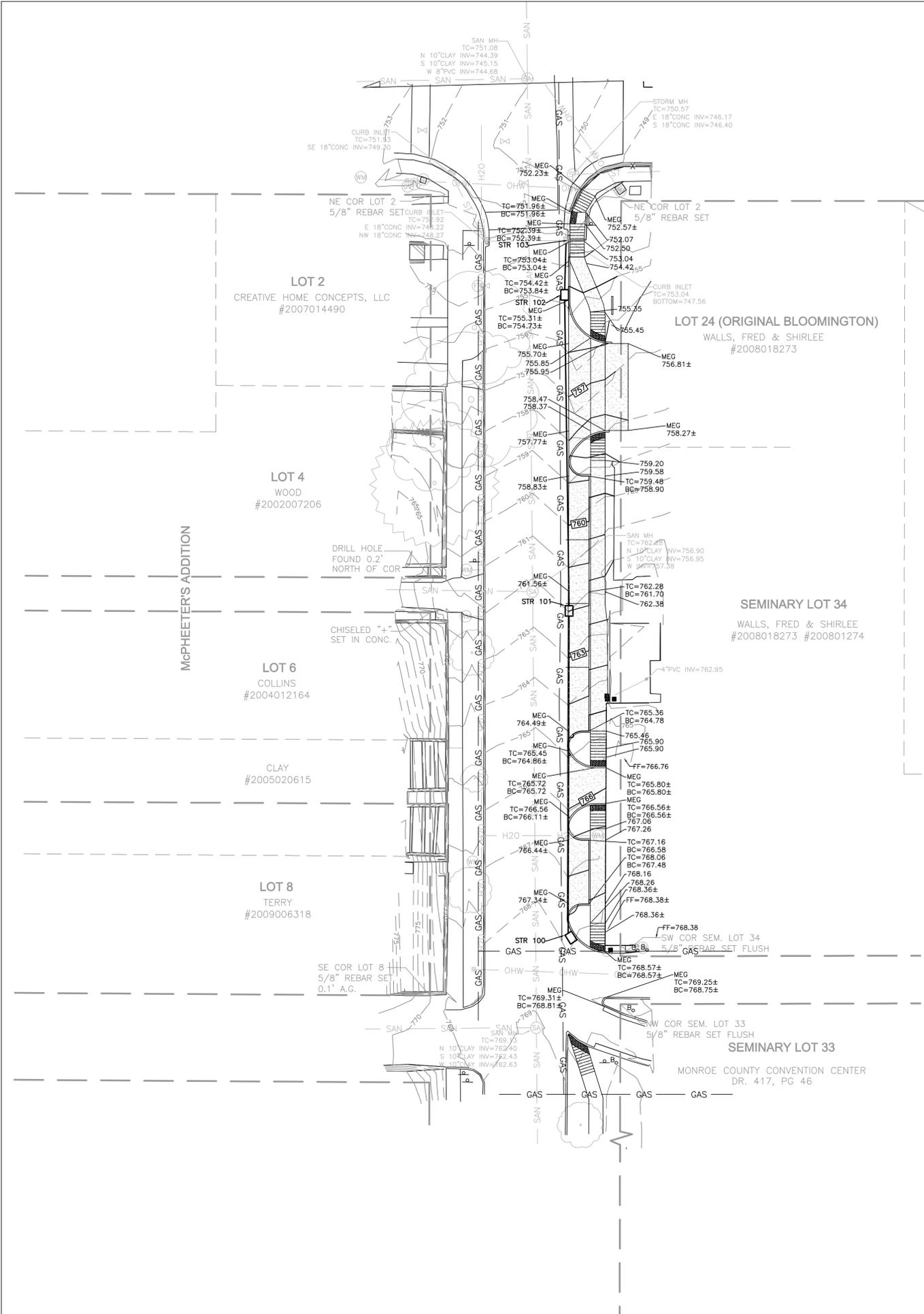
BRG Project No: 6613

**EXISTING SITE
CONDITION PLAN**

Date:	Issue:
11.13.09	CONSTRUCTION DOCUMENTS

Drawn By: DRM
Designed By: DRM
Checked By: WSR
Scale: 1" = 20'

C101



NW CORNER
MONROE COUNTY
CONVENTION CENTER
DR. 417, PG 46

SEMINARY LOT 34
WALLS, FRED & SHIRLEE
#2008018273 #200801274

SEMINARY LOT 33
MONROE COUNTY CONVENTION CENTER
DR. 417, PG 46

GENERAL GRADING NOTES

1. GRADE ALL AREAS TO THE FINISH GRADES SHOWN.
2. CONTRACTOR TO VERIFY FIELD CONDITIONS WITH RESPECT TO THE PROPOSED GRADING PLANS AND NOTIFY ENGINEER OF ANY AND ALL DISCREPANCIES PRIOR TO BEGINNING WORK.
3. INSTALL AND MAINTAIN EROSION CONTROL DEVICES AS REQUIRED AND WHERE NECESSARY TO CONTROL SEDIMENT.
4. CONTRACTOR SHALL PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES AND FROM FLOODING PROJECT SITE AND SURROUNDING AREAS. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT AND DAMAGE BY RAIN OR WATER ACCUMULATION. THIS WILL REQUIRE SUPPLEMENTAL GRADING ABOVE AND BEYOND THAT SHOWN.
5. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED CASTINGS TO FINISHED GRADE.
6. CONTRACTOR SHALL ESTABLISH FINISH GRADES TO ENSURE POSITIVE DRAINAGE WITH NO PONDING.

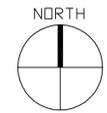
LEGEND

- PROPOSED CONTOURS
- EXISTING CONTOURS
- SPOT ELEVATION
- TC TOP OF CURB
- BC TOP OF PAVEMENT AT BASE OF CURB
- TW TOP OF WALL
- BW BOTTOM OF WALL AT GRADE ELEVATION

STORM STRUCTURE DATA TABLE

STR #	CASTING	STRUCTURE TYPE	UP STR #	DN STR #	PIPE SPECIFICATIONS				TOP OF CASTING	RIM ELEVATION	COMMENTS		
					LENGTH	SIZE	TYPE	SLOPE				UP INV	DN INV
100	EJW 7505	INLET TYPE 'J'	-	101	113	12	HDPE TYPE 'S'	5.27%	764.45	758.50	768.53	767.95	
101	EJW V-5660	INLET TYPE 'J'	100	102	110	12	HDPE TYPE 'S'	6.52%	758.40	751.23	762.00	762.00	(A)
102	EJW 7505	INLET TYPE 'J'	102	EXISTING	19	12	HDPE TYPE 'S'	8.37%	751.13	749.54	755.31	754.73	(B)
103	EXISTING	-	-	-	-	-	-	-	-	-	753.04	753.04	(C)

EJW = EAST JORDAN IRON WORKS
COMMENTS:
(A) THE CONTRACTOR IS TO FIELD VERIFY THE STRUCTURE LOCATION WITH RESPECT TO THE EXISTING UTILITIES PRIOR TO ORDERING THE CASTING AND MAY BE REQUIRED TO MAKE A SUBSTITUTION.
(B) PROPOSED STORM LINE TO CONNECT TO EXISTING STORM STRUCTURE. SEAL ALL CONNECTIONS WATER TIGHT.
(C) EXISTING CASTING TO BE REPLACED AND STRUCTURE TO BE MODIFIED TO ACCEPT AN EJW 5660 CASTING.



1 SITE GRADING AND DRAINAGE PLAN
C401 1"=20'

SITE GRADING AND DRAINAGE PLAN

Date: 11.13.09 Issue: CONSTRUCTION DOCUMENTS

Drawn By: DRM
Designed By: DRM
Checked By: WSR
Scale: 1" = 20'



GENERAL NOTES

1. ALL SIGNAGE AND INSTALLATION SHALL COMPLY WITH THE INDIANA DEPARTMENT OF TRANSPORTATION STANDARD DETAILS AND THE INDIANA MANUAL ON UNIFORM TRAFFIC CONTROLS, TRAFFIC HIGHWAY CONTROLS FOR STREET AND CONSTRUCTION AND MAINTENANCE OPERATIONS.
2. COORDINATE ALL LOCATIONS WITH CITY ENGINEERING PRIOR TO INSTALLATION.

SIGN NUMBER	SIGN MESSAGE	SIGN SIZE	SIGN COLOR	
			BACKGROUND	TEXT
G20-2	END CONSTRUCTION	48" X 24"	ORANGE	BLACK
W20-1	ROAD CONSTRUCTION AHEAD	48" X 48"	ORANGE	BLACK

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BLOOMINGTON BEDFORD PAOLI



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South Madison Street -
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BRG Project No: 6613

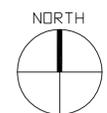
TRAFFIC CONTROL PLAN

Date:	Issue:
11.13.09	CONSTRUCTION DOCUMENTS

Drawn By: DRM
Designed By: DRM
Checked By: WSR

Scale: 1" = 40'

C501



1 TRAFFIC CONTROL PLAN
C501 1"=40'



EXCAVATION DEPTH
When pipe grades are not defined on the contract drawings, maintain a minimum of 48 inches of cover over the top of the pipe except as otherwise ordered by the Engineer.

TRENCH SAFETY SYSTEMS

All trench work shall be in compliance with OSHA Part 26 of the Code of Federal Regulations.

TRENCH BANKS

Where necessary, banks may be cut back on slopes which shall not extend lower than 12 inches above the top of pipe.

Trench wall shall be 7" minimum from the pipe each side.

PIPE BEDDING

4" No. 11 or No. 12 stone on soil
6" No. 11 or No. 12 stone on rock
Bedding shall conform to ASTM D-2321, Class 1, and shall be no. 11 or no. 12 crushed stone. All over-excavation shall be filled with crushed stone or Class D concrete.

REPAIR SURFACE AS INDICATED IN THE SPECIAL CONDITIONS.

SECONDARY BACKFILL

Under or within 5' of pavement backfill shall be in accordance with the agency issuing the permit. If no permit is required full depth #53 stone compacted in six inch (6") lifts must be used. In unimproved areas backfill may be left some materials as excavated if it is good native material, but may contain no stone larger than six inches (6") in its greatest dimension.

PRIMARY BACKFILL

Backfill to 12" above top of pipe with no. 11 stone.

RIGID PIPE

Shovel cut and compact backfill beneath the haunch area of the pipe.

TYPICAL TRENCH SECTION

1 BEDDING AND BACKFILL FOR RIGID PIPE

C601

EXCAVATION DEPTH
When pipe grades are not defined on the contract drawings, maintain a minimum of 48 inches of cover over the top of the pipe except as otherwise ordered by the Engineer.

TRENCH SAFETY SYSTEMS

All trench work shall be in compliance with OSHA Part 26 of the Code of Federal Regulations.

TRENCH BANKS

Where necessary, banks may be cut back on slopes which shall not extend lower than 12 inches above the top of pipe.

Trench wall shall be 7" minimum from the pipe each side.

PIPE BEDDING

4" No. 11 stone on soil, 6" No. 11 stone on rock
Bedding shall conform to ASTM D-2321, Class 1, and shall be no. 11 crushed stone. All over-excavation shall be filled with no. 11 crushed stone or Class D concrete.

REPAIR SURFACE AS INDICATED IN THE SPECIAL CONDITIONS.

SECONDARY BACKFILL

Under or within 5' of pavement backfill shall be in accordance with the agency issuing the permit. If no permit is required full depth #53 stone compacted in six inch (6") lifts must be used. In unimproved areas backfill may be left some materials as excavated if it is good native material, but may contain no stone larger than six inches (6") in its greatest dimension.

PRIMARY BACKFILL

Backfill to 12" above top of pipe with no. 11 stone.

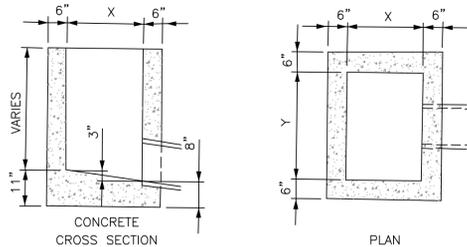
PVC OR HDPE PIPE

Shovel cut and compact backfill beneath the haunch area of the pipe.

TYPICAL TRENCH SECTION

2 BEDDING AND BACKFILL FOR PVC AND HDPE PIPE

C601



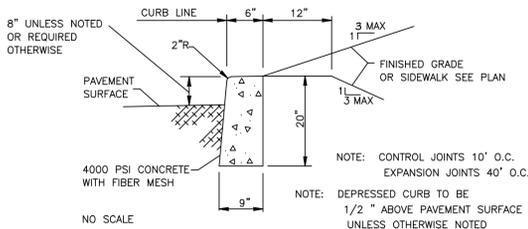
NOTE: BOX TO REST ON 4" OF COMPACTED NO. 11 STONE IF ON DIRT; 6" IF ON ROCK

TYPE	X	Y
A	24"	24"
B	30"	46"
C	30"	46"
E	30"	30"
J	24"	36"

N.T.S.

3 STORM INLET DETAIL

C601

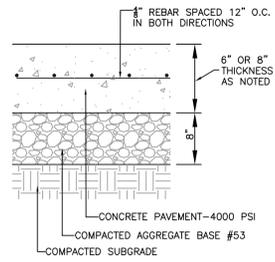


NOTE: CONTROL JOINTS 10' O.C.
EXPANSION JOINTS 40' O.C.

NOTE: DEPRESSED CURB TO BE 1/2" ABOVE PAVEMENT SURFACE UNLESS OTHERWISE NOTED

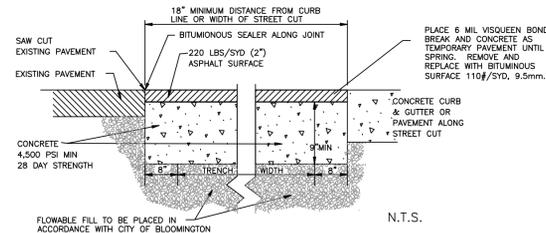
4 STANDING CONCRETE CURB

C601



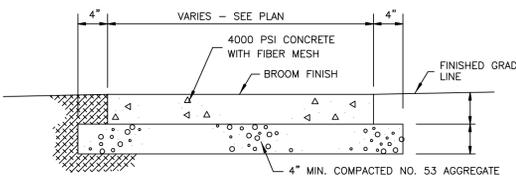
5 CONCRETE PAVEMENT - 6/8" THICK

C601



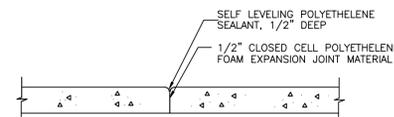
6 CITY OF BLOOMINGTON PAVEMENT PATCH

C601



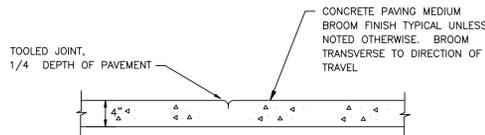
7 CONCRETE SIDEWALK

C601



8 TYPICAL EXPANSION JOINT

C601

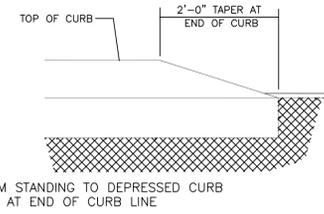


9 TYPICAL SECTION

TOOLED SCORE JOINTS SHALL BE SPACED 5' ON CENTER UNLESS OTHERWISE NOTED OR SHOWN.

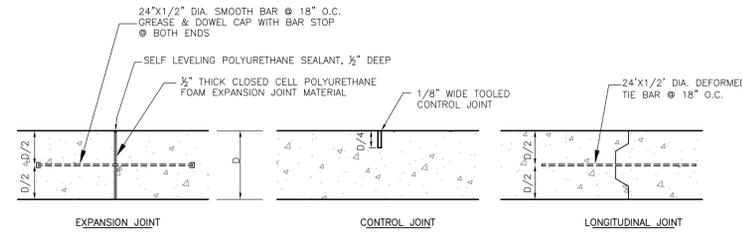
9 SIDEWALK LONGITUDINAL SECTION AND JOINT DETAIL

C601



10 CONCRETE CURB TRANSITION

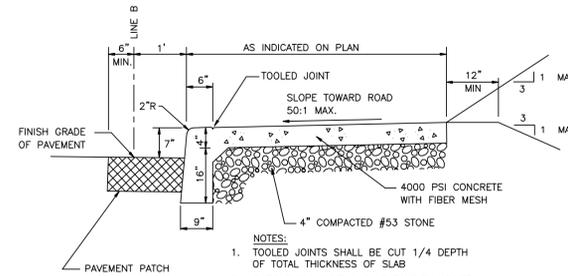
C601



NOTE: CONSTRUCT EXPANSION JOINTS AT 40' MAX. AND CONTROL JOINTS AT 10' MAX. UNLESS OTHERWISE NOTED

11 CONCRETE JOINT DETAILS

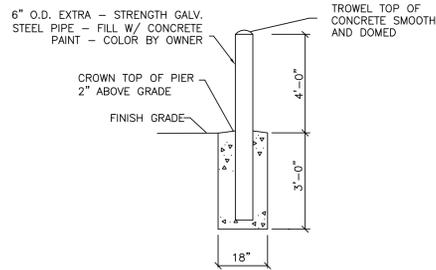
C601



NOTES:
1. TOOLED JOINTS SHALL BE CUT 1/4 DEPTH OF TOTAL THICKNESS OF SLAB
2. CURB SHALL HAVE 1/2" EXPANSION JOINTS @ 40'-0" MAX. AND @ ENDS OF ROAD. CONTROL JOINTS @ 10'-0" MAX. UNLESS OTHERWISE NOTED.

12 MONOLITHIC CURB AND WALK

C601



13 BOLLARD DETAIL

C601



SITE DETAILS

Date:	Issue:
11.13.09	CONSTRUCTION DOCUMENTS

Drawn By: DRM
Designed By: DRM
Checked By: WSR
Scale: NONE



W.S.H.

City of Bloomington
South Madison Street -
Prospect to Third
Sidewalk Improvements

Bloomington, Indiana 47403

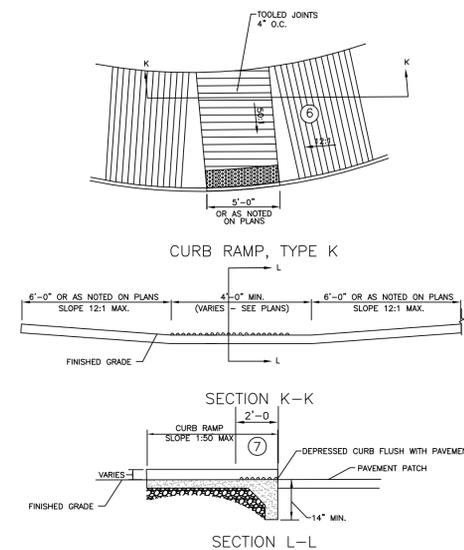
BRG Project No: 6613

SITE DETAILS

Date: 11.13.09 Issue: CONSTRUCTION DOCUMENTS

Drawn By: DRM
Designed By: DRM
Checked By: WSR
Scale: NONE

C602



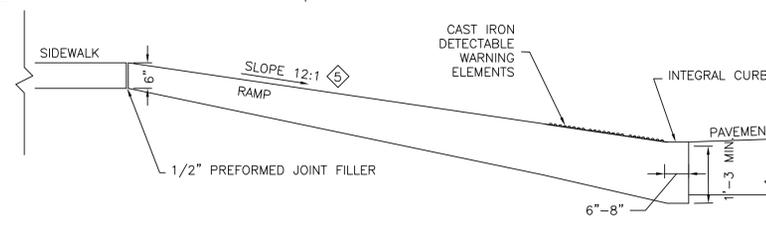
NOTES:

- ◆ See Standard Drawing E 604-SWCR-02 for General Notes respectively.
 - ⑥ See Standard Drawing E 604-SWCR-02 for groove details.
 - ⑦ See Standard Drawing E 604-SWCR-02 for details of the detectable warnings.
 - ⑧ See Standard Drawing E 604-SWCR-02 for alternate curb construction.
 - ⑨ Sidewalk across approach shall be sloped at 50:1 maximum transversely.
 - ⑩ Vertical face curb optional.
 - ⚠ See Standard Drawing E 604-SWCR-02 for typical ramp construction detail.
- *NOTE: CONTRACTOR TO PROVIDE A 3/4" LIP FOR HANDICAP RAMPS ABOVE ADJACENT PAVEMENT

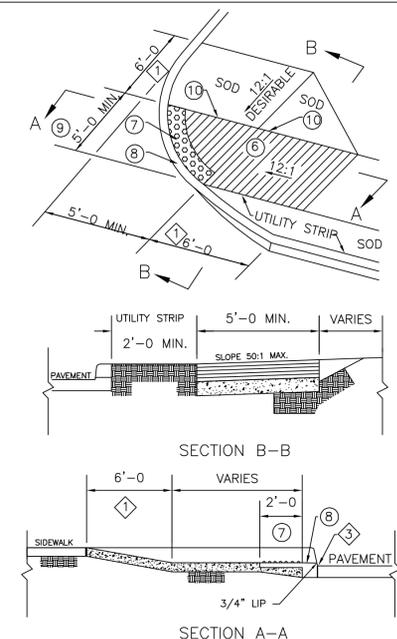
1 TYPE 'K' ADA RAMP
C602

GENERAL NOTES:

- ① These dimensions are based on a 6 in. curb height. They shall be proportionally adjusted for other curb heights.
- ② Where site infeasibility precludes construction to the width shown, such width may be decreased to a minimum of 3'-0".
- ③ The bottom edge of the curb ramp shall be flush with the edge of adjacent pavement and gutter line.
- ④ Landing areas at the top of curb ramps shall have maximum cross slope of 5:1 in any direction. When site infeasibility precludes a landing slope of 50:1 in any direction, the slope perpendicular to the curb face shall not exceed 50:1.
- ⑤ If site infeasibility precludes construction to the width shown, the landing width may be decreased to 3'-0" minimum. The running slope of the curb ramp may be steepened to a maximum of 10:1 for a maximum 6 in. rise.
- ⑥ Drainage inlets should be located uphill from curb ramps to prevent puddles at the path of travel.
- ⚠ Algebraic difference in grade between the base of curb ramp and the gutter shall be limited to less than 11%. If it is not practical, a 2'-0" wide level strip shall be provided. See detail sketch.
- ⑧ Minimum recommended width of curb ramp is 4'-0"



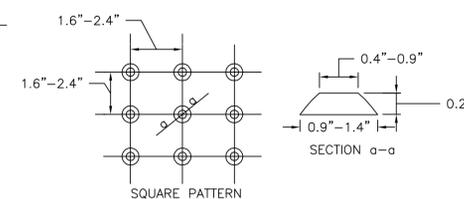
3 INDOT/CITY OF BLOOMINGTON HANDICAP RAMPS
C602 INDOT STANDARD DRAWING E 604-SWCR-02



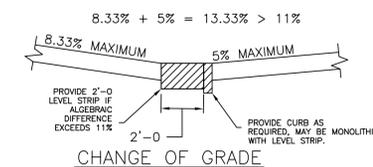
NOTES:

- ◆ See Standard Drawing E 604-SWCR-02 for General Notes respectively.
 - ⑥ See Standard Drawing E 604-SWCR-02 for groove details.
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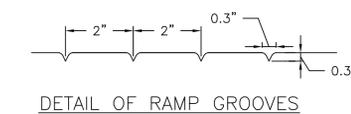
2 SIDEWALK CURB RAMP TYPE 'G'
C602



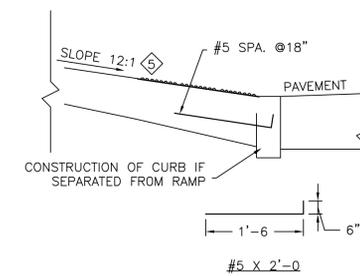
TRUNCATED DOMES USED
IN DETECTABLE WARNINGS



CHANGE OF GRADE



DETAIL OF RAMP GROOVES



ALTERNATE CURB CONSTRUCTION