

WESTFIELD RETAIL DEVELOPMENT LOR CORPORATION

WESTFIELD, INDIANA



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UTILITY CONTACTS:

WESTFIELD PUBLIC WORKS DEPARTMENT
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CITIZENS WESTFIELD
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COMCAST CABLE
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BRIGHT HOUSE NETWORKS
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AT&T
MICHAEL HAYNES
5858 NORTH COLLEGE AVENUE
INDIANAPOLIS, IN 46220
(317) 252-4007

SYMBOLS LEGEND

--- 100 ---
EXIST. CONTOUR LINE

--- 100 ---
NEW CONTOUR LINE

BOUNDARY & PROPERTY LINES

CENTER & PROJECTED LINES.

BREAK LINE

ROOM NAME
[A111]

ROOM NAME EXTERIOR WINDOW NEW DOOR

FINISH FLOOR
[F0-01]

FLOOR/STEEL ELEVATIONS

DOOR NUMBER EXISTING DOOR

MATCH LINE "A"
MATCH LINE "B"

MATCH LINE

DEMOLITION

SECTION REFERENCE
[A3.2]

DETAIL REFERENCE
[A3.2]

INTERIOR ELEVATIONS
[X]

BORROWED LITE PLAN NOTE
[B100]

WALL TYPE
[I]

ADDENDUM
[A]

TOILET ROOM ACCESSORY
[T]

DETAIL MANUAL #
[1]

NEW WALL CONSTRUCTION
[33.33]

EXISTING WALL CONSTRUCTION
[33.33]

COLUMN COORDINATES
[33.33]

EXIST. SPOT ELEV NEW SPOT ELEV.

MATERIALS

CARTON/SPACK FILL

ROCK FILL (STONE/GRAVEL)

EARTHWORKS

STRUCTURAL CONCRETE (CAST-IN-PLACE, ETC.)

SAND, PORTLAND PLASTER, CUT STONE

CONCRETE

BRICK (COMMON OR FACE)

CONCRETE MASONRY UNITS (CMU)

MASONRY

STEEL/ALUMINUM

METAL

FINISH HOOD

ROUGH HOOD

SHIT, BLOCKING

PLYWOOD (LARGE SCALE)

PLYWOOD (SMALL SCALE)

WOOD

INSULATION (LOOSE OR MATT)

INSULATION (RIGID)

INSULATION

GYPSONUM WALL BOARD (FIBERBOARD, ETC.)

PLASTER

SEE WALL TYPES

PARTITION INDICATORS



STATE MAP



WESTFIELD, INDIANA
LOCATION MAP

ISSUE DATE
11/12/2014

T101

APPROVAL PENDING-NOT FOR CONSTRUCTION

APPROVED BY :

Joseph M. Mrak, AIA

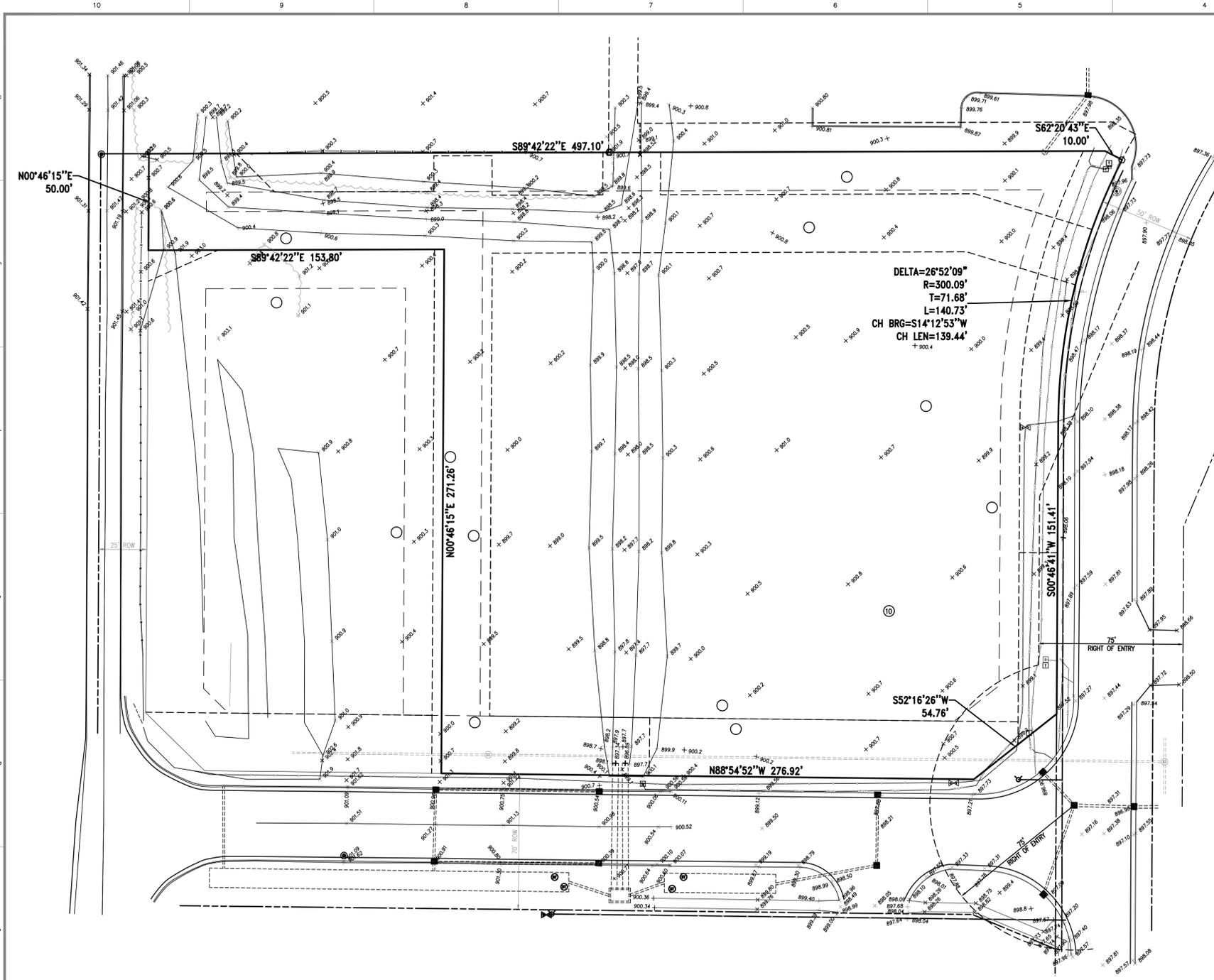
PRINCIPAL ARCHITECT
Joseph M. Mrak, AIA Principal Architect

DEVELOPER

LOR CORPORATION
6350 RUCKER ROAD, SUITE 101
Indianapolis, Indiana 46220
(317) 205-1200

ARCHITECTS & ENGINEERS

RQAW CORPORATION
10401 N. Meridian, Suite 401
Indianapolis, Indiana 46290
(317) 815-7200 FAX (317) 815-7201



LEGAL DESCRIPTION

LOT NUMBERED 4 IN THE REPLAT OF LOT 3 OF 32 AT 31 HENKE CENTER SECONDARY PLAT, AN ADDITION TO THE CITY OF WESTFIELD, INDIANA, AS PER PLAT THEREOF RECORDED MARCH 13, 2014, AS INSTRUMENT NO. 2014008848, IN PLAT CABINET 5, SLIDE 188, IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA.

GENERAL NOTES

- 1) BASED UPON A SCALED INTERPRETATION OF THE FLOOD INSURANCE RATE MAP, MAP NO. 18067C0120F FOR HAMILTON COUNTY, INDIANA, DATED FEBRUARY 19, 2003, THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA INUNDATED BY A 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD) AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE NATIONAL FLOOD INSURANCE PROGRAM. THE SUBJECT PROPERTY IS LOCATED WITHIN (UNSHADED) ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). FLOOD PLAIN CERTIFICATION IS RESTRICTED TO A REVIEW OF THE FLOOD INSURANCE RATE MAPS (FIRM), AND SHALL NOT BE CONSTRUED AS A CONFIRMATION OR DENIAL OF FLOODING POTENTIAL.
- 2) THE UNDERGROUND UTILITIES DEPICTED ON THE ATTACHED PLAT OF SURVEY HAVE BEEN LOCATED PER UTILITY LOCATION MARKINGS ON THE GROUND AS PROVIDED BY THE INDIANA UNDERGROUND PLANT PROTECTION SERVICE. THE PATH OF THE UTILITY LINES SHOWN ON SAID PLAT OF SURVEY SHOULD BE CONSIDERED APPROXIMATE UNTIL THEY ARE EITHER RELOCATED, BY CALLING THE INDIANA UNDERGROUND PLANT PROTECTION SERVICE AT 1-800-382-5544 OR UNTIL THEY ARE EXCAVATED TO VERIFY THE LOCATION AND PATH OF THE UTILITY LINES.
NO WARRANTY, EITHER EXPRESS OR IMPLIED, IS MADE AS TO THE ACCURACY AND/OR COMPLETENESS OF INFORMATION PRESENTED ON UNDERGROUND UTILITIES, OR AS TO ITS FITNESS FOR ANY PARTICULAR PURPOSE OR USE. IN NO EVENT WILL WEIHE ENGINEERS, INC., ITS EMPLOYEES, AGENTS, AND/OR ASSIGNS BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE FURNISHING AND/OR USE OF SUCH INFORMATION.
- 3) THE SUBJECT PROPERTY CONTAINS 0 MARKED PARKING SPACES.
- 4) PER THE HAMILTON COUNTY GIS WEBSITE, THE WESTFIELD BUSINESS PARK REGULATED LEGAL DRAIN IS WITHIN 75 FEET OF THE SUBJECT PROPERTY AS SHOWN HEREON.
PER THE HAMILTON COUNTY SURVEYOR'S OFFICE, NON-ENFORCEMENT REQUESTS WILL BE SUBMITTED ON A SITE BY SITE BASIS.
- 5) ALL MONUMENTS FOUND IN PERFORMANCE OF THIS SURVEY WERE FOUND FLUSH WITH THE EXISTING GROUND UNLESS OTHERWISE NOTED, AND THE AGE AND ORIGIN OF SAID FOUND MONUMENTS ARE UNKNOWN UNLESS OTHERWISE NOTED.
- 6) AS USED IN THIS SURVEY, CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION OF CONDITIONS REGARDING THOSE FACTS OR FINDING WHICH ARE THE SUBJECT OF THE CERTIFICATION AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESS OR IMPLIED. INTERPRETATIONS ARE NOT A PART OF ANY CERTIFICATION.
- 7) NO WARRANTY, EITHER EXPRESS OR IMPLIED, IS MADE AS TO THE ACCURACY OR COMPLETENESS OF INFORMATION PROVIDED BY GOVERNMENTAL AUTHORITIES AND / OR THIRD PARTIES, OR AS TO ITS FITNESS FOR ANY PARTICULAR PURPOSE OR USE, INCLUDING BUT NOT LIMITED TO INFORMATION PRESENTED ON UNDERGROUND UTILITIES, FLOOD HAZARD ZONES, FLOODWAY ZONES, WETLANDS, RECORDING INFORMATION, ZONING, AND REGULATED DRAINS. IN NO EVENT WILL WEIHE ENGINEERS, INC., ITS EMPLOYEES, AGENTS, AND / OR ASSIGNS BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE FURNISHING AND / OR USE OF SUCH INFORMATION.

SCHEDULE B SURVEY ITEMS

(PER CHICAGO TITLE INSURANCE COMPANY FILE NO. 201425469, WITH AN EFFECTIVE DATE OF FEBRUARY 25, 2014)

- 9 COVENANTS, CONDITIONS AND RESTRICTIONS REFERRED TO IN PLAT. NOT REVIEWED AS PART OF THIS SURVEY
- 10 EASEMENTS AND SETBACK LINES SHOWN ON RECORDED PLAT (INST. #2014008848), SHOWN HEREON

SURVEYOR'S REPORT

CLIENT: ROAW
 JOB NUMBER: W140102
 TYPE OF SURVEY: RETRACEMENT SURVEY MEETING THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS
 CLASS OF SURVEY: URBAN SURVEY (865 IAC 1-12)
 FIELD WORK COMPLETED: MARCH 27, 2014
 LOCATION OF SURVEY: LOT 4 HENKE CENTER, WESTFIELD, INDIANA

IN ACCORDANCE WITH TITLE 865, ARTICLE 1, CHAPTER 12 (RULE 12) OF THE INDIANA ADMINISTRATIVE CODE (IAC), THE FOLLOWING OBSERVATIONS AND OPINIONS ARE SUBMITTED REGARDING THE UNCERTAINTY IN THE POSITION OF THE LINES AND CORNERS ESTABLISHED AND/OR REESTABLISHED ON THIS SURVEY AS A RESULT OF:

- 1) AVAILABILITY AND CONDITION OF REFERENCE MONUMENTS;
 - 2) CLARITY AND/OR AMBIGUITY OF THE RECORD DESCRIPTION(S) USED AND/OR THE ADJOINER'S DESCRIPTION(S);
 - 3) OCCUPATION OR POSSESSION LINES;
 - 4) MEASUREMENTS (RELATIVE POSITIONAL ACCURACY)
- NOTE: THERE MAY EXIST UNWRITTEN RIGHTS ASSOCIATED WITH THESE UNCERTAINTIES.

1) AVAILABILITY AND CONDITION OF REFERENCE MONUMENTS

IT IS THIS SURVEYOR'S PROFESSIONAL OPINION THAT THERE IS NO UNCERTAINTY IN THE LINES OF THE SURVEYED TRACT DUE TO VARIANCES IN REFERENCE MONUMENTS.

2) CLARITY AND/OR AMBIGUITY OF THE RECORD DESCRIPTION(S)

THE RECORD DESCRIPTIONS FOR THE ADJOINING REAL ESTATE WERE OBTAINED FROM THE COUNTY RECORDER'S OFFICE AND MATHEMATICALLY RETRACED IN AN EFFORT TO DISCLOSE POSSIBLE GAPS AND/OR OVERLAPS BETWEEN THE LINES OF THE SURVEYED TRACT AND THOSE OF THE ADJOINERS. IT IS THIS SURVEYOR'S PROFESSIONAL OPINION THAT THERE ARE NO UNCERTAINTIES IN THE LINES OF THE SURVEYED REAL ESTATE AND THOSE OF THE ADJOINERS DUE TO DISCREPANCIES IN THE RECORD DESCRIPTIONS.

3) OCCUPATION OR POSSESSION LINES

AT THE TIME THE FIELD WORK WAS COMPLETED, PHYSICAL EVIDENCE OF THE LINES AND/OR INCONSISTENCIES IN THE LINES OF OCCUPATION OF THE SURVEYED TRACT CONSISTED OF THE FOLLOWING:
 THE POSSESSION TO THE EAST IS TO THE IMPROVEMENTS OF SUN PARK DRIVE.
 THE POSSESSION TO THE SOUTH IS TO THE IMPROVEMENTS OF TOURNAMENT TRAIL.
 THE POSSESSION OF THE NORTH 50' OF THE WEST LINE IS TO THE IMPROVEMENTS OF WHEELER ROAD.
 THERE IS A FENCE BETWEEN 1.2' NORTH AND 0.5' SOUTH OF THE NORTH LINE.
 THERE IS A CURB LINE 12.4' NORTH OF THE NORTH LINE.

4) MEASUREMENTS (RELATIVE POSITIONAL ACCURACY)

THE RELATIVE POSITIONAL ACCURACY OF THE CORNERS OF THE SUBJECT TRACT ESTABLISHED FOR THIS SURVEY IS WITHIN THE SPECIFICATIONS FOR AN URBAN SURVEY (4+/- 0.07 FOOT PLUS 50 PARTS PER MILLION) AS DEFINED IN 865 IAC 1-12-8, EFFECTIVE MAY 4, 2006. ('RELATIVE POSITIONAL ACCURACY' MEANS THE VALUE EXPRESSED IN FEET OR METERS THAT REPRESENTS THE UNCERTAINTY DUE TO RANDOM ERRORS IN MEASUREMENTS IN THE LOCATION OF ANY POINT ON A SURVEY RELATIVE TO ANY OTHER POINT ON THE SAME SURVEY AT THE 95 PERCENT CONFIDENCE LEVEL).

THEORY OF LOCATION

THE PARENT TRACT OF THE SUBJECT PROPERTY WAS PREVIOUSLY SURVEYED AND SUBDIVIDED BY WEIHE ENGINEERS IN MAY OF 2013. UNDER WEIHE JOB NUMBERS W120391 AND W130440. FOR THIS SURVEY, SURVEY CONTROL AND MONUMENTS USED IN THE PRIOR SURVEYS WERE HELD FOR THE BASIS OF MEASUREMENTS. THE LINES AND CORNERS WERE ESTABLISHED UTILIZING THE RECORD GEOMETRY IN RELATIONSHIP TO SAID CONTROL AND MONUMENTS. THE FOLLOWING REPORT IS TAKEN FROM JOB NUMBER W120391:

THE SURVEYED TRACT IS COMPRISED OF A PORTION OF A LARGER PARENT TRACT RECORDED AS INSTRUMENT NO. 87-11534, AND ALL OF THE REAL ESTATE DESCRIBED IN INSTRUMENT NO. 2011028816, LESS THAT REAL ESTATE CONVEYED TO THE STATE OF INDIANA, DESCRIBED AND RECORDED IN INSTRUMENT NO. 201207239, ALL IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA. REBARS WITH "MILLER SURVEYING" CAPS SET FOR AN ALTA/ACSM LAND TITLE SURVEY PREPARED BY MILLER SURVEYING, INC. IN 2009 OF A RESIDUAL PORTION OF SAID INST. NO. 87-11534 WERE RECOVERED AND HELD. THE SURVEYED TRACT IS CONTROLLED TO THE LINES OF REAL ESTATE CONVEYED TO THE TOWN OF WESTFIELD AND THE STATE OF INDIANA BY INSTRUMENT NO. S 9105299 AND 2007040170, RESPECTIVELY. THE SURVEYED NORTH LINE IS PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST QUARTER. THE WEST LINE OF THE EAST HALF OF SAID SOUTHWEST QUARTER FORMS A PORTION OF THE SURVEYED WEST LINE. NOT ALL PROPERTY CORNER MONUMENTS WERE SET AT THIS TIME DUE TO THE ONGOING CONSTRUCTION.

I AFFIRM, UNDER THE PENALTIES FOR PERJURY, THAT I HAVE TAKEN REASONABLE CARE TO REDACT EACH SOCIAL SECURITY NUMBER IN THIS DOCUMENT, UNLESS REQUIRED BY LAW. (TODD BORGMAN)

THIS INSTRUMENT WAS PREPARED BY: TODD BORGMAN, WEIHE ENGINEERS, INC.

SURVEYOR'S CERTIFICATE

TO: GRAND PARK SHOPPES, LLC, AN INDIANA LIMITED LIABILITY COMPANY;
 HAMILTON WEST INVESTMENTS, AN INDIANA PARTNERSHIP;
 CHICAGO TITLE INSURANCE COMPANY;

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1-4, 7(a)(b1), 8, 9, 11(a) AND 13 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 27, 2014.

THIS SURVEY WAS PERFORMED UNDER THE DIRECTION OF THE UNDERSIGNED, AND TO THE BEST OF THIS SURVEYOR'S KNOWLEDGE AND BELIEF WAS EXECUTED ACCORDING TO SURVEY REQUIREMENTS IN 865 IAC 1-12 FOR THE STATE OF INDIANA.

DATED APRIL 4, 2014



TODD M. BORGMAN
 REGISTERED LAND SURVEYOR NO. 21200021
 STATE OF INDIANA

LEGEND

<ul style="list-style-type: none"> ⊕ BRASS OR ALUM. PLUG FOUND/SET ⊞ CONC. MONUMENT FOUND/SET ⊙ COPPERNIELD FOUND/SET ⊗ OUT "X" FOUND/SET ⊕ HARRISON MONUMENT FOUND ⊙ IRON PIN FOUND/SET ⊙ IRON PIPE FOUND ⊙ PK OR MAG NAIL FOUND/SET ⊙ RR SPIKE FOUND/SET ⊙ RIGHT OF WAY MONUMENT FOUND ⊙ STONE FOUND ⊙ BENCH MARK ⊙ TEMPORARY BENCH MARK ⊙ OTHER MONUMENT 	<ul style="list-style-type: none"> ⊕ FIRE HYDRANT ⊕ WATER HAND HOLE ⊕ INDICATOR POST & VALVE ⊕ WATER MANHOLE ⊕ SPRINKLER CONTROL BOX ⊕ SPRINKLER CONTROL VALVE ⊕ SPRINKLER ⊕ STAND PIPE ⊕ WELL HEAD ⊕ WATER METER ⊕ WATER VALVE ⊕ GAS METER ⊕ GAS VALVE ⊕ GAS PIPELINE MARKER ⊕ GAS MANHOLE 	<ul style="list-style-type: none"> ⊕ ELECTRIC CONTROL BOX ⊕ ELECTRIC METER ⊕ ELECTRIC PEDESTAL ⊕ ELECTRIC RISER ⊕ FLOOD LIGHT ⊕ QUI ANCHOR ⊕ ELECTRIC JUNCTION BOX ⊕ ORNAMENTAL LIGHT ⊕ LIGHT POLE ⊕ LIGHT STAND ⊕ ELECTRIC MANHOLE ⊕ UTILITY POLE ⊕ UTILITY POLE W/ LIGHT ⊕ UTILITY POLE W/ TRANSFORMER ⊕ UTILITY POLE W/ LIGHT & TRANS. ⊕ TRANSFORMER 	<ul style="list-style-type: none"> ⊕ TELEPHONE JUNCTION BOX ⊕ TELEPHONE MANHOLE ⊕ TELEPHONE PEDESTAL ⊕ TELEPHONE RISER ⊕ STORM CLEANOUT ⊕ BEEHIVE INLET ⊕ CURB INLET ⊕ ROUND INLET ⊕ SQUARE INLET ⊕ STORM JUNCTION BOX ⊕ STORM MANHOLE ⊕ SANITARY SEWER CLEANOUT ⊕ LIFT STATION ⊕ SANITARY SEWER MANHOLE ⊕ SANITARY STUB MARKER ⊕ CATV PEDESTAL ⊕ CATV JUNCTION BOX ⊕ CLEANOUT (OTHER) 	<ul style="list-style-type: none"> ⊕ TRAFFIC CONTROL JUNCTION BOX ⊕ MANHOLE (OTHER OR UNIDENTIFIED) ⊕ TRAFFIC CONTROL MANHOLE ⊕ MONITORING WELL ⊕ PETROLEUM PIPELINE MARKER ⊕ FIBER OPTIC MARKER ⊕ TRAFFIC SIGNAL POLE ⊕ BOLLARD ⊕ FLAG POLE ⊕ MAIL BOX ⊕ POST ⊕ SIGN ⊕ PARKING WHEEL STOP ⊕ AIR CONDITIONER ⊕ HANDICAPPED SPACE ⊕ SOIL BORING ⊕ GATE POST
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VICINITY MAP

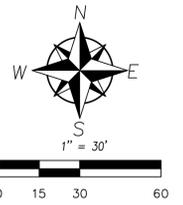


SOURCE BENCHMARK:

A STANDARD DISK STAMPED B112 1946 SET IN THE TOP OF A CONCRETE POST ALONG STATE ROAD 32 ABOUT 2.25 MILES WEST OF WASHINGTON HIGH SCHOOL, AT WESTFIELD AND ABOUT 1 MILE EAST OF THE CROSS ROAD AT EAGLETOWN. ELEVATION=924.34 (NAVD 88)

TBM: MAG NAIL IN NORTH FACE OF POWER POLE AT THE NORTHEAST INTERSECTION OF STATE ROAD 32 AND WHEELER ROAD. ELEVATION=900.18 (NAVD 88)

NOTE: NO NEW MONUMENTS WERE SET DUE TO PLANNED DEVELOPMENTS IN THE VICINITY.



PROJECT LOCATION

APPROVAL PENDING-NOT FOR CONSTRUCTION

C0-1

10505 N. College Avenue
 Indianapolis, Indiana 46280
 weihe.net

317 846 - 6611
 800 1452 - 6408
 317 843 - 0546 fax

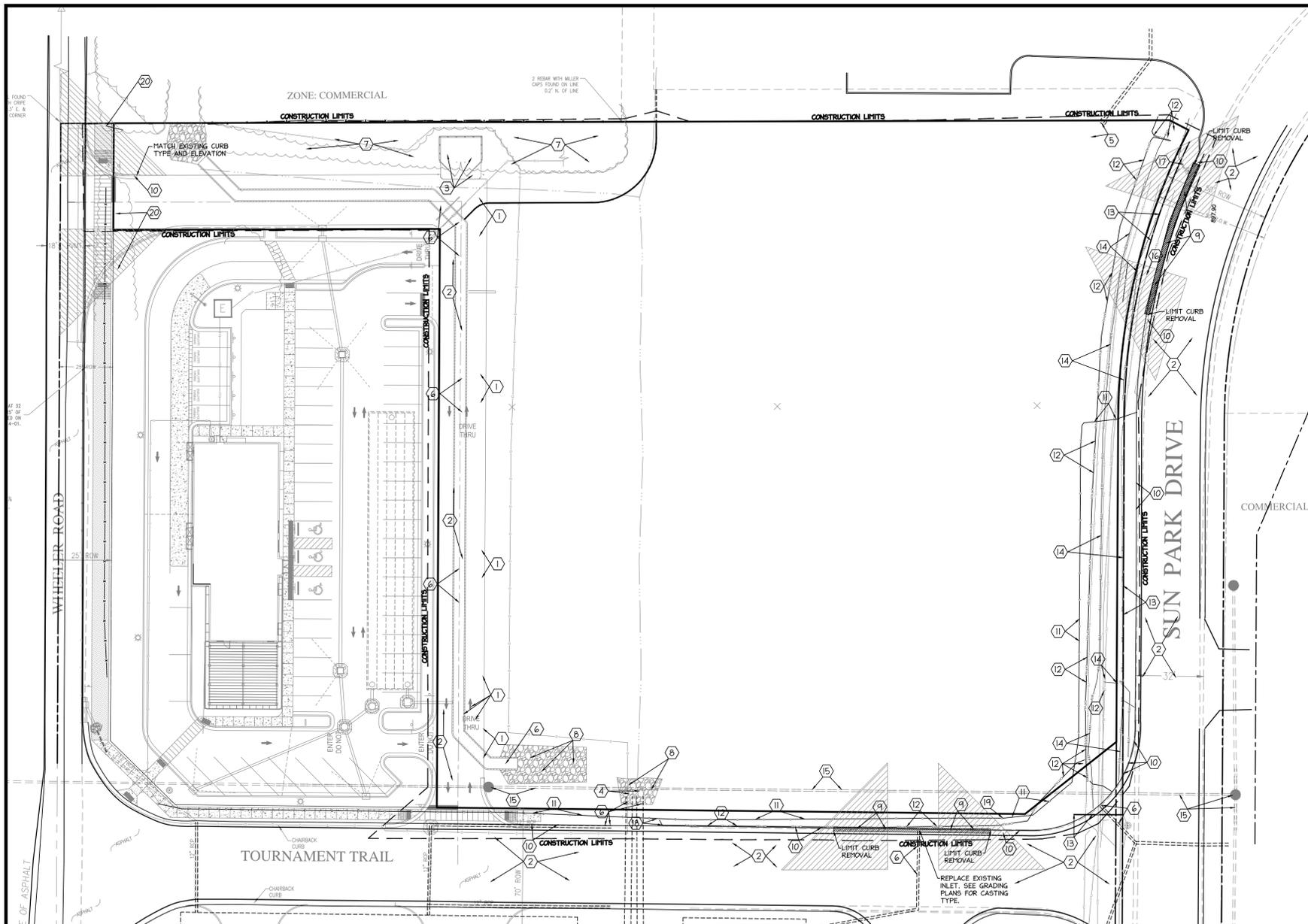
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE ENGINEERS
 Land Surveying / Civil Engineering
 Landscape Architecture

PROJECT NO.: W140102
 DATE: 4-4-14

PREPARED FOR: SHEET NO. 1 OF 1 PROJECT NO. W140102

LOT 4 HENKE CENTER
 950 TOURNAMENT TRAIL, WESTFIELD, INDIANA
 ALTA/ACSM LAND TITLE SURVEY
 SW/4 SEC. 36-T9N-R3E, WASHINGTON TWP., HAMILTON CNTY., INDIANA



- ### DEMOLITION NOTES
- ① SAWCUT EXISTING ASPHALT PAVING EDGE IN PREPARATION FOR NEW PAVING. DISPOSE OF EXCESS LEGALLY OFF-SITE. SAWCUT PAVING TO REMAIN.
 - ② PROTECT EXISTING ASPHALT PAVING DURING ALL PHASES OF CONSTRUCTION
 - ③ PROTECT EXISTING CONCRETE PAVING DURING ALL PHASES OF CONSTRUCTION.
 - ④ REMOVE EXISTING END SECTION. DISPOSE OF LEGALLY OFF-SITE.
 - ⑤ REMOVE EXISTING STORM SEWER PIPE IN ITS ENTIRETY. DISPOSE OF LEGALLY OFF-SITE. CAP END OF LINE AT PROPERTY LINE.
 - ⑥ PROTECT EXISTING STORM SEWER PIPE AND STRUCTURE FROM ALL PHASES OF CONSTRUCTION.
 - ⑦ REMOVE EXISTING BRUSH TO CONSTRUCTION LIMITS AND DISPOSE OF LEGALLY OFFSITE.
 - ⑧ REMOVE EXISTING RIPRAP AND FILTER FABRIC. DISPOSE OF LEGALLY OFFSITE.
 - ⑨ REMOVE EXISTING CURB. DISPOSE OF LEGALLY OFF-SITE. SAWCUT CURBING TO REMAIN.
 - ⑩ PROTECT EXISTING CURB FROM CONSTRUCTION ACTIVITIES. REPLACE CURB IF DAMAGED, NO EXPENSE TO OWNER.
 - ⑪ PROTECT EXISTING GAS LINE AND VALVES FROM ALL PHASES OF CONSTRUCTION.
 - ⑫ PROTECT EXISTING UNDERGROUND CABLE FROM ALL PHASES OF CONSTRUCTION.
 - ⑬ PROTECT EXISTING WATERLINE AND VALVES FROM ALL PHASES OF CONSTRUCTION.
 - ⑭ PROTECT EXISTING UNDERGROUND ELECTRIC LINES FROM ALL PHASES OF CONSTRUCTION.
 - ⑮ PROTECT EXISTING SANITARY SEWER STRUCTURE AND PIPES FROM ALL PHASES OF CONSTRUCTION.
 - ⑯ RELOCATE EXISTING SIGN PER WESTFIELD REQUIREMENTS.
 - ⑰ RELOCATE EXISTING ELECTRICAL STRUCTURE OR ADJUST STRUCTURE TO ACCOMMODATE SIDEWALK PAVING. CONTACT UTILITY TO DISCUSS OPTIONS.
 - ⑱ RELOCATE EXITING COMMUNICATION STRUCTURE TO ACCOMMODATE SIDEWALK PAVING. CONTACT UTILITY TO DISCUSS OPTIONS.
 - ⑲ ADJUST GAS VALVE BOX IS NECESSARY TO ACCOMMODATE SIDEWALK PAVING. CONTACT UTILITY.
 - ⑳ REMOVE ALL EXISTING BRUSH FROM WITHIN THE 'LINE OF SIGHT' AT PROPOSED ENTRANCE. DISPOSE OF LEGALLY OFF-SITE.

- ### GENERAL NOTES
1. ALL ELEVATIONS SHOWN WITHIN THESE PLANS ARE BASED UPON USGS BENCHMARKS. CONTACT SURVEYOR FOR FURTHER INFORMATION.
 2. THE CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY STANDARDS AND THE OCCUPATIONAL SAFETY STANDARDS AS ISSUED BY THE U.S. DEPARTMENT OF LABOR AND THE INDIANA DEPARTMENT OF LABOR.
 3. ALL WORK WITHIN THIS CONTRACT SHALL BE PERFORMED WITHIN THE CONSTRUCTION LIMITS SHOWN UNLESS AUTHORIZED BY OWNER AND/OR ENGINEER.
 4. NO OPEN BURNING OF WASTE MATERIAL SHALL BE PERMITTED ON THE SITE WITHOUT APPROVAL OF THE DEVELOPER AND APPROPRIATE REGULATORY AGENCIES.
 5. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS.
 6. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS PRIOR TO THE START OF WORK AND REPORT ANY VARIATIONS TO THE ENGINEER.
 7. STRIPPED TOPSOIL SHALL NOT BE USED TO CONSTRUCT ANY PERMANENT EMBANKMENT OR BACKFILL.
 8. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE IMMEDIATELY SEEDED OR EROSION CONTROL MATTED PER SPECIFICATIONS UNLESS NOTED OTHERWISE ON THE PLANS.
 9. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN WITHIN THESE PLANS REPRESENT THE FINAL FINISHED GRADES AND PAVEMENT SURFACE ELEVATIONS. REFER TO THE PAVEMENT DETAILS FOR PAVEMENT DEPTHS TO DETERMINE COMPACTED SUBGRADE ELEVATIONS.
 10. IT IS THE RESPECTIVE CONTRACTORS RESPONSIBILITY TO MAINTAIN ELECTRICAL, GAS, WATER, SANITARY SEWER AND STORM SEWER SERVICES TO EXISTING BUILDINGS DURING ALL PHASES OF CONSTRUCTION.
 11. SITE SECURITY SHALL BE MAINTAINED AT ALL TIMES. NOTIFY OWNER OF ANY POSSIBLE VIOLATIONS.
 12. CONSTRUCTION TRAILERS, CONTRACTORS PARKING, AND LAYDOWN AREA TO BE LOCATED AS DIRECTED BY OWNER.
 14. CONTRACTOR TO ENSURE SAFETY IN EXCAVATION OF FOOTERS AND TRENCHES. STABILIZE EXCAVATION WALLS USING SHORING OR OTHER MEANS IF NECESSARY.
 15. CONTRACTOR TO USE EROSION CONTROL FENCING AROUND AND WITHIN THE SITE AS NECESSARY TO PREVENT SEDIMENT WASH FROM LEAVING THE SITE. EROSION CONTROL FABRIC TO BE USED ON ALL SLOPES GREATER THAN 4:1 SLOPES.
 16. ALL PROPERTY CORNERS AND EASEMENT MARKERS SHALL NOT BE DISTURBED DURING ALL PHASES OF CONSTRUCTION. THOSE DISTURBED BY CONSTRUCTION, SHALL BE RESET. CONTACT SURVEYOR FOR ASSISTANCE.

LEGEND

---ST---ST---	STORM SEWER LINE
---SF---SF---	SILT FENCE
---GAS---GAS---	GAS LINE
---SS---SS---	SANITARY SEWER
---W---W---	WATER LINE
---PW---PW---	WATER LINE POTABLE
---UGE---	UNDERGROUND ELECTRIC
---972---	EXISTING CONTOURS
970	PROPOSED CONTOURS
	MEDIUM DUTY ASPHALT PAVING (NEW)
	CONCRETE PAVING (NEW)

HOLEY MOLEY SAYS CALL
1-800-382-5544



AT LEAST TWO FULL
WORKING DAYS BEFORE
YOU DIG

RQAW
CONSULTING ENGINEERS & ARCHITECTS
RQAW Corporation
4735 Kingsway Drive, Suite 400
Indianapolis, Indiana 46205-1947
(317) 232-5680 FAX (317) 232-5634

date	
revisions	
sym	

scale: **1"=30'-0"**

0 30 60

GRAPHIC SCALE

Richard T. O'Connor

job#	contract#	designer: ECR	drawn: ECR	checked: RTO	date
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DEMOLITION PLAN

WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION

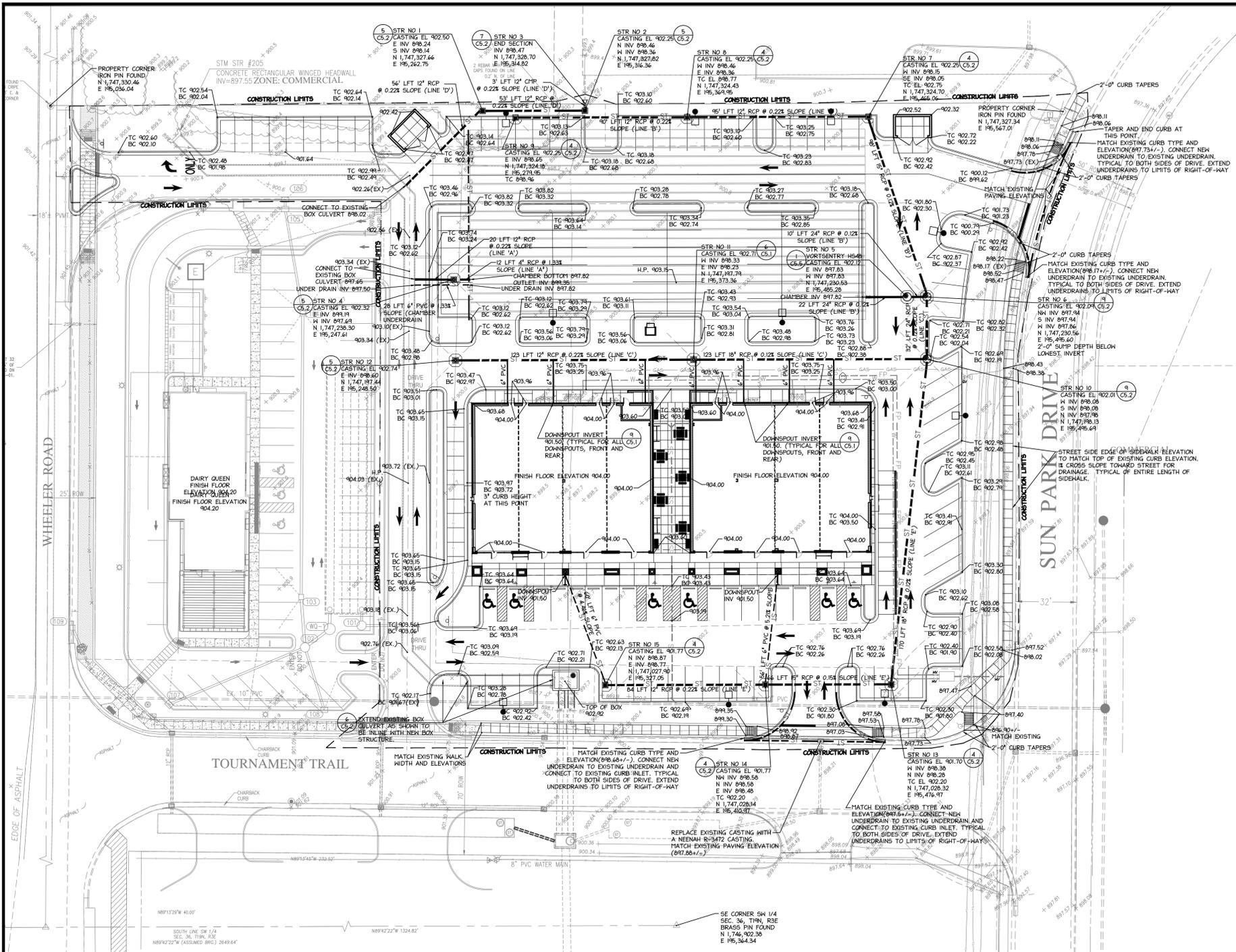
WESTFIELD, INDIANA

SHEET

C1-1

OF SHEETS

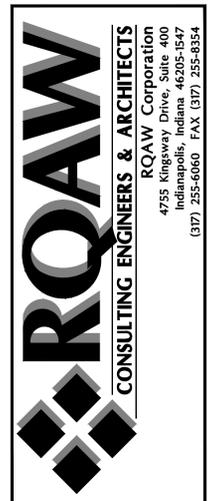
APPROVAL PENDING-NOT FOR CONSTRUCTION



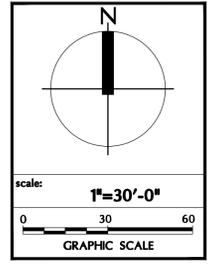
STRUCTURE DATA TABLE

STRUCTURE NUMBER	TC/RIM ELEVATION	INVERT IN	INVERT OUT	STRUCTURE SIZE (INCHES)	STRUCTURE TYPE	CASTING TYPE	PIPE SIZE IN (INCHES)	PIPE SIZE OUT (INCHES)	DIRECTION OF PIPE IN/OUT	STORM BMP YES/NO
1	902.50	898.24	898.14	24X24	AREA INLET	NEENAH R-3472	12	12	IN EAST/OUT SOUTHWEST	NO
2	902.25	898.46	898.36	24X24	AREA INLET	NEENAH R-3472	12	12	IN NORTH/OUT WEST	NO
3		898.47			END SECTION		12		IN NORTH	NO
4	902.32	899.19	897.69	48	MANHOLE	NEENAH R-1772-A	12	12	IN EAST/OUT WEST	YES
5	901.96	897.83	897.83	48	MANHOLE	NEENAH R-1772-A	12	12	IN EAST/OUT WEST	YES
6		897.94					15		IN NORTHWEST	
	902.09	897.94	897.84	48	MANHOLE	NEENAH R-1772-A	24	24	OUT WEST	YES
7	902.25	898.15	898.05	24X24	CURB INLET	EJ 7000*	12	15	IN WEST/OUT SOUTHWEST	YES
8	902.25	898.46	898.36	24X24	CURB INLET	EJ 7000*	12	12	IN WEST/OUT EAST	YES
9	902.25		898.65	24X24	CURB INLET	EJ 7000*	12	12	IN EAST	YES
10		898.08					18		IN WEST	
	902.01	898.08	897.98	48	MANHOLE	NEENAH R-1772-A	18	18	IN SOUTH	
11	902.01		897.98	48	MANHOLE	NEENAH R-1772-A	24	24	OUT NORTH	YES
12	902.71	898.33	898.23	24X24	AREA INLET	NEENAH R-3472	12	12	IN WEST/OUT EAST	YES
13	902.74	898.60	898.60	24X24	AREA INLET	NEENAH R-3472	18	18	OUT EAST	YES
14	901.77	898.38	898.28	24X24	CURB INLET	EJ 7000*	15	18	IN WEST/OUT NORTH	YES
15	901.77	898.58	898.48	24X24	CURB INLET	EJ 7000*	12	15	IN WEST/OUT EAST	YES
	901.77	898.77	898.77	24X24	CURB INLET	EJ 7000*	12	12	OUT EAST	YES

*NOTE:
EJ 7000: EAST JORDAN #7000, TYPE MI GRATE,
TYPE 74 BACK



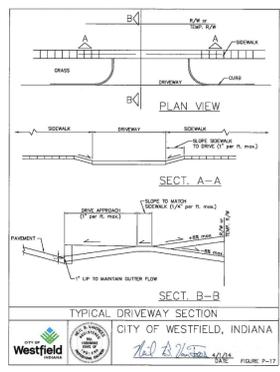
date	revisions	sym



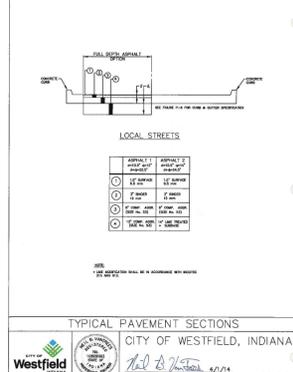
contract#	designed	drawn	checked	date

GRADING AND DRAINAGE PLAN
WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION
WESTFIELD, INDIANA

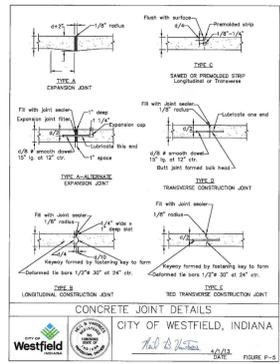
APPROVAL PENDING-NOT FOR CONSTRUCTION



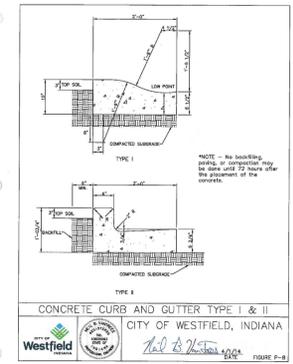
12 TYPICAL DRIVEWAY SECTION
SCALE: NONE



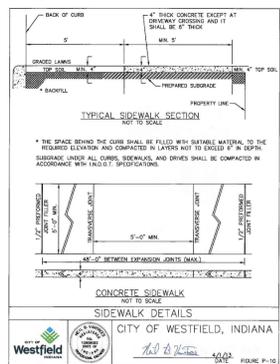
13 TYPICAL PAVEMENT SECTIONS
SCALE: NONE



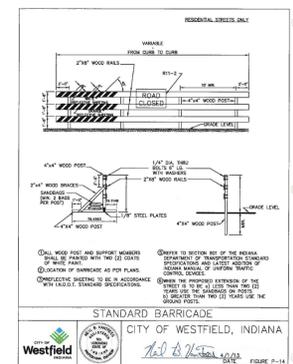
14 CONCRETE JOINT DETAILS
SCALE: NONE



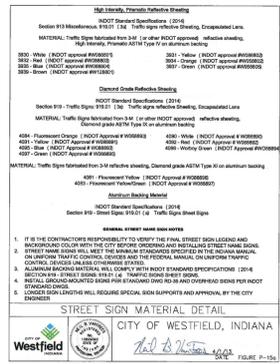
15 CONCRETE CURB & GUTTER
SCALE: NONE



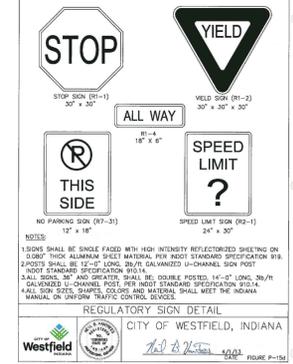
16 SIDEWALK DETAILS
SCALE: NONE



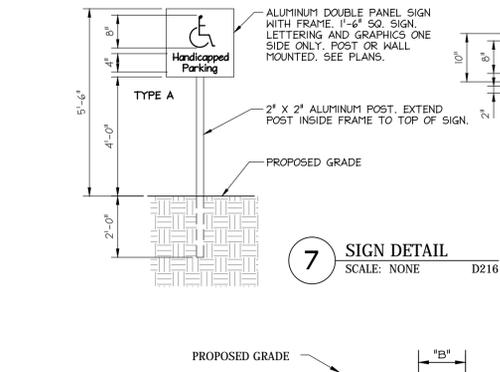
17 STANDARD BARRICADE
SCALE: NONE



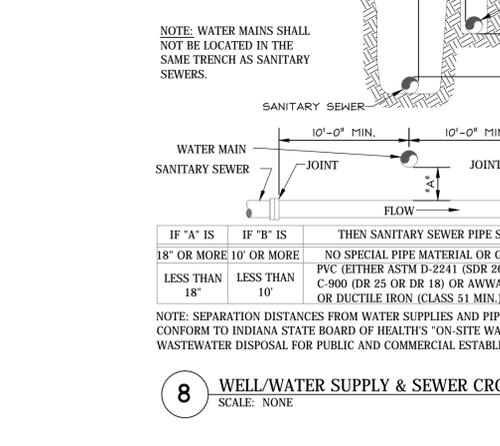
19 STREET SIGN MATERIAL DETAIL
SCALE: NONE



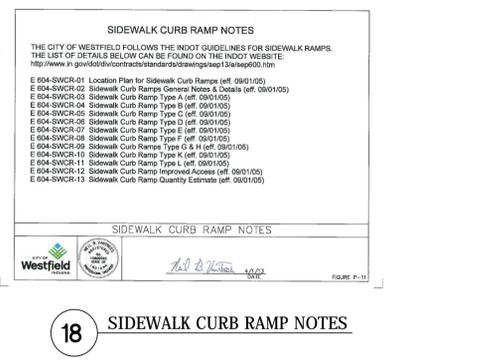
20 REGULATORY SIGN DETAIL
SCALE: NONE



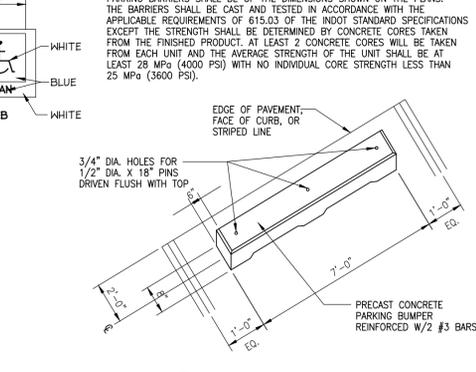
7 SIGN DETAIL
SCALE: NONE



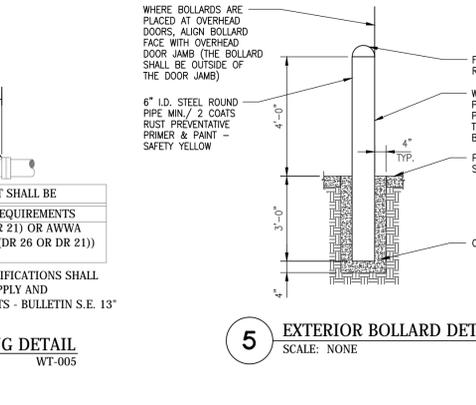
8 WELL/WATER SUPPLY & SEWER CROSSING DETAIL
SCALE: NONE



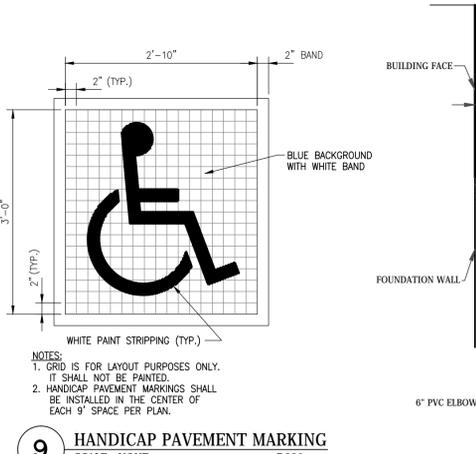
18 SIDEWALK CURB RAMP NOTES
SCALE: NONE



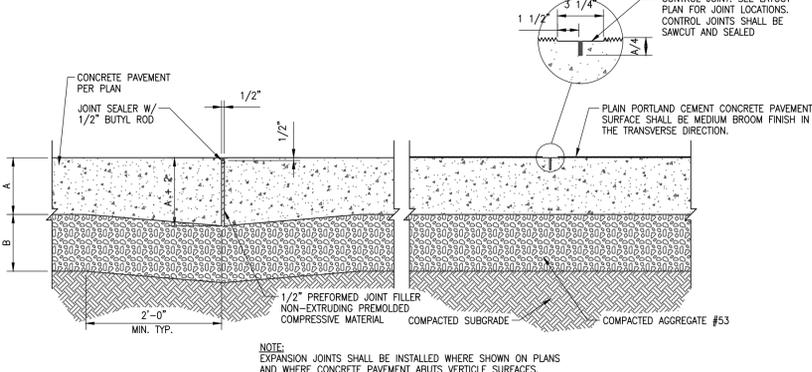
4 PARKING BUMPER DETAIL
SCALE: NONE



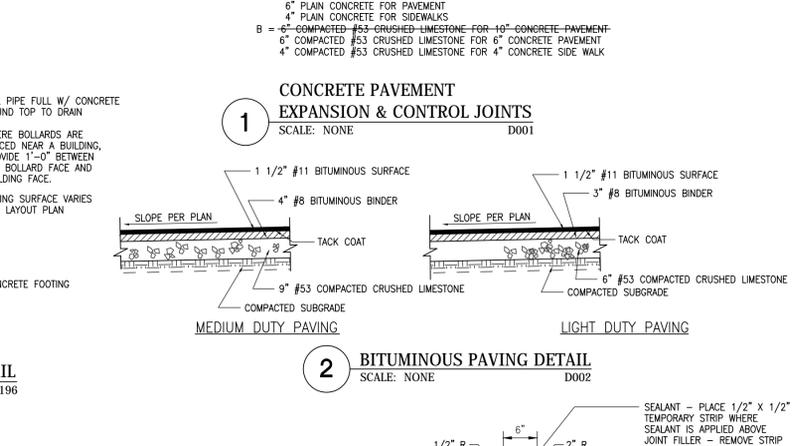
5 EXTERIOR BOLLARD DETAIL
SCALE: NONE



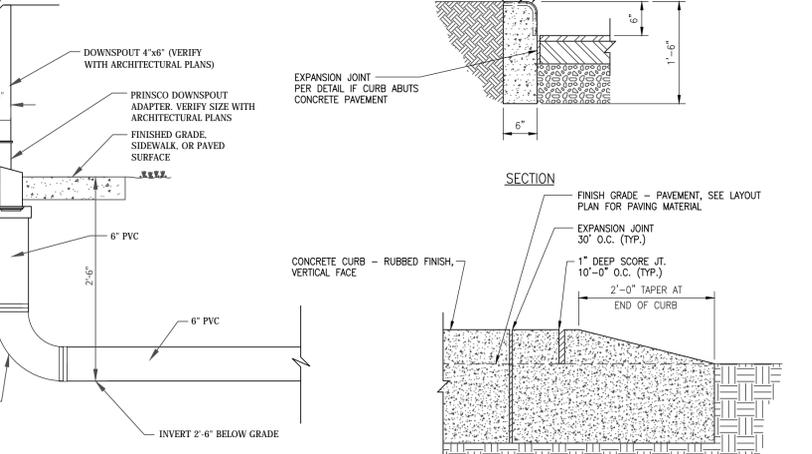
9 HANDICAP PAVEMENT MARKING
SCALE: NONE



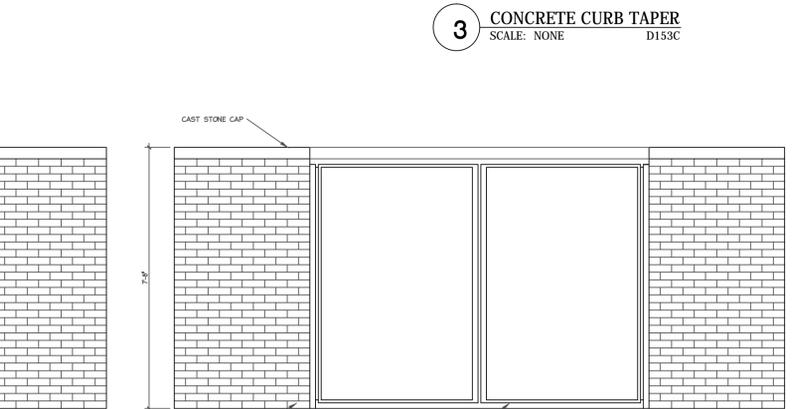
1 CONCRETE PAVEMENT EXPANSION & CONTROL JOINTS
SCALE: NONE



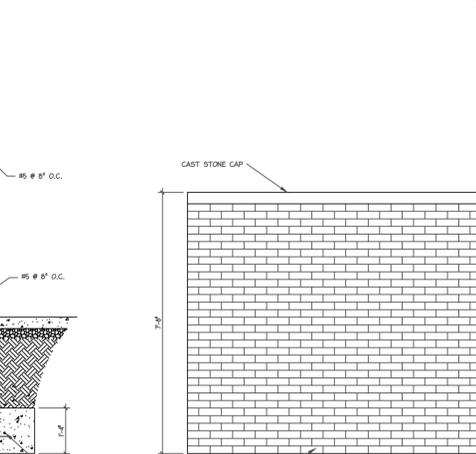
2 BITUMINOUS PAVING DETAIL
SCALE: NONE



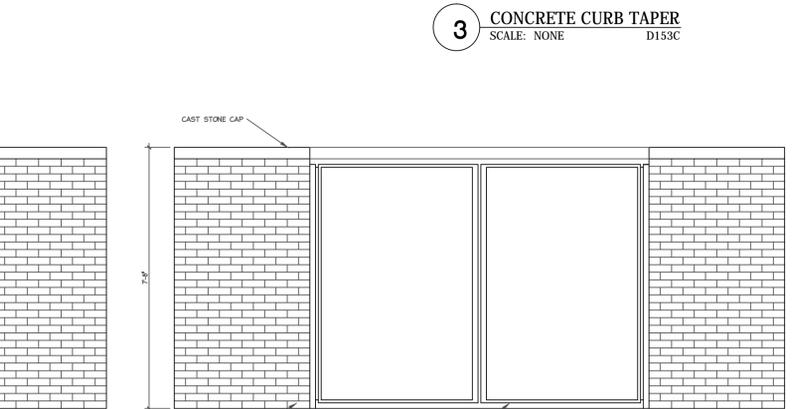
6 DOWNSPOUT BOOT
SCALE: NONE



3 CONCRETE CURB TAPER
SCALE: NONE



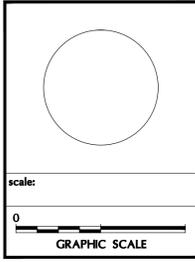
10 DUMPSTER ENCLOSURE
SCALE: 1/2" = 1'-0"



11 DUMPSTER ELEVATIONS
SCALE: NONE

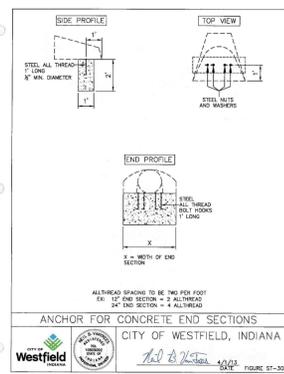
APPROVAL PENDING-NOT FOR CONSTRUCTION

date	revisions	sym

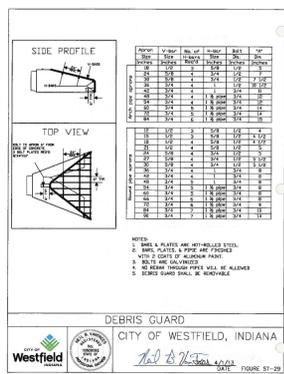


contract#	designed:	drawn:	checked:	date:
	ECR	ECR	RTO	

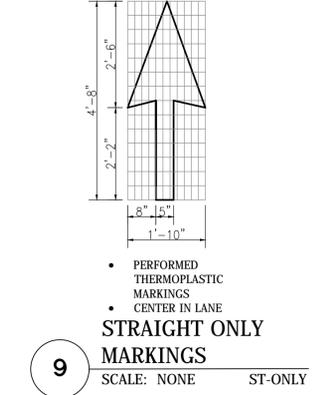
DETAILS
WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION
WESTFIELD, INDIANA



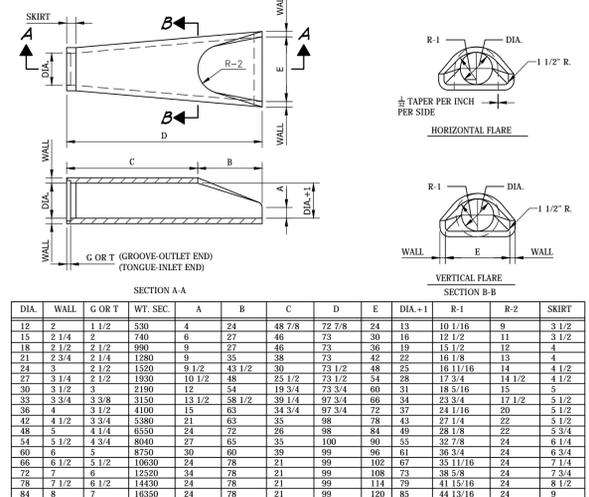
11 ANCHOR FOR CONCRETE END SECTION
SCALE: NONE



12 DEBRIS GUARD
SCALE: NONE



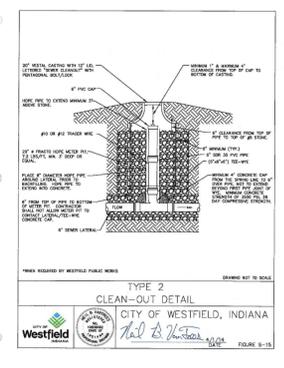
9 PERFORMED THERMOPLASTIC MARKINGS
CENTER IN LANE
STRAIGHT ONLY
SCALE: NONE ST-ONLY



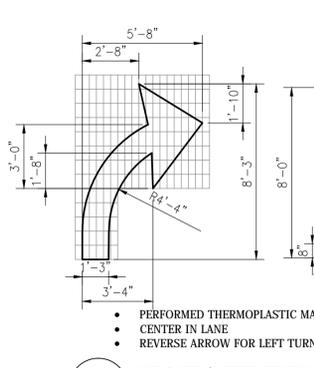
6 RCP PRECAST CONCRETE END SECTION DETAIL
SCALE: NONE STES-RCP-001



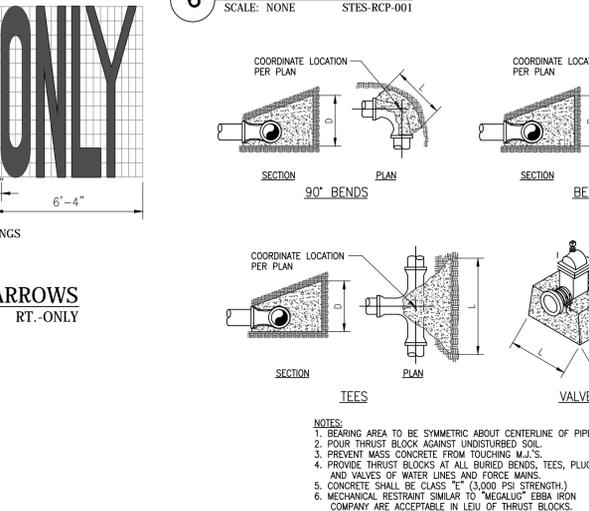
13 STANDARD STORM MANHOLE DETAIL
SCALE: NONE



14 TYPE 2 CLEAN-OUT DETAIL
SCALE: NONE



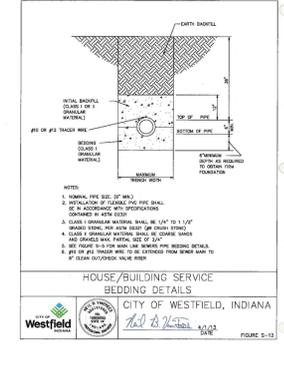
10 PERFORMED THERMOPLASTIC MARKINGS
CENTER IN LANE
RIGHT/LEFT TURN ARROWS
SCALE: NONE RT-ONLY



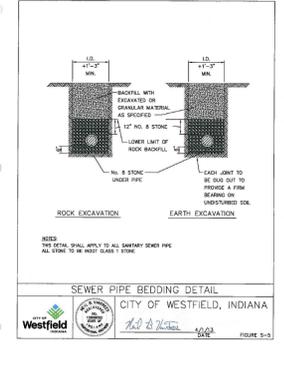
THRUST BLOCK DIMENSION TABLE

PIPE SIZE (INCHES)	WORKING PRESSURE (PSIG)	90° BEND		45° BEND		120° BEND		TEE OR VALVE	
		L	D	L	D	L	D	L	D
4"	150	1.5	0.7	1.5	0.7	1.5	0.7	1.5	0.7
4"	250	1.5	0.7	1.5	0.7	1.5	0.7	1.5	0.7
6"	150	2.0	1.0	1.5	0.7	1.5	0.7	1.5	0.7
6"	250	2.0	1.0	1.5	0.7	1.5	0.7	1.5	0.7
8"	150	2.0	1.0	1.5	0.7	1.5	0.7	1.5	0.7
8"	250	3.0	2.0	2.0	1.5	1.67	1.0	2.25	1.75
10"	150	2.5	1.25	1.75	1.0	1.75	1.0	2.0	1.25
10"	250	3.67	2.0	2.0	1.5	2.0	1.5	2.0	1.5
12"	150	3.0	2.5	2.25	1.75	1.75	1.25	2.5	2.0
12"	250	4.0	3.0	3.0	2.5	2.0	1.75	3.67	2.5
14"	150	4.0	2.5	2.75	2.0	2.0	1.5	3.0	2.33
14"	250	5.0	3.5	3.75	2.67	2.5	2.0	4.0	3.0
16"	150	5.0	3.0	3.0	2.5	2.5	2.0	3.5	2.75
16"	250	6.0	3.5	4.0	3.0	3.25	2.0	5.0	3.75
18"	150	5.5	3.75	3.67	2.5	2.5	2.0	4.0	3.0
18"	250	7.0	4.0	5.0	3.75	3.5	2.5	6.0	3.75
20"	150	6.0	3.5	4.0	2.75	3.0	2.0	5.0	3.0
20"	250	8.0	4.5	6.0	3.25	4.0	2.5	6.5	4.0
24"	150	7.0	4.25	5.0	3.25	3.67	2.5	5.0	3.75
24"	250	9.0	5.5	6.5	4.0	6.0	3.0	8.0	4.5

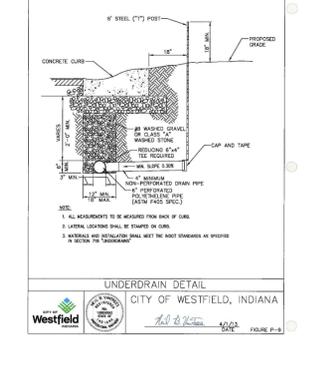
7 THRUST BLOCK DETAIL
SCALE: NONE D321



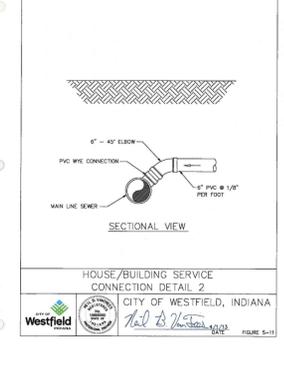
15 HOUSE/BUILDING SERVICE BEDDING DETAIL
SCALE: NONE



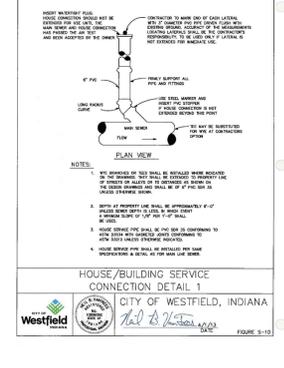
16 SEWER PIPE BEDDING DETAIL
SCALE: NONE



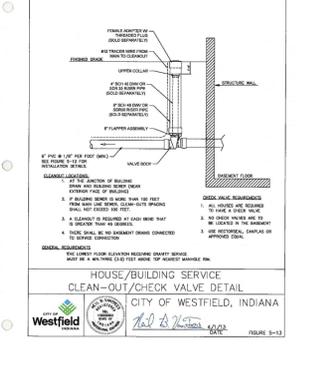
17 UNDERDRAIN DETAIL
SCALE: NONE



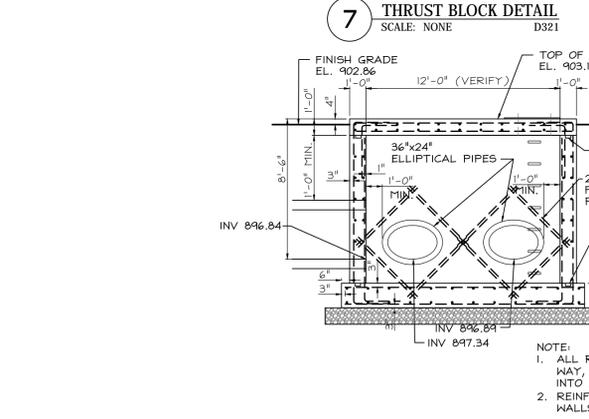
18 HOUSE/BUILDING SERVICE CONNECTION DETAIL 2
SCALE: NONE



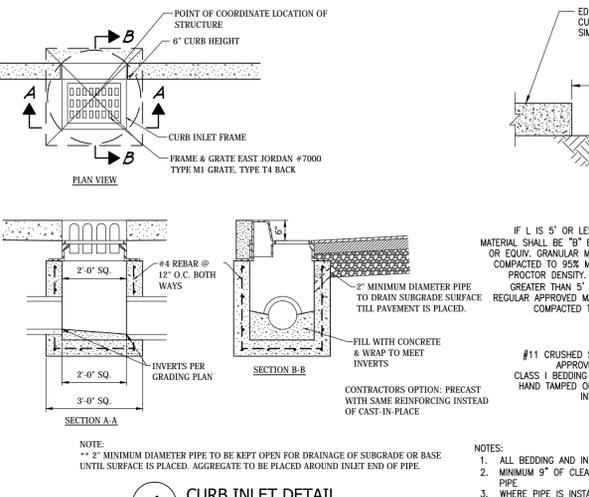
19 HOUSE/BUILDING SERVICE CONNECTION DETAIL 1
SCALE: NONE



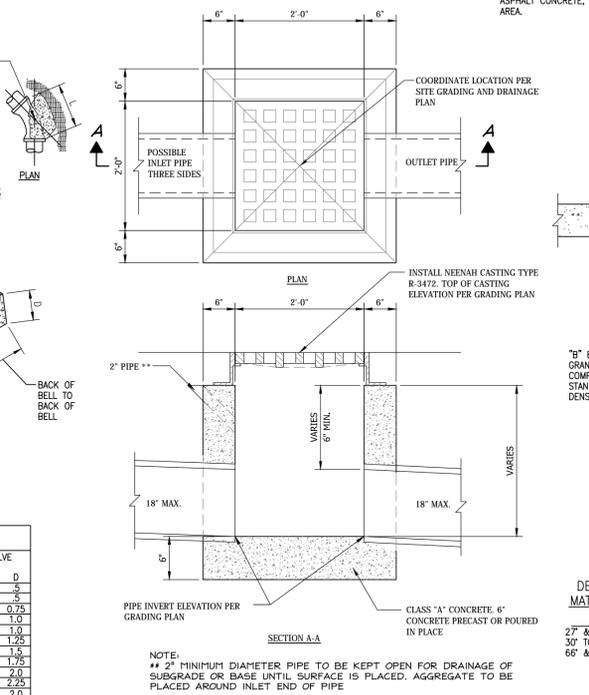
20 CLEAN-OUT / CHECK VALVE DETAIL
SCALE: NONE



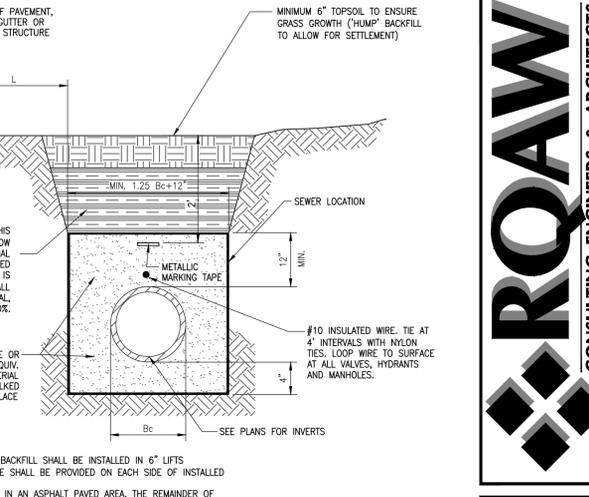
8 POURED IN-PLACE MANHOLE FOR BOX CULVERT AND ELLIPTICAL PIPE JUNCTION
SCALE: NONE



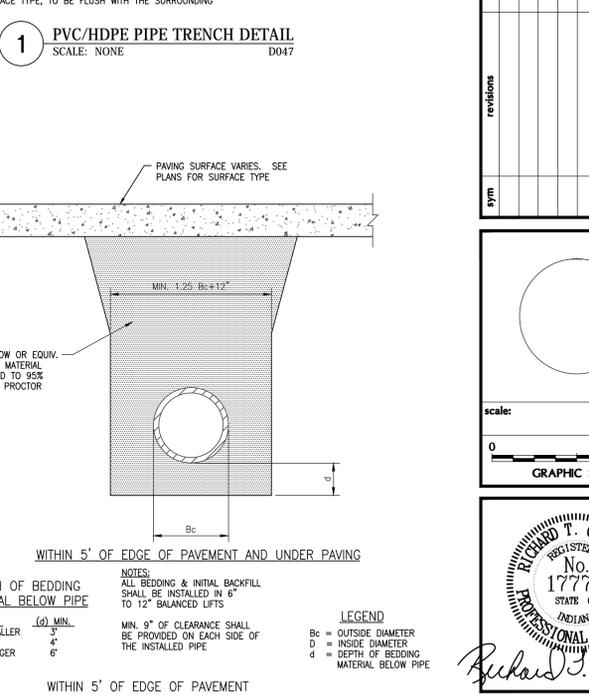
4 CURB INLET DETAIL
SCALE: NONE STIN-026



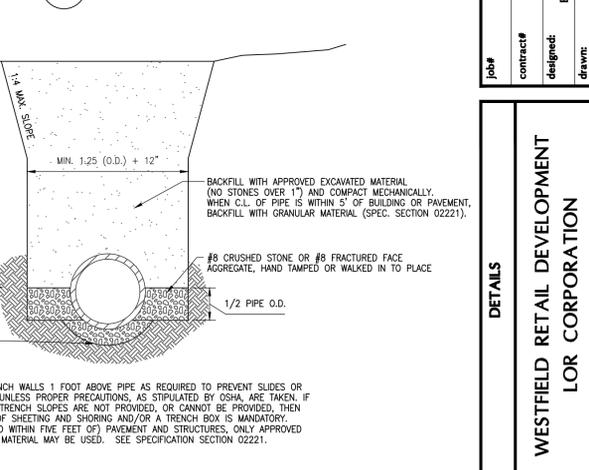
5 INLET TYPE "A" (MODIFIED 12" TO 18" PIPES)
SCALE: NONE STIN-005



1 PVC/HDPE PIPE TRENCH DETAIL
SCALE: NONE D047



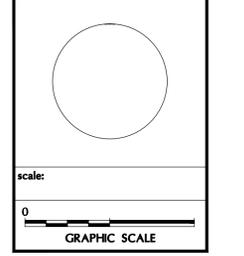
2 REINFORCED CONCRETE PIPE (RCP) TRENCH DETAIL
SCALE: NONE D045



3 DUCTILE IRON PIPE TRENCH DETAIL
SCALE: NONE D047-D1

RQAW
CONSULTING ENGINEERS & ARCHITECTS
RQAW Corporation
4755 Kingsway Drive, Suite 400
Indianapolis, Indiana 46205-1547
(317) 255-6060 FAX (317) 255-8334

date	
revisions	
sym	



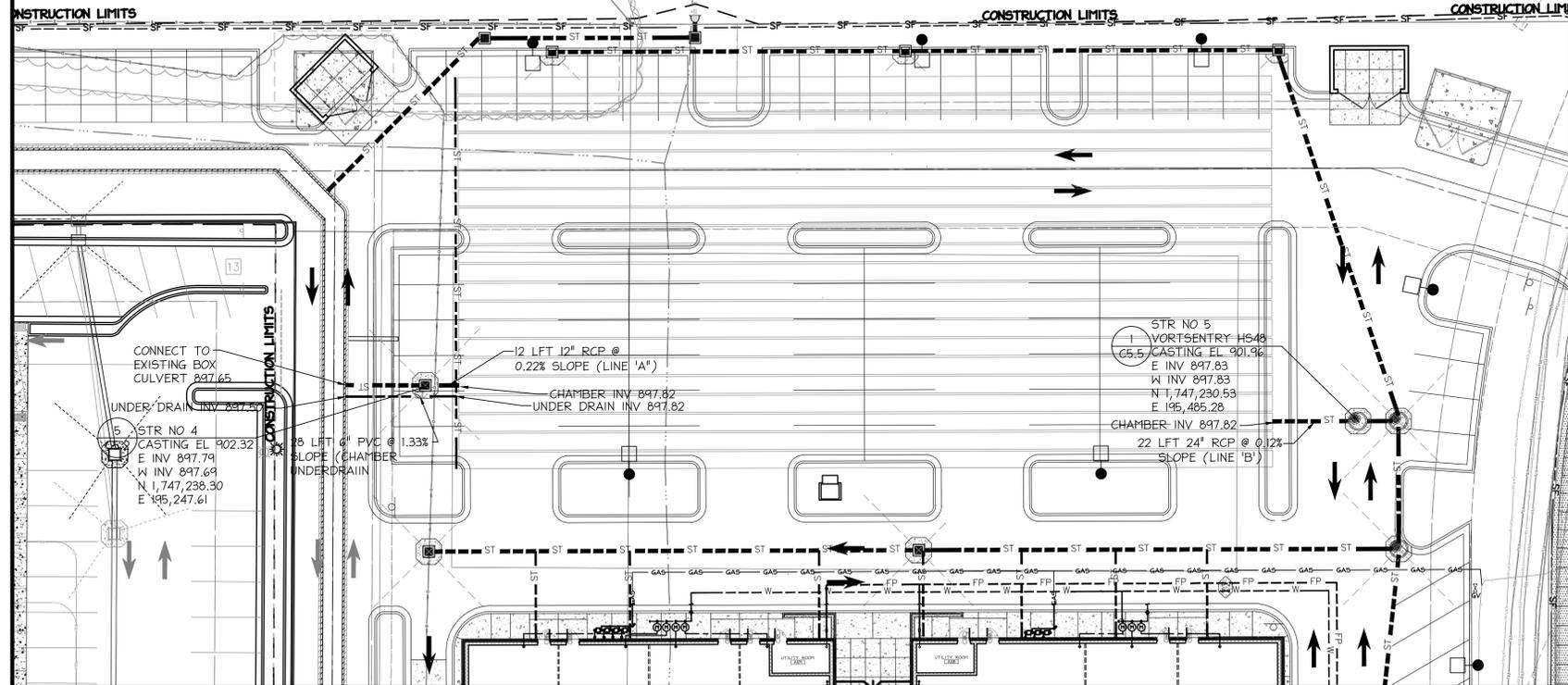
REGISTERED PROFESSIONAL ENGINEER
No. 17778
STATE OF INDIANA
Richard J. Connor

job#	
contract#	
designed: ECR	
drawn: ECR	
checked: RTO	
date:	

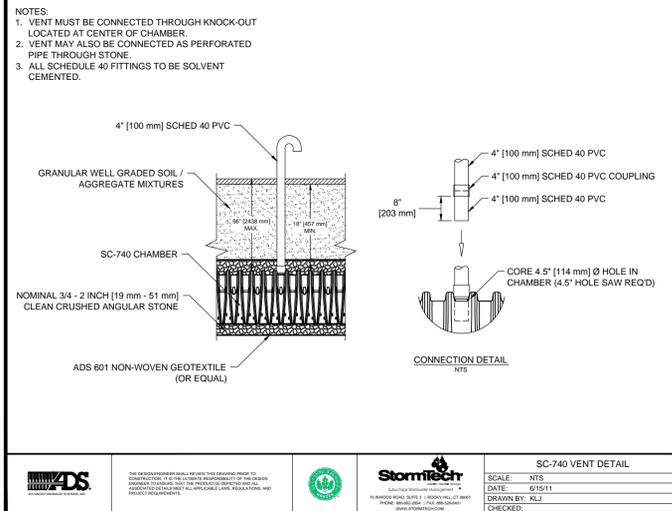
WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION
WESTFIELD, INDIANA

SHEET
C5-2
OF SHEETS

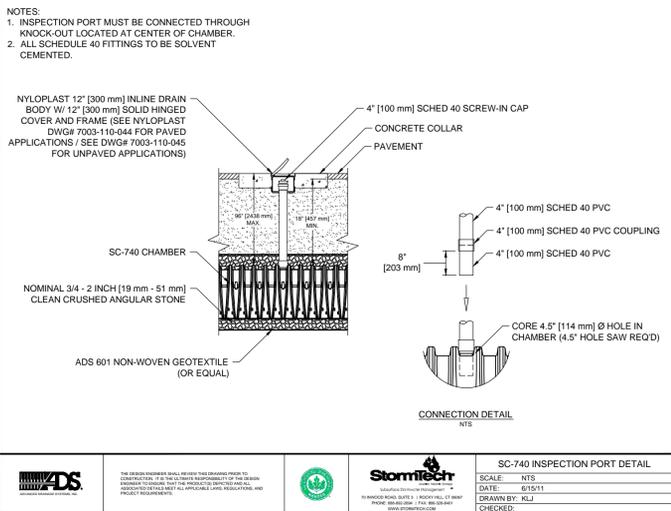
ZONE: COMMERCIAL



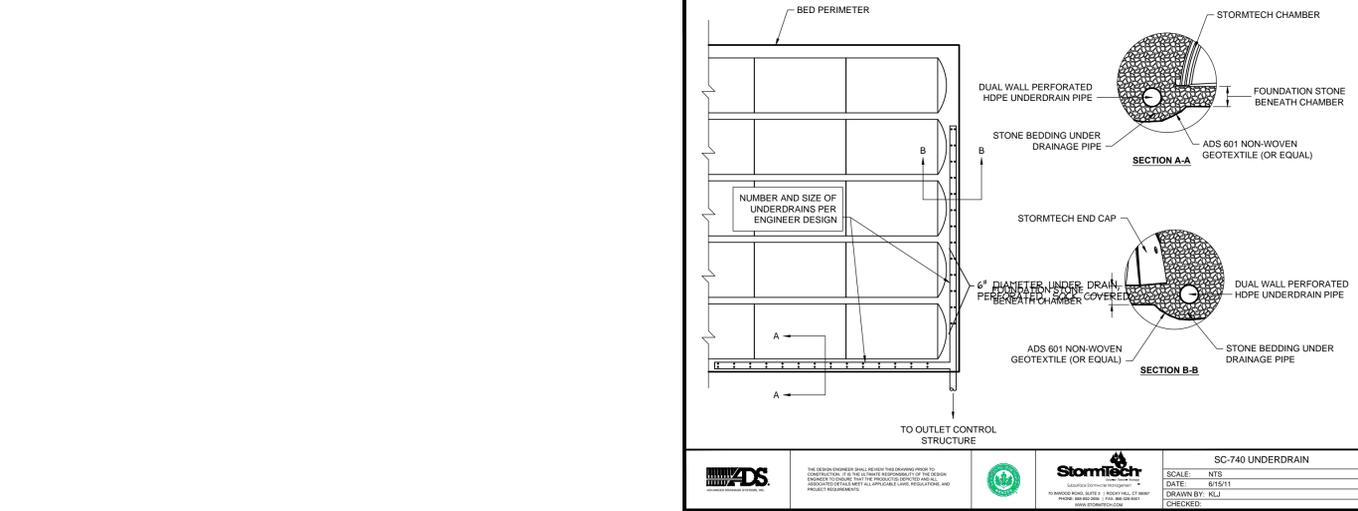
NOTE:
SEE GRADING AND DRAINAGE PLAN FOR ADDITIONAL INFORMATION



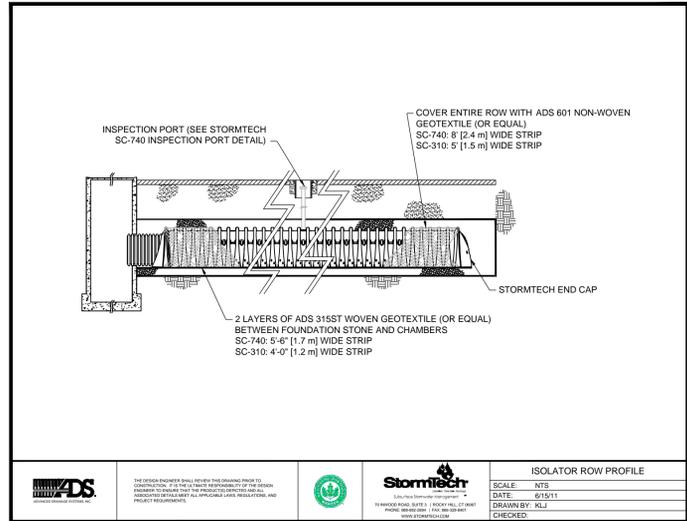
ADS	Stormtech	SC-740 VENT DETAIL SCALE: NTS DATE: 6/15/11 DRAWN BY: KJL CHECKED:
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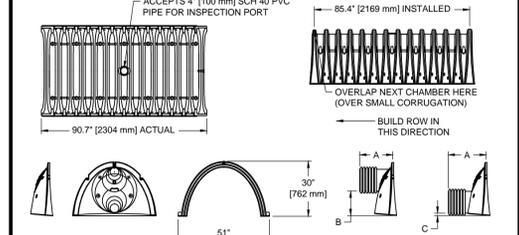
ADS	Stormtech	SC-740 INSPECTION PORT DETAIL SCALE: NTS DATE: 6/15/11 DRAWN BY: KJL CHECKED:
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ADS	Stormtech	SC-740 UNDERDRAIN SCALE: NTS DATE: 6/15/11 DRAWN BY: KJL CHECKED:
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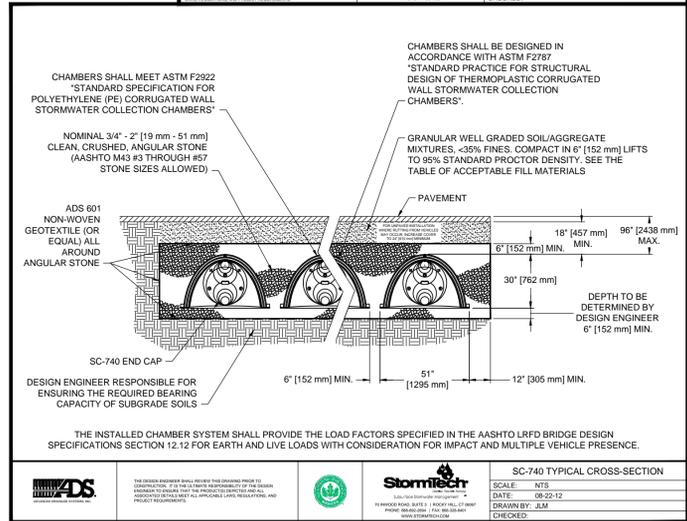


ADS	Stormtech	ISOLATOR ROW PROFILE SCALE: NTS DATE: 6/15/11 DRAWN BY: KJL CHECKED:
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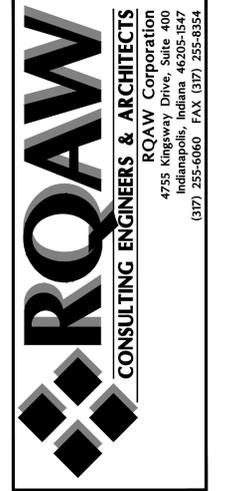


ADS	Stormtech	NOMINAL CHAMBER SPECIFICATIONS SIZE: W x L x H (INSTALLED LENGTH) CHAMBER STORAGE MINIMUM INSTALLED STORAGE WEIGHT
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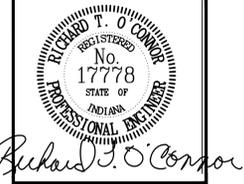
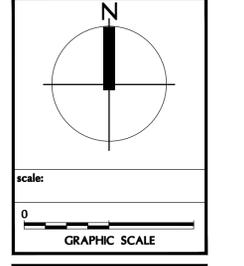
PART#	STUB	B	C
SC740EP081	8\"	10.90\"	18.50\"
SC740EP088	8\"	10.90\"	N/A
SC740EP08T	8\"	12.20\"	16.50\"
SC740EP08B	8\"	12.20\"	N/A
SC740EP10T	10\"	13.40\"	14.50\"
SC740EP10B	10\"	13.40\"	N/A
SC740EP12T	12\"	14.70\"	12.50\"
SC740EP12B	12\"	14.70\"	N/A
SC740EP15T	15\"	13.75\"	N/A
SC740EP15B	15\"	18.40\"	N/A
SC740EP18T	18\"	19.70\"	5.00\"
SC740EP18B	18\"	19.70\"	N/A
SC740EP24B	24\"	18.50\"	N/A



ADS	Stormtech	SC-740 TYPICAL CROSS-SECTION SCALE: NTS DATE: 08-22-12 DRAWN BY: JEM CHECKED:
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date	
revisions	
sym	



contract#	designed: ECR	drawn: ECR	checked: RTO	date:
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CHAMBER PLAN AND DETAILS
 WESTFIELD RETAIL DEVELOPMENT
 LOR CORPORATION
 WESTFIELD, INDIANA

SHEET
C5-3
 OF SHEETS

APPROVAL PENDING-NOT FOR CONSTRUCTION

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 AND SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
①	FILL MATERIAL FOR LAYER D STARTS FROM THE TOP OF THE C LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR IMPROVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THIS LAYER.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
②	FILL MATERIAL FOR LAYER C STARTS FROM THE TOP OF THE EMBEDED STONE (B LAYER) TO 18" (457 mm) ABOVE THE TOP OF THE CHAMBERS. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THIS LAYER.	3.307, 4.467, 5.46, 5.7, 6.67, 6.7, 7.8, 8.9, 9.19	BEGIN COMPACTION AFTER 12" (305 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (152 mm) LIFTS TO A MIN. 90% STANDARD PROCTOR DENSITY. HIGHER GRADE VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lb (89 kN).
③	EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE LAYER ABOVE.	3.307, 4.467, 5.46, 5.7	NO COMPACTION REQUIRED.
④	FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	3.35, 4.467, 5.46, 5.7	PLATE COMPACT OR ROLL TO ACHIEVE A 90% STANDARD PROCTOR DENSITY.

PLEASE NOTE:
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE."
 2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (152 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

		STORMTECH ACCEPTABLE FILL SCALE: NTS DATE: 3/30/10 DRAWN BY: RLJ CHECKED:
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STORMTECH GENERAL NOTES

- STORMTECH REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEMS CONSTRUCTION. CALL 1-888-892-2894 TO SPEAK TO A TECHNICAL SERVICES REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.) MINIMUM COVER IS 18" (457 mm) NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96" (2438 mm) INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24" (610 mm), MAXIMUM COVER IS 96" (2438 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2894 OR VISIT WWW.STORMTECH.COM

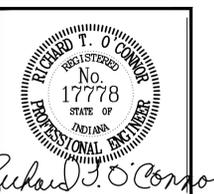
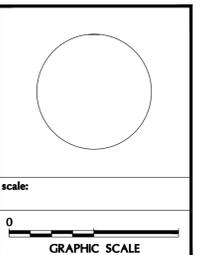
		STORMTECH GENERAL NOTES SCALE: NTS DATE: 3/30/10 DRAWN BY: RLJ CHECKED:
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STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310 OR APPROVED EQUAL.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS TESTED USING ASTM STANDARDS.
- CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS."
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
- ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET. THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2022 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
- CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
- ALL DESIGN SPECIFICATIONS FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
- THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

		STORMWATER CHAMBER SPECIFICATIONS SCALE: N/A DATE: 6/09/11 DRAWN BY: RLJ CHECKED:
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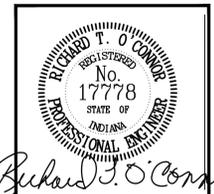
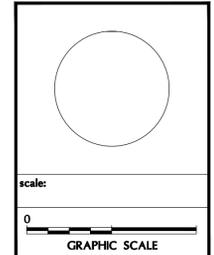
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sym	



job#		ECR	ECR	RTO
contract#		designer:	drawn:	checked:
				date

CHAMBER DETAILS
WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION
 WESTFIELD, INDIANA

date	revision	sym



job#	contract#	designed	drawn	checked	date

CONTECH VORTSENTRY HS UNIT
 WESTFIELD RETAIL DEVELOPMENT
 LOR CORPORATION
 WESTFIELD, INDIANA

VORTSENTRY HS DESIGN NOTES

VSHS RATED TREATMENT CAPACITY IS SHOWN IN THE TABLE BELOW, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY VARIES. CONTACT YOUR CONTECH REPRESENTATIVE FOR ADDITIONAL INFORMATION.
 THE STANDARD SOLID COVER CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW.

CONFIGURATION OPTION DESCRIPTION

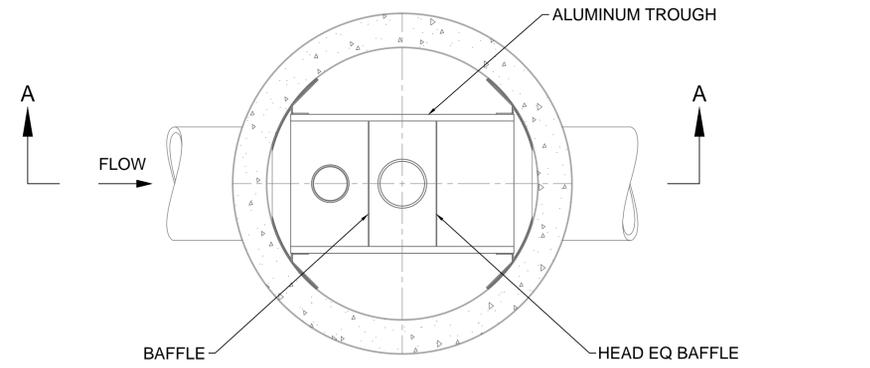
- GRATE INLET (NO INLET PIPE)
- GRATE INLET WITH INLET PIPE

VORTSENTRY HS GENERAL INFORMATION

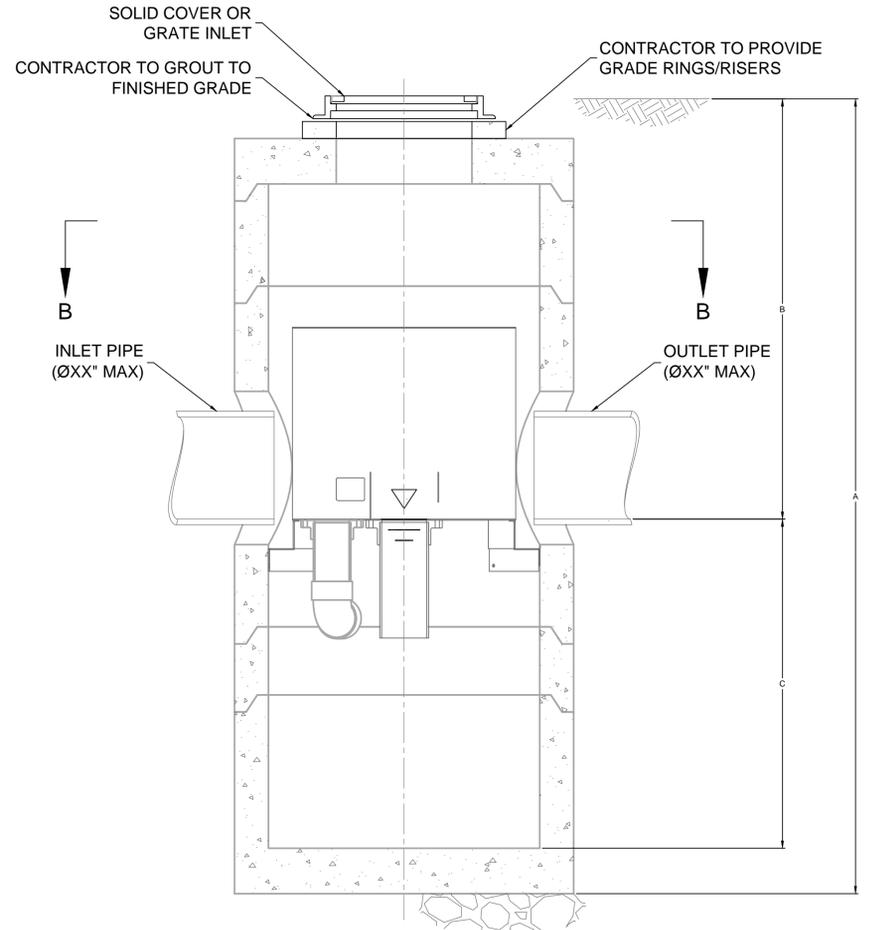
Model	Manhole Diameter (ID)		Total Treatment Flow Rate		Typical Total Distance Rim to Outside Bottom A		Typical Distance Rim to Invert B		Typical Depth Below Invert (inside) C		Approximate Minimum Distance Rim to Invert		Maximum Pipe Diameter (ID)	
	FT	mm	CFS	L/S	FT	m	FT	m	FT	mm	FT	m	IN	mm
HS36	3	900	0.55	15.6	10.16	3.10	4.08	1.24	5.58	1702	3.00	0.91	18	450
HS48	4	1200	1.20	34.0	13.25	4.04	6.00	1.83	6.75	2057	4.00	1.22	24	600
HS60	5	1500	2.20	62.3	15.13	4.61	6.50	1.98	7.96	2426	4.82	1.47	30	750
HS72	6	1800	3.70	104.8	16.56	5.05	6.75	2.06	9.15	2788	5.59	1.70	36	900
HS84	7	2100	5.60	158.6	18.85	5.75	7.75	2.36	10.35	3156	5.00	1.52	42	1050
HS96	8	2400	8.10	229.4	20.87	6.36	8.50	2.59	11.54	3518	6.91	2.11	48	1200

SITE SPECIFIC DATA REQUIREMENTS

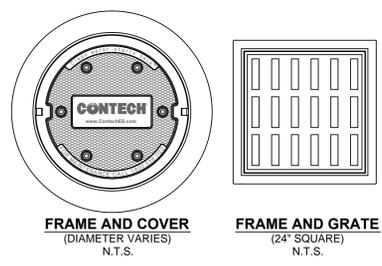
STRUCTURE ID				
WATER QUALITY FLOW RATE (CFS)				*
PEAK FLOW RATE (CFS)				*
RETURN PERIOD OF PEAK FLOW (YRS)				*
PIPE DATA:	I.E.	MATERIAL	DIAMETER	
INLET PIPE 1	*	*	*	
OUTLET PIPE	*	*	*	
RIM ELEVATION				*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT		
	*	*		
NOTES/SPECIAL REQUIREMENTS:				
* PER ENGINEER OF RECORD				



PLAN VIEW B-B



SECTION A-A



GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- VORTSENTRY HS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.

INSTALLATION NOTES

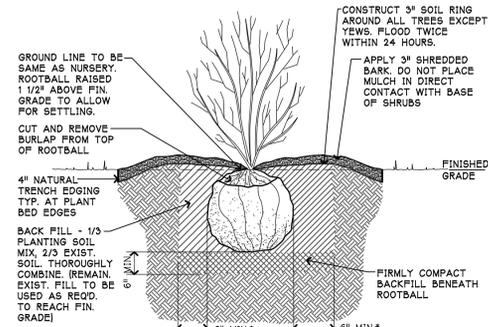
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTSENTRY HS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



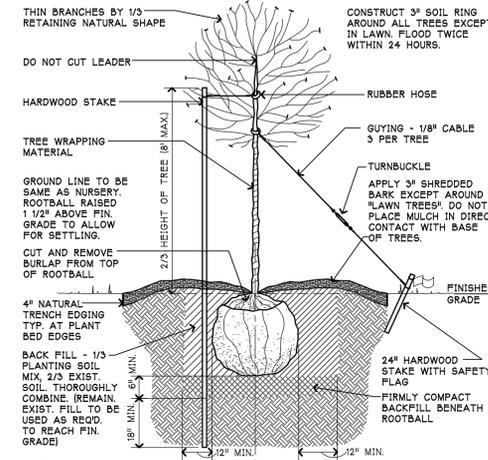
www.ContechES.com
 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
 800-338-1122 513-645-7000 513-645-7993 FAX

VortSentry

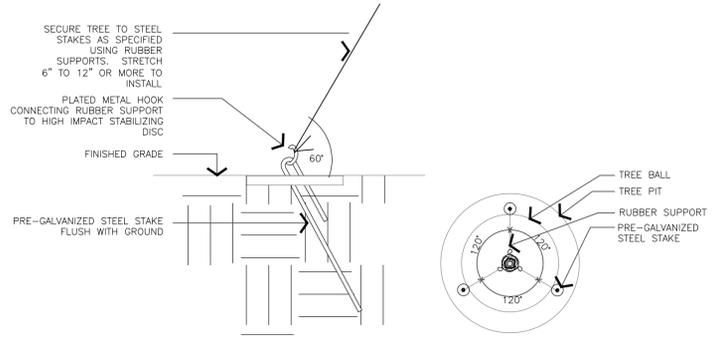
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 6,891,114; 7,296,692; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.



4 SHRUB PLANTING
NO SCALE D-SHRUB1
LS-008



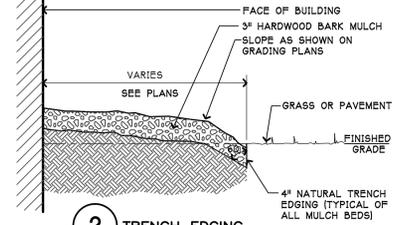
1 TREE PLANTING
NO SCALE D-TREE1
LS-009



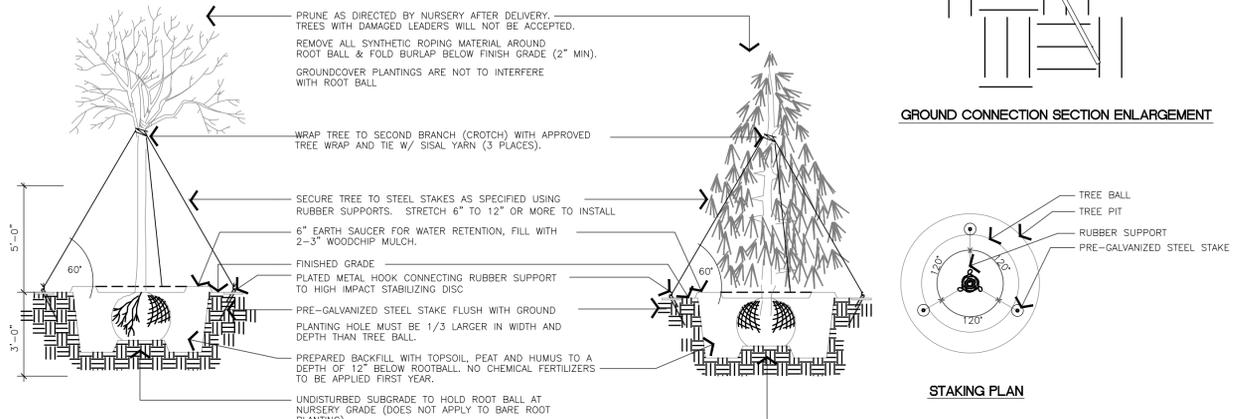
GROUND CONNECTION SECTION ENLARGEMENT

PRODUCT NO.	DESCRIPTION	STAKE LENGTH	CALIPER
TS0020-L6/16	6 FT. LONG RUBBER SUPPORTS	16"	UP TO 3"
TS0020-L6/24	6 FT. LONG RUBBER SUPPORTS	24" FOR SANDY/LOOSE SOIL	UP TO 3"
TS0020-L8/16	8 FT. LONG RUBBER SUPPORTS	16"	UP TO 4"
TS0020-L8/24	8 FT. LONG RUBBER SUPPORTS	24" FOR SANDY/LOOSE SOIL	UP TO 4"
TS0030-LJ/11	4'-8" LONG RUBBER SUPPORTS	11"	UP TO 2"
TS0030-LJ/16	4'-6" LONG RUBBER SUPPORTS	16" FOR SANDY/LOOSE SOIL	UP TO 2"

5 TREE ANCHORING DETAIL
NO SCALE LS-007



2 TRENCH EDGING
NO SCALE D-TRENCH1
LS-010



PRODUCT NO. DESCRIPTION STAKE LENGTH CALIPER

PRODUCT NO.	DESCRIPTION	STAKE LENGTH	CALIPER
TS0020-L6/16	6 FT. LONG RUBBER SUPPORTS	16"	UP TO 3"
TS0020-L6/24	6 FT. LONG RUBBER SUPPORTS	24" FOR SANDY/LOOSE SOIL	UP TO 3"
TS0020-L8/16	8 FT. LONG RUBBER SUPPORTS	16"	UP TO 4"
TS0020-L8/24	8 FT. LONG RUBBER SUPPORTS	24" FOR SANDY/LOOSE SOIL	UP TO 4"
TS0030-LJ/11	4'-8" LONG RUBBER SUPPORTS	11"	UP TO 2"
TS0030-LJ/16	4'-6" LONG RUBBER SUPPORTS	16" FOR SANDY/LOOSE SOIL	UP TO 2"

3 DECIDUOUS AND CONIFEROUS TREE ANCHORING DETAIL
NO SCALE LS-006

PLANT SCHEDULE

KEY	QTY	SIZE	SCIENTIFIC NAME	COMMON NAME
CANOPY DECIDUOUS TREES				
Q1	2	12-2 1/2" CAL., BB	QUERCUS ROBUR	RED OAK
L1	5	2-2 1/2" CAL., BB	LIRIODENDRON TULIPIFERA	TULIP TREE
AC	2	2-2 1/2" CAL., BB	ACER NIGRUM	BLACK MAPLE
ORNAMENTAL UNDERSTORY TREES				
M1	10	1 1/2" CAL., BB	MAGNOLIA VIRGINIANA	SHEET BAG MAGNOLIA
AM	24	1 1/2" CAL., BB	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY
TYPE 'A' TREES (STREET TREES)				
ACT	3	1 1/2" CAL., BB	ACER TRIFOLIUM	THREE-LOBED MAPLE
GL	3	1 1/2" CAL., BB	GLIEDITSIA TRIACANTHOS VARIETY INERMIS	THORNLESS HONEYLOCUST
R1	5	1 1/2" CAL., BB	QUERCUS RUBRA	RED OAK
PC	5	1 1/2" CAL., BB	PRUNUS CALLERYANA 'CAPITAL'	CAPITAL PEAR
DECIDUOUS SHRUBS				
E1	14	#5	EUKOYMIUS ALATA 'CORIFACTA'	DIKARE BURNING BUSH
W1	26	#5	WEIGELA FLORIDA 'RED PRINCE'	RED PRINCE WEIGELA
EVERGREEN SHRUBS				
M1	255	#8 CONT.	MICRO PHYLIA	LITTLELEAF BOXWOOD
ORNAMENTAL SHRUBS				
H1	7	#8 CONT.	HYDRANGEA QUERCIFOLIA	OAK LEAF HYDRANGEA

SEE ALL AREAS DISTURBED BY CONSTRUCTION AS SEEDING CHART IN EROSION CONTROL PLANS

RQAW
CONSULTING ENGINEERS & ARCHITECTS
ROAW Corporation
4755 Kingsway Drive, Suite 400
Indianapolis, Indiana 46205-1647
(317) 255-6060 FAX (317) 255-8354

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GRAPHIC SCALE

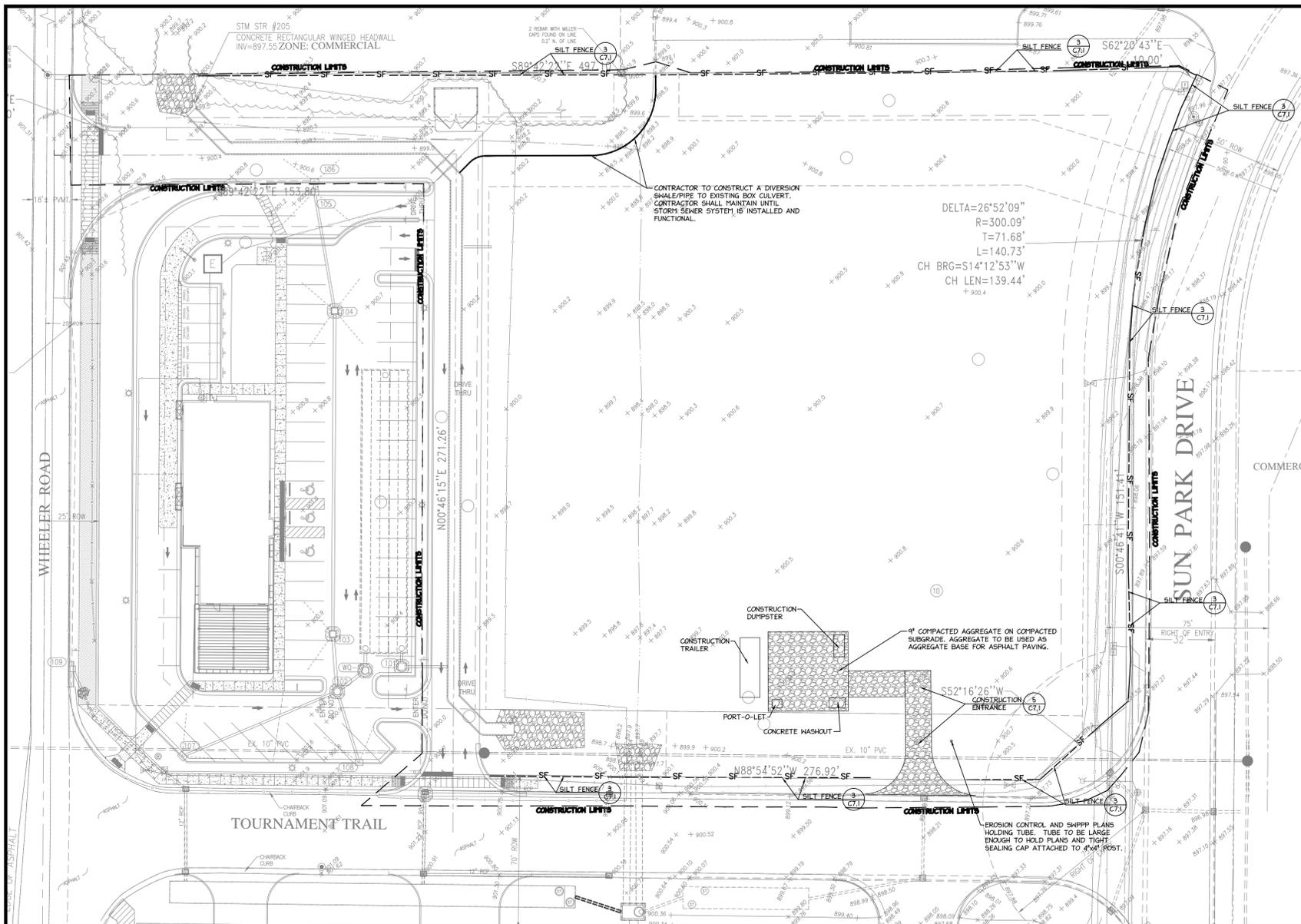
Professional Engineer
No. 17778
STATE OF INDIANA
Richard J. O'Connor

job#	
contract#	
designed	ECR
drawn	ECR
checked	RTO
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LANDSCAPE DETAILS
WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION
WESTFIELD, INDIANA

SHEET
C6-2
OF SHEETS

APPROVAL PENDING-NOT FOR CONSTRUCTION

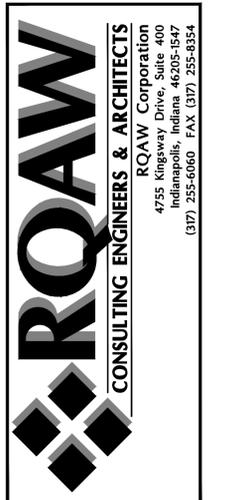


LEGEND

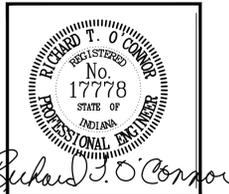
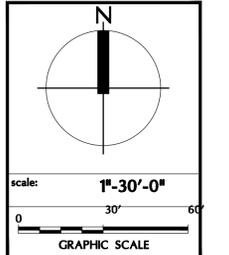
— SF —	SILT FENCE
-472-	EXISTING CONTOURS
	9" COMPACTED AGGREGATE ON COMPACTED GRADE (CONTRACTORS AREA & DRIVE)

- GENERAL NOTES**
1. THE EROSION CONTROL PLAN MUST BE EXECUTED BEFORE ANY CONSTRUCTION COMMENCES.
 2. EROSION CONTROL MATERIAL MUST BE APPROVED BY THE WPWD INSPECTORS PRIOR TO INSTALLATION.
 3. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE WPWD INSPECTOR.
 4. IF THE SITE REMAINS INACTIVE FOR A PERIOD OF 2 WEEKS, THE STABILIZATION IS REQUIRED TO TAKE PLACE IN THE FORM OF TEMPORARY SEEDING, MULCH, OR SPRAY ON POLYMER.
 5. SILT FENCE TO BE INSTALLED AROUND SITE PRIOR TO ANY CONSTRUCTION ACTIVITIES.

- SEQUENCE OF CONSTRUCTION ACTIVITIES**
1. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF WESTFIELD PRIOR TO ANY CONSTRUCTION ON THE SITE BEING STARTED. THE CONTRACTOR AND/OR DEVELOPER SHALL NOTIFY IDEM AND THE CITY OF WESTFIELD 48 HOURS PRIOR TO START OF CONSTRUCTION.
 2. FOLLOWING THE REQUIRED PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL CONSTRUCT THE "POSTING INFORMATION CENTER". THE LOCATION IS SHOWN ON THIS DRAWING. THE POSTING INFORMATION CENTER IS THE LOCATION WHERE A COPY OF THE APPROVED IDEM RULE 5 PERMIT, APPROVED SWPP PLAN, SIGNED O&M MANUAL AND MAINTENANCE LOGS ARE TO BE LOCATED. THE CONTRACTOR SHALL PROCEED TO CONSTRUCT THE CONSTRUCTION ENTRANCE AFTER ALL POSTING REQUIREMENTS HAVE BEEN MET.
 3. IMMEDIATELY FOLLOWING THE INSTALLATION OF THE CONSTRUCTION ENTRANCE, THE CONTRACTOR SHALL LAY OUT THE CONTRACTORS AREA WHICH WILL INCLUDE PORT-A-LET, CONCRETE WASHOUT BASIN, AND ESTABLISH AN AREA FOR THE CONSTRUCTION TRAILER. UTILITY CONNECTION TO THE TRAILER SHALL BE MADE AT THIS TIME.
 4. AFTER THE CONSTRUCTION ENTRANCE AND CONTRACTORS AREA HAVE BEEN ESTABLISHED, A CONCRETE WASHOUT AREA SHALL BE CONSTRUCTED ACCORDING TO WESTFIELD STANDARD DETAIL "CONCRETE WASHOUT DETAIL" FIGURE EC-5. CONCRETE WASHOUT SHALL NOT BE REQUIRED IF CONCRETE TRUCK IS EQUIPPED WITH A SELF-CONTAINED CHUTE WASH SYSTEM, SIMILAR TO SYSTEM PROVIDED BY ENVIROGUARD OR APPROVED EQUAL.
 5. PRIOR TO ANY EARTH MOVING, THE CONTRACTOR SHALL INSTALL ALL SILT FENCE AS SHOWN ON THIS SHEET WHICH IS BASICALLY A PERIMETER SILT FENCE. SECTIONS OF THE PERIMETER SILT FENCE MAY BE REMOVED AS WORK PROGRESSES. A SWALE DIVERSION SHALL BE CONSTRUCTED TO DIVERT THE EXISTING SWALE TOWARD THE BOX CULVERT.
 6. THE CONTRACTOR SHALL PROTECT ALL EXISTING ROAD INLETS FROM ANY SEDIMENT WASH FROM LEAVING THE SITE. THE USE OF DROP INLET BASKETS SHALL BE USED IF NECESSARY PER WESTFIELD "INLET PROTECTION" DETAIL FIGURE EC-6.
 7. WHEN CONSTRUCTION LIMITS HAVE BEEN ESTABLISHED AND PERIMETER SILT FENCE HAS BEEN PLACED, THE CONTRACTOR MAY BEGIN STRIPPING TOPSOIL AND EXCAVATIONS. ALL WORK SHALL REMAIN WITHIN THE CONSTRUCTION LIMITS UNLESS REQUEST HAS BEEN MADE TO THE ARCHITECT OR ENGINEER.
 8. CONTRACTOR MAY PROCEED WITH ROUGH GRADING AND ESTABLISH BUILDING PAD. INSTALLATION OF PROPOSED STORM SEWER SYSTEM AND UNDER PAVING DETENTION SYSTEM. CONTRACTOR IS TO KEEP DUST TO A MINIMUM WITH THE USE OF WATER TRUCKS IF NECESSARY.
 9. CONTRACTOR MAY PROCEED WITH REMAINING UTILITIES WHICH WILL INCLUDE SANITARY SEWER, ELECTRICAL, GAS, AND WATER.
 10. ONCE UTILITIES ARE IN-PLACE, FINAL GRADING FOR PAVING MAY COMMENCE BY COMPACTING SUBGRADE AND INSTALLATION OF AGGREGATE BASE AND CONCRETE CURBS. RELOCATION OF CONTRACTORS AREA WILL BE NECESSARY AS WORK PROGRESSES.
 11. ONCE AGGREGATE BASE AND CURBS ARE IN-PLACE, ASPHALT PAVING MAY COMMENCE. AGGREGATE OF THE CONSTRUCTION ENTRANCE IS TO BE LEFT IN-PLACE AND USED AS THE AGGREGATE BASE FOR THE ASPHALT PAVING. ROADWAY SIDEWALK MAY BE CONSTRUCTED AT THIS TIME. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE NO SEDIMENT WASH LEAVES THE SITE INTO EXISTING ROAD CATCH BASINS. "INLET PROTECT" DROP BASKETS MAY BE NECESSARY.
 12. IN AREAS CALLING FOR GRASS OR LANDSCAPING, ONCE FINAL GRADES ARE ESTABLISHED, SEEDING AND LANDSCAPING MAY COMMENCE. SEEDING AND LANDSCAPING SHALL BE PERFORMED AS SHOWN ON LANDSCAPING PLANS AND SEED MIXTURE SHOWN ON EROSION CONTROL AND STORM WATER POLLUTION PREVENTION PLAN.
 13. THE CONTRACTOR SHALL SCHEDULE A SITE INSPECTION WITH THE CITY OF WESTFIELD TO ENSURE THAT THE SITE IS STABILIZED. AFTER THE INSPECTOR APPROVES THE SITE CONDITIONS, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL PRACTICES.
 14. THE POST-CONSTRUCTION EROSION CONTROL PRACTICES THEN BECOME THE RESPONSIBILITY OF THE DEVELOPER OF THIS PROJECT.
 15. THE DEVELOPER OF THIS PROJECT SHALL CONTINUE TO MONITOR THIS SITE FOR GOOD HOUSE KEEPING ON THE POST-CONSTRUCTION BMP'S UNTIL A NOTICE OF TERMINATION IS FILED WITH IDEM.

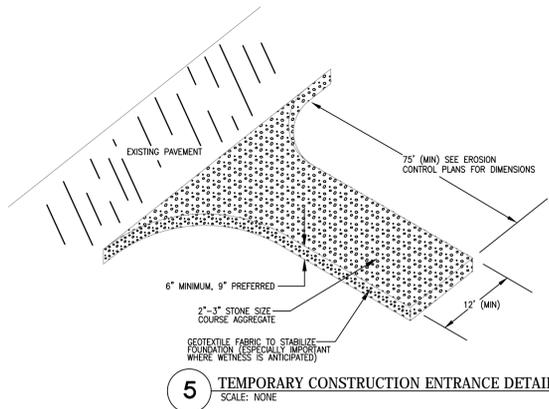
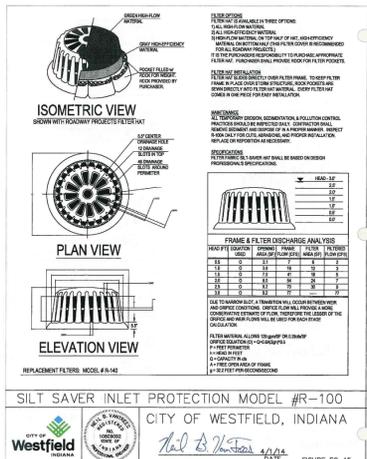
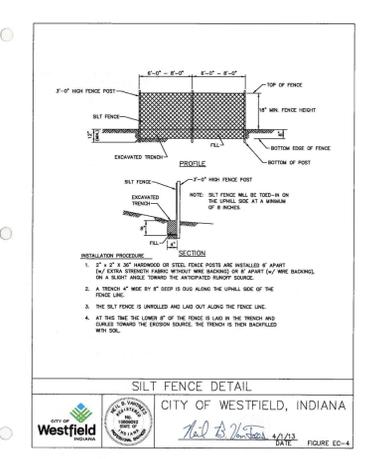
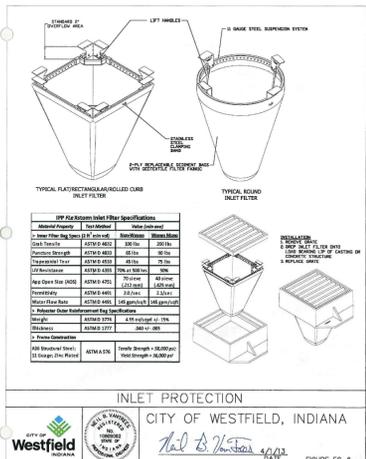
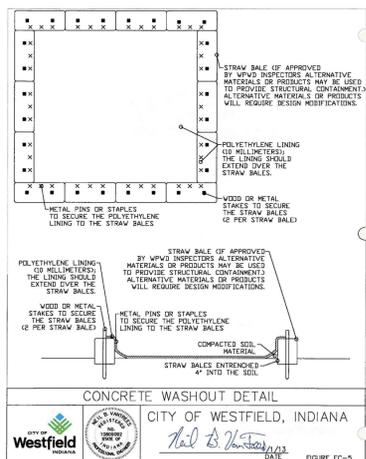


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EROSION CONTROL PRE-EARTH MOVING PLAN
WESTFIELD RETAIL DEVELOPMENT
LOR CORPORATION
WESTFIELD, INDIANA



APPROVAL PENDING-NOT FOR CONSTRUCTION

C7-1
OF SHEETS

1. INTRODUCTION

THE PROPOSED WESTFIELD RETAIL DEVELOPMENT WILL BE CONSTRUCTED ON THE WEST SIDE OF WESTFIELD, INDIANA. SPECIFICALLY, THE SITE IS LOCATED WEST OF US31 AND NORTH SIDE OF SR32. THE LOCATION OF THIS PROJECT IS ALSO DESCRIBED IN THE PROJECT INFORMATION SECTION ON THIS SHEET.

THE PROPOSED PROJECT WILL CONSIST OF A BUILDING, PARKING LOT, AND NECESSARY DRIVES. THIS CAN BE SEEN ON SHEET C2.1, C3.1, OR C4.1 OF THIS SET OF DRAWINGS. THE ENTIRE PROJECT WILL HAVE MINIMAL OR NO IMPACT ON NEARBY BUSINESSES AND RESIDENCES.

THE EXISTING SITE IS PRESENTLY 100% GRASS COVERED.

ADJACENT LAND USE IS AS FOLLOWS: NORTH- EXISTING RESIDENCE, EAST: SUN PARK DRIVE, SOUTH, TOURNAMENT TRAIL, WEST: PROPOSED DAIRY QUEEN.

THE POST DEVELOPED STORM DRAINAGE WILL BE SHEET FLOW TO INLETS AND DISCHARGE INTO A UNDERGROUND DETENTION BASIN WHICH IN-TURN WILL DISCHARGE INTO A BOX CULVERT. THIS CAN BE SEEN ON SHEET C2.1

10-YEAR, PRE-CONSTRUCTION RUN-OFF = XXX CFS CFS
10-YEAR, POST CONSTRUCTION RUN-OFF = XXX CFS
THE HYDRAULICS OF THE SITE HAVE BEEN CALCULATED AND SUBMITTED IN A SEPARATE REPORT.

THE SITE DOES NOT ACCEPT OFF-SITE STORMWATER.

THERE WILL BE NO DIRECT DISCHARGES OF STORMWATER IN TO THE EXISTING GROUND WATER.

THERE ARE NO WETLANDS LOCATED ON THE PROJECT SITE.

THIS PROJECT DOES NOT INCLUDE ANY CONSTRUCTION IN A FLOODPLAIN.

NO STATE OR FEDERAL WATER QUALITY PERMITS ARE REQUIRED WHICH INCLUDE CONSTRUCTION IN A FLOODPLAIN FROM DNR, 410 WATER QUALITY CERTIFICATION FROM IDEM, 404 PERMITS FROM UNITED STATES ARMY CORPS OF ENGINEERS, ETC.

EROSION CONTROL AND STORMWATER POLLUTION PREVENTION PLAN

SEED MIXTURE SCHEDULE

PROPORTION BY WEIGHT	COMMON NAME	BOTANICAL NAME	MIN. % GERM.	MIN. % PURE SEED	MAX. % WEED SEED
PERMANENT MATRIX					
35%	TALL FESCUE	FESTUCA ELATIOR (VAR. ARUNDINACEA) (EQUAL AMOUNTS OF KENTUCKY 31 & ALTA)	85	98	0.30
21%	PERENN. RYEGRASS	LOLIUM PERENNE (EQUAL AMOUNTS OF PRISTIA II & MANHATTAN II)	90	97	0.30
14%	CREeping RED FESCUE	FESTUCA RUBRA VAR.	90	98	0.30
TEMPORARY MATRIX					
23%	SEED OATS	AVENA SATIVA	-	-	0.50
7%	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90	95	0.50



SOILS MAP AND SOIL DESCRIPTIONS

- CROSBY SILT LOAM (Ca)**
- SLOPE: 0 TO 2 PERCENT
 - DEPTH TO RESTRICTIVE FEATURE: 24 TO 40 INCHES TO DENSE MATERIAL
 - DRAINAGE CLASS: SOMEWHAT POORLY DRAINED
 - DEPTH TO WATER TABLE: ABOUT 6 TO 24 INCHES
 - FREQUENCY OF FLOODING: NONE
 - FREQUENCY OF PONDING: NONE
- BROOKSTON SILTY CLAY LOAM (B)**
- SLOPE: 0 TO 2 PERCENT
 - DEPTH TO RESTRICTIVE FEATURE: MORE THAN 80 INCHES
 - DRAINAGE CLASS: POORLY DRAINED
 - DEPTH TO WATER TABLE: ABOUT 0 TO 12 INCHES
 - FREQUENCY OF FLOODING: NONE
 - FREQUENCY OF PONDING: FREQUENT

SECTION 'C' STORMWATER POLLUTION PREVENTION PLAN - POST CONSTRUCTION COMPONENT

DESCRIPTION	LOCATION IN EROSION AND SEDIMENT CONTROL PLAN
1. DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE.	SEE 'POST CONSTRUCTION', THIS SHEET.
2. SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION	SEE 'SEQUENCE', THIS SHEET.
3. DESCRIPTION OF PROPOSED POST CONSTRUCTION STORMWATER QUALITY MEASURES (INCLUDE A WRITTEN DESCRIPTION OF HOW THESE MEASURES WILL REDUCE DISCHARGE OF EXPECTED POLLUTANTS)	SEE 'POST CONSTRUCTION', THIS SHEET.
4. LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE	SEE SITE GRADING AND DRAINAGE PLAN, SHEET C2.1 AND EROSION CONTROL DETAILS, SHEET C5.1
5. DESCRIPTION OF MAINTENANCE GUIDELINES FOR POST CONSTRUCTION STORMWATER QUALITY MEASURES	SEE 'POST CONSTRUCTION', THIS SHEET.

INDEX

SECTION 'A' ASSESSMENT OF CONSTRUCTION PLAN ELEMENTS

DESCRIPTION	LOCATION IN EROSION AND SEDIMENT CONTROL PLAN
1. INDEX SHOWING LOCATIONS OF REQUIRED PLAN ELEMENTS.	SEE THIS SHEET FOR A LEGEND OF ALL ELEMENTS REQUIRED.
2. 11 X 17 INCH PLAT SHOWING BUILDING LOT NUMBERS/BOUNDARIES AND ROAD LAYOUT/NAMES.	SEE SITE SURVEY, SHEET C0.1.
3. NARRATIVE DESCRIBING THE NATURE AND PURPOSE OF THE PROJECT.	SEE 'INTRODUCTION', THIS SHEET.
4. VICINITY MAP SHOWING PROJECT LOCATION	SEE TITLE SHEET.
5. LEGAL DESCRIPTION OF THE PROJECT SITE (INCLUDE LATITUDE AND LONGITUDE - NOT REQUIREMENT)	SEE 'PROJECT INFORMATION', THIS SHEET.
6. LOCATION OF ALL LOTS AND PROPOSED SITE IMPROVEMENTS (ROADS, UTILITIES, STRUCTURES, ETC.)	SEE SHEETS C2.1, C3.1, AND C4.1
7. HYDROLOGIC UNIT CODE (14 DIGIT)	SEE 'PROJECT INFORMATION', THIS SHEET.
8. NOTATION OF ANY STATE OR FEDERAL WATER QUALITY PERMITS.	IDEM RULE 5
9. SPECIFIC POINTS WHERE STORMWATER DISCHARGE WILL LEAVE THE SITE.	SEE SITE GRADING AND DRAINAGE PLAN, SHEET C2.1.
10. LOCATION AND NAME OF ALL WETLANDS, LAKES AND WATER COURSES ON AND ADJACENT TO THE SITE	SEE 'INTRODUCTION', THIS SHEET.
11. IDENTIFICATION OF ALL RECEIVING WATERS	SEE 'INTRODUCTION', THIS SHEET.
12. IDENTIFICATION OF POTENTIAL DISCHARGES TO GROUND WATER (ABANDONED WELLS, SINKHOLES, ETC.)	SEE 'INTRODUCTION', THIS SHEET.
13. 100 YEAR FLOODPLAIN, FLOODWAYS, AND FLOODWAY FRINGS	SEE 'INTRODUCTION', THIS SHEET.
14. PRE-CONSTRUCTION AND POST CONSTRUCTION ESTIMATE OF PEAK DISCHARGE (10 YEAR STORM EVENT)	SEE 'INTRODUCTION', THIS SHEET.
15. ADJACENT LAND USE, INCLUDING UPSTREAM DISCHARGE	SEE 'INTRODUCTION', THIS SHEET.
16. LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS (CONSTRUCTION LIMITS)	SEE SHEET C2.1, C3.1, AND C4.1.
17. IDENTIFICATION OF EXISTING VEGETATIVE COVER	SEE 'INTRODUCTION', THIS SHEET.
18. SOILS MAP INCLUDING SOIL DESCRIPTIONS AND LIMITATIONS	SEE 'SOILS MAP AND SOIL DESCRIPTIONS', THIS SHEET.
19. LOCATIONS, SIZE AND DIMENSIONS OF PROPOSED STORMWATER SYSTEMS (E.G. PIPES, SWALES AND CHANNELS)	SEE SITE GRADING AND DRAINAGE PLAN, SHEET C2.1.
20. PLANS FOR ANY OFF-SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS REPORT (SEWER/WATER TIE-INS)	NO OFF-SITE CONSTRUCTION REQUIRED FOR THIS PROJECT.
21. LOCATIONS OF PROPOSED SOIL STOCKPILES AND 2. OR BORROW/ DISPOSAL AREAS	STOCKPILES AREAS WILL VARY ON-SITE.
22. EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO INDICATE DRAINAGE PATTERNS	SEE SITE SURVEY, SHEET C0.1 FOR EXISTING CONTOURS AND DRAINAGE PATTERNS.
23. PROPOSED FINAL TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO INDICATE DRAINAGE PATTERNS	SEE SITE GRADING AND DRAINAGE PLAN, SHEET C2.1 FOR PROPOSED CONTOURS AND DRAINAGE PATTERNS.

SECTION 'B' STORMWATER POLLUTION PREVENTION PLAN - CONSTRUCTION COMPONENT

DESCRIPTION	LOCATION IN EROSION AND SEDIMENT CONTROL PLAN
1. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH CONSTRUCTION ACTIVITIES	SEE 'MATERIAL HANDLING AND SPILL PREVENTION', THIS SHEET.
2. SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND DISTURBING ACTIVITIES.	SEE 'SEQUENCE', THIS SHEET.
3. STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS (AT ALL POINTS OF INGRESS AND EGRESS)	SEE SITE EROSION CONTROL PLAN, SHEET C7.1 AND DETAIL ON C5.1.
4. SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS	SEE SITE EROSION CONTROL PLAN, SHEET C7.1. SILT FENCE WILL BE USED FOR SHEET FLOW AREAS.
5. SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS	SEE SITE EROSION CONTROL PLAN, SHEET C7.1. COIR LOGS WILL BE USED IN HIGH FLOW AREAS.
6. STORM SEWER INLET PROTECTION MEASURE LOCATIONS AND SPECIFICATIONS.	COIR LOGS OR SILT FENCE WILL BE USED AROUND INLETS.
7. RUNOFF CONTROL MEASURES (E.G. DIVISIONS, ROCK CHECK DAMS, SLOPE DRAINS, ETC.)	SEE SITE EROSION CONTROL PLAN, SHEET C7.1.
8. STORM WATER OUTLET PROTECTION SPECIFICATIONS	STORM OUTLET WILL BE A CONCRETE BOX CULVERT. SEE GRADING PLAN, C2.1.
9. GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS	NO GRADE STABILIZATION STRUCTURES ARE USED ON THIS PROJECT.
10. LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE	SEE GRADING PLAN AND DETAILS, SHEET C2.1, C5.3, C5.4. STORMTECH UNDERGROUND DETENTION SYSTEM WILL BE USED.
11. TEMPORARY SURFACE STABILIZATION METHODS APPROPRIATE FOR EACH SEASON (INCLUDE SEQUENCING.)	SEE 'SEQUENCE' AND 'SEED MIXTURE SCHEDULE', THIS SHEET.
12. PERMANENT SURFACE STABILIZATION SPECIFICATIONS (INCLUDE SEQUENCING.)	SEE 'SEQUENCE' AND 'SEED MIXTURE SCHEDULE', THIS SHEET.
13. MATERIAL HANDLING AND SPILL PREVENTION PLAN	SEE 'MATERIAL HANDLING AND SPILL PREVENTION', THIS SHEET.
14. MONITORING AND MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE.	SEE 'EROSION CONTROL MONITORING AND MAINTENANCE', THIS SHEET.
15. EROSION AND SEDIMENT CONTROL SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS.	N/A

2. SEQUENCE

PRIOR TO CONSTRUCTION, BEFORE REMOVING ANY STRUCTURES OR VEGETATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL EXISTING CONDITIONS AND COMPARE THEM WITH THE PROPOSED CONDITIONS AS SHOWN ON THE DRAWINGS. ANY VARIATIONS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION TO THE ENGINEER.

ALL PERMETER SILT FENCE AND STRUCTURE PROTECTION WILL BE INSTALLED ACCORDING TO THE PLANS AND SPECIFICATIONS AND BE IN-PLACE PRIOR TO ANY EARTH MOVEMENT. IF THERE IS THE POSSIBILITY OF SEDIMENT WASH FLOW FROM ON-SITE TO OFF-SITE NOT IDENTIFIED ON THE PLANS, THE ENGINEER WILL BE NOTIFIED AND RECOMMENDED CONTROL MEASURES SHALL BE IMPLEMENTED.

THIS PROJECT WILL BE CONSTRUCTED IN PHASES.

FIRST PHASE WILL BE INSTALLATION OF THE PERMETER SILT FENCE, STABILIZED CONSTRUCTION ENTRANCE, AND ESTABLISHING THE CONTRACTOR PARKING AND LAYOUT AREA. ALSO DURING THIS PHASE, SITE SIGNAGE WILL BE CREATED STAGING PROJECT RESPONSIBILITY AND CONTACT INFORMATION TO THOSE RESPONSIBLE FOR THE LOCATION OF THE CONCRETE WASHOUT AREA WILL BE DESIGNATED BY THE CONTRACTOR AND CONSTRUCTED AS DETAILED.

SECOND PHASE WILL BE THE CONSTRUCTION OF THE DRAINAGE SWALES TO THEIR ROUGH GRADES ELEVATIONS AND TEMPORARILY SEEDED. THE ADDITION OF THE DITCH CHECKS OR COIR LOGS CAN BE PLACED. THESE WILL ASSIST IN FILTERING STORM RUNOFF OF SEDIMENT WASH. THE BUILDING AND PARKING LOT CAN NOW BE CONSTRUCTED. THE STRIPPED TOPSOIL AND SWALE EXCAVATION SOIL WILL BE USED FOR MOUND CONSTRUCTION. ONCE STRIPPING AND MOUND BUILDUP IS COMPLETE, THE MOUNDS WILL BE FINE GRASSED AND SEEDED.

FINAL PHASE WILL BE FINISH GRADING OF THE SWALES AND PLACEMENT OF THE SWALE CONSTRUCTION MATTING ALONG WITH FINAL SEEDING. DITCH CHECKS OR COIR LOGS WILL REMAIN IN PLACE AS LONG AS NECESSARY TILL THERE IS A GOOD STAND OF GRASS AND SEDIMENT WASH HAS BEEN ELIMINATED THROUGHOUT THE SITE. ONCE A GOOD STAND OF GRASS HAS BEEN ESTABLISHED, THE DITCH CHECKS OR COIR LOGS CAN BE REMOVED.

THE CONTRACTOR SHALL ENSURE THAT EROSION CONTROL DEVICES WILL BE USED AS SHOWN ON THE DRAWINGS. ADDITIONAL MEASURES MAY BE USED IF NECESSARY EVEN IF NOT SHOWN ON THE DRAWINGS.

ALL DISTURBED AREAS DURING CONSTRUCTION WILL BE TEMPORARILY SEEDED WITHIN 7 DAYS AS PER SPECIFICATIONS TO PROVIDE TEMPORARY SURFACE STABILIZATION TO PREVENT SEDIMENT WASH OF THE TOPSOIL. TEMPORARY SEEDING WILL BE AFTER ROUGH GRADING HAS BEEN BROUGHT TO FINISH GRADE. ONCE CONSTRUCTION HAS BEEN COMPLETED AND FINAL GRADES ACHIEVED, PERMANENT SEEDING WILL BE PLACED AS DESCRIBED IN THE SPECIFICATIONS TO PROVIDE PERMANENT SURFACE STABILIZATION. SEEDING LIMITS WILL BE CONSIDERED TO BE ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS.

AFTER CONSTRUCTION IS COMPLETED AND PERMANENT SEEDING HAS BEEN PLACED AND ESTABLISHED, THE SILT FENCE AND OTHER DEVICES MAY BE REMOVED.

3. MATERIAL HANDLING AND SPILL PREVENTION

A. PURPOSE
THE PURPOSE OF THIS PLAN IS TWO FOLD: 1. TO PROTECT THE HEALTH AND SAFETY OF THOSE WORKING ON THE SITE AS WELL AS THE ENVIRONMENT. 2. PREVENTING THE CONTAMINATION OF STORM WATER RUNOFF. POLLUTANTS GENERATED ON-SITE MAY INCLUDE GASOLINE, DIESEL FUEL, OILS, GREASE, PAINTS, SEALERS, PESTICIDES, NUTRIENTS, CONCRETE WASHOUT, SOIL, SOLVENTS, PAPER PLASTIC, STYROFOAM, METALS, GLASS AND OTHER HAZARDOUS MATERIALS. ABSORBENT MATERIALS AND SUPPLIES NEED TO BE AVAILABLE ON-SITE IN SUFFICIENT QUANTITIES TO ADDRESS MAJOR SPILLS. ALL EMPLOYEES NEED TO BE EDUCATED ON THE PROPER APPLICATION OF THE ABSORBENT MATERIALS.

1. THE CONTRACTOR OF RESPONSIBLE PARTY WILL PREPARE A CONTACT LIST IN THE EVENT OF A SPILL ON THE SITE. THE CONTACT LIST WILL HAVE NAMES AND CONTACT INFORMATION OF THE CONTRACT LIST WILL SPECIFY THE NAME OF THE CONTACT AND A CHAIN OF COMMAND. INCLUDE INFORMATION ON WHAT CIRCUMSTANCES REQUIRE THE INITIATION OF THE CONTACT LIST AND CHAIN OF COMMAND.
2. THE CONTRACTOR/OWNER SHALL MAINTAIN A LIST OF QUALIFIED CONTRACTORS, VAC-TRUCKS, TANK PUMPS AND OTHER EQUIPMENT OF BUSINESSSES QUALIFIED TO CLEAN-UP OPERATIONS. ABSORBENT MATERIALS AND SUPPLIES NEED TO BE AVAILABLE ON-SITE IN SUFFICIENT QUANTITIES TO ADDRESS MAJOR SPILLS. ALL EMPLOYEES NEED TO BE EDUCATED ON THE PROPER APPLICATION OF THE ABSORBENT MATERIALS.
3. ALL MATERIALS AND EQUIPMENT OPERATORS MUST BE AWARE AND TRAINED FOR PREVENTION OF SPILLS. A CONTINUING EDUCATION PROGRAM IS REQUIRED FOR NEW EMPLOYEES AND EMPHASIZING THE IMPORTANCE TO ALL EMPLOYEES.
4. ALL MATERIALS USED IN THE COURSE OF A CLEANUP WILL BE DISPOSED IN A MAJOR AUTHORIZED BY INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.
5. USING WATER TO FLUSH SPILLED MATERIAL WILL NOT BE PERMITTED UNLESS AUTHORIZED BY A STATE, FEDERAL, OR LOCAL AGENCY. TARPS CAN BE USED TO COVER SPILLED MATERIAL DURING RAIN EVENTS.

- C. SPILL RESPONSE**
- MINOR-SMALL SPILL THAT TYPICALLY INVOLVE OIL, GASOLINE, PAINT, HYDRAULIC FLUID ETC. MINOR SPILLS CAN BE CONTROLLED BY THE FIRST RESPONDER AT THE DISCOVERY OF THE SPILL.
- CONTAIN SPILL TO PREVENT MATERIAL FROM ENTERING STORM OR GROUND WATER. DO NOT FLUSH WITH WATER OR BURY.
 - USE ABSORBENT MATERIAL TO CLEAN-UP SPILL MATERIAL AND ANY SUBSEQUENTLY CONTAMINATED SOILS AND DISPOSE OF PROPERLY.
- SEMI-SIGNIFICANT SPILLS-APPROXIMATELY TEN GALLONS OR LESS OF POLLUTANT WITH NO CONTAMINATION OF GROUND OR SURFACE WATERS. MINOR SPILLS CAN BE GENERALLY CONTROLLED BY THE FIRST RESPONDER WITH HELP FROM OTHER SITE PERSONNEL. THIS RESPONSE MAY REQUIRE OTHER PERSONNEL TO CLEAN-UP OPERATIONS. ABSORBENT MATERIALS AND SUPPLIES NEED TO BE AVAILABLE ON-SITE AT THE SPILL:
- CONTAIN SPILL TO PREVENT MATERIAL FROM ENTERING STORM OR GROUND WATER. DO NOT FLUSH WITH WATER OR BURY.
 - USE ABSORBENT MATERIAL TO CLEAN-UP SPILLS AND DISPOSE OF PROPERLY. SPILLS ON IMPERVIOUS SURFACES SHOULD BE CONTAINED WITH A DRY ABSORBENT MATERIAL.
 - CONTAIN SPILL TO PREVENT MATERIAL FROM ENTERING STORM OR GROUND WATER. DO NOT FLUSH WITH WATER OR BURY.
 - USE ABSORBENT MATERIAL TO CLEAN-UP SPILLS AND DISPOSE OF PROPERLY. SPILLS ON IMPERVIOUS SURFACES SHOULD BE CONTAINED WITH A DRY ABSORBENT MATERIAL.
 - AS SOON AS POSSIBLE TO PREVENT MIGRATION DEEPER INTO THE SOIL AND GROUNDWATER. DISPOSE OF CONTAMINATED SOILS OR ABSORBENTS PROPERLY.
 - CONTACT 911 IF THIS SPILL COULD BE A SAFETY ISSUE.
 - CONTACT SUPERVISORS AND DESIGNATED INSPECTORS IMMEDIATELY.
 - CONTAMINATED SOLIDS TO BE REMOVED TO AN APPROVED LANDFILL.

- MAJOR OR HAZARDOUS SPILLS-MORE THAN TEN GALLONS, THERE IS THE POTENTIAL FOR DEATH, INJURY OR ILLNESS TO HUMAN OR ANIMALS OR HAS THE POTENTIAL FOR SURFACE OR GROUNDWATER POLLUTION.
- CONTROL OR CONTAIN THE SPILL WITHOUT RISKY BODILY HARM. TEMPORARILY PLUG STORM DRAINS IF POSSIBLE TO PREVENT MIGRATION OF THE SPILL INTO THE STORMWATER SYSTEM.
 - IMMEDIATELY CONTACT THE LOCAL FIRE DEPARTMENT AT 911 TO REPORT ANY HAZARD MATERIAL SPILL.
 - CONTACT SUPERVISORS AND DESIGNATED INSPECTORS IMMEDIATELY. THEIR COUNTY OR MUNICIPAL OFFICIALS (LIST AS NEEDED) RESPONSIBLE FOR STORM WATER FACILITIES SHOULD BE CONTACTED AS WELL. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THESE CONTACT NUMBERS AVAILABLE AT THE JOB SITE. A WRITTEN REPORT SHOULD BE SUBMITTED TO THE OWNER AS SOON AS POSSIBLE.
 - AS SOON AS POSSIBLE BUT WITHIN 2 HOURS OF DISCOVERY, CONTACT THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF EMERGENCY RESPONSE 1-888-233-7745. THE FOLLOWING INFORMATION SHOULD BE NOTED FOR FUTURE REPORTS TO IDEM OR THE NATIONAL RESPONSE CENTER.
 - NAME, ADDRESS AND PHONE NUMBER OF PERSON MAKING THE SPILL REPORT
 - THE LOCATION OF THE SPILL
 - THE TIME OF THE SPILL
 - IDENTIFICATION OF THE SPILLED SUBSTANCE
 - APPROXIMATE QUANTITY OF THE SUBSTANCE THAT HAS BEEN SPILLED OR MAY BE FURTHER SPILLED
 - THE DURATION AND SOURCE OF THE SPILL
 - NAME AND LOCATION OF THE DAMAGED WATERS
 - NAME OF SPILL RESPONSE ORGANIZATION
 - WHAT MEASURES WERE TAKEN IN THE SPILL RESPONSE
 - OTHER INFORMATION THAT MAY BE SIGNIFICANT

ADDITIONAL REGULATION OR REQUIREMENTS MAY BE PRESENT. AS SPILL RESPONSE PROFESSIONAL SHOULD BE CONSULTED TO MAKE SURE ALL APPROPRIATE AND REQUIRED STEPS HAVE BEEN TAKEN.

CONTAMINATED SOLIDS SHOULD ONLY BE REMOVED FROM THE SITE AFTER APPROVAL IS GIVEN BY EMERGENCY RESPONSE.

D. THE FOLLOWING PROCEDURES AND PRACTICES WILL HELP PREVENT UNNECESSARY SPILLS

I. VEHICLE AND EQUIPMENT FUELING

- DESCRIPTION AND PURPOSE**
- VEHICLE EQUIPMENT FUELING PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT FUEL SPILLS AND LEAKS, AND REDUCE OR ELIMINATE CONTAMINATION OF STORMWATER. THIS CAN BE ACCOMPLISHED BY USING OFFSITE FACILITIES, FUELING IN DESIGNATED AREAS ONLY, ENCLOSING OR COVERING STORED FUEL, IMPLEMENTING SPILL CONTROLS, AND TRAINING EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING PROCEDURES.
- LIMITATIONS:**
- ON-SITE VEHICLE AND EQUIPMENT FUELING SHOULD ONLY BE USED WHERE IT IS IMPRACTICAL TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR FUELING.
 - IMPLEMENTATION:
 - USE OFFSITE FUELING STATIONS AS MUCH AS POSSIBLE. THESE BUSINESSES ARE BETTER EQUIPPED TO HANDLE FUEL AND SPILLS PROPERLY. PERFORMING THIS WORK OFFSITE CAN ALSO BE ECONOMICALLY BY ELIMINATING THE NEED FOR A SEPARATE FUELING AREA AT A SITE.
 - DISCOURAGE "TOPPING-OFF" OF FUEL TANKS.
 - ABSORBENT SPILL CLEANUP MATERIALS AND SPILL KITS SHOULD BE AVAILABLE IN FUELING AREAS AND ON FUELING TRUCKS, AND SHOULD BE DISPOSED OF PROPERLY AFTER USE.
 - DROPPED PANS OR ABSORBENT PADS SHOULD BE USED DURING VEHICLE AND EQUIPMENT FUELING, UNLESS THE FUELING IS PERFORMED OVER AN IMPERMEABLE SURFACE IN A DEDICATED FUELING AREA.
 - USE ABSORBENT MATERIALS ON SMALL SPILLS. DO NOT HOSE DOWN OR BURY THE SPILL. REMOVE THE ABSORBENT MATERIALS PROMPTLY AND DISPOSE OF PROPERLY.
 - AVOID MOBILE FUELING OF MOBILE CONSTRUCTION EQUIPMENT AROUND THE SITE; RATHER, TRANSPORT THE EQUIPMENT TO DESIGNATED FUELING AREAS.
 - TRAIN EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING AND CLEANUP PROCEDURES.
 - DESIGNATED FUELING AREAS SHOULD BE PROTECTED FROM STORMWATER RUN-IN AND RUNOFF, AND SHOULD BE LOCATED AT LEAST 50 FEET AWAY FROM THE DOWNSTREAM DRAINAGE FACILITIES AND WATERCOURSES. FUELING MUST BE PERFORMED ON LEVEL-GRADE AREAS.
 - PROTECT FUELING AREAS WITH BERMS AND DIKES TO PREVENT RUN-IN, RUNOFF, AND TO CONTAIN SPILLS.
 - NOZZLES USED IN VEHICLE AND EQUIPMENT FUELING SHOULD BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO CONTROL DRIPS. FUELING OPERATIONS SHOULD NOT BE LEFT UNATTENDED.
 - FEDERAL, STATE, AND LOCAL REQUIREMENTS SHOULD BE OBSERVED FOR ANY STATIONARY ABOVE GROUND STORAGE TANKS.
 - INSPECTION AND MAINTENANCE:
 - VEHICLES AND EQUIPMENT SHOULD BE INSPECTED EACH DAY OF USE FOR LEAKS. LEAKS SHOULD BE REPAIRED IMMEDIATELY OR PROBLEM VEHICLES OR EQUIPMENT SHOULD BE REMOVED FROM THE PROJECT SITE.
 - KEEP AMBLE SUPPLIES OF SPILL CLEANUP MATERIALS ON-SITE.
 - IMMEDIATELY CLEAN-UP SPILLS AND PROPERLY DISPOSE OF CONTAMINATED SOILS.

- II. SOLID WASTE MANAGEMENT PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM SOLID OR LIQUID WASTE GENERATED FROM THE PROJECT.**
- DESCRIPTION AND PURPOSE**
- SOLID WASTE MANAGEMENT PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM SOLID OR LIQUID WASTE GENERATED FROM THE PROJECT.
 - SOLID WASTE GENERATED FROM TREES AND SHRUBS REMOVED DURING LAND CLEARING, DEMOLITION OF EXISTING STRUCTURES (RUBBLE), AND BUILDING CONSTRUCTION.
 - PACKAGING MATERIALS INCLUDING WOOD, PAPER, AND PLASTIC.
 - SCRAP OR SURPLUS BUILDING MATERIALS INCLUDING SCRAP METALS, RUBBER, PLASTIC, GLASS PIECES, AND MASONRY PRODUCTS.
 - DOMESTIC WASTES INCLUDING FOOD CONTAINERS SUCH AS BEVERAGE CANS, COFFEE CUPS, PLASTIC BAGS, PLASTIC WRAPPERS, AND CIGARETTES.
 - CONSTRUCTION WASTE INCLUDING BRICK, MORTAR, TUMBER, STEEL AND METAL SCRAP, PIPE AND ELECTRICAL CLUTTINGS, NON-HAZARDOUS EQUIPMENT PARTS.
 - STYROFOAM AND OTHER MATERIALS SEND TRANSPORT AND PACKAGE CONSTRUCTION MATERIALS.

- IMPLEMENTATION:** THE FOLLOWING STEPS WILL HELP KEEP A CLEAN SITE AND REDUCE STORMWATER POLLUTION:
- SELECT DESIGNATE WASTE COLLECTION AREAS ON-SITE.
 - INFORM TRASH-HAULING CONTRACTORS THAT YOU WILL ACCEPT ONLY WATERIGHT DUMPSTERS FOR ON-SITE USE.
 - INSPECT DUMPSTERS FOR LEAKS AND REPAIR ANY DUMPSTER THAT IS NOT WATERIGHT.
 - PROVIDE AS ADEQUATE NUMBER OF CONTAINERS WITH LIDS OR COVERS THAT CAN BE PLACED OVER THE CONTAINER TO KEEP RAIN OUR OR TO PREVENT LOSS OF WASTES WHEN IT IS WINDY.
 - PLAN FOR ADDITIONAL CONTAINERS AND MORE FREQUENT PICKUP DURING THE DEMOLITION PHASE OF CONSTRUCTION.
 - COLLECT SITE TRASH DAILY, ESPECIALLY DURING RAINY AND WINDY CONDITIONS.
 - REMOVE THIS SOLID WASTE PROMPTLY SINCE EROSION CONTROL DEVICES TEND TO COLLECT LITTER.
 - MAKE SURE THAT TOXIC LIQUID WASTES (USED OILS, SOLVENTS, AND PAINTS) AND CHEMICALS (ACID, PESTICIDES, ADDITIVES, CURING COMPOUNDS) ARE NOT DISPOSED OF IN DUMPSTERS DESIGNATED FOR CONSTRUCTION DEBRIS.
 - DO NOT HOSE OUT DUMPSTERS ON THE CONSTRUCTION SITE. LEAVE DUMPSTER CLEANING TO THE TRASH HAULING CONTRACTOR.
 - ARRANGE FOR REGULAR WASTE COLLECTION BEFORE CONTAINERS OVERFLOW.
 - CLEAN UP IMMEDIATELY IF A CONTAINER DOES SPILL.
 - MAKE SURE THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF ONLY AT AUTHORIZED DISPOSAL AREAS. SOLID WASTE STORAGE AREAS SHOULD BE LOCATED IN AREAS PRONE TO FLOODING OR PONDING.
 - LOCATE SOLID WASTE DUMPSTER A MINIMUM OF 50' AWAY FROM STORM WATER INLETS OR OTHER DRAINAGE FACILITIES.
 - LOCATE DUMPSTER ON STONE OR EARTH TO MINIMIZE THE POTENTIAL FOR SPILLS OR LEAKS INTO DRAIN IMMEDIATELY INTO A DRAINAGE FACILITY.

- INSPECTION AND MAINTENANCE:**
- INSPECT AND VERIFY THAT ACTIVITY-BASED BMP'S ARE IN PLACE PRIOR TO THE COMMENCEMENT OF ASSOCIATED ACTIVITIES. WHILE ACTIVITIES ASSOCIATED WITH THE PROJECT ARE UNDER WAY, INSPECT WEEKLY TO VERIFY CONTINUED BMP IMPLEMENTATION.
 - INSPECT BMP'S SUBJECT TO NON-STORMWATER DISCHARGE DAILY WHILE NON-STORMWATER DISCHARGES OCCUR.
 - INSPECT CONSTRUCTION WASTE ARE REGULARLY.
 - ARRANGE FOR REGULAR WASTE COLLECTION.

III. CONCRETE WASHOUT

- THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE WASTE:
- DISCUSS THE CONCRETE MANAGEMENT TECHNIQUES DESCRIBED IN THE BMP (SUCH AS HANDLING OF CONCRETE WASTE AND WASHOUT) WITH THE REDDY-MIX CONCRETE SUPPLIER BEFORE ANY DELIVERIES ARE MADE.
 - INCORPORATE REQUIREMENTS FOR CONCRETE WASTE MANAGEMENT INTO MATERIAL SUPPLIER AND SUBCONTRACTORS' AGREEMENTS.
 - STORE DRY AND WET MATERIALS UNDER COVER, AWAY FROM DRAINAGE AREAS.
 - AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE.
 - PERFORM WASHOUT OF CONCRETE TRUCKS OFFSITE OR IN DESIGNATED AREAS ONLY.
 - DO NOT WASH CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
 - DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED AREAS.
 - LOCATE WASHOUT AREAS AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES.
 - DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.
 - WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED PROPERLY.
 - AVOID CREATING RUNOFF BY DRINKING WATER TO A BERMED OR LEVEL AREA WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE.
 - DO NOT WASH SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN. COLLECT AND RETURN SWEEPINGS TO AGGREGATE BASK STOCKPILE OR DISPOSE IN THE TRASH.

IV. VEHICLE MAINTENANCE AREAS

- PURPOSE TO PREVENT SPILLS DURING THE NORMAL MAINTENANCE OF CONSTRUCTION MACHINERY.
- IMPLEMENTATION:** WHERE AND WHEN FEASIBLE, MAINTENANCE SHALL BE PERFORMED OFFSITE IN COVERED FACILITY WITH AN IMPERVIOUS FLOOR.
- USE A DESIGNATED SITE FOR MACHINERY MAINTENANCE.
 - SITE THE MAINTENANCE AREA AT LEAST 50 FEET FROM STORM WATER INLETS OR WATER BODIES.
 - MAINTAIN CLEANUP MATERIALS CLOSE AT HAND. UTILIZE DRIP PANS AND ABSORBENT PADS TO PREVENT OILS FROM REACHING SOIL SURFACE.
 - INSPECT EQUIPMENT DAILY FOR LEAKS OR WORN HOSES. REPAIR OR REPLACE TO PREVENT ON-SITE SPILLS.
 - PROPERLY DISPOSE OF ALL FLUIDS REMOVED OR SPILLED FROM MACHINERY.

V. FLUIDS, PAINTS, SOLVENTS AND OTHER CHEMICALS STORAGE AND USE

- PURPOSE TO PREVENT SPILLS DURING THE USE AND STORAGE OF MATERIALS.
- IMPLEMENTATION:**
- STORE MATERIALS IN THEIR ORIGINAL CONTAINERS
 - MAINTAIN SAFETY DATA SHEETS ON ALL PRODUCTS
 - STORE MATERIALS AWAY FROM FLAMMABLE SOURCES
 - PROVIDE AND READ INSTRUCTIONS FOR PROPER USE AND STORAGE OF ALL MATERIALS
 - FOR BUILD MATERIAL STORED ON-SITE, PROVIDE DRINK OR DOUBLE CONTAINMENT IN CASE OF LEAKS OR FAILURES.
 - NO WASHOUT OF SOLVENT FROM PAINT SUPPLIES SHOULD BE DONE NEAR OR INTO A STORM WATER INLET OR OTHER DRAINAGE FACILITY.
- VI. DISPOSAL OF SEDIMENT LADEN WATER**
- PURPOSE: TO PREVENT PURPOSEFUL DISCHARGE OF SEDIMENT LADEN WATER INTO WATERS OF THE UNITED STATES.
- IMPLEMENTATION:**
- THE SEDIMENT AND ANY OTHER POLLUTANT FROM ALL PUMPING OR DE-WATER OPERATIONS THAT DISCHARGE INTO STORM SEWERS, DRAINAGE DRAINS, DRAINAGE WAYS OR WATER BODIES MUST BE REMOVED FROM THE WATER BEFORE ITS DISCHARGE.
 - A SUITABLE PRACTICE IS NEEDED AT THE DISCHARGE TO ALLOW THE SUSPENDED SOLIDS TO BE REMOVED FROM THE WATER COLUMN. SLOW MOVING WATER AND TIME ARE NEEDED COMPONENTS FOR AN EFFECTIVE PRACTICE. MECHANICAL FILTERS AND CHEMICAL FLOCCULANTS CAN DO AN EXCELLENT JOB OF REMOVING THE FINE PARTICLES.
 - SEDIMENT REMOVAL PUMPING BAGS MAY BE USED AT THE OUTLET OF A PUMP. THE BAGS MUST BE SIZED APPROPRIATELY FOR THE AMOUNT OF FLOW. THE PUMPING NEEDS TO BE INSTALLED ON EROSION RESISTANT SURFACES. THE OUTLET OF THE PUMPING BAG MUST BE EROSION RESISTANT TO PREVENT ADDITIONAL SEDIMENTATION.
 - PUMPING OPERATIONS THAT ARE MOVING CLEAN WATER THROUGH A SITE ARE NOT REQUIRED TO HAVE A PUMPING BAG OR SIMILAR DEVICE AT THE OUTLET. THE POINT OF DISCHARGE SHOULD BE PROTECTED TO PREVENT SOIL EROSION.

PROJECT LOCATION

PROJECT INFORMATION

PROJECT NAME	WESTFIELD RETAIL DEVELOPMENT LOR CORPORATION
COUNTY	HAMILTON COUNTY
14 DIGIT HUC CODE	05120201090030
PROJECT LOCATION DESCRIPTION	WESTFIELD
LATITUDE AND LONGITUDE	40° 02' 39" N - 86° 08' 26" W
CIVIL TOWNSHIP	WASHINGTON
QUARTER	SOUTHWEST
SECTION	36
TOWNSHIP	T 19 N
RANGE	R 3 E

OWNER	LOR CORPORATION
CONTACT	ADAM HILL
ADDRESS	6350 RUCKER ROAD, SUITE 101
CITY, STATE, ZIP	INDIANAPOLIS, IN 46220
TELEPHONE	(317) 205-1200
FAX	NONE
EMAIL	ahill@lorcorp.com

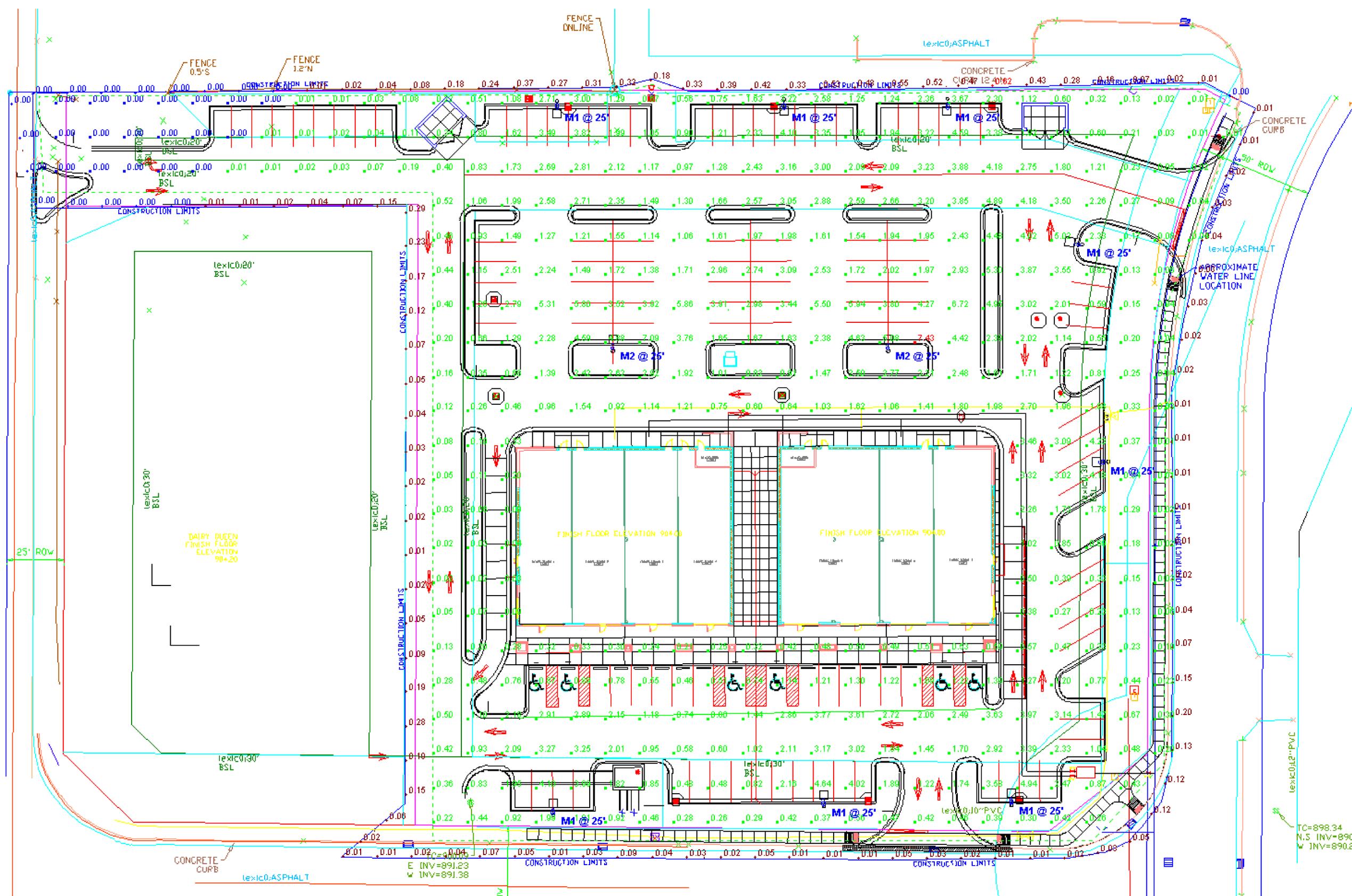
PLAN PREPARE CONTACT NAME	SANJAY PATEL
AFFILIATION	CONSULTANT/ROAW CORPORATION
ADDRESS	10401 N. MERIDIAN ST. SUITE 401
CITY, STATE, ZIP	INDIANAPOLIS, IN 46290
TELEPHONE	(317) 815-7200
FAX	(317) 815-7201
EMAIL	spatel@roaw.com

EROSION CONTROL INSTALLATION RESPONSIBILITY

COMPANY NAME	UNKNOWN
CONTACT	UNKNOWN
ADDRESS	UNKNOWN
CITY, STATE, ZIP	UNKNOWN
TELEPHONE	UNKNOWN
FAX	UNKNOWN
EMAIL	UNKNOWN

4. EROSION CONTROL MONITORING AND MAINTENANCE

EROSION CONTROL, DURING CONSTRUCTION, FOR THIS PROJECT WILL CONSIST OF SILT FENCE AND INLET PROTECTION. TEMPORARY AND PER



Current View

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Light Loss Factor	Wattage
	M1	8	Lithonia Lighting	KSE2 400R R3C (PULSE)	18" SQUARE ARM-MOUNTED CUTOFF LUMINAIRE ONE 400 WATT CLEAR ED-38 PULSE WITH SEGMENTED TYPE III SHARP CUTOFF REFLECTOR MEETS THE NIGHTTIME FRIENDLY CRITERIA	START METAL HALIDE, HORIZONTAL POSITION	1	0.82	400
	M2	2	Lithonia Lighting	KSE2 400R R3 (PULSE)	18" SQUARE ARM-MOUNTED CUTOFF LUMINAIRE ONE 400 WATT CLEAR ED-38 PULSE WITH SEGMENTED TYPE III REFLECTOR MEETS THE NIGHTTIME FRIENDLY CRITERIA	START METAL HALIDE, HORIZONTAL POSITION	1	0.82	400

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
CONSTRUCTION LINE		0.10 fc	0.62 fc	0.00 fc	N/A	N/A	0.2:1
GROUND FOOTCANDLES		1.50 fc	7.43 fc	0.00 fc	N/A	N/A	0.2:1

