

# CONSTRUCTION PLANS FOR THE CAMPUS WESTFIELD

**OWNER:**

**BO PROPERTIES  
WESTFIELD, LLC**

7 Drydock Ave, Suite 2030  
Boston, MA 02210  
617-772-0255 x226

**DEVELOPER:**

**Genesis Management  
Group LLC**

7 Drydock Ave, Suite 2030  
Boston, MA 02210  
617-772-0255 x226

**ENGINEER:**



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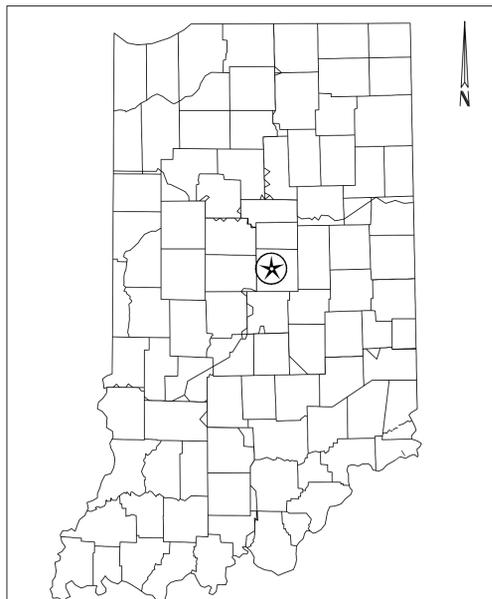
3939 PRIORITY WAY SOUTH DRIVE, SUITE 200  
INDIANAPOLIS, INDIANA 46240  
(317) 844-6777 FAX (317) 706-6451

**LOCATION MAP:**



★ = SITE

**VICINITY MAP:**



★ = SITE



**PROJECT DATA:**

PROJECT ADDRESS	2100 E196TH STREET WESTFIELD, IN
PROJECT AREA	2.8 AC
EXISTING BUILDING AREA	298,961 SF
EXISTING PARKING SPACES	1167
EXISTING ACCESSIBLE SPACES	33
STANDARD SPACES PROPOSED	324
ACCESSIBLE SPACES PROPOSED	0
TOTAL PARKING SPACES	1491
REQUIRED PARKING SPACES	997

**SHEET INDEX:**

SHEET	DESCRIPTION
CS	COVER SHEET
C100	OVERALL EXISTING CONDITIONS PLAN
C101	EXISTING CONDITIONS & DEMOLITION PLAN
C200	OVERALL SITE AND UTILITY PLAN
C201	SITE AND UTILITY PLAN
C202	SITE AND UTILITY DETAILS
C301	GRADING PLAN
C401	STORMWATER POLLUTION PREVENTION PLAN
C402	STORMWATER POLLUTION PREVENTION DETAILS
C403	STORMWATER POLLUTION PREVENTION NOTES

**BENCHMARKS:**

REFERENCE BENCHMARK: 29G 511 - BRASS TABLET LOCATED ON THE WEST CORNER OF THE SOUTH ABUTMENT OF A WOODEN BRIDGE OVER LINDLEY DITCH AT THE MACGREGOR PARK ENTRANCE DRIVE.  
ELEV.=878.39 NAVD 1988 DATUM

PROJECT BENCHMARK #1: CUT 'X' ON THE SOUTHWEST CAP BOLT OF A FIRE HYDRANT LOCATED 1025 FEET NORTH OF THE CENTERLINE OF 196TH STREET, 13.5 FEET EAST OF THE EDGE OF THE ASPHALT PARKING LOT AND 15.5 FEET WEST OF A WOVEN WIRE FENCE.  
ELEV.=909.11 NAVD 1988 DATUM

PROJECT BENCHMARK #2: MAGNAIL IN SHINER SET ON THE EAST SIDE OF A LIGHT POLE BASE 1670 FEET NORTH OF THE CENTERLINE OF 196TH STREET, 260 FEET SOUTHEAST OF A 1 STORY BUILDING, 13 FEET NORTH OF THE NORTH EDGE OF THE PARKING LOT, AND 165 FEET WEST OF A WOVEN WIRE FENCE.  
ELEV.=911.03 NAVD 1988 DATUM

**AGENCY & UTILITY INFO:**

AGENCY/UTILITY	PHONE NUMBER
WESTFIELD ECONOMIC AND COMMUNITY DEVELOPMENT DEP.	317-804-3170
WESTFIELD PUBLIC WORKS DEPARTMENT	317-804-3100
WESTFIELD FIRE DEPARTMENT	317-804-3307
HAMILTON COUNTY SURVEYORS OFFICE	317-776-8495
ELECTRIC - DUKE ENERGY	317-776-5331
GAS - VECTREN	317-776-5550
GAS - MARATHON PIPELINE LLC	317-291-9460x1233
CABLE - COMCAST	317-275-6493
WATER & SEWER - CITIZENS WESTFIELD	317-263-6442
FRONTIER COMMUNICATION	317-984-9010

**CAUTION**  
LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

**CRIFE TEAM:**

PROJECT MANAGER	JENNIFER LASCH, PE, LEED AP	317-706-6346
PROJECT ENGINEER	BOB GAFFER, PE	317-706-6343
PROJECT SURVEYOR	PAUL KLODZEN	317-706-6467
QUALITY ASSURANCE	DAVID LACH, PE	317-706-6361

Revision  
Date  
Work  
Description

Architecture & Interiors  
Survey & 3D Laser Scanning  
Energy & Facilities  
Interior Design  
Real Estate Services

3939 Priority Way South Drive, Suite 200  
Indianapolis, Indiana 46240  
(317) 844-6777  
E-Mail: cripe@crife.biz

**Cripe**

COVER SHEET  
The Campus Westfield  
Genesis Management Group LLC  
7 Drydock Ave, Suite 2030  
Boston, MA 02210

CERTIFIED BY:

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CONSTRUCTION

Date: 00-00-00

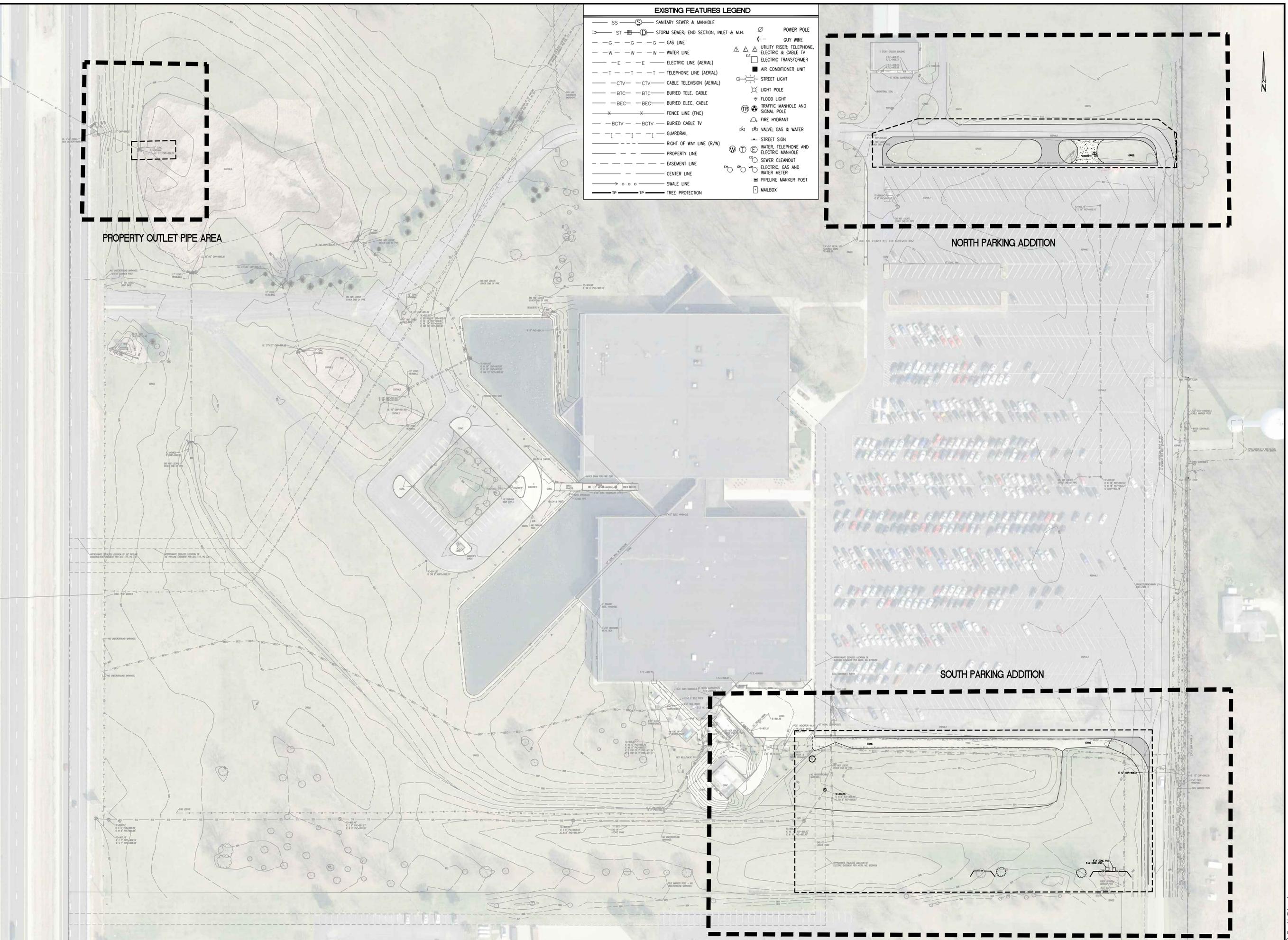
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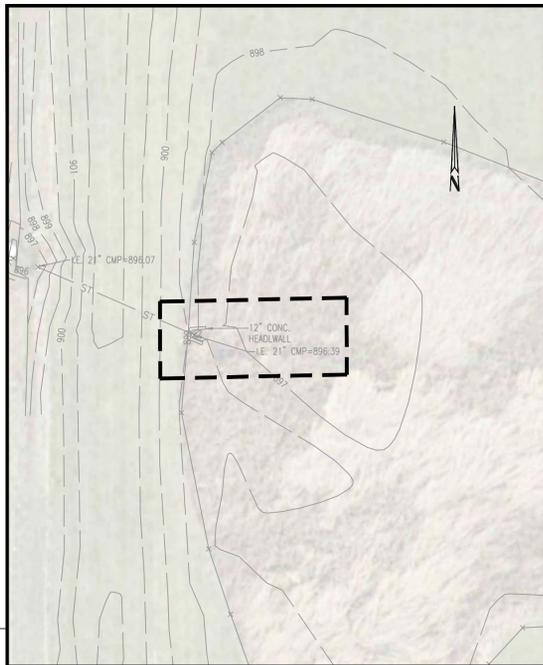
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Date: 09-15-16  
Project Number: 160426-20000

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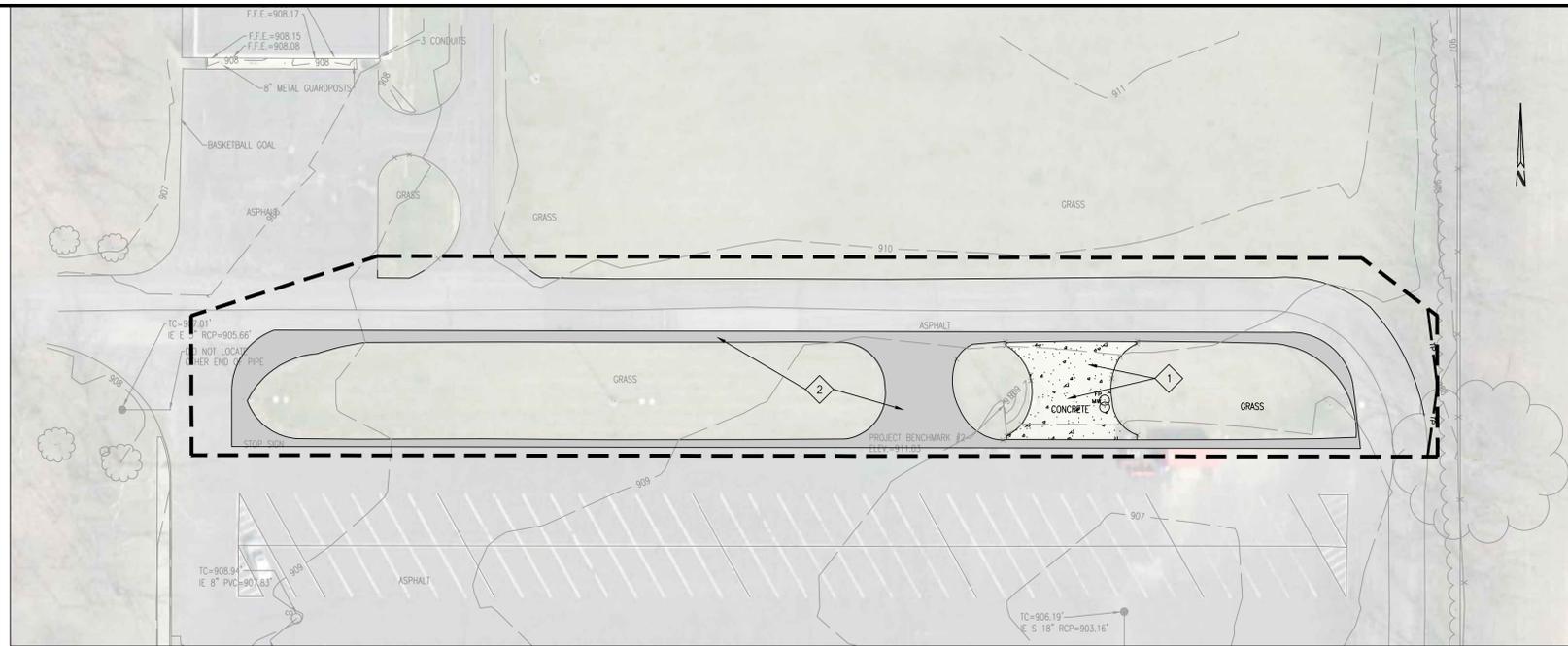
EXISTING FEATURES LEGEND	
SS	SANITARY SEWER & MANHOLE
ST	STORM SEWER; END SECTION, INLET & M.H.
G	GAS LINE
W	WATER LINE
E	ELECTRIC LINE (AERIAL)
T	TELEPHONE LINE (AERIAL)
CTV	CABLE TELEVISION (AERIAL)
BTC	BURIED TELE. CABLE
BEC	BURIED ELEC. CABLE
X	FENCE LINE (FNC)
BCTV	BURIED CABLE TV
---	GUARDRAIL
---	RIGHT OF WAY LINE (R/W)
---	PROPERTY LINE
---	EASEMENT LINE
---	CENTER LINE
---	SWALE LINE
TP	TREE PROTECTION
⊗	POWER POLE
⊖	GUY WIRE
⚡	UTILITY RISER; TELEPHONE, ELECTRIC & CABLE TV
⚡	ELECTRIC TRANSFORMER
⊠	AIR CONDITIONER UNIT
⊙	STREET LIGHT
⊙	LIGHT POLE
⊙	FLOOD LIGHT
⊙	TRAFFIC MANHOLE AND SIGNAL POLE
⊙	FIRE HYDRANT
⊙	VALVE, GAS & WATER
⊙	STREET SIGN
⊙	WATER, TELEPHONE AND ELECTRIC MANHOLE
⊙	SEWER CLEANOUT
⊙	ELECTRIC, GAS AND WATER METER
⊙	PIPELINE MARKER POST
⊙	MAILBOX

<p>OVERALL EXISTING CONDITIONS PLAN</p> <p>The Campus Westfield</p> <p>Genesis Management Group LLC</p> <p>7 Drydock Ave, Suite 2050 Boston, MA 02210</p>	<p>Architecture &amp; Interiors</p> <p>Survey &amp; 3D Laser Scanning</p> <p>Energy &amp; Facilities</p> <p>Real Estate Services</p> <p>3939 Priority Way South Drive, Suite 200 Indianapolis, Indiana 46240 (317) 844-6777 E-Mail: cripe@cripe.biz</p>
<p>CERTIFIED BY:</p> <p><b>PRELIMINARY NOT FOR CONSTRUCTION</b></p> <p>Date: 00-00-00</p> <p>COVERING DEMOLITION DESIGN</p> <p><b>Indiana 811</b> Know what's below. Call before you dig. 1-800-382-5544</p>	<p>Drawn By: BG</p> <p>Checked By: DL</p> <p>Quality Assurance: JL</p> <p>Scale: 0' = 30'</p> <p>Sheet: <b>C100</b></p> <p>Date: 09-15-16</p> <p>Project Number: 160426-20000</p>



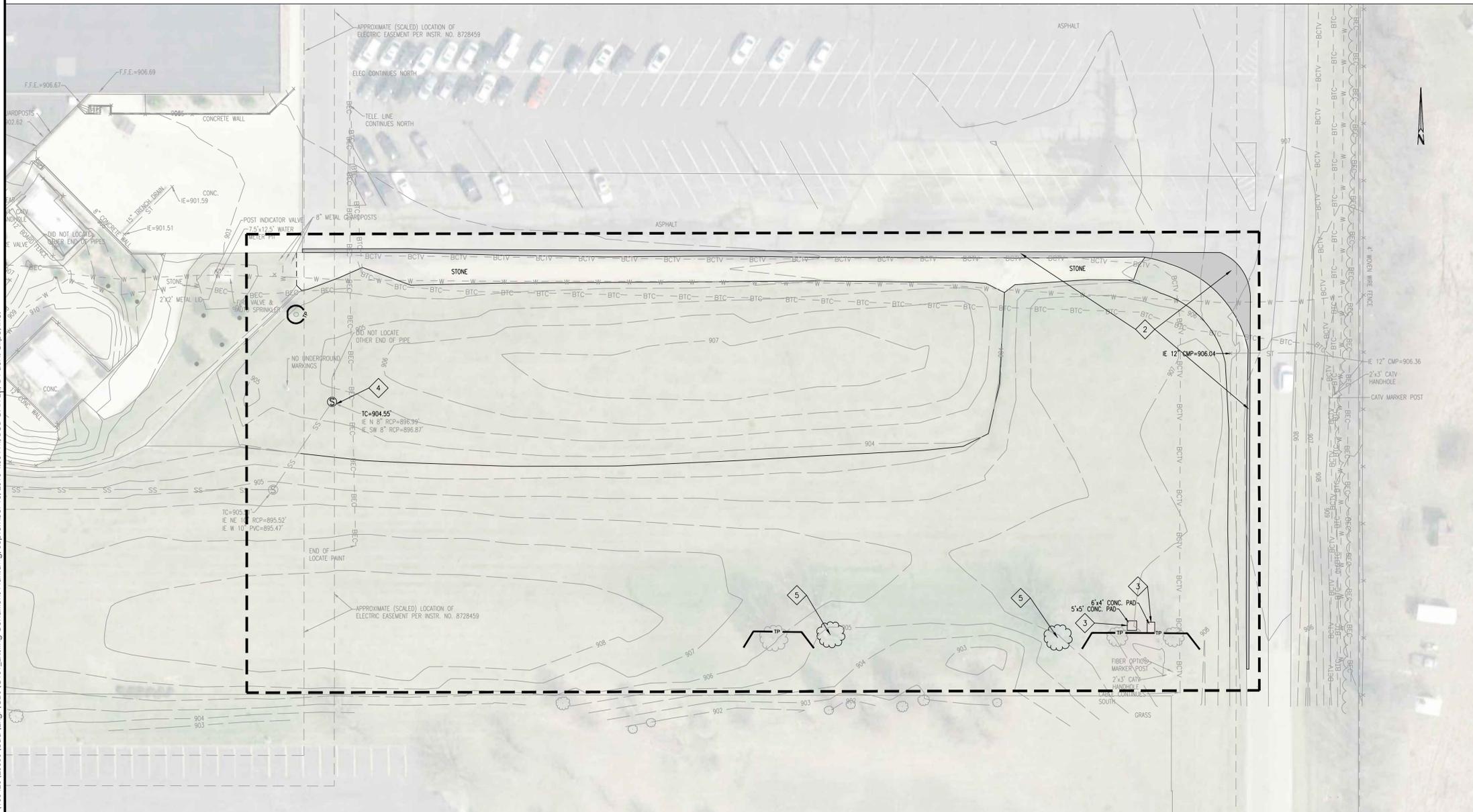
PROPERTY OUTLET PIPE AREA

1" = 30'



NORTH PARKING ADDITION

1" = 30'



SOUTH PARKING ADDITION

1" = 30'

EXISTING FEATURES LEGEND	
SS	SANITARY SEWER & MANHOLE
ST	STORM SEWER; END SECTION, INLET & M.H.
G	GAS LINE
W	WATER LINE
E	ELECTRIC LINE (AERIAL)
T	TELEPHONE LINE (AERIAL)
CTV	CABLE TELEVISION (AERIAL)
BTC	BURIED TELE. CABLE
BEC	BURIED ELEC. CABLE
FNC	FENCE LINE (FNC)
BCTV	BURIED CABLE TV
GRD	GUARDRAIL
R/W	RIGHT OF WAY LINE (R/W)
PL	PROPERTY LINE
EAS	EASEMENT LINE
CL	CENTER LINE
SL	SWALE LINE
TP	TREE PROTECTION
PP	POWER POLE
GW	GUY WIRE
UT	UTILITY RISER, TELEPHONE, ELECTRIC & CABLE TV
ET	ELECTRIC TRANSFORMER
ACU	AIR CONDITIONER UNIT
SL	STREET LIGHT
LP	LIGHT POLE
FL	FLOOD LIGHT
TR	TRAFFIC MANHOLE AND SIGNAL POLE
FR	FIRE HYDRANT
GV	VALVE; GAS & WATER
SS	STREET SIGN
W	WATER, TELEPHONE AND ELECTRIC MANHOLE
SC	SEWER CLEANOUT
EG	ELECTRIC, GAS AND WATER METER
PM	PIPELINE MARKER POST
MB	MAILBOX
GP	GUARD POST
SH	SPRINKLER HEAD
ICB	IRRIGATION CONTROL BOX
SG	SPOT GRADE
H.H.	HANDHOLE
TC	TOP CURB/GUTTER GRADE
FND.	FOUND
CONC.	CONCRETE
ASPH.	ASPHALT
TC	TOP OF CASTING ELEVATION
IE	INVERT ELEVATION
FFE	FINISH FLOOR ELEVATION
TBM	TEMPORARY BENCHMARK
●	DENOTES A 5/8" DIA. REBAR WITH YELLOW PLASTIC CAP SET, CAP STAMPED "CRIPE FIRM NO. 0055" UNLESS OTHERWISE NOTED.
○	DENOTES A MAG NAIL WITH WASHER SET, WASHER STAMPED "CRIPE FIRM NO. 0055" UNLESS OTHERWISE NOTED.
123	SITE ADDRESS

DEMOLITION PLAN LEGEND	
ASPH	EXISTING ASPHALT TO BE SAWCUT AND REMOVED FROM SITE
CONC	EXISTING CONCRETE TO BE SAWCUT AND REMOVED FROM SITE
CL	CONSTRUCTION LIMITS
TP	TREE PRESERVATION

- DEMOLITION PLAN NOTES:**
- EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR IS TO DETERMINE AND FIELD VERIFY ALL HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  - THE CONTRACTOR SHALL COORDINATE ALL WORK ASSOCIATED WITH THE REMOVAL, RELOCATION, AND DEMOLITION OF EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
  - ALL DEMOLISHED MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED, AND SHALL BE LEGALLY DISPOSED OF OFF-SITE.
  - CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PER SHEET C401-C403 PRIOR TO COMMENCING DEMOLITION.
  - MAINTAIN PROPER DRAINAGE IN DEMOLITION AREAS.
  - SAW CUT EXISTING CONCRETE AND ASPHALT SURFACES FOR REMOVAL AS NOTED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE TO EXISTING BUILDINGS AND/OR SITE ENTITIES THAT ARE TO REMAIN.
  - THE CONCRETE PROPOSED TO BE SAWCUT SHALL BE SAWCUT TO THE NEAREST CONCRETE JOINT BEYOND THE LIMITS ILLUSTRATED. NOTIFY ENGINEER IF JOINT IS OVER ONE (1) FOOT FROM LINE SHOWN.
  - REMOVAL OR RELOCATION OF ALL EXISTING LANDSCAPING MUST BE COORDINATED WITH OWNER.
  - CONTRACTOR SHALL CONTACT OWNER REGARDING THE SALVAGE OF EXISTING LANDSCAPE. SALVAGE VALUE IS TO BE CONSIDERED WHEN PRICING WORK.
  - TREES SHOWN TO BE RELOCATED SHALL BE REMOVED AND REPLANTED IN ACCORDANCE WITH THE "LAWNS AND GRASSES" SECTION OF THE PROJECT MANUAL. TREES SHALL BE RELOCATED ONLY WITHIN THE AREAS SHOWN.
  - EXISTING UNDERGROUND ELECTRIC AND TELEPHONE CABLES THAT ARE SHOWN TO BE ABANDONED IN PLACE MAY BE CUT AS NECESSARY TO FACILITATE NEW CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT LINES ARE NOT ACTIVE PRIOR TO CUTTING.
  - EXISTING WATER LINES SHALL NOT BE ABANDONED OR DEMOLISHED UNTIL PROPOSED WATER MAINS HAVE BEEN INSTALLED TO A POINT SUCH THAT ONLY MINIMAL DISRUPTION IN WATER SERVICE TO THE EXISTING OCCUPIED BUILDINGS WILL OCCUR.
  - ANY DISCREPANCIES OR CONFLICTS WHICH BECOME APPARENT BEFORE OR DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

KEYNOTE LEGEND	
1	SAWCUT AND REMOVE EXISTING CONCRETE TO THE LIMITS ILLUSTRATED.
2	SAW CUT AND REMOVE EXISTING ASPHALT AND GRANULAR SUBBASE
3	REMOVE EXISTING CONCRETE PAD. CONTRACTOR TO VERIFY UTILITY NOT IN SERVICE WITH UTILITY PROVIDER.
4	ADJUST SANITARY CASTING TO PROPOSED GRADE. REFER TO GRADING PLAN, C301.
5	REMOVE DEAD TREES INCLUDING ROOT BALLS.

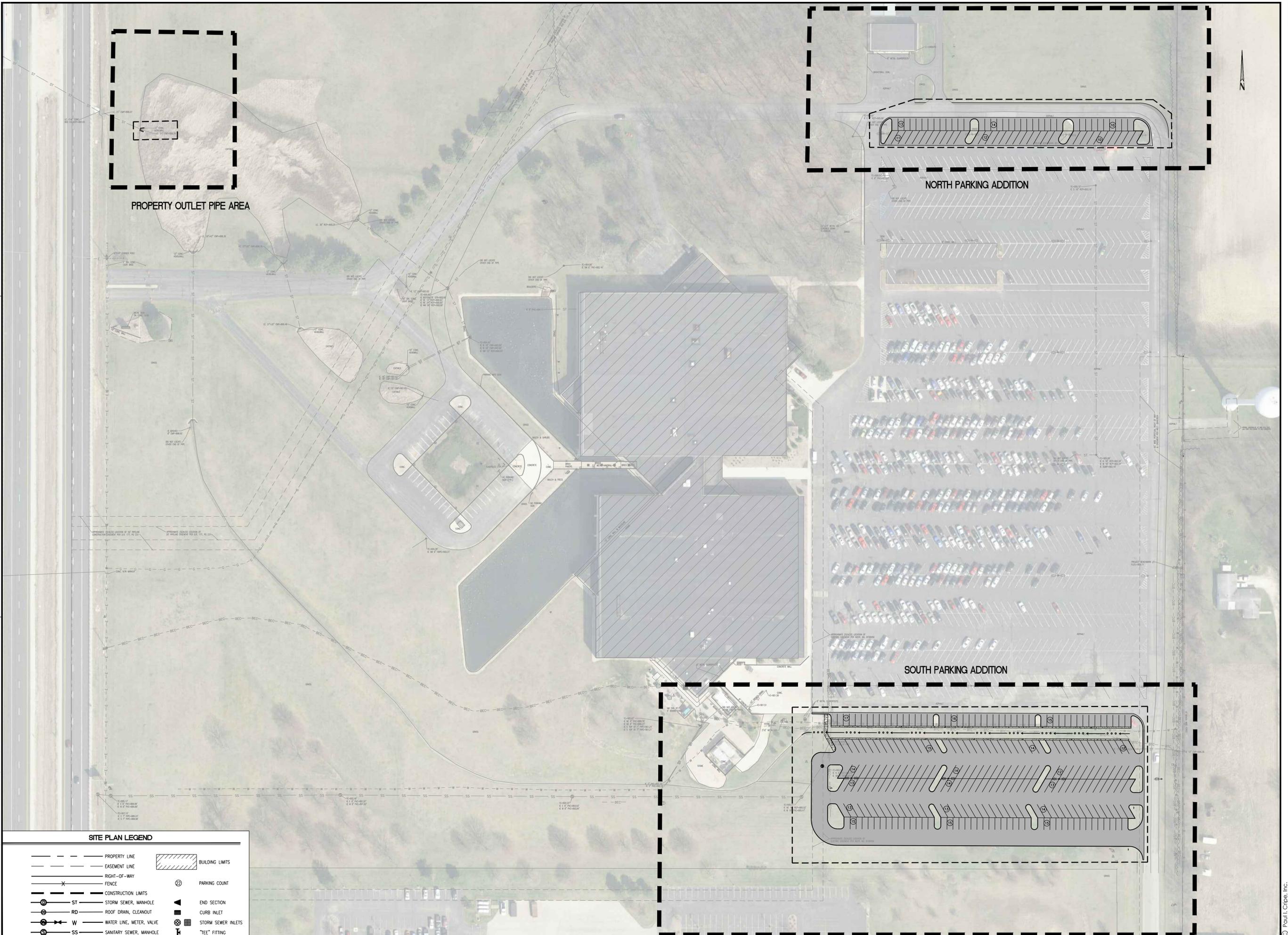
Revision	Date	Description

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**EXISTING CONDITIONS AND DEMOLITION PLAN**  
The Campus Westfield  
Genesis Management Group LLC  
7 Drydock Ave, Suite 2050  
Boston, MA 02210

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**SITE PLAN LEGEND**

---	PROPERTY LINE		BUILDING LIMITS
- - -	EASEMENT LINE	Ⓢ	PARKING COUNT
---	RIGHT-OF-WAY	▲	END SECTION
X	FENCE	■	CURB INLET
---	CONSTRUCTION LIMITS	⊗	STORM SEWER INLETS
Ⓢ	ST - STORM SEWER, MANHOLE	⊕	"TEE" FITTING
Ⓡ	RD - ROOF DRAIN, CLEANOUT		
Ⓦ	W - WATER LINE, METER, VALVE		
Ⓢ	SS - SANITARY SEWER, MANHOLE		

Revision	Date	Description

Architecture & Interiors  
 Survey & 3D Laser Scanning  
 Energy & Facilities  
 Planning & Design  
 Road Estimation Services

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**OVERALL SITE AND UTILITY PLAN**  
 The Campus Westfield  
 Genesis Management Group LLC  
 7 Drydock Ave, Suite 2050  
 Boston, MA 02210

CERTIFIED BY:

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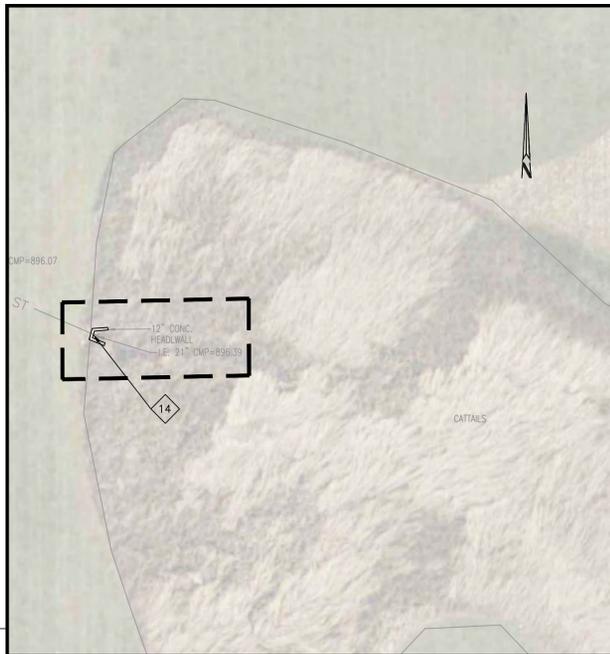
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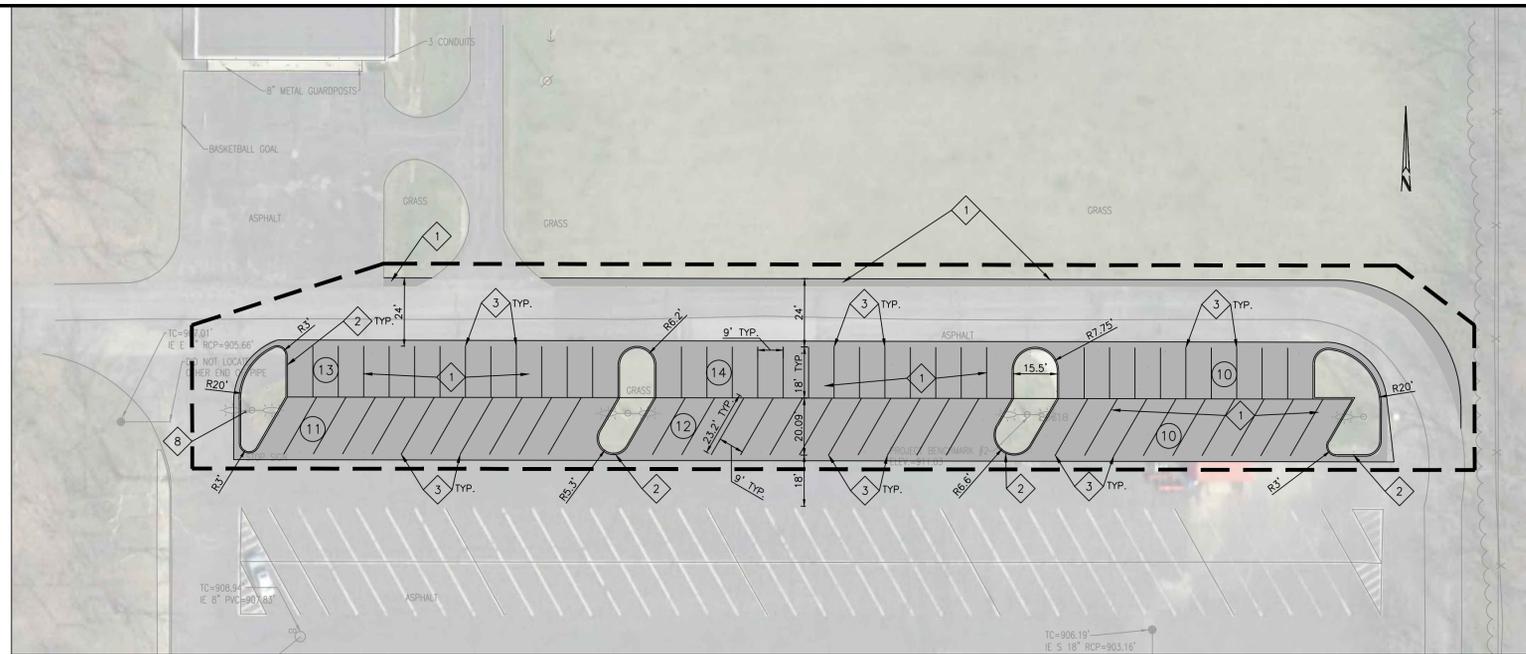
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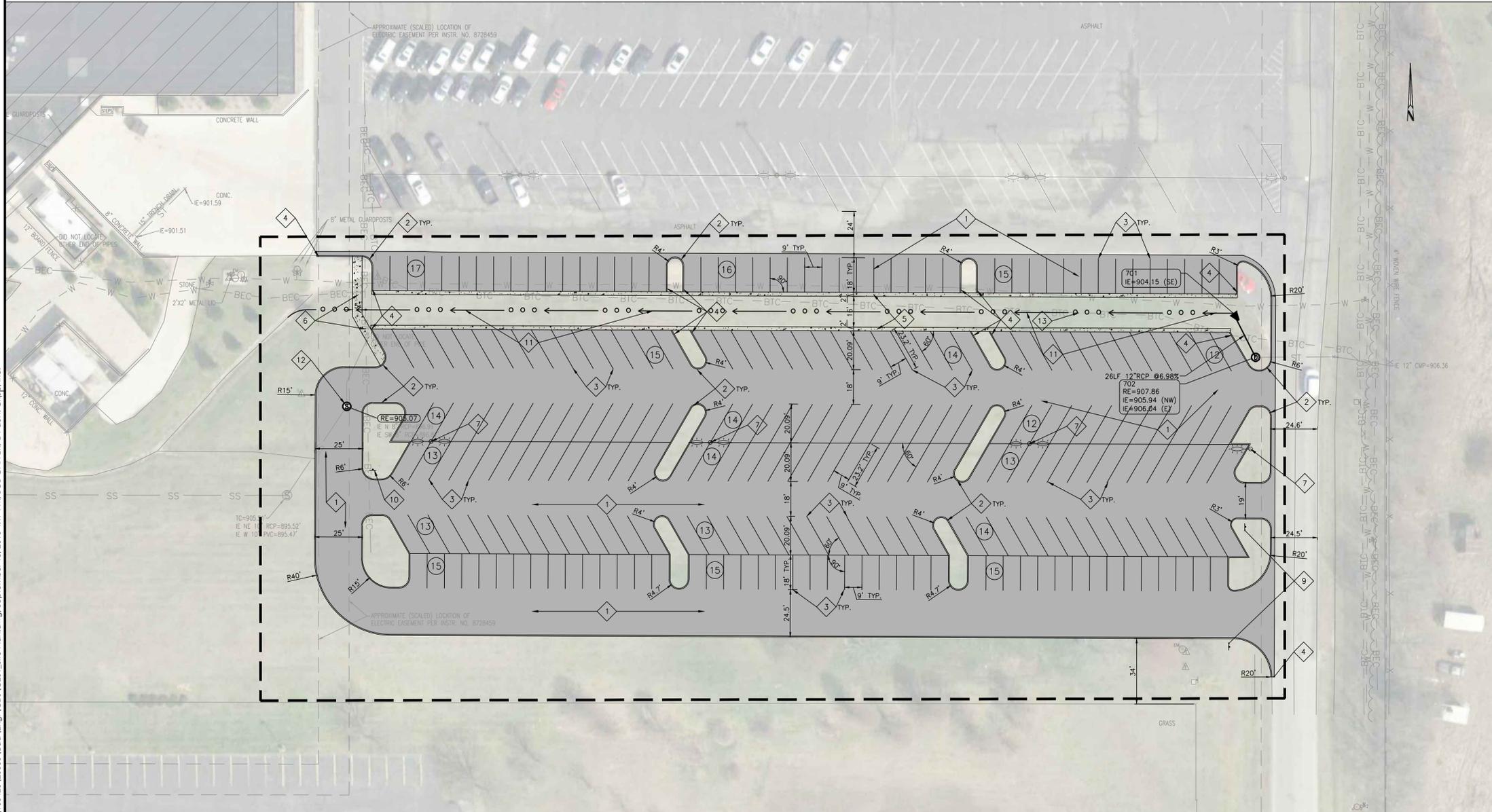
PROPERTY OUTLET PIPE AREA

1" = 30'



NORTH PARKING ADDITION

1" = 30'



SOUTH PARKING ADDITION

1" = 30'

SITE PLAN LEGEND

---	PROPERTY LINE	▨	BUILDING LIMITS
---	EASEMENT LINE	Ⓟ	PARKING COUNT
---	RIGHT-OF-WAY	▲	END SECTION
---	FENCE	■	CURB INLET
---	CONSTRUCTION LIMITS	⊕	STORM SEWER IN
Ⓢ	ST - STORM SEWER, MANHOLE	⊕	"TEE" FITTING
Ⓡ	RD - ROOF DRAIN, CLEANOUT	⊕	TAPPING SLEEVE
Ⓦ	W - WATER LINE, METER, VALVE	⊕	FIRE HYDRANT
Ⓢ	SS - SANITARY SEWER, MANHOLE	⊕	FIRE DEPARTMENT
Ⓢ	SS - SANITARY LATERAL, CLEAN OUT	⊕	POST INDICATOR
---	EASEMENT LINE	⊕	STREET LIGHT
ⓔ	E - OVERHEAD ELECTRIC, POLE	⊕	TRANSFORMER
ⓔ	BEC - BURIED ELECTRIC, MANHOLE	⊕	ELECTRIC METER
ⓐ	CTV - OVERHEAD CABLE TELEVISION	⊕	CABLE RISER PED
ⓐ	BCTV - BURIED CABLE TELEVISION		
ⓐ	G - GAS LINE, METER, VALVE		
ⓐ	T - OVERHEAD TELEPHONE LINE		
ⓐ	BTC - BURIED TELEPHONE LINE		

SITE WORK GENERAL NOTES AND SPECIFICATIONS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING, THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE AND FIELD VERIFY ALL HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY FOR NOTIFICATION AND COORDINATION OF ALL CONSTRUCTION WITH RESPECTIVE UTILITY COMPANIES.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THE PROJECT; FAILURE TO DO SO MAY RESULT IN REMOVAL AND REPLACEMENT OF THE DEFECTIVE WORK. IT IS RECOMMENDED THAT THE DEVELOPER HAVE A QUALIFIED INSPECTOR ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL QUANTITIES GIVEN ON THE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTOR.
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- IT IS ESSENTIAL THAT THE WORK TO BE COMPLETED IN CONJUNCTION WITH THIS PROJECT SHALL BE INSTALLED ACCORDING TO THESE SPECIFICATIONS. THE ENGINEER WILL BE REQUIRED TO CERTIFY TO CERTAIN PORTIONS OF THIS PROJECT UPON COMPLETION. THEREFORE, IT IS NECESSARY TO OBTAIN APPROVAL AND ACCEPTANCE BY THE CITY THAT CONSTRUCTION WAS COMPLETED IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS.
- LOCATIONS & ELEVATIONS OF "FLOODWAY LIMITS" AND "100 YEAR FLOOD LIMITS" ARE SHOWN FOR REFERENCE ONLY. DEVELOPER/BUILDER/INDIVIDUAL LOT OWNER TO REFER TO NATIONAL FLOOD HAZARD INSURANCE MAP (F.E.M.A.) TO DETERMINE FLOOD HAZARD POTENTIAL PRIOR TO INDIVIDUAL LOT/PROJECT CONSTRUCTION.

SITE PLAN NOTES

- ALL RADI AND STREET DIMENSIONS SHALL BE MEASURED TO BACK OF CURB OR FACE OF INTEGRAL CURB AND WALK. ALL DIMENSIONS TO THE BUILDING ARE TO THE OUTSIDE OF BUILDING FOUNDATION WALL.
- ALL PAVEMENT AND/OR CURB RADI TO BE FIVE (5) FOOT UNLESS OTHERWISE NOTED.
- BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
- ALL PARKING STALLS SHALL BE PERPENDICULAR 9' X 18' OR ANGLED SIXTY (60) DEGREES AT 9' X 23.2'. PARKING STALLS ARE DIMENSIONED TO THE FACE OF CURBS.
- ALL PARKING AREAS TO BE CURBED WITH STRAIGHT CURB OR COMBINED WALK AND CURB AS SHOWN.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION SHALL CONFORM TO APPLICABLE LOCAL STANDARDS.
- SEE UTILITY PLAN FOR SANITARY AND STORM STRUCTURE LOCATIONS.
- SEE SHEET C202 FOR DETAILS REFERENCED.
- ANY DISCREPANCIES OR CONFLICTS WHICH BECOME APPARENT BEFORE OR DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

UTILITY PLAN NOTES:

- EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE AND FIELD VERIFY ALL HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- RM ELEVATION (RE) SHALL INDICATE THE ELEVATION THAT WATER WOULD ENTER THE GRATE FOR ALL CASTINGS. IF CASTING HAS SOLID LID, THE RE IS THE LID ELEVATION.
- REFER TO ELECTRIC PLANS FOR ELECTRIC DETAILS.
- REFER TO SHEET C202 FOR OTHER NEW SITE AND UTILITY DETAILS.
- CONNECTIONS TO EXISTING STRUCTURES REQUIRE THAT THE STRUCTURE BE REHABILITATED TO CURRENT DPW DESIGN STANDARDS.
- ANY DISCREPANCIES OR CONFLICTS WHICH BECOME APPARENT BEFORE OR DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

KEYNOTE LEGEND

- |    |  |
|----|--|
| 1  | WESTFIELD ASPHALT PAVEMENT SECTION   |
| 2  | CONCRETE STRAIGHT CURB   |
| 3  | PAVEMENT MARKING   |
| 4  | CURB END TRANSITION  |
| 5  | 2' CONCRETE EDGING FOR BIOSWALE  |
| 6  | 5' CONCRETE WALK. BRIDGE TO SPAN OVER BIOSWALE   |
| 7  | SITE LIGHTING TO BE VERIFIED   |
| 8  | EXISTING STOP SIGN TO REMAIN   |
| 9  | INSTALL STOP SIGN.   |
| 10 | INSTALL ONE WAY SIGN.  |
| 11 | BIOSWALE. REFER TO GRADING AND DETAILS SHEETS  |
| 12 | ADJUST SANITARY CASTING TO GRADE. SEE GRADING PLAN, C301.  |
| 13 | CONTRACTOR TO VERIFY COVER OVER UTILITY AND REROUTE IF NECESSARY. COORDINATE WITH UTILITY COMPANY. |
| 14 | ATTACH STEEL PLATE TO HEADWALL TO REDUCE PIPE OPENING. REFER TO DETAIL.                            |

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Architecture & Interiors  
Survey & 3D Laser Scanning  
Energy & Facilities  
Industrial  
Road & Transit Services

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**Cripe**

SITE AND UTILITY PLAN  
The Campus Westfield  
Genesis Management Group LLC  
7 Drydock Ave, Suite 2050  
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Date: 00-00-00

COVERING  
SITE  
DESIGN

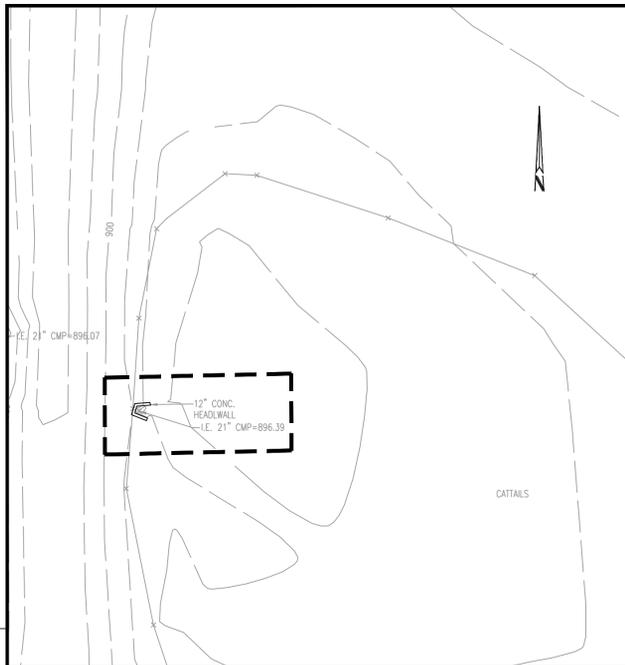
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Scale: 0 Scale: 1" = 30'

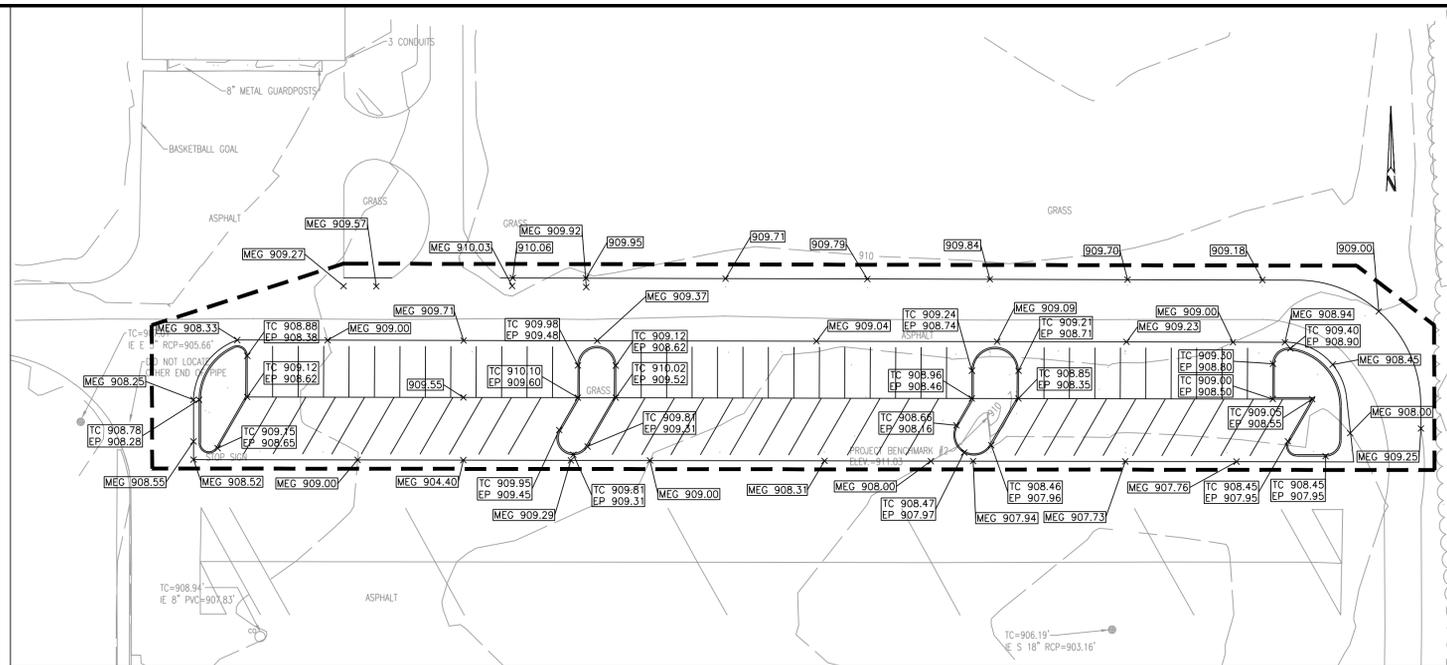
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Date: 09-15-16  
Project Number: 160426-20000





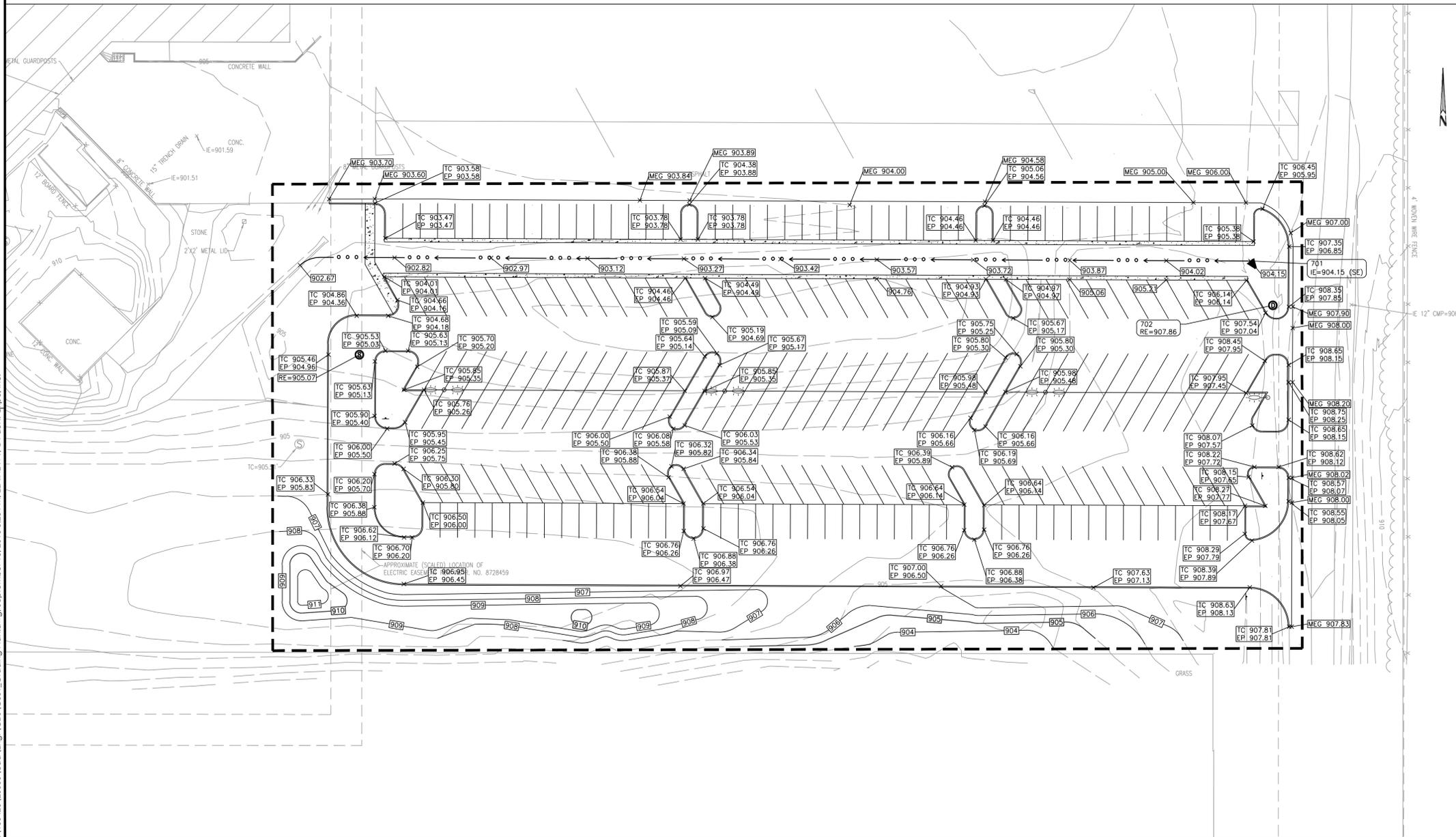
PROPERTY OUTLET PIPE AREA

1" = 30'



NORTH PARKING ADDITION

1" = 30'



SOUTH PARKING ADDITION

1" = 30'

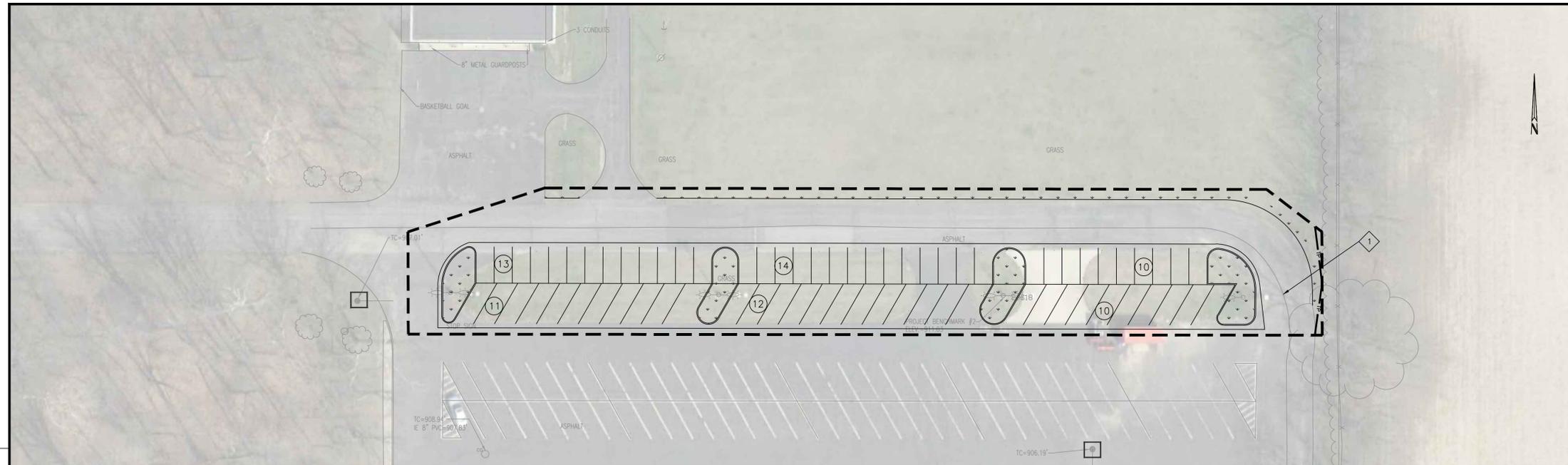
GRADING PLAN LEGEND			
	PROPOSED 1' CONTOUR		PROPOSED GRADE
	PROPOSED 5' CONTOUR		MATCH EXISTING GRADE
	PROPOSED SWALE		PROPOSED TOP OF CURB
	PROPOSED SWALE WITH SUB-SURFACE DRAIN		PROPOSED EDGE OF PAVEMENT
	GRADE BREAK LINE		PROPOSED TOP OF WALL
	CONSTRUCTION LIMIT LINE		PROPOSED BOTTOM OF WALL
			FINISHED FLOOR ELEVATION
			RIM ELEVATION

- GRADING PLAN NOTES**
- EXISTING UTILITY LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE AND FIELD VERIFY ALL HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  - ALL GRADES AT BOUNDARY SHALL MEET EXISTING GRADES.
  - RIM ELEVATION (RE) SHALL INDICATE THE ELEVATION THAT WATER WOULD ENTER THE GRATE FOR ALL CASTINGS. IF CASTING HAS SOLID LID, THE RE IS THE LID ELEVATION.
  - BUILDING PAD AREAS AND PAVED AREAS DESIGNATED FOR FILL SHALL BE CONSTRUCTED OF SUITABLE FILL MATERIAL AND COMPACTED PER SPECIFICATIONS. ALL FILL AREAS SHALL BE STRIPPED OF TOPSOIL PRIOR TO PLACEMENT OF FILL.
  - ANY EXCESS SOIL MATERIAL SHALL BE EXPORTED FROM THE SITE AFTER CONSTRUCTION IS COMPLETED.
  - TOPSOIL SHALL BE PLACED IN MOUNDING AND NONSTRUCTURAL FILL AREAS. UPON COMPLETION OF MASS EARTHWORK, TOPSOIL SHALL BE SPREAD TO A DEPTH OF FOUR TO SIX (4 TO 6) INCHES IN AREAS TO BE SEEDDED SUCH AS STAGING AREA, GRASS AREAS, AND DISTURBED AREAS OUTSIDE OF BUILDING AND PARKING AREAS.
  - CONTRACTOR SHALL PRESERVE EXISTING TREES WHEREVER POSSIBLE. CLEARING LIMITS SHALL CONSIST OF ALL TREES WITHIN PAVED AREAS, UTILITY INSTALLATION LIMITS, AND CUT/FILL AREAS.
  - A GEOTECHNICAL REPORT HAS NOT BEEN PROVIDED FOR THIS PROJECT. CONTRACTOR TO PERFORM A SITE VISIT PRIOR TO PROJECT BID. THE ENGINEER HAS BASED RECOMMENDATIONS UPON NRCS MAPS AND GENERAL KNOWLEDGE OF SOILS CONDITIONS IN THE AREA.
  - ANY DISCREPANCIES OR CONFLICTS WHICH BECOME APPARENT BEFORE OR DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

- FLOODPLAIN NOTES**
- THE SITE IS LOCATED WITHIN THE FLOOD HAZARD ZONE "X" PER THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 1805700109G AND NO. 1805700128G, REVISED NOVEMBER 19, 2014.
  - THE 100 YEAR BASE FLOOD ELEVATION FOR THE SITE AS ILLUSTRATED ON THE FLOOD INSURANCE STUDY (FIS) PLATE NUMBER 30P FOR HAMILTON COUNTY, INDIANA FOR JONES DITCH 871.04 ROUNDED UP TO THE NEAREST 0.5'.
  - THE 100 YEAR BASE FLOOD ELEVATION FOR THE SITE AS ILLUSTRATED ON THE FLOOD INSURANCE STUDY (FIS) PLATE NUMBER 30P FOR HAMILTON COUNTY, INDIANA FOR COOL CREEK 884.04 ROUNDED UP TO THE NEAREST 0.5'.

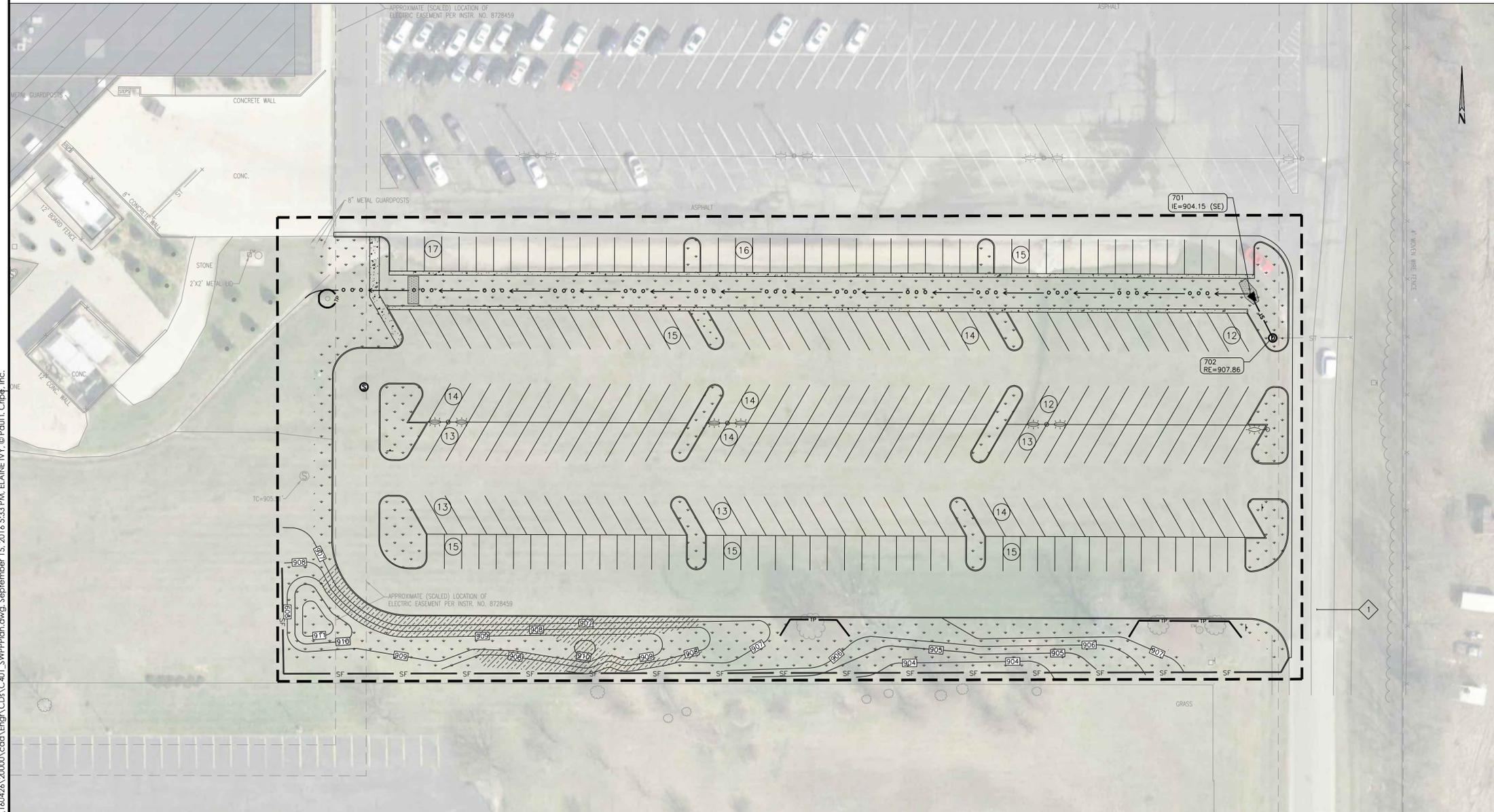
C:\2016\160426\20000\cadd\Eng\CD\301\_Grading Plan.dwg, September 15, 2016 5:23 PM, ELAINE VY, © Paul L. Cripe, Inc.

<p>3939 Priority Way South Drive, Suite 200 Indianapolis, Indiana 46240 (317) 844-6777 E-Mail: cripe@cripe.biz</p>
<p><b>Cripe</b></p>
<p><b>GRADING PLAN</b> The Campus Westfield Genesis Management Group LLC 7 Drydock Ave, Suite 2050 Boston, MA 02210</p>
<p>CERTIFIED BY:</p>
<p>PRELIMINARY NOT FOR CONSTRUCTION</p>
<p>Date: 00-00-00</p>
<p>COVERING GRADE DESIGN</p>
<p></p>
<p>1-800-382-5544</p>
<p>Drawn By: BG</p>
<p>Checked By: DL</p>
<p>Quality Assurance: JL</p>
<p>Scale: 0' = 30'</p>
<p>Sheet: C301</p>
<p>Date: 09-15-16</p>
<p>Project Number: 160426-20000</p>



**NORTH PARKING ADDITION**

1" = 30'



**SOUTH PARKING ADDITION**

1" = 30'

EROSION CONTROL LEGEND	
	TREE/SHRUB PRESERVATION AND PROTECTION
	SILT FENCE BARRIER INSTALLATION
	CONSTRUCTION LIMITS
	PERMANENT SEEDING WITH EROSION CONTROL BLANKET (SC150)
	PERMANENT SEEDING
	CONTRACTOR STAGING AREA SHALL UTILIZE THE EXISTING ASPHALT AREA. CONTRACTOR SHALL REPAIR ALL DAMAGED ASPHALT WITHIN THE AREA UPON COMPLETION OF THE PROJECT AND SHALL MEET THE STANDARDS AS DICTATED ON DETAILS.
	INSERT (BAG) INLET PROTECTION
	ROCK CHECK DAM
	CONCRETE END SECTION RIPRAP DETAIL (UPPER AND LOWER INV)

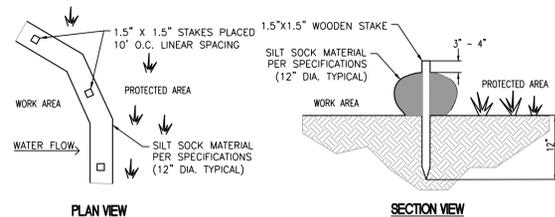
- EROSION CONTROL PLAN NOTES**
- SEE SHEET C403 FOR SOILS MAP AND SOIL CHARACTERISTICS.
  - SEE SHEET C402 FOR EROSION CONTROL DETAILS.
  - SILT FENCE BARRIER TO BE INSTALLED PRIOR TO CONSTRUCTION.
  - EROSION CONTROL MEASURES TO BE MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS.
  - SEE EROSION CONTROL SPECIFICATIONS FOR ALL EROSION CONTROL MEASURES, SCHEDULES, AND SEQUENCES.
  - CONTRACTOR TO PROVIDE A STABLE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT CONDITION FROM THE CONSTRUCTION SITE TO KEEP MUD AND SEDIMENT OFF PUBLIC ROADS.
  - EROSION CONTROL MAINTENANCE - SITE TO BE INSPECTED AT LEAST ONCE A WEEK AND MAKE REPAIRS IMMEDIATELY AFTER PERIODS OF RAINFALL.
  - STORMWATER DISCHARGE WILL NOT ENTER THE GROUNDWATER FOR THIS PROJECT.
  - PRESENCE OF HYDRIC SOILS.
  - CONTRACTOR SHALL PROVIDE THE CITY OF WESTFIELD WITH A NARRATIVE DESCRIBING THE CONSTRUCTION SEQUENCE, INCLUDING START DATES FOR EACH LAND DISTURBING ACTIVITY.
  - THE ACTUAL PERSON RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE EROSION CONTROL SHALL BE DETERMINED DURING THE BIDDING PROCESS. THE AWARD WINNING CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES. ONCE DETERMINED, CRPPE SHALL COORDINATE WITH THE CITY.
  - ANY DISCREPANCIES OR CONFLICTS WHICH BECOME APPARENT BEFORE OR DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

- EROSION AND SEDIMENT CONTROL SEQUENCE AND IMPLEMENTATION**
- INSTALL CONSTRUCTION FENCING AND GATES AS ILLUSTRATED.
  - INSTALL SILT FENCING AS SHOWN ON C401 (SEE DETAIL ON SHEET C402). DUST SHALL BE KEPT TO A MINIMUM BY UTILIZING SPRINKLING, CALCIUM CHLORIDE, VEGETATIVE COVER, SPRAY ON ADHESIVE OR OTHER APPROVED METHODS.
  - IDENTIFY CONSTRUCTION STAGING, CONCRETE WASHOUT AREAS, MATERIAL STORAGE AND TOPSOIL STOCKPILE AREAS. EACH AREA SHALL BE PROPERLY PROTECTED AND DELINEATED PRIOR TO CONSTRUCTION.
  - THE NOI AND CONTACT INFORMATION FOR THE PERSON WITH ONSITE RESPONSIBILITIES MUST BE POSTED.
  - IDEM AND CITY OF WESTFIELD MUST BE NOTIFIED WITHIN 48 HOURS OF COMMENCING CONSTRUCTION.
  - CONTACT INDIANA UNDERGROUND PLANNED PROTECTION SYSTEMS, INC. ("INDIANA 811") FOR UNDERGROUND UTILITY LOCATIONS. (1-800-382-5544).
  - BEFORE OPENING UP THE SITE, FIRST EVALUATE, MARK AND PROTECT IMPORTANT TREES AND ASSOCIATED ROOT ZONES, UNIQUE AREAS TO BE PRESERVED (I.E. WETLANDS), OR EXISTING VEGETATION SUITABLE FOR USE AS FILTER STRIPS (ESPECIALLY IN PERIMETER AREAS).
  - FIRST, STRIP AND STOCKPILE ANY EXISTING TOPSOIL ON-SITE.
  - BEGIN MASS EARTHWORK FOR IMPROVEMENTS FOR PRELIMINARY GRADING. SEE "GENERAL SEEDING AND SURFACE STABILIZATION PROCEDURES" FOR TEMPORARY SEEDING GUIDELINES ON THIS SHEET.
  - REPAIR ANY SILT FENCING IF DAMAGED. IF SILT IS 1/3 HEIGHT OF FABRIC, REMOVE SILT AND REPLACE TO ORIGINAL CONDITION. SEE DETAIL ON SHEET C402.
  - IMMEDIATELY AFTER GRADING, APPLY SURFACE STABILIZATION PRACTICES ON ALL GRADED AREAS, USING PERMANENT MEASURES IN ACCORDANCE WITH THE EROSION CONTROL PLAN. HOWEVER, IF WEATHER DELAYS PERMANENT STABILIZATION, TEMPORARY SEEDING AND/OR MULCHING MAY BE NECESSARY AS A PROVISIONAL MEASURE. ALSO STABILIZE (USING TEMPORARY SEEDING/MULCHING OR OTHER SUITABLE MEANS) ANY DISTURBED AREA WHERE ACTIVE CONSTRUCTION WILL NOT TAKE PLACE FOR 15 WORKING DAYS.
  - AFTER CONSTRUCTION AND FINAL GRADING, PERMANENTLY STABILIZE ALL DISTURBED AREAS. ALSO REMOVE TEMPORARY RUNOFF CONTROL STRUCTURES, ANY UNSTABLE SEDIMENT AROUND THEM, AND STABILIZE THOSE AREAS WITH PERMANENT SEEDING AND EROSION CONTROL BLANKET IF NECESSARY.
  - MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

KEYNOTE LEGEND	
	CONTRACTOR TO USE EXISTING DRIVE FOR ENTRANCE TO SITE.

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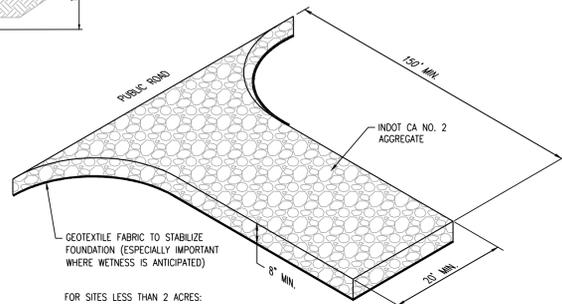
<p>Architecture &amp; Interiors Survey + 3D Laser Scanning Energy + Facilities Road + Rail Road Rehabilitation</p> <p>3939 Priority Way South Drive, Suite 200 Indianapolis, Indiana 46240 (317) 844-6777 E-Mail: crpe@cripe.biz</p> <p><b>Cripe</b></p> <p>STORMWATER POLLUTION PREVENTION PLAN The Campus Westfield Genesis Management Group LLC 7 Drydock Ave, Suite 2050 Boston, MA 02210</p>	<p>Revision</p> <table border="1"> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	No.	Date	Description			
No.	Date	Description					
<p>CERTIFIED BY:</p> <p>PRELIMINARY NOT FOR CONSTRUCTION</p> <p>Date: 00-00-00</p> <p>COVERING C401_SWPPP DESIGN</p> <p><b>Indiana 811</b> Know what's below. Call before you dig. 1-800-382-5544 CALL 811 IN INDIANA. EQUAL TO 114</p> <p>Drawn By: <b>BG</b></p> <p>Checked By: <b>DL</b></p> <p>Quality Assurance: <b>JL</b></p> <p>Scale: 0' = 30'</p> <p>Sheet <b>C401</b></p> <p>Date: 09-15-16 Project Number: 160426-20000</p>	<p>Paul I. Cripe, Inc.</p>						



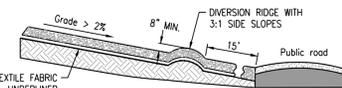
- Notes:**
- All material to meet specifications.
  - Compost Socks fill to meet application requirements.
  - Filter media may be dispersed on site, at the end of construction, as allowed by Owner.

**COMPOST SOCK DETAIL**

NO SCALE



FOR SITES LESS THAN 2 ACRES:  
LENGTH = 50' MINIMUM  
WIDTH = 12' MINIMUM  
THICKNESS = 6' MINIMUM



**DIVERSION RIDGE CROSS-SECTION**

NOT TO SCALE

- INSTALLATION**
- REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
  - GRADE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE. IF THE SLOPE OF THE CONSTRUCTION ENTRANCE IS TOWARD A PUBLIC ROAD AND EXCEEDS TWO PERCENT, CONSTRUCT AN EIGHT INCH HIGH DIVERSION RIDGE WITH A RATIO OF 3-TO-1 SIDE SLOPES ACROSS THE FOUNDATION AREA ABOUT 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD.
  - INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
  - IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
  - PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
  - TOP-DRESS THE FIRST 50 FEET ADJACENT TO THE PUBLIC ROADWAY WITH TWO TO THREE INCHES OF WASHED AGGREGATE (INDOT CA NO. 53) [OPTIONAL, USED PRIMARILY WHERE THE PURPOSED OF THE PAD IS KEEP SOIL FROM ADHERING TO VEHICLE TIRES].
  - WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

**MAINTENANCE**

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

**TEMPORARY CONSTRUCTION ENTRANCE**

NOT TO SCALE

**INSTALLATION**

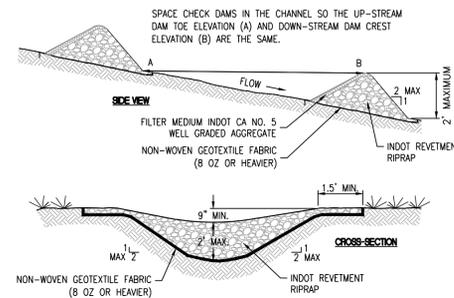
- REMOVE THE GRATE FROM THE CATCH BASIN.
- IF USING OPTION OIL ABSORBENTS, PLACE ABSORBENT PILLOW IN UNIT.
- STAND THE GRATE ON END, MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY SACK SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS.
- HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

**MAINTENANCE**

- INSPECT DAILY.
- REMOVE ALL ACCUMULATED SEDIMENT AFTER EACH STORM EVENT. DISPOSE OF SEDIMENT IN AN AREA WHERE IT WILL NOT REENTER THE PAVED AREA OR STORM DRAINS TO EMPTY UNIT. LIFT THE UNIT OUT OF THE INLET BY USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION. CONTACT: 708-867-8446
- WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE INLET PROTECTION.

**INSERT (BAG) INLET PROTECTION**

NOT TO SCALE



NOTE: INDOT CA NO. 8 AGGREGATE IS ACCEPTABLE IF NO. 5 AGGREGATE IS NOT AVAILABLE. THE USE OF NO. 8 AGGREGATE MAY RESULT IN MORE FREQUENT OVERTOPPING OF THE STRUCTURE AND WILL INCREASE THE FREQUENCY OF STRUCTURE MAINTENANCE.

**INSTALLATION**

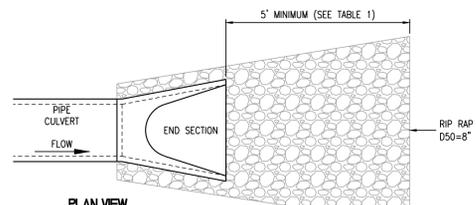
- LAY OUT THE LOCATION OF THE CHECK DAM.
- EXCAVATE A CUTOFF TRENCH INTO THE CHANNEL BOTTOM AND DITCH BANKS, EXTENDING IT A MINIMUM OF 18 INCHES BEYOND THE TOP OF THE DITCH BANK.
- INSTALL AND ANCHOR FILTER FABRIC IN THE CHANNEL AND CUTOFF TRENCH.
- PLACE RIPRAP IN THE CUTOFF TRENCH AND CHANNEL TO THE LINES AND DIMENSIONS SHOWN IN THE CONSTRUCTION PLANS. THE CENTER OF EACH DAM MUST BE AT LEAST NINE INCHES LOWER THAN THE UPPERMOST POINTS OF CONTACT BETWEEN THE RIPRAP DAM AND CHANNEL BANKS.
- EXTEND THE RIPRAP AT LEAST 18 INCHES BEYOND THE TOP OF THE CHANNEL BANKS TO KEEP OVERFLOW WATER FROM ERODING AREAS ADJACENT TO THE CHANNEL BANKS BEFORE IT RE-ENTERS THE CHANNEL.
- PLACE FILTER MEDIUM (INDOT CA NO. 5 AGGREGATE) ON THE UP-SLOPE SIDE OF THE DAM. PLACE FILTER MEDIUM OVER THE ENTIRE FACE OF THE DAM UP TO THE BASE OF THE OVERFLOW WEIR NOTCH.
- STABILIZE THE CHANNEL ABOVE THE UPPERMOST DAM.
- INSTALL AN EROSION-RESISTANT LINING IN THE CHANNEL BELOW THE LOWERMOST DAM. THE LINING SHOULD EXTEND A MINIMUM DISTANCE OF SIX FEET BELOW THE DAM.
- ADDITIONAL SEDIMENT STORAGE CAN BE PROVIDED BY EXCAVATING A SMALL SEDIMENT TRAP ON THE UPSTREAM SIDE OF THE CHECK DAM.

**MAINTENANCE**

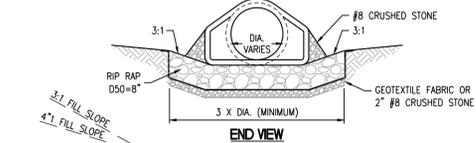
- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, INSTALL AN EROSION-RESISTANT LINER IN THAT PORTION OF THE CHANNEL.
- REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE-HALF THE HEIGHT OF THE DAM TO MAINTAIN CHANNEL CAPACITY. ALLOW DRAINAGE THROUGH THE DAM, AND PRE-VENT LARGE FLOW FROM DISPLACING SEDIMENT.
- ADD RIPRAP AND AGGREGATE AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION OF THE DAMS.
- WHEN DAMS ARE NO LONGER NEEDED, REMOVE THE RIPRAP AND AGGREGATE AND STABILIZE THE CHANNEL. USING AN EROSION-RESISTANT LINING IF NECESSARY. (RIPRAP AND AGGREGATE FROM THE DAM MAY BE REMOVED OR UTILIZED TO STABILIZE THE CHANNEL).

**ROCK CHECK DAM**

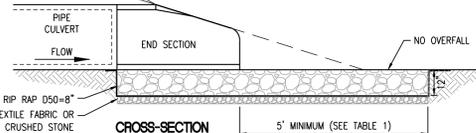
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**PLAN VIEW**



**END VIEW**



**CROSS-SECTION**

**TABLE 1: SIZING FOR FLOW DISPATERS AT CULVERT PIPE OUTLET**

PIPE SIZE	AVERAGE RIPRAP DIAMETER	APRON WIDTH	APRON LENGTH
8 IN.	3 IN.	2 TO 3 FT.	5 TO 7 FT.
12 IN.	5 IN.	3 TO 4 FT.	6 TO 12 FT.
18 IN.	8 IN.	4 TO 6 FT.	8 TO 18 FT.
24 IN.	10 IN.	6 TO 8 FT.	12 TO 22 FT.
30 IN.	12 IN.	8 TO 10 FT.	14 TO 28 FT.
36 IN.	14 IN.	10 TO 12 FT.	16 TO 32 FT.

**INSTALLATION**

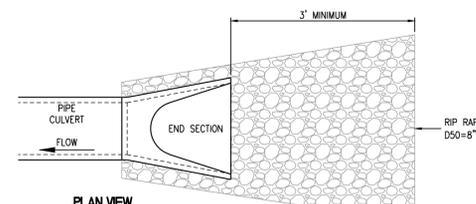
- DIVERT SURFACE WATER RUNOFF AROUND THE STRUCTURE DURING CONSTRUCTION SO THAT THE SITE CAN BE PROPERLY DETAILED FOR FOUNDATION PREPARATION.
- EXCAVATE FOUNDATION AND APRON AREA SUBGRADES BELOW DESIGN ELEVATION TO ALLOW FOR THICKNESS OF THE FILTER MEDIUM AND RIPRAP.
- COMPACT ANY FILL USED IN SUBGRADE PREPARATION TO THE DENSITY OF SURROUNDING UNDISTURBED SOIL.
- SMOOTH SUBGRADE ENOUGH TO PROTECT GEOTEXTILE FABRIC FROM TEARING.
- PLACE GEOTEXTILE FABRIC OR AGGREGATE BEDDING MATERIAL (FOR STABILIZATION AND FILTRATION) ON THE COMPACTED AND SMOOTHED FOUNDATION.
- INSTALL RIPRAP TO THE LINES AND ELEVATIONS SHOWN IN THE CONSTRUCTION PLANS. BLEND RIPRAP SMOOTHLY TO SURROUNDING GRADE. IF THE CHANNEL IS WELL DEFINED, EXTEND THE APRON ACROSS THE CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO AN ELEVATION OF SIX INCHES ABOVE THE MAXIMUM TALLEST WATER DEPTH OR THE TOP OF BANK, WHICHEVER IS LESS.
- IF GEOTEXTILE FABRIC TEARS WHEN PLACING RIPRAP, REPAIR IMMEDIATELY BY LAYING AND STAPLING A PIECE OF FABRIC OVER DAMAGED AREA, OVERLAPPING THE UNDAUNAGED AREAS BY AT LEAST 12 INCHES.
- CONSTRUCT A SMALL PLUNGE POOL WITHIN THE OUTLET APRON (RIPRAP APRONS MUST BE LEVEL WITH OR SLIGHTLY LOWER THAN THE RECEIVING CHANNEL AND SHOULD NOT PRODUCE AN OVERFALL OR RESTRICT FLOW OF THE WATER CONVEYANCE STRUCTURE).

**MAINTENANCE**

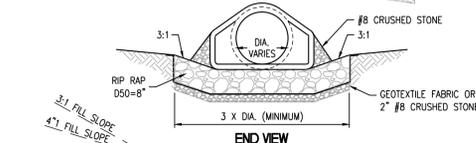
- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- INSPECT FOR STONE DISPLACEMENT; REPLACE STONES ENSURING REPLACEMENT AT FINISHED GRADE.
- CHECK FOR EROSION OR SCOURING AROUND SIDES OF THE APRON; REPAIR IMMEDIATELY.
- CHECK FOR PIPING UNDERCUTTING; REPAIR IMMEDIATELY.

**CONCRETE END SECTION RIPRAP DETAIL (LOWER INVERT)**

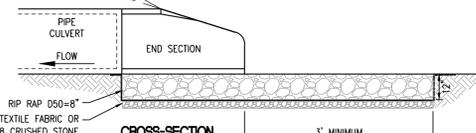
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**PLAN VIEW**



**END VIEW**



**CROSS-SECTION**

**INSTALLATION**

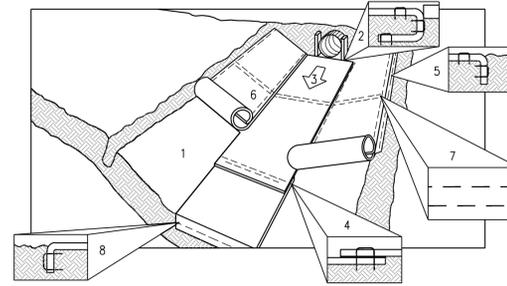
- DIVERT SURFACE WATER RUNOFF AROUND THE STRUCTURE DURING CONSTRUCTION SO THAT THE SITE CAN BE PROPERLY DETAILED FOR FOUNDATION PREPARATION.
- EXCAVATE FOUNDATION AND APRON AREA SUBGRADES BELOW DESIGN ELEVATION TO ALLOW FOR THICKNESS OF THE FILTER MEDIUM AND RIPRAP.
- COMPACT ANY FILL USED IN SUBGRADE PREPARATION TO THE DENSITY OF SURROUNDING UNDISTURBED SOIL.
- SMOOTH SUBGRADE ENOUGH TO PROTECT GEOTEXTILE FABRIC FROM TEARING.
- PLACE GEOTEXTILE FABRIC OR AGGREGATE BEDDING MATERIAL (FOR STABILIZATION AND FILTRATION) ON THE COMPACTED AND SMOOTHED FOUNDATION.
- INSTALL RIPRAP TO THE LINES AND ELEVATIONS SHOWN IN THE CONSTRUCTION PLANS. BLEND RIPRAP SMOOTHLY TO SURROUNDING GRADE. IF THE CHANNEL IS WELL DEFINED, EXTEND THE APRON ACROSS THE CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO AN ELEVATION OF SIX INCHES ABOVE THE MAXIMUM TALLEST WATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
- IF GEOTEXTILE FABRIC TEARS WHEN PLACING RIPRAP, REPAIR IMMEDIATELY BY LAYING AND STAPLING A PIECE OF FABRIC OVER DAMAGED AREA, OVERLAPPING THE UNDAUNAGED AREAS BY AT LEAST 12 INCHES.
- CONSTRUCT A SMALL PLUNGE POOL WITHIN THE OUTLET APRON (RIPRAP APRONS MUST BE LEVEL WITH OR SLIGHTLY LOWER THAN THE RECEIVING CHANNEL AND SHOULD NOT PRODUCE AN OVERFALL OR RESTRICT FLOW OF THE WATER CONVEYANCE STRUCTURE).

**MAINTENANCE**

- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- INSPECT FOR STONE DISPLACEMENT; REPLACE STONES ENSURING REPLACEMENT AT FINISHED GRADE.
- CHECK FOR EROSION OR SCOURING AROUND SIDES OF THE APRON; REPAIR IMMEDIATELY.
- CHECK FOR PIPING OR UNDERCUTTING; REPAIR IMMEDIATELY.

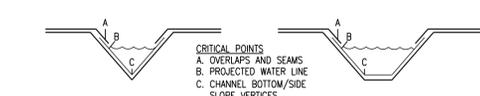
**CONCRETE END SECTION RIPRAP DETAIL (UPPER INVERT)**

NOT TO SCALE



**INSTALLATION**

- SELECT THE TYPE AND WEIGHT OF EROSION CONTROL BLANKET TO FIT THE SITE CONDITIONS PER THE MANUFACTURER'S SPECIFICATIONS.
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6\"/>



NOTE: HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

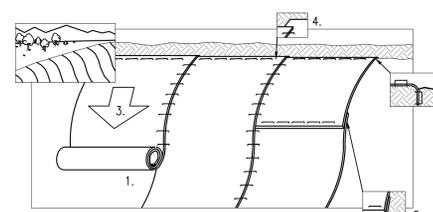
**MAINTENANCE**

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- CHECK FOR EROSION OR DISPLACEMENT OF THE BLANKET.
- IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE BLANKET COVERING THE ERODED AREA, ADD SOIL AND TAMP, RESEED THE AREA, REPLACE AND STAPLE THE BLANKET.

REFER TO GENERAL STAPLE PATTERN GUIDE ON EROSION CONTROL DETAIL EC-06 FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR CHANNELS.

**CHANNEL EROSION CONTROL BLANKET**

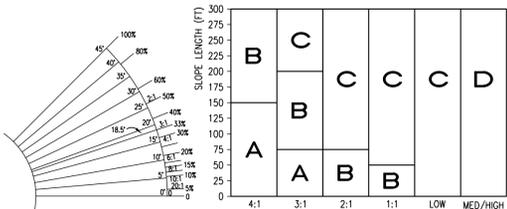
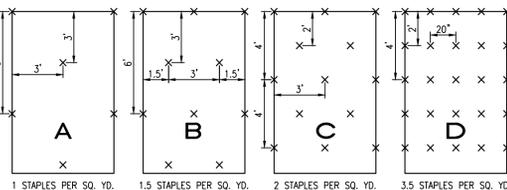
NOT TO SCALE



- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6\"/>

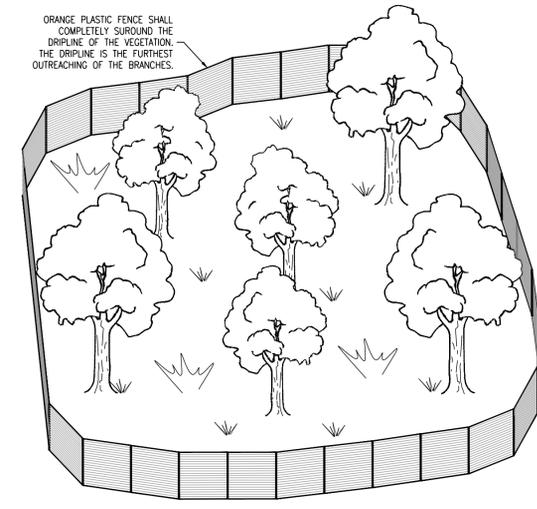
**SLOPE INSTALLATION GUIDE**

NOT TO SCALE



**STAPLE PATTERN GUIDE**

NOT TO SCALE

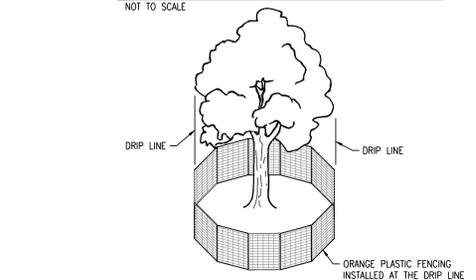


**MAINTENANCE**

- INSPECT AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- REPAIR PERIMETER BARRIERS IF DAMAGED.
- INSPECT FOR DAMAGE FROM CONSTRUCTION EQUIPMENT, ETC. REPAIR WOUNDS SIMPLY BY REMOVING DAMAGED BARK AND WOOD TISSUE. DO NOT USE TREE PAINT.
- CABLE AND BRACE ANY TRUNK SPLITS, WEAK FORKS, AND LARGE LIMBS.

**MULTIPLE TREES / SHRUBS PRESERVATION AND PROTECTION**

NOT TO SCALE

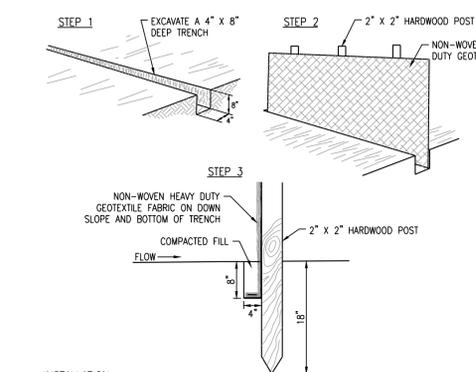


**MAINTENANCE**

- INSPECT AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- REPAIR PERIMETER BARRIERS IF DAMAGED.
- INSPECT FOR DAMAGE FROM CONSTRUCTION EQUIPMENT, ETC. REPAIR WOUNDS SIMPLY BY REMOVING DAMAGED BARK AND WOOD TISSUE. DO NOT USE TREE PAINT.
- CABLE AND BRACE ANY TRUNK SPLITS, WEAK FORKS, AND LARGE LIMBS.

**SINGLE TREE / SHRUB PRESERVATION AND PROTECTION**

NOT TO SCALE



**INSTALLATION**

- LAY OUT THE LOCATION OF THE FENCE SO THAT IT IS PARALLEL TO THE CONTOUR OF THE SLOPE AND AT LEAST 10 FEET BEYOND THE TOE OF THE SLOPE TO PROVIDE A SEDIMENT STORAGE AREA. TURN THE ENDS OF THE FENCE UP SLOPE SUCH THAT THE POINT OF CONTACT BETWEEN THE GROUND AND THE BOTTOM OF THE FENCE END TERMINATES AT A HIGHER ELEVATION THAN THE TOP OF THE FENCE AT ITS LOWEST POINT.
- EXCAVATE AN EIGHT-INCH DEEP BY FOUR-INCH WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
- INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH.
- DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. A MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH.
- LAY THE LOWER FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.
- BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.

NOTE: IF THE SILT FENCE IS BEING CONSTRUCTED ON-SITE, ATTACH THE FILTER FABRIC TO THE SUPPORT POSTS AND ATTACH WOODEN LATHE TO SECURE THE FABRIC TO THE POSTS. ALLOW FOR AT LEAST 12 INCHES OF FABRIC BELOW GROUND LEVEL. COMPLETE THE SILT FENCE INSTALLATION, FOLLOWING STEPS 1 THROUGH 6 ABOVE.

**MAINTENANCE**

- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED WITHIN THIS MEASURE.
- REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.

**SILT FENCE BARRIER INSTALLATION**

NOT TO SCALE

Revision	Issue	Date	Description

Architecture + Interiors  
Survey + 3D Laser Scanning  
Energy + Facilities  
Manufacturing  
Road Rehabilitation  
Road Rehabilitation

3939 Priority Way South Drive, Suite 200  
Indianapolis, Indiana 46240  
(317) 844-6777  
E-Mail: cripe@cripe.biz



**STORMWATER POLLUTION PROTECTION DETAILS**

The Campus Westfield  
Genesis Management Group LLC  
7 Drydock Ave., Suite 2050  
Boston, MA 02210

CERTIFIED BY:

PRELIMINARY NOT FOR CONSTRUCTION

Date: 09-09-00  
COVERING: STORMWATER POLLUTION PROTECTION DESIGN

811 FOR CALLS IN INDIANA 1-800-382-5544

Checked By: DL  
Quality Assurance:

Scale: 0  
Scale: 1" = N/A

Sheet: C402  
Date: 09-15-16  
Project Number: 160426-20000

