HAMILTON COUNTY STANDARDS

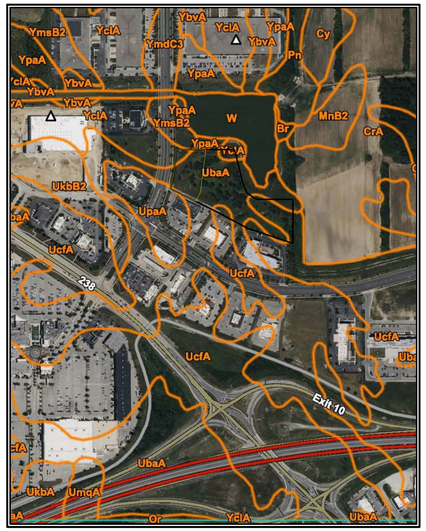
HAMILTON COUNTY STANDARDS SHALL BE INCORPORATED BY REFERENCE INTO THESE PLANS.

CIVIL CONSTRUCTION PLANS FOR

BERGEN BUSINESS PARK PHASE II - SAXONY LOT "P"

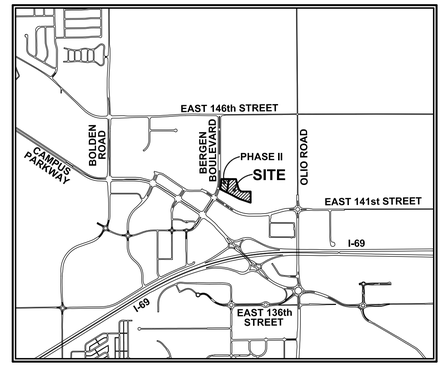
14238 BERGEN BOULEVARD
NOBLESVILLE, INDIANA 46060

NE 1/4 OF SECTION 23, TOWNSHIP 18N, RANGE 5E

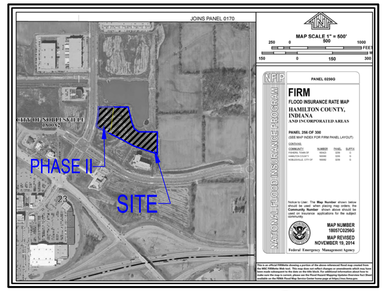


SOILS MAP
SCALE: 1" = 500' NORTH

CONSTRUCTION PLAN INDEX	
C0.0	TITLE SHEET
C1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C2.0	OVERALL SITE PLAN
C2.1	DETAILED SITE PLAN
C2.2–C2.3	UTILITY PLAN (2 SHEETS)
C2.4–C2.5	GRADING & DRAINAGE PLAN (2 SHEETS)
C3.0	STORMWATER POLLUTION PREVENTION PLAN
C3.1	STORMWATER POLLUTION PREVENTION DETAILS
C3.2	STORMWATER POLLUTION PREVENTION NOTES
C9.0	FIRE TRUCK TURNING EXHIBIT
C10.0–C10.1	GENERAL DETAILS (2 SHEETS)
C11.0	SPECIFICATIONS
L1.0–L1.1	LANDSCAPE PLAN (2 SHEETS)
LP101	LANDSCAPE PLAN (PREVIOULSY APPROVED PHASE I)
SURVEY	EXISTING CONDITIONS SURVEY (2 SHEETS)
LIGHTING	SITE LIGHTING PLAN (2 SHEETS)
A201	ARCHITECTURAL ELEVATIONS (EXTERIOR)
1–29	CITY OF NOBLESVILLE DETAILS (29 SHEETS)



VICINITY MAP
SCALE: 1" = 2,000' NORTH



FEMA MAP
SCALE: 1" = 1,000' NORTH

DEVELOPER:
HTC PARTNERS, LLC
ATTN: Steve Shea / Doug Martin
9738 Gulfstream Drive
Fishers, IN 46037
Ph: (317) 694-0944

ENGINEER:
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KUHN & GUSTAFSON
LAND SURVEYING
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Zionsville, Indiana 46077
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UTILITIES

GAS
CENTERPOINT ENERGY
ATTN: CHAD MILLER
(317) 776-5590

TELEPHONE
AT&T
ATTN: WENDY NOBLE
6317) 610-5437

WATER
INDIANA AMERICAN WATER COMPANY
ATTN: JOSH COX
15227 HERRIMAN BOULEVARD
NOBLESVILLE, IN 46060
(317) 773-2497

ELECTRIC
DUKE ENERGY
ATTN: ERIC LONG
100 SOUTH MILL CREEK ROAD
NOBLESVILLE, IN 46060
(317) 776-5336

STORM SEWER
CITY OF NOBLESVILLE
16 SOUTH 10th STREET
NOBLESVILLE, IN 46060
(317) 776-6330

HAMILTON COUNTY SURVEYOR
ATTN: STEVE CASH
ONE HAMILTON COUNTY SQUARE
NOBLESVILLE, IN 46060
(317) 776-8495

UTILITY HOTLINE: WITHIN INDIANA 1-800-382-5544
OUTSIDE INDIANA 1-800-428-5200

NOTE:
THE SIZE AND LOCATION OF UTILITIES ARE PER PLANS AND LOCATIONS PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. ALL UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO ANY EXCAVATION FOR FIELD LOCATION OF SERVICES.

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

PRIVATE INFRASTRUCTURE SUMMARY TABLE			
ITEM	SIZE	QUANTITY	UNITS
RCP STORM SEWER PIPE	12"ø	262	LINEAR FEET
STORM SEWER BOX STRUCTURE	24"x36"	2	EACH
SDR 26 PVC (SAN. LATERAL)	6"ø	101	LINEAR FEET

PUBLIC INFRASTRUCTURE SUMMARY TABLE			
ITEM	WIDTH	QUANTITY	UNITS
CONCRETE SIDEWALK	5'	40	LINEAR FEET
CONCRETE CURB RAMPS	5'	2	EACH

LAND DESCRIPTION

SOURCE OF TITLE: INSTRUMENT NUMBER 2022027950

A PART OF THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 3 EAST OF THE SECOND PRINCIPAL MERIDIAN, LOCATED IN THE CITY OF NOBLESVILLE, HAMILTON COUNTY, INDIANA. AS SHOWN ON THE SECONDARY PLAT OF LOT P SAXONY CORPORATE CAMPUS RECORDED AS INSTRUMENT NUMBER 2024006758 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOT P OF SAXONY CORPORATE CAMPUS CONTAINING 6.437 ACRES MORE OR LESS.

CERTIFICATION STATEMENT

DESIGN PROFESSIONAL CERTIFYING THE PLANS FOR THE PROJECT ACKNOWLEDGES THEIR PROFESSIONAL RESPONSIBILITY FOR ENSURING THAT ALL WORK IS CORRECT, ACCURATE AND COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR AND/OR OMISSION IS FOUND, THE DESIGN PROFESSIONAL ACCEPTS FULL RESPONSIBILITY AND SHALL DETERMINE A SOLUTION THAT COMPLIES WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES. IF SUCH AN ERROR OR OMISSION IS FOUND, THE DEVELOPER IS NOT RELIEVED TO COMPLY WITH ALL APPROPRIATE LAWS, STANDARDS, REGULATIONS AND ORDINANCES.

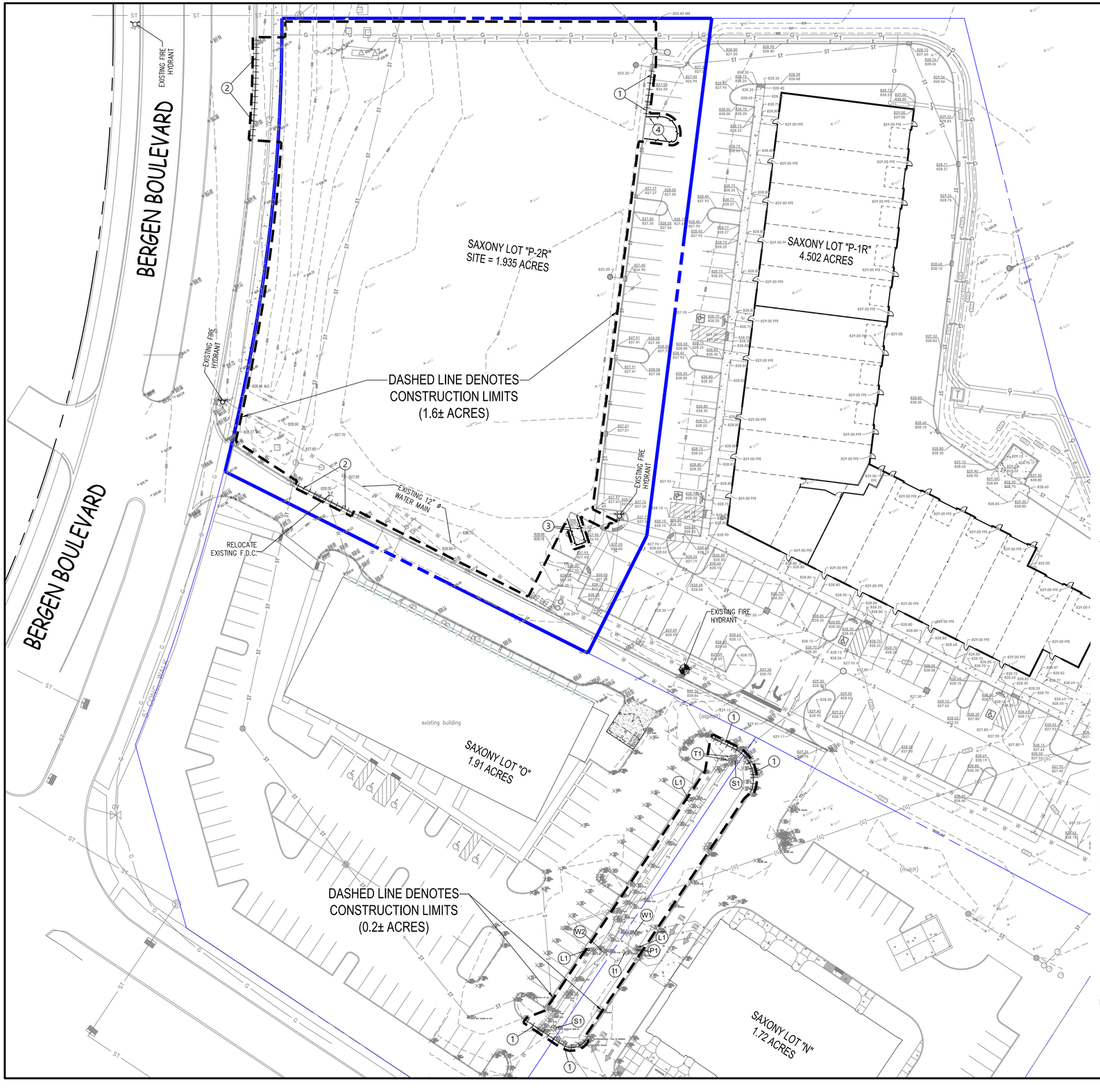
REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/04/24	REVISIONS PER LFA & SDRB COMMENTS	EAG	EAG
3	12/18/24	REVISED SANITARY SEWER LATERAL	EAG	EAG

ERIC A. GLEISSNER
REGISTERED
Nº PE10403858
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07/13/24

CSG PROJECT NUMBER
HTC.001

DRAWING NUMBER
C0.0
SHEET 1 OF 53



LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- SAWCUT LIMITS
- S — EX. UNDERGROUND SANITARY SEWER LINE
- ST — EX. UNDERGROUND STORM SEWER LINE
- W — W — EX. UNDERGROUND WATER LINE
- G — G — EX. UNDERGROUND GAS LINE
- T — EX. UNDERGROUND TELECOM
- E — EX. UNDERGROUND ELECTRIC
- 847 — EXISTING CONTOUR
- REMOVAL ITEM LOCATION (DEMOLITION LIMITS)
- CONSTRUCTION LIMITS

NORTH

30 0 15 30

(IN FEET)
1 inch = 30 ft.

Indiana 811 — Know what's below. Call before you dig.

PLAN NOTES:

1. DEMOLISH & REMOVE EXISTING CONCRETE CURB (SAWCUT WHERE NECESSARY)
2. DEMOLISH & REMOVE EXISTING CONCRETE CURB & GUTTER (SAWCUT WHERE NECESSARY)
3. SAWCUT & REMOVE EXISTING PAVEMENT & RESTORE TO ORIGINAL CONDITION
4. DEMOLISH & REMOVE EXISTING PAVEMENT (SAWCUT WHERE NECESSARY)
5. REMOVE EXISTING TREE/SHRUB
6. DEMOLISH & REMOVE EXISTING CURB (SAWCUT WHERE NECESSARY)
- W1 RELOCATE EXISTING DOMESTIC WATER METER (COORDINATE WITH PROPERTY OWNER & INAWC)
- W2 RELOCATE EXISTING IRRIGATION WATER METER (COORDINATE WITH PROPERTY OWNER & INAWC)
- I1 RELOCATE EXISTING IRRIGATION CONTROL VALVE (COORDINATE WITH PROPERTY OWNER)
- P1 RELOCATE EXISTING POST INDICATOR VALVE (COORDINATE WITH PROPERTY OWNER, NOBLESVILLE FIRE DEPARTMENT & INAWC)
- L1 EXISTING LIGHT POLE (LOCATION TO BE FIELD VERIFIED / MAY REQUIRE RELOCATION)
- S1 ADJUST SANITARY SEWER CASTING TO GRADE
- T1 RELOCATE EXISTING TELECOM BOXES (COORDINATE WITH UTILITY PROVIDER)

(BM) BENCHMARK: TBM1 ELEVATION 831.52 (NORTH BONNET BOLT OF FIRE HYDRANT) REFERENCE CONSTRUCTION PLANS FOR BERGEN BUSINESS PARK PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS (LATEST REV. 08/14/23)

GENERAL NOTES

CONTRACTOR TO KEEP EXISTING PAVEMENT SURROUNDING THE SITE "BROOM CLEAN" AND FREE OF SOIL OR AGGREGATE THAT MIGHT BE BROUGHT OFF-SITE.

DEPENDING ON THE CONSTRUCTION SEASON, MOISTURE CONTENT AND PROPERTIES OF THE SOILS ON SITE, CHEMICAL MODIFICATIONS AND/OR LIME STABILIZATION MAY BE REQUIRED. SEE SHEET C11.0 FOR SPECIFICATIONS.

NOTE

ALL ROADS & OFF-SITE ADJACENT PROPERTIES MUST BE BROUGHT BACK TO ORIGINAL OR BETTER CONDITION, INCLUDING BUT NOT LIMITED TO ASPHALT PAVEMENT STRIPING, CURB, SIDEWALKS & SIGNAGE.

EXISTING CONDITIONS NOTE

CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, INCLUDING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES.

FLOOD NOTE

THIS LOT LIES ENTIRELY IN FLOOD HAZARD ZONE 'X' AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, COMMUNITY NAME CITY OF NOBLESVILLE, COMMUNITY NUMBER 180082, MAP NUMBER 18057C0256 G, PANEL NUMBER 0256 G, DATED NOVEMBER 19, 2014.

REFERENCE NFIP FIRM MAP #: 18057C0256 G
EFFECTIVE DATE: NOVEMBER 19, 2014

ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE OF ANY FEMA DESIGNATED SPECIAL FLOOD HAZARD AREAS (SFHA)

UTILITY VALVE NOTE

ALL UTILITY VALVES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINAL GRADE AS NEEDED TO BE FLUSH WITH FINISHED PAVEMENT, SIDEWALK OR LANDSCAPE AREA.

TOPOGRAPHIC & BOUNDARY NOTE

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN EXISTING CONDITIONS TOPOGRAPHIC AND UTILITY SURVEY SUPPLEMENTED WITH CIVIL CONSTRUCTION PLANS AND A SECONDARY PLAT ALL PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 12/07/2022 (PROJECT NO. 2021-0081); THEREFORE, CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

UTILITY LOCATE NOTE

INDIANA 811 FAILED TO LOCATE ALL EXISTING UTILITIES ON AND/OR SURROUNDING THE SUBJECT SITE; THEREFORE, CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ANY EXISTING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF THE PROPOSED IMPROVEMENTS INTERFERE WITH ANY EXISTING UTILITY INFORMATION NOT SHOWN ON THESE PLANS.

CITY OF NOBLESVILLE STANDARDS

CONTRACTOR TO CONSTRUCT ALL APPLICABLE SITE IMPROVEMENTS TO THE CITY OF NOBLESVILLE'S CURRENT STANDARDS.

DEMOLITION NOTES

1. OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF ITEMS OR STRUCTURES TO BE DEMOLISHED.
2. ITEMS INDICATED TO BE REMOVED BUT OF SALVABLE VALUE TO CONTRACTOR MAY BE REMOVED AS WORK PROGRESSES.
3. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED.
4. PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS NEEDED TO PROTECT OWNER'S PERSONNEL AND THE GENERAL PUBLIC FROM INJURY DUE TO THE DEMOLITION AREA.
5. REPAIR ALL INCIDENTAL DAMAGE TO ADJACENT FACILITIES CAUSED BY GENERAL DEMOLITION AT NO ADDITIONAL COST TO OWNER.
6. CONDUCT SELECTIVE DEMOLITION OPERATIONS AND DEBRIS REMOVAL IN A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES.
7. DO NOT CLOSE, BLOCK OR OTHERWISE OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT WRITTEN PERMISSION AND/OR REQUIRED PERMITS FROM LOCAL JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY GOVERNING JURISDICTION.
8. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING FROM UTILITY COMPANY.
9. USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT DUST, DIRT, AND DEBRIS TO LOWEST PRACTICAL LEVELS. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
10. PERFORM SELECTIVE DEMOLITION WORK IN A SYSTEMATIC MANNER. USE SUCH METHODS AS NECESSARY TO COMPLETE DEMOLITION SHOWN ON DRAWINGS.
11. DEMOLISH CONCRETE, ASPHALT, AND MASONRY IN SMALL SECTIONS. CUT CONCRETE AND MASONRY AT JUNCTURES WHERE DEMOLITION ENDS AND NEW CONSTRUCTION / IMPROVEMENTS BEGIN USING A MASONRY SAW. DO NOT USE POWER DRIVEN IMPACT TOOLS.
12. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION WORK. PROVIDE FILL CONSISTING OF APPROVED EARTH, GRAVEL OR SAND, FREE OF TRASH AND DEBRIS, STONES OVER 6" DIAMETER, ROOTS , TOPSOIL, AND OTHER ORGANIC MATTER.
13. REMOVE DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS FROM SITE. TRANSPORT AND LEGALLY DISPOSE OF MATERIALS FROM SITE.
14. IF HAZARDOUS MATERIALS ARE ENCOUNTERD DURING DEMOLITION OPERATIONS, COMPLY WITH ALL APPLICABLE REGULATIONS, LAWS, AND ORDINANCES CONCERNING REMOVAL, HANDLING AND PROTECTION AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION.
15. BURNING OF MATERIALS IS NOT PERMITTED ON PROJECT SITE.
16. UPON COMPLETION OF DEMOLITION WORK, REMOVE TOOLS, EQUIPMENT, AND DEMOLISHED MATERIALS FROM SITE. REMOVE PROTECTION BARRICADES AND LEAVE SITE FREE OF DEBRIS.
17. REPAIR DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED. RETURN FACILITIES AND SURFACES TO REMAIN TO THEIR EXISTING CONDITION PRIOR TO COMMENCEMENT OF SELECTIVE DEMOLITION WORK. REPAIR ADJACENT CONSTRUCTION OR SURFACES SOILED OR DAMAGED.
18. INVESTIGATE BUILDING FOUNDATION FOR BASEMENT, CRAWL SPACE, AND OTHER BELOW GRADE AREAS. CONTRACTOR RESPONSIBLE TO FILL ALL BELOW GRADE AREAS WITH SUITABLE FILL MATERIAL TO 95% STANDARD PROCTOR DENSITY (ASTM D-1557).

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC.
CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISSNER — REGISTERED — Nº PE10403858 — STATE OF INDIANA — PROFESSIONAL ENGINEER
DATE: 07/13/24

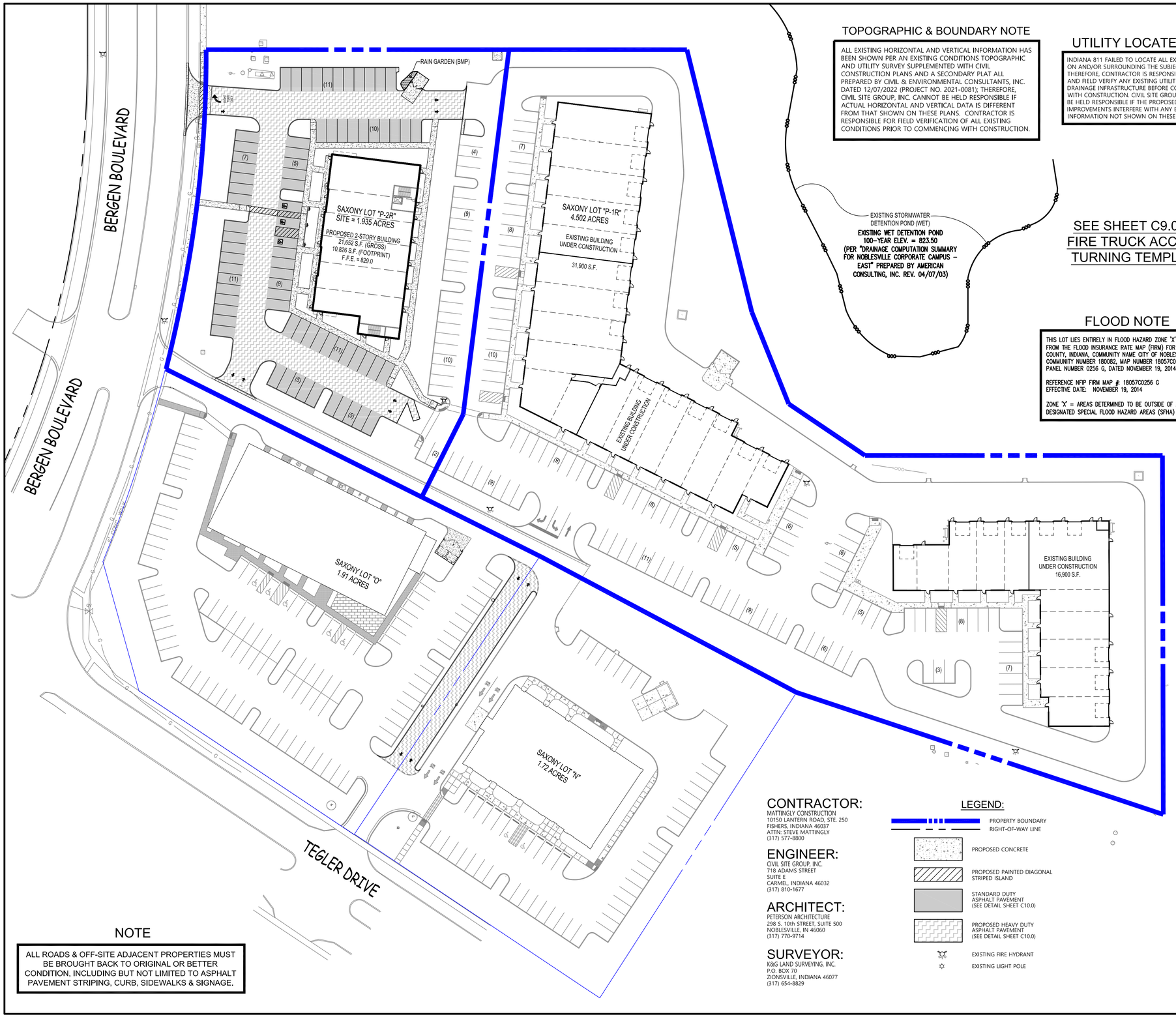
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C1.0
SHEET 2 OF 53



TOPOGRAPHIC & BOUNDARY NOTE

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN EXISTING CONDITIONS TOPOGRAPHIC AND UTILITY SURVEY SUPPLEMENTED WITH CIVIL CONSTRUCTION PLANS AND A SECONDARY PLAT ALL PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 12/07/2022 (PROJECT NO. 2021-0081); THEREFORE, CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

UTILITY LOCATE NOTE

INDIANA 811 FAILED TO LOCATE ALL EXISTING UTILITIES ON AND/OR SURROUNDING THE SUBJECT SITE; THEREFORE, CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ANY EXISTING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF THE PROPOSED IMPROVEMENTS INTERFERE WITH ANY EXISTING UTILITY INFORMATION NOT SHOWN ON THESE PLANS.

NORTH

30 0 15 30

(IN FEET)
1 inch = 30 ft.

Indiana 811 Know what's below. Call before you dig.

NOTE

REFER TO ARCHITECTURAL & FOUNDATION PLANS FOR ALL BUILDING DIMENSIONS.

SEE SHEET C9.0 FOR FIRE TRUCK ACCESS & TURNING TEMPLATES

FLOOD NOTE

THIS LOT LIES ENTIRELY IN FLOOD HAZARD ZONE 'X' AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, COMMUNITY NAME CITY OF NOBLESVILLE, COMMUNITY NUMBER 180082, MAP NUMBER 18057C0256 G, PANEL NUMBER 0256 G, DATED NOVEMBER 19, 2014.

REFERENCE NFIP FIRM MAP #: 18057C0256 G
EFFECTIVE DATE: NOVEMBER 19, 2014

ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE OF ANY FEMA DESIGNATED SPECIAL FLOOD HAZARD AREAS (SFHA)

LAND DESCRIPTION

SOURCE OF TITLE: INSTRUMENT NUMBER 2022027950

A PART OF THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 3 EAST OF THE SECOND PRINCIPAL MERIDIAN, LOCATED IN THE CITY OF NOBLESVILLE, HAMILTON COUNTY, INDIANA. AS SHOWN ON THE SECONDARY PLAT OF LOT P SAXONY CORPORATE CAMPUS RECORDED AS INSTRUMENT NUMBER 2024006758 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOT P OF SAXONY CORPORATE CAMPUS CONTAINING 6.437 ACRES MORE OR LESS.

SITE LAYOUT NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY, OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
2. ALL PARKING STRIPES ARE TO BE 4" PAINTED WHITE. UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS, OR SPECIFICATIONS.
3. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB/SIDEWALK, RADII TO BACK OF CURB, WHERE APPLICABLE.
4. ALL DIMENSIONS ARE TO OUTSIDE FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL BUILDING DIMENSIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD DIMENSIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
6. PROVIDE SMOOTH TRANSITION FROM NEWLY PAVED AREAS TO EXISTING AREAS AS NECESSARY. ALL AREAS WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE FREE OF ALL LOOSE DEBRIS. THE EDGE OF EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING.
7. ALL EXCAVATED AREAS TO BE SEEDED AND/OR SODDED AFTER FINISH GRADING UNLESS OTHERWISE NOTED. ALL NEWLY SODDED/SEEDED AREAS SHALL HAVE A MINIMUM OF 4" OF TOPSOIL HOLD SOIL DOWN 1" FROM PAVEMENT ELEVATION. CONTRACTOR TO SUPPLY STRAW MULCH WHERE GRASS SEED HAS BEEN PLANTED.
8. RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS HAVE DAMAGED EXISTING PAVEMENT, LAWNS OR OTHER IMPROVEMENTS DURING CONSTRUCTION, AFTER CONSTRUCTION WORK IS COMPLETE.
9. ALL UTILITY TRENCHES WITHIN 5 FEET OF PAVEMENT SHALL BE COMPLETELY BACKFILLED WITH GRANULAR BACKFILL.
10. ALL RADII INDICATED SHALL BE CONSTRUCTED AS CIRCULAR ARCS.
11. ALL PARKING SPACE DIMENSIONS ARE TO 9' WIDE BY 18' DEEP UNLESS OTHERWISE SPECIFIED.

DEVELOPMENT SUMMARY - LOT "P-1R"

TOTAL SITE ACREAGE = 4.502 +/- ACRES
CURRENT ZONING = CCPD / SECONDARY CORRIDOR
(CORPORATE CAMPUS PLANNED DEVELOPMENT)
ADJACENT ZONING:
WEST = CCPD (BERGEN BOULEVARD)
SOUTH = CCPD (COMMERCIAL / MULTI-TENANT)
EAST = CCPD (HOTEL)
NORTH = CCPD (UNDEVELOPED / DETENTION POND)
BUILDINGS UNDER CONSTRUCTION = 48,800± S.F. (GROSS)
PROVIDED PARKING = 117 SPACES
REQUIRED PARKING = 61 SPACES (1/800 S.F. - OFFICE)
GREENSPACE = 54,167 SF / 27.6% (25% REQUIRED PER ZONING)
IMPERVIOUS SURFACE = 72.4% (PAVEMENT, BUILDINGS, ETC...)

DEVELOPMENT SUMMARY - LOT "P-2R"

TOTAL SITE ACREAGE = 1.935 +/- ACRES
CURRENT ZONING = CCPD / SECONDARY CORRIDOR
(CORPORATE CAMPUS PLANNED DEVELOPMENT)
ADJACENT ZONING:
WEST = CCPD (BERGEN BOULEVARD)
SOUTH = CCPD (COMMERCIAL / MULTI-TENANT)
EAST = CCPD (HOTEL)
NORTH = CCPD (UNDEVELOPED / DETENTION POND)
PROPOSED BUILDING = 21,652± S.F. (GROSS)
10,826± S.F. (FOOTPRINT)
PROVIDED PARKING = 99 SPACES
REQUIRED PARKING = 65 SPACES (3/1000 S.F. - OFFICE)
GREENSPACE = 26,573 SF / 31.5% (25% REQUIRED PER ZONING)
IMPERVIOUS SURFACE = 68.5% (PAVEMENT, BUILDINGS, ETC...)

NOTE

ALL ROADS & OFF-SITE ADJACENT PROPERTIES MUST BE BROUGHT BACK TO ORIGINAL OR BETTER CONDITION, INCLUDING BUT NOT LIMITED TO ASPHALT PAVEMENT STRIPING, CURB, SIDEWALKS & SIGNAGE.

CONTRACTOR:

MATTINGLY CONSTRUCTION
10150 LANTERN ROAD, STE. 250
FISHERS, INDIANA 46037
ATTN: STEVE MATTINGLY
(317) 577-8800

ENGINEER:

CIVIL SITE GROUP, INC.
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SUITE E
CARMEL, INDIANA 46032
(317) 810-1677

ARCHITECT:

PETERSON ARCHITECTURE
298 S. 10th STREET, SUITE 500
NOBLESVILLE, IN 46060
(317) 770-9714

SURVEYOR:

K&G LAND SURVEYING, INC.
P.O. BOX 70
ZIONSVILLE, INDIANA 46077
(317) 654-8829

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET C10.0)
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET C10.0)
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC. — CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERICA L. GLEISSNER — REGISTERED — Nº PE10403858 — STATE OF INDIANA — PROFESSIONAL ENGINEER

DATE: 07/13/24

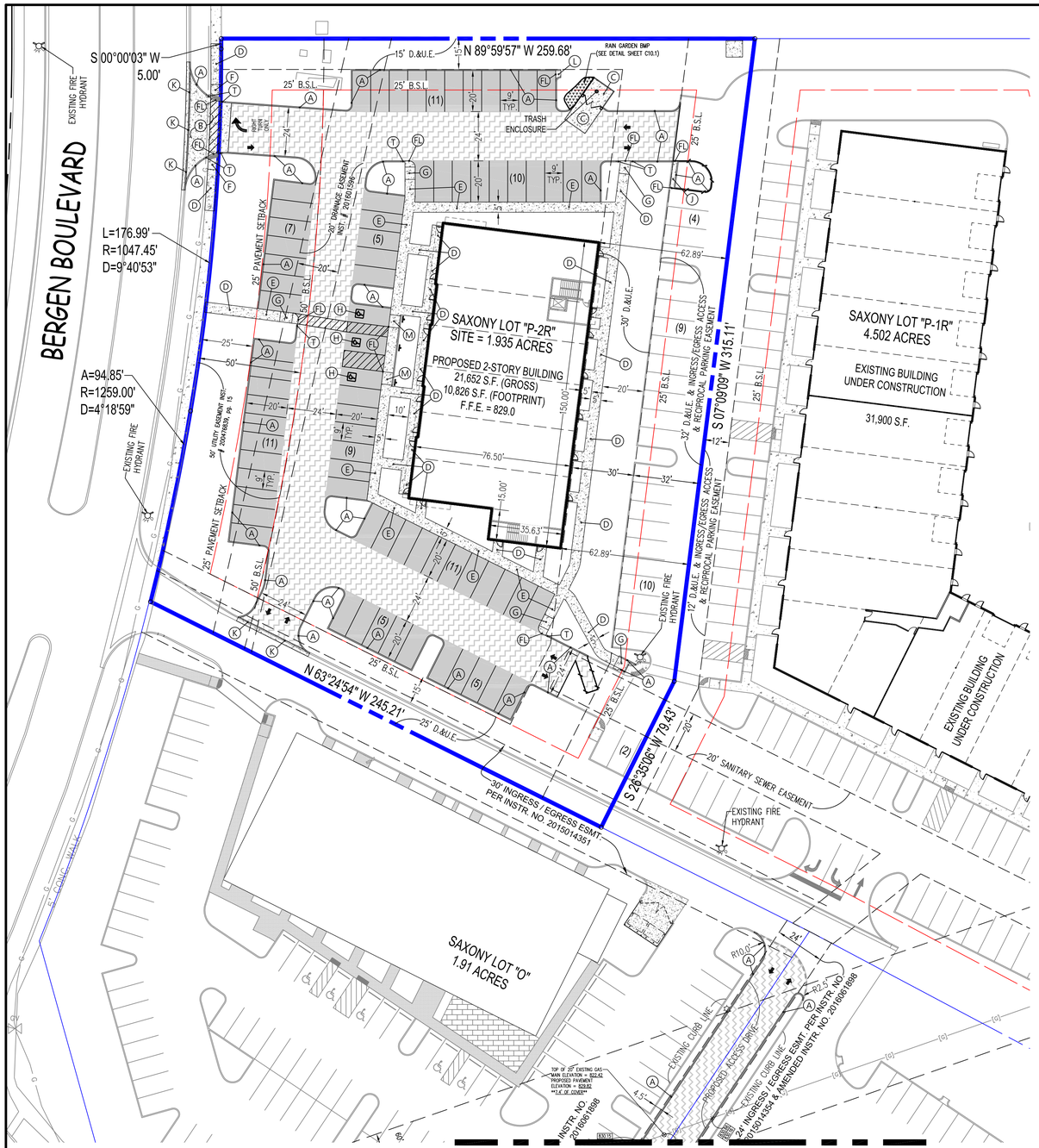
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

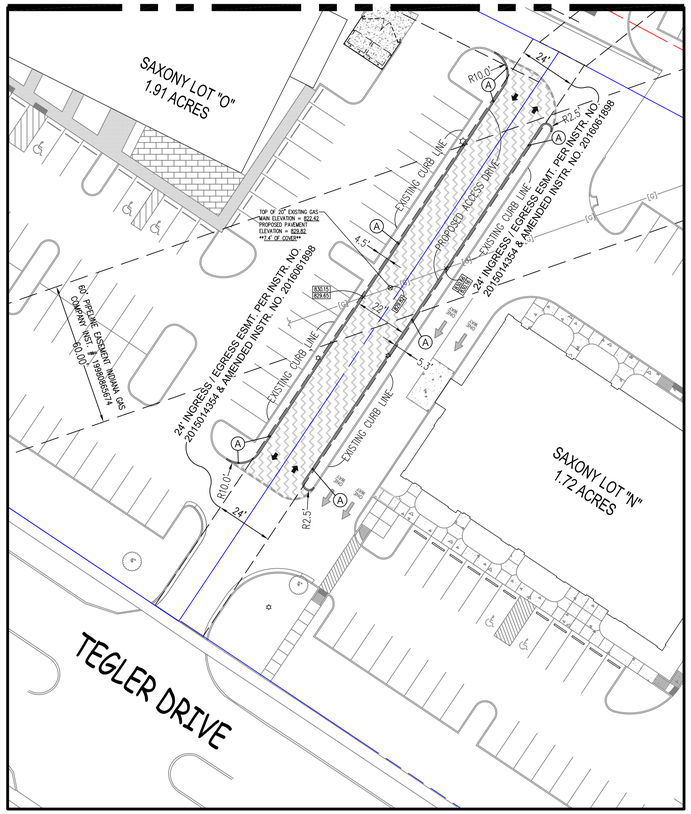
OVERALL SITE PLAN

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C2.0
SHEET 3 OF 53



SEE THIS SHEET FOR CONTINUATION



OFF-SITE DRIVEWAY CONNECTION

NORTH

30 0 15 30
(IN FEET)
1 inch = 30 ft.

Indiana 811 Know what's below. Call before you dig.

NOTE

REFER TO ARCHITECTURAL & FOUNDATION PLANS FOR ALL BUILDING DIMENSIONS.

LAND DESCRIPTION

SOURCE OF TITLE: INSTRUMENT NUMBER 2022027950

A PART OF THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 3 EAST OF THE SECOND PRINCIPAL MERIDIAN, LOCATED IN THE CITY OF NOBLESVILLE, HAMILTON COUNTY, INDIANA. AS SHOWN ON THE SECONDARY PLAT OF LOT P SAXONY CORPORATE CAMPUS RECORDED AS INSTRUMENT NUMBER 2024006758 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOT P OF SAXONY CORPORATE CAMPUS CONTAINING 6.437 ACRES MORE OR LESS.

NOTE

ALL ROADS & OFF-SITE ADJACENT PROPERTIES MUST BE BROUGHT BACK TO ORIGINAL OR BETTER CONDITION, INCLUDING BUT NOT LIMITED TO ASPHALT PAVEMENT STRIPING, CURB, SIDEWALKS & SIGNAGE.

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- BUILDING SETBACK LINE
- EASEMENT
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET C10.0)
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET C10.0)
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- B.S.L. BUILDING SETBACK LINE
- SAWCUT LIMITS
- 799.23 / 798.73 TOP OF CURB GRADE / PAVEMENT GRADE
- 798.25 PAVEMENT OR EARTH GRADE

PLAN NOTES:

- (A) 18" BOX CURB PER CITY OF NOBLESVILLE DETAILS (SHEET 4 OF 29)
- (B) CONCRETE COMMERCIAL DRIVE PER CITY OF NOBLESVILLE DETAILS (SHEET 5 OF 29)
- (C) CONCRETE PAVEMENT (SEE DETAIL SHEET C10.0)
- (D) CONCRETE SIDEWALK PER CITY OF NOBLESVILLE DETAILS (SHEET 6 OF 29)
- (E) COMBINED CONCRETE CURB & WALK (SEE DETAIL SHEET C10.0)
- (F) ADA COMPLIANT CURB RAMP (RAMP WITH BUFFER) PER CITY OF NOBLESVILLE DETAILS (SHEET 6 OF 29)
- (FL) FLUSH WITH PAVEMENT
- (G) ADA COMPLIANT CURB RAMP WITHOUT DETECTABLE WARNING STRIP
- (H) TYPICAL HANDICAP PARKING SPACE MARKINGS & SIGNAGE
- (J) 2' WIDE CONCRETE FLOW CHANNEL (MAINTAIN EX. CURB / GUTTER FLOWLINE)
- (K) DEPRESSED 'TYPE II' CURB & GUTTER PER CITY OF NOBLESVILLE DETAILS (SHEETS 4 & 5 OF 29)
- (L) CONCRETE CURB TURNOUT (SEE DETAIL SHEET C10.0)
- (M) ADA COMPLIANT CURB RAMP (PARALLEL CURB RAMP) PER CITY OF NOBLESVILLE DETAILS (SHEET 6 OF 29)
- (T) TAPER CURB FLUSH WITH PAVEMENT

CONTRACTOR:

MATTINGLY CONSTRUCTION
10150 LANTERN ROAD, STE. 250
FISHERS, INDIANA 46037
ATTN: STEVE MATTINGLY
(317) 577-8800

ENGINEER:

CIVIL SITE GROUP, INC.
718 ADAMS STREET
SUITE E
CARMEL, INDIANA 46032
(317) 810-1677

ARCHITECT:

PETERSON ARCHITECTURE
298 S. 10th STREET, SUITE 500
NOBLESVILLE, IN 46060
(317) 770-9714

SURVEYOR:

K&G LAND SURVEYING, INC.
P.O. BOX 70
ZIONSVILLE, INDIANA 46077
(317) 654-8829

SITE LAYOUT NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY, OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
2. ALL PARKING STRIPES ARE TO BE 4" PAINTED WHITE. UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS, OR SPECIFICATIONS.
3. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB/SIDEWALK, RADII TO BACK OF CURB, WHERE APPLICABLE.
4. ALL DIMENSIONS ARE TO OUTSIDE FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL BUILDING DIMENSIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD DIMENSIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
6. PROVIDE SMOOTH TRANSITION FROM NEWLY PAVED AREAS TO EXISTING AREAS AS NECESSARY. ALL AREAS WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE FREE OF ALL LOOSE DEBRIS. THE EDGE OF EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING.
7. ALL EXCAVATED AREAS TO BE SEEDED AND/OR SODDED AFTER FINISH GRADING UNLESS OTHERWISE NOTED. ALL NEWLY SODDED/SEEDED AREAS SHALL HAVE A MINIMUM OF 4" OF TOPSOIL. HOLD SOIL DOWN 1" FROM PAVEMENT ELEVATION. CONTRACTOR TO SUPPLY STRAW MULCH WHERE GRASS SEED HAS BEEN PLANTED.
8. RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS HAVE DAMAGED EXISTING PAVEMENT, LAWNS OR OTHER IMPROVEMENTS DURING CONSTRUCTION, AFTER CONSTRUCTION WORK IS COMPLETE.
9. ALL UTILITY TRENCHES WITHIN 5 FEET OF PAVEMENT SHALL BE COMPLETELY BACKFILLED WITH GRANULAR BACKFILL.
10. ALL RADII INDICATED SHALL BE CONSTRUCTED AS CIRCULAR ARCS.
11. ALL PARKING SPACE DIMENSIONS ARE TO 9' WIDE BY 18' DEEP UNLESS OTHERWISE SPECIFIED.

DEVELOPMENT SUMMARY - LOT "P-2R"

TOTAL SITE ACREAGE = 1.935 +/- ACRES
CURRENT ZONING = CCPD / SECONDARY CORRIDOR
(CORPORATE CAMPUS PLANNED DEVELOPMENT)
ADJACENT ZONING:
WEST = CCPD (BERGEN BOULEVARD)
SOUTH = CCPD (COMMERCIAL / MULTI-TENANT)
EAST = CCPD (HOTEL)
NORTH = CCPD (UNDEVELOPED / DETENTION POND)
PROPOSED BUILDING = 21,652± S.F. (GROSS)
10,826± S.F. (FOOTPRINT)
PROVIDED PARKING = 99 SPACES
REQUIRED PARKING = 65 SPACES (3/1000 S.F. - OFFICE)
GREENSPACE = 26,573 SF / 31.5% (25% REQUIRED PER ZONING)
IMPERVIOUS SURFACE = 68.5% (PAVEMENT, BUILDINGS, ETC...)

TOPOGRAPHIC & BOUNDARY NOTE

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN EXISTING CONDITIONS TOPOGRAPHIC AND UTILITY SURVEY SUPPLEMENTED WITH CIVIL CONSTRUCTION PLANS AND A SECONDARY PLAT ALL PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 12/07/2022 (PROJECT NO. 2021-0081); THEREFORE, CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

FLOOD NOTE

THIS LOT LIES ENTIRELY IN FLOOD HAZARD ZONE 'X' AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, COMMUNITY NAME CITY OF NOBLESVILLE, COMMUNITY NUMBER 180082, MAP NUMBER 18057O0256 G, PANEL NUMBER 0256 G, DATED NOVEMBER 19, 2014.

REFERENCE NFIP FIRM MAP #: 18057O0256 G
EFFECTIVE DATE: NOVEMBER 19, 2014

ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE OF ANY FEMA DESIGNATED SPECIAL FLOOD HAZARD AREAS (SFHA)

UTILITY LOCATE NOTE

INDIANA 811 FAILED TO LOCATE ALL EXISTING UTILITIES ON AND/OR SURROUNDING THE SUBJECT SITE; THEREFORE, CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ANY EXISTING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF THE PROPOSED IMPROVEMENTS INTERFERE WITH ANY EXISTING UTILITY INFORMATION NOT SHOWN ON THESE PLANS.

SEE SHEET C9.0 FOR FIRE TRUCK ACCESS & TURNING TEMPLATES

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG

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9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

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718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISNER REGISTERED № PE10403858 STATE OF INDIANA PROFESSIONAL ENGINEER
DATE: 07/13/24

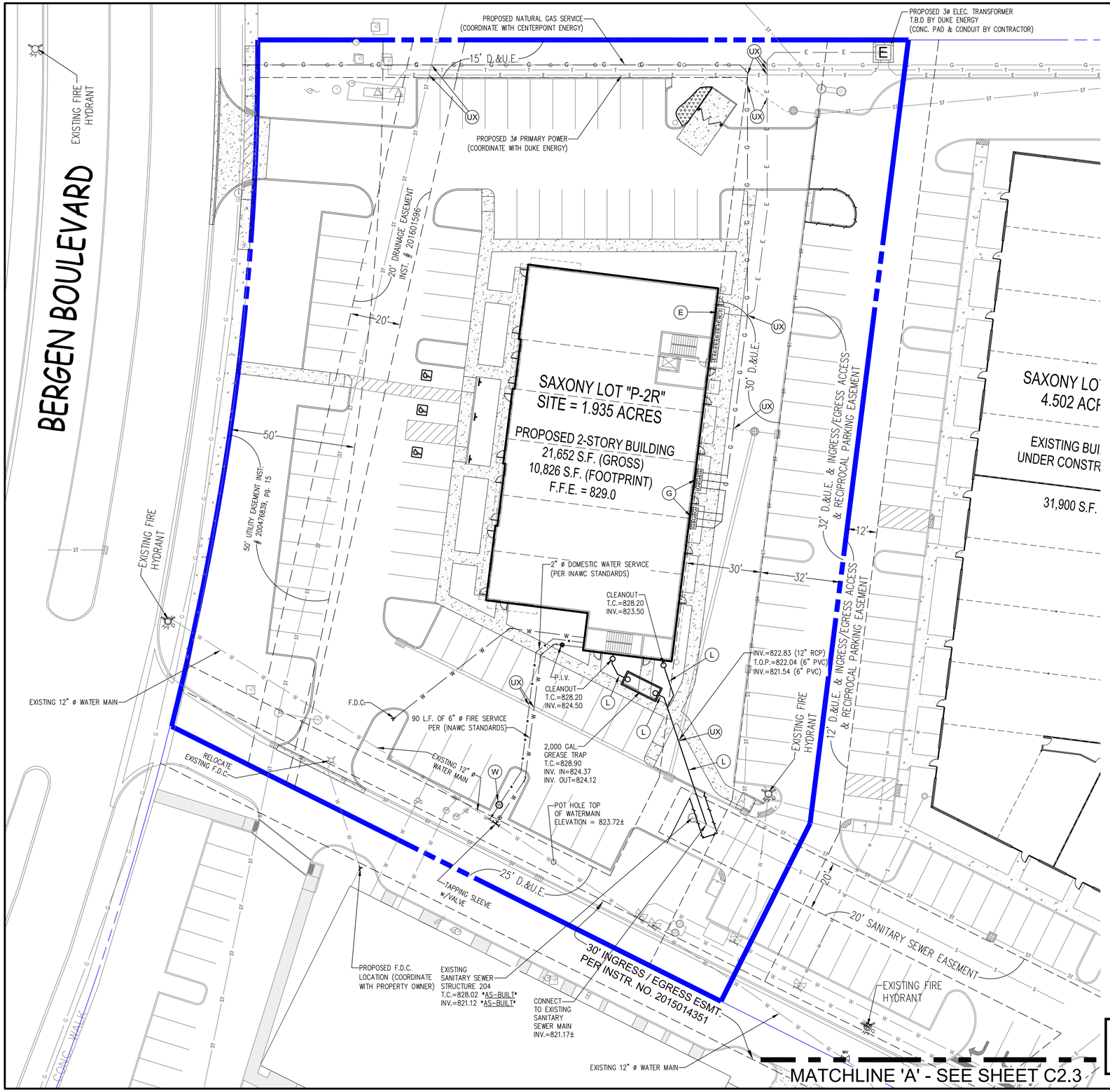
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

DETAILED SITE PLAN

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C2.1
SHEET 4 OF 53



LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- EASEMENT
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- SAWCUT LIMITS
- PROPOSED STORM SEWER
- PROPOSED ELECTRIC / TELECOM SERVICE
- PROPOSED WATER SERVICE
- PROPOSED GAS SERVICE
- PROPOSED SANITARY LATERAL
- PROPOSED PRIMARY 3ø (DUKE ENERGY) ELECTRIC TRANSFORMER
- EX. UNDERGROUND SANITARY SEWER LINE
- EX. UNDERGROUND STORM SEWER LINE
- EX. UNDERGROUND WATER LINE
- EX. UNDERGROUND GAS LINE
- EX. UNDERGROUND TELECOM
- EX. UNDERGROUND ELECTRIC

NORTH

20 0 10 20

(IN FEET)
1 inch = 20 ft.

Indiana 811 Know what's below. Call before you dig.

NOTE

REFER TO ARCHITECTURAL & FOUNDATION PLANS FOR ALL BUILDING DIMENSIONS.

UTILITIES

GAS
CENTERPOINT ENERGY
ATTN: CHAD MILLER
(317) 776-5590

TELEPHONE
AT&T
ATTN: WENDY NOBLE
6317) 610-5437

WATER
INDIANA AMERICAN WATER COMPANY
ATTN: JOSH COX
15227 HERRIMAN BOULEVARD
NOBLESVILLE, IN 46060
(317) 773-2497

ELECTRIC
DUKE ENERGY
ATTN: ERIC LONG
100 SOUTH MILL CREEK ROAD
NOBLESVILLE, IN 46060
(317) 776-5336

STORM SEWER
CITY OF NOBLESVILLE
16 SOUTH 10th STREET
NOBLESVILLE, IN 46060
(317) 776-6330

HAMILTON CO. SURVEYOR
ATTN: STEVE CASH
ONE HAMILTON COUNTY SQUARE
NOBLESVILLE, IN 46060
(317) 776-8495

NOTE:
THE SIZE AND LOCATION OF UTILITIES ARE PER PLANS AND LOCATIONS PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. ALL UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO ANY EXCAVATION FOR FIELD LOCATION OF SERVICES.

PLAN NOTES:

(W) 2" SERVICE TAP w/CORPORATION STOP & 2" WATER METER IN PIT PER INDIANA AMERICAN WATER COMPANY STANDARDS (COORDINATE WITH INAWC FOR APPROPRIATE DETAILS, SIZING & LOCATION)

(E) C.T. CABINET FOR MULTIPLE ELECTRIC METERS (3 ø POWER) PER DUKE ENERGY STANDARDS

(G) MULTIPLE GAS METERS PER CENTERPOINT ENERGY STANDARDS

(UX) UTILITY CROSSING

(V) FIRE SERVICE VAULT PER INDIANA AMERICAN WATER COMPANY STANDARDS (COORDINATE WITH INAWC FOR APPROPRIATE DETAILS, SIZING & LOCATION)

(L) 6" SANITARY SEWER LATERAL (SDR 26 PVC) @1.04% MIN. SLOPE PER CITY OF NOBLESVILLE STANDARDS

UTILITY LOCATE NOTE

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TOPOGRAPHIC & BOUNDARY NOTE

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN EXISTING CONDITIONS TOPOGRAPHIC AND UTILITY SURVEY SUPPLEMENTED WITH CIVIL CONSTRUCTION PLANS AND A SECONDARY PLAT ALL PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 12/07/2022 (PROJECT NO. 2021-0081); THEREFORE, CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

FLOOD NOTE

THIS LOT LIES ENTIRELY IN FLOOD HAZARD ZONE 'X' AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, COMMUNITY NAME CITY OF NOBLESVILLE, COMMUNITY NUMBER 180082, MAP NUMBER 18057C0256 G, PANEL NUMBER 0256 G, DATED NOVEMBER 19, 2014.

REFERENCE NFIP FIRM MAP #: 18057C0256 G
EFFECTIVE DATE: NOVEMBER 19, 2014

ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE OF ANY FEMA DESIGNATED SPECIAL FLOOD HAZARD AREAS (SFHA)

NOTE

ALL ROADS & OFF-SITE ADJACENT PROPERTIES MUST BE BROUGHT BACK TO ORIGINAL OR BETTER CONDITION, INCLUDING BUT NOT LIMITED TO ASPHALT PAVEMENT STRIPING, CURB, SIDEWALKS & SIGNAGE.

UTILITY VALVE NOTE

ALL UTILITY VALVES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINAL GRADE AS NEEDED TO BE FLUSH WITH FINISHED PAVEMENT, SIDEWALK OR LANDSCAPE AREA.

IRRIGATION NOTE

SITE IRRIGATION IS NOT SHOWN ON THESE PLANS. IF SITE IRRIGATION IS REQUIRED, CONTRACTOR SHALL WORK WITH THE LOCAL WATER UTILITY TO DETERMINE THE REQUIREMENTS & LOCATION FOR THE IRRIGATION METER & SITE IRRIGATION SYSTEM.

SITE LIGHTING NOTE

SITE LIGHTING IS NOT SHOWN ON THESE PLANS. 2-1½" CONDUITS (SITE LIGHTING & SECURITY) REQUIRED TO ALL SITE LIGHTING LOCATIONS. ALL CONDUIT RUNS SHALL BE TRENCHED INSTALLED WITH COMPACTED GRANULAR BACKFILL TO PAVEMENT SUBGRAD – PLOWED OR RAKED INSTALLATION OF CONDUITS ARE PROHIBITED.

UTILITY NOTES

1. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO THEIR PHASE OF WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES FOR PROPER STAKE LOCATIONS FOR EACH UTILITY BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER OR THE ENGINEER OF ANY CHANGES, OMISSIONS, OR ERRORS FOUND ON THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.
2. STANDARD SPECIFICATIONS FOR THE LOCAL GOVERNING AGENCY SHALL APPLY FOR ALL SANITARY SEWERS, STORM SEWERS, AND WATER MAINS.
3. ANY PART OF THE SANITARY OR STORM SEWER TRENCHES RUNNING UNDER PAVED AREAS TO BE BACKFILLED WITH GRANULAR MATERIAL.
4. ALL WATER MAINS & WATER SERVICES TO HAVE **60" MINIMUM COVER** OVER TOP OF PIPE.
5. STERILIZATION OF WATER MAIN SHALL BE IN ACCORDANCE WITH STATE BOARD OF HEALTH REQUIREMENTS. (APPLIES TO COMMERCIAL ONLY)
6. CONTRACTOR RESPONSIBLE TO INSTALL ALL UNDERGROUND CONDUIT PER UTILITY COMPANY'S SPECIFICATIONS.
7. CONTRACTOR RESPONSIBLE FOR RESTORATION TO ALL AREAS AFFECTED DURING CONSTRUCTION. REFER TO THE TOWN OF FISHERS STANDARDS FOR RESTORATION REQ'S.
8. CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AT ANY PROPOSED CROSSING AND PROVIDE EXISTING TOP OF PIPE ELEVATIONS WITHIN 10 DAYS OF NOTICE TO PROCEED. PROVIDE CONCRETE CRADLE AS REQUIRED FOR ANY VERTICAL SEPARATION LESS THAN 18 INCHES.

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/18/24	REVISED SANITARY SEWER LATERAL	EAG	EAG

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DWN BY:	EAG
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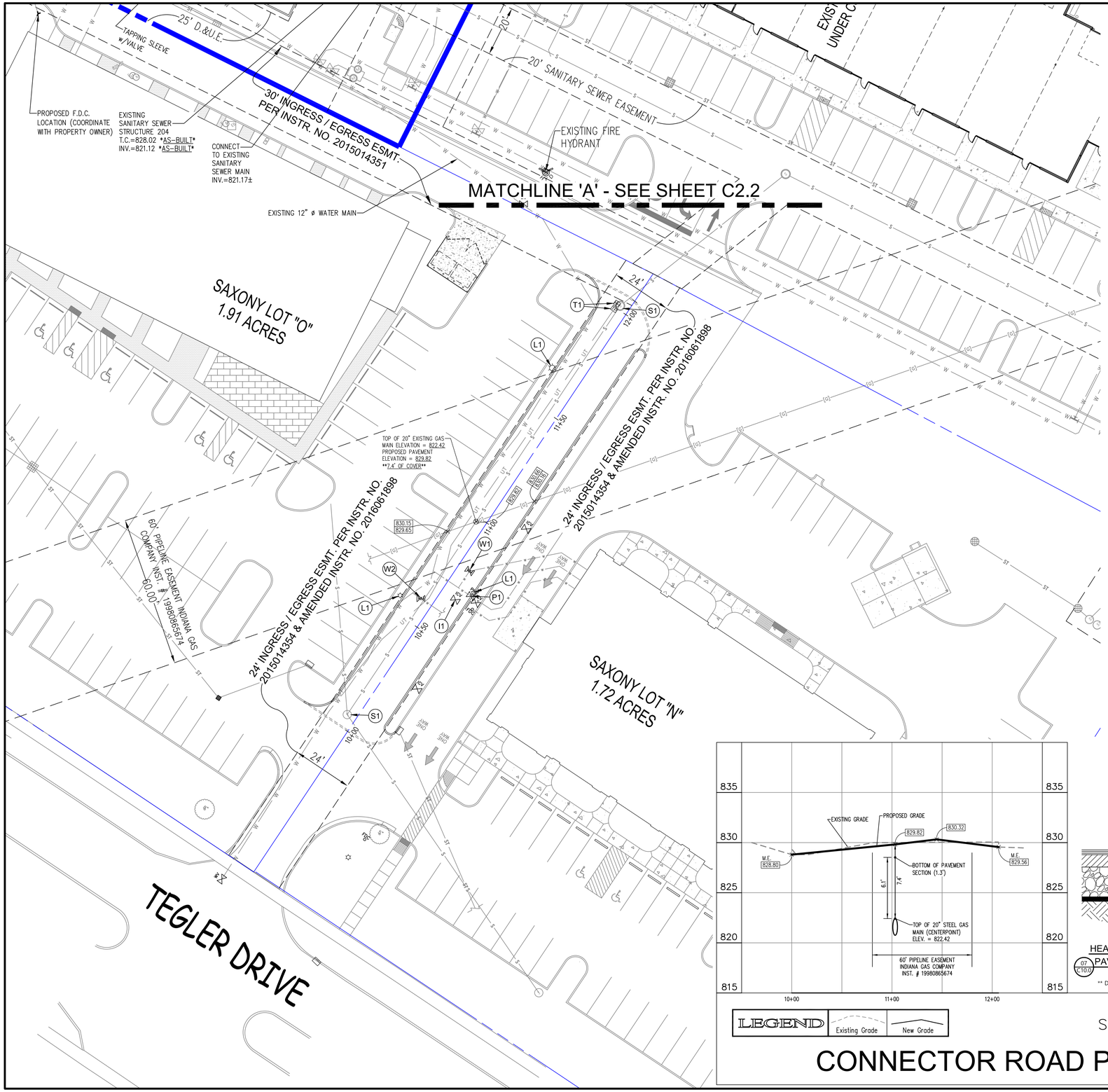
BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

UTILITY PLAN
(SHEET 1 OF 2)

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C2.2
SHEET 5 OF 53



LEGEND | Existing Grade | New Grade

SCALE: HORZ.: 1"=50' VERT.: 1"=5'

CONNECTOR ROAD PROFILE

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- EASEMENT
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- SAWCUT LIMITS
- PROPOSED STORM SEWER
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- PROPOSED WATER SERVICE
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- TOP OF CURB GRADE / PAVEMENT GRADE
- PAVEMENT OR EARTH GRADE

NORTH

20 0 10 20
(IN FEET)
1 inch = 20 ft.

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PLAN NOTES:

(W1) RELOCATE EXISTING DOMESTIC WATER METER (COORDINATE WITH PROPERTY OWNER & INAWC)

(W2) RELOCATE EXISTING IRRIGATION WATER METER (COORDINATE WITH PROPERTY OWNER & INAWC)

(I1) RELOCATE EXISTING IRRIGATION CONTROL VALVE (COORDINATE WITH PROPERTY OWNER)

(P1) RELOCATE EXISTING POST INDICATOR VALVE (COORDINATE WITH PROPERTY OWNER, NOBLESVILLE FIRE DEPARTMENT & INAWC)

(L1) EXISTING LIGHT POLE (LOCATION TO BE FIELD VERIFIED / MAY REQUIRE RELOCATION)

(S1) ADJUST SANITARY SEWER CASTING TO GRADE

(T1) RELOCATE EXISTING TELECOM BOXES (COORDINATE WITH UTILITY PROVIDER)

(UX) UTILITY CROSSING

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NOTE

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SITE LIGHTING NOTE

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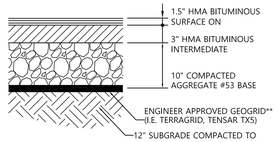

HEAVY DUTY ASPHALT PAVEMENT SECTION
07 C10.0
NOT TO SCALE
** DESIGNATES CONSTRUCTION ALTERNATE, IF NEEDED

UTILITY VALVE NOTE

ALL UTILITY VALVES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINAL GRADE AS NEEDED TO BE FLUSH WITH FINISHED PAVEMENT, SIDEWALK OR LANDSCAPE AREA.

UTILITY LOCATE NOTE

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IRRIGATION NOTE

SITE IRRIGATION IS NOT SHOWN ON THESE PLANS. IF SITE IRRIGATION IS REQUIRED, CONTRACTOR SHALL WORK WITH THE LOCAL WATER UTILITY TO DETERMINE THE REQUIREMENTS & LOCATION FOR THE IRRIGATION METER & SITE IRRIGATION SYSTEM.

FLOOD NOTE

THIS LOT LIES ENTIRELY IN FLOOD HAZARD ZONE "X" AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, COMMUNITY NAME CITY OF NOBLESVILLE, COMMUNITY NUMBER 180082, MAP NUMBER 18057C0256 G, PANEL NUMBER 0256 G, DATED NOVEMBER 19, 2014.

REFERENCE NFIP FIRM MAP #: 18057C0256 G
EFFECTIVE DATE: NOVEMBER 19, 2014

ZONE "X" = AREAS DETERMINED TO BE OUTSIDE OF ANY FEMA DESIGNATED SPECIAL FLOOD HAZARD AREAS (SFHA)

UTILITY NOTES

1. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO THEIR PHASE OF WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES FOR PROPER STAKE LOCATIONS FOR EACH UTILITY BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER OR THE ENGINEER OF ANY CHANGES, OMISSIONS, OR ERRORS FOUND ON THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.
2. STANDARD SPECIFICATIONS FOR THE LOCAL GOVERNING AGENCY SHALL APPLY FOR ALL SANITARY SEWERS, STORM SEWERS, AND WATER MAINS.
3. ANY PART OF THE SANITARY OR STORM SEWER TRENCHES RUNNING UNDER PAVED AREAS TO BE BACKFILLED WITH GRANULAR MATERIAL.
4. ALL WATER MAINS & WATER SERVICES TO HAVE **60" MINIMUM COVER** OVER TOP OF PIPE.
5. STERILIZATION OF WATER MAIN SHALL BE IN ACCORDANCE WITH STATE BOARD OF HEALTH REQUIREMENTS. (APPLIES TO COMMERCIAL ONLY)
6. CONTRACTOR RESPONSIBLE TO INSTALL ALL UNDERGROUND CONDUIT PER UTILITY COMPANY'S SPECIFICATIONS.
7. CONTRACTOR RESPONSIBLE FOR RESTORATION TO ALL AREAS AFFECTED DURING CONSTRUCTION, REFER TO THE TOWN OF FISHERS STANDARDS FOR RESTORATION REQ'S.
8. CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AT ANY PROPOSED CROSSING AND PROVIDE EXISTING TOP OF PIPE ELEVATIONS WITHIN 10 DAYS OF NOTICE TO PROCEED. PROVIDE CONCRETE CRADLE AS REQUIRED FOR ANY VERTICAL SEPARATION LESS THAN 18 INCHES.

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/18/24	REVISED SANITARY SEWER LATERAL	EAG	EAG

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC. — CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISSNER — REGISTERED — Nº PE10403858 — STATE OF INDIANA — PROFESSIONAL ENGINEER

DATE: 07/13/24

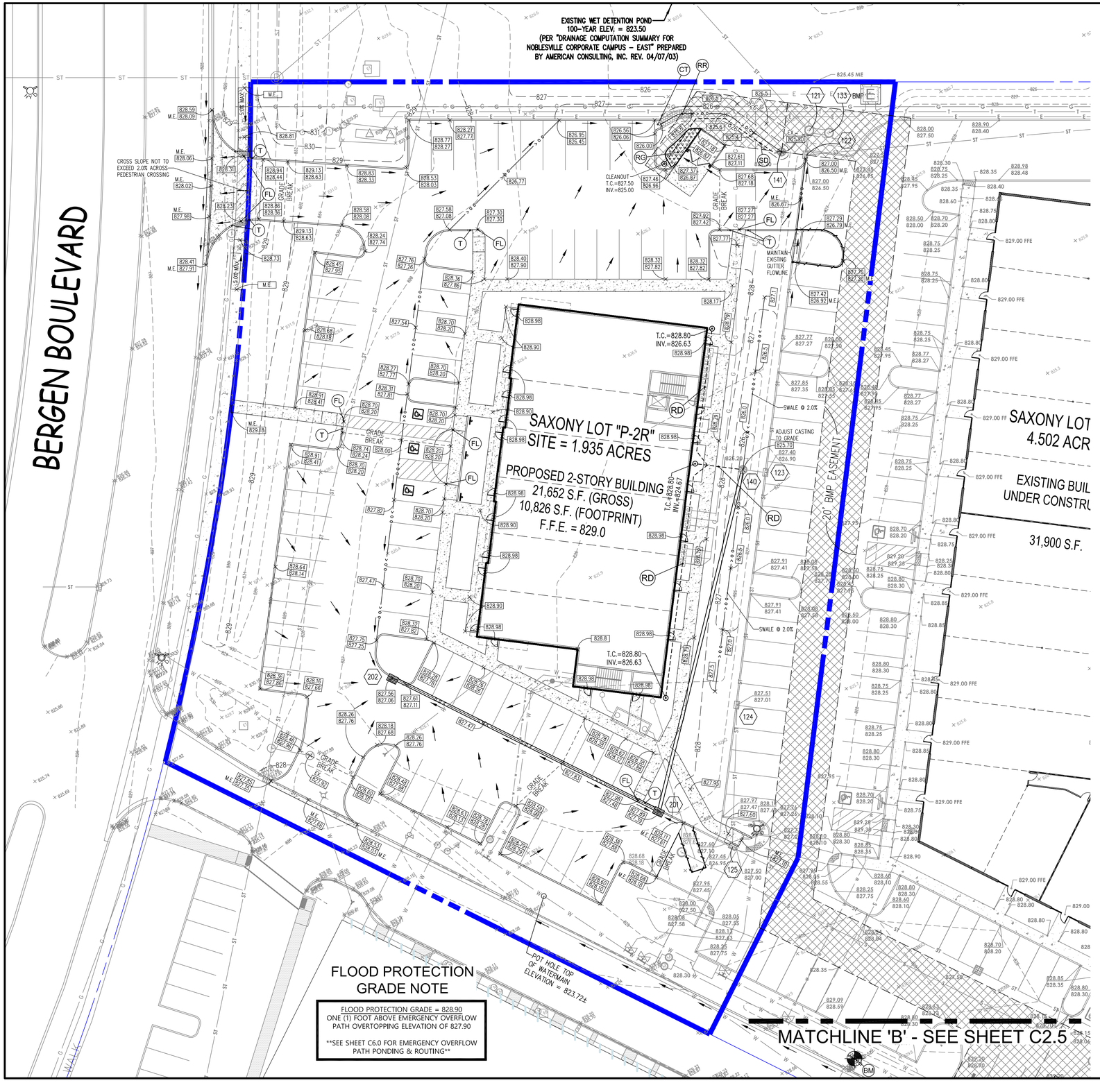
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 20'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

UTILITY PLAN
(SHEET 2 OF 2)

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C2.3
SHEET 6 OF 53



FLOOD PROTECTION GRADE NOTE

FLOOD PROTECTION GRADE = 828.90
ONE (1) FOOT ABOVE EMERGENCY OVERFLOW PATH OVERTOPPING ELEVATION OF 827.90

SEE SHEET C6.0 FOR EMERGENCY OVERFLOW PATH PONDING & ROUTING

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- SAWCUT LIMITS
- PROPOSED STORM SEWER
- PROPOSED ELECTRIC / TELECOM SERVICE
- PROPOSED WATER SERVICE
- PROPOSED GAS SERVICE
- PROPOSED SANITARY LATERAL
- PROPOSED PRIMARY 3Ø (DUKE ENERGY) ELECTRIC TRANSFORMER
- EX. UNDERGROUND SANITARY SEWER LINE
- EX. UNDERGROUND STORM SEWER LINE
- EX. UNDERGROUND WATER LINE
- EX. UNDERGROUND GAS LINE
- EX. UNDERGROUND TELECOM
- EX. UNDERGROUND ELECTRIC
- DRAINAGE FLOW ARROW
- STORM STRUCTURE NUMBER
- TOP OF CURB GRADE / PAVEMENT GRADE
- PAVEMENT OR EARTH GRADE
- M.E. MATCH EXISTING GRADE
- EX. EXISTING GRADE
- 847 EXISTING CONTOUR
- 847 PROPOSED CONTOUR
- FLOWLINE
- BMP EASEMENT

PLAN NOTES:

(T) TAPER CURB FLUSH WITH PAVEMENT
(FL) SIDEWALK FLUSH WITH PAVEMENT
(CT) CONCRETE CURB TURNOUT (SEE DETAIL SHEET C10.0)
(RD) ROOF DRAIN / CONNECT ALL DOWNSPOUTS (8" ø SDR 35 PVC @ 2.0% MIN. SLOPE)
(RG) RAIN GARDEN (SEE DETAIL SHEET C10.1)
(RR) 12" OF RIP-RAP OVER GEOTEXTILE
(SD) 6" ø SUB-SURFACE DRAIN @ 1.0% MIN. SLOPE (SEE RAIN GARDEN DETAIL SHEET C10.1)
(BM) BENCHMARK: TBM1 ELEVATION 831.52 (NORTH BONNET BOLT OF FIRE HYDRANT) REFERENCE CONSTRUCTION PLANS FOR BERGEN BUSINESS PARK PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS (LATEST REV. 08/14/23)

NOTE

ALL ROADS & OFF-SITE ADJACENT PROPERTIES MUST BE BROUGHT BACK TO ORIGINAL OR BETTER CONDITION, INCLUDING BUT NOT LIMITED TO ASPHALT PAVEMENT STRIPING, CURB, SIDEWALKS & SIGNAGE.

STORM SEWER INLET NOTE

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

STORM SEWER SYSTEM NOTE

ALL ON-SITE STORM SEWER INFRASTRUCTURE TO BE CONSTRUCTED WITH THIS PROJECT SHALL BE PRIVATELY OWNED AND MAINTAINED.

UTILITY VALVE NOTE

ALL UTILITY VALVES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINAL GRADE AS NEEDED TO BE FLUSH WITH FINISHED PAVEMENT, SIDEWALK OR LANDSCAPE AREA.

NOTE

18" OF VERTICAL SERARATION MUST BE MAINTAINED FOR ALL UTILITY CROSSINGS.

NORTH

20 0 10 20
(IN FEET)
1 inch = 20 ft.

Indiana 811 — Know what's below. Call before you dig.

NOTE

REFER TO ARCHITECTURAL & FOUNDATION PLANS FOR ALL BUILDING DIMENSIONS.

TOPOGRAPHIC & BOUNDARY NOTE

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN EXISTING CONDITIONS TOPOGRAPHIC AND UTILITY SURVEY SUPPLEMENTED WITH CIVIL CONSTRUCTION PLANS AND A SECONDARY PLAT ALL PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 12/07/2022 (PROJECT NO. 2021-0081); THEREFORE, CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

UTILITY LOCATE NOTE

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FLOOD NOTE

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CONTRACTOR TO KEEP EXISTING PAVEMENT SURROUNDING THE SITE "BROOM CLEAN" AND FREE OF SOIL OR AGGREGATE THAT MIGHT BE BROUGHT OFF-SITE.

DEPENDING ON THE CONSTRUCTION SEASON, MOISTURE CONTENT AND PROPERTIES OF THE SOILS ON SITE, CHEMICAL MODIFICATIONS AND/OR LIME STABILIZATION MAY BE REQUIRED. SEE SHEET C11.0 FOR SPECIFICATIONS.

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4. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START, TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
5. TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH ENGINEERED GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
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7. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING, IN ALL AREAS, AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, "BIRD BATH" CONDITIONS.
8. ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
9. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
10. FLOW LINE ELEVATIONS GIVEN AT END OF CONCRETE END SECTIONS.
11. SIDEWALK AGAINST BUILDING SHALL SLOPE AWAY FROM BUILDING AT 1.04% SLOPE MIN.

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DATE: 07/13/24

DWN BY:	EAG
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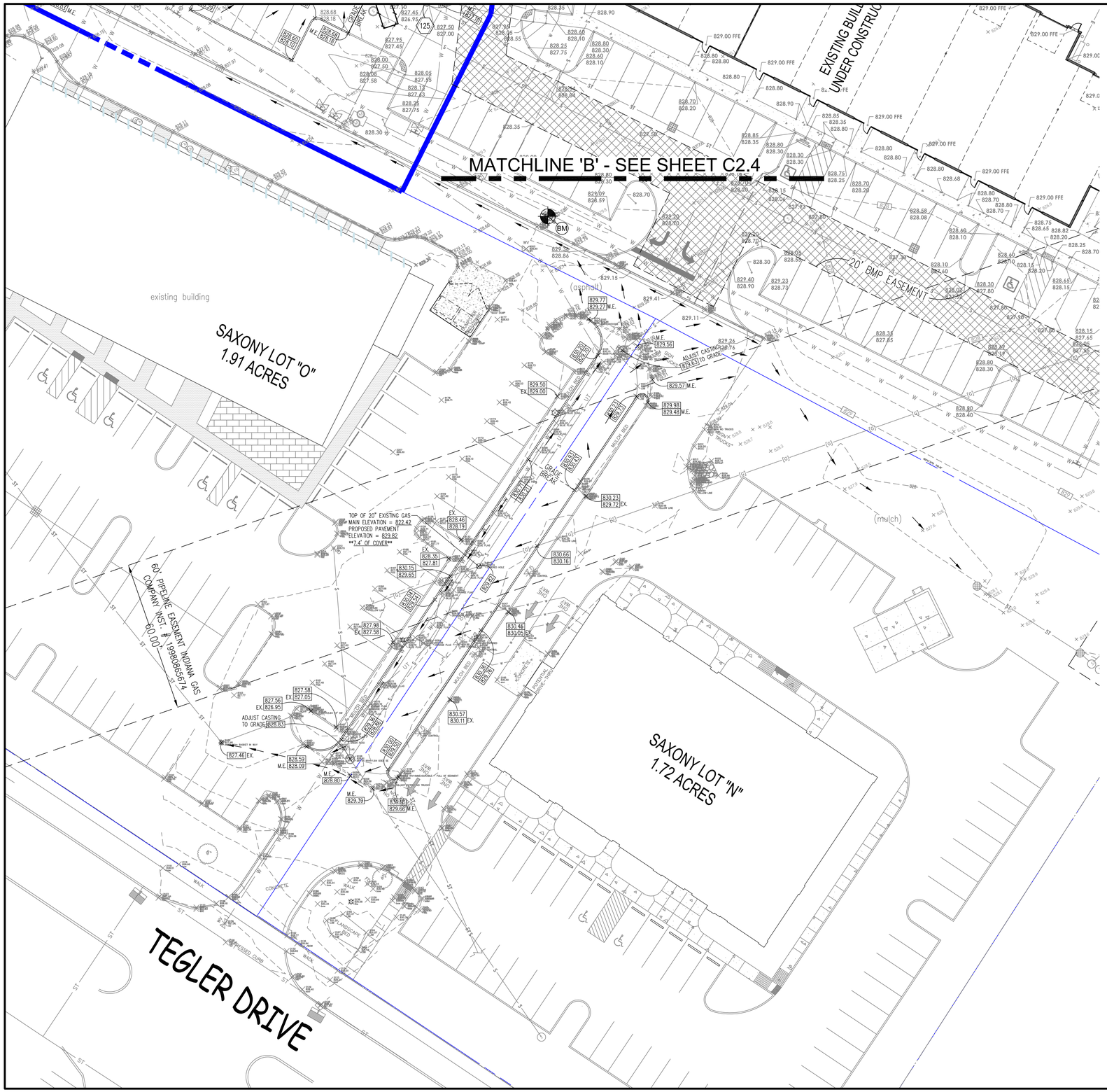
BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

GRADING & DRAINAGE PLAN
(SHEET 1 OF 2)

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C2.4
SHEET 7 OF 53



LEGEND:

- PROPERTY BOUNDARY
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- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
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PLAN NOTES:

(T) TAPER CURB FLUSH WITH PAVEMENT

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(CT) CONCRETE CURB TURNOUT (SEE DETAIL SHEET C10.0)

(RD) ROOF DRAIN / CONNECT ALL DOWNSPOUTS (8" ø SDR 35 PVC @ 2.0% MIN. SLOPE)

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20 0 10 20
(IN FEET)
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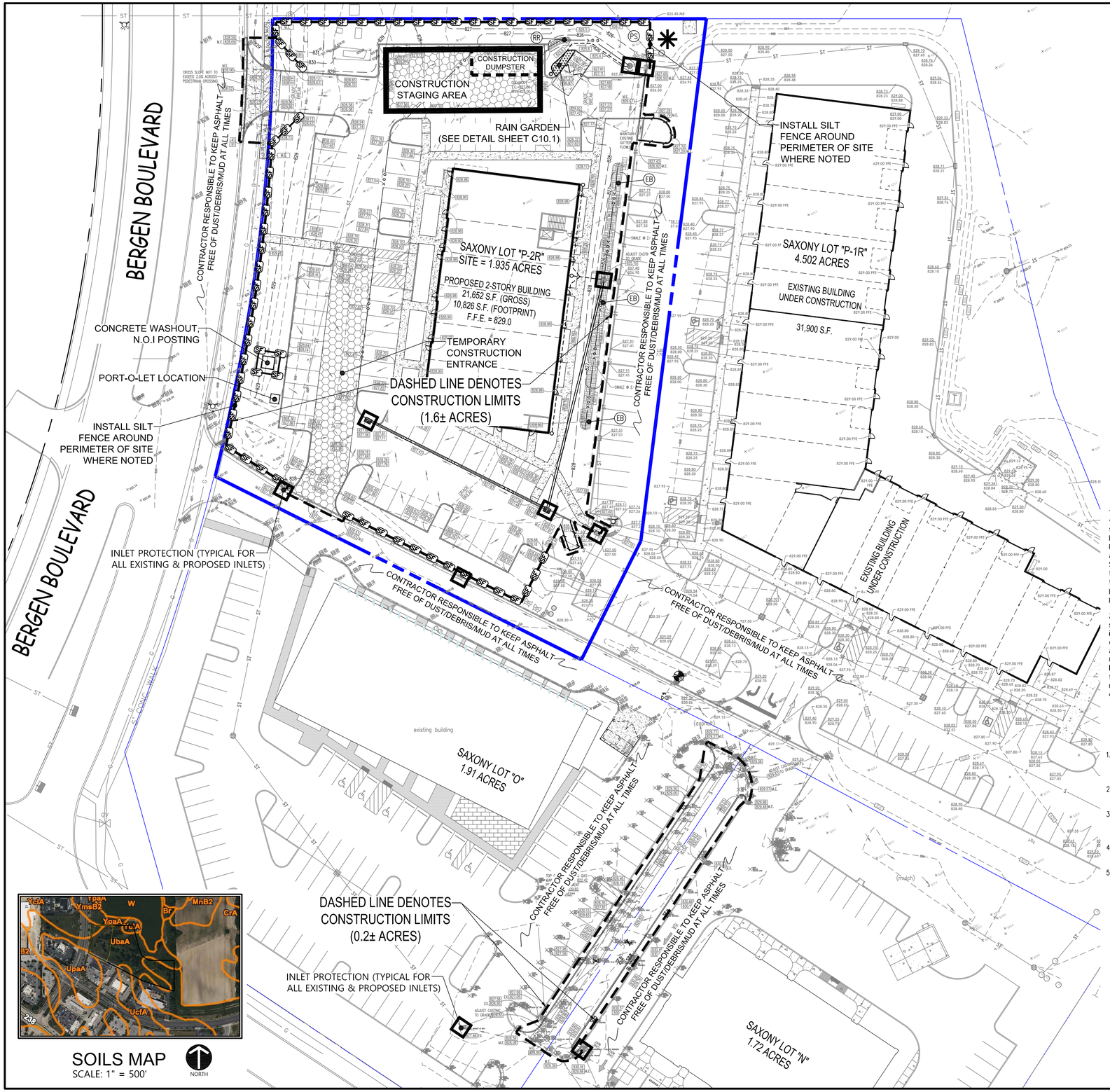
BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

GRADING & DRAINAGE PLAN
(SHEET 2 OF 2)

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C2.5
SHEET 8 OF 53



SOILS MAP
SCALE: 1" = 500'
NORTH

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- SAWCUT LIMITS
- PROPOSED STORM SEWER
- DRAINAGE FLOW ARROW
- 799.73 / 798.73 — TOP OF CURB GRADE / PAVEMENT GRADE
- 798.25 — PAVEMENT OR EARTH GRADE
- M.E. — MATCH EXISTING GRADE
- EX. — EXISTING GRADE
- 847 — EXISTING CONTOUR
- 847 — PROPOSED CONTOUR
- FLOWLINE
- CONSTRUCTION LIMITS
- SF — PROPOSED SILT FENCE–Typical in all areas where sediment could leave the site.
- RR — RIP–RAP (SEE DETAIL SHEET C10.0)
- PS — Permanent Seeding and/or Temporary Seeding with straw mulch – Typical after final grading is completed or if areas will be idle of construction activities for a period of 7 days or more.
- EB — PROPOSED EROSION CONTROL BLANKET (SEE CITY OF NOBLESVILLE DETAILS)
- Point where stormwater will leave the site.
- Basket Inlet Protection – Typical for all paved area inlets AFTER pavement is installed; Silt Fence cage & Dandy Bags BEFORE pavement is installed.

NOTE: STABILIZATION OF INACTIVE, UNVEGETATED AREAS MUST BE INITIATED BY THE END OF THE 7th DAY OF INACTIVITY AND COMPLETED WITHIN 14 DAYS AFTER INITIATION.

NORTH

30 0 15 30
(IN FEET)
1 inch = 30 ft.

Indiana 811 — Know what's below. Call before you dig.

EROSION CONTROL CONTACT:

HTC PARTNERS, LLC
ATTN: STEVE SHEA
9738 GULFSTREAM DRIVE
FISHERS, IN 46037
(317) 694-0944

MULCHING NOTE

WHERE REQUIRED, CRIMPED/ANCHORED MULCH OR MULCH WITH A TACKING AGENT SHALL BE USED. THE APPLICATION RATE SHOULD MEET GUIDELINES PER PRACTICE 3.15 OF THE INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS.

DEVELOPMENT SUMMARY

TOTAL SITE AREA = 1.94 ACRES +/-
TOTAL DISTURBED AREA = 1.80 ACRES +/-

THERE SHALL BE NO DIRT, DEBRIS, OR STORAGE OF MATERIAL IN THE STREET

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

SOILS DESCRIPTIONS & LIMITATIONS

1. Crosby Silt Loam (YclA - 11% Site) The Crosby series consists of very deep, somewhat poorly drained soils that are moderately deep to dense till on till plains. These soils formed in loamy till that can be capped with up to 22 inches of loess or silty material. Permeability is moderate or moderately slow in and above the argillic horizon and slow or very slow below the argillic horizon. Slope ranges from 0 to 6 percent. Subject soil does not present any foreseeable limitations to the proposed development. Given that this soil is found in the area of a proposed wet pond and permeability may be moderate, soils testing will need to be performed to determine if a clay or synthetic liner will be required.

2. Brookston Silty Clay Loam (UbaA - 89% Site) The Brookston series consists of very deep, poorly drained soils formed in up to 20 inches of silty material and the underlying loamy till in depressions on till plains and moraines. Permeability is moderate in the subsoil and moderately slow in the underlying material. Slope ranges from 0 to 3 percent. Subject soil does not present any foreseeable limitations to the proposed development. Given that this soil is found in the area of a proposed wet pond and permeability may be moderate, soils testing will need to be performed to determine if a clay or synthetic liner will be required.

GENERAL NOTES

1. CONTRACTOR TO SCHEDULE A PRE–CONSTRUCTION MEETING WITH THE HAMILTON COUNTY SURVEYOR'S OFFICE (317–776–8495) PRIOR TO COMMENCING WITH CONSTRUCTION.
2. TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE STANDARDS.
3. ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL UTILITY LOCATIONS BEFORE CONSTRUCTION BEGINS.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL EXISTING ELEVATIONS BEFORE CONSTRUCTION BEGINS.

STORM SEWER INLET NOTE

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

STORM SEWER SYSTEM NOTE

ALL ON-SITE STORM SEWER INFRASTRUCTURE TO BE CONSTRUCTED WITH THIS PROJECT SHALL BE PRIVATELY OWNED AND MAINTAINED.

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DEPENDING ON THE CONSTRUCTION SEASON, MOISTURE CONTENT AND PROPERTIES OF THE SOILS ON SITE, CHEMICAL MODIFICATIONS AND/OR LIME STABILIZATION MAY BE REQUIRED. SEE SHEET C11.0 FOR SPECIFICATIONS.

EROSION CONTROL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
2. LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION.
3. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
4. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN THE RECEIVING STREAM. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
5. WASTES AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORMWATER RUNOFF. PROPER DISPOSAL OF ALL WASTES AND UNUSED BUILDING MATERIALS IS REQUIRED.
6. SEDIMENT BEING TRACED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
7. SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND REDISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
8. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
9. ALL EXISTING STRUCTURES, FENCING, TREES AND ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE. BURNING IS NOT ALLOWED ON-SITE.
10. SCHEDULE OF EARTHWORK ACTIVITIES:
    a) THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED SOON AS POSSIBLE. TEMPORARY VEGETATION OR MULCHING SHALL BE USED TO PROTECT EXPOSED AREAS IF PERMANENT VEGETATION CANNOT BE SEEDED WITHIN 14 DAYS OR ACTIVITY CEASES FOR MORE THAN 21 DAYS OR AS DIRECTED BY THE ENGINEER.
    b) TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIME OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC. — CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISNER — REGISTERED — Nº PE10403858 — STATE OF INDIANA — PROFESSIONAL ENGINEER

DATE: 07/13/24

DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

STORMWATER POLLUTION PREVENTION PLAN

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C3.0
SHEET 9 OF 53

FERTILIZER NOTE

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

SEEDBED PREPARATION

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

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

SEEDING

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

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

RANKING:
1 GOOD
2 MEDIUM
- NOT TOLERANT

SALT TOLERANCE (TO BOTH SOIL SALTS & SPRAY)
T TOLERANCE
MT MEDIUM TOLERANCE
S SLIGHT TOLERANCE

SEED TOLERANCE

TEMPORARY SEEDING DATES

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

PERMANENT SEEDING DATES

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

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

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

** INCREASE SEEDING APPLICATION BY 50%.

FERTILIZER NOTE

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

SPECIES	SEEDING RATE		SUITABLE pH	SITE SUITABILITY *		
	LBS/ACRE	LBS/1000 SQ. FT.		DROUGHTY	WELL DRAINED	WET
LEVEL AND SLOPING, OPEN AREAS						
1. TALL FESCUE	35	.8	5.5-8.3	2	1	2
2. TALL FESCUE	25	.6	5.5-8.3		1	
RED CLOVER	5	.12				
3. KENTUCKY BLUEGRASS	15	.4	5.8-7.5	2	1	
CREEPING RED FESCUE	15	.4				
STEEP BANKS AND CUTS						
4. TALL FESCUE	15	.4	5.8-7.5	2	1	2
KENTUCKY BLUEGRASS	25	.6				
5. TALL FESCUE	35	.8	5.5-8.3	2	1	
EMERALD CROWNVETCH**	10	.25				
LAWNS AND HIGH MAINTENANCE AREAS						
6. KENTUCKY BLUEGRASS	40	.9	5.8-7.5	2	1	
CREEPING RED FESCUE	40	.9				
7. PERENNIAL RYEGRASS (TURF TYPE)	170	4.0	5.0-7.5		1	
8. TALL FESCUE	170	4.0	5.5-8.3	2	1	2

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

SEED TOLERANCE CHART

TEMPORARY SEEDINGS

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

* NOT NECESSARY WHERE MULCH IS APPLIED.

SEEDING DETAIL

EROSION CONTROL SCHEDULE

EROSION CONTROL MEASURE	* MAINTENANCE	INSTALLATION SEQUENCE
STONE ENTRANCE	AS NEEDED	PRIOR TO CLEARING AND GRADING
SILT FENCE	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TREE PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TEMPORARY DIVERSIONS	N/A	N/A
RIP-RAP HORSESHOE	N/A	N/A
PERMANENT SEEDING	WATER AS NEEDED	AFTER FINISH GRADING
EROSION CONTROL MATTING	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING
SEED, SOD & LANDSCAPE AROUND UNITS FINISHED	WATER AS NEEDED	AFTER FINISHED GRADING AROUND FINISHED UNITS
REMOVAL OF INLET PROTECTION	N/A	N/A
REMOVAL OF SILT FENCE	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF RIP RAP HORSESHOE	N/A	N/A

* - SEE CHART FOR MAINTENANCE REQUIREMENTS
N/A - NOT APPLICABLE FOR THIS PROJECT

EROSION CONTROL MEASURES MAINTENANCE REQUIREMENTS

SILT FENCE MAINTENANCE REQUIREMENTS:

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

SILT SOCK (SURFACE APPLIED):

1. DURING VEGETATIVE ESTABLISHMENT, INSPECT AFTER STORM EVENTS FOR ANY ACCUMULATED SEDIMENT & REMOVE AS NEEDED.
2. REPAIR OR REPLACE ANY TORN SEGMENTS.

SEE CITY OF NOBLESVILLE STANDARD DETAILS SHEET 27 OF 29 FOR ADDITIONAL SWPPP DETAILS

CITY OF NOBLESVILLE STANDARDS, REVISED 07/08/2021, SHALL BE USED FOR ALL CONSTRUCTION ASSOCIATED WITH THESE CONSTRUCTION DOCUMENTS. IN THE EVENT THAT THE CITY OF NOBLESVILLE STANDARDS CONFLICT WITH INFORMATION IN THESE DOCUMENTS, THE CITY OF NOBLESVILLE STANDARDS SHALL PREVAIL.

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISNER REGISTERED Nº PE10403858 STATE OF INDIANA PROFESSIONAL ENGINEER

DATE: 07/13/24

DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	N.T.S.
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

STORMWATER POLLUTION PREVENTION DETAILS

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C3.1
SHEET 10 OF 53

(A1) INDEX OF THE LOCATION OF REQUIRED PLAN ELEMENTS IN THE CONSTRUCTION PLAN:

This sheet C3.2 serves as the index of all of the information required by this section.

(A2) A VICINITY MAP DEPICTING THE PROJECT SITE LOCATION IN RELATIONSHIP TO MAJOR ROADS:

The vicinity map depicting the project site location can be found on sheet C0.0.

(A3) NARRATIVE OF THE NATURE & PURPOSE OF THE PROJECT:

Phase II of Bergen Business Park is located on the east side of Bergen Boulevard just north of the intersection with Tegler Drive. The site currently consists of a single parcel totaling roughly 6.437+/– acres in size. The property is to be subdivided into two (2) lots with the proposed 21,652 SF office building to be constructed on the western half adjacent to Bergen Boulevard. The proposed improvements will also include the associated parking, drainage and utility infrastructure.

(A4) LATITUDE & LONGITUDE:

Longitude: W 85° 55' 34" / Latitude: N 39° 59' 47"

(A5) LEGAL DESCRIPTION OF THE PROJECT SITE:

The legal description can be found on sheets C0.0, C2.0 & C2.1.

(A6) 11x17-INCH PLAT SHOWING THE BUILDING LOT NUMBERS/BOUNDARIES & ROAD LAYOUT/NAMES:

These construction plans can be printed at 11x17 size and will be legible.

(A7) BOUNDARIES OF THE 100-HUNDRED (100) YEAR FLOODPLAINS, FLOODWAY FRINGES & FLOODWAYS:

There are no FEMA delineated 100–year floodplains or floodways on or adjacent to the subject site. A FEMA FIRM Map can be found on sheet C0.0.

(A8) LAND USE OF ADJACENT PROPERTIES:

North: Undeveloped/Detention Pond
South: Commercial
West: Commercial
East: Commercial

(A9) IDENTIFICATION OF A U.S. EPA APPROVED OR ESTABLISHED TMDL:

The proposed development will discharge into an existing wet detention pond adjacent to the north of the subject site. The pond outlets into the EF Bennett Regulated Drain ultimately discharging into Sand Creek. Sand Creek does not have an approved of established TMDL.

(A10) NAMES OF RECEIVING WATERS:

The stormwater generated from the proposed improvements will discharge into an existing wet detention pond adjacent to the north of the subject site. The pond outlets into the EF Bennett Regulated Drain ultimately discharging into Sand Creek.

(A11) IDENTIFICATION OF DISCHARGES TO A WATER ON THE CURRENT 303(d) LIST OF IMPAIRED WATERS:

Stormwater ultimately discharges into Sand Creek. Sand Creek is not is not included on the 303d list.

(A12) SOILS MAP OF THE PREDOMINANT SOIL TYPES:

A soils map with soil properties, characteristics, limitations and hazards can be found on sheet C0.0 and C3.0

(A13) LOCATION OF ALL KNOWN WETLANDS, LAKES & WATER COURSES ON OR ADJACENT TO THE PROJECT SITE:

There are no wetlands, lakes or water courses on or adjacent to the subject site. An existing wet detention pond is located adjacent to the north of the subject site.

(A14) IDENTIFICATION OF ANY OTHER STATE OR FEDERAL WATER QUALITY PERMITS REQUIRED FOR CONSTRUCTION:

Outside of the standard Indiana Construction Stormwater General Permit (CSGP), there are not any additional state or federal water quality permits required for this project.

(A15) IDENTIFICATION & DELINEATION OF EXISTING COVER, INCLUDING NATURAL BUFFERS:

The subject site is currently undeveloped and covered mainly with grass and weeds.

(A16) EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO INDICATE DRAINAGE PATTERNS:

Existing and proposed conditions topography can be found on sheets C1.0, C2.4 & C2.5.

(A17) LOCATION(S) WHERE RUNOFF ENTERS THE PROJECT SITE:

There is no off–site runoff discharging onto the subject site. Existing conditions can be found on sheet C1.0.

(A18) LOCATION(S) WHERE RUNOFF DISCHARGES FROM THE PROJECT SITE PRIOR TO LAND DISTURBANCE:

The proposed improvements will drain via overland flow and subsurface storm sewers to the north into an existing wet detention facility. Existing conditions can be found on sheet C1.0.

(A19) LOCATION OF ALL EXISTING STRUCTURES ON THE PROJECT SITE:

There are no existing structures on the subject site. Existing conditions can be found on the sheet C1.0.

(A20) EXISTING PERMANENT RETENTION OR DETENTION FACILITIES:

There are no existing permanent retention or detention facilities on the subject site. Existing conditions can be found on sheet C1.0. An existing wet detention pond is located adjacent to the north of the subject site.

(A21) LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUNDWATER:

There will not be any direct discharge of stormwater into groundwater proposed for this project. There are no known existing abandoned wells, sinkholes or karst features.

(A22) SIZE OF THE PROJECT EXPRESSED IN ACRES:

The overall subject site is 6.437+/– acres in size; however, the proposed improvements will only be disturbing approximately 1.8+/– acres.

(A23) TOTAL EXPECTED LAND DISTURBANCE:

The overall subject site is 6.437+/– acres in size; however, the proposed improvements will only be disturbing approximately 1.8+/– acres.

(A24) PROPOSED FINAL TOPOGRAPHY:

The location of all proposed site improvements, including final topography, roads, utilities, lot delineation, proposed structures, and common areas can be found on sheets C1.0, C2.0, C2.1, C2.2, C2.3, C2.4 & C2.5.

(A25) LOCATIONS & APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS:

The location and approximate boundaries of all disturbed areas can be found on sheets C2.0, C2.1, C2.4, C2.5 & C3.0.

(A26) LOCATIONS, SIZE & DIMENSIONS OF THE STORMWATER DRAINAGE SYSTEM:

The details of the proposed stormwater drainage system can be found on sheets C2.4, C2.5 and C6.0.

(A27) LOCATIONS OF SPECIFIC POINTS WHERE STORMWATER DISCHARGES WILL LEAVE THE SITE:

The details of the proposed stormwater drainage system can be found on sheets C2.4, C2.1, C2.5 and C6.0.

(A28) LOCATION OF ALL PROPOSED SITE IMPROVEMENTS:

The location of all proposed site improvements, including final topography, roads, utilities, lot delineation, proposed structures, and common areas can be found on sheets C2.0, C2.1, C2.2, C2.3, C2.4 and C2.5.

(A29) LOCATION OF ALL SOIL STOCKPILES & BORROW AREAS:

A soils stockpile should not be needed for this project.

(A30) CONSTRUCTION SUPPORT ACTIVITIES THAT ARE EXPECTED TO PART OF THE PROJECT:

The location of construction staging area can be found on sheet C3.0.

(A31) LOCATION OF ANY IN-STREAM ACTIVITIES THAT ARE PLANNED FOR THE PROJECT:

There are no in stream activities planned for this project.

(B1) DESCRIPTION OF THE POTENTIAL POLLUTANT GENERATING SOURCES & POOLUTANTS:

Potential pollutants sources relative to a construction site may include, but are not limited to material and fuel storage areas, fueling locations, exposed soils and leaking vehicle/equipment. Potential pollutants that may appear at the site due to construction activities include, but are not limited to diesel fuel, gasoline, concrete and concrete washout, solid waste, sediment, paint and solvents, equipment repair products, anti–freeze and fertilizer.

(B2) STABLE CONSTRUCTION ENTRANCE LOCATIONS & SPECIFICATIONS:

The location of the temporary construction entrance can be found on sheet C3.0. The details can can be found on the City of Noblesville SWPPP Details sheet 27 of 29.

(B3) SPECIFICATIONS FOR TEMPORARY & PERMANENT STABILIZATION:

The location of all temporary and permanent stabilization measures, including temporary seeding, permanent seeding and erosion control blankets can be found on sheets C3.0 and C3.1. Details and maintenance specifications can be found on sheet C3.1 and the City of Noblesville SWPPP Details sheets 27 and 28 of 29.

(B4) SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS:

The location of all sediment control measures for concentrated flow areas, including erosion control blankets and rip–rap, can be found on sheets C3.0 and C3.1. Details and maintenance specifications can be found on sheet C3.1 and the City of Noblesville SWPPP Details sheets 27 and 28 of 29.

(B5) SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS:

The location of all sediment control measures for sheet flow areas, including silt fence, can be found on sheets C3.0 and C3.1. Details can be found on the City of Noblesville SWPPP Details sheet 27 of 29 and maintenance specifications can be found on sheet C3.1.

(B6) RUN-OFF CONTROL MEASURES:

The location of all runoff control measures, including the stormwater detention basin, can be found on sheets C2.0, C2.1, C2.2, C2.3, C2.4, C2.5, C3.0 and C3.1. Details and specifications can be found on the City of Noblesville SWPPP Details sheet 27 of 29 and maintenance specifications can be found on sheets C3.1 and C10.1.

(B7) STORMWATER OUTLET PROTECTION LOCATION & SPECIFICATIONS:

The location of stormwater outlet protection measures, including rip–rap at the storm sewer outlet, can be found on sheets C3.0 and C3.1. Details and specifications can be found on the City of Noblesville SWPPP Details sheet 27 of 29 and maintenance specifications can be found on sheets C3.1.

(B8) GRADE STABILIZATION STRUCTURE LOCATIONS & SPECIFCIATIONS:

We do not anticipate the need for any grade stabilization structures on this project. The location, details and specifications of other erosion control measures can be found on sheet C3.0 along with the City of Noblesville Standard Details.

(B9) DEWATERING APPLICATIONS & MANAGEMENT METHODS:

We do not anticipate the need for any dewatering on this project. The location, details and specifications of dewatering measures can be found on sheet C3.0 along with the City of Noblesville Standard Details.

(B10) MEASURES UTILIZED FOR WORK WITHIN WATERBODIES:

We do not anticipate the need for any work within waterbodies on this project. The location, details and specifications of other erosion control measures can be found on sheet C3.0 along with the City of Noblesville Standard Details.

(B11) MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE:

SILT FENCE MAINTENANCE REQUIREMENTS:

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

EROSION CONTROL BLANKET (SURFACE APPLIED) MAINTENANCE REQUIREMENTS:

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

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE MAINTENANCE REQUIREMENTS:

1. INSPECT ENTRANCE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER STORM EVENTS OR HEAVY USE.
2. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED IF THE WATER IS CONVEYED INTO A SEDIMENT TRAP OR BASIN.

REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.

EROSION CONTROL SCHEDULE

EROSION CONTROL MEASURE	* MAINTENANCE	INSTALLATION SEQUENCE
STONE ENTRANCE	AS NEEDED	PRIOR TO CLEARING AND GRADING
SILT FENCE	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TREE PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TEMPORARY DIVERSIONS	N/A	N/A
RIP–RAP, HORSESHOE	N/A	N/A
PERMANENT SEEDING	WATER AS NEEDED	AFTER FINISH GRADING
EROSION CONTROL MATTING	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING
SEED, SOD & LANDSCAPE AROUND UNITS FINISHED	WATER AS NEEDED	AFTER FINISHED GRADING AROUND FINISHED UNITS
REMOVAL OF INLET PROTECTION	N/A	N/A
REMOVAL OF SILT FENCE	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF RIP RAP HORSESHOE	N/A	N/A

* – SEE CHART FOR MAINTENANCE REQUIREMENTS
N/A – NOT APPLICABLE FOR THIS PROJECT

(B12) PLANNED CONSTRUCTION SEQUENCE:

STEP # 1: POST AT THE ENTRANCE OF THE CONTACT INFORMATION OF THE PERSON RESPONSIBLE FOR CONSTRUCTION ACTIVITIES.

STEP # 2: CONTACT (IDEM) 48 HOURS PRIOR TO STARTING CONSTRUCTION.

STEP # 3: DESIGNATE A PERSON TO BE RESPONSIBLE FOR THE SITE INSPECTIONS AFTER EACH 1/2" RAIN AND A MINIMUM OF ONCE EACH WEEK.

STEP # 4: INSTALL CONSTRUCTION ENTRANCE.

STEP # 5: INSTALL SILT FENCE ALONG THE PERIMETER OF THE SITE WHERE NOTED.

STEP # 6: INSTALL STORM SEWER PIPES/INLETS.

STEP # 7: GRADE SITE BUILDING PAD & CONSTRUCT BUILDING.

STEP # 8: INSTALL PAVEMENT/SIDEWALKS AND FINAL GRADE SITE.

STEP # 9: INSTALL LANDSCAPING AND FINAL SEEDING.

STEP # 10: REMOVE ALL SEDIMENT CONTROL PRACTICES ONCE THE SITE IS STABILIZED.

NOTE: STABILIZATION OF INACTIVE, UNVEGETATED AREAS MUST BE INITIATED BY THE END OF THE 7th DAY OF INACTIVITY AND COMPLETED WITHIN 14 DAYS AFTER INITIATION.

(B13) PROVISIONS FOR EROSION CONTROL ON INDIVIDUAL RESIDENTIAL BUILDING LOTS:

This project is not a residential subdivision; therefore, there are no individual building lots.

(B14) MATERIAL HANDLING, SPILL PREVENTION & SPILL RESPONSE:

Expected materials that may appear at the site due to construction activities include, but are not limited to petroleum products, fertilizers, paint and solvents, and concrete. Materials shall be stored in the designated material storage area.

Spill prevention for vehicle and equipment fueling shall conform to the following practices: 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: Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with a Stabilized Construction Entrance/Exit. Implementation: Use offsite fueling stations as much as possible. 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. Drip 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. Dedicated fueling areas should be protected from stormwater runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level–grade area. Protect fueling areas with berms and dikes to prevent 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.

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 ample supplies of spill cleanup materials onsite. Immediately clean up spills and properly dispose of contaminated soils.

Spill prevention for solid waste shall conform to the following practices: Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors. Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures, 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, paper bags, plastic wrappers, and cigarettes. Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non–hazardous equipment parts, Styrofoam and other package construction materials. Select designated waste collection areas onsite. Inform trash–hauling contractors that you will accept only watertight dumpsters for onsite use. Inspect dumpsters for leaks and repair any dumpster that is not watertight. Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out 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 and sediment control devices tend to collect litter. Make sure that toxic liquid wastes (sued oils, solvents and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designed 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 at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding. Inspect construction waste area regularly. Arrange for regular waste collection.

Spill prevention for concrete washout shall conform to the following practices: 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 out concrete trucks into storm drains, open ditches, streets, or streams. Do not allow excess concrete to be duped onsite, except in designated areas. Locate washout areas at least 50 ft 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 draining 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 base stockpile or dispose in the trash.

The cleanup parameters shall conform to the following practices: The developer / homeowners association shall be continually kept informed, maintain lists of qualified contractors and available Vac–trucks, tank pumpers and other equipment readily accessible for cleanup operations. In addition, a continually updated list of available absorbent materials and cleanup supplies should be kept on site. All maintenance personnel will be made aware of techniques for prevention of spills. They will be informed of the requirements and procedures outlined in this plan. They will be kept abreast of current developments or new information on the prevention of spills and / or necessary alteration to this plan. When spills occur which could endanger human life and this become primary concern, the discharge of the lifesaving protection function will be carried out by the local police and fire departments. Absorbent materials, which are used in cleaning up spilled materials, will be disposed of in a manner subject to the approval of the Indiana Department of Environmental Management. Flushing of spilled material with water will not be permitted unless so authorized by the Indiana Department of Environmental Management.

Spill prevention for vehicle and equipment maintenance shall conform to the following practices: Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a "dry and clean site". The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only, while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately. These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles. Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles / equipment offsite should be done in conjunction with a stabilized construction entrance / exit. Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks). If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runon and runoff, and should be located at least 50 ft from downstream drainage facilities and water courses. Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over and impermeable surface in a dedicated maintenance area. Place a stockpile of spill cleanup materials where it will be readily accessible. All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices. Use absorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly. Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately. Keep vehicles and equipment clean; do not allow excessive buildup of oil and grease. Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite. Train employees and subcontractors in proper maintenance and spill cleanup procedures. Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, barges, other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour. Properly dispose of used oils, fluids, lubricants, and spill cleanup materials. Properly dispose of or recycle used batteries. Do not place used oil in a dumpster or pour into a storm drain or water course. Properly dispose of used oils, fluids, lubricants, and spill cleanup materials. Don not bury tires. Repair leaks of fluids and oil immediately.

Spill prevention for fertilizers shall conform to the following practices: Fertilizer's used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Spill prevention for paint and solvents shall conform to the following practices: All containers will be tightly sealed and stored when not required for use. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM but will be properly disposed of according to manufacturers' instructions or State or local regulations.

Spill prevention and cleanup shall conform to IDEM form 327 IAC 2–6 and the Local Fire Department shall be contacted in the case of a material spill occurring.

CONTACT INFORMATION:
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT EMERGENCY REPONSE:
1–888–233–7745

(B15) MATERIAL HANDLING & STORAGE PROCEDURES ASSOCIATED WITH CONSTRUCTION ACTIVITY:

The material handling and storage procedures can be found under item B(14) on this sheet.

(C1) DESCRIPTION OF POLLUTANTS & THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE:

Potential pollutant sources that may appear at the site due to proposed land use activities include, but are not limited to vehicles, exposed soil and trash. Potential pollutants include, but are not limited to oil, grease, diesel fuel, gasoline, anti–freeze, auto soap and fertilizer.

(C2) DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER MEASURES:

A proposed rain garden, existing hydrodynamic separator and existing wet detention pond with forebay are being proposed for the subject site. See sheets C2.4, C2.5, C6.0 and C10.1 for location, details and specifications of the proposed stormwater measures. Stormwater runoff will be routed to the BMP for TSS removal, permanent seeding, the use of swales, prairie grass, the preservation of existing vegetation and trees, and the implementation of a landscaping plan will help in the reduction of pollutants in stormwater run–off.

(C3) PLAN DETAILS FOR EACH STORMWATER MEASURE:

A proposed rain garden, existing hydrodynamic separator and existing wet detention pond with forebay are being proposed for the subject site. See sheets C2.4, C2.5, C6.0 and C10.1 for location, details and specifications of the proposed stormwater measures.

(C4) SEQUENCE DESCRIBING STORMWATER MEASURE IMPLEMENTATION:

The implementation sequence can be found under item B(12) on this sheet. Final (post construction) stormwater quality measures will be implemented as the installation of subsurface utilities, grading and pavement is finished. A proposed rain garden, existing hydrodynamic separator and existing wet detention pond with forebay providing 80% TSS removal as a stormwater quality BMP, will serve as the primary post construction stormwater quality measures.

(C5) MAINTENANCE GUIDELINES FOR PROPOSED POST-CONSTRUCTION STORMWATER MEASURES:

An Operations & Maintenance Manual has been provided for the proposed rain garden and existing hydrodynamic separator. Remove all trash or debris in the swales and storm sewer infrastructure. The pavement should be swept and kept free of sediment carried in by vehicles. A dry absorbent material such as "kitty litter" or "floor dry" should be used to soak up liquids left behind by vehicles. Keep all turf and trees well irrigated to promote vigorous growth. The maintenance for the proposed post–construction water quality measures will be provided for by the property owner.

(C6) ENTITY THAT WILL BE RESPONSIBLE FOR THE OPERATION & MAINTENANCE OF THE STORMWATER MEASURES:

The maintenance for the proposed post–construction water quality measures will be provided for by the property owner.

HTC PARTNERS, LLC
ATTN: STEVE SHEA
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037
PH: (317) 694-0944

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

CivilSite GROUP, INC.

ERICA A. GLEISNER
REGISTERED
Nº PE10403858
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07/13/24

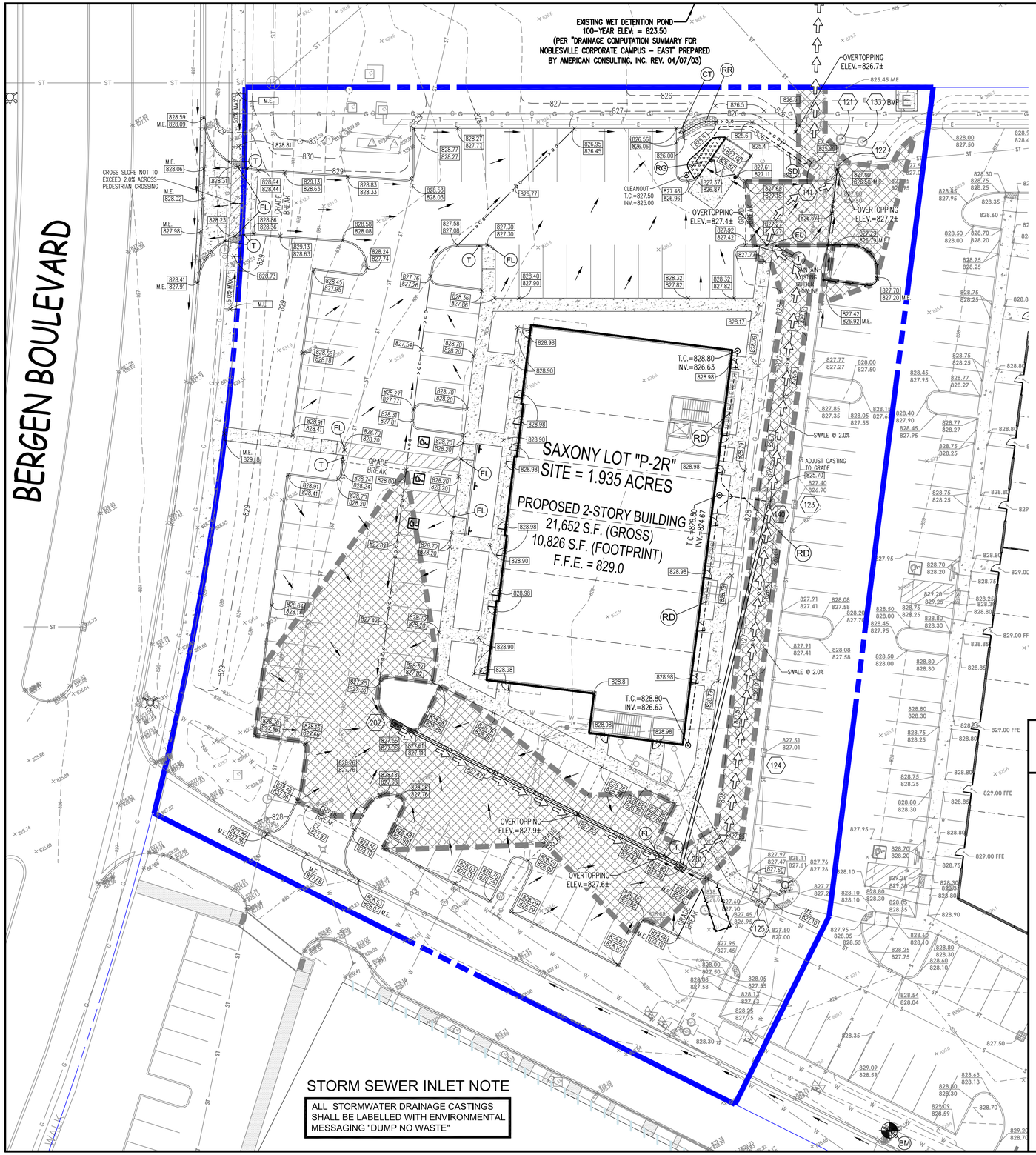
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	N.T.S.
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

STORMWATER POLLUTION PREVENTION NOTES

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C3.2
SHEET 11 OF 53



LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- SAWCUT LIMITS
- PROPOSED STORM SEWER
- PROPOSED ELECTRIC / TELECOM SERVICE
- PROPOSED WATER SERVICE
- PROPOSED GAS SERVICE
- PROPOSED SANITARY LATERAL
- PROPOSED PRIMARY 3ø (DUKE ENERGY) ELECTRIC TRANSFORMER
- EX. UNDERGROUND SANITARY SEWER LINE
- EX. UNDERGROUND STORM SEWER LINE
- EX. UNDERGROUND WATER LINE
- EX. UNDERGROUND GAS LINE
- EX. UNDERGROUND TELECOM
- EX. UNDERGROUND ELECTRIC
- DRAINAGE FLOW ARROW
- STORM STRUCTURE NUMBER
- TOP OF CURB GRADE / PAVEMENT GRADE
- PAVEMENT OR EARTH GRADE
- M.E. MATCH EXISTING GRADE
- EX. EXISTING GRADE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- FLOWLINE
- EMERGENCY OVERFLOW PATH

PLAN NOTES:

- (T) TAPER CURB FLUSH WITH PAVEMENT
- (FL) SIDEWALK FLUSH WITH PAVEMENT
- (CT) CONCRETE CURB TURNOUT (SEE DETAIL SHEET C10.0)
- (RD) ROOF DRAIN / CONNECT ALL DOWNSPOUTS (8" ø SDR 35 PVC @ 2.0% MIN. SLOPE)
- (RG) RAIN GARDEN (SEE DETAIL SHEET C10.1)
- (RR) 12" OF RIP-RAP OVER GEOTEXTILE
- (SD) 6" ø SUB-SURFACE DRAIN @ 1.0% MIN. SLOPE (SEE RAIN GARDEN DETAIL SHEET C10.1)
- (BM) BENCHMARK: TBM1 ELEVATION 831.52 (NORTH BONNET BOLT OF FIRE HYDRANT) REFERENCE CONSTRUCTION PLANS FOR BERGEN BUSINESS PARK PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS (LATEST REV. 08/14/23)

Indiana 811 Know what's below. Call before you dig.

STORM SEWER INLET NOTE

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

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/18/24	REVISED SANITARY SEWER LATERAL	EAG	EAG

UTILITY LOCATE NOTE

INDIANA 811 FAILED TO LOCATE ALL EXISTING UTILITIES ON AND/OR SURROUNDING THE SUBJECT SITE; THEREFORE, CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ANY EXISTING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF THE PROPOSED IMPROVEMENTS INTERFERE WITH ANY EXISTING UTILITY INFORMATION NOT SHOWN ON THESE PLANS.

FLOOD NOTE

THIS LOT LIES ENTIRELY IN FLOOD HAZARD ZONE 'X' AS SCALED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HAMILTON COUNTY, INDIANA, COMMUNITY NAME CITY OF NOBLESVILLE, COMMUNITY NUMBER 180082, MAP NUMBER 18057C0256 G, PANEL NUMBER 0256 G, DATED NOVEMBER 19, 2014.

REFERENCE NFIP FIRM MAP #: 18057C0256 G
EFFECTIVE DATE: NOVEMBER 19, 2014

ZONE 'X' = AREAS DETERMINED TO BE OUTSIDE OF ANY FEMA DESIGNATED SPECIAL FLOOD HAZARD AREAS (SFHA)

EMERGENCY OVERFLOW & FLOOD PROTECTION GRADE NOTE

EMERGENCY OVERFLOW PATH PONDING ASSUMING COLLAPSED STORM SEWER SYSTEM

FLOOD PROTECTION GRADE = 828.90
ONE (1) FOOT ABOVE EMERGENCY OVERFLOW PATH OVERTOPPING ELEVATION OF 827.90

STORM SEWER SYSTEM NOTE

ALL ON-SITE STORM SEWER INFRASTRUCTURE TO BE CONSTRUCTED WITH THIS PROJECT SHALL BE PRIVATELY OWNED AND MAINTAINED.

UTILITY VALVE NOTE

ALL UTILITY VALVES AFFECTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINAL GRADE AS NEEDED TO BE FLUSH WITH FINISHED PAVEMENT, SIDEWALK OR LANDSCAPE AREA.

GRADING NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
3. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
4. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START. TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH) SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING IS AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION.
5. TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH ENGINEERED GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
6. AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PARKING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION.
7. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING, IN ALL AREAS, AFTER INSTALLATION. CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, "BIRD BATH" CONDITIONS.
8. ALL PROPOSED SPOT ELEVATIONS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
9. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
10. FLOW LINE ELEVATIONS GIVEN AT END OF CONCRETE END SECTIONS.
11. SIDEWALK AGAINST BUILDING SHALL SLOPE AWAY FROM BUILDING AT 1.04% SLOPE MIN.

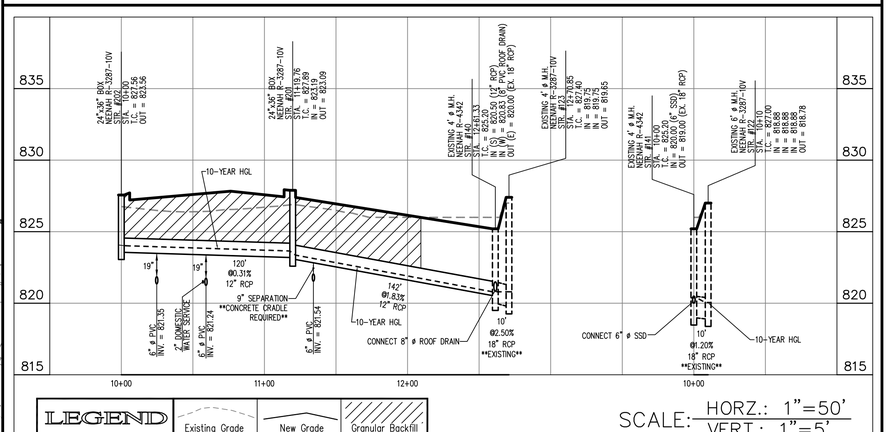
NORTH

20 0 10 20
(IN FEET)
1 inch = 20 ft.

STORM SEWER PLAN

18 " OF VERTICAL SEPARATION MUST BE MAINTAINED FOR ALL UTILITY CROSSINGS.

SCALE: 1"=20'



LEGEND: Existing Grade | New Grade | Granular Backfill

SCALE: HORZ.: 1"=50' VERT.: 1"=5'

STORM SEWER PROFILES

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC.
CivilSite GROUP, INC.
718 Adams Street, Suite E
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Ph: (317) 810-1677

ERICA A. GLEISNER — REGISTERED — Nº PE10403858 STATE OF INDIANA — PROFESSIONAL ENGINEER

DATE: 07/13/24

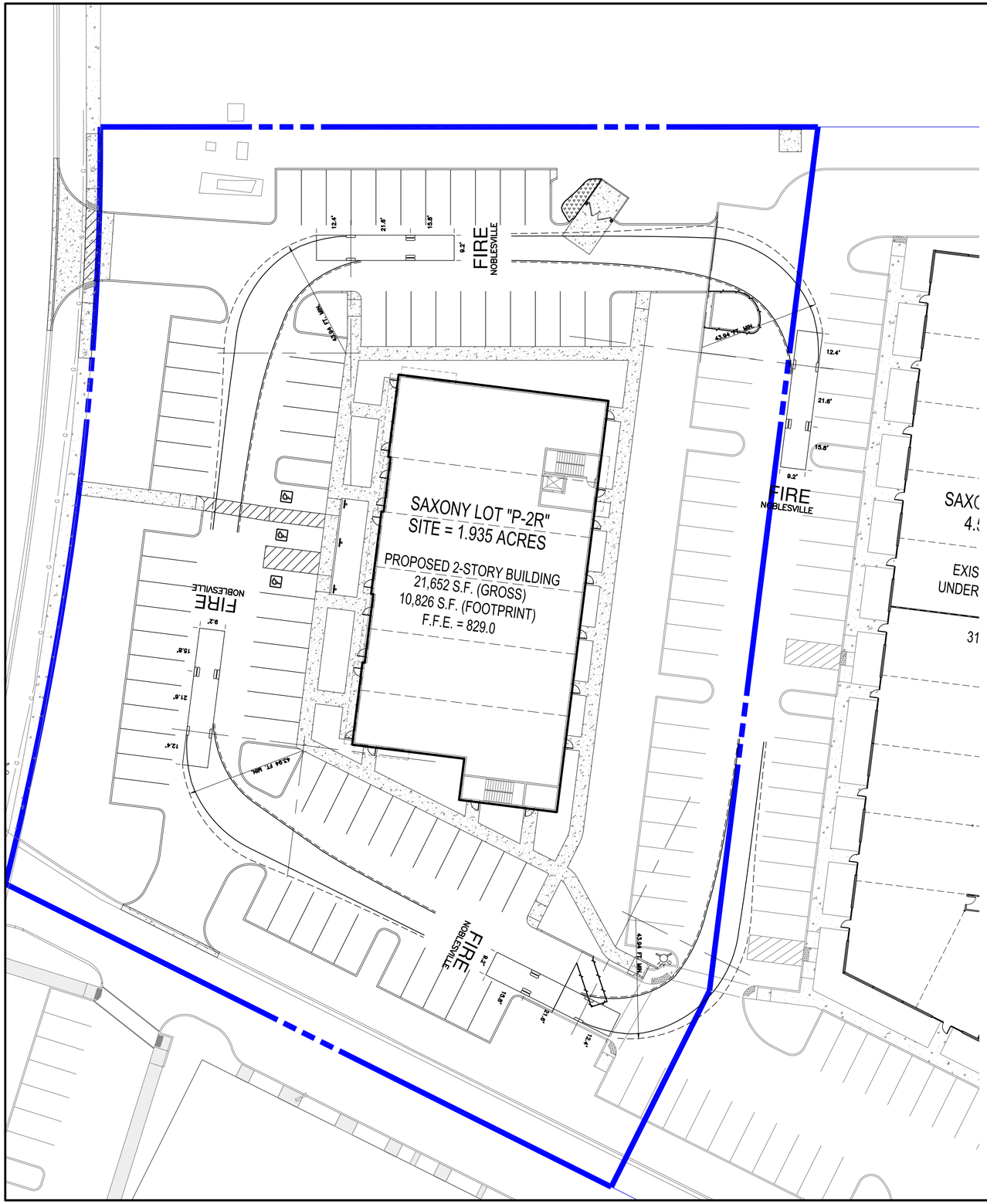
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 20'
DATE:	07/01/24

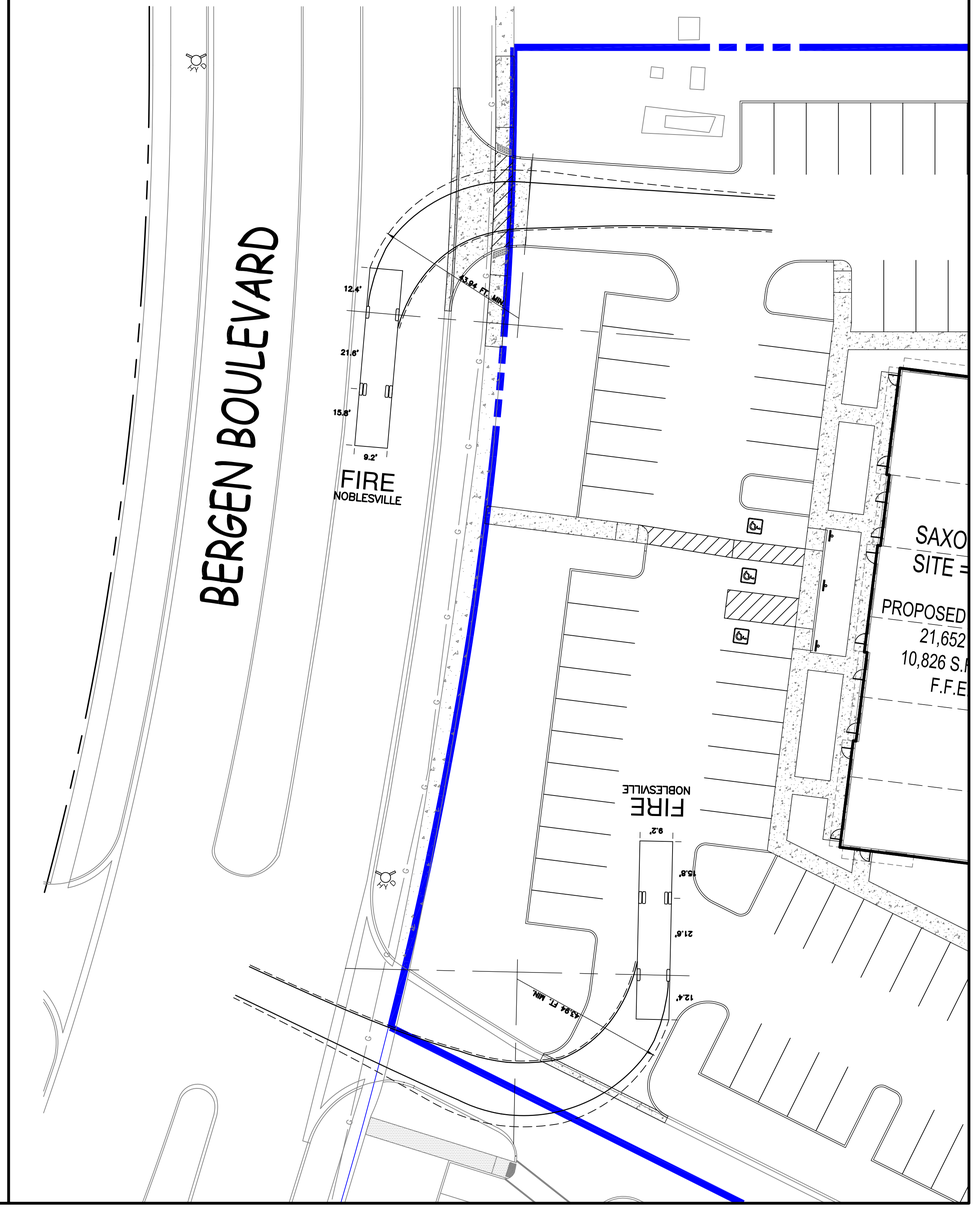
BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

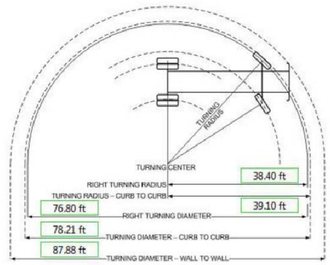
STORM SEWER PLAN & PROFILES
EMERGENCY OVERFLOW ROUTING

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C6.0
SHEET 12 OF 53







NORTH

20 0 10 20

(IN FEET)
1 inch = 20 ft.

LEGEND:

PROPERTY BOUNDARY

Indiana 811
Know what's below. Call before you dig.

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
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CivilSite GROUP, INC.

ERICA A. GLEISSNER
REGISTERED
Nº PE10403858
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07/13/24

DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

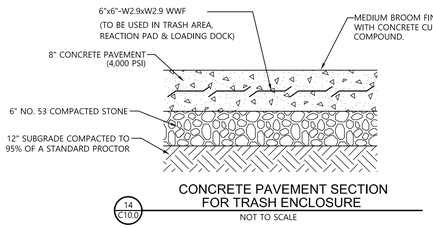
BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

FIRE TRUCK TURNING EXHIBIT

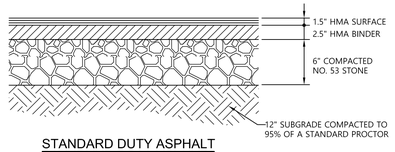
PROJECT NUMBER
HTC.001

DRAWING NUMBER
C9.0
SHEET 13 OF 53

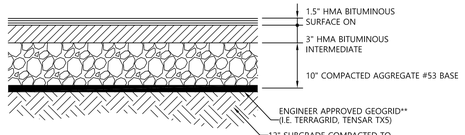
REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY



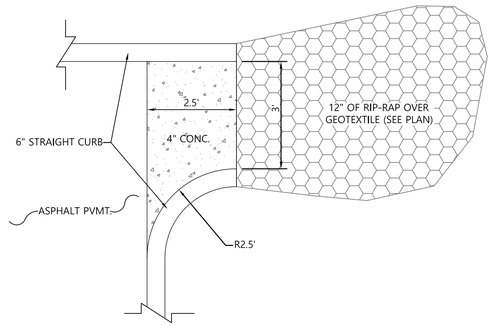
14 C10.0 CONCRETE PAVEMENT SECTION FOR TRASH ENCLOSURE
NOT TO SCALE



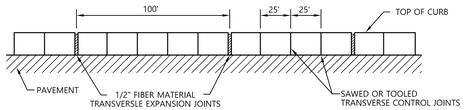
13 C10.0 STANDARD DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



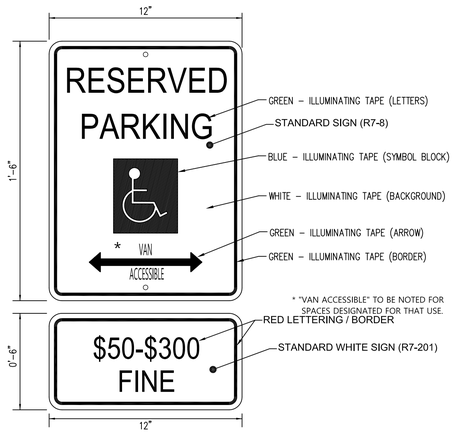
07 C10.0 HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE
** DESIGNATES CONSTRUCTION ALTERNATE, IF NEEDED



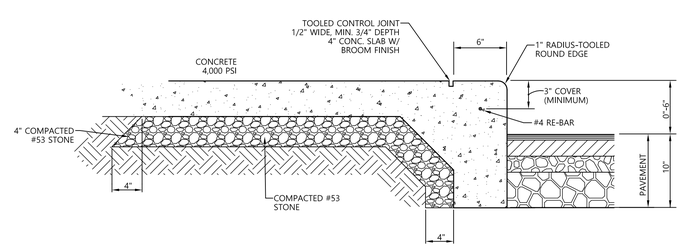
12 C10.0 CONCRETE CURB TURNOUT
NOT TO SCALE



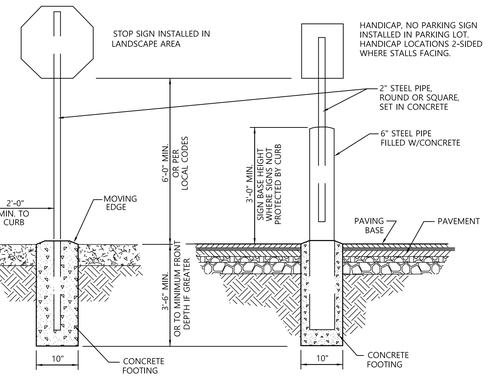
02 C10.0 CURB JOINT DETAIL
NOT TO SCALE



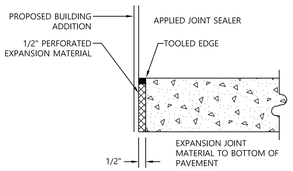
05 C10.0 HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



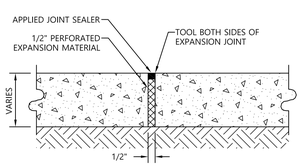
08 C10.0 COMBINED CURB & WALK DETAIL
NOT TO SCALE



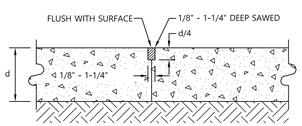
11 C10.0 TRAFFIC SIGNAGE
NOT TO SCALE



EXPANSION JOINT AT BUILDING DETAIL

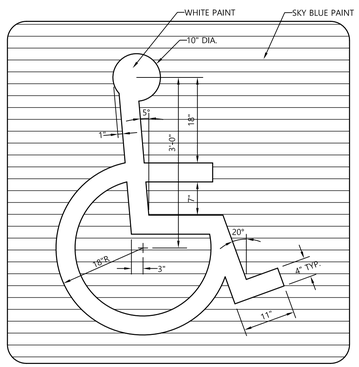


EXPANSION JOINT DETAIL



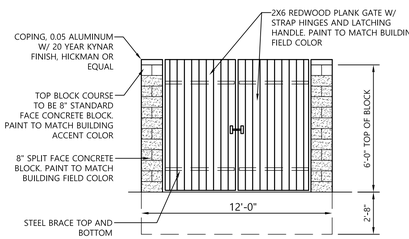
CONTROL JOINT

03 C10.0 JOINT DETAILS
NOT TO SCALE

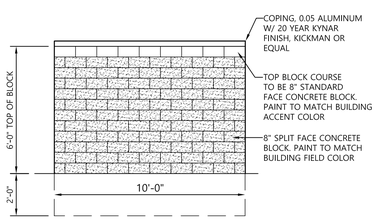


NOTE: ALL STRIPES TO BE 4" PAINTED WHITE

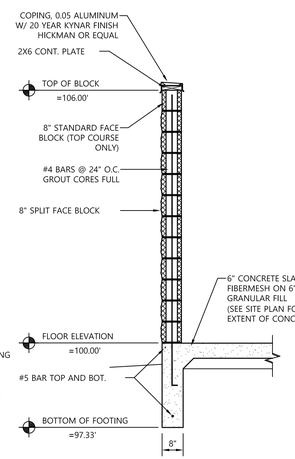
04 C10.0 PAINTED HANDICAP SYMBOL DETAIL
NOT TO SCALE



FRONT ELEVATION

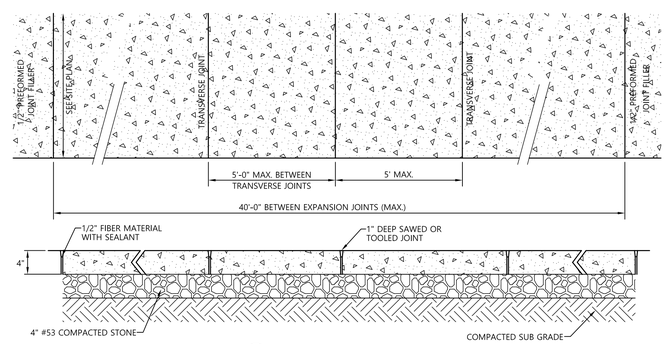


SIDE ELEVATION



WALL SECTION

09 C10.0 TRASH ENCLOSURE DETAIL
NOT TO SCALE



10 C10.0 SIDEWALK DETAIL
NOT TO SCALE

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERICA A. GLEISSNER REGISTERED Nº PE10403858 STATE OF INDIANA PROFESSIONAL ENGINEER

DATE: 07/13/24

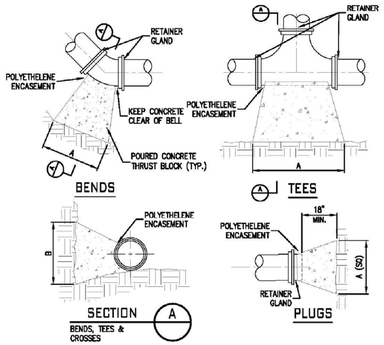
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

GENERAL DETAILS

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C10.0
SHEET 14 OF 53



THRUST BLOCK DETAIL

N.T.S.

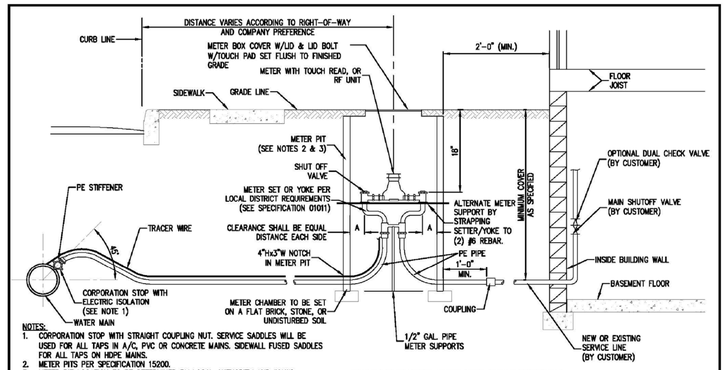
NOTES:
1. THRUST BLOCK DIMENSIONS SHALL BE PROVIDED BY THE DESIGN ENGINEER.
2. THRUST BLOCKS SHALL BE INSTALLED AGAINST UNDISTURBED SOIL WITH ADEQUATE BEARING TO PREVENT MOVEMENT OF FITTING.
3. NO THRUST BLOCKS TO BE PLACED IN SEWER LATERAL DITCHES.
4. THRUST BLOCKING MUST FIT IN EASEMENT, IN SOME CASES ADDITIONAL RESTRAINT MAY BE REQUIRED.
5. DESIGN TO BE BASED ON 200 PSI HYDROSTATIC WATER PRESSURE (150 PSI STATIC PRESSURE PLUS 50 PSI WATER HAMMER).
6. INSTALL POLYETHYLENE ENCASEMENT ON ALL D.I. PIPE AND FITTINGS PRIOR TO POURING CONCRETE.
7. PIPE JOINTS AND BOLTS MUST BE ACCESSIBLE.
8. ALLOW SUFFICIENT CLEARANCE BETWEEN CONCRETE AND BOLTS FOR FUTURE MAINTENANCE.
9. ALL ANCHOR BOLTS SHALL BE CORROSION RESISTANT, AND SIZED PER SPECIFICATION.
10. THRUST BLOCKING DETAILS ARE SHOWN HERE FOR TYPICAL INSTALLATIONS. IN SOME CASES, ADDITIONAL RESTRAINT MAY BE REQUIRED.
11. CONCRETE USED FOR THRUST BLOCKS SHALL BE MIN 3000 PSI CONCRETE.
12. FOR UNSTABLE SOIL CONDITIONS, THE ENGINEER SHALL VERIFY THRUST BLOCK DIMENSIONS.

INDIANA AMERICAN WATER
ENGINEERING DEPARTMENT
153 N. EMERSON AVENUE
GREENWOOD, INDIANA 46143

STANDARD DETAIL

THRUST BLOCKS

DATE: JANUARY, 2018	DRAWN BY: S. FORD
LATEST REV: JANUARY, 2018	APP'D BY: E.N.



NOTES:
1. CORPORATION STOP WITH STRAIGHT COUPLING NUT. SERVICE SADDLES WILL BE USED FOR ALL TAPS IN A/C, PVC OR CONCRETE MAINS. SIDEWALL FUSED SADDLES FOR ALL TAPS ON HDPE MAINS.
2. METER PITS PER SPECIFICATION 15200.
3. METER PIT LOCATION TO BE DETERMINED BY LOCAL AUTHORITY AND INAWC.
4. SERVICE LINE AND METER PIT OWNERSHIP VARIES BY LOCAL TARIFF.
5. CONNECTIONS BETWEEN PIPE LENGTHS SHALL BE COMPRESSION OR FLARE AND MAY DEPEND ON LOCAL PLUMBING REQUIREMENT.

SINGLE WATER SERVICE CONNECTION

N.T.S.

INDIANA AMERICAN WATER
ENGINEERING DEPARTMENT
153 N. EMERSON AVENUE
GREENWOOD, INDIANA 46143

STANDARD DETAIL

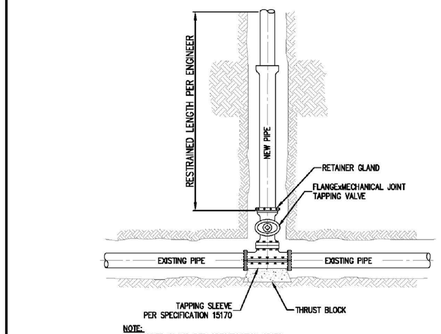
SINGLE WATER SERVICE

DATE: JANUARY, 2018	DRAWN BY: S. FORD
LATEST REV: JANUARY, 2018	APP'D BY: E.N.

2" METER PIT SPECIFICATIONS

2" Meter Pit Spec for Noblesville Operations
Pit: Ford PMBB-788-36-48-EXP-NL (17" laylength, 18" lid to meter)
Flange: Ford FL-36 (Flange for 36" ID Tile)
Ring: Ford PR (Ring with lid Recess 6" height)
Lid: Nicor 21.25PWBLKWAtthO
The A.Y. McDonald equivalent for the pit, flange, and ring is acceptable.

NOTE: METER SIZE HAS YET TO BE DETERMINED BY INDIANA AMERICAN WATER (TO BE FINALIZED ONCE TENANT MIX IS DETERMINED)



NOTE:
1. RETAINER GLAND PER SPECIFICATION 15130.
2. TAPPING SLEEVE FOR HDPE PIPE MUST BE APPROVED FOR THE APPLICATION BY THE MANUFACTURER AND INAWC.

TAPPING SLEEVE AND TAPPING VALVE DETAIL

N.T.S.

INDIANA AMERICAN WATER
ENGINEERING DEPARTMENT
153 N. EMERSON AVENUE
GREENWOOD, INDIANA 46143

STANDARD DETAIL

TAPPING SLEEVE AND TAPPING VALVE

DATE: JANUARY, 2018	DRAWN BY: S. FORD
LATEST REV: JANUARY, 2018	APP'D BY: E.N.

NOBLESVILLE FIRE EMS EST. 1871

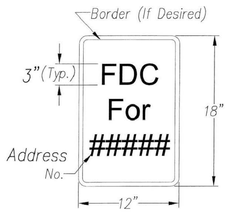
Fire Department Connection (FDC) Specifications

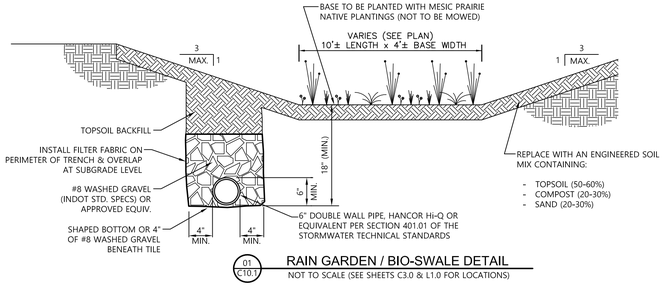
Fire Department Connections (FDC) must meet the stipulations of NFPA 13, NFPA 13R, NFPA 14, and the following criteria:

1. The FDC shall be located in a location approved by the Fire Marshal. A site utility plan shall be submitted to this office for review and approval.
2. The FDC shall be provided with a single *5" storz connection* that shall face towards the nearest point of fire department access. The 5" storz connection shall measure 30-40 inches from the finished grade and project *downward* at a 30-45 degree angle.
3. A minimum of a 4" FDC service pipe shall be utilized on a fire service line that is 6" or larger.
4. FDCs susceptible to vehicular damage must be protected by curbs or bollards in accordance with IFC Section 312.
5. The FDC shall be located not more than 100 feet from the nearest fire hydrant tapped off a public water main.

FDC Sign Specifications

1. The sign shall be constructed out of a material that is not susceptible to degradation. The sign material shall be approved by the Fire Marshal.
2. The sign lettering (and optional border) shall be RED in color.
3. The sign shall be attached to the FDC pipe by an approved method. The preferred method is 4" or 6" electrical minis, available from any electrical supply warehouse.





01 C10.1

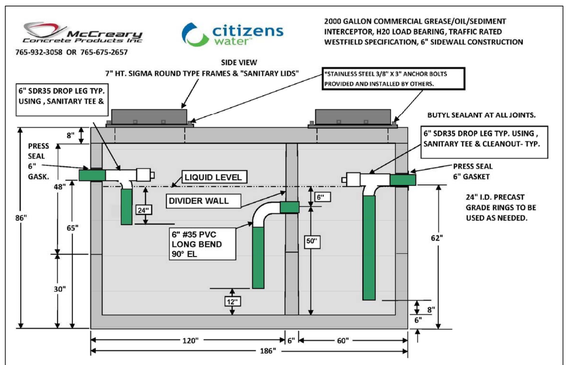
RAIN GARDEN / BIO-SWALE DETAIL

NOT TO SCALE (SEE SHEETS C3.0 & L1.0 FOR LOCATIONS)

McCreary Concrete Products Inc
765-932-3058 OR 765-675-2657

citizens water

2000 GALLON COMMERCIAL GREASE/OIL/SEDIMENT INTERCEPTOR, H20 LOAD BEARING, TRAFFIC RATED WESTFIELD SPECIFICATION, 6" SIDEWALL CONSTRUCTION

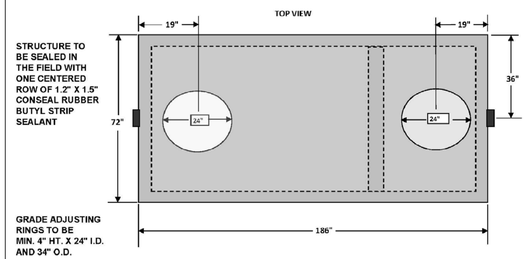


NOT TO SCALE — TOTAL STRUCTURE WEIGHT 36,975 LBS — CSE9222021

McCreary Concrete Products Inc
765-932-3058 OR 765-675-1982

citizens water

2000 GALLON COMMERCIAL GREASE/OIL/SEDIMENT INTERCEPTOR, H20 LOAD BEARING, TRAFFIC RATED WESTFIELD SPECIFICATION, 6" SIDEWALL CONSTRUCTION



BASE SECTION----------13,875 LBS.
RISER SECTION----------13,800 LBS
TOP SLAB----------9,300 LBS.
STRUCTURE WEIGHT TOTAL---36,975 LBS.

NOT TO SCALE — CSE9222021

GREASE TRAP SIZING CALCULATIONS

MEALS SERVED DURING PEAK HOUR	WASTE FLOW RATE FACTOR	RETENTION TIME FACTOR	STORAGE FACTOR
100	6	2.4	1
Determined by Owner	Commerical Kitchen w/ Dishwashing Machine	Commercial Kitchen Waste	8-hour Operation

Minimum Tank Size (in gallons) = 1,440

USE 2000 GALLON GREASE INTERCEPTOR SYSTEM

REFERENCE
"ON-SITE WATER SUPPLY AND WASTEWATER DISPOSAL for PUBLIC AND COMMERCIAL ESTABLISTMENTS, BULLETIN S.E. 13"
by Indiana State Board of Health - 1988

Mesic Prairie Mix (Rain Garden)

	Grasses
oz/acre	
16	Andropogon gerardii (Big Bluestem)
32	Elymus canadensis (Canada Wild Rye)
12	Elymus virginicus (Virginia Wild Rye)
4	Panicum virgatum (Switchgrass)
32	Schizachyrium scoparium (Little Bluestem)
16	Sorghastrum nutans (Indian Grass)
112	= Total oz/acre
	Forbs
oz/acre	
1	Aster laevis (Smooth Aster)
1	Aster novae-angliae (New England Aster)
2	Baptisia leucantha (White False Indigo)
2	Cassia hebecarpa (Wild Senna)
2	Coreopsis tripteris (Tall Coreopsis)
4	Echinacea purpurea (Purple Coneflower)
3	Eryngium yuccifolium (Rattlesnake Master)
1	Helianthus grosseserratus (Sawtooth Sunflower)
1	Helianthus occidentalis (Western Sunflower)
1	Helianthus rigidus (Showy Sunflower)
3	Heliopsis helianthoides (False Sunflower)
1	Liatris pycnostachya (Prairie Blazing Star)
0.5	Monarda fistulosa (Bergamot)
0.5	Penstemon digitalis (Foxglove Beardtongue)
1	Petalostemum purpureum (Purple Prairie Clover)
1	Potentilla arguta (Prairie Cinquefoil)
0.5	Pycnanthemum virginianum (Mountain Mint)
4	Ratibida pinnata (Yellow Coneflower)
4	Rudbeckia hirta (Black-Eyed Susan)
3	Rudbeckia subtomentosa (Sweet Black-Eyed Susan)
2	Silphium integrifolium (Rosinweed)
2	Silphium laciniatum (Compass Plant)
2	Silphium terebinthinaceum (Prairie Dock)
2	Solidago rigida (Stiff Goldenrod)
1	Solidago riddellii (Riddell's Goldenrod)
2	Vernonia altissima (Tall Ironweed)
0.5	Veronicastrum virginicum (Culver's Root)
48	= Total oz/acre

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/04/24	REVISIONS PER LFA REVIEW COMMENTS	EAG	EAG

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC.
CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISNER — REGISTERED — Nº PE10403858 — STATE OF INDIANA — PROFESSIONAL ENGINEER

DATE: 07/13/24

DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

GENERAL DETAILS

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C10.1
SHEET 15 OF 53

EARTHWORK

1. SCOPE OF WORK

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

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

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

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

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

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

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

2. BENCH MARKS

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

3. REMOVAL OF TREES

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

   B. All brush, stumps, wood and other refuse from the trees shall be removed to disposal areas off of the site. Disposal by burning shall not be permitted unless proper permits are obtained (where applicable). ~~The location of on-site burn pits shall be approved by the owner and the Engineer if permitted.~~

4. PROTECTION OF TREES

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

5. HANDLING OF TOPSOIL

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

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

6. DISPOSITION OF UTILITIES:

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

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

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

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

7. SITE GRADING:

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

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

   C. Compaction Requirements:

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

      2. All other fill areas shall be compacted to 90% standard proctor density.

      3. All areas where cut is necessary to meet the design sub-grade are required to be scarified 12 inches below sub-grade and meet the above compaction requirements.

8. EARTH WORK BALANCE

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

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

9. TESTING

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

SANITARY SEWER SYSTEMS

REFERENCE CITY OF NOBLESVILLE STANDARDS, REVISED 07/08/2021.

STORM SEWER SYSTEMS

REFERENCE CITY OF NOBLESVILLE STANDARDS, REVISED 07/08/2021.

STREETS AND PAVING

1. SCOPE OF WORK

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

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

2. MATERIALS

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

      1. Portland cement – Conforming to ASTM C-150, Type IA or Type IIIA.

      2. Aggregates: Conforming to ASTM C-33

      3. Water – Shall be clear and free from injurious amounts of oils, acids, alkalis, organic materials or other deleterious substances.

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

   C. Premoulded Joint Filler – Shall be of non-extruding type meeting ASTM D-544 except that premoulded joint filler used in concrete walk construction may be either non-extruding or resilient.

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

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

SIEVE SIZE	% PASSING
1-1/2"	100
1"	80-100
3/4"	70-90
1/2"	55-80
#4	35-60
#8	25-50
#30	12-30
#200	5-10

3. APPLICATION

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

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

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

   D. Compacted Aggregate Subbase – the thickness shown on the drawings is the minimum thickness of the fully compacted subbase. Compaction shall be accomplished by rolling with a smooth wheeled roller weighing 8 to 10 tons. Compact to 95% standard proctor density (ASTM D698) Along curbs, headers and walls and at all placed not accessible to the roller, the aggregate material shall be tamped with mechanical tampers or with approved hand tampers.

   E. Bituminous Pavement – Hot asphalt concrete pavement shall be as specified in Section 400-410 of the Indiana Department of Transportation Specifications latest revisions. Paving will not be permitted during unfavorable weather or when the temperature is not in compliance with section 401.05 of the INDOT Specifications.

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

   G. Placing Concrete

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

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

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

   H. Concrete Curb

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

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

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

   I. Concrete Walks and Exterior Steps

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

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

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

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

   K. Finish Pavement Grade – The tolerance for paved areas shall not exceed 1/2-inch ± from finished grade as shown on the design plan. Under no circumstances will "bird baths" holding 1/4-inch of stormwater be accepted by the engineer/owner and contractor will be required to repair/replace/repave the area at no additional cost to owner.

UTILITIES

1. WATER

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

2. GAS

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

3. OTHER UTILITIES

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

4. IDENTIFICATION / LOCATION

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

   A. Identification Tape

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

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

   B. Location Wire

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

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

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

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

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

EXTERIOR STEPS/HANDRAILS PER ADAAG 4.9
4.9.2 Treads and Risers. On any given flight of stairs, all steps shall have uniform riser heights and uniform tread widths. Stair treads shall be no less than 11 in (280 mm) wide, measured from riser to riser. Open risers are not permitted.
4.9.3 Nosings. The undersides of nosings shall not be abrupt. The radius of curvature at the leading edge of the tread shall be no greater than 1/2 in (13 mm). Risers shall be sloped or the underside of the nosing shall have an angle not less than 60 degrees from the horizontal. Nosings shall project no more than 1-1/2 in (38 mm).
4.9.4 Handrails. Stairways shall have handrails at both sides of all stairs. Handrails shall comply with 4.26 and shall have the following features:
(1) Handrails shall be continuous along both sides of stairs. The inside handrail on switchback or dogleg stairs shall always be continuous.
(2) If handrails are not continuous, they shall extend at least 12 in (305 mm) beyond the top riser and at least 12 in (305 mm) plus the width of one tread beyond the bottom riser. At the top, the extension shall be parallel with the floor or ground surface. At the bottom, the handrail shall continue to slope for a distance of the width of one tread from the bottom riser; the remainder of the extension shall be horizontal. Handrail extensions shall comply with 4.4.
(3) The clear space between handrails and wall shall be 1-1/2 in (38 mm).
(4) Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.
(5) Top of handrail gripping surface shall be mounted between 34 in and 38 in (865 mm and 965 mm) above stair nosings.
(6) Ends of handrails shall be either rounded or returned smoothly to floor, wall or post.
(7) Handrails shall not rotate within their fittings.

REVISION RECORD				
REV	DATE	DESCRIPTION	DES BY	APP BY

COMPACTION / GEOTECH NOTE

DEPENDING ON SEASONAL PRECIPITATION AND THE MOISTURE CONTENT OF THE SOILS ON SITE, CHEMICAL MODIFICATIONS (LIME STABILIZATION) OR ALTERNATIVE METHODS MAY BE REQUIRED TO ACHIEVE THE NECESSARY COMPACTION SPECIFICATIONS.

CITY OF NOBLESVILLE STANDARDS, REVISED 07/08/2021, SHALL BE USED FOR ALL CONSTRUCTION ASSOCIATED WITH THESE CONSTRUCTION DOCUMENTS. IN THE EVENT THAT THE CITY OF NOBLESVILLE STANDARDS CONFLICT WITH INFORMATION IN THESE DOCUMENTS, THE CITY OF NOBLESVILLE STANDARDS SHALL PREVAIL.

HTC PARTNERS, LLC
9738 GULFSTREAM DRIVE
FISHERS, INDIANA 46037

CIVIL SITE GROUP, INC. CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISSNER
REGISTERED
Nº PE10403858
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07/13/24

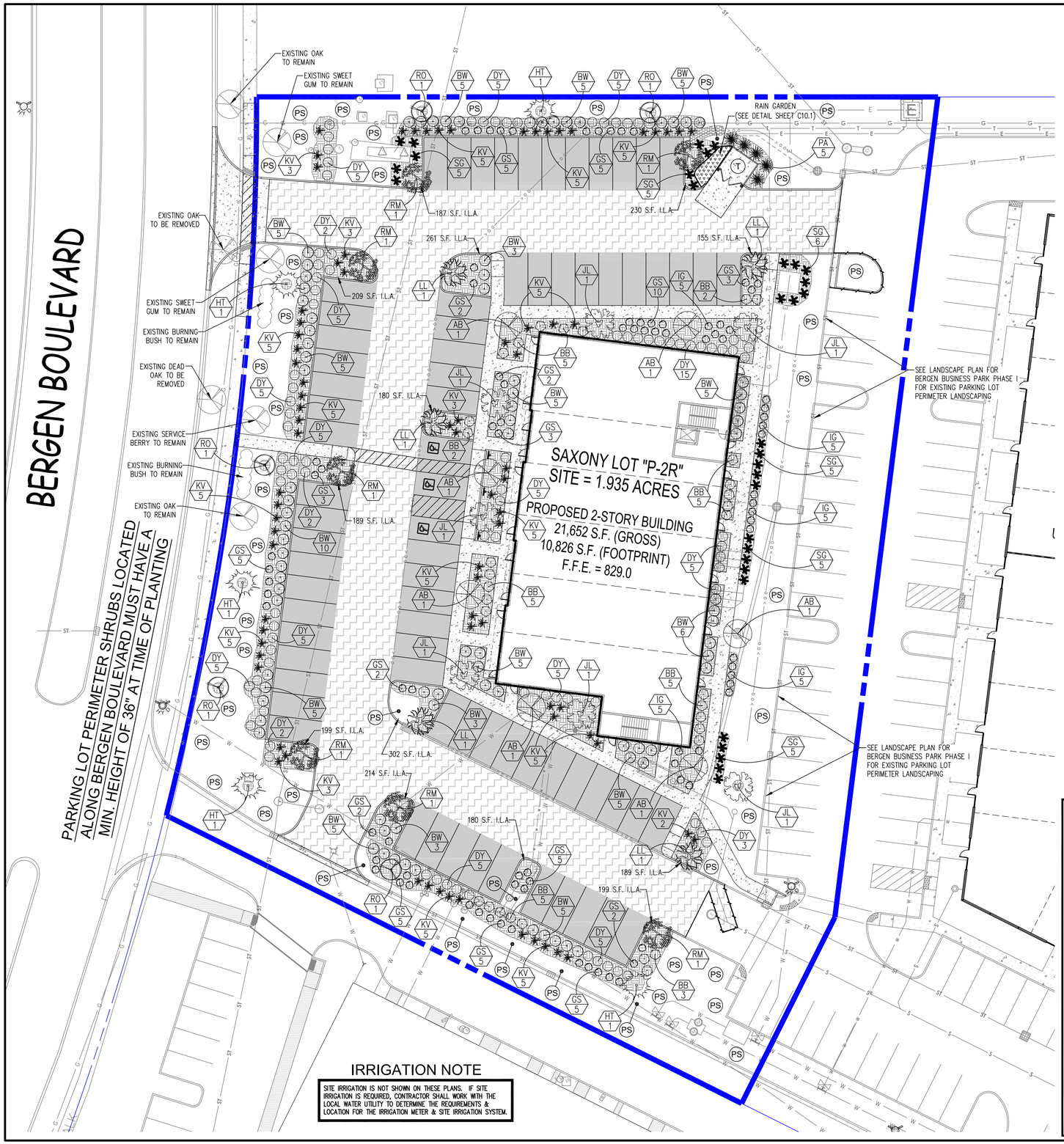
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 30'
DATE:	07/01/24

BERGEN BUSINESS PARK PHASE II
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

SPECIFICATIONS

PROJECT NUMBER
HTC.001

DRAWING NUMBER
C11.0
SHEET 16 OF 53



IRRIGATION NOTE

SITE IRRIGATION IS NOT SHOWN ON THESE PLANS. IF SITE IRRIGATION IS REQUIRED, CONTRACTOR SHALL WORK WITH THE LOCAL WATER UTILITY TO DETERMINE THE REQUIREMENTS & LOCATION FOR THE IRRIGATION METER & SITE IRRIGATION SYSTEM.

INTERIOR PARKING LOT LANDSCAPING

TOTAL PAVED AREA = 27,896± S.F.
PARKING LOT - 75 SPACES (8%) = 2,232± S.F. OF LANDSCAPING
2,694± S.F. PROVIDED

- LL - Tilia cordata 'Chancellor' Littleleaf Linden (Qty. 5) (Min. 2.5" Caliper 12" Above Ground)
- RM - Acer rubrum 'Bowhall' - Red Maple (Qty. 7) (Min. 2.5" Caliper 12" Above Ground)
- DY - Densi Yew - Taxus x media 'Densiformis' (Qty. 9) (Min. 18" Height)
- KV - Korean Spice Viburnum - 'Viburnum carlesii' (Qty. 11) - (Min. 18" Height)
- GS - Goldflame Spirea - Spiraea x bumalda 'Goldflame' (Qty. 19) - (Min. 18" Height)
- BB - Dwarf Buring Bush 'Euonymus alatus compactus' (Qty. 7) - (Min. 18" Height)
- BW - Korean littleleaf boxwood - Buxus microphylla 'koreana' (Qty. 9) - (Min. 18" Height)
- SG - Panicum vigatum - Switch Grass (Qty. 11) - (Min. 24" Height)

PERIMETER PARKING LOT LANDSCAPING

PUBLIC STREET: TWO (2) CANOPY TREES & THIRTY-THREE (33) SHRUBS FOR EVERY 100 LINEAR FEET

WEST PARKING LOT PERIMETER = 250 LINEAR FEET
REQUIRED CANOPY TREES = 5 (PROVIDED=5)
REQUIRED SHRUBS = 83

REAR & INTERIOR SIDE YARDS NOT ABUTTING RESIDENTIAL: TWO (2) CANOPY TREES & THIRTY-THREE (33) SHRUBS) FOR EVERY 100 LINEAR FEET

NORTH PARKING LOT PERIMETER = 150 LINEAR FEET
REQUIRED CANOPY TREES = 3 (PROVIDED=3)
REQUIRED SHRUBS = 50

SOUTH PARKING LOT PERIMETER = 150 LINEAR FEET
REQUIRED CANOPY TREES = 3 (PROVIDED=3)
REQUIRED SHRUBS = 50

- RO - Quercus rubra - Northern Red Oak (Qty. 5) - (Min. 2.5" Caliper 12" Above Ground)
- HT - Celtis occidentalis - Hackberry Tree (Qty. 5) (Min. 2.5" Caliper 12" Above Ground)
- DY - Densi Yew - Taxus x media 'Densiformis' (Qty. 50) - (Min. 18" Height) **Min. 36" Height Along Bergen Boulevard**
- KV - Korean Spice Viburnum - 'Viburnum carlesii' (Qty. 48) - (Min. 18" Height) **Min. 36" Height Along Bergen Boulevard**
- GS - Goldflame Spirea - Spiraea x bumalda 'Goldflame' (Qty. 30) - (Min. 18" Height)
- BB - Dwarf Buring Bush 'Euonymus alatus compactus' (Qty. 5) - (Min. 18" Height)
- BW - Korean littleleaf boxwood - Buxus microphylla 'koreana' (Qty. 50) - (Min. 18" Height) **Min. 36" Height Along Bergen Boulevard**
- SG - Panicum vigatum - Switch Grass (Qty. 5) - (Min. 24" Height)
- PA - Pyramidal Arborvitae - Thuja Occidentalis 'Pyramidalis' (Qty. 5) (Min. 6' Height for Plantings around Dumpster)

BUILDING BASE LANDSCAPING

THREE (3) ORNAMENTAL TREES & THIRTY-THREE (33) DECIDUOUS SHRUBS, EVERGREEN SHRUBS, OR ORNAMENTAL GRASSES PROVIDED EVERY 100 LINEAR FEET OF BUILDING BASE LENGTH.

BUILDING PERIMETER = 456
REQUIRED TREES = 14 (PROVIDED=14)
REQUIRED SHRUBS = 151 (PROVIDED=151)

- AB - Amelanchier x grandiflora 'Autumn Brilliance - Autum Brilliance Serviceberry (Qty. 7) (Min. 1.5" Caliper & 8' Height)
- JL - Syringa reticulata - Japanese Tree Lilac (Qty. 7) (Min. 1.5" Caliper & 8' Height)
- DY - Densi Yew - Taxus x media 'Densiformis' (Qty. 30) - (Min. 18" Height)
- KV - Korean Spice Viburnum - 'Viburnum carlesii' (Qty. 20) - (Min. 18" Height)
- GS - Goldflame Spirea - Spiraea x bumalda 'Goldflame' (Qty. 15) - (Min. 18" Height)
- BB - Dwarf Buring Bush 'Euonymus alatus compactus' (Qty. 20) - (Min. 18" Height)
- BW - Korean littleleaf boxwood - Buxus microphylla 'koreana' (Qty. 26) - (Min. 18" Height)
- SG - Panicum vigatum - Switch Grass (Qty. 15) - (Min. 24" Height)
- IG - Shamrock Inkberry - Ilex Glabra 'Shamrock' (Qty. 25) - (Min. 18" Height)

NORTH

(IN FEET)
1 inch = 20 ft.

Indiana 811 Know what's below. Call before you dig.

SPECIES NOTE

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

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET C10.2)
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- 3-INCH DEEP HARDWOOD MULCH BED. (COLOR SELECTED BY OWNER)

LANDSCAPE ARCHITECT

LANCE BROCK

PHONE: 317-504-3118
E-MAIL: lbvb@comcast.net

LICENSE No: LA80050091

LANCE A. BROCK L0091 7-1-82 STATE OF INDIANA LANDSCAPE ARCHITECT

Lana Brock 7/8/2024

PLAN NOTES:

- (T) TRASH ENCLOSURE SEE ARCHITECTURAL PLAN FOR DETAIL
- (PS) PERMANENT SEEDING W/STRAW MULCH ALTERNATE: NURSERY SOD

TOPOGRAPHIC & BOUNDARY NOTE

ALL EXISTING HORIZONTAL AND VERTICAL INFORMATION HAS BEEN SHOWN PER AN EXISTING CONDITIONS TOPOGRAPHIC AND UTILITY SURVEY SUPPLEMENTED WITH CIVIL CONSTRUCTION PLANS AND A SECONDARY PLAT ALL PREPARED BY ON CIVIL & ENVIRONAMENTAL CONSULTANTS, INC. DATED 12/07/2022 (PROJECT NO. 2021-0081); THEREFORE, CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF ACTUAL HORIZONTAL AND VERTICAL DATA IS DIFFERENT FROM THAT SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO COMMENCING WITH CONSTRUCTION.

UTILITY LOCATE NOTE

INDIANA 811 FAILED TO LOCATE ALL EXISTING UTILITIES ON AND/OR SURROUNDING THE SUBJECT SITE; THEREFORE, CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ANY EXISTING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF THE PROPOSED IMPROVEMENTS INTERFERE WITH ANY EXISTING UTILITY INFORMATION NOT SHOWN ON THESE PLANS.

LANDSCAPE NOTE

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

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/04/24	REVISIONS PER SAXONY DESIGN REVIEW COMMENTS	EAG	EAG

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CIVIL SITE GROUP, INC. CivilSite GROUP, INC.
718 Adams Street, Suite E
Carmel, Indiana 46032
Ph: (317) 810-1677

ERIC A. GLEISNER REGISTERED Nº PE10403858 STATE OF INDIANA PROFESSIONAL ENGINEER

DATE: 07/13/24

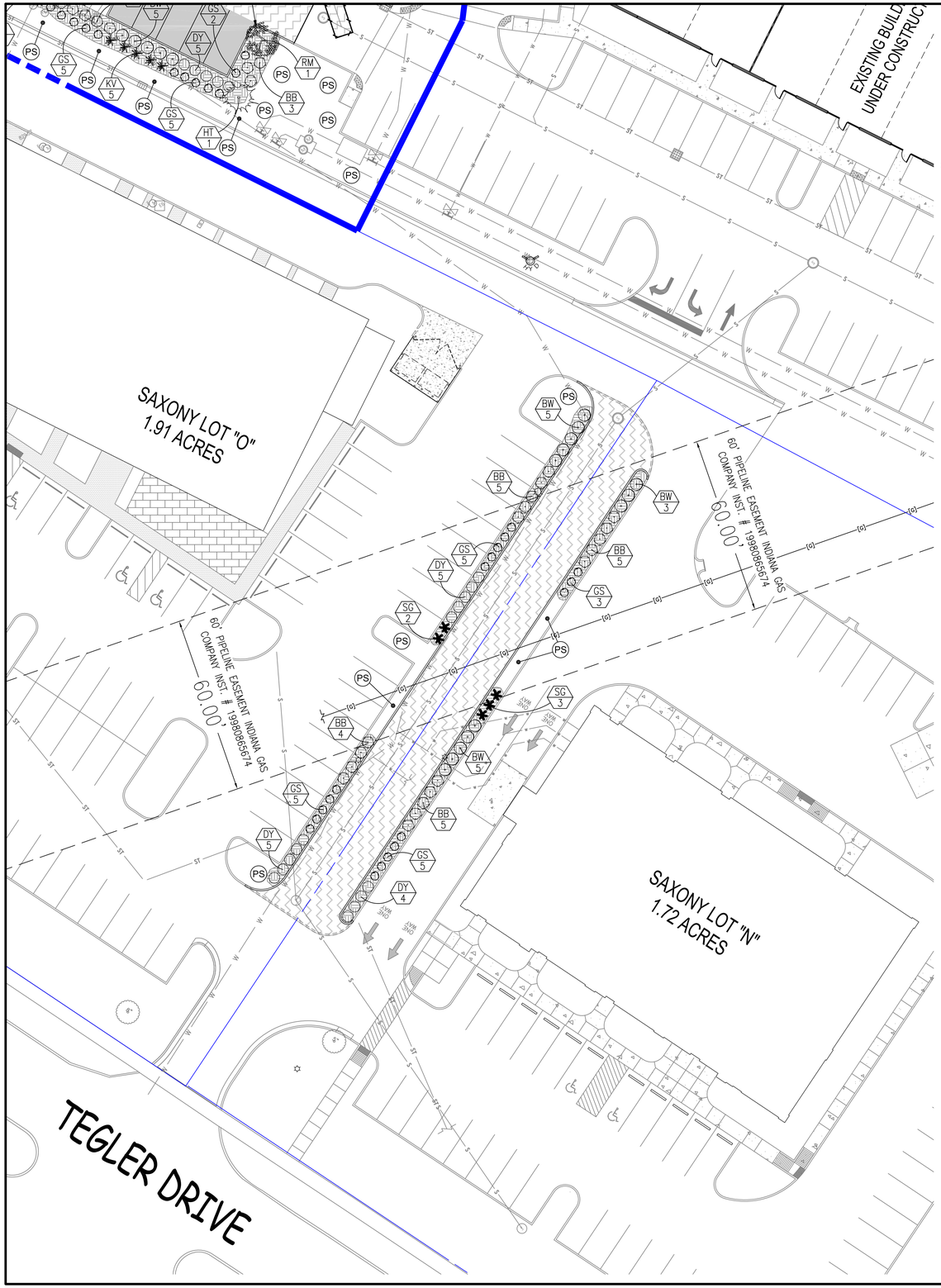
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 20'
DATE:	07/01/24

HTC OFFICE BUILDING
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

LANDSCAPE PLAN
(SHEET 1 OF 2)

PROJECT NUMBER
HTC.001

DRAWING NUMBER
L1.0
SHEET 17 OF 53



NORTH

20 0 10 20

(IN FEET)

1 inch = 20 ft.

Know what's below. Call before you dig.

SPECIES NOTE

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

LEGEND:

- PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- PROPOSED CONCRETE
- PROPOSED PAINTED DIAGONAL STRIPED ISLAND
- STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL SHEET C10.2)
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- 3-INCH DEEP HARDWOOD MULCH BED. (COLOR SELECTED BY OWNER)
- PROPOSED STORM SEWER
- SUBSURFACE DRAIN
- PROPOSED ELECTRIC SERVICE
- PROPOSED TELECOM SERVICE
- PROPOSED WATER SERVICE
- PROPOSED GAS SERVICE
- PROPOSED SANITARY LATERAL
- PROPOSED PRIMARY 3Ø DUKE ENERGY ELECTRIC TRANSFORMER
- EX. UNDERGROUND GAS LINE
- EX. UNDERGROUND SANITARY SEWER LINE
- EX. UNDERGROUND STORM SEWER LINE
- EX. UNDERGROUND WATER LINE
- FIRE HYDRANT
- WATER VALVE
- WATER METER

PLAN NOTES:

- (T) TRASH ENCLOSURE SEE ARCHITECTURAL PLAN FOR DETAIL
- (PS) PERMANENT SEEDING W/STRAW MULCH ALTERNATE: NURSERY SOD

TOPOGRAPHIC & BOUNDARY NOTE

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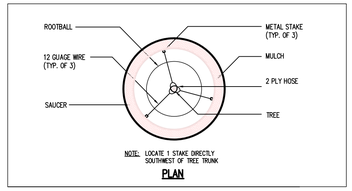
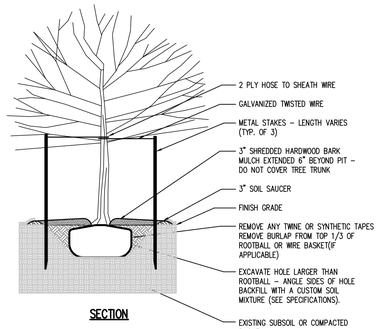


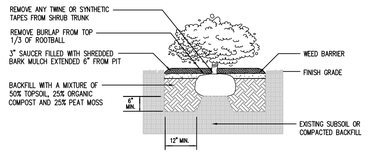
TREE STAKING DETAIL

SCALE: NOT TO SCALE



DECIDUOUS TREE DETAIL

SCALE: NOT TO SCALE



SHRUB DETAIL

SCALE: NOT TO SCALE

UTILITY LOCATE NOTE

INDIANA 811 FAILED TO LOCATE ALL EXISTING UTILITIES ON AND/OR SURROUNDING THE SUBJECT SITE; THEREFORE, CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ANY EXISTING UTILITIES AND DRAINAGE INFRASTRUCTURE BEFORE COMMENCING WITH CONSTRUCTION. CIVIL SITE GROUP, INC. CANNOT BE HELD RESPONSIBLE IF THE PROPOSED IMPROVEMENTS INTERFERE WITH ANY EXISTING UTILITY INFORMATION NOT SHOWN ON THESE PLANS.

VECTREN ENERGY LANDSCAPING NOTES

(SUBJECT TO EXECUTED ENCROACHMENT AGREEMENT - INSTRUMENT NO. 2016029297)

No bushes, shrubbery, or other plants associated with landscaping shall be planted within a private easement that would impair or impede access to company facilities. In an ornamental landscaping situation, small bushes and shrubbery with a mature height no greater than 4 ft. may be planted within the easement if planted greater than 10 feet from the pipeline. All plantings within the easement, including the above-mentioned bushes, shrubbery, and other plants are still subject to removal by Vectren without compensation to the property owner. In a natural area situation, bushes and shrubbery are not permitted in order to provide sufficient space for efficient vegetation management activities. If such vegetation is already in an area when a private easement is being purchased then the presence of that vegetation becomes another item to be negotiated and if such vegetation is to be removed, the value of that vegetation becomes part of the purchase price for the easement. If the vegetation is already in a public utility easement or right of way, care should be taken to determine whether the presence of such vegetation renders that area unsuitable for Company facilities, and, if so, a private easement must be considered. If such vegetation is found on an existing private easement, that easement must be reviewed carefully to determine whether such vegetation is allowed under the terms of the easement. If it is allowed, the next determination is whether its presence adversely affects operations or public safety, and, if it does, a subsequent easement may be negotiated to purchase and remove the vegetation. The Encroachment Program Manager should be contacted to work out conditions, details, before any planting is permitted.

LANDSCAPE NOTES:

All species of plant materials and substitutions thereof are subject to acceptance by the City of Fishers Development Department and approval of the Owner(s) or a representative of the Owner(s).

All plant materials are to be warranteed for a period of no less than one year from final acceptance by the Owner(s) or a representative of the Owner(s).

All plant material is to be planted in a manner that ensures its survival. Any environmental or other type of situation that is noted by the landscape Contractor that could potentially injure the plant or shorten its longevity is to be made known to the Owner(s) and potential substitutions or corrections to the situation can be made at no expense to the Contractor.

All materials failing the one year warrantee period are to be replaced at the expense of the Landscape Contractor.

Any deviation from responsible landscape practices and the Town of Fishers Ordinances will result in the immediate termination of the Landscape Contract and the Contractor will pay all costs associated with the corrections.

All plant material is to come from respectable sources within 100 miles of the site on which it is being installed. If no source for a plant species or acceptable substitute is available within this area, the project Landscape Architect/Engineer is to be notified immediately to make a determination of possible options.

All plant material is subject to approval by the project Landscape Architect/Engineer prior to installation and may be rejected for reasons of health, aesthetics, size or other reasonable causes.

The Landscape Contractor is responsible for the timely installation of all material in his contract. Should there be a delay due to weather or other unforseeable, natural circumstances, the timeline will be adjusted.

IRRIGATION CONTRACTOR IS RESPONSIBLE TO SUPPLY WATER METER PIT, SERVICE TAPS AT PUBLIC MAIN, AND ALL APPURTENCES REQUIRED BY THE WATER SERVICE PROVIDER.

IRRIGATION NOTE

SITE IRRIGATION IS NOT SHOWN ON THESE PLANS. IF SITE IRRIGATION IS REQUIRED, CONTRACTOR SHALL WORK WITH THE LOCAL WATER UTILITY TO DETERMINE THE REQUIREMENTS & LOCATION FOR THE IRRIGATION METER & SITE IRRIGATION SYSTEM.

LANDSCAPE ARCHITECT

LANCE BROCK

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E-MAIL: lbvb@comcast.net

LICENSE No: LA80050091

LANCE A. BROCK L0091 7-1-82 STATE OF INDIANA LANDSCAPE ARCHITECT

Lana Brock 7/9/2024

LANDSCAPE NOTE

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

OFF-SITE ACCESS DRIVE LANDSCAPING

- DY - Densi Yew - Taxus x media 'Densiformis' (Qty. 14) (Min. 18" Height)
- BB - Dwarf Buring Bush 'Euonymus alatus compactus' (Qty. 19) - (Min. 18" Height)
- BW - Korean littleleaf boxwood - Buxus microphylla 'koreana' (Qty. 13) - (Min. 18" Height)
- SG - Panicum vigatum - Switch Grass (Qty. 5) - (Min. 24" Height)
- GS - Goldflame Spirea - Spiraea x bumalda 'Goldflame' (Qty. 18) - (Min. 18" Height)

REVISION RECORD

REV	DATE	DESCRIPTION	DES BY	APP BY
1	08/23/24	REVISIONS PER T.A.C. REVIEW COMMENTS	EAG	EAG
2	12/04/24	REVISIONS PER SAXONY DESIGN REVIEW COMMENTS	EAG	EAG

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ERIC A. GLEISSNER REGISTERED Nº PE10403858 STATE OF INDIANA PROFESSIONAL ENGINEER

DATE: 07/13/24

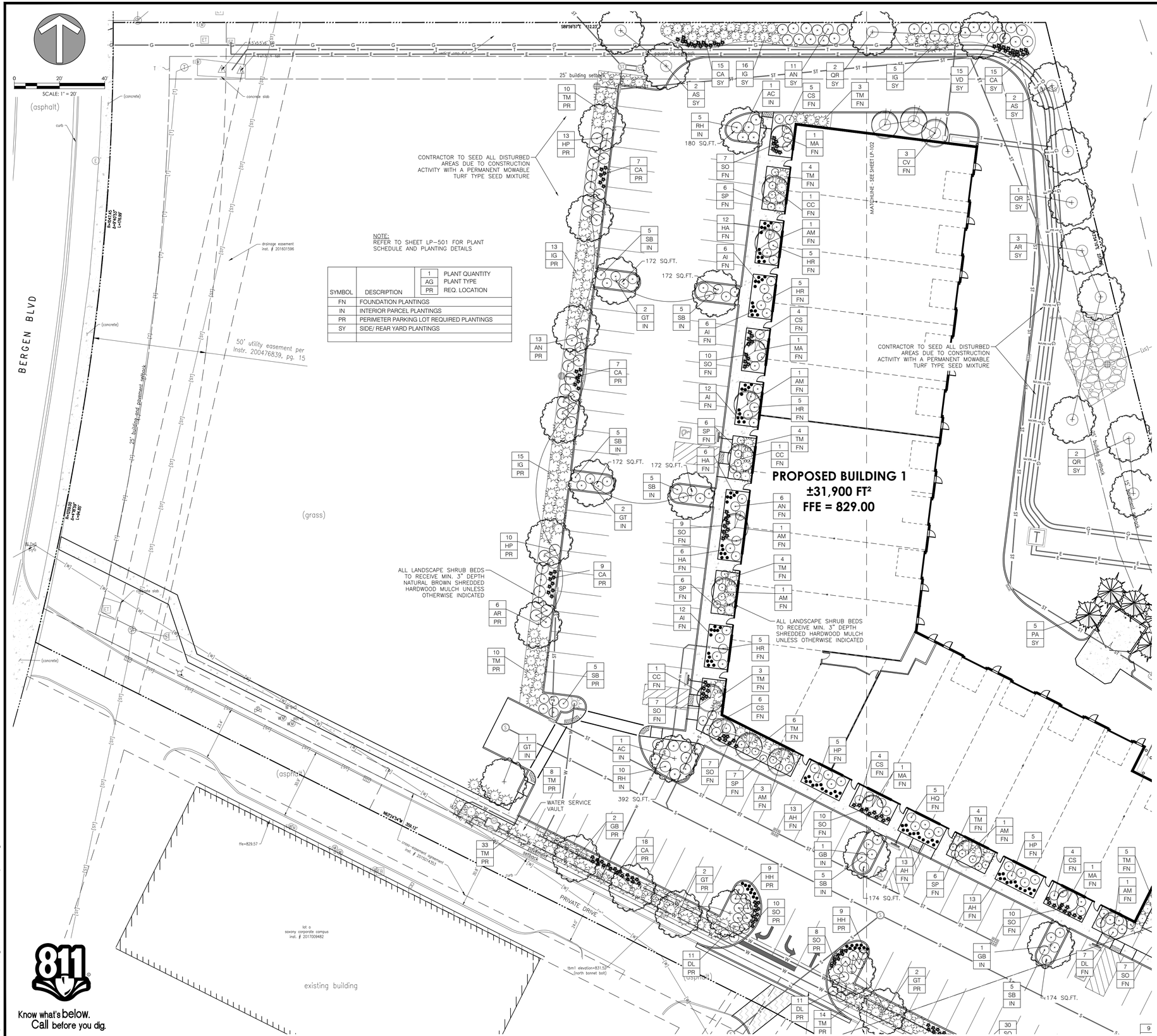
DWN BY:	EAG
CHKD. BY:	EAG
SCALE:	1" = 20'
DATE:	07/01/24

HTC OFFICE BUILDING
14238 BERGEN BOULEVARD (LOT "P" SAXONY)
NOBLESVILLE, INDIANA 46060

LANDSCAPE PLAN
(SHEET 2 OF 2)

PROJECT NUMBER
HTC.001

DRAWING NUMBER
L1.1
SHEET 18 OF 53



GENERAL LANDSCAPE NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY, OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD DIMENSIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
3. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT/RECORD DRAWINGS ON THE JOB SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNER'S REPRESENTATIVE UPON COMPLETION.
4. NO CHANGES TO THE SITE LANDSCAPE LAYOUT ARE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
5. CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUALITY AND QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING AS SHOWN ON DRAWINGS.
6. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT "AMERICAN ASSOCIATION OF NURSERY STOCK. ANSI Z80.1–2004", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN.
7. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND APPROVED.
8. ALL PLANTS SHALL BE PLANTED SO THAT THE ROOT CROWN IS PLANTED AT GRADE LEVEL.
9. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT THE TIME OF PLANTING. TWINE OR ROPE SHALL BE REMOVED FROM AROUND CROWN OF TRUNK TO PREVENT GIRDLING OF TREE OR SHRUB.
10. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL SHALL BE CUT THROUGH THE SURFACE IN TWO VERTICAL LOCATIONS.
11. THE DAY PRIOR TO PLANTING, THE LOCATIONS OF ALL TREES AND SHRUBS SHALL BE STAKED FOR APPROVAL BY OWNER(S).
12. THE LANDSCAPE CONTRACTOR SHALL REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
13. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE NEW PLANT MATERIAL THROUGH ONE (1) CALENDAR YEAR FROM THE TIME OF SUBSTANTIAL COMPLETION OF PROJECT.
14. IF THERE IS A DISCREPANCY BETWEEN THE PLANS AND THE PLANT SCHEDULE, THE PLANS SHALL TAKE PRECEDENCE.
15. CONTRACTOR SHALL REPAIR ANY DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
16. STAKES AND OR GUY WIRES SHALL BE REMOVED AFTER ONE (1) YEAR OF INSTALLATION.
17. ALL EXISTING LANDSCAPING SHALL BE MAINTAINED DURING CONSTRUCTION. ANY MATERIAL DEEMED DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT, WILL BE REPLACED EQUIVALENT IN SIZE AND SHAPE AT NO COST TO OWNER.
18. IF PLANT SPECIES SPECIFIED ARE FOUND TO BE UNAVAILABLE OR NOT IN SUFFICIENT QUANTITIES AT TIME OF PLANTING, THE CONTRACTOR MAY SUBSTITUTE SPECIES UPON WRITTEN APPROVAL BY LANDSCAPE ARCHITECT.

'IN'- INTERIOR PARKING LOT PLANTING TABLE- CLASS 'C'

ARTICLE 12; SECTION 5.C.1
(MIN 8% OF INTERIOR LOT TO HAVE LANDSCAPE AREA.)
(1 TREE & 5 SHRUBS PER ISLAND)

SYMBOL	INTERIOR PARKING AREA	LANDSCAPE AREA REQUIRED	LANDSCAPE AREA PROVIDED	TREES REQUIRED	TREES PROVIDED
	53,942 SQ.FT.	4,315.4 SQ.FT.	4,924 SQ.FT.	17	18
				SHRUBS REQUIRED 85	SHRUBS PROVIDED 97

'PR'- PERIMETER PARKING LOT PLANTING TABLE

ARTICLE 12; SECTION 5.D.2
(2 CANOPY TREE STAGGERED FOR EVERY 100 LF FRONT YARD/ PUBLIC STREET)
(33 DECIDUOUS OR EVERGREEN SHRUBS FOR EVERY 100 LF)

SYMBOL	FRONT YARD	TREES REQUIRED	TREES PROVIDED	SHRUBS REQUIRED	SHRUBS PROVIDED
	PRIVATE DRIVE - 416 LF	8.32	10	137.28	147 (81 EVERGREEN)
	BERGEN BLVD- 268 LF	5.36	6	88.44	89 (48 EVERGREEN)

'FN'- FOUNDATION PLANTING TABLE

ARTICLE 12; SECTION 6
(FOUNDATION AREA- : 3 UNDERSTORY TREES PER 100 LF OF FOUNDATION
10' WIDE PLANTING AREA: 33 SHRUBS PER 100 LF OF FOUNDATION)

SYMBOL	BLDG. FOUNDATION	UNDERSTORY TREES REQUIRED	UNDERSTORY TREES PROVIDED
	BLDG. #1: 628 LF	18.84	19
	BLDG. #2: 341 LF	10.23	11
		SHRUBS/ GRASSES REQUIRED	SHRUBS/ GRASSES PROVIDED
	BLDG. #1: 628 LF (10' WIDE)	207.24	212
	BLDG. #2: 341 LF (10' WIDE)	112.53	114

'SY'- SIDE/ REAR YARD PLANTING TABLE

(2 CANOPY TREE STAGGERED FOR EVERY 100 LF SIDE/ REAR YARD)
(33 DECIDUOUS OR EVERGREEN SHRUBS FOR EVERY 100 LF)

SYMBOL	YARD LOCATION	TREES REQUIRED	TREES PROVIDED	SHRUBS REQUIRED	SHRUBS PROVIDED
	NORTH (SIDE)- 195 LF	3.9	4	64.35	65
	NORTH (REAR)- 650 LF	13.0	13	214.5	0*
	EAST (SIDE)- 308 LF	6.16	0**	101.64	0**

* VARIANCE REQUEST

** WAIVER DUE TO EASEMENT (EAST SIDE YARD IS LOCATED WITHIN AN DRAINAGE EASEMENT- EXISTING TREES AND UNDERBRUSH IS TO REMAIN)

ADDITIONAL LANDSCAPE NOTES: PIPELINE EASMENT-

1. NO BUSHES, SHRUBBERY, OR OTHER PLANTS ASSOCIATED WITH LANDSCAPING SHALL BE PLANTED WITHIN A PRIVATE EASEMENT THAT WOULD IMPAIR OR IMPEDE ACCESS TO COMPANY FACILITIES.
2. IN AN ORNAMENTAL LANDSCAPE SITUATION, SMALL BUSHES AND SHRUBBERY WITH A MATURE HEIGHT NO GREATER THAN 4 FT. MAY BE PLANTED WITHIN THE EASEMENT IF PLANTED GREATER THAN 10 FT FROM THE PIPELINE.
3. ALL PLANTINGS WITHIN THE EASEMENT INCLUDING THE ABOVE–MENTIONED BUSHES, SHRUBBERY, AND OTHER PLANTS ARE STILL SUBJECT TO REMOVAL BY GAS COMPANY WITHOUT COMPENSATION TO PROPERTY OWNER.
4. IN A NATURAL AREA SITUATION, BUSHES AND SHRUBBERY ARE NOT PERMITTED IN ORDER TO PROVIDE SUFFICIENT SPACE FOR EFFICIENT VEGETATION MANAGEMENT ACTIVITIES. IF SUCH VEGETATION IS ALREADY IN AN AREA WHEN A PRIVATE EASEMENT IS BEING PURCHASED THEN THE PRESENCE OF THAT VEGETATION BECOMES ANOTHER ITEM TO BE NEGOTIATED AND IF SUCH VEGETATION IS TO BE REMOVED, THE VALUE OF THAT VEGETATION BECOMES PART OF THE PURCHASE PRICE FOR THE EASEMENT.
5. IF THE VEGETATION IS ALREADY IN A PUBLIC UTILITY EASEMENT OR RIGHT–OF–WAY, CARE SHOULD BE TAKEN TO DETERMINE WHETHER THE PRESENCE OF SUCH VEGETATION RENDERS THAT AREA UNSUITABLE FOR COMPANY FACILITIES, AND IF SO, A PRIVATE EASEMENT MUST BE CONSIDERED. IF SUCH VEGETATION IS FOUND ON AN EXISTING PRIVATE EASEMENT, THAT EASEMENT MUST BE REVIEWED CAREFULLY TO DETERMINE WHETHER SUCH VEGETATION IS ALLOWED UNDER THE TERMS OF THE EASEMENT. IF ALLOWED, THE NEXT DETERMINATION IS WHETHER ITS PRESENCE ADVERSELY AFFECTS OPERATIONS OR PUBLIC SAFETY, AND, IF IT DOES, A SUBSEQUENT EASEMENT MAY BE NEGOTIATED TO PURCHASE AND REMOVE THE VEGETATION.
6. THE ENCROACHMENT PROGRAM MANAGER SHOULD BE CONTACTED TO WORK OUT CONDITIONS, DETAILS BEFORE ANY PLANTING IS PERMITTED.

REVISION BLOCK
1. 12/07/2022 KPB - REV. PER TAC REVIEW AND GAS PIPELINE INVESTIGATION
2. 04/06/2023 KPB - REV. PER CITY ENGINEERING REVIEW COMMENTS
3. 04/20/2023 BF - REV. PER CITY PLANNING REVIEW COMMENTS

REBECCA R. FEIGH — REGISTERED — No. LA29500003 — STATE OF INDIANA — LANDSCAPE ARCHITECT

DATE 12/07/2022
DRAWN BY BF | CHECKED BY KPB

CEC
CIVIL & ENVIRONMENTAL CONSULTANTS INC.
11 Municipal Drive, Suite 300
Fishers, Indiana 46038
P. (317) 570-8800
www.cecinc.com

CONSTRUCTION PLANS FOR:
BERGEN BUSINESS PARK
14214 / 14226 Bergen Boulevard
Noblesville, Indiana 46060

PARAMOUNT REALTY GROUP
9825 Gulfstream Drive
Fishers, Indiana 46037

PROJECT NO. 2021-0081
DATE 12/07/2022
SCALE 1" = 20'
SHEET NAME **LANDSCAPE PLAN**
SHEET NO. LP-101

p:\320-000\321-001\-cad\dwg\cv01 construction documents\lp-101.dwg

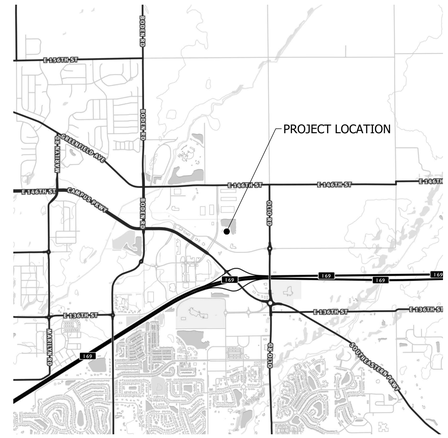
ALTA/NSPS LAND TITLE SURVEY FOR

RD INVESTMENTS HOLDING, LLC

IN THE CITY OF NOBLESVILLE,
HAMILTON COUNTY, INDIANA
PART OF THE NE 1/4 OF SEC. 23-T18N-R5E

LEGEND OF EXISTING FEATURES

PROPERTY LINE		TOR	TOP OF RIM ELEVATION
RIGHT-OF-WAY LINE		INV.	INVERT ELEVATION
SETBACK LINE		FFE	FINISHED FLOOR ELEVATION
EASEMENT		BM	BENCHMARK
SECTION LINE		RBC	MONUMENT
CENTERLINE			SECTION CORNER
799	INTERMEDIATE CONTOUR	ET HC	TRANSFORMER HVAC
800	INDEX CONTOUR	EM E	ELECTRIC METER ELECTRIC MANHOLE
[T]	TELEPHONE UNDER GR.		UTILITY POLE | GUY WIRE
[OH-T]	TELEPHONE OVERHEAD		LIGHT POLE
[FO]	FIBER OPTIC SERVICE	T	TELEPHONE PEDESTAL TELEPHONE MANHOLE
[G]	GAS SERVICE	G E	GAS MARKER ELECTRIC MARKER
[E]	POWER UNDERGROUND	TR	TRAFFIC POLE TRAFFIC MANHOLE
[OH-E]	POWER OVERHEAD	GM G	GAS METER GAS VALVE
[OH-U]	UTILITY OVERHEAD	ST S	STORM MANHOLE SANITARY MANHOLE
[W]	WATER SERVICE		STORM INLETS
[S]	SANITARY SEWER	C.O. D.S	CLEAN-OUT DOWNSPOUT
[ST]	STORM SEWER		FIRE HYDRANTS
[NP]	POND NORMAL POOL	WM W	WATER METER WATER VALVES
OOO	EX. FLOWLINE		POST INDICATOR VALVE FIRE DEPARTMENT CONN.
O O	CHAIN LINK FENCE		SIGNS
X X	FARM FENCE		MAILBOX
/ /	WOOD FENCE		ADA PARKING
IRON FENCE | RAILING		24	PARKING COUNT
BUILDING | STRUCTURE			TREES
EX. BUILDING OVERHEAD			SHRUB
		681.35	SPOT GRADE



VICINITY MAP N.T.S.

NOBLESVILLE, INDIANA

Know what's below. Call before you dig.

0 40' 80'
SCALE: 1" = 40'

HAMILTON DESIGNS A LIMITED LIABILITY COMPANY 11 Municipal Drive, Suite 300 Fishers, Indiana 46038 P. (317) 570-8800 www.hamilton-designs.com	PROJECT NO. 2021-0081 DATE 09/26/2021 SCALE 1" = 20' SHEET NO. 1 OF 2
DRAWN BY TDW | CHECKED BY TW	LAND AREA: 4.916 ACRES ±
SHEET NAME ALTA/NSPS LAND TITLE SURVEY	

ALTA/NSPS LAND TITLE SURVEY FOR
RD INVESTMENTS HOLDING, LLC
IN THE CITY OF NOBLESVILLE,
HAMILTON COUNTY, INDIANA
PART OF THE NE 1/4 OF SEC. 23-T18N-R5E

LAND DESCRIPTION (PER SURVEY):

PARCEL 1:

A PART OF THE NORTHEAST QUARTER OF SECTION 23, TOWNSHIP 18 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN, LOCATED IN THE CITY OF NOBLESVILLE, HAMILTON COUNTY INDIANA, AS SHOWN ON A SURVEY PREPARED BY TERRY D. WRIGHT FOR HAMILTON DESIGNS PROJECT # 2021-0081 DATED MONTH/DATE/2021 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING FROM THE NORTHWEST CORNER OF THE SAID NORTHEAST QUARTER; THENCE NORTH 89 DEGREES 29 MINUTES 16 SECONDS EAST (STATE PLANE BEARING INDIANA EAST) ON AND ALONG THE NORTH LINE OF SAID QUARTER SECTION 1315.81 FEET TO THE NORTHEAST CORNER OF THE WEST HALF OF SAID QUARTER SECTION AS DETERMINED FROM A CALCULATED SPLIT OF SAID NORTH LINE OF SAID QUARTER SECTION; THENCE SOUTH 00 DEGREES 07 MINUTES 32 SECONDS EAST ALONG THE EAST LINE OF SAID HALF QUARTER SECTION 2151.45 FEET TO THE SOUTHEAST CORNER OF 11.941 ACRE LEGAL DRAINAGE EASEMENT - EAST AS RECORDED IN INSTRUMENT # 201903862 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA AND THE POINT OF BEGINNING OF THIS DESCRIBED PARCEL; THENCE CONTINUING SOUTH 00 DEGREES 07 MINUTES 32 SECONDS EAST 307.83 FEET TO THE NORTHEAST CORNER OF A PARCEL OF LAND RECORDED AS INSTRUMENT # 2007057804; THENCE NORTH 71 DEGREES 35 MINUTES 58 SECONDS WEST ON AND ALONG THE NORTH LINE OF SAID PARCEL 331.46 FEET TO THE NORTHEAST CORNER OF LOT "N" SAXONY CORPORATE CAMPUS AS RECORDED AS INSTRUMENT NUMBER 2017003864; THENCE NORTH 62 DEGREES 01 MINUTES 30 SECONDS WEST ON AND ALONG THE NORTH LINE OF SAID LOT "N" 248.48 FEET TO THE NORTHEAST CORNER OF LOT "O" SAXONY CORPORATE CAMPUS AS RECORDED AS INSTRUMENT # 2017009482; THENCE NORTH 63 DEGREES 24 MINUTES 54

SECONDS WEST ON AND ALONG THE NORTH LINE OF SAID LOT "O" 359.12 FEET TO THE EAST RIGHT OF WAY LINE OF BERGEN BOULEVARD AS RECORDED ON THE SECONDARY PLAT FOR SAXONY CORPORATE CAMPUS AS INSTRUMENT # 2004016310 AND BEING ON A NON TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 1259.00 FEET, SUBTENDED BY A CHORD BEARING OF NORTH 11 DEGREES 50 MINUTES 25 SECONDS EAST AND A CHORD DISTANCE OF 94.83; THENCE AN ARC DISTANCE 94.85 FEET ALONG SAID CURVE AND ALONG SAID RIGHT OF WAY LINE TO THE BEGINNING OF A COMPOUND CURVE TURNING TO THE LEFT WITH A RADIUS OF 1047.45 FEET, HAVING A CHORD BEARING OF NORTH 04 DEGREES 50 MINUTES 29 SECONDS EAST AND A CHORD DISTANCE OF 176.78, HAVING A CENTRAL ANGLE OF 09 DEGREES 40 MINUTES 53 SECONDS; THENCE AN ARC DISTANCE OF

176.99 ALONG SAID CURVE AND SAID RIGHT OF WAY LINE; THENCE NORTH 00 DEGREES 00 MINUTES 03 SECONDS EAST ALONG SAID RIGHT OF WAY LINE 5.00 FEET TO THE SOUTHWEST CORNER OF SAID LEGAL DRAINAGE EASEMENT, THE FOLLOWING 5 CALLS FOLLOWS THE SOUTH LINE OF SAID EASEMENT;

1) THENCE SOUTH 89 DEGREES 59 MINUTES 57 SECONDS EAST 412.23 FEET;
2) THENCE SOUTH 13 DEGREES 54 MINUTES 10 SECONDS EAST 231.82 FEET;
3) THENCE SOUTH 21 DEGREES 53 MINUTES 26 SECONDS EAST 84.86 FEET;
4) THENCE SOUTH 55 DEGREES 56 MINUTES 42 SECONDS EAST 79.01 FEET;
5) THENCE SOUTH 89 DEGREES 59 MINUTES 57 SECONDS EAST 255.03 FEET TO THE POINT OF BEGINNING, CONTAINING 6.437 ACRES MORE OR LESS.

THIS SURVEY WAS CONDUCTED ACCORDING TO THE TITLE COMMITMENT FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBER CTIN2109410 REVISION 1, DATED AUGUST 9, 2021 AND REVISED DECEMBER 6, 2021. EASEMENTS CREATED OR RELINQUISHED AFTER THIS DATE ARE NOT SHOWN HEREON.

(15) GAS LINE EASEMENT GRANTED TO INDIANA GAS COMPANY, INC., ITS SUCCESSORS AND ASSIGNS, DATED NOVEMBER 6, 1998 AND RECORDED NOVEMBER 16, 1998 AS INSTRUMENT NO. 9809865674.
PLOTTED BY SCALE ON SUBJECT PARCEL.

16. UTILITY EASEMENT AND RIGHT-OF-WAY GRANTED TO INDIANA-AMERICAN WATER COMPANY, INC., DATED DECEMBER 11, 2000 AND RECORDED DECEMBER 20, 2000 AS INSTRUMENT NO. 200000062951.
DOES NOT OCCUR ON SUBJECT PARCEL.

17. MASTER DECLARATION, DATED JUNE 12, 2002 AND RECORDED AUGUST 16, 2002 AS INSTRUMENT NO. 200200058301.
BLANKET IN NATURE.

18. COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS AS SET FORTH ON SECONDARY PLAT FOR SAXONY CORPORATE CAMPUS, RECORDED MARCH 12, 2004 AS INSTRUMENT NO. 200400016310 IN PLAT CABINET 3, SLIDE 365, REPLAT RECORDED AS INSTRUMENT NO. 200600029368 IN PLAT CABINET 4, SLIDE 67 AND SECOND REPLAT RECORDED JULY 25, 2006 AS INSTRUMENT NO. 200600042635 IN PLAT CABINET 4, SLIDE 111, CERTIFICATE OF CORRECTION RECORDED JUNE 9, 2004 AS INSTRUMENT NO. 200400039705, CERTIFICATE OF CORRECTION RECORDED OCTOBER 11, 2005 AS INSTRUMENT NO. 200500066779, SURVEYOR'S AFFIDAVIT RECORDED JUNE 16, 2006 AS INSTRUMENT NO. 200600034344 AND AFFIDAVIT OF SCRIVENER'S ERROR RECORDED JUNE 16, 2008 AS INSTRUMENT NO. 2008031584.
OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
BLANKET IN NATURE.

19. DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS FOR THE SAXONY CORPORATE CAMPUS, DATED NOVEMBER 9, 2004 AND RECORDED NOVEMBER 10, 2004 AS INSTRUMENT NO. 200400076839, FIRST AMENDMENT, DATED APRIL 12, 2007 AND RECORDED MAY 24, 2007 AS INSTRUMENT NO. 2007028594 AND FIRST SUPPLEMENT, DATED JUNE 5, 2007 AND RECORDED JUNE 8, 2007 AS INSTRUMENT NO. 2007031911.
BLANKET IN NATURE.

20. TERMS, PROVISIONS AND CONDITIONS OF ORDINANCE NO. 46-6-05, RECORDED JULY 20, 2005 AS INSTRUMENT NO. 200500045351.
NOT A SURVEY RELATED ITEM.

21. EASEMENT AGREEMENT, DATED SEPTEMBER 29, 2005 AND RECORDED OCTOBER 24, 2005 AS INSTRUMENT NO. 200500069762.
DOES NOT OCCUR ON SUBJECT PARCEL.

22. DECLARATION OF EASEMENTS, DATED SEPTEMBER 15, 2006 AND RECORDED OCTOBER 10, 2006 AS INSTRUMENT NO. 200600061033.
DOES NOT OCCUR ON SUBJECT PARCEL.

23. TERMS, PROVISIONS AND CONDITIONS OF ORDINANCE NO. 71-8-06, RECORDED OCTOBER 12, 2006 AS INSTRUMENT NO. 200600061514.
DOES NOT OCCUR ON SUBJECT PARCEL.

24. TERMS, PROVISIONS AND CONDITIONS OF ORDINANCE NO. 45-9-07, RECORDED OCTOBER 4, 2007 AS INSTRUMENT NO. 2007056661.
BLANKET IN NATURE.

(25) CROSS-EASEMENT AGREEMENT DATED MARCH 23, 2015 AND RECORDED MARCH 27, 2015 AS INSTRUMENT NUMBER 2015014354.
DOES NOT OCCUR ON SUBJECT PARCEL

(26) DRAINAGE EASEMENT AGREEMENT DATED OCTOBER 7, 2016 AND RECORDED NOVEMBER 2, 2016 AS INSTRUMENT NUMBER 2016057898.
PLOTS BY SCALE ON SUBJECT PARCEL.

27. LEGAL DRAINAGE EASEMENTS AS DISCLOSED IN QUIT-CLAIM DEED DATED AUGUST 1, 2019 AND RECORDED AUGUST 20, 2019 AS INSTRUMENT NUMBER 2019038362.
LEGAL DRAIN EASEMENT - EAST ADJOINS THE NORTH LINE OF SUBJECT PARCEL.

ITEMS 1 - 14 AND 28 - 31 ARE NOT SURVEY RELATED.

#1 PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR IN THE STATE OF INDIANA, THE RELATIVE POSITION OF ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

#2 THIS SURVEY IS BASED ON A COMPLETED TITLE COMMITMENT REPORT BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT NUMBER CTIN2109410, DATED AUGUST 9, 2021. AND IS SUBJECT TO THAT COMMITMENT. ANY MISSING OR NEW INFORMATION THAT IS FOUND AFTER THE SIGNING OF THIS SURVEY DOES NOT REFLECT THE COMPETENCE OF THIS SURVEYOR. NO TITLE RESEARCH WAS COMPLETED BY THIS SURVEYOR TO PROVE OR DISPROVE ANY WORK THE TITLE COMPANY PROVIDED.

#3 BASIS OF BEARINGS: THE BEARINGS SHOWN ON THIS SURVEY ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD83 (2011.00). SAID BEARINGS ORIGINATED FROM A FIELD TRAVERSE WHICH WAS TIED (REFERENCED) TO SAID COORDINATE SYSTEM BY GPS OBSERVATIONS USING INDIANA'S INCORS RTK NETWORK.

#4 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

#5 A COMBINATION OF GPS COLLECTION AND ROBOTIC TOTAL STATION WAS UTILIZED IN COMPLETING THIS SURVEY. THE LOCATIONS OF BOUNDARY CONTROL MONUMENTS WAS COMPLETED WITH A DUAL FREQUENCY GPS RECEIVER, UTILIZING THE INDOT INCORS RTK NETWORK. ALL EQUIPMENT USED WERE TRIMBLE GPS ROVERS, TOTAL STATIONS, DATA COLLECTORS AND LEVELING INSTRUMENTS.

#6 ANY BUILDING DIMENSIONS SHOWN ON THIS SURVEY ARE BEST AS COLLECTED IN THE FIELD. BUILDINGS MAY NOT BE CLOSED FIGURES DUE TO THE TYPES OF CONSTRUCTION MATERIALS USED AND PLUMBNESS OF WALLS MEASURED.

SURVEYOR REPORT

PURPOSE OF THIS SURVEY: TO PERFORM A ALTA/NSPS LAND TITLE SURVEY OF A PARCEL OF LAND IN HAMILTON TOWN CENTER, NORTH OF TEGLER DRIVE AND EAST OF BERGEN BOULEVARD.
IN ACCORDANCE WITH TITLE 865, ARTICLE 1.1, CHAPTER 12, SECTION 1 THROUGH 30 OF THE INDIANA ADMINISTRATIVE CODE, THE FOLLOWING OBSERVATIONS AND OPINIONS ARE SUBMITTED REGARDING THE VARIOUS UNCERTAINTIES IN THE LOCATIONS OF THE LINES AND CORNERS ESTABLISHED ON THIS SURVEY AS A RESULT OF:

a) VARIANCE IN THE REFERENCE MONUMENTS;
b) DISCREPANCIES IN RECORD DESCRIPTION AND PLATS;
c) INCONSISTENCIES IN LINES OF OCCUPATION AND;
d) ACCEPTABLE RELATIVE POSITIONAL ACCURACY

THIS SURVEY IS A ORIGIONAL SURVEY AS DEFINED IN IAC 865, ARTICLE 1.1, CHAPTER 12 SECTIONS 6-18.

THE FEDERAL GOVERNMENT ORIGINALLY MONUMENTED SECTION AND CERTAIN QUARTER SECTION CORNERS IN THE ORIGINAL SUBDIVISION OF THE STATE OF INDIANA. WOOD POSTS WERE ORIGINALLY PLACED TO MARK THESE CORNERS. THE PASSAGE OF TIME HAS OBLITERATED ALL EVIDENCE OF THE ORIGINAL WOOD POSTS. WITHOUT A CONTINUOUS CHAIN OF RECORD PROVING THE PERPETUATION OF THE LOCATION OF THE WOOD POSTS, IT IS IMPOSSIBLE TO KNOW THAT THE MONUMENTS FOUND AT THESE CORNERS TODAY ARE IN THE SAME LOCATION AS THE ORIGINAL WOOD POSTS.

FINDING OF FACTS:
WITHOUT ADDITIONAL PROOF, THE FACT THAT SURVEYORS ACCEPT A MONUMENT DOES NOT MAKE IT CORRECT; THE MONUMENT MUST HAVE BEEN INITIALLY CORRECT. COMMON RAPPORT AND REPUTATION EVIDENCE DOES NOT OVERCOME CONTRARY PROOF. THEREFORE, THE LOCATION OF ANY OF THE ABOVE-DISCUSSED MONUMENTS MAY YET BE CONTRADICTED AND OVERCOME BY UNDISCOVERED EVIDENCE. AS A RESULT, ANY PROPERTY BOUNDARY, WHOSE LOCATION IS DEPENDENT ON THESE CORNER MONUMENTS, IS SUBJECT TO UNDISCOVERED EVIDENCE, WHICH MIGHT RESULT IN A DIFFERENT LOCATION FOR THE CORNERS. BECAUSE A DIMENSIONAL VALUE TO THE UNCERTAINTY OF THESE CORNERS IS SUBJECTIVE, AND FOR THESE REASONS CITED ABOVE, THE UNCERTAINTY OF THESE CORNERS IS UNKNOWN.

IF FENCES ARE TO BE INSTALLED IT SHOULD BE KEPT IN MIND THE UNCERTAINTIES OF CORNERS FOUND OR SET.

OF THE CORNERS SHOWN ON THIS SURVEY, SOME ARE REFERENCED AS TITLE CORNERS AND OTHERS AS RECORD CORNERS. A RECORD CORNER BEING A MONUMENT IN ITS PROPER LOCATION ACCORDING TO THE RULES OF THE SUBDIVISION OF SECTIONS. A TITLE CORNER IS AN EXISTING MONUMENT ESTABLISHED AND HAVING BEEN ACCEPTED OVER A PERIOD OF TIME AS THE PROPER CORNER. A TITLE CORNER IS SUBJECT TO UNDISCOVERED EVIDENCE.

AS A RESULT OF THE ABOVE OBSERVATIONS, IT IS TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE UNCERTAINTIES IN THE LOCATIONS OF THE LINES AND CORNERS ESTABLISHED ON THIS SURVEY AREA AS FOLLOWS:

THEORY OF LOCATION:

THE PARCEL OF LAND IS SHOWN ON THE SECONDARY PLAT FOR SAXONY CORPORATE CAMPUS RECORDED IN PLAT CABINET 3, SLIDE 365. HOWEVER THERE HAS BEEN THREE LOTS PLATTED ON THE SOUTH SIDE OF THE SUBJECT PARCEL. THOSE LOTS HAVE THERE OWN SEPARATE PLATS. THE HALF QUARTER SECTION WAS SUBDIVIDED OUT OF THE QUARTER SECTION IN THE SAME MANNER AS THE SECONDARY PLAT SHOWS ON PAGE 9 OF 15. THE TOTAL MEASURABLE UNCERTAINTY THAT COULD BE DETERMINED FROM THE LOCATION OF THE SECTION CORNERS VERSUS THE PLAT DIMENSIONS 0.24' OVER THE HALF QUARTER SECTION. NO MONUMENTS WERE FOUND AROUND THE PERIMETER OF THE SURVEYED PARCEL. THEY MAY HAVE BEEN DESTROYED, DUE TO CONSTRUCTION ACTIVITY.

DUE TO VARIANCES IN REFERENCE MONUMENTS:

THE NORTHEAST CORNER NORTHEAST QUARTER MAG NAIL FOUND PER COUNTY TIES.
NORTHEAST CORNER NORTHEAST QUARTER RAILROAD SPIKE FOUND PER COUNTY TIES.
SOUTHEAST CORNER NORTHWEST QUARTER HARRISON MONUMENT PER COUNTY TIES.
SOUTHWEST CORNER SOUTHWEST QUARTER MAG NAIL FOUND PER COUNTY TIES.
SOUTHWEST CORNER NORTHWEST QUARTER HARRISON MONUMENT FOUND PER COUNTY TIES.

DUE TO DISCREPANCIES IN THE RECORD DESCRIPTIONS:

NONE APPARENT.

DUE TO INCONSISTENCIES IN LINES OF OCCUPATION:

THERE ARE NO INCONSISTENCIES DUE TO THE LINES OF OCCUPATION. HOWEVER THERE IS A SHARED DRIVEWAY ALONG THE WEST PORTION OF THE SOUTHERLY BOUNDARY LINE OF THE SUBJECT PARCEL. THIS DRIVEWAY IS COVERED BY AN EASEMENT FOR JOINT USE.

RELATIVE POSITIONAL TOLERANCE:
THE RELATIVE POSITIONAL TOLERANCES IS DETERMINED BY THE FUTURE AND CURRENT USE OF THE PROPERTY. THE PARCEL IS CURRENTLY LOCATED IN THE CITY LIMITS OF NOBLESVILLE, INDIANA AND APPEARS TO BE COMMERCIAL USE. THEREFORE THIS SURVEY IS CLASSIFIED AS AN URBAN SURVEY. URBAN SURVEYS ARE PERFORMED ON LAND LYING WITHIN OR CONTIGUOUS WITH A CITY OR TOWN, EXCEPT FOR SINGLE FAMILY RESIDENTIAL LOTS. URBAN SURVEYS INCLUDE COMMERCIAL AND INDUSTRIAL PROPERTIES, CONDOMINIUMS, TOWNHOUSES, APARTMENTS, AND OTHER MULTI-UNIT DEVELOPMENTS. URBAN SURVEYS ACCEPTABLE RELATIVE POSITIONAL ACCURACY IS 0.07 FEET (21 MILLIMETERS) PLUS 50 PARTS PER MILLION.

SURVEYOR'S CERTIFICATION

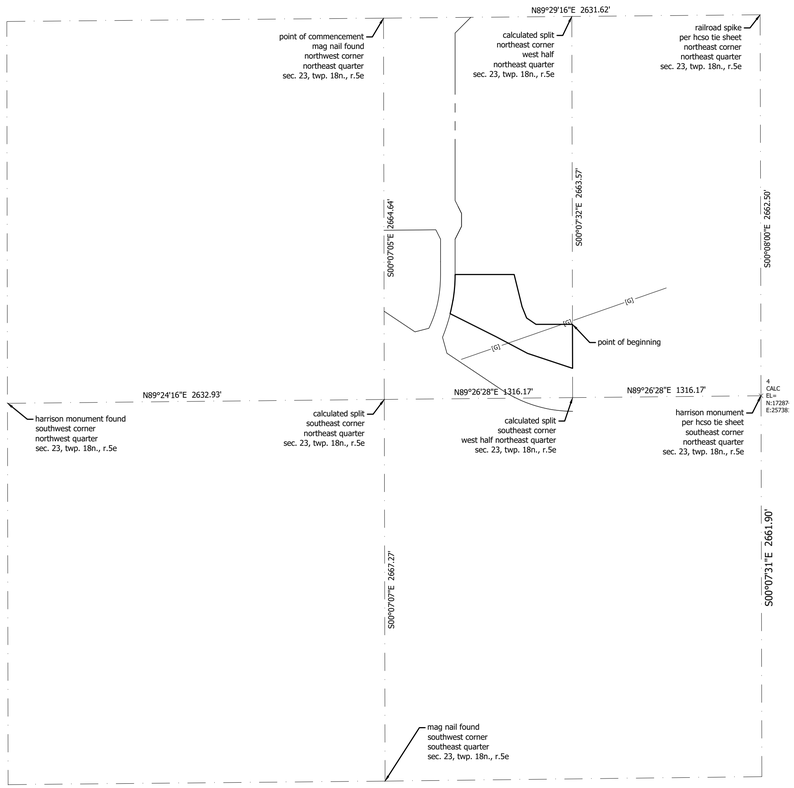
TO THE BEST OF MY KNOWLEDGE INFORMATION AND BELIEF THE WITHIN PLAT REPRESENTS A SURVEY MADE UNDER MY SUPERVISION IN ACCORDANCE WITH TITLE 865, ARTICLE 1, CHAPTER 12 OF THE INDIANA ADMINISTRATIVE CODE.

TO: CHICAGO TITLE INSURANCE COMPANY,
INTERSTATE HOLDINGS,
RD INVESTMENTS HOLDINGS, LLC AND
PROMISE ROAD PARTNERS, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6A, 7B1 8, 9, 13, 14, 17, 18 & 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON SEPTEMBER 20, 2021.

TERRY D. WRIGHT
INDIANA REGISTRATION # LS9700013
DATE: OCTOBER 15, 2021
REVISED: FEBRUARY 22, 2022
REVISED: OCTOBER 18, 2022

TERRY D. WRIGHT REGISTERED No. 9700013 STATE OF INDIANA LAND SURVEYOR



SECTION 23, TOWNSHIP 18 NORTH, RANGE 5 EAST
SCALE 1" = 500'

LEGEND OF EXISTING FEATURES

PROPERTY LINE		BENCHMARK	
RIGHT-OF-WAY LINE		RBC	MONUMENT
SETBACK LINE			SECTION CORNER
EASEMENT		ET / HC	TRANSFORMER HVAC
SECTION LINE		EM / E	ELECTRIC METER ELECTRIC MANHOLE
CENTERLINE			UTILITY POLE | GUY WIRE
799	INTERMEDIATE CONTOUR		LIGHT POLE
800	INDEX CONTOUR		TELEPHONE PEDESTAL TELEPHONE MANHOLE
[T]	TELEPHONE UNDER GR.	G / E	GAS MARKER ELECTRIC MARKER
[OH-T]	TELEPHONE OVERHEAD	TR / TR	TRAFFIC POLE TRAFFIC MANHOLE
[FO]	FIBER OPTIC SERVICE	GM / G	GAS METER GAS VALVE
[G]	GAS SERVICE	ST / S	STORM MANHOLE SANITARY MANHOLE
[E]	POWER UNDERGROUND		STORM INLETS
[OH-E]	POWER OVERHEAD	C.O. / D.S.	CLEAN-OUT DOWNSPOUT
[OH-U]	UTILITY OVERHEAD		FIRE HYDRANTS
[W]	WATER SERVICE	WM / W	WATER METER WATER VALVES
[S]	SANITARY SEWER		POST INDICATOR VALVE FIRE DEPARTMENT CONN.
[ST]	STORM SEWER		SIGNS
[NP]	POND NORMAL POOL		MAILBOX
EX. FLOWLINE			ADA PARKING
CHAIN LINK FENCE		24	PARKING COUNT
FARM FENCE			TREES
WOOD FENCE			SHRUB
IRON FENCE | RAILING			
BUILDING | STRUCTURE		× 80.25	SPOT GRADE
EX. BUILDING OVERHEAD			
RIM	RIM ELEVATION		
INV.	INVERT ELEVATION		
FFE	FINISHED FLOOR ELEVATION		

0 500' 1000'
SCALE: 1" = 500'

Know what's below. Call before you dig.

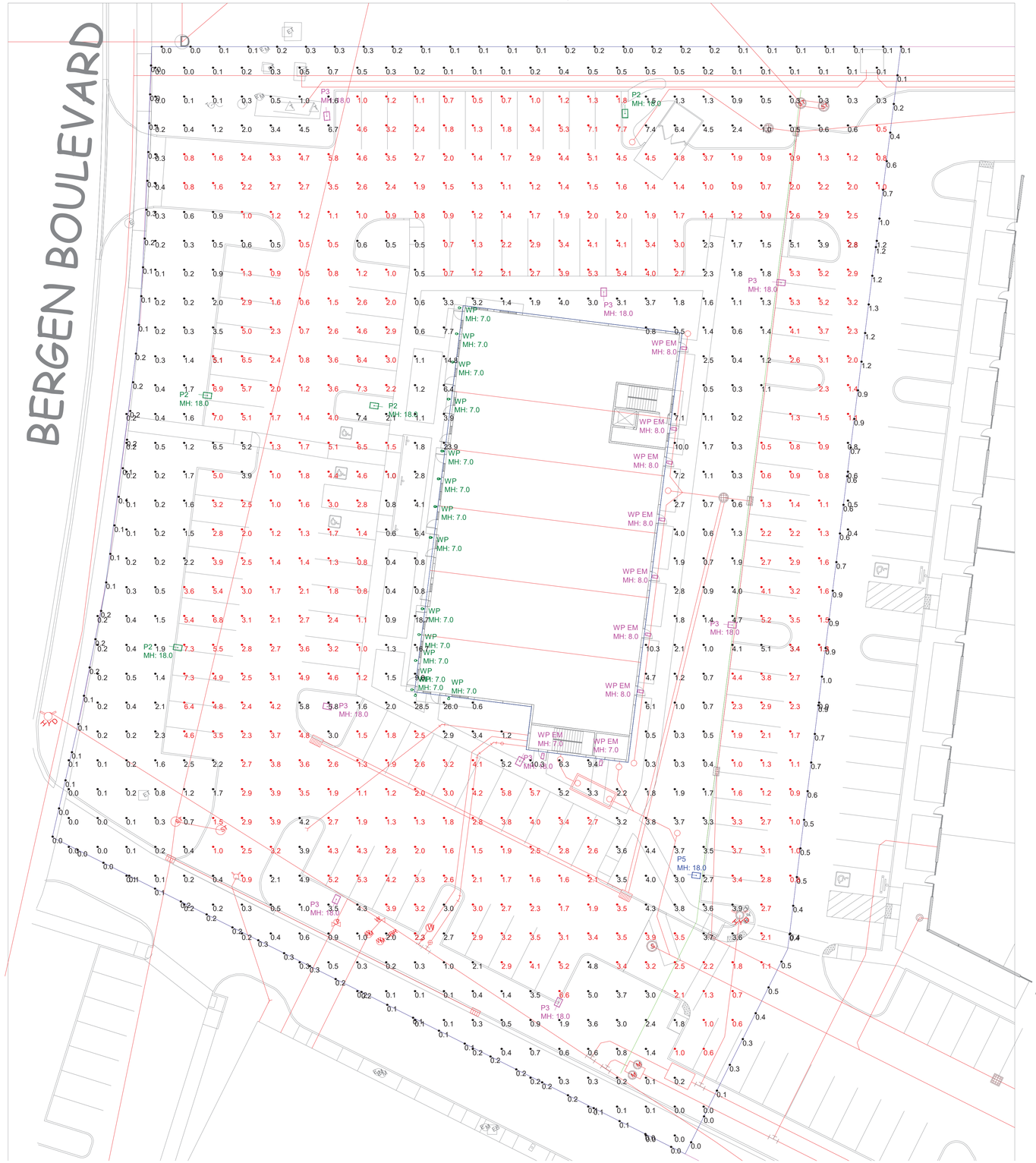
"I AFFIRM, UNDER THE PENALTIES FOR PERJURY, THAT I HAVE TAKEN REASONABLE CARE TO REDACT EACH SOCIAL SECURITY NUMBER IN THIS DOCUMENT, UNLESS REQUIRED BY LAW." TERRY D. WRIGHT

HAMILTON DESIGNS
A LIMITED LIABILITY COMPANY
11 Municipal Drive, Suite 300
Fishers, Indiana 46038
P. (317) 570-8800
www.hamilton-designs.com

PROJECT NO.	2021-0081
DATE	09/26/2021
SCALE	1" = 500'
SHEET NO.	2 OF 2
DRAWN BY: TDW	CHECKED BY: TW
LAND AREA:	4.916 ACRES±

SHEET NAME
ALTA/NSPS
LAND TITLE SURVEY

EXISTING WET DETENTION POND
100-YEAR ELEV. = 823.50
(PER "DRAINAGE COMPUTATION SUMMARY FOR NOBLESVILLE CORPORATE CAMPUS - EAST" PREPARED BY AMERICAN CONSULTING, INC. REV. 04/07/03)



THIS IS A D SIZE SHEET. THE NOTED SCALE IS NOT VALID IF PRINTED AS ANY OTHER SIZE.

Scale: 1 inch = 20 ft

Current

The magnitude of the differences between detailed analysis methods and field measurements varies. In general, differences of less than 20% can be expected, but in extreme cases, where a calculation method cannot handle the complexity of the lighting system, they may be greater. A more complete discussion of the uncertainties is available.

ANSI / IES LS-6-20
Lighting Science: Calculation of Light and its Effects

Provided for:
Zach Newcomb
Outside Sales

Provided BY:
Application Solution Center
apps@currentlighting.com

282528 Science Park Blvd.,
Beachwood, OH 44122

Designer: Christopher Brink LEED AP BD+C

Date:12/9/2024

GE Drawing #: A240940C Bergens Business Park Phase II.AGI

Bergens Business Park Phase II

AR2
25' pole with 2'-6"
Horizontal FC at Grade
Values at 50k hours

Design Summary

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts	Arr. Lum. Lumens	Total Watts
	1	P5	Single	0.850	AR2-54L-750-4K7-5QM	126.27	13886	126.27
	4	P2	Single	0.850	AR2-54L-750-4K7-2	126.27	13069	505.08
	8	P3	Single	0.850	AR2-54L-750-4K7-3	126.27	13407	1010.16
	14	WP	Single	0.850	LTC-4RW-P-20L35K8WW-DM1-S-BL	22.744	1989	318.416
	9	WP EM	Single	0.850	SG2-80-E (Emergency Mode)	13.8	1457	124.2

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Non Paves Surface	Illuminance	Fc	1.98	28.5	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	2.60	7.7	0.5	5.20	15.40
Propertyline	Illuminance	Fc	0.31	1.3	0.0	N.A.	N.A.

THIS IS A D SIZE SHEET. THE NOTED SCALE IS NOT VALID IF PRINTED AS ANY OTHER SIZE.

Current

The magnitude of the differences between detailed analysis methods and field measurements varies. In general, differences of less than 20% can be expected, but in extreme cases, where a calculation method cannot handle the complexity of the lighting system, they may be greater. A more complete discussion of the uncertainties is available.

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Lighting Science: Calculation of Light and its Effects

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282528 Science Park Blvd.,
Beachwood, OH 44122

Designer: Christopher Brink LEED AP BD+C

Date:12/9/2024

GE Drawing #: A2409940C Bergens Business Park Phase II.AGI

Bergens Business Park Phase II

AR2
25' pole with 2'-6"
Horizontal FC at Grade
Values at 50k hours

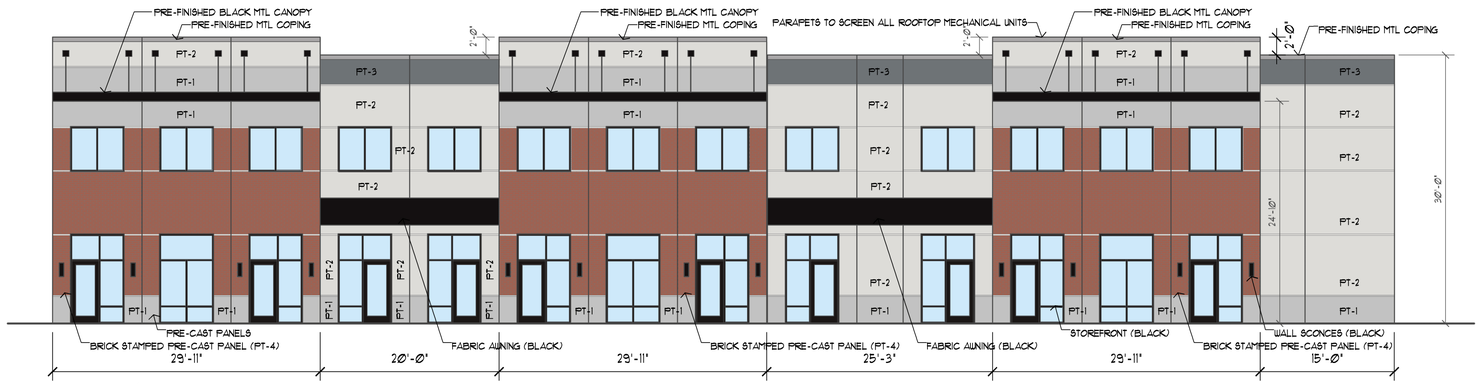
FINISH SCHEDULE

PT-1 SW 9162 (AFRICAN GRAY) OR SIMILAR
PT-2 SW 7072 (ONLINE) OR SIMILAR
PT-3 SW 7075 (WEB GRAY) OR SIMILAR
PT-4 SW 7594 (CARRIAGE DOOR) OR SIMILAR

ALUM STOREFRONT (BLACK)
GLAZING (1" INSULATED CLEAR)
METAL CANOPY (BLACK)
FABRIC AWNING (BLACK)

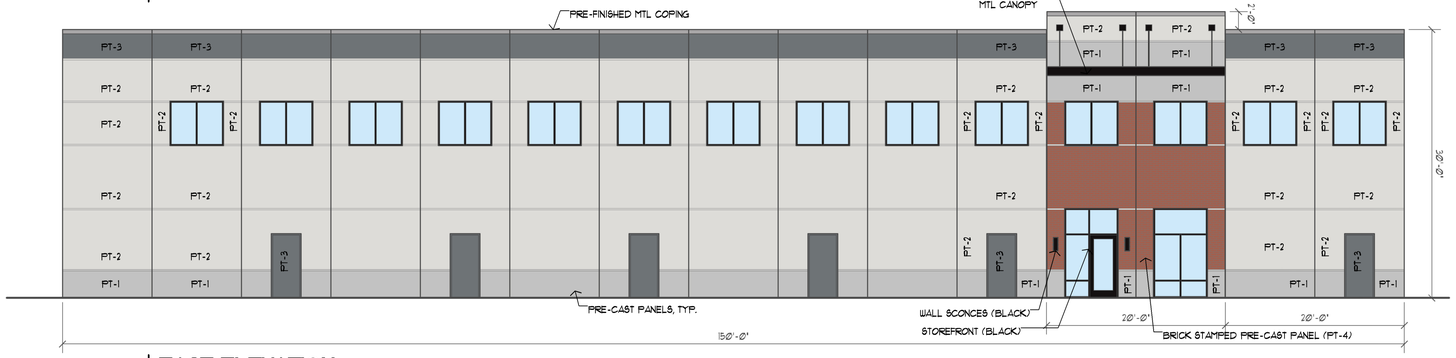
GENERAL NOTES

1. ALL SIGNAGE MUST MEET CRITERIA OF SAXONY DESIGN REVIEW



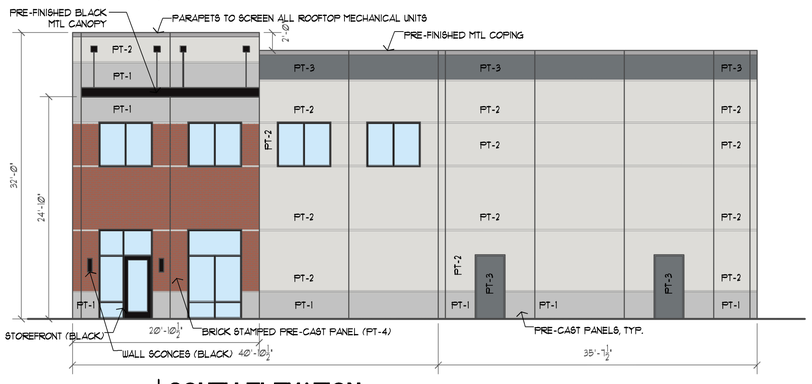
WEST ELEVATION

SCALE: 1/8"=1'-0"



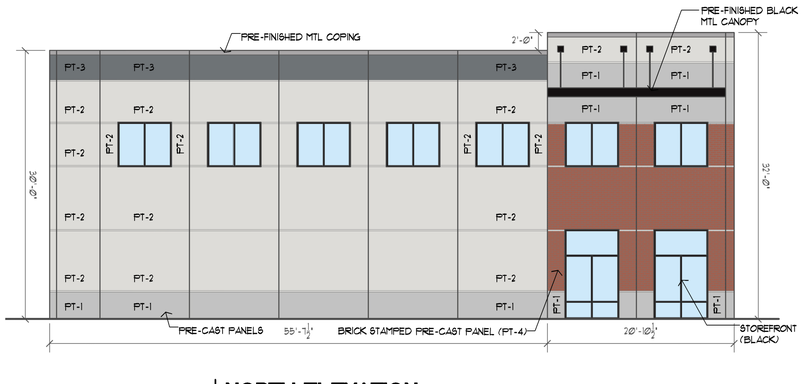
EAST ELEVATION

SCALE: 1/8"=1'-0"



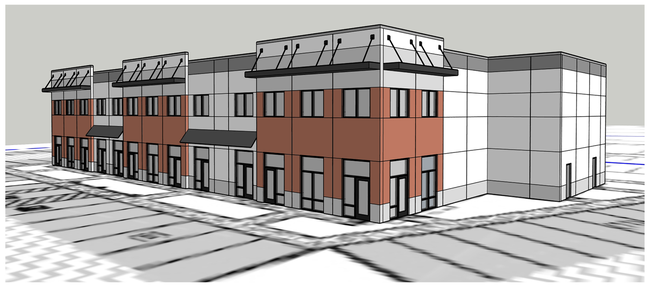
SOUTH ELEVATION

SCALE: 1/8"=1'-0"



NORTH ELEVATION

SCALE: 1/8"=1'-0"



petersonARCHITECTURE
298 South 10th Street Suite 500
Noblesville, IN 46060
p 317.770.9714
f 317.770.9718
petersonarchitecture.com

NEW CONSTRUCTION

FLEX BUILDING

BERGEN BLVD
NOBLESVILLE, INDIANA

TAC RESPONSE

SEPTEMBER 2024

REVISIONS:
1 REVISION DATE
2 REVISION DATE
3 REVISION DATE
4 REVISION DATE
5 REVISION DATE

PLOT DATE:	2024-04-11
DRAWN BY:	T.ANKER
CHECKED BY:	-
PROJECT NUMBER:	23-0262

EXTERIOR ELEVATIONS

A201

NOBLESVILLE, INDIANA

CITY STANDARDS

NOBLESVILLE COMMON COUNCIL

BRIAN AYER — MEMBER

MARK BOICE — MEMBER

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PETE SCHWARTZ — MEMBER

AARON SMITH — MEMBER

MEGAN G. WILES — MEMBER

TABLE OF CONTENTS

DIRECTIONS FOR USE

1. The entire set of signed, full size standards shall be attached to the construction drawings and shall be considered part thereto. Partial sets may be used for small projects when approved by the City of Noblesville Planning Director and/or City Engineer.

2. Details prepared by outside sources shall not be included in the construction drawings when said details cover work which is contained in the Noblesville Standards. Details covering work which is not covered by Noblesville Standards are the sole responsibility of the design engineer and shall be placed on sheets other than the Noblesville Standards sheets.

3. individual Noblesville Standards that do not apply shall be crossed–out by the design engineer through the placement of a single large 'X' over the detail. Minor reference notations may be placed adjacent to individual standard titles for coordination. However, the Standards themselves shall not be modified in any way.

4. For details, specifications, and design guidelines not covered in these Standards, refer to the documents stated below. In the event that these Standards are used, referenced, or incorporated into any publicly or privately funded project and a conflicting standard(s) and/or specification(s) exist, the following order shall govern:
   - 4.1. Noblesville Standards
   - 4.2. Unified Development Ordinance
   - 4.3. Noblesville Stormwater Technical Standards
   - 4.4. Noblesville Roundabout Standards
   - 4.5. Noblesville Traffic Calming Standards
   - 4.6. Noblesville Arboriculture Specifications Manual and Street Tree Ordinance
   - 4.7. Noblesville Standards: Pervious Concrete Pavement Design Requirements
   - 4.8. Noblesville Plastic Pipe Guidelines
   - 4.9. Noblesville Force Main Standards
   - 4.10. INDOT Standards and Specifications / Indiana Design Manual / Indiana Manual on Uniform Traffic Control Devices / INDOT Work Zone Safety Manual
   - 4.11. "Ten State Standards" prepared by Great Lakes–Upper Mississippi River Board of State Public Health and Environmental Managers and Sanitary Engineers
   - 4.12. ASTM and/or AWWA Standards and Specifications
   - 4.13. Project's Written Specifications
   - 4.14. Project's Plans

5. Design professional certifying the plans for the project acknowledges their professional responsibility for ensuring that all work is correct, accurate, and complies with all appropriate laws, standards, regulations, and ordinances. If such an error and/or omission is found, the design professional accepts full responsibility and shall determine a solution that complies with all appropriate laws, standards, regulations, and ordinances. If such an error or omission is found, the developer is not relieved to comply with all appropriate laws, standards, regulations, and ordinances.

6. All requests for interpretations and/or clarification with the standards shall be done in writing to the City Engineer. All official responses by the City Engineer will be done in writing. All requests for deviations with the standards shall be done in writing to the City Engineer. All official responses by the City Engineer will be done in writing.

GENERAL PROJECT AND CITY STANDARDS NOTES

1. Contractor shall verify the exact location of all existing utilities at least 48 hours prior to any construction or excavation. During construction, all utilities shall be adequately supported to minimize damage. The contractor shall be responsible for repairing or replacing damaged utilities to the satisfaction of the Noblesville Department of Engineering and the owner of the affected utility.

2. At the pre–construction conference, all construction drawings shall be submitted to the Noblesville Department of Engineering in paper and electronic format. Acceptable forms of electronic format include: AutoCAD 2021, or most current format. In addition, a full size PDF version shall be submitted. All coordinate data shall be compliant with the State Plane coordinate system with units provided in U.S. Survey Feet. All benchmarks and elevations shall be from the NAD 1983 datum. Reference "Digital Record Drawing Submittal Requirements" from the Noblesville Wastewater Utility Department for additional guidelines for electronic submittals.

3. Wherever proprietary equipment is specified, all proposals for substitution shall be submitted in writing to the Noblesville Department of Engineering and shall be subject to the findings thereto.

4. Plan and profile drawings and individual details prepared by outside sources shall be provided for review by the Technical Advisory Committee (T.A.C.). Any project with public works infrastructure improvements or dedications shall receive T.A.C. approval within 6 months of initial T.A.C. meeting for detailed construction plans and shall commence with construction no later than 6 months from T.A.C. approval, or shall be subject to a subsequent T.A.C. approval.

5. Electronic drawings submittal for both construction drawings and as–builts shall comply with guidelines set by City's GIS Coordinator. Electronic construction drawing submittal shall be submitted and approved after T.A.C. approval prior to pre–construction conference. As–built drawing submittal shall be submitted and approved after infrastructure has been inspected and approved by the Noblesville Department of Engineering.

6. As–built record drawings, prepared by outside sources, shall be accompanied with a detailed inventory of all fixed assets. Electronic as–built drawings in ACAD & PDF formats shall be submitted to the Noblesville Department of Engineering and shall comply with the City's GIS Coordinator's guidelines. A certified letter of attestment shall accompany the drawings. The letter of attestment shall be certified by a registered Land Surveyor. As–builts are required for sanitary sewer system, storm sewer system, BMP's, ditches/swales, roadways, trails, sidewalks, final site grading, controller cabinets, conduits, lights, signs, and all other infrastructure within Public Rights–of–Way and/or easements.

7. The contractor is responsible for maintaining a safe construction site and for keeping surrounding streets neat and clean. The contractor shall provide all traffic control, in accordance with most recent version of INDOT Work Zone Safety Manual, required on public ways near the project.

8. Geotech report and traffic impact studies may be required. Coordinate with Department of Engineering.

9. Any deviation from these Standards requires a design exception letter.

10. All sites shall have an accsessible route from the building to the R/W, following the shortest route possible, and following PROWAG guidelines while within public R/W and ADA Guidlines while in private development.

NOBLESVILLE MAYOR

CHRIS JENSEN — MAYOR

BOARD OF PUBLIC WORKS AND SAFETY

JACK MARTIN — PRESIDENT

JOHN DITSLEAR — MEMBER

LAURIE DYER — MEMBER

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EVELYN L. LEES — CLERK

NOBLESVILLE CITY ATTORNEY

LINDSEY BENNETT — CITY ATTORNEY

NOBLESVILLE PLANNING COMMISSION

GRETCHEN A. HANES — PRESIDENT

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/15/2021

CITY OF NOBLESVILLE

Directions for Use and General Notes

SHEET 1 OF 29

GENERAL NOTES

1. The Right-of-Way widths, pavement widths, and easement widths indicated on this sheet are minimum distances required by the City of Noblesville. Greater widths may be provided or required. Additional Right-of-Way width will be required in proximity of all intersections with thoroughfare roads. The contractor shall review the plat and the plans to confirm the various widths indicated on this sheet and shall report any discrepancy to the City Engineer and Noblesville Planning Department prior to proceeding with construction.

2. Where new sidewalk connects to existing sidewalk, the width of new sidewalk shall match width of existing sidewalk or be a minimum of 5 feet, whichever is greater.

3. Standard pavement markings shall be placed in accordance with the most recent Indiana Manual on Uniform Traffic Control Devices. For asphalt pavements, all pavement markings shall be thermoplastic. For concrete pavements, all pavement markings shall be multi-component.

4. Snowplowable raised pavement markers (RPMs) shall be placed on all thoroughfare roads, in accordance with the most recent Indiana Manual on Uniform Traffic Control Devices. Blue RPMs shall be used when adjacent to a fire hydrant. Contact Fire Marshall and City Engineer for placement location of blue RPMs on roadways with more than two-lanes.

5. Curb reveals are to terminate with 12:1 slope.

6. Acceleration/deceleration lanes and passing blisters shall be constructed for all new development entrances which connect to a primary arterial, secondary arterial, major collector, or INDOT Right-of-Way. See Subdivision Entrance from a Thoroughfare Detail.

7. For any development which directly adjoins a primary arterial, secondary arterial, or major collector, as depicted on the Noblesville Thoroughfare Plan, the developer shall conduct the following for said roadway(s):

   7.1. Hire an independent testing laboratory to collect pavement core samples every 400 feet, but no less than two samples per roadway. A written summary, which illustrates the aggregate sub-base thickness and pavement thickness shall be submitted to the Noblesville Department of Engineering.

   7.2. Developer shall repair all pavement failures, as determined by the Noblesville Department of Engineering.

   7.3. Developer shall widen existing culverts and bridge structures within the limits of the development.

   7.4. Developer shall only be responsible for improving existing thoroughfare roadways, between the limits of the development. See Widening Without Curb and Gutter detail, Sheet 3.

   7.5. Roadside and drainage improvements shall be included with the pavement widening, such as re-grading of drainage swales, removal of all obstructions in the Right-of-Way, including but not limited to trees, fence, stumps, etc., and/or installation of roadway pipe culverts.

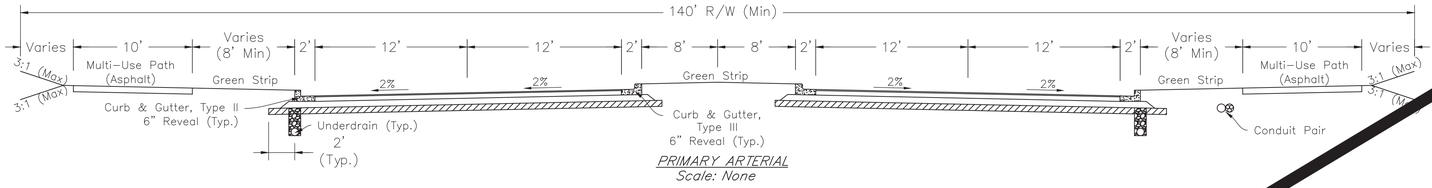
   7.6. Developer shall provide intersection sight distance study for all entrances on roadways shown on the Noblesville Thoroughfare Plan or as required by City Engineer.

   7.7. Contractor to clear Right-of-Way as necessary to achieve line of sight requirements within five days of start of construction.

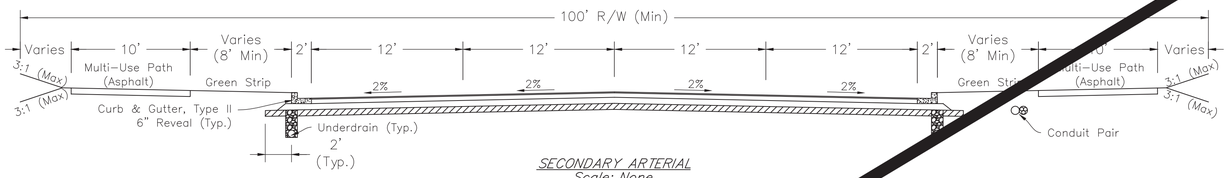
8. Material tickets shall be provided to the Noblesville Department of Engineering within seven calendar days of placing materials. All concrete, asphalt, and aggregate materials must be produced and/or supplied from an INDOT approved source and meet INDOT specifications.

9. City is not responsible for maintaining, repairing, or replacing non-public infrastructure within Right-of-Way. Non-public infrastructure includes, but is not limited to, landscaping, irrigation system, and/or fence containment systems. All work and/or improvements in the Right-of-Way requires written approval by the City, typically, a Right-of-Way Encroachment permit.

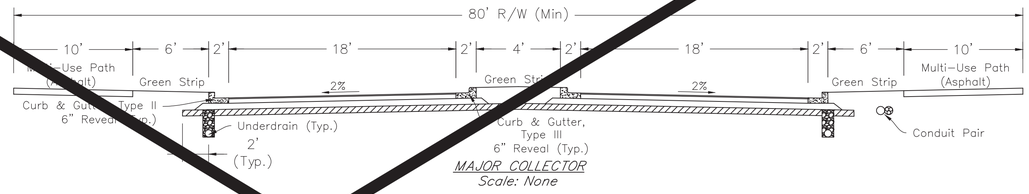
10. Any guardrail required for thoroughfare roads shall conform to INDOT Standard Drawings and Specifications. Any guardrail required for local roads shall be steel-backed timber guardrail, see Sheets 20 – 24.



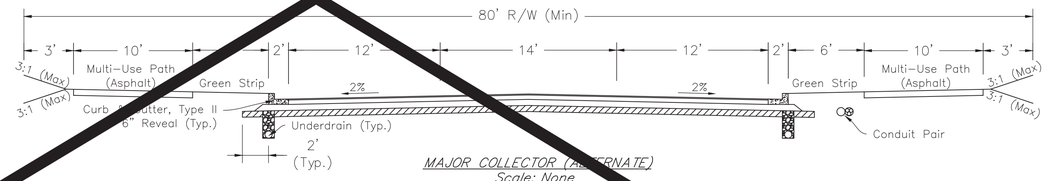
PRIMARY ARTERIAL
Scale: None



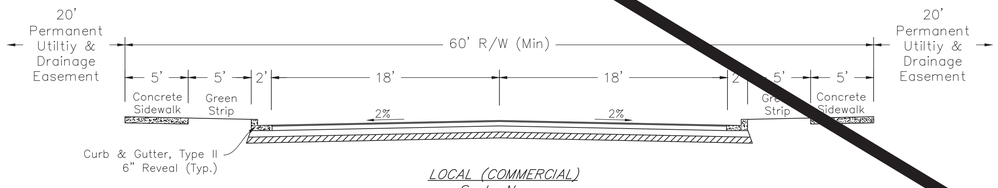
SECONDARY ARTERIAL
Scale: None



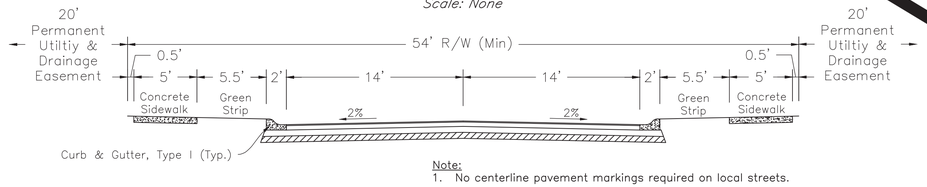
MAJOR COLLECTOR
Scale: None



MAJOR COLLECTOR (ALTERNATE)
Scale: None

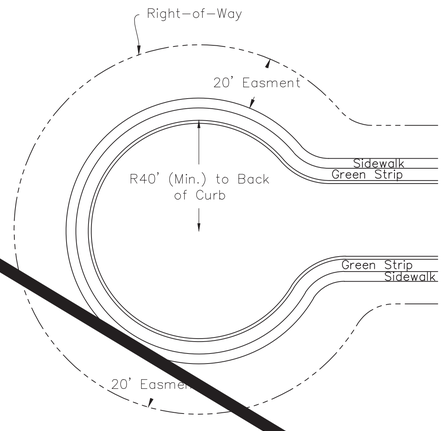


LOCAL (COMMERCIAL)
Scale: None



Note:
1. No centerline pavement markings required on local streets.

LOCAL (RESIDENTIAL)
Scale: None



Note:
1. Cul-De-Sacs shall be a maximum of 600 feet in length.

CUL-DE-SAC
Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

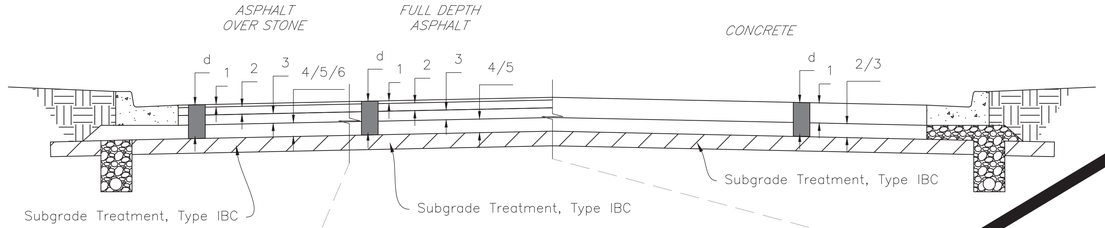
CITY OF NOBLESVILLE

Typical Sections, Right-of-Way, & General Notes

SHEET 2 OF 29

GENERAL NOTES

1. Asphalt pavement shall be in accordance with the most current INDOT Standard Specifications Section 401. For all local (non-Federal Aid) projects, all HMA acceptance and testing requirements shall be in accordance with Section 402. Patching and Widening shall be in accordance with Section 304.
2. PCCP pavement shall be in accordance with the most current INDOT Standard Specifications Section 502.
3. The Arterial pavement section thicknesses shown are minimums. California Bearing Ratio (CBR) tests shall be performed to verify pavement thickness designs. CBR tests shall be submitted to the Noblesville Department of Engineering as part of the T.A.C. submittal.
4. Compacted Aggregate shall be in accordance with the most current INDOT Standard Specifications Section 301. Compaction tests shall be at the contractor's expense and shall be performed by an independent testing laboratory. Test results shall be submitted to the Noblesville Department of Engineering for consideration of acceptance of maintenance surety. One in-place density test shall be completed for each lift for every 400 linear feet per traffic lane.
5. Subgrade Treatment for all roadway sections shall be Type IBC in accordance with the most current INDOT Standard Specifications, Section 207. The mix design and construction procedure shall be submitted to the Noblesville Department of Engineering for approval. Upon completion and prior to placement of underdrains, the subgrade shall be proof rolled in accordance with INDOT Standard Specifications Section 203.26 and shall be inspected by the Noblesville Department of Engineering. Areas in which failures occur during proof roll tests shall be marked in the field by the Noblesville Engineering Department and shall be corrected and retested until passing the City inspection
6. Wherever concrete pavement is to be used, the contractor shall submit a detailed paving plan to the Noblesville Department of Engineering. The paving plan shall include a joint layout indicating location and type of joints and shall meet the requirements of the most recent INDOT Standard Drawings and Specifications.
7. For cold-weather concrete placement, the contractor shall comply with provisions of ACI 306R for protection from physical damage or reduced strength. For hot weather concrete placement, the contractor shall comply with provisions of ACI 305R for protection from physical damage or reduced strength associated with rapid moisture loss.
8. The roadway pavement cross section shall be completed within 60 calendar days from the start of the Subgrade Treatment. The surface asphalt course may be placed more than 60 calendar days after Subgrade Treatment, but shall be placed within one calendar year of placing the asphalt intermediate coarse.
9. Temporary asphalt pavement (hot or cold mix) shall be placed and compacted at the milled joints to smooth the transition between the surfaces. Milling operations and milled pavement areas are considered construction zones and shall be signed accordingly. Milled surfaces shall be covered within 14 calendar days of start of pavement milling operations.
10. Alternate paving material requests shall be made to the Noblesville Department of Engineering.



d= 12.5"
1. 1.5" – 165#/SYD. QC/QA–HMA, 2, 64, Surface, 9.5 mm on
2. 2.5" – 275#/SYD. QC/QA–HMA, 2, 64, Intermediate, 19.0 mm on
3. 2.5" – 275#/SYD. QC/QA–HMA, 2, 64, Base, 25.0 mm on
4. 6" – Compacted Aggregate, No. 53

LOCAL (RESIDENTIAL)

d= 16"
1. 1.5" – 165#/SYD. QC/QA–HMA, 3, 70, Surface, 9.5 mm on
2. 2.5" – 275#/SYD. QC/QA–HMA, 3, 64, Intermediate, 19.0 mm on
3. 4" – 440#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on
4. 2" – 200#/SYD. QC/QA–HMA, 3, 76, Intermediate, OG 19.0 mm on
5. 6" – Compacted Aggregate, No. 53

COLLECTOR

d= 19"
1. 1.5" – 165#/SYD. QC/QA–HMA, 3, 70, Surface, 9.5 mm on
2. 2.5" – 275#/SYD. QC/QA–HMA, 3, 64, Intermediate, 19.0 mm on
3. 4" – 440#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on
4. 2" – 200#/SYD. QC/QA–HMA, 3, 76, Intermediate, OG 19.0 mm on
5. 3" – 330#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on
6. 6" – Compacted Aggregate, No. 53

ARTERIAL / LOCAL (COMMERCIAL)

ASPHALT OVER STONE
Scale: None

d= 10.5"
1. 1.5" – 165#/SYD. QC/QA–HMA, 2, 64, Surface, 9.5 mm on
2. 2.5" – 275#/SYD. QC/QA–HMA, 2, 64, Intermediate, 19.0 mm on
3. 2.5" – 275#/SYD. QC/QA–HMA, 2, 64, Base, 25.0 mm on
4. 4" – 440#/SYD. QC/QA–HMA, 2, 64, Base, 25.0 mm on

LOCAL (RESIDENTIAL)

d= 13"
1. 1.5" – 165#/SYD. QC/QA–HMA, 3, 70, Surface, 9.5 mm on
2. 2.5" – 275#/SYD. QC/QA–HMA, 3, 64, Intermediate, 19.0 mm on
3. 4" – 440#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on
4. 2" – 200#/SYD. QC/QA–HMA, 3, 76, Intermediate, OG 19.0 mm on
5. 3" – 330#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on

COLLECTOR

d= 16"
1. 1.5" – 165#/SYD. QC/QA–HMA, 3, 70, Surface, 9.5 mm on
2. 2.5" – 275#/SYD. QC/QA–HMA, 3, 64, Intermediate, 19.0 mm on
3. 4" – 440#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on
4. 2" – 200#/SYD. QC/QA–HMA, 3, 76, Intermediate, OG 19.0 mm on
5. 6" – 660#/SYD. QC/QA–HMA, 3, 64, Base, 25.0 mm on

ARTERIAL / LOCAL (COMMERCIAL)

FULL DEPTH ASPHALT
Scale: None

d= 12"
1. 6" – PCCP on
2. 6" – Compacted Aggregate, No. 53

LOCAL (RESIDENTIAL)

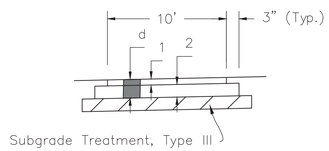
d= 18"
1. 9" – PCCP on
2. 3" – Compacted Aggregate, No. 8 on
3. 6" – Compacted Aggregate, No. 53

COLLECTOR

d= 19"
1. 10" – PCCP on
2. 3" – Compacted Aggregate, No. 8 on
3. 6" – Compacted Aggregate, No. 53

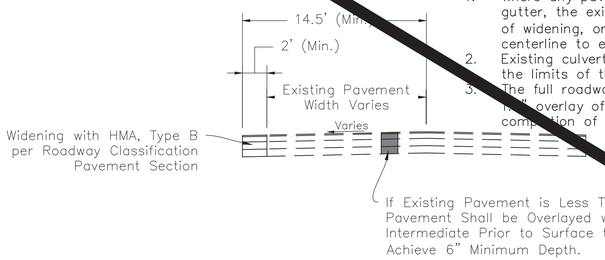
ARTERIAL / LOCAL (COMMERCIAL)

CONCRETE
Scale: None



d= 9"
1. 3" – HMA for Sidewalk, Type B (Placed in One Lift) 330#/SYD. HMA Surface, Type B, 9.5mm on
2. 6" – Compacted Aggregate, No. 53

MULTI-USE PATH
Scale: None



Notes:
1. Where any pavement improvement is to occur without curb and gutter, the existing roadway shall be widened with minimum 2 ft of widening, or as necessary, to achieve 14.5 ft (Min.) from centerline to edge of pavement.
2. Existing culverts and bridge structures shall be widened within the limits of the pavement improvements.
3. The full roadway width within the project limits shall receive an [illegible] overlay of HMA Surface according to its classification after completion of the required widening.

WIDENING WITHOUT CURB AND GUTTER
Scale: None

THE CITY OF NOBLESVILLE EST. 1823

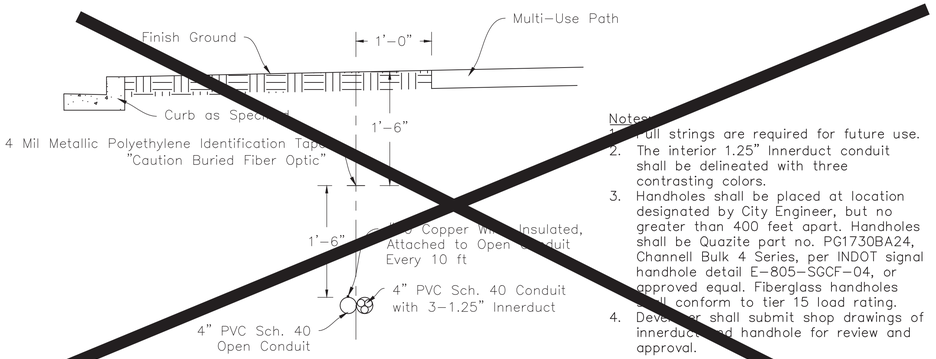
ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

Pavement Details and Notes

SHEET 3 OF 29

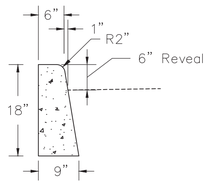


Notes:
1. Pull strings are required for future use.
2. The interior 1.25" Innerduct conduit shall be delineated with three contrasting colors.
3. Handholes shall be placed at location designated by City Engineer, but no greater than 400 feet apart. Handholes shall be Quazite part no. PG1730BA24, Channell Bulk 4 Series, per INDOT signal handhole detail E-805-SGCF-04, or approved equal. Fiberglass handholes shall conform to tier 15 load rating.
4. Developer shall submit shop drawings of innerduct and handhole for review and approval.

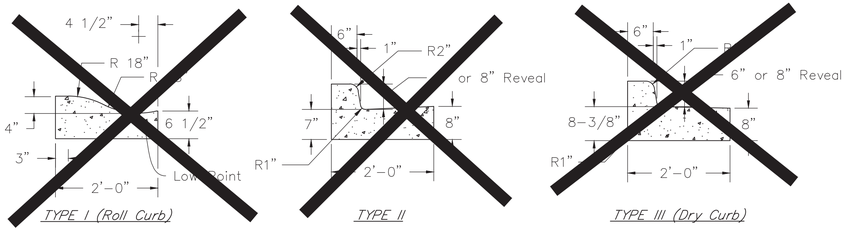
CONDUIT PAIR DETAIL
Scale: None

GENERAL CURBING NOTES

1. Curbing shall be in accordance with the most current INDOT Standard Specifications Section 605.
3. No backfilling or compaction may occur 12 ft from curb within five days of pouring.
4. Dampen subgrade before pouring concrete.
5. Control joints shall be saw cut every five feet (Max.) along radii otherwise every 10 feet (Max.). Preformed expansion joints shall be placed every 50 feet (Max.).
6. Contraction joints shall be saw cut in continuously poured curbs to a minimum depth of 2".

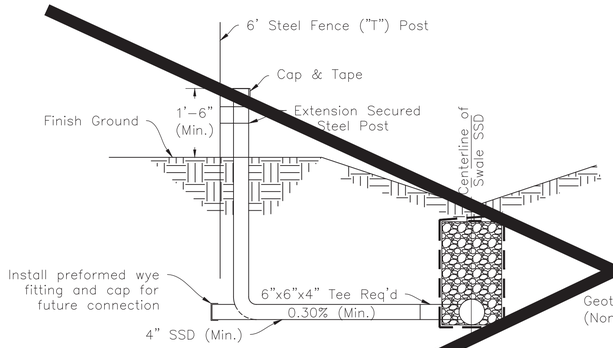


18" BOX CURB
Scale: None



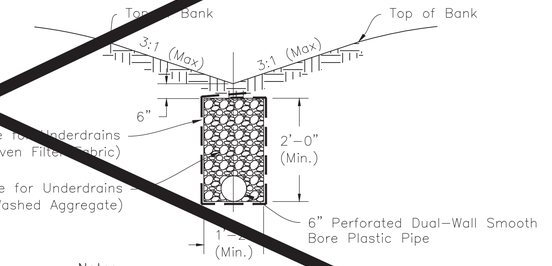
TYPE I (Roll Curb) *TYPE II* *TYPE III (Dry Curb)*

2' COMBINED CONCRETE CURB & GUTTER DETAILS
Scale: None



Notes:
1. Down spouts from roof guttering is not permitted to discharge into the shown subsurface drain.
2. The temporary extension, above ground, shall be removed upon connection to house.
3. If subsurface drain extension is not utilized, then it shall be capped below finished grade of soil. The termination of a subsurface drain shall be inspected by the Noblesville Department of Engineering prior to backfillling.

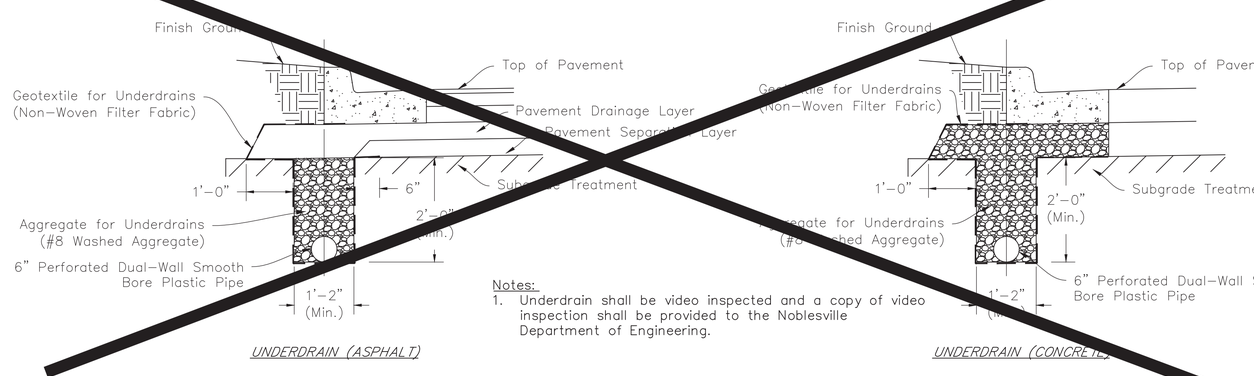
SSD LATERAL TO SWALE SSD



Notes:
1. All drainage swales shall contain underdrain, which shall be video inspected and a copy of video inspection shall be provided to the Noblesville Department of Engineering.

SWALE SSD

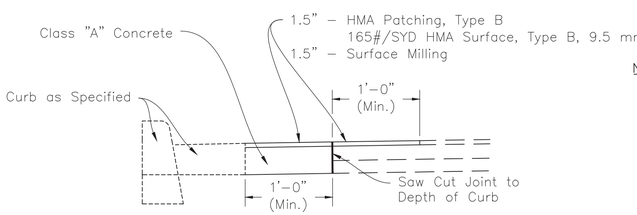
SWALE SSD DETAILS
Scale: None



Notes:
1. Underdrain shall be video inspected and a copy of video inspection shall be provided to the Noblesville Department of Engineering.

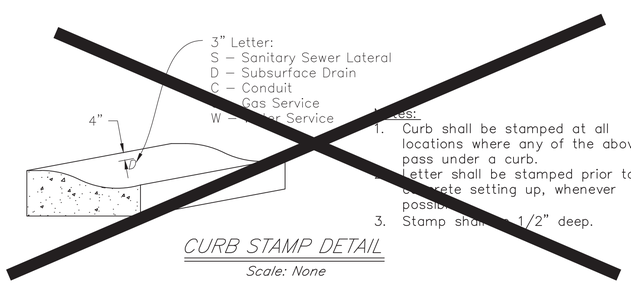
UNDERDRAIN (ASPHALT) *UNDERDRAIN (CONCRETE)*

ROADWAY UNDERDRAIN DETAILS
Scale: None



Notes:
1. Saw cuts shall provide a vertical, neat, and uniform edge. Pavement shall be clean of debris and loose asphalt before installing curb.
2. Existing underdrain, filter fabric, and stone drainage envelope shall be preserved.

NEW CURB ADJACENT TO EXISTING ASPHALT PAVEMENT
Scale: None



Notes:
1. Curb shall be stamped at all locations where any of the above pass under a curb.
2. Letter shall be stamped prior to concrete setting up, whenever possible.
3. Stamp shall be 1/2" deep.

CURB STAMP DETAIL
Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

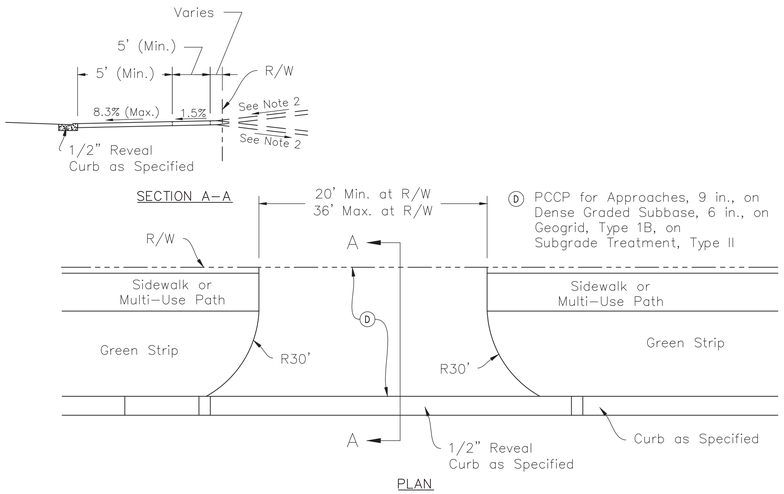
CITY OF NOBLESVILLE

Miscellaneous Roadway Details

SHEET 4 OF 29

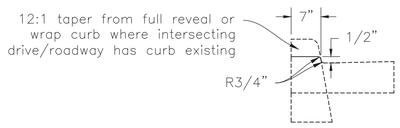
GENERAL NOTES

1. Driveways shall be in accordance with the most current INDOT Standard Specifications Section 610.
2. The maximum algebraic difference in grades for any 10 foot interval shall not exceed 8% for crest vertical curves, and 12% for sag vertical curves for all drives. The maximum grades for any drive shall be 15% up and 14% down.
3. Control joints are required at a maximum of 10 feet each direction for all concrete drives and shall be laid out in the field by the contractor.
4. 1/2" preformed joint filler is required between drive and existing sidewalk, curb, and other concrete.
5. A drive cut permit shall be obtained from the Noblesville Department of Engineering for approval of a new residential or commercial drive, any entrance to a public Right of Way, or the relocation of an existing drive.
6. Alternate custom drives within City of Noblesville Right–of–Way may be used upon receiving expressed written permission from the City of Noblesville. Custom drives shall be the financial responsibility of the property owner. In the event that the City of Noblesville must replace a custom drive approach, the City reserves the right to install its standard drive.
7. All drives shall provide positive drainage towards the roadway. Slope between the curb and sidewalk shall be between 1% and 8.3%. Sidewalk cross slope shall be 1.5%. Slope behind the sidewalk shall be between 1% and 12%. The frontage of all lots shall drain to adjacent streets except with the prior written approval of Noblesville Planning Department.
8. A maximum residential driveway width of 30 feet at Right–of–Way line may be used if the following criteria are met:
   - 8.1. The residence has a three car garage
   - 8.2. The lot frontage is 80 feet or greater.
9. Driveways shall be poured independently of sidewalks and sidewalk transitions.
10. 45 degree tapers on commercial drive approaches are permitted in lieu of 30 ft. radii, if approved by Noblesville Department of Engineering.



COMMERCIAL DRIVE

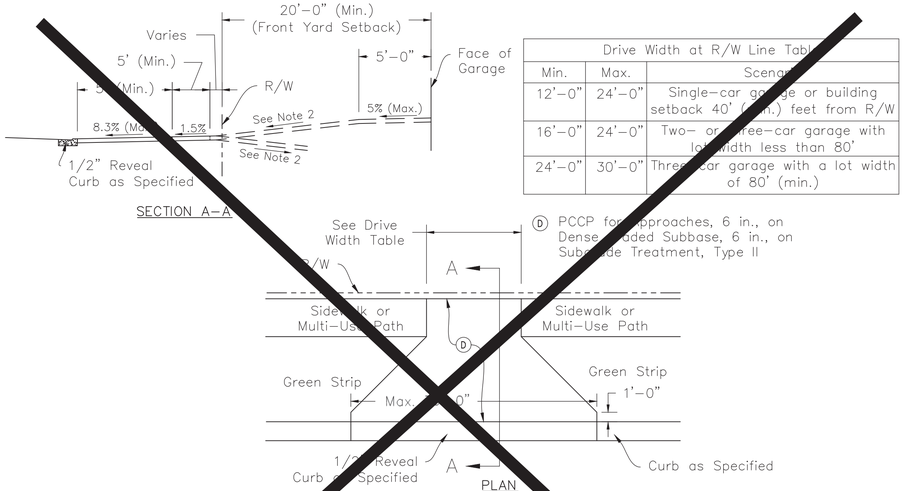
Scale: None



Note:
1. Concrete gutter is required at all private drives that intersect a public road with 2' Combined Concrete Curb & Gutter, Type II or similar.

CURB REVEAL THROUGH INTERSECTION OR DRIVE APPROACH

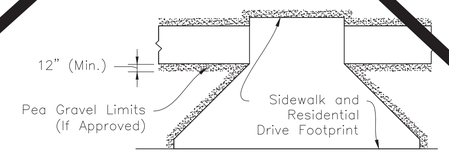
Scale: None



Drive Width at R/W Line Table		
Min.	Max.	Scenario
12'–0"	24'–0"	Single–car garage or building setback 40' (min.) feet from R/W
16'–0"	24'–0"	Two– or three–car garage with lot width less than 80'
24'–0"	30'–0"	Three car garage with a lot width of 80' (min.)

RESIDENTIAL DRIVE

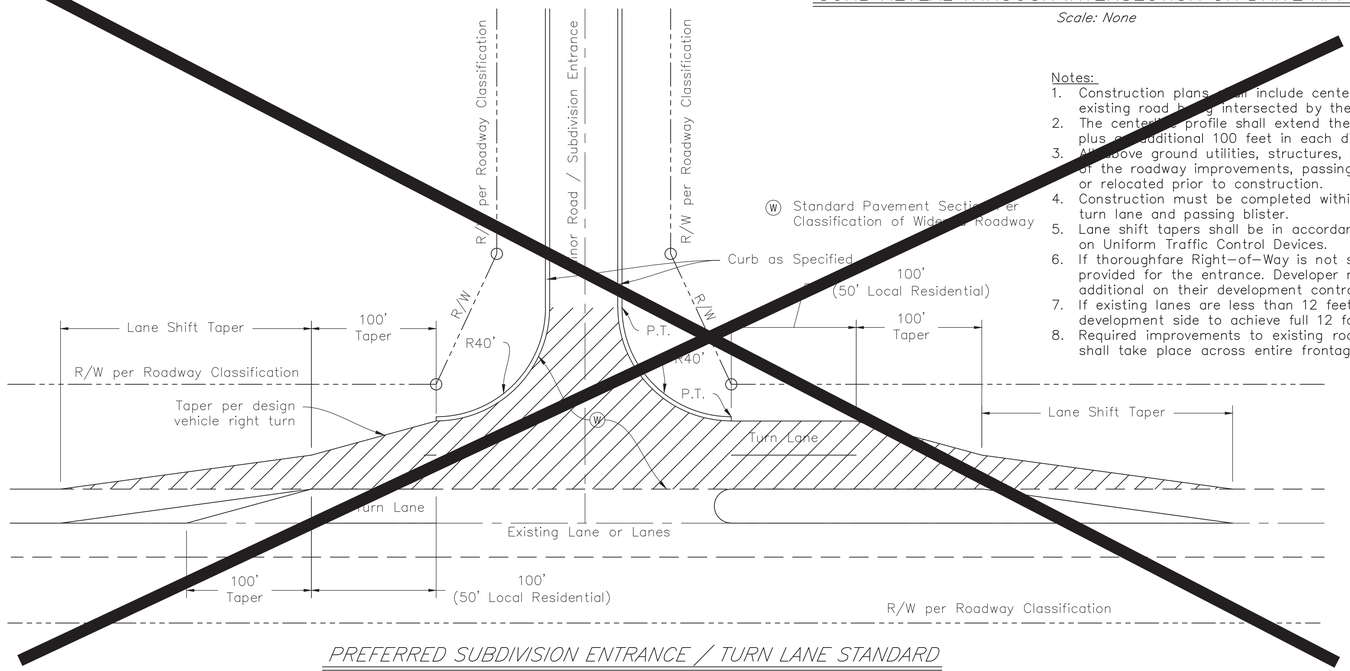
Scale: None



PEA GRAVEL BASE SUBSTITUTE FOR RESIDENTIAL DRIVE

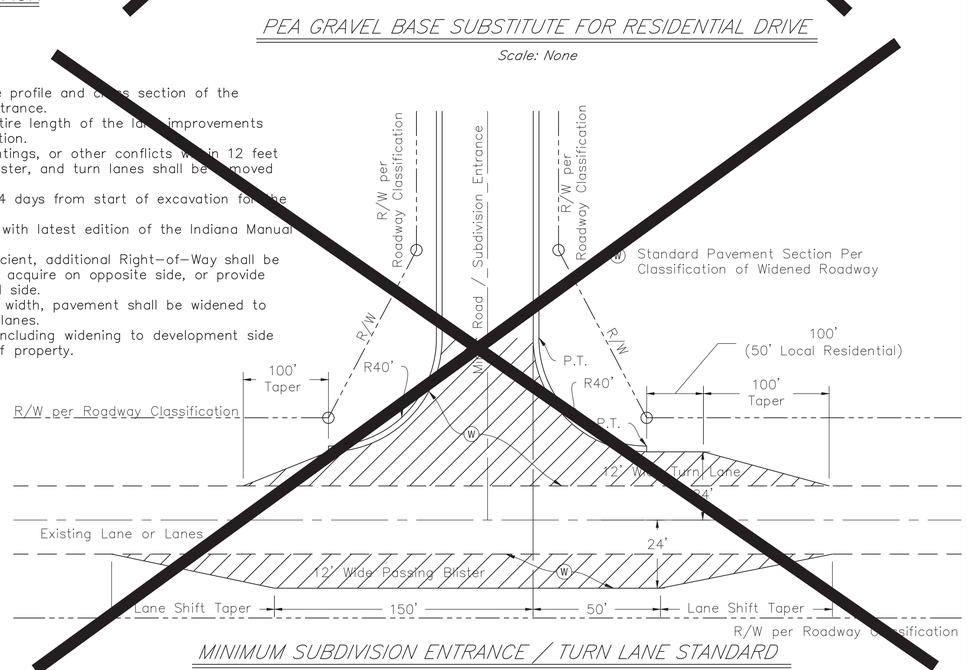
Scale: None

Notes:
1. Construction plans shall include centerline profile and cross section of the existing road being intersected by the entrance.
2. The centerline profile shall extend the entire length of the lane improvements plus an additional 100 feet in each direction.
3. All above ground utilities, structures, plantings, or other conflicts within 12 feet of the roadway improvements, passing blister, and turn lanes shall be removed or relocated prior to construction.
4. Construction must be completed within 14 days from start of excavation for the turn lane and passing blister.
5. Lane shift tapers shall be in accordance with latest edition of the Indiana Manual on Uniform Traffic Control Devices.
6. If thoroughfare Right–of–Way is not sufficient, additional Right–of–Way shall be provided for the entrance. Developer may acquire on opposite side, or provide additional on their development controlled side.
7. If existing lanes are less than 12 feet in width, pavement shall be widened to development side to achieve full 12 foot lanes.
8. Required improvements to existing road including widening to development side shall take place across entire frontage of property.



PREFERRED SUBDIVISION ENTRANCE / TURN LANE STANDARD

Scale: None



MINIMUM SUBDIVISION ENTRANCE / TURN LANE STANDARD

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/5/2021

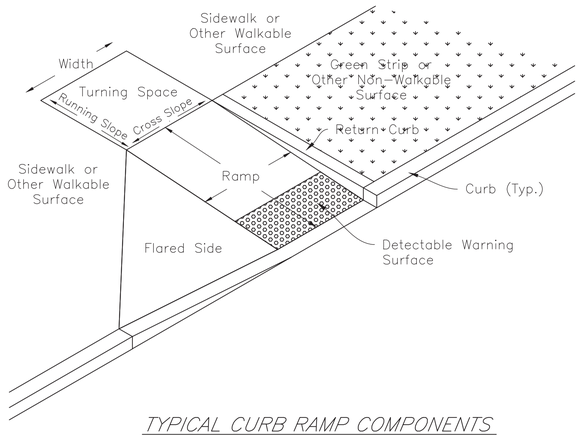
CITY OF NOBLESVILLE

Drive and Entrance Details and Notes

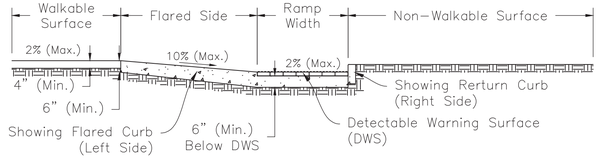
SHEET 5 OF 29

GENERAL NOTES

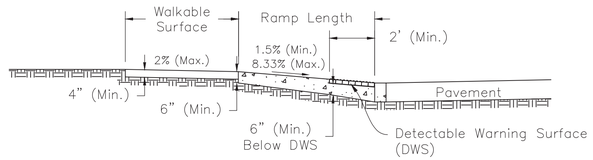
1. Curb ramps and sidewalks shall be constructed in accordance with INDOT Standard Specifications, Section 604.
2. All sidewalks and curb ramps within Noblesville Right–of–Way shall meet PROWAG requirements and shall meet ADA requirements on private property.
3. 1/2" preformed joint filler shall be incorporated when abutting concrete curbs, structures, walls, fixed objects, and every 48 feet of walk.
4. All exposed surfaces shall be broom finished and sidewalks shall be framed with a 2.5" wide smooth trowel finish for the perimeter of each sidewalk panel. at construction joints, the abutting smooth trowel finish shall be 1.25" wide.
5. The distance between contraction joints shall be consistent between driveways.
6. Sidewalks shall mostly follow the adjacent roadway's profile except at curb ramps.
7. All sidewalk and drive connections shall have blended transitions.
8. The minimum width of curb ramps (not including flares) shall be that of adjacent sidewalk, shared–use path.
9. Perpendicular and/or parallel curb ramps shall be provided at every public roadway intersection including alleys. Perpendicular ramps shall also be provided at crosswalks in the vicinity of hospitals, medical centers, or athletic stadiums. Bi–directional ramps are not permitted unless approved by the City of Noblesville Department of Engineering. Any deviation from these details require the prior written approval of the Noblesville Department of Engineering
10. Curb ramps are to be located as shown on the plans or as directed by the Noblesville Department of Engineering. Drainage structures shall not be placed in line with ramps. The location of ramps shall take precedence over the location of drainage structures.
11. Curb ramps shall direct pedestrians perpendicularly across the roadway to align with receiving ramps.
12. The normal gutter line profile shall be maintained through the ramp.
13. Coordinate with the City of Noblesville for specifications on type of Detectable Warning Elements to be used. Detectable Warning Elements are to be installed in accordance with INDOT Standard Drawing No. E604–SWCR–14, or latest detail. If bricks are to be used, G2 Gator–Maxx polymeric sand (color to be specified by the City of Noblesville), or approved equal, shall be used to sweep in joints.



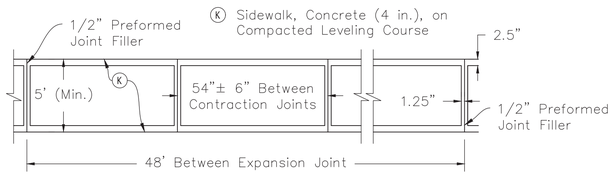
TYPICAL CURB RAMP COMPONENTS
Scale: None



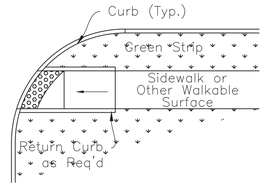
TYPICAL CURB RAMP CROSS SLOPE SECTION
Scale: None



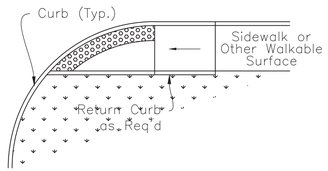
TYPICAL CURB RAMP RUNNING SLOPE SECTION
Scale: None



SIDEWALK DETAIL
Scale: None

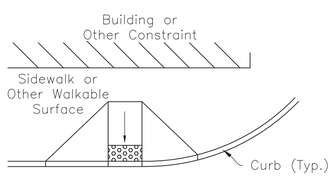


RAMP WITH BUFFER

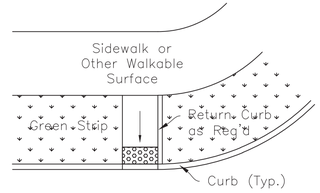


RAMP ADJACENT CURB

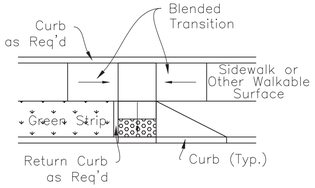
ONE–WAY DIRECTIONAL PERPENDICULAR CURB RAMP EXAMPLES
Scale: None



RAMP ADJACENT TO WALKABLE SURFACE

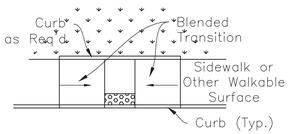


RAMP ADJACENT TO NON–WALKABLE SURFACE

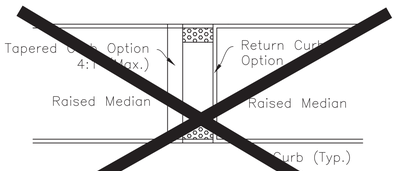


RAMP WITH GRADE TIERING

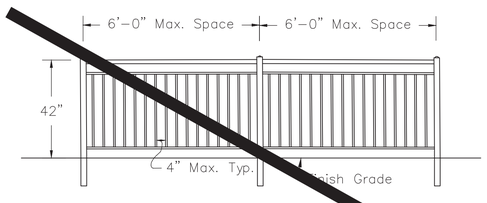
PERPENDICULAR CURB RAMP EXAMPLES
Scale: None



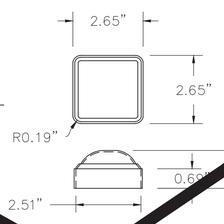
PARALLEL CURB RAMP EXAMPLE
Scale: None



MEDIAN CURB RAMP EXAMPLE
Scale: None

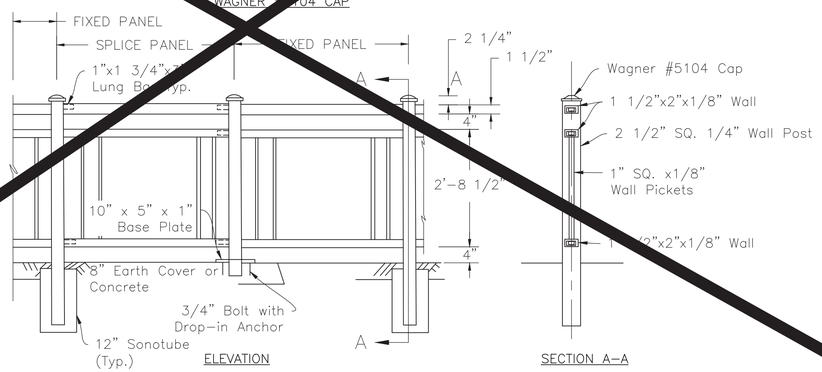


TYPICAL ELEVATION RAIL VIEW



WAGNER #5104 CAP

Notes:
1. All extrusions aluminum 6061–T6 or 6063–T6.
2. System to receive a Pine Green (RAL 6028) or approved equal powder coat finish.
3. Fixed panel sections will consist of two to three 6' maximum post pace sections welded as an assembly.
4. Spike panel sections will consist of a loose top rail section and a welded pick panel section field assembled onto the 1" x 1 3/4" x 3" long bar supports.
5. Field measurements will be taken once the wall is in place. No fabrication will be done till then.
6. Drop–in anchor shall have a minimum allowable tensile capacity of 3,000 LBS.
7. Footing and post embedment to be designed by the manufacturer. The use of the base plate/drop–in anchor option may be approved by the Department.



HANDRAIL DETAILS
Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/5/2021

CITY OF NOBLESVILLE

Sidewalk and Curb Ramp Details and Notes

SHEET 6 OF 29

UTILITY GENERAL NOTES

1. The design engineer shall design, configure, and coordinate all utilities, public or private, in a manner to:
   - 1.1. Accommodate service connections (existing, proposed, or future).
   - 1.2. Maintain access to, and provide sufficient room for, maintenance activities.
   - 1.3. Not conflict with or damage other utilities during construction or maintenance.
2. Abandoned utility infrastructure shall be completely removed after newly constructed, upgraded, or relocated facilities are accepted and in service. Abandoned facilities are not permitted to remain in place, regardless if it is above ground or below ground. Below ground conveyance pipe can be capped and filled with concrete or flowable fill. Trenches of below ground facilities shall be properly backfilled as noted in these standards.
3. Additional easement or Right–of–Way widths may be required beyond the typical minimum width or area to accommodate utility's infrastructure if determined by a masterplan, special study, or unique situation. It is the responsibility of the design engineer to contact the utilities to determine if this is necessary.
4. An Encroachment Permit shall be obtained for any planned work within public Right–of–Way or easement from the Noblesville Planning Department, subject to review by any and all applicable City departments.

STORM SEWER GENERAL NOTES

1. The City of Noblesville Stormwater Technical Standards Manual (STSM) shall be referenced for all stormwater design standards. These standards shall include, but are not limited to, the following:
   - 1.1. Storm sewer pipe material shall be in accordance with Ch. 400 of the STSM. Storm sewer pipe in public Right–of–Way and/or public easements, of other material not meeting these specifications shall require the prior written approval of the Noblesville Department of Engineering.
   - 1.2. The minimum diameter of all storm sewer pipe shall be 12 inches, with the exception of subsurface underdrain pipe.
2. Upon request, the contractor shall submit all necessary information to the Noblesville Department of Engineering to illustrate conformance with all STSM specifications.
3. Prior to earthwork, pipe construction, or other activity that may affect or alter stormwater runoff, the downstream receiving end of stormwater shall be secured and stabilized to accommodate all upstream runoff, including offsite areas. This includes, but is not limited to, downstream ditch improvements, culvert improvements, or constructing positive outlet for detention facility.
4. Pipe end sections will not be permitted for use as an inlet when inlet/manhole structures can serve the property for stormwater collection.
5. Pre–fabricated galvanized animal and debris guard shall be installed on the upstream end of all pond outfalls. Debris guards shall meet the minimum standards of the Hamilton County Surveyor's Office, Detail D–12.
   Underdrain table may be required by the City Engineer. Table shall be in the format required by the Indiana Department of Transportation (INDOT).

STORM SEWER REINFORCED CONCRETE PIPE

1. Reinforced Concrete Pipe (RCP) shall be Class III, IV, or V as specified in ASTM C–76.

DEPTH OF FILL OVER PIPE	CLASS
Between 2 Feet And 10 Feet	III
Between 10 Feet And 16 Feet	IV
16 Feet Or Greater	V

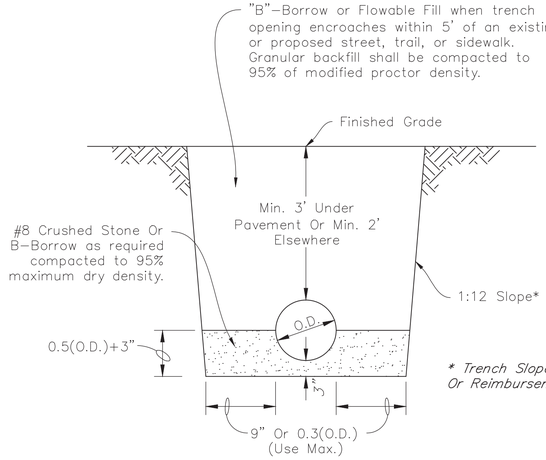
2. Reinforced Elliptical Concrete Pipe shall be Class HE– III or HE–IV as specified in ASTM C–507.

DEPTH OF FILL OVER PIPE	CLASS
3 Feet Or Less	HE–IV
Between 3 Feet And 8 Feet	HE–III

3. Lift holes are not allowed for pipe less than 24 inches in diameter. A maximum of two lift holes are allowed for pipe 24 inches in diameter or larger. Lift holes shall be repaired in accordance with INDOT Standard Specifications, latest edition.
4. Fittings and specifications shall be in accordance with the specifications for the type of pipe material being used.
5. The outside of each pipe section shall be legibly marked with the date of manufacture, class of pipe, specification designation, name or trademark of manufacturer and identification of plant/location. The interior of the pipe shall also be marked with same information as the exterior of the pipe in a location that can be seen during the CCTV inspection.
6. Pipe shall be furnished with a bell or groove on one end of a unit of pipe and a spigot or tongue on the adjacent end of the adjoining pipe. all joints shall have a groove on the spigot for placement of a rubber "O"–ring or profile gasket in accordance with ASTM C–443. The gasket shall be a continuous ring which fits snugly into the annular space between the overlapping surfaces of the assembled pipe joint.
7. Pipe size and material classification shall be called out in plan and profile of construction drawings.
8. All culverts or ends of storm pipe that do not connect directly to a structure shall require flared end sections with precast toe walls and rip–rap outlet protection/energy dissipation. Specifications and bedding of toe–walls shall be determined by the design engineer based on the velocity of discharge and soil type. Specifications for the rip–rap outlet protection/energy dissipation shall be in accordance with the SWPPP Specifications included herein, and sizing shall be specific to each application. Headwalls shall also be considered if the previously stated items are not sufficient and conditions warrant.
9. Storm sewer pipe shall have a minimum horizontal separation of 10 feet from sanitary sewer pipe or water main pipe. All pipe crossings shall be at angles greater than 45° with a minimum vertical separation of 1.5 feet. Dimensions are measured from the outside of pipe to outside of pipe.

STORM SEWER PIPE TELEVISING AND AS–BUILT DRAWINGS

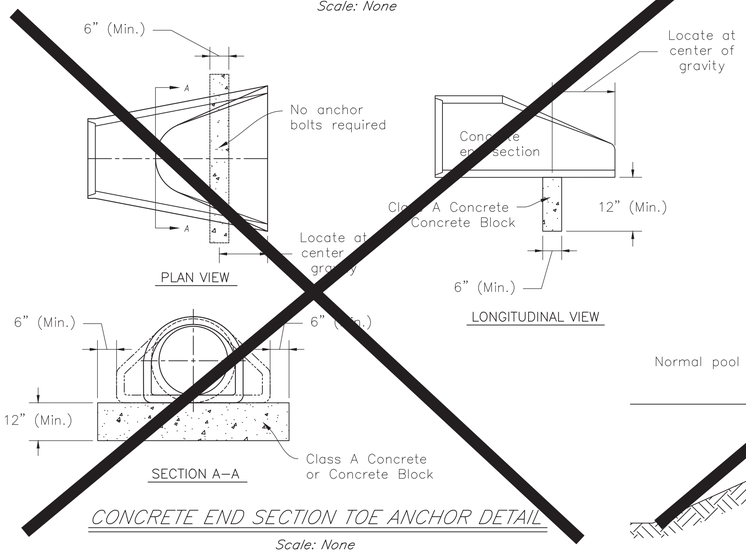
1. Closed circuit television (CCTV) inspection shall be performed in compliance with NASSCO's Pipeline Assessment Certification Program (PACP) standards on all publicly owned pipe installed within the City of Noblesville to be used for the purposes of conveying storm water runoff.
2. The contractor installing the storm sewer pipe shall employ/hire the contractor responsible for the television inspection services. The developer shall contact the Noblesville Department of Engineering to schedule the CCTV inspection immediately following the thorough cleaning of all segments.
3. If any pipe and/or joint is found to be faulty, the contractor shall repair that portion of the work to the satisfaction and approval of the Noblesville Department of Engineering.
4. The contractor shall bear all costs of line segment cleaning, debris removal and disposal, and through subsequent invoicing from the Noblesville Department of Engineering, the CCTV inspection.
5. Contractor shall submit as–built drawings, electronic and hardcopy, within 30 days of successful completion of all testing and CCTV requirements. Electronic as–built drawings submittal shall be submitted to the Noblesville Department of Engineering and comply with the City's GIS Coordinator's guidelines.
6. Contractor shall supply digital video to the City of Noblesville Engineering Department that is compatible with Windows Media Viewer with indexed chapters to allow instant access to points of observation.



** Trench Slope For Unit Price Pay Item Or Reimbursement Quantity Calculation*

RCP PIPE BEDDING DETAIL

Scale: None

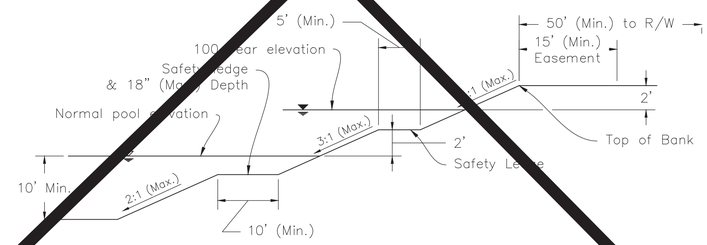


CONCRETE END SECTION TOE ANCHOR DETAIL

Scale: None

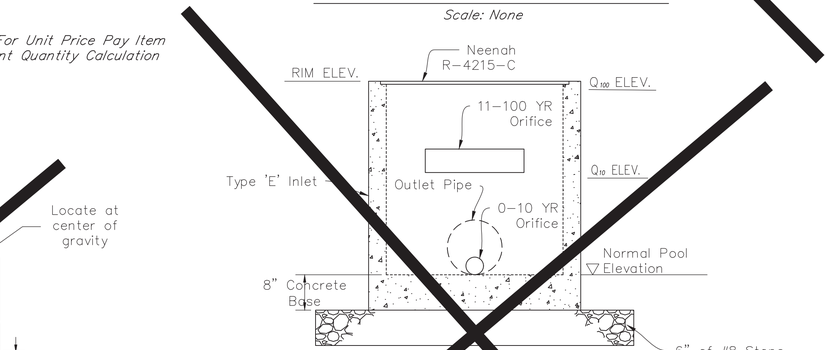
DETENTION BASIN GENERAL NOTES

1. All detention basins and outlet structures shall be designed in accordance with Chapter 300 of the City of Noblesville Stormwater Technical Standards Manual (STSM).
2. Dry bottom detention basins shall be subject to the maximum of 3:1 slope above the basin floor. The longitudinal grade shall be subject to the ditch requirements as set out on Sheet 4. The traverse grade shall be 2% minimum.
3. The Noblesville Department of Engineering or Stormwater/MS4 may approve alternate detention pond/basin sections. Wet ponds being design as post–construction water quality measures shall be designed in accordance with Chapter 700 of the STSM and the Stormwater Det. – Pond Details, Sheet 29).
4. Outlet structure for all detention basins shall be Inlet Type 'E' with Neenah Casting R–4215–C, East Jordan No. 6610, or approved equal by the Noblesville Department of Engineering. Outlet control orifice shall be pre–cast into the face of the structure, or shall be mechanically fastened into the structure. The location of the outlet structure shall be in accordance with the outlet structure detail, this sheet.
5. The design of all wet–bottom detention facilities shall include an aeration facility. Design calculations shall be provided to substantiate the effectiveness of the proposed aeration facility. The aeration facility shall be able to, at a minimum, turn the volume of the stored water over every 24 hours. See Section 602.06.4 of the City of Noblesville Stormwater Technical Standards Manual.
6. All detention facilities shall be separated from road Right–of–Way by a minimum of fifty (50) feet, measured from the top of bank, or peak 100–yr. Elevation if no defined top of bank is present. Use of guardrails, berms or other structural measures may be considered in lieu of the noted setbacks. See guardrail details, Sheets 20–24.



TYPICAL DETENTION POND SECTION

Scale: None



TYPICAL OUTLET STRUCTURE DETAILS

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

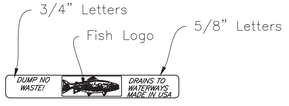
CITY OF NOBLESVILLE

Storm Sewer Bedding and Detention Notes & Details

SHEET 7 OF 29

GENERAL NOTES

1. Curb castings shall be checked to meet requirement of inlet design and ensure compatibility with curb specified, swales, ponds, etc.
2. All inlet castings shall be in accordance with the Compatibility of Inlet Structures and Castings table, this sheet, unless otherwise approved by the Noblesville Department of Engineering.
3. Castings shall not be buried and shall be flush with the adjacent finished grade. Castings which are surrounded by asphalt or concrete shall be constructed within a tolerance of ± 0.1' of the designed elevation. All other castings shall be constructed within a tolerance of ± 0.2' of the designed elevation. Elevations will be checked with the as–built drawings.
4. An Inlet Type E/F shall be used to drain all drainage swales and as the outlet structure on all wet/dry detention basins, unless otherwise approved by the Noblesville Department of Engineering.
5. The contractor shall remove soils under a precast bottom, which in its natural state, have good bearing strength and which have had its characteristics adversely changed by the contractor's operations and replace with 6 inches of #2 stone.
6. Storm sewer pipe which connects to either a catch basin or an inlet shall enter and exit perpendicular to precast concrete walls. In cases where a perpendicular connection cannot be made, a manhole structure shall be used with an appropriate cap to accommodate required casting type.
7. If coring is required, core shall not be made at joint between structure sections. Coring into structure for curb underdrain tie–in shall be prohibited if precast structure was fabricated with underdrain tie–ins. If core required, core shall not be made at joint between structure sections.
8. If a catch basin is used, sump shall be 24" below lowest pipe invert elevation within catch basin.
9. Site grading as–builts shall be provided in electronic formats (CAD & PDF) upon acceptance by Department of Engineering. Engineer shall refer to GIS coordinator for as–built standards and format.
10. There shall be a minimum of 0.1 feet of fall between the upstream invert(s) and the downstream invert in the structure for pipe with the same diameter. For pipes of differing diameters, the crown of the upstream pipe shall match the crown of the downstream pipe.
11. Final adjustment in elevation of the frame, cover, or casting shall be accomplished by the use of a four inch minimum thickness adjusting ring or collar. Brick or block shall not be used in the construction of a structure or to adjust the elevation of frame or casting. Contractor may use HDPE risers and composite materials as approved by the Noblesville Department of Engineering.
12. Minimum 20 feet of underdrain pipe shall be installed at all sag inlets under the curb or pavement which drains to the structure. Minimum of two underdrain lines per structure. Open ends of underdrains shall be capped. See underdrain detail.
13. Pipe end sections will not be permitted for use as an inlet when inlet/manhole structures can serve the property for stormwater collection.
14. Inlet structures shall not exceed a maximum depth of 42–inches for Type A Inlets and 60–inches for Type M/J inlets from top of casting to the outlet pipe invert. Any depths greater than than these dimesions shall use a manhole structure.
15. The use of INDOT Type B and C Inlets is prohibited unless approved by the Noblesville Department of Engineering.

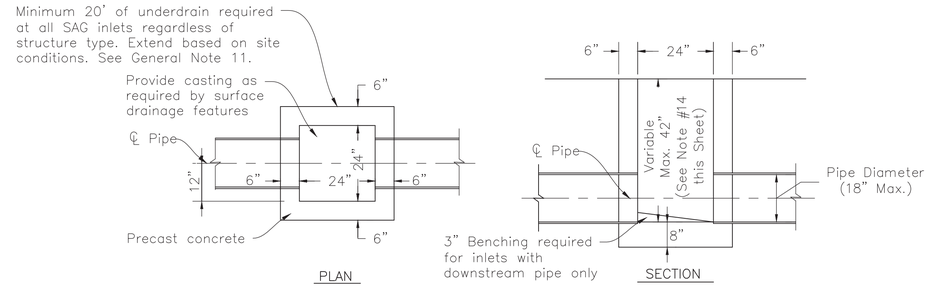


INLET STORM CASTING DETAIL

Scale: None

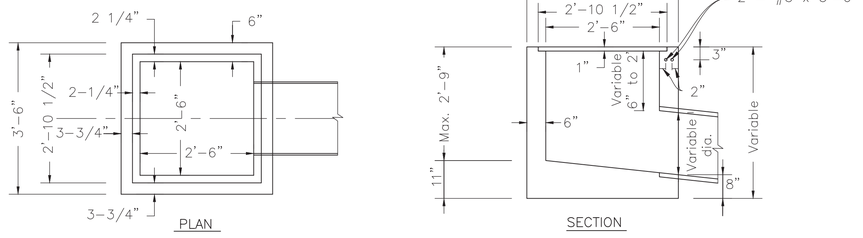
COMPATIBILITY OF INLET STRUCTURES AND CASTINGS

INLET TYPE	INDOT CASTING TYPES					NEENAH CASTING TYPES					EAST JORDAN IRON WORKS CASTING TYPES					
	2	3	7	8	10	R–3287–10V	R–3405–A	R–3501–TR	R–3501–TL	R–4215–C	5250	6610	7030 w/ M2 Grate & T1 Back	7495M1	7495M2	7495M4
A	X	X		X			X				X					
E			X							X		X				
F			X							X		X				
J					X	X		X	X				X	X	X	X
M					X	X		X	X				X	X	X	X



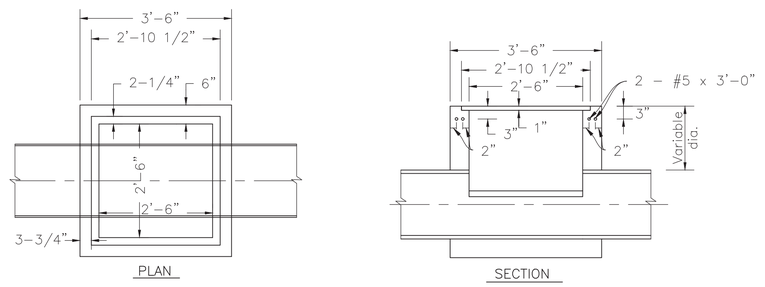
INLET, TYPE A

Scale: None



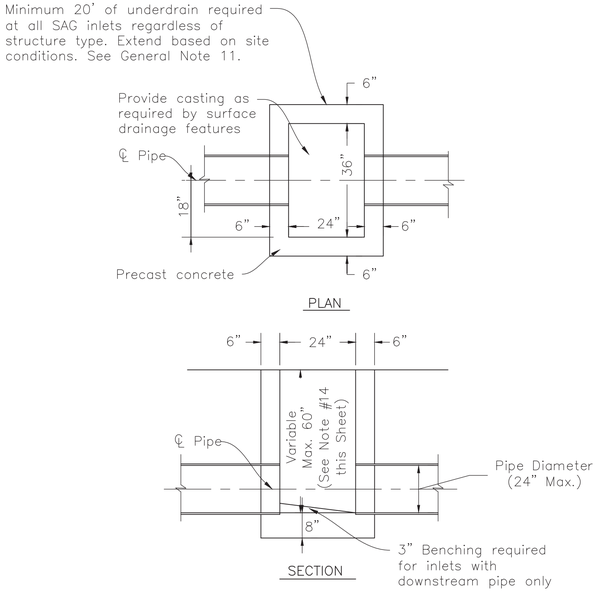
INLET, TYPE E

Scale: None



INLET, TYPE F

Scale: None



INLET, TYPE M/J

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

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CITY OF NOBLESVILLE

Storm Inlet Details and Notes

SHEET 8 OF 29

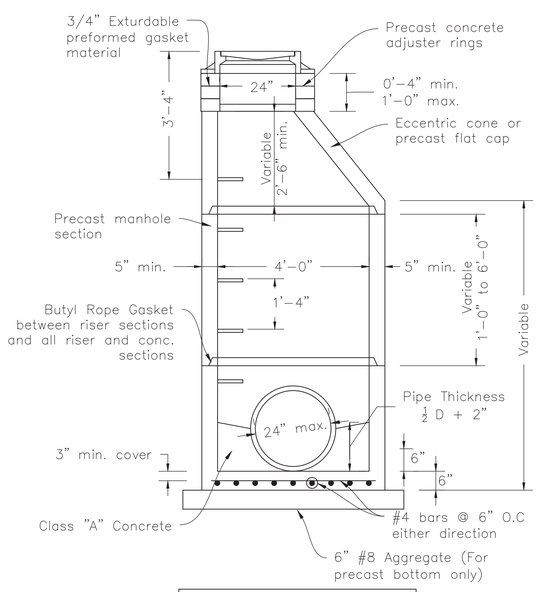
GENERAL NOTES

1. Storm manholes require a minimum depth, as detailed herein. If the depth of the storm sewer is not sufficient to meet the minimum depth required for the barrel sections of Type J, K, L, M and N manholes, "F" diameter manhole sections may be used for the entire depth of the manhole.
2. Manholes shall conform to ASTM C–478. Joints shall conform to ASTM C–443. The use of cast–in–place concrete structures shall require the prior written approval of the Noblesville Department of Engineering. Castings shall be centered over the manhole steps.
3. Manholes shall be installed at distances not greater than 400 feet.
4. Manhole steps shall be Neenah R–1981–J, East Jordan No. 8512, M.A. Industries PS 1–PF, or as approved by the Noblesville Department of Engineering.
5. Castings which drain open pavement areas without curbing shall be flat top open grate types listed, or as approved by the Noblesville Department of Engineering.
6. Castings which drain swales shall be beehive types listed, or as approved by the Noblesville Department of Engineering.
7. Castings which do not drain surface runoff shall be flat top without grate types listed, or as approved by the Noblesville Department of Engineering and shall be stamped according to the Manhole Lid Casting Detail.
8. Castings shall not be buried and shall be flush with the adjacent finished grade. Castings in asphalt or concrete shall be constructed with a tolerance of ± 0.1' of finish grade. All other castings shall be constructed with a tolerance of ± 0.2' of finish grade. Elevations will be checked with the as–built drawings.
9. Manholes shall be placed on a bedding of 6 inches of No. 8 Aggregate. If poor soils are encountered, or if contractor's operations have adversely changed the condition of the soils, the existing soil shall be removed and replaced with 6 inches on No. 2 Aggregate.
10. For Type C Manholes, the base and first riser section of the precast concrete manhole shall be integrally cast as one complete unit.
11. Storm sewer pipe which connects to either a catch basin or inlet shall enter and exit perpendicular to pre–cast concrete walls. In cases where a perpendicular connection cannot be made, a manhole structure shall be used with an appropriate cap to accommodate required casting type.
12. Inlets structures shall not exceed a maximum depth of five (5) feet from top of casting to the outlet pipe invert. Any depths greater than five (5) feet shall use a manhole structure.
13. If coring is required, core shall not be made at joints between structure sections. Coring into structure for underdrain tie–in shall be prohibited if precast structure was fabricated with underdrain tie–ins.
14. Site grading as–builts shall be provided in electronic formats (CAD & PDF) upon acceptance by the Department of Engineering. Engineer shall refer to GIS Coordinator for as–built standards and format.
15. There shall be a minimum of 0.1 feet of fall between the upstream invert(s) and the downstream invert in the structure for pipe with the same diameter. For pipes of differing diameters, the crown of the upstream pipe shall match the crown of the downstream pipe.
16. Final adjustment in elevation of the frame, cover, or casting shall be accomplished by the use of a four inch minimum thickness adjusting ring or collar. Brick or block shall not be used in the construction of a structure or to adjust the elevation of frame or casting. The contractor may use HDPE risers and composite materials as approved by the Noblesville Department of Engineering.

MANHOLE LID CASTING DETAIL

Scale: None

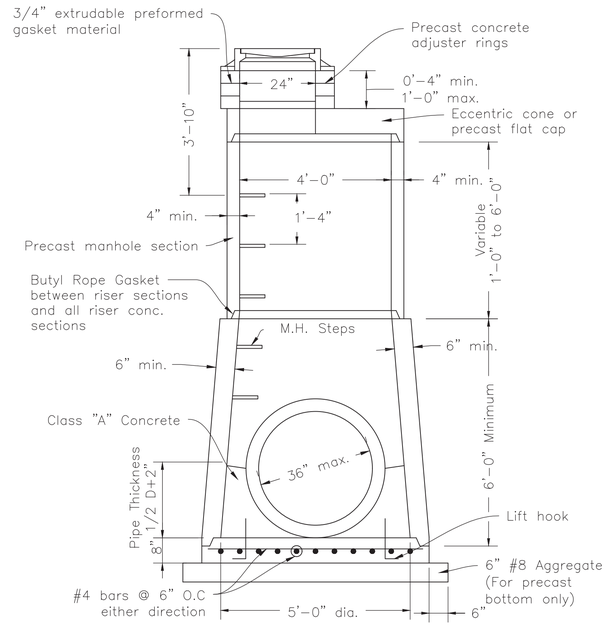
COMPATIBILITY OF MANHOLE STRUCTURES AND CASTINGS									
MANHOLE TYPE	INDOT CASTING TYPES			NEENAH CASTING TYPES			EAST JORDAN IRON WORKS CASTING TYPES		
	2	4	8	R–2502–D	R–4342	R–1772	1022 w/ Type A Lid	1022 w/ M1 or M3 Grate	6489
C	X	X	X	X	X	X	X	X	X
H	X	X	X	X	X	X	X	X	X
J	X	X	X	X	X	X	X	X	X
K	X	X	X	X	X	X	X	X	X
L	X	X	X	X	X	X	X	X	X
M	X	X	X	X	X	X	X	X	X
N	X	X	X	X	X	X	X	X	X



MAXIMUM PIPE SIZE	
Pipe Entering / Pipe Exiting at 0°–45° bend	Pipe Entering / Pipe Exiting at 45°–90° bend
24"	21"

MANHOLE, TYPE C

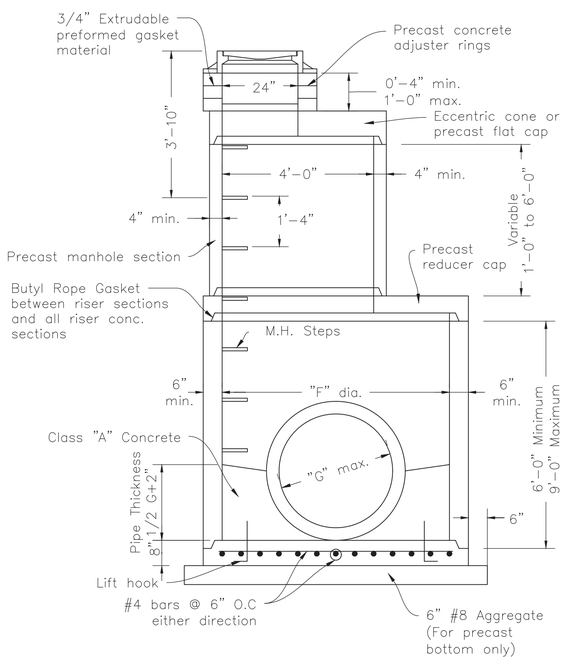
Scale: None



MAXIMUM PIPE SIZE	
Pipe Entering / Pipe Exiting at 0°–45° bend	Pipe Entering / Pipe Exiting at 45°–90° bend
36"	30"

MANHOLE, TYPE H

Scale: None



Manhole Type	Manhole Diameter "F"	MAXIMUM PIPE SIZE "G"	
		Pipe Entering / Pipe Exiting At 0°–45° Bend	Pipe Entering / Pipe Exiting At 45°–90° Bend
J	60"	36"	33"
K	72"	48"	36"
L	96"	54"	48"
M	102"	72"	66"
N	108"	84"	72"

MANHOLE, TYPE J, K, L, M & N

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

Storm Manhole Details and Notes

SHEET 9 OF 29

GENERAL SANITARY NOTES

1. Service To Adjoining Parcels: Sanitary sewer facilities shall be designed to accommodate the connection of all future subdivision sections and/or unsewered parcels within the service area. The design of the development project shall include a sanitary sewer extension across the parcel boundary to the upstream end of the subject property to be extended by future sections or adjacent parcels. The sanitary sewer extension shall be installed at a depth no less than six (6) feet below the lowest grade of the property's frontage or alignment of the sewer masterplan. Any requested increase in the required depth of any sanitary extension that is part of a sewer masterplan may be reimbursable.

2. All couplers used for repairs to existing sanitary infrastructure shall be completed by using Fernco Shielded Non–Shear Couplings, or approved equal.

3. All developments shall comply with the requirements of Ordinance No. 23–4–05: City of Noblesville Illicit Discharge and Connection Stormwater Ordinance and Section 501.06: Connections to Storm Sewer System of the City of Noblesville Stormwater Technical Standards Manual. As such, all non–stormwater runoff shall be prohibited from connecting to the City's separate storm water system; rather, shall be connected to the City's sanitary sewer system, unless exempted by Section 7: Discharge Prohibitions of Ordinance No. 23–4–05 or approved by the City of Noblesville. Typical non–stormwater runoff discharges may include, but are not limited to: covered dumpster enclosure drains, non–exterior parking garage floor drains, garage and basement floor drains and water softener discharge, and swimming pool drains that have not been de–chlorinated. Non–stormwater runoff shall be pre–treated by an appropriate grease/grit interceptor, or other acceptable method, prior to discharge to the sanitary system, unless otherwise approved. The grease/grit interceptor shall be sized by the design engineer and approved by the City of Noblesville, and shall be in accordance with the Oil/Grease Trap requirements, Sheet 15.

4. The use of a low pressure sewer system shall be approved by the Noblesville Department of Engineering. All components of the low pressure sewer system including, but not limited to: grinder pump, tank capacity, and force main size shall be designed and certified by a professional engineer and approved by the City. The minimum system for a single–family residential use shall be an E/One Extreme Series DH071 Grinder Pump Station, or approved equal, with 70 gal./700 GPD capacity.

SANITARY SEWER LATERAL PIPE AND FITTINGS

1. Service laterals shall be SDR–26 pipe from the sewer main to the building. One (1) lateral shall be installed per building. All laterals shall be inspected by the Noblesville Department of Engineering prior to backfilling.
2. Joints shall be flexible gasket push–on–compression type conforming to ASTM D–3212 and ASTM F–477. No solvent cement joints shall be allowed.
3. Lateral size shall be a minimum of 6–inches in diameter between mainline sewer and clean–out closest to building. Lateral size shall be a minimum of 4–inches in diameter between building and first downstream clean–out.
4. A minimum of one (1) exterior clean–out shall be installed for each lateral. Where the length of a lateral exceeds 100 feet, then one clean–out shall be installed for every 100 feet of lateral length. An additional clean–out shall also be installed at any change in direction along the lateral. In any event, a clean–out shall be located no farther than four (4) feet from the building in residential developments.
5. In accordance with Sanitary Sewer Connection Policy No. 85–W2, approval consideration of a lateral connection requires the owner of the residence or business to provide the following information on a legible diagram: name of property owner, address, telephone numbers of both property owner and contractor, depth and position of lateral between mainline sewer to the building, location of connection point referenced to any permanent object, length and size of pipe to be installed, pipe material, slope of pipe, bedding type, pipe contractor, and method of connection.
6. Contractor shall, when curbs are available, engrave a 3–inch high by 1/8–inch deep "S" on the curb directly above each service lateral. Where curbs are not available, contractor shall notch the sidewalk directly above each service lateral. See Curb Stamp Detail, Sheet 4.
7. A removable, extendable backwater prevention valve shall be provided for each sanitary sewer lateral. The backwater prevention valve shall be housed in a 6–inch diameter, SDR–26, sanitary clean–out assembly with cap. The backwater prevention valve shall be readily accessible at all times, and located in the first sanitary clean–out immediately downstream of the building.
8. For service laterals, contractor shall install 10–gauge insulated, solid copper wire and polyethylene identification tape. Both items shall be highly resistant to alkalis, acids and other destructive agents found in soil. The 10–gauge tracer wire shall be attached directly to the outside of the PVC service lateral every 10 feet. The polyethylene identification tape shall have a minimum thickness of 4 mils and shall be placed directly over pipe, 1'–6" below final grade.
9. The approval of a new sanitary sewer service lateral or the modification of an existing service lateral requires an approved City of Noblesville permit.
10. In accordance with ASTM D–3034, the outside of each pipe section shall be legibly marked with the date of manufacture, class of pipe, specification designation, name or trademark of manufacturer and identification of plant/location. Pipe shall be rotated in such a manner that the markings are easily readable during sanitary lateral inspection.

SANITARY SEWER POLYVINYL CHLORIDE (P.V.C.) PIPE

1. P.V.C. Pipe diameters of 4–inches through 15–inches shall meet or exceed all the requirements of ASTM D–3034, and shall have a Cell Classification of 12454–B, 12454–C, 12364–C, or 13364–B. Reference should be made to ASTM D–1784 for a summarization of Cell Classification properties. P.V.C. Pipe diameters greater than 15–inches shall meet or exceed all requirements of ASTM F–679, and shall have a minimum Cell Classification Of 12454–C or 12364–C.
2. When depth of soil cover over the pipe is less than 12 Feet the minimum Wall Thickness of P.V.C. Pipe, 6–inches through 15–inches in diameter, shall conform to SDR–35, Type PSM, as specified in ASTM D–3034. When depth of soil cover over the pipe is 12 Feet or greater, the minimum Wall Thickness of P.V.C Pipe, 6–inches through 15–inches in diameter, shall conform to SDR–26, Type PSM, as specified in ASTM D–3034. The minimum Wall Thickness for P.V.C. Pipe greater than 15–inches shall conform to T–1 Or T–2, as specified in ASTM F–679. P.V.C. SDR–35 Pipe shall have a minimum Pipe Stiffness of 46 Pounds Per Square Inch for each diameter when measured at five percent deflection and tested in accordance with ASTM D–2412. P.V.C. SDR–26 Pipe shall have a minimum Pipe Stiffness of 115 Pounds Per Square Inch for each diameter when measured at five percent deflection and tested in accordance with ASTM D–2412.
3. The assembly of joints shall be in accordance with pipe manufacturers' recommendations and ASTM D–3212. Solvent Cement Joints shall not be allowed for mainline pipe.
4. Pipe fittings shall be SDR–26 manufactured fittings made of P.V.C. Plastic having a Cell Classification of 12454–B, 12454–C, or 13343–C, as defined in ASTM D–1784. Saddle connections shall not be allowed for new construction. Lateral connections shall occur at SDR–26 Tee–Wyes.
5. In accordance with ASTM D–3034, the outside of each pipe section shall be legibly marked with the date of manufacture, class of pipe, specification designation, name or trademark of manufacturer and identification of plant/location. When possible, the interior of the pipe shall also be marked with same information as the exterior of the pipe in a location that can be seen during the Closed Circuit Television (CCTV) Inspection.
6. Installation shall be in accordance with ASTM recommended practice D–2321.
7. Pipe size and classification shall be called out in Plan and Profile of Construction Drawings.
8. Sanitary sewer pipe shall have a minimum horizontal separation of 10 Feet from storm sewer pipe or water main pipe. All pipe crossings shall be at angles greater than 45° with a minimum vertical separation of 1.5 Feet. Dimensions are measured from the outside of pipe to outside of pipe.

SANITARY SEWER TELEVISING AND AS–BUILT DRAWINGS

1. Closed circuit television inspection shall be performed in compliance with NASSCO's Pipeline Assessment Certification Program (PACP) standards on all pipes to be used for the purposes of conveying sanitary sewer. Televising shall be completed after leakage and deflection testing is accepted.
2. The contractor installing pipe shall employ/hire the contractor responsible for the television inspection services. The contractor/developer shall contact the Noblesville Department of Engineering to schedule the CCTV inspection immediately following the thorough cleaning of all line segment.
3. If any pipe and/or joint is found to be leaking, the contractor shall repair that portion of the work to the satisfaction and approval of the Noblesville Department of Engineering.
4. Contractor shall bear all costs of line segment cleaning, debris removal and disposal, and, the CCTV inspection.
5. Contractor shall submit as–built drawings, electronic and hardcopy, and all leakage and deflection certification of attestment within 30 days of successful completion of all testing requirements.
6. Electronic as–built drawings submittal shall be submitted to the Noblesville Department of Engineering and comply with the City's GIS Coordinator's guidelines.
7. Contractor shall supply digital video to the City of Noblesville Engineering Department that is compatible with Windows Media Viewer with indexed chapters to allow instant access to points of observation.

SANITARY SEWER DEFLECTION TESTING

1. An in–place deflection test shall be performed on all flexible pipe to be used for the purposes of conveying sanitary sewage. Testing for allowable deflection of 5 percent internal pipe diameter (ID) shall not commence until after all backfilling has been in place for 30 days. A nine–point, "go–no–go" mandrel shall be used for the deflection test. A proving ring shall be provided for each mandrel.
2. All pipe exceeding the allowable deflection shall be replaced. A replaced section shall be retested 30 days after replacement. The Contractor shall bear all costs for testing and testing equipment. The "go–no–go" mandrel shall be manually pulled without the use of any winching or other mechanical device. Should corrective measures be conducted, the entire segment shall be tested again for leakage, as stated above.
3. The design engineer or his/her representative shall attest that each mainline segment was tested for deflection with successful results, in compliance with stated deflection testing requirements.

SANITARY SEWER LEAKAGE TESTING

1. A leakage test shall be performed on all mainline segments. Low pressure air shall be slowly introduced into the sealed line until the internal air pressure reaches 4 PSIG plus the groundwater head divided by 2.31 (maximum test pressure is 9 PSIG). Testing for leakage shall not commence until after all backfill has been in place for 30 days.
2. At a stable internal air pressure within 0.5 PSIG of the initial internal air pressure, timing shall commence with a stopwatch or similar device of 99.8 percent accuracy, timing shall end when the internal air pressure drops 1 PSIG below the stable internal air pressure.
3. The line shall be accepted if the time shown in Table 1 for the designated pipe size and length elapses before the air pressure drops 1 PSIG below the stable internal air pressure at which time the test can be discontinued for the accepted line.
4. Should contractor excavate pipe for the purpose of repairing a leak, then the entire mainline segment shall be retested for both leakage and deflection.

The design engineer or his/her representative shall attest that each mainline segment was tested for leakage with successful results, in compliance with stated leakage testing requirements.

TABLE 1

SPECIFICATION TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015

1 Pipe Diameter (In.)	2 Minimum Time (Min: Sec)	3 Length For Minimum Time (Ft.)	4 Time For Longer Length (Sec.)	Specification Time For Length (L) Shown (Min.: Sec.)							
				100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	350 Ft.	400 Ft.	450 Ft.
6	5:40	398	.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852L	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

NOTE:

For more efficient testing of long test sections and/or sections of larger diameter pipes, a timed pressure drop of 0.5 PSIG may be used in lieu of the 1.0 PSIG timed pressure drop. If a 0.5 PSIG pressure drop is used, the required test time shall be exactly half as long as those shown above.

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

CITY OF NOBLESVILLE

Sanitary Sewer General Notes and Specifications

SHEET 10 OF 29

Alison M. Krupski 7/8/2021

HIGH DENSITY POLYETHYLENE (HDPE) PIPE

1. See related specifications for Horizontal Directional Drilling Specifications.
2. HDPE pipe shall have a minimum wall thickness Dimension Ratio (DR) of DR-11. Material used in the manufacture of HDPE pipe shall conform to the HDPE standard code PE3408. All HDPE pipe shall have the equivalent outside diameter as Ductile Iron (DI) pipe for the nominal size indicated. The Working Pressure Rating (WPR) of all HDPE pipe shall have a Wall Thickness Dimension Ratio of 11.
3. HDPE sections proposed to be fused together shall be a minimum of 20 feet in length unless otherwise approved by the City Of Noblesville Engineering Department.
4. A minimum of three (3) 10-gauge tracer wires shall be pulled with all HDPE pipe. Tracer wire must have a minimum break load of 1,150lbs and a minimum HDPE insulation of 45 ml.
5. HDPE Fittings shall be made from the same resins and material designations, cell classifications, and dimensions as the HDPE pipe.
6. Pipe And Fitting Jointing/Connections
   - 6.1. Butt Fusion – The Butt (or Heat) Fusion technique shall be used to join all HDPE pipe sections and connect HDPE fittings to the HDPE pipe. The joints shall conform to ASTM D2657 and shall be performed in strict accordance with the pipe manufacture's recommendations. The butt fusion equipment should be capable of meeting all conditions recommended by the manufacturer, including but not limited to, temperature requirements of 400 to 450 degrees Fahrenheit, alignment, and a minimum interfacial fusion pressure of 75 psi. The fusion joining shall produce a joint weld strength equal to or greater than the tensile strength of the pipe itself.
   - 6.2. Sidewall Fusion – The Sidewall (or Heat) Fusion technique shall be used to connect HDPE fittings to the HDPE pipe. The joints shall conform to ASTM D2657 and shall be performed in strict accordance with the pipe manufacture's recommendations. The sidewall fusion heating irons shall have an inside diameter equal to the outside diameter of the HDPE pipe and shall be ¼-inch wider than the size of the fitting being attached. The fusion joining shall produce joint weld strength equal to or greater than the tensile strength of the pipe itself.
   - 6.3. Pipe Mechanical Joining – Mechanical joining shall be used to make connections to PVC fittings and/or non-HDPE pipe. The permitted method of HDPE joining is listed below.
     - 6.3.1. HDPE Pipe to Non-HDPE pipe – Mega Lug Restrainers (manufactured for use with PVC pipe) combined with a MJ Harvey Adapter and mechanical joint, solid short sleeves. The HDPE side of the connection shall also be restrained by a concrete thrust anchor as per the plans. The non-HDPE pipe shall be reinforced with joint restrainers a minimum of three (3) joints beyond each HDPE to PVC connection, when the connection is linear.
7. HDPE pipe shall be installed using the horizontal directional drilling method as per City Of Noblesville Department Of Engineering And City Of Noblesville Utilities Department. Locations where pipe material transitions are required, i.e. HDPE/PVC, may be installed by open cut.
8. Shop drawings and manufacturer's literature for all contractor supplied materials shall be promptly submitted to the City of Noblesville Engineering for approval. The following items shall be submitted before delivery of HDPE pipe, tubing, or fittings:
   - 8.1. Pipe: Certification by the manufacturer that the HDPE material and pipe was manufactured and tested in accordance with all applicable specifications and requirements.
   - 8.2. Manufacturer's installation instruction and literature to the contractor so that manufacturer's recommended procedure and practice of installing pipe and fittings are followed.
9. Pipe Joining:
   - 9.1. The HDPE pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak proof joint. Threaded or solvent-cement joints and connections are not permitted. All equipment and procedures used shall be used in strict compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel trained as fusion technicians by a manufacturer of polyethylene pipe and/or fusing equipment.
   - 9.2. Square the pipe ends by using the fusion machine facing tool. In the fusion machine, pipe ends shall meet squarely so that the entire area to be fused is covered. The pipe ends shall make firm contact without applying pressure to the heat plate. The heat plate temperature shall be as required by the pipe manufacturer's recommendations. The melt bead shall be according to pipe diameter and as recommended by the pipe manufacturer. Pipe ends shall be carefully moved away from heat plate once the appropriate melt bead is achieved. The pipe ends shall be joined quickly without slamming. The butt fused joint shall be true alignment and shall have uniform roll back beads resulting from the use of proper temperature and pressure. The joint shall be allowed adequate cooling time before removal of pressure. The fused joint shall be watertight and shall have tensile strength equal to that of the pipe. All joints shall be subject to acceptance by the City Of Noblesville prior to installation.
   - 9.3. All defective joints shall be cut out and replaced at no cost to the City of Noblesville. Any section of the pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than ten percent (10%) of the wall thickness, shall not be used and must be removed from the site. However, a defective area of the pipe may be cut out and the joint fused in accordance with procedures stated above. In addition, any section of pipe having other defects such as concentrated bends, discoloration, excessive spot roughness, pitting, variable wall thickness or any other defect of manufacturing or handling as determined by the City Of Noblesville shall be discarded and not used.
10. Contractor or sub-contractor performing any fusion (heat or electrofusion) on the HDPE pipe shall be able to provide evidence and references for satisfactory service in at least 3 projects of similar pipe diameter and with similar service types.
11. The Contractor shall perform any and all testing on the HDPE pipe as directed and required by the City of Noblesville. A representative of the City of Noblesville shall be present for all testing associated with the HDPE pipe.

HORIZONTAL DIRECTIONAL DRILLING SPECIFICATIONS

1. See Related Specifications for High Density Polyethylene (HDPE) Pipe.
2. The contractor or sub-contractor performing any HDD installations shall have performed at least five (5) HDD projects of similar pipe diameter and length in the last three (3) years. The contractor shall ensure that appropriate equipment is provided to facilitate the installation. Equipment shall be matched to the size of pipe being installed and shall have appropriate torque and thrust/pullback capacity for the diameter and length of the intended drilling sections. The contractor will ensure that the drill rod can meet the bend radius required for the proposed installation.
3. Drilling Fluids:
   - 3.1. A mixture of bentonite clay or other approved slurry and potable water shall be used as the cutting and soil stabilization fluid. The viscosity shall be varied to best fit the soil conditions encountered. Water shall be clean and fresh. No other chemicals or polymer surfactant is to be used in the drilling fluid without the written consent of the City Of Noblesville and after a determination is made that the chemicals to be added are not harmful or corrosive to the facility and are environmentally safe.
   - 3.2. The contractor shall identify the source of fresh water for mixing the drilling mud. The contractor shall be responsible for approvals and permits required for such sources as streams, rivers, ponds, or fire hydrants. Any water source other than potable water may require a pH Test.
   - 3.3. Monitoring of the drilling fluids such as the pumping rate, pressures, viscosity, and density is required during the pilot bore, back reaming, and pipe installation stages, to ensure adequate removal of soil cuttings and the stability of the bore hole. Relief holes can be used as necessary to relieve excess pressure down hole. To minimize heaving during pullback, the pull back rate is determined in order to maximize the removal of soil cuttings without building excess down hole pressure. Excess drilling fluids shall be contained at entry and exit points until they are recycled or removed from the site. Entry and exit pits shall be of sufficient size to contain the expected return of drilling fluids and soil cuttings.
   - 3.4. The contractor shall ensure that all drilling fluids are disposed of or recycled in a manner acceptable to the appropriate local, state, or federal regulatory agencies. When drilling in suspected contaminated ground, the drilling fluid shall be tested for contamination and disposed of appropriately. Any excess material shall be removed upon completion of the bore.
   - 3.5. Restoration for damage to any transportation facility or non-transportation facility caused by heaving, settlement, escaping drilling fluid (fracout), or the directional drilling operation, is the responsibility of the contractor. Any pavement heaving or settlement damage requires restoration/replacement of the pavement per applicable City Of Noblesville standards.
4. General Construction Requirements:
   - 4.1. The pipe shall be installed in the location and to the line and grade designated on the drawings.
   - 4.2. Provide for testing and cleanup as soon as practicable, so these operations do not lag far behind pipe installation. Perform preliminary cleanup and grading operations immediately after backfilling
   - 4.3. All surfaces shall be finish graded to original contours and ground cover.
   - 4.4. All materials delivered to the project shall be neatly stored. Excavated material, which is not removed from the immediate work site, shall be stockpiled so as to cause as little inconvenience to the property owners as possible. Driveways and street crossings must be kept clear.
   - 4.5. Excavation for entry, recovery pits, slurry sump pits, or any other excavation shall be carried out in accordance with City Of Noblesville Specifications for applicable work. Sump areas or holding tanks are required to contain drilling fluids.
   - 4.6. After completing installation of the product the work site shall be restored. The work site shall be cleaned of all excess slurry left on the ground. Removal and final disposition of excess slurry or spoils as the product is introduced shall be the responsibility of the contractor
   - 4.7. Excavated areas shall be restored in accordance with the City Of Noblesville Specifications. The cost of restoring damaged pavement, curb, sidewalk, driveways, lawns, storm drains, landscape, and other facilities is the responsibility of the contractor.
   - 4.8. If underground utilities and/or structures not shown on the Drawings are encountered, notify the City Of Noblesville and do not proceed until instructions are obtained. Notify the City Of Noblesville if springs or running water are encountered.
5. Specific Requirements:
   - 5.1. Utility Verification (Potholing)
     - 5.1.1. Contractor shall conduct prior to the start of sanitary main construction the verification of all underground utilities (potholing) that may conflict with Sanitary Force Main construction.

HORIZONTAL DIRECTIONAL DRILLING SPECIFICATIONS (CONT.)

   - 5.1.2. Potholing results shall be presented to the City Of Noblesville on a full set of drawings showing accurate locations of utilities. Information marked on the plans should include horizontal tie downs as well as depths related to USGS elevation.
   - 5.1.3. Alignment of the proposed sanitary force main (horizontal and vertical) may be adjusted in the field upon review of potholing results by the Engineer/City Of Noblesville.
   - 5.2. Back Ream Hole Diameter – The back ream hole diameter shall be no greater than the sum of the maximum product outside diameter (OD) plus 6-inches.
   - 5.3. Testing – When there is any indication a pipe has sustained damage and may leak, the work is to be stopped and the damage investigated. The City Of Noblesville may require a pressure test. The testing may consist of one of the following methods but shall always meet or exceed City Of Noblesville's testing requirements:
     - 5.3.1. Manufacturer's pressure testing recommendations for the type of pipe being installed are followed. The City Of Noblesville shall be notified and be present during the test for review of the test results for compliance. The pressure test shall be performed within twenty-four (24) hours. A copy of the test results shall be furnished to the The City Of Noblesville. If the pipe is not in compliance with specifications, the City Of Noblesville may require it to be filled with flowable fill.
     - 5.3.2. Product carrier pipes installed without a casing must meet pressure requirements set by the City Of Noblesville. A copy of the test results shall be furnished to the The City Of Noblesville. If the pipe is not in compliance with specifications the City may require it to be filled with flowable fill.
   - 5.4. Locating and Tracking – The contractor shall describe the method of locating and tracking the drill head during the pilot bore. The City Of Noblesville recognizes walkover, wire line, and wire line with surface grid verification, or any other system as approved by the City Of Noblesville, as the accepted methods of tracking directional bores. The locating and tracking system shall be capable of ensuring that the proposed installation is installed as intended. The locating and tracking system shall provide information on:
     - 5.4.1. Clock and Pitch Information.
     - 5.4.2. Depth.
     - 5.4.3. Battery Status.
     - 5.4.4. Position (x,y).
     - 5.4.5. Azimuth, where direct overhead readings (walkover) are not possible (i.e. subaqueous or limited access transportation facility.)
     - 5.4.6. Alignment readings or plot points shall be taken and recorded every five (5) feet.
     - 5.4.7. Before commencement of a directional drilling operation, proper calibration of the equipment (if required) shall be undertaken.
   - 5.5. All facilities shall be installed in such a way that their location can be readily determined by electronic designation after installation. For non-conductive installations this shall be accomplished by attachment of three (3) 10-gauge tracing wires, as per these City Of Noblesville Standards.
6. Quality Control:
   - 6.1. A representative of the contractor must be in control of the operation at all times. The representative must have a thorough knowledge of the equipment and the procedures to be performed, and must be present at the job site during the installation.
   - 6.2. The City Of Noblesville must be notified forty-eight (48) hours in advance of starting work. The installation shall not begin until the City Of Noblesville is present at the job site and agrees that proper preparations have been made.
7. Testing and Cleanup
   - 7.1. Provide for testing and cleanup as soon as practicable, so these operations do not lag far behind pipe installation. Perform preliminary cleanup and grading operations immediately after backfilling.
   - 7.2. All surfaces shall be finish graded to original contours and ground cover. All surplus excavated material shall be disposed of off-site in a legal manner by the contractor.

THE CITY OF NOBLESVILLE EST. 1823

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Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

Sanitary Sewer General Notes and Specifications

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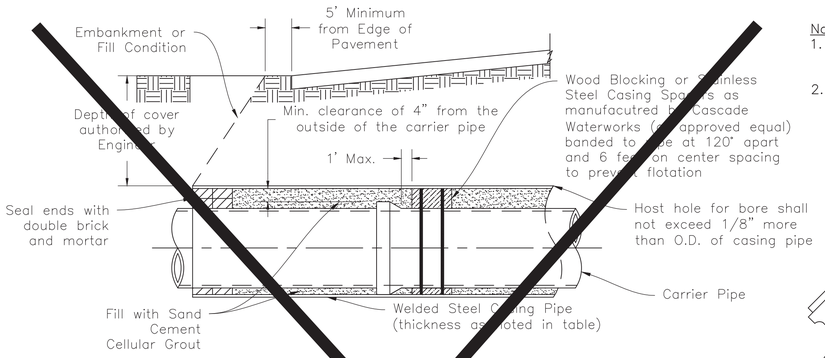
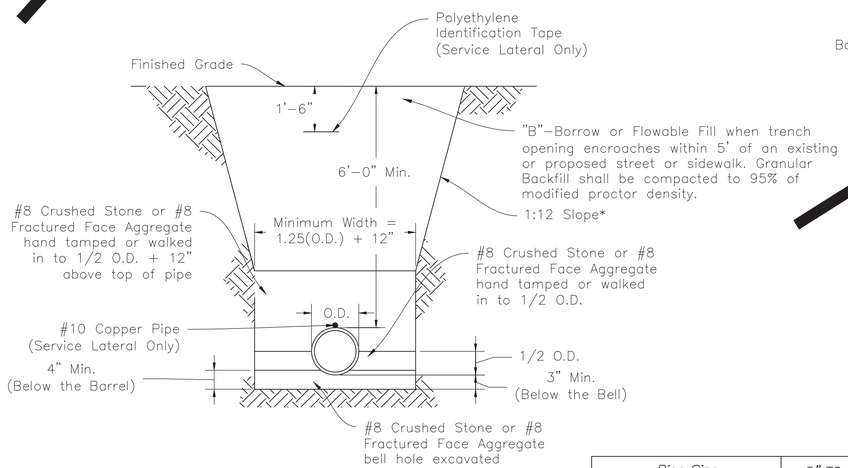


*Casing Pipe shall be joined using 36 KSI Min. welded joints

NOMINAL WALL THICKNESS					
		Railroad Crossings		Roadway Crossings	
Nominal Size	Actual O.D.	Bare	Protective Coated	Bare	Protective Coated
8"	8 5/8"	0.250	0.188	0.250	0.188
10"	10 3/4"	0.250	0.188	0.250	0.188
12"	12 3/4"	0.250	0.188	0.250	0.188
14"	14"	0.281	0.219	0.250	0.219
16"	16"	0.281	0.219	0.250	0.219
18"	18"	0.312	0.250	0.250	0.250
20"	20"	0.344	0.281	0.312	0.250
24"	24"	0.406	0.344	0.312	0.250
30"	30"	0.469	0.406	0.375	0.375
36"	36"	0.532	0.469	0.500	0.469
42"	42"	0.563	0.500	0.500	0.500
48"	48"	0.625	0.563	0.625	0.563
54"	54"	0.688	0.625	0.625	0.625
60"	60"	0.750	0.688	0.625	0.625
66"	66"	0.813	0.750	0.625	0.625
72"	72"	0.875	0.813	0.750	0.750



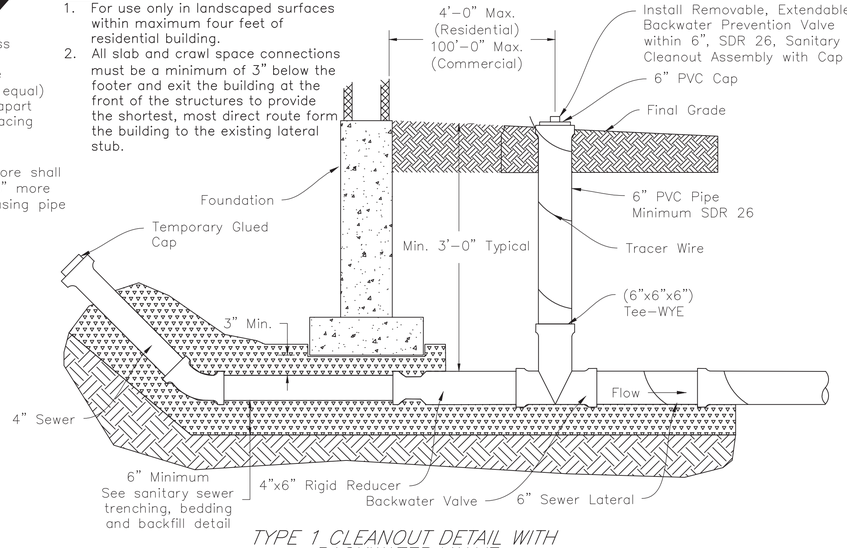
PVC PIPE BEDDING DETAIL

Scale: None

** Trench Slope For Unit Price Pay Item Or Reimbursement Quantity Calculation*

Pipe Size	*8" TO 15"*	*18" And Over*
Bedding Below The Pipe Barrel	*O.D./4 Min.=4"*	*O.D./4 Max.=8"*

Notes:
1. For use only in landscaped surfaces within maximum four feet of residential building.
2. All slab and crawl space connections must be a minimum of 3" below the footer and exit the building at the front of the structures to provide the shortest, most direct route form the building to the existing lateral stub.



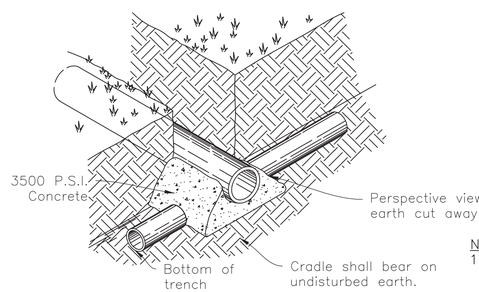
TYPE 1 CLEANOUT DETAIL WITH BACKWATER VALVE

Scale: None

CONCRETE ENCASEMENT DETAIL

Scale: None

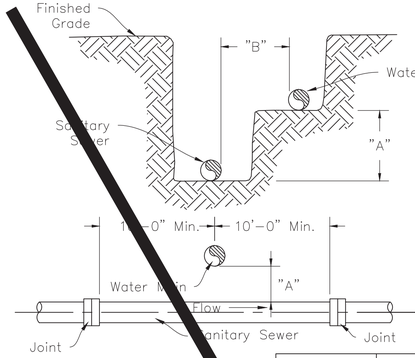
Note:
1. Concrete shall be High–Early Yield and shall be backfilled until Engineer Deems the concrete adequately cured.
2. To be used when cover over top of pipe is less than 4 feet to finished grade, per Engineer's direction or where noted on the construction plans.



CONCRETE CRADLE DETAIL

NOT TO SCALE

Note:
1. To be used when clear distance between pipes is 18" or less, or where noted on the drawings.

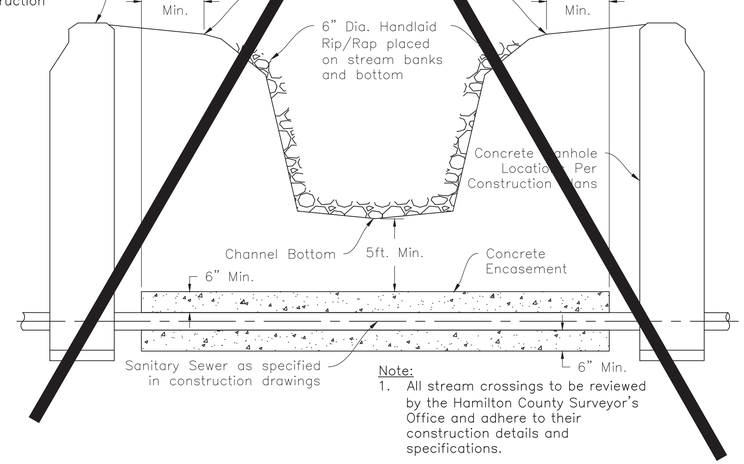


Notes:
1. Separation distances from water supplies and pipe classifications shall conform to the Indiana State Board of Health's "On–Site Water Supply and Wastewater Disposal for Public and Commercial Establishments – Bulletin S.E. 13".
2. Water Mains shall be located on an undisturbed ledge.

If "A" Is	*If "B" Is*	*Then Sanitary Sewer Pipe Segment Shall Be:*
18" Or More	*10" Or More*	*No Special Pipe Material Or Grade Requirements*
Less Than 18"	*Less Than 10"*	*PVC (Either ASTM D2241 (SDR 21) ANSI/AWWA C900 (DR18) ANSI/AWWA C905 (DR21) DUCTILE IRON (CLASS 51 Min.)*

WATER LINE CROSSING DETAIL

Scale: None



Note:
1. All stream crossings to be reviewed by the Hamilton County Surveyor's Office and adhere to their construction details and specifications.

THE CITY OF NOBLESVILLE EST. 1823

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Sanitary Sewer Pipe and Bedding Details

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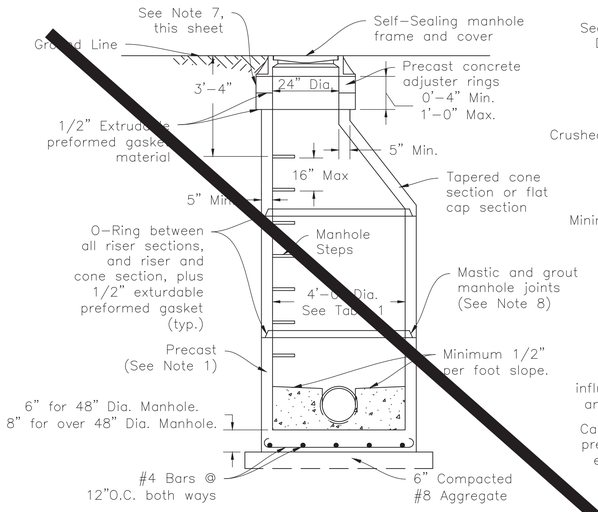
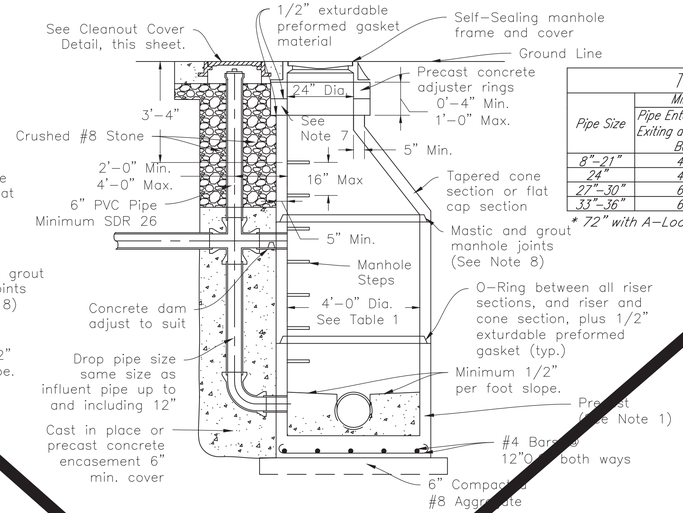


TYPICAL MANHOLE TYPE A

Scale: None



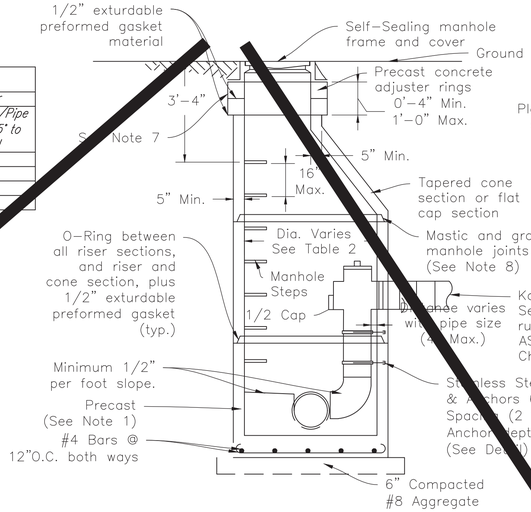
TYPICAL MANHOLE TYPE B (EXTERIOR DROP MANHOLE)

Scale: None

Table 1

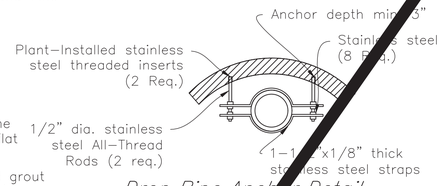
Pipe Size	Minimum Manhole Diameter	
	Pipe Entering/Pipe Exiting at 0° to 45° Bend	Pipe Entering/Pipe Exiting at 45° to 90° Bend
8"-21"	48"	48"
24"	48"	60"
27"-30"	60"	60"
33"-36"	60"*	72"

* 72" with A-Lock Connector



TYPICAL MANHOLE TYPE C (INTERNAL DROP MANHOLE)
(60" DIAMETER OR GREATER)

Scale: None



Drop Pipe Anchor Detail

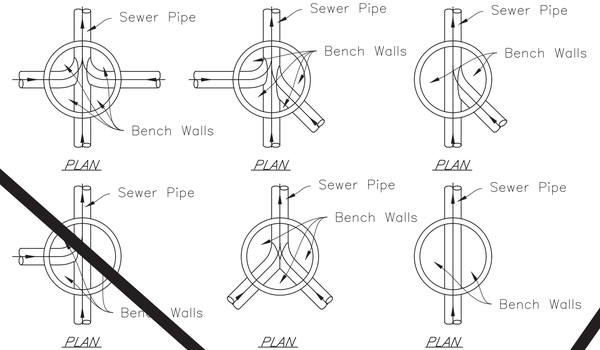
Table 2

Manhole Inside Diameter		
Total Number Of Incoming Lines	Pipe Size	Inside Manhole Diameter
1	8"-12"	60"
2 Or 3	8"-12"	72"

Note:
1. IntraFlow™ low profile inside drop system by Royal Enterprises America to be used on less than 60" dia. manholes.

MANHOLES

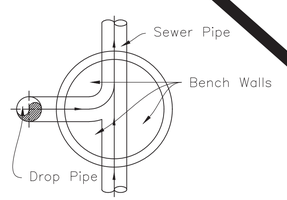
1. Precast concrete manholes shall conform to ASTM C-478, with rubber type gaskets equal to ASTM C-443. Monolithic cast-in-place manholes shall only be used with the prior written approval of the City of Noblesville. The base and first riser section of the precast concrete manhole shall be integrally cast as one complete unit. Precast concrete cones shall be of the eccentric cone type. No "see through" lift holes shall be allowed on precast concrete manholes 48 inches in diameter or less. In addition to the rubber type gaskets, all joints shall receive a 1/2 inch diameter non-asphaltic mastic (Kent-Seal or City approved equal) conforming to AASHTO M-198 and federal specifications 55-5-210a. Manhole/sewer connection shall be made with a flexible watertight connection.
2. Final adjustment in elevation of the frame and cover shall be accomplished by the use of a 4 inch minimum thickness adjusting ring as detailed herein to a maximum combined thickness of 12 inches. Brick or block shall not be used in the construction of a manhole or to adjust the elevation of the frame and cover.
3. Manhole ladder rungs shall be Neenah No. R-1981-J, East Jordan Iron Works No. 8512, M. A. Industries No. PS 1-PF or as approved by the Noblesville Department of Engineering.
4. Manhole frame and cover shall be Neenah R-1772 with gasketed lid, East Jordan 1022-Z1 with gasketed lid, or as approved by the Noblesville Department of Engineering. When watertight frame and cover is required by the Noblesville Department of Engineering, Neenah R-1772 with locking lid, East Jordan 1022-Z1 with locking lid, or as approved by the Noblesville Department of Engineering, shall be provided. All covers shall be stamped "Sanitary Sewer" with 2" raised letters.
5. The lowest internal plumbing elevation to receive gravity sanitary service must be one (1) foot above the top of manhole casting elevation of either the first upstream or downstream manhole on the public sewer to which connection is to be made. Those portions of the building not meeting the stated gravity sanitary service requirement shall be provided and maintained by the property owner with a grinder pump system or the Noblesville Department of Engineering approved equal discharging to the gravity building connection outside of the Public Right-of-Way. (see Acceptable Connection Detail-Sheet 14.)
6. Manholes shall be installed at distances not greater than 400 feet.
7. Contractor shall install an external rubber sleeve sealing system wrapped over the flange of the manhole frame to 2 inches below the bottom of the lowest adjusting ring. The external rubber sealing sleeve shall have a minimum thickness of 60 mils and meet the requirements of ASTM C-923, ASTM C-443 and ASTM F-477. The rubber sleeve shall be Infi-Shield external manhole seal, or as approved by the Noblesville Department of Engineering.
8. Apply bituminous coating, Hydracide 700 Plastic, on the external face at all manhole sections. Hydracide mastic shall be applied to 6" above and below each joint.
9. For an industrial property, developer shall submit to the Noblesville Department of Engineering, the proposed location of an industrial monitoring/sampling station. Said submittal shall also address the station's size and material of construction.
10. After manhole assembly and backfilling, a city representative will visually inspect each structure for leakage or evidence thereof. In addition, all manholes installed shall be vacuum tested in accordance with ASTM C1244-93. If any manhole shows leakage or signs thereof, said manhole shall be repaired to the satisfaction of the Noblesville department of engineering and retested. The design engineer or his/her representative shall certify that all manholes were vacuum tested, with successful results, in accordance with ASTM C1244-93.
11. Any vacuum testing and equipment shall be provided by the contractor. Any repairs shall be the responsibility of the contractor.
12. Contractor shall permanently secure casting to eccentric cone or flat cap section by installation of four (4) equally spaced 3/8" diameter Stainless Steel All-Thread Dowel Rods or 3/8" Hilti Expansion Anchor. Sika Epoxy, or Noblesville Department of Engineering approved equal, shall be used with each stainless steel all-thread dowel rod.
13. Castings shall not be buried and shall be flush with the adjacent finished grade. Castings which are surrounded by asphalt or concrete shall be constructed within a tolerance of ± 0.1' of the designed elevation. All other castings shall be constructed within a tolerance of ± 0.2' of the designed elevation. Elevations will be checked with the as-built drawings.
14. There shall be a minimum of 0.1 feet of fall between the upstream invert(s) and the downstream invert in the structure for pipes of the same diameter. For pipes of differing diameters, the crown of the upstream pipe shall match the crown of the downstream pipe. An outside drop manhole is required for upstream inverts which are two feet (2') higher than the downstream invert.
15. Any permitted internal drop manholes that are less than 60" diameter structures shall use IntraFlow™ low-profile inside drop system by Royal Enterprises America, or as approved by Noblesville Department of Engineering.



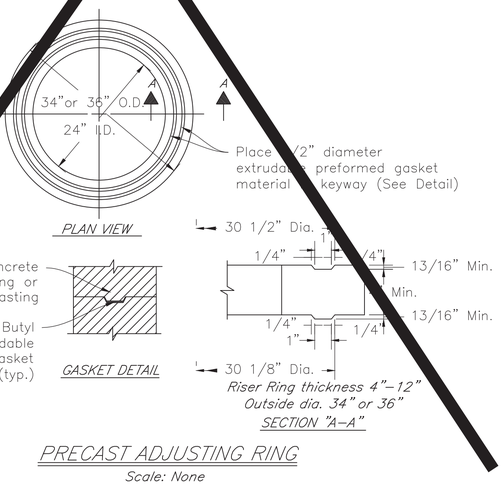
Note: All Bench Walls To Be Sloped @ 1/2"/Ft.

BENCH WALL DETAILS

Scale: None

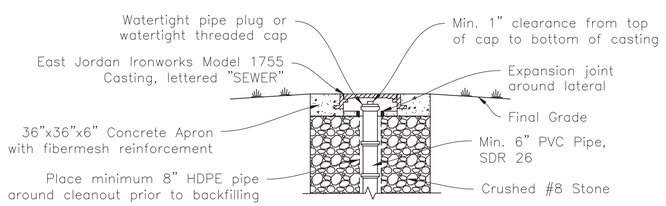


BENCH WALL DETAIL



PRECAST ADJUSTING RING

Scale: None



CLEANOUT COVER DETAILS

Scale: None

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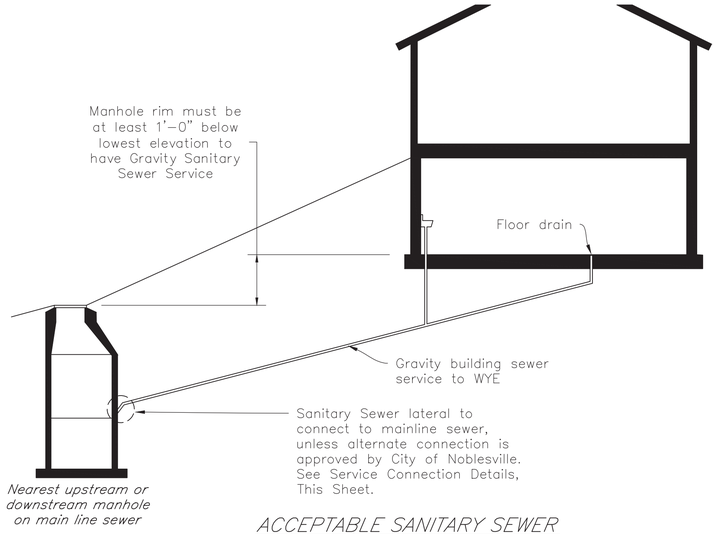
ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/5/2021

CITY OF NOBLESVILLE

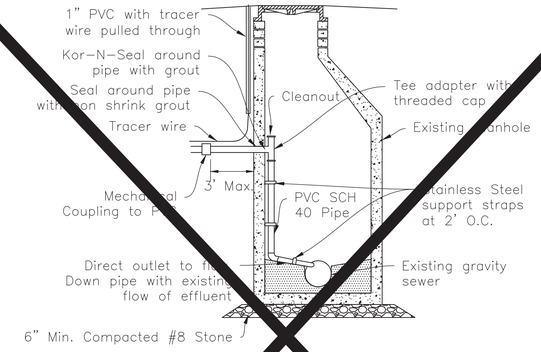
Sanitary Sewer Structures and Connection Details

SHEET 13 OF 29



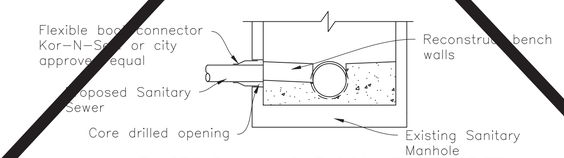
ACCEPTABLE SANITARY SEWER CONNECTION DETAIL

Scale: None



FORCE MAIN TO MANHOLE DETAIL FOR 4" DIAMETER PIPE OR SMALLER

Scale: None

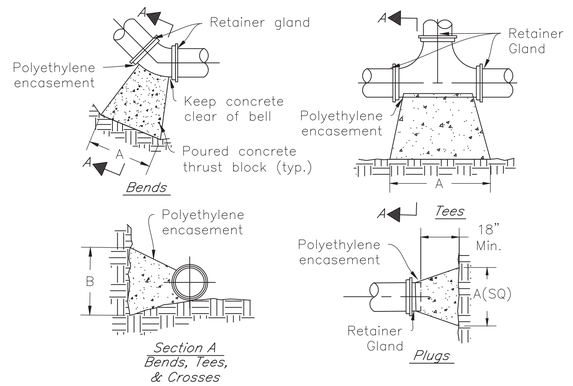


EXISTING MANHOLE CONNECTION DETAIL

Scale: None

ALLOWABLE LEAKAGE PER 1000 FT. OF PIPELINE*––GALLON/HOUR										
Length of pipe to be restrained in each direction from C of Bend based on 150 PSI test pressure										
Degree Of Bend	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"
90°, Tees, & Plugs	27'	35'	42'	50'	58'	65'	73'	80'	95'	115'
45°	7'	9'	11'	13'	15'	17'	19'	21'	24'	29'
22–1/2°	3'	4'	5'	6'	7'	8'	9'	10'	12'	14'
11–1/4°	2'	2'	3'	3'	4'	4'	4'	5'	6'	7'

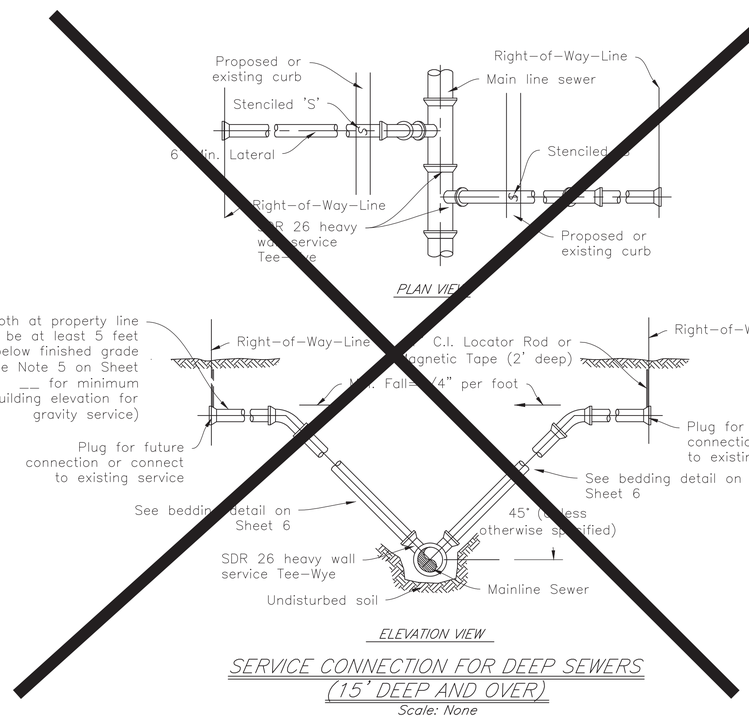
Note:
1. Restrained joints shall be mechanical joint with retainer glands, US Pipe TR Flex Joint System, US Pipe Field Lock Gasket System, or equal.
2. The above restrained joint lengths are minimum lengths. The Design Engineer shall determine if longer lengths are required.



Notes:
1. Thrust block dimensions shall be provided by the design engineer.
2. Thrust blocks shall be installed against undisturbed soil with adequate bearing to prevent movement of fitting.
3. No thrust blocks to be placed in sewer lateral ditches.
4. Thrust blocking must fit in easement, in some cases additional restraint may be required.
5. Design to be based on 200 PSI hydrostatic water pressure (150 PSI static pressure plus 50 psi water hammer).
6. Install polyethylene encasement on all D.I. Pipe and fittings prior to pouring concrete.
7. Pipe joints and bolts must be accessible.
8. Allow sufficient clearance between concrete and bolts for future maintenance.
9. All anchor bolts shall be corrosion resistant, and sized per specification.
10. Thrust blocking details are shown here for typical installations. In some cases, additional restraint may be required.
11. Concrete used for thrust blocks shall be min. 3000 PSI concrete.
12. For unstable soil conditions, the engineer shall verify thrust block dimensions.

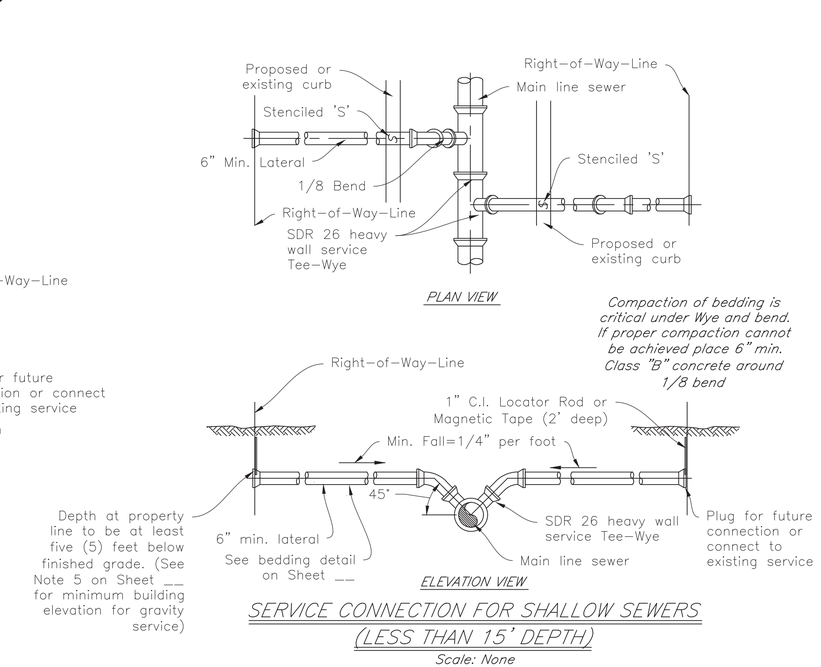
Thrust Block Detail

Scale: None



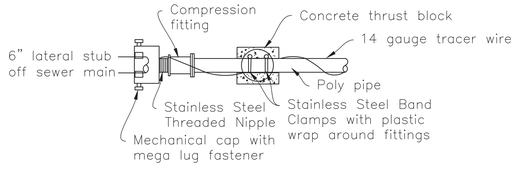
SERVICE CONNECTION FOR DEEP SEWERS (15' DEEP AND OVER)

Scale: None



SERVICE CONNECTION FOR SHALLOW SEWERS (LESS THAN 15' DEPTH)

Scale: None



PRIVATE GRINDER PUMP TYING INTO EXISTING LATERAL STUB

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

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CITY OF NOBLESVILLE

Sanitary Sewer Structures and Connections Details

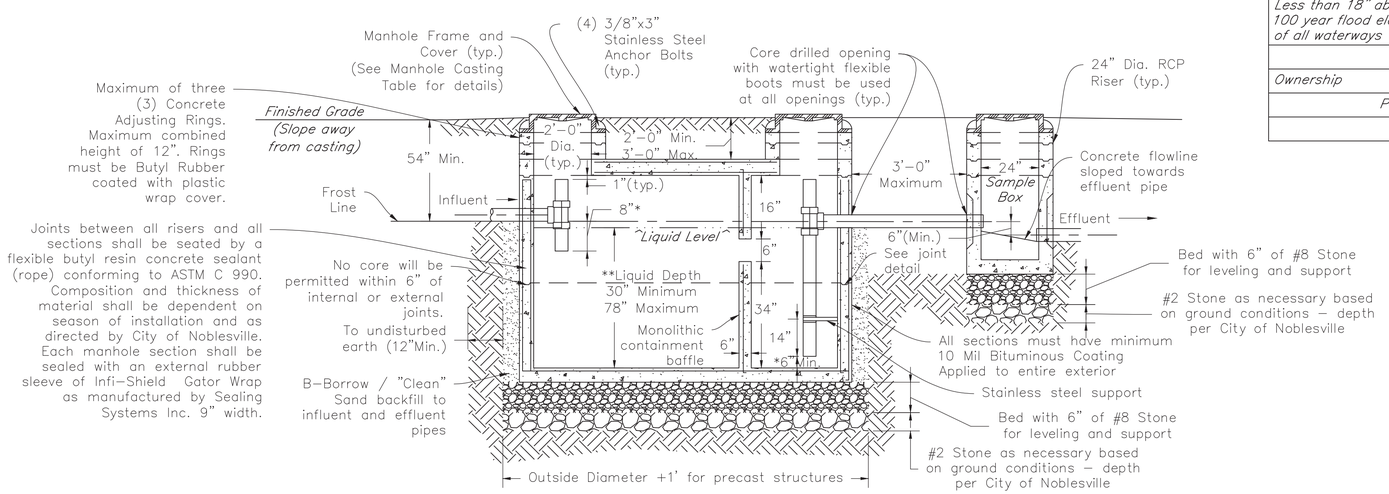
SHEET 14 OF 29

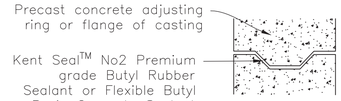
OIL / GREASE TRAP REQUIREMENTS

1. All new commercial or industrial entities, which either generate and/or waste oil, grease or the by-products thereto, shall construct a 1,000-gallon (minimum) grease trap. The design engineer shall submit detailed calculations for size justification of said trap. Calculations shall be accompanied with references, specifically denoting origin of sizing/calculation method.
2. Toilets, urinals and other similar fixtures shall not discharge waste through the grease trap. All other waste shall enter through the grease trap, through the inlet pipe only.
3. The grease trap and sampling box shall be designed such that it is easily accessible, for inspection/sampling and cleaning, at all times. The grease trap shall have a minimum of two (2) compartments, fittings designed for grease interception, and a downstream sampling box.
4. The oil/grease trap shall be located outside the building and at a distance far enough to allow soluble grease/oil to become insoluble.
5. A backwater prevention valve shall be located downstream of oil/grease trap.
6. Shop drawings shall be submitted to City of Noblesville for review and approval of all Grease Traps prior to installation.
7. Grease Traps installed during remodels are required to be sized for a minimum of 20 gpm flow rate. Detailed sizing calculations in accordance with Note #1 of this section shall be completed by the design engineer and submitted for approval by the City of Noblesville.

GENERAL NOTES

1. All Grease Traps must be sized according to the Indiana State Department of Health Bulletin S.E.1.3. The sizing method must be approved by the City of Noblesville.
2. Shop drawings must be submitted to the City of Noblesville for review and approval.
3. Grease Trap and Sample Box are property of Owner and will not be maintained by the City of Noblesville.
4. Top of casting shall extend 0.20 feet minimum above finished grade. Unless approved by City of Noblesville, castings must not be within one (1) foot horizontal distance of any paved or concrete surfaces.
5. Grease Trap shall conform to ASTM C 478 utilizing 4,000 PSI concrete.
6. Exterior installation must be concrete or cast iron. Steel interceptors/separators shall be only installed inside the building.





JOINT DETAIL

* *Distance may be increased based on the constituents of the waste water flows. Consult City of Noblesville prior to shop drawing submittal.*

** *Minimum liquid depth may be reduced on a case-by-case basis as approved by City of Noblesville.*

Manhole Casting Table		
Location	*Model*	*Cover*
18" or more above 100 year flood elevation of all waterways	*Neenah R-1772 or East Jordan 1022-Z1*	*Heavy duty solid*
Less than 18" above 100 year flood elevation of all waterways	*Neenah R-1916-F or East Jordan 1040-1WT (GREASE TRAP)*	*Heavy duty solid*
Lid		
Ownership	*Lettering*	
Private	*"Grease"*	

GREASE TRAP AND SAMPLING BOX DETAIL

Scale: None

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CITY OF NOBLESVILLE

Sanitary Sewer Oil/Grease Trap Specifications

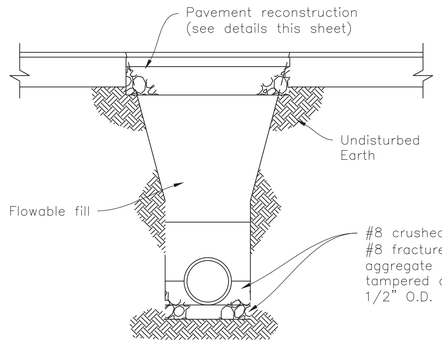
SHEET 15 OF 29

GENERAL NOTES

1. Any excavation and/or trench within five feet of existing or proposed roadway, alley, or sidewalk/trail shall be Type I or Type II as shown.
2. Type II backfill may be used when the trench has adequate space to allow entrance of proper equipment and materials to achieve the required 95% compaction of modified proctor density.
3. The Noblesville Board of Public Works and Safety or the City Engineer shall have the authority to require Type I trench backfill when, in their opinion, minimum compaction cannot be obtained.
4. The contractor shall notify the City of Noblesville permitting agency at least 24 hours prior to beginning backfill of excavation. If the permanent patch placement is to be a separate operation, the contractor shall also notify the City of Noblesville permitting agency 24 hours prior to placement of patch.
5. The contractor shall be responsible for maintaining and repairing any and all open cuts permitted within the City of Noblesville Right-of-Way for a period of one year upon final acceptance by the permitting agency.
6. Trench backfill and pavement restoration shall be conducted in an expeditant manner.
7. Surface patch shall extend from face of curb to face of curb unless otherwise approved by City of Noblesville Board of Public Works.
8. Prior to conducting any work within City of Noblesville Right-of-Way caused by, or related to, new construction, contractor shall secure a Utility Coordination Permit from the Noblesville Department of Engineering.
9. Prior to conducting any work within City of Noblesville Right-of-Way on existing facilities, contractor shall secure an Encroachment Permit from the Noblesville Street Department.

PAVEMENT RESTORATION TABLE	
UTILITY DEPTH RANGE (FEET)	*MAXIMUM TRENCH WIDTH AT FINISHED GRADE, W (FEET)*
0 to 5	*I. D. +5*
5 to 8	*I. D. +8*
8 to 10	*I. D. +10*
10 tO 12	*I. D. +12*
12 to 14	*I. D. +14*
14 to 16	*I. D. +16*
16 to 18	*I. D. +18*
18 to 20	*I. D. +20*

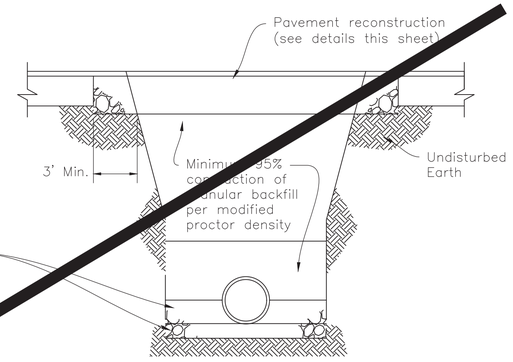
I.D. = Pipe or Conduit Inside Diameter



notes:
1. Trench spoil is to be removed from the work site and disposed of out of the Right-of-Way.
2. Flowable Fill is to be poured into the trench to serve as backfill, to the dimensions and specifications noted in this detail.
3. The Flowable Fill mix design shall have been previously reviewed and approved by the Noblesville Street Department or Department of Engineering
4. The compressive strength of the Flowable Fill shall not be less than 50 PSI nor greater than 100 PSI at 28 days.
5. When Type I Trench Backfill is used, the existing paved surface is not required to be over-cut 2 feet minimum each side. Saw cut existing pavement so that cut provides a vertical, neat and uniform edge.
6. Flowable Fill shall be mixed and placed as specified in the latest INDOT Standard Specifications, Section 213.

TRENCH BACKFILL – TYPE I FLOWABLE FILL DETAIL

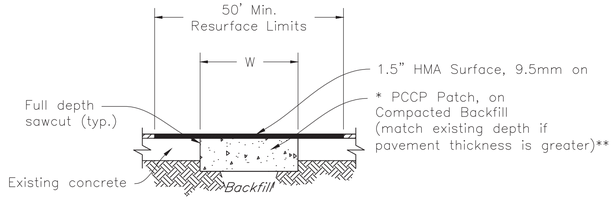
Scale: None



notes:
1. Saw cut existing pavement so that cut provides a vertical, neat and uniform edge.
2. Trench spoil is to be removed from the work site and disposed of out of the Right-of-Way.
3. Trench Backfill – Type II shall only be permitted when conducted under the presence of an independent testing laboratory. Proctor tests and field density (compaction) tests shall be conducted at the sole expense of the contractor. All test results shall be submitted to the Noblesville Street Department or Department of Engineering within 30 days of backfill completion.

TRENCH BACKFILL – TYPE II GRANULAR FILL DETAIL

Scale: None



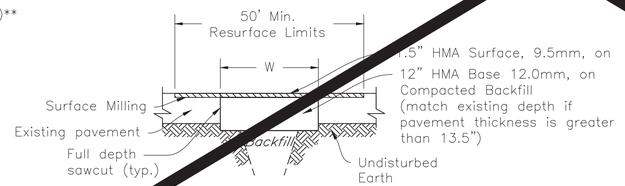
* PCCP Patch thickness to be 12" for arterial/collector/commercial streets and 8" for local streets.

** PCCP Patch thickness to be increased if existing pavement section is greater than 13.5" for collector/arterial/commercial streets, and 9.5" for local streets..

Notes:
1. Saw cuts shall provide a vertical, neat and uniform edge.
2. All materials shall comply with specifications as required by the Noblesville Department of Engineering.
3. Concrete surface shall be broom finish at right angles to traffic flow.
4. All concrete shall be air entrained (5% ±1%)–6 bags per cubic yard minimum 4000 PSI compressive strength concrete. Prior to exposing concrete patch to vehicular traffic, compressive strength test results of cylindrical concrete specimens shall be supplied to the Noblesville Department of Engineering. Compressive strength tests shall be conducted in accordance with ASTM C39.
5. The concrete pavement and the existing vertical edge of pavement are to be tack coated prior to the placement of new asphalt. The new surface pavement grade shall match the existing surface pavement grade.
6. A two (2) inch wide band of crack sealant is to be applied along the joint between the existing and new asphalt surface. Sealant is to be applied in accordance with INDOT Standard Specifications, Section 305.
7. Contractor shall surface mill (1.5") existing pavement 25' in each direction from trench centerline, replace with new HMA surface, and appropriate pavement markings.
8. Refer to Pavement Restoration Table for W. See general notes for additional details.

CONCRETE W/BITUMINOUS SURFACE PATCH

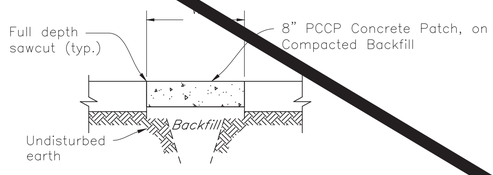
Scale: None



Notes
1. Saw cuts shall provide a vertical, neat, and uniform edge.
2. All materials shall comply with specifications as required by the Noblesville Department of Engineering.
3. Contractor shall surface mill (1.5") existing pavement 25 ft. in each direction from trench centerline from face-of-curb to face-of-curb or edge-of-roadway, replace with 1.5" HMA surface, 9.5mm, and appropriate pavement markings.
4. The existing milled surface and concrete patch is to be tack coated prior to the placement of new asphalt. The new surface pavement grade shall match the existing surface pavement grade.
5. A two (2) inch wide band of crack sealant is to be applied along the joint between the existing and new asphalt surface. Sealant is to be applied in accordance with INDOT Standard Specifications, Section 305.
6. Refer to Pavement Restoration Table for W. See general notes for additional details.

BITUMINOUS PATCH (PREFERRED)

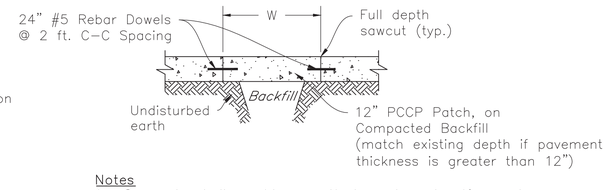
Scale: None



Notes
1. Saw cuts shall provide a vertical, neat, and uniform edge.
2. All materials shall comply with specifications as required by the Noblesville Department of Engineering.
3. Temporary concrete patch to be poured flush with existing pavement grade.
6. Refer to Pavement Restoration Table for W. See general notes for additional details.
7. Temporary repair patch is required when restoration work occurs between November 15 and April 15.
8. Contractor shall refer to the Noblesville Encroachment Ordinance #13-3-01, for maintenance of repair of temporary patch.

FOR TEMPORARY REPAIR PATCH

Scale: None



Notes
1. Saw cuts shall provide a vertical, neat, and uniform edge.
2. All materials shall comply with specifications as required by the Noblesville Department of Engineering.
3. Surface of repair shall be broom finished at right angles to traffic flow.
4. All concrete shall be air entrained (5% ± 1%)–6 bags per cubic yard minimum 4000 psi compressive strength concrete. Prior to exposing concrete patch to vehicular traffic, compressive strength test results of cylindrical concrete specimens shall be supplied to the Noblesville Department of Engineering. Compressive strength tests shall be conducted in accordance with ASTM C39.
5. Contractor shall contact the Noblesville Department of Engineering to determine if anchors are required on existing concrete pavement repairs.
6. Refer to Pavement Restoration Table for W. See general notes for additional details.

CONCRETE PATCH WITHIN CONCRETE STREETS

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

CITY OF NOBLESVILLE

Backfill and Patching Details

SHEET 16 OF 29

Alison M. Krupski 7/8/2021

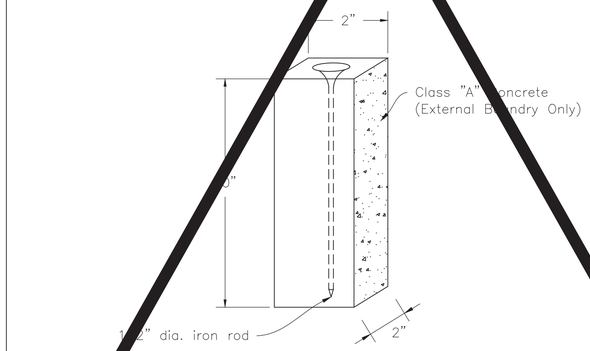
MONUMENTATION GUIDELINES

INDIVIDUAL LOT BOUNDARIES

1. Each property corner and internal angle point shall be monumented by the installation of a 2'–6" long iron rod, capped flush at final grade, with a durable plastic cover.
2. Monuments shall be installed within one season of acceptance of secondary plat.
3. A land surveyor, registered in the State of Indiana, shall attest to the accuracy of the installed individual lot monuments. Attestment certifying all monumentation has been placed shall be delivered with transmittal within one year after platting. Attestment must be received prior to release of surety. Certified statements of attestment shall be submitted to the Noblesville Department of Engineering.
4. Monuments which are damaged or altered shall be reset by party responsible for damage/alteration. If a responsible party can not be readily determined, developer shall bear the costs of having monument reset.
5. If any plat monuments are unable to be set due to subdivision improvements a reference monument shall be set. If a reference monument not shown on the recorded plat is set a Monument Affidavit shall be recorded and cross referenced to the recorded plat.

EXTERNAL BOUNDARIES/ROADWAY MONUMENTATION

1. Monuments shall be placed for the purpose of accurately denoting the center of each roadway. Monuments shall be a steel rod with minimum of one inch (1") diameter by five inches (5") long. As a minimum, monuments shall be placed at points of tangency, points of curvature, and intersection of another roadway. As a minimum, monuments shall be placed no less than 1,320 feet apart on any straight line. Roadway monumentation shall be placed within three (3) months of placement of pavement surface.
2. A land surveyor, registered in the State of Indiana, shall attest to the accuracy of the installed monuments. Certified statements of attestment shall be submitted to the Department of Engineering for consideration of acceptance of the roadway by the Noblesville Board of Public Works and Safety.
3. As denoted on the secondary plat, the external boundary of the development shall be monumented. A land surveyor, registered in the State of Indiana, shall attest to the accuracy of the installed monuments. Certified statements of attestment shall be submitted to the Noblesville Department of Engineering for consideration of acceptance of said plat by the Noblesville Board of Public Works and Safety.
4. Monuments which are damaged or altered shall be reset by party responsible for damage/alteration. If a responsible party can not be readily determined, developer shall bear the costs of having monument(s) reset.
5. If any plat monuments are unable to be set due to subdivision improvements a reference monument shall be set. If a reference monument not shown on the recorded plat is set a Monument Affidavit shall be recorded and cross referenced to the recorded plat.

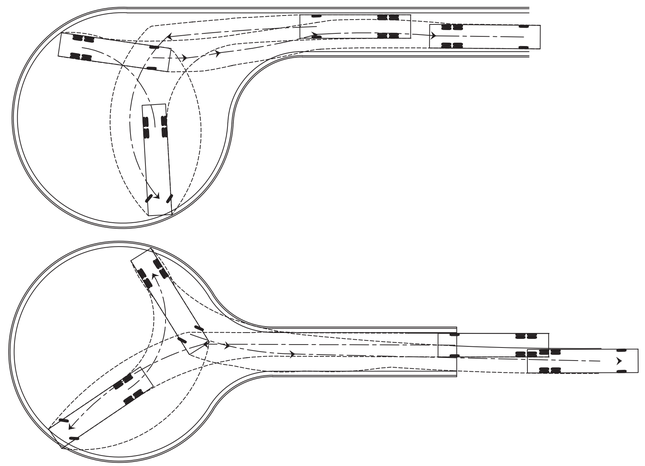


MONUMENT DETAIL – EXTERNAL BOUNDARIES/ROADWAY

Scale: None

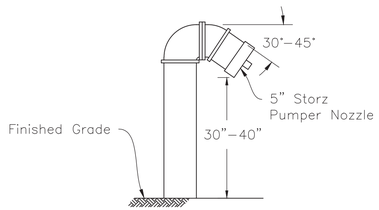
GENERAL NOTES

1. Fire apparatus access road shall be constructed and made serviceable prior to issuance of a building permit.
2. Fire hydrants shall be installed, functional, and approved by the fire marshal prior to issuance of a building permit.
3. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The apparatus roads shall have an unobstructed width of 20 feet at all times.
4. Commercial and apartment buildings with a fire alarm system or sprinkler system shall install an emergency access key box that shall contain the necessary keys to access all protected areas of the building.
5. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access roads shall extend to within 150' of all portions of the facility or any portion of the exterior wall of the first story of the building.
6. Dead–end fire apparatus access roads in excess of 150' in length shall be designed to allow the turning around of the longest piece of fire apparatus.
7. Refer to the Fire Marshal for dry hydrant specifications and fire lane details.
8. All other items not specifically stated herein shall be in accordance with the most recent adopted edition of the Indiana Fire Code.
9. As–built electronic submittal shall be submitted for all fire department connections and fire hydrants to GIS coordinator in compliance with electronic submittal guidelines.



FIRE ENGINE DESIGN VEHICLE TURN–AROUND SCHEMATIC

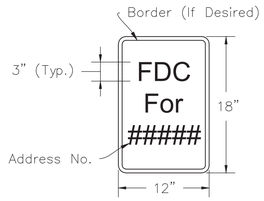
Scale: None



Notes:
1. The FDC shall meet or exceed the requirements of the most recent State of Indiana adopted edition of NFPA 13 and NFPA 14.
2. The FDC shall be located off the building in a location approved by the City of Noblesville Fire Marshal.
3. The FDC shall be provided with a single 5" Storz connection that shall face towards the nearest point of fire department access.
4. A minimum of a 4" FDC service pipe shall be utilized on a fire service line that is 6" or larger.
5. Any FDC pipe that is not located within the fire service vault shall be painted with Sherwin–Williams "Safety Red (SW 4081)" or equivalent approved by the Noblesville Fire Department.
6. The FDC shall be constructed of a material not susceptible to degradation.
7. The FDC shall not be located more than 100 feet from the nearest fire hydrant.

FIRE DEPARTMENT CONNECTION (FDC)

Scale: None



Notes:
1. The sign shall be constructed out of a material that is not susceptible to degradation. The sign material shall be approved by the Fire Marshall.
2. The sign lettering (and optional border) shall be Red in color.
3. The sign shall shall be supported by an approved, permanent post or attached to the FDC pipe by an approved method.
4. If freestanding, the top of the sign shall be mounted between 36" and 48" from finished grade.

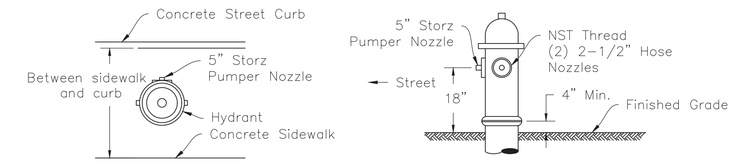
FDC SIGN

Scale: None

Notes:
1. The "NO PARKING FIRE LANE" message shall be six feet in depth from edge of pavement or curb.
2. The letters shall be two feet in height and a minimum of four inches wide.
3. The "NO PARKING FIRE LANE" message shall be placed every 50 feet.
4. The striping shall be a minimum of four inches wide at a 45 degree angle and five feet on center.
5. All markings shall be Yellow.

FIRE LANE PARKING DETAIL

Scale: None



Notes:
1. A water distribution plan, with fire hydrants identified, shall be submitted and approved by the Fire Marshal of the City of Noblesville prior issuance of an Improvement Location Permit.
2. All on–site fire hydrants shall be located between the curb and sidewalk in the Right–of–Way. The 5" Storz connection shall face the street.
3. The number, size, and arrangement of outlets, the size of the main valve opening and the size of the barrel shall be suitable for the required fire protection.
4. All fire hydrant spacing shall comply with the following requirements:
   - Residential: 500' (250' maximum distance hydrant and a structure.)
   - Apartment: 400'
   - Commercial: most recent edition of the Indiana Fire Code
5. Fire hydrants shall have a maintained three foot radial clear space at all times.
6. The type and installation of fire hydrants shall be approved by the respective water utility. Fire hydrants shall meet the following criteria:
   - 6.1. Mechanical joint connection for 6" service pipe.
   - 6.2. Minimum 5–1/4" diameter main valve opening.
   - 6.3. Two 2–1/2" male outlets with threads being national standard.
   - 6.4. Steamer outlet shall be a 5" Storz connection with a 5" Storz cap and chain.
   - 6.5. Main valve seat shall be provided with bronze to bronze threads.
   - 6.6. Barrel shall be "break–a–way" that allows the barrel to break with minimal water escaping.
   - 6.7. Four drain holes in the bottom to prevent freezing.
   - 6.8. The base shall be surrounded by at least six cubic feet of course gravel or crushed rock for draining.
   - 6.9. Public hydrants shall be painted "Safety Yellow", Sherwin–Williams – SW 4084 or equivalent approved by the Noblesville Fire Department, with two coats of paint. (do not paint Storz connection.)
   - 6.10. Private hydrants shall be painted "Safety Red", Sherwin–Williams – SW 4081 or equivalent approved by the Noblesville Fire Department, with two coats of paint. (do not paint Storz connection.)
   - 6.11. Hydrant shall be operated by a National Standard Pentagon operating nut (1–1/2 inch)

FIRE HYDRANT DETAIL

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

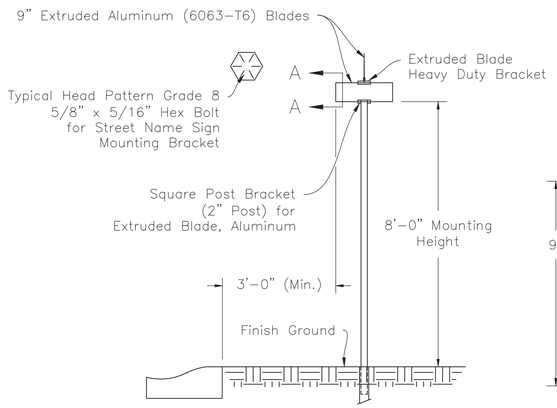
CITY OF NOBLESVILLE

Monumentation Guidelines and Fire Department Notes & Details

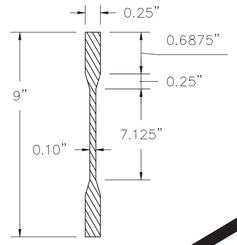
SHEET 17 OF 29

GENERAL NOTES

1. All signs shall be in accordance with the latest Manual on Uniform Traffic Control Devices and Standard Highway Signs and Markings.
2. Shop drawings shall be submitted for all non-standard signs and all street name signs.
3. All sign posts shall be 2" x 2" (Type 2) posts and shall be in accordance with INDOT Std. Dwgs. E-802-SNGS-06 thru E-802-SNGS-09.
4. All signs shall be placed within five days of placement of traversable pavement, such as HMA Intermediate, HMA Base, or concrete pavement.
5. All signs shall be attached to posts with two bolts per sign per post (min.). For signs over 6" in height, galvanized or aluminum bolts are acceptable.
6. Signs shall be tagged on the rear of the sign with an adhesive label with the month and year that the signs were installed. Removal of required traffic control shall be in place prior to the release of the first occupancy permit.
7. Streets shall be signed at all intersections with two street name sign assemblies on opposite corners.
8. Street name signs shall be mounted on post top with a cast aluminum 2SXA bracket with all hex bolts required. All double/cross mounted street name signs shall be mounted using a cast aluminum BA7A bracket and secured with all hex bolts required per sign.
9. Stop sign shall be 36" in size for roads classified as Arterials or Collectors and 30" in size for roads classified as local.
9. An all way stop intersection requires an "ALL WAY" supplementary sign. A two way stop controlled intersection requires a "CROSS TRAFFIC DOES NOT STOP" supplementary sign.
10. 25 mph signs shall be located at each subdivision entrance. A "FOR ALL STREETS" supplementary sign shall be located below each.
11. Alternate custom posts may be used upon receiving expressed written permission from the City of Noblesville. Custom posts shall be the financial responsibility of subdivision's homeowner's association. In the event that the City of Noblesville must replace custom sign posts, the City reserves the right to install its standard steel post.



TYPICAL DETAILS



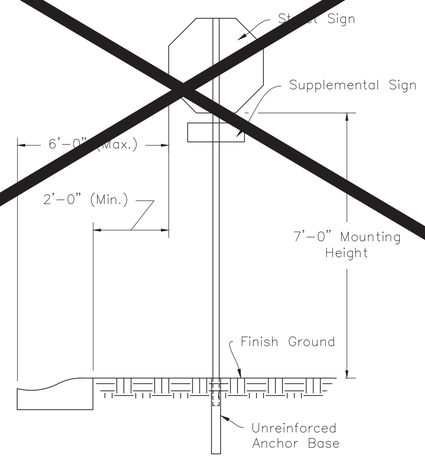
SECTION A-A

Notes:
1. Sign shall have white lettering on green background and no border.

STREET NAME SIGN

TYPICAL STREET NAME SIGN

Scale: None



TYPICAL STREET SIGN

Scale: None

ELEVATION PLAN

Notes:
1. All medians shall have an end treatment.
2. Medians greater than four feet in width may contain approved landscaping or grass.

MEDIAN END TREATMENT

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

Street Sign Details and Notes

SHEET 18 OF 29

GENERAL STREET LIGHTING NOTES

1. Street lighting is required on new Local and Collector streets being constructed with a plat and shall be shown on the lighting plan. Lighting is required at entrances and intersections, within cul-de-sacs and at specified locations requiring additional lighting. Lighting plans shall be submitted to the Noblesville Department of Engineering for approval.

2. Street lighting shall be considered at any of the following locations:
   - 2.1. Pedestrian crosswalks
   - 2.2. Roadway Intersections
   - 2.3. Changes in horizontal alignment
   - 2.4. Commercial Drives
   - 2.5. As directed by the City Engineer

3. It shall be the responsibility of the developer to provide and install all street lighting.
   - 3.1. Street light locations shall be shown on the approved subdivision plans. The type of luminaire and pole used, with illumination information should be included on the plans or by separate submittal prior to construction.
   - 3.2. The Homeowners' Association covenants shall clearly indicate that the cost of maintenance and the order of any new lights will be the responsibility of the Homeowners' Responsibility as the owner and customer for the lighting.
   - 3.3. Billing and the work order information shall be in the Homeowners' Association name and address.
   - 3.4. Encroachment permits shall be obtained for all work associated with installation. Lighting plans should match or amend those submitted. A copy of the work order should accompany the permit.
   - 3.5. All other applicable City Standards shall be observed during the planning and completion of work.
   - 3.6. At the time work commences, requests for inspection of work shall be directed to the Engineering Department in a manner that is commensurate with the process for the inspection of other elements of subdivision work.

4. All lighting plans submitted for approval shall include, but not be limited to, the following:
   - 4.1. Location of each light standard and the service point or junction box serving each luminary.
   - 4.2. Plan notations showing conduit and wire size for each conduit run.
   - 4.3. Manufacturer's catalog cut sheets and specifications for light fixtures, appurtenances, service points, and junction boxes.
   - 4.4. Paint color specimen samples and material composition.

GENERAL TRAFFIC SIGNAL NOTES

1. All intersections warranting, or proposed to become, a signalized intersection shall consider a roundabout as a viable alternative or solution for the intersection improvement.

2. All traffic signal controllers shall be selected and approved by the City Engineer.

3. Signals shall be actuated with loop detection.

4. Pedestrian crossings shall be actuated by a pedestrian push button unless pedestrian traffic volumes warrant a protected pedestrian crosswalk movement at every signal cycle.

5. Intersections which have existing or proposed sidewalks or trails shall have the signal and intersection configured to accommodate pedestrian crossings.

6. Signals shall be installed with preemptive devices for emergency vehicle detection. The system should be a matched component system that will be fully compatible with the existing system already in place. The system shall be able to have security and identification. The system shall be able to identify every 3M High/Low priority emitter and log the information. The system shall meet all NEMA standard requirements. The system shall have a 5/5 year warranty. The system shall include the following Models:
   - 6.1. M711 Detector
   - 6.2. M721 Detector
   - 6.3. M722 Detector
   - 6.4. M752 Phase Selector
   - 6.5. M754 Phase Selector
   - 6.6. M760 Card Rack
   - 6.7. M5575 Confirmation Kit
   - 6.8. M138 Detector Cable
   - 6.9. M792H Emitters

7. Traffic signal cabinet's exterior color shall match the color of the traffic signal poles for which it controls.

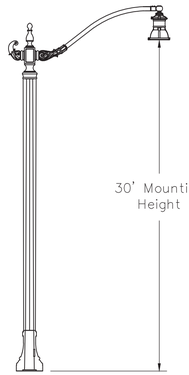
8. Traffic signal heads shall be LED.

9. Traffic signal shall be equipped with a manual override at the controller cabinet.

10. Contact the Department of Engineering for requirements for hand holes, service points, and/or controller cabinets.

11. Lighting with decorative arm and luminaire may be mounted post top as required per plan.

12. Foundation for pole shall be designed to the requirements of INDOT Standard Drawing No. E 805-SGSC-02 and other related drawings.



TYPICAL STREET LIGHT

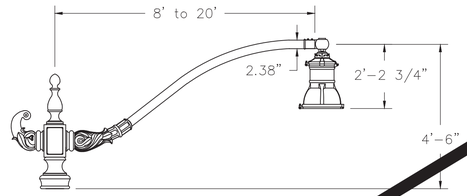
Scale: None

TYPICAL STREET LIGHT SPECIFICATIONS

Pole:	12 flat flute tapered pole or approved equal
Base:	"Washington style" aluminum two-piece clamshell decorative base, painted breakaway transformer base or approved equal
Arm:	Decorative cobra arm and decorative sconce fitter or approved equal
Luminaire*:	LED luminaire with flat glass lens and decorative luminare holder, or approved equal. 152 Watt LED, 120 V, 6000k lighting unit.
Base Coat:	Hot dip galvanized to ASTM spec.: A123
Finish Coat:	TGIC or urethane polyester powder
Color:	Pine Green (RAL 6028)

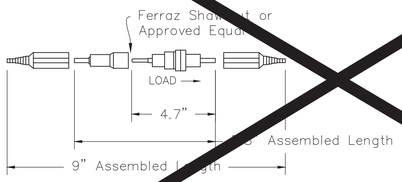
* Higher intensity lighting may be required on specific roadways

Notes:
1. Contact Department of Engineering for requirements for hand holes and/or cabinets.
2. Luminaire and arm shall be leveled and plumb by the contractor during installation.



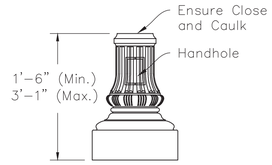
DECORATIVE ARM AND LUMINAIRE DETAIL

Scale: None



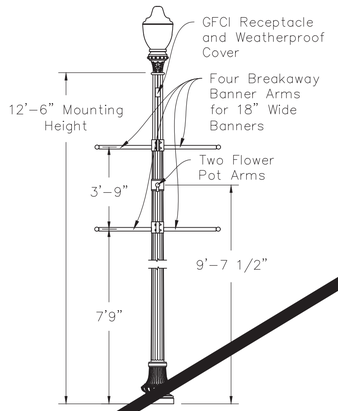
BREAKAWAY FUSE DETAIL

Scale: None



DECORATIVE BASE DETAIL

Scale: None



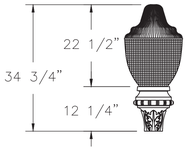
URBAN STREET LIGHT

Scale: None

URBAN STREET LIGHT SPECIFICATIONS

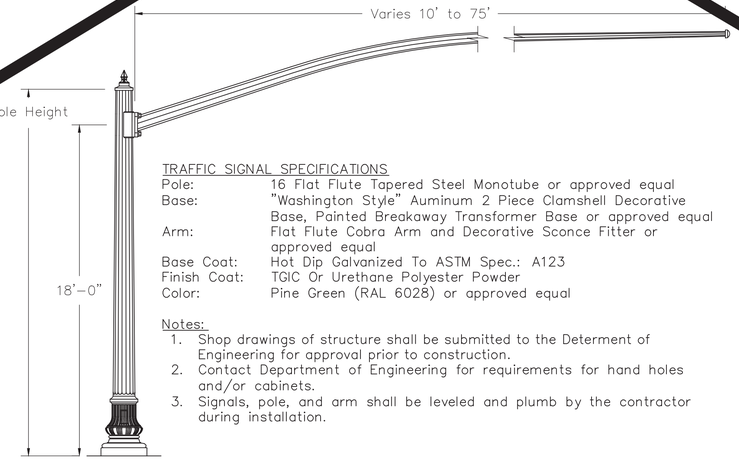
Pole:	5" O.D. (Min.) 16 flat flute pole or approved equal
Base:	"Washington style" aluminum two-piece clamshell decorative base, painted breakaway transformer base or approved equal.
Luminaire:	Acorn style acrylic globe with type III prismatic section and decorative luminare holder, or approved equal. 4000 Lumen, 120V, 4000k lighting unit with heat-sink and driver.
Base Coat:	Hot dip galvanized to ASTM spec.: A123
Finish Coat:	TGIC urethane polyester powder
Color:	Pine Green (RAL 6028) or Black within downtown district

Notes:
1. Contact Department of Engineering for requirements for hand holes and/or cabinets.
2. Shop drawings for the luminaire assembly detail (including dimensions), mounting assembly and styles and all incidentals shall be provided by the supplier for approval by the City of Noblesville prior to manufacturing.
3. A HID ballast and socket assembly shall be provided for each luminaire.



ACORN LUMINAIRE ASSEMBLY DETAIL

Scale: None



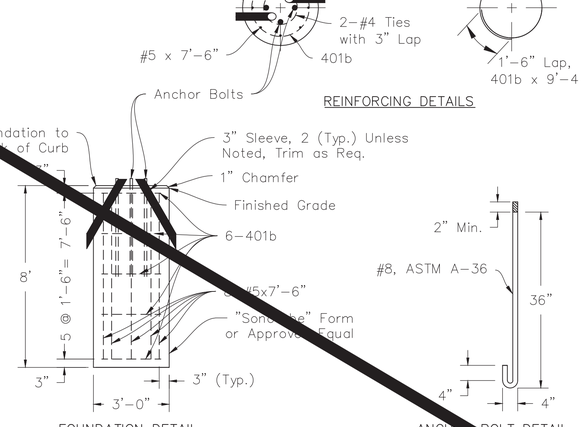
TYPICAL TRAFFIC SIGNAL POLE

Scale: None

TRAFFIC SIGNAL SPECIFICATIONS

Pole:	16 Flat Flute Tapered Steel Monotube or approved equal
Base:	"Washington Style" Auminum 2 Piece Clamshell Decorative Base, Painted Breakaway Transformer Base or approved equal
Arm:	Flat Flute Cobra Arm and Decorative Sconce Fitter or approved equal
Base Coat:	Hot Dip Galvanized To ASTM Spec.: A123
Finish Coat:	TGIC Or Urethane Polyester Powder
Color:	Pine Green (RAL 6028) or approved equal

Notes:
1. Shop drawings of structure shall be submitted to the Determent of Engineering for approval prior to construction.
2. Contact Department of Engineering for requirements for hand holes and/or cabinets.
3. Signals, pole, and arm shall be leveled and plumb by the contractor during installation.



STREET LIGHT FOUNDATION

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

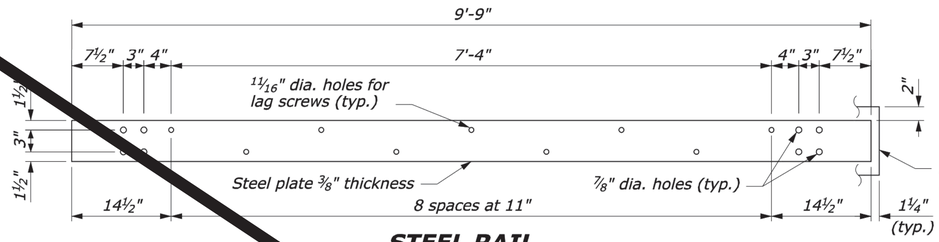
Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

Street Lighting Details and Notes

SHEET 19 OF 29

STATE	PROJECT	SHEET NUMBER

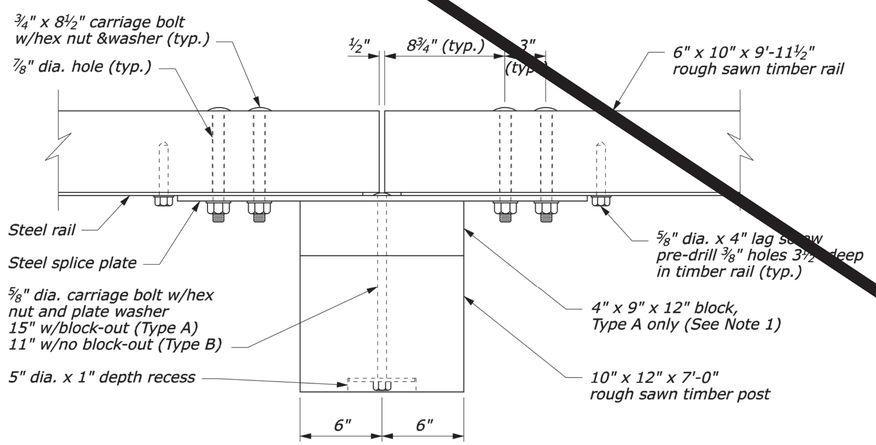


STEEL RAIL

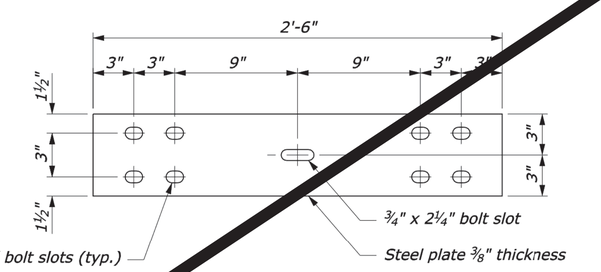
PLATE WASHER

NOTE:

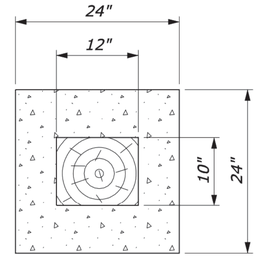
1. Use the Type A, blocked-out, system or the Type B, non-blocked-out, system as specified in the plans.
2. Use weathering steel for all structural steel and fastener hardware as specified.
3. Place a terminal section (See Standards 617-61 and 617-62) on both approach and trailing ends of barrier installations.

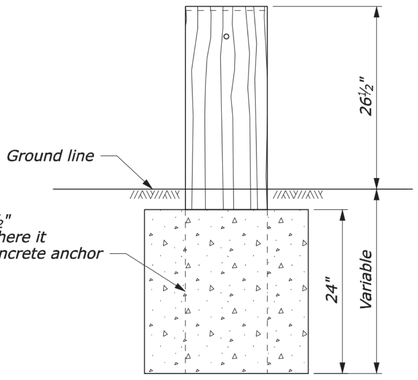


PLAN



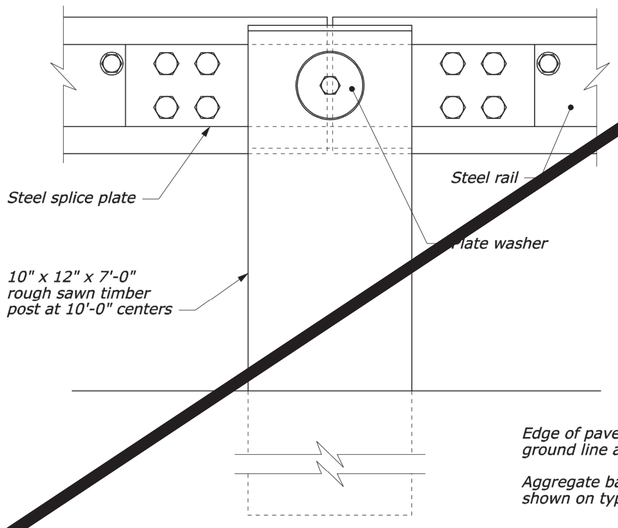
STEEL SPLICE PLATE





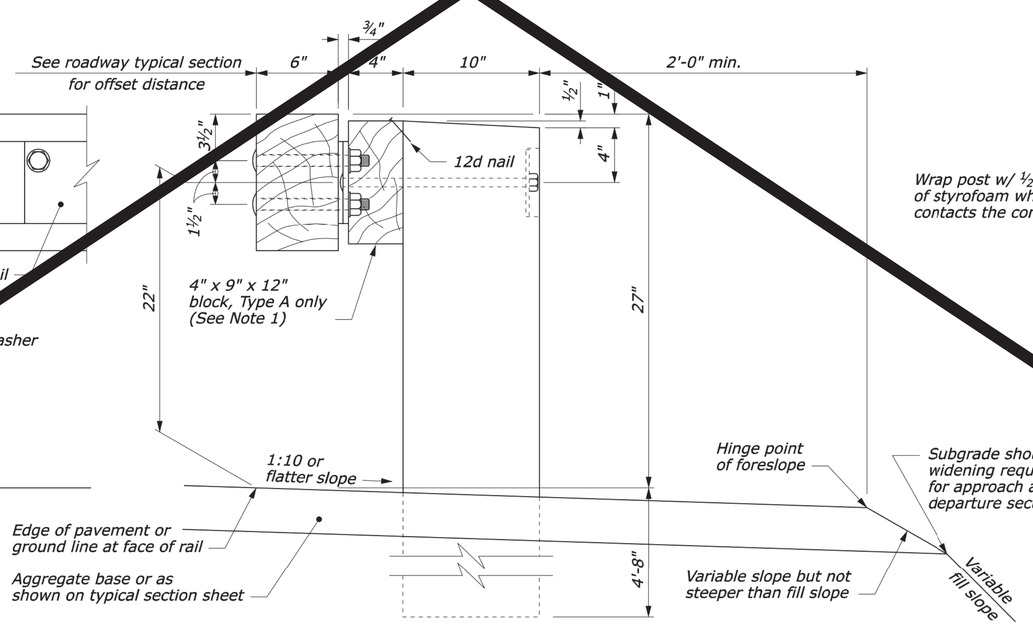
24" dia. round anchor is an acceptable alternative.
Reduced size acceptable in solid rock.

CONCRETE ANCHOR FOR SHORT GUARDRAIL POST



ELEVATION

POST CONNECTION



TYPICAL GUARDRAIL CROSS SECTION

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

STEEL-BACKED TIMBER GUARDRAIL TYPE A & TYPE B

STANDARD APPROVED FOR USE 3/1990
REVISED: 4/1994 6/2005

STANDARD 617-60

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

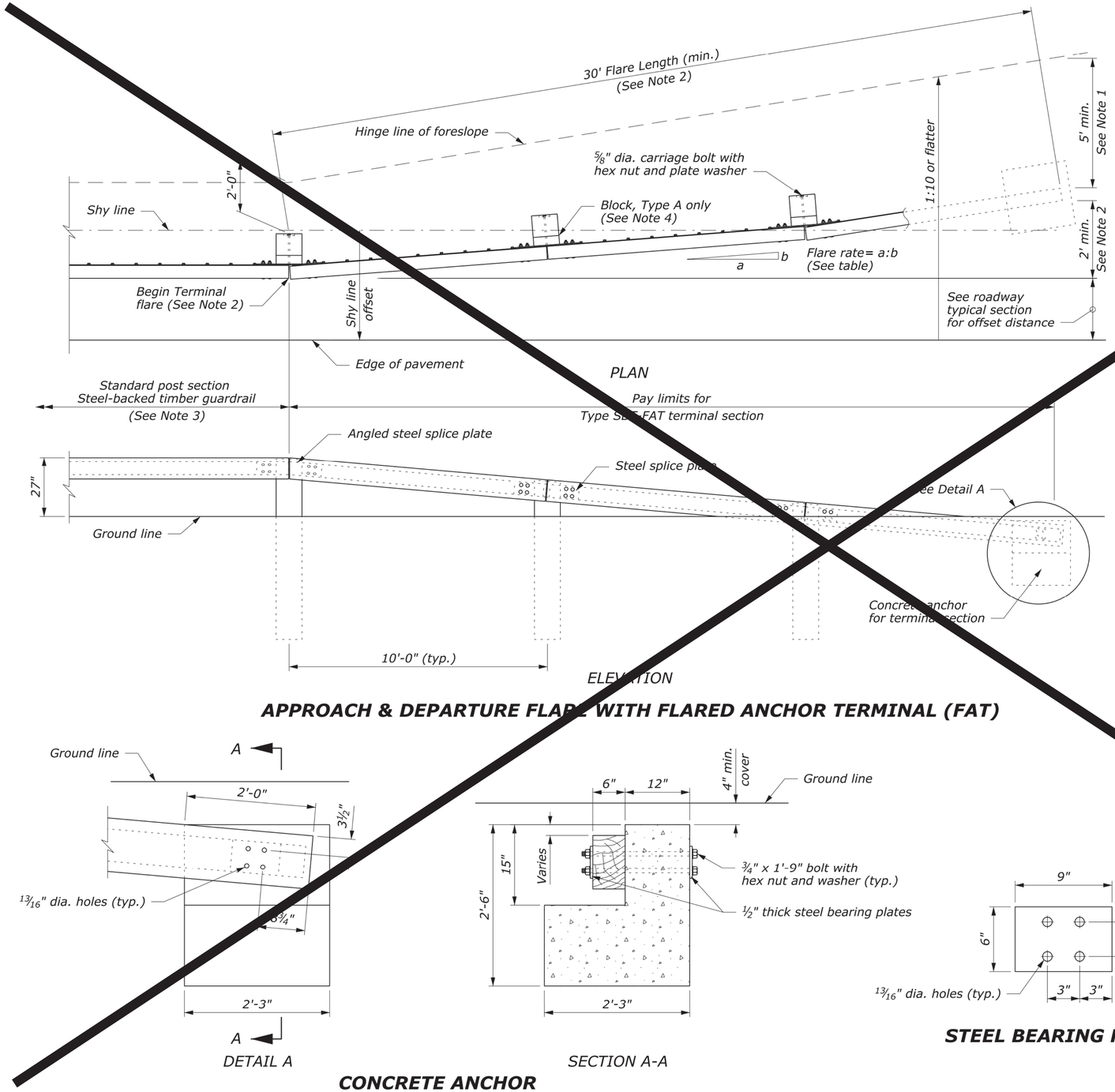
Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

FHWA Timber Guardrail Details

SHEET 20 OF 29

STATE	PROJECT	SHEET NUMBER

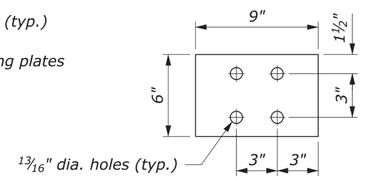


APPROACH & DEPARTURE FLARE WITH FLARED ANCHOR TERMINAL (FAT)

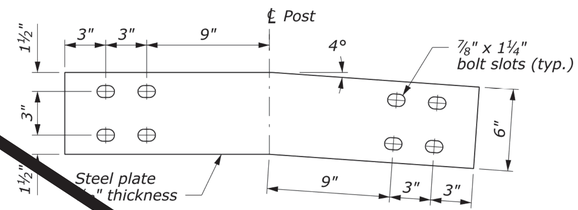
DETAIL A

SECTION A-A

CONCRETE ANCHOR



STEEL BEARING PLATE



ANGLED STEEL SPLICE PLATE

NO SCALE

NOTE:

1. Extend the fill widening a minimum of 5 feet behind the guardrail, unless otherwise directed by the CO.
2. The guardrail flare shown in the plan view is the minimum length and rate required. As directed by the CO, flare the guardrail so that the terminal section is outside the clear zone. If the terminal section cannot be located outside the clear zone, it should be flared as far as practical from the road at the minimum rate indicated on the Guardrail Flare Rates table.
3. See Standard 617-60, Steel-Backed Timber Guardrail, Types SBTA and SBTB, for timber, structural steel, and hardware details.
4. On the Type A, blocked-out guardrail, include the blocks in terminal section, except on the concrete anchor. For the Type B, non-blocked-out guardrail, no blocks are included.

GUARDRAIL FLARE RATE TABLE			
Design Speed (mph)	Shy line offset (ft)	Flare rate inside shy line (a:b)	Flare rate outside shy line (a:b)
60	8.0	26:1	14:1
50	6.5	21:1	11:1
40	5.0	16:1	8:1
30 and less	3.5	13:1	7:1

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

STEEL-BACKED TIMBER GUARDRAIL TERMINAL SECTION TYPE SBT-FAT

STANDARD APPROVED FOR USE 1/1990
REVISED: 4/1994 6/2005
DRAFT: 12/2013

STANDARD 617-61

THE CITY OF NOBLESVILLE EST. 1823

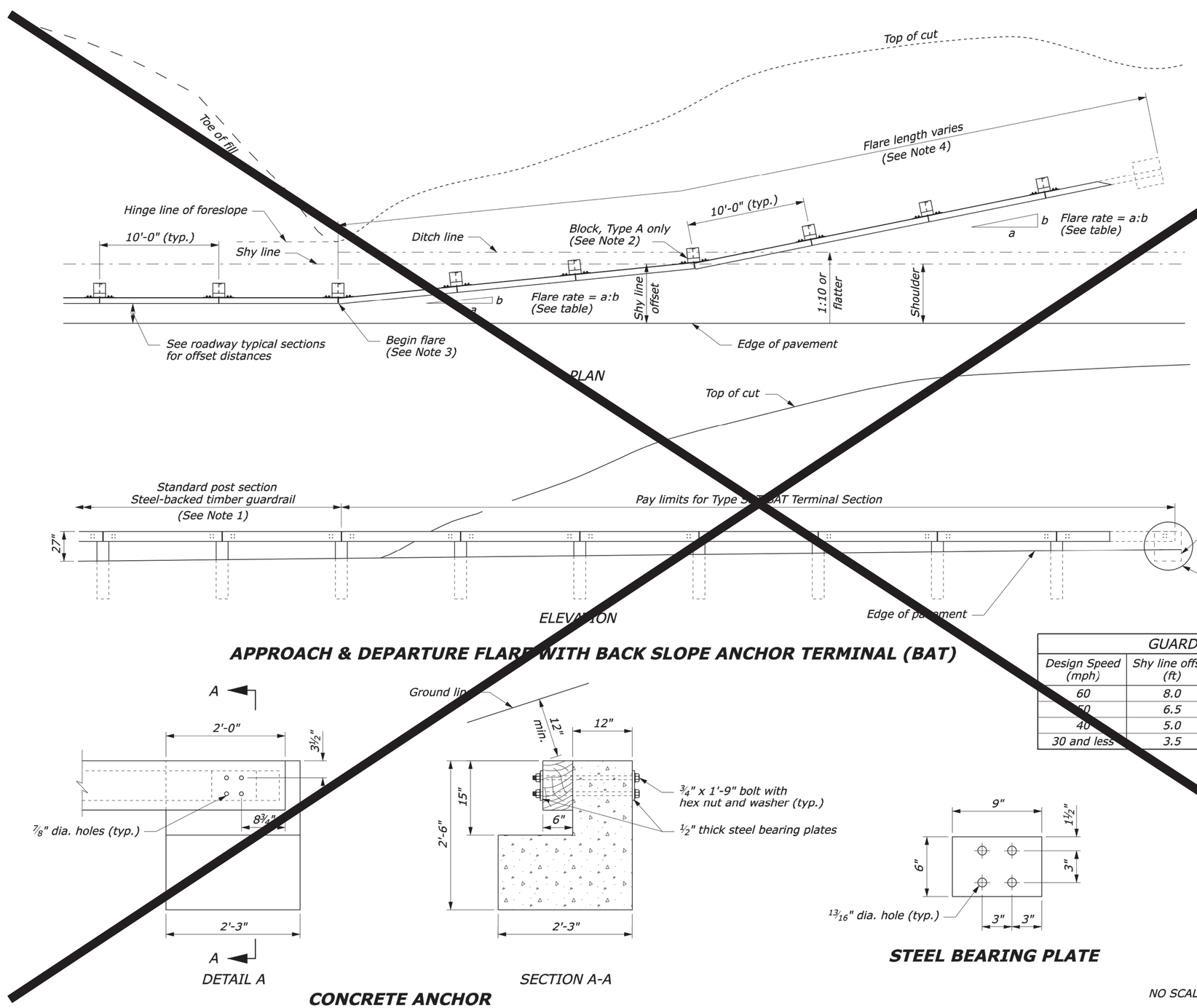
ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

FHWA Timber Guardrail Details

STATE	PROJECT	SHEET NUMBER



APPROACH & DEPARTURE FLARE WITH BACK SLOPE ANCHOR TERMINAL (BAT)

NOTE:

1. *See Standard 617-60, SBTA and SBTB for timber, structural steel, and hardware details.*
2. *On the Type A, blocked-out guardrail, include the blocks in the terminal section, except on the concrete anchor. For the Type B, non-blocked-out guardrail, no blocks are included.*
3. *Begin the cut flares at the nearest post to a transition point between fill and cut as directed by the CO.*
4. *Extend the flare into the cut until a minimum 1-foot cover is obtained over the guardrail end.*

GUARDRAIL FLARE RATE TABLE			
Design Speed (mph)	Shy line offset (ft)	Flare rate inside shy line (a:b)	Flare rate outside shy line (a:b)
60	8.0	26:1	14:1
50	6.5	21:1	11:1
40	5.0	16:1	8:1
30 and less	3.5	13:1	7:1

DETAIL A

SECTION A-A

CONCRETE ANCHOR

STEEL BEARING PLATE

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

STEEL-BACKED TIMBER GUARDRAIL TERMINAL SECTION TYPE SBT-BAT

STANDARD APPROVED FOR USE 3/1990
REVISED: 4/1994 6/2005

STANDARD 617-62

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF IN PROFESSIONAL ENGINEER

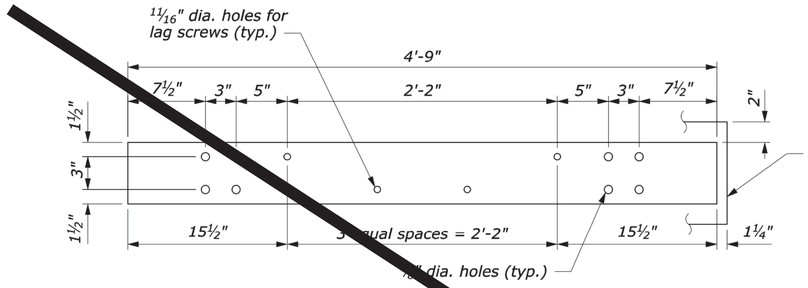
Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

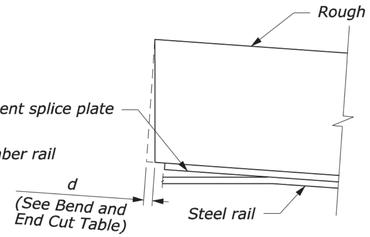
FHWA Timber Guardrail Details

SHEET 22 OF 29

STATE	PROJECT	SHEET NUMBER



STEEL RAIL
6" x 3/8" x 4'-9"



DETAIL A

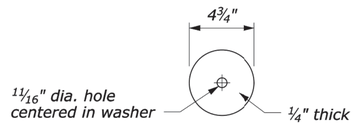
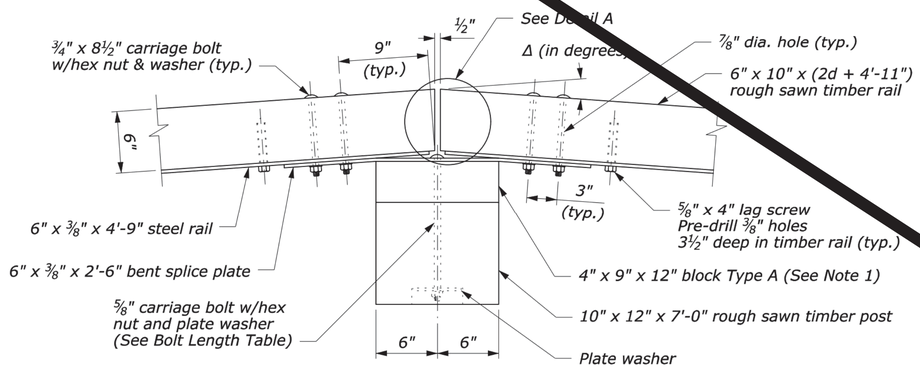


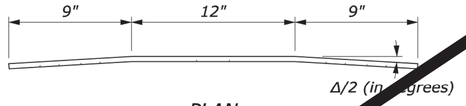
PLATE WASHER DETAIL

NOTE:

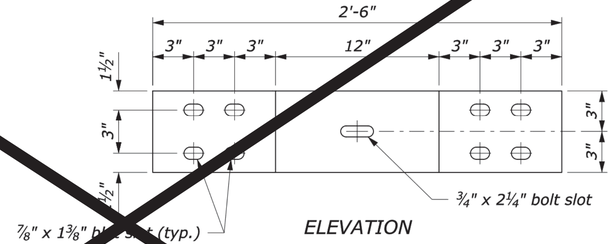
1. Use the Type A, blocked-out system or the Type B, non-blocked-out system as specified.
2. Use the weathering steel for all structural steel and fastener hardware.
3. Furnish shop bent splice plates. Use the minimum bend angle shown in the table below.
4. See Sheet 2 of 2 for Plan View Layout.



PLAN



PLAN

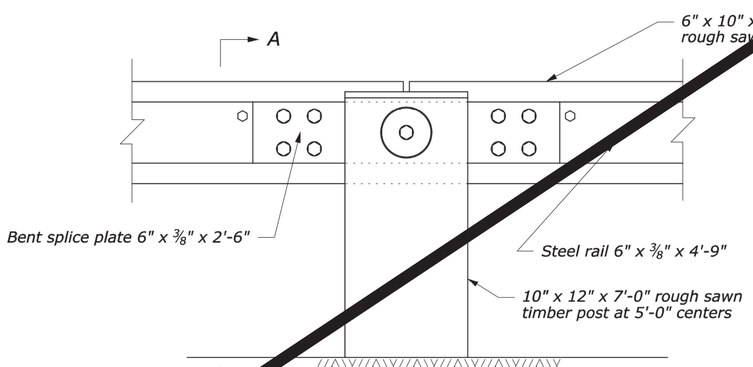


ELEVATION

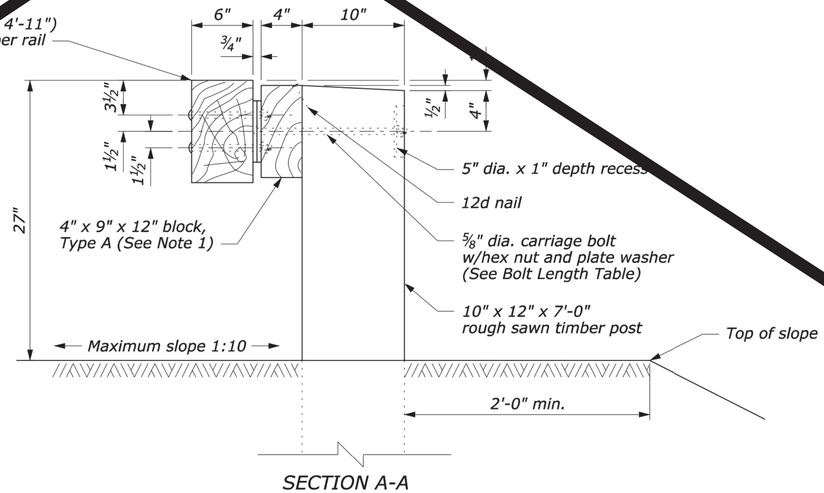
BENT SPLICE PLATE
6" x 3/8" x 2'-6"

BEND AND END CUT TABLE		
Radius R ft	Δ/2 degrees	d in
20	7.18	¾
25	5.74	⅝
30	4.78	½
35	4.10	7/16
40	3.58	⅜
45	3.18	⅓
50	2.87	5/16
55	2.61	¼
60	2.39	¼
65	2.20	¼
70	2.05	¼
over 70	flat	0

BOLT LENGTH TABLE	
Type A (Block-out)	Type B (No Block-out)
15"	11"



ELEVATION



SECTION A-A

POST CONNECTION

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

STEEL-BACKED TIMBER GUARDRAIL AROUND CIRCULAR CURVES 70 FOOT RADIUS AND BELOW

Sheet 1 of 2

STANDARD APPROVED FOR USE 6/2005

REVISED:

STANDARD 617-63

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

CITY OF NOBLESVILLE

FHWA Timber Guardrail Details

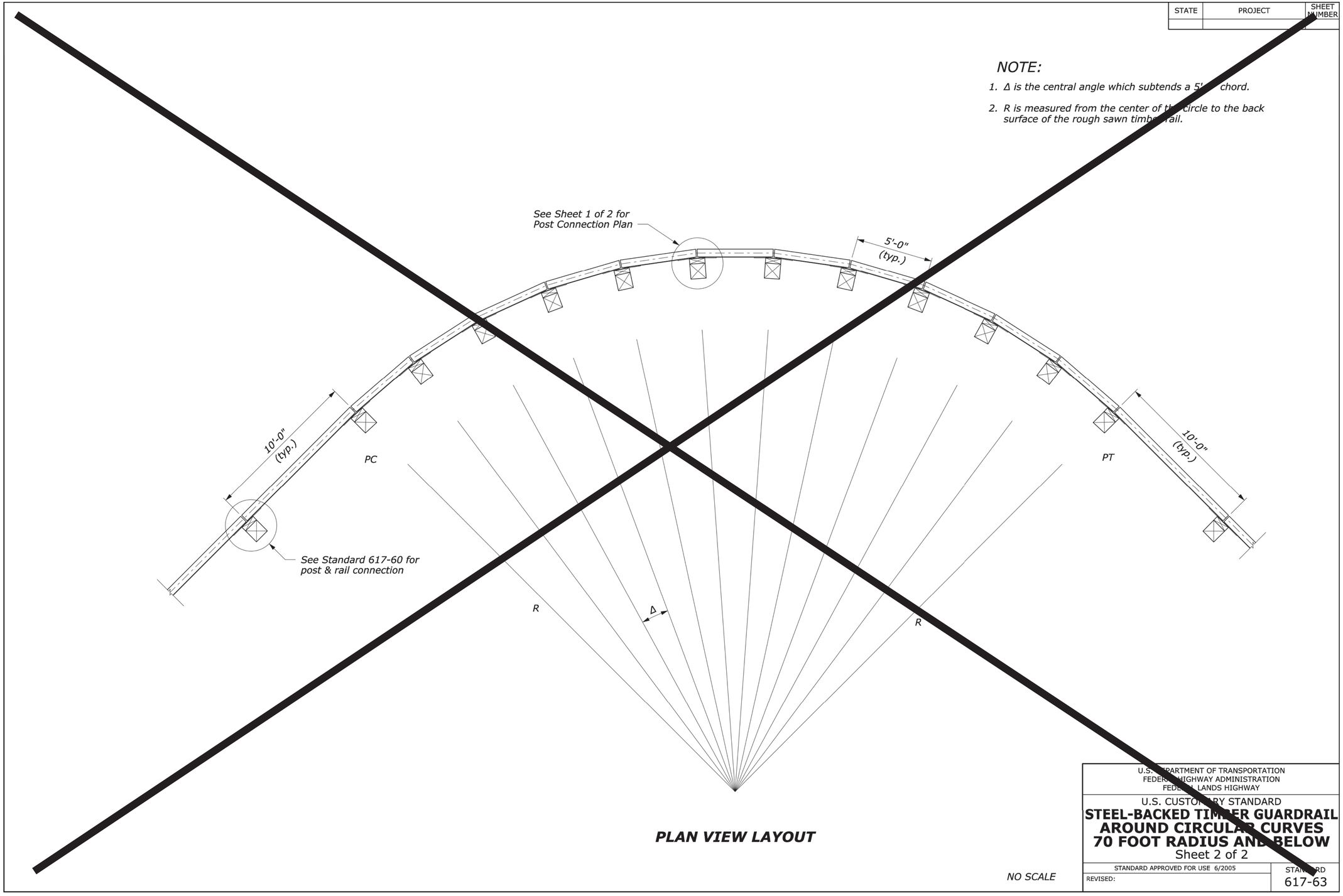
SHEET 23 OF 29

Alison M. Krupski 7/8/2021

STATE	PROJECT	SHEET NUMBER

NOTE:

1. Δ is the central angle which subtends a 5'-0" chord.
2. R is measured from the center of the circle to the back surface of the rough sawn timber rail.



PLAN VIEW LAYOUT

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

STEEL-BACKED TIMBER GUARDRAIL AROUND CIRCULAR CURVES 70 FOOT RADIUS AND BELOW

Sheet 2 of 2

STANDARD APPROVED FOR USE 6/2005	STANDARD 617-63
REVISED:	

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

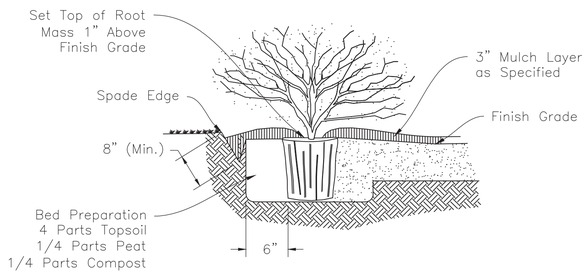
CITY OF NOBLESVILLE

FHWA Timber Guardrail Details

SHEET 24 OF 29

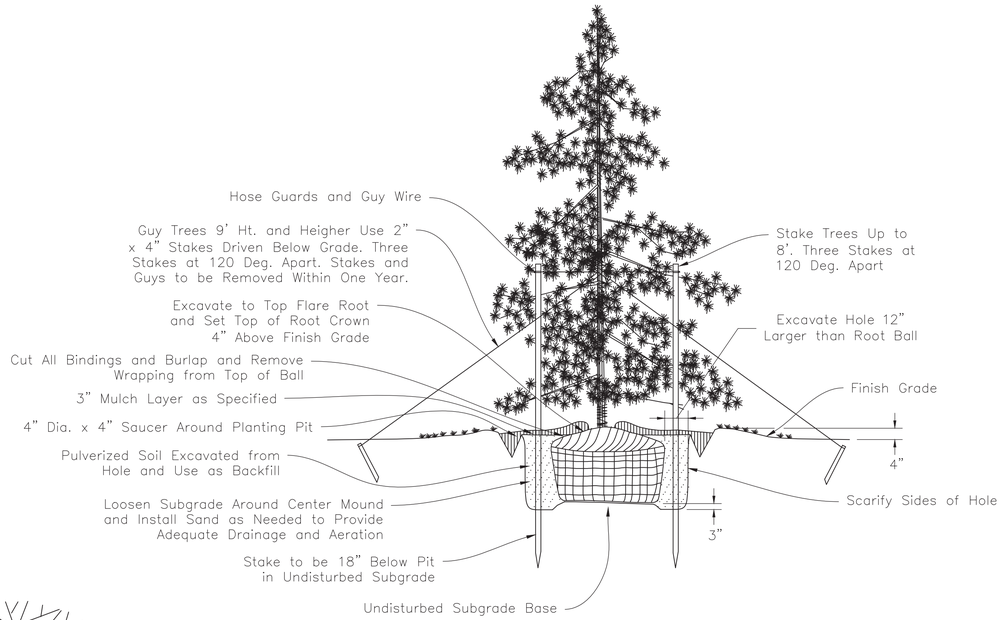
GENERAL NOTES

1. A minimum of 4" of topsoil shall be placed on all areas shown to be seeded. Use suitable topsoil from stockpiled site stripping. Topsoil shall be free from subsoil, vegetation, weeds or any extraneous or deleterious materials larger than 1". Remove any unsuitable and excess topsoil, as determined by Engineer, from the site. Furnish any additional topsoil needed at no additional cost.
2. In case of discrepancies between the plan, the plant list, and the plan approved by the City of Noblesville Planning Commission, a resolution shall be developed that complies with the Uniform Development Code.
3. All trees and planting beds shall have a 4 foot diameter ring covered with a 2" to 3" thick layer of shredded hardwood bark mulch. Bark mulch shall be approved by the city and shall be uniform in texture and color. No utility mulch or processed tree trimmings will be permitted.
4. All planting beds shall have pre-emergent herbicide applied as per manufacturer's recommendation.
5. Final placement of plant materials, etc. shall be approved by the Engineer before planting operations are to proceed. All tree locations shall be marked with a wooden stake indicating variety and size of tree.
6. No substitutions of plant material will be allowed if plants are shown to be unavailable. The contractor shall notify the engineer prior to bid date in writing. All plants shall be inspected and tagged with project identification at nursery or contractor's staging area prior to moving to location of placement. Plants may also be inspected and approved or rejected on job site.
7. All plants are to meet or exceed American Standards for Nursery Stock, latest edition, as set forth by the American Association of Nurserymen.
8. Plants and all other materials to be stored on site will be placed where they will not conflict with construction and as directed by owner.
9. All plantings shall be guaranteed for a period of one year after installation and acceptance. The contractor will be required to replace plantings that die during this period at the contractor's expense.
10. All disturbed lawn areas shall be hydro-seeded as noted on Erosion Control Plan or Construction Detail sheets.
11. All materials used shall conform with the City of Noblesville's approved list for landscape plantings in public Right-of-Way.
12. Areas to be seeded shall be made smooth and uniform and shall be in accordance with the finished grade and cross section shown on the plans or as otherwise designated.
13. Seed beds, if not loose, shall be loosened to a depth of three inches.
14. Topsoil shall be spread to sufficient depth to produce the thickness specified after it has been compacted lightly.
15. Unless otherwise specified, seed used shall be INDOT Standard Seed Mixture Grass Type 2. This seed mixture shall be placed at the rate of 110 lb/acre.
16. The contractor shall place a warranty bond for all permanent seeding done between October 16 and January 31. All seeding which has significantly failed to attain 70% germination shall be replaced with no additional payment.
17. Seeding without mulch shall not be done between May 1 and August 15.



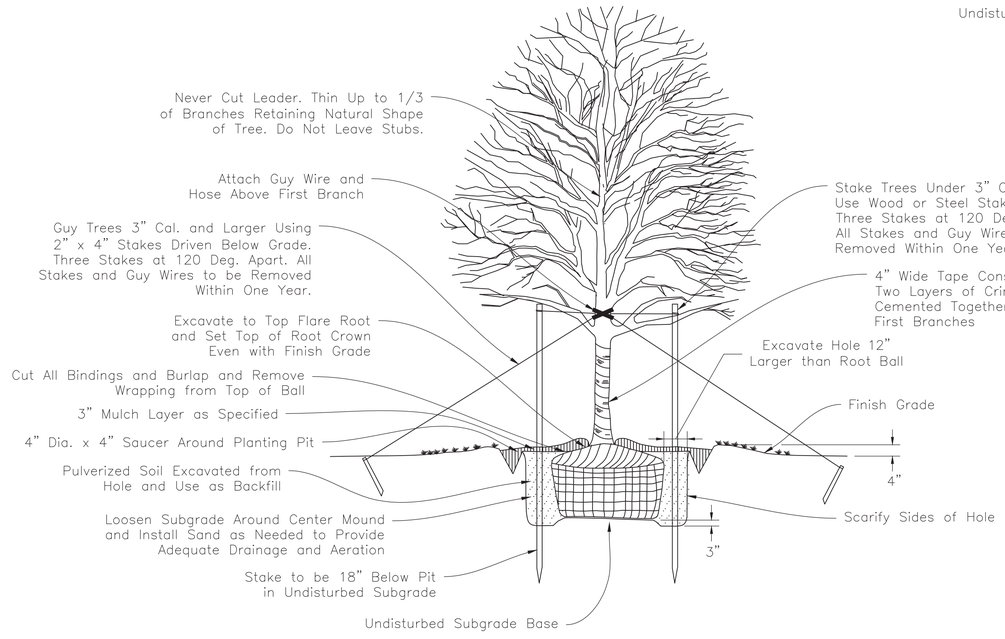
SHRUB AND SMALL TREE PLANTING DETAIL

Scale: None



EVERGREEN PLANTING DETAIL

Scale: None



SHADE TREE PLANTING DETAIL

Scale: None

THE CITY OF NOBLESVILLE EST. 1823

ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

Landscape and Planting Details and Notes

SHEET 25 OF 29

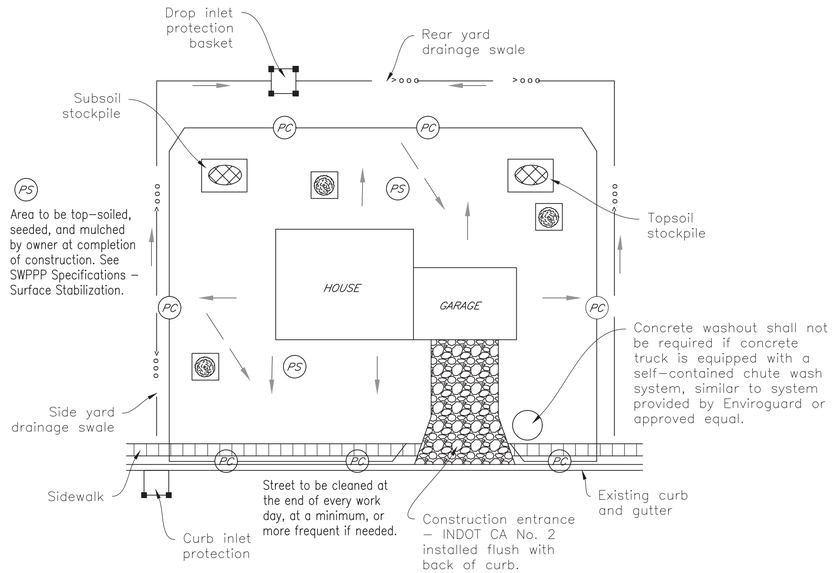
GENERAL SWPPP NOTES FOR INDIVIDUAL LOTS

1. All storm water quality measures, including erosion and sediment control, necessary to comply with the requirements for 327 IAC 15–5, Rule 5 and/or general construction practices and/or City of Noblesville Improvement Location Permit must be implemented in accordance with the plan and sufficient to satisfy Section 600 of the City of Noblesville Stormwater Technical Standards (STSM).
2. Provisions for erosion and sediment control on individual building lots regulated under the original permit of a project site owner must include the following requirements:
   - 2.1. The individual lot operator, whether owning the property or acting as the agent of the property owner, shall be responsible for erosion and sediment control requirements associated with activities on individual lots.
   - 2.2. Installation and maintenance of a stable construction site access.
   - 2.3. Installation and maintenance of appropriate perimeter erosion and sediment control measures prior to land disturbance.
   - 2.4. Sediment discharge and tracking from each lot must be minimized throughout the land disturbing activities on the lot until permanent stabilization has been achieved.
   - 2.5. Clean–up of sediment must be redistributed or disposed of in a manner that is in compliance with all applicable statutes and rules.
   - 2.6. Adjacent lots disturbed by and individual lot operator must be repaired and stabilized with temporary or permanent surface stabilization.
3. In accordance with Chapter 600 of the Noblesville STSM, final stabilization of an individual lot project site is achieved when:
   - 3.1. All land disturbing activities have been completed
   - 3.2. The establishment, at a uniform density of seventy percent (70%) across the disturbed area, of vegetative cover or permanent non–erosive material that will ensure the resistance of the soil to erosion, sliding, or other movement.

CONSTRUCTION SEQUENCE FOR INDIVIDUAL LOTS

Construction sequence on individual lots should be as follows:

1. Clearly delineate areas of trees, shrubs, and vegetation that are to be undisturbed. To prevent root damage, the areas delineated for tree protection should be at least the same diameter as the crown.
2. Install perimeter silt fence at construction limits. Position the fence to intercept runoff prior to entering drainage swales.
3. Avoid disturbing drainage swales if vegetation is established. If drainage swales are bare, install erosion control blankets or sod to immediately stabilize.
4. Install drop inlet protection for all inlets on the property.
5. Install curb inlet protection, on both sides of the road, for all inlets along the property frontage and along the frontage of adjacent lots, or install temporary catch basin inserts in each inlet and frequently clean.
6. Install gravel construction entrance flush with the back of existing curb, extending from the street to the building pad.
7. Perform primary grading operations.
8. Contain erosion from any soil stockpiles created on–site with silt fence around the base.
9. Establish temporary seeding and straw mulch on disturbed areas.
10. Construct the home and install utilities.
11. Install downspout extenders once the roof and gutters have been constructed. Extenders should outlet to a stabilized area.
12. Re–seed any areas disturbed by construction and utilities installation with temporary seed mix within 3 days of completion of disturbance.
13. Grade the site to final elevations. Add topsoil as needed to minimize erosion of underlying soil and to quickly establish grass.
14. Install permanent seeding or sod.



INDIVIDUAL LOT STORM WATER POLLUTION & PREVENTION DETAIL

NOT TO SCALE

Notes:

1. Erosion/ sediment control measures must be functional and be maintained throughout construction.
2. Maintain positive drainage away from the structure.
3. Contractor to clean streets at a minimum at the end of every work day, or more frequent if needed.
4. Perimeter protection should be installed before excavation of basement/foundation has begun. Perimeter protection on lots shall remain in place until the lot is stabilized meeting the cover requirements of SWPPP Specifications – Surface Stabilization and Noblesville Department of Engineering.
5. All trash and construction debris shall be disposed properly into an enclosed waste receptacle.
6. Street to be cleaned at the end of every work day, at a minimum, or more frequent if needed.

EROSION CONTROL PLAN LEGEND

- PROPERTY LINE/ DRAINAGE SWALE
- EXISTING DRAINAGE
- FINISHED DRAINAGE
- TREE CONSERVATION WITH FENCING AT DRIP LINE
- PC — PERIMETER CONTROLS
- TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
- BASKET INLET PROTECTION (COMBINATION INLET FILTER FOR CURB HOODS)
- BASKET INLET PROTECTION (ROUND OR RECTANGULAR INLET FILTER)
- TOPSOIL / SUBSOIL STOCKPILE
- PS — PERMANENT SEEDING / SOD

THE CITY OF NOBLESVILLE EST. 1823

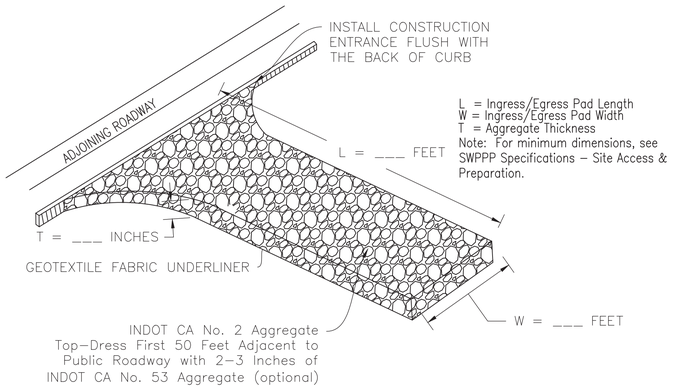
ALISON M. KRUPSKI REGISTERED NO. 11100334 STATE OF INDIANA PROFESSIONAL ENGINEER

Alison M. Krupski 7/8/2021

CITY OF NOBLESVILLE

SWPPP Details

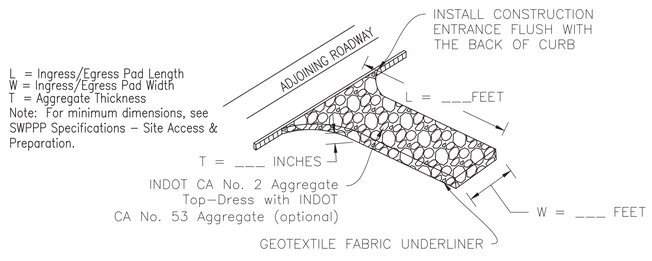
SHEET 26 OF 29



L = Ingress/Egress Pad Length
W = Ingress/Egress Pad Width
T = Aggregate Thickness
Note: For minimum dimensions, see SWPPP Specifications – Site Access & Preparation.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD (LARGE SITES – TWO ACRES OR LARGER)

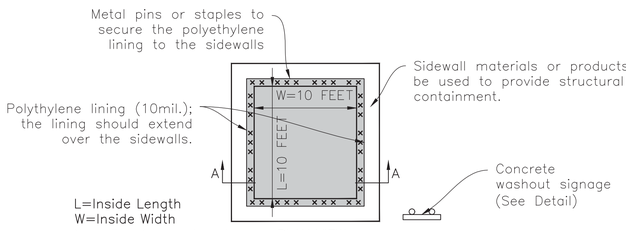
NOT TO SCALE



L = Ingress/Egress Pad Length
W = Ingress/Egress Pad Width
T = Aggregate Thickness
Note: For minimum dimensions, see SWPPP Specifications – Site Access & Preparation.

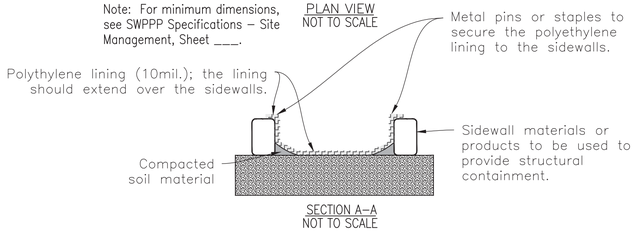
TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD (SMALL SITES – LESS THAN TWO ACRES)

NOT TO SCALE



L=Inside Length
W=Inside Width
Note: For minimum dimensions, see SWPPP Specifications – Site Management, Sheet ___.

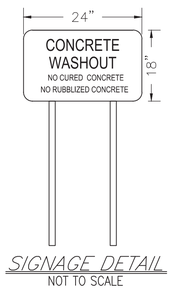
PLAN VIEW
NOT TO SCALE



SECTION A–A
NOT TO SCALE

CONCRETE WASHOUT DETAIL (ABOVE GRADE)

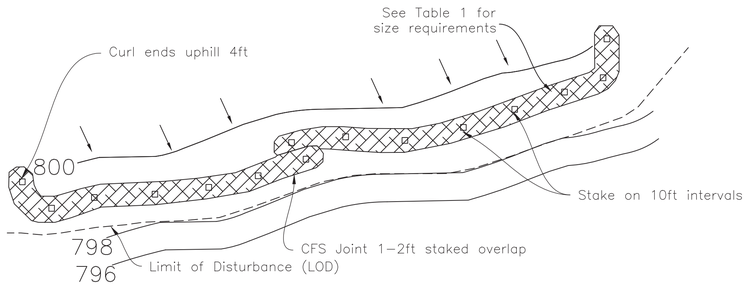
NOT TO SCALE

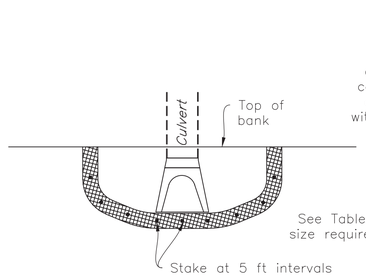


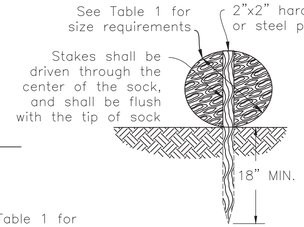
SIGNAGE DETAIL

NOT TO SCALE

** Measure to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations*

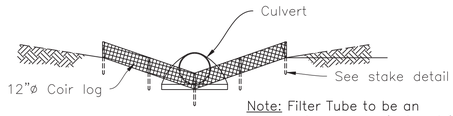






STAKE DETAIL

NOT TO SCALE



Note: Filter Tube to be an approved pre-manufactured filter, and shall meet requirements of the Indiana Storm Water Quality Manual, latest edition.

Table 1: Filter Sock Size Requirements, Sheet Flow Application

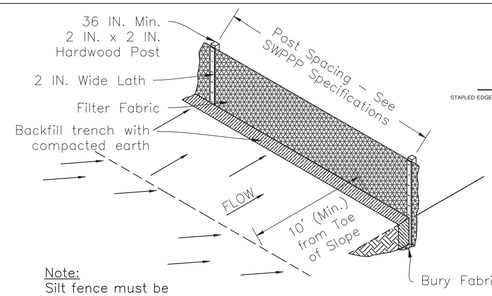
Slope		Sock (linear feet) for Minimum Filter Sock Size			
		8 inch	12 inch	18 inch	24 inch
0% – 2%	< 50:1	125	125	125	125
2% – 10%	50:1 to 10:1	100	100	100	100
10% – 20%	10:1 to 5:1	75	75	75	75
20% – 33%	5:1 to 3:1	25	25	25	25
> 33%	> 3:1	10	10	10	10

Note:
1. Limited to one-quarter acre per 100 linear feet of barrier.
2. Five to 10 feet from toe of slope (10 feet preferred).

FILTER TUBE/FILTER SOCK

NOT TO SCALE

** Measure to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations*



Note:
Silt fence must be NUTEC 3-NWS 6 non-woven fabric or an approved equal.

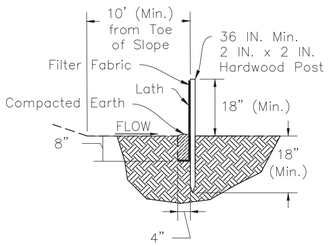
SILT FENCE INSTALLATION

Place the end post of the second fence inside the end post of the first fence

Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material

Drive both posts about 10 inches into the ground and bury flap

ATTACHING TWO SILT FENCES



FLAT BOTTOM TRENCH SECTION

Table 1. Slope Steepness Restrictions

Precent Slope		Maximum Distance
< 2%	< 50:1	100 Feet
2% – 5%	50:1 to 20:1	75 Feet
5% – 10%[1]	20:1 to 10:1	50 Feet
10% – 20%[1]	10:1 to 5:1	25 Feet
> 20%[1]	> 5:1	15 Feet

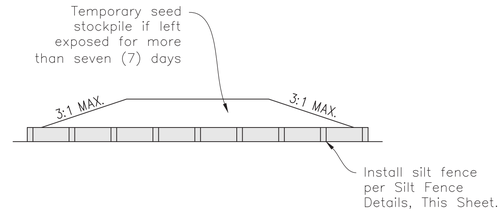
[1] *Consider other alternatives.*

Note:
- *Minimum of 10 feet beyond the toe of slope to provide a broad, shallow sediment pool.*
- *Multiple rows of silt fence are not recommended on the same slope*

PERIMETER CONTROLS SILT FENCE DETAIL

NOT TO SCALE

** Measure to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations*



TOPSOIL STOCKPILE DETAIL

NOT TO SCALE

Note:
1. Topsoil shall always be salvaged and stockpiled on-site, unless infeasible.
2. Stockpile outside rooting zone of trees to be protected.
3. Temporary topsoil stockpiles shall be maintained with a slope no greater than 3:1 and a height of no greater than twenty (20) feet above grade of the adjacent roadway. – "Temporary topsoil stockpiles" means any stockpile associated with the same phase of construction and will be gone at the end of the permitted phase that it was created.
4. Permanent topsoil stockpiles shall be maintained with a slope of no greater than 4:1 and a height of no greater than fifteen (15) feet above the grade of the adjacent roadway. – ORD #24-04-15 – "Permanent topsoil stockpiles" means a stockpile left over after a particular phase of construction has achieved its own dirt balance and is surplus or left for future phase.

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SWPPP Details

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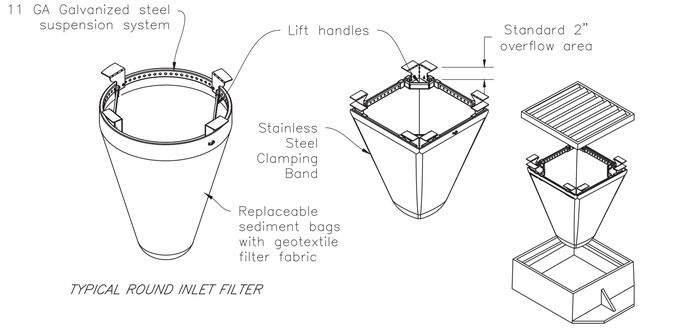
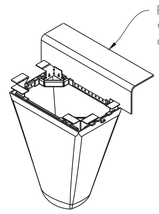


TYPICAL ROUND INLET FILTER

TYPICAL RECTANGULAR INLET FILTER



COMBINATION INLET FILTER FOR CURB HOODS

STAINLESS STEEL ROUND INLET FILTERS

BASKET INLET PROTECTION
NOT TO SCALE

** Measure to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations*

SINGLE–USE DEWATERING BAG SPECIFICATIONS

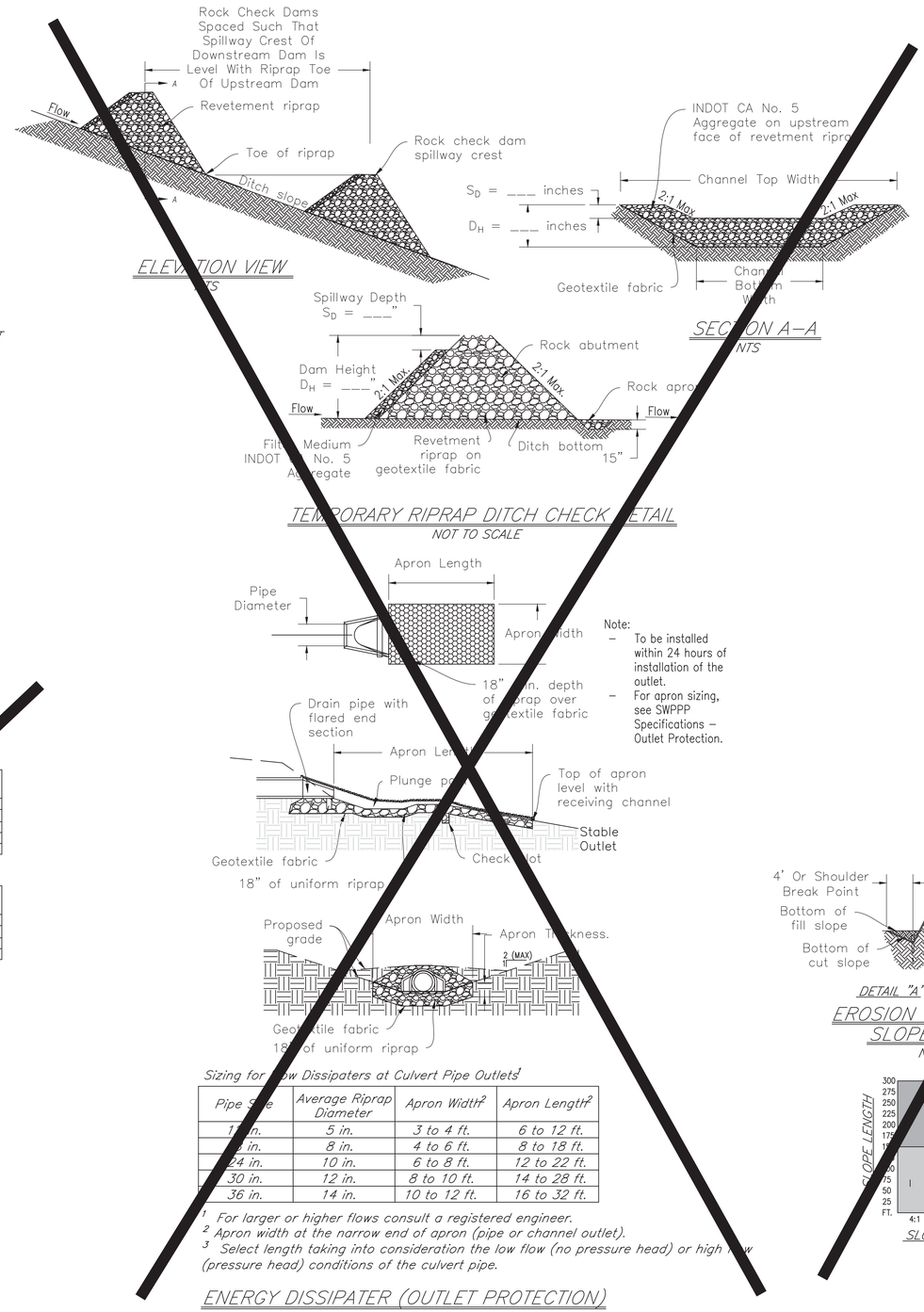
Model	OD (ft)	Inlet/Outlet hose connection (in)	Recommended flow rate (gpm)	Capacity (cft)	Standard material Nonwoven liner (oz)
SC–DW 1260	1 X 5	3	2–15	3	8.0
SC–DW 2460	2 X 5	3	3–30	5	8.0
SC–DW 46	4 X 6	3	8–80	10	8.0
SC–DW 8TO	10 X 10	3	35–350	45	8.0
SC–DW 12	12 X 15	3	60–600	80	8.0

REUSABLE DEWATERING BAG SPECIFICATIONS

Model	OD (ft)	Inlet/Outlet hose connection (in)	Recommended flow rate (gpm)	Capacity (cft)	Standard material Nonwoven liner (oz)
SC–DW 467	4 X 6	3	8–80	10	8.0
SC–DW 10TOZ	10 X 10	3	35–350	45	8.0
SC–DW 12157	12 X 15	3	60–600	80	8.0
SC–DW 15T5Z	15 X 15	3	60–800	100	8.0

DEWATERING BAG DETAIL
NOT TO SCALE

** Measure to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations*



ELEVATION VIEW
NTS

SEC ON A–A
NTS

TEMPORARY RIPRAP DITCH CHECK ETAIL
NOT TO SCALE

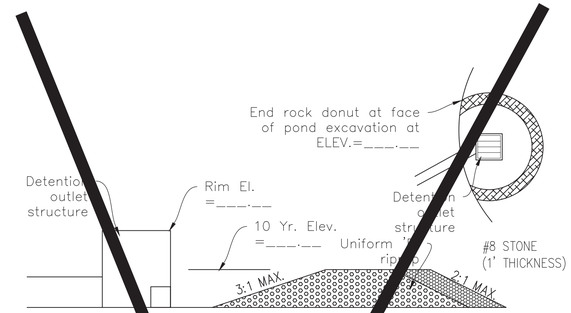
Note:
- To be installed within 24 hours of installation of the outlet.
- For apron sizing, see SWPPP Specifications – Outlet Protection.

Sizing for Low Dissipaters at Culvert Pipe Outlets[1]

Pipe Size	Average Riprap Diameter	Apron Width[2]	Apron Length[3]
1 in.	5 in.	3 to 4 ft.	6 to 12 ft.
2 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.

[1] *For larger or higher flows consult a registered engineer.*
[2] *Apron width at the narrow end of apron (pipe or channel outlet).*
[3] *Select length taking into consideration the low flow (no pressure head) or high flow (pressure head) conditions of the culvert pipe.*

ENERGY DISSIPATER (OUTLET PROTECTION)
NOT TO SCALE

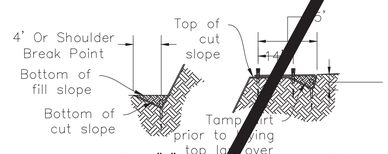


ROCK DONUT IN ET PROTECTION
NOT SCALE

Mulch Specifications

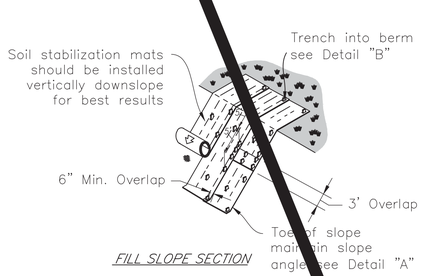
Material[1]	Rate per Acre	Comments
Straw or hay	2 tons	Shou be dry, fre of undesirable seeds. Spr d by hand or machine. Must be crimped or an hored (see table 3).
Wood fiber or cellulose	1 ton	ply with a hydrauli mulch machine and use ith tacking agent

[1] *Mulching is not recommended in concentrated flows. Consider erosion control blankets or other stabilization methods.*

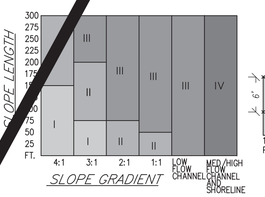


DETAIL "A" *DETAIL "B"*

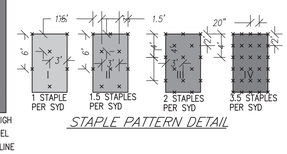
EROSION CONTROL BLANKET SLOPE INSTALLATION
NOT TO SCALE



FILL SLOPE SECTION



SLOPE GRADIENT



STAPLE PATTERN DETAIL

Note:
Slope surface shall be smooth and free of rocks, lumps of dirt, grass, and sticks. Mat shall be placed flat on surface for proper soil contact.

EROSION CONTROL BLANKET

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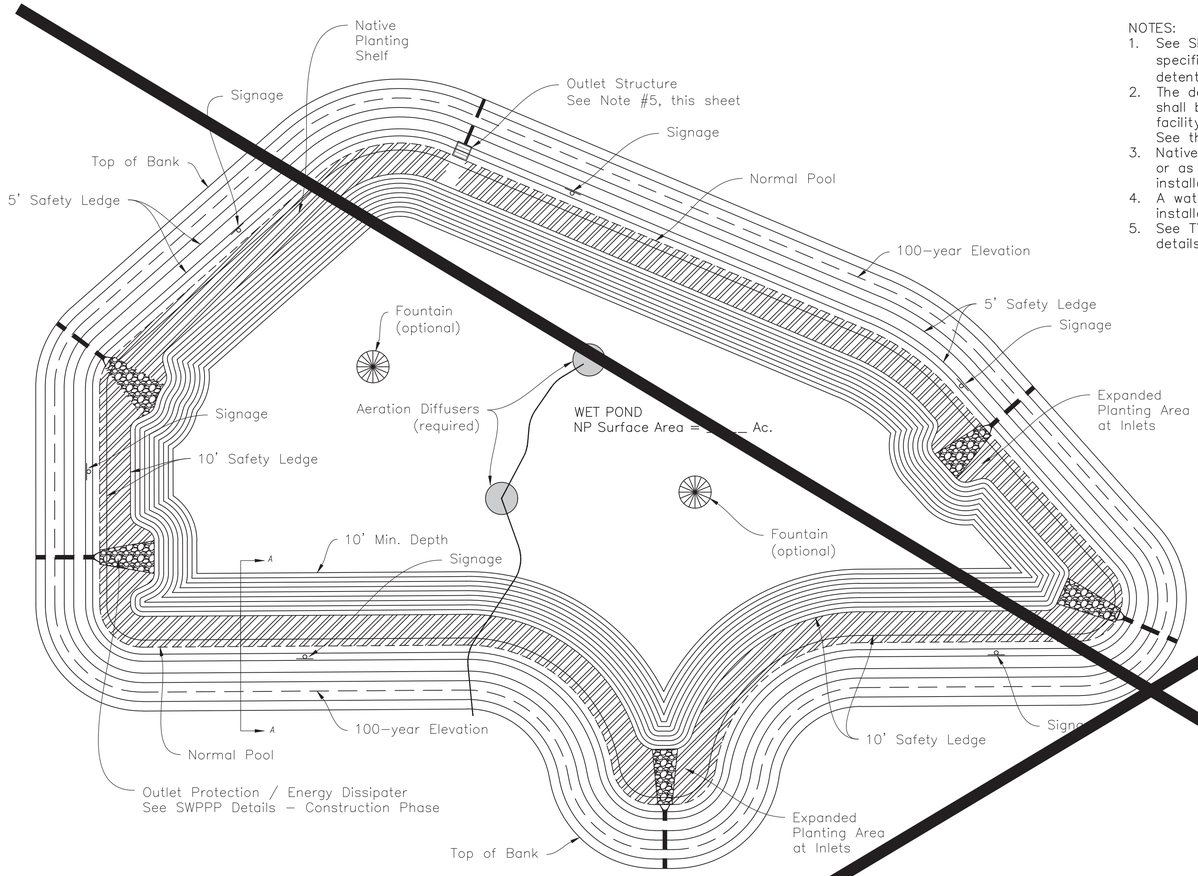
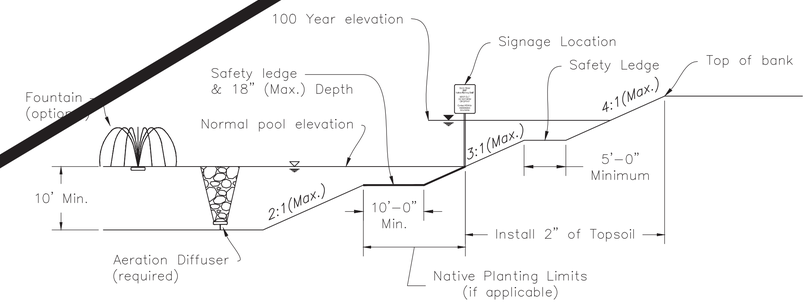


TYPICAL WET POND – STORMWATER BMP

NOT TO SCALE

NOTES:

1. See Sheet 7, Storm Sewer Bedding and Detention Notes & Details, for detention pond details and specifications. The Noblesville Department of Engineering or Stormwater/MS4 may approve alternate detention pond/basin sections.
2. The design of all wet-bottom detention facilities shall include an aeration facility. Design calculations shall be provided to substantiate the effectiveness of the proposed aeration facility. The aeration facility shall be able to, at a minimum, turn the volume of the stored water over every 24 hours. See the City of Noblesville Stormwater Technical Standards Manual for additional information.
3. Native plantings shall be installed in mid to late spring, specifically between April 1st and July 1st, or as per supplier recommendations. Coordinate with City of Noblesville for acceptance prior to installation of native plantings.
4. A waterfowl exclusion fence is to be installed with the native planting areas. The fence shall be installed per planting supplier recommendations.
5. See TYPICAL OUTLET STRUCTURE DETAILS on Sheet 7 of these standards for outlet structure design details, placement details, and specifications.



SECTION A–A

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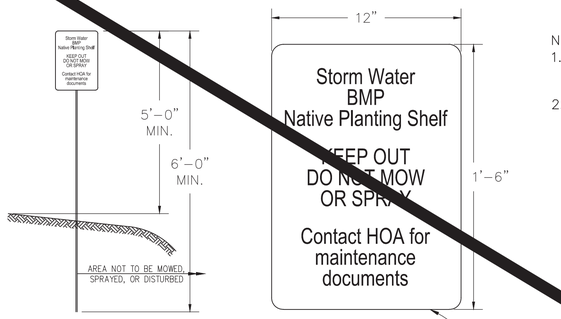

NOTES:

1. Signs to be placed 200' apart around the perimeter with no less than 4 signs per pond.
2. Signs to place within 2' of the normal pool perimeter.

SIGN INSTALLATION

NOT TO SCALE

SIGN DETAILS

NOT TO SCALE

BMP SIGNAGE DETAILS

NOT TO SCALE

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Stormwater BMP – Pond Details

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