

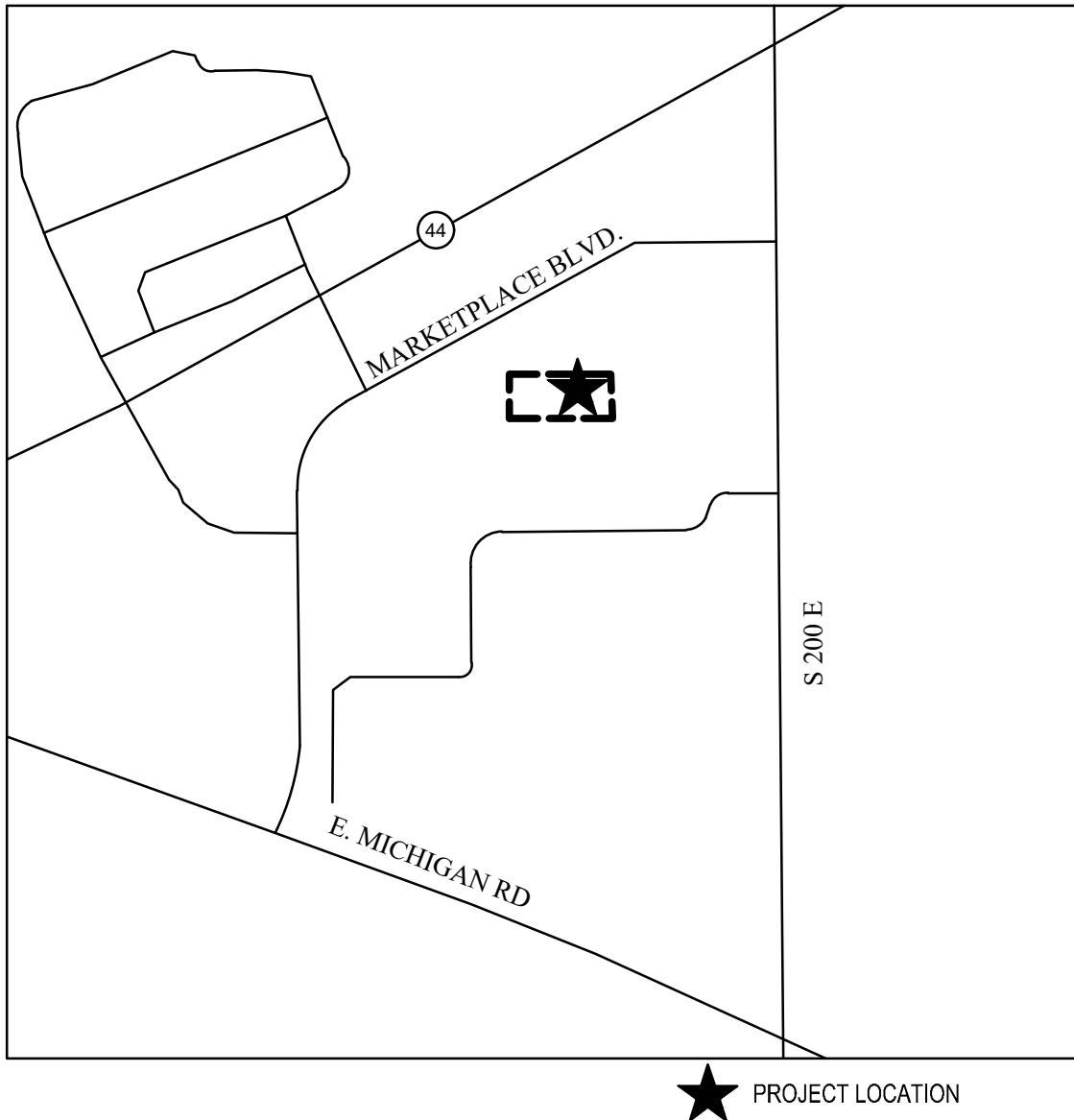
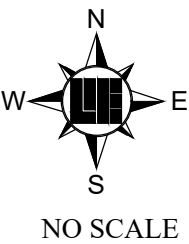
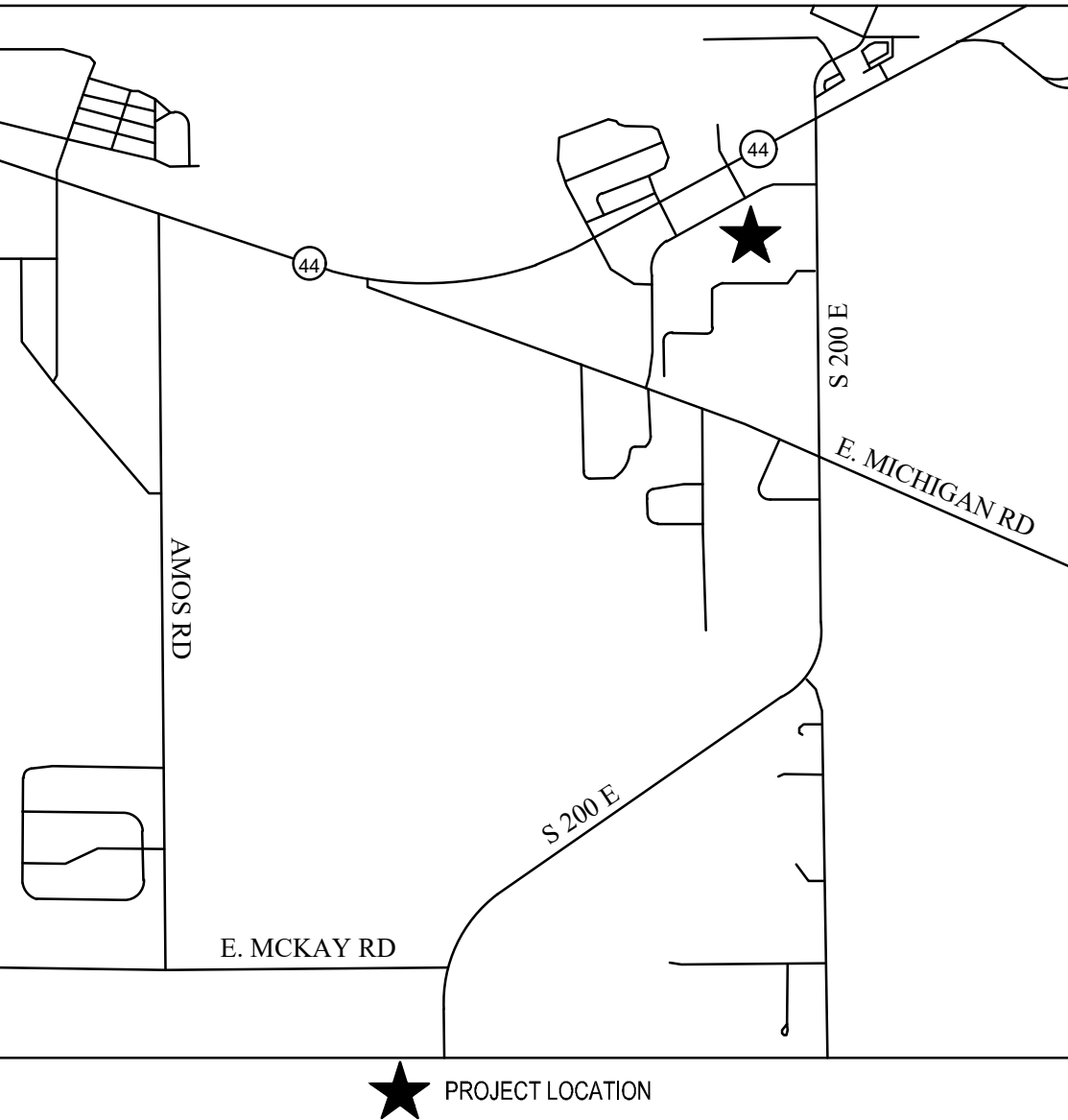
LOCATION: H:\2022\W22.0478\Engineering\Design\Drawings\Sheet A\001 - Title Sheet - Block A.dwg
DATE/TIME: April 10, 2023 - 4:52pm
PLOT/DWG BY: indam

PLANS PREPARED FOR
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PLANS PREPARED BY
WEIHE ENGINEERS, INC.
10505 N. COLLEGE AVE.
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GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- ALL QUANTITIES GIVEN ON THESE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS: FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- IN ADDITION, EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- ANY FIELD TILES ENCOUNTERED DURING EXCAVATION SHALL BE REPAIRED AND CONNECTED TO NEW STORM SEWERS AND POSITIVE DRAINAGE PRESERVED.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER THAT ALL LANDSCAPE REQUIREMENTS ARE MET AND CONFORM TO APPLICABLE LOCAL STANDARDS.
- THE SITE DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY - NATIONAL FLOOD INSURANCE PROGRAM, WHEN PLOTTED BY SCALE ON FLOOD INSURANCE RATE MAP #18145C0138C, DATED NOVEMBER 5, 2014.
- BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS & PLAT FOR EXACT INFORMATION.
- THIS SITE DOES NOT CONTAIN ANY WETLANDS AT SHOWN ON THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE: SHELBYVILLE, INDIANA, NATIONAL WETLANDS INVENTORY MAP DATED DECEMBER 20, 2022.



LOCATION MAP

LAND DESCRIPTION

APPROXIMATELY 10.85 ACRES LOCATED IN SHELBYVILLE MARKETPLACE PHASE 1, BLOCK A, SHELBYVILLE, IN - PART OF NE/4, SECTION 04, TOWNSHIP 12 NORTH, RANGE 7 EAST, ADDISON TOWNSHIP, SHELBY COUNTY, IN

BENCHMARK INFORMATION

SITE TBMS

TBM 1112 IS A CUT "X" ON THE NORTHEAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 54' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND SGT. HENDERSON DRIVE.
ELEV. 791.99 (NAVD 88)

TBM 1180 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE NORTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 240' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND DEPUTY ALYEA DRIVE.
ELEV. 792.93 (NAVD 88)

TBM 1440 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 306' WEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND PROGRESS PARKWAY.
ELEV. 793.06 (NAVD 88)

TBM 1819 IS A CUT "X" ON THE SOUTHWEST BONNET BOLT OF A FIRE HYDRANT ON THE EASTERN RIGHT-OF-WAY OF PROGRESS PARKWAY, APPROXIMATELY 607' SOUTH OF THE INTERSECTION OF PROGRESS PARKWAY AND MARKET PLACE BLVD.
ELEV. 793.12 (NAVD 88)

OPERATING AUTHORITIES

CITY OF SHELBYVILLE
44 W. WASHINGTON STREET
SHELBYVILLE, IN 46176
317-392-5102

DUKE ENERGY - ELECTRIC
390 N MAIN STREET
MARTINSVILLE, IN 46151
765-349-4912

INDIANA AMERICAN WATER - WATER
153 NORTH EMERSON AVE
GREENWOOD, IN 46143
317-392-0711

VECTREN - GAS
600 INDUSTRIAL DRIVE
FRANKLIN, IN 46131
937-231-8345

COMCAST CABLEVISION
5330 E. 65TH STREET
INDIANAPOLIS, INDIANA 46220
317-872-2225

A T & T
5858 NORTH COLLEGE AVE
INDIANAPOLIS, INDIANA 46220
317-252-4227

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PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL

2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN
46176

TITLE SHEET

SHEET NO.

C001

PROJECT NO.

W22.0478

APPROVAL PENDING
NOT FOR CONSTRUCTION

REVISIONS AND ISSUES		DATE	BY	PROJECT NO.:	W22.0478
				DWG NAME:	200 I. - Tie Sheet - Block A
				DESIGNED BY:	MGSAO
				DRAWN BY:	MGSAO
				CHECKED BY:	EAC
				DATE:	

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

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LANDSCAPE PLAN GENERAL NOTES

- IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. IF IN QUESTION, CONTACT THE LANDSCAPE ARCHITECT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PERTAINING TO THEIR PHASE OF WORK. UTILITIES ARE SHOWN TO BE APPROXIMATE. CALL UTILITY LOCATE PRIOR TO ANY PLACEMENT OF PLANT MATERIAL OR OTHER LANDSCAPE MATERIAL.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES THAT MAY BE REQUIRED FOR HIS PORTION OF WORK.
- ANY EXISTING TREE(S) AND/OR PLANTINGS THAT MAY REQUIRE REMOVAL BUT ARE NOT SHOWN ON THE PLAN AS BEING REMOVED SHALL BE PROTECTED AND BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT TO DETERMINE IF TREE(S) AND/OR PLANTINGS SHOULD BE 1) REMOVED, 2) SAVED AND INTEGRATED INTO THE LANDSCAPE DESIGN, OR 3) RELOCATED.
- CONTRACTOR TO REVIEW THE SWPPP SERIES PLANS FOR STABILIZATION (SEEDING/SOD/MULCH) REQUIREMENTS.
- PLANTING BEDS AND PLANT MATERIAL SHALL BE LOCATED AS INDICATED ON LANDSCAPE PLAN. IN THE EVENT FIELD CHANGES OR CONDITIONS REQUIRE MODIFICATION TO THE LANDSCAPE DESIGN, THE CONTRACTOR SHALL CONSULT LANDSCAPE ARCHITECT AS TO PROPOSED MODIFICATIONS PRIOR TO PLANTING. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT LOCATIONS ON SITE IF NECESSARY.
- ALL PLANTS ARE TO MEET OR EXCEED AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.
- PLANTS SHALL BEAR A TAG SHOWING GENUS, SPECIES AND VARIETY. REMOVE AT TIME OF FINAL ACCEPTANCE.
- PLANTS SHALL BE CERTIFIED BY THE STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES AND FREE FROM DISEASE OR HAZARDOUS INSECTS.
- LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING PRIOR TO BID DATE OF ANY PLANTS THAT HE FEELS MAY NOT SURVIVE IN LOCATIONS NOTED.
- NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE ALLOWED WITHOUT APPROVAL OF THE JURISDICTION HAVING AUTHORITY AND THE LANDSCAPE ARCHITECT. IF PLANTS ARE SHOWN TO BE UNAVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID DATE IN WRITING. THE CONTRACTOR SHALL COMPENSATE THE LANDSCAPE ARCHITECT FOR THE TIME REQUIRED FOR REVIEW AND INSPECTION OF PROPOSED PLANT SUBSTITUTIONS BID AWARD.
- ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY. SUBMIT COLOR PHOTOGRAPHS OF PROPOSED PLANT MATERIAL TAKEN IN THE NURSERY WHERE THEY ARE GROWING. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT PLANT MATERIALS AT NURSERY OR CONTRACTOR YARD PRIOR TO DELIVERY TO THE SITE. THE LANDSCAPE ARCHITECT MAY ALSO INSPECT AND APPROVED OR REJECTED PLANT MATERIAL ON THE JOB SITE. IN THE EVENT PLANT MATERIAL IS NOT THE SPECIFIED SIZE OR QUALITY, PLANTS WILL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- PLANTS AND OTHER LANDSCAPE MATERIALS TO BE STORED ON SITE WILL BE PLACED WHERE THEY WILL BE PROTECTED AND NOT CONFLICT WITH CONSTRUCTION OPERATIONS.
- COMPOST SHALL BE A WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. IT SHALL BE DERIVED FROM AGRICULTURAL, FOOD, OR INDUSTRIAL RESIDUALS, BIOSOLIDS (TREATED SEWAGE SLUDGE), YARD TRIMMINGS, SOURCE-SEPARATED OR MIXED SOLID WASTE. THE PRODUCT SHALL CONTAIN NO SUBSTANCES TOXIC TO PLANTS AND SHALL BE REASONABLY FREE (< 1% BY DRY WEIGHT) OF MAN-MADE FOREIGN MATTER. THE COMPOST WILL POSSESS NO OBJECTIONABLE ODORS AND SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT WAS DERIVED.
- SHRUB AND PERENNIAL BEDS SHALL BE PREPARED BY PLACING 3" OF APPROVED COMPOST OVER PULVERIZED TOPSOIL AND ROTOTILLING TO A DEPTH OF 6". PRE-EMERGENT HERBICIDE SHALL BE APPLIED IN ALL PLANTING AND GROUND COVER BEDS PRIOR TO MULCHING AT RATES SPECIFIED BY MANUFACTURER FOR EACH VARIETY OF PLANT. PRE-EMERGENT HERBICIDE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO APPLICATION.
- ALL TREE AND SHRUB PLANTING AREAS TO BE COVERED WITH 3" THICK LAYER OF SHREDDED HARDWOOD BARK MULCH. ALL GROUND COVER BEDS SHALL BE COVERED WITH 1" SHREDDED HARDWOOD BARK MULCH. BARK MULCH SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND SHALL BE UNIFORM IN TEXTURE AND COLOR AND SHALL BE FREE OF STICKS, LEAVES, SOIL AND FOREIGN MATERIAL. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED.
- CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS AND PLANT MATERIAL UNTIL ALL PUNCH LIST WORK HAS BEEN COMPLETED AND WRITTEN FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS INSTALLED AND SHALL INCLUDE BUT NOT LIMITED TO WATERING, WEEDING, PRUNING, DISEASE AND INSECT CONTROL, MOWING, RESETTLING OF PLANTS TO PROPER GRADES OR UPRIGHT POSITION, AND ANY OTHER PROCEDURE CONSISTENT WITH GOOD HORTICULTURAL PRACTICES.
- ALL NEW LANDSCAPE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL ACCEPTANCE AS DETERMINED BY LANDSCAPE ARCHITECT OR OWNER. AT THE END OF THIS PERIOD, PLANT MATERIAL DETERMINED TO BE DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT OR OWNER SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE CONTRACTOR.

DEMOLITION PLAN GENERAL NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WITH THE OWNER DURING BIDDING AND DURING CONSTRUCTION ACTIVITIES ALL ITEMS TO BE REMOVED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY MATERIALS AND/OR STRUCTURES NOT LOCATED ON THIS SURVEY FOR THE INSTALLATION OF THE NEW WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PERTAINING TO THEIR PHASE OF WORK, AND TO VERIFY WHICH UTILITIES WILL BE REMOVED BY UTILITY COMPANY. ANY AND ALL UTILITIES NOT REMOVED BY THE UTILITY COMPANY SHALL BE REMOVED BY THE CONTRACTOR.
- UTILITIES ARE SHOWN TO BE APPROXIMATE AND SHALL BE RELOCATED AND/OR CAPPED AND ABANDONED BEFORE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- ALL DEMOLITION MATERIAL AND SALVAGEABLE MATERIAL IS THE PROPERTY OF THE DEMOLITION CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF THE SITE.
- SLABS ON GRADE MUST BE REMOVED COMPLETELY AND TAKEN OFF THE SITE.
- ALL UTILITIES MUST REMAIN ACTIVE FOR AREA TENANTS THAT ARE REMAINING. NO UTILITY SERVICE SHALL BE INTERRUPTED DURING THE CONSTRUCTION PROCESS.
- BEARINGS, DIMENSIONS, AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
- ANY EXISTING TREE(S) THAT MAY REQUIRE REMOVAL BUT ARE NOT SHOWN ON THE PLAN AS BEING REMOVED MAY BE DONE SO, AS LONG AS THE TREE(S) ARE RELOCATED TO AN APPROVED ALTERNATIVE LOCATION ON SITE.
- IF THERE ARE ANY QUESTIONS CONCERNING THIS DEMOLITION PLAN, PLEASE CONTACT THE ENGINEER BEFORE CONTINUING WORK.

EROSION CONTROL GENERAL NOTES

- ALL DISTURBED AREAS SHALL BE SODDED OR SEEDED, EXCEPT BUILDING PAD AND LANDSCAPE BEDS. SEE LANDSCAPE PLANS FOR LOCATION OF LANDSCAPE BEDS.
 - INSTALL SILT FENCE ALONG ALL DOWNSTREAM SLOPES. SILT FENCE TO FOLLOW CONTOUR.
 - THERE SHALL BE NO DIRT, DEBRIS OR STORAGE OF MATERIAL IN THE STREET.
- THIS PLAN IS DESIGNED AS AN ATTEMPT TO PREVENT ANY AND ALL SEDIMENT FROM LEAVING THE CONSTRUCTION SITE BY WAY OF EROSION. IF EROSION OF SEDIMENT FROM THE SITE IS TAKING PLACE, THE CONTRACTOR AND/OR OWNER SHALL TAKE PREVENTATIVE ACTION IMMEDIATELY. THE ENGINEER SHALL BE CONSULTED IN THE EVENT THIS HAPPENS.
 - TEMPORARY SEEDING IS TO BE APPLIED TO ANY DISTURBED AREA THAT WILL REMAIN UNALTERED IN EXCESS OF 7 DAYS.
 - PERMANENT SEEDING IS TO BE APPLIED IMMEDIATELY TO AREAS THAT HAVE ACHIEVED FINAL AND FINISHED GRADE.
 - PRESERVE EXISTING VEGETATION ON THE SITE WHENEVER AND WHEREVER POSSIBLE TO PREVENT TOPSOIL EROSION.
 - ALL SEDIMENT CAPTURING MEASURES SHALL BE IMPLEMENTED PRIOR TO THE DISTURBANCE OF THE CONSTRUCTION AREA THEY ARE INTENDED TO SERVICE. ALL EROSION CONTROL MEASURES PROPOSED ARE TO BE PROPERLY MAINTAINED TO CONTINUE THEIR EFFECTIVENESS.
 - IF GRADING OCCURS DURING THE MONTHS OF DECEMBER, JANUARY OR FEBRUARY DORMANT SEEDING PROCEDURES SHALL BE USED.
 - DURING DRY WEATHER, KEEP LAWNS WATERED WITH SPRINKLERS OR OTHER APPROVED METHODS. RESEED ANY AREAS NOT GERMINATING OR DAMAGED AT INTERVALS AS MAY BE REQUIRED ACCORDING TO SEASONAL CONDITION AND/OR CONSTRUCTION ACTIVITY. WATER GRASS AND EXECUTE NECESSARY WEEDING UNTIL FULL STAND OF GRASS HAS BEEN OBTAINED.
 - THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION CONTROL IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR OWNER.
 - IT SHALL BE THE CONTRACTORS AND/OR OWNER'S RESPONSIBILITY TO MINIMIZE SEDIMENTATION (FROM ON-SITE CONSTRUCTION ACTIVITIES) FROM BEING DEPOSITED ONTO ADJACENT PROPERTIES AND RECEIVING STREAMS/DITCHES IN STRICT COMPLIANCE WITH "CONSTRUCTION STORMWATER GENERAL PERMIT" (327 IAC, CONSTRUCTION ACTIVITY STORM WATER RUNOFF CONTROL). IT SHALL ALSO BE THE CONTRACTORS AND/OR OWNER'S RESPONSIBILITY TO OBTAIN ANY APPROVALS REQUIRED FROM THE LOCAL AUTHORITY AND TO SUBMIT A COMPLETE NOTICE OF INTENT LETTER TO THE OFFICE OF WATER MANAGEMENT, INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT PRIOR TO ANY CONSTRUCTION ACTIVITY.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR OWNER TO MAINTAIN THE SWPPP INFORMATION SIGN UNTIL SUCH TIME THAT THE SITE IS READY FOR THE IDEM NOTICE OF TERMINATION. INSTALL 4" PVC TUBE WITH END CAPS ATTACHED TO THE SWPPP INFORMATION SIGN TO CONTAIN APPROVED SWPPP DRAWINGS AND PERMITS FOR INSPECTORS.
 - FOR SEASONAL VARIATIONS - SEE SEASONAL SOIL PROTECTION CHART IN THESE PLANS.
 - PORTABLE TOILETS MUST BE ANCHORED AND LOCATED A MINIMUM OF 50' FROM ANY STORM DRAIN.

OVERALL LEGEND ITEMS

UTILITIES

- REBAR FOUND
- PK OR MAG NAIL FOUND
- TEMPORARY BENCH MARK
- WATER VALVE
- FIRE HYDRANT
- WATER METER
- FIRE DEPT HOOKUP
- WATER MANHOLE
- GAS METER
- GAS VALVE
- GAS PIPELINE MARKER
- UTILITY POLE
- GUY ANCHOR
- TRANSFORMER
- SANITARY SEWER MANHOLE
- FIBER OPTIC MARKER
- MAIL BOX
- BOLLARD
- SIGN
- COMMUNICATIONS PEDESTAL
- COMMUNICATIONS RISER
- CABLE TELEVISION PEDESTAL
- CURB INLET
- BEEHIVE INLET
- SQUARE INLET
- STORM MANHOLE
- MONITORING WELL

OTHER

- FLAG POLE
- SIGN
- POST
- GATE POST
- BOLLARD
- PARKING METER
- PARKING WHEEL STOP
- ACCESSIBLE SPACE
- PARKING COUNT
- CURB & GUTTER ELEVATION
- PAVEMENT SPOT ELEVATION
- GROUND SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EMERGENCY FLOOD ROUTE
- FLOW DIRECTION AND SLOPE



GRADING GENERAL NOTES

- CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO EARTHMOVING ACTIVITIES.
- REFER TO THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) STANDARD SPECIFICATIONS, LATEST EDITION, FOR BASIC MATERIALS AND CONSTRUCTION METHODS. THE SECTIONS BELOW FOR VARIOUS ITEMS ARE TO CLARIFY THE INTENT OF THE REQUIREMENTS FOR THIS PROJECT. PLEASE NOTE THAT OTHER SECTIONS OF THE INDOT STANDARD SPECIFICATIONS MAY ALSO BE APPLICABLE.
- TOPSOIL SHALL BE STRIPPED FROM ALL AREAS TO RECEIVE PAVING AND FROM WITHIN THE LIMITS OF PROPOSED BUILDINGS AND STRUCTURES. TOPSOIL SHALL BE STRIPPED TO THE DEPTH AS NOTED IN THE GEOTECHNICAL REPORT.
- AFTER STRIPPING TOPSOIL, PROOFROLL AREAS TO BE FILLED WITH A MEDIUM WEIGHT ROLLER TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. RECOMMENDATIONS FOR DRYING, AMENDING AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WITHIN THE PROPOSED PAVED AND/OR BUILDING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION BY THE OWNER'S GEOTECHNICAL TESTING REPRESENTATIVE.
- TOPSOIL SHALL BE PLACED IN MOUNDING AREAS, NONSTRUCTURAL FILL AND/OR PLANTING AREAS TO A MINIMUM DEPTH OF 6". EXCESS TOPSOIL SHALL BE REMOVED FROM THE SITE.
- WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS. REFER TO GEOTECHNICAL REPORT AND/OR CONSULT WITH OWNER'S GEOTECHNICAL TESTING REPRESENTATIVE FOR RECOMMENDATIONS.
- FILL MATERIAL SHALL CONSIST OF EARTH OBTAINED FROM CUT AREAS, BORROW PITS OR OTHER APPROVED SOURCES. EARTH SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES AND LARGE ROCKS. THE FILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED SIX INCHES FOLLOWING COMPACTION. PROPER MOISTURE CONTENT OF FILL MATERIAL WILL BE SUCH TO ACHIEVE SPECIFIED COMPACTION DENSITY. ALL FILL BENEATH PAVED AREAS, FLOOR SLABS AND FUTURE BUILDINGS SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY PER ASTM D-1557. FIELD COMPACTION TEST SHALL BE RUN ON EACH LIFT, IN FILL SECTIONS, AND THE REQUIRED COMPACTION ON EACH LIFT SHALL BE IN ACCORDANCE WITH INDOT SECTION 211.
- MAXIMUM LAWN SLOPE IS 3:1.
- THE PLANS SHOW THE LOCATION OF ALL KNOWN UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION ACCORDING TO INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES, PREVIOUS CONSTRUCTION PLANS AND AS EVIDENCED BY OBSERVATION OF ABOVE GROUND CONDITIONS BY THE SURVEYOR. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. WITHIN THE CONSTRUCTION LIMITS. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION IN COOPERATION WITH APPLICABLE UTILITY COMPANY IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
- ALL SPOT ELEVATIONS ARE TO FINISHED GRADE.
- COMPACTED "B" BORROW BACK FILL REQD. OVER ALL UTILITIES IN PAVED AREAS.
- ALL GRADES AT BOUNDARY SHALL MEET EXISTING. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE. BUTT JOINTS SHALL BE PROVIDED AT TRANSITIONAL AREAS BETWEEN PROPOSED AND EXISTING PAVEMENT.
- ANY PART OF SANITARY OR STORM SEWER TRENCHES RUNNING UNDER OR WITHIN 5' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
- ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
- THE CONTRACTOR SHALL CONFIRM ALL EARTHWORK QUANTITIES PRIOR TO THE 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.
- PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS AFTER INSTALLATION. CONTRACTOR TO TEST FOR AND CORRECT ANY PONDING CONDITIONS. ANY AREAS THAT HOLD WATER MORE THAN 18" DEEP SHALL BE CUT OUT AND CORRECTED TO POSITIVE DRAINAGE AT NO COST TO THE OWNER/ DEVELOPER OR ENGINEER.
- ADA ACCESSIBLE PARKING SPACES, RAMPS, AND ROUTES SHALL BE IN ACCORDANCE WITH THE LATEST ADA STANDARDS FOR ACCESSIBLE DESIGN.
- VERTICAL CURVES, WITH A MINIMUM LENGTH OF 50', SHALL BE USED WHERE POSSIBLE BETWEEN VERTICAL CHANGES IN DIRECTION (SLOPE) TO ALLOW FOR POSITIVE DRAINAGE AND SMOOTH TRANSITIONS.
- CONTRACTOR TO INSTALL CONCRETE CRADLES WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWER FACILITIES, WATER MAIN, AND STORM SEWERS IS 18" OR LESS.
- ALL DISTURBED AREA SHALL BE STABILIZED IN ACCORDANCE TO THE STORM WATER POLLUTION PREVENTION PLAN AND LANDSCAPE PLAN.

ABBREVIATIONS

- | | |
|--------|--------------------------------|
| ROW | RIGHT OF WAY |
| ESMT | EASEMENT |
| D.U.E. | DRAINAGE AND UTILITY EASEMENT |
| F.F.E. | FINISH FLOOR ELEVATION |
| T.C. | TOP OF CURB |
| GUT | GUTTER |
| CMP | CORRUGATED METAL PIPE |
| RCP | REINFORCED CONCRETE PIPE |
| PVC | POLYVINYL CHLORIDE PIPE |
| VCP | VITRIFIED CLAY PIPE |
| HDPE | HIGH DENSITY POLYETHYLENE PIPE |
| DIP | DUCTILE IRON PIPE |
| SSD | SUB SURFACE DRAIN PIPE |
| STM | STORM |
| SAN | SANITARY |
| STR | STRUCTURE |
| CO | CLEANOUT |

LINE TYPES

- | | |
|-----------|----------------------------|
| — G — | UNDERGROUND GAS |
| — W — | UNDERGROUND WATER |
| — E(A) — | AERIAL ELECTRIC |
| — E — | UNDERGROUND ELECTRIC |
| — C — | UNDERGROUND COMMUNICATIONS |
| — (A) — | AERIAL COMMUNICATIONS |
| — FO — | UNDERGROUND FIBER OPTIC |
| — FO(A) — | AERIAL FIBER OPTIC CABLE |
| — (HU) — | OVERHEAD UTILITY |
| — FM — | FORCE MAIN |
| — SAN — | STORM SEWER MAIN |
| — O — | SANITARY SEWER LATERAL |
| — □ — | RIGHT OF WAY LINE |
| — < — | CHAIN LINK FENCE |
| — X — | BOARD FENCE |
| — T — | WROUGHT IRON FENCE |
| — SF — | FARM FENCE |
| — — | GUARD RAIL |
| — — | HAND RAIL |
| — — | SILT FENCE |
| — — | BUILDING SETBACK LINE |
| — — | BOUNDARY LINE |
| — — | FLOW LINE |
| — — | SECTION LINE |
| — — | INDEX CONTOUR |
| — — | INTERMEDIATE CONTOUR |
| — — | FLOW LINE |
| — — | ROOF DRAIN |
| — — | SUB SURFACE DRAIN |
| — — | GRADE BREAK LINE |

-WARNING-

THIS PLAN TO BE USED FOR EROSION CONTROL PURPOSES ONLY. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.

-NOTE-

THIS PLAN INDICATES EROSION CONTROL MEASURES REQUIRED AFTER SOIL STRIPPING AND PAD BUILDING HAS TAKEN PLACE. COORDINATE WITH DEVELOPER FOR MEASURES REQUIRED UNTIL PROPERTY TURNED OVER FOR DEVELOPMENT. COORDINATE WITH SOIL CONSERVATION DISTRICT REPRESENTATIVE FOR ANY OTHER MEASURES REQUIRED DUE TO SITE CONDITIONS.

UTILITY GENERAL NOTES

- THE CONTRACTOR SHALL CONTACT APPLICABLE STATE UNDERGROUND LOCATION SERVICE AT LEAST 72 HOURS PRIOR TO ANY WORK AND SHALL CONTACT THE OWNER AND/OR ENGINEER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- THE PLANS SHOW THE LOCATION OF ALL KNOWN UTILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION ACCORDING TO INFORMATION PROVIDED BY THE VARIOUS UTILITY COMPANIES, PREVIOUS CONSTRUCTION PLANS AND AS EVIDENCED BY OBSERVATION OF ABOVE GROUND CONDITIONS BY THE SURVEYOR. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES TO LOCATE MAINS, CONDUITS, SERVICE LINES, ETC. WITHIN THE CONSTRUCTION LIMITS. THE LOCATION AND PROTECTION OF UTILITY STRUCTURES, THEIR SUPPORT AND MAINTENANCE DURING CONSTRUCTION (IN COOPERATION WITH APPLICABLE UTILITY COMPANY) IS THE EXPRESSED RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITIES AND VERIFY ANY AND ALL FEES ASSOCIATED WITH THE INSTALLATION OF ALL UTILITIES.
- ALL CONSTRUCTION ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH O.S.H.A. STANDARDS FOR WORKER SAFETY.
- ANY PART OF SANITARY OR STORM SEWER TRENCHES RUNNING UNDER OR WITHIN 5' OF PAVEMENT TO BE BACKFILLED WITH GRANULAR MATERIAL.
- IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATION, SIZE, AND ELEVATION OF EXISTING UTILITIES, STRUCTURES, PIPES, PAVEMENTS, ETC. AS RELATED TO THEIR WORK. NOTIFY ENGINEER OF ANY CONFLICT AND/OR DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS.
- MAINTAIN 18" HORIZONTAL AND 18" VERTICAL CLEARANCE BETWEEN STORM / SANITARY SEWER SYSTEMS AND DOMESTIC/FIRE LINE SERVICE. SANITARY SEWER LINE IN PROXIMITY OF WATER LINE SHALL BE C900 WATER MAIN GRADE PVC.
- CONTRACTOR TO INSTALL CONCRETE CRADLES WHEN THE VERTICAL SEPARATION (AS MEASURED FROM THE EXTERIOR OF THE PIPES) BETWEEN SANITARY SEWERS, WATER MAINS AND STORM SEWERS IS 18" OR LESS.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- WHEN PERFORMING EXCAVATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.
- COMPACTED "B" BORROW BACK FILL REQUIRED OVER ALL UTILITIES IN PAVED AREAS.
- ALL UTILITY STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING AND COVERS.
- PROVIDE THRUST BLOCKS FOR ALL WATER LINE BENDS AND TEES, INCLUDING TAP CONNECTION.
- CONTRACTOR SHALL COORDINATE WITH WATER COMPANY FOR DOMESTIC AND FIRE SERVICE. CONNECT TO BUILDING DOMESTIC AND FIRE LINE. COORDINATE WITH PLUMBING DRAWINGS.
- COORDINATE LOCATION OF ELECTRICAL AND COMMUNICATION LINES WITH LOCAL UTILITIES.
- COORDINATE LOCATION OF REQUIRED CONDUITS FOR ELECTRIC SERVICE, LIGHT POLES, COMMUNICATION SERVICE AND IRRIGATION SYSTEM.
- COORDINATE LOCATION AND SIZE OF GAS SERVICE CONNECTION AND INSTALLATION OF SERVICE LINE AND METER WITH GAS COMPANY.
- COORDINATE LOCATIONS AND CONNECTIONS OF BUILDING STORM LINES WITH PLUMBING DRAWINGS.
- FOLLOW ALL LOCAL AND STATE CODES IN REFERENCE TO DOMESTIC/FIRE LINE INSTALLATION AND STORM SEWER / SANITARY SEWER INSTALLATION.
- SANITARY SEWER LATERAL, WATER SERVICE, & ELECTRICAL/COMMUNICATION CONDUITS SHALL BE GRANULAR BACKFILL FOR ENTIRE RUN.
- ALL EXISTING MANHOLE AND CATCH BASIN GRATES, WATER OR GAS VALVES SHALL BE ADJUSTED TO NEW FINISH GRADE ELEVATIONS.

10505 N. College Avenue
Indianapolis, Indiana 46280
weihenet

317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax

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

WEIHE
ENGINEERS

Land Surveying/Civil Engineering
Landscape Architecture

Build with confidence

PROJECT NO.:
W22.0478

BY:

DATE:

REVISIONS AND ISSUES

xx/xx/xx

APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:

SHELBYVILLE MARKETPLACE - HOTEL

2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176

GENERAL NOTES

Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Addison Township, Shelby County, Indiana

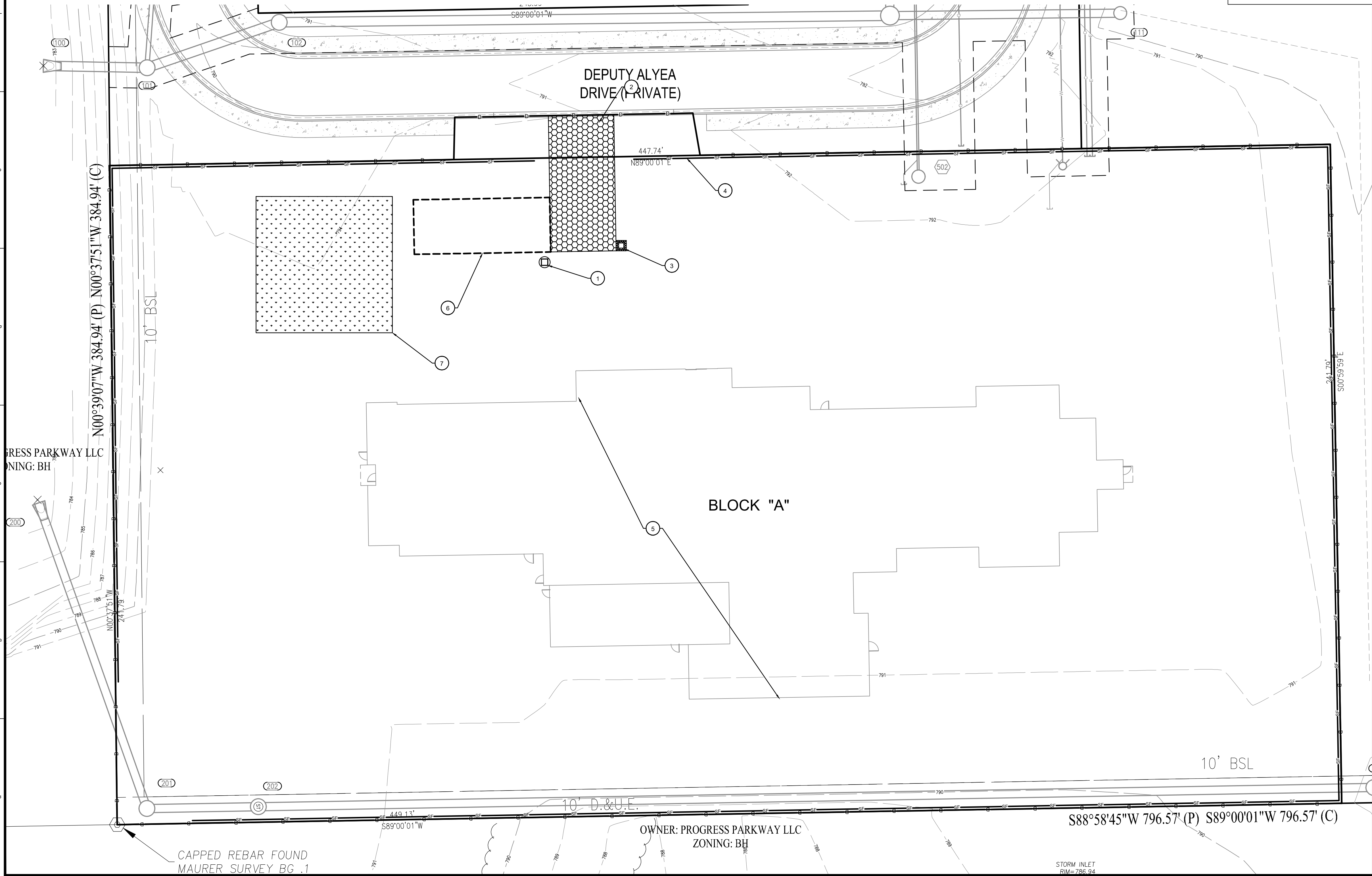
SHEET NO.

C002

PROJECT NO.

W22.0478

LOCATION: I:\2023\W22.0478\Engineering\Drawings\Block A\C101 - SWPPP 1.dwg
DATE/TIME: April 10, 2023 - 4:52pm
PLOTTER: B1: indiam



SITE PREPARATION / SWPPP PHASE 1
NOTES

- 1 INSTALL PERMIT POSTING AREA. 4" PVC TUBE WITH END CAPS ATTACHED TO PROJECT CONSTRUCTION SIGN TO CONTAIN APPROVED CONSTRUCTION DRAWINGS AND PERMITS FOR INSPECTORS.
- 2 INSTALL CONSTRUCTION ENTRANCE. REFER TO DETAIL ON SHEET C103
- 3 INSTALL CONCRETE WASHOUT. REFER TO DETAIL ON SHEET C103
- 4 INSTALL SILT FENCE. REFER TO DETAIL ON SHEET C103
- 5 LIMITS OF PROPOSED BUILDING
- 6 STAGING AREA. PROVIDE CONSTRUCTION DUMPSTER, FUELING AREA, AND PORT-O-LET AS NEEDED.
- 7 STOCKPILE AREA.

EXISTING AREAS

TOTAL SITE = 2.489 AC.
DISTURBED = 2.521 AC.
PERVIOUS = 2.521 AC.
IMPERVIOUS = 0.000 AC.

SWPPP PHASE 1 LEGEND

- IP - INLET PROTECTION - USE SUBSURFACE INLET PROTECTION WITH OVERFLOW CAPABILITY (DANDY SAC)
- CONSTRUCTION ENTRANCE
- STAGING AREA
- POSTING AREA - 4" PVC TUBE WITH END CAPS ATTACHED TO PROJECT CONSTRUCTION SIGN TO CONTAIN APPROVED CONSTRUCTION DRAWINGS AND PERMITS FOR INSPECTORS.
- INSTALL STRAW WATTLES (GRASS AREA) OR SILT DIKES (PAVEMENT AREA) AS SHOWN. CONTRACTOR TO ADD ADDITIONAL MEASURES AS CONSTRUCTION PHASING AND SITE CONDITIONS DICTATE
- CONCRETE WASHOUT
- STOCKPILE AREA (TEMPORARY SEEDING REQUIRED)
- SILT FENCE
- TREE PROTECTION
- CD - ROCK CHECK DAM
- LIMITS OF DISTURBANCE

BENCHMARK INFORMATION

SITE TBMS

TBM 1112 IS A CUT "X" ON THE NORTHEAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 54' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND SGT. HENDERSON DRIVE. ELEV. 791.99 (NAVD 88)

TBM 1180 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE NORTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 240' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND DEPUTY ALYEA DRIVE. ELEV. 792.93 (NAVD 88)

TBM 1440 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 306' WEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND PROGRESS PARKWAY. ELEV. 793.06 (NAVD 88)

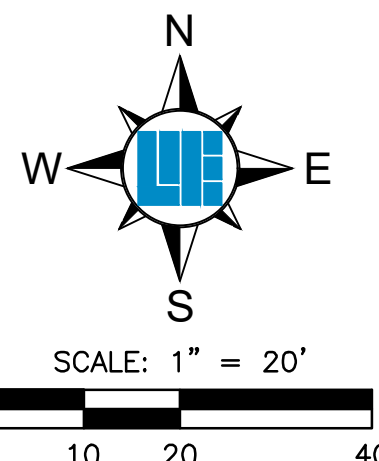
TBM 1819 IS A CUT "X" ON THE SOUTHWEST BONNET BOLT OF A FIRE HYDRANT ON THE EASTERN RIGHT-OF-WAY OF PROGRESS PARKWAY, APPROXIMATELY 607' SOUTH OF THE INTERSECTION OF PROGRESS PARKWAY AND MARKET PLACE BLVD. ELEV. 793.12 (NAVD 88)

LINE TYPES

- G - UNDERGROUND GAS
- W - UNDERGROUND WATER
- E(A) - AERIAL ELECTRIC
- E - UNDERGROUND ELECTRIC
- C - UNDERGROUND COMMUNICATIONS
- C(A) - AERIAL COMMUNICATIONS
- FO - UNDERGROUND FIBER OPTIC
- FO(A) - AERIAL FIBER OPTIC CABLE
- OHU - OVERHEAD UTILITY
- FM - FORCE MAIN
- - - SANITARY SEWER
- - - STORM SEWER
- - - RIGHT OF WAY LINE
- - - CHAIN LINK FENCE
- - - BOARD FENCE
- - - WROUGHT IRON FENCE
- - - FARM FENCE
- - - GUARD RAIL
- - - HAND RAIL
- - - SILT FENCE
- - - BUILDING SETBACK LINE
- - - BOUNDARY LINE
- - - FLOW LINE
- - - SECTION LINE
- - - INDEX CONTOUR
- - - INTERMEDIATE CONTOUR

CONTACT PERSON FOR EROSION
CONTROL & SEDIMENT PRACTICES

WEIHE ENGINEERS, INC.
10505 N. COLLEGE AVE.
INDIANAPOLIS, IN 46288
TELEPHONE: (317) 846-6611
FAX: (317) 843-0546
EMAIL: PARKERF@WEIHE.NET
CONTACT PERSON: FRED PARKER, CPESC



811
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Call before you dig.
Within Indiana Call
811 or 800-382-5544
24 Hours a Day, 7 Days a Week
PER INDIANA STATE LAW IC 8-1-26,
IT IS AGAINST THE LAW TO DIG A HOLE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE, TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax

WEIHE
ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture
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PROJECT NO.:	W22.0478
DWG NAME:	SWPPP PHASE 1
DESIGNED BY:	MGSAQ
DRAWN BY:	MGSAQ
CHECKED BY:	EAC
DATE:	03/09/2023

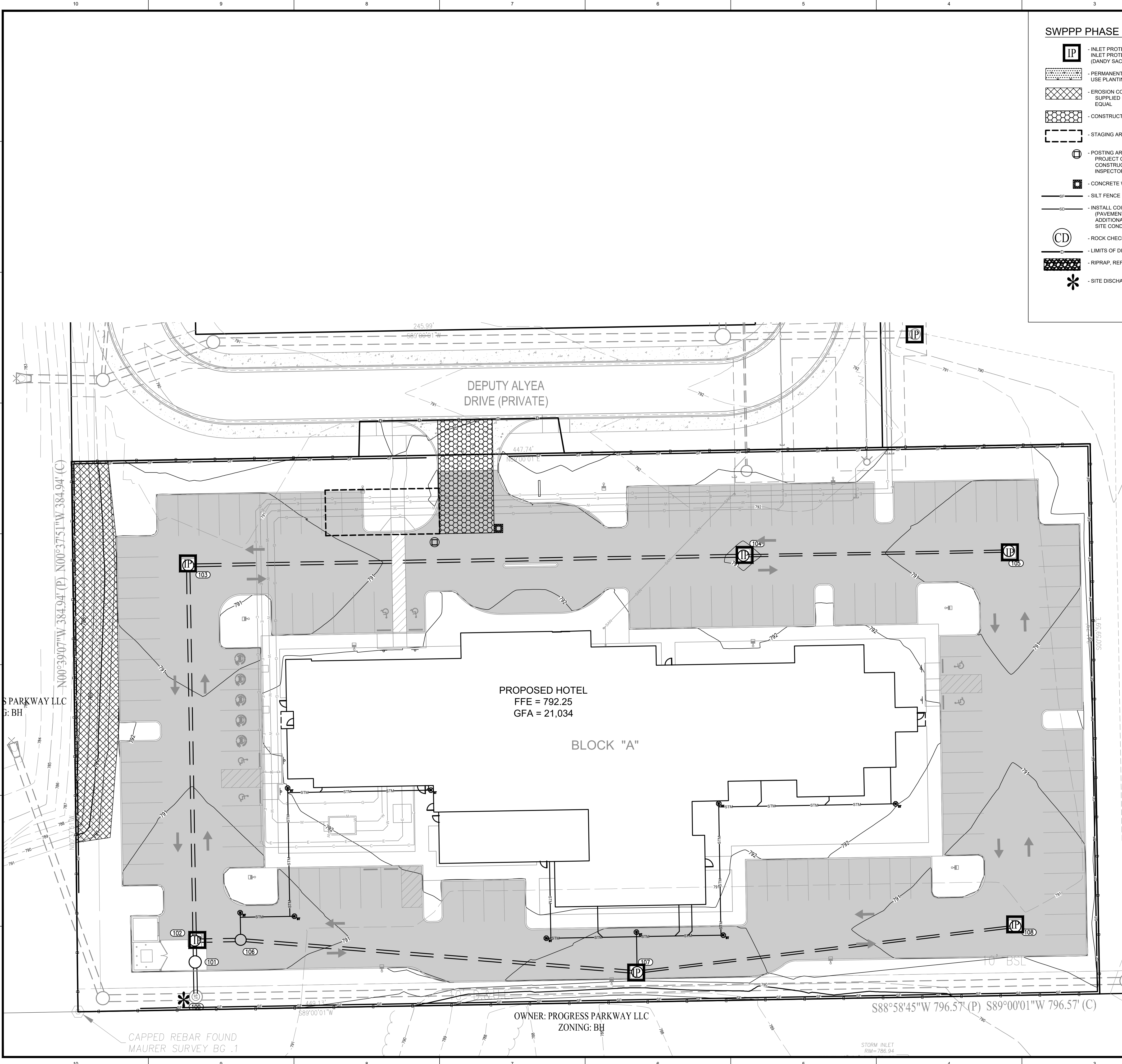
APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176
STORMWATER POLLUTION PREVENTION PLAN PHASE I
Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Adams Township, Shelby County, Indiana

SHEET NO.
C101

PROJECT NO.
W22.0478

LOCATION: I:\2022\W22.0478\Engineering\Design\Drawings\Block A\102 - SWPPP 2.dwg
DATE/TIME: April 10, 2023 - 4:52pm
PLOTTER: B1: indium



SWPPP PHASE 2 LEGEND

- INLET PROTECTION - USE SUBSURFACE INLET PROTECTION WITH OVERFLOW CAPABILITY (DANDY BAG)
- PERMANENT/TEMPORARY SEEDING USE PLANTING CHART
- EROSION CONTROL BLANKET - USE S150BN BIO-NET AS SUPPLIED BY NORTH AMERICAN GREEN OR APPROVED EQUAL
- CONSTRUCTION ENTRANCE
- STAGING AREA
- POSTING AREA - 4" PVC TUBE WITH END CAPS ATTACHED TO PROJECT CONSTRUCTION SIGN TO CONTAIN APPROVED CONSTRUCTION DRAWINGS AND PERMITS FOR INSPECTORS.
- CONCRETE WASHOUT
- SILT FENCE
- INSTALL COIR LOGS (GRASS AREA) OR SILT DIKES (PAVEMENT AREA) AS SHOWN. CONTRACTOR TO ADD ADDITIONAL MEASURES AS CONSTRUCTION PHASING AND SITE CONDITIONS DICTATE
- ROCK CHECK DAM
- LIMITS OF DISTURBANCE (CONSTRUCTION LIMITS)
- RIPRAP, REFER TO GRADING PLAN SHEET C300 FOR SIZING
- SITE DISCHARGE POINT

CONTACT PERSON FOR EROSION CONTROL & SEDIMENT PRACTICES

WEIHE ENGINEERS, INC.
10505 N. College Avenue
Indianapolis, Indiana 46280
wheie.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

-WARNING-

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-NOTE-

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EXISTING AREAS

TOTAL SITE = 2.521 AC.
(LIMITS OF CONSTRUCTION)

DISTURBED = 2.521 AC.

EXISTING IMPERVIOUS = 0.000 AC.
EXISTING PERVIOUS = 2.521 AC.

PROPOSED IMPERVIOUS = 0.693 AC.
PROPOSED PERVIOUS = 1.828 AC

LINE TYPES

G	G	G	UNDERGROUND GAS
W	W	W	UNDERGROUND WATER
E(A)	E(A)	E(A)	AERIAL ELECTRIC
E	E	E	UNDERGROUND ELECTRIC
C	C	C	UNDERGROUND COMMUNICATIONS
C(A)	C(A)	C(A)	AERIAL COMMUNICATIONS
FO	FO	FO	UNDERGROUND FIBER OPTIC
FO(A)	FO(A)	FO(A)	AERIAL FIBER OPTIC CABLE
OHU	OHU	OHU	OVERHEAD UTILITY
FM	FM	FM	FORCE MAIN
SS	SS	SS	SANITARY SEWER
SS	SS	SS	STORM SEWER
OW	OW	OW	RIGHT OF WAY LINE
CL	CL	CL	CHAIN LINK FENCE
BF	BF	BF	BOARD FENCE
WIF	WIF	WIF	WROUGHT IRON FENCE
F	F	F	FARM FENCE
GR	GR	GR	GUARD RAIL
HR	HR	HR	HAND RAIL
SF	SF	SF	SILT FENCE
BSL	BSL	BSL	BUILDING SETBACK LINE
BL	BL	BL	BOUNDARY LINE
FL	FL	FL	FLOW LINE
SL	SL	SL	SECTION LINE
IC	IC	IC	INDEX CONTOUR
IC	IC	IC	INTERMEDIATE CONTOUR

LAND DESCRIPTION

APPROXIMATELY 10.85 ACRES LOCATED IN SHELBYVILLE MARKETPLACE PHASE 1, BLOCK A, SHELBYVILLE, IN - PART OF NE1/4, SECTION 04, TOWNSHIP 12 NORTH, RANGE 7 EAST, ADDISON TOWNSHIP, SHELBY COUNTY, IN

BENCHMARK INFORMATION

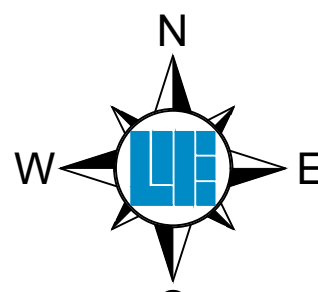
SITE TBMS

TBM 1112 IS A CUT "X" ON THE NORTHEAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 54' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND SGT. HENDERSON DRIVE.
ELEV. 791.99 (NAVD 88)

TBM 1180 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE NORTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 240' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND DEPUTY ALYEA DRIVE.
ELEV. 792.93 (NAVD 88)

TBM 1440 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 306' WEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND PROGRESS PARKWAY.
ELEV. 793.06 (NAVD 88)

TBM 1819 IS A CUT "X" ON THE SOUTHWEST BONNET BOLT OF A FIRE HYDRANT ON THE EASTERN RIGHT-OF-WAY OF PROGRESS PARKWAY, APPROXIMATELY 607' SOUTH OF THE INTERSECTION OF PROGRESS PARKWAY AND MARKET PLACE BLVD.
ELEV. 793.12 (NAVD 88)



PER INDIANA STATE LAW K 8-1-26, IT IS AGAINST THE LAW TO DISBURG WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE, INC. (ULS) WORKING DUES BEFORE COMMENCING WORK.

WEIHE ENGINEERS

Land Surveying | Civil Engineering
Landscape Architecture

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PROJECT NO.: W22.0478

BY: [Signature]

DATE: 03/09/2023

REVISIONS AND ISSUES

NO.	DATE	DESCRIPTION
1	03/09/2023	ISSUED FOR PERMIT

APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL

2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176

STORMWATER POLLUTION PREVENTION PLAN PHASE II

Block A in Shelbyville Marketplace, Part of the NE1/4 of Section 04, Township 12 North, Range 7 East, Addison Township, Shelby County, Indiana

SHEET NO.

C102

PROJECT NO.

W22.0478

CONSTRUCTION PLAN - GENERAL PLAN COMPONENTS (SECTION A)

- A1- INDEX OF THE LOCATION OF REQUIRED PLAN ELEMENTS IN THE CONSTRUCTION PLAN. SEE BELOW.
- A2- A VICINITY MAP DEPICTING THE PROJECT SITE LOCATION IN RELATIONSHIP TO RECOGNIZABLE LOCAL LANDMARKS, TOWNS, AND MAJOR ROADS. SEE BOTTOM OF THIS PAGE.
- A3- NARRATIVE OF THE NATURE AND PURPOSE OF THE PROJECT: TO CONSTRUCT A HOTEL, ASSOCIATED PARKING, DRIVES AND STORMWATER MANAGEMENT FACILITIES.
- A4- LATITUDE AND LONGITUDE TO THE NEAREST FIFTEEN (15) SECONDS: LAT: 39.520514, LONG: -85.745240
- A5- LEGAL DESCRIPTION OF THE PROJECT SITE. SEE SHEET C101, BOTTOM RIGHT OF PAGE.
- A6- 11 X 17-INCH PLAT SHOWING BUILDING LOT NUMBERS,BOUNDARIES AND ROAD LAYOUT/NAMES.
- A7- BOUNDARIES OF THE ONE HUNDRED (100) YEAR FLOODPLAINS, FLOODWAY FRINGS, AND FLOODWAYS: NOT APPLICABLE
- A8- LAND USE OF ALL ADJACENT PROPERTIES: NORTH: UNDEVELOPED, FUTURE COMMERCIAL, SOUTH: UNDEVELOPED, EAST: UNDEVELOPED, FUTURE COMMERCIAL, WEST: DETENTION POND
- A9- IDENTIFICATION OF A U.S. EPA APPROVED OR ESTABLISHED TMDL: NO REPORT IS NOTED AS OF 12/20/2022 ON WMP AND TMDL REPORTS SEARCH TOOL.
- A10- NAME(S) OF THE RECEIVING WATER(S): LITTLE BLUE RIVER
- A11- IDENTIFICATION OF DISCHARGE OF WATER ON THE CURRENT 303(D) LIST OF IMPAIRED WATERS AND THE POLLUTANT(S) FOR WHICH IT IS IMPAIRED: LITTLE BLUE RIVER IS NOT LISTED AS AN IMPAIRED 303(D) LIST. THIS PROJECT WILL NOT DIRECT DISCHARGE INTO LITTLE BLUE RIVER.
- A12 - SOILS MAP OF THE PREDOMINATE SOIL TYPES. SEE BOTTOM OF THIS PAGE.
- A13- IDENTIFICATION AND LOCATION OF ALL KNOWN WETLANDS, LAKES, AND WATER COURSES ON OR ADJACENT TO THE PROJECT SITE (CONSTRUCTION PLAN, EXISTING SITE LAYOUT, AND WETLANDS ON OR ADJACENT TO THE SITE. THERE IS EXISTING POND ADJACENT TO THE PROJECT SITE. OFFSITE WATER FROM THE SOUTHWEST DRAINS OUT THE SITE AND IS THEN DIRECTED TO THE EXISTING POND TO THE WEST.
- A14- IDENTIFICATION OF ANY OTHER STATE OR FEDERAL WATER QUALITY PERMITS OR AUTHORIZATIONS THAT ARE REQUIRED FOR CONSTRUCTION ACTIVITIES. NOT APPLICABLE.
- A15- IDENTIFICATION AND DELINEATION OF EXISTING COVER, INCLUDING NATURAL BUFFERS: EXISTING COVER CONSISTS OF GRASS. NO SURROUNDING SURFACE WATER IS ONSITE TO REQUIRE A NATURAL BUFFER.
- A16- EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO INDICATE DRAINAGE PATTERNS: SEE SHEET C101 FOR EXISTING TOPOGRAPHY.
- A17- LOCATIONS WHERE RUNOFF ENTERS THE PROJECT SITE: RUNOFF ENTERS THE SITE FROM THE SOUTHWEST CORNER AND SHEET FLOWS TO THE WEST AND EXITS TO THE ADJACENT POND.
- A18- LOCATION(S) WHERE RUN-OFF DISCHARGES FROM THE PROJECT SITE PRIOR TO LAND DISTURBANCE: SEE SHEET C101 FOR EXISTING TOPOGRAPHY. RUNOFF SHEET FLOWS OFF SITE AND IS DIRECTED TO EXISTING POND TO THE WEST.
- A19- LOCATION OF ALL EXISTING STRUCTURES ON THE PROJECT SITE: SEE SHEET C101 FOR EXISTING CONDITIONS AND ITEMS NOTED FOR DEMOLITION. THERE ARE NO EXISTING STRUCTURES ON SITE.
- A20- EXISTING PERMANENT RETENTION OR DETENTION FACILITIES, INCLUDING MANMADE WETLANDS, DESIGNED FOR THE PURPOSE OF STORMWATER MANAGEMENT. NOT APPLICABLE.
- A21- LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUND WATER, SUCH AS ABANDONED WELLS, SINKHOLES, OR KARST FEATURES: NOT APPLICABLE.
- A22- SIZE OF THE PROJECT AREA EXPRESSED IN ACRES: 2.48 AC
- A23- TOTAL EXPECTED LAND DISTURBANCE EXPRESSED IN ACRES: 2.52 AC
- A24- PROPOSED FINAL TOPOGRAPHY: SEE SHEET C300 GRADING PLAN SHEETS.
- A25- LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS. SEE SHEETS C101 AND C102 FOR LIMITS OF DISTURBANCE.
- A26- LOCATIONS, SIZES AND DIMENSIONS OF ALL STORMWATER DRAINAGE SYSTEMS, INCLUDING STORMWATER SEWER, AND CONVEYANCE CHANNELS. SEE SHEETS C600 FOR LOCATION, SIZE AND DIMENSIONS OF PROPOSED STORMWATER DRAINAGE SYSTEMS.
- A27- LOCATIONS OF SPECIFIC POINTS WHERE STORMWATER AND NON-STORMWATER DISCHARGES WILL LEAVE THE PROJECT SITE: SEE SHEET C102 SWMP PLAN FOR OUTFALL OF THE PROPOSED STORM SEWERS (EXISTING STORM SEWERS TO THE SOUTH).
- A28- LOCATION OF PROPOSED SITE IMPROVEMENTS, INCLUDING LOT DELINEATION AND IDENTIFICATION, PROPOSED STRUCTURES, AND COMMON AREAS. SEE CIVIL PLANS SHEETS FOR PROPOSED SITE IMPROVEMENTS, WHICH INCLUDE A HOTEL, ASSOCIATED PARKING LOT, STORMWATER FACILITIES, LANDSCAPING, RELATED UTILITIES.
- A29- LOCATION OF ALL EXISTING LOT, STOCKPILES AND BORROW AREAS: SEE SHEET C101 FOR LOCATION OF SOIL STOCKPILES (ONSITE)
- A30- CONSTRUCTION SUPPORT ACTIVITIES THAT ARE EXPECTED TO BE PART OF THE PROJECT: NOT APPLICABLE.
- A31- LOCATION OF ANY IN-STREAM ACTIVITIES THAT ARE PLANNED FOR THE PROJECT INCLUDING, BUT NOT LIMITED TO, STREAM CROSSINGS AND PUMP AROUNDS: NOT APPLICABLE.

STORMWATER POLLUTION PREVENTION - CONSTRUCTION COMPONENT (SECTION B)

- B1- DESCRIPTION OF THE POTENTIAL POLLUTANT GENERATING SOURCES AND POLLUTANTS, INCLUDING ALL POTENTIAL NON-STORMWATER DISCHARGES: POTENTIAL POLLUTANT GENERATING ACTIVITY SUCH AS ASPHALT PAVING, CONCRETE FROM CURBING, SIDEWALKS, A CONCRETE WASHOUT AREA HAS BEEN DESIGNATED OIL, GREASE, ANTIFREEZE, GASOLINE AND DIESEL FUEL FROM CONSTRUCTION EQUIPMENT, SOIL EROSION, FERTILIZER AND PESTICIDES FROM LANDSCAPING AND TRASH SHOULD BE PROPERLY ATTENDED TO TO REDUCE THE CONTAMINANTS FROM ENTERING THE STORM SYSTEM. TRASH SHOULD BE CLEANED UP TO REDUCE CLOGGING OF STORM SYSTEMS AND REDUCE POTENTIAL BACTERIA AND/OR OTHER BIOLOGICAL AGENTS FROM ENTERING IN THE STORM SYSTEM.
- B2- STABLE CONSTRUCTION LOCATIONS AND SPECIFICATIONS: SEE SHEET C101 FOR CONSTRUCTION ENTRANCE, WHICH IS LOCATED AT THE PROPOSED NORTH ENTRANCE. DETAIL IS LOCATED ON SHEET C104.
- B3- SPECIFICATIONS FOR TEMPORARY AND PERMANENT STABILIZATION: SEE TEMPORARY SEEDING SCHEDULE AND NOTES ON DETAIL LOCATED ON SHEET C104, TOP MIDDLE OF PAGE.
- B4- SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS: THERE ARE NO SWALES PROPOSED FOR THE SITE. CONCENTRATED FLOWS ARE NOT ANTICIPATED.
- B5- SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS: UPON FINAL GRADING, CONTRACTOR TO APPLY SEEDING AT SPECIFIED RATES PER C104.
- B6- RUN-OFF FROM THE PROPOSED PROJECT SITE MUST BE SETTED INTO THE STORM SEWERS THRU THE PREVIOUS CATCH BASIN AND TIE IN TO THE EXISTING SEWERS ALONG THE SOUTHERN PROPERTY LINE. THESE EXISTING STORM SEWERS DISCHARGE TO THE EXISTING DETENTION BASIN ON THE ADJACENT PROPERTY TO THE WEST.
- B7- STORMWATER PROTECTION LOCATION AND SPECIFICATIONS: NOT APPLICABLE - EXISTING POND OUTLET IS TO BE UTILIZED.
- B8- STABLE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS: NOT APPLICABLE.
- B9- DEWATERING APPLICATIONS AND MANAGEMENT METHODS: IN THE EVENT THAT DEWATERING IS REQUIRED ON SITE, PROVIDE SEDIMENT AND OIL CONTAINMENT WITH THE USE OF THE ULTRA DEWATERING BAG, PART #9724-O/S AS PROVIDED BY ULTRATECH INTERNATIONAL, INC. AND SUPPLIED BY D2 LAND & WATER REHABILITATION. SPECIFICATIONS FOR ALTERNATE SIZES OF BAGS IF NEEDED FOR THE PROJECT ARE PROVIDED IN THE ULTRATECH MANUAL. CONTAINMENT MAY BE APPROVED BY THE ENGINEER OR EROSION CONTROL PERSON IF ANOTHER PRODUCT OR METHOD OF CONTAINMENT IS DESIRED.
- B10- MEASURES UTILIZED FOR WORK WITHIN WATERBODIES: NOT APPLICABLE.
- B11- MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE: INSPECT ALL EROSION CONTROL AND STORMWATER QUALITY MEASURES WEEKLY AND AFTER EACH STORM EVENT OR HEAVY USE. REPAIR/REPLACE ANY COMPROMISED OR FAILED MEASURE AS REQUIRED. MORE SPECIFIC GUIDELINES ARE INCLUDED ON INDIVIDUAL DETAILS AND BELOW.
- B12- PLANNED CONSTRUCTION SEQUENCE THAT DESCRIBES THE IMPLEMENTATION OF STORMWATER QUALITY MEASURES IN RELATION TO LAND DISTURBANCE:
1. A PRE-CONSTRUCTION MEETING WITH THE CITY OF SHELBYVILLE IS REQUIRED PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK. ADDITIONALLY, ITEM IS REQUIRED TO BE CONTACTED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
 2. CONSTRUCTION ENTRANCE - INSTALL CONSTRUCTION ENTRANCE OFF OF THE PRIVATE ACCESS ROAD. SEE SHEET C100 FOR LOCATION AND SHEET C103 FOR DETAIL.
 3. INSTALL SILT FENCING AND ALL OTHER EROSION CONTROL MEASURES PRIOR TO ANY EARTH MOVING.
 4. EARTHWORK - STRIP TOPSOIL, BEGIN ROUGH GRADING AND PREPARE BUILDING PAD AND ROUGH GRADE.
 5. STORM SEWER - INSTALL STORM SEWER SYSTEM AND CORRESPONDING INLET PROTECTION.
 6. UTILITIES - COORDINATE INSTALLATION OF ALL UTILITIES.
 7. FINISH GRADING AND PERMANENT EROSION CONTROL - FINISH GRADE AND PERMANENTLY SEED ALL PROPERTY PERIMETER AREAS.
 8. PAVEMENT - INSTALL STONE, BASE COURSES AND FINISHED GRADES FOR ENTRY DRIVE.
 9. CLEANUP - CONTRACTOR SHALL SPILL ALL EXCESS MATERIALS, REGRADE AND STABILIZE ALL AREAS DISTURBED BY UTILITY INSTALLATIONS AND RESEED.
 10. FINAL LANDSCAPING - INSTALL FINAL LANDSCAPING.
 - 11- PROVISIONS FOR EROSION AND SEDIMENT CONTROL ON INDIVIDUAL RESIDENTIAL BUILDING LOTS REGULATED UNDER THE PROPOSED PROJECT: NOT APPLICABLE.
- B14- MATERIAL HANDLING AND SPILL PREVENTION AND SPILL RESPONSE PLAN MEETING THE REQUIREMENTS IN 327 IAC 2-6.1- POTENTIAL POLLUTANTS FROM CONSTRUCTION ACTIVITY SUCH AS ASPHALT FROM PAVING, CONCRETE FROM CURBING, SIDEWALKS, A CONCRETE WASHOUT AREA HAS BEEN DESIGNATED OIL, GREASE, ANTIFREEZE, GASOLINE AND DIESEL FUEL FROM CONSTRUCTION EQUIPMENT. IF THERE IS A SPILL FROM ONE OF THESE, IMMEDIATE CLEANUP SHOULD OCCUR. SOIL EROSION, FERTILIZER AND PESTICIDES FROM LANDSCAPING AND TRASH SHOULD BE PROPERLY ATTENDED TO TO REDUCE THE CONTAMINANTS FROM ENTERING THE STORM SYSTEM. TRASH SHOULD BE CLEANED UP TO REDUCE CLOGGING OF STORM SYSTEMS AND REDUCE POTENTIAL BACTERIA AND/OR OTHER BIOLOGICAL AGENTS FROM ENTERING IN THE STORM SYSTEM. FOLLOW MATERIAL SAFETY DATA SHEET (MSDS) GUIDELINES FOR CONTAMINANTS PRESENT ON SITE.. CONTACT INFORMATION FOR STATE AND LOCAL EMERGENCY SPILL RESPONSE IS INCLUDED ON THIS SHEET, TOP MIDDLE OF PAGE.
- B15- MATERIAL HANDLING AND STORAGE PROCEDURES ASSOCIATED WITH CONSTRUCTION ACTIVITY: APPROPRIATE MEASURES MUST BE IMPLEMENTED TO MANAGE WASTES OR UNUSED BUILDING MATERIALS INCLUDING, BUT NOT LIMITED TO GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, CONCRETE OR CEMENTITIOUS WASHOUT WATER, MORTAR/MASONRY PRODUCTS, SOIL STABILIZERS, SOIL STABILIZATION MATERIALS, AND OTHER SUBSTANCES. WASTES AND UNUSED BUILDING MATERIALS MUST BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE STATUTES AND REGULATIONS.
- PROPER STORAGE AND HANDLING OF MATERIALS, SUCH AS FUELS OR HAZARDOUS WASTES, AND SPILL PREVENTION AND CLEAN-UP MEASURES MUST BE IMPLEMENTED TO MINIMIZE THE POTENTIAL FOR POLLUTANTS TO CONTAMINATE SURFACE OR GROUND WATER OR DEGRADE SOIL QUALITY.
- CONCRETE WASHOUT AREA IS LOCATED ON SHEET C101. WASH WATER MUST BE DIRECTED INTO LEAK-PROOF CONTAINERS OR LEAK-PROOF CONTAINMENT AREAS WHICH ARE LOCATED AND DESIGNED TO DIVERT STORMWATER RUN-OFF TO PREVENT THE DISCHARGE AND/OR OVERFLOW OF THE WASH WATER.

STORMWATER POLLUTION PREVENTION - POST-CONSTRUCTION COMPONENT (SECTION C)

- C1- DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE: POTENTIAL POLLUTANTS FROM POST-CONSTRUCTION ACTIVITY SUCH AS SANDS AND SALTS FROM SNOW REMOVAL, OIL, GREASE, ANTIFREEZE, ETC. FROM VEHICLES INCLUDING HEAVY METALS FROM BRAKE PAD WEAR SHOULD BE PROPERLY ATTENDED TO TO REDUCE THE CONTAMINANTS FROM ENTERING THE STORM SYSTEM. TRASH SHOULD BE CLEANED UP TO REDUCE CLOGGING OF STORM SYSTEMS AND REDUCE POTENTIAL BACTERIA AND/OR OTHER BIOLOGICAL AGENTS FROM ENTERING IN THE STORM SYSTEM. EXCESS FERTILIZERS AND HERBICIDES SHOULD BE AVOIDED. CLEAN UP IMMEDIATELY IF ANY IS SPILLED.
- C2- DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER MEASURES: THE ONSITE STORMWATER QUALITY WILL BE CONVEYED BY AN UNDERGROUND PIPE SYSTEM INTO THE WATER QUALITY BMP, PROVIDED BY THE EXCELEATOR XC-5 MECHANICAL WATER QUALITY UNITS. THE STORM WATER IS THEN DISPERSED INTO THE EXISTING STORM SEWER SYSTEM ALONG THE SOUTHERN PROPERTY LINE, THEN RELEASED FROM THE SITE TO THE EXISTING OFF-SITE WET POND. THE INFORMATION FOR THESE PRODUCTS ARE BETTER DEFINED IN THE C600 SERIES PLANS AND DETAILS. ADDITIONAL WATER QUALITY MEASURES WILL BE IMPLEMENTED BY THE SITE OWNER AS PART OF THEIR SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN.
- C3- PLAN DETAILS FOR EACH STORMWATER MEASURES: SEE SHEET C602 FOR DETAIL OF THE PROPOSED WATER QUALITY BMP.
- C4- SEQUENCE DESCRIBING STORMWATER MEASURE IMPLEMENTATION: THE WATER QUALITY BMP XC-5 WILL BE INSTALLED DURING THE STORM SEWER INSTALLING OF THE PROJECT. SEE SEQUENCE DESCRIBED ABOVE. AFTER FINAL GRADING, RIPRAP, EROSION CONTROL, BLANKET WILL BE INSTALLED TO MAINTAIN GRADES WHILE GRASS IS ESTABLISHED.
- C5- MAINTENANCE GUIDELINES FOR PROPOSED POST-CONSTRUCTION STORMWATER MEASURES: AN OPERATION MANUAL IS SUPPLIED WITH THESE PLANS. C6- ENTITY THAT WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE POST-CONSTRUCTION STORMWATER MEASURES: THE PROJECT SITE OWNER, CSR INVESTORS WILL BE RESPONSIBLE FOR ONGOING OPERATION AND MAINTENANCE OF THE POST-CONSTRUCTION STORMWATER MEASURES.
- MECHANICAL WATER QUALITY UNIT: THE MECHANICAL WATER QUALITY UNIT PROVIDES A HIGHLY EFFECTIVE MEANS FOR THE REMOVAL OF SEDIMENT, FLOATING DEBRIS AND FREE-OIL. SWIRL TECHNOLOGY, OR VORTEX SEPARATION, IS A PROVEN FORM OF TREATMENT UTILIZED IN THE STORMWATER INDUSTRY TO ACCELERATE GRAVITATIONAL SEPARATION. THE VORTEX PROVIDES TREATMENT FOR MOST CONTAMINANTS WHILE THE CLEANER WATER FLOWS TO THE CHAMBER WHERE IT IS COLLECTED AND CHANNELLED THROUGH THE MAIN CONVEYANCE PIPE. A COMBINATION OF GRAVITATIONAL AND HYDRODYNAMIC DRAG FORCES ENCOURAGES THE SOLIDS TO DROP OUT OF THE FLOW AND MIGRATE TO THE CENTER OF THE CHAMBER WHERE VELOCITIES ARE THE LOWEST.
- CATCH BASINS: CATCH BASIN/NILET CLEANING AND REPAIR HAS TRADITIONALLY BEEN PERFORMED TO RESPOND TO LOCALIZED FLOODING PROBLEMS IN STREETS. CATCH BASINS ARE INLETS AT THE CURB WITH A SMALL TRAP (USUALLY SIX INCHES TO ONE FOOT DEEP) BELOW THE SEWER PIPE. THESE DEVICES HELP TO CLEAN STORM WATER BECAUSE PARTICLES IN STREET RUNOFF SETTLE INTO THE TRAP BEFORE THE WATER ENTERS THE SEWER. CATCH BASINS REQUIRE REGULAR CLEANING OF THE SEDIMENT TRAP TO BE. THE INLETS DO NOT TRAP SEDIMENTS AND DON'T NEED CLEANING UNLESS THEY ARE CLOGGED. CLEANING FOR EITHER CATCH BASINS OR INLETS CAN BE DONE BY HAND (E.G., WITH A CLAMSHELL OR SHOVEL), OR WITH A VACUUM TRUCK.
- CONVEYANCE SYSTEM PIPES: A GOOD RULE OF THUMB IS TO CONDUCT INSPECTION OF STORM DRAIN INLETS, DITCHES, CHANNELS, PONDS AND OTHER TREATMENT FACILITIES AT LEAST ONE YEAR, PRIOR TO THE BEGINNING OF THE RAINY SEASON. COMPLETE INSPECTIONS EARLY ENOUGH SO THAT REPAIRS CAN BE MADE DURING DRY WEATHER. CATCH BASINS SHOULD BE INSPECTED SIX MONTHS AFTER SOME STORM WATERS. SOME STORM WATERS MAY REQUIRE SPECIAL INSPECTION SEPARATORS, MAY REQUIRE MORE FREQUENT INSPECTION. FOR THESE, CHECK THE MANUFACTURERS SPECIFICATION OR OTHER DESIGN GUIDANCE HANDBOOKS. SEWER PIPES AND CULVERTS SHOULD BE INSPECTED EVERY THREE TO FIVE YEARS, OR IN RESPONSE TO A REPORTED PROBLEM. MOST AGENCIES INSPECT THEIR SEWER PIPES SIX INCHES OR LARGER WITH A TV CAMERA, AND PIPES 36 INCHES OR LARGER WITH A WALK-THROUGH INSPECTION. ALL OTHER PARTS OF THE SYSTEM ARE INSPECTED VISUALLY.
- LOOK FOR EXCESSIVE SILT BUILD-UP, EROSION, UNUSUAL ALGAL GROWTH, CRACKED OR COLLAPSED PIPES, MISALIGNED JOINTS, AND OTHER SIGNS OF PROBLEM ON OR OFF THE WATER SURFACE. DISCOVER ANY UNPLEASANT ODOOR, CHECK WITH PRODUCT MANUFACTURERS OR STORMWATER HANDBOOKS FOR ADVICE ON WHAT TO LOOK FOR WHEN INSPECTING MORE SOPHISTICATED TREATMENT DEVICES SUCH AS FLOW FLUTTERS AND DIVERTERS. WHEN A PROBLEM IS NOTED, TAKE STEPS TO CORRECT THE PROBLEM, OR ROUTE THIS INFORMATION IMMEDIATELY TO THE APPROPRIATE INDIVIDUAL(S) IN YOUR ORGANIZATION WHO CAN RESPOND, IF NEEDED, DEVELOP A GOOD RESPONSE PLAN TO ENSURE QUICK FOLLOW-UP IN THE FUTURE.

SECTION 1 EMERGENCY RESPONSE NUMBERS

EMERGENCY RESPONSE TO ANY LIFE THREATENING PROBLEM	911
SHELBYVILLE FIRE DEPARTMENT	911
SHELBYVILLE POLICE DEPARTMENT	911
INDIANA DEPARTMENT OF NATURAL RESOURCES	812-477-8773
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	317-233-7745
SHELBY COUNTY SOIL AND WATER	765-544-2051
CITY OF SHELBYVILLE MS4	317-364-4090

SECTION 2 MATERIAL HANDLING AND SPILL PREVENTION PLAN

IN ORDER TO MINIMIZE THE RELEASE OF POTENTIAL POLLUTANTS DURING CONSTRUCTION THE CONTRACTORS SHALL IMPLEMENT THIS MATERIAL HANDLING AND SPILL PREVENTION PLAN. THE CONTRACTOR SHALL REVIEW THIS PLAN WITH ALL SUBCONTRACTORS AND REQUIRE THAT THEY IMPLEMENT THE PLAN AS WELL.

1. CONSTRUCTION EQUIPMENT
 - A. FUELING, LUBRICATION AND FLUIDS: ALL OPERATIONS INVOLVING THE ADDITION OF FLUIDS TO EQUIPMENT SHOULD BE DONE IN ONE LOCATION, AS DESIGNATED BY THE CONSTRUCTION MANAGER, SO THAT SPILLS ARE LIMITED TO ONE LOCATION ON THE SITE, WHICH WILL FACILITATE THE CLEANUP OF SPILLS. IF AN ONSITE-FUELING TANK IS PLANNED TO BE ON SITE, IT SHALL BE DOUBLE WALLED AND STORED IN THIS DESIGNATED AREA. THIS LOCATION IS AN AREA THAT WILL NOT ALLOW SPILLED FLUIDS TO MIGRATE INTO SUBSURFACE SOILS. IN THE EVENT OF A SPILL, THE FLUID SHALL IMMEDIATELY BE CLEANED UP BY REMOVING THE CONTAMINATED SOIL OR STONE, WHICH SHALL BE DISPOSED OF IN AN ACCEPTABLE MANNER. SPILLS ON HARD SURFACES SHALL BE SOAKED UP BY AN ACCEPTABLE MATERIAL SUCH AS OIL DRY AND THE ABSORBENT MATERIAL DISPOSED OF IN A PROPER MANNER. THE SPILL SHALL ALSO BE REPORTED IMMEDIATELY TO THE CONSTRUCTION MANAGERS' SUPERINTENDENT.
 - B. EQUIPMENT REPAIR, ESPECIALLY WHEN FLUIDS MUST BE REMOVED FROM THE EQUIPMENT OR THE POSSIBILITY OF FLUID SPILLS IS HIGH, SHOULD ALWAYS BE DONE OFFSITE AT A FACILITY THAT IS MORE SUITABLE THAN A CONSTRUCTION SITE TO HANDLE SPILLS. WHEN EQUIPMENT MUST BE REPAIRED ONSITE IT SHOULD BE MOVED TO THE MAINTENANCE AND FUELING AREA IF POSSIBLE. OTHERWISE, SUITABLE ON SITE CONTAINERS SHOULD BE PLACED UNDER THE EQUIPMENT DURING REPAIR TO CATCH ANY SPILLED FLUIDS AND THESE FLUIDS SHOULD BE DISPOSED OF IN A PROPER MANNER.
 - C. ALL REUSABLE FLUID CONTAINERS, SUCH AS GASOLINE CANS, SHALL BE INSPECTED FOR LEAKS EACH TIME THEY ARE USED. IF LEAKS ARE FOUND, THE FLUID SHALL BE REMOVED FROM THE CONTAINER IN A PROPER MANNER AND THE CONTAINER DISPOSED OF IN AN ACCEPTABLE MANNER. EMPTY DISPOSABLE CONTAINER, SUCH AS GREASE TUBES AND LUBRICATING OIL AND BRAKE FLUID CONTAINERS, AND THEIR PACKAGING, SHALL BE DISPOSED OF IN A PROPER MANNER AND SHALL NOT BE LEFT ON THE GROUND OR IN THE OPEN ON THE CONSTRUCTION SITE.
2. CONSTRUCTION MATERIALS AND THEIR PACKAGING
 - A. EROSION CONTROL MEASURE SHOWN ON THE SUBJECT PROJECT SHALL BE IMPLEMENTED PRIOR TO AND DURING CONSTRUCTION IN THE PROPER SEQUENCE TO MINIMIZE SOIL EROSION. EROSION CONTROLS SHALL BE INSPECTED AND MAINTAINED AS DESCRIBED ELSEWHERE ON THE PLANS. EXCESSIVE DUSTING OF SOIL ON THE SITE SHALL BE MINIMIZED BY REDUCING CONSTRUCTION TRAFFIC ACROSS BARE SOIL DURING DRY AND/OR WINDY WEATHER, AND BY APPLYING WATER OR OTHER ACCEPTABLE DUST CONTROL MEASURES TO THE SOIL. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL MAINTAIN SUITABLE ESTABLISHMENT OF PERMANENT VEGETATION. TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE, CHECK DAMS AND INLET PROTECTION DEVICES SHALL BE REMOVED IN A MANNER TO MINIMIZE ADDITIONAL LAND DISTURBANCE. ANY AREAS DISTURBED BY THESE OPERATIONS SHALL BE REVEGETATED AS SOON AS POSSIBLE.
 - B. LARGE WASTE MATERIALS CREATED BY CUTTING, SAWING, DRILLING, OR OTHER OPERATIONS SHALL BE PROPERLY DISPOSED OF IN SUITABLE WASTE CONTAINERS. THE SITE SHALL BE CHECKED AT THE END OF THE DAY, AS A MINIMUM, AND ALL WASTE MATERIALS, INCLUDING THOSE BLOWN ACROSS OR OFF THE SITE BY WIND SHALL BE PICKED UP AND DISPOSED IN SUITABLE CONTAINERS. WHERE POSSIBLE, OPERATIONS SUCH AS SAWING THAT CREATE SMALL PARTICLES SHOULD BE PERFORMED IN ONE SPOT IN AN AREA PROTECTED FROM WIND, AND WASTE PARTICLES COLLECTED AND DISPOSED OF FREQUENTLY TO MINIMIZE WIND DISPERSAL. PACKAGING USED TO TRANSPORT MATERIALS TO THE SITE FOR CONSTRUCTION OF THE FACILITY SHALL BE DISPOSED OF PROPERLY. WHETHER THE MATERIAL IS TAKEN OUT OF ITS PACKAGED AND INCORPORATED INTO THE PROJECT IMMEDIATELY OR STORED ONSITE FOR FUTURE USE. PACKAGED MATERIALS STORED ONSITE SHALL BE INSPECTED REGULARLY AND ANY LOOSE PACKAGING SHALL BE REPAIRED OR DISPOSED OF PROPERLY.
 - C. ALL PACKAGING OF ACTIVITIES SHALL BE DONE IN ACCORDANCE TO GOOD EROSION CONTROL PRACTICES. THESE PRACTICES SHOULD INCLUDE THE USE OF DIRT BAGS SUCH AS SILT FENCE INLET PROTECTION. THE USE OF THESE TYPES OF DEWATERING DEVICES WILL REMOVE LARGE QUANTITIES OF SILT, SEDIMENT, AND DIRT AND PREVENT THESE MATERIALS TO ENTER THE STORM SEWER SYSTEM.
 - D. IF THE USE OF LIME IS USED TO STABILIZE THE SOIL OF THE SITE THEN ALL CONSTRUCTION EQUIPMENT USED SHALL BE CLEANED OF ALL EXCESS MATERIAL WITH WATER IN THE MAINTENANCE AND REFUELING AREA AS SHOWN WITHIN THESE PLANS.
 - E. NUTRIENTS AND FERTILIZERS SHALL ONLY BE USED TO ESTABLISH RAPID MATURATION OF PLANTS. WHEN THESE PRODUCTS ARE UTILIZED, THE USER SHOULD PAY STRUTED ATTENTION TO THE PRODUCTS RECOMMENDED USAGE.
3. CONCRETE WASTE WATER
 - A. ALL CONCRETE WASTEWATER SHALL BE DISPOSED OF IN THE DESIGNED AREA AS DIRECTED BY THE CONSTRUCTION MANAGER. THIS AREA IS TO BE A 3' DEEP, 10' SQUARE AND AS DETAILED ON THE EROSION CONTROL PLAN. THIS AREA SHALL BE INSPECTED ON A DAILY BASIS AT A MINIMUM. WHEN THIS AREA BECOMES FULL, THE POLLUTANTS SHALL BE EXCAVATED, PLACED IN AN ACCEPTABLE CONTAINER AND DISPOSED OF IN PROPER MANNER, BY THE EXCAVATION CONTRACTOR.
 - 4. PAINT PRODUCTS
 - A. ALL EXCESS PAINT AND THEIR RELATED PRODUCTS SHALL BE DISPOSED OF IN THE MANNER AT WHICH THE MANUFACTURER SUGGESTS. UNDER NO CIRCUMSTANCES WILL PAINT OR THEIR RELATED PRODUCTS BE CLEANED OR DISPOSED OF IN SOIL, SANITARY SEWERS, STORM SEWERS OR DETENTION BASINS. DISPOSITION OF THIS SHALL BE REPORTED TO THE JOB SUPERINTENDENT.
 - IN THE EVENT OF ACCIDENTALLY CONTAMINATION ALL EFFORTS SHOULD BE MADE TO REMOVE CONTAMINANTS IN AN APPROPRIATE MANNER. THE SHELBYVILLE FIRE DEPARTMENT SHOULD BE CONTACTED IMMEDIATELY TO DETERMINE IF FURTHER MEASURES ARE NEEDED.

RULE 6. SPILLS OF OIL AND OTHER OBJECTIONABLE SUBSTANCES: REPORTING, CONTAINMENT AND CLEANUP

(REPEALED BY WATER POLLUTION CONTROL BOARD: FILED FEB 25, 1997, 1:00 P.M.: 20 IR 1734)

RULE 6.1. SPILLS; REPORTING, CONTAINMENT, AND RESPONSE

327 IAC 2-6.1-1 APPLICABILITY
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17
SEC. 1. THIS RULE APPLIES TO THE REPORTING AND CONTAINMENT OF, AND THE RESPONSE TO THOSE SPILLS OF HAZARDOUS SUBSTANCES, EXTREMELY HAZARDOUS SUBSTANCES, PETROLEUM, AND OBJECTIONABLE SUBSTANCES THAT ARE OF A QUANTITY, TYPE, DURATION AND IN A LOCATION AS TO DAMAGE THE WATERS OF THE STATE. THIS DEFINITION EXCLUDES HAZARDOUS SUBSTANCES, EXTREMELY HAZARDOUS SUBSTANCES, PETROLEUM, AND OBJECTIONABLE SUBSTANCES THAT ARE OF A QUANTITY, TYPE, DURATION AND IN A LOCATION AS TO DAMAGE THE WATERS OF THE STATE. NOTHING IN THIS RULE IS INTENDED TO AFFECT REPORTING OR CLEAN-UP REQUIREMENTS SET FORTH BY OTHER FEDERAL, STATE, OR LOCAL LAWS. (WATER POLLUTION CONTROL BOARD: 327 IAC 2-6.1-1; FILED FEB 25, 1997, 1:00 P.M.: 20 IR 1734; READOPTED FILED JAN 10, 2001, 3:23 P.M.: 24 IR 1518; READOPTED FILED NOV 21, 2007, 1:16 P.M.: 20071219-IR-327070553BFA)

327 IAC 2-6.1-2 SPECIAL AREAS
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17
SEC. 2. CERTAIN AREAS OF THE STATE ARE RECOGNIZED AS HAVING UNIQUE GEOLOGY. A LARGE SECTION OF THE MID-SOUTHERN PART OF THE STATE IS A KARST REGION. PORTIONS OF SAINT JOSEPH, ELKHART, KOSCIUSKO, AND LAGRANGE COUNTIES CONTAIN A SOLE SOURCE AQUIFER AS REFERENCED IN 42 U.S.C. 9601-9615. THE WATERS OF THE STATE ARE PARTICULARLY VULNERABLE TO DAMAGE FROM SPILLS IN THESE AREAS, AND CARE SHOULD BE EXERCISED WHEN EVALUATING DAMAGE FROM SPILLS. INFORMATION ABOUT THESE AREAS CAN BE OBTAINED BY CALLING THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF LAND QUALITY, EMERGENCY RESPONSE SECTION: AREA C-1-888-233-7745 FOR IN-STATE CALLS (TOLL FREE), (317) 233-7745 FOR OUT-OF-STATE CALLS. (WATER POLLUTION CONTROL BOARD: 327 IAC 2-6.1-2; FILED FEB 25, 1997, 1:00 P.M.: 20 IR 1734; READOPTED FILED JAN 10, 2001, 3:23 P.M.: 24 IR 1518; READOPTED FILED NOV 21, 2007, 1:16 P.M.: 20071219-IR-327070553BFA; ERRATA FILED MAY 27, 2008, 2:06 P.M.: 20080625-IR-327080419ACA)

327 IAC 2-6.1-3 EXCLUSIONS
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17
SEC. 3. NOTWITHSTANDING ANY OTHER SECTION OF THIS RULE, THE REPORTING REQUIREMENT OF THIS RULE DOES NOT APPLY TO THE FOLLOWING OCCURRENCES:

- (1) DISCHARGES OR EXCEEDANCES THAT ARE UNDER THE JURISDICTION OF AN APPLICABLE PERMIT WHEN THE SUBSTANCE IN QUESTION IS COVERED BY THE PERMIT AND DEATH OR ACUTE INJURY OR ILLNESS TO ANIMALS OR HUMANS DOES NOT OCCUR.
- (2) LAWFUL APPLICATION OF MATERIALS, INCLUDING, BUT NOT LIMITED TO:
 - (A) COMMERCIAL OR NATURAL FERTILIZERS AND PESTICIDES ON OR TO LAND OR WATER; OR
 - (B) DUST SUPPRESSION MATERIALS.
- (3) THE APPLICATION OF PETROLEUM NECESSARY FOR CONSTRUCTION THAT DOES NOT DAMAGE WATERS OF THE STATE.
- (4) SPILLS OF LESS THAN ONE (1) POUND OR ONE (1) PINT.
- (5) SPILLS OF INTEGRAL OPERATING FLUIDS, OR THE USE OF MOTOR VEHICLES OR OTHER EQUIPMENT, THE TOTAL VOLUME OF WHICH IS LESS THAN OR EQUAL TO FIFTY-FIVE (55) GALLONS AND WHICH DO NOT DAMAGE WATERS OF THE STATE.
- (6) OIL SHEENS PRODUCED AS A RESULT OF THE NORMAL OPERATION OF PROPERLY FUNCTIONING WATERCRAFT.
- (7) A RELEASE OF A SUBSTANCE INTEGRAL TO A SPILL RESPONSE ACTIVITY THAT HAS BEEN APPROVED AND AUTHORIZED BY A STATE OR FEDERAL ONSCENE COORDINATOR. (WATER POLLUTION CONTROL BOARD: 327 IAC 2-6.1-3; FILED FEB 25, 1997, 1:00 P.M.: 20 IR 1731; ERRATA FILED MAR 7, 1997, 2:25 P.M.: 20 IR 1738; READOPTED FILED JAN 10, 2001, 3:23 P.M.: 24 IR 1518; READOPTED FILED NOV 21, 2007, 1:16 P.M.: 20071219-IR-327070553BFA)

327 IAC 2-6.1-4 DEFINITIONS
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17; IC 14-8-2-7; IC 14-25-7-13; IC 14-25-7-15

- SEC. 4. IN ADDITION TO THE DEFINITIONS CONTAINED IN IC 13-11-2-17(D), IC 13-11-2-35(A), IC 13-11-2-61, IC 13-11-2-158(A), IC 13-11-2-160, IC 13-11-2-260, IC 13-11-2-265, AND IN 327 IAC 1, THE FOLLOWING DEFINITIONS APPLY THROUGHOUT THIS RULE:
- (1) "ANIMAL" MEANS ALL MAMMALS, BIRDS, REPTILES, AMPHIBIANS, FISH, CRUSTACEANS, AND MOLLUSKS.
 - (2) "AQUATIC LIFE" MEANS THOSE PLANTS AND MACROINVERTEBRATES THAT ARE DEPENDENT UPON AN AQUATIC ENVIRONMENT.
 - (3) "CONTAIN" MEANS TO TAKE SUCH IMMEDIATE ACTION AS NECESSARY TO DAM, BLOCK, RESTRAIN, OR OTHERWISE ACT TO MOST EFFECTIVELY PREVENT A SPILL FROM ENTERING WATERS OF THE STATE OR MINIMIZE DAMAGE TO THE WATERS OF THE STATE FROM A SPILL.
 - (4) "DAMAGE" MEANS THE ACTUAL OR IMMINENT ALTERATION OF THE WATERS OF THE STATE SO AS TO RENDER THE WATERS HARMFUL, DETRIMENTAL, OR INJURIOUS TO:
 - (A) PUBLIC HEALTH, SAFETY, OR WELFARE;
 - (B) DOMESTIC, COMMERCIAL, INDUSTRIAL, AGRICULTURAL, OR RECREATIONAL USES; OR
 - (C) ANIMALS OR AQUATIC LIFE.
 - (5) "DOWNSTREAM WATER USER" MEANS:
 - (A) A COMMUNITY PUBLIC WATER SUPPLY, AS IDENTIFIED BY THE DEPT OF NATURAL RESOURCES UNDER IC 14-25-7-13(D);
 - (B) A SIGNIFICANT WATER WITHDRAWAL FACILITY AS REGISTERED WITH THE DEPARTMENT OF NATURAL RESOURCES UNDER IC 14-25-7-15;
 - (C) USERS OF RECREATIONAL WATERS; OR
 - (D) ANY OTHER USER MADE KNOWN TO THE PERSON WHO HAS A SPILL.
 - (6) "EXTREMELY HAZARDOUS SUBSTANCE" MEANS A SUBSTANCE IDENTIFIED PURSUANT TO 42 U.S.C. 11002 AND 11004. (40 CFR 355 APPENDIX A.)
 - (7) "FACILITY" MEANS ALL LAND BUILDINGS, EQUIPMENT, STRUCTURES, AND OTHER STATIONARY ITEMS THAT ARE LOCATED ON A SINGLE SITE OR ON CONTIGUOUS SITES AND THAT ARE OWNED OR OPERATED BY THE SAME PERSON OR BY ANY PERSON WHO CONTROLS OR IS CONTROLLED BY, OR IS UNDER COMMON CONTROL WITH, SUCH PERSON.
 - (8) "FACILITY BOUNDARY" MEANS THE BOUNDARY OF A FACILITY OR AN EASEMENT OR RIGHT-OF-WAY.
 - (9) "HAZARDOUS SUBSTANCE" HAS THE MEANING SET FORTH IN 42 U.S.C. 9601(14).
 - (10) "MODE OF TRANSPORTATION" INCLUDES, BUT IS NOT LIMITED TO, CARRIAGE BY:
 - (A) RAIL AND MOTOR VEHICLES;
 - (B) AIRCRAFT;
 - (C) WATERCRAFT;
 - (D) PIPELINES; OR
 - (E) OTHER MEANS OF TRANSPORTATION;

SOILS TYPE LEGEND

- Br BROOKSTON SILTY CLAY LOAM
THE MAIN SOIL FEATURES THAT ADVERSELY AFFECT ENGINEERING USES OF THIS SOIL ARE A SEASONAL HIGH WATER TABLE, HIGH POTENTIAL FROST ACTION, MODERATE SHRINK-SWELL POTENTIAL, AND MODERATE PERMEABILITY. THIS SOIL HAS SEVERE LIMITATIONS FOR BUILDING SITES. THE SITES NEED TO BE ARTIFICIALLY DRAINED AND PROTECTED FROM FLOODING. DWELLINGS AND SMALL BUILDINGS WITH BASEMENTS SHOULD NOT BE CONSTRUCTED ON THIS SOIL. USING PROPERLY DESIGNED FOUNDATIONS HELPS TO PREVENT STRUCTURAL DAMAGE FROM FROST ACTION AND SHRINKING AND SWELLING OF THE SOIL. THIS SOIL HAS SEVERE LIMITATIONS FOR LOCAL ROADS AND STREETS BECAUSE OF SEASONAL HIGH WATER TABLE AND HIGH POTENTIAL FROST ACTION. INSTALLATION OF DRAINAGE DITCHES ALONG ROADS HELPS TO LOWER THE WATER TABLE AND PREVENT DAMAGE FROM FROST ACTION. THE BASE MATERIAL FOR ROADS AND STREETS SHOULD BE REPLACED OR STRENGTHENED WITH SUITABLE MATERIAL.
- CIA CROSBY SILT LOAM
TO 2 TO 20 PERCENT SLOPES, THE MAIN SOIL FEATURES THAT ADVERSELY AFFECT THE ENGINEERING USES OF THIS SOIL ARE A SEASONAL HIGH WATER TABLE, MODERATE SHRINK-SWELL POTENTIAL, AND HIGH POTENTIAL FROST ACTION. THIS SOIL HAS SEVERE LIMITATIONS FOR BUILDING SITES. THE SITES NEED TO BE ARTIFICIALLY DRAINED TO PREVENT WETNESS FROM BECOMING A PROBLEM. DWELLINGS AND SMALL BUILDINGS WITH BASEMENTS SHOULD NOT BE CONSTRUCTED ON THIS SOIL. USING PROPERLY DRAINED FOUNDATIONS AND FOOTINGS HELPS TO PREVENT STRUCTURAL DAMAGE FROM LOW STRENGTH AND SHRINKING AND SWELLING OF THE SOIL. THIS SOIL HAS SEVERE LIMITATIONS FOR LOCAL ROADS AND STREETS. THE BASE MATERIAL FOR ROADS NEEDS TO BE STRENGTHENED OR REPLACED WITH SUITABLE MATERIAL.
- CIB CRIDER SILT LOAM
TO 2 TO 6 PERCENT SLOPES, THIS GENTLY SLOPING, DEEP, WELL DRAINED SOIL IS ON NARROW AND BROAD CONVEX RIDGETOPS ON UPLANDS. THE SURFACE LAYER IS TYPICALLY DARK BROWN SILT LOAM ABOUT 10 INCHES THICK. THE SUBSOIL EXTENDS TO A DEPTH OF 80 INCHES OR MORE.

327 IAC 2-6.1-6 REPORTABLE SPILLS; TRANSPORTATION
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17
SEC. 6. THE FOLLOWING SPILLS FROM A MODE OF TRANSPORTATION MUST BE REPORTED:

- (A) OF A QUANTITY AND A TYPE, AND
- (B) PRESENT FOR A DURATION AND IN A LOCATION: SO AS TO DAMAGE WATERS OF THE STATE. THIS DEFINITION EXCLUDES HAZARDOUS SUBSTANCES, EXTREMELY HAZARDOUS SUBSTANCES, PETROLEUM, AND MIXTURES THAT ARE OF A QUANTITY, TYPE, DURATION AND IN A LOCATION AS TO DAMAGE THE WATERS OF THE STATE SO AS TO CAUSE DEATH OR ACUTE INJURY OR ILLNESS TO HUMANS OR ANIMALS.

(2) SPILLS THAT DAMAGE SURFACE WATERS.

(3) SPILLS TO SOIL:

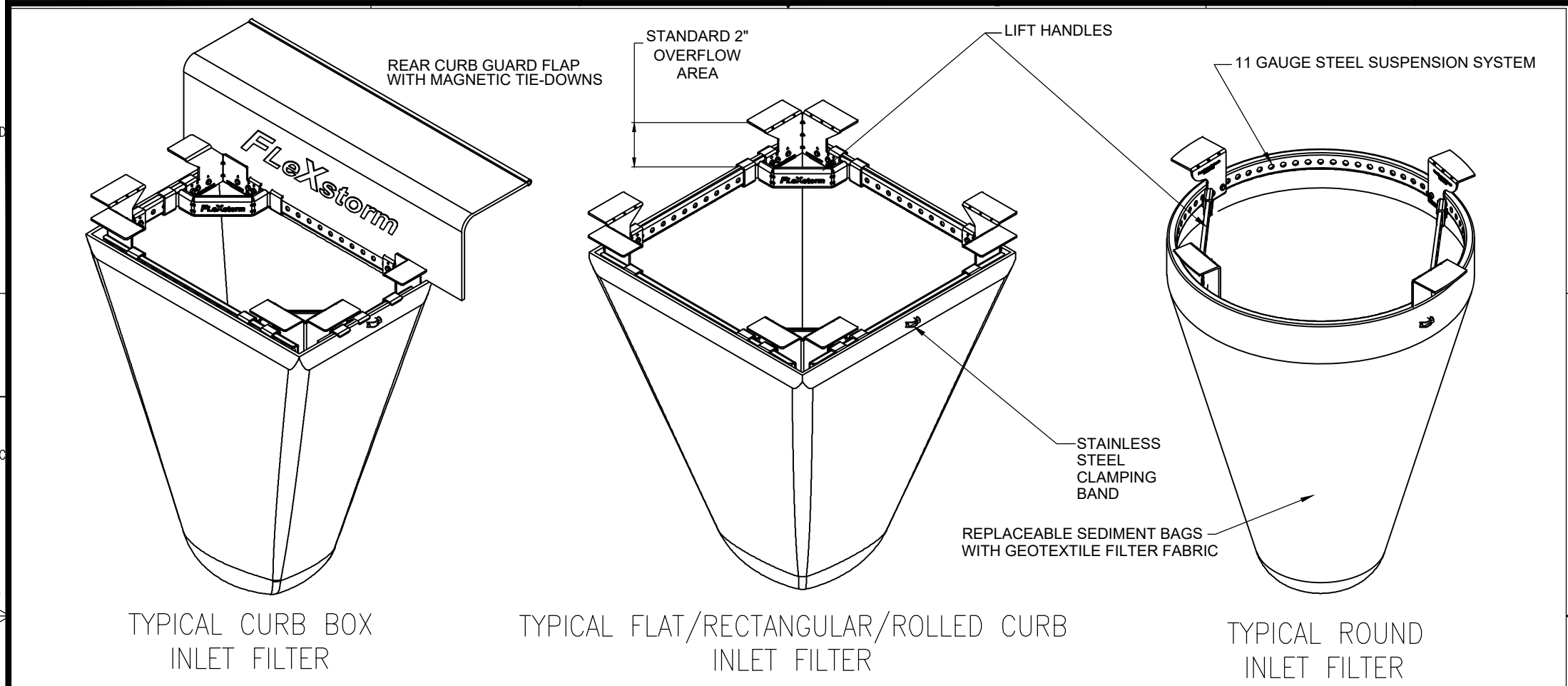
- (A) SPILLS OF HAZARDOUS SUBSTANCES OR EXTREMELY HAZARDOUS SUBSTANCES WHEN THE AMOUNT SPILLED EXCEEDS ONE HUNDRED (100) POUNDS OR THE REPORTABLE QUANTITY, WHICHEVER IS LESS;
- (B) SPILLS OF PETROLEUM WHEN THE AMOUNT SPILLED EXCEEDS FIFTY-FIVE (55) GALLONS; OR
- (C) SPILLS OF OBJECTIONABLE SUBSTANCES AS DEFINED IN SECTION 4(11) OF THIS RULE.

(4) ANY SPILL FOR WHICH A SPILL RESPONSE HAS NOT BEEN DONE. (WATER POLLUTION CONTROL BOARD: 327 IAC 2-6.1-6; FILED FEB 25, 1997, 1:00 P.M.: 20 IR 1733; READOPTED FILED JAN 10, 2001, 3:23 P.M.: 20 IR 1738; READOPTED FILED NOV 21, 2007, 1:16 P.M.: 20071219-IR-327070553BFA)

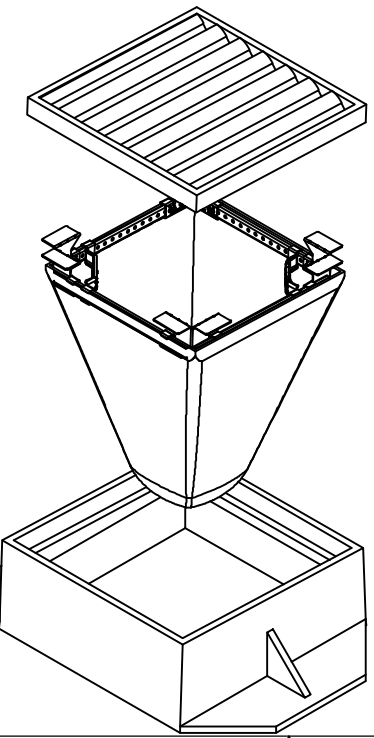
327 IAC 2-6.1-7 REPORTABLE SPILLS; RESPONSIBILITIES
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17
SEC. 7. ANY PERSON WHO OPERATES, CONTROLS, OR MAINTAINS ANY MODE OF TRANSPORTATION OR FACILITY FROM WHICH A SPILL OCCURS SHALL, UPON DISCOVERY OF A REPORTABLE SPILL TO THE SOIL OR SURFACE WATERS OF THE STATE, DO THE FOLLOWING:

- (1) CONTAIN THE SPILL, IF POSSIBLE, TO PREVENT ADDITIONAL SPILLED MATERIAL FROM ENTERING THE WATERS OF THE STATE.
- (2) THE STATE OR CAUSE OTHERS TO UNDERTAKE ACTIVITIES NEEDED TO ACCOMPLISH A SPILL RESPONSE.
- (3) AS SOON AS POSSIBLE, BUT WITHIN TWO (2) HOURS OF DISCOVERY, COMMUNICATE THE SPILL REPORT TO THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF LAND QUALITY, EMERGENCY RESPONSE SECTION: AREA C-1-888-233-7745 FOR IN-STATE CALLS (TOLL FREE), (317) 233-7745 FOR OUT-OF-STATE CALLS, IF NEW OR UPDATED SPILL REPORT INFORMATION BECOMES KNOWN THAT INDICATES A SIGNIFICANT INCREASE IN THE LIKELIHOOD OF DAMAGE TO THE WATERS OF THE STATE, THE RESPONSIBLE PARTY SHALL NOTIFY THE DEPARTMENT AS SOON AS POSSIBLE BUT WITHIN TWO (2) HOURS OF THE TIME THE NEW OR UPDATED INFORMATION BECOMES KNOWN.
- (4) SUBMIT TO THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF LAND QUALITY, EMERGENCY RESPONSE SECTION (MC 66-30), 2525 N. SHADLAND AVE., SUITE 100, INDIANAPOLIS, IN 46219-1787, A WRITTEN COPY OF THE SPILL REPORT IF REQUESTED IN WRITING BY THE DEPARTMENT.
- (5) EXCEPT FROM MODES OF TRANSPORTATION OTHER THAN PIPELINES, EXERCISE DUE DILIGENCE AND DOCUMENT ATTEMPTS TO NOTIFY THE FOLLOWING:
 - (A) FOR SPILLS TO SURFACE WATER THAT CAUSE DAMAGE, THE NEAREST AFFECTED DOWNSTREAM WATER USER LOCATED WITHIN TEN (10) MILES OF THE SPILL AND IN THE STATE OF INDIANA; AND
 - (B) FOR SPILLS TO SOIL OUTSIDE THE FACILITY BOUNDARY, THE AFFECTED PROPERTY OWNER OR OWNERS, OPERATOR OR OPERATORS, OR OCCUPANT OR OCCUPANTS. (WATER POLLUTION CONTROL BOARD: 327 IAC 2-6.1-7; FILED FEB 25, 1997, 1:00 P.M.: 20 IR 1733; READOPTED FILED JAN 10, 2001, 3:23 P.M.: 24 IR 1518; ERRATA FILED FEB 6, 2006, 11:15 A.M.: 20 IR 1936; ERRATA FILED OCT 20, 2006, 10:08 A.M.: 20061101-IR-32708047ACA; READOPTED FILED NOV 21, 2007, 1:16 P.M.: 20071219-IR-327070553BFA; ERRATA FILED MAY 27, 2008, 2:06 P.M.: 20080625-IR-327080419ACA)

327 IAC 2-6.1-8 EMERGENCY SPILL RESPONSE ACTIONS
AUTHORITY: IC 13-14-8-7
AFFECTED: IC 13-11-2; IC 13-18-1; IC 13-18-3; IC 13-18-8; IC 13-18-17
SEC. 8. NOTWITHSTANDING ANY OTHER SECTION OF THIS RULE, EMERGENCY SPILL RESPONSE ACTIONS TAKE PRECEDENCE OVER REPORTING REQUIREMENTS, AND WHEN EMERGENCY SPILL RESPONSE ACTIVITIES RENDER SPILL REPORTING INCONSISTENT WITH EFFECT



FLEXSTORM Inlet Filter Specifications		
WOVEN Geotextile Sediment Bag Specs (2 ft ³ vol)		
Material Property	Test Method	Value (ave)
Grab Tensile	ASTM D 4632	255 x 275
Puncture Strength	ASTM D 4833	135 lbs
Trapezoidal Tear	ASTM D 4533	75 lbs
UV Resistance	ASTM D 4355	90%
App Open Size (AOS)	ASTM D 4751	20 sieve
Permittivity	ASTM D 4491	1.5 / sec
Water Flow Rate	ASTM D 4491	200 gpm/sqft
Sediment Removal Efficiency (8% mix)	ASTM D 7351	82%



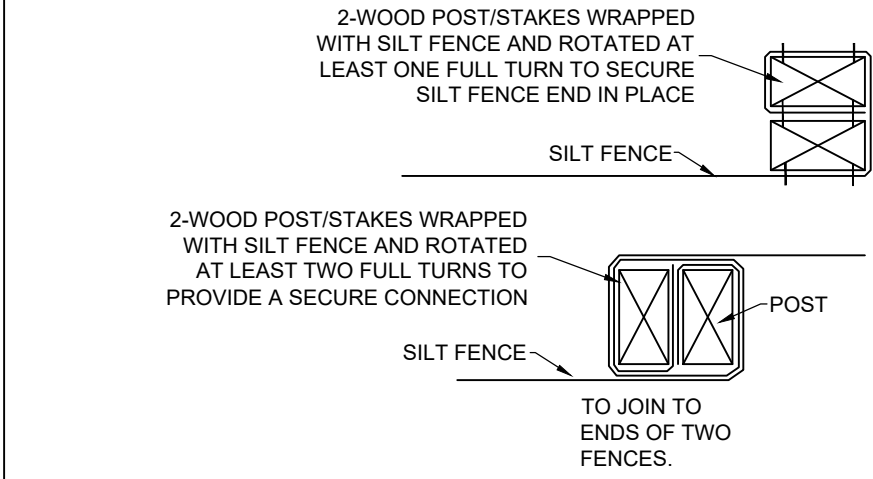
- INSTALLATION:
1. REMOVE GRATE
 2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
 3. REPLACE GRATE

DRAWN	ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC. DISTRIBUTED BY ADS
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QA	(866) 287-8655 PH
MFG	(830) 355-3477 FX
APPROVED	INFO@INLETFILTERS.COM
SIZE	DWG NO
C	IPP Flexstorm Specifications
SCALE	SHEET 1 OF 1

TABLE 1. TEMPORARY SEEDING SPECIFICATIONS			
SEED SPECIES	RATE PER ACRE	PLANTING DEPTH	OPTIMUM DATES
WHEAT OR RYE	150 LBS.	1 TO 1 1/2 INCHES	SEPT. 15 - OCT. 30
SPRING OATS	100 LBS.	1 INCH	MARCH 1 - APRIL 15
ANNUAL RYEGRASS	40 LBS.	1/2 INCH	MARCH 1 - MAY 1 AUG. 1 - SEPT. 1
GERMAN MILLET	40 LBS.	1 TO 2 INCHES	MAY 1 - JUNE 1
SUDAGRASS	35 LBS.	1 TO 2 INCHES	MAY 1 - JULY 30
BUCKWHEAT	60 LBS.	1 TO 2 INCHES	APRIL 15 - JUNE 1
CORN (BROADCAST)	300 LBS.	1 TO 2 INCHES	MAY 11 - AUG. 10
SORGHUM	35 LBS.	1 TO 2 INCHES	MAY 1 - JULY 15

1. PERENNIAL SPECIES MAY BE USED AS A TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDING WILL REMAIN IDLE FOR MORE THAN ONE YEAR.
2. SEEDING DONE OUTSIDE THE OPTIMUM SEEDING DATES INCREASES THE CHANCES OF SEEDING FAILURE. DATES MAY BE EXTENDED OR SHORTENED BASED ON THE LOCATION OF THE PROJECT SITE WITHIN THE STATE.
- NOTES:**
1. MULCH ALONE IS AN ACCEPTABLE TEMPORARY COVER AND MAY BE USED IN LIEU OF TEMPORARY SEEDING, PROVIDED THAT IT IS APPROPRIATELY ANCHORED.
 2. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.
- SEEDING PREPARATION:**
1. TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
 2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST. IF TESTING IS NOT DONE, APPLY 400 TO 800 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
 3. WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.
- SEEDING:**
1. SELECT A SEED SPECIES OR AN APPROPRIATE SEED MIXTURE AND APPLICATION RATE FROM TABLE 1.
 2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER SEED TO THE DEPTH SHOWN IN TABLE.
- NOTES:**
1. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS.
 2. DAILY SEEDING WHEN THE SOIL IS MOST USUALLY MOST EFFECTIVE.
 3. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.
 4. APPLY MULCH AND ANCHOR IT IN PLACE.
- MAINTENANCE:**
1. INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
 2. CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
 3. MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (80 PERCENT DENSITY). RESEED, FERTILIZE, AND APPLY A MULCH WHERE NECESSARY.
 4. IF NITROGEN DEFICIENCY IS APPARENT, TOP-DRESS FALL SEEDING WHEAT OR RYE SEEDING WITH 50 POUNDS PER ACRE OF NITROGEN IN FEBRUARY OR MARCH.
- REFERENCE IN CHAPTER 7 PAGES 31-33 IN THE INDIANA STORM WATER QUALITY MANUAL.

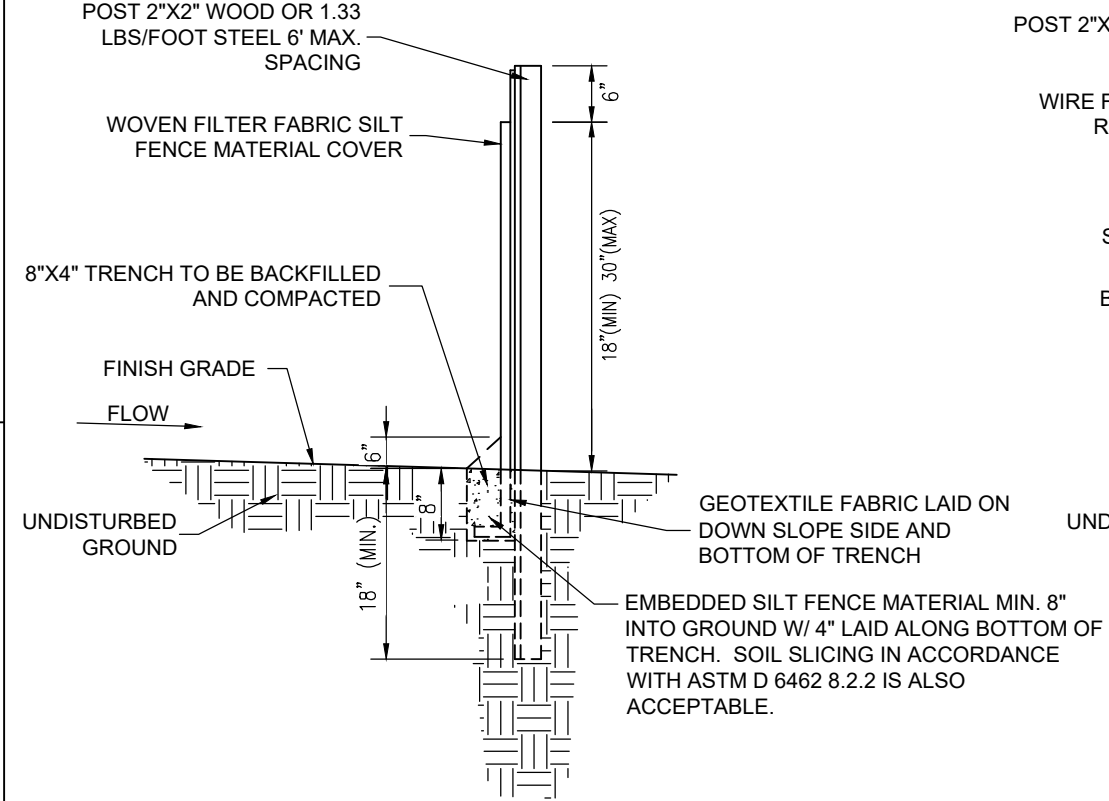
TEMPORARY SEED



MAXIMUM LOAD SLOPE AND DISTANCE FOR WHICH A SILT FENCE IS APPLICABLE

LOAD SLOPE	MAX. DISTANCE ABOVE FENCE
LESS THAN 2%	100 FT.
2 TO 5%	75 FT.
5 TO 10%	50 FT.
10 TO 20%	25 FT.
MORE THAN 20%	15 FT.

POSTS: STEEL T OR U TYPE, OR 2"x2" HARD WOOD POST FENCE: WOVEN WIRE, 14-1/2 GA., 6" MAX. MESH OPENING FABRIC: IN ACCORDANCE WITH ASTM D 6461 LATEST EDITION.

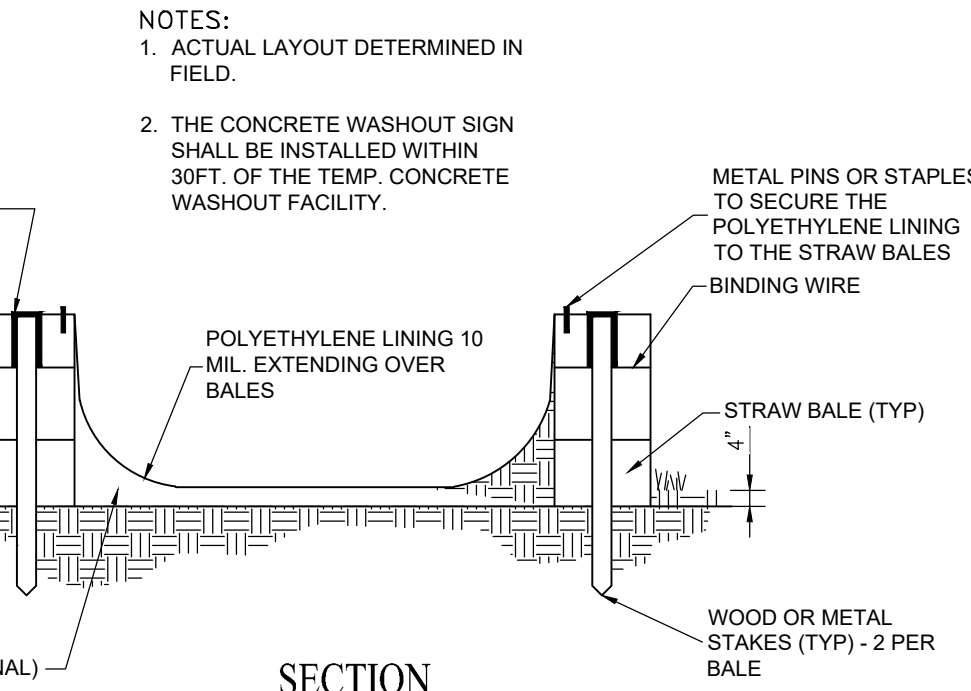


WITHOUT WIRE SUPPORT

- INSTALLATION**
- PREFABRICATED SILT FENCE
1. LAY OUT THE LOCATION OF THE FENCE SO THAT IT IS PARALLEL TO THE CONTOUR OF THE SLOPE AND AT LEAST 10 FEET BEYOND THE TOE OF THE SLOPE TO PROVIDE A SEDIMENT STORAGE AREA. TURN THE ENDS OF THE FENCE UP SLOPE SUCH THAT THE POINT OF CONTACT BETWEEN THE GROUND AND THE BOTTOM OF THE FENCE END TERMINATES AT A HIGHER ELEVATION THAN THE TOP OF THE FENCE AT ITS LOWEST POINT.
 2. EXCAVATE AN EIGHT-INCH DEEP BY FOUR-INCH WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
 3. INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH.
 4. DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH.
 5. LAY THE LOWER FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.
 6. BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.
- NOTE:** IF THE SILT FENCE IS BEING CONSTRUCTED ON-SITE, ATTACH THE FILTER FABRIC TO THE SUPPORT POSTS AND ATTACH WOODEN LATHE TO SECURE THE FABRIC TO THE POSTS. ALLOW FOR AT LEAST 12 INCHES OF FABRIC BELOW GROUND LEVEL. COMPLETE THE SILT FENCE INSTALLATION, FOLLOWING STEPS 1 THROUGH 6 ABOVE.
- MAINTENANCE**
- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
 - IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED WITHIN THIS MEASURE.
 - REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.
- REFERENCE IN CHAPTER 7 PAGES 215-221 IN THE INDIANA STORM WATER QUALITY MANUAL.

SEDIMENTATION/SILT FENCE

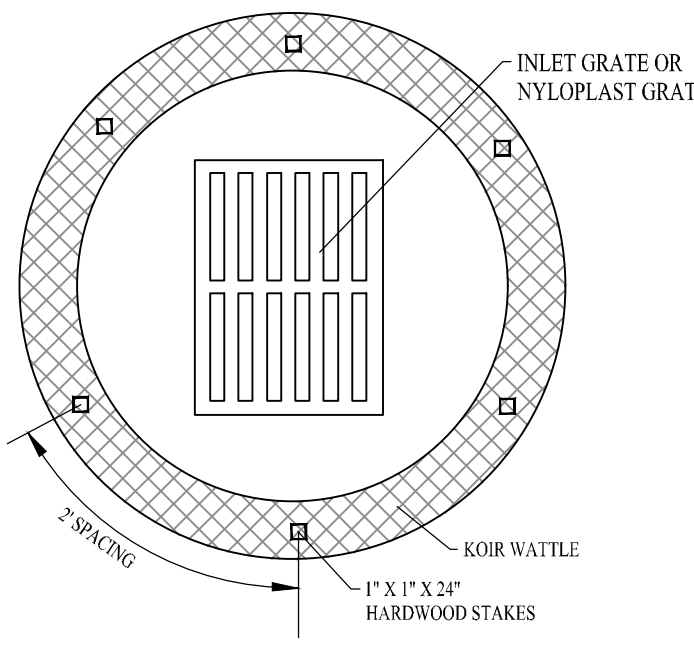
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SECTION

ALTERNATE

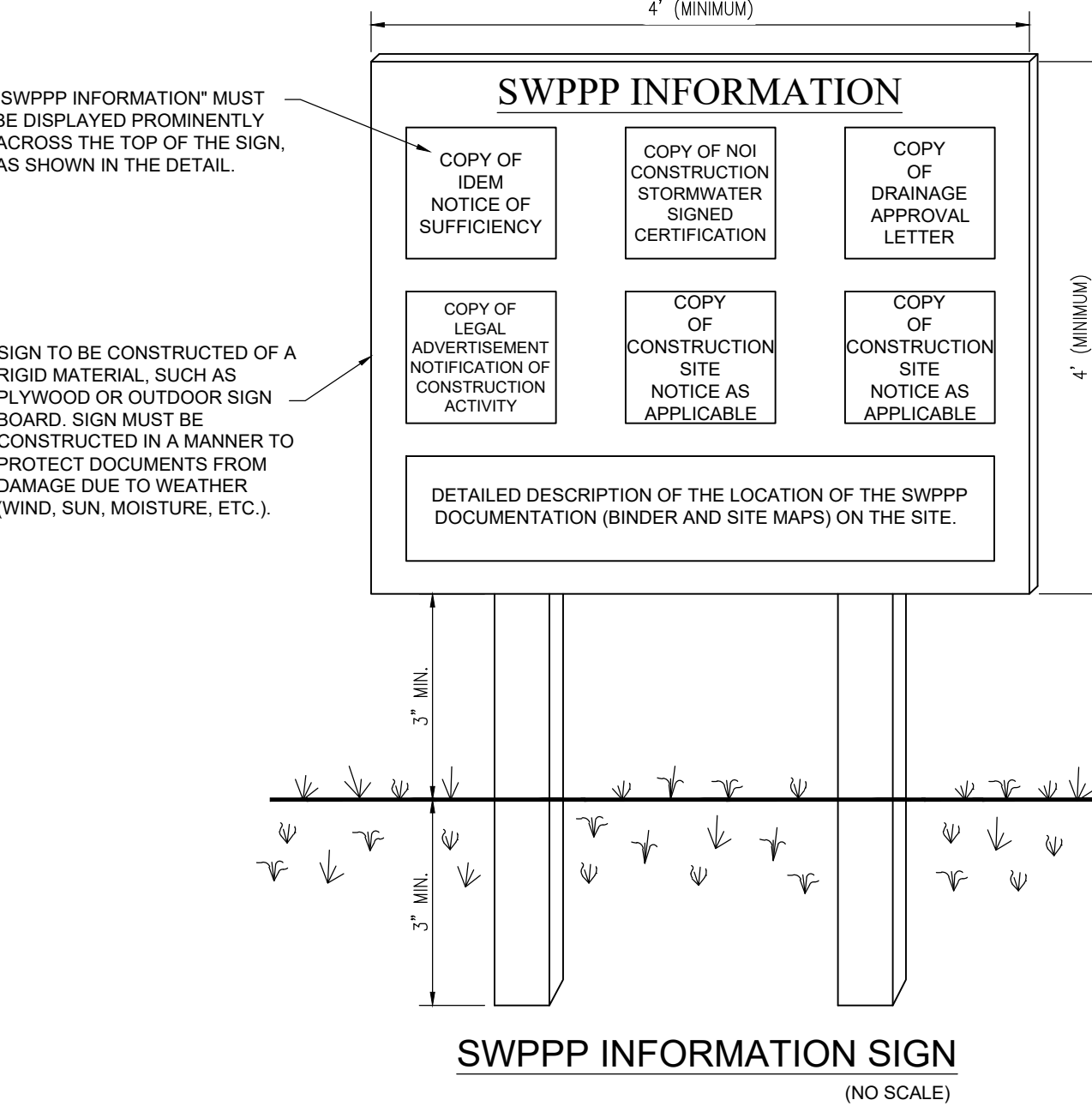
CONTRACTOR MAY USE A LINED (10 MIL. POLYETHYLENE) DUMPSTER FOR CONCRETE WASHOUT. NOTE: DUMPSTER IS TO BE USED FOR CONCRETE WASHOUT ONLY. NO CONSTRUCTION WASTE OR DEBRIS SHALL BE ALLOWED TO PREVENT TEARING OF THE LINER.



- INSTALLATION**
- 1) INSTALL KOIR LOG PER THE PLAN LOCATIONS.
 - 2) INSTALL KOIR LOG ON FINISH GRADED SOIL SURFACE AND INSURE GOOD CONTACT WITH SOIL WITH NO VOIDS UNDER LOG.
 - 3) STAKE IN PLACE PER THE ABOVE DETAIL.
 - 4) TOP SURFACE OF KOIR LOG TO BE ABOVE PONDING HEIGHT. USE MULTIPLE TIERS IF NECESSARY.
- MAINTENANCE:**
- 1) INSPECT DAILY.
 - 2) REMOVE ACCUMULATED SEDIMENT FROM PAVED AREA (DO NOT FLUSH WITH WATER) AFTER EACH STORM EVENT. DEPOSIT SEDIMENT IN AN AREA WHERE IT WILL NOT RE-ENTER THE PAVED AREA OR STORM DRAINS.
 - 3) INSPECT FOR DAMAGE BY VEHICULAR TRAFFIC AND REPAIR IF NEEDED.

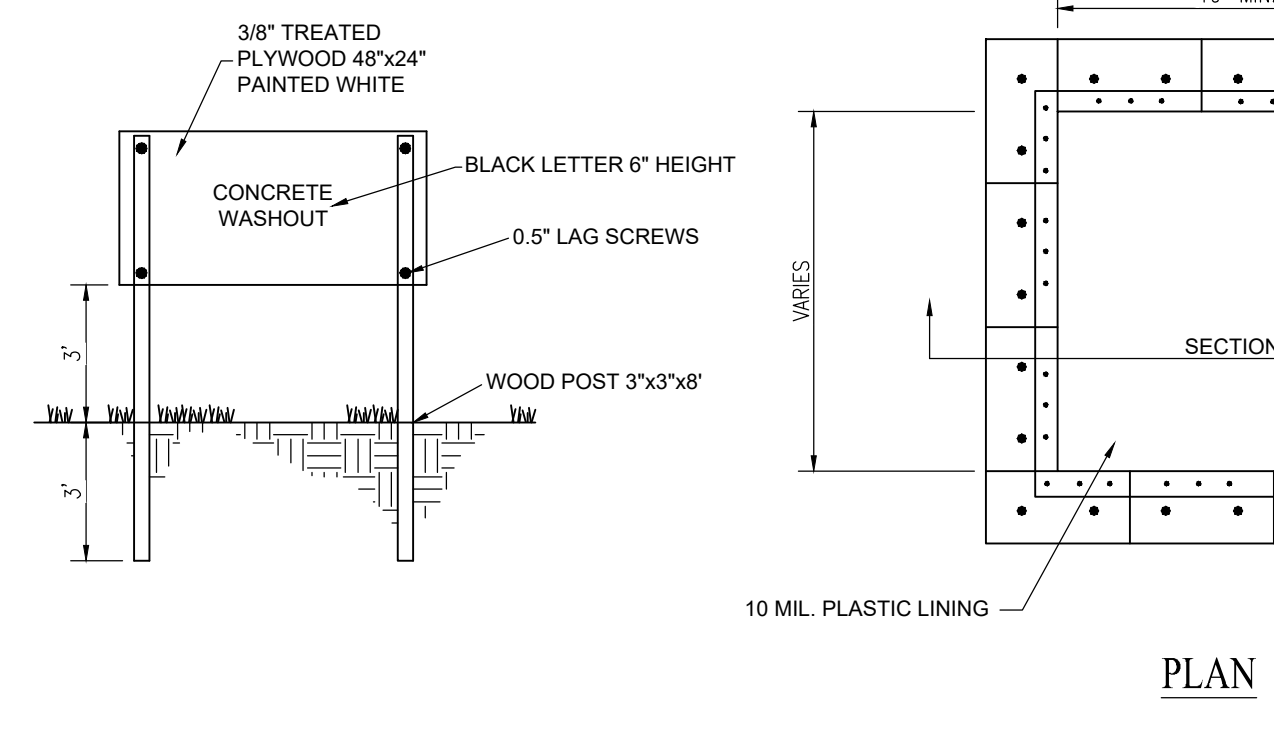
KOIR WATTLE INLET PROTECTION

NOT TO SCALE



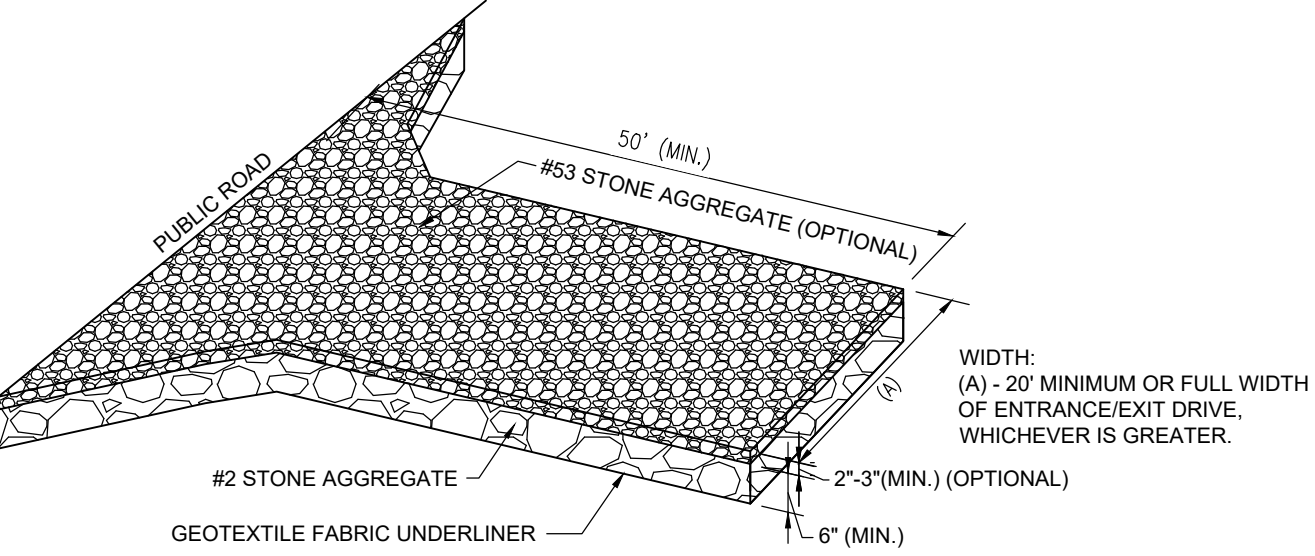
SWPPP INFORMATION SIGN

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PLAN

- MAINTENANCE**
1. INSPECT DAILY AND AFTER EACH STORM EVENT FOR LEAKS, SPILLS, TRACKING OF SOIL BY EQUIPMENT, AND THE POLYETHYLENE LINING FOR FAILURE.
 2. ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL. EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY AND SHOULD NOT BE USED UNTIL PROPERLY CLEANED OUT.
 3. PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING. THE REMOVAL OF MATERIAL USUALLY DAMAGES IT.
 4. REPAIR OR ENLARGE AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
 5. IF LIQUIDS DO NOT EVAPORATE IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD.
 6. WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED THEY SHALL BE CLOSED AND HOLES, DEPRESSIONS AND OTHER DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.



- INSTALLATION**
1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
 2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.
 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
 6. TOP-DRESS THE DRIVE WITH WASHED AGGREGATE (INDOT CA NO. 53).
 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.
- MAINTENANCE**
- INSPECT DAILY.
 - RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 - TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.
 - IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
 - FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.
- REFERENCED IN CHAPTER 7 PAGE 22 AND 23 IN INDIANA STORM WATER QUALITY MANUAL.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD

(NO SCALE)

SMALL SITES - LESS THAN TWO ACRES

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CHECKED BY:	MGSAQ
DRAWN BY:	MGSAQ
CHECKED BY:	EAC
DATE:	03/09/2023

APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL

2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176

STORMWATER POLLUTION PREVENTION PLAN DETAILS

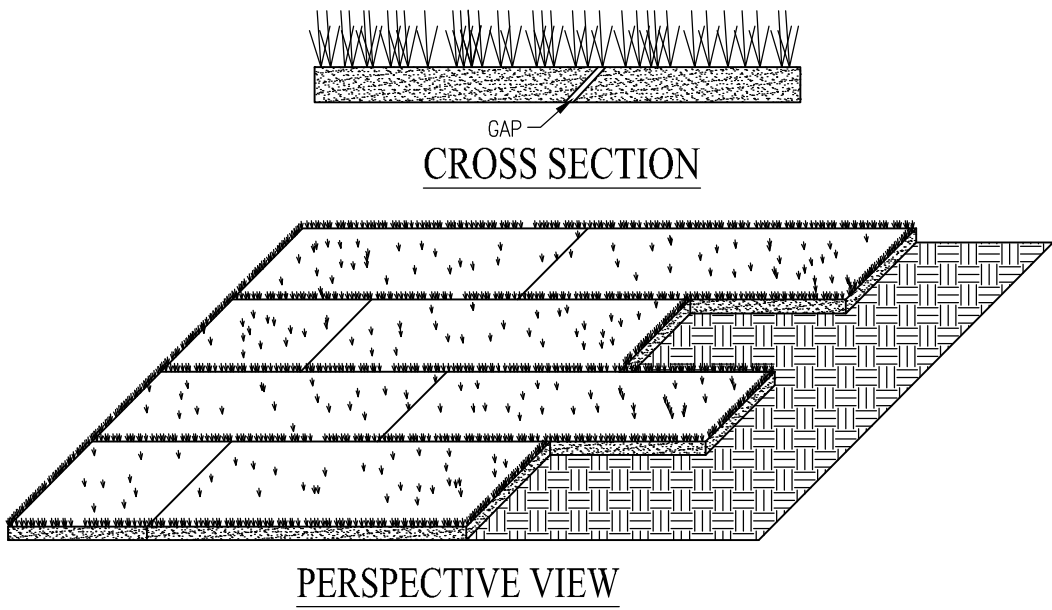
Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Addison Township, Shelby County, Indiana

SHEET NO.
C104

PROJECT NO.
W22.0478

LOCATION: H:\2023\W22.0478\Engineering\Design\Drawings\Book A\CT05 - SHEPP Details.dwg
DATE/TIME: April 10, 2023 - 4:53pm
PLOT/ID: B1 - Indissem

10 9 8 7 6 5 4 3 2 1



SPECIFICATIONS

SITE PREPARATION

- GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE.
- PREPARE A SMOOTH, FIRM SOIL SURFACE AND APPLY SOIL AMENDMENTS. IRRIGATION IRRIGATE AS NEEDED TO ENSURE ROOTING OF SOD.

MATERIALS

- SOIL AMENDMENTS - SELECT MATERIALS AND RATES AS DETERMINED BY A SOIL TEST (CONTACT YOUR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE AND SOIL INFORMATION, INCLUDING AVAILABLE SOIL TESTING SERVICES.) OR 400 TO 600 POUNDS OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
- SOD - SELECT A HIGH QUALITY, HEALTHY, VIGOROUS VARIETY WELL ADAPTED TO THE REGION AND COMPATIBLE WITH THE INTENDED USE.

INSTALLATION

- SOD SHOULD NOT BE INSTALLED DURING HOT WEATHER, ON DRY SOIL, FROZEN SOIL, COMPACTED CLAY, LOOSE SAND OR GRAVELLY SUBSTRATE SOILS, AGGREGATE, OR PESTICIDE TREATED SOIL. THE IDEAL TIME TO LAY SOD IS MAY 1 TO JUNE 1 OR SEPTEMBER 1 TO SEPTEMBER 30. ALTHOUGH IT CAN BE INSTALLED AS EARLY AS MARCH 15 IF AVAILABLE OR JUNE 1 TO SEPTEMBER 1 IF IRRIGATED.

SITE PREPARATION

- APPLY TOPSOIL IF EXISTING SOIL CONDITIONS ARE UNSUITABLE FOR ESTABLISHING VEGETATION.
- GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE AND CREATE A SMOOTH, FIRM SOIL SURFACE.
- WHERE APPLICABLE, USE A CHISEL PLOW, DISK, HARROW, OR RAKE TO BREAK UP COMPACTED SOILS AND CREATE A FAVORABLE ROOTING DEPTH OF SIX TO EIGHT INCHES.

SOD BED PREPARATION

- TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
- IF SOIL PH IS TOO ACIDIC FOR THE GRASS SOD TO BE INSTALLED, APPLY LIME ACCORDING TO SOIL TEST RESULTS OR AT THE RATE RECOMMENDED BY THE SOD SUPPLIER.
- APPLY FERTILIZER AS RECOMMENDED BY THE SOIL TEST. IF TESTING WAS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
- WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF SOIL WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.
- RAKE OR HARROW THE AREA TO ACHIEVE A SMOOTH FINAL GRADE AND THEN ROLL OR CULTIPACK THE SOIL SURFACE TO CREATE A FIRM SURFACE ON WHICH TO LAY THE SOD.

LAYING THE SOD

- INSTALL SOD WITHIN THIRTY-SIX HOURS OF ITS CUTTING.
- STORE THE SOD IN A SHADED LOCATION DURING INSTALLATION.
- IMMEDIATELY BEFORE LAYING THE SOD, RAKE THE SOIL SURFACE TO BREAK ANY CRUST. (IF THE WEATHER IS HOT, LIGHTLY IRRIGATE THE SOIL SURFACE PRIOR TO LAYING THE SOD.)
- LAY SOD STRIPS IN A BRICK-LIKE PATTERN.
- BUTT ALL JOINTS TIGHTLY AGAINST EACH OTHER (DO NOT STRETCH OR OVERLAP THEM), USING A KNIFE OR MASON'S TROWEL TO TRIM AND FIT SOD INTO IRREGULARLY SHAPED AREAS.
- ROLL THE SOD LIGHTLY AFTER INSTALLATION TO ENSURE FIRM CONTACT BETWEEN THE SOD AND SOIL.
- IRRIGATE NEWLY SODDED AREAS UNTIL THE UNDERLYING SOIL IS WET TO A DEPTH OF FOUR INCHES, AND THEN KEEP MOIST UNTIL THE GRASS TAKES ROOT.

SLOPE APPLICATION

- INSTALL THE SOD STRIPS WITH THE LONGEST DIMENSION PERPENDICULAR TO THE SLOPE.
- WHERE SLOPES EXCEED A RATIO OF 3:1, STAPLE OR STAKE EACH STRIP AT THE CORNERS AND IN THE MIDDLE.

CHANNEL APPLICATION

- (SODDING PROVIDES QUICKER PROTECTION THAN SEEDING AND MAY REDUCE THE RISK OF EARLY WASHOUT.)
- EXCAVATE THE CHANNEL, ALLOWING FOR THE FULL THICKNESS OF THE SOD.
 - LAY THE SOD STRIPS WITH THE LONGEST DIMENSION PERPENDICULAR TO CHANNEL FLOW.
 - STAPLE OR STAKE EACH STRIP OF SOD AT THE CORNERS AND IN THE MIDDLE.
 - STAPLE JUTE OR BIODEGRADABLE POLYPROPYLENE NETTING OVER THE SODDED AREA TO MINIMIZE THE POTENTIAL FOR WASHOUT DURING ESTABLISHMENT.

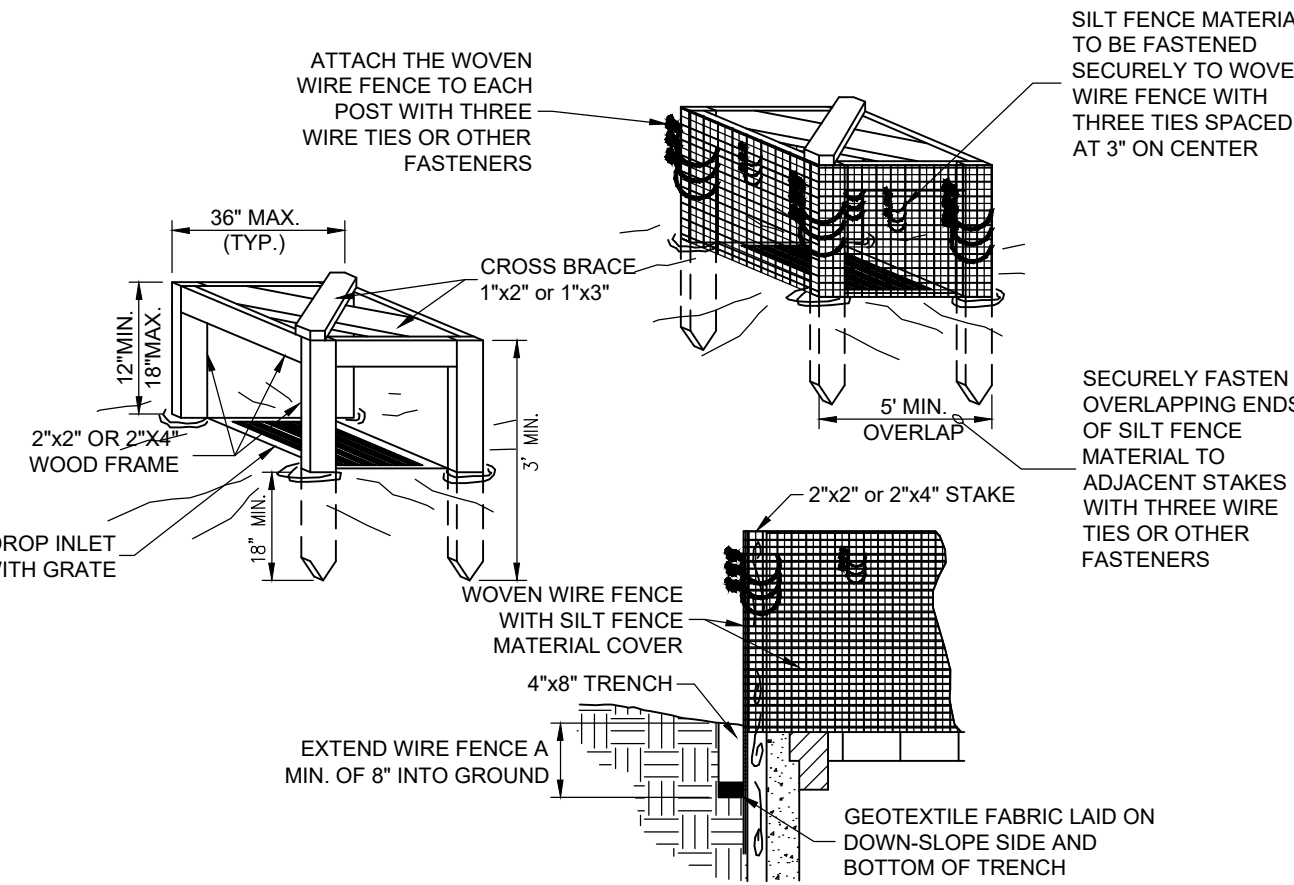
MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL SOD IS WELL ROOTED.
- KEEP SOD MOIST UNTIL FULLY ROOTED.
- AFTER SOD IS WELL-ROOTED (TWO TO THREE WEEKS), MAINTAIN A PLANT HEIGHT OF TWO TO THREE INCHES.
- TIME MOWING TO AVOID RUTS IN TURF.
- FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION, FOR COOL SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE-HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING AND ONE-THIRD IN MID-SUMMER.

REFERENCE IN CHAPTER 7 PAGES 47-50 IN THE INDIANA STORM WATER QUALITY MANUAL

SOD APPLICATION DETAIL

(NO SCALE)



POSTS: 2 X 4 WOODEN STAKE
FENCE: WOVEN WIRE, 14/12 GA., 6" MAX. MESH OPENING
FABRIC: IN ACCORDANCE WITH ASTM D 6481 LATEST EDITION.

INSTALLATION

- DIG AN EIGHT-INCH DEEP, FOUR-INCH WIDE TRENCH AROUND THE PERIMETER OF THE INLET.
- IF USING PRE-ASSEMBLED GEOTEXTILE FABRIC AND POSTS, DRIVE THE POSTS INTO THE SOIL, TIGHTLY STRETCHING THE GEOTEXTILE FABRIC BETWEEN POSTS AS EACH IS DRIVEN. (POSTS MUST BE PLACED ON THE INLET SIDE OF THE TRENCH FARTHEST FROM THE INLET.)

NOTE: IF ASSEMBLING THE GEOTEXTILE FABRIC AND POSTS ON-SITE, DRIVE THE POSTS INTO

THE SOIL AND THEN SECURE THE GEOTEXTILE FABRIC TO THE POSTS BY PLACING A PIECE OF LATHE OVER THE FABRIC AND FASTENING IT TO THE POST (STRETCHING THE FABRIC BETWEEN POSTS AS IT IS FASTENED).

- USE THE WRAP JOIN METHOD WHEN JOINING POSTS.
- PLACE THE BOTTOM 12 INCHES OF GEOTEXTILE FABRIC INTO THE EIGHT-INCH DEEP TRENCH, LAYING THE REMAINING FOUR INCHES IN THE BOTTOM OF THE TRENCH AND EXTENDING AWAY FROM THE INLET.
- BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.
- BRACE THE POSTS BY NAILING BRACES INTO EACH CORNER POST OR UTILIZE RIGID PANELS TO SUPPORT FABRIC.

NOTE: IN SITUATIONS WHERE STORM WATER MAY BYPASS THE STRUCTURE,

EITHER: SET THE TOP OF THE GEOTEXTILE FABRIC FILTER AT LEAST SIX INCHES LOWER THAN THE GROUND ELEVATION ON THE DOWN-SLOPE SIDE OF THE STORM DRAIN INLET, BUILD A TEMPORARY DIKE, COMPACTED TO SIX INCHES HIGHER THAN THE FABRIC, ON THE DOWN-SLOPE SIDE OF THE STORM DRAIN INLET, AND/OR USE IN CONJUNCTION WITH EXCAVATED DROP INLET PROTECTION.

MAINTENANCE

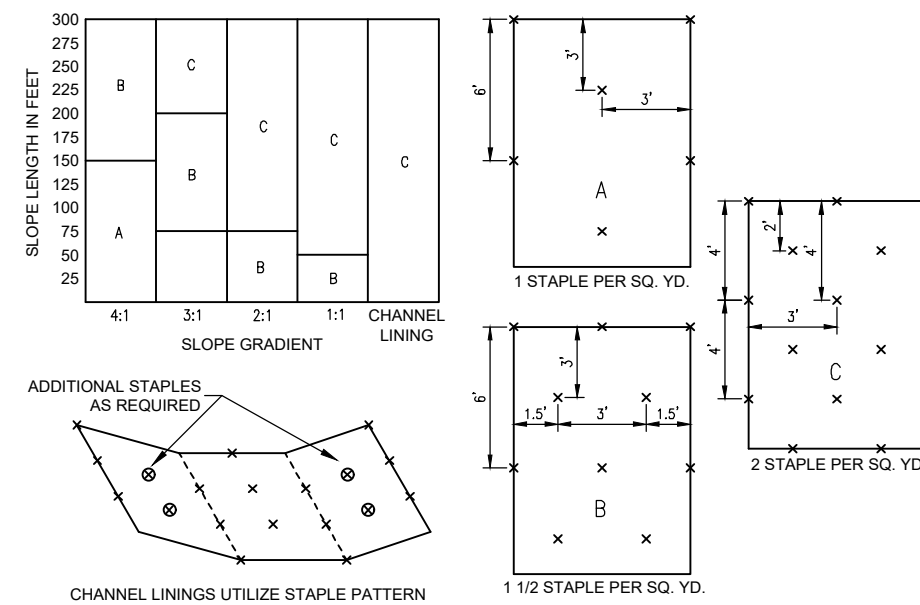
- INSPECT DAILY.
- INSPECT GEOTEXTILE FABRIC AND MAKE NEEDED REPAIRS IMMEDIATELY.
- REMOVE SEDIMENT FROM POOL AREA TO PROVIDE STORAGE FOR THE NEXT STORM EVENT. AVOID DAMAGING OR UNDERCUTTING FABRIC DURING SEDIMENT REMOVAL.
- WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE SEDIMENT.
- PROPERLY DISPOSE OF ALL CONSTRUCTION MATERIAL. GRADE AREA TO THE ELEVATION OF THE STORM DRAIN INLET TOP, THEN STABILIZE IMMEDIATELY.

REFERENCED IN CHAPTER 7 PAGE 153-157 IN THE INDIANA STORM WATER QUALITY MANUAL.

SILT FENCE INLET PROTECTION

FOR NON PAVED AREAS

(NO SCALE)



EROSION CONTROL BLANKET

STAPLE PATTERN

(NO SCALE)

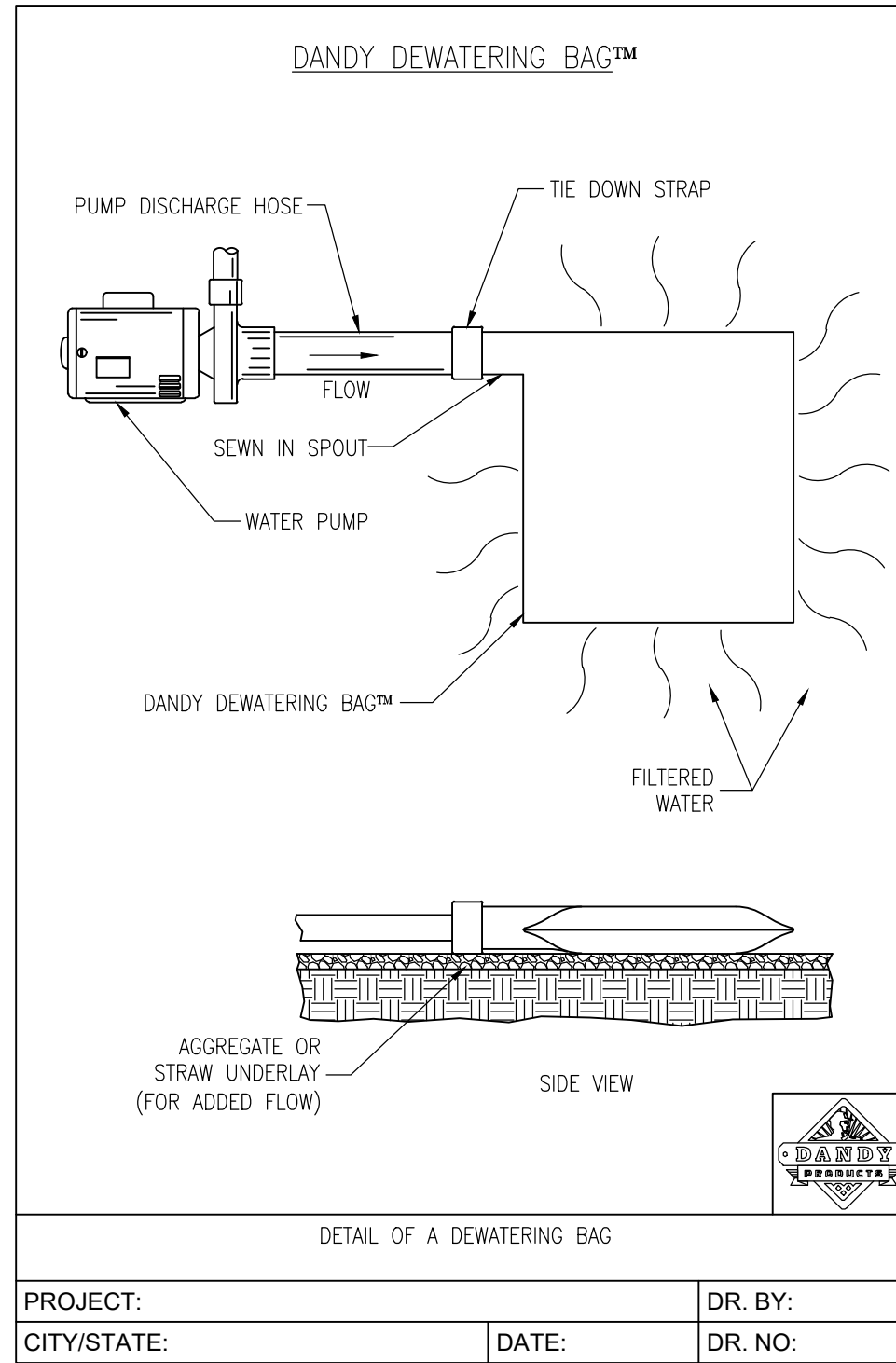
GENERAL STAPLE RECOMMENDATIONS

STAPLE PATTERNS APPLY TO ALL NORTH AMERICAN GREEN EROSION CONTROL BLANKETS. STAPLE PATTERNS MAY VARY DEPENDING UPON SOIL TYPE AND AVERAGE ANNUAL RAINFALL.

AT SLOPE LENGTHS GREATER THAN 300 FEET OR WHERE DRAINAGE OVER LARGE AREAS IS DIRECTED ONTO THE BLANKETS, STAPLE PATTERN "C" SHOULD BE UTILIZED.

CHANNEL LININGS REQUIRED A 2.0' MINIMUM OVERLAP AT LONGITUDINAL JOINTS. SIDESLOPES SHALL REQUIRE A 6" MINIMUM OVERLAP. WHERE OVERLAPS OCCUR, THE UPSTREAM BLANKET SHALL OVERLAP THE DOWNSTREAM.

IF OTHER THAN NORTH AMERICAN GREEN EROSION CONTROL BLANKETS ARE INSTALLED FOLLOW THE INSTALLATION DIRECTIONS RECOMMENDED BY THAT PRODUCTS COMPANY.



PROJECT:	DR. BY:
CITY/STATE:	DR. NO:
DATE:	

DANDY DEWATERING BAG™ SPECIFICATIONS

NOTE:
THE DANDY DEWATERING BAG™ WILL BE MANUFACTURED IN THE U.S.A. FROM A NONWOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

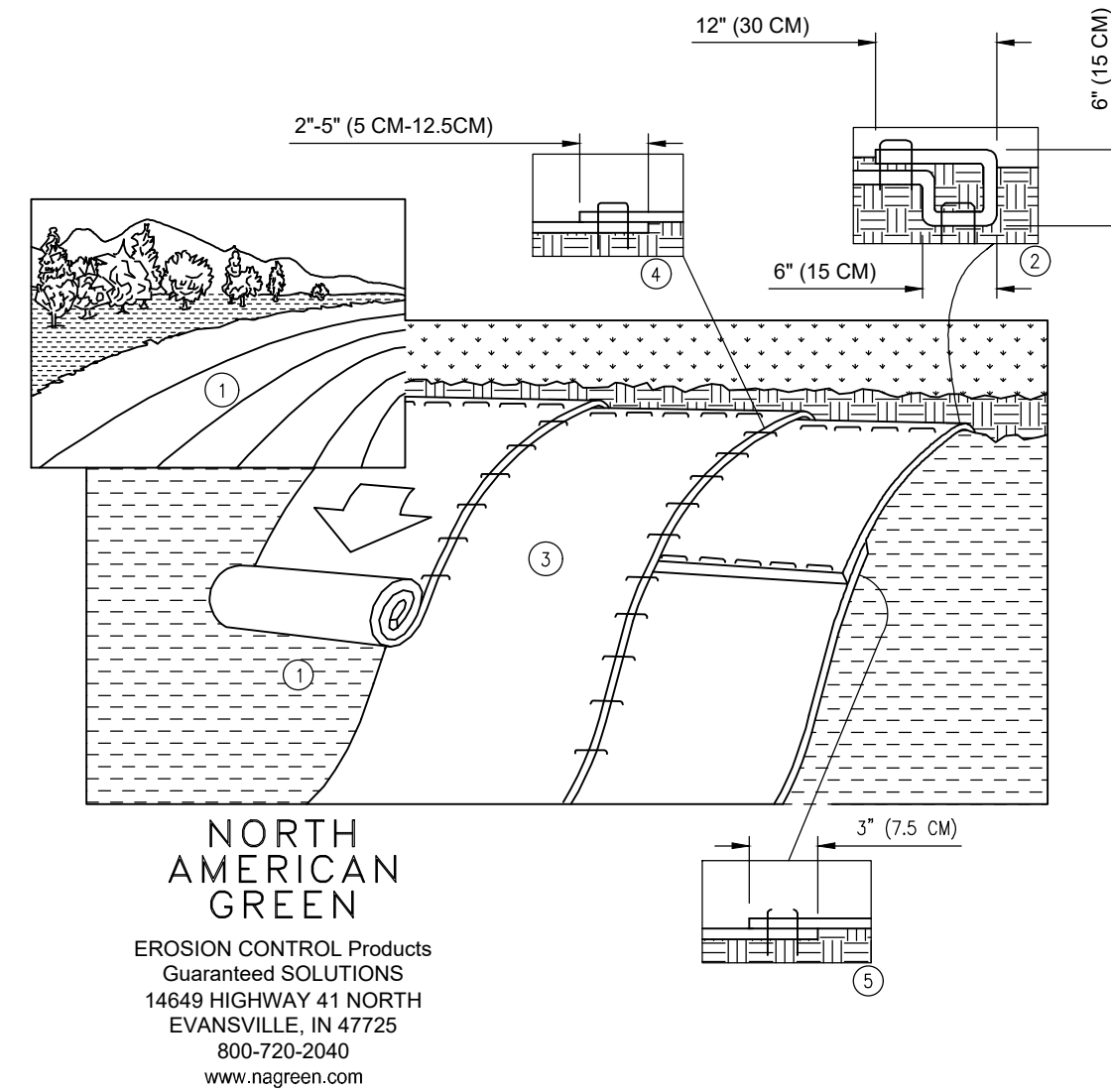
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4862	kN (lbs)	0.9 (205) x 0.9 (205)
Grab Tensile Elongation	ASTM D 4862	%	50 x 50
Puncture Strength	ASTM D 4863	kN (lbs)	0.58 (130)
Median Tensile Strength	ASTM D 3786	kPa (psi)	2815 (380)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.36 (80) x 0.36 (80)
UV Resistance	ASTM D 4355	%	70
Apparent Opening Size	ASTM D 4751	Min (US Std Sieve)	0.180 (60)
Flow Rate	ASTM D 4481	Impacts/ (sqm/min) /	3860 (10)
Permeability	ASTM D 4481	Sec	1.2

INSTALLATION:

- LIFTING STRAPS (NOT INCLUDED) SHOULD BE PLACED UNDER THE UNIT TO FACILITATE REMOVAL AFTER USE.
- UNFOLD DANDY DEWATERING BAG™ ON A STABILIZED AREA OVER DENSE VEGETATION, STRAW, OR GRAVEL (IF AN INCREASED DRAINAGE SURFACE IS NEEDED) OR AS DETAIL IN PLANS.
- INSERT DISCHARGE HOSE FROM PUMP INTO DANDY DEWATERING BAG™. A MINIMUM OF SIX (6) INCHES AND TIGHTLY SECURE WITH ATTACHED STRAP TO PREVENT WATER FROM FLOWING OUT OF THE UNIT WITHOUT BEING FILTERED.

MAINTENANCE:

- REPLACE THE UNIT WHEN 1/4 FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE OF THE PUMP DISCHARGE TO AN IMPRACTICAL RATE.
- REMOVE AND DISPOSE OF THE SEDIMENT IN A MANNER SATISFACTORY TO THE ENGINEER/INSPECTOR OR IN ONE OF THE FOLLOWING WAYS:
- REMOVE THE UNIT AND SEDIMENT FROM ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS. AT THE APPROVED DISPOSAL SITE, SLIT THE UNIT; REMOVE THE SEDIMENT AND GRADE SMOOTHLY INTO THE EXISTING TOPOGRAPHY.
- DISPOSE OF UNIT NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.
- BURY UNIT ON SITE; REMOVE ANY VISIBLE FABRIC AND SEED.



- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPS IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECPS BACK OVER SEED AND COMPACTED SOIL. SECURE RECPS COVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECPS.
- ROLL THE RECPS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THOUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL RECPS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECPS TYPE.
- CONSECUTIVE RECPS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECPS WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE R STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECPS.

MAINTENANCE:

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

SLOPE INSTALLATION

(NO SCALE)

10505 N. College Avenue
Indianapolis, Indiana 46280
w@ne.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax

WEIHE
ENGINEERS
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Landscape Architecture
Build with confidence.

PROJECT NO.:	W22.0478
OWNER NAME:	Shelbyville Marketplace
DESIGN-BY:	MGSAQ
DRAWN BY:	MGSAQ
CHECKED BY:	EAC
DATE:	03/09/2023

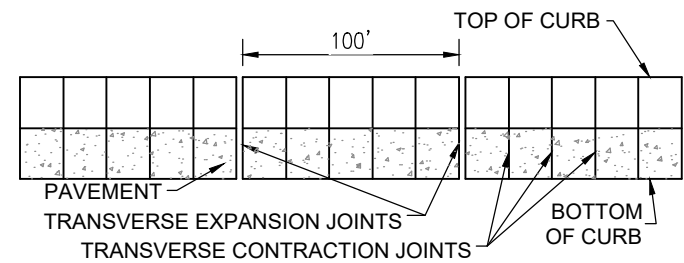
APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176
STORMWATER POLLUTION PREVENTION PLAN DETAILS
Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Addison Township, Shelby County, Indiana

SHEET NO.
C105
PROJECT NO.
W22.0478

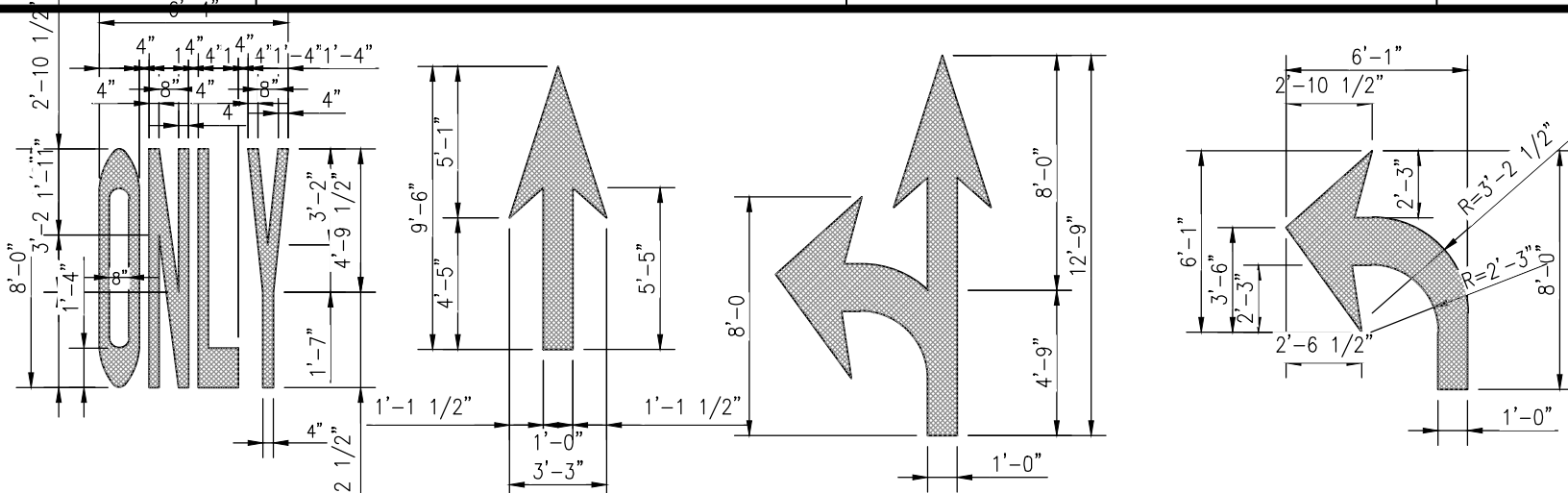


Build with confidence.[™]



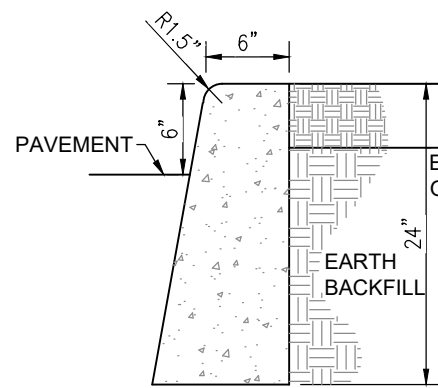
CURB JOINT DETAIL

NOTE: MAXIMUM TRANSVERSE CONTRACTION JOINT DISTANCE 10 FEET FOR TANGENT SECTIONS AND 6 FEET FOR RADIUS SECTIONS.



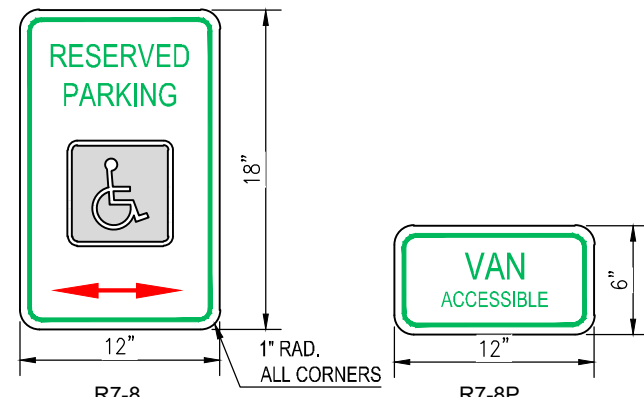
TRAFFIC MARKING DETAILS

NOTE: TYPICAL SIZES FOR NORMAL INSTALLATION. SIZES MAY BE REDUCED APPROXIMATELY ONE-THIRD FOR LOW-SPEED URBAN CONDITIONS.



CURB DETAIL

(NO SCALE)



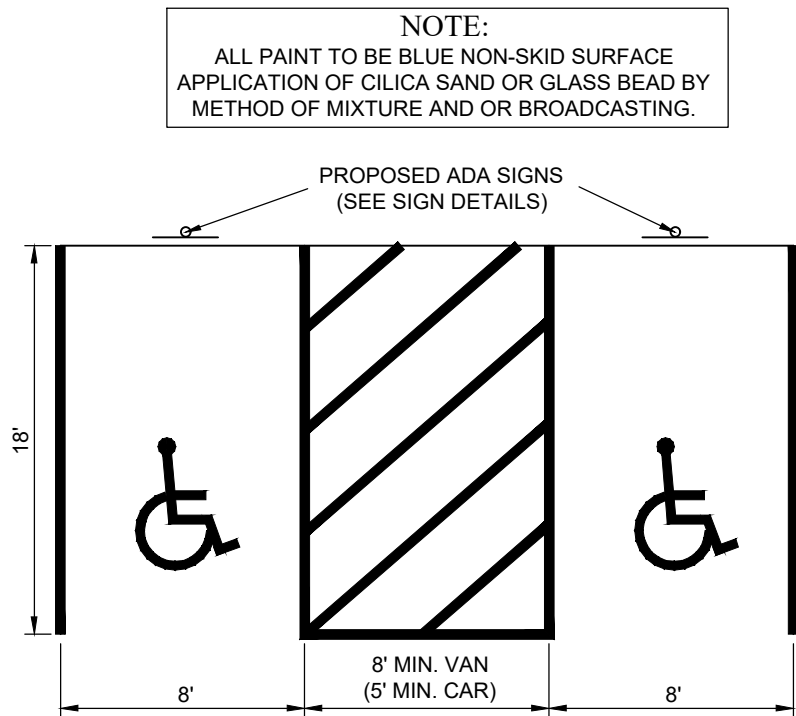
ACCESSIBLE SIGNS

(NO SCALE)



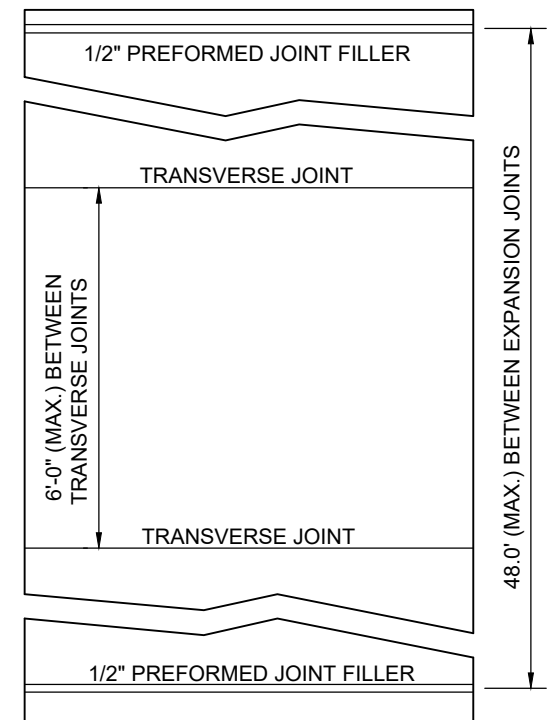
ACCESSIBLE PARKING SYMBOL DETAIL

(NO SCALE)



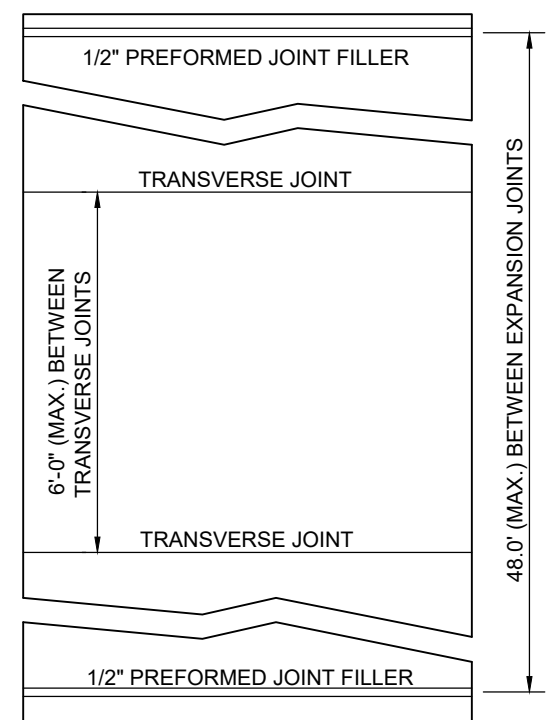
ACCESSIBLE PARKING SPACES

(NO SCALE)



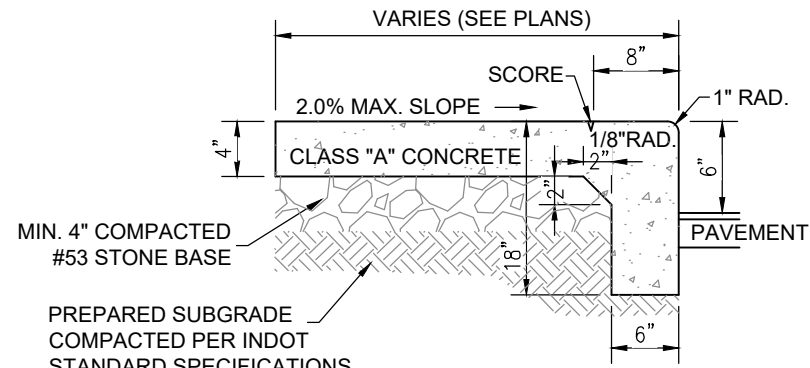
SIDEWALK SECTION - DRIVEWAY CROSSING

(NO SCALE)



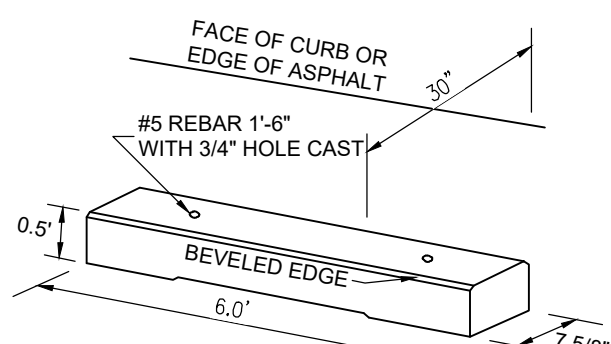
TYPICAL SIDEWALK SECTION

(NO SCALE)



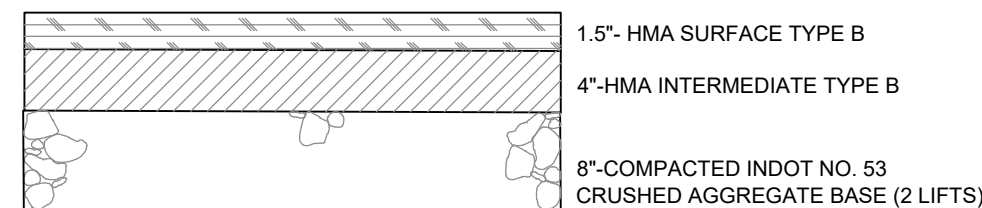
INTEGRAL WALK AND CURB DETAIL

(NO SCALE)



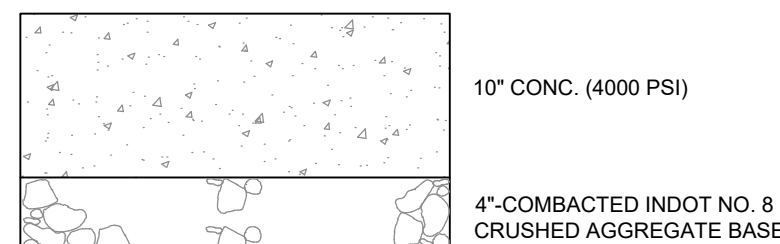
PARKING BARRIER

(NO SCALE)



STANDARD DUTY ASPHALT PAVING SECTION

(NO SCALE)



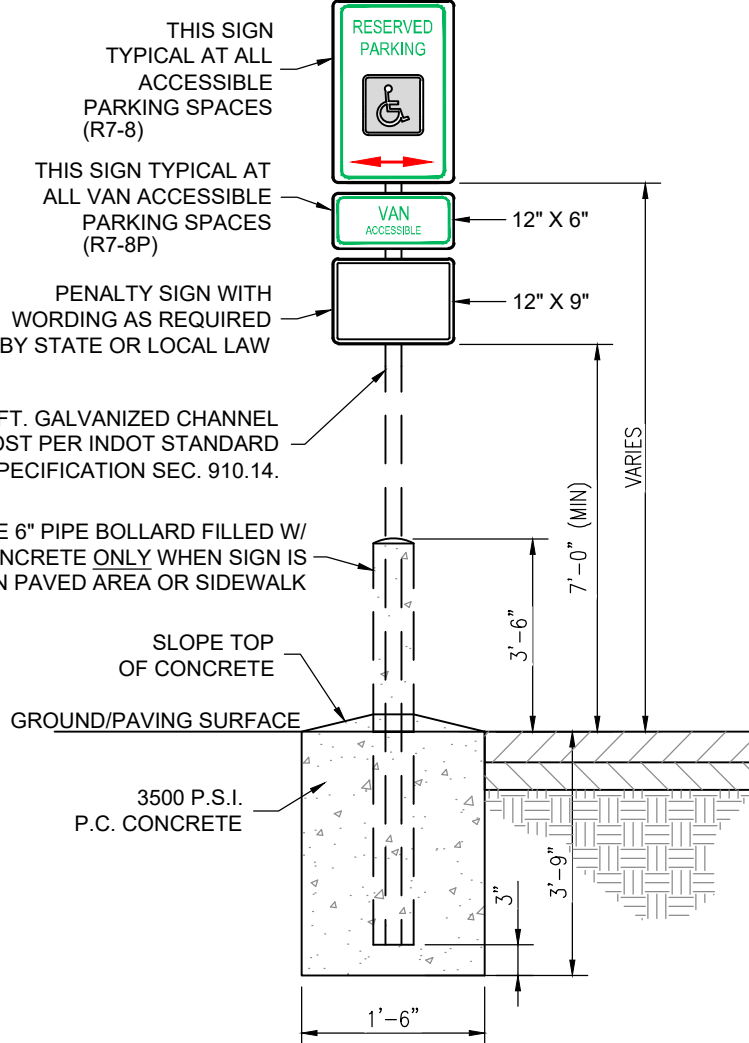
STANDARD DUTY CONCRETE PAVING SECTION

(NO SCALE)

NOTE: PAVING SECTIONS PROVIDED WITHOUT BENEFIT OF A GEOTECHNICAL REPORT. IT IS RECOMMENDED THAT A GEOTECHNICAL REPORT BE FURNISHED WITH PAVEMENT SECTION RECOMMENDATIONS. PAVEMENT SECTIONS PROVIDED MEET SHELBYVILLE MINIMUM STANDARDS FOR MEDIUM DUTY PARKING LOTS. ADJUST ABOVE SECTIONS AS REQUIRED TO MATCH GEOTECHNICAL RECOMMENDATIONS.

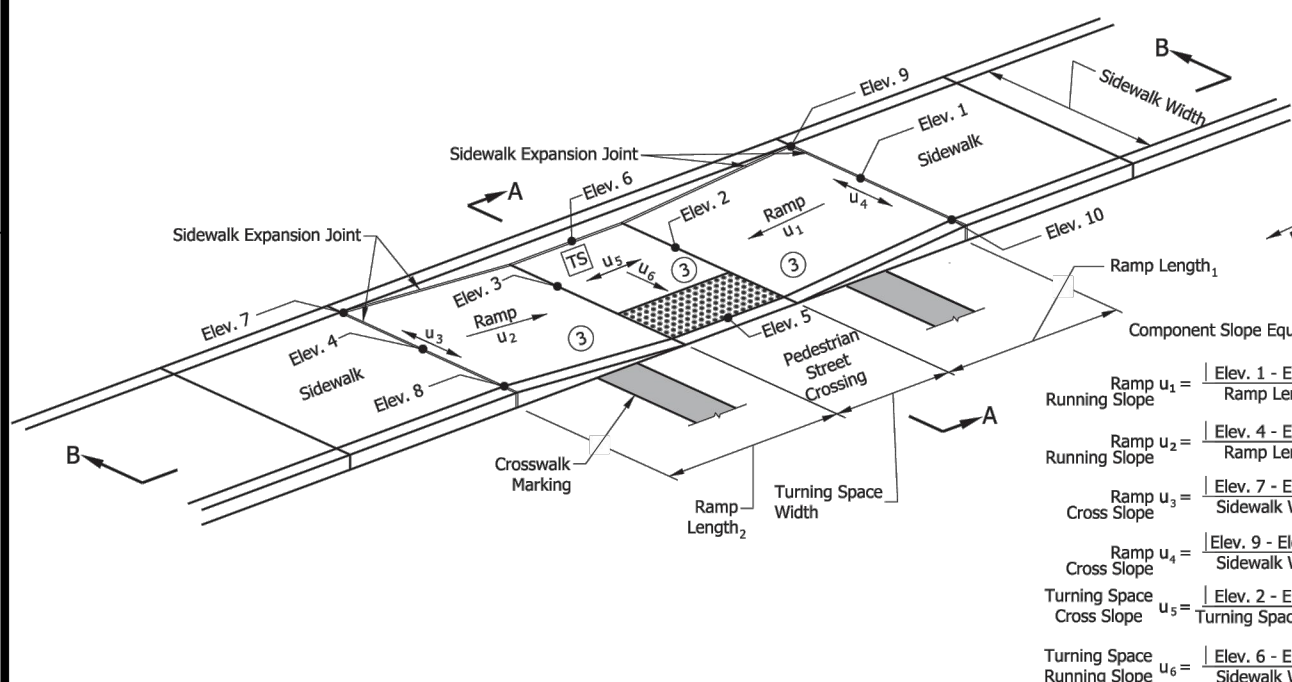
ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATIONS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

WHERE PARKING SPACES THAT ARE RESERVED FOR PERSONS WITH DISABILITIES ARE DESIGNATED TO ACCOMMODATE WHEELCHAIR VANS, A VAN ACCESSIBLE (R7-8P) PLAQUE SHALL BE MOUNTED BELOW THE R7-8 SIGN. THE R7-8 SIGN SHALL HAVE A GREEN LEGEND AND BORDER AND A WHITE WHEELCHAIR SYMBOL ON A BLUE SQUARE ALL ON A WHITE BACKGROUND. THE R7-8P PLAQUE SHALL HAVE A GREEN LEGEND AND BORDER ON A WHITE BACKGROUND.



ACCESSIBLE SIGN BOLLARD MOUNT DETAIL

(NO SCALE)



NOTES:

- The bottom edge of the turning space and top of curb shall be flush with the edge of adjacent pavement and gutter line.
- The turning space shall have a minimum clear dimension of 4 ft x 4 ft and a running slope of 2.00% maximum. Where the turning space is constrained at the back of the sidewalk, the minimum clear dimension shall be 4 ft x 5 ft with the 5-ft dimension in the direction of the ramp running slope.
- Curb ramp surface shall be coarse broomed transverse to the running slope.
- Where there is no buffer between the sidewalk and curb, the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWCR for sidewalk details.
- See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
- See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
- See Standard Drawing E 604-CCS-01 for sidewalk expansion joint details.

LEGEND:

- Ramp
- Detectable Warning Surface
- Turning Space

INDIANA DEPARTMENT OF TRANSPORTATION

PARALLEL CURB RAMP COMPONENT DETAILS

SEPTEMBER 2018

STANDARD DRAWING NO. E 604-SWCR-08

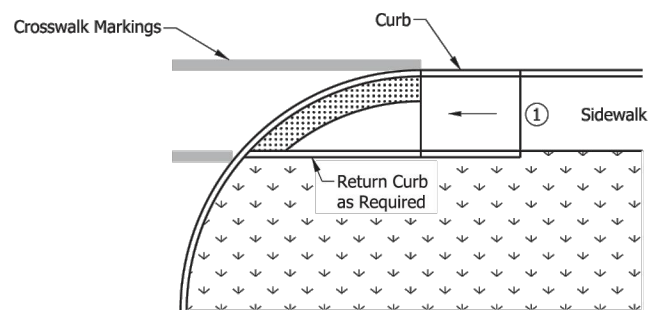
REGISTERED No. 10200124

STATE OF INDIANA

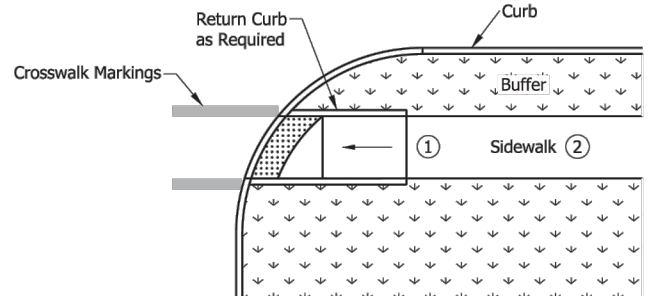
Professional Engineer

03/29/18 DATE

04/25/18 DATE



ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP ADJACENT CURB



ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP WITH BUFFER

NOTES:

- A turning space is not required at the top of the ramp for a one-way directional perpendicular curb ramp.
- Where there is no buffer between the sidewalk and curb the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SWCR for sidewalk details.

LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detectable Warning Surface

INDIANA DEPARTMENT OF TRANSPORTATION

ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP TYPICAL PLACEMENT

SEPTEMBER 2016

STANDARD DRAWING NO. E 604-SWCR-05

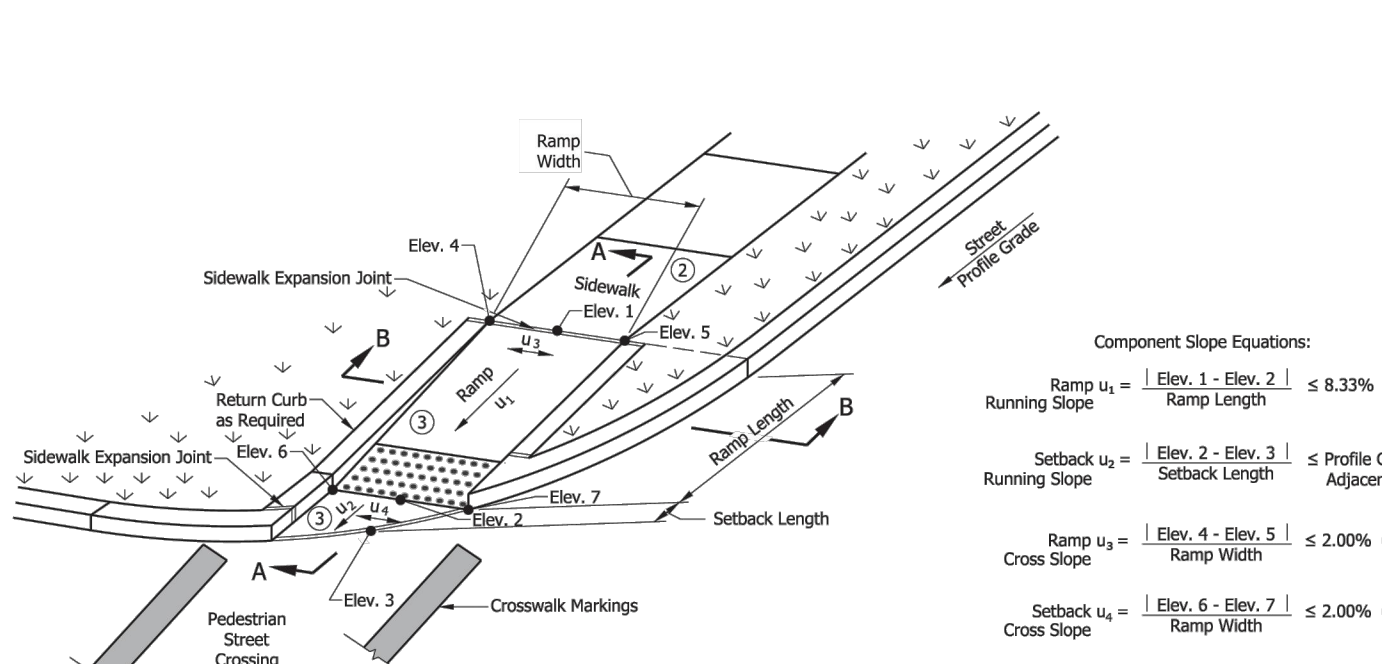
REGISTERED No. 10200124

STATE OF INDIANA

Professional Engineer

03/15/16 DATE

03/19/16 DATE



NOTES:

- The bottom edge of the ramp or setback and top of curb shall be flush with the edge of adjacent pavement and gutter line.
- A turning space is not required at the top of the ramp for a one-way directional perpendicular curb ramp.
- Curb ramp surface shall be coarse broomed transverse to the running slope.
- See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
- See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
- See Standard Drawing E 604-CCS-01 for sidewalk expansion joint details.

LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detectable Warning Surface

INDIANA DEPARTMENT OF TRANSPORTATION

ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP COMPONENT DETAILS

SEPTEMBER 2018

STANDARD DRAWING NO. E 604-SWCR-06

REGISTERED No. 10200124

STATE OF INDIANA

Professional Engineer

03/29/18 DATE

04/25/18 DATE

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax

WEIHE
ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture
Build with confidence.

PROJECT NO.:	W22.0478
DWG NAME:	Details
DESIGNED BY:	MGSAO
DRAWN BY:	MGSAO
CHECKED BY:	EAC
DATE:	03/09/2023

APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176
SITE DETAILS
Block A in Shelbyville Marketplace, Part of the MEA of Section 04, Township 12 North, Range 7 East, Adams Township, Shelby County, Indiana

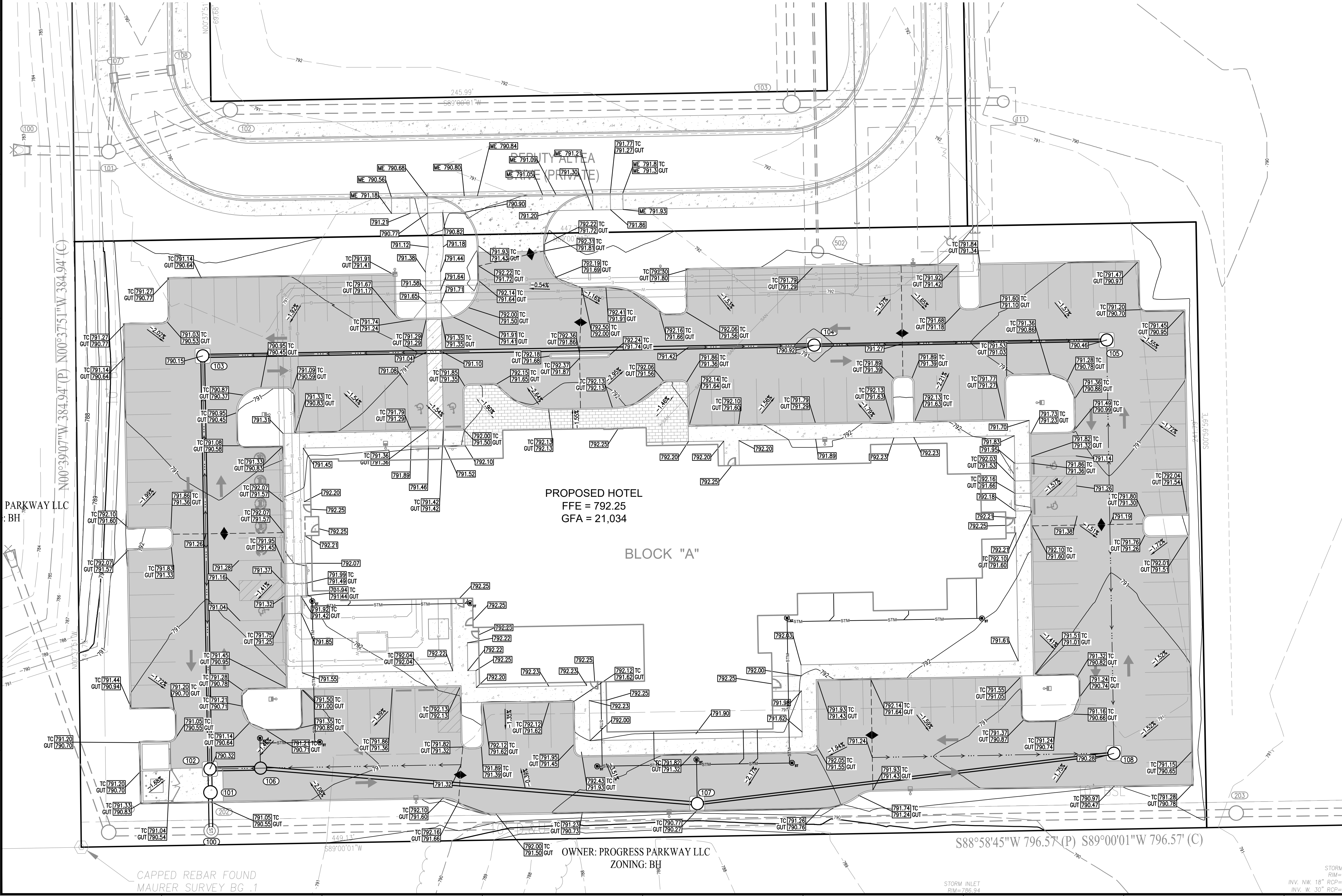
SHEET NO.

C201

PROJECT NO.

W22.0478

STORM SEWER STRUCTURE DATA TABLE				
STRUCTURE NUMBER	TOP OF CASTING	STRUCTURE TYPE	CASTING TYPE	INVERT
100	791.27	EXISTING MANHOLE	EXISTING	INV IN (N)= 783.00 (18" RCP)
101	790.49	WATER QUALITY STRUCTURE, ROUND	PER MANUFACTURER	INV IN (N)= 783.31 (18" RCP) INV OUT (S)= 783.31 (18" RCP)
102	790.32	PAVED INLET, ROUND STRUCTURE, RECTANGULAR CASTING	R-2502-D	INV IN (N)= 783.62 (18" RCP) INV IN (E)= 783.62 (18" RCP) INV OUT (S)= 783.49 (18" RCP)
103	790.15	PAVED INLET, ROUND STRUCTURE, RECTANGULAR CASTING	R-2502-D	INV IN (E)= 784.44 (15" RCP) INV OUT (S)= 784.44 (18" RCP)
104	790.92	PAVED INLET, ROUND STRUCTURE, RECTANGULAR CASTING	R-2502-D	INV IN (E)= 785.66 (12" RCP) INV OUT (W)= 785.66 (15" RCP)
105	790.46	PAVED INLET, ROUND STRUCTURE, RECTANGULAR CASTING	R-2502-D	INV OUT (W)= 786.25 (12" RCP)
106	790.52	PROPOSED MANHOLE	R-1772	INV IN (E)= 783.72 (15" RCP) INV OUT (W)= 783.72 (18" RCP)
107	790.25	PAVED INLET, ROUND STRUCTURE, RECTANGULAR CASTING	R-2502-D	INV IN (E)= 784.59 (12" RCP) INV OUT (W)= 784.59 (15" RCP)
108	790.28	PAVED INLET, ROUND STRUCTURE, RECTANGULAR CASTING	R-2502-D	INV OUT (W)= 785.43 (12" RCP)



GRADING PLAN LEGEND

ABBREVIATIONS

ROW RIGHT OF WAY
ESMT EASEMENT
D & U.E. DRAINAGE AND UTILITY EASEMENT
FEE FINISH FLOOR ELEVATION
TC TOP OF CURB
CMP CORRUGATED METAL PIPE
RCP REINFORCED CONCRETE PIPE
PVC POLYVINYL CHLORIDE PIPE
VCP VITRIFIED CLAY PIPE
HDPE HIGH DENSITY POLYETHYLENE PIPE
DIP DUCTILE IRON PIPE
SSD SUB SURFACE DRAIN PIPE
STM STORM
SAN SANITARY
STR STRUCTURE
CO CLEANOUT

OTHER

△ SIGN
○ BOLLARD
○ PARKING WHEEL STOP
○ ACCESSIBLE SPACE
○ CURB & GUTTER ELEVATION
○ PAVEMENT SPOT ELEVATION
○ GROUND SPOT ELEVATION
○ EXISTING SPOT ELEVATION
○ FLOW DIRECTION AND SLOPE
○ FIRE DEPT HOOKUP
○ FIRE HYDRANT
○ WATER MANHOLE
○ WATER METER
○ WATER VALVE
○ GAS METER
○ GAS VALVE
○ TRANSFORMER
○ GUY ANCHOR
○ UTILITY POLE
○ MONITORING WELL

UTILITIES

○ COMMUNICATIONS PEDESTAL
○ COMMUNICATIONS RISER
○ BEEHIVE INLET
○ CURB INLET
○ SQUARE INLET
○ STORM MANHOLE
○ DOWN SPOUT
○ SANITARY SEWER MANHOLE

GENERAL NOTES

1. THE SITE DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY - NATIONAL FLOOD INSURANCE PROGRAM, WHEN PLOTTED BY SCALE ON FLOOD INSURANCE RATE MAP #18145C01138C, DATED NOVEMBER 5, 2014.

EXISTING AREAS

PERVIOUS = 2.49 AC.
IMPERVIOUS = 0.000 AC.

PROPOSED AREAS

PERVIOUS = 1.80 AC.
IMPERVIOUS = 0.69 AC.

BENCHMARK DATA

SITE TBMS

TBM 1112 IS A CUT "X" ON THE NORTHEAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 240' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND SGT. HENDERSON DRIVE.
ELEV. 791.99 (NAVD 88)

TBM 1180 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE NORTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 240' SOUTHWEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND DEPUTY ALEYA DRIVE.
ELEV. 792.93 (NAVD 88)

TBM 1440 IS A CUT "X" ON THE EAST BONNET BOLT OF A FIRE HYDRANT ON THE SOUTHERN RIGHT-OF-WAY OF MARKET PLACE BLVD., APPROXIMATELY 308' WEST OF THE INTERSECTION OF MARKET PLACE BLVD. AND PROGRESS PARKWAY.
ELEV. 793.06 (NAVD 88)

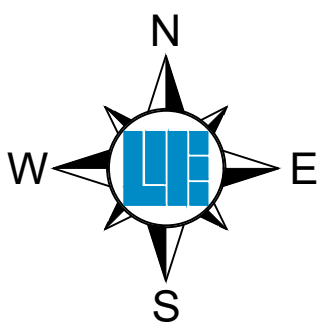
TBM 1819 IS A CUT "X" ON THE SOUTHWEST BONNET BOLT OF A FIRE HYDRANT ON THE EASTERN RIGHT-OF-WAY OF PROGRESS PARKWAY, APPROXIMATELY 607' SOUTH OF THE INTERSECTION OF PROGRESS PARKWAY AND MARKET PLACE BLVD.
ELEV. 793.12 (NAVD 88)

PAVEMENT

STANDARD DUTY ASPHALT
HEAVY DUTY ASPHALT
CONCRETE PAVEMENT

LINE TYPES

RIGHT OF WAY LINE
FENCE
GUARD RAIL
BOUNDARY LINE
FLOW LINE
INDEX CONTOUR
INTERMEDIATE CONTOUR
UNDERGROUND GAS
UNDERGROUND WATER
AERIAL ELECTRIC
UNDERGROUND ELECTRIC
UNDERGROUND COMMUNICATIONS
AERIAL COMMUNICATIONS
UNDERGROUND FIBER OPTIC
AERIAL FIBER OPTIC CABLE
OVERHEAD UTILITY
FORCE MAIN
SANITARY SEWER LATERAL
SANITARY SEWER MAIN
ROOF DRAIN
SUB SURFACE DRAIN
STORM SEWER MAIN
GRADE BREAK LINE



SCALE: 1" = 20'



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24 hours a day, 7 days a week.

PER INDIANA STATE LAW 16-1-26,
IT IS AGAINST THE LAW TO DISCARD
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE, TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.

10505 N. College Avenue
Indianapolis, Indiana 46280
w@wehne.com
317.846.6611
800.1452.6408
317.843.0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

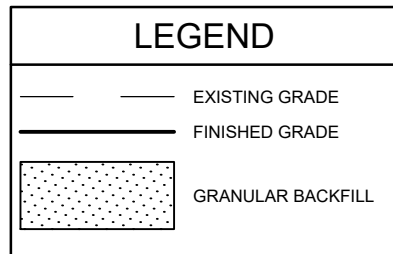
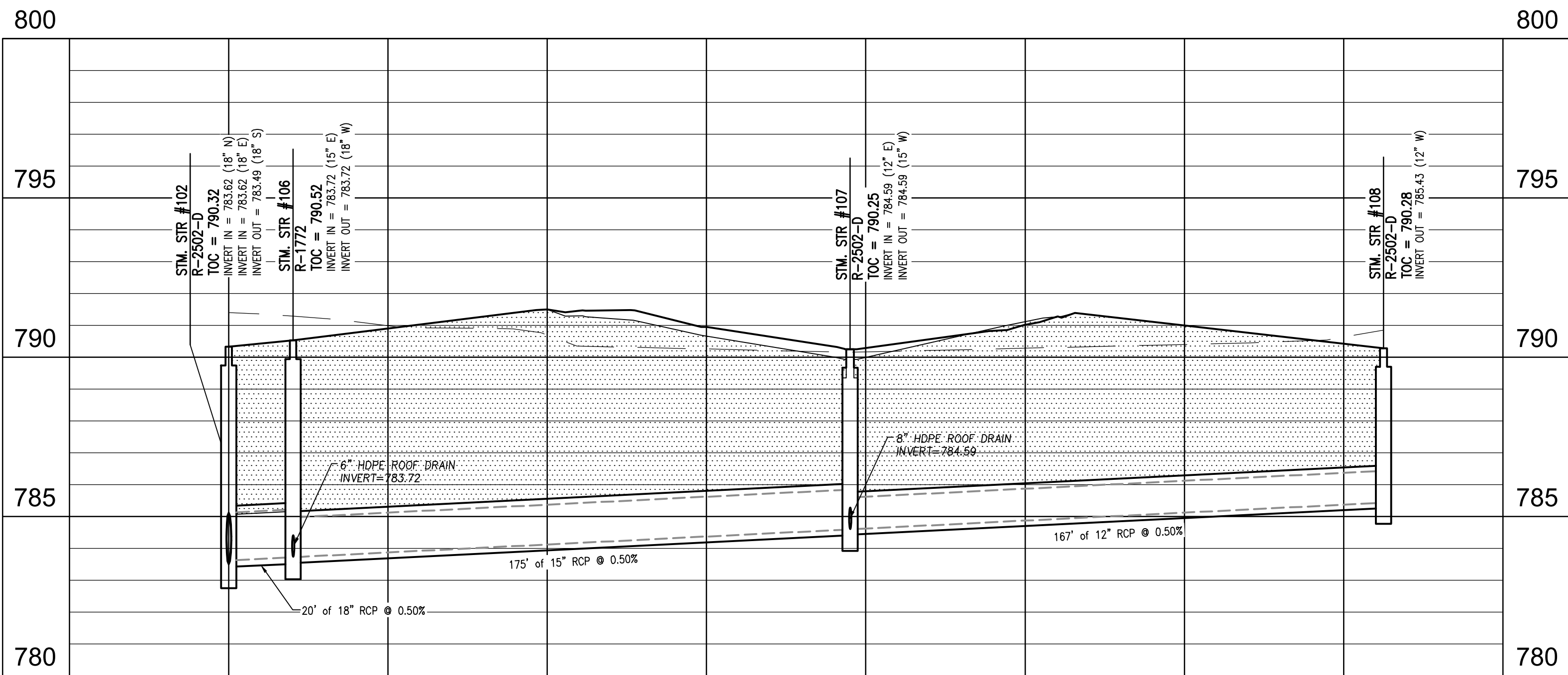
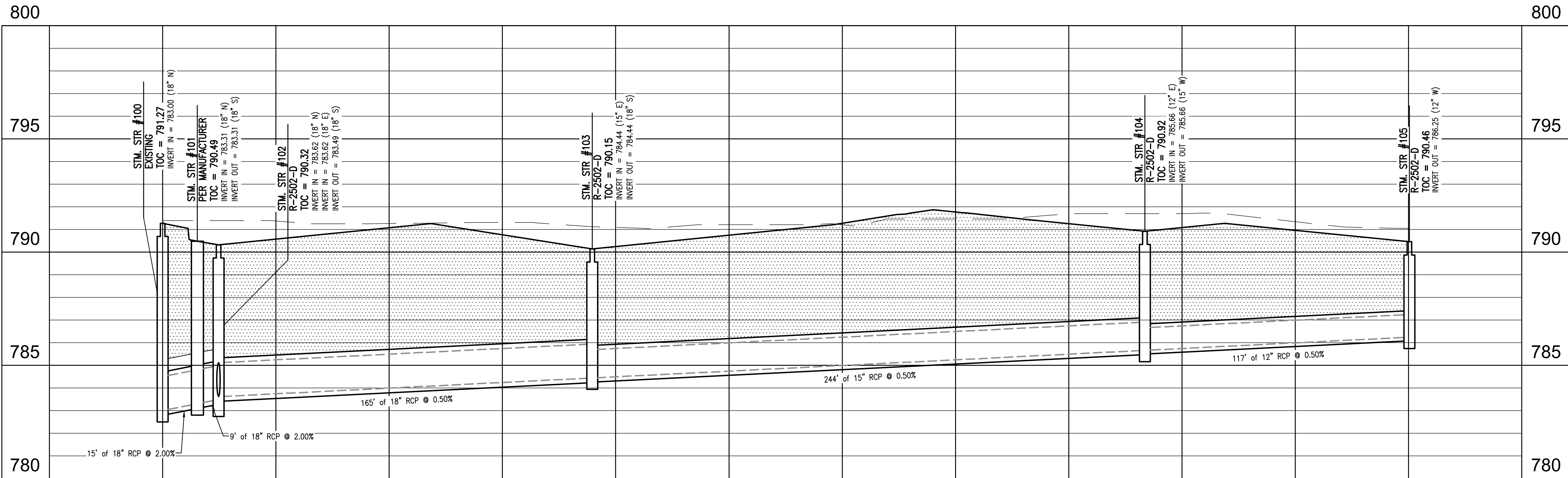
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PROJECT NO.:	W22.0478
DWG NAME:	Grading Plan
DESIGNED BY:	MGSAQ
DRAWN BY:	MGSAQ
CHECKED BY:	EAC
DATE:	03/09/2023

APPROVAL PENDING
NOT FOR CONSTRUCTION

PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176
GRADING PLAN
Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Addison Township, Shelby County, Indiana
SHEET NO.
C300
PROJECT NO.
W22.0478

LOCATION: H:\2022\W22.0478\Engineering\Drawings\Sheet\Block A\001 - Storm Plan.dwg
DATE/TIME: April 10, 2023 - 4:54pm
PLOTTER: B1: indam



HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

STORM PLAN NOTES

- 1 DOWNSPOUT/ROOF DRAIN POINT OF CONNECTION, COORDINATE WITH ARCHITECTURAL PLANS
- 2 4" HDPE DUAL WALLED HANCOR HQ OR EQUIVALENT ROOF DRAIN @ 2.0% MINIMUM.
- 3 6" HDPE DUAL WALLED HANCOR HQ OR EQUIVALENT ROOF DRAIN @ 2.0% MINIMUM.
- 4 8" HDPE DUAL WALLED HANCOR HQ OR EQUIVALENT ROOF DRAIN @ 2.0% MINIMUM.
- 5 STORM SEWER CLEANOUT

STORM SEWER PLAN AND PROFILE LEGEND

UTILITIES

- COMMUNICATIONS PEDESTAL
- COMMUNICATIONS RISER
- BEEHIVE INLET
- CURB INLET
- SQUARE INLET
- STORM MANHOLE
- DOWN SPOUT
- SANITARY SEWER MANHOLE

OTHER

- SIGN
- BOLLARD
- PARKING WHEEL STOP
- ACCESSIBLE SPACE
- CURB & GUTTER ELEVATION
- PAVEMENT SPOT ELEVATION
- GROUND SPOT ELEVATION
- EXISTING SPOT ELEVATION
- FLOW DIRECTION AND SLOPE
- FIRE DEPT HOOKUP
- FIRE HYDRANT
- WATER MANHOLE
- WATER METER
- WATER VALVE
- GAS METER
- GAS VALVE
- TRANSFORMER
- GUY ANCHOR
- UTILITY POLE
- MONITORING WELL

ABBREVIATIONS

- | | |
|---------|--------------------------------|
| ROW | RIGHT OF WAY |
| ESMT | EASEMENT |
| D & U/E | DRAINAGE AND UTILITY EASEMENT |
| FFE | FINISH FLOOR ELEVATION |
| CMP | CORRUGATED METAL PIPE |
| RCP | REINFORCED CONCRETE PIPE |
| PVC | POLYVINYL CHLORIDE PIPE |
| VCP | VITRIFIED CLAY PIPE |
| HDPE | HIGH DENSITY POLYETHYLENE PIPE |
| DIP | DUCTILE IRON PIPE |
| SSD | SUB SURFACE DRAIN PIPE |
| STM | STORM |
| SAN | SANITARY |
| STR | STRUCTURE |
| CO | CLEANOUT |

LINE TYPES

- | |
|----------------------------|
| RIGHT OF WAY LINE |
| FENCE |
| GUARD RAIL |
| BOUNDARY LINE |
| FLOW LINE |
| INDEX CONTOUR |
| INTERMEDIATE CONTOUR |
| UNDERGROUND GAS |
| UNDERGROUND WATER |
| AERIAL ELECTRIC |
| UNDERGROUND ELECTRIC |
| UNDERGROUND COMMUNICATIONS |
| AERIAL COMMUNICATIONS |
| UNDERGROUND FIBER OPTIC |
| AERIAL FIBER OPTIC CABLE |
| OVERHEAD UTILITY |
| FORCE MAIN |
| SANITARY SEWER LATERAL |
| SANITARY SEWER MAIN |
| ROOF DRAIN |
| SUB SURFACE DRAIN |
| STORM SEWER MAIN |

PAVEMENT

- | |
|-----------------------|
| STANDARD DUTY ASPHALT |
| HEAVY DUTY ASPHALT |
| CONCRETE PAVEMENT |



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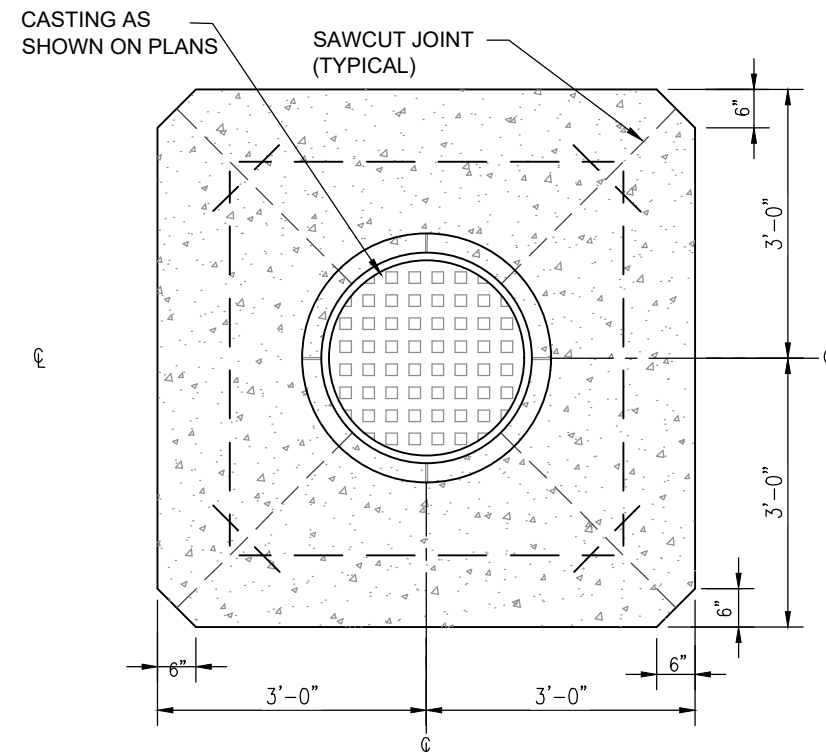
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PROJECT NO.:	W22.0478
DWG NAME:	Storm Plan.dwg
DESIGNED BY:	MS/SAO
DRAWN BY:	MS/SAO
CHECKED BY:	EAC
DATE:	03/09/2023

APPROVAL PENDING
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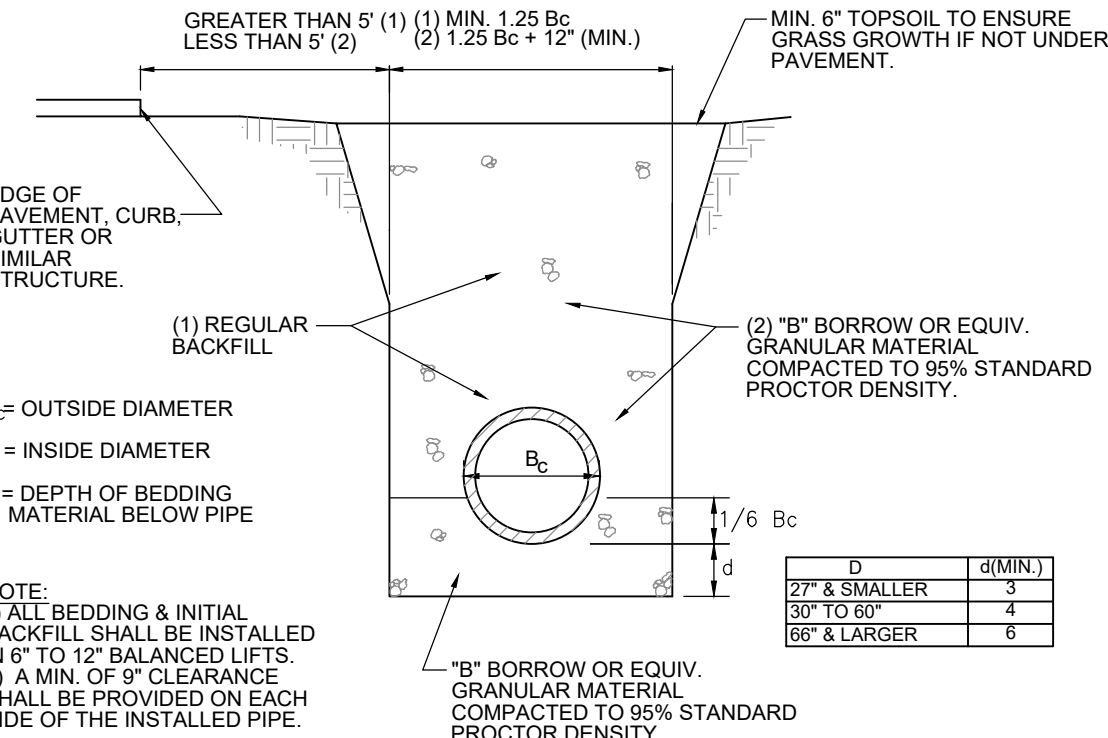
PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176
Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Addison Township, Shelby County, Indiana

SHEET NO.
C601
PROJECT NO.
W22.0478

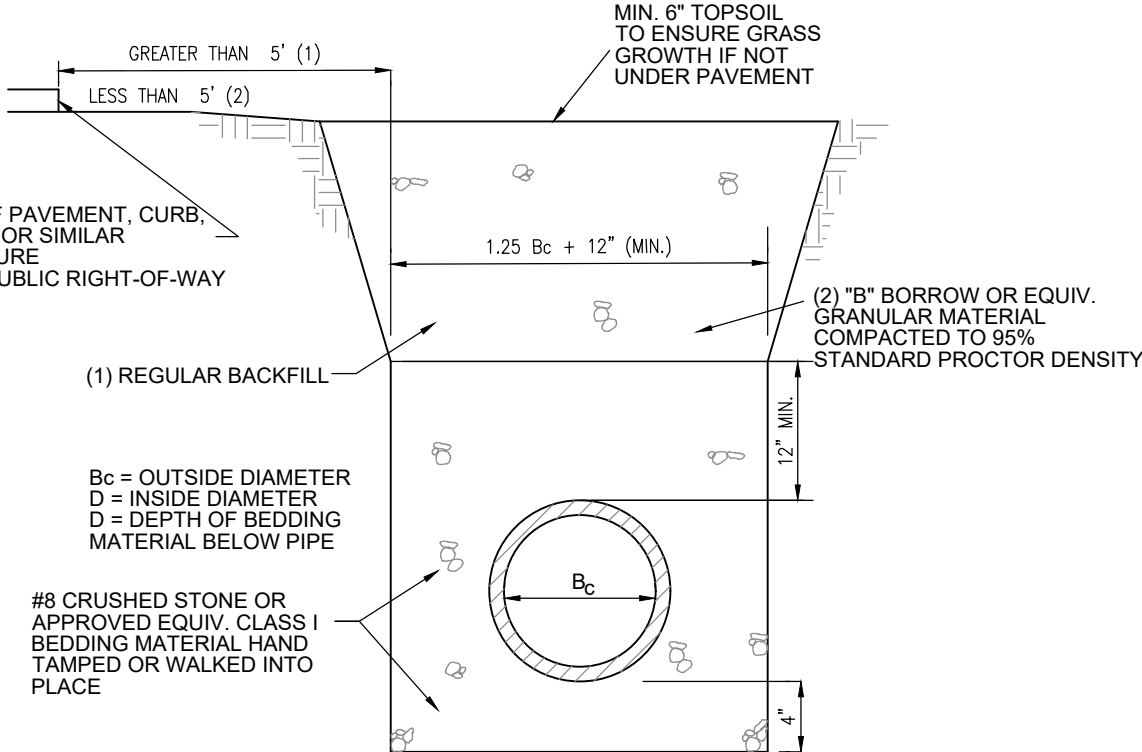


- NOTES:
- 1) CONCRETE SHALL BE MINIMUM 4000 PSI COMPRESSIVE STRENGTH @ 28 DAYS.
 - 2) REINFORCING BARS TO BE IN ACCORDANCE WITH ASTM A615, GRADE 60, DEFORMED. MINIMUM 10" LAP REQUIRED AT CORNERS. WIRE TIED LAP BARS ARE ACCEPTABLE.
 - 3) JOINTS AND JOINT SEALANTS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - 4) ALL FORMWORK AND MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

CONCRETE APRON (NTS)



TYPICAL BEDDING SECTION - RCP PIPE (NO SCALE)



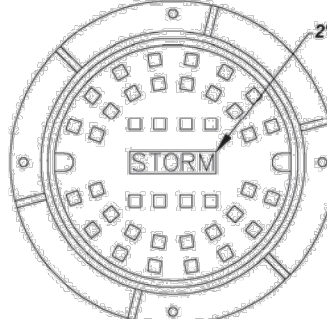
- NOTES:
1. ALL BEDDING & INITIAL BACKFILL SHALL BE INSTALLED IN 6" TO 12" BALANCED LIFTS
 2. A MIN. 9" CLEARANCE SHALL BE PROVIDED ON EACH SIDE OF THE INSTALLED PIPE

TYPICAL BEDDING SECTION - PVC & HDPE (NO SCALE)

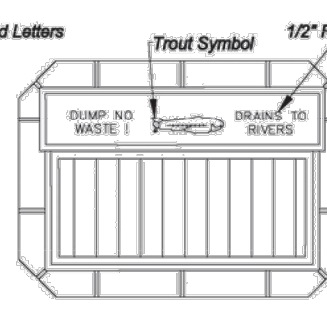
- GENERAL NOTES**
- 1) Type J, K, L, M, and N Manholes As Detailed Herein Require A Certain Minimum Depth. In Cases Where The Depth Of The Storm Sewer Is Not Sufficient To Meet The Minimum Depth As Required By The Detail, "X" Diameter Manhole Section May Be Used Throughout The Depth Of The Manhole.
 - 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 City Engineer. Regardless Of Type Of Casting Used, The Castings Shall Be Casted Over The Manhole Steps.
 - 3) Manhole Steps Shall Be Neenah R-1981-J, M.A. Industries PS 1-PF, Or Equivalent As Approved By The City Engineer.
 - 4) All Structures And Castings Shall Be Specified Based On Surface Conditions In Accordance With Table 14 On This Sheet.
 - 5) Castings For All Storm Structures Shall Be Stamped With Lettering As Shown In The Structure And Castings Specifications Below On This Sheet.
 - 6) 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.
 - 7) The Contractor Shall Remove Soils Under A Precast Bottom And Replace With 6 Inches Of Compacted INDOT #8 Stone.
 - 8) For Type C Manholes, The Base And First Riser Section Of The Precast Concrete Manhole Shall Be Temporarily Cast As One Complete Unit.
 - 9) Final Adjustment In Elevation Of The Frame, Cover, Or Casting Shall Be Accomplished By The Use Of A 4 Inch Minimum And 12 Inch Maximum 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.
 - 10) All Structures Shall Have A Minimum Of 4" Allowed For Riser Rings Or Adjustment.
 - 11) The Minimum Pipe Diameter For Storm Sewer In Public Right-Of-Way Is 12".
 - 12) Manholes Shall Be Installed At Distances Not Greater Than 400 Feet. For Pipes 36 Inches Or Larger, Greater Distances Between Manholes May Be Used With Written Approval Of The City Engineer.
 - 13) All Structure Castings Shall Be Surrounded By A 1" Expansion Joint When Placed In Asphalt Or Concrete. When Placed In Asphalt, Joint Shall Be Sealed In Accordance With INDOT Standard Specifications, Section 408. When Placed In Concrete, Joint Shall Be Sealed In Accordance With INDOT Standard Specifications, Sections 503 and 905.
 - 14) For A Series Of More Than One Inlets Connecting To A Trunkline, A Catch Basin With A 2 Foot Sump Shall Be Installed At The Structure Closest To The Trunkline.
 - 15) Maximum Pipe Infiltration In A Structure Shall Be 3 Inches.
 - 16) Each Pipe Section Shall Be Marked With Date of Manufacture, Size, And Class Of Pipe, Specification Designation, Manufacturer, And Plant Identification.

TABLE 14: STORM SEWER STRUCTURE & CASTING REQUIREMENTS			
SURFACE DRAINAGE TYPE	COMPATIBLE STRUCTURE TYPES	NEENAH CASTINGS #	"ELIN" CASTING #
Type I Riser Curb & Gutter	Inlet & Catch Basin Type A Inlet & Catch Basin Type B Manhole Type C, H, J, K, L, M, N	R-3501-T (R or L) R-3501-TB R-3501-L, J	7495 (M1 or M2) 7495 7495
Type II Combined Curb & Gutter	Inlet & Catch Basin Type A Inlet & Catch Basin Type B Inlet & Catch Basin Type C	R-3285-4V R-3287-10V R-3287-15V	7520 T1 7505 (M1 or M2) 7560 T1
Type III Gutter	Inlet & Catch Basin Type A Inlet & Catch Basin Type B Inlet & Catch Basin Type C	R-3210-L R-3067-L R-3398	5344 7520 T1 5100
Type IV Gutter	Inlet & Catch Basin Type A Inlet & Catch Basin Type B Inlet & Catch Basin Type C	R-3210-L R-3402-E R-3502-D	5344 7520 T1 5489
Open Pavement (No Curb)	Manhole Type C, H, J, K, L, M, N	R-4342 R-1772	1022 M1 1022-2 TYPE A
Swales/Grass/Unpaved Areas	Manhole Type C, H, J, K, L, M, N		
No Surface Drainage	Manhole Type C, H, J, K, L, M, N		

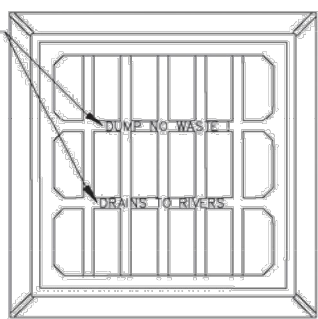
* Castings Other Than Neenah Or East Jordan Shall Be As Approved By The City Engineer.



LETTERING FIGURE 1
Applies To Solid Manhole Castings

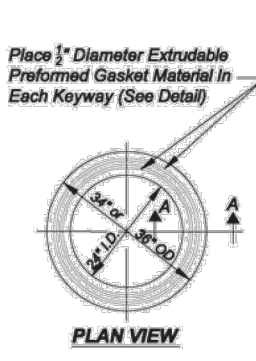


LETTERING FIGURE 2
Applies To Curb & Gutter Castings

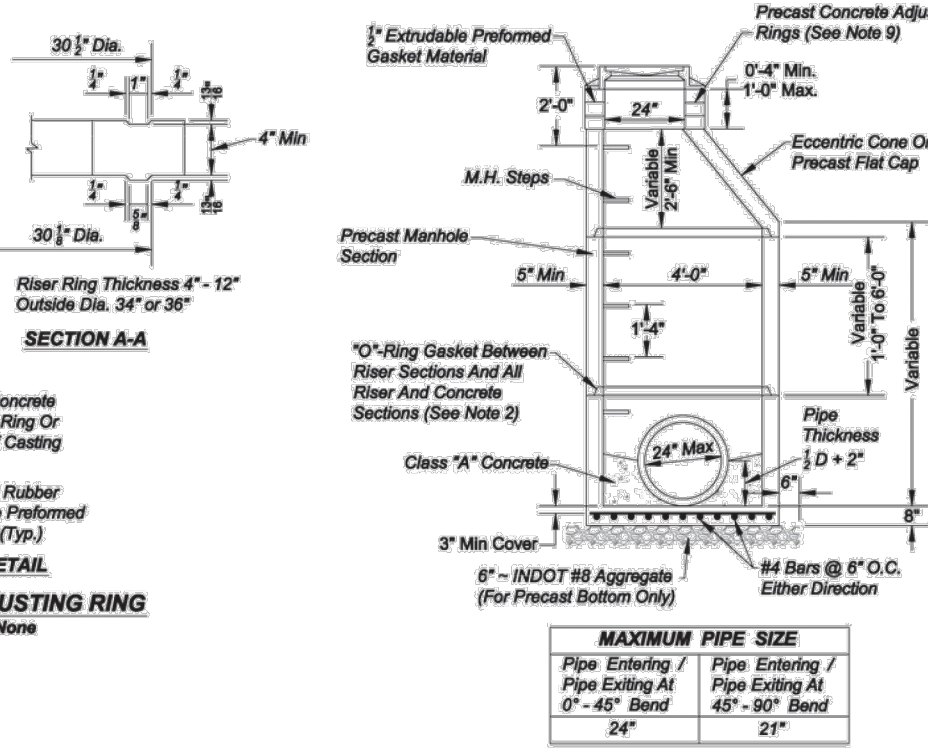


LETTERING FIGURE 3
Applies To Open Pavement And Unpaved Open Areas Castings

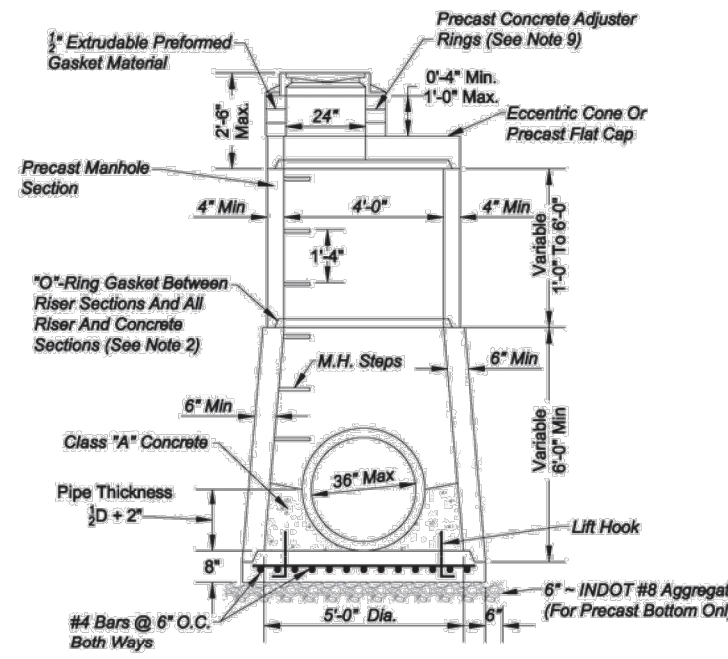
STORM STRUCTURE AND CASTING SPECIFICATIONS Scale: None



PRECAST ADJUSTING RING
Scale: None



MANHOLE TYPE C
Scale: None



MANHOLE TYPE H
Scale: None

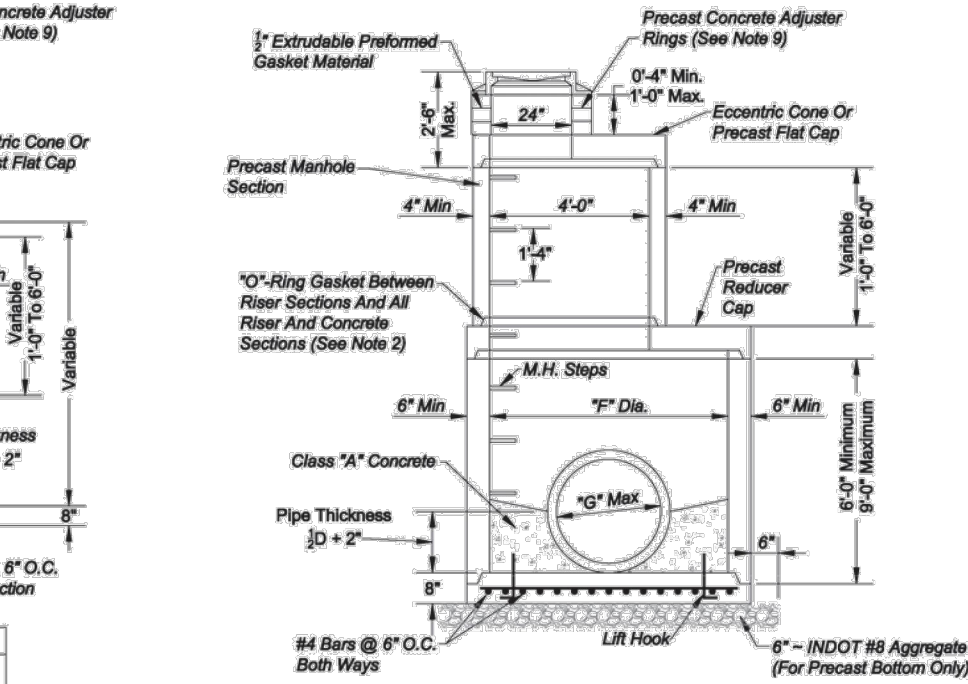


TABLE 15: DIMENSIONS FOR MANHOLE TYPES J, K, L, M, & N

Manhole Type	Manhole Diameter	Manhole Depth	Manhole Width	Manhole Height
J	60"	36"	36"	36"
K	72"	48"	36"	36"
L	96"	54"	48"	48"
M	102"	72"	60"	60"
N	108"	84"	72"	72"

MANHOLE TYPES J, K, L, M, & N
Scale: None

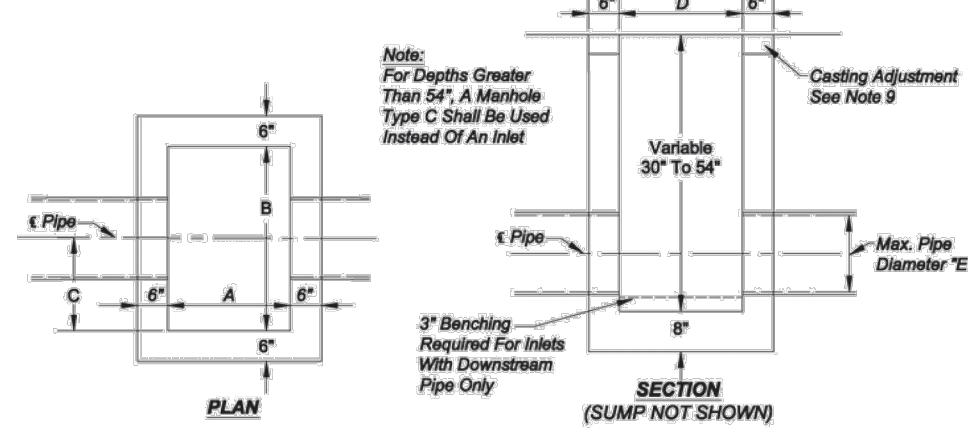


TABLE 16: INLET AND CATCH BASIN DIMENSIONS

STRUCTURE TYPE	A (ft)	B (ft)	C (ft)	D (ft)	E (ft)	Sump (ft)
Inlet Type A	24	24	12	24	18	None
Catch Basin Type A	24	24	12	24	18	24
Inlet Type B	24	24	16	24	24	None
Catch Basin Type B	24	24	16	24	24	24
Inlet Type C	30	30	20	30	30	None
Catch Basin Type C	30	30	20	30	30	24

INLETS AND CATCH BASINS - TYPES A, B, AND C
Scale: None

Rev. No.	Revisions	Date	City of Shelbyville	Sheet
1	Entire Set	07/26/2011	STORM SEWER STRUCTURES	10
2	Updated Entire Set	02/11/2020	DETAILS AND NOTES	OF 18

REQUIREMENTS FOR ALL STORM SEWER CASTINGS

BENCH WALLS SHALL BE SHAPED AND FORMED FOR A CLEAN TRANSITION WITH PROPER HYDRAULICS TO ALLOW THE SMOOTH CONVEYANCE OF FLOWS THROUGH THE MANHOLE OR BOX INLET. THE BENCH WALL SHALL FORM A DEFINED CHANNEL, TO A MINIMUM HEIGHT OF 80-PERCENT OF THE INSIDE DIAMETER OF THE INLET AND OUTLET PIPES TO FORM A "U" SHAPED CHANNEL. CONSTRUCTED AT A MINIMUM 1/2-INCH PER FOOT SLOPE TO THE MANHOLE WALL.

WHERE A FLOW CHANNEL IS CONSTRUCTED AS AN INTEGRAL PART OF THE PRE-CAST BASE, IT SHALL BE SHAPED AND FORMED AS DESCRIBED ABOVE, WITH THE EXCEPTION THAT THE BOTTOM OF THE FLOW CHANNEL MAY BE FORMED FROM THE BOTTOM OF INLET AND OUTLET PIPES IF THE PIPE WALL THICKNESS IS NOT GREATER THAN ONE (1) INCH.

FOR CAST-IN-PLACE FLOW CHANNELS, THE BOTTOM INVERT OF ALL PIPES ENTERING A MANHOLE SHALL BE AT LEAST THREE (3) INCHES ABOVE THE TOP OF THE BASE SLAB TO THE OUTLET INVERT SO THE FINISHED SEWER CHANNEL MAY BE INSTALLED AND SHAPED. FOR CONNECTIONS TO EXISTING STORM SEWER STRUCTURES, FLOW CHANNELS SHALL BE SHAPED, AS SPECIFIED HEREIN, AS IF IT WERE A NEW MANHOLE OR BOX INLET STRUCTURE.

SPECIFICATIONS FOR ALL STORM SEWER CASTINGS

ALL STORM WATER INLETS AND CATCH BASINS SHALL HAVE THE WORDS "NO DUMPING, DRAINS TO STREAM," OR SIMILARLY APPROVED MESSAGE, CAST IN RAISED OR RECESSED LETTERS AT A MINIMUM OF 1" IN HEIGHT. IN ADDITION, A SYMBOL OF A FISH SHALL ALSO BE CAST WITH THE LETTERS.

10505 N. College Avenue
Indianapolis, Indiana 46280
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317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0346 fax
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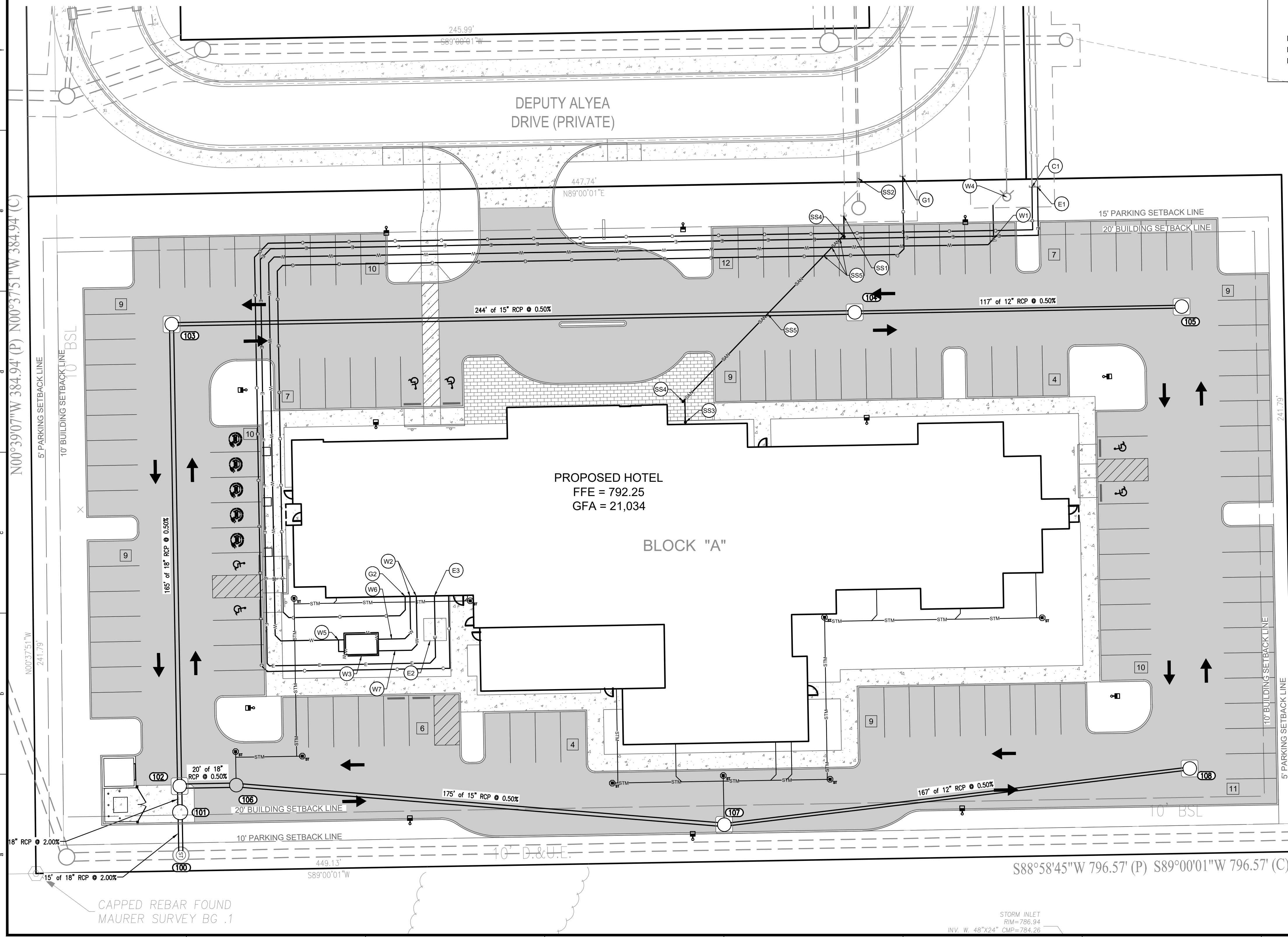
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


PROJECT NO.:	W22.0478
DWG NAME:	Storm Details
DESIGNED BY:	MGSAO
DRAWN BY:	MGSAO
CHECKED BY:	EAC
DATE:	03/09/2023

APPROVAL PENDING
NOT FOR CONSTRUCTION





















PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176
STORM DETAILS
Block A in Shelbyville Marketplace, Part of the NEA of Section 04, Township 12 North, Range 7 East, Adams Township, Shelby County, Indiana

SHEET NO.
C602
PROJECT NO.
W22.0478



- | | | | |
|---|-----------------------------|---|-----------------------------|
|  | CISTERN |  | COMMUNICATIONS JUNCTION BOX |
|  | DRINKING FOUNTAIN |  | COMMUNICATIONS MANHOLE |
|  | FIRE DEPT HOOKUP |  | COMMUNICATIONS PEDESTAL |
|  | FIRE HYDRANT |  | COMMUNICATIONS RISER |
|  | POST INDICATOR VALVE |  | TRAFFIC SIGNAL POLE |
|  | CHILLED WATER MANHOLE |  | TRAFFIC SIGNAL |
|  | WATER MANHOLE |  | STORM CLEANOUT |
|  | SPRINKLER CONTROL BOX |  | BEEHIVE INLET |
|  | SPRINKLER CONTROL VALVE |  | CURB INLET |
|  | SPRINKLER |  | FLOOR DRAIN |
|  | SPIGOT |  | ROUND INLET |
|  | WELL HEAD |  | SQUARE INLET |
|  | WATER METER |  | STORM MANHOLE |
|  | WATER VALVE |  | DOWN SPOUT |
|  | GAS METER |  | SANITARY SEWER CLEANOUT |
|  | GAS VALVE |  | LIFT STATION |
|  | ELECTRIC MANHOLE |  | SANITARY SEWER MANHOLE |
|  | ELECTRIC OUTLET |  | SANITARY STUB MARKER |
|  | ELECTRIC METER |  | SEPTIC TANK |
|  | ELECTRICAL RISER |  | DISTRIBUTION BOX |
|  | TRANSFORMER | | |
|  | GUY ANCHOR | | |
|  | ELECTRIC JUNCTION BOX |  | FLAG POLE |
|  | GENERATOR |  | SIGN |
|  | UTILITY POLE |  | POST |
|  | UTILITY POLE W/ TRANSFORMER |  | GATE POST |
|  | MONITORING WELL |  | BOLLARD |
|  | LIQUID PROPANE GAS TANK |  | PARKING METER |
|  | ORNAMENTAL LIGHT |  | PARKING WHEEL STOP |
|  | STREET LIGHT |  | ACCESSIBLE SPACE |
|  | PARKING LOT LIGHT (1 HEAD) | | |
|  | PARKING LOT LIGHT (2 HEAD) | | |
|  | PARKING LOT LIGHT (3 HEAD) | | |
|  | PARKING LOT LIGHT (4 HEAD) | | |

UTILITY PLAN LEGEND

- | | |
|---|-----------------------------|
|  | COMMUNICATIONS JUNCTION BOX |
|  | COMMUNICATIONS MANHOLE |
|  | COMMUNICATIONS PEDESTAL |
|  | COMMUNICATIONS RISER |
|  | TRAFFIC SIGNAL POLE |
|  | TRAFFIC SIGNAL |
|  | STORM CLEANOUT |
|  | BEEHIVE INLET |
|  | CURB INLET |
|  | FLOOR DRAIN |
|  | ROUND INLET |
|  | SQUARE INLET |
|  | STORM MANHOLE |
|  | DOWN SPOUT |
|  | SANITARY SEWER CLEANOUT |
|  | LIFT STATION |
|  | SANITARY SEWER MANHOLE |
|  | SANITARY STUB MARKER |
|  | SEPTIC TANK |
|  | DISTRIBUTION BOX |

UTILITY PLAN NOTES

- S31 CONNECT PROPOSED 8" SANITARY SEWER LATERAL TO EXISTING SANITARY SEWER STUB. COORDINATE CONNECTION WITH MEP. PROVIDE CLEANOUTS AS REQUIRED/SHOWN. VERIFY INVERTS ON EXISTENCE AND COORDINATE CONDITIONS WITH MEP. ADJUST AS REQUIRED.
 S32 EXISTING 8" SANITARY SEWER.
 S33 PROPOSED SANITARY LATERAL CLEANOUT TYPE 1 WITHIN 5' OF BUILDING. REFER TO DETAIL ON SHEET [C301].
 S34 PROPOSED SANITARY LATERAL CLEANOUT TYPE 2 (IN PAVED AREAS OUTSIDE OF 3' OF BUILDING). REFER TO DETAIL ON SHEET [C301].
 S35 PROVIDE 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER/STORM SEWER PIPES AND ALL OTHER PIPES. INSTALL COMPLETE CRADLE IF CLEARANCE IS LESS THAN 18".

- W1 COORDINATE AND CONNECT 8" WATER SERVICE LINE TO EXISTING 8" WATER MAIN
- W2 COORDINATE CONNECTION OF DOMESTIC SERVICE LINE AND FIRE SERVICE LINE WITH PLUMBING DRAWINGS
- W3 COORDINATE LOCATION AND CONNECTION OF COMBINED FIRE SERVICE AND METER VAULT FOR 3" AND LARGER SINGLE METER CONFIGURATION. REFER TO DETAIL ON SHEET C801

- W5 PROPOSED 8"x4" TEE
W6 PROPOSED 8" PVC FIRE SERVICE LINE
W7 PROPOSED 4" PVC DOMESTIC SERVICE LINE

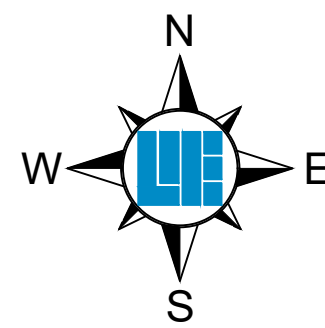
- E1 COORDINATE AND CONNECT BUILDING ELECTRICAL LINE FROM SERVICE DROP LOCATION TO TRANSFORMER. COORDINATE CONNECTION WITH POWER COMPANY AND ELECTRICAL DRAWINGS. ADJUST AS REQUIRED. COORDINATED NUMBER AND SIZE OF CONDUITS WITH MEP. CONDUITS TO BE INSTALLED WITH PULL STRINGS. 120/208V, 3 PHASE, 4- WIRE 3000 AMP ELECTRIC REQUIRED.

- COMMUNICATION NOTES:**
- C1 COORDINATE AND CONNECT BUILDING COMMUNICATION SERVICE LINE(S) TO CONNECTION POINT AS SHOWN. ADJUST AS REQUIRED. PVC CONDUIT TO BE INSTALLED WITH PULL STRINGS. COORDINATE WITH MEP AND UTILITY PROVIDER FOR NUMBER AND SIZE OF CONDUITS.

- G1 CONNECT PROPOSED GAS SERVICE TO EXISTING GAS LINE. REFER TO PLUMBING DRAWINGS AND COORDINATE WITH SERVICE PROVIDER.
- G2 PROPOSED GAS METER LOCATION. REFER TO PLUMBING DRAWINGS AND COORDINATE WITH SERVICE PROVIDER.

PAVEMENT

LINE TYPES



**Within Indiana Call
811 or 800-382-5544
24 Hours a Day, 7 Days a Week.**

PER INDIANA STATE LAW IC 8-1-26,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.

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

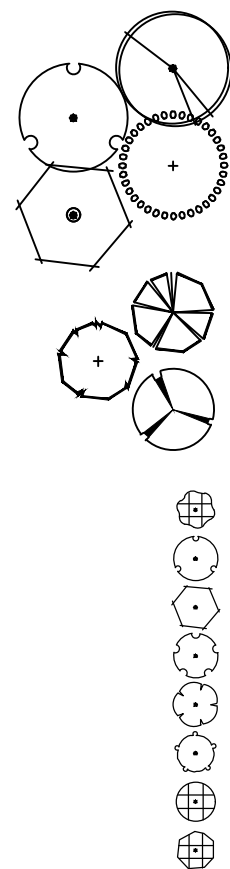
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NOT FOR CONSTRUCTION

PREPARED FOR: **SHELBYVILLE MARKETPLACE - HOTEL**
2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN

SHEET NO.
C800

PROJECT NO.
W22.0478

LOCATION: 10,2022 W22.0478 Engineering Design Concept (Block A) 100 - Landscape Planning
DATE: 10/10/2023
DRAWN BY: S. H. H. H.
CHECKED BY: S. H. H. H.
PROJECTED BY: S. H. H. H.



PLANT SCHEDULE							
PLAN KEY	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	B&B	CONT.	SPECIAL INSTRUCTIONS
CANOPY DECIDUOUS TREES							
AgM	ACER SACCHARUM 'GREEN MOUNTAIN'	SUGAR MAPLE 'GREEN MOUNTAIN'	2" cal.		X		65'T x 40'W
GaG	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO	2" cal.		X		45'T x 30'W
GIS	GLEDTISIA TRIACANTHOS 'INERMIS' 'SKYLINE'	SKYLINE HONEYLOCUST	2" cal.		X		45'T x 35'W
QuR	QUERCUS RUBRUM	RED OAK	2" cal.		X		60'T x 60'W
ORNAMENTAL TREES							
AgF	ACER GINNALA 'FLAME'	AMUR MAPLE	6' ht.		X		15'T x 15'W
AaB	AMELANCHIER GRANDIFLORA 'AUTUM BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICE BERRY	6' ht.		X		20'T x 20'W
BpW	BETULA POPULIFOLIA 'WHITESPIRE'	WHITESPIRE GRAY BIRCH	6' ht.		X		40'T x 20'W
DECIDUOUS SHRUBS							
CoS	CORNUS SERICEA	REDOSIER DOGWOOD	#5	21		X	7'T x 10'W
HeS	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	#5	38		X	4'T x 4'W
PtG	POTENTILLA FRUTICOSA 'GOLDFINGER'	GOLDFINGER POTENTILLA	#5	15		X	3'T x 4'W
RaG	RHUS AROMATICA 'GROW-LOW'	GRO-LOW FRAGRANT SUMAC	#5	33		X	2'T x 8'W
SgM	SPIRAEA X 'GOLD MOUND'	GOLD MOUND SPIREA	#5	28		X	3'T x 4'W
SmP	SYRINGA MEYERI 'PALABIN'	DWARF KOREAN LILAC	#5	16		X	5'T x 7'W
SmK	SYRINGA PATULA 'MISS KIM'	MISS KIM DWARF LILAC	#5	14		X	6'T x 6'W
VIN	VIBURNUM PLICATUM TOMENTOSUM 'NEWZAM'	NEWPORT VIBURNUM	#5	17		X	4'T x 5'W

LANDSCAPE ORDINANCE REQUIREMENTS		
REQUIREMENT:	REQUIRED:	PROVIDED:
FP ARTICLE 5/LANDSCAPE STANDARDS/5.32/LA-02:NON-RESIDENTIAL LANDSCAPING STANDARDS/A/1/FOUNDATION PLANTINGS: - FACADE IS MORE THAN 80' IN OVERALL LENGTH - FRONT FACADE (280 LF): (2 SHRUBS OR ORNAMENTAL TREES PER EVERY 5' OF OVERALL LENGTH) - SIDE & REAR FACADES (455 LF): (2 SHRUBS OR ORNAMENTAL TREES PER EVERY 10' OF OVERALL LENGTH) - MINIMUM 30% SHRUBS & 50% ORNAMENTAL TREES	- FRONT FACADE = 112 ORNAMENTAL TREES OR SHRUBS (MIN. 56 ORNAMENTAL TREES & 34 SHRUBS) - SIDE & REAR FACADE = 91 ORNAMENTAL TREES OR SHRUBS (MIN. 46 ORNAMENTAL TREES & 28 SHRUBS)	- 13 ORNAMENTAL TREES - 195 SHRUBS - (14) DECIDUOUS TREES & (6) ORNAMENTAL TREES ALONG PERIMETER OF DRIVE ISLE AND PARKING LOT
YP ARTICLE 5/LANDSCAPE STANDARDS/5.32/LA-02:NON-RESIDENTIAL LANDSCAPING STANDARDS/A/2/YARD PLANTINGS: - LOTS MORE THAN 1 ACRE IN AREA (3 CANOPY TREES PER ACRE)	2.49 ACRES - 7.47 CANOPY TREES	- 32 DECIDUOUS TREES
PLP ARTICLE 5/LANDSCAPE STANDARDS/5.35/LA-05:PARKING LOT LANDSCAPE STANDARDS/B/1/PARKING LOT PERIMETER REQUIREMENTS: - LANDSCAPE AREA MINIMUM OF 10' IN WIDTH - OPTION 1 - (TREE & SHRUBS): 1 TREE SHALL BE PROVIDED FOR EVERY 400 SF OF LANDSCAPED AREA, 1 SHRUB FOR EVERY 50 SF OF LANDSCAPE AREA - 30% ORNAMENTAL TREES, 30% DECIDUOUS TREES.	- 330 LF X 10 SF = 3,300 SF - 8.25 TREES - MIN. 2.5 ORNAMENTAL TREES - MIN. 2.5 DECIDUOUS TREES - 66 SHRUBS	- 3 ORNAMENTAL TREES - 6 DECIDUOUS TREES - 66 SHRUBS
PLI ARTICLE 5/LANDSCAPE STANDARDS/5.35/LA-05:PARKING LOT LANDSCAPE STANDARDS/C/1/PARKING LOT INTERIOR REQUIREMENTS: - LANDSCAPED ISLANDS WITH A COMBINED SURFACE AREA EQUAL TO 7.5% OF THE AREA OF PARKING LOT WITH MORE THAN 50 PARKING SPACES - ALL LANDSCAPE ISLANDS SHALL BE A MINIMUM OF 180 SF - 1 TREE SHALL BE PROVIDED FOR EVERY 200 SF OF LANDSCAPED AREA - 30% ORNAMENTAL TREES, 30% DECIDUOUS TREES, 1 SHRUB FOR EVERY 50 SF OF LANDSCAPE AREA	- 49,111 SF ASPHALT - 125 PARKING SPACES - 3,683 SF LANDSCAPED AREA - 18.5 TREES - MIN. 5.5 ORNAMENTAL TREES - MIN. 5.5 DECIDUOUS TREES - 74 SHRUBS	- 3,875 SF LANDSCAPED AREA - 6 TREES ORNAMENTAL TREES - 13 DECIDUOUS TREES - 76 SHRUBS

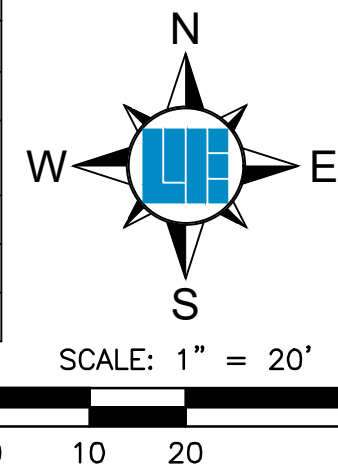
PLANT SCHEDULE							
PLAN KEY	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	B&B	CONT.	SPECIAL INSTRUCTIONS
EVERGREEN SHRUBS							
BgV	BUXUS X KOREANA 'GREEN VELVET'	GREEN VELVET BOXWOOD	#5	18		X	3'T x 3'W
BmW	BUXUS MICROPHYLLA VAR. KOREANA 'WINTERGREEN'	WINTERGREEN KOREAN BOXWOOD	#5	62		X	3'T x 4'W
JhP	JUNIPEROUS HORIZONTALIS 'PLUMOSA'	CREeping JUNIPER	#5	52		X	1.5'T x 8'W
JpS	JUNIPEROUS X PFITZERIANA 'SEA GREEN'	SEA GREEN JUNIPER	#5	28		X	5'T x 7'W
TmD	TAXUS MEDIA 'DENSIFORMIS'	DENSIFORM YEW	#5	11		X	3'T x 4'W

LANDSCAPE PLAN NOTES

GIS	PLANT NAME
1	QUANTITY
P1	PLANTING AREA

LANDSCAPE LEGEND

	MULCHED LANDSCAPE BEDS
	SEED / SOD (SEE SWPPP)



PREPARED FOR:
SHELBYVILLE MARKETPLACE - HOTEL

2235 MARKETPLACE BOULEVARD, SHELBYVILLE, IN 46176

LANDSCAPE PLAN

SHEET NO.
L100

PROJECT NO.
W22.0478

REVISIONS AND ISSUES	DATE	BY	PROJECT NO.
W22.0478			
DWG NAME			
L100 - Landscape Plan			
DESIGNED BY			
NGS/AQ			
DRAWN BY			
NGS/AQ			
CHECKED BY			
EAC			
DATE			
03/09/2023			

APPROVAL PENDING
NOT FOR CONSTRUCTION

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - FOUNDER

WEIHE
ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture
Build with confidence.

GENERAL NOTES

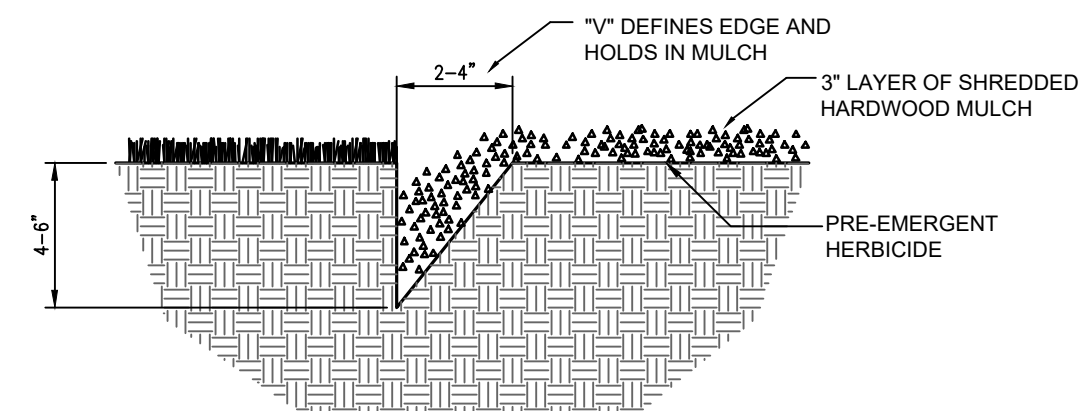
- IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. IF IN QUESTION, CONTACT THE LANDSCAPE ARCHITECT.
- PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY FOR ALL PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK", LATEST EDITION.
- SUBMIT A LIST OF NURSERY SOURCES FOR ALL SPECIFIED PLANT MATERIAL INDICATING THE SIZE, GENUS, SPECIES AND VARIETY. INCLUDE THE QUANTITY OF PLANT MATERIAL TO BE PROCURED FROM EACH NURSERY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PERTAINING TO THEIR PHASE OF WORK. UTILITIES ARE SHOWN TO BE APPROXIMATE. CALL UTILITY LOCATE PRIOR TO ANY PLACEMENT OF PLANT MATERIAL OR OTHER LANDSCAPE MATERIAL.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES THAT MAY BE REQUIRED FOR HIS PORTION OF WORK.
- ANY EXISTING TREE(S) AND/OR PLANTINGS THAT MAY REQUIRE REMOVAL BUT ARE NOT SHOWN ON THE PLAN AS BEING REMOVED SHALL BE PROTECTED AND BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT TO DETERMINE IF TREE(S) AND/OR PLANTINGS SHOULD BE 1) REMOVED, 2) SAVED AND INTEGRATED INTO THE LANDSCAPE DESIGN, OR 3) RELOCATED.
- CONTRACTOR TO REVIEW THE SWPPP SERIES PLANS FOR STABILIZATION (SEEDING/SOD/MULCH) REQUIREMENTS.
- PLANTING BEDS AND PLANT MATERIAL SHALL BE LOCATED AS INDICATED ON LANDSCAPE PLAN. IN THE EVENT FIELD CHANGES OR CONDITIONS REQUIRE MODIFICATION TO THE LANDSCAPE DESIGN, THE CONTRACTOR SHALL CONSULT LANDSCAPE ARCHITECT AS TO PROPOSED MODIFICATIONS PRIOR TO PLANTING. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT LOCATIONS ON SITE IF NECESSARY.
- ALL PLANTS ARE TO MEET OR EXCEED AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSERYMEN.
- PLANTS SHALL BEAR A TAG SHOWING GENUS, SPECIES AND VARIETY. REMOVE AT TIME OF FINAL ACCEPTANCE.
- PLANTS SHALL BE CERTIFIED BY THE STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES AND FREE FROM DISEASE OR HAZARDOUS INSECTS.
- LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING PRIOR TO BID DATE OF ANY PLANTS THAT HE FEELS MAY NOT SURVIVE IN LOCATIONS NOTED.
- NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE ALLOWED WITHOUT APPROVAL OF THE JURISDICTION HAVING AUTHORITY AND THE LANDSCAPE ARCHITECT. IF PLANTS ARE SHOWN TO BE UNAVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID DATE IN WRITING. THE CONTRACTOR SHALL COMPENSATE THE LANDSCAPE ARCHITECT FOR THE TIME REQUIRED FOR REVIEW AND INSPECTION OF PROPOSED PLANT SUBSTITUTIONS BID AWARD.
- ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY. SUBMIT COLOR PHOTOGRAPHS OF PROPOSED PLANT MATERIAL TAKEN IN THE NURSERY WHERE THEY ARE GROWING. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT PLANT MATERIALS AT NURSERY OR CONTRACTOR YARD PRIOR TO DELIVERY TO THE SITE. THE LANDSCAPE ARCHITECT MAY ALSO INSPECT AND APPROVED OR REJECTED PLANT MATERIAL ON THE JOB SITE. IN THE EVENT PLANT MATERIAL IS NOT THE SPECIFIED SIZE OR QUALITY, PLANTS WILL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- PLANTS AND OTHER LANDSCAPE MATERIALS TO BE STORED ON SITE WILL BE PLACED WHERE THEY WILL BE PROTECTED AND NOT CONFLICT WITH CONSTRUCTION OPERATIONS.
- COMPOST SHALL BE A WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. IT SHALL BE DERIVED FROM: AGRICULTURAL, FOOD, OR INDUSTRIAL RESIDUALS; BIOSOLIDS (TREATED SEWAGE SLUDGE); YARD TRIMMINGS; SOURCE-SEPARATED OR MIXED SOLID WASTE. THE PRODUCT SHALL CONTAIN NO SUBSTANCES TOXIC TO PLANTS AND SHALL BE REASONABLY FREE (< 1% BY DRY WEIGHT) OF MAN-MADE FOREIGN MATTER. THE COMPOST WILL POSSESS NO OBJECTIONABLE ODOORS AND SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT WAS DERIVED.
- SHRUB AND PERENNIAL BEDS SHALL BE PREPARED BY PLACING 3" OF APPROVED COMPOST OVER PULVERIZED TOPSOIL AND ROTOTILLING TO A DEPTH OF 6".
- PRE-EMERGENT HERBICIDE SHALL BE APPLIED IN ALL PLANTING AND GROUND COVER BEDS PRIOR TO MULCHING AT RATES SPECIFIED BY MANUFACTURER FOR EACH VARIETY OF PLANT. PRE-EMERGENT HERBICIDE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO APPLICATION.
- ALL TREE AND SHRUB PLANTING AREAS TO BE COVERED WITH 3" THICK LAYER OF SHREDDED HARDWOOD BARK MULCH. ALL GROUND COVER BEDS SHALL BE COVERED WITH 1" SHREDDED HARDWOOD BARK MULCH. BARK MULCH SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND SHALL BE UNIFORM IN TEXTURE AND COLOR AND SHALL BE FREE OF STICKS, LEAVES, SOIL AND FOREIGN MATERIAL. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED.
- CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS AND PLANT MATERIAL UNTIL ALL PUNCH LIST WORK HAS BEEN COMPLETED AND WRITTEN FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS INSTALLED AND SHALL INCLUDE BUT NOT LIMITED TO, WATERING, WEEDING, PRUNING, DISEASE AND INSECT CONTROL, MOWING, RESETTING OF PLANTS TO PROPER GRADES OR UPRIGHT POSITION, AND ANY OTHER PROCEDURE CONSISTENT WITH GOOD HORTICULTURAL PRACTICES.
- ALL NEW LANDSCAPE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL ACCEPTANCE AS DETERMINED BY LANDSCAPE ARCHITECT OR OWNER. AT THE END OF THIS PERIOD, PLANT MATERIAL DETERMINED TO BE DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT OR OWNER SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE CONTRACTOR.

SUN & SHADE SEED MIXTURE		
APPLICATION RATE: 3-4 lb/1,000 sq. ft.		
TURF-TYPE PERENNIAL RYEGRASS		34%
FINE FESCUE		33%
SHAMROCK KBG		33%
Sun & Shade Park Mix forms a durable turf for general use areas. Sun & Shade Park Mix will do well under a wide range of maintenance levels and can be established in full sun to partially shaded conditions. Sun & Shade Park Mix will provide turf with a fine texture, good mowing quality, and withstand moderate traffic. Sun & Shade Park Mix will establish quickly for maximum competition against annual weeds.		

FESCUE LAWN SEED MIX		
BOTANICAL NAME	COMMON NAME	OZ./ACRE
NOTES:		
LAWN SEED SHALL BE FRESH, CLEAN, DRY NEW - CROP COMPOSED OF VARIETIES, MIXED PROPORTIONS, AND TESTED FOR MINIMUM PERCENTAGES OF PURITY AND AS SPECIFIED AS FOLLOWS:		
PERMANENT COVER:		
FESTUCA COMMUTATE	LONGFELLOW II CHEWINGS FESCUE	25.00%
FESTUCA OVINA	SHEEPS FESCUE	25.00%
FESTUCA BREVIPIILA	CHARIOT HARD FESCUE	13.00%
FESTUCA RUBRA	SHORELINE SLENDER CREEPING RED FESCUE	12.00%
FESTUCA RUBRA SUBSPECIES RUBRA	SR 5250 CREEPING RED FESCUE	13.00%
FESTUCA BREVIPIILA	GOTHAM HARD FESCUE	12.00%
SEEDING RATE FOR MIX:		250 LBS/ACRE

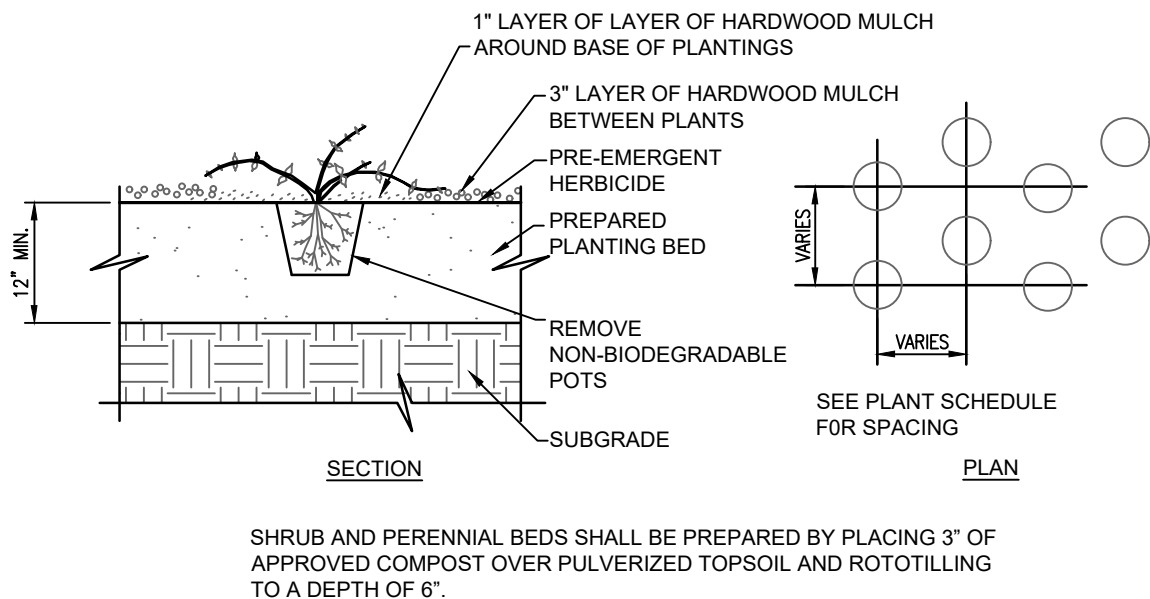
PERMANENT SEEDING NOTES

- GRADING**
- GRADE THE SITE TO ACHIEVE PROPOSED GRADES AND POSITIVE DRAINAGE.
 - ADD TOPSOIL TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION.
- SEEDBED PREPARATION**
- TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
 - APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
 - TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OR RAKE, OPERATED ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL.
- SEEDING**
- OPTIMUM SEEDING DATES: **MARCH 1 TO MAY 10 OR AUGUST 10 TO SEPTEMBER 30**
- PERMANENT SEEDING DONE BETWEEN **MAY 10 TO AUGUST 10** - SHALL BE IRRIGATED. SEEDING OUTSIDE OR BEYOND OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OR OVERSEEDING SHALL BE REQUIRED IF ADEQUATE SURFACE COVER IS NOT ACHIEVED. RESEEDING OR OVERSEEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH MULCH.
- APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE-HALF INCH. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS. (IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.)
 - MULCH ALL SEEDBED AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. USE EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS.
- MAINTENANCE**
- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED.
 - CHARACTERISTICS OF A SUCCESSFUL STAND INCLUDE VIGOROUS DARK GREEN OR BLuishGREEN SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.
 - CHECK FOR EROSION OR MOVEMENT OF MULCH.
 - REPAIR DAMAGED, BARE, GULLIED, OR SPARSELY VEGETATED AREAS AND THEN FERTILIZE, RESEED, AND APPLY AND ANCHOR MULCH.
 - IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY, MOISTURE CONDITION, AND MULCH APPLICATION. REPAIR AFFECTED AREAS EITHER BY OVERSEEDING OR PREPARING A NEW SEEDBED AND RESEEDING. APPLY AND ANCHOR MULCH ON THE NEWLY SEEDBED AREAS.
 - IF VEGETATION FAILS TO GROW, TEST SOIL TO DETERMINE SOIL PH OR NUTRIENT DEFICIENCY PROBLEMS. (CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE.)
 - IF ADDITIONAL FERTILIZATION OR SOIL AMENDMENTS ARE NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL TEST RECOMMENDATIONS.
 - ADD FERTILIZER THE FOLLOWING GROWING SEASON. FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS.
 - FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION. FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.



2 V-CUT LANDSCAPE BED EDGE DETAIL

Scale: N.T.S.



3 GROUND COVER PLANTING

Scale: N.T.S.

