ROAD EXTENSION FOR I-40 INDUSTRIAL PARK

BYRD DRIVE SEVIERVILLE, TN 37764

PROJECT INFORMATION:

OWNERNAME:SEVIER COUNTY ECONOMIC DEVELOPMENT BOARDADDRESS:321 COURT AVE.
SEVIERVILLE, TN 37862PHONE:(865)-368-9011

PROPERTY DAT

ADDRESS: BYRD DRIVE KODAK, TN 3776

PARCEL ID: 065.02
ZONING: IN

VERTICAL DATUM: NAVD 88

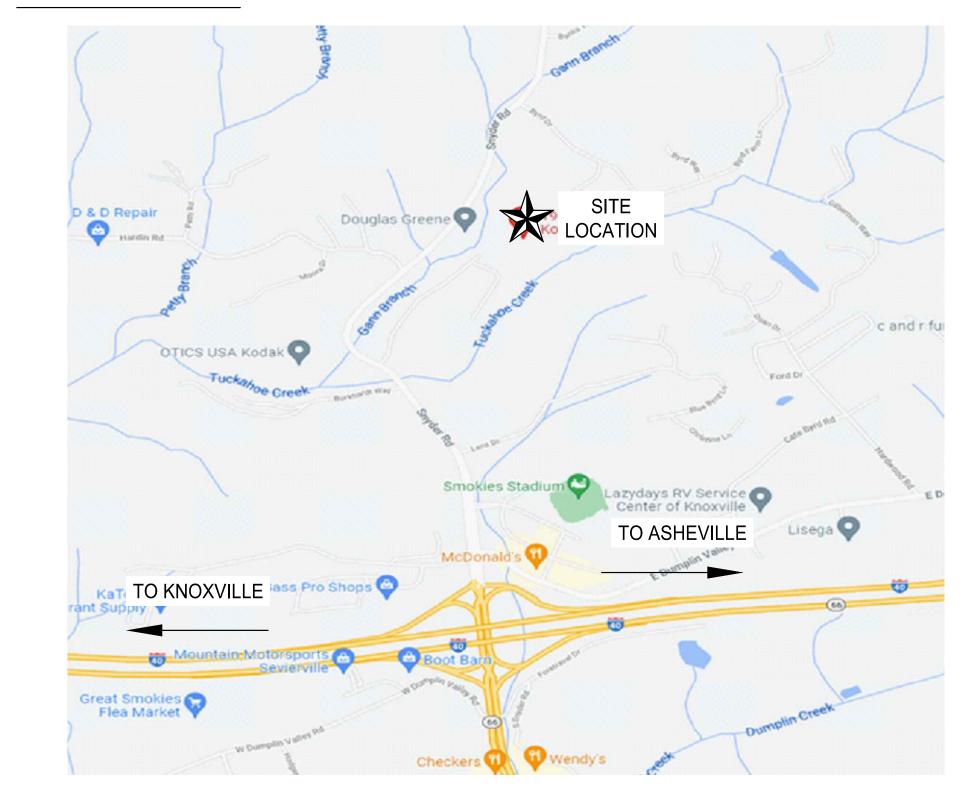
LIST OF DRAWINGS:

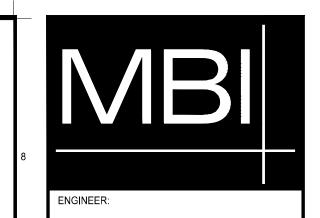
GENERAL
G000 COVER SHEET

CIVIL AND SITE ENGINEERING
C001 CIVIL NOTES & LEGENDS
C100 PHASE 1 EROSION PREVENTION & SEDIMENT CONTROL PLAN
C101 PHASE 2 EROSION PREVENTION & SEDIMENT CONTROL PLAN
C300 ROAD AND UTILITY PLAN
C400 SITE GRADING AND DRAINAGE PLAN
C700 CIVIL PROFILES
C800 CIVIL DETAILS
C801 CIVIL DETAILS

NUMBER OF SHEETS: 9 TOTAL

VICINITY MAP:





MBI COMPANIES ING 299 N. WEISGARBER ROAI KNOXVILLE, TN 3791 E: (865) 584-099

SEAL

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PROJECT INFORMATION PROJECT:

BYRD DRIVE EXTENSION
PROJECT ADDRESS:

BYRD DRIVI SEVIERVILLE, TN 3776 PROJECT NO.: 190136.0

ACTIVE DESIGN PHASE

FOR REVIEW ONI
FOR PERMITTING ONI
SCHEMATIC DESIGN
DESIGN DEVELOPMEN
CONSTRUCTION BIDDIN

CONSTRUCTION DOCUMENT

AS-BUILT RECORD SET
REVISION INFORMATION

NO. DATE DESCRIPTION

KEY PLAN

SHEET INFORMATION

SHEET ISSUED: 11/12/202

DESIGNED BY: I.A.J

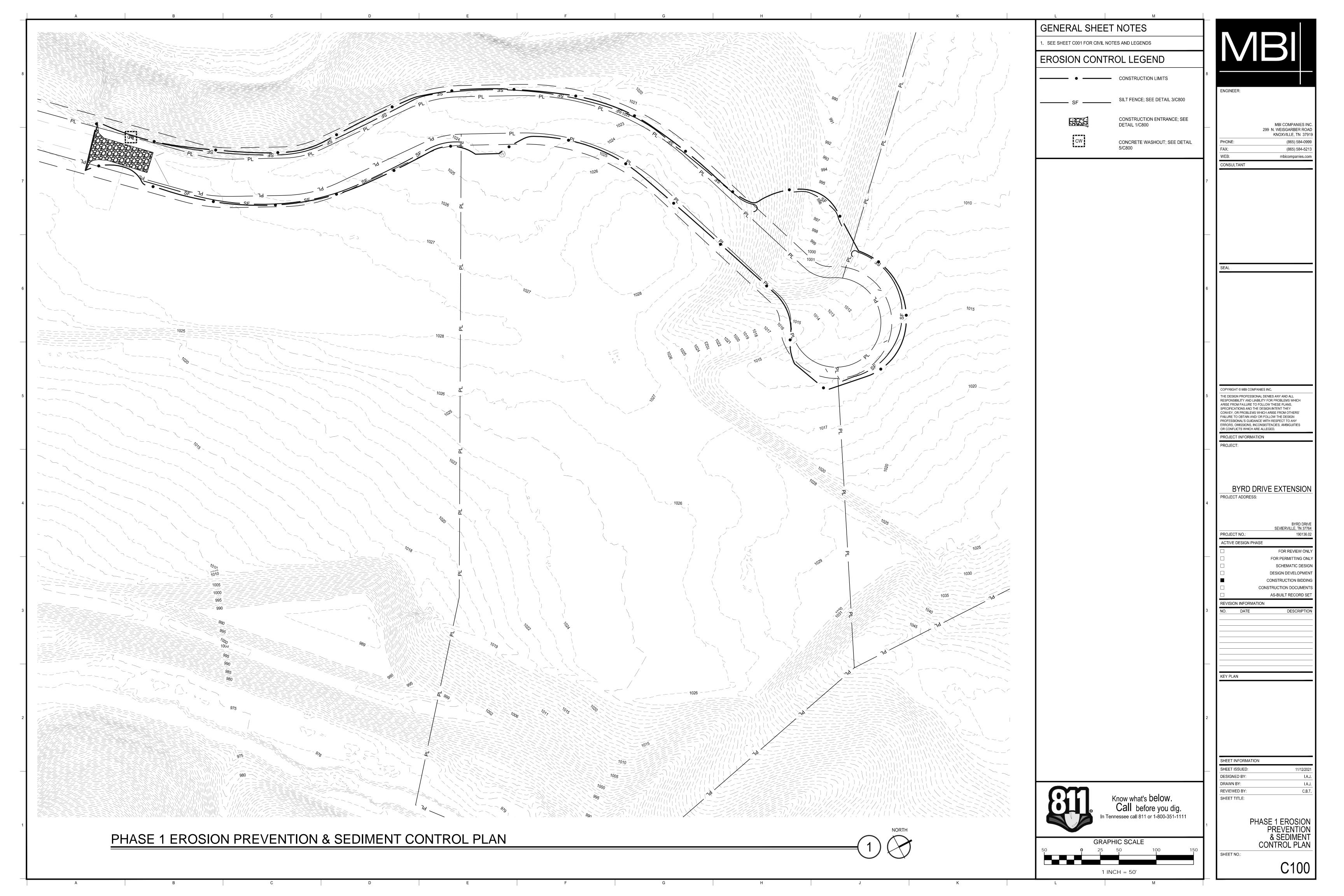
DRAWN BY: I.A.J

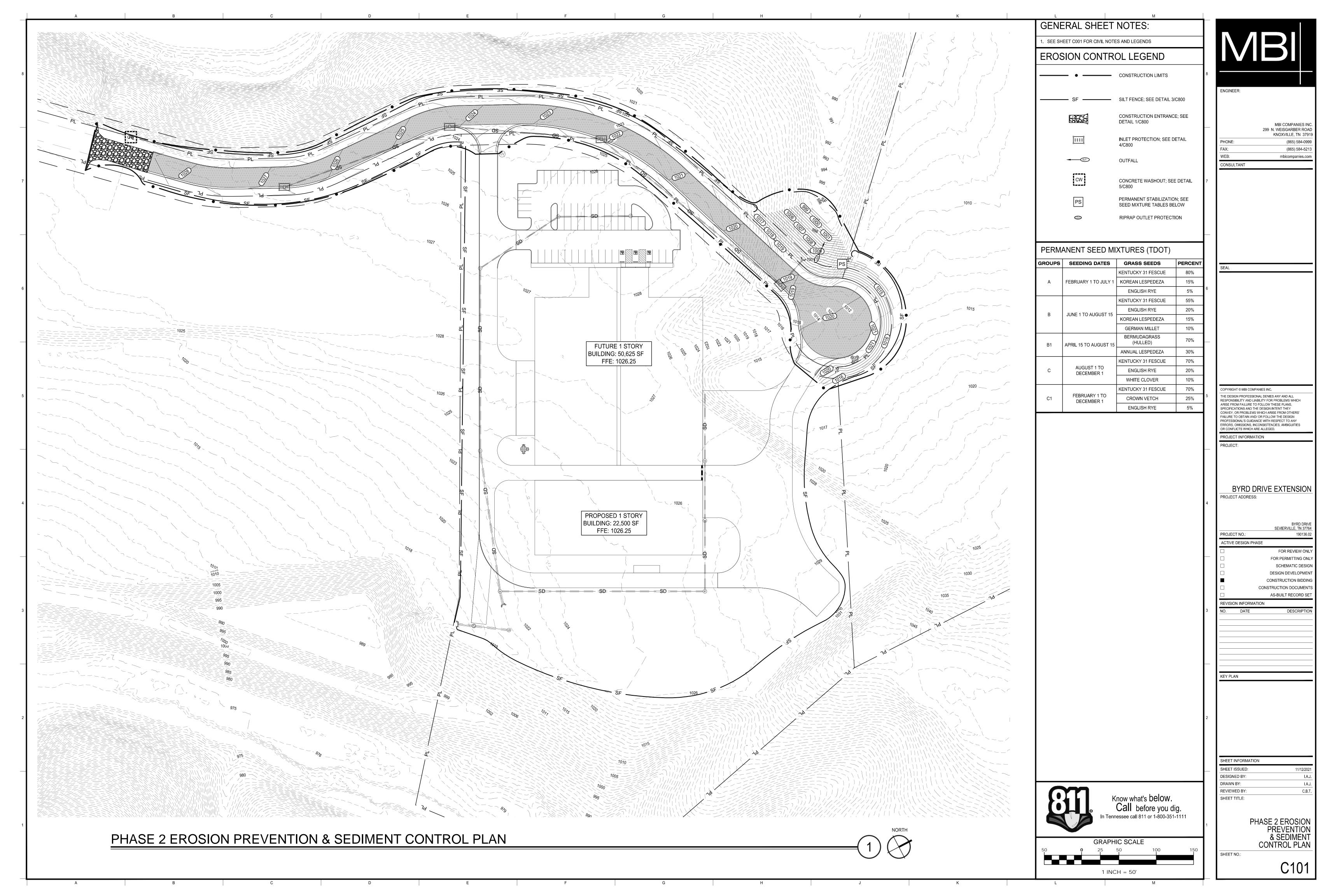
REVIEWED BY: C.B.T

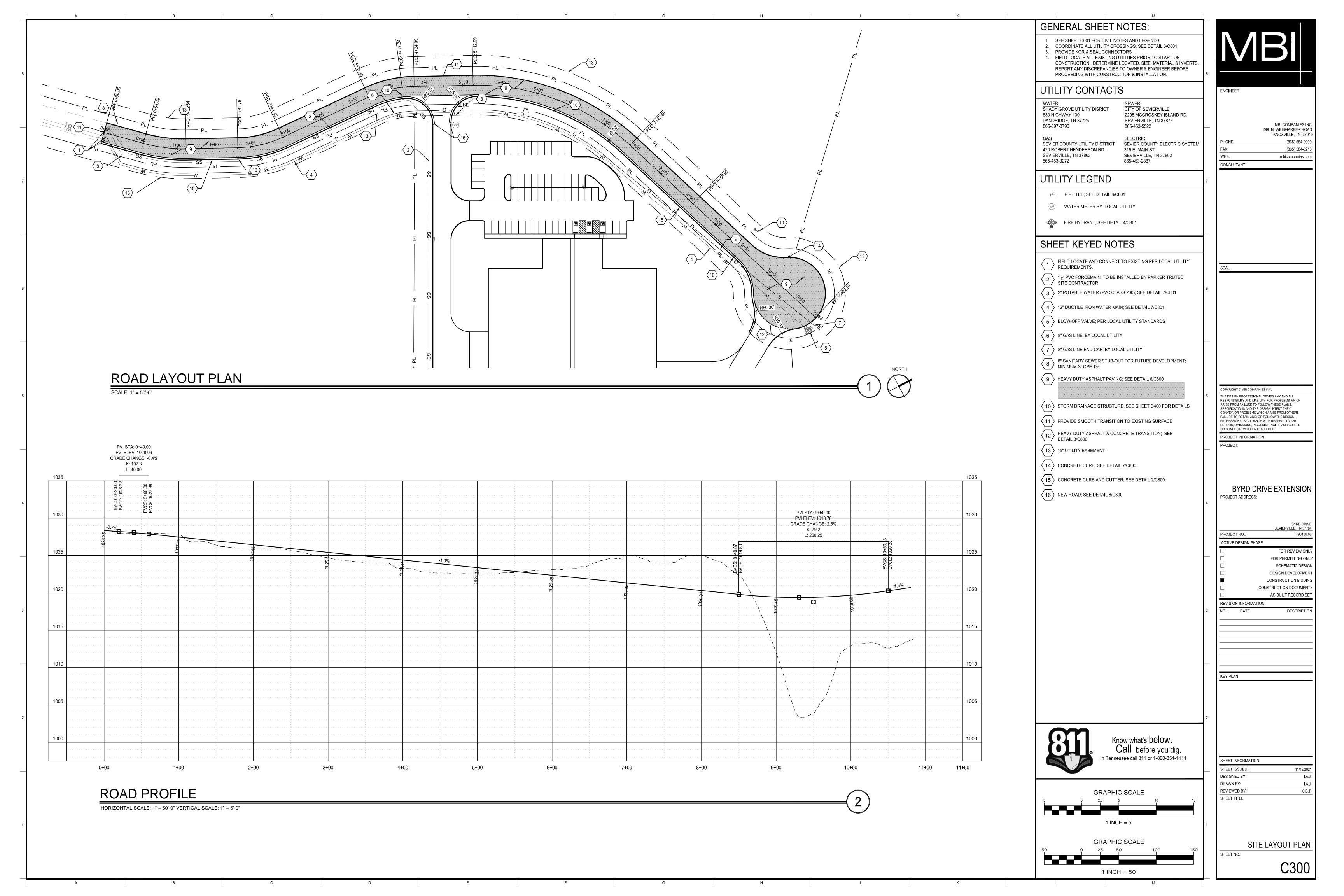
COVER SHEET

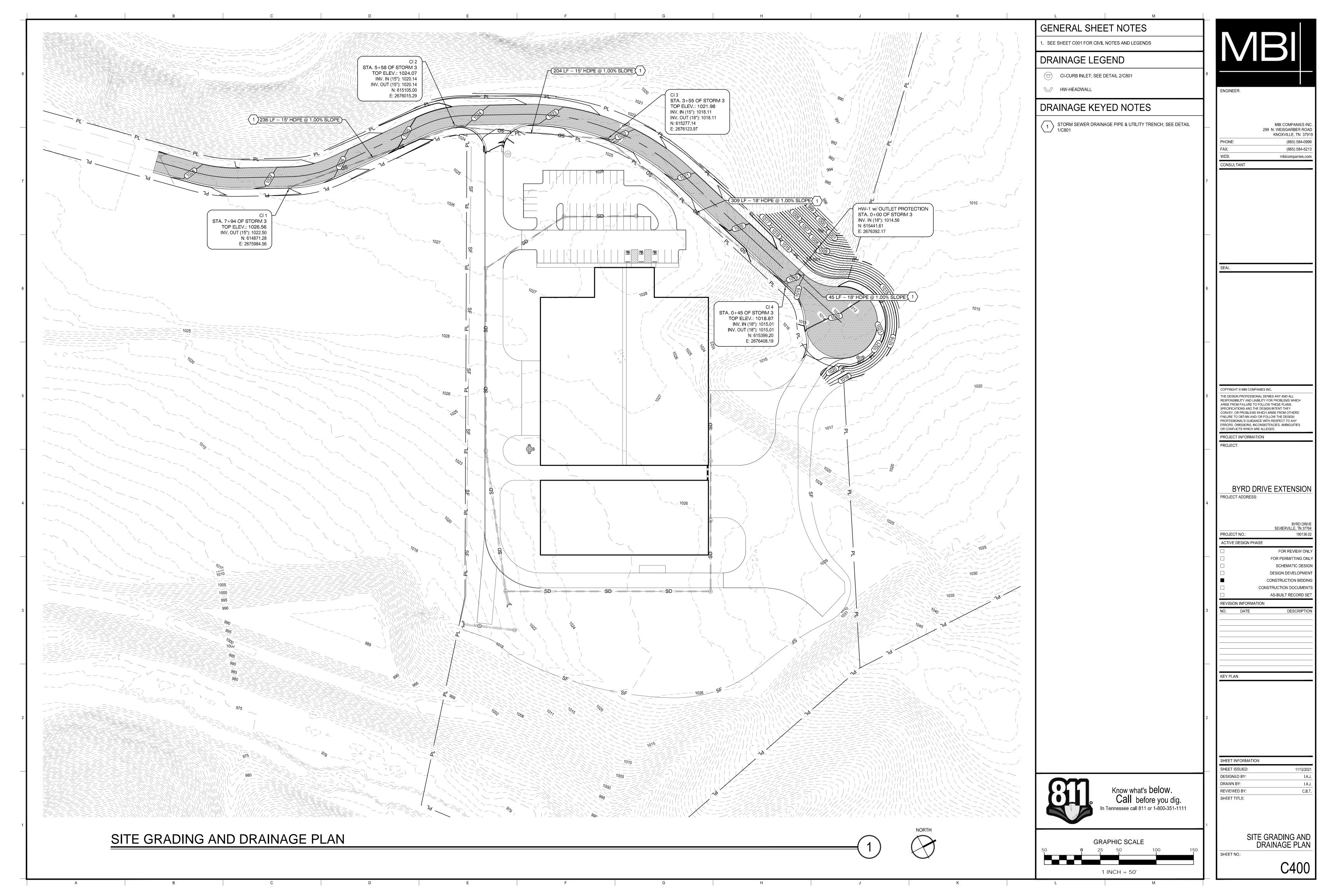
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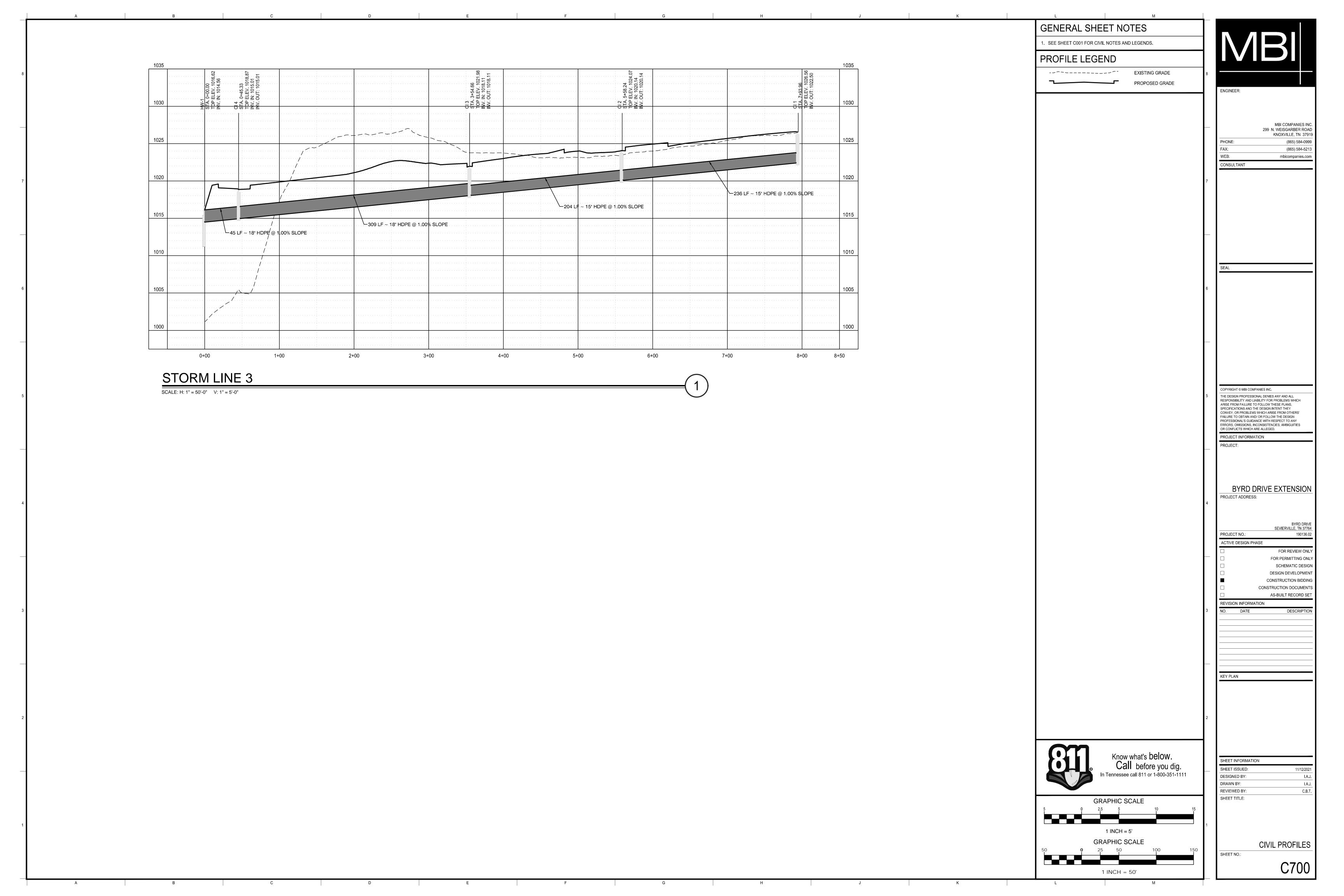
NERAL NOTES	EROSION CONTROL NOTES	ABBREVI		EXISTING	LEGEND	PROPOSED	AREAS & CALCULATIONS	
COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S.	1. UNLESS SHOWN OTHERWISE, ALL DISTURBED AREAS NOT ULTIMATELY RECEIVING A HARD SURFACE SHALL HAVE A MINIMUM DEPTH OF 5" OF TOPSOIL AND BE STABILIZED WITH GRASS.	NOTE: ALL AB	BREVIATIONS MAY NOT APPLY TO THIS PROJECT AT				IMPERVIOUS AREA	
REPARTMENT OF LABOR, 29 CFR 1926 OSHA. HE APPROPRIATE TRAFFIC CONTROL SIGNS AS DEFINED BY THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE APPROPRIATE TRAFFIC CONTROL SIGNS AS DEFINED BY THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES,	 THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS AND COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS RELATED TO SITE GRADING, EROSION AND SEDIMENTATION CONTROL, AND STORMWATER RUNOFF. 	& AASHTO	AND AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	— — — P/E —	_,,,_,,,	——————————————————————————————————————	EXISTING PROPOSED TOTAL INCREASE 0.00 Acres 0.84 Acres	
.H.W.A., 2009", SHALL BE INSTALLED AT THE INCEPTION OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED .ND/OR OPERATED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS	3. NO LAND DISTURBANCE IS PERMISSIBLE UNTIL THE CONTRACTOR HAS SUBMITTED A SIGNED NOTICE OF INTENT AND	ADA APP'D	AMERICANS WITH DISABILITIES ACT APPROVED		RIGHT-OF-WAY PROPERTY LINE	——————————————————————————————————————	0.00 sqft 36,486.14 sqft 36,486.14 sqft	
ONG AS THEY ARE NEEDED AND SHALL BE REMOVED IMMEDIATELY AFTER NEED. OTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THEIR	RECEIVED A NOTICE OF COVERAGE FROM THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC). COORDINATE WITH OWNER TO ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED PRIOR TO LAND	APPROX. OR ~	APPROXIMATE AMERICAN SOCIETY OF CIVIL ENGINEERS	1	MAJOR CONTOUR	<u> </u>	TOTAL SITE AREA DISTURBED AREA	3
ESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC. ERIFY THE LOCATIONS OF ALL PROPOSED ITEMS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY A/E	DISTURBANCE. 4. A NOTICE WILL BE POSTED BY NEAR THE CONSTRUCTION ENTRANCE BEFORE WORK BEGINS CONTAINING:	ASPH. ASTM	ASPHALT AMERICAN SOCIETY FOR TESTING AND MATERIALS	2011	MINOR CONTOUR		2.43 Acres 1.68 Acres 105,843.26 sqft 73,180.80 sqft	
MMEDIATELY OF ANY DISCREPANCIES BEFORE STARTING WORK. COMMENCEMENT OF CONSTRUCTION AFTER SUCH ISCOVERY SHALL BE AT THE CONTRACTOR'S RISK.	A. A COPY OF THE NOC WITH THE TRACKING NUMBER ASSIGNED BY TDEC. B. THE NAME, COMPANY NAME, TELEPHONE NUMBER, EMAIL AND ADDRESS OF THE PROJECT SITE OPERATOR	AWWA	AMERICAN WATER WORKS ASSOCIATION	———— ss _x ————	SANITARY SEWER	SS	103,043.20 Sqit 13,100.00 Sqit	ENGINEER:
NY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE EPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.	INCLUDING A LOCAL CONTACT PERSON. C. A PROJECT DESCRIPTION THE LOCATION OF THE SWIPPE ON SITE	B/C BLDG	BACK OF CURB BUILDING	G _X	GAS PIPING	G	PROPERTY INFORMATION	
E NOTES	D. THE LOCATION OF THE SWPPP ON SITE. 5. IN PREPARATION FOR AND PRIOR TO INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES, THE	BLVD.	BOULEVARD BENCHMARK	W _X	WATER LINE OVERHEAD UTILITIES	W		
WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE CUT IN A NEAT	CONTRACTOR SHALL: A. EXAMINE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AT THE SITE.	B/W	BOTTOM OF WALL	——————————————————————————————————————	ELECTRIC (UNDERGROUN	ND) — UE ——	OWNER NAME: SEVIER COUNTY ECONOMIC DEVELOPMENT BOARD	MBI COMPANIES 299 N. WEISGARBER R
STRAIGHT LINE THROUGH PAVEMENT AND BASE. PROVIDE A SMOOTH TRANSITION. NSTALL EXPANSION JOINT MATERIAL BETWEEN NEW AND EXISTING CONCRETE AND/OR ASPHALT.	B. NOTIFY ENGINEER OF DEFICIENCIES OR CHANGES IN THE SWPPP OR DRAWINGS REQUIRED BY CURRENT SITE CONDITIONS. REVISIONS OF THE DOCUMENTS WILL BE MADE AS DETERMINED BY THE ENGINEER.	Δ CB	CURVE DELTA ANGLE CATCH BASIN	UT _X	TELEPHONE/COMM.	т	ADDRESS: 321 COURT AVE. SEVIERVILLE, TN 37862	PHONE: KNOXVILLE, TN 3
MAINTAIN AND PROTECT EXISTING PAVEMENT OR GRAVEL SURFACES WHICH ARE TO REMAIN. CONTRACTOR SHALL REPLACE DAMAGED AREAS, MATCHING DEPTH, MATERIAL AND GRADE OF EXISTING SURFACES.	CONDITIONS. REVISIONS OF THE DOCUMENTS WILL BE MADE AS DETERMINED BY THE ENGINEER. 5. FURNISH, ERECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES IN CONFORMITY WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK, FOURTH EDITION, AS PREPARED BY TDEC, SEE PLAN AND	CFS CGP	CUBIC FEET PER SECOND CONSTRUCTION GENERAL PERMIT	SD _X	STORM SEWER	SD	PHONE: (865)-368-9011	FAX: (865) 584-
DIMENSIONS SHOWN ARE TO FACE OF CURB, CENTER OF COLUMN, EDGE OF BUILDING EXTERIOR OR CENTER OF PAINTED STRIPES.	DETAILS FOR SPECIFIC EROSION AND SEDIMENT CONTROL HANDBOOK, FOURTH EDITION, AS PREPARED BY TIDEC. SEE PLAN AND DETAILS FOR SPECIFIC EROSION AND SEDIMENTATION CONTROL MEASURES. 7. EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THIS PLAN ARE A MINIMUM REQUIREMENT. MAINTAIN.	CI C	CURB INLET CENTERLINE		ROOF DRAINS FIRE SUPPRESSION LINE	——— RD ————————————————————————————————	PROPERTY DATA	WEB: mbicompanies CONSULTANT
SIDEWALK AND PAVING JOINTS ARE SHOWN FOR REFERENCE ONLY. REVIEW JOINT LAYOUT WITH ALL SPECIFICATIONS AND DETAILS BEFORE POURING CONCRETE.	MODIFY AND ADD EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THIS PLAN ARE A MINIMOM REQUIREMENT. MAINTAIN, MODIFY AND ADD EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE.	CMP CMU	CORRUGATED METAL PIPE CONCRETE MASONRY UNIT		FORCE MAIN	SSFM——	ADDRESS: BYRD DRIVE	
RVEY NOTES	B. ENVIRONMENTAL PERMIT REQUIREMENTS: SHOW COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES CURRENTLY ADOPTED BY	C.O. CONC.	CLEANOUT CONCRETE		SILT FENCE	——— SF ———	KODAK, TN 37764	7
BOUNDARY AND TOPOGRAPHIC INFORMATION WAS PREPARED BY MBI COMPANIES INC, 299 N. WEISGARBER ROAD, KNOXVILLE TN 37919. SURVEY PERFORMED 06/16/2021.	TDEC (CGP) AND THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP). PROVIDE ENGINEER AND TDEC WITH COPIES OF ALL REQUIRED PAPERWORK. PERFORM AND PROVIDE ALL MAINTENANCE, INSPECTIONS, RECORD	CONT.	CONTINUOUS		REINFORCED SILT FENCE	SSF ———	MAP: 005 PARCEL ID: 065.02	
COORDINATES ARE IN FEET AND REFERENCE TO TENNESSEE STATE PLANE SYSTEM OF 1983 . BEARINGS SHOWN ARE BASED ON MAGNETIC NORTH.	KEEPING, AND REPORTING. NSPECTIONS WILL BE PERFORMED BY PERSONNEL CERTIFIED IN THE TDECLEVEL 1 EROSION CONTROL COURSE	o DCB	DEGREES DOUBLE CATCH BASIN		CONSTRUCTION LIMITS	• —	ZONING: IN	
THE VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) . FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, EXISTING UTILITIES SHOWN ON	PROOF OF INSPECTOR'S CERTIFICATION SHALL BE KEPT ON FILE AT THE JOBSITE ALONG WITH ALL INSPECTION REPORTS AND OTHER REQUIRED PAPERWORK IDENTIFIED IN THE PROJECT SWPPP AND THE CGP. MAINTENANCE	DIA. OR Ø DIP	DIAMETER DUCTILE IRON PIPE		SETBACK EXISTING TO BE REMOVE		VERTICAL DATUM: NAVD 88	
DRAWINGS ARE APPROXIMATE IN DEPTH AND LOCATION. REPAIR EXISTING UTILITIES DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.	REPAIR NEEDS IDENTIFIED BY INSPECTIONS SHALL BE ADDRESSED WITHIN 7 DAYS OR BEFORE THE NEXT RAIN EVENT.	DWG.	DRAWING		DRAINAGE SWALE	- 		_
ADING NOTES	DOCUMENT WHEN MAINTENANCE ITEMS ARE COMPLETED ON THE INSPECTION REPORT. 10. MAINTAIN A RAIN GAUGE AND RAINFALL RECORDS ON SITE AS REQUIRED BY TDEC.	E EA.	EAST EACH		CHECK DAM	→		
ELD VERIFY CRITICAL GRADES AT CONNECTION POINTS SUCH AS ENTRANCES PRIOR TO CONSTRUCTION AND	11. EROSION AND SEDIMENTATION CONTROL IMPLEMENTATION: A. STAKE THE DISTURBED AREA LIMITS AND UNDISTURBED AREAS IN THE FIELD BEFORE BEGINNING WORK B. NISTALL CONSTRUCTION FXIT.	E.F.	EACH FACE EXISTING IRON PIPE		DIVERSION DITCH	——► TD ———		
OTIFY PROJECT MANAGER OR ENGINEER OF ANY DISCREPANCIES. HE MINIMUM SLOPE FOR PARKING, SIDEWALKS, AND LANDSCAPED AREAS IS 1%. FIELD VERIFY MINIMUM SLOPE IS	B. INSTALL CONSTRUCTION EXIT C. TEMPORARY EROSION AND SEDIMENTATION CONTROL: PROVIDE MEASURES TO PREVENT SOIL EROSION AND	EL. OR ELEV.	ELEVATION EDGE OF PAVEMENT		TUBES AND WATTLES	-) -) -)		SEAL
HIEVED. XIMUM SLOPE IN HANDICAP PARKING AREAS IS 2%. MAXIMUM LONGITUDINAL SIDEWALK SLOPE IS 5%. SLOPE	DISCHARGE OF SOIL-BEARING WATER RUNOFF AND AIRBORNE DUST TO UNDISTURBED AREAS AND TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AS	EPA ETC	ENVIRONMENTAL PROTECTION AGENCY ET CETERA		CURBLINE			SLAL SLAL
DEWALKS AWAY FROM BUILDING AT $1\frac{1}{2}\%$ CROSS SLOPE UNLESS OTHERWISE NOTED. SIDEWALK CROSS SLOPE NNOT EXCEED 2% IN ANY CASE.	WELL AS THE CGP AND THE SWPPP. D. BEGIN SITE GRADING	E.W.	ET CETERA EACH WAY EXISTING		CURBLINE BUILDING			6
LESS OTHERWISE NOTED, ELEVATIONS SHOWN REPRESENT FINISHED GRADES. ADJUST FOR PAVEMENT CKNESS, TOPSOIL, ETC.	E. VERIFY THAT FLOWS OF WATER REDIRECTED FROM CONSTRUCTION AREAS OR GENERATED BY CONSTRUCTION ACTIVITY DO NOT ENTER OR CROSS TREE- OR PLANT- PROTECTION ZONES.	EX. OR EXIST.			FENCE	×		
JUST DRAINAGE STRUCTURE TOPS AS NECESSARY TO MATCH FINAL GRADES. SLOPE SHALL BE STEEPER THAN 2(H):1(V)	F. INSPECT, REPAIR, AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.	FFE FFE	FACE OF CURB FINISHED FLOOR ELEVATION	X		^		
LL EARTHWORK SHALL MEET THE FOLLOWING REQUIREMENTS AT A MINIMUM: FOLLOW RECOMMENDATIONS OF THE PROJECT SUBSURFACE INVESTIGATION REPORT. REPORT ANY	G. CLEAN, REPAIR, AND RESTORE ADJOINING PROPERTIES AND ROADS AFFECTED BY EROSION AND SEDIMENTATION FROM THE PROJECT SITE DURING THE COURSE OF THE PROJECT. OBTAIN PERMISSION AND	FIN. FP	FINISHED FIRE PROTECTION	(S)	SEWER MANHOLE			
CONTRADICTIONS TO THE PROJECT SUBSURFACE INVESTIGATION REPORT. REPORT ANY CONTRADICTIONS TO THE PROJECT MANAGER. SOIL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED.	APPROPRIATE PERMITS TO ACCESS AREAS OUTSIDE THIS SITE. H. AFTER FINAL STABILIZATION OF THE SITE, REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND	FI.	FEET	(GT)	GREASE TRAP	(GT)		
OBTAIN CERTIFICATION FROM A TESTING LAB, SIGNED AND SEALED BY AN ENGINEER, STATING THAT ALL EARTHWORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SUBSURFACE	STABILIZE AREAS DISTURBED DURING REMOVAL. I. STORMWATER CONTROL: COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE	GC Gl	GENERAL CONTRACTOR GRATE INLET	(ST)	STORM MANHOLE			_
INVESTIGATION REPORT AND SOILS ARE CAPABLE OF SUPPORTING THE STRUCTURE AND IMPROVEMENTS.	BARRIERS IN AND AROUND EXCAVATIONS AND SUBGRADE CONSTRUCTION TO PREVENT FLOODING BY RUNOFF OF STORMWATER FROM HEAVY RAINS.	GPM GV	GALLONS PER MINUTE GAS VALVE	(JB)	JUNCTION BOX	(JB)		
SUBMIT SOIL SAMPLES FOR TESTING AS REQUIRED BY THE PROJECT GEOTECHNICAL ENGINEER.	J. PROJECT MANAGER OR ENGINEER MAY DIRECT CONTRACTOR TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING. EXCAVATION, BORROW AND EMBANKMENT	н	HORIZONTAL	CB	CATCH BASIN			
SOIL FOR COMPACTED BACKFILL AND ENGINEERED FILL SHALL CONSIST OF CLEAN GRANULAR SOILS, CLAY SOILS, OR SHALE SOILS HAVING A PLASTICITY INDEX OF LESS THAN 35 AND A MINIMUM	OPERATIONS AND MAY DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES.	HDPE HP	HIGH DENSITY POLYETHYLENE HIGH POINT	□ CB	CURB INLET			
DENSITY OF 90 POUNDS PER CUBIC FOOT WHEN COMPACTED TO ONE HUNDRED PERCENT (100%) OF ITS MAXIMUM DRY DENSITY PER STANDARD PROCTOR TEST. (ASTM D698) MATERIAL SHALL BE	CONTROL MEASURES. K. PROVIDE PERMANENT EROSION CONTROL MEASURES AT EARLIEST PRACTICAL TIME TO MINIMIZE REQUIREMENT FOR TEMPORARY EROSION CONTROLS. PERMANENTLY SEED AND MULCH CUT SLOPES AS	HP HDPE HWY.	HIGH PERFORMANCE HIGH DENSITY POLYETHYLENE HIGHWAY		THROATED INLET	\ <u>\</u>		OODVOIGHT O
FREE OF VEGETATION, ROOTS, ROCKS LARGER THAN 2" IN ANY DIMENSION, DEBRIS AND OTHER DELETERIOUS MATERIALS. RESIDUAL SOIL EXCAVATED AT THE SITE MAY BE USED FOR BACKFILL IF IT	EXCAVATION PROCEEDS.	ID	INSIDE DIAMETER OR INLINE DRAIN	<u>~</u>	CLEAN OUT	9		COPYRIGHT © MBI COMPANIES INC. THE DESIGN PROFESSIONAL DENIES ANY AND ALL
MEETS THE SPECIFICATION REQUIREMENTS. THE MOISTURE CONTENT OF THE FILL SOILS SHOULD BE MAINTAINED WITHIN +3 AND -3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT	L. MAINTAIN TEMPORARY EROSION CONTROL SYSTEMS INSTALLED BY CONTRACTOR AS DIRECTED BY PROJECT MANAGER OR ENGINEER TO CONTROL SILTATION AT ALL TIMES THROUGHOUT WORK. PROVIDE	IN.	INCH(ES) INVERT		HEADWALL	♥		RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHIC ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY
DETERMINED FROM THE STANDARD PROCTOR COMPACTION TEST. ALL FILL IN AREAS TO BE OCCUPIED BY THE BUILDING(S) AND PAVING, INCLUDING AN AREA 10 FEET	MAINTENANCE OR ADDITIONAL WORK DIRECTED BY ENGINEER WITHIN 48 HOURS OF NOTIFICATION BY ENGINEER. 12. EROSION CONTROL SHALL BE MAINTAINED UNTIL PAVING IS COMPLETED AND LAWNS HAVE BEEN ESTABLISHED.	IPF	IRON PIN FOUND	VVVVV		xxx.xx 🎤		CONVEY, OR PROBLEMS WHICH ARISE FROM OTHER: FAILURE TO OBTAIN AND/ OR FOLLOW THE DESIGN
OUTSIDE THE PERIMETERS THEREOF, SHALL BE CONTROLLED (ENGINEERED) FILL AND THE COMPACTION SHALL BE TESTED BY A LICENSED AND QUALIFIED GEOTECHNICAL ENGINEER.	PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM EROSION AND SEDIMENT DAMAGE THROUGHOUT THE LIFE OF THE PROJECT UNTIL A NOTICE OF TERMINATION IS FILED WITH TDEC. CONTRACTOR COORDINATE WITH	JB	JUNCTION BOX	XXX.XX ×	SPOT GRADE			PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIE OR CONFLICTS WHICH ARE ALLEGED.
CONTROLLED FILL IN AREAS OF BUILDINGS SHALL BE COMPACTED IN MAXIMUM 4" LIFTS TO AT LEAST 98% OF MAXIMUM DRY DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN	THE ENGINEER AND OWNER FOR APPROVAL TO FILE A NOTICE OF TERMINATION AT THE APPROPRIATE TIME. 13. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE	L	LENGTH POLINDS		OUTFALL BIDDAD OUTLIET DROTECT	TION CO		PROJECT INFORMATION
ACCORDANCE WITH ASTM SPECIFICATION D-698 (STANDARD PROCTOR). FILL IN AREAS OF ASPHALT PAVING SHALL BE COMPACTED IN MAXIMUM 6" LIFTS TO AT LEAST 98% OF MAXIMUM DRY DENSITY	CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT SOIL STABILIZATION AT THE CONSTRUCTION SITE (OR PHASE OF THE PROJECT) MUST BE COMPLETED NO LATER THAN 14	LES. LF	POUNDS LINEAR FEET		RIPRAP OUTLET PROTECT		 	PROJECT:
WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM SPECIFICATION D-698. THE UPPER 12 INCHES OF FILL BENEATH PAVEMENTS AND UPPER 24 INCHES BENEATH FOOTINGS	DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY	MAX.	MAXIMUM MANIHOLE		TEMP. CONSTRUCTION EX	XIT		
AND GRADE SLABS SHALL BE COMPACTED TO 100%. PROVIDE 95% COMPACTION IN ALL OTHER AREAS	ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE, NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY	MIN.	MANHOLE MINIMUM MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES		INLET PROTECTION	<u>[mil]</u>		
AREAS. AFTER STRIPPING TOPSOIL, ALL FILL AREAS SHALL BE PROOFROLLED AND MONITORED BY THE PROJECT GEOTECHNICAL ENGINEER	MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES OR CRUSHER RUNS WILL NOT BE CONSIDERED A NON-ERODING SURFACE.	MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES	W	THRUST BLOCK	h111		D) /DD
PROJECT GEOTECHNICAL ENGINEER. FILL OUTSIDE OF BUILDING AND PAVEMENT SHALL BE PLACED IN 8" LIFTS IN THE PRESENCE OF A PERPESSENTATIVE OF THE SOIL TESTING LAB. COMPACTED TO SPECIFIED BEQLIREMENTS. AND	14. ALL WATER DISCHARGED FROM EXCAVATIONS AND TEMPORARY SEDIMENT PONDS SHALL BE FILTERED USING SEDIMENT CONTROLS ACCEPTABLE TO TDEC AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION.	N N/A	NORTH NOT APPLICABLE NATIONAL FIRE PROTECTION ACENCY	Ö	WATER METER			BYRD DRIVE EXTENS
REPRESENTATIVE OF THE SOIL TESTING LAB, COMPACTED TO SPECIFIED REQUIREMENTS, AND TESTED EVERY 900 SF FOR EACH LAYER OF FILL. REMEDY ANY INADEQUATELY PLACED FILL TO MEET SPECIFICATIONS	15. UNLESS OTHERWISE NOTED, RIP-RAP SHALL BE T.D.O.T. MACHINED CLASS A-1 WITH A MEDIAN RIP-RAP SIZE D50 OF 6", 9" THICK AND SHALL BE UNDERLAIN WITH A NON-WOVEN GEOTEXTILE FABRIC.	NFPA NIC	NATIONAL FIRE PROTECTION AGENCY NOT IN CONTRACT		WATER METER	(W) \1 2		4
PROJECT SPECIFICATIONS. ALL LANDSCAPED AND GRASS AREAS SHALL HAVE A MINIMUM OF 5" OF CLEAN TOPSOIL.	16. CONCRETE WASHOUT AREA SHALL BE IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING JURISDICTION.	NIP NO. OR #	NEW IRON PIN NUMBER	FW ~	POST INDICATOR VALVE	M		
TOLERANCES FOR SURFACES: HARDSCAPE: ± 0.025' LANDSCAPE/GRASSED AREAS: ± 0.1'	17. AT THE END OF THE PROJECT, DURING FINAL SITE STABILIZATION, DEWATER TEMPORARY SEDIMENT PONDS AND TRAPS IN CONFORMANCE WITH STANDARDS OF TDEC. AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING	NOI NPDES	NOTICE OF INTENT NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM	(F))	FIRE HYDRANT			BY SEVIERVILLE,
ALL OFFSITE BORROW AND SPOIL SITES, IF REQUIRED, SHALL BE PROPERLY PERMITTED.	JURISDICTION. REMOVE ALL TEMPORARY EROSION CONTROLS AT THE END OF THE PROJECT AND COORDINATE WITH OWNER TO FILE NOTICE OF TERMINATION, AT THE APPROPRIATE TIME, WITH AUTHORITY HAVING JURISDICTION.	N.T.E.	NOT TO SCALE	187	FIRE DEPARTMENT CONN	NECTION 😩		PROJECT NO.:
INAGE NOTES ELD VERIFY CRITICAL GRADES AT CONNECTION POINTS PRIOR TO CONSTRUCTION OR FABRICATION OF PRECAST	18. CONTRACTOR COORDINATE WITH ENGINEER AT BEGINNING OF LAND DISTURBANCE TO DETERMINE WHETHER OR NOT AN INITIAL SITE ASSESSMENT INSPECTION BY THE ENGINEER IS REQUIRED. IF REQUIRED, THE SITE ASSESSMENT	O.C. OSHA	ON CENTER OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION	IV O	IRRIGATION VALVE			ACTIVE DESIGN PHASE FOR REVI
RUCTURES.	INSPECTION BY THE ENGINEER MUST BE PERFORMED WITHIN 1 MONTH OF STARTING CONSTRUCTION. ALLOW ENGINEER A MINIMUM OF 1 WEEK NOTICE IN SCHEDULING SITE ASSESSMENT INSPECTIONS.	PIV	POST INDICATOR VALVE	Ğ	GAS VALVE	_		□ FOR PERMITTI
ILESS OTHERWISE NOTED, HDPE SHALL BE HANCOR, LANE HDPE, OR ADS N-12 SMOOTH INTERIOR WALL HDPE PIPE. OVIDE #57 STONE BEDDING AND BACKFILL TO PAVEMENT SUBGRADE OR 12" ABOVE PIPE IN GRASS AREAS. ALL PIPE ID FITTINGS SHALL MEET THE BEOLUBEMENTS OF AASHTO M252, TYPE S (4" 10") OR AASHTO M204, TYPE S (12" 48")		POB POE	POINT OF BEGINNING (ALIGNMENT) POINT OF ENDING (ALIGNMENT)	GM	GAS METER	G		☐ SCHEMATIC DESIGN DEVEL
D FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M252, TYPE S (4"-10") OR AASHTO M294, TYPE S (12"-48"). SKET SHALL MEET THE REQUIREMENTS OF ASTM F477. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321.	UTILITY NOTES 1. COORDINATE WITH EXISTING UTILITIES AND STORM SEWER INSTALLATION TO AVOID CONFLICTS. UTILITY	PP PSI	POWER/UTILITY POLE POUNDS PER SQUARE INCH	O	UTILITY POLE	Ø		CONSTRUCTION
NTS SHALL BE SILT TIGHT AND NON-RATED WATERTIGHT GASKETS SHALL BE COVERED WITH A REMOVABLE WRAP THE MANUFACTURER TO ENSURE THAT THE GASKET IS FREE FROM DEBRIS.	INSTALLATION AND MATERIAL SHALL MEET THE REQUIREMENTS OF SHADY GROVE UTILITY DISTRICT, CITY	PVC PVMT	POLYVINYL CHLORIDE PAVEMENT	EV	ELECTRICAL VAULT			☐ CONSTRUCTION DOG
LESS OTHERWISE NOTED, RCP SHALL BE CLASS III CONFORMING TO ASTM C-76 (LATEST REVISION): ANDARD SPECIFICATION FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE".	OF SEVIERVILLE, SEVIER COUNTY UTILITY DISTRICT, AND SEVIER COUNTY ELECTRIC SYSTEM. AND ALL APPLICABLE CODES. COORDINATE WITH SHADY GROVE UTILITY DISTRICT, CITY OF SEVIERVILLE,	Q1	1 YEAR STORM PEAK FLOW	EM	ELECTRIC METER			REVISION INFORMATION
OF LEADERS SHALL BE ASTM D3034 SDR 35 PVC WITH GASKET JOINTS. UNLESS OTHERWISE NOTED ON THE PLANS, SHALL BE LAID AT A 2% MINIMUM SLOPE AND 6" SHALL BE LAID AT 1% MINIMUM SLOPE.	SEVIER COUNTY UTILITY DISTRICT, AND SEVIER COUNTY ELECTRIC SYSTEM PRIOR TO CONSTRUCTION TO DETERMINE MATERIAL, INSTALLATION TESTING AND INSPECTION REQUIREMENTS. VERIFY	Q10 QLP	10 YEAR STORM PEAK FLOW QUALIFYING LOCAL PROGRAM	E	ELECTRICAL BOX			NO. DATE DES
ORDINATE WITH GOVERNING AGENCY FOR ALL REQUIRED MATERIAL APPROVALS, INSPECTIONS AND TESTING.	LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. 2. PAVEMENT REPAIR AND TRAFFIC CONTROL SHALL MEET THE REQUIREMENTS OF THE AGENCY HAVING	R	RADIUS	> GW	GUY WIRE			
	JURISDICTION. 3. COORDINATE LOCATION OF GAS LINE TO AVOID CONFLICTS WITH OTHER UTILITIES. CONNECTION TO EXISTING GAS	RCP RD	REINFORCED CONCRETE PIPE ROAD	\$	LIGHT STANDARD	← □		
	SERVICE SHALL MEET THE REQUIREMENTS OF SEVIER COUNTY UTILITY DISTRICT . CONTACT SEVIER COUNTY UTILITY DISTRICT AND COORDINATE INSTALLATION.	REF. REQ'D	REFERENCE REQUIRED	T	TELEPHONE PEDESTAL			
	 GAS METER AND SUPPLY LINE SHALL BE SIZED AND INSTALLED BY SEVIER COUNTY UTILITY DISTRICT FOR THE LOADS SHOWN ON THE PLUMBING DRAWINGS. PROVIDE 4" SLEEVE UNDER PAVED AREAS. 	REV. R,O,W.	REVISION RIGHT-OF-WAY	Θ	BOLLARD	•		
	5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY AND ALL PERMITS AND LICENSES REQUIRED TO WORK IN THE PUBLIC R.O.W. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP FEES AND COORDINATION	N.O.W.	SOUTH		SLOPE DRAIN	—	Ţ	
	WITH WATER & SEWER COMPANIES TO ESTABLISH WATER AND SEWER SERVICE. 6. PROVIDE 10' MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES. WHERE CROSSINGS OCCUR,	SAN.	SOUTH SANITARY SCHEDULE		SLOPE MATTING			KEY PLAN
	PROVIDE 18" MIN SEPARATION BETWEEN WATER AND SEWER LINES. PROVIDE 6" MIN. CLEARANCE BETWEEN STORM SEWERS AND OTHER UTILITIES. UNLESS OTHERWISE NOTED PROVIDE 3' MINIMUM COVER FOR ALL UTILITIES.	SCH. SD SDR	STORM DRAIN		TEMPORARY STABILIZATI	ION TS		
	PROVIDE #57 STONE BEDDING AND BACKFILL TO SUBGRADE FOR ALL UTILITIES LOCATED IN PAVED AREAS. 7. ADJUST ALL EXISTING UTILITY STRUCTURES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, TO	SF	STANDARD DIMENSION RATIO SQUARE FEET SPECIAL POLITION ARATEMENT REPAIT		PERMANENT STABILIZATION	ON PS		
	MATCH FINAL GRADES. ADJUSTMENTS SHALL MEET THE REQUIREMENTS OF SHADY GROVE UTILITY DISTRICT, CITY OF SEVIERVILLE, SEVIER COUNTY UTILITY DISTRICT, AND SEVIER COUNTY ELECTRIC	SPAP SQ.	SPECIAL POLLUTION ABATEMENT PERMIT SQUARE		CONCRETE WASHOUT	CW		2
	SYSTEM. 8. COORDINATE WITH SHADY GROVE UTILITY DISTRICT, CITY OF SEVIERVILLE, SEVIER COUNTY UTILITY	STA.	STREET STATION CANUTARY OF WER		FILTER RING			-
	DISTRICT, AND SEVIER COUNTY ELECTRIC SYSTEM TO REMOVE OR ABANDON EXISTING UTILITIES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, THAT ARE LOCATED WITHIN THE PROJECT LIMITS	SSFM	SANITARY SEWER SANITARY SEWER FORCE MAIN	•	BENCHMARK			
	AND NO LONGER IN USE. 9. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC MEETING THE	SWPPP	STORM WATER POLLUTION PREVENTION PLAN		CONTROL POINT			
	REQUIREMENTS OF ASTM D 3034. USE SDR 35 UNLESS OTHERWISE SPECIFIED. FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3311 AND ASTM D 2665. PIPE SHALL HAVE AN INTEGRAL BELL END WITH GASKET SEAL	TBM TDEC	TEMPORARY BENCH MARK TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION		MAILBOX			SHEET INFORMATION
	WHICH HAS BEEN REINFORCED WITH A STEEL RING, BAND, OR OTHER RIGID MATERIAL THAT PERMANENTLY LOCKS	T.D.O.T. THK.	TENNESSEE DEPARTMENT OF TRANSPORTATION THICK					SHEET ISSUED:
	THE GASKET IN PLACE. THE JOINT SHALL MEET THE REQUIREMENTS OF ASTM D 3212. GASKETS SHALL BE OF A LOCK-IN TYPE GASKET, REIBER TYPE OR APPROVED SUBSTITUTE, MEETING THE REQUIREMENTS OF ASTM F-477.	TC T/C	TOP OF CASTING TOP OF CURB ELEVATION					DESIGNED BY:
	UNLESS OTHERWISE NOTED, MINIMUM SLOPE SHALL BE 2.0% FOR 4" LINE AND 1.0% FOR 6" LINES. 10. UNLESS OTHERWISE NOTED, ALL WATER LINES SHALL BE AWWA C900 PVC (CLASS 200) WITH BELL END FOR	TP T/W	TOP OF PAVEMENT ELEVATION TOP OF WALL					REVIEWED BY:
	PUSH-ON TYPE JOINTS. JOINTS SHALL CONSIST OF COMPACT PATTERN DUCTILE IRON FITTINGS MEETING THE REQUIREMENTS OF AWWA C 153 WITH RUBBER GASKETS MEETING THE REQUIREMENTS OF AWWA C 111.	TYP.	TYPICAL					SHEET TITLE:
	INSTALLATION SHALL COMPLY WITH UL 1285. 11. ALL FIRE WATER LINES SHALL BE CLASS 350 DUCTILE IRON WITH PUSH-ON TYPE JOINTS. PIPE SHALL COMPLY WITH	V	VERTICAL					
	AWWA C151 AND CEMENT - MORTAR LINING SHALL COMPLY WITH AWWA C104. INSTALLATION SHALL COMPLY WITH AWWA C600.	W	WEST					1
	71111111 00001	VV/ W/S	WITH WATER SURFACE					ON/II NIC
	12. FIRE LINE SIZE SHALL BE VERIFIED BY SPRINKLER CONTRACTOR, CERTIFIED CALCULATIONS SHALL BE SUBMITTED TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING	VV3						- '11/11 KI/1
	TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING STARTING FROM THE POINT OF SERVICE MUST BE INSTALLED BY A TENNESSEE REGISTERED SPRINKLER	WV W.W.F.	WATER VALVE WELDED WIRE FABRIC				Know what's below.	& I FC
	TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING	WV W.W.F. W.W.M.	WATER VALVE WELDED WIRE FABRIC WELDED WIRE MESH				Call before you dig.	CIVIL NO & LEG
	TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING STARTING FROM THE POINT OF SERVICE MUST BE INSTALLED BY A TENNESSEE REGISTERED SPRINKLER CONTRACTOR.		WATER VALVE WELDED WIRE FABRIC					& LEG

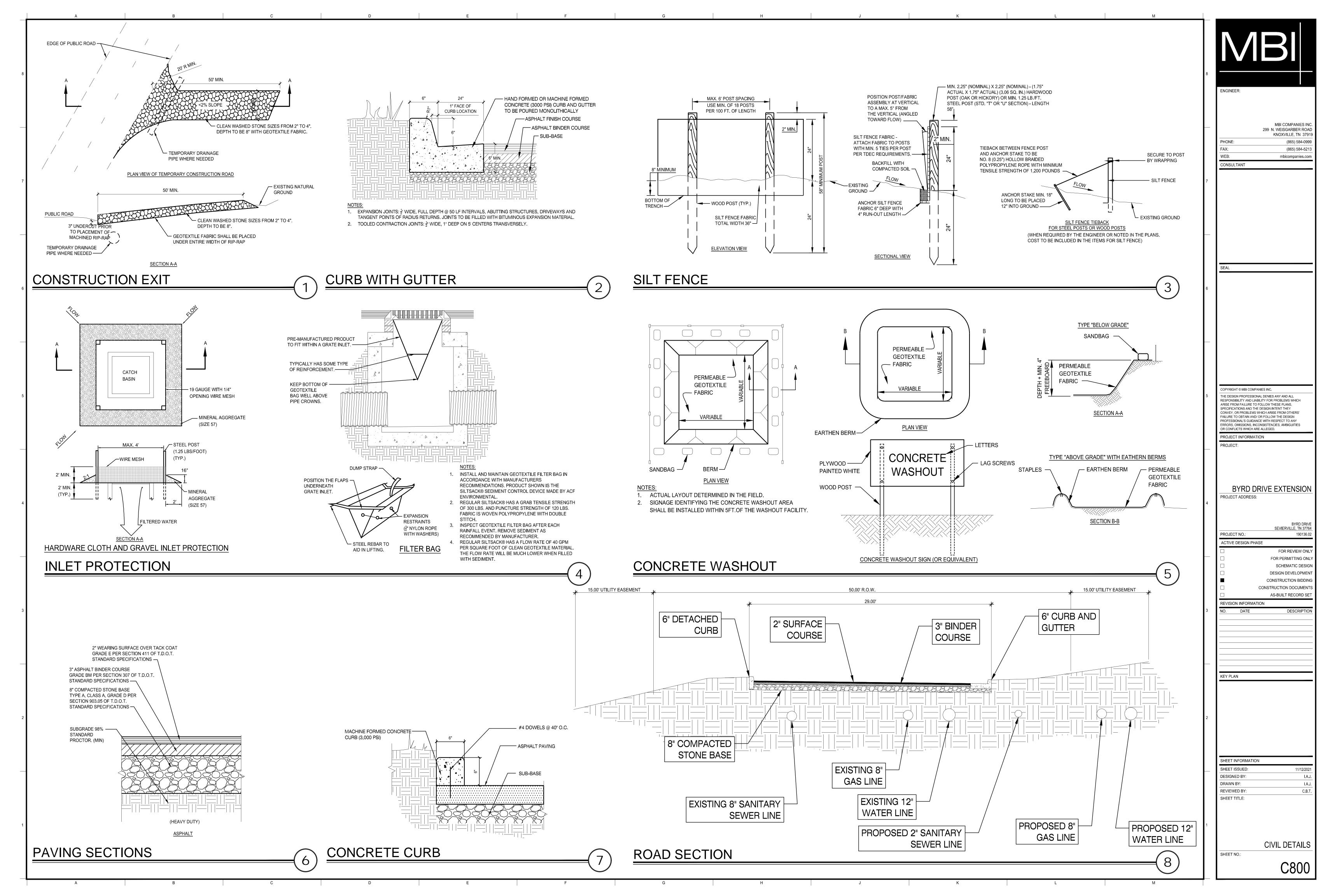


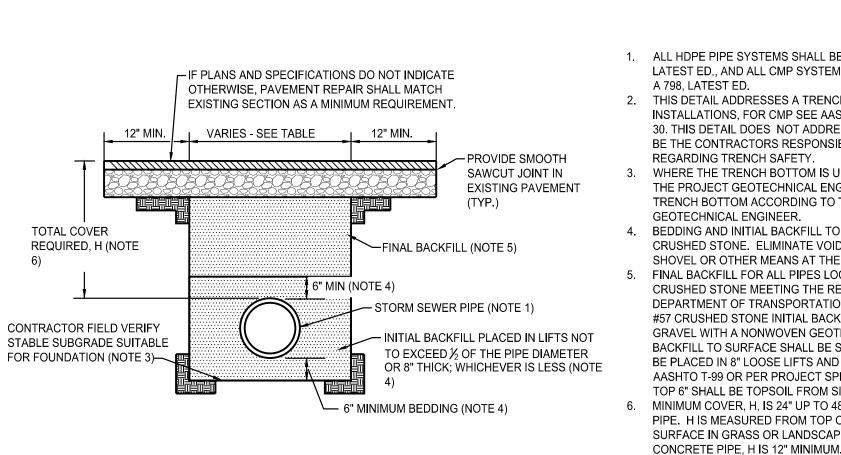












STORM SEWER TRENCH

1. ALL HDPE PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST ED., AND ALL CMP SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH AS A 798, LATEST ED.

2. THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. FOR EMBANKMENT OR O INSTALLATIONS, FOR CMP SEE AASHTO SECTION 27, FOR HDPE SEE AAS 30. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SH BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY. 3. WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF

THE PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. 4. BEDDING AND INITIAL BACKFILL TO 6" ABOVE THE CROWN OF THE PIPE SHALL BE #5" CRUSHED STONE. ELIMINATE VOIDS BY KNIFING UNDER AND AROUND PIPE WITH SHOVEL OR OTHER MEANS AT THE DISCRETION OF THE CONTRACTOR. FINAL BACKFILL FOR ALL PIPES LOCATED IN PAVED AREAS SHALL BE COMPACTED F

CRUSHED STONE MEETING THE REQUIREMENTS OF THE TENNESSEE STATE DEPARTMENT OF TRANSPORTATION. FOR GRASS OR LANDSCAPED AREAS, PROVIDI #57 CRUSHED STONE INITIAL BACKFILL TO 6" ABOVE CROWN OF PIPE AND COVER GRAVEL WITH A NONWOVEN GEOTEXTILE TO PREVENT MIGRATION OF FINES. FINAL BACKFILL TO SURFACE SHALL BE SOIL FREE OF FOREIGN DEBRIS. SOIL BACKFILL SI BE PLACED IN 8" LOOSE LIFTS AND BE COMPACTED TO 90% STANDARD DENSITY PEI AASHTO T-99 OR PER PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. TOP 6" SHALL BE TOPSOIL FROM SITE STRIPPING OPERATIONS LOOSELY PLACED. . MINIMUM COVER, H, IS 24" UP TO 48" DIAMETER PIPE. H IS 36" FOR 54" TO 60" DIAME PIPE. H IS MEASURED FROM TOP OF PIPE TO TOP OF FLEXIBLE PAVEMENT OR GRO SURFACE IN GRASS OR LANDSCAPE AREAS WHERE APPLICABLE. FOR RCP AND

, STM			4	21
THER			6	23
ION HALL S	RCP AND C	CONCRETE	8	26
	PIPE DIA (IN)	MINIMUM WIDTH (IN)	10	28
)F E	12	22	12	30
57	15 26		15	34
	18 31		18	39
#57	24	40	24	48
Œ	30	50	30	56
L SHALL ER T. ETER OUND	36	59	36	64
	42	68	42	72
	48	78	48	80
	54 87		54	88
	60	98	60	96

MINIMUM TRENCH WIDTHS

PIPE DIA. (IN.)

MIN. WIDTH

(IN.)

21

23

26

ALUMINIZED CMF HDPE AND PVC

PIPE DIA (IN)

MINIMUM

WIDTH (IN)

- USE DEETER FOUNDRY 2045, 2046, OR 2047 CURB INLET FRAME, GRATE, & CURB OR APPROVED SUBSTITUTE. FINISH GRADE A ASPHALT PAVING -DRAINS TO BRICK OR PRECAST -ADJUSTING RINGS PRECAST TOP -ENVIRONMENTAL MESSAGE * SYMBOL SHALL BE PERMANENTLY CAST INTO GRATE - FINISHED GRADE PRECAST SQUARE OR ROUND CATCHBASINS ARE ACCEPTABLE. CATCHBASINS SHALL MEET T.D.O.T. - LOCATION POINT REQUIREMENTS. PRECAST VENDER SELECT STRUCTURE GROUT SOLID BEST SUITED FOR PIPE CONFIGURATION AND DEPTH. AROUND PIPE -- USE DEETER FOUNDRY 2045, 2046 PROVIDE ADJUSTING RINGS OR BRICK COURSES BELOW OR 2047 CURB INLET FRAME, GRATE TO ALLOW FOR FINAL ADJUSTMENT AS SHOWN. GRATE, & CURB OR APPROVED SLOPE GRATE TO MATCH SLOPE. SUBSTITUTE. KNOCK OUT HOLE IN ADJUSTING RING OR BRICK COURSE TO GROUT FILL ALLOW SITE DRAINAGE UNTIL FINAL PAVEMENT IS COMPLETE SLOPE TO INVERT-PATCH HOLE WITH GROUT BEFORE PAVING. SEE STORM DRAINAGE PLAN FOR TYPE AND SIZING OF PIPES — PRE-CAST TOP AND INVERT ELEVATIONS. CLEAN CATCH BASIN OF ALL CONSTRUCTION DEBRIS AND — ASPHALT PAVING SILT AT COMPLETION OF SITE WORK. DRAINAGE PLAN UNLESS OTHERWISE NOTED, PROVIDE A PRECAST T.D.O.T ALIGN VEINS TO NO. 12 CATCH BASIN WITH TYPE B CAST IRON FRAME, GRATE CAPTURE FLOW AND NON-MOUNTABLE INLET. SECTION A-A AS REQUIRED

SANITARY SEWER, STORM SEWER,

THICKENED EDGE

BEARING AREA OF THRUST BLOCKS IN SQ. FT.

RUN

10 | 5.9 | 8.4 | 11.8 | 8.4 | 4.6 | 2.4 | 1.2 | 12

3.8 5.3 7.6 5.4 2.9 1.5 1.0 10

1.4 | 1.9 | 1.4 | 1.0 |

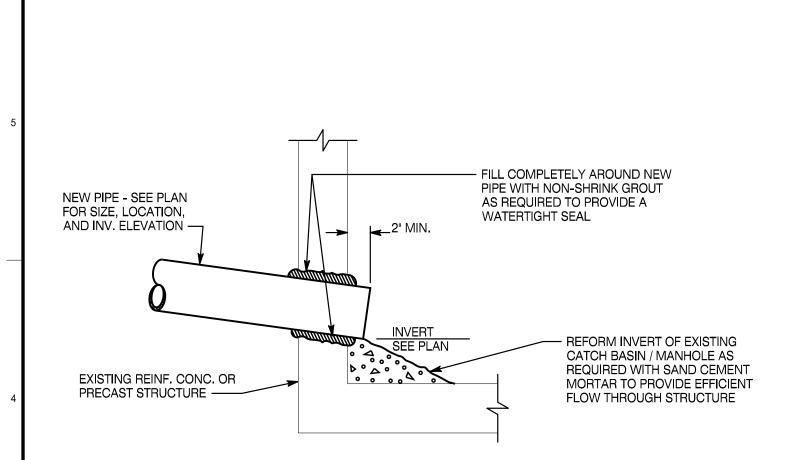
TEE, WYE, 90° BEND | PLUGGED

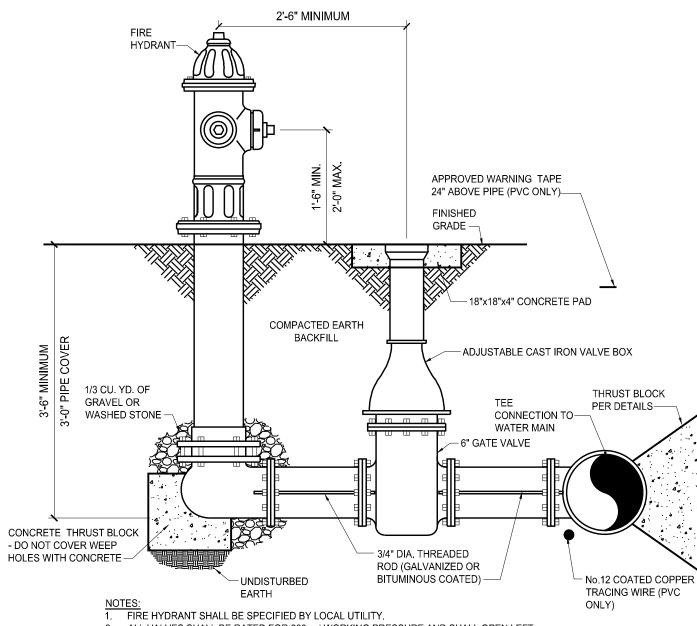
PLUG, OR PLUGGED

CAP CROSS

SIZE

CURB INLET





FIRE HYDRANT EXISTING MANHOLE CONNECTION

-PROVIDE SMOOTH <u>NOTES:</u>

SAWCUT JOINT IN 1.

PAVEMENT (TYP.)

EXISTING

- FINAL BACKFILL (NOTE 5)

- APPROVED WARNING TAPE

24" ABOVE PIPE (PVC ONLY)

- PRIVATE SITE WATER OR

SANITARY SEWER LINE

-6" MINIMUM BEDDING (NOTE 4)

- INITIAL BACKFILL PLACED IN LIFTS

NOT TO EXCEED 8" THICK (NOTE 4).

6" MIN (NOTE 4)

ALL PRIVATE SITE UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE

2. THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. THIS DETAIL DOES NOT

HAVING JURISDICTION OVER BUILDING CONSTRUCTION.

SITE STRIPPING OPERATIONS LOOSELY PLACED.

MATCH EXISTING SECTION AS A MINIMUM REQUIREMENT.

TRANSPORTATION

APPLICABLE PLUMBING CODE, LOCAL UTILITY REQUIREMENTS, AND THE LOCAL AGENCY

ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS

RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH

3. WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF THE

BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL

4. BEDDING AND INITIAL BACKFILL TO 6" ABOVE THE CROWN OF THE PIPE SHALL BE #57

SHOVEL OR OTHER MEANS AT THE DISCRETION OF THE CONTRACTOR.

CRUSHED STONE. ELIMINATE VOIDS BY KNIFING UNDER AND AROUND PIPE WITH

5. FINAL BACKFILL FOR ALL PIPES LOCATED IN PAVED AREAS SHALL BE COMPACTED #57

FOR GRASS OR LANDSCAPED AREAS, PROVIDE #57 CRUSHED STONE INITIAL BACKFILL

FOREIGN DEBRIS. SOIL BACKFILL SHALL BE PLACED IN 8" LOOSE LIFTS AND BE

7. IF PLANS AND SPECIFICATIONS DO NOT INDICATE OTHERWISE, PAVEMENT REPAIR SHALL

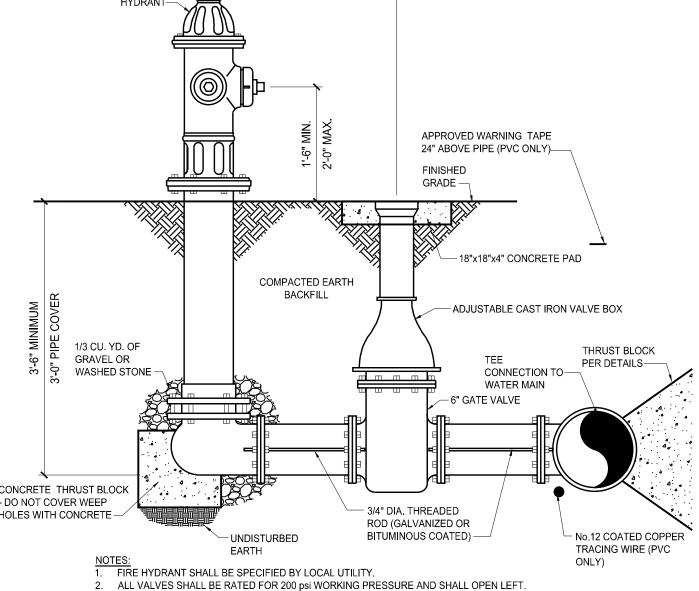
COMPACTED TO 90% STANDARD DENSITY PER AASHTO T-99 OR PER PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. TOP 6" SHALL BE TOPSOIL FROM

CRUSHED STONE MEETING THE REQUIREMENTS OF THE STATE'S DEPARTMENT OF

TO 6" ABOVE CROWN OF PIPE AND COVER GRAVEL WITH A NONWOVEN GEOTEXTILE TO

PREVENT MIGRATION OF FINES. FINAL BACKFILL TO SURFACE SHALL BE SOIL FREE OF

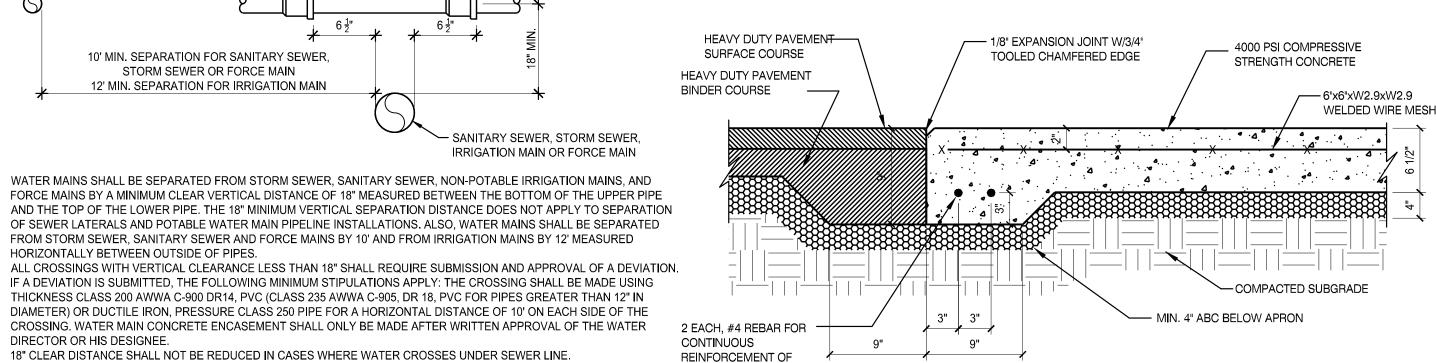
PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH



10' MIN. SEPARATION FOR SANITARY SEWER,

STORM SEWER OR FORCE MAIN

12' MIN. SEPARATION FOR IRRIGATION MAIN



VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)

6.0

8.5 3.2

BEND ANGLE

0.4

1.0

2.3

22 1/2°

HEAVY DUTY ASPHALT & CONCRETE TRANSITION

PIPE SEPARATION

HORIZONTALLY BETWEEN OUTSIDE OF PIPES.

NO.	TES:
1.	KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
2.	CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBE
	EARTH.

WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, NON-POTABLE IRRIGATION MAINS, AND

FROM STORM SEWER, SANITARY SEWER AND FORCE MAINS BY 10' AND FROM IRRIGATION MAINS BY 12' MEASURED

IF A DEVIATION IS SUBMITTED, THE FOLLOWING MINIMUM STIPULATIONS APPLY: THE CROSSING SHALL BE MADE USING

THICKNESS CLASS 200 AWWA C-900 DR14. PVC (CLASS 235 AWWA C-905. DR 18. PVC FOR PIPES GREATER THAN 12" IN

DIAMETER) OR DUCTILE IRON, PRESSURE CLASS 250 PIPE FOR A HORIZONTAL DISTANCE OF 10' ON EACH SIDE OF THE

CROSSING. WATER MAIN CONCRETE ENCASEMENT SHALL ONLY BE MADE AFTER WRITTEN APPROVAL OF THE WATER

WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE

ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 3' FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS,

ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL

WATER MAINS, SANITARY SEWER, STORM SEWER, AND NON-POTABLE IRRIGATION MAINS SHALL BE IN SEPARATE

BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE

6. 10" STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN GRAVITY SANITARY SEWER LINES AND STORMWATER LINES

3. $\,$ 18" CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE.

STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.

3. REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.

4. THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) x (TABLE VALUE).

BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR (13.33)(P'/S'), WHERE:

P'b = ACTUAL TEST PRESSURE, PSIG S'b = ACTUAL SOIL BEARING PRESSURE, PSF.

6. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON

PLANS TAKE PRECEDENCE OVER THIS STANDARD 8. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT. 9. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR

VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE. 10. TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE. 11. ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.

12 | 8.5 | 12.0 | 17.0 | 12.0 | 6.6 | 3.4 | 1.7 | 14 11.5 4.3
 14
 11.5
 16.3
 23.0
 16.3
 8.9
 4.6
 2.3
 16
 14.8 5.6 15.0 | 21.3 | 30.0 | 21.3 | 11.6 | 6.0 | 3.0 18 | 19.0 | 27.0 | 38.0 | 27.0 | 14.6 | 7.6 | 3.8 | FITTING SIZE | SIZE | EMBEDMENT 20 23.5 33.3 47.0 33.3 18.1 9.4 4.7 12" AND LESS #6 30" 24 34.0 48.0 68.0 48.0 26.2 13.6 6.8 14"-16" #8 36" - GALVANIZED RODS OVER FITTING AND EMBEDDED IN CONCRETE (SEE TABLE FOR SIZES) 1/4" PLYWOOD OVER PLUGGED CROSS FACE OF BOLTS PLUGGED CROSS* * EACH AREA (A/2) IS 1/2 OF TABULATED TOTAL AREA

BEND ANGLE

A₁ | A₂ | 45° | 22 1/2° | 11 1/4° | |

\dashv
ŀ

IF PLANS DO NOT

INDICATE OTHERWISE

PROVIDE 36" MIN. COVER

CONTRACTOR FIELD VERIFY

FOR FOUNDATION (NOTE 3)-

STABLE SUBGRADE SUITABLE LIS

NO. 12 COATED COPPER

TRACING WIRE (PVC ONLY)-

THRUST BLOCK

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