360 AUTO EXPRESS

SOUTH SAINT LOUIS
JOPLIN, MISSOURI 64801

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OWNER:

360 AUTO SERVICE
SHANE PENNEL
SOUTH SAINT LOUIS STREET
JOPLIN, MISSOURI 64801

ENGINEER:

ANDERSON ENGINEERING, INC.
811 E. THIRD STREET
JOPLIN, MO 64801
P: (417) 782-7399

PROJECT INFORMATION:

PROPOSED USED: AUTOMOBILE CARE & SERVICE CENTER
MAX NO. EMPLOYEES: 8 PERSON
MAX WAITING ROOM SEATING CAPACITY: 15
PARKING SPACES REQUIRED: 23
PARKING SPACES PROVIDED: 27 + ADA

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GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

GENERAL NOTES

1. THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THIS SITE.
2. CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE PROJECT DOCUMENTS & PER THE CITY OF JOPLIN STANDARDS & SPECIFICATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY ALL HORIZONTAL AND VERTICAL LINES AND GRADES OF EXISTING UTILITIES PRIOR TO THE CONSTRUCTION OF IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF A DISCREPANCY BETWEEN CONTRACT DRAWINGS AND ACTUAL FIELD CONDITIONS.
4. APPLICABLE PERMITS MUST BE OBTAINED FROM THE CITY, STATE AND COUNTY PRIOR TO EXCAVATION WITHIN ANY RIGHT-OF-WAY, AND PRIOR TO ANY CONSTRUCTION.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY UNDERGROUND UTILITIES OR OTHER OBSTRUCTIONS AND TO BE LIABLE FOR DAMAGE AND CONSEQUENT REPAIR TO SUCH IN THE COURSE OF HIS OPERATIONS.
6. THE CONTRACTOR AND/OR BUILDER WILL KEEP THE SUBDIVISION NEAT AND ORDERLY AT ALL TIMES WHILE CONSTRUCTION IS TAKING PLACE. ALL CITY STREETS ADJACENT TO THE DEVELOPMENT SHALL BE KEPT CLEAR OF MUD, ROCK, DIRT, DEBRIS, PAPER AND WASTE MATERIAL AT ALL TIMES. THE PROPER AMOUNT OF INSPECTION SHALL BE CALLED FOR AT THEIR PROPER TIMES, OR ANY AND ALL WORK MAY BE REJECTED.
7. IF ANY WORK OR ACCESS TO ANY ADJOINING PROPERTY IS DONE, IT IS THE FULL RESPONSIBILITY OF THE APPLICANT/OWNER TO OBTAIN PROPER RELEASES FROM ADJOINING PROPERTY OWNERS AND ASSUME ALL LIABILITY FOR ACTION TAKEN DURING ALL CONSTRUCTION.
8. ALL DISTURBED AREAS ARE TO BE RE-SEEDED IN ACCORDANCE WITH THE APPROVED PLANS.
9. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY EXISTING STREET, CURB AND GUTTER, SIDEWALK AND DRIVEWAYS.
10. THE CONTRACTOR SHALL HAVE ON SITE A SET OF PLANS. THE CONTRACTOR SHALL HAVE ON THE PROJECT AT ALL TIMES, AS HIS AGENT, A COMPETENT SUPERINTENDENT CAPABLE OF READING AND THOROUGHLY UNDERSTANDING THE PLANS AND SPECIFICATIONS, THOROUGHLY EXPERIENCED IN THE TYPE OF WORK BEING PERFORMED, AND WHO SHALL RECEIVE INSTRUCTIONS FROM THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
11. ALL TRENCHES, WHICH LIE UNDER PROPOSED PAVEMENT OR LIE WITHIN TWO FEET OF THE BACK OF CURB SHALL BE BACKFILLED TO PAVEMENT SUBGRADE WITH COMPACTED GRANULAR MATERIAL.
12. MANHOLE COVERS, VALVE BOXES AND OTHER UTILITY APPURTENANCES SHALL NOT ENCROACH ON SIDEWALKS, CURBS OR PAVEMENT. WHERE CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR INSTRUCTION PRIOR TO PROCEEDING.
13. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY NEW SINKHOLES, MINE FEATURES OR OTHER GEOLOGIC ANOMALIES DISCOVERED DURING CONSTRUCTION.
14. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE IN THE CONTRACT.
15. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
16. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS.
17. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
18. COORDINATION BETWEEN ALL PARTIES IS AN ESSENTIAL PART OF THE CONTRACT.

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REVISIONS			DRAWING INFO.	
NO.	DESCRIPTION	BY	DATE	DRAWN BY: JOSHUA OATHOUT
				CHECK BY: WAYNE STEPHENSON
				LICENSE NO. PE-2012018139
				DATE: FEBRUARY 26, 2018
				FIELD BOOK:
				JOB NUMBER: 18JO10010

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COVER PAGE

JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI — WAYNE A. STEPHENSON — NUMBER PE-2012018139 — 2-26-18

DRAWING NO. JOP 100-4780

SHEET NUMBER C1.0

DEMOLITION KEY NOTES:

1. REMOVE EXISTING GRAVEL/PAVEMENT. COORDINATE WITH NEIGHBOR. REFER TO GRADING PLAN FOR NEW ELEVATIONS.
2. REMOVE EXISTING ASPHALT CURB. COORDINATE WITH NEIGHBOR.
3. REMOVE EXISTING TREES / SHRUBS ON NORTHERN PORTION OF SITE (LOT 98-100)
4. CLEAN UP GRAVEL EDGE OF ALLEY AND PREPARE FOR ASPHALT
5. CONTRACTOR TO VERIFY LOCATION OF SEWER MANHOLE AND MAIN PRIOR TO CONSTRUCTION. VERIFY SEWER HAS ADEQUATE DEPTH FOR SEWER LATERAL CONNECTIONS.
6. CONTRACTOR TO VERIFY LOCATION OF EXISTING WATER METERS. VERIFY METERS ARE FUNCTIONAL AND ABLE TO SERVE NEW BUILDING. CONTRACTOR RESPONSIBLE FOR WATER MAIN TAPS, NEW METERS, VAULTS, ETC FOR NEW BUILDING IF NOT IN WORKING ORDER.
7. CONTRACTOR TO VERIFY LOCATION OF EXISTING GAS MAIN. VERIFY GAS MAIN IS ADEQUATE FOR SERVICE TO NEW BUILDING. CONTRACTOR RESPONSIBLE FOR ALL GAS TAP FEES, METERS, PIPING, ETC TO BUILDING.
8. CAUTION: OVERHEAD ELECTRIC

LEGEND

- SEWER MANHOLE
- WATER METER
- POWERPOLE
- PROPERTY LINE
- SANITARY SEWER
- STORM SEWER
- TELEPHONE LINE
- GAS LINE
- WATER LINE
- ELECTRIC LINE
- UNDERGROUND ELECTRIC
- FENCE LINE

CAUTION:
SOME UTILITIES WERE NOT PROVIDED WITH THE SURVEY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATIONS OF ALL EXISTING UTILITY SERVICES SERVING EXISTING BUILDING. CONTRACTOR RESPONSIBLE FOR THE COMPLETE REMOVAL OF ALL EXISTING UTILITY SERVICES TO THE EXISTING BUILDING. COORDINATE REMOVAL WITH UTILITY COMPANIES.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL ITEMS THAT IMPEDE THE PROPER PLACEMENT OF ANY ITEMS PROPOSED BY THIS PLAN SET.
2. THE REMOVAL WORK SHALL INCLUDE BUT NOT BE LIMITED TO: OBTAINING ALL DEMOLITION PERMITS REQUIRED, REMOVAL OF THE EXISTING TREES, SEALING OF THE EXISTING WATER WELLS, REMOVAL OF ANY SEPTIC SYSTEM OR DRY WELLS (IF ANY) AND OTHER ITEMS TO COMPLETE THE REMOVALS.
3. THE CONTRACTOR SHALL REMOVE ALL MATERIALS DEEMED UNSUITABLE BY THE ENGINEER WITHIN EIGHT INCHES OF THE PROPOSED BUILDING FOOTPRINT TO THE DEPTH THAT SUCH UNSUITABLE MATERIALS EXIST. VOIDS SHALL BE FILLED IN ACCORDANCE WITH THE "EARTHWORK NOTES" ON THIS PLAN SHEET.
4. TREE REMOVAL SHALL INCLUDE THE COMPLETE REMOVAL OF ALL TREES AS SPECIFIED BY THE PLAN, INCLUDING ALL STUMPS AND ROOTS WITH THE FOLLOWING EXCEPTION: EXISTING (HEALTHY) TREES (ALONG THE SITE PERIMETER) THAT ARE SIX INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT (DBH) SHALL BE PRESERVED AND INCORPORATED INTO THE LANDSCAPING. IF REMOVAL OF SAID TREES IS DEEMED NECESSARY BY THE CONTRACTOR, THE CONTRACTOR SHALL OFFER WRITTEN NOTIFICATION TEN BUSINESS DAYS PRIOR TO DEMOLITION TO THE ENGINEER. WRITTEN APPROVAL MUST BE OBTAINED PRIOR TO REMOVAL OF SAID TREES. (INDICATE ALL TREES ON THE SITE OR AS INDICATED IN THE PLAN SET.)
5. THE CONTRACTOR SHALL COORDINATE DISCONNECTION, REMOVAL, AND RELOCATION OF THE EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES THAT ARE LEVIED BY UTILITY COMPANIES IN CONJUNCTION WITH DEMOLITION AND REMOVAL OF EXISTING UTILITIES.
6. DISPOSAL OF ALL MATERIALS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. ALL WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL MATERIALS FROM THE SITE ALONG WITH ALL ASSOCIATED PERMITS AND REGULATORY REQUIREMENTS.
7. THE CONTRACTOR SHALL BE FAMILIAR WITH THE APPROPRIATE SPECIFICATIONS FOR WELL ABANDONMENT, MATERIALS, PROCEDURES AND ACCESS TO EQUIPMENT REQUIRED TO PROPERLY SEAL WELLS (IF ANY). THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN, COMPLETE, AND FILE THE APPROPRIATE FORMS THROUGH THE LOCAL JURISDICTION AND/OR THE MISSOURI DEPARTMENT OF NATURAL RESOURCES.
8. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITY SERVICES TO ADJACENT LOTS. INTERRUPTION OF SERVICES TO ADJACENT LOTS SHALL NOT OCCUR WITHOUT PROPER APPROVAL. 48 HRS NOTICE SHALL BE GIVEN TO THE PROPERTY OWNERS PRIOR TO THE CONNECTION OF THE NEW SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH THE CONNECTION OF TEMPORARY UTILITY SERVICES, IF REQUIRED, TO FACILITATE CONSTRUCTION STAGING.
9. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. TO BE CLEAR AND FREE OF ANY CONSTRUCTION ACTIVITY AND/OR EXCAVATED AND HAULED MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM ADJACENT SITES.
10. THE CONTRACTOR SHALL PERFORM A FULL-DEPTH SAW-CUT ALONG THE PERIMETER OF PAVEMENT REMOVAL THAT ABUTS EXISTING PAVEMENT THAT IS TO REMAIN.
11. ANY DAMAGE SUSTAINED BY ITEMS THAT ARE TO REMAIN IN PLACE SHALL BE REPAIRED OR REPLACED TO THE OWNER'S SATISFACTION AT NO COST TO THE OWNER.

GRAPHIC SCALE

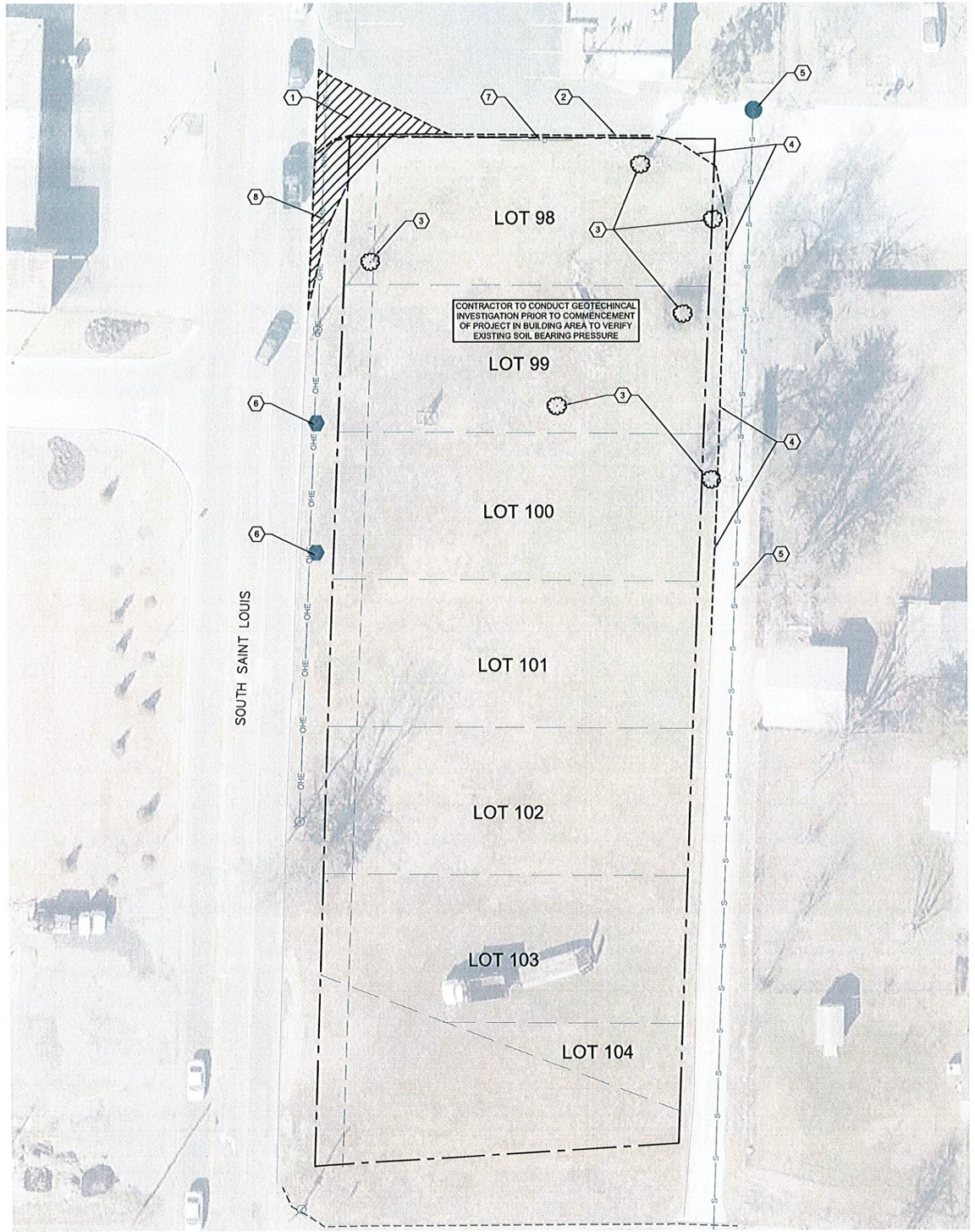
20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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CAUTION:
INFORMATION ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

EXISTING UTILITY NOTE:
CONTRACTOR TO FIELD VERIFY EXISTING UTILITIES AND LOCATIONS. IF EXISTING UTILITIES ARE FOUND TO BE IN GOOD WORKING ORDER AND MEET BUILDING DEMANDS CONTRACTOR CAN UTILIZE EXISTING UTILITY. CONTRACTOR TO COORDINATE UTILITY CONNECTIONS WITH APPLICABLE SERVICE PROVIDER. PRIOR TO CONSTRUCTION, TO ENSURE SERVICE TO THE NEW BUILDING IS ADEQUATE.



1 C1.2 **DEMOLITION PLAN**
SCALE: 1" = 20'-0"

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NO.	DESCRIPTION	DATE	BY

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DRAWING INFO.

DRAWN BY:	JOSHUA OATHOUT
CHECK BY:	WAYNE STEPHENSON
LICENSE NO.	PE-2012018139
DATE:	FEBRUARY 28, 2018
FIELD BOOK:	
JOB NUMBER:	18J010010

SHANE PENNEL
360 AUTO EXPRESS

DEMOLITION PLAN

JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI WAYNE A. STEPHENSON NUMBER PE-2012018139 PROFESSIONAL ENGINEER 2-28-18

DRAWING NO. JOP 100-4780
SHEET NUMBER C1.2

PAINT LEGEND

BOLLARDS	SURFACES SHOULD BE CLEAN, DRY AND METAL SURFACES FREE OF HEAVY RUST. 2 COATS SHERWIN WILLIAMS - KEM 4000 ACRYLIC ALKYD ENAMEL SAFETY YELLOW B55Y300.
STRIPING AND HANDICAP STRIPING	SURFACES SHOULD BE CLEAN, DRY, TOP COAT SHERWIN WILLIAMS - PRO MAR TRAFFIC MARKING PAINT YELLOW TM5495
HANDICAP PARKING "SYMBOLS" ONLY	SURFACES SHOULD BE CLEAN, DRY, TOP COAT SHERWIN WILLIAMS - PRO MAR TRAFFIC MARKING PAINT "H.C." BLUE

PAVEMENT MARKING KEY:

SYSL/4" - SINGLE YELLOW SOLID LINE, 4" WIDE

SYMBOLS LEGEND

REFER TO SURVEY FOR EXISTING CONDITION SYMBOLS LEGEND

	NEW BUILDING CONSTRUCTION
	STANDARD DUTY ASPHALT PAVING
	HEAVY DUTY ASPHALT PAVING
	TRASH PAD
	AREAS OF SOD

GENERAL NOTES:

A. ALL SITE DIMENSIONS TO THE FACE OF CURB, STRIPPING, OR PROPERTY LINE UNLESS OTHERWISE NOTED.

B. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO SUBMITTING BID AND STARTING CONSTRUCTION.

B. COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWINGS.

C. REFER TO STRUCTURAL PLANS FOR DEVELOPMENT OF SIDEWALKS ADJACENT TO FOUNDATIONS.

D. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.

E. DIMENSIONS THAT LOCATE THE BUILDING ARE MEASURED TO THE OUTSIDE FACE OF THE BUILDING.

F. SIGN CONSTRUCTION AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.

SITE EXCAVATION REQUIREMENTS:

1. A GEOTECHNICAL ANALYSIS SHOULD BE PERFORMED PRIOR TO THE START OF CONSTRUCTION TO VERIFY SOIL BEARING PRESSURE AND GENERAL SOIL CHARACTERISTICS.
2. FOLLOW GEOTECHNICAL ANALYSIS RECOMMENDATION FOR SITE EXCAVATION.
3. REFER TO STRUCTURAL DRAWINGS FOR BUILDING EXCAVATION REQUIREMENTS.

GENERAL NOTES:

A. REFER TO PROJECT MANUAL AND/OR OTHER SITE RELATED DRAWINGS FOR ADDITIONAL REQUIREMENTS.
B. SITE CONDITIONS BASED UPON SURVEY SUBMITTED BY OWNER. FIELD VERIFY EXISTING CONDITIONS BY DETAILED SITE INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING CONSTRUCTION.
C. FIELD VERIFY SANITARY SEWER SERVICE CONNECTION INVERT PRIOR TO ESTABLISHING FINAL FINISH FLOOR ELEVATION.
D. COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWINGS.

GENERAL NOTE:
CONTRACTOR(S) SELECTED BY THE DEVELOPER/OWNER TO CONSTRUCT ANY PUBLIC/PRIVATE SANITARY SEWER, STORM SEWER AND WATER MAIN TAP OR EXTENSIONS, SHALL CONTACT THE CITY, OR GOVERNING AUTHORITY, AND REQUEST A PRE-CONSTRUCTION MEETING. THIS MEETING SHALL OCCUR PRIOR TO COMMENCING ANY WORK ON THE SITE. THE MEETING WILL INCLUDE, BUT NOT BE LIMITED TO, ESTABLISHING CONTACT NAMES AND NUMBERS FOR PERSONS RESPONSIBLE FOR PERFORMING THE WORK, WORK SCHEDULES, SHOP DRAWING REQUIREMENTS, BONDS AND INSURANCE REQUIREMENTS, AND TESTING AND INSPECTION PROTOCOLS.

LEGEND

- SEWER MANHOLE
- WATER METER
- CROSSING CONTROLLER
- PROPERTY LINE
- SANITARY SEWER
- STORM SEWER
- TELEPHONE LINE
- GAS LINE
- WATER LINE
- ELECTRIC LINE
- UNDERGROUND ELECTRIC
- FENCE LINE

KEY NOTES:

1. STANDARD DUTY ASPHALT PAVING REFER TO DETAILS.
   ALTERNATE: PROVIDE BID FOR STANDARD DUTY CONCRETE PAVING IN ALL STANDARD DUTY ASPHALT PAVING AREAS.
2. HEAVY DUTY ASPHALT PAVING REFER TO DETAILS.
   ALTERNATE: PROVIDE BID FOR HEAVY DUTY CONCRETE PAVING IN ALL HEAVY DUTY ASPHALT PAVING AREAS.
3. HANDICAP PARKING SIGN: REFER TO DETAILS.
4. HANDICAP PARKING SYMBOL: REFER TO DETAILS.
5. HANDICAP ACCESS UNLOADING ZONE: SLOPE 2% MAX EACH WAY (ADA COMPLIANT) AND STRIPE AS SHOWN.
6. LIMITS OF NEW PAVING: MATCH EXISTING PER CITY AND OR STATE STANDARDS. CONCRETE DRIVE.
7. REMOVE PAVEMENT AND REPLACE AS NEEDED TO MAKE GRADING PLAN WORK. FIELD ADJUST.
8. PARKING LOT STRIPING: SYSL/4" (TYP.)
9. TRASH PAD CONCRETE PAVING. PAD MUST BE A MINIMUM SIZE OF 20' X 12', NO PARKING STRIPING.
10. CONCRETE CURB. REFER TO DETAILS.
11. TRASH ENCLOSURE. REFER TO DETAILS.
12. MATCH GRAVEL ALLEY FLUSH. ENSURE GRAVEL IS ADEQUATELY COMPACTED.
13. GRAVEL RIP-RAP PAD OR EROSION CONTROL MAT.
14. CONCRETE STOP. (TYP) - 2'-0" FROM BUILDING (DOWELED INTO PLACE)
15. ROLL DOWN CURB 3:1 SLOPE

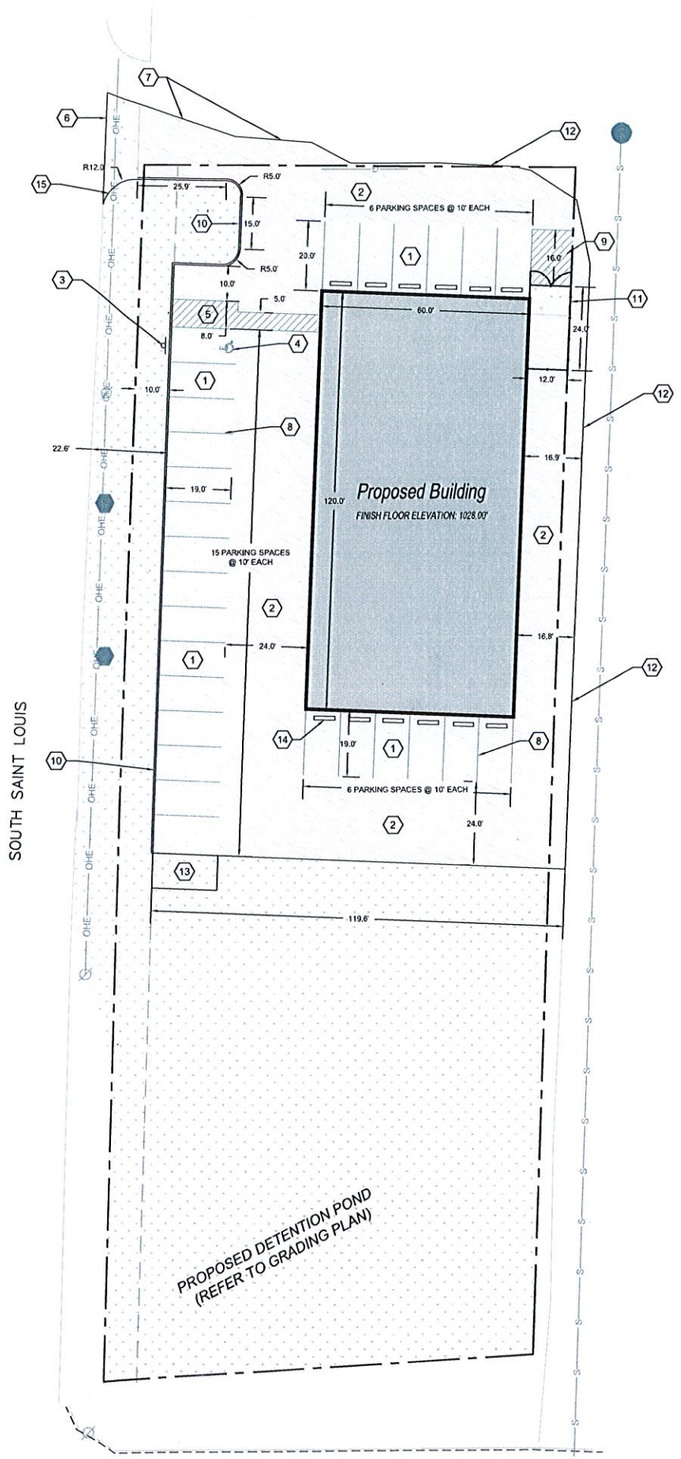
GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

CONTRACTOR SHALL FIELD VERIFY PROPOSED GRADES MATCH EXISTING PAVEMENT AT DRIVEWAY ENTRANCES. CONTRACTOR SHALL NOTIFY ENGINEER IF DISCREPANCY OCCURS.

CAUTION:
PRIOR TO STARTING ANY WORK CONTRACTOR TO LOCATE EXISTING UTILITIES AND POT HOLE TO DETERMINE DEPTHS AT ALL UTILITY CROSSINGS. CONTRACTOR TO CONTACT ENGINEER OF ANY CONFLICTS WITH PROPOSED WORK.



1 C1.3 **SITE PLAN**
SCALE: 1" = 20'-0"

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REVISIONS

NO.	DESCRIPTION	BY	DATE

DRAWING INFO.

DRAWN BY:	JOSHUA OATHOUT
CHECK BY:	WAYNE STEPHENSON
LICENSE NO.	PE-2010018139
DATE:	FEBRUARY 28, 2018
FIELD BOOK:	
JOB NUMBER:	18JOT0010

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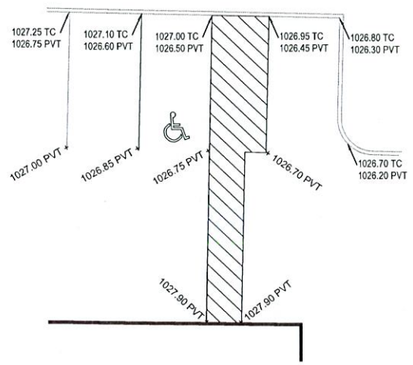
SITE PLAN

JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI
WAYNE A. STEPHENSON
NUMBER PE-2010018139
PROFESSIONAL ENGINEER
2-28-18

DRAWING NO.
JOP 100-4780

SHEET NUMBER
C1.3



NOTE:
1. TRUNCATED DOMES AS DETECTABLE WARNINGS AS PER 'AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES' (ADAAG).
2. NO CROSS SLOPES GREATER THAN 2%
3. CURB RAMP LANDING SHALL HAVE MINOR SLOPE TOWARDS ROADWAY TO ALLOW FOR ADEQUATE DRAINAGE.
4. ALL RAMPS SHALL BE COMPLIANT WITH ADA STANDARDS AND REGULATIONS.

2 / C1.4 HANDICAP PARKING AREA
SCALE: 1"=10'

SYMBOLS LEGEND

REFER TO SURVEY (SV1) FOR EXISTING CONDITION SYMBOLS LEGEND AND SITE CONTROL.

1217	EXISTING GRADE LINES	× 1027.0 PVT	NEW SPOT ELEVATIONS
1217	PROPOSED NEW GRADE LINES		LIST / ABBREVIATION: GRADE NONE; SIDEWALK SW; TOP OF WALL TW; TOP OF CURB TC; TOP OF PAVEMENT PVT; NEW GRADE GD; CONCRETE CONC; EXISTING TOP OF CURB ETC; EXISTING GRADE EGD; EXISTING PAVEMENT EPVT; EXISTING SIDEWALK ESW; FLOW LINE FL; TOP OF BERM TOP
	NEW BUILDING CONSTRUCTION		
	PROPERTY BOUNDARY		
			TEMPORARY BENCHMARK
			GUIDEWIRE ELEVATION = 1016.03'

STAGES OF CONSTRUCTION:

1. CONTRACTOR TO PERFORM DETAILED SITE INSPECTION TO LOCATE ALL EXISTING UTILITIES AND VERIFY ANY POSSIBLE CONFLICTS WITH PROPOSED IMPROVEMENTS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTACT ENGINEER WITH ANY CONFLICTS.
2. INSTALLATION OF EROSION CONTROL MEASURES.
3. INSTALLATION OF ALL STORMWATER DRAINAGE IMPROVEMENTS.
4. CONSTRUCTION OF IMPROVEMENTS
5. FINAL GRADING.
6. PLACEMENT OF FINAL LANDSCAPING ITEMS AND SOD.
7. REMOVAL OF EROSION CONTROL MEASURES.

KEY NOTES:

* *CONTRACTOR TO ENSURE SEDIMENT STAYS ON-SITE. PROVIDE ADDITIONAL MEASURES AS NECESSARY, TO PREVENT OFF-SITE TRACKING AND SEDIMENT DISPOSITION. REPAIR & REPLACE AS NEEDED THROUGHOUT CONSTRUCTION.*

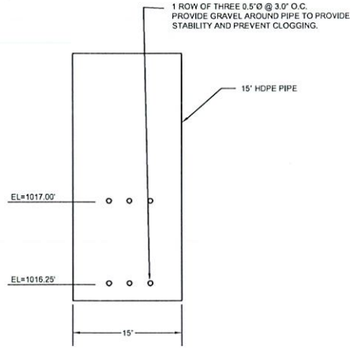
* *CONTRACTOR TO PROVIDE CONSTRUCTION EGRESS ON EITHER ACCESS TO SITE. COORDINATE WITH CITY AND OWNER.*

(E1) *INSTALL 12" COMPOST FILTER SOCKS OR APPROVED EQUAL. SEE DETAILS*

(E2) *INSTALL INLET PROTECTION: SANDBAGS OR APPROVED EQUAL - REMOVE ONCE VEGETATION IS ESTABLISHED*

LEGEND

- SEWER MANHOLE
- WATER METER
- CROSSING CONTROLLER
- PROPERTY LINE
- SANITARY SEWER — SS —
- STORM SEWER
- TELEPHONE LINE — TEL —
- GAS LINE — G —
- WATER LINE — W —
- ELECTRIC LINE — OHE —
- UNDERGROUND ELECTRIC — UE —
- FENCE LINE — x — x —



WATER QUALITY HOLES

FINAL STORM WATER RUNOFF SUMMARY:

TOTAL PROPERTY AREA= 0.99 ACRES
TOTAL DISTURBED AREA = 0.99 ACRES < 1.0 ACRES THEREFORE A NOI IS NOT REQUIRED.

WATER QUALITY VOLUME:
½ INCH OVER IMPERVIOUS AREA
IMPERVIOUS AREA: 9,144 SQUARE FEET
23680X.5/12*1.25 = 1,233 CUBIC FEET

1" RAINFALL (WHOLE AREA)
PRE SITE VOLUME = 0 CUBIC FEET
POST SITE VOLUME = 705 CUBIC FEET
705*1.25 = 882 CUBIC FEET

PRE-DEVELOPED TO DISCHARGE POINT
PERVIOUS AREA:
GRASS = 1.21 ACRES (CN = 61)

PRE-DEVELOPED TO DISCHARGE POINT
CN = [1.21*61)/1.21
CN = 61

POST-DEVELOPED TO DISCHARGE POINT
PERVIOUS AREA:
ON-SITE GRASS = 0.43 ACRES (CN = 61)
IMPERVIOUS AREA:
ON-SITE PARKING AREA & BUILDING = 0.78 ACRES (CN = 98)

POST-DEVELOPED TO DISCHARGE POINT
CN = [(0.43*61)+(0.78*98)]/1.21
CN = 84.9

PRE-DEVELOPED FLOWS
2-YEAR: 1.53 CFS
10-YEAR: 3.88 CFS
100-YEAR: 8.75 CFS

POST-DEVELOPED FLOWS
2-YEAR: 4.86 CFS
10-YEAR: 8.11 CFS
100-YEAR: 13.77 CFS

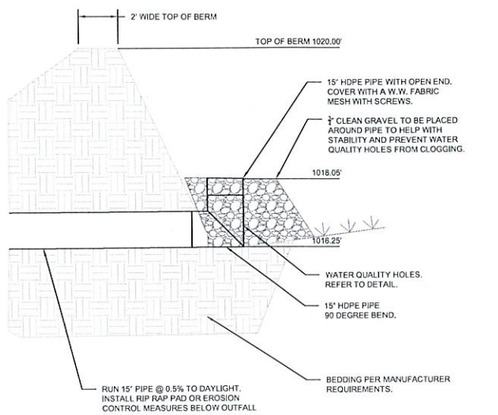
NOTE: THERE IS AN AREA THAT WILL DIRECTLY BE DISCHARGED INTO STREET. THIS AREA WILL BE ALL IMPERVIOUS AREA LOCATED ON THE NORTH SIDE OF THE BUILDING. THE RUNOFF WILL RUN ONTO SAINT LOUIS STREET AND HEAD SOUTH TO THE POND DISCHARGE POINT. AS A RESULT, THE POND WILL HOLD BACK THIS ADDITIONAL FLOW. CALCULATIONS FOR AREA SHOWN BELOW.

POST-DEVELOPED DIRECT RELEASE
IMPERVIOUS AREA:
ON-SITE PARKING AREA & BUILDING = 0.15 ACRES (CN = 98)

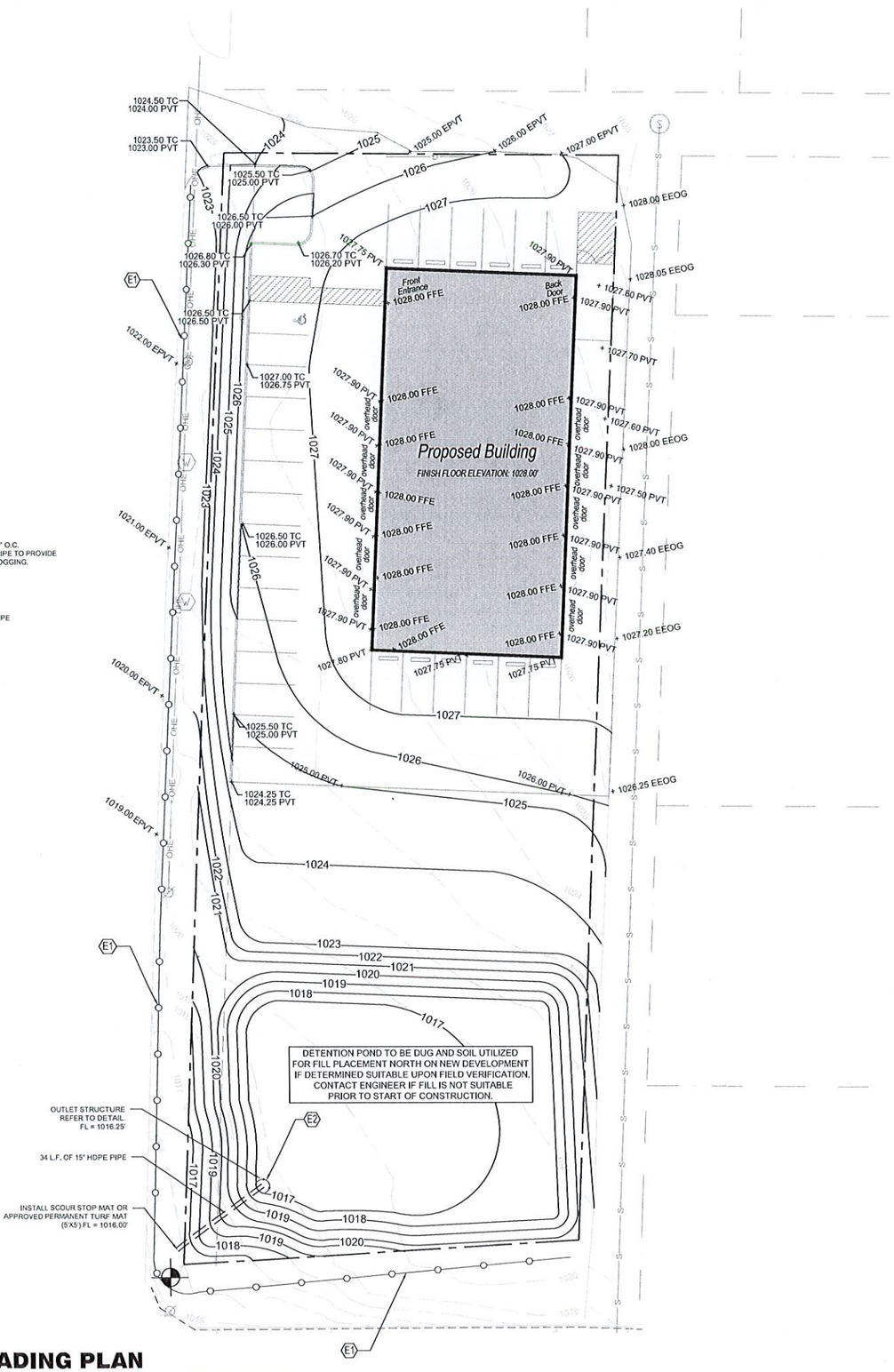
POST-DEVELOPED DIRECT RELEASE FLOWS
2-YEAR: 0.81 CFS
10-YEAR: 1.12 CFS
100-YEAR: 1.86 CFS

STORM EVENT	PRE FLOWS	DIRECT RELEASE		DETENTION RELEASE		POST FLOWS		POND LEVEL
2-YEAR	1.53 CFS	0.81 CFS	+	0.14 CFS	=	0.95 CFS	@	1018.07'
10-YEAR	3.88 CFS	1.12 CFS	+	1.66 CFS	=	2.78 CFS	@	1018.30'
100-YEAR	8.75 CFS	1.86 CFS	+	6.43 CFS	=	8.29 CFS	@	1018.96'

ALL STORMWATER CALCULATIONS WERE MODELED IN HYDROGRAPH USING THE SCS 24 HOUR RAINFALL EVENT. ALL WATER LEAVING THE SITE HAS BEEN ACCOUNTED FOR. PRE CONDITIONS INCLUDE THE ENTIRE SITE AND ALLEYWAY AND WAS ASSUMED ALL GRASS. POST CONDITIONS CONSIDERED THE ENTIRE SITE AND ALLEYWAY. A WATER QUALITY VOLUME MET AT 1017.00' WILL BE RELEASED THROUGH THREE ¾" DIAMETER HOLES OVER 24.3 HOURS. THE 2, 10, AND 100 YEAR STORMS FLOWS WILL ALL BE RESTRICTED TO PRE DEVELOPMENT CONDITIONS.



3 / C1.4 OUTLET STRUCTURE
SCALE: NOT TO SCALE



1 / C1.4 GRADING PLAN
SCALE: 1" = 20'-0"

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NO.	DESCRIPTION	BY / DATE	DRAWN BY:	JOSHUA OATHOUT
			CHECK BY:	WAYNE STEPHENSON
			LICENSE NO.	PE-2012018139
			DATE:	FEBRUARY 28, 2018
			FIELD BOOK:	
			JOB NUMBER:	18JO10010

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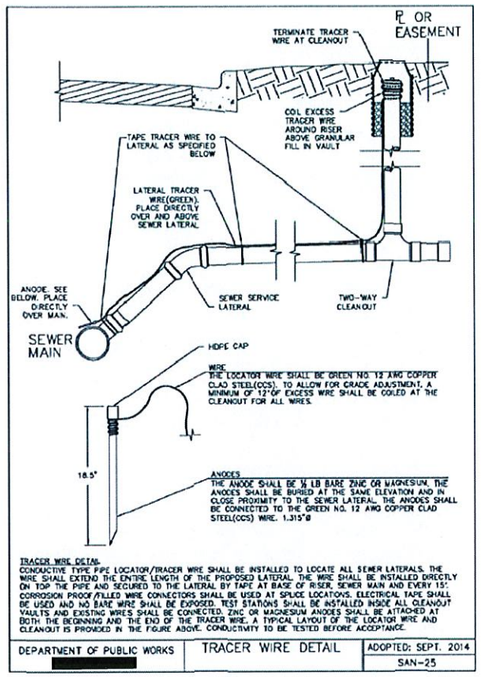
SHANE PENNEL
360 AUTO EXPRESS

GRADING/STORMWATER PLAN

JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI — WAYNE A. STEPHENSON — NUMBER PE-2012018139 — PROFESSIONAL ENGINEER

DRAWING NO. JOP 100-4780
SHEET NUMBER C1.4



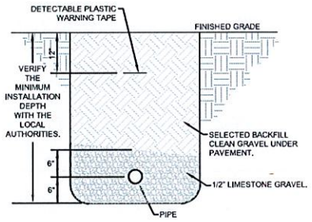
TRACER WIRE DETAIL

CONDUCTIVE TYPE PIPE LOCATOR/TRACER WIRE SHALL BE INSTALLED TO LOCATE ALL SEWER LATERALS. THE WIRE SHALL EXTEND THE ENTIRE LENGTH OF THE PROPOSED LATERAL. THE WIRE SHALL BE INSTALLED DIRECTLY ON TOP THE PIPE AND SECURED TO THE LATERAL BY TAPE AT BASE OF RISER, SEWER MAIN AND EVERY 15'. CORROSION PROOF/FILLED WIRE CONNECTORS SHALL BE USED AT SPLICE LOCATIONS. ELECTRICAL TAPE SHALL BE USED AND NO BARE WIRE SHALL BE EXPOSED. TEST STATIONS SHALL BE INSTALLED INSIDE ALL CLEANOUT VAULTS AND EXISTING WIRES SHALL BE CONNECTED. ZINC OR MAGNESIUM ANODES SHALL BE ATTACHED AT BOTH THE BEGINNING AND THE END OF THE TRACER WIRE. A TYPICAL LAYOUT OF THE LOCATOR WIRE AND CLEANOUT IS PROVIDED IN THE FIGURE ABOVE. CONDUCTIVITY TO BE TESTED BEFORE ACCEPTANCE.

DEPARTMENT OF PUBLIC WORKS [redacted]	TRACER WIRE DETAIL	ADOPTED: SEPT. 2014 SAN-25

EXISTING CONDITIONS NOTES:

1. THE CONTRACTOR IS OBLIGATED TO INSPECT FOR EXISTING CONDITIONS/INSTALLATIONS AND AVAILABLE INFORMATION PRIOR TO SUBMITTING A BID. REFER TO SPECIFICATIONS ALSO.
2. EXISTING INSTALLATIONS (SUCH AS WATER MAINS/LINES, GAS MAINS/LINES, SEWER MAINS/LINES, TELEPHONE LINES, POWER LINES, AND UTILITY STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE) ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT THAT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER IN PREPARING THE DRAWINGS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING INSTALLATIONS.
4. ANY DELAY, ADDITIONAL WORK, FEES OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO OR MODIFICATION OF EXISTING INSTALLATIONS BY THE CONTRACTOR OR AFFECTED UTILITY COMPANY SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS/INSTALLATIONS.



2 PIPE INSTALLATION DETAIL

C1.5 SCALE: NOT TO SCALE

TELECOM & FIBER SERVICE:
CONTRACTOR RESPONSIBLE FOR ALL TELECOM AND FIBER OPTIC SERVICE REQUIRED BY THE OWNER. COORDINATE WITH OWNER AND UTILITY COMPANY ON INSTALLATION AND TRENCHING REQUIREMENTS.

CONTRACTOR TO COORDINATE WITH EMPIRE ELECTRIC AND OWNER ON PLACEMENT OF TRANSFORMER PAD AND UNDERGROUND ELECTRIC. CONTRACTOR RESPONSIBLE FOR ALL INFRASTRUCTURE REQUIRED BY UTILITY COMPANY. COORDINATE WITH OWNER AND UTILITY COMPANY PRIOR TO SUBMITTING BID. LOCATION & ROUTE SHOWN HERE FOR ILLUSTRATION PURPOSES ONLY. FINAL ROUTE & DESIGN SHALL BE PER EMPIRE ELECTRIC DIRECTION & AUTHORITY.

VERIFY LOCATION OF WATER MAIN AND EXISTING WATER METERS. IF METERS ARE IN GOOD WORKING ORDER, UTILIZE EXISTING METER. IF METERS ARE NOT SUITABLE, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP FEES, BACK FLOW PREVENTERS, VAULTS, FITTINGS ETC, REQUIRED BY WATER COMPANY, TO SERVE SITE. COORDINATE WITH MISSOURI AMERICAN WATER PRIOR TO SUBMITTING BID.

SCH 40 PVC WATER LATERAL. CONTRACTOR RESPONSIBLE FOR ALL FITTINGS, PIPE, BENDS ETC, TO THE BUILDING. COORDINATE SIZE AND EXACT PLACEMENT WITH OWNER.

CONTRACTOR TO VERIFY LOCATION OF GAS MAIN. COORDINATE WITH OWNER IF GAS IS NEEDED FOR BUILDING. CONTRACTOR RESPONSIBLE FOR ALL FITTINGS, TAPS, TAP FEES, PIPING, BENDS, ETC REQUIRED BY OWNER AND GAS COMPANY.

SEWER LATERAL CONNECTION. CONTRACTOR TO VERIFY LOCATION OF SEWER MAIN. CONTRACTOR RESPONSIBLE FOR ALL FITTINGS, TEES, SERVICE TAPS REQUIRED BY CITY OF JOPLIN.
MAX INVERT = 1023.50'
VERIFY SEWER MAIN IS LOWER THAN MAX INVERT.

25 L.F. OF 4" SDR 35 SEWER LATERAL. PROVIDE TRACER WIRE PER JOPLIN STANDARD DETAILS. COORDINATE EXACT LOCATION WITH PLUMBING PLAN.

TRAFFIC RATED SEWER CLEANOUT, MATCH FLUSH WITH PAVEMENT, INV= 1024.00'
REFER TO DETAIL.

Proposed Building
FINISH FLOOR ELEVATION: 1028.00'

REFER TO FOUNDATION PLAN FOR CONTINUATION

60 L.F. OF 4" SDR 35 SEWER LATERAL. CONTRACTOR TO PROVIDE TRACER WIRE TO FIRST CLEANOUT.

CONTRACTOR RESPONSIBLE FOR ALL FITTINGS, TEES, SERVICE TAPS, ETC, REQUIRED BY CITY OF JOPLIN.
MAX INVERT = 1022.40'
VERIFY SEWER MAIN IS BELOW MAX INVERT.

TRAFFIC RATED SEWER CLEANOUT, MATCH FLUSH WITH PAVEMENT, INV= 1023.50'

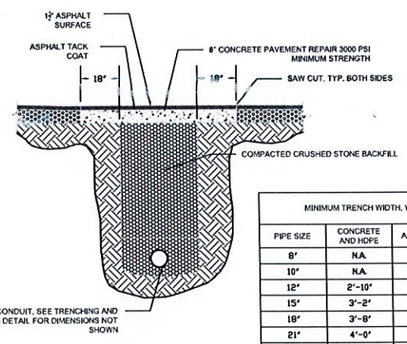
GREASE INTERCEPTOR, COORDINATE TYPE WITH OWNER.

TRAFFIC RATED SEWER CLEANOUT, MATCH FLUSH WITH PAVEMENT, INV= 1023.20'

TRAFFIC RATED SEWER CLEANOUT, MATCH FLUSH WITH PAVEMENT, INV= 1022.70'

SOUTH SAINT Llouis

OHE



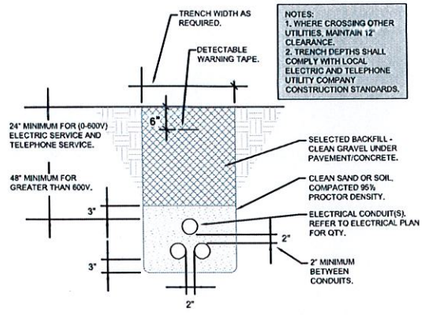
MINIMUM TRENCH WIDTH, W		
PIPE SIZE	CONCRETE AND HDPE	ALL OTHERS
8"	N.A.	2'-0"
10"	N.A.	2'-2"
12"	2'-10"	2'-4"
15"	3'-2"	2'-7"
18"	3'-8"	2'-10"
21"	4'-0"	3'-2"
24"	4'-6"	3'-6"
30"	5'-2"	4'-2"
36"	5'-8"	4'-8"
42"	6'-3"	5'-4"
48"	6'-10"	5'-10"

MAXIMUM TRENCH WIDTH, W, ALLOWABLE IS EQUAL TO MINIMUM TRENCH WIDTH PLUS 6"

NOTES:
1. THE WIDTH OF THE TRENCH SHALL BE HELD AS NEARLY AS POSSIBLE TO THE MINIMUM TRENCH WIDTH SPECIFIED HEREIN, FOR THE COMPLETE DEPTH OF TRENCH
2. BACKFILL SHALL BE WELL GRADED CRUSHED STONE ¾" TO ¼" WITH LESS THAN 5% PASSING THE #4 SIEVE
3. BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR (ASTM D698) IN 8" MAX. LOOSE LIFTS
4. BACKFILL TO EXTEND 2' BEYOND EDGE OF STREET
5. TRENCH GREATER THAN 5 FEET IN DEPTH SHALL BE SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED PER OSHA AND LOCAL ORDINANCES

3 PAVEMENT CUT REPAIR

C1.5 SCALE: NOT TO SCALE



NOTES:
1. WHERE CROSSING OTHER UTILITIES, MAINTAIN 12" CLEARANCE.
2. TRENCH DEPTHS SHALL COMPLY WITH LOCAL ELECTRIC AND TELEPHONE UTILITY COMPANY CONSTRUCTION STANDARDS.

4 UNDERGROUND ELECTRICAL

C1.5 SCALE: NOT TO SCALE

UTILITY NOTE:
CONTRACTOR RESPONSIBLE FOR ALL INFRASTRUCTURE REQUIRED BY UTILITY COMPANIES. ANY OMMISSIONS ON THESE DRAWINGS WILL NOT CONSTITUTE A CHANGE ORDER. COORDINATE WITH UTILITY COMPANIES.

1 UTILITY PLAN

C1.5 SCALE: 1" = 20'-0"

GRAPHIC SCALE

30 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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CHECK BY: WAYNE STEPHENSON
LICENSE NO. PE-2012018139
DATE: FEBRUARY 28, 2018
FIELD BOOK:
JOB NUMBER: 18.010010

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UTILITY PLAN

JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI WAYNE A. STEPHENSON NUMBER PE-2012018139 PROFESSIONAL ENGINEER 2-28-18

DRAWING NO. JOP 100-4780
SHEET NUMBER C1.5

PROJECT SEEDING SCHEDULE

MATERIALS

1. LAWNS: (HYDROSEED); FRESH, CLEAN, NEW CROP SEED MIXTURE BY APPROVED METHOD COMPOSED OF FALCON TALL FESCUE (75%) AND REBEL RYE (25%) OR CROSSFIRE (25%) AND DEGRADABLE GREEN DYED WOOD CELLULOSE FIBER OR 100% RECYCLED LONG FIBER PULP. MIXTURE SHALL BE FREE FROM WEEDS OR OTHER FOREIGN MATTER TOXIC TO SEED GERMINATION. SEED PURITY SHALL BE 95% WITH A MINIMUM 80% GERMINATION.
2. LAWNS: (SOD); STRONGLY ROOTED, 2 YEARS OLD, ASPA APPROVED, CONSISTING OF FALCON TALL FESCUE (75%) AND REBEL RYE (25%) OR CROSSFIRE (25%) CUT WITH MINIMUM ½-INCH AND MAXIMUM 1-INCH TOPSOIL BASE OR APPROVED EQUAL.

LAWN PLANTING

A. FOR SEEDED LAWNS, APPLY SEED AT RATE OF 5 POUNDS PER 1000 SQUARE FEET. APPLY EROSION CONTROL MATTING OVER AREAS WHERE SLOPES EXCEED 1:4 OR IN AREAS OF CONCENTRATED STORM WATER FLOW.
B. FOR LAWNS WITH SOD, PLACE SOD TIGHTLY, WITH GRAIN IN SAME DIRECTION, JOINTS STAGGERED. APPLY WOOD PEGS COMPOSED OF SOFTWOOD OF SUFFICIENT SIZE AND LENGTH TO ENSURE ANCHORAGE AT AREAS WHERE SLOPES EXCEED 1:4 AND AT LOCATIONS OF CONCENTRATED WATER FLOW.

PLANTING SCHEDULE

* REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS. ALL PLANTINGS MAY BE SUBSTITUTED DUE TO REGION OR LOCAL REQUIREMENTS IF NECESSARY & PER AVAILABILITY.

KEYNOTE	SYMBOL	COMMON NAME	BOTANICAL NAME	QUANTITY	SIZE @ PLANTING	DETAIL
A		EASTERN REDBUD	CERCIS CANADENSIS	1	2" CALIPER	3
B		CREPE MYRTLE	LASGERSTROEMIA	9	5 GALLON	2
C		SPIREA	SPIRAEA CULTIVARS	2	5 GALLON	2
D		DOWNY SERVICEBERRY	PICEA GLAUCA VAR. DENSATA	1	6' IN HEIGHT	3

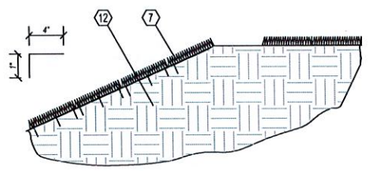
LANDSCAPE SYMBOLS LEGEND

REFER TO SURVEY FOR EXISTING CONDITION SYMBOLS LEGEND

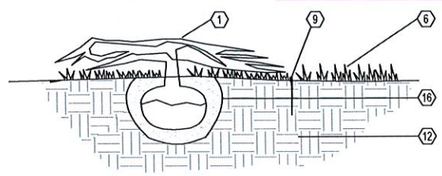
	NEW BUILDING CONSTRUCTION
	AREA OF CONCRETE
	AREA OF PAVING
	NEW FENCE CONSTRUCTION
	AREA OF SOD/SEED LAWN AREA WHICH EXCEEDS 25% SLOPE TO BE PROVIDED WITH SOD. REFER TO GRADING PLAN. CONTRACTOR RESPONSIBLE FOR SODDING ALL DISTURBED AREAS ON SITE.
	AREA OF NEW TREE REFER TO PLANTING SCHEDULE FOR SIZE AND TYPE
	AREA OF NEW SHRUB REFER TO PLANTING LEGEND FOR SIZE AND TYPE

PLANTING KEY NOTES:

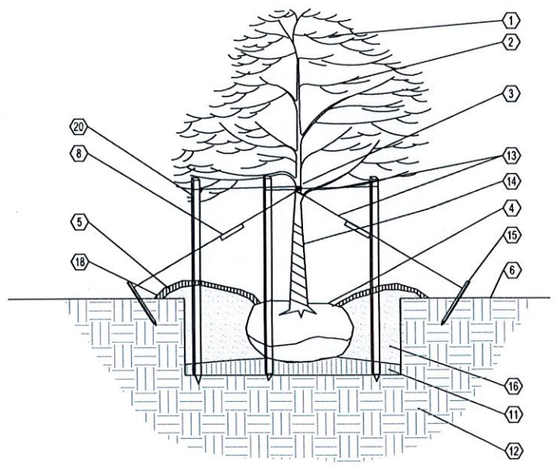
1. PLANTING: REFER TO PLANTING SCHEDULE FOR TYPE
2. SET TREE LEVEL AND PLUM. STRAIGHTEN AFTER SETTLEMENT IF NEEDED.
3. ENCASE WIRE AROUND TRUNK IN BLACK RUBBER. MOVE UP ABOVE EQUAL TO 1/2 TO 1/3 OF THE HEIGHT OF TREE.
4. SET TREE WITH TOP 1/3 OF ROOT ABOVE FINISH GRADE.
5. REFER TO LANDSCAPE PLAN FOR GROUND COVER TYPE AND LOCATIONS. PROVIDE 3" DEEP 5/8" CREEK GRAVEL OVER BLACK VISQUEEN VAPOR BARRIER.
6. LAWN (AREA OF SOD)
7. REFER TO SITE GRADING PLAN FOR SLOPE. PLACE THREE PINS EVERY 2'-0", SPACING EQUALLY. SOD SHALL BE COMPOSED OF TWO VARIETIES MINIMUM OF FESCUE GRASS
8. 1" X 4" X 10" WHITE WOOD FLAG
9. 4" BLACK POLY VINYL EDGING
10. PREFERRED SOIL
11. COMPACTED PLANTING
12. SUB GRADE
13. TWO STRANDS OF WIRE
14. TRUNK WRAP
15. 2" X 2" X 10" WOOD STAKES BURY BELOW FINISH GRADE
16. PREPARED PLANTING MIXTURE
17. TREES 6'-0" IN HEIGHT OR LESS SHALL BE STAKED
18. EXTENTS OF PLANTING BERM TO HOLD WATER
19. TREES TALLER THAN 3'-0" MUST BE TIED.
20. 2" X 4" STAKE - OR - METAL FENCE POST

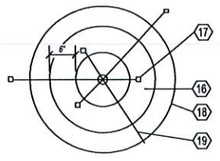


1 SODDING WITH PINS
C1.6 SCALE: NTS

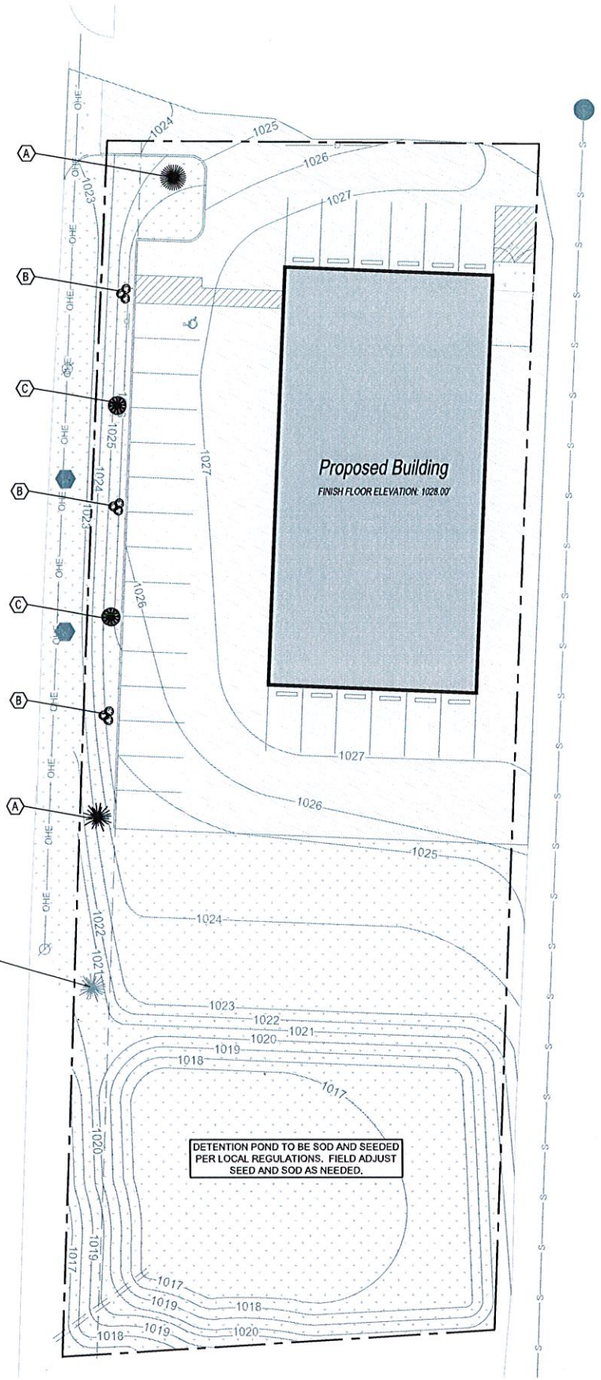


2 SHRUB PLANTING
C1.6 SCALE: NTS





3 TREE PLANTING
C1.6 SCALE: NTS



1 LANDSCAPE PLAN
C1.6 SCALE: 1" = 20'-0"

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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NO.	DESCRIPTION	BY	DATE

DRAWING INFO.
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CHECK BY: WAYNE STEPHENSON
LICENSE NO. PE-2012018139
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JOB NUMBER: 18JO10010

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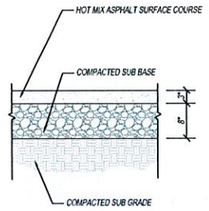
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LANDSCAPE PLAN

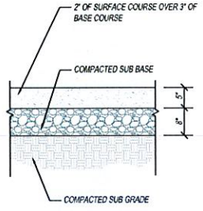
JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI · WAYNE A. STEPHENSON · NUMBER PE-2012018139 · PROFESSIONAL ENGINEER
2-28-18

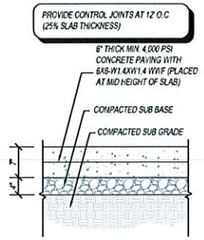
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SHEET NUMBER C1.6



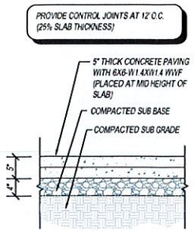
1 STANDARD DUTY ASPHALT PAVING SECTION
C1.7 SCALE: NOT TO SCALE



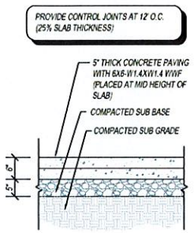
2 HEAVY DUTY ASPHALT PAVING SECTION
C1.7 SCALE: NOT TO SCALE



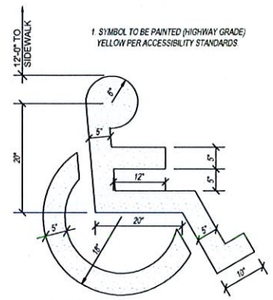
3 TRASH PAD CONCRETE PAVING SECTION
C1.7 SCALE: NOT TO SCALE



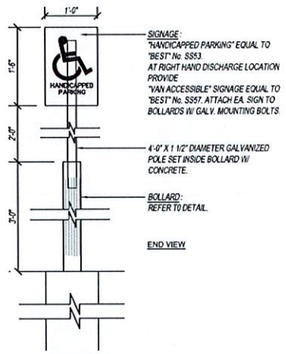
4 (ALT) STANDARD DUTY CONCRETE PAVING
C1.7 SCALE: NOT TO SCALE



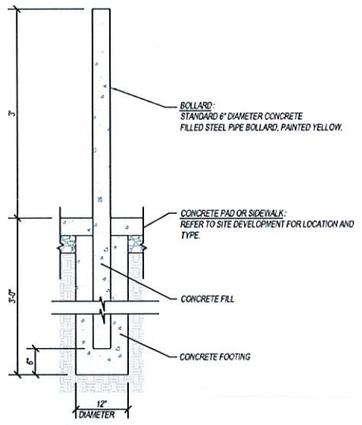
5 (ALT) HEAVY DUTY CONCRETE PAVING
C1.7 SCALE: NOT TO SCALE



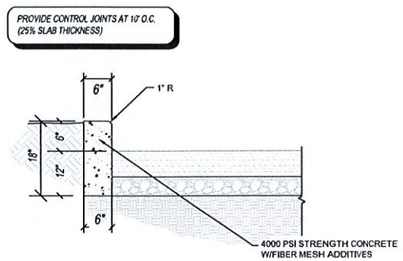
6 HANDICAP PARKING SYMBOL
C1.7 SCALE: NOT TO SCALE



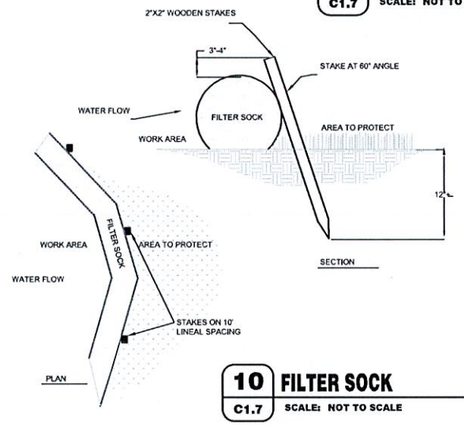
7 HANDICAP PARKING SIGN
C1.7 SCALE: NOT TO SCALE



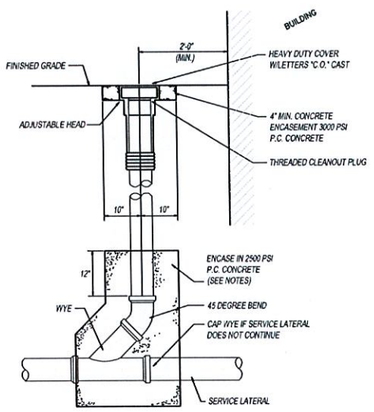
8 STEEL BOLLARD SECTION
C1.7 SCALE: NOT TO SCALE



9 CONCRETE CURB
C1.7 SCALE: NOT TO SCALE

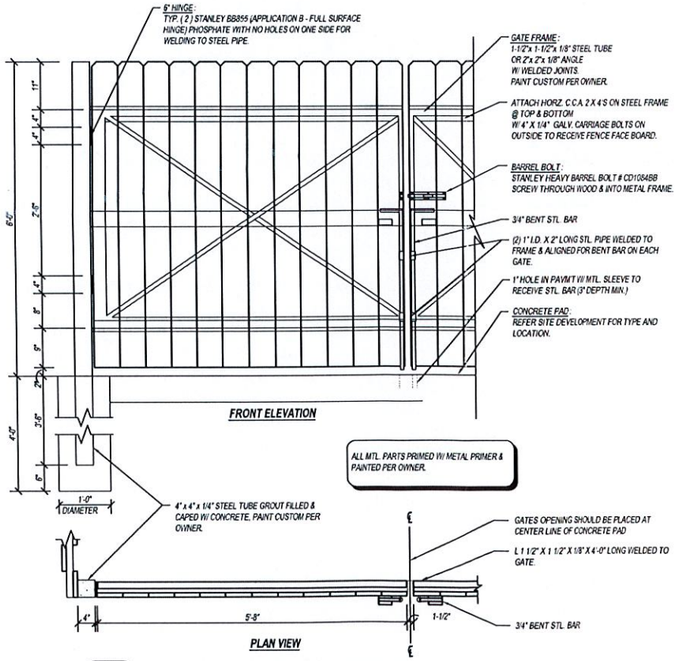


10 FILTER SOCK
C1.7 SCALE: NOT TO SCALE

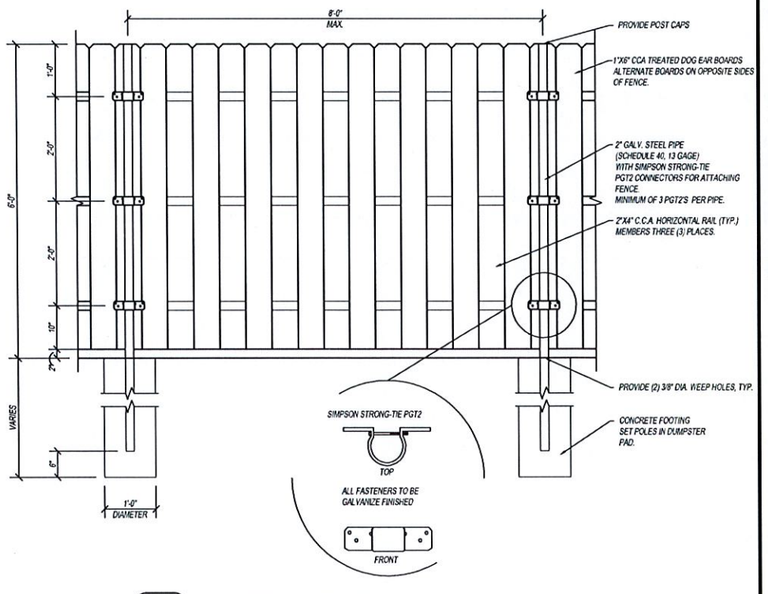


NOTE:
1. ALL LATERALS SHALL HAVE A ONE-WAY CLEAN-OUT EVERY EVERY 50' OR A TWO-WAY CLEAN-OUT EVERY 100'
2. IF THE SERVICE LATERAL IS LESS THAN 12' DEEP, THE CONCRETE ENCASEMENT IS NOT REQUIRED.

11 SANITARY SEWER CLEANOUT
C1.7 SCALE: 1 1/2"=1'-0"



12 SCREEN FENCE GATE
C1.7 SCALE: 3/4" = 1'-0"



13 SCREEN FENCE
C1.7 SCALE: 3/4" = 1'-0"

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NO.	DESCRIPTION	BY	DATE	
			DRAWN BY:	JOSHUA CATHCUT
			CHECK BY:	WAYNE STEPHENSON
			LICENSE NO.	PE-2012018139
			DATE:	FEBRUARY 28, 2018
			FIELD BOOK:	
			JOB NUMBER:	18JO10010

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DETAILS

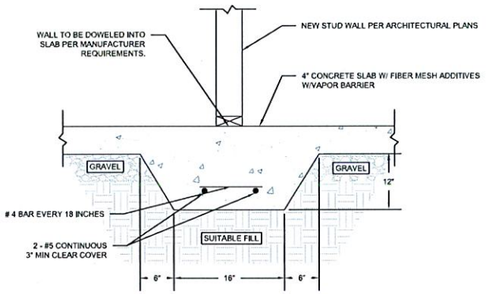
JOPLIN, JASPER COUNTY, MISSOURI



DRAWING NO. JOP 100-4780
SHEET NUMBER C1.7

GENERAL NOTES:

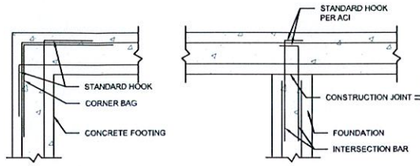
1. ALL BOLT PATTERN DIMENSIONS AND OFFICE SPACE DIMENSIONS SHALL COME FROM WHITNEY MANUFACTURER PLANS AND ARCHITECTURAL PLANS. ALL COLUMN FOOTINGS TO BE CENTERED ON BOLT GRIDS PROVIDED BY WHITNEY MANUFACTURING. WALL FOOTING SHALL BE CENTERED ON WALL BOLT PATTERNS SUPPLIED BY WHITNEY MANUFACTURING.
2. FOUNDATION DESIGNED BASED ON 2000PSF BEARING CAPACITY. CONTRACTOR SHALL FIELD VERIFY ACTUAL SOIL CONDITIONS PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IF A 2000 PSF BEARING CAPACITY IS NOT MET.
3. CONTRACTOR SHALL ADD PERFORATED PIPE TO GRAVEL UNDER SLAB SECTIONS BASED ON SOIL RECOMMENDATIONS FROM FIELD INSPECTION.
4. ALL GRADE BEAM AND WALL FOUNDATION REINFORCEMENT SHALL EXTEND THROUGH COLUMN SECTIONS. CORNER COLUMNS SHALL EXTEND REINFORCEMENT THROUGH THE FOOTING AND 90 DEGREE THE REINFORCEMENT UNDER THE ANCHOR BOLTS.
5. ALL ANCHOR BOLTS SHALL BE J BOLTS WITH A MINIMUM LENGTH OF 36". BOLT SIZE SHALL COME FROM WHITNEY MANUFACTURER PLANS.
6. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
7. ALL REBAR SHALL BE GRADE 60 AND HAVE MINIMUM 3" COVER WHEN AGAINST EARTH.
8. BUILDING AREA SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK. REMOVE ANY SOFT AREAS AND REPLACE WITH SUITABLE FILL MATERIAL PLACED IN MAXIMUM 8" LIFTS COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
9. WHEN COLUMNS HAVE ADDITIONAL BOLT PATTERNS, COLUMN SHALL BE CENTERED ON 4 BOLT PATTERN AND 2 BOLT PATTERNS SHALL PROVIDE 36" INCH J BOLTS WITH HOOKS STRAIGHT DOWN INTO FOOTING.
10. THE ENGINEER CAN NOT VALIDATE THE EFFECTIVENESS OF THE DESIGN WITHOUT PROPERLY INSPECTING THE CONSTRUCTION OF THE FOUNDATIONS. IT IS RECOMMENDED THAT THE ENGINEER BE ON SITE DURING THE PLACEMENT OF REBAR AND POURING OF CONCRETE TO VALIDATE REINFORCEMENT SPACING AND FOUNDATION LAYOUT.
11. A GEOTECHNICAL ENGINEER SHOULD OBSERVE THE BEARING SURFACE TO VERIFY ADEQUATE BEARING SUPPORT FOR THE FOOTING.
12. COLUMN FOOTINGS WIDTHS SHALL BE SHOWN ON PLANS/DETAILS. WALL FOOTINGS AND GRADE BEAM FOOTINGS SHALL BE 2' WIDE BY 2' DEEP.
13. MINIMUM FOOTING DEPTH SHALL BE 30" PER LOCAL ORDINANCE.
14. NO FOOTING TRENCH SHALL BE OPENED WITHOUT HAVING REINFORCING AND CONCRETE READY TO BE PLACED WITHIN THAT WORKING DAY. ANY VARIATION FROM THIS PROCEDURE SHALL ONLY BE UPON APPROVAL OF THE ENGINEER.
15. MECHANICAL LIFT BAYS SHALL BE DOWELED INTO SLAB AND CONSTRUCTED PER MANUFACTURER PLANS AND DIMENSIONS.
16. ALL LIFTS AND DRAINS SHALL CONNECT TO A PVC PIPE PER MANUFACTURER REQUIREMENTS. PIPE SHALL BE FIELD ADJUSTED TO DRAIN TOWARDS GREASE INTERCEPTOR AT SOUTHEAST PORTION OF BUILDING.
17. ALL LAP LENGTHS TO BE 40DB OR 2' MINIMUM.
18. ALL CORNER BARS AND T BARS TO BE PLACED PER DETAIL.
19. ALL DRAINAGE PVC PIPE TO BE PLACED UNDER FOOTINGS WITH A COVER OF 6 INCHES BETWEEN TOP OF PIPE AND BOTTOM OF FOOTING.
20. ALL HOOKS AND Z BARS TO BE 90 DEGREES UNLESS OTHERWISE NOTED.



C S1.0 SECTION
SCALE: NOT TO SCALE

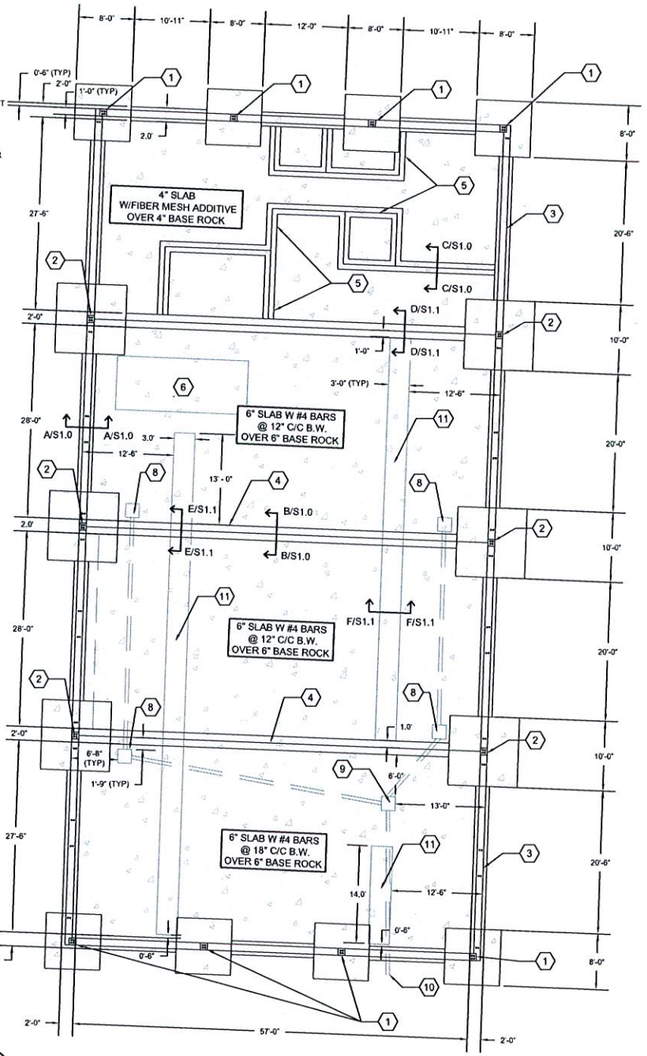
KEY NOTES:

1. 8'X8' COLUMN FOOTING. REFER TO DETAIL. BOTTOM OF FOOTING ELEVATION = 1024.50'. ALL FOOTINGS TO BE CENTERED ON ANCHOR BOLT PATTERN PER WHITNEY MANUFACTURER PLANS.
2. 10'X10' COLUMN FOOTING. REFER TO DETAIL. BOTTOM OF FOOTING ELEVATION = 1024.50'. ALL FOOTINGS TO BE CENTERED ON ANCHOR BOLT PATTERN PER WHITNEY MANUFACTURER PLANS.
3. 2' WIDE WALL FOOTING. REFER TO DETAIL. BOTTOM OF FOOTING ELEVATION =1024.50'. WALL FOOTING TO BE CENTERED ON ANCHOR BOLT PATTERN PER WHITNEY MANUFACTURER PLANS.
4. 2' WIDE GRADE BEAM. REFER TO DETAIL. BOTTOM OF FOOTING ELEVATION =1024.50'. WALL FOOTING TO BE CENTERED ON ANCHOR BOLT PATTERN PER WHITNEY MANUFACTURER PLANS.
5. THICKENED SLAB EDGE. REFER TO DETAIL. CENTERED OF THICKENED SLAB TO SIT UNDER WALLS PER FRAMING PLAN BY OTHERS FOR OFFICE AREA.
6. RX12AJFT SCISSOR LIFT STATIONS. PITS TO BE INSTALLED PER MANUFACTURER PLANS. CONTRACTOR TO VERIFY WITH MANUFACTURER THAT PIT PLANS WORK WITH PROPOSED 6" SLAB AND REINFORCEMENT. CENTER OF LIFT TO BE OFFSET 14' FROM CENTER OF BAY DOOR.
7. RX12AJFT SCISSOR LIFT STATIONS. PITS TO BE INSTALLED PER MANUFACTURER PLANS. SLAB REINFORCEMENT TO DIVE UNDER PIT WITH 3" MIN CLEAR COVER. CENTER OF LIFT TO BE OFFSET 14' FROM CENTER OF BAY DOOR. TIE EACH LIFT STATION TO UNDERDRAIN SYSTEM PER MANUFACTURER RECOMMENDATIONS.
8. 2'x2' NYLOPLAST DRAIN OR APPROVED EQUAL. PROVIDE PVC PIPE PER MANUFACTURER REQUIREMENTS AND DRAIN AS INDICATED ON PLANS.
9. TRAFFIC RATED 2'X2' NYLOPLAST DRAIN OR APPROVED EQUAL. INSTALL IN SLAB PER MANUFACTURER RECOMMENDATIONS. PROVIDE PVC PIPE PER MANUFACTURER REQUIREMENTS AND DRAIN TO SOUTHEAST CORNER OF BUILDING AS INDICATED ON PLANS.
10. DRAIN POINT FOR UNDERDRAIN SYSTEM. FL = 1023.50'. HOOK TO GREASE INTERCEPTOR PER UTILITY PAGE. FIELD ADJUST LOCATION AS NEEDED.
11. 3' WIDE TRENCH. REFER TO SECTION F-F



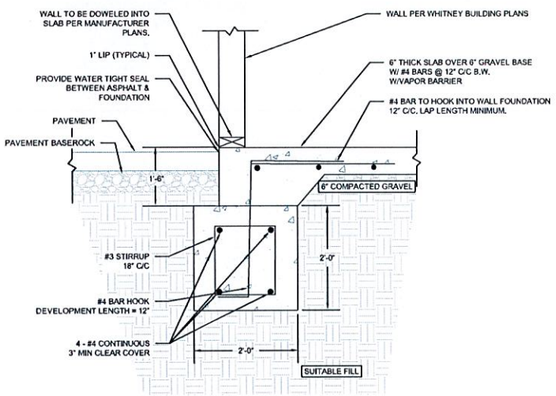
CORNER DETAIL

T DETAIL

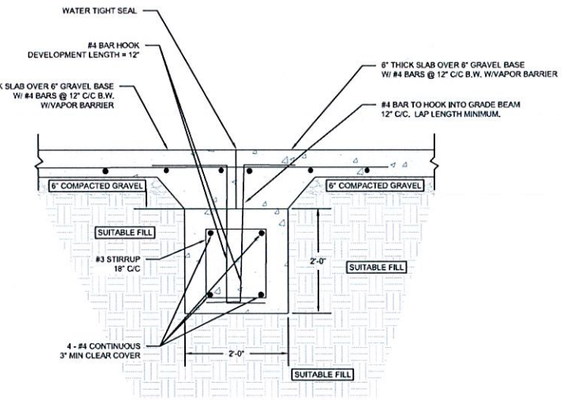


1 S1.0 FOUNDATION PLAN
SCALE: 1" = 10'-0"

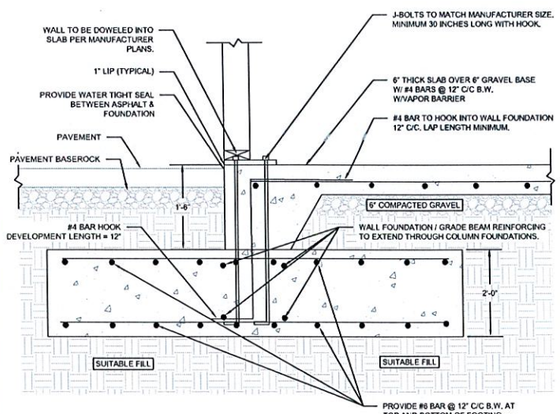
GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.



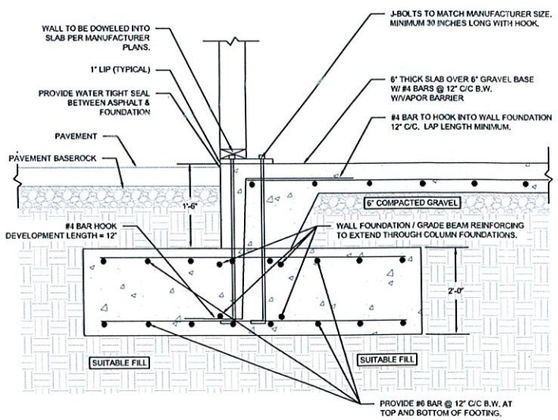
A S1.0 SECTION
SCALE: NOT TO SCALE



B S1.0 SECTION
SCALE: NOT TO SCALE



5 S1.0 10'X10' COLUMN FOOTING
SCALE: NOT TO SCALE



6 S1.0 8'X8' COLUMN FOOTING
SCALE: NOT TO SCALE

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				LICENSE NO. PE-2010018139
				DATE: FEBRUARY 23, 2018
				FIELD BOOK:
				JOB NUMBER: 18J010010

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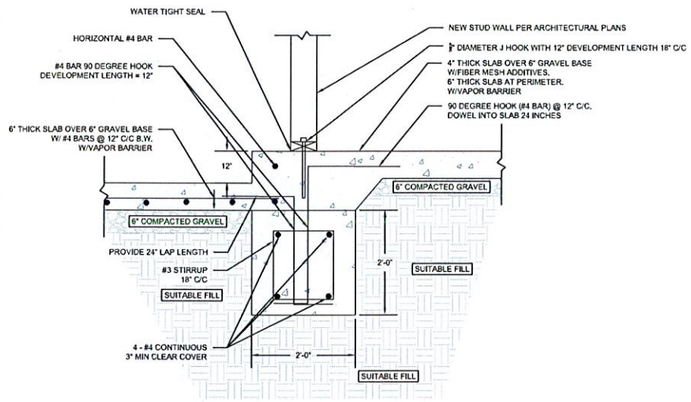
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FOUNDATION PLAN

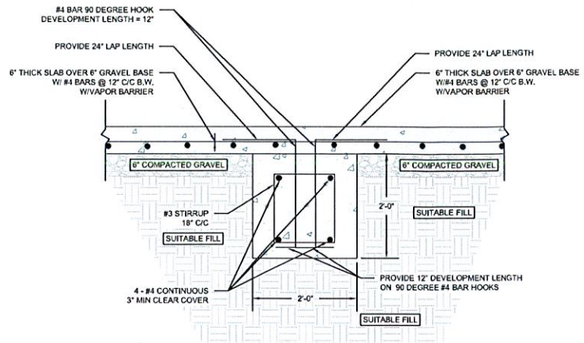
JOPLIN, JASPER COUNTY, MISSOURI



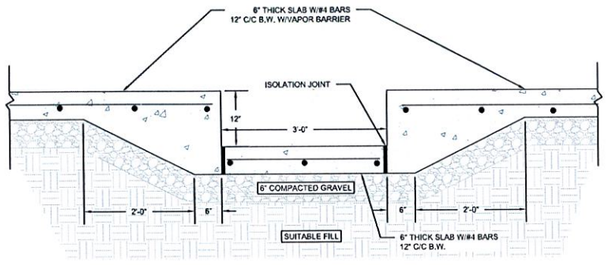
DRAWING NO. JOP 100-4780
SHEET NUMBER S1.0



D **SECTION**
S1.1 SCALE: NOT TO SCALE



E **SECTION**
S1.1 SCALE: NOT TO SCALE



F **SECTION**
S1.1 SCALE: NOT TO SCALE

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FOUNDATION PLAN

JOPLIN, JASPER COUNTY, MISSOURI

STATE OF MISSOURI
WAYNE A. STEPHENSON
NUMBER PE-2010018139
12-28-18

DRAWING NO.
JOP 100-4780

SHEET NUMBER
S1.1