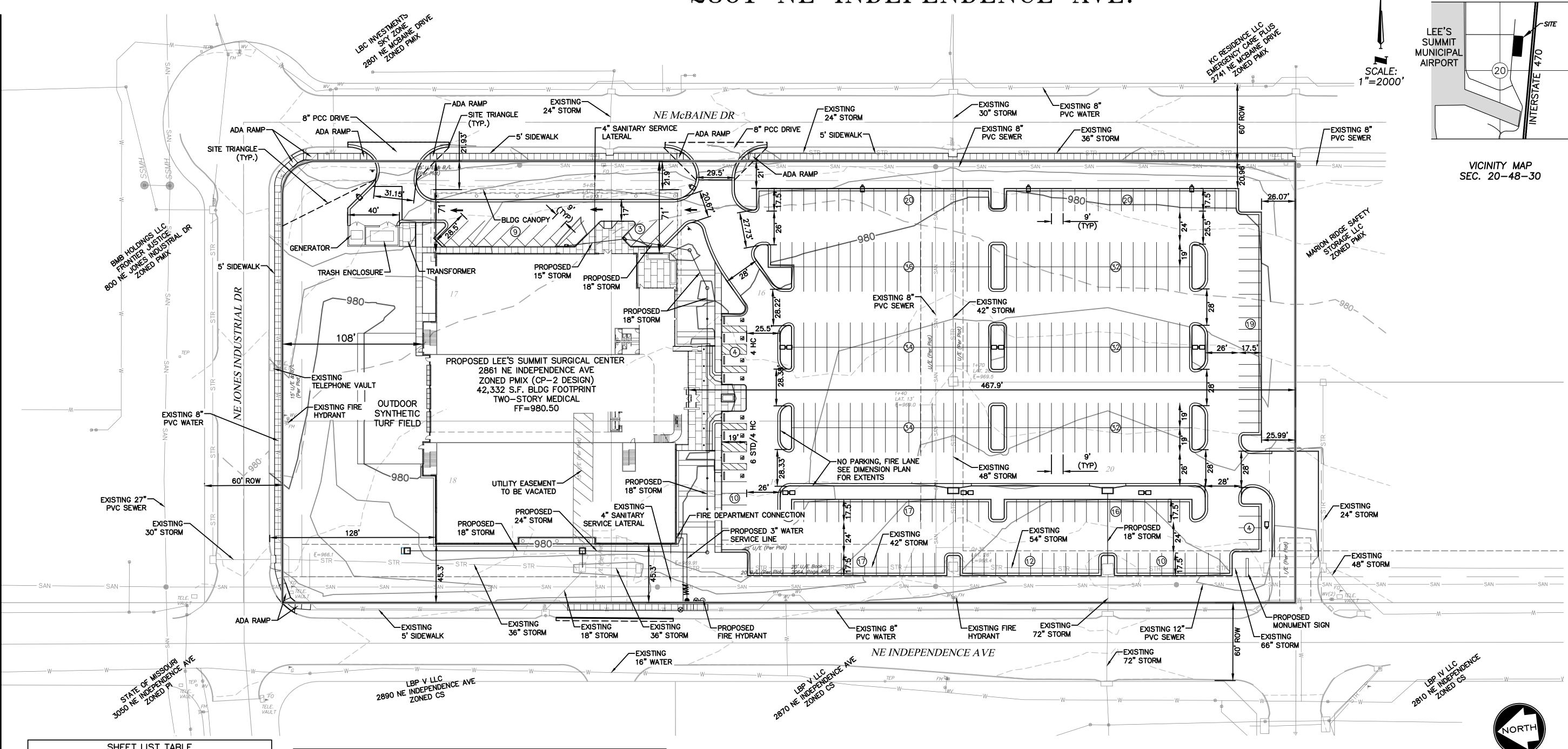
FINAL DEVELOPMENT PLAN - LEE'S SUMMIT SURGICAL CENTER - LEE'S SUMMIT, MO 2861 NE INDEPENDENCE AVE.



	SHEET LIST TABLE
SHEET NUMBER	SHEET TITLE
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C02	EROSION CONTROL PHASE 1
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C04	EROSION CONTROL PHASE 2
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LANDSCAPE PLAN

ITEM	REQUIREMENTS	PROVIDED						
BUILDING SIZE	-	RE: ARCHITECT						
FAR = FLOOR AREA RATIO	MAX. 0.55 FAR	0.159 FAR						
MINIMUM PARKING DIM.	9'x19', 9'x17' W/OVERHANG	9'x19', 9'x17' W/OVERHANG						
MIN. DRIVEWAY WITDH (TWO WAY)	24'	24'						
MIN. DRIVEWAY WIDTH (ONE WAY)	16'	16'						
ADA SPACES	8 (INC VAN)	8 (INC VAN)						
ADA VAN ACCESSIBLE SPACES	1	2						
TOTAL PARKING STALLS	5/1,000 GSF (MEDICAL OFFICE) 4.5/1,000 GSF (REHAB GYM)	361						
	REA REQUIREMENTS	•						
LOCATION	2861 NE INDEPENDENCE AVE							
ZONE:	PMIX - PLANNED MIXED USE (CI	P-2 DESIGN)						
USE:	MEDICAL OFFICE		DEVELOPER: ADDRESS:	LSMOB OWNER, LLC 11715 ADMINISTRATION DRIVE				
LEGAL:	LOTS 15-20 (PROPOSED LOT 15A	A)		MARYLAND HEIGHTS, MO 6314				
	I-470 BUSINESS AND TECHNOLO	OGY CENTER	PHONE: CONTACT NAME:	314.503.5006 TIM BREECE				
ГГЕМ:	REQUIREMENTS	PROVIDED		5.32				
MINIMUM LOT AREA	20,000 S.F.	265,696 S.F.						
MINIMUM LOT FRONTAGE	-	1,892'	DESIGN PROFESSIONAL:	SHAFER, KLINE & WARREN INC				
MINIMUM FRONT SETBACK	15'	467.9'	CONTACT NAME:	DAN McGHEE				
MINIMUM SIDE SETBACK	10'	21.9'	ADDRESS:	11250 CORPORATE AVENUE LENEXA, KS 66219				
MINIMUM REAR SETBACK	20'	108'	PHONE:	913.888.7800				
MAXIMUM BUILDING HEIGHT	40' (THREE-STORY)	RE: ARCHITECT	EMAIL:	DAN.MCGHEE@SKW-INC.COM				
MAXIMUM IMPERVIOUS COVERGE	80% (212,550 SF)	68.4% (181,700 SF)						

PARKING INFORMATION

GENERAL NOTES:

- 1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S DESIGN AND CONSTRUCTION MANUAL, AS STATED IN ORDINANCE NO. 5813.
- 2. PUBLIC WORKS INSPECTIONS ((816) 969-1800) MUST BE CONTACTED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY
- EXCAVATION ON SITE. 3. ALL PERMANENT CONCRETE CURB SHALL BE STRAIGHT BACK CURB AND GUTTER (APWA TYPE CG-1) OR INTEGRAL WITH SIDEWALK AS INDICATED
- 4. AT THE HEAD OF EACH ACCESSIBLE PARKING SPACE, PROVIDE A SIGN MEETING THE REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE SIGN SHALL BE MOUNTED A MAXIMUM OF 6 INCHES (5 FEET) ABOVE THE GROUND MEASURED FROM
- THE BOTTOM OF THE SIGN. THE SIGN SHALL BE 12"X18" IN AREA. 5. ALL PRIVATE SANITARY SEWER LATERALS SHALL BE 4" PVC, SDR 26, AT 2.0% MINIMUM SLOPE UNLESS NOTED OTHERWISE.
- 6. ALL WATER LINES SHALL HORIZONTALLY CLEAR STORM SEWER STRUCTURES BY 5 FEET, SANITARY SEWER STRUCTURES BY 10 FEET, AND PIPES BY 18-INCHES VERTICALLY.
- 7. ALL GROUND MOUNTED ELECTRICAL AND MECHANICAL EQUIPMENT LOCATED ADJACENT TO THE BUILDING AND VISIBLE FROM ANY ADJACENT PUBLIC THOROUGHFARE OR RESIDENTIAL AREA SHALL BE SCREENED FROM VIEW IN ACCORDANCE WITH CITY ORDINANCE.
- 8. THE PROJECT IS LOCATED IN FIRM COMMUNITY PANEL NUMBER 29095C0430G, EFFECTIVE JANUARY 20, 2017, FOR THE CITY OF LEE'S SUMMIT. THE PROJECT SITE IS NOT WITHIN A 1-% ANNUAL CHANCE FLOOD OR AREAS IMPACTED BY THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN.
- 9. ALL SIDEWALK PAVEMENT SURFACES SHALL BE STANDARD CONCRETE PAVEMENT PER CITY SPECIFICATION.

10. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE CITY'S DESIGN AND CONSTRUCTION MANUAL, SECTION 5100, AS STATED IN ORDINANCE NO. 5813.

SCALE: 1"=40'

- 11. THE UTILITY LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE, BASED ON FIELD LOCATIONS, UTILITY MAPS, AND AS-BUILTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES, WHETHER SHOWN OR NOT, AND PROTECT SAID UTILITIES FROM ANY DAMAGE.
- 12. REFER TO TYPICAL SECTION DETAILS FOR PROPOSED PAVEMENT SECTIONS.
- 13. ACCESS TO FIRE DEPARTMENT CONNECTION AND FIRE HYDRANTS SHALL BE MAINTAINED DURING CONSTRUCTION. ACCESS MUST BE WITHIN 100 FEET OF FIRE DEPARTMENT CONNECTIONS AND ROADS SHALL BE CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS.
- 14. PROPERTY LINE AND RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE BY A REGISTERED LAND SURVEYOR.
- 15. BUILDING DIMENSIONS SHOWN ON THE CIVIL ENGINEERING PLANS ARE DIMENSIONED FROM OUTSIDE FACE OF STRUCTURE, EXCLUDING DECORATIVE FAÇADE, AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE THE ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT
- BUILDING DIMENSIONS. 16. ALL SITE DIMENSIONS ARE REFERENCED TO THE BACK OF CURBS ON THIS SHEET UNLESS OTHERWISE NOTED.
- 17. ALL DISTURBANCE INCURRED TO ANY ADJOINING PROPERTY DUE TO CONSTRUCTION OR DEMOLITION SHALL BE RESTORED TO THE PREVIOUS CONDITION OR BETTER, AND TO THE SATISFACTION OF THE CITY INSPECTOR.





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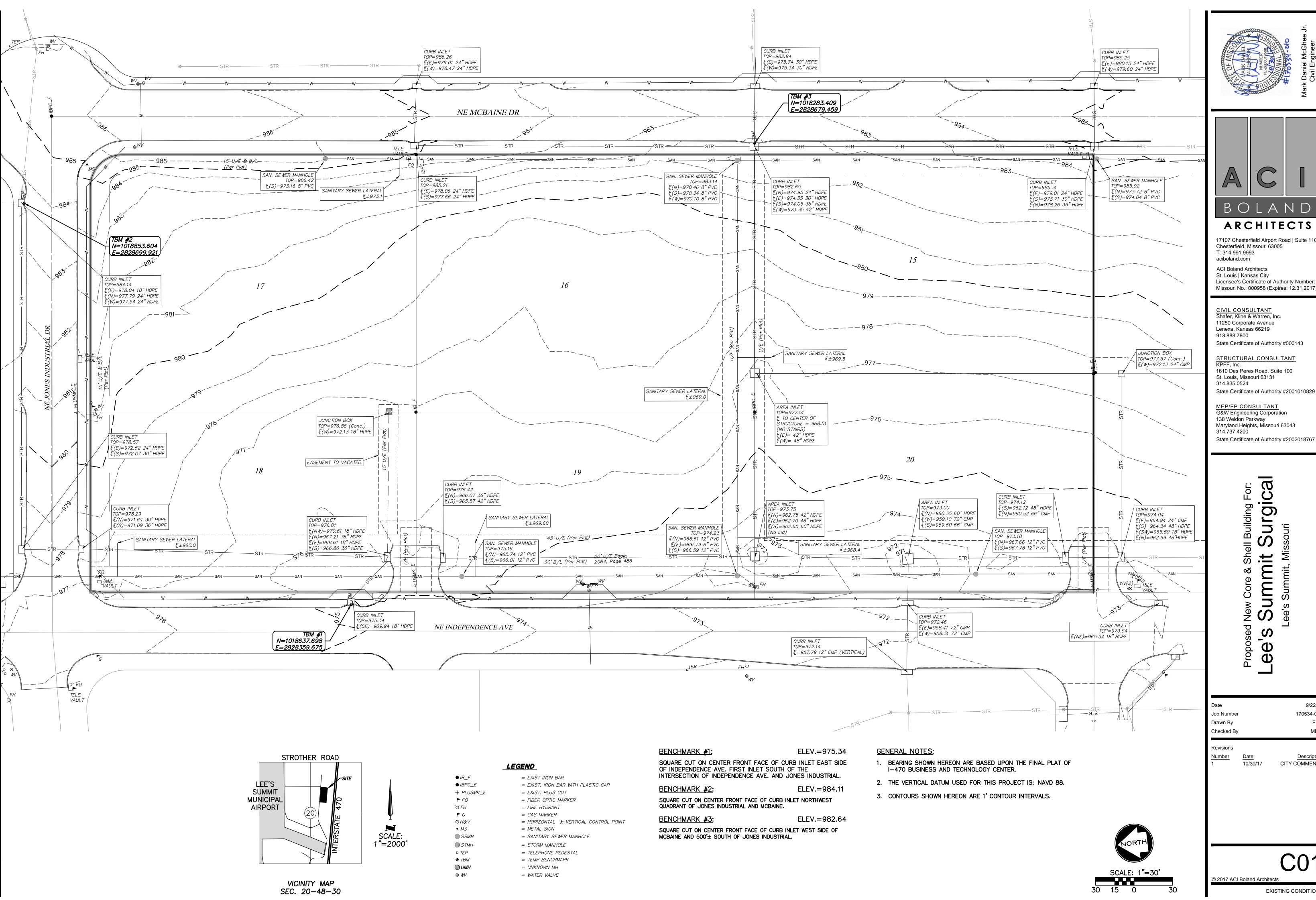
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OVERVIEW SHEET



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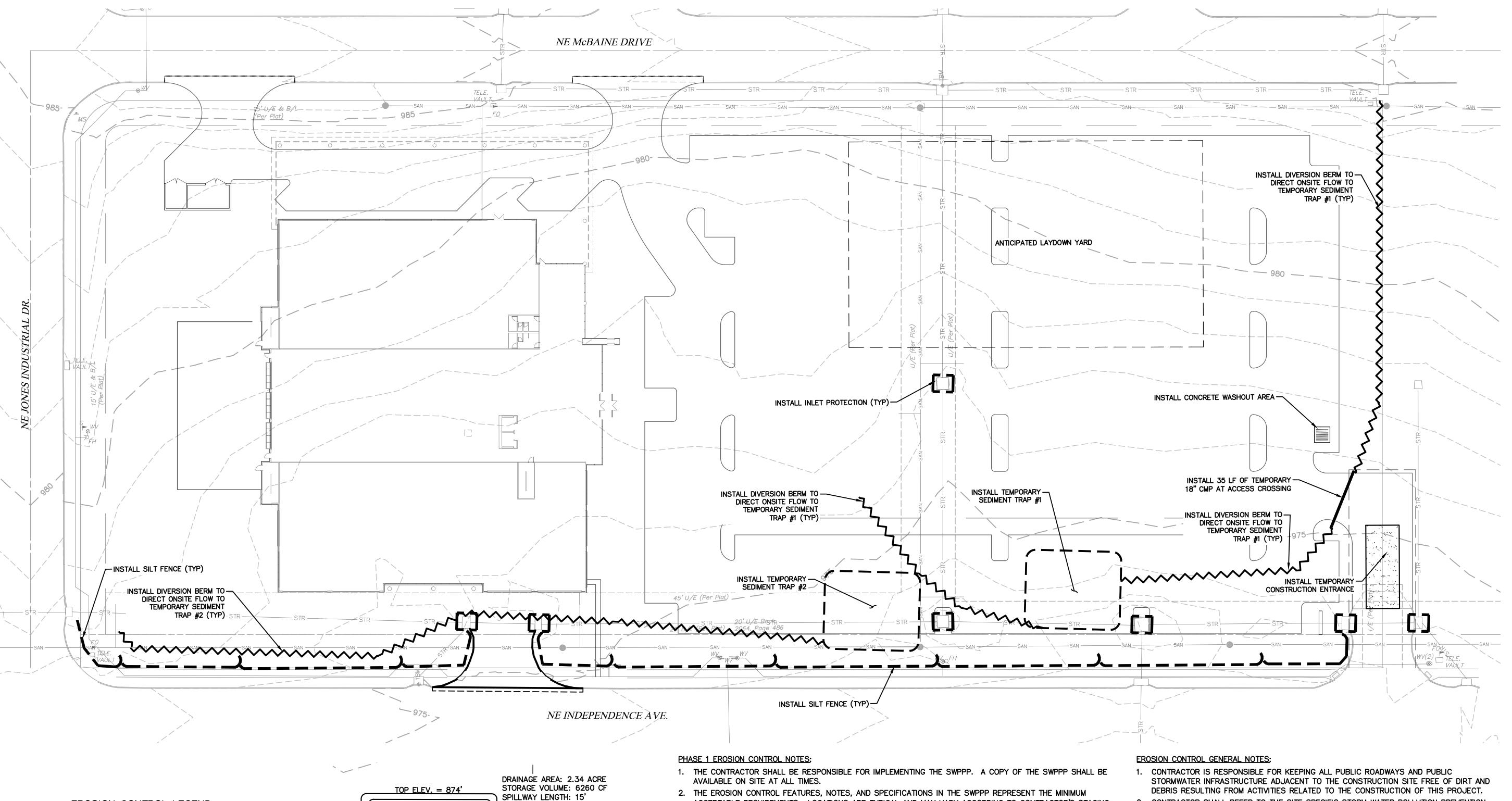
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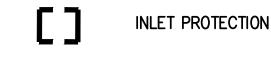
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Description CITY COMMENTS

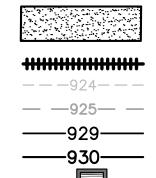
EXISTING CONDITIONS



EROSION CONTROL LEGEND



SILT FENCE



CONSTRUCTION ENTRANCE

WATTLE DITCH CHECK EXISTING 1' CONTOUR EXISTING 5' CONTOUR

PROPOSED 1' CONTOUR PROPOSED 5' CONTOUR DENOTES PROPOSED CONCRETE WASHOUT AREA

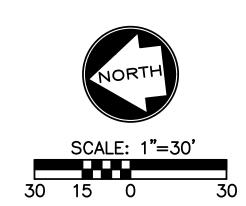
BOTTOM ELEV. = 869' ********** SEDIMENT TRAP 1 1" = 20' DRAINAGE AREA: 3.37 ACRE STORAGE VOLUME: 7043 CF SPILLWAY LENGTH: 22' TOP ELEV. = 873BOTTOM ELEV. = 868' SEDIMENT TRAP 2

- ACCEPTABLE REQUIREMENTS. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTOR'S STAGING AND LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL ADJUST, MODIFY, AND ADD TO THIS PLAN AS NECESSARY TO CONTROL EROSION, SILTATION, AND POLLUTION.
- 3. IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK 3. ALL WASTE MATERIAL RESULTING FROM THE CONSTRUCTION OF THE PROJECT SHALL BE WHICH THEY ARE DIRECTLY INVOLVED.
- 4. EROSION CONTROL DEVICES SHOWN ON THIS PLAN SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION OR GRADING WORK.
- 5. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
- 6. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED. THEREFORE THE CONTRACTOR SHALL PROVIDE AND UTILIZE STABILIZED DRIVES AT ALL ACCESS LOCATIONS AS NECESSARY AND SHALL REMOVE PROMPTLY ANY MATERIAL WHICH FINDS ITS WAY INTO THE PUBLIC RIGHT-OF WAY.
- 7. SILT FENCES SHALL BE PLACED ON A CONTOUR ELEVATION ALONG THE DOWNHILL SIDE AND FOR THE FULL EXTENT OF THE DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS. THE LAST FIVE FEET ON EACH END OF RUN OF SILT FENCE/STRAW BALE DIKE SHALL BE PLACED FACING UPHILL AT 90 DEGREES TO THE CONTOUR LINE.
- 8. THE CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN DEPTH. THE CONTRACTOR SHALL REPAIR DAMAGE, CLEAN OUT SEDIMENT AND ADD ADDITIONAL CONTROL DEVICES AS NEEDED AS SOON AS PRACTICABLE AFTER INSPECTION. DEFICIENCIES MUST BE CORRECTED WITHIN 7 DAYS OF INSPECTION.
- 9. ALL AREAS UPON REACHING FINAL GRADE SHALL BE BROUGHT TO FINAL TREATMENT, AS SOON AS POSSIBLE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL COVER WITH A DENSITY OF 70% (MINIMUM) IS ESTABLISHED.
- 10. WHERE GRADED AREAS DRAIN ONTO PAVED AREAS, SILT FENCE SHALL BE PLACED AT THE BACK OF CURB TO PREVENT SILT FROM ENTERING THE PAVED AREAS. WHEN THESE EROSION CONTROL DEVICES ARE NOT PLACED ON THE CONTOUR, THEN THEY SHALL INSTALLED AT 50 FOOT INTERVALS WITH A 5 FOOT LENGTH PLACED AT 90 DEGREES TO THE MAIN LENGTH.
- 11. REMOVE CONCRETE WASH OUT AREA AFTER ALL CONCRETE WORK IS COMPLETE. AFTER REMOVAL OF THE CONCRETE WASHOUT AREA THE CONTRACTOR SHALL ESTABLISH PERMANENT GROUND COVER (SEED) IN THE AREA WHERE THE WASH OUT WAS LOCATED.
- 12. ALL STORM SEWER INLETS SHALL HAVE INLET PROTECTION AFTER STORM SEWER CONSTRUCTION. SEE PHASE 2 EROSION CONTROL PLAN FOR NEW INLET LOCATIONS AND ADDITIONAL REQUIREMENTS.
- 13. ALL TREES LOCATED INSIDE THE GRADING LIMITS SHALL BE REMOVED.

- 2. CONTRACTOR SHALL REFER TO THE SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MDNR LAND DISTURBANCE PERMIT FOR ADDITIONAL REQUIREMENTS AND BEST MANAGEMENT PRACTICES.
- DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.

PHASE 1 EROSION AND SEDIMENT CONTROL SEQUENCING:

- IMPLEMENT PRE-CLEARING PLAN: ALL STRUCTURAL BMPS SHOWN ON THE PLAN MUST BE IN PLACE BEFORE GENERAL CLEARING OPERATIONS. CLEARING NECESSARY TO PLACE STRUCTURAL BMPS IS THE MINIMUM REQUIRED FOR THE INSTALLATION. COORDINATE CLEARING NECESSARY TO PLACE STRUCTURAL BMPS WITH LOCAL WEATHER FORECAST SO THAT CLEARING AND PLACEMENT MAY BE COMPLETED WITHIN A FORECAST DRY PERIOD. STABILIZE ALL DIVERSION DIKES, SEDIMENT TRAPS, AND SEDIMENT BASINS WITHIN 5 DAYS AFTER INSTALLATION.
- CLEAR AND STABILIZE WORK AREAS: GRADE BUILDING PAD AND CONTRACTOR AREAS AND PLACE ALL WEATHER SURFACE ON CONTRACTOR AREAS.







ARCHITECTS

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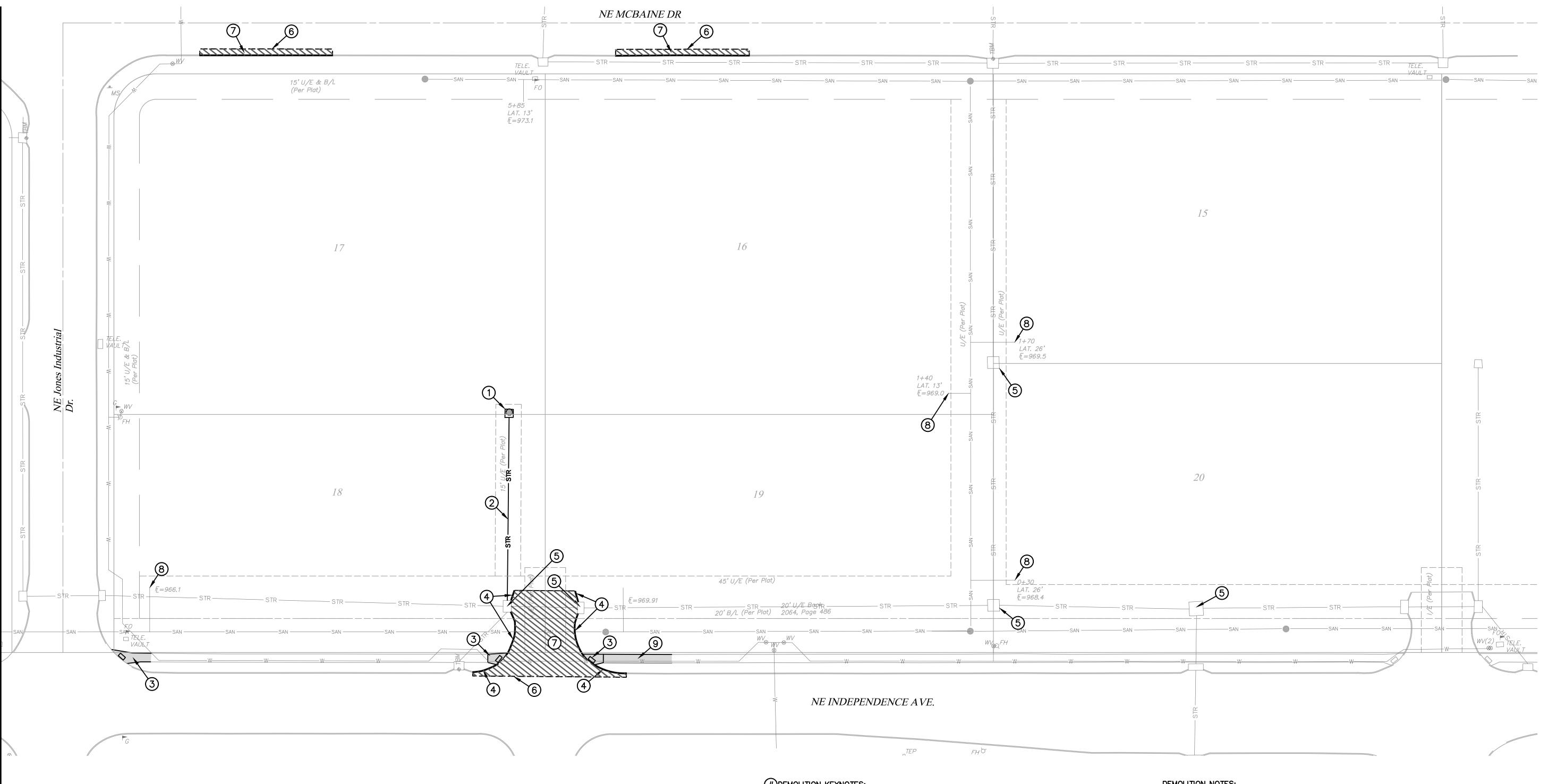
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> Description 10/30/17 CITY COMMENTS

EROSION CONTROL PHASE

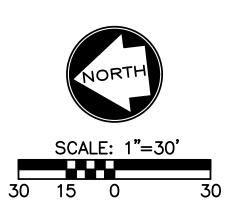


DEMOLITION KEYNOTES:

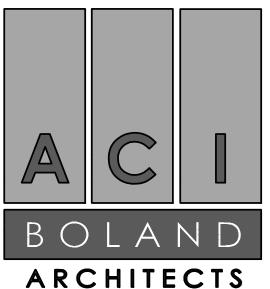
- 1. REMOVE EXISTING STORM STRUCTURE.
- 2. REMOVE EXISTING STORM SEWER PIPE.
- 3. REMOVE EXISTING SIDEWALK RAMP, FLARES, AND ADA DETECTION STRIP. 4. REMOVE EXISTING CONCRETE CURB.
- 5. EXISTING STORM STRUCTURES TO REMAIN. CONTRACTOR TO MODIFY
- STRUCTURES. REFER TO UTILITY PLAN AND DETAILS.
- 6. SAWCUT EXISTING SURFACE 2-FT INTO EXISTING PAVEMENT.
- 7. REMOVE EXISTING SURFACE.
- 8. ABANDON IN PLACE EXISTING SANITARY SEWER LATERAL PER CITY REQUIREMENTS.
- 9. REMOVE EXISTING SIDEWALK FOR WATER IMPROVEMENTS.

DEMOLITION NOTES:

- 1. THE SCOPE OF DEMOLITION IS NOT LIMITED EXCLUSIVELY TO THE WORK INDICATED ON THE DEMOLITION PLAN. THE CONSTRUCTION DOCUMENTS ARE PROVIDED AS A GENERAL GUIDE FOR DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADDITIONAL WORK THAT MAY BE REQUIRED FOR PROPER INSTALLATION OF NEW WORK. SEE ALL CONSTRUCTION DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 2. ALL UTILITIES NOT SPECIFICALLY MARKED FOR DEMOLITION, SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. SPECIAL SUPPORTS, BRACING ETC. SHOULD BE PROVIDED TO PROTECT EXISTING UTILITIES TO REMAIN.
- 3. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL UTILITY DEMOLITION, SHUTOFFS, AND SWITCH OVERS WITH THE RESPECTIVE UTILITY COMPANY.
- 4. THE CONTRACTOR SHALL PROTECT ALL ITEMS, NOT SPECIFICALLY NOTED FOR DEMOLITION. IF ITEMS ARE DAMAGED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL REPAIR THE ITEMS AT NO ADDITIONAL COST TO THE OWNER.
- 5. THE CONTRACTOR SHALL REPAIR ALL SURROUNDING PAVEMENTS, SIDEWALKS, AND CURBS DAMAGED BY CONSTRUCTION ACTIVITIES.
- 6. ALL UTILITY BOXES, MANHOLES, VALVES, POLES AND OTHER APPURTENANCES, TO REMAIN, SHALL BE ADJUSTED TO MATCH THE FINISHED GRADE.







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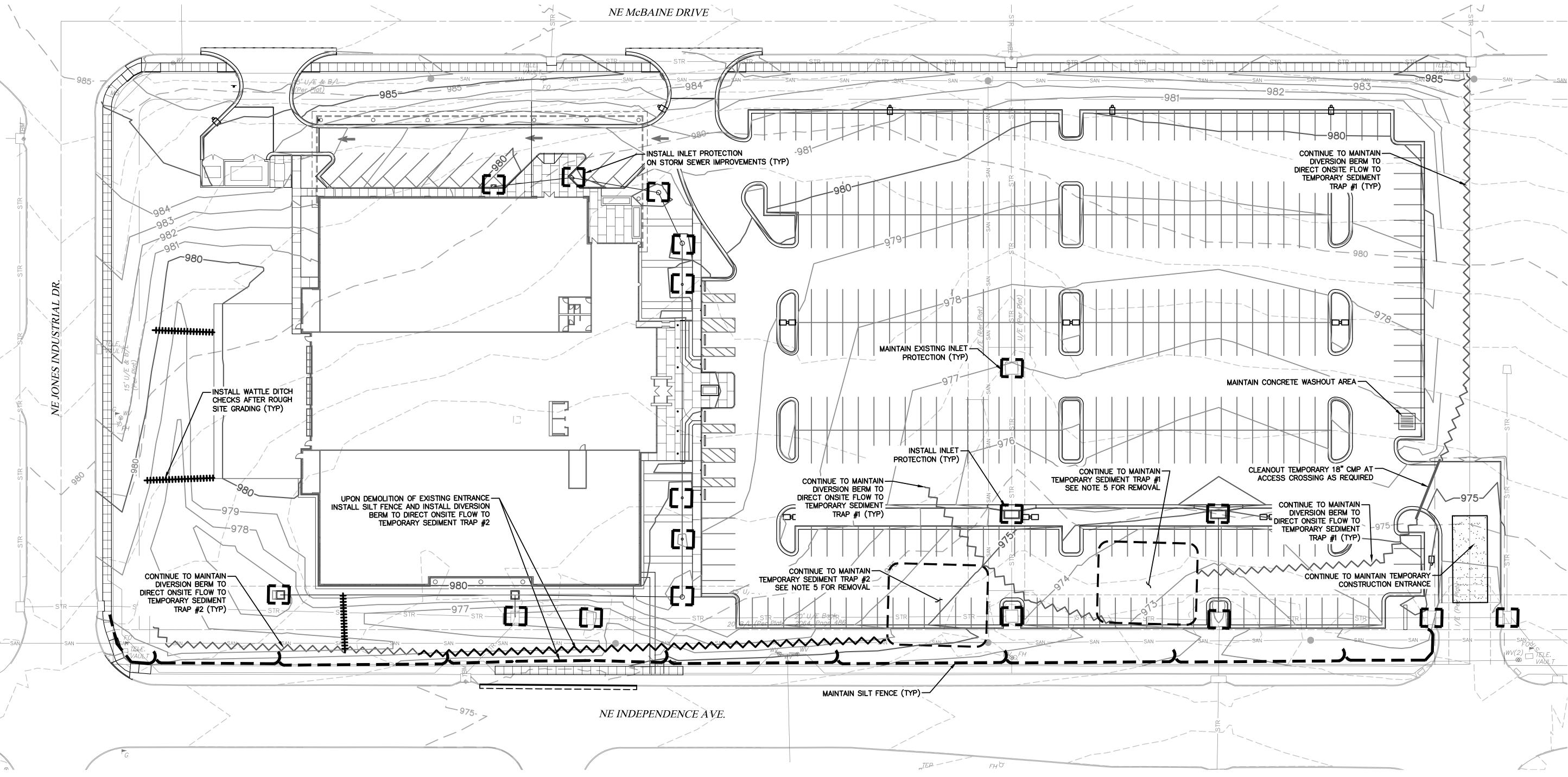
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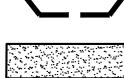
DEMOLITION PLAN



EROSION CONTROL LEGEND



INLET PROTECTION



CONSTRUCTION ENTRANCE

——930—— PROPOSED 5' CONTOUR

WATTLE DITCH CHECK EXISTING 1' CONTOUR EXISTING 5' CONTOUR ——929—— PROPOSED 1' CONTOUR

DENOTES PROPOSED CONCRETE WASHOUT AREA

PHASE 2 EROSION AND SEDIMENT CONTROL SEQUENCING:

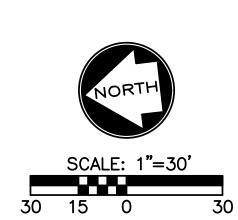
- 1. BUILDING TOP-OUT: COMPLETE BUILDING FOUNDATION, FRAMING, SIDING AND ROOF INSTALLATION INCLUDING UTILITY SERVICES.
- 2. STABILIZE INACTIVE AREAS: THE GROUND COVER AND OTHER STRUCTURAL BMPS SHOWN ON THE PHASE 2 STABILIZATION MUST BE PLACED WITHIN 14 DAYS OF CESSATION OF GROUND DISTURBING ACTIVITY AT THE LOCATION OF THE BMP, BUT IN NO CASE LATER THAN 14 DAYS FROM BUILDING TOP OUT. IN DETERMINING THE INACTIVE STATUS OF THE GROUND, EVALUATE EACH PORTION OF THE SITE SEPARATELY. THE NEED FOR SUBSEQUENT PLACEMENT OF TRENCHED UTILITIES, PAVEMENT OR OTHER CONSTRUCTION IN AN OTHERWISE INACTIVE AREA IS NOT JUSTIFICATION FOR DELAY OF STABILIZATION.
- 3. FINISH INTERIOR: CONSTRUCTION THE INTERIOR OF THE STRUCTURE AND MINOR STRUCTURES DEPICTED ON THE CONSTRUCTION PLANS.
- 4. IMPLEMENT FINAL STABILIZATION: PLACE PERMANENT SITE COVER. COORDINATE REMOVAL OF CONSTRUCTION PHASE BMPS NECESSARY TO PLACE FINAL STABILIZATION WITH LOCAL WEATHER FORECAST SO THAT REMOVAL AND PLACEMENT MAY BE COMPLETED WITHIN A FORECAST DRY PERIOD. DOWN-SLOPE PERIMETER CONTROLS SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS PLACED AND VEGETATIVE COVER IS ESTABLISHED OVER THE REMAINDER OF THE SITE.
- 5. ESTABLISHMENT AND FINAL CONSTRUCTION: ONCE THE REMAINDER OF THE SITE IS STABILIZED INCLUDING ESTABLISHMENT OF SEEDED COVER TYPES, CONSTRUCT PERMANENT WATER QUALITY BMPS AND REMOVE THE SEDIMENT CONTROLS AND THE REMAINING ACCESS CONTROLS. RESTORE AREA DISTURBED BY REMOVAL OF SEDIMENT CONTROLS.
- 6. PLAN MODIFICATION: THE CONTRACTOR MUST MODIFY THE PLAN IF THE PLAN FAILS TO SUBSTANTIALLY CONTROL EROSION AND OFFSITE SEDIMENTATION. PLAN MODIFICATIONS DUE TO INEFFECTIVENESS MAY BE TAKEN WITHOUT PRIOR APPROVAL OF THE REVIEW AGENCY, BUT MUST BE FULL DOCUMENTED AND APPROVAL SECURED FROM THE PERMITTING AUTHORITY AS SOON AS PRACTICABLE. THE CONTRACTOR MAY MODIFY THE PLAN OR CONSTRUCTION SEQUENCE IF IMPLEMENTATION IS INFEASIBLE FOR SITE CONDITIONS OR CONTRACTOR METHODS. ANY SUCH MODIFICATION SHALL CONTROL EROSION AND OFFSITE SEDIMENTATION TO THE MAXIMUM EXTENT PRACTICABLE. ANY SUCH MODIFICATION SHALL REQUIRE THE APPROVAL OF THE PERMITTING AUTHORITY.

EROSION CONTROL GENERAL NOTES:

- 1. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC ROADWAYS AND PUBLIC STORMWATER INFRASTRUCTURE ADJACENT TO THE CONSTRUCTION SITE FREE OF DIRT AND DEBRIS RESULTING FROM ACTIVITIES RELATED TO THE CONSTRUCTION OF THIS PROJECT.
- 2. CONTRACTOR SHALL REFER TO THE SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MDNR LAND DISTURBANCE PERMIT FOR ADDITIONAL REQUIREMENTS AND BEST MANAGEMENT PRACTICES.
- 3. ALL WASTE MATERIAL RESULTING FROM THE CONSTRUCTION OF THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.

PHASE 2 EROSION CONTROL NOTES:

- 1. CONTRACTOR SHALL INSTALL INLET PROTECTION MEASURES AFTER ALL NEW STORM SEWER STRUCTURES ARE INSTALLED.
- 2. CONTRACTOR SHALL MAINTAIN PHASE 2 EROSION CONTROL MEASURES, UNTIL FINAL SITE STABILIZATION HAS OCCURRED.
- 3. CONTRACTOR MAY MAKE ADJUSTMENTS TO EROSION CONTROL MEASURES, TO ALLOW FOR CONSTRUCTION SEQUENCING, HOWEVER THEY ARE ULTIMATELY RESPONSIBLE FOR PREVENTING STORMWATER POLLUTION RUNOFF FROM PROJECT SITE.
- CONTRACTOR SHALL STABILIZE SLOPES AND INACTIVE AREAS WITH MULCH AND TEMPORARY SEEDING. STABILIZATION ACTIVITIES ARE TO BE INITIATED IMMEDIATELY WHEN SOIL DISTURBING ACTIVITIES CEASE AND WILL NOT RESUME FOR MORE THAN 14 DAYS. STABILIZATION ACTIVITIES ARE TO BE COMPLETED WITHIN 21 DAYS.
- 5. UPON FINAL SITE STABILIZATION (PAVING, LANDSCAPING, ETC.) THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL MEASURES.
- 6. CONTRACTOR SHALL MAINTAIN THE SWPPP THROUGHOUT CONSTRUCTION.







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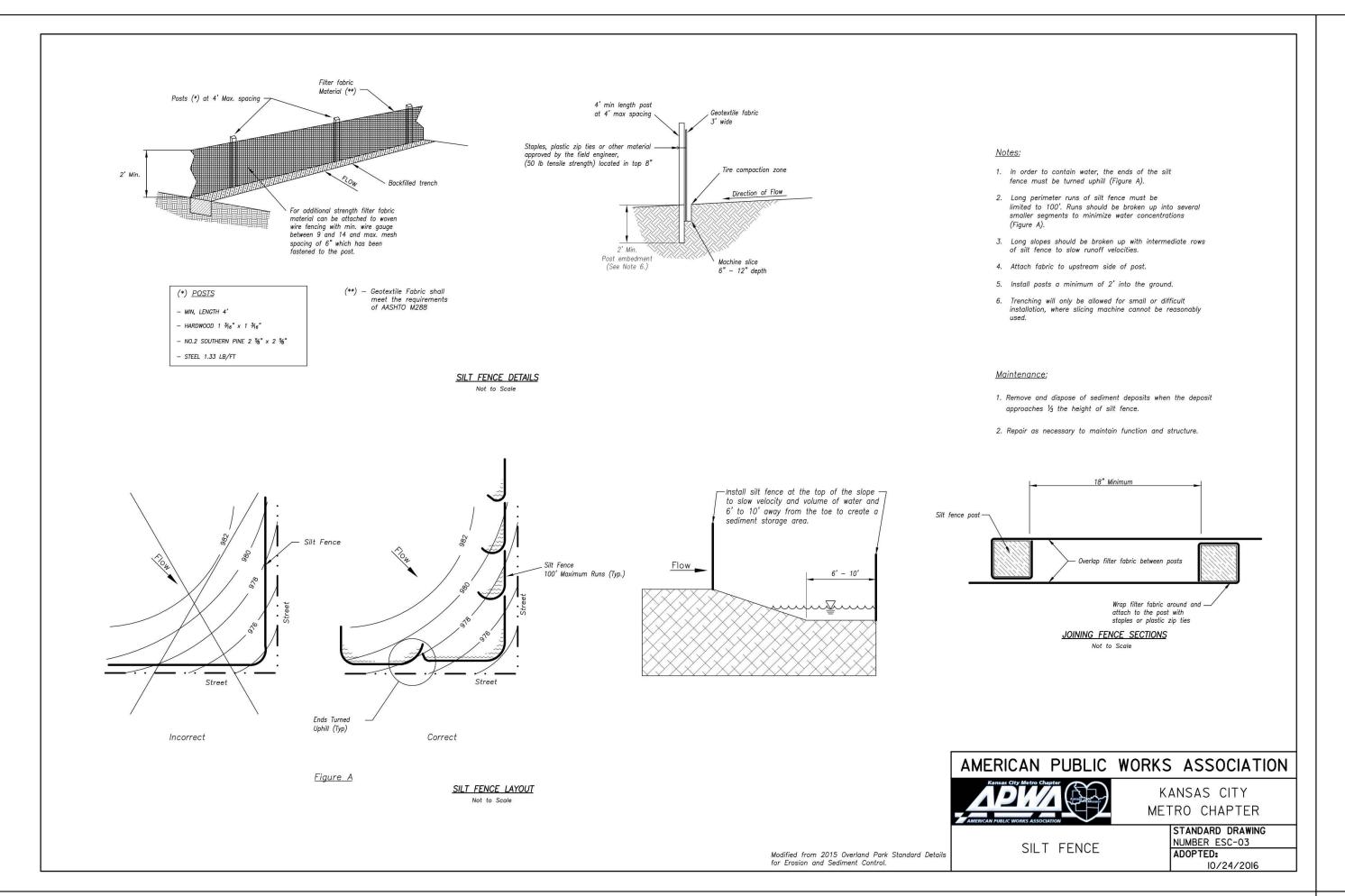
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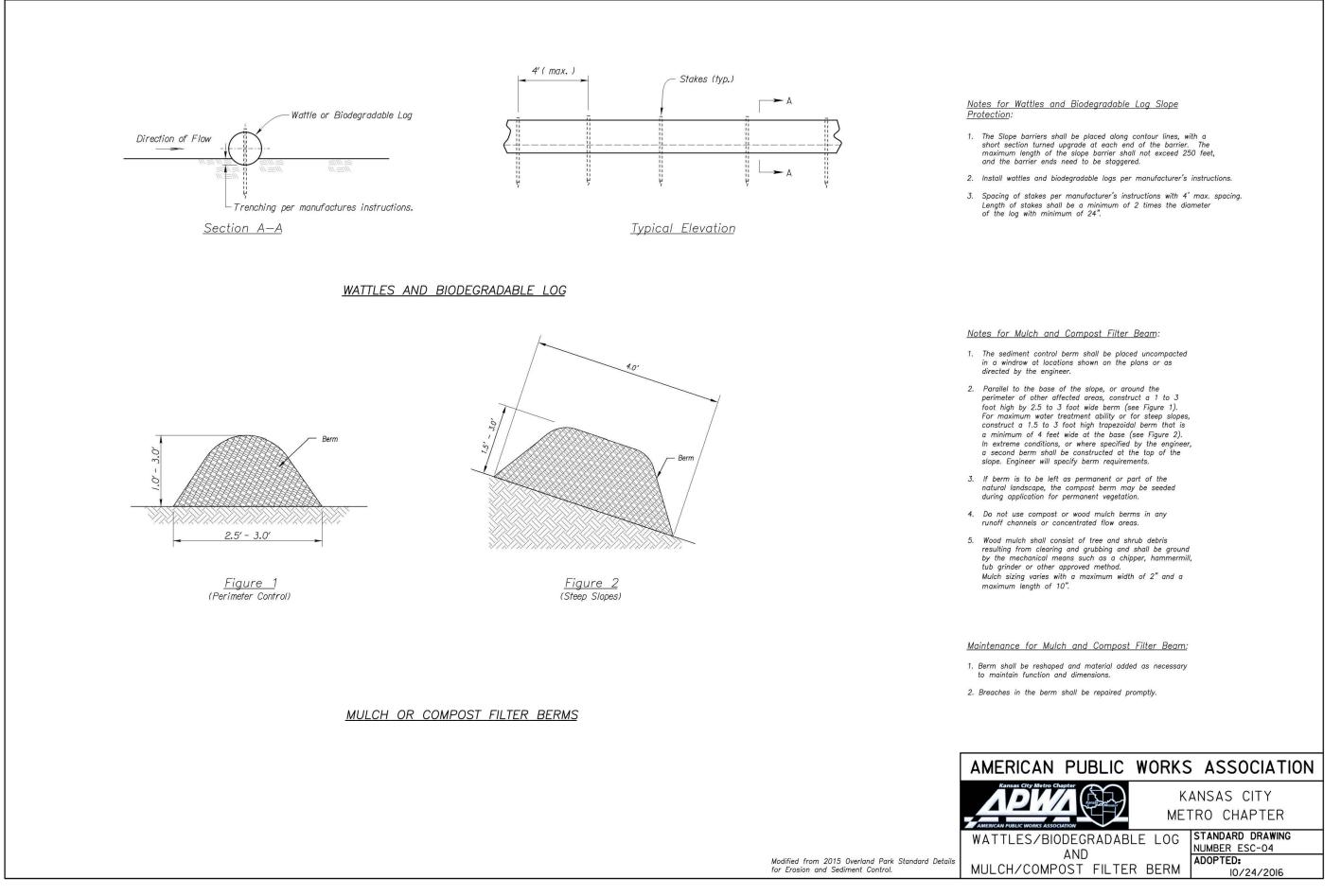
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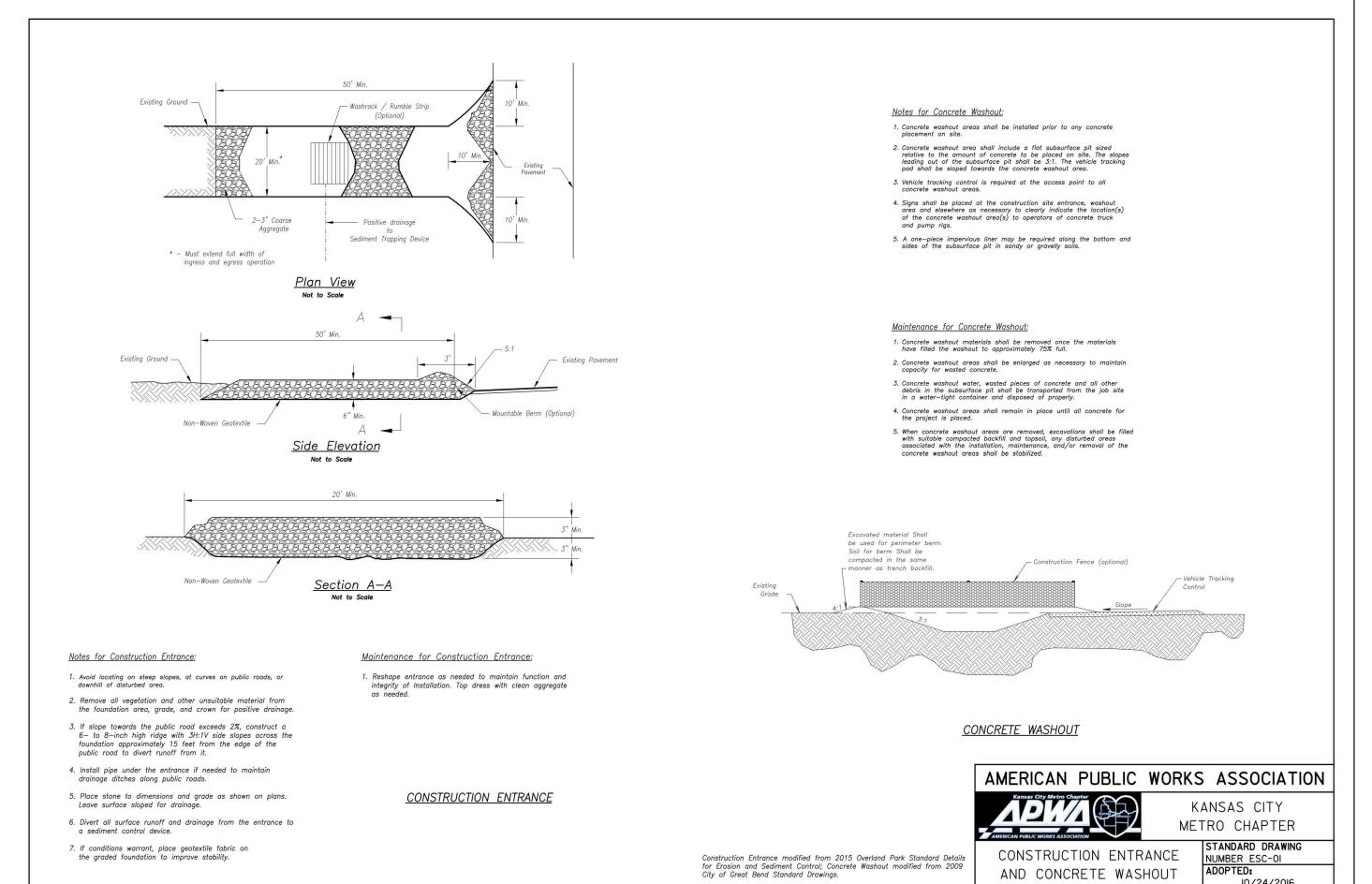
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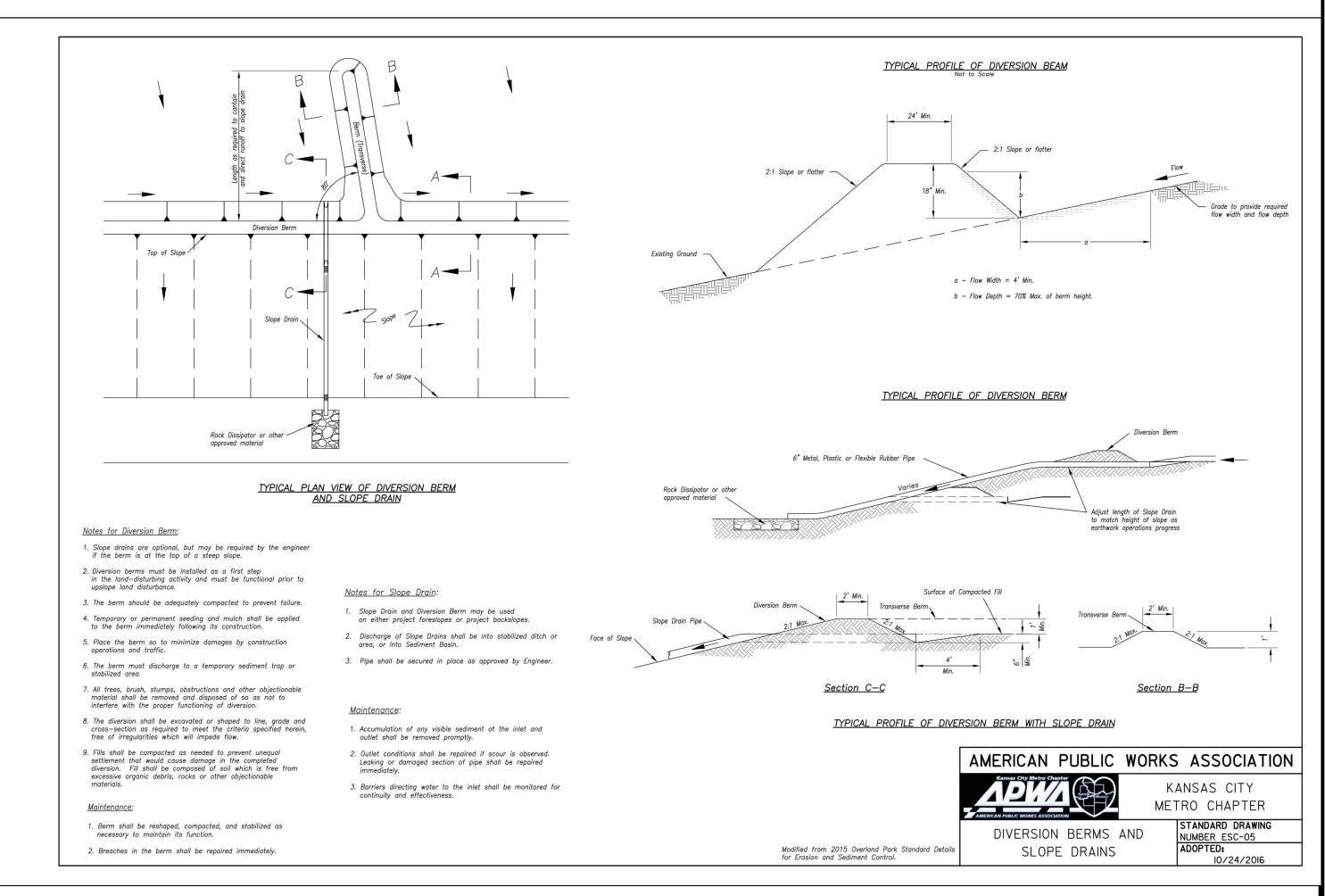
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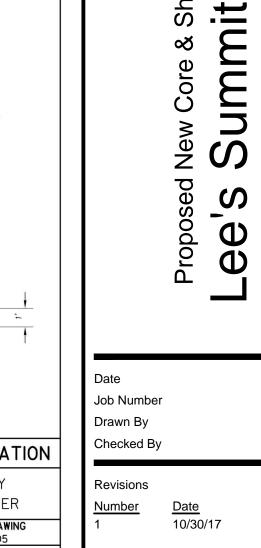
EROSION CONTROL PHASE 2











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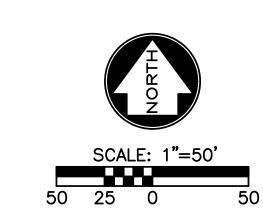
314.737.4200

T: 314.991.9993

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C05

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ELM

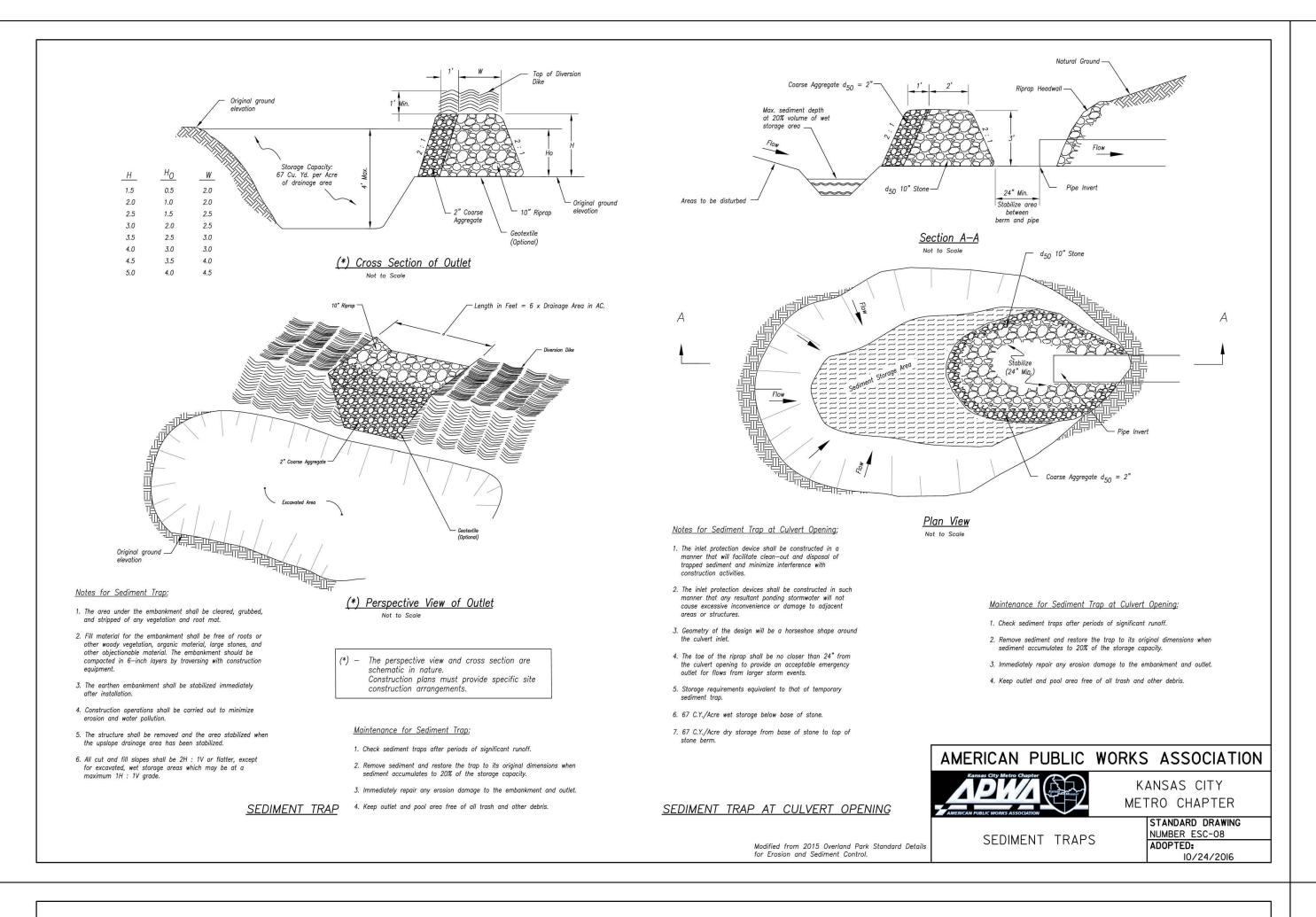
MDM

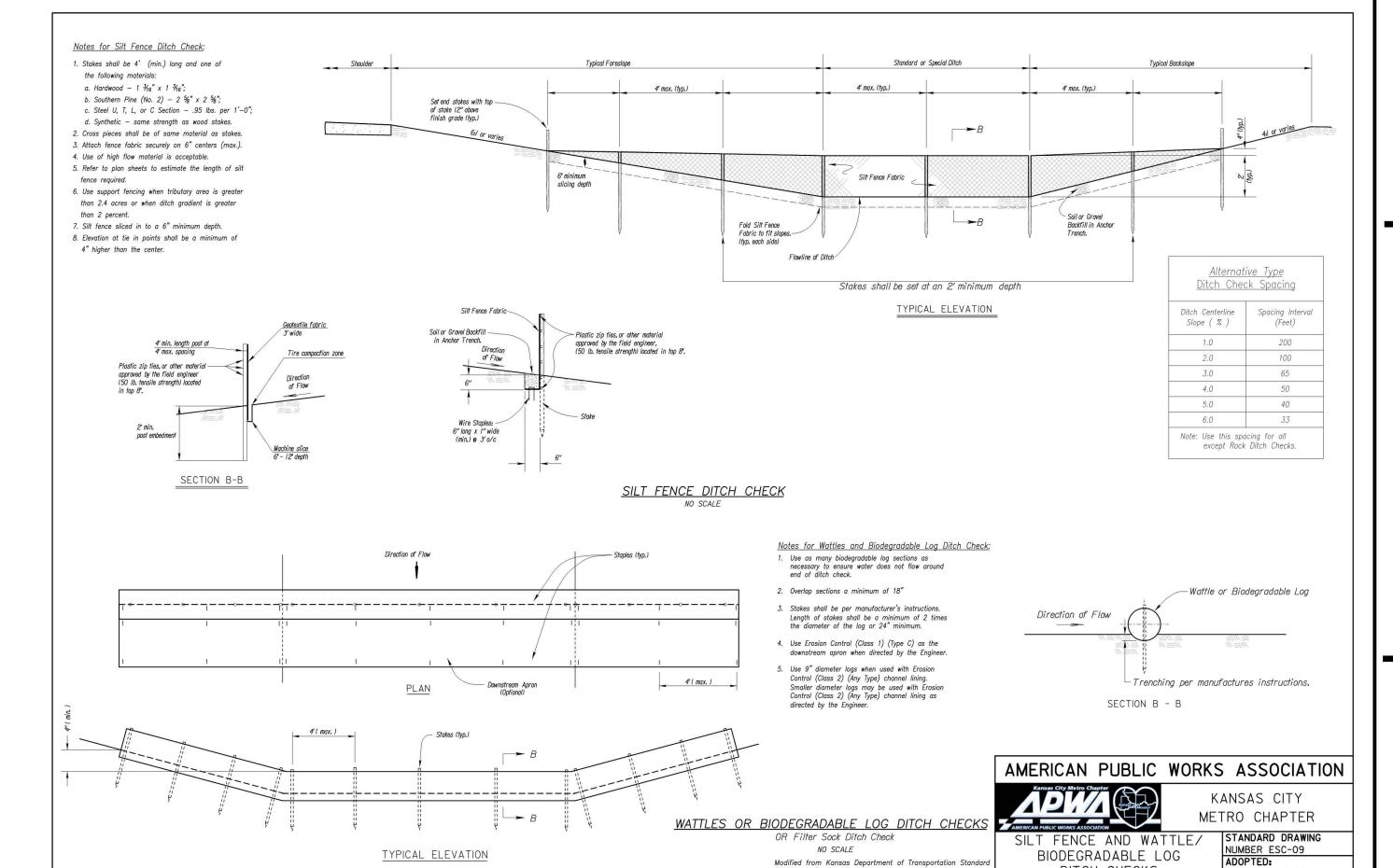
170534-010

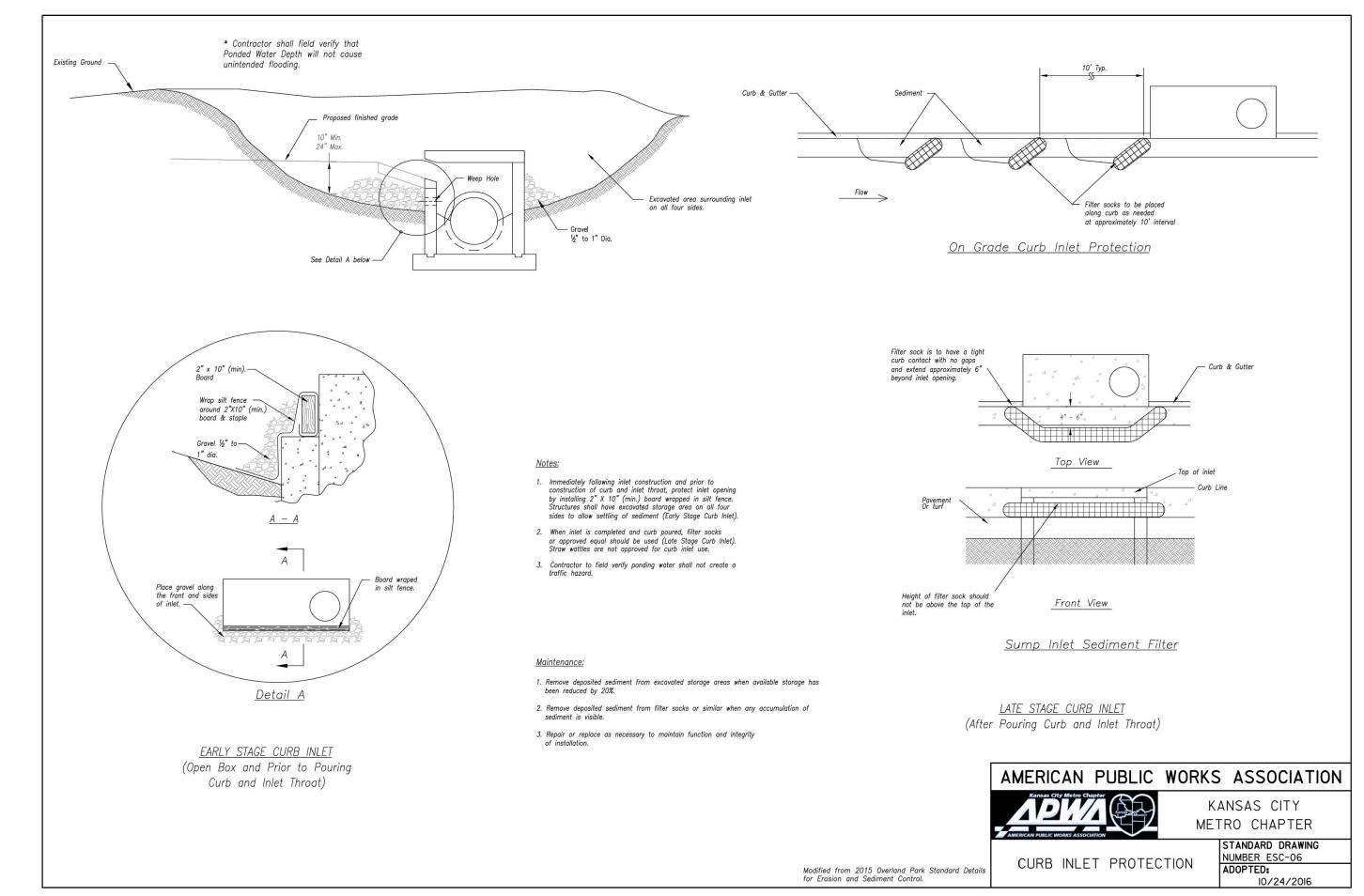
<u>Description</u>

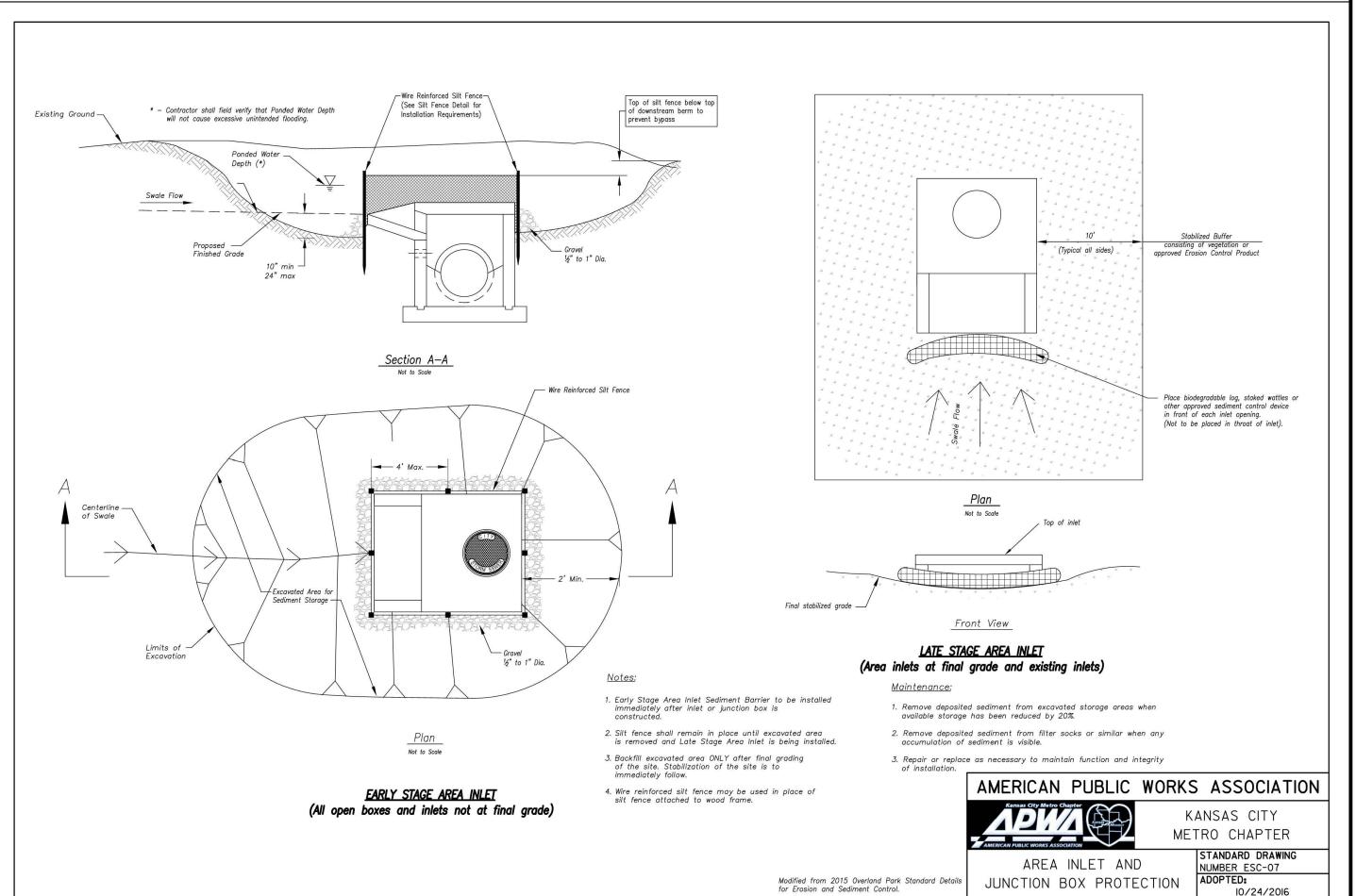
CITY COMMENTS

EROSION CONTROL DETAILS



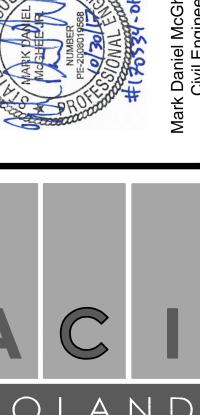






Modified from Kansas Department of Transportation Standard Details for Erosion Control and Sediment Control.

DITCH CHECKS



ARCHITECTS

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MEP/FP CONSULTANT G&W Engineering Corporation 138 Weldon Parkway Maryland Heights, Missouri 63043 314.737.4200

State Certificate of Authority #2002018767

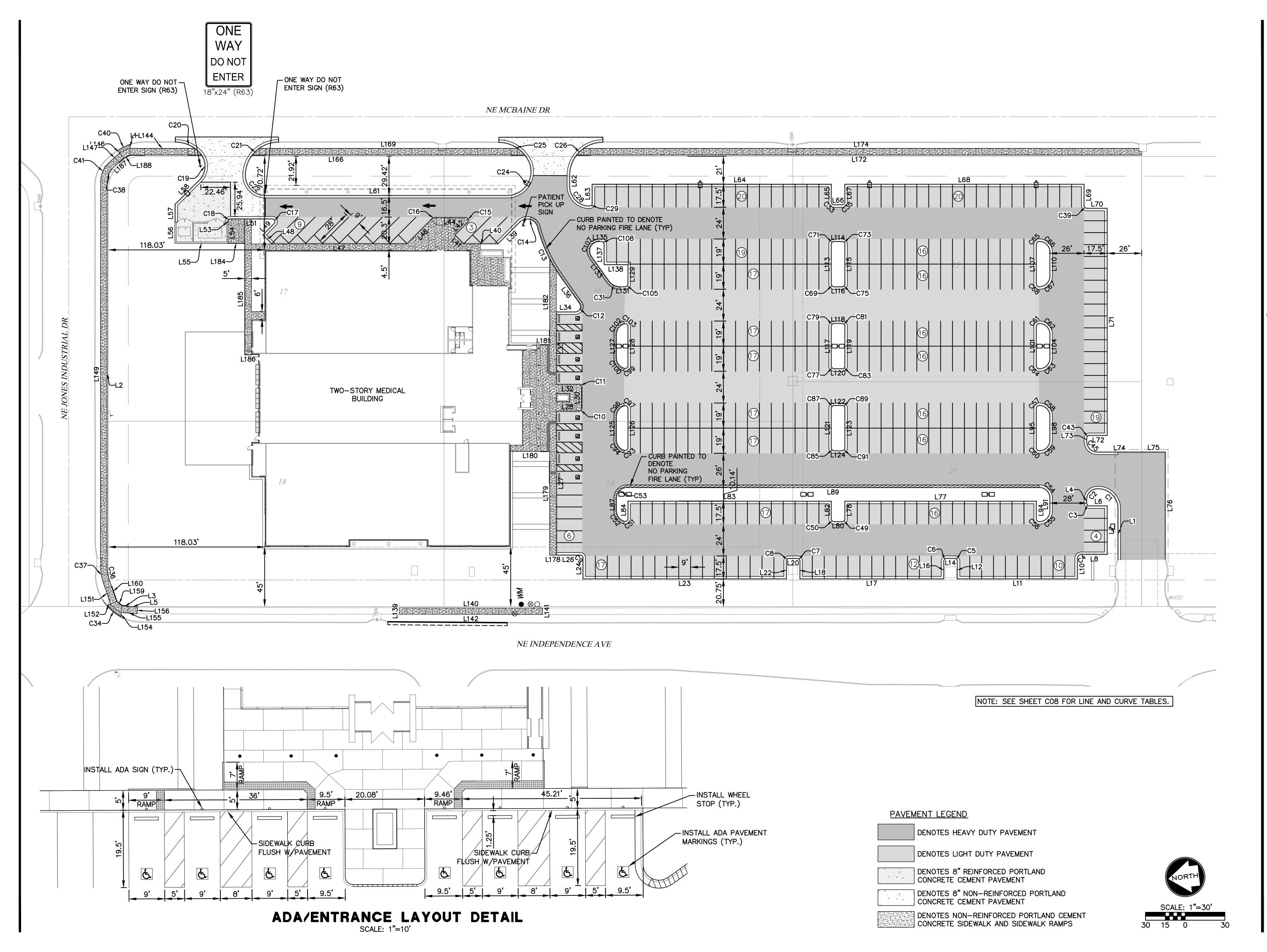
Surgica ummit

9/22/17 Job Number 170534-010 ELM Drawn By MDM Checked By

Revisions

<u>Description</u> 10/30/17 CITY COMMENTS

EROSION CONTROL DETAILS







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Surgica

9/22/17 170534-010

Description CITY COMMENTS 10/30/17

DIMENSION AND PARKING PLAN

	1 •	Taklo
Line #		Table Direction
	Length 38.48	
L1 L2	290.39	S83° 14' 44.00"E S83° 14' 29.96"E
L2 L3	5.00	N11° 46' 41.45"E
 	2.68	N83° 14' 56.00"W
 L5	6.96	N11° 46' 41.45"E
 L6	13.50	S06° 45' 04.00"W
 L7	37.00	N83° 14' 56.00"W
 L8	19.50	N06° 45' 04.00"E
L10	15.44	N83° 14' 56.00"W
L11	91.00	N06° 45' 04.00"E
L12	13.50	S83° 14' 56.00"E
L14	6.00	N06° 45' 04.00"E
L16	13.50	N83° 14' 56.00"W
L17	109.00	N06° 45' 04.00"E
L18	13.50	S83° 14' 56.00"E
L20	6.00	N06° 45' 04.00"E
L22	13.50	N83° 14' 56.00"W
L23	154.00	N06° 45' 04.00"E
L24	16.05	S83° 14' 56.00"E
L26	18.00	N06° 45' 04.00"E
L27	109.00	S83° 14' 56.00"E
L28	17.00	S06° 45' 04.00"W
L30	16.08	S83° 14' 56.00"E
L32	17.00	N06° 45' 04.00"E
L33	55.00	S83° 14' 56.00"E
L34	14.23	S06° 45' 04.00"W
L36	24.71	N61° 23' 03.58"E
L39	23.15	N38° 14' 56.00"W
L40	25.87	N06° 45' 04.00"E
L41	9.71	N51° 45' 04.00"E
L42	13.46	S38° 14' 56.00"E
L44	23.62	N06° 45' 04.00"E
L46	27.17	N38° 14' 56.00"W
L47	102.24	N06° 45' 04.00"E
L48	9.71	N51° 45' 04.00"E
L49	12.05	S38° 14' 56.00"E
L51	31.38	N06° 45' 04.00"E
L53	0.30	N83° 14' 56.00"W
L54	16.00	N83° 14' 56.00"W
L55	40.00	N06° 45' 04.00"E
L56	16.00	S83° 14' 56.00"E
L57	13.53	S83° 14' 56.00"E
L58	25.64	S38° 14' 56.00"E
L61	182.69	S06° 45' 04.00"W
L62	8.04	N83° 14' 56.00"W
L63	14.50	S83° 14' 56.00"E
L64	181.00	S06° 45' 04.00"W
L65	13.50	N83° 14' 56.00"W
L66	6.00	S06° 45′ 04.00″W
L67	13.50	S83° 14' 56.00"E

	Line	Table
Line #	Length	Direction
L68	181.00	S06° 45' 04.00"W
L69	16.20	N83° 14' 56.00"W
L70	15.50	S06° 45' 04.00"W
L71	172.00	N83° 14′ 56.00″W
L72	13.50	N06° 45' 04.00"E
L73	2.31	N83° 14' 56.00"W
L74	33.49	S06° 45' 04.00"W
L75	18.00	S06° 45' 04.00"W
L76	81.22	N83° 14' 44.00"W
L77	145.00	N06° 45' 04.00"E
L78	13.50	N83° 14' 56.00"W
L80	6.00	N06° 45' 04.00"E
L82	13.50	S83° 14' 56.00"E
L83	154.00	N06° 45' 04.00"E
L84	13.31	N83° 14' 56.00"W
L87	9.64	S83° 14′ 56.00″E
L89	311.50	S06° 45' 04.00"W
L91	9.64	N83° 14′ 56.00″W
L94	13.50	S83° 14' 56.00"E
L95	30.00	S83° 14' 56.00"E
L98	18.00	N83° 14′ 56.00″W
L101	30.00	S83° 14' 56.00"E
L104 L107	18.00 30.00	N83° 14' 56.00"W S83° 14' 56.00"E
L110	18.00	N83° 14' 56.00"W
L113	30.00	S83° 14' 56.00"E
L114	6.00	S06° 45' 04.00"W
L115	30.00	N83° 14' 56.00"W
L116	6.00	N06° 45' 04.00"E
L117	30.00	S83° 14' 56.00"E
L118	6.00	S06° 45' 04.00"W
L119	30.00	N83° 14' 56.00"W
L120	6.00	N06° 45' 04.00"E
L121	30.00	S83° 14' 56.00"E
L122	6.00	S06° 45' 04.00"W
L123	30.00	N83° 14' 56.00"W
L124	6.00	N06° 45' 04.00"E
L125	18.00	S83° 14' 56.00"E
L126	29.62	N83° 14' 56.00"W
L127	18.00	S83° 14' 56.00"E
L128	29.62	N83° 14' 56.00"W
L129	14.50	N83° 14' 56.00"W
L131	4.02	N06° 45' 04.00"E
L133	22.98	N61° 23′ 03.58″E
L135	1.77	S06° 45' 04.00"W
L137	15.50	N83° 14′ 56.00″W
L138	18.00	S06° 45' 04.00"W
L139	4.85	S83° 01' 11.64"E
L140	108.17	S06° 49' 05.35"W

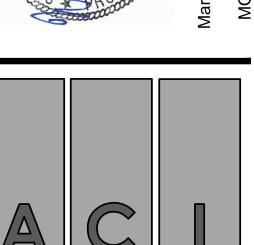
L141 4.92 N83° 14' 27.72"W

	Line	Table
Line #	Length	Direction
L142	108.19	N06° 51' 03.36"E
L143	48.75	N06° 45' 04.00"E
L144	2.87	S83° 14' 56.00"E
L146	2.25	S55° 11' 03.05"W
L147	10.33	N34° 48′ 56.95"W
L149	290.59	N83° 14' 30.32"W
L151	16.77	S77° 53' 50.22"W
L152	2.67	N15° 27' 38.73"W
L154	3.01	S78° 36' 38.14"E
L155	11.96	S11° 23' 21.86"W
L156	5.12	S78° 36' 38.14"E
L159	5.00	N46° 20' 21.51"E
L160	16.48	N77° 53' 50.22"E
L166	205.71	S06° 45' 04.00"W
L169	195.10	N06° 45' 04.00"E
L172	427.00	S06° 45' 04.00"W
L174	419.60	N06° 45' 04.00"E
L178	5.00	N06° 45' 04.00"E
L179	78.54	S83° 14' 56.00"E
L180	29.50	N06° 45' 04.00"E
L181	10.11	S06° 45' 04.00"W
L182	64.96	S83° 14' 56.00"E
L184	12.77	S06° 45' 04.00"W
L185	84.33	N83° 14' 56.00"W
L186	5.00	S06° 45' 04.00"W
L187	10.33	S34° 48′ 56.95″E
L188	5.00	S19* 17' 07.59"E

	Curve	Table	1
Curve #	Length	Radius	Delta
C1	24.60	15.00	093.97
C2	12.01	8.00	086.03
C3	3.14	2.00	090.00
C4	4.71	3.00	090.00
C5	3.14	2.00	090.00
C6	3.14	2.00	090.00
C7	3.14	2.00	090.00
C8	3.14	2.00	090.00
C9	3.14	2.00	090.00
C10	3.14	2.00	090.00
C11	3.14	2.00	090.00
C12	8.75	4.00	125.37
C13	41.62	114.00	020.92
C14	16.83	8.00	120.55
C15	4.71	2.00	135.00
C16	1.57	2.00	045.00
C17	4.71	2.00	135.00
C18	3.14	2.00	090.00
C19	23.16	15.00	088.48
C20	20.34	25.00	046.62
C21	39.41	25.06	090.09
C22	23.49	14.96	089.97
C24	36.64	18.00	116.61
C25	27.53	25.00	063.09
C26	39.31	25.00	090.10
C28	23.39	15.00	089.33
C29	3.16	2.00	090.67
C31	9.54	10.00	054.63
C33	3.14	2.00	090.00
C34	13.40	40.43	018.99
C35	3.14	2.00	090.00
C36	11.52	35.00	018.86
C37	12.97	40.00	018.57
C38	12.68	15.00	048.43
C39	3.14	2.00	090.00
C40	10.43	37.20	016.07
C41	16.90	20.00	048.43
C43	3.14	2.00	090.00
C45	12.57	8.00	090.00
C49	3.14	2.00	090.00
C50	3.14	2.00	090.00
C51	3.65	2.00	104.48
C52	10.54	8.00	075.52
C53	12.57	8.00	090.00
C54	12.57	8.00	090.00
C55	12.57	8.00	090.00
C56	3.14	2.00	090.00
C57	3.14	2.00	090.00
C58	12.57	8.00	090.00
			

	Curve	Table	
Curve #	Length	Radius	Delta
C60	3.14	2.00	090.00
C61	3.14	2.00	090.00
C62	12.57	8.00	090.00
C63	12.57	8.00	090.00
C64	3.14	2.00	090.00
C65	3.14	2.00	090.00
C66	12.57	8.00	090.00
C67	12.57	8.00	090.00
C68	3.14	2.00	090.00
C69	3.14	2.00	090.00
C71	3.14	2.00	090.00
C73	3.14	2.00	090.00
C75	3.14	2.00	090.00
C77	3.14	2.00	090.00
C79	3.14	2.00	090.00
C81	3.14	2.00	090.00
C83	3.14	2.00	090.00
C85	3.14	2.00	090.00
C87	3.14	2.00	090.00
C89	3.14	2.00	090.00
C91	3.14	2.00	090.00
C93	3.65	2.00	104.48
C94	10.54	8.00	075.52
C96	10.54	8.00	075.52
C97	3.65	2.00	104.48
C99	3.65	2.00	104.48
C100	10.54	8.00	075.52
C102	10.54	8.00	075.52
C103	3.65	2.00	104.48
C105	3.14	2.00	090.00
C107	15.32	7.00	125.37
C108	3.14	2.00	090.00





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Proposed New Core & Shell Building For:

Lee's Summit, Missouri

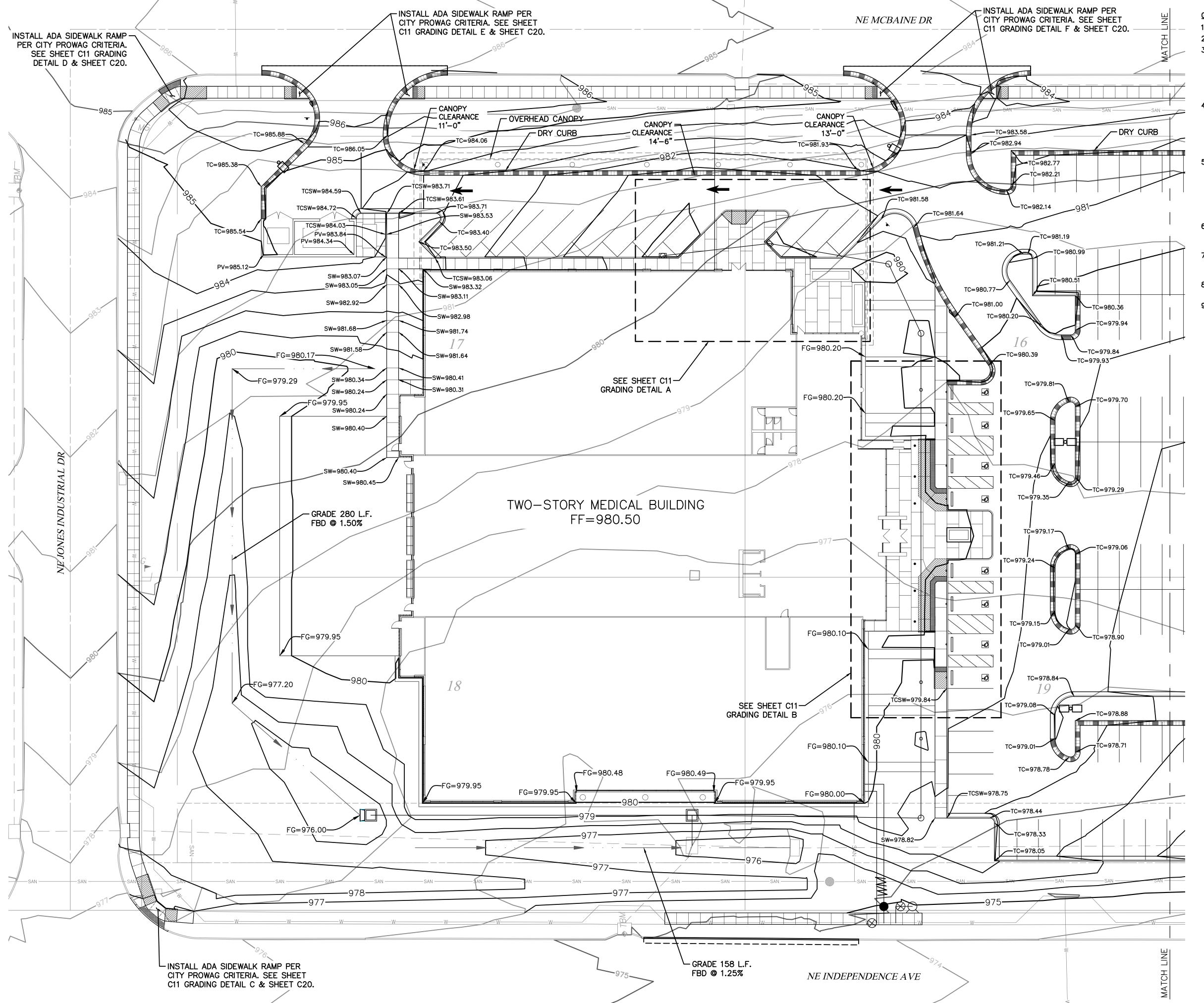
9/22/17 170534-010 ELM

<u>Date</u> 10/30/17

Description CITY COMMENTS

C08

DIMENSION PLAN TABLES



GRADING PLAN NOTES:

- 1. ALL CURB SHALL BE CG-1 UNLESS NOTED OTHERWISE.
- 2. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE.
- 3. ALL GRADING OPERATIONS, EXCAVATION, FILL, COMPACTION TESTING, AND BACKFILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER. NO PAVEMENTS SHALL BE PLACED PRIOR TO APPROVAL OF THE SUBGRADE BY THE GEOTECHNICAL ENGINEER.
- 4. SIDEWALK AND STOOP ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE SIDEWALK ELEVATIONS AND FINISHED FLOOR ELEVATIONS ARE COORDINATED FOR PROPER INGRESS/EGRESS. ALL DOORS SHALL HAVE A 5-FT OUTSIDE LANDING WITH 1.5% SLOPE AWAY FROM THE BUILDING.
- 5. THE FINISH GRADING AROUND THE BUILDING SHALL BE SUCH THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM THE BUILDING AND THAT NO PONDING OF WATER WILL EXIST. SUBGRADE OF GRASS AND LANDSCAPE AREAS SHALL BE SET AT THE SIDEWALK, PAVEMENT, AND OR TOP OF CURB ELEVATION SO THAT STORMWATER CAN FLOW WITHOUT PONDING.
- 6. PARKING GRADES SHALL BE VERIFIED TO CONFIRM POSITIVE DRAINAGE IS MAINTAINED WITHOUT THE PRESENCE OF PONDING WATER.
- 7. ALL ADA PARKING STALLS AND ADA ACCCESS ACROSS PARKING AISLES SHALL HAVE LESS THAN 2% SLOPE IN ANY DIRECTION.
- 8. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5% (2.0% MAX) AND LESS THAN 5% RUN SLOPE.
- 9. ANY PROPERTY LINE AND RIGHT-OF-WAY MONUMENTS DISTURBED BY CONSTRUCTION SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE BY A REGISTERED LAND SURVEYOR.

LEGEND



DENOTES NEW CURB RAMP

DENOTES NEW CURB & GUTTER (WET)

DENOTES NEW CURB & GUTTER (DRY)

<u>LEGEND</u>

EXISTING 1' CONTOUR EXISTING 5' CONTOUR PROPOSED 1' CONTOUR PROPOSED 5' CONTOUR TOP OF CURB ELEVATION SIDEWALK ELEVATION PAVEMENT ELEVATION MATCH EXISTING ELEVATION FINISHED GRADE ELEVATION FLAT BOTTOM DITCH





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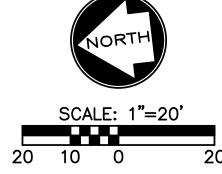
State Certificate of Authority #2002018767

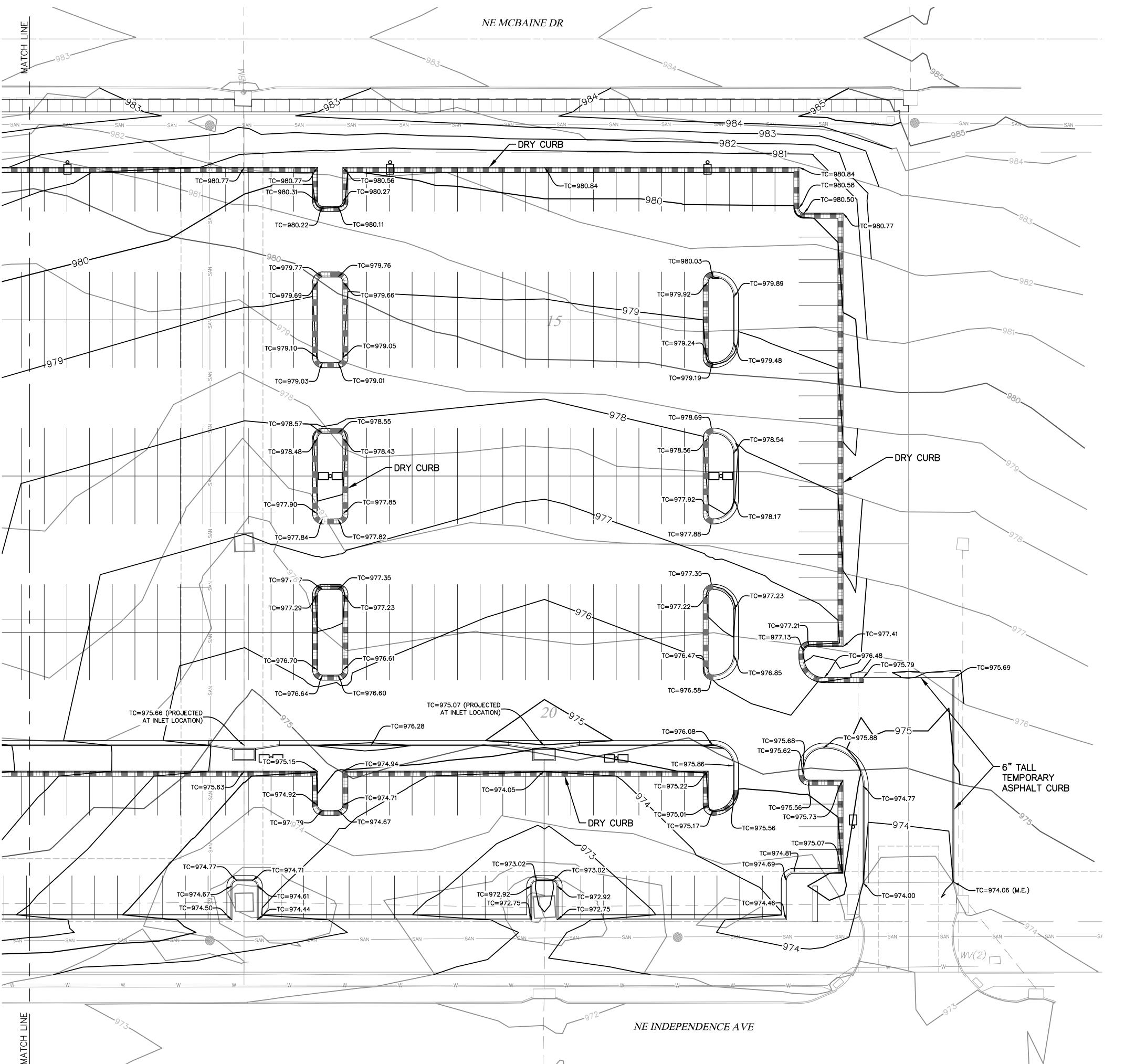
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9/22/17 170534-010 ELM

CITY COMMENTS 10/30/17

GRADING PLAN





GRADING PLAN NOTES:

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<u>LEGEND</u>

DENOTES NEW CURB RAMP

DENOTES NEW CURB & GUTTER (WET)

SCALE: 1"=20'

DENOTES NEW CURB & GUTTER (DRY)

LEGEND





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138 Weldon Parkway
Maryland Heights, Missouri 63043
314.737.4200
State Certificate of Authority #2002018767

ng For: **gical**

Summit Surgica

Date 9/22/17
Job Number 170534-010
Drawn By ELM
Checked By MDM

levisions

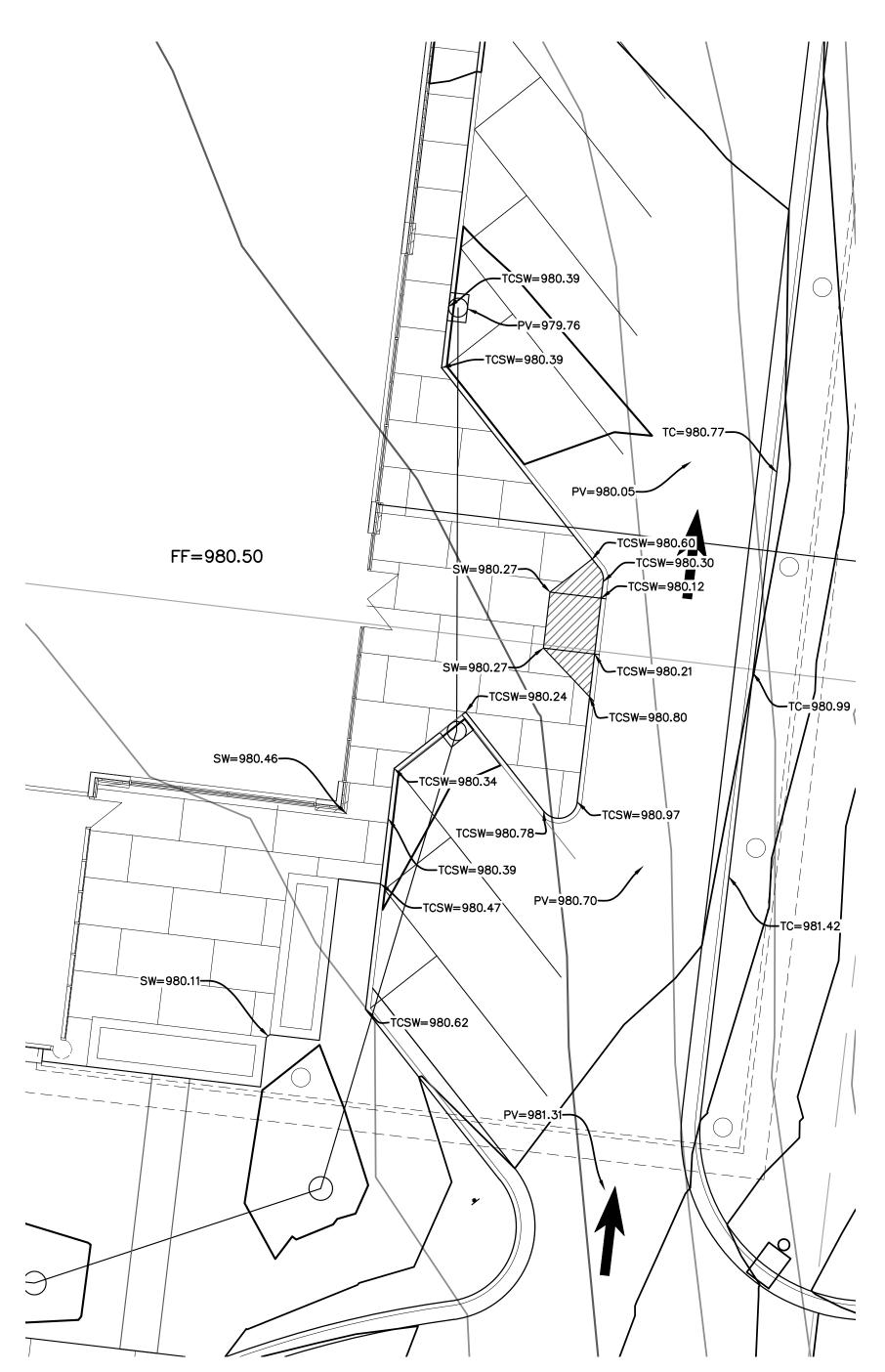
<u>lumber</u> <u>Date</u>

<u>Date</u> <u>Description</u> 10/30/17 CITY COMMENTS

C10

017 ACI Boland Architects

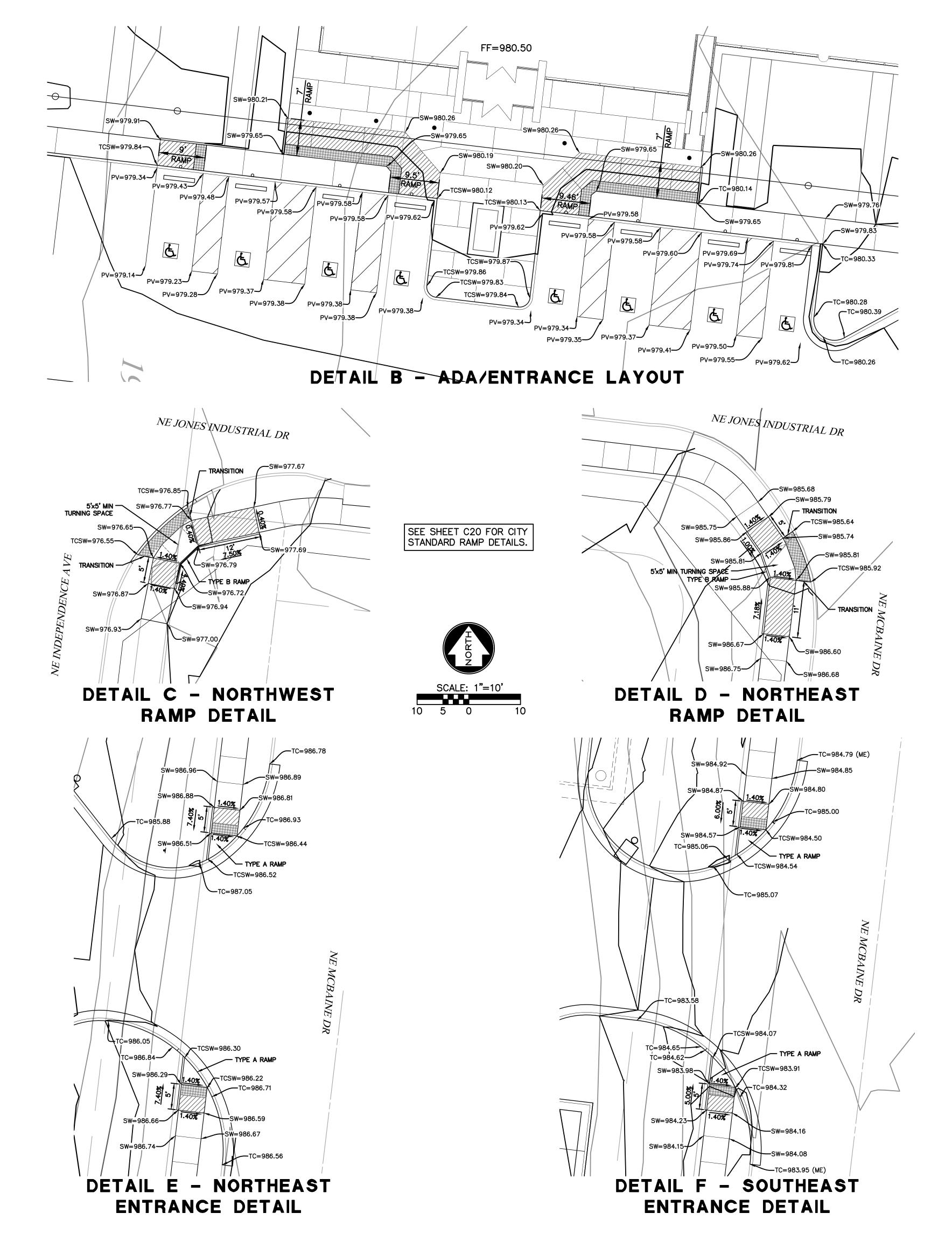
GRADING PLAN



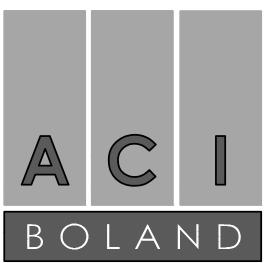
DETAIL A - EAST ENTRANCE LAYOUT

DENOTES NEW CURB RAMP DENOTES NEW CURB & GUTTER (WET) DENOTES NEW CURB & GUTTER (DRY) LEGEND ---924--- EXISTING 1' CONTOUR --925-- EXISTING 5' CONTOUR DENOTES NEW CURB & GUTTER (DRY)

—925— EXISTING 5' CONTOUR
—929— PROPOSED 1' CONTOUR
—930— PROPOSED 5' CONTOUR
TC TOP OF CURB ELEVATION
SW SIDEWALK ELEVATION
PV PAVEMENT ELEVATION
ME MATCH EXISTING ELEVATION
FG FINISHED GRADE ELEVATION
FBD FLAT BOTTOM DITCH







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G&W Engineering Corporation

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138 Weldon Parkway
Maryland Heights, Missouri 63043
314.737.4200
State Certificate of Authority #2002018767

Sposed New Core & Shell Building For:

9e's Summit Missouri

Date 9/22/17
Job Number 170534-010
Drawn By ELM
Checked By MDM

Revisions

Number Date
1 10/30/1

<u>Date</u> <u>Description</u>
10/30/17 CITY COMMENTS

I7 ACI Boland Architects

GRADING PLAN DETAIL

	/E\	

MODIFY EXISTING 6'x3' CURB INLET

EXISTING 43.17 L.F. 42" HDPE (N)

SANITARY

SEE DETAIL 5/ SHEET C23

N: 1018562.30 E: 2828387.23

- 1. INSTALL 8" GATE VALVE ON WATER MAIN.
- 2. INSTALL 8"x6" TEE WITH 6" GATE VALVE TO EAST.
- 3. INSTALL 8"x6" TEE WITH A 6" TO 3" REDUCER TO EAST AND 7 L.F. 3" DOMESTIC SERVICE LINE.

NE INDEPENDENCE A VE

- 4. INSTALL STANDARD HYDRANT ASSEMBLY.
- 5. INSTALL A 3" WATER METER.
- 6. INSTALL 51.4 L.F. 3" DOMESTIC SERVICE LINE.
- INSTALL 55.4 L.F. 6" FIRE LINE.
- 8. INSTALL 90° BEND.
- 9. INSTALL 8.0 L.F. 3" DOMESTIC SERVICE LINE.
- 10. INSTALL 5 L.F. OF 6" FIRE LINE.
- 11. DOUBLE CHECK DETECTOR/FIRE RISER IN BUILDING; RE: MEP BUILDING PERMIT DRAWINGS.
- 12. INSTALL FIRE DEPARTMENT CONNECTION ON OUTSIDE FACE OF
- 13. CONNECT TO EXISTING SANITARY STUB @ 1969.91 AND INSTALL 6.91 L.F. OF 4" PVC SDR-26 AND CONNECT TO THE BUILDING SANITARY SEWER.
- 14. CONNECT TO EXISTING SANITARY SEWER STUB @ 973.10 AND INSTALL 54.81 L.F. OF 4" PVC SDR-26 AND CONNECT TO THE BUILDING SANITARY SEWER.
- 15. INSTALL 5 L.F. OF CONCRETE ENCASEMENT AROUND SANITARY SEWER LINE.

UTILITY PLAN NOTES:

EXISTING FIRE HYDRANT

- 1. ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS ONLY AND HAVE BEEN COMPILED FROM THE LATEST AVAILABLE MAPPING, FIELD LOCATES, AND AS-BUILTS. THE EXACT LOCAITON OF ALL UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR
- COMPANIES FOR ALL LOCATIONS AND SERVICE CONNECTIONS.
- AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL CONTACT EXISTING AND PROPOSED UTILITIES SO THAT AN APPROPRIATE
- 4. THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY COMPANIES AND CITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY COMPANIES AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTION, RELOCATIONS, INSPECTIONS, AND DEMOLITION.
- 5. ALL VALVE PITS SHALL BE ADJUSTED TO FINAL GRADE.
- 6. SANITARY SERVICE LATERAL SHALL MAINTAIN MINIMUM OF 10-FT 42-INCHES OF COVER OVER THE PIPE. THE CONTRACTOR IS AVOID OTHER UTILITIES AND UNDERGROUND OBSTRUCTIONS.

- 7. THIS PLAN DETAILS PIPES UP TO 5-FT FROM THE BUILDING FACE.
- REFER TO THE BUILDING DRAWINGS FOR BUILDING CONNECTIONS. 8. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT AND REPLACED IN ACCORDANCE WITH THE PAVEMENT REPAIR REQUIREMENTS OF THE GOVERNING AUTHORITY.

N: 1018202.86 E: 2828344.22

INSTALL 60.57 L.F. 18" HDPE (E)

EXISTING 119.25 L.F. 60" HDPE (N)

EXISTING 120.19 L.F. 66" HDPE (S)

- 9. COPPER PIPE SHALL BE TYPE K TUBING WITH COMPRESSION FITTINGS. 10. ALL SANITARY SEWER SERVICE LINES SHALL BE SDR-26 PVC PIPE. ALL PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH CITY REQUIREMENTS.
- 11. ELECTRICAL SERVICE LINES SHOWN ON THE PLAN SHALL BE INSTALLED IN CONDUITS IN ACCORDANCE WITH KCPL&L'S STANDARD REQUIREMENTS.
- 12. SANITARY SEWER AND STORM SEWER LINES SHALL BE INSTALLED TO MAINTAIN POSITIVE SLOPE. THE CONTRACTOR SHALL VERIFY THAT EACH RUN OF PIPE CAN BE INSTALLED WITH A POSITIVE SLOPE WITHOUT INTERFERENCE WITH OTHER UNDERGOUND UTILITIES OR OBSTRUCTIONS PRIOR TO INSTALLING THE LINE.
- 13. PROVIDE CONCRETE THRUST BLOCKS AT ALL FIRE LINE TEES AND HORIZONTAL OR VERTICAL BEND FITTINGS.
- 14. COORDINATE SIZING OF FIRE LINE, DOUBLE CHECK DETECTOR ASSEMBLY, AND ASSOCIATED VAULT WITH BUILDING FIRE SUPPRESSION SYSTEM DESIGN, BY OTHERS.





17107 Chesterfield Airport Road | Suite 110 Chesterfield, Missouri 63005

T: 314.991.9993 aciboland.com **ACI Boland Architects** St. Louis | Kansas City

Licensee's Certificate of Authority Number:

Missouri No.: 000958 (Expires: 12.31.2017) CIVIL CONSULTANT Shafer, Kline & Warren, Inc. 11250 Corporate Avenue

Lenexa, Kansas 66219 913.888.7800 State Certificate of Authority #000143 STRUCTURAL CONSULTANT

1610 Des Peres Road, Suite 100 St. Louis, Missouri 63131 314.835.0524 State Certificate of Authority #2001010829

MEP/FP CONSULTANT G&W Engineering Corporation 138 Weldon Parkway Maryland Heights, Missouri 63043 314.737.4200

State Certificate of Authority #2002018767

C <u>D</u>

9/22/17 170534-010 Checked By

SCALE: 1"=30'

Description 10/30/17 CITY COMMENTS

UTILITY PLAN

	A	PIPE SEPARATION		
CROSSING	PIPE 1	PIPE 2	SEPARATION	NOTES
Α	PROPOSED WATER	EXISTING SANITARY	±4.45'	FIELD VERIFY
В	PROPOSED WATER	EXISTING SANITARY	±4.44'	FIELD VERIFY
С	PROPOSED WATER	EXISTING STORM	±3.64'	FIELD VERIFY
D	PROPOSED WATER	EXISTING STORM	±3.66'	FIELD VERIFY
E	PROPOSED WATER	PROPOSED STORM	±3.22'	
F	PROPOSED WATER	PROPOSED STORM	±3.22'	
G	EXISTING SANITARY	EXISTING STORM	±0.45'	FIELD VERIFY
Н	PROPOSED SANITARY	PROPOSED STORM	±2.00'	
1	PROPOSED SANITARY	PROPOSED STORM	±0.73'	CONCRETE ENCASE

MODIFY EXISTING 6'x4' CURB INLET

INSTALL 12.74 L.F. 24" HDPE (E)

EXISTING 43.21 L.F. 18" HDPE (NW)

EXISTING 236.52 L.F. 36" HDPE (N)

SEE DETAIL 4/ SHEET C23

N: 1018605.05 E: 2828393.23

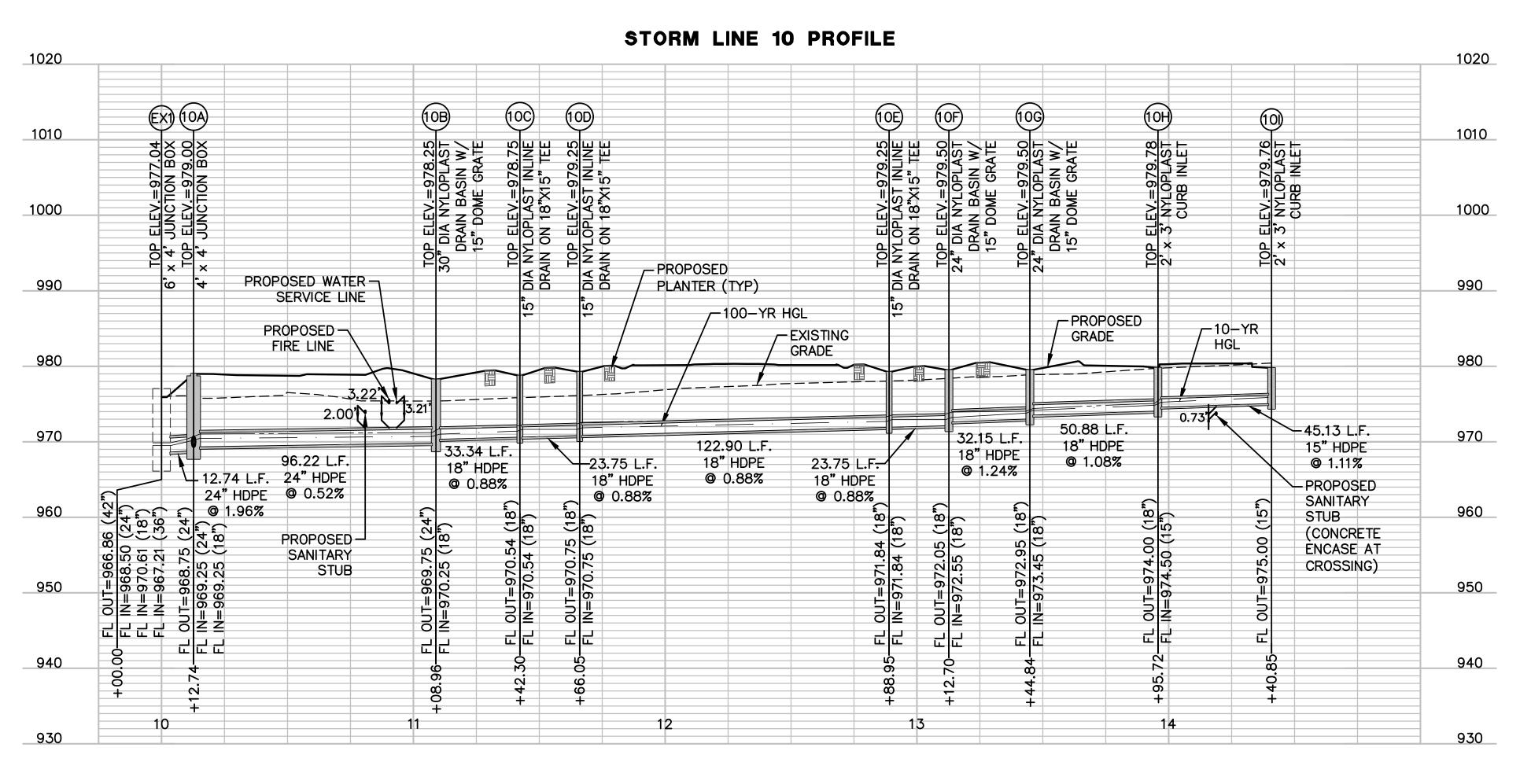
PRIOR TO THE START OF CONSTRUCTION.

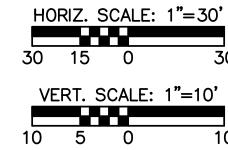
N: 1018321.03 E: 2828360.26

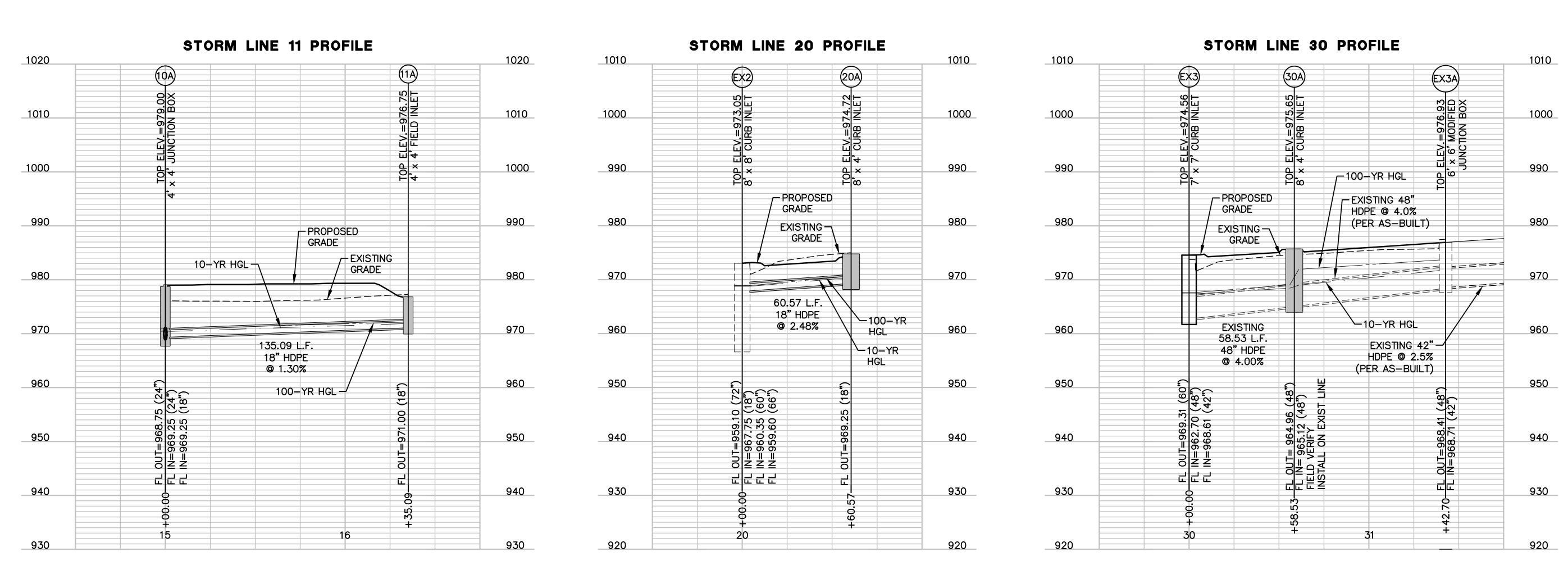
EXISTING 58.53 L.F. 48" HDPE (E)

EXISTING 242.78 L.F. 42" HDPE (N)

- 2. GENERAL CONTRACTOR TO COORDINATE WITH THE LOCAL UTILITY
- 3. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION ENGINEER IN THE EVENT OF ANY UNFORESEEN CONFLICTS BETWEEN MODIFICATION MAY BE MADE.
- HORIZONTAL AND 1.5-FT VERTICAL SEPARATION DISTANCE FROM WATER LINES. WATER LINES SHALL BE INSTALLED TO MAINTAIN A MINIMUM OF RESPONSIBLE FOR ADJUSTING THE ELEVATION OF THE WATER LINE TO











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G&W Engineering Corporation
138 Weldon Parkway

Maryland Heights, Missouri 63043 314.737.4200

State Certificate of Authority #2002018767

t Surgical
Missouri

Proposed New Core & Shell Build ee's Summit Sur

Date 9/22/17
Job Number 170534-010
Drawn By ELM
Checked By MDM
Revisions

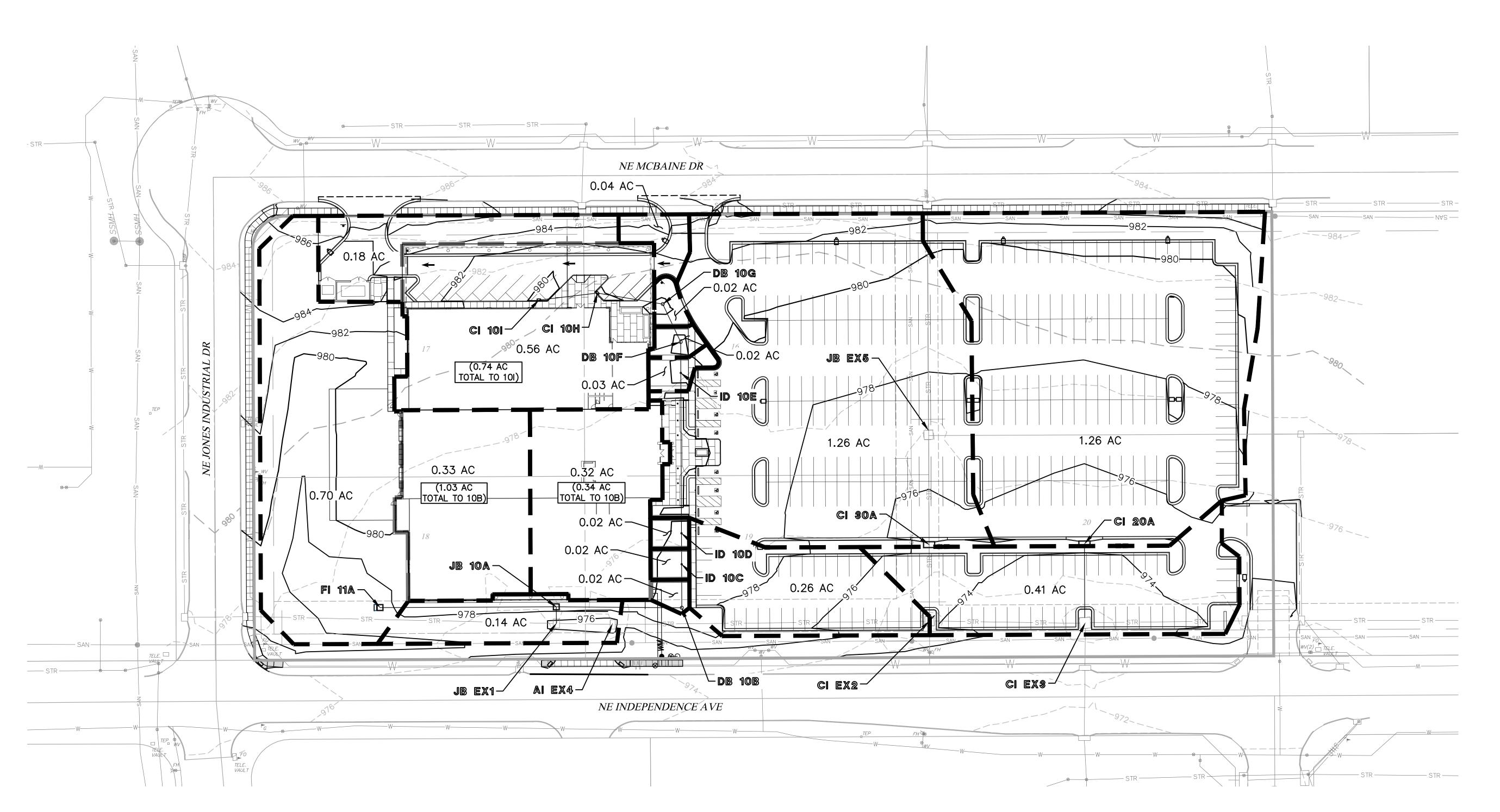
Revisions

Number Date
1 10/30/17

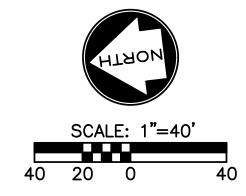
er <u>Date</u> <u>Description</u>
10/30/17 CITY COMMENTS

C13

STORM SEWER PROFILES



SEE SHEET C15 FOR STORM CALCULATION SUMMARY







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G&W Engineering Corporation
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Surgical sed New Core & Shell E
'S Summit S

9/22/17 170534-010

<u>Date</u> 10/30/17 Description CITY COMMENTS

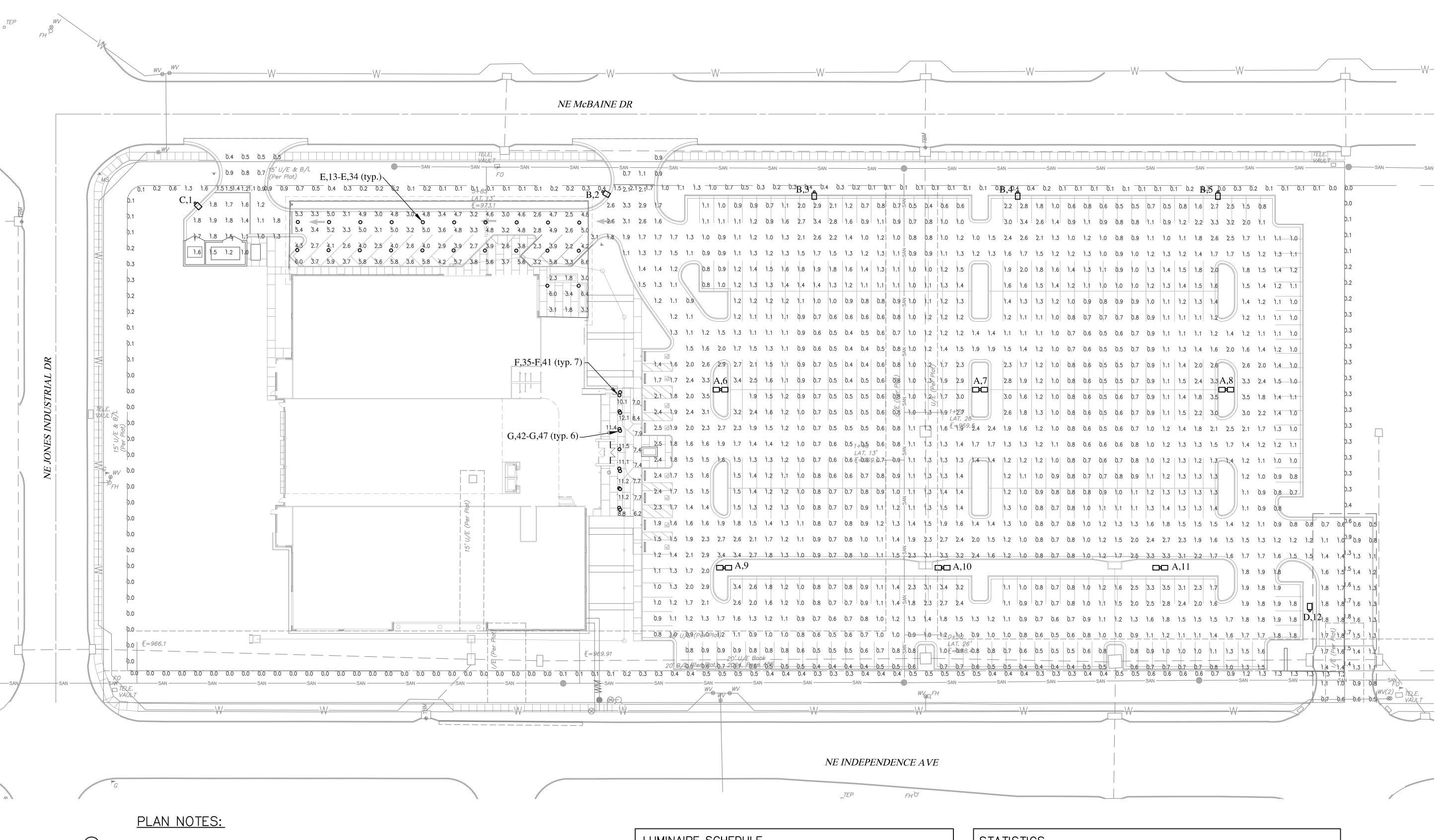
DRAINAGE AREA MAP

LINE	STR.	"C"	"A"	ADD.	TOTAL	TOTAL	"Tc"	I. RUNOFF FREQ.	"K"	СхК	CxK	" "	Inc.	DESIGN	II. STRUCTU RE UP	LOW	III. PIPE DESIGN "D"	"TYPE"	n"	"L"	"5"	"Tt"	"d"	"Vd"	"Vf"	Total	"Qcap"	NUMBER PE-20080118 **Constant Per-20080118 *
NO.	NO.		(AC.)	AREA (AC.)	AREA (AC.)	"AxC"	(MIN.)	(YR.)			x A	(IN.)	"Q"	FREQ. (YR.)	STR.	STR.	(IN.)			(FT.)	(%)	(MIN.)	(IN.)	(FPS)	(FPS)	"Qd" (CFS)	(CFS)	A SE
10				(1101)				10	1.00	0.82	0.61	7.35	4.46									, ,			<u> </u>			
10	10 I	0.82	0.74		0.74	0.61	5.00	25 100	1.10 1.25	0.90 1.00	0.67 0.74	8.53 10.32	5.68 7.64	10	10	10 E	15	HDPE	0.013	45.13	1.11	0.13	8.85	5.92	5.55	4.46	6.81	
	10 H	0.85	0.04		0.78	0.66	5.00	10 25	1.00 1.10	0.85 0.94	0.03	7.35 8.53	0.25 0.32	10	10 H	10 G	18	HDPE	0.013	50.88	1.08	0.14	8.26	5.95	6.18	4.71	10.92	4
		0.00				0.00	0.00	100	1.25	1.00	0.04	10.32	0.41						0.0.0	00.00			0.20	0.00	3.1.0			
	10 G	0.50	0.02		0.80	0.40	5.00	10 25	1.00 1.10	0.50 0.55	0.01	7.35 8.53	0.07	10	10 G	10 F	18	HDPE	0.013	32.15	1.24	0.09	8.01	6.29	6.62	4.78	11.70	
								100	1.25 1.00	0.63 0.50	0.01	10.32 7.35	0.13 0.07															
	10 F	0.50	0.02		0.82	0.41	5.00	25	1.10	0.55	0.01	8.53	0.09	10	10 F	10 E	18	HDPE	0.013	23.75	0.88	0.07	8.91	5.56	5.58	4.85	9.85	BOLAND
								100	1.25 1.00	0.63 0.50	0.01	7.35	0.13 0.11															ARCHITECTS
	10 E	0.50	0.03		0.85	0.43	5.00	25 100	1.10 1.25	0.55 0.63	0.02	8.53 10.32	0.14 0.20	10	10 E	10 D	18	HDPE	0.013	122.90	0.88	0.37	9.02	5.60	5.58	4.96	9.85	 17107 Chesterfield Airport Road Suite 110 Chesterfield, Missouri 63005
								100	1.00	0.50	0.02	7.35	0.20															T: 314.991.9993 aciboland.com
	10 D	0.50	0.02		0.87	0.44	5.00	25 100	1.10 1.25	0.55 0.63	0.01	8.53 10.32	0.09	10	10 D	10 C	18	HDPE	0.013	23.75	0.88	0.07	9.11	5.61	5.58	5.03	9.85	ACI Boland Architects St. Louis Kansas City
	10.0	0.50	0.00		0.00	0.45	5.00	10	1.00	0.50	0.01	7.35	0.07	40	40.0	40.5	40		2.242	00.04	0.00	0.40	2.42	5.00	5.50	5.40	0.05	Licensee's Certificate of Authority Number: Missouri No.: 000958 (Expires: 12.31.2017)
	10 C	0.50	0.02		0.89	0.45	5.00	25 100	1.10 1.25	0.55 0.63	0.01	8.53 10.32	0.09 0.13	10	10 C	10 B	18	HDPE	0.013	33.34	0.88	0.10	9.18	5.63	5.58	5.10	9.85	
	10 B	0.86	0.34		1.23	0.74	5.00	10 25	1.00 1.10	0.86 0.95	0.29 0.32	7.35 8.53	2.15 2.76	10	10 B	10 A	24	HDPE	0.013	96.22	0.52	0.32	11.18	5.05	5.19	7.25	16.31	CIVIL CONSULTANT Shafer, Kline & Warren, Inc. 11250 Corporate Avenue
	102		0.01		1120	0.1.1	0.00	100	1.25	1.00	0.34	10.32	3.51		102			1131 2	0.010	00.22	0.02	0.02		0.00	0.10	7.20	10.01	Lenexa, Kansas 66219 913.888.7800
	10 A	0.85	0.00	1.03	2.26	1.39	5.00	10 25	1.00 1.10	0.85 0.94	0.00	7.35 8.53	0.00	10	10 A	EX 1	24	HDPE	0.013	12.74	1.96	0.02	10.25	9.39	10.08	12.02	31.67	State Certificate of Authority #000143
								100	1.25 1.00	1.00	0.00	10.32 7.35	0.00 4.77															STRUCTURAL CONSULTANT KPFF, Inc. 1610 Des Peres Road, Suite 100
11	11 A	0.63	1.03		1.03	0.65	5.00	25	1.10	0.69	0.71	8.53	6.06	10	11 A	EX CI	18	HDPE	0.013	135.09	1.30	0.35	7.88	6.41	6.78	4.77	11.98	St. Louis, Missouri 63131 314.835.0524
								100	1.25	0.79	0.81	7.35	7.88															State Certificate of Authority #2001010829
20	20 A	0.85	1.26		1.26	1.07	5.00	25	1.10	0.94	1.18	8.53	10.10	10	20 A	EX 2	18	HDPE	0.013	60.57	2.48	0.11	8.73	9.27	9.36	7.88	16.54	MEP/FP CONSULTANT G&W Engineering Corporation
								100	1.25 1.00	1.00 0.85	1.26	7.35	13.01 7.88															138 Weldon Parkway Maryland Heights, Missouri 63043 314.737.4200
30	30 A	0.85	1.26	21.91	23.17	19.69	5.00	25 100	1.10 1.25	0.94 1.00	1.18 1.26	8.53 10.32	10.10 13.01	10	30 A	EX 3	48	HDPE	0.013	58.53	4.00	0.04	22.46	22.28	22.86	128.60	287.29	State Certificate of Authority #2002018767
														10110 1 5510	OUMANT OUR		FED.											1
	1									10																		
										10	0-YEAR STOF	M DRAINAGI	CALCULAT	IONS: LEE'S	II.	GICAL CENT												<u> </u>
LINE	STR.	"C"	"A"	ADD.	TOTAL	TOTAL	"Tc"	I. RUNOFF FREQ.	"K"			RM DRAINAGI			II. STRUCTU RE UP		III. PIPE DESIGN	"TYPE"	n"	"["	"\$"	"Tt"	"d"	"Vd"	"Vf"	Total	"Qcap"	For: -
LINE NO.	STR. NO.	"C"	"A"	ADD. AREA	TOTAL AREA	TOTAL "AxC"	"Tc"	FREQ.	"K"	C x K	C x K	" "	Inc. "Q"	DESIGN FREQ.	II. STRUCTU RE	LOW STR.	III. PIPE DESIGN "D"	"TYPE"	n"	"L"		"Tt"		"Vd"	"Vf"	Total "Qd"		1
NO.	+	"C"	"A" (AC.)	+			"Tc" (MIN.)		"K"		СхК		Inc.	DESIGN	II. STRUCTU RE UP	LOW	III. PIPE DESIGN	"TYPE"	n"	"L" (FT.)	"S"	"Tt" (MIN.)	"d" (IN.)	"Vd" (FPS)	"Vf" (FPS)		"Qcap" (CFS)	
	+	"C"		AREA	AREA			(YR.) 10 25	1.00	0.82 0.90	C x K x A 0.61 0.67	"I" (IN.) 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68	DESIGN FREQ.	II. STRUCTU RE UP	LOW	III. PIPE DESIGN "D"	"TYPE"	n" 0.013							"Qd"		Building Fo
NO.	NO. 10 I	0.82	(AC.) 0.74	AREA	AREA (AC.) 0.74	"AxC" 0.61	(MIN.) 5.00	(YR.) 10 25 100 10	1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85	0.61 0.67 0.74 0.03	"I" (IN.) 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25	DESIGN FREQ. (YR.)	II. STRUCTU RE UP STR.	LOW STR.	III. PIPE DESIGN "D" (IN.)	HDPE		(FT.) 45.13	1.11	(MIN.)	(IN.)	(FPS)	(FPS) 5.55	"Qd" (CFS) 7.64	(CFS) 6.81	Suilding Fouri
NO.	+		(AC.)	AREA	AREA (AC.)	"AxC"	(MIN.)	(YR.) 10 25 100	1.00 1.10 1.25	0.82 0.90 1.00	0.61 0.67 0.74	"I" (IN.) 7.35 8.53 10.32	Inc. "Q" (CFS) 4.46 5.68 7.64	DESIGN FREQ. (YR.)	II. STRUCTU RE UP STR.	LOW STR.	III. PIPE DESIGN "D" (IN.)		0.013 0.013	(FT.)	(%)	(MIN.)	(IN.)	(FPS)	(FPS)	"Qd" (CFS)	(CFS)	t Surgic
NO.	10 I 10 H	0.82	0.74 0.04	AREA	0.74 0.78	"AxC" 0.61 0.66	(MIN.) 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 10 10	1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.50	0.61 0.67 0.74 0.03 0.04 0.04 0.01	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07	DESIGN FREQ. (YR.) 100	STRUCTU RE UP STR.	LOW STR. 10 E	III. PIPE DESIGN "D" (IN.)	HDPE	0.013	(FT.) 45.13 50.88	1.11	(MIN.) SUR 0.13	(IN.) SUR 11.48	(FPS) SUR 6.76	(FPS) 5.55 6.18	"Qd" (CFS) 7.64 8.05	(CFS) 6.81	Shell Building Forit Surgic, Missouri
NO.	NO. 10 I	0.82	(AC.) 0.74	AREA	AREA (AC.) 0.74	"AxC" 0.61	(MIN.) 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100	1.00 1.10 1.25 1.00 1.10 1.25	0.82 0.90 1.00 0.85 0.94 1.00	0.61 0.67 0.74 0.03 0.04 0.04	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13	DESIGN FREQ. (YR.)	II. STRUCTU RE UP STR.	LOW STR.	III. PIPE DESIGN "D" (IN.)	HDPE		(FT.) 45.13	1.11	(MIN.)	(IN.)	(FPS)	(FPS) 5.55	"Qd" (CFS) 7.64	(CFS) 6.81	w Core & Shell Building Fourmit, Missouri
NO.	10 I 10 H	0.82	0.74 0.04	AREA	0.74 0.78	"AxC" 0.61 0.66	(MIN.) 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10	0.82 0.90 1.00 0.85 0.94 1.00 0.50	0.61 0.67 0.74 0.03 0.04 0.04 0.01	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09	DESIGN FREQ. (YR.) 100	STRUCTU RE UP STR.	LOW STR. 10 E	III. PIPE DESIGN "D" (IN.)	HDPE	0.013	(FT.) 45.13 50.88	1.11	(MIN.) SUR 0.13	(IN.) SUR 11.48	(FPS) SUR 6.76	(FPS) 5.55 6.18	"Qd" (CFS) 7.64 8.05	(CFS) 6.81	Shell Building Forit Surgic, Missouri
NO.	10 I 10 H	0.82	0.74 0.04	AREA	0.74 0.78	0.61 0.66 0.40	(MIN.) 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.01	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13	DESIGN FREQ. (YR.) 100 100	STRUCTU RE UP STR.	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15	HDPE HDPE	0.013	(FT.) 45.13 50.88	1.11	(MIN.) SUR 0.13	(IN.) SUR 11.48	(FPS) SUR 6.76	(FPS) 5.55 6.18	"Qd" (CFS) 7.64 8.05	(CFS) 6.81 10.92	sed New Core & Shell Building For Summit, Missouri
NO.	10 I 10 H	0.82	0.74 0.04	AREA	0.74 0.78	0.61 0.66 0.40	(MIN.) 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 25 100 25	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50	0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09	DESIGN FREQ. (YR.) 100 100	STRUCTU RE UP STR.	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15	HDPE HDPE	0.013	(FT.) 45.13 50.88	1.11	(MIN.) SUR 0.13	(IN.) SUR 11.48	(FPS) SUR 6.76	(FPS) 5.55 6.18	"Qd" (CFS) 7.64 8.05	(CFS) 6.81 10.92	posed New Core & Shell Building For Summit, Missouri
NO.	10 I 10 G 10 F	0.82	0.74 0.04 0.02	AREA	0.74 0.78 0.80	0.61 0.66 0.40	(MIN.) 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 10 10 10 10 10 10 10	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.01	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11	DESIGN FREQ. (YR.) 100 100 100	STRUCTU RE UP STR.	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15 18	HDPE HDPE HDPE	0.013	(FT.) 45.13 50.88 32.15	1.11 1.08 1.24	(MIN.) SUR 0.13 0.07	(IN.) SUR 11.48 11.09	(FPS) SUR 6.76 7.16	(FPS) 5.55 6.18 6.62 5.58	"Qd" (CFS) 7.64 8.05 8.18	(CFS) 6.81 10.92 11.70 9.85	sed New Core & Shell Building For Summit, Missouri
NO.	10 I 10 G 10 F	0.82	0.74 0.04 0.02	AREA	0.74 0.78 0.80	0.61 0.66 0.40	(MIN.) 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 25 100 25 100 25 100 25	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09	DESIGN FREQ. (YR.) 100 100 100	STRUCTU RE UP STR.	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15 18	HDPE HDPE HDPE	0.013	(FT.) 45.13 50.88 32.15	1.11 1.08 1.24	(MIN.) SUR 0.13 0.07	(IN.) SUR 11.48 11.09	(FPS) SUR 6.76 7.16	(FPS) 5.55 6.18 6.62 5.58	"Qd" (CFS) 7.64 8.05 8.18	(CFS) 6.81 10.92 11.70 9.85	posed New Core & Shell Building For Summit, Missouri
NO.	10 I 10 I 10 F 10 E	0.82 0.85 0.50	0.74 0.04 0.02 0.02	AREA	0.74 0.78 0.80 0.82	0.61 0.66 0.40 0.41	5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 10 10 10 10 10 10 10	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.01	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07	DESIGN FREQ. (YR.) 100 100 100 100	II. STRUCTU RE UP STR. 10 I 10 F 10 E	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15 18 18 18	HDPE HDPE HDPE	0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75	1.11 1.08 1.24 0.88	(MIN.) SUR 0.13 0.07 0.06	(IN.) SUR 11.48 11.09 12.65	(FPS) SUR 6.76 7.16 6.26	(FPS) 5.55 6.18 6.62 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.31	(CFS) 6.81 10.92 11.70 9.85	Proposed New Core & Shell Building For Lee's Summit, Missouri
NO.	10 I 10 I 10 F 10 E	0.82 0.85 0.50	0.74 0.04 0.02 0.02	AREA	0.74 0.78 0.80 0.82	0.61 0.66 0.40 0.41	5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 25 100 25 100 25 100 25 100 25 100 25 100 25	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.10	DESIGN FREQ. (YR.) 100 100 100 100	II. STRUCTU RE UP STR. 10 I 10 F 10 E	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15 18 18 18	HDPE HDPE HDPE	0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75	1.11 1.08 1.24 0.88	(MIN.) SUR 0.13 0.07 0.06	(IN.) SUR 11.48 11.09 12.65	(FPS) SUR 6.76 7.16 6.26	(FPS) 5.55 6.18 6.62 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.31	(CFS) 6.81 10.92 11.70 9.85	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri
NO.	10 I 10 I 10 F 10 E	0.82 0.85 0.50 0.50	0.74 0.04 0.02 0.02 0.02	AREA	0.74 0.74 0.78 0.80 0.82 0.85 0.87	0.61 0.66 0.40 0.41 0.43	5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 10 25 100 10 10 10 10 10 10 10 10	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.15	DESIGN FREQ. (YR.) 100 100 100 100 100 100	10 H 10 F 10 C 10 C	LOW STR. 10 E 10 G 10 F 10 D	III. PIPE DESIGN	HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75	(%) 1.11 1.08 1.24 0.88 0.88	(MIN.) SUR 0.13 0.07 0.06 0.06	(IN.) SUR 11.48 11.09 12.65 12.91 13.05	(FPS) SUR 6.76 7.16 6.26 6.28 6.30	(FPS) 5.55 6.18 6.62 5.58 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.51 8.64	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85	Proposed New Core & Shell Building For Lee's Summit, Missouri Lee's Summit, Missouri
NO.	10 I 10 I 10 F 10 E	0.82 0.85 0.50 0.50	0.74 0.04 0.02 0.02	AREA	0.74 0.78 0.80 0.82 0.85	0.61 0.66 0.40 0.41 0.43	(MIN.) 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13	DESIGN FREQ. (YR.) 100 100 100 100 100	10 H 10 F 10 D	LOW STR. 10 E 10 G	III. PIPE DESIGN "D" (IN.) 15 18 18 18	HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75	(%) 1.11 1.08 1.24 0.88 0.88	(MIN.) SUR 0.13 0.07 0.06	(IN.) SUR 11.48 11.09 12.65 12.91	(FPS) SUR 6.76 7.16 6.26 6.28	(FPS) 5.55 6.18 6.62 5.58 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.51	(CFS) 6.81 10.92 11.70 9.85 9.85	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Loann By ETM
NO.	10 H 10 G 10 F 10 C 10 B	0.82 0.85 0.50 0.50 0.50 0.50	0.04 0.04 0.02 0.02 0.02	AREA (AC.)	0.74 0.78 0.80 0.82 0.85 0.87	0.61 0.66 0.40 0.41 0.43 0.45	5.00 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 10 25 100 10 10 25 100 10 10 10 25 100 10 10 10 10 10 10 10 10	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07	DESIGN FREQ. (YR.) 100 100 100 100 100 100 100	II. STRUCTU RE UP STR. 10 I 10 F 10 F 10 C 10 B	LOW STR. 10 E 10 G 10 F 10 C 10 D	III. PIPE DESIGN "D" (IN.) 15 18 18 18 18 24	HDPE HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75 96.22	(%) 1.11 1.08 1.24 0.88 0.88 0.88	(MIN.) SUR 0.13 0.07 0.06 0.09 0.28	(IN.) SUR 11.48 11.09 12.65 12.91 13.05	(FPS) SUR 6.76 7.16 6.26 6.30 6.31	(FPS) 5.55 6.18 6.62 5.58 5.58 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.51 8.64 8.77	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Erw WDM
NO.	10 I 10 I 10 G 10 F 10 C	0.82 0.85 0.50 0.50	0.74 0.04 0.02 0.02 0.02	AREA	0.74 0.74 0.78 0.80 0.82 0.85 0.87	0.61 0.66 0.40 0.41 0.43	5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 2.15 2.76 3.51	DESIGN FREQ. (YR.) 100 100 100 100 100 100	10 H 10 F 10 C 10 C	LOW STR. 10 E 10 G 10 F 10 D	III. PIPE DESIGN	HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75	(%) 1.11 1.08 1.24 0.88 0.88	(MIN.) SUR 0.13 0.07 0.06 0.06	(IN.) SUR 11.48 11.09 12.65 12.91 13.05	(FPS) SUR 6.76 7.16 6.26 6.28 6.30	(FPS) 5.55 6.18 6.62 5.58 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.51 8.64	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri Revisions Revisions Number Date Description
NO.	10 H 10 G 10 F 10 C 10 B	0.82 0.85 0.50 0.50 0.50 0.50	0.04 0.04 0.02 0.02 0.02	AREA (AC.)	0.74 0.78 0.80 0.82 0.85 0.87	0.61 0.66 0.40 0.41 0.43 0.45	5.00 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10	0.82 0.90 1.00 0.85 0.94 1.00 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 2.15 2.76 3.51 0.00 0.00	DESIGN FREQ. (YR.) 100 100 100 100 100 100 100	II. STRUCTU RE UP STR. 10 I 10 F 10 F 10 C 10 B	LOW STR. 10 E 10 G 10 F 10 C 10 D	III. PIPE DESIGN "D" (IN.) 15 18 18 18 18 24	HDPE HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75 96.22	(%) 1.11 1.08 1.24 0.88 0.88 0.88	(MIN.) SUR 0.13 0.07 0.06 0.09 0.28	(IN.) SUR 11.48 11.09 12.65 12.91 13.05	(FPS) SUR 6.76 7.16 6.26 6.30 6.31	(FPS) 5.55 6.18 6.62 5.58 5.58 5.58	"Qd" (CFS) 7.64 8.05 8.18 8.51 8.64 8.77	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri Revisions Number Date Description
10	10 I 10 I 10 G 10 F 10 C 10 C	0.82 0.85 0.50 0.50 0.50 0.50	0.04 0.04 0.02 0.02 0.02 0.02	AREA (AC.)	0.74 0.78 0.80 0.82 0.85 0.87 0.89	0.61 0.66 0.40 0.41 0.43 0.44 0.45	(MIN.) 5.00 5.00 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100 10 25 100	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.79	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.17 0.09 0.13 0.07 0.09 0.13 0.17 0.09 0.13 0.07 0.09 0.13 0.17 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.07	DESIGN FREQ. (YR.) 100 100 100 100 100 100 100 1	10 H 10 G 10 C 10 D 10 A	LOW STR. 10 E 10 G 10 F 10 C 10 A EX 1	III. PIPE DESIGN "D" (IN.) 15 18 18 18 18 24 24	HDPE HDPE HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75 33.34	(%) 1.11 1.08 1.24 0.88 0.88 0.88 1.96	(MIN.) SUR 0.13 0.07 0.06 0.09 0.28	(IN.) SUR 11.48 11.09 12.65 12.91 13.05 13.21 15.53	(FPS) SUR 6.76 7.16 6.26 6.30 6.31 5.71	(FPS) 5.55 6.18 6.62 5.58 5.58 5.58 5.19	"Qd" (CFS) 7.64 8.05 8.18 8.31 8.51 8.64 8.77	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85 16.31 31.67	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri Revisions Revisions Number Date Description
10	10 I 10 I 10 G 10 F 10 C 10 C	0.82 0.85 0.50 0.50 0.50 0.50	0.04 0.04 0.02 0.02 0.02 0.02	AREA (AC.)	0.74 0.78 0.80 0.82 0.85 0.87 0.89	0.61 0.66 0.40 0.41 0.43 0.44 0.45	(MIN.) 5.00 5.00 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10 25	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25	C x K 0.82 0.90 1.00 0.85 0.94 1.00 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07	DESIGN FREQ. (YR.) 100 100 100 100 100 100 100 1	10 H 10 G 10 C 10 D 10 A	LOW STR. 10 E 10 G 10 F 10 C 10 A EX 1	III. PIPE DESIGN "D" (IN.) 15 18 18 18 18 24 24	HDPE HDPE HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75 33.34	(%) 1.11 1.08 1.24 0.88 0.88 0.88 1.96	(MIN.) SUR 0.13 0.07 0.06 0.09 0.28	(IN.) SUR 11.48 11.09 12.65 12.91 13.05 13.21 15.53	(FPS) SUR 6.76 7.16 6.26 6.30 6.31 5.71	(FPS) 5.55 6.18 6.62 5.58 5.58 5.58 5.19	"Qd" (CFS) 7.64 8.05 8.18 8.31 8.51 8.64 8.77	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85 16.31 31.67	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri Revisions Revisions Number Date Description
10 10 11 11	10 I 10 I 10 G 10 F 10 C 10 B 10 A	0.82 0.85 0.50 0.50 0.50 0.50 0.86 0.85	(AC.) 0.74 0.04 0.02 0.02 0.02 0.02 0.03 1.03	AREA (AC.)	0.74 0.74 0.78 0.80 0.82 0.85 0.87 0.89 1.23	"AxC" 0.61 0.66 0.40 0.41 0.43 0.44 1.39	(MIN.) 5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100 10	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00	0.82 0.90 1.00 0.85 0.94 1.00 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55 0.63 0.50 0.55	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 2.15 2.76 3.51 0.00 0.00 0.00 4.77 6.06 8.40 7.88	DESIGN FREQ. (YR.) 100 100 100 100 100 100 100 1	10 H 10 G 10 C 10 B 10 A 11 A	LOW STR. 10 E 10 G 10 F 10 C 10 B 10 A EX 1	III. PIPE DESIGN "D" (IN.) 15 18 18 18 18 24 24	HDPE HDPE HDPE HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75 33.34 96.22 12.74	(%) 1.11 1.08 1.24 0.88 0.88 0.88 1.96	(MIN.) SUR 0.13 0.07 0.06 0.08 0.28 0.02	(IN.) SUR 11.48 11.09 12.65 12.91 13.05 13.21 15.53	(FPS) SUR 6.76 7.16 6.26 6.30 6.31 5.71 10.74	(FPS) 5.55 6.18 6.62 5.58 5.58 5.58 5.19 10.08	"Qd" (CFS) 7.64 8.05 8.18 8.31 8.51 8.64 8.77 12.28 20.68	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85 16.31 31.67	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri Revisions Revisions Number Date Description
10 10 11 11	10 I 10 I 10 G 10 F 10 C 10 B 10 A	0.82 0.85 0.50 0.50 0.50 0.50 0.86 0.85	(AC.) 0.74 0.04 0.02 0.02 0.02 0.02 0.03 1.03	AREA (AC.)	0.74 0.74 0.78 0.80 0.82 0.85 0.87 0.89 1.23	"AxC" 0.61 0.66 0.40 0.41 0.43 0.44 1.39	(MIN.) 5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00	FREQ. (YR.) 10 25 100	1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25 1.00 1.10 1.25	C x K 0.82 0.90 1.00 0.85 0.94 1.00 0.55 0.63 0.50 0.55 0.63	C x K x A 0.61 0.67 0.74 0.03 0.04 0.04 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02	"I" (IN.) 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53 10.32 7.35 8.53	Inc. "Q" (CFS) 4.46 5.68 7.64 0.25 0.32 0.41 0.07 0.09 0.13 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.11 0.14 0.20 0.07 0.09 0.13 0.07 0.09 0.13 0.07 0.09 0.13 0.17 0.19 0.19 0.18 2.15 2.76 3.51 0.00 0.00 0.00 0.00 0.00 1.30 0.00 0.0	DESIGN FREQ. (YR.) 100 100 100 100 100 100 100 1	10 H 10 G 10 C 10 B 10 A 11 A	LOW STR. 10 E 10 G 10 F 10 C 10 B 10 A EX 1	III. PIPE DESIGN "D" (IN.) 15 18 18 18 18 24 24	HDPE HDPE HDPE HDPE HDPE HDPE HDPE HDPE	0.013 0.013 0.013 0.013 0.013 0.013	(FT.) 45.13 50.88 32.15 23.75 122.90 23.75 33.34 96.22 12.74	(%) 1.11 1.08 1.24 0.88 0.88 0.88 1.96	(MIN.) SUR 0.13 0.07 0.06 0.08 0.28 0.02	(IN.) SUR 11.48 11.09 12.65 12.91 13.05 13.21 15.53	(FPS) SUR 6.76 7.16 6.26 6.30 6.31 5.71 10.74	(FPS) 5.55 6.18 6.62 5.58 5.58 5.58 5.19 10.08	"Qd" (CFS) 7.64 8.05 8.18 8.31 8.51 8.64 8.77 12.28 20.68	(CFS) 6.81 10.92 11.70 9.85 9.85 9.85 16.31 31.67	Proposed New Core & Shell Building For Summit, Missouri Lee's Summit, Missouri Lee's Summit, Missouri Revisions Revisions Number Date Description Description

10-YEAR STORM DRAINAGE CALCULATIONS: LEE'S SUMMIT SURGICAL CENTER



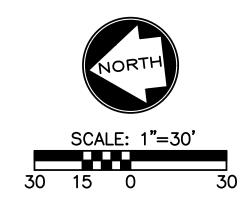
STORM DESIGN TABLES

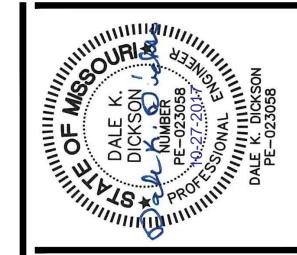


- (1.) ALL WORK AND MATERIAL SHALL COMPLY WITH THE 2011 NATIONAL ELECTRICAL CODE.
- 2.) THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI, IN CURRENT USAGE.
- 3.) THE PARKING LOT LIGHTING LAYOUT WAS BASED ON THE MCGRAW-VENTUS SERIES LED FIXTURE. EACH LUMINAIRE SHALL BE ADJUSTED AND LEVELED TO THE PAVEMENT. FIXTURE SHALL BE MOUNTED ON 25' ROUND GARDCO SRS255 POLE (SEE ARM MOUNT ORIENTATION REQUIRED FOR EA. POLE) AND 2.5' EXTENDED BASE.
- (4.) VERIFY THE POLE AND ALL FIXTURE COLORS WITH THE ARCHITECT.
- (5.) INDIVIDUAL AND SYSTEM GROUNDS SHALL BE INSTALLED ON ALL CIRCUITS.
- 6. LUMINAIRE ORIENTATION AND OPTICS ORIENTATION SHALL BE AS SHOWN ON THIS DRAWING.
- (7.) POLE SETBACK SHALL BE AS SHOWN ON DRAWING.
- (8.) POLES SHALL BE LOCATED IN LINE WITH PARKING LOT LINES WHERE APPLICABLE.

Symbol	Label	Qty	Catalog Number	LLF	Watts
	Α	6	VTS-E04-LED-E1-T4	0.95	194.4
Ů	В	4	VTS-E06-LED-E1-SL4-HSS	0.95	150.5
Ů	С	1	VTS-E04-LED-E1-T4_1	0.95	97.2
Ů	D	1	VTS-E06-LED-E1-5MQ	0.95	150.5
0	E	22	LD6B20D010 EU6B10208040 6LBWH	0.95	20.8
0	F	7	LD6B40D010 EU6B30508035 6LBNH	0.95	41.8
0	G	6	RW404-56L45T5-MD_03	0.95	66.2

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
SITE	+	1.30	3.5	0.4 fc	8.7:1	3.3:1







T: 314.991.9993

ACI Boland Architects St. Louis | Kansas City Licensee's Certificate of Authority Number: Missouri No.: 000958 (Expires: 12.31.2017)

CIVIL CONSULTANT Shafer, Kline & Warren, Inc. 11250 Corporate Avenue Lenexa, Kansas 66219 913.888.7800 State Certificate of Authority #000143

1610 Des Peres Road, Suite 100 St. Louis, Missouri 63131 314.835.0524 State Certificate of Authority #2001010829

MEP/FP CONSULTANT G&W Engineering Corporation 138 Weldon Parkway Maryland Heights, Missouri 63043 314.737.4200 State Certificate of Authority #2002018767

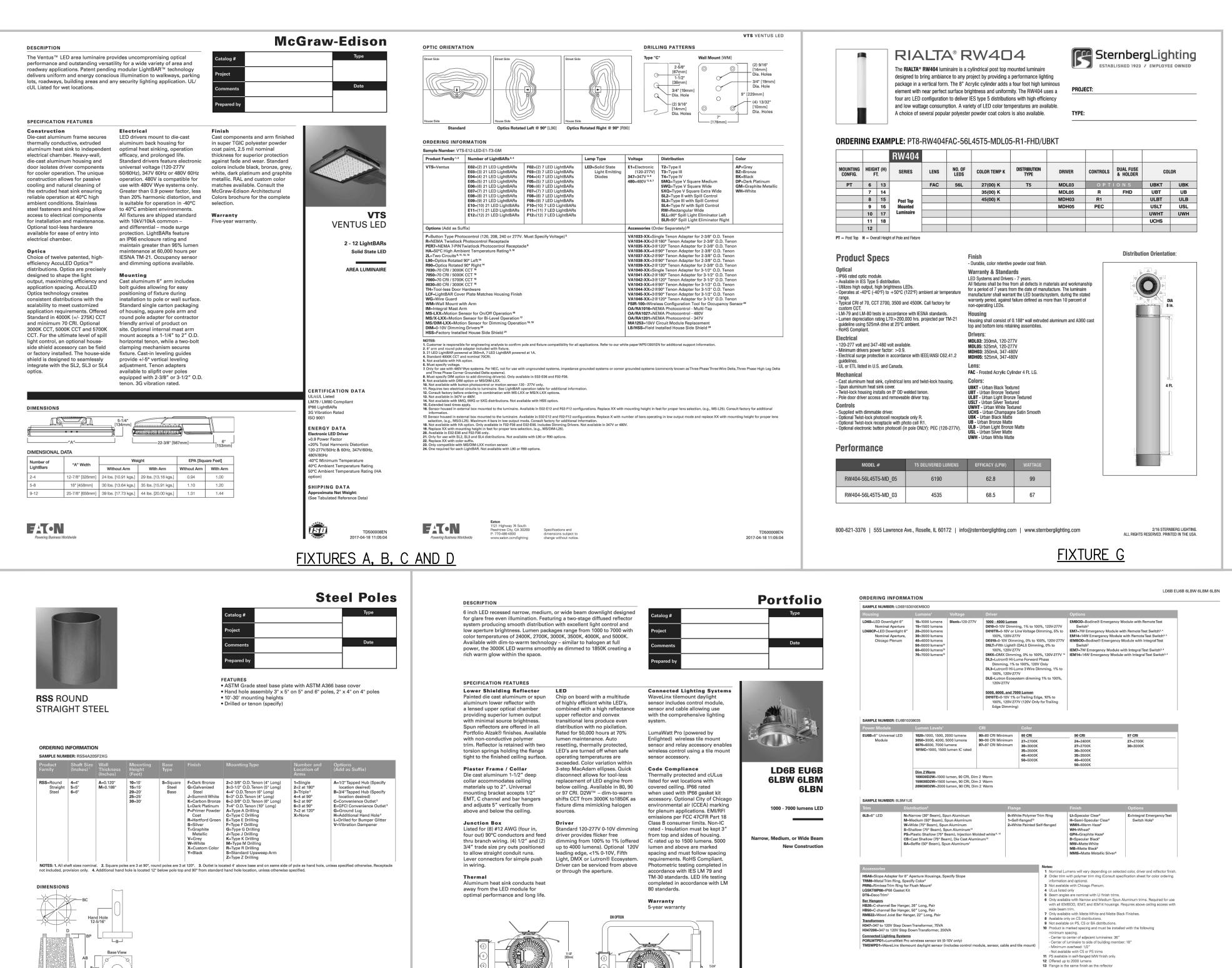
urgical

170534-010

10/27/17

Description
NEW SHEET

LIGHTING PLAN



1000-2000 LUMENS 3000-5000 LUMENS 6000-7000 LUMENS 5-15/16" [151mm] 5-15/16" [151mm] 7-11/16" [195mm]

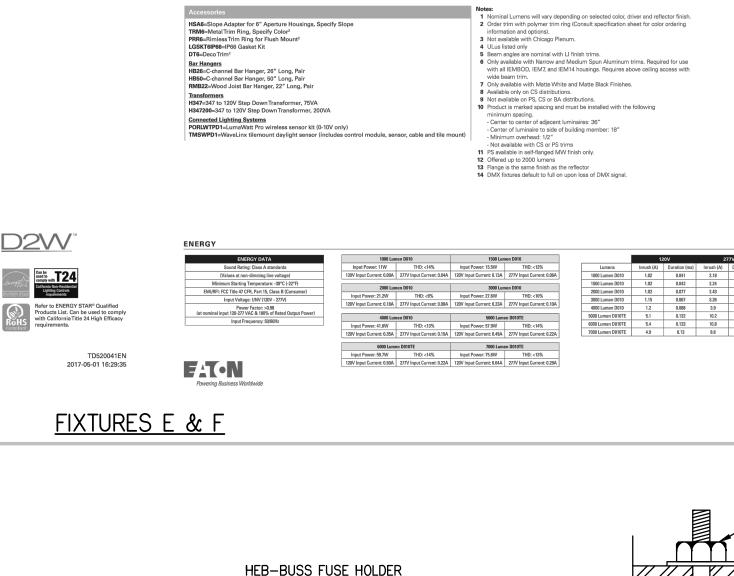
5-7/8" [149mm] 5-7/8" [149mm] 7-5/8" [194mm 5-1/2" [140mm] 5-1/2" [140mm] 6-13/16" [173mm]

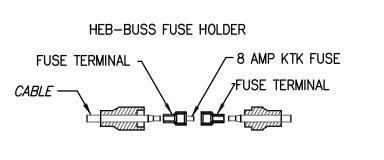
5-1/2" [140mm] NA NA

FATON

FATON

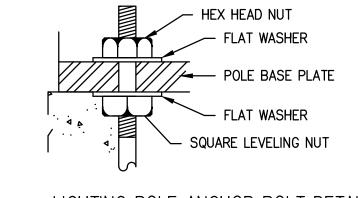
25' POLE





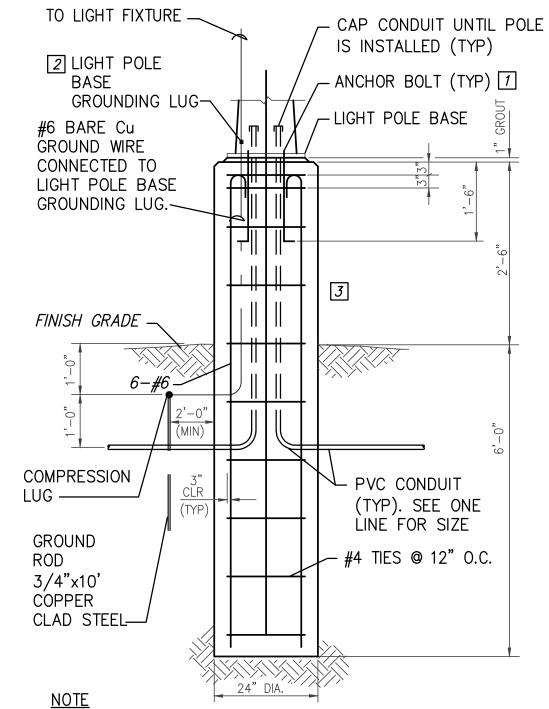
LINE SIDE HOUSING LOAD SIDE HOUSING

> FUSED CONNECTOR NO SCALE



LIGHTING POLE ANCHOR BOLT DETAIL NO SCALE

<u>TRENCHING IN UNPAVED AREAS</u>

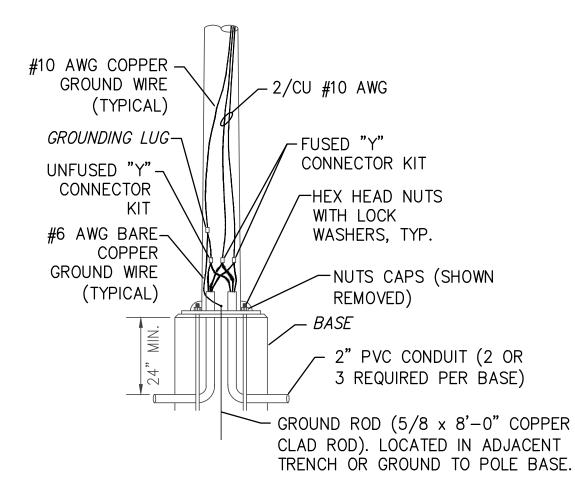


1 ANCHOR BOLTS SHALL BE DESIGNED AND FURNISHED BY THE LIGHT POLE MANUFACTURER. ANCHOR BOLTS PROVIDED SHALL BE GALVANIZED.

2 BOND INCOMING EQUIPMENT GROUNDING CONDUCTOR TO LIGHT POLE BASE GROUNDING LUG.

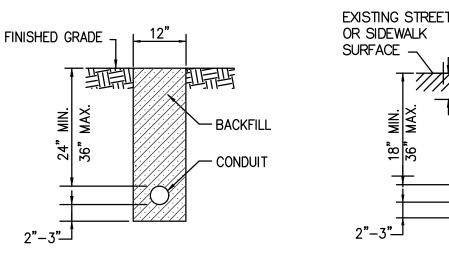
3 ALL CONCRETE POLE BASES SHALL BE CONSOLIDATED BY AN INTERNAL TYPE VIBRATOR.

PARKING LOT LIGHTING POLE EXTENDED CONCRETE BASE DETAIL NO SCALE



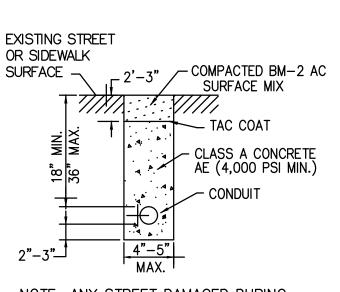
CONTRACTOR SHALL REFER TO UTILITY NOTE (ON PLAN) WHEN INSTALLING LIGHT PEDESTAL IN VICINITY OF UTILITIES.

POLE TO BASE CONNECTIONS NO SCALE



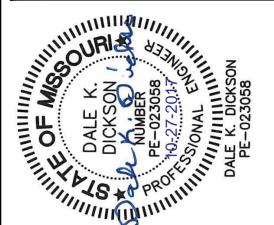
NOTE: BACKFILL IN UNPAVED AREAS SHALL BE FREE OF RUBBLE AND ROCK. CONDUITS SHALL BE PITCHED TO DRAIN.

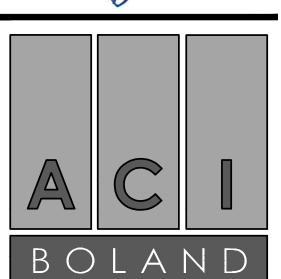
NO SCALE



NOTE: ANY STREET DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IN ACCORDANCE WITH CITY OF LEES SUMMIT PARK PUBLIC WORKS STANDARDS.

TRENCHING IN PAVED AREAS NO SCALE





ARCHITECTS 17107 Chesterfield Airport Road | Suite 110 Chesterfield, Missouri 63005 T: 314.991.9993

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MEP/FP CONSULTANT **G&W** Engineering Corporation 138 Weldon Parkway Maryland Heights, Missouri 63043 314.737.4200 State Certificate of Authority #2002018767

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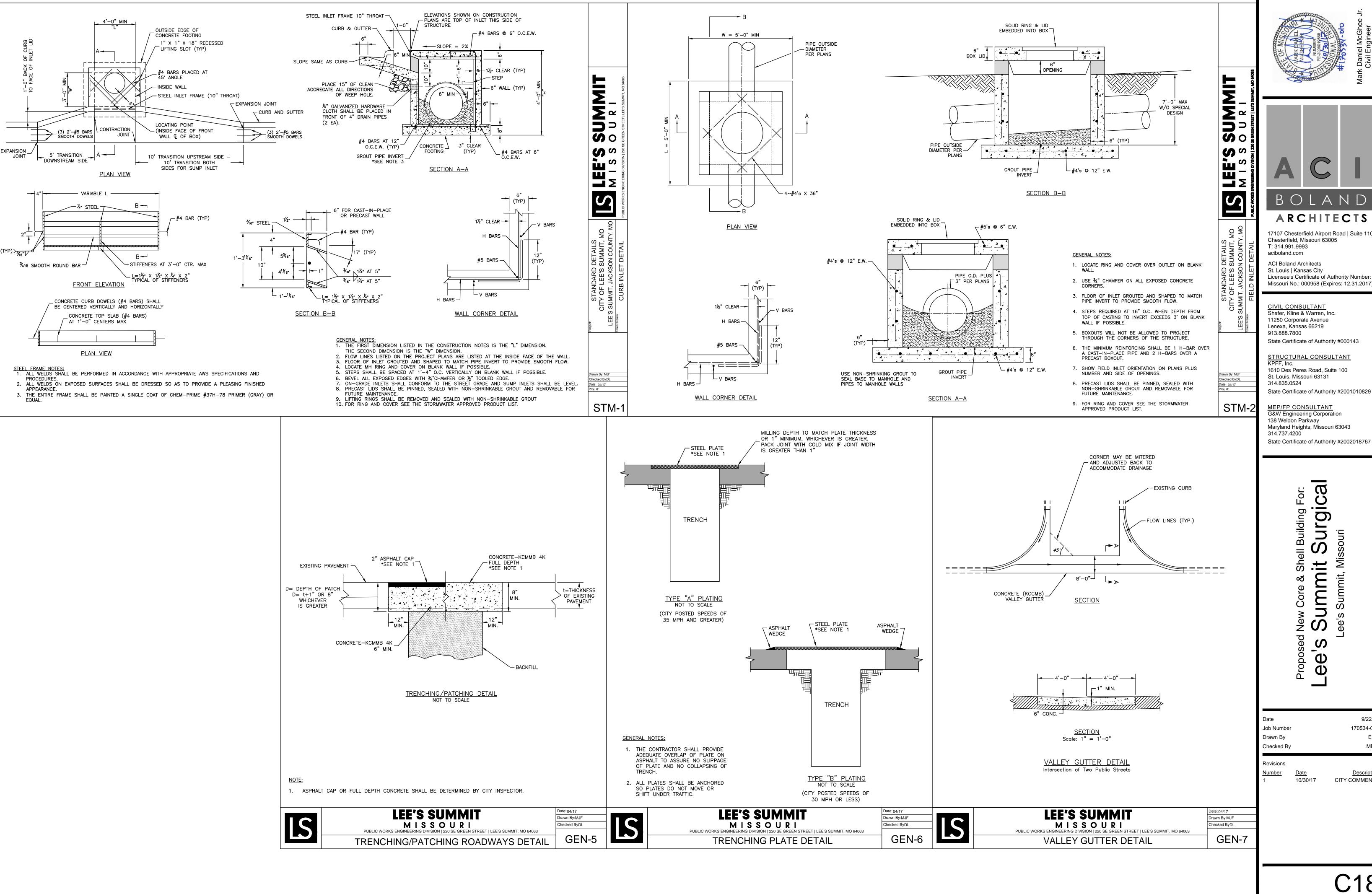
9/22/17 Job Numbe 170534-010 ELM Drawn By MDM Checked By Revisions <u>Number</u> <u>Date</u> <u>Description</u>

10/27/17

NEW SHEET

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LIGHTING DETAILS





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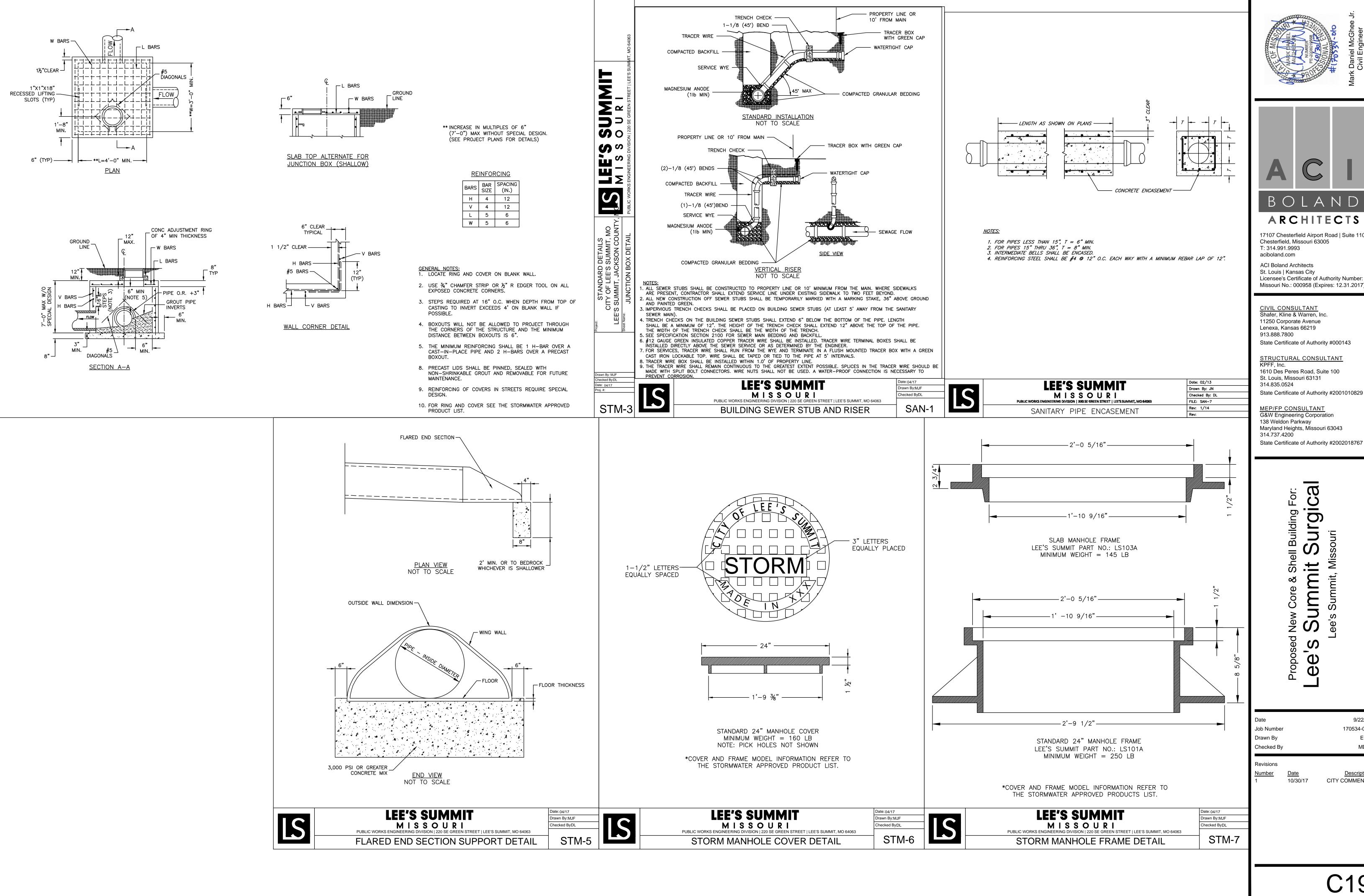
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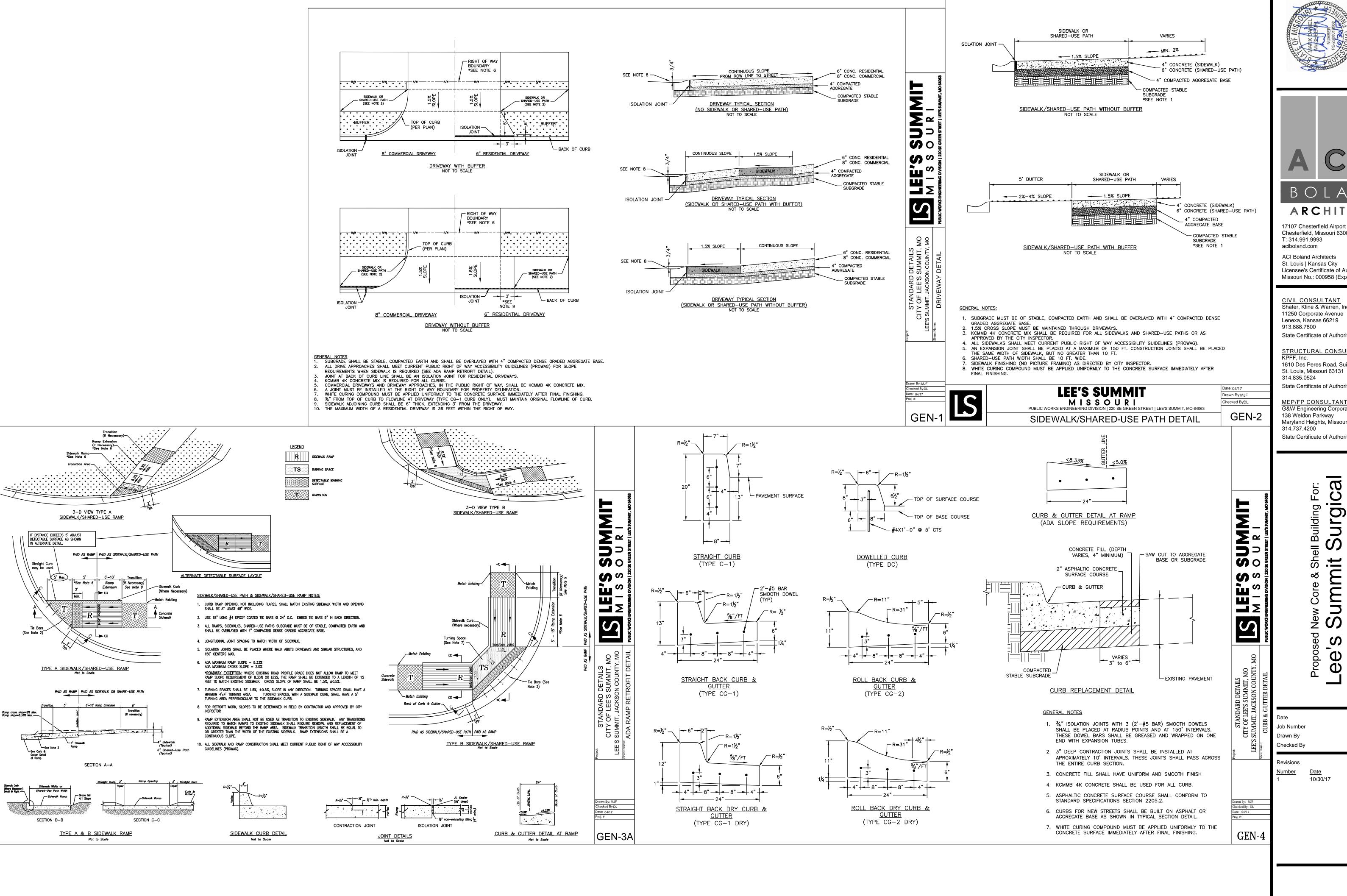
surgica

9/22/17 170534-010 ELM

10/30/17

<u>Description</u> CITY COMMENTS

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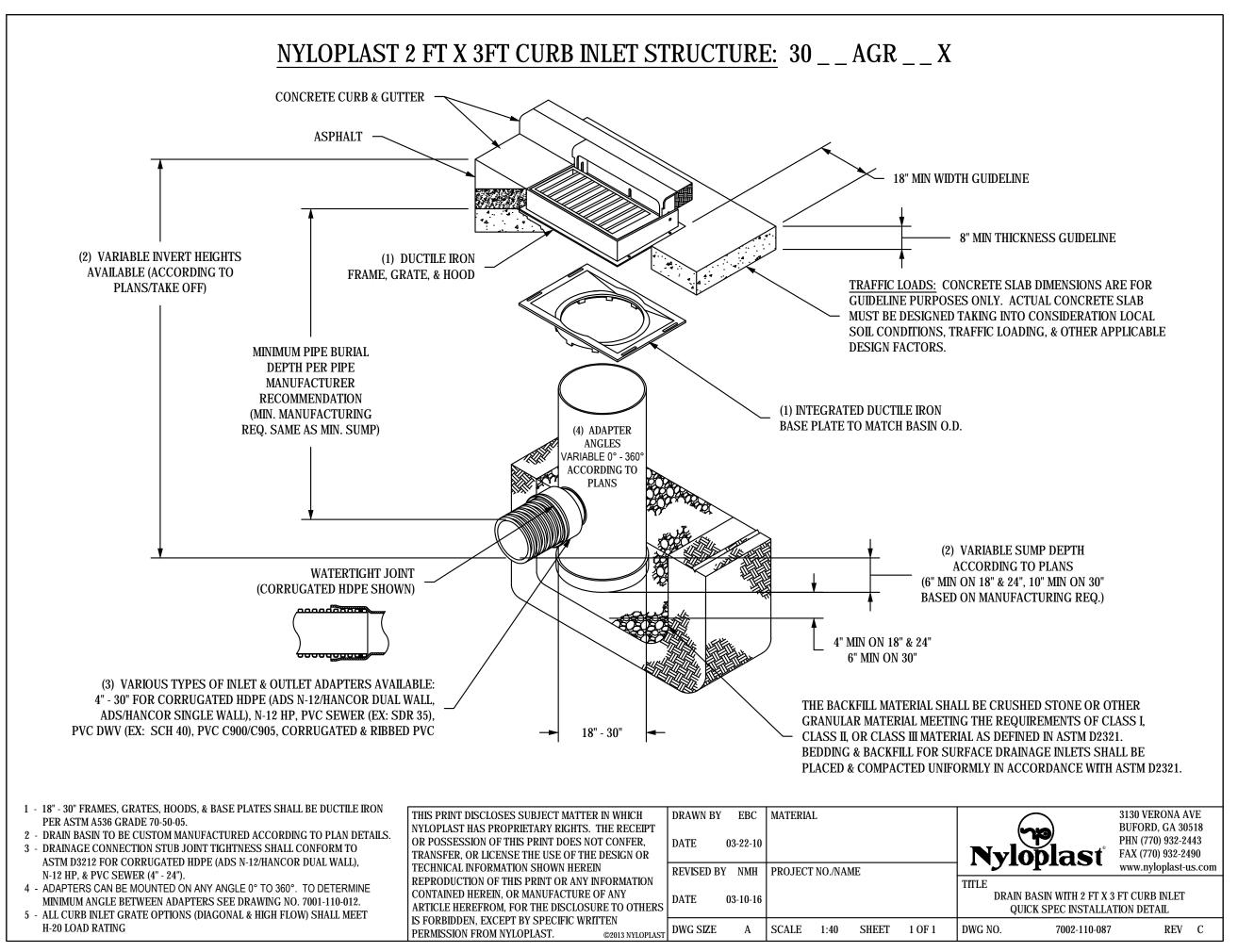
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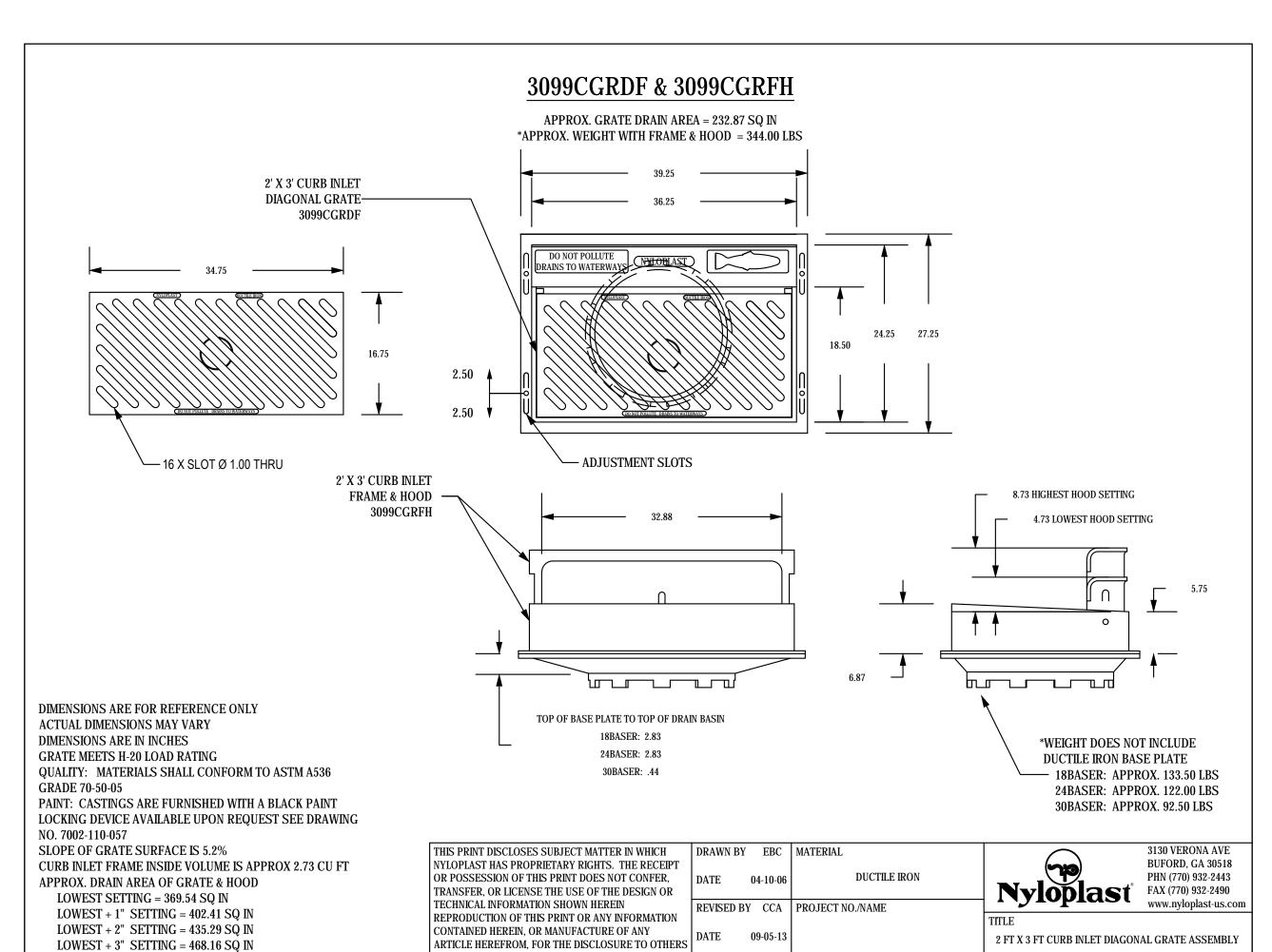
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CITY COMMENTS

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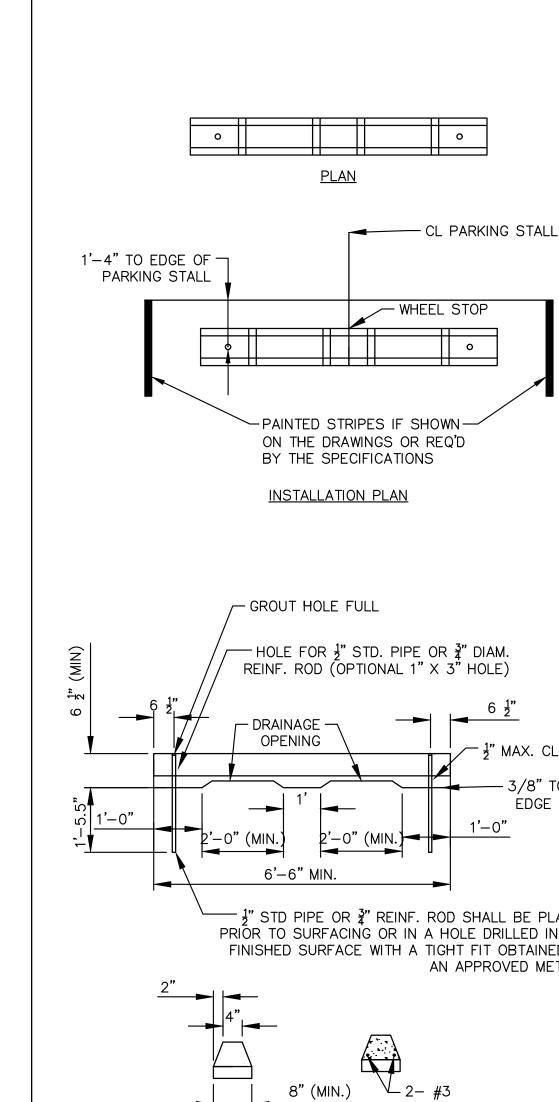




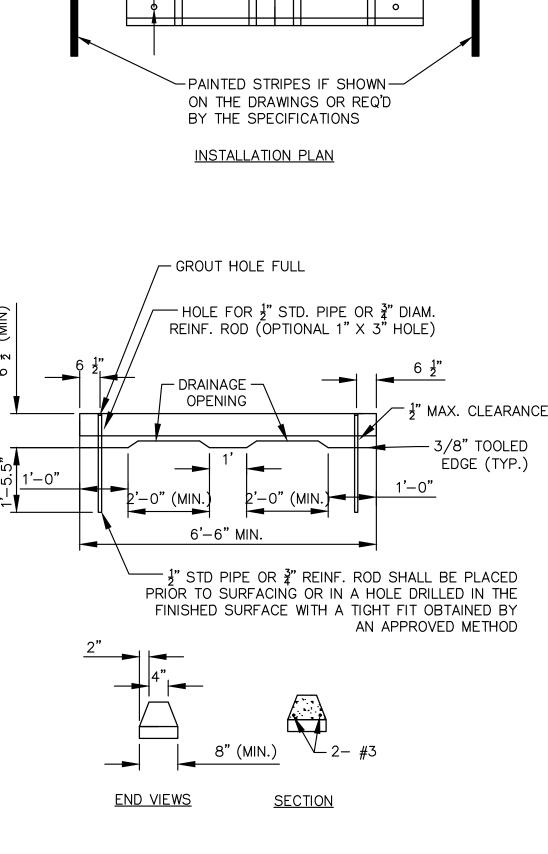
©2013 NYLOPIAST DWG SIZE A SCALE 1:16 SHEET 1 OF 1 DWG NO.

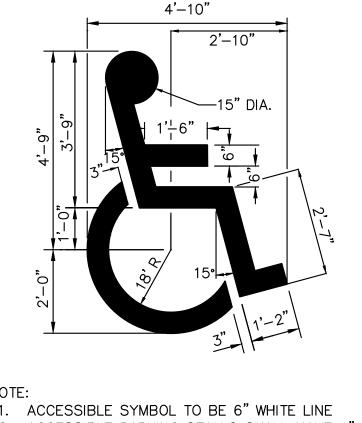
IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN

HIGHEST SETTING = 501.04 SQ IN



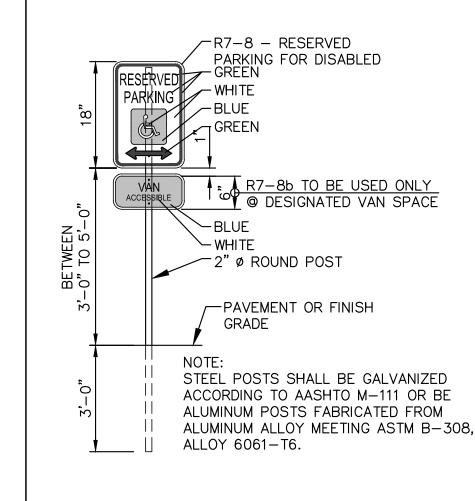
PRECAST CONCRETE WHEEL STOP DETAIL



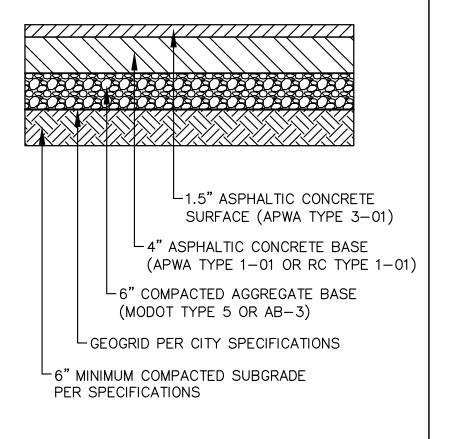


1. ACCESSIBLE SYMBOL TO BE 6" WHITE LINE 2. ACCESSIBLE PARKING STALLS SHALL HAVE 4" SOLID BLUE LINES FOR STALL LINES, AND ACCESS AISLES.

ACCESSIBLE PARKING SYMBOL

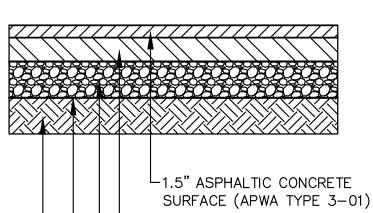


ACCESSIBLE PARKING SIGN



MINIMUM CITY PAVEMENT SECTION IS SHOWN. ALTERNATE EQUIVALENT PAVEMENT SECTION, PER GEOTECHNICAL ENGINEER, MAY BE SUBMITTED FOR CITY APPROVAL.

LIGHT DUTY ASPHALT PAVEMENT DETAIL



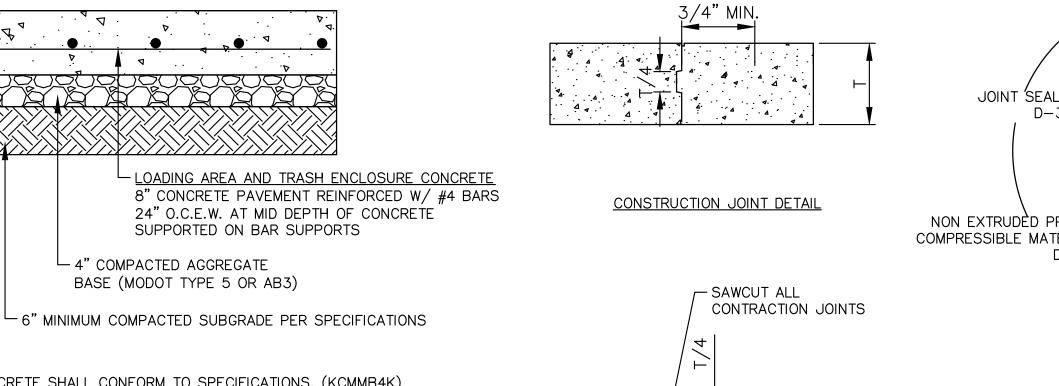
L5" ASPHALTIC CONCRETE BASE (APWA TYPE 1-01 OR RC TYPE 1-01) 6" COMPACTED AGGREGATE BASE (MODOT TYPE 5 OR AB-3)

GEOGRID PER CITY SPECIFICATIONS

6" MINIMUM COMPACTED SUBGRADE PER SPECIFICATIONS

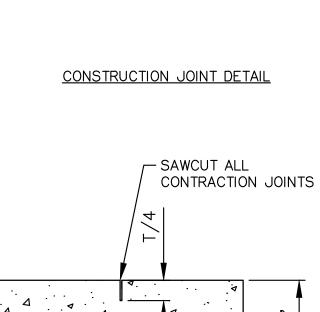
MINIMUM CITY PAVEMENT SECTION IS SHOWN. ALTERNATE EQUIVALENT PAVEMENT SECTION, PER GEOTECHNICAL ENGINEER, MAY BE SUBMITTED FOR CITY APPROVAL.

HEAVY DUTY ASPHALT PAVEMENT DETAIL

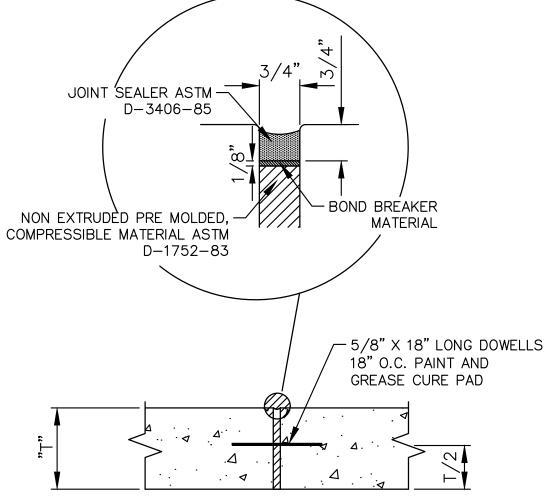


1. CONCRETE SHALL CONFORM TO SPECIFICATIONS. (KCMMB4K)

- 2. ALL IRREGULAR SLABS AND RECTANGULAR SLABS EXCEEDING LENGTH TO WIDTH RATIO OF 1.25 SHALL BE ADDITIONALLY REINFORCED WITH 6" X 6" W2.9WWF.
- 3. CONTROL JOINTS SHALL BE PLACED PER THE PLAN DRAWINGS. IF CONTRACTOR WISHES TO ADJUST THE JOINT LAYOUT, THEY SHALL SUBMIT IN WRITING FOR ENGINEER REVIEW/APPROVAL, PRIOR TO CONSTRUCTION.
- 4. SAWCUT ALL CONTROL JOINTS.
- 5. ALL JOINTS SHALL BE SEALED WITH VULCAN 45 OR DOW CORNING 888 SILICONE JOINT SEALANT.



CONTROL JOINT DETAIL



EXPANSION JOINT DETAIL

FULL DEPTH CONCRETE PAVEMENT DETAILS



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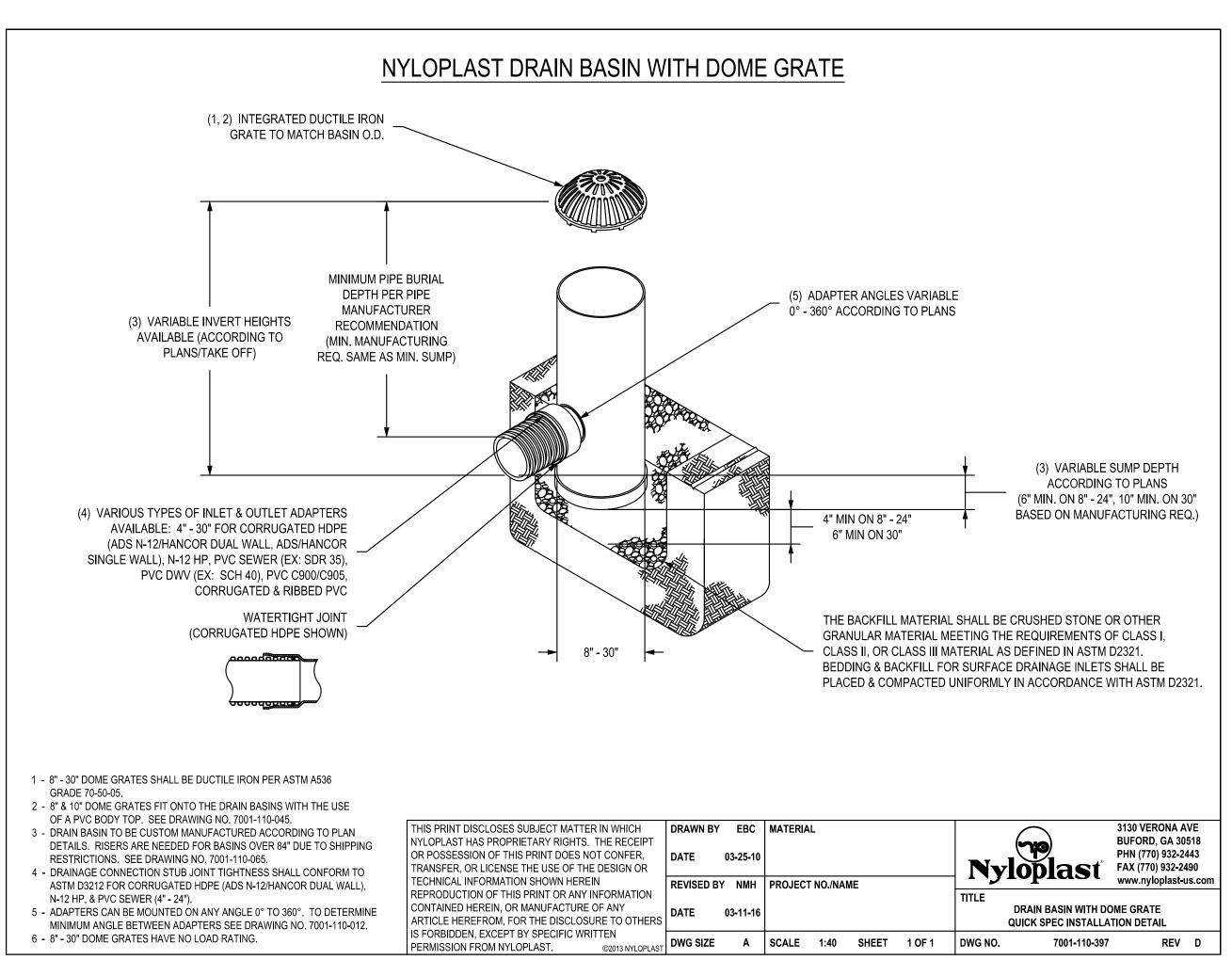
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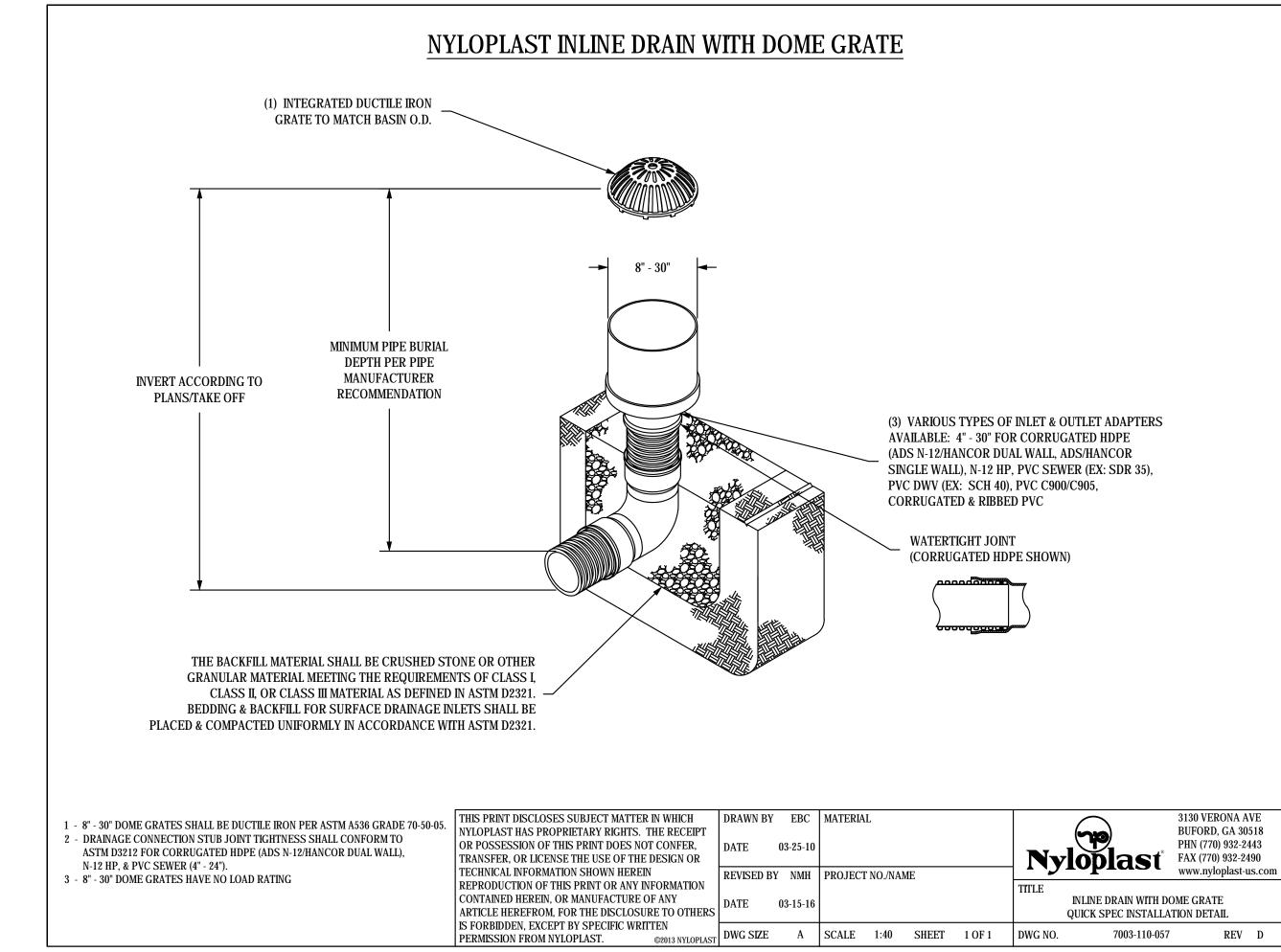
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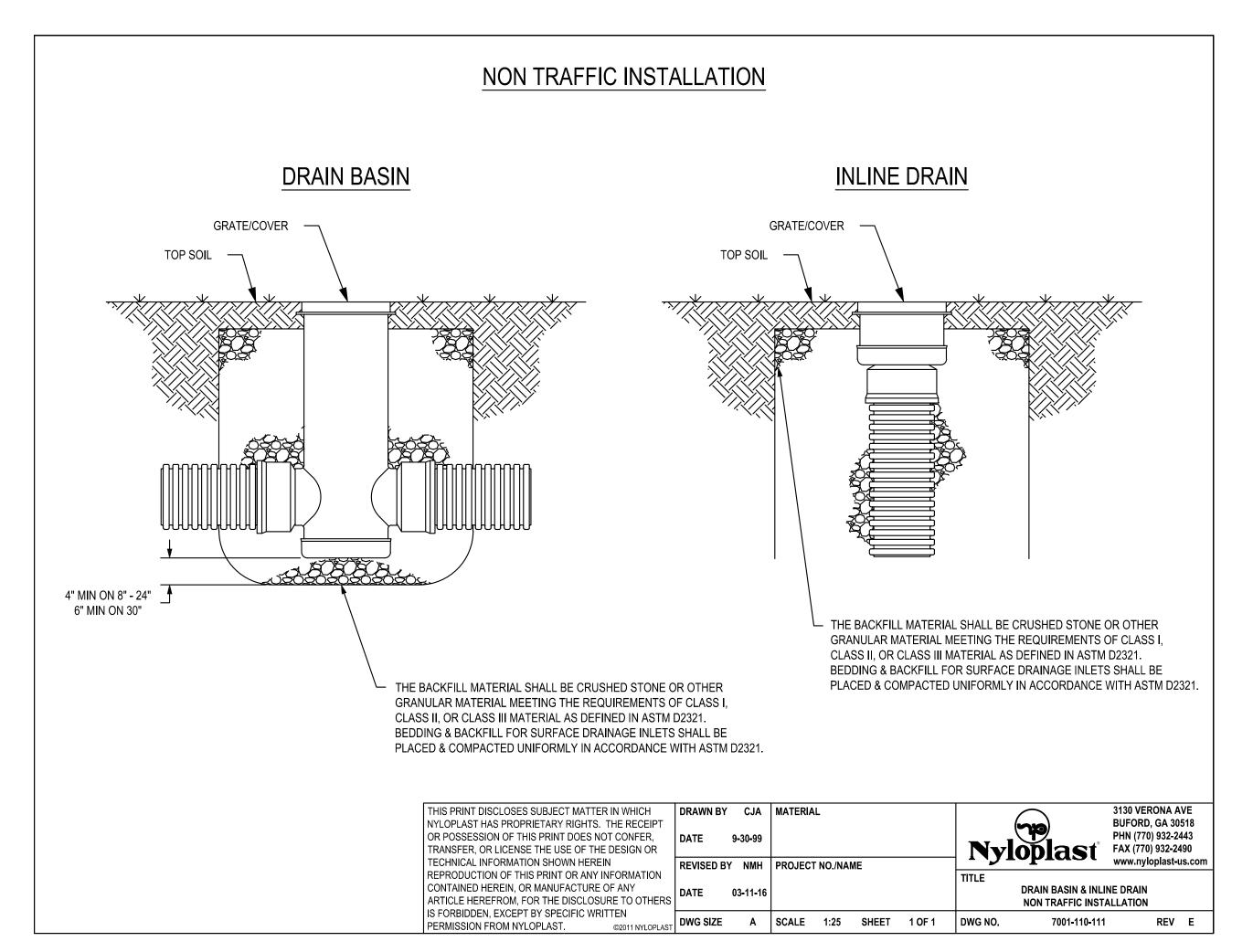
Description CITY COMMENTS 10/30/17

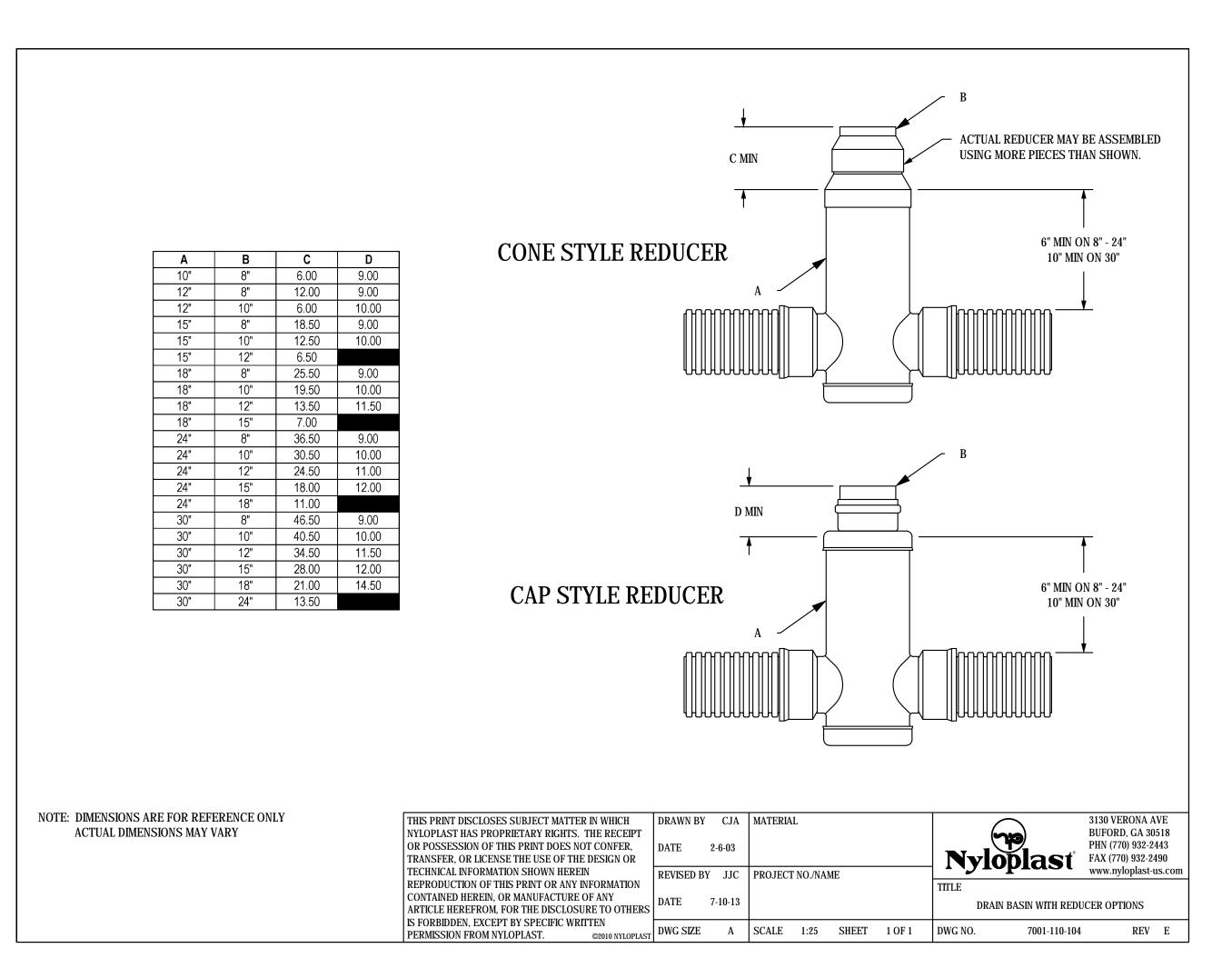
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DETAILS 4













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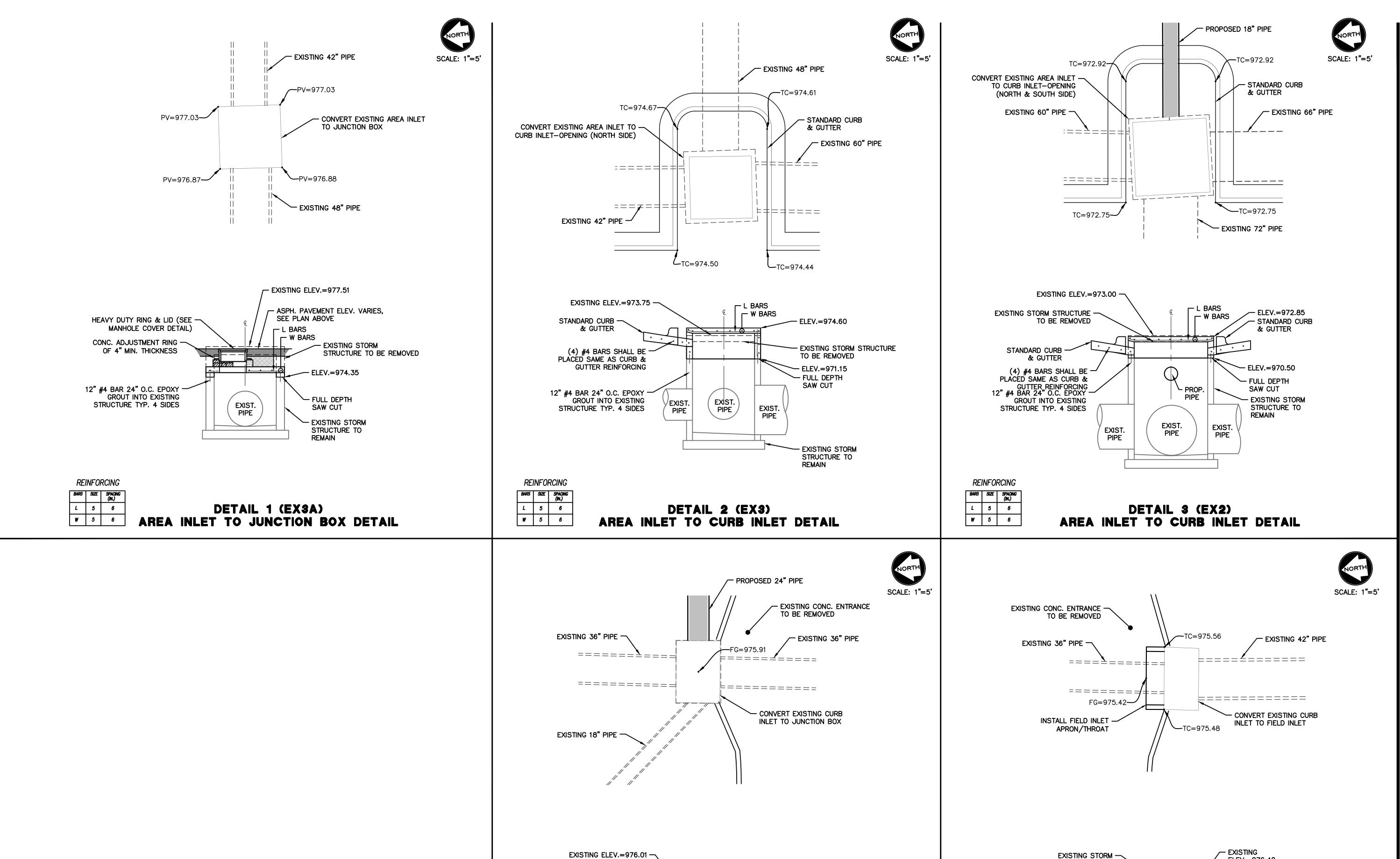
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DETAILS 5

CITY COMMENTS



─ ELEV.=975.91

- L BARS

EXIST.

- PROP.

DETAIL 4 (EX1)

CURB INLET TO JUNCTION BOX DETAIL

EXIST.

PIPE

- W BARS

EXISTING STORM

STRUCTURE TO

BE REMOVED

- ELEV.=972.75

EXISTING STORM

STRUCTURE TO

REINFORCING

L 5 6 W 5 6

- FULL DEPTH

SAW CUT

REMAIN

HEAVY DUTY RING & LID (SEE -

CONC. ADJUSTMENT RING

12" #4 BAR 24" O.C. EPOXY -GROUT INTO EXISTING

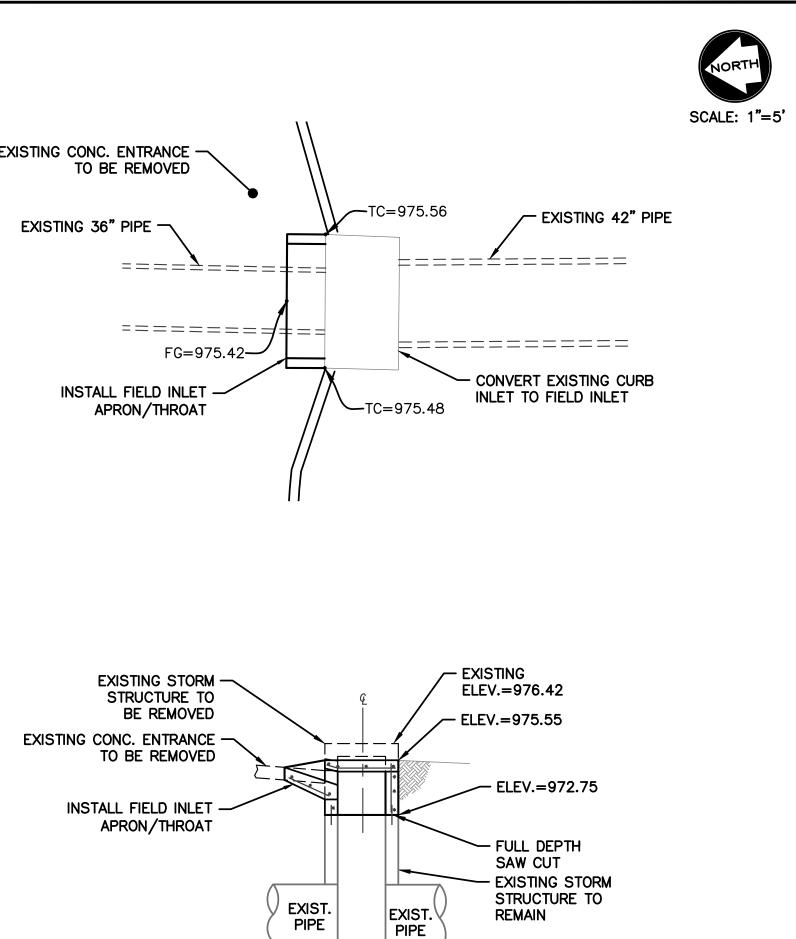
REINFORCING

W 5 6

STRUCTURE TYP. 4 SIDES

MANHOLE COVER DETAIL)

OF 4" MIN. THICKNESS



DETAIL 5 (EX4) CURB INLET TO FIELD INLET DETAIL





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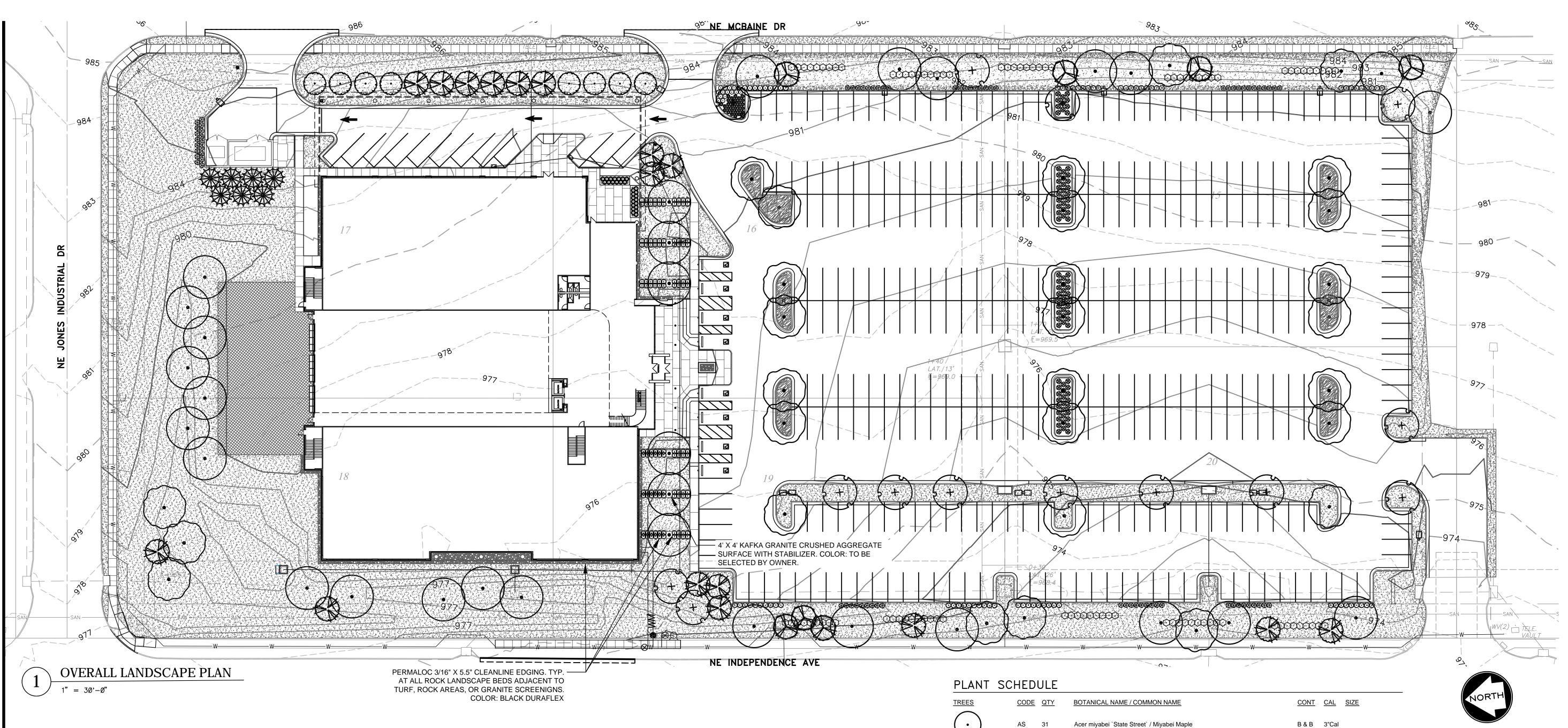
Surgica Summit _ \(\mathcal{O} \)

Date	9/22/17
Job Number	170534-010
Drawn By	ELM
Checked By	MDM

Revisions 10/30/17

CITY COMMENTS

STRUCTURE MODIFICATION DETAILS



LANDSCAPE PLAN NOTES: 1. EXISTING UNDERGROUND (U/G), OVERHEAD (O.H.) UTILITIES AND DRAINAGE STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTORS TO VERIFY EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE STARTING ANY WORK. 2. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL GIVE 72 HOURS ADVANCED NOTICE TO ALL THOSE COMPANIES/UTILITIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF

3. CONTRACTOR SHALL VERIFY ALL LANDSCAPE MATERIAL QUANTITIES AND SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.

4. CONTRACTOR SHALL STAKE/LAYOUT PLANT LOCATIONS IN THE FIELD & HAVE APPROVAL BY LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH INSTALLATION. 5. NO SUBSTITUTIONS (INCL. CULTIVARS) SHALL BE ACCEPTED WITHOUT WRITTEN APPROVAL PER SPECIFICATIONS. PROPOSED PLANT SUBSTITUTIONS REQUIRE APPROVAL OF THE LANDSCAPE

ARCHITECT, CITY OF OVERLAND PARK, KS & THE OWNER'S REPRESENTATIVE. 6. ALL PLANT MATERIAL SHALL BE OF EXCELLENT QUALITY. FREE OF DISEASE & INFESTATION-TRUE TO TYPE, VARIETY, SIZE SPECIFIED, & FORM PER ANSA STANDARDS. 7. ALL PROPOSED TREES AND SHRUBS SHALL BE LAID OUT IN A UNIFORM AND CONSISTENT

PATTERN, FOLLOWING THE LANDSCAPE PLAN ACCURATELY. INSTALL ALL PLANTS PER PLANTING 8. ALL TREES & MULCH BEDS (UNLESS ROCK MULCH) SHALL RECEIVE 3" MIN. OF SHREDDED

AFTER MULCHING FROM MARCH 1 TO OCTOBER 1. IF WINTER INSTALLATION, RETURN NEXT SPRING & INSTALL PREEN/SNAPSHOT WITH NEW MULCH. 9. ROCK MULCH SHALL BE 3"-5" BLACK MEXICAN BEACH PEBBLES FROM STRUGIS OUTDOORS

DARK PREMIUM HARDWOOD MULCH, AS DETAILED. ADD PREEN OR SNAPSHOT TO BEDS BEFORE &

OR APPROVED EQUAL . PLACE OVER PIN WEED BARRIER FABRIC TO 8" IN DEPTH. ELEVATION OF TOP OF ROCK SHALL BE 1/4" BELOW ANY ADJACENT PAVEMENT.

10. TREE TIES SHALL BE DEWITT 20" STRAPS FOR TREE STAKING. USE 10 GAUGE ELECTRIC

WIRE. TREES AND STAKES SHALL BE STRAIGHT, PLUMB AND TAUT, TREE STAKES TO BE REMOVED WINTER OF YEAR 2 AFTER INSTALLATION. 11. CONTRACTOR SHALL THOROUGHLY WATER-IN EACH PLANT IMMEDIATELY FOLLOWING

INSTALLATION AND CONTINUE WATERING UNTIL SUBSTANTIAL COMPLETION. CONTRACTOR REQUIRED TO COORDINATE WATERING WITH THE OWNER AFTER SUBSTANTIAL COMPLETION. PROVIDE HOURLY RATE TO WATER THE SITE, IF IRRIGATION NOT INSTALLED OR NOT WORKING. 12. ALL AREAS OF THE SITE DISTURBED DURING CONSTRUCTION THAT ARE NOT DESIGNATED AS BEDS / PAVEMENT AREAS SHALL BE SODDED WITH 90% TURF-TYPE TALL FESCUE AND 10%

BLUEGRASS MIX SOD (NATURE'S CARPET - L.C. BRIGGS TURF FARM. CAPEN BRIGGS 816.547.6214 OR EQUAL). 13. CONTRACTOR SHALL BE RESPONSIBLE FOR CALCULATING ALL AREAS OF SOD, ROCK &

MULCH AND THE AMOUNTS OF EACH NEEDED FOR OPTIMUM COVERAGE. 14. NO TREES SHALL BE PLANTED OVER TOP OF ANY UTILITY LINES OR PIPES. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO PLANTING AND ANY MODIFICATIONS TO TREE

15. ALL PLANT MATERIALS AND IRRIGATION SYSTEM SHALL BE GUARANTEED FOR 1 YEAR FROM DATE OF SUBSTANTIAL COMPLETION. PLANT MATERIALS WILL BE ONE TIME REPLACEMENT AND RECORDS KEPT BY THE LANDSCAPE CONTRACTOR FOR ALL REPLACEMENTS.

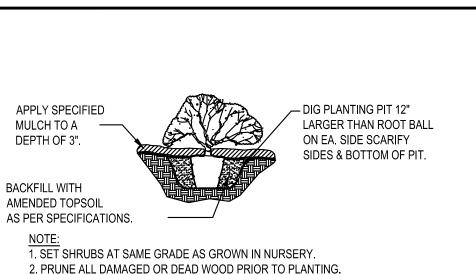
LOCATIONS SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT AND APPROVED BY THE

16. THIS LANDSCAPE PLAN IS DESIGNED TO BE IN CONFORMANCE WITH THE CITY OF LEE'S SUMMIT, MO UNIFIED DEVELOMENT ORDINANCE. THE LANDSCAPE ARCHITECT WILL COORDINATE CLOSELY WITH THE CITY OF LEE'S SUMMIT, MO TO MAKE SURE FINAL DEVELOPMENT AND PERMIT PLANS ARE IN CONFORMANCE WITH THIS CODE.

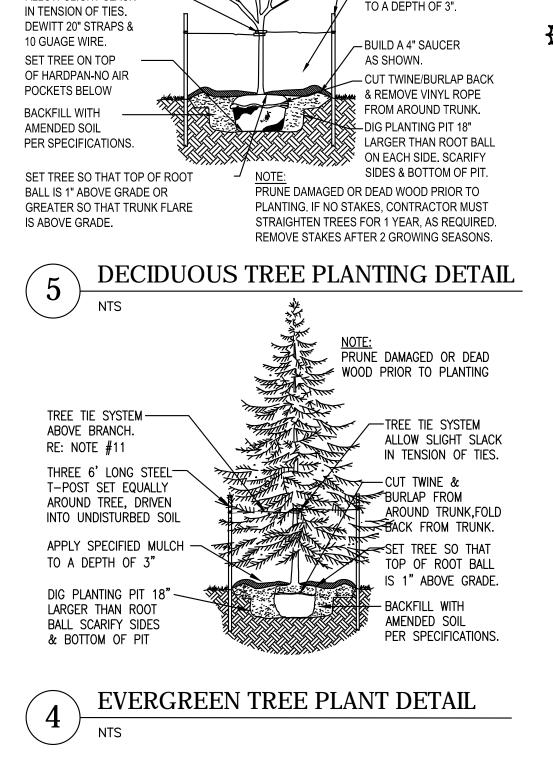
LANDSCAPE NOTES

CITY PRIOR TO PLANTING.

PER THE LEE'S SUMMIT UDO	-ARTICLE 1	4:	
STREET PLANTINGS -			
STREET FRONTAGE	LENGTH	REQUIRED	PROVIDED
NE INDEPENDENCE AVE.	781 LF	ONE TREE PER 30 LF FRONTAGE (26 TREES) ONE SHRUB PER 20 LF FRONTAGE (39 SHRUBS)	26 NEW TREES 39 NEW SHRUB
NE JONES INDUSTRIAL DR.	340 LF	ONE TREE PER 30 LF FRONTAGE (11 TREES) ONE SHRUB PER 20 LF FRONTAGE (17 SHRUBS)	11 NEW TREES 17 NEW SHRUB
NE McBAINE DR.	781 LF	ONE TREE PER 30 LF FRONTAGE (26 TREES) ONE SHRUB PER 20 LF FRONTAGE (39 SHRUBS)	26 NEW TREES 39 NEW SHRUE
OPEN SPACE AREA:		1 TREE PER 5,000 SF OF LOT AREA NOT COVERED BY BUILDINGS/STRU 223,374 SF OPEN SPACE AREA = 45 TREES REQUIRED/50 TI	
		2 SHRUBS PER 5,000 SF OF LOT AREA NOT COVERED BY BUILDINGS/S 223,374 SF OPEN SPACE AREA = 89 SHRUBS REQUIRED/428	
PARKING LOT ISLANDS:		5% OF TOTAL PARKING AREA TO BE LANDSCAPE ISLANDS (123,305 TOT 6,165 REQUIRED SF LANDSCAPE ISLANDS/6,414 PROVIDED SF	•



SHRUB & PERENNIAL PLANTING DETAIL



-DO NOT ALLOW AIR POCKETS

TO FORM @ BACKFILLING

-IMMEDIATELY SOAK TREE

WITH ADEQUATE WATER

-NO BROKEN ROOTBALL

ALLOW SLIGHT SLACK

TREE TIE SYSTEM

IS ALLOWED.

-TWO 6' LONG STEEL

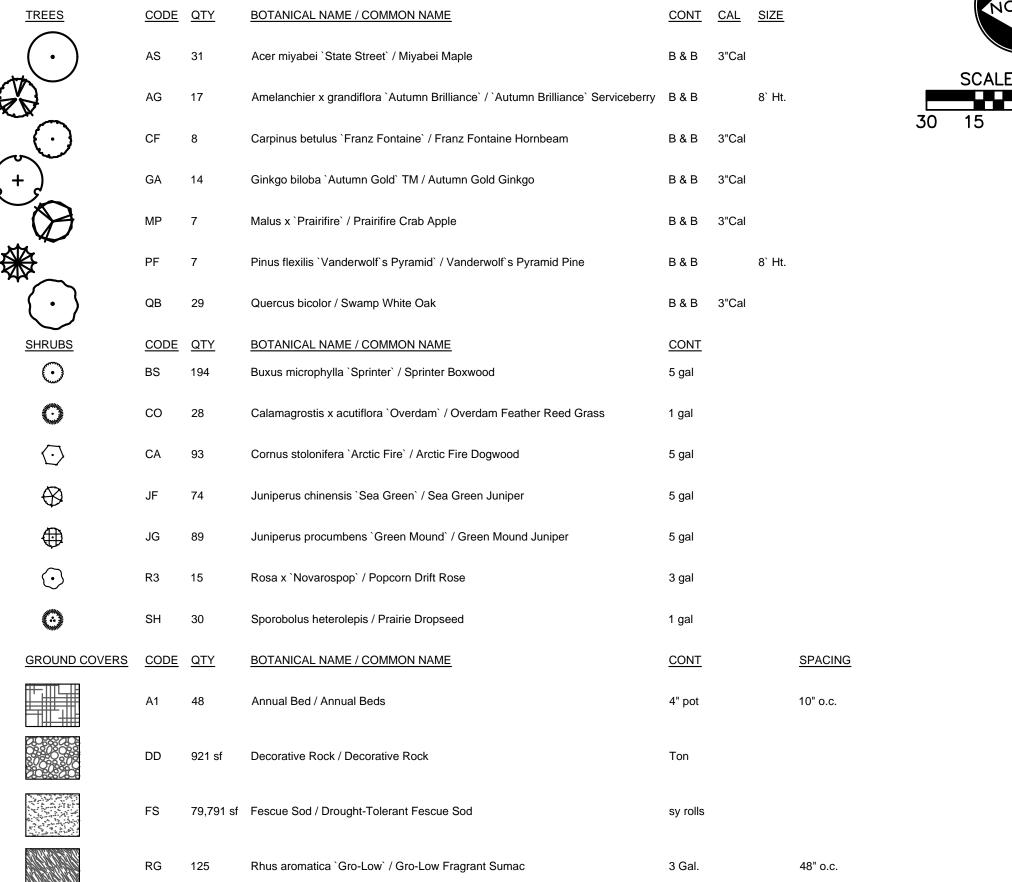
T-POST SET NORTH &

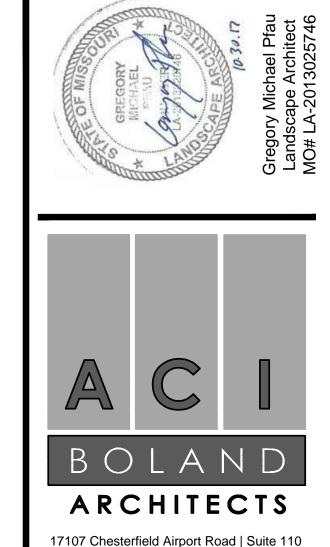
SOUTH OF TREE OR

UNDISTURBED SOIL.

PARALLEL TO ROAD INTO

- APPLY SPECIFIED MULCH





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LANDSCAPE PLAN

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PLANT SCHEDULE