PLAN SET DATE 08/29/2019

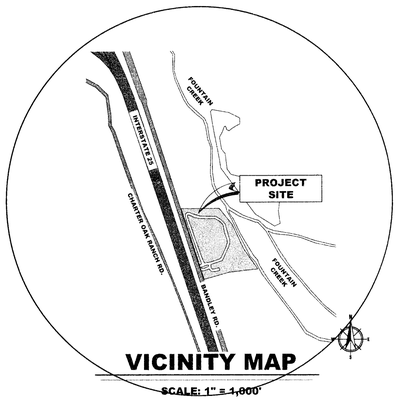
SITE DEVELOPMENT PLANS

FOR

KOA EXPANSION PHASE 1

8100 BANDLEY

FOUNTAIN, TEXAS



VICINITY MAP

SCALE: 1" = 1,800'

M3 ENGINEERING

IMAGINE | DESIGN | BUILD

2900 SOUTH CONGRESS, SUITE 203
AUSTIN, TEXAS 78704
PH: 512.820.3265

WWW.M3ENGINEERING.COM

SHEET INDEX

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CONTACTS

OWNER:
GREAT ESCAPES AT COLORADO SPRINGS, LTD.
2539 S. GESSNER ROAD, SUITE 13
HOUSTON, TEXAS 77063

ATTN:RICKY JENKINS

ENGINEER:
M3 ENGINEERING
2900 S CONGRESS, SUITE 203
AUSTIN, TEXAS 78704

TROY MOORE, PE
512.820.3265

DEVELOPER:
THE JENKINS ORGANIZATION
2900 S. CONGRESS AVE, SUITE 204
AUSTIN, TEXAS 78704

RICKY JENKINS
512.448.9551

SURVEYOR:
LWA LAND SURVEYING, INC
953 E. FILLMORE STREET
COLORADO SPRINGS, COLORADO SPRINGS CO 80907

KEVIN O'LEARY, RLS
719-636-5179

LANDSCAPE ARCHITECT:
NATURAL DESIGN SOLUTIONS
5539 COLT DRIVE
LONGMONT, COLORADO 80503

TBD, RLA
303-443-0388

SUBMITTED BY:

COLORADO REGISTERED
TROY L. MOORE III
54971
EXP 10/31/19
PROFESSIONAL ENGINEER

11-20-19

M3 ENGINEERING, LLC

JOB NUMBER 18006

SITE DEVELOPMENT PERMIT PLANS - KOA EXPANSION PHASE 1

XXXXX

ZONING SUMMARY

SETBACK / REGULATION	REQ'D	PROPOSED	NOTES
ZONING:	RC		
PROPOSED USE:	RV PADS		
MIN. LOT SIZE:	40,000	874,685 SF	20.08 AC
FRONT YARD SETBACK:	20 FT	> 10 FT	
SIDE YARD SETBACK:	20 FT	> 10 FT	
REAR YARD SETBACK:	25 FT	--	
MAX BUILDING HEIGHT:	50 FT	NA	
MAX IMPERVIOUS AREA:	80%	188,959 SF ~ 21.6%	SEE NOTE 2
FLOOR AREA RATIO			
FRONT YARD SETBACK:	20 FT	> 10 FT	

UNIT SUMMARY

TYPE	EXISTING	EXPANSION	NOTES
RV SITES	170	15	30 NEW SITES - 15 FOR CABIN RELOCATE
CABINS	39	0	

COVERAGE SUMMARY

SETBACK / REGULATION	EXISTING	EXPANSION	%
BUILDING COVERAGE	10,980	0	1.26
DRIVEWAY & PAVING	144,239	50,070	22.21
PUBLIC STREET RIGHT OF WAY	0	0	0

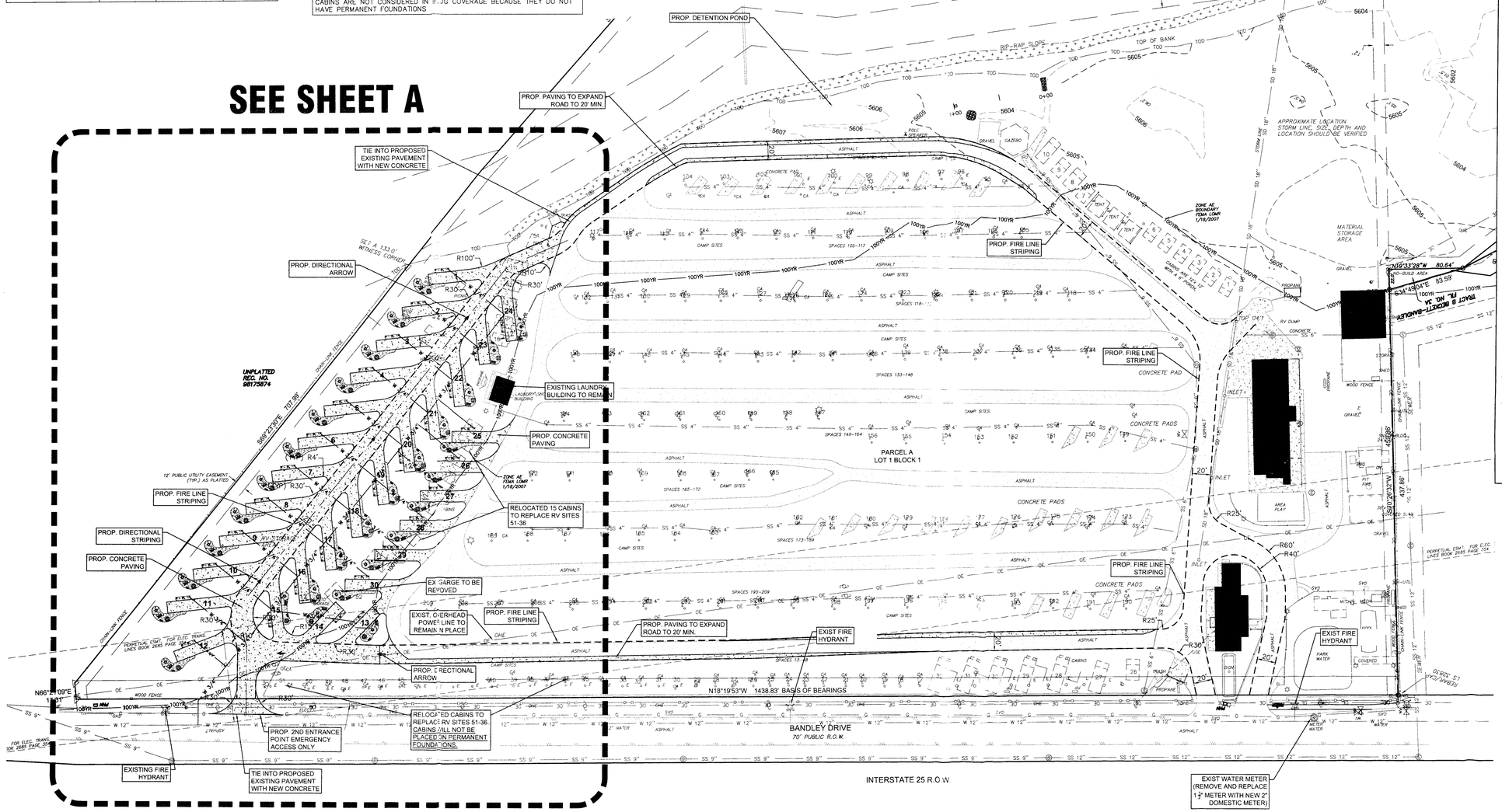
CABINS ARE NOT CONSIDERED IN BLDG COVERAGE BECAUSE THEY DO NOT HAVE PERMANENT FOUNDATIONS

PARKING SUMMARY

TYPE	AREA / UNITS	RATIO	REQ'D PARKING
CONVENIENCE STORAGE	138,000	1: 4000	34.5
VEHICLE STORAGE	102,000	NONE	0
			35
SPACE TYPE	DIMENSION	#	
REGULAR SPACES	9.5'x19'	13	
LARGE SPACES	11'x46'	27	
HC (VAN)	9.5'x19'	2	
	TOTAL	42	

IMPERVIOUS SUMMARY

PHASE	EXISTING	INCREASE / DECREASE	TOTAL
BUILDINGS (FOOTPRINT)	22,360	0	22,360
PAVEMENT	131,219	50,070	181,289
POOL	13,020	0	13,020
TOTAL CUMULATIVE	166,599	50,070	216,669
% IMPREVIOUS CUMMLATIVE	19.0		24.8



GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SURVEY FEATURES
○ IPS		IRON PIN SET
● IPF		IRON PIN FOUND
△ TP		CONTROL POINT
BM		BENCHMARK
ROM		RIGHT OF WAY MARKER
		BEARING & DISTANCE
		SITE
		CURB & GUTTER
		EDGE OF PAVEMENT
		SIDEWALK
		CENTERLINE
		FIRE LANE
		TREELINE
		SIGN
	R @ 9.0'	PRKG. COUNT-REGULAR
	HC @ 9.0'	PRKG. COUNT - HC
	L @ 9.0'	PRKG. COUNT - LARGE
		TRAFFIC FLOW ARROWS
		H/C SYMBOL
		ADA RAMP
		ADA ROUTE
		BICYCLE PARKING
		BOLLARDS
		WHEEL STOPS
		LIGHT POLE
		RETAINING WALL
		FENCE W/ TYPE
		STORM
		STORM PIPE
		GRATE INLET
		CURB INLET
		SANITARY SEWER
		WASTEWATER & MANHOLE
		CLEAN-OUT
		FORCE MAIN
		WATER DISTRIBUTION
		WATER MAIN
		IRRIGATION LINE
		FIRE HYDRANT
		FIRE DEPT. CONNECTION
		METER BOX
		WATER FITTINGS & BENDS
		GATE VALVE & REDUCER
		POWER, GAS, TV
		ELECTRIC
		ELEC. MANHOLE & METER
		TELEPHONE
		TELEPHONE RISER
		CABLE
		CABLE TV RISER
		FIBER OPTIC
		UTILITY POLE & GUY WIRE
		LIGHT POLE
		GAS LINE
		GAS VALVE & METER
975		TREE
975		TREE TO BE REMOVED
		TREE TO BE SAVED

FIRE DEPARTMENT NOTES

1. WHERE THE VERTICAL DISTANCE BETWEEN THE GRADE PLANE AND THE HIGHEST ROOF SURFACE IS 30 FEET OR LESS, FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET, EXCLUSIVE OF SHOULDERS.
2. WHERE THE VERTICAL DISTANCE BETWEEN THE GRADE PLANE AND THE HIGHEST ROOF SURFACE EXCEEDS 30 FEET, FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 26 FEET, EXCLUSIVE OF SHOULDERS, SHALL HAVE A T LEAST TWO MEANS OF FIRE APPARATUS ACCESS FOR EACH STRUCTURE. REFER TO SECTION D105 WITHIN THE IFC 2015 FOR FURTHER DETAIL.
3. BUILDINGS OR FACILITIES HAVING A GROSS BUILDING ARE OF MORE THAN 62,000 SQUARE FEET SHALL BE PROVIDED WITH TWO SEPARATE AND APPROVED FIRE APPARATUS ACCESS ROADS.
4. FIRE APPARATUS ACCESS ROADS SHALL BE ASPHALT, CONCRETE OR OTHER APPROVED DRIVING SURFACE CAPABLE SUPPORTING IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 80,000 POUNDS (34,050 KG) WITH A MINIMUM SINGLE AXLE WEIGHT OF 28,000 POUNDS.
5. DEAD ENDS FIRE APPARATUS ACCESS ROADS IN EXCESS OF 150 FEET SHALL BE PROVIDED WITH WIDTH AND TURNAROUND PROVISIONS IN ACCORDANCE WITH TABLE D103.4 OF THE INTERNATIONAL FIRE CODE 2015
6. TURNING RADIUS FOR FIRE APPARATUS ACCESS ROADS SHALL BE 30 FEET INSIDE AND 50 FEET OUTSIDE.
7. FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 10 PERCENT IN GRADE
8. FIRE APPARATUS ACCESS ROADS ARE A MINIMUM 13 FEET 6 INCHES IN HEIGHT
9. WHERE A GATE IS PROVIDED, THE GATE WIDTH SHALL BE NOT LESS THAN 20 FEET. GATES SHALL BE OF THE SWINGING ELECTRIC GATES SHALL BE EQUIPPED WITH A MEANS OF OPENING THE GATE BY FIRE DEPARTMENT PERSONNEL FOR EMERGENCY ACCESS (KNOX BOX).

WHITE REFLECTIVE LETTERING

6"

NO PARKING FIRE LANE

3/4" 4"

RED BACKGROUND

THE CURB OR EDGE OF THE FIRE APPARATUS ACCESS ROAD SHALL BE MARKED BY PAINTED LINE OF RED TRAFFIC PAINT 6 INCHES IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.

WHERE FIRE LANE SIGNAGE IS NOT USED THE WORDS "NO PARKING FIRE LANE" SHALL APPEAR IN 4 INCH WHITE REFLECTIVE LETTERS AT 30 FEET INTERVALS ON THE RED BORDER MARKING FIRE LANE COMPLYING WITH FIGURE

1/2 **FIRE LINE STRIPING**

N.T.S.

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

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

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FIRM # 18663
www.M3ENGINEERING.COM
CIVIL ENGINEERING | BUILDING DESIGN CONSTRUCTION MANAGEMENT

THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME
KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

LEGAL DESCRIPTION:LOT 1, BLOCK 1, BONAZANA FIL 02

PROJECT NUMBER
18006

DRAWING FILE
18006-SITE.DWG

SCALE 1" = 60'
60 0 30 60

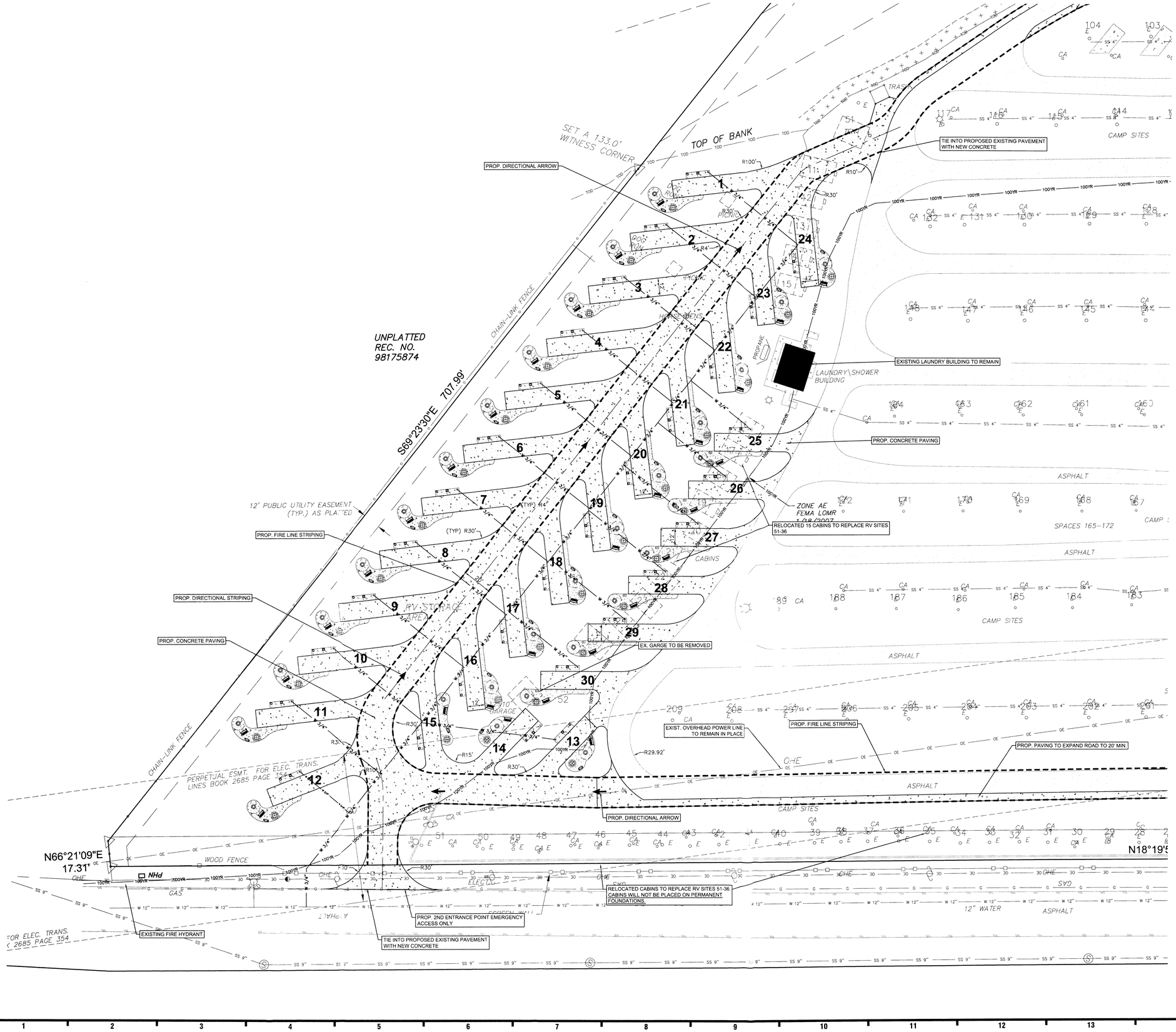
PROFESSIONAL SEAL
COLORADO REGISTERED TROY L. MOORE III 54971 EXP 10/31/20 PROFESSIONAL ENGINEER
11-20-19

PROJECT STATUS
SUBMITTAL 1

SHEET TITLE
MASTER SITE PLAN

SHEET NUMBER
2 of 8

XXXXX



GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SURVEY FEATURES
○ IPS		IRON PIN SET
● IPF		IRON PIN FOUND
△ TP		CONTROL POINT
BM		BENCHMARK
ROM		RIGHT OF WAY MARKER
		BEARING & DISTANCE
		SITE
		CURB & GUTTER
		EDGE OF PAVEMENT
		SIDEWALK
		CENTERLINE
		FIRE LANE
		TREELINE
		SIGN
	_R @ 9.0'	PRKG. COUNT-REGULAR
	_HC @ 9.0'	PRKG. COUNT - HC
	_L @ 9.0'	PRKG. COUNT- LARGE
		TRAFFIC FLOW ARROWS
		H/C SYMBOL
		ADA RAMP
		ADA ROUTE
		BICYCLE PARKING
		BOLLARDS
		WHEEL STOPS
		LIGHT POLE
		RETAINING WALL
		FENCE W/ TYPE
		STORM
SD		STORM PIPE
GI		GRATE INLET
CI		CURB INLET
		SANITARY SEWER
SS	SS	WASTEWATER & MANHOLE
CO	CO	CLEAN-OUT
FM	FM	FORCE MAIN
		WATER DISTRIBUTION
W	W	WATER MAIN
IR	IR	IRRIGATION LINE
FDC	FDC	FIRE HYDRANT
	FDC	FIRE DEPT. CONNECTION
M		METER BOX
		WATER FITTINGS & BENDS
GV		GATE VALVE & REDUCER
		POWER, GAS, TV
UE OE	UE OE	ELECTRIC
EMH EM	EMH EM	ELEC. MANHOLE & METER
UT OT	UT OT	TELEPHONE
		TELEPHONE RISER
UC OC	UC OC	CABLE
TV	TV	CABLE TV RISER
FO	FO	FIBER OPTIC
PP/G		UTILITY POLE & GUY WIRE
PP/LP		LIGHT POLE
G	G	GAS LINE
		GAS VALVE & METER
		TREE
975		TREE TO BE REMOVED
975		TREE TO BE SAVED

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FIRM #18863

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CIVIL ENGINEERING | BUILDING DESIGN
CONSTRUCTION MANAGEMENT

THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME
KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

LEGAL DESCRIPTION:LOT 1, BLOCK 1, BONAZANA FIL 02

PROJECT NUMBER
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DRAWING FILE
18006-SITE.DWG

SCALE 1" = 30'
30 0 15 30

PROFESSIONAL SEAL

COLORADO REGISTERED
TROY L. MOORE III
54971
EXP 10/31/20
PROFESSIONAL ENGINEER
11-20-19

PROJECT STATUS
SUBMITTAL 1

SHEET TITLE
SITE PLAN SHEET A

SHEET NUMBER
3 of 8

XXXXX

SHEET A

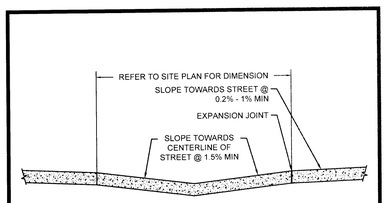
CITY PUBLIC WORKS DEPT. ACCEPTANCE

THE PLANS SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTING AND SEALING THE PLANS IS SOLELY RESPONSIBLE FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.

DUANE GREENWOOD, PW DIRECTOR/CITY ENGINEER _____ DATE

VERTICAL DATUM:

NGVD 29 BASED ON THE NGS BENCHMARK S 347 - ELEVATION 5601.42 FEET



NOTES

1. DETAIL IS INTENDED TO SHOW THE GRADING IN RELATION TO THE RV PADS. REFER TO THE GRADING PLAN FOR EXACT SLOPES.
2. CONTRACTOR SHALL ESTABLISH THE CENTER LINE OF THE DRIVE AISLE PRIOR TO PLACEMENT OF RV PADS. THE OWNER'S REPRESENTIVE IS REQUIRED TO INSPECT THE FORM WORK PRIOR TO THE POURING OF RV SLABS AND THE CENTER LINE ELEVATIONS MUST BE ESTABLISHED PRIOR TO INSPECTIONS.

1/4 **INVERT CROWN DRIVE AISLE** N.T.S.

EROSION CONTROL LEGEND

LINETYPES / SYMBOLS	DESCRIPTION
LOC	LIMITS OF CONSTRUCTION
LOX	LIMITS OF CLEARING
SIGN	SIGNAGE
SF	SILT FENCE
RR	RIPRAP
VTC	VEHICLE TRACKING PAD
SM	SEED & MULCH
SB	SEDIMENT BASIN
IP	INLET PROPTECTION
FSD	FULL-SPECTRUM DETENTION BASIN
CWA	CONCRETE WASHOUT AREA

GRADING LEGEND

EXISTING	PROPOSED	DESCRIPTION
678	678	CONTOUR
	GB	GRADE BREAK / RIDGE
	BERM	BERM
		SWALE
	2.00%	DRAINAGE SLOPE
x EG 905.25		EXISTING SPOT GRADE
x MEG ±905.25		MATCH EXISTING GRADE
	x FG	FINISH SPOT GRADE
	x	SOIL BORING
	TC: 509.25 TP: 508.75	TOP OF CURB TOP OF PAVEMENT
	TC: 509.25 TG: 508.75	TOP OF CURB TOP OF GRATE
	TW: 509.25 BW: 508.75	TOP OF WALL BOTTOM OF WALL
	TG: 507.50	TOP OF GRATE

GENERAL CIVIL NOTES:

1. PEAK REGIONAL BUILDING CODE, LATEST EDITION.
   * CITY ALL CONSTRUCTION SHALL MEET THE FOLLOWING STANDARDS & SPECIFICATIONS.
   * INTERNATIONAL BUILDING CODE.
   * PIKES OF COLORADO SPRINGS ENGINEERING CRITERIA MANUAL (ECM). LATEST EDITION.
   * PROJECT GEOTECHNICAL REPORT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION.
3. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THESE APPROVED PLANS AND ONE (1) COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES. A CITY OF COLORADO SPRINGS ENGINEERING CRITERIA MANUAL.
4. STORM DRAIN PIPE SHALL BE RCP CLASS III WITH CLASS C BEDDING UNLESS OTHERWISE NOTED.
5. STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED. LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
6. CONTRACTOR SHALL COORDINATE WITH GAS, ELECTRIC, TELEPHONE AND CABLE T.V. UTILITY SUPPLIERS FOR INSTALLATION OF ALL UTILITIES. MINIMUM COVER FOR ALL DRY UTILITIES SHALL BE 36".
7. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
8. MATCH INTO EXISTING GRADES AT 3:1 MAX CUT AND FILL SLOPES.
9. REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH 4" TOPSOIL AND DRY LAND GRASS SEED AFTER FINE GRADING IS COMPLETE ("FOOTHILLS SEED MIX").
10. EROSION CONTROL SHALL CONSIST OF SILT FENCE AND HAY BALES AS SHOWN ON THE DRAWING, AND TOPSOIL WITH GRASS SEED, WHICH WILL BE WATERED UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
11. THE EROSION CONTROL MEASURES OUTLINED ON THIS PLAN ARE THE RESPONSIBILITY OF THE CONTRACTOR TO MONITOR AND REPLACE, REGRADE, AND REBUILD AS NECESSARY UNTIL VEGETATION IS RE-ESTABLISHED.
12. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES IN A MANNER THAT WILL PROTECT ADJACENT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.
13. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
14. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE RE-PAIRED AT THE CONTRACTORS EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
15. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER THE PROJECT GEOTECHNICAL REPORT AND CITY SPECIFICATIONS.
16. CONCRETE USED IN CURB AND GUTTER, SIDEWALK, AND CROSSPAN CONSTRUCTION SHALL MEET CITY CRITERIA.
17. ALL FINISHED GRADES SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
18. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.

DESIGN PROFESSIONAL

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THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME

KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

LEGAL DESCRIPTION:LOT 1, BLOCK 1, BONAZANA FIL 02

PROJECT NUMBER
18006

DRAWING FILE
18006-GRAD.DWG

SCALE 1" = 30'
30 0 15 30

PROFESSIONAL SEAL

TROY L. MOORE III
COLORADO REGISTERED
TROY L. MOORE III
54971
EXP 10/31/20
PROFESSIONAL ENGINEER
11-20-19

PROJECT STATUS
SUBMITTAL 1

SHEET TITLE
GRADING & EROSION PLAN SHEET A

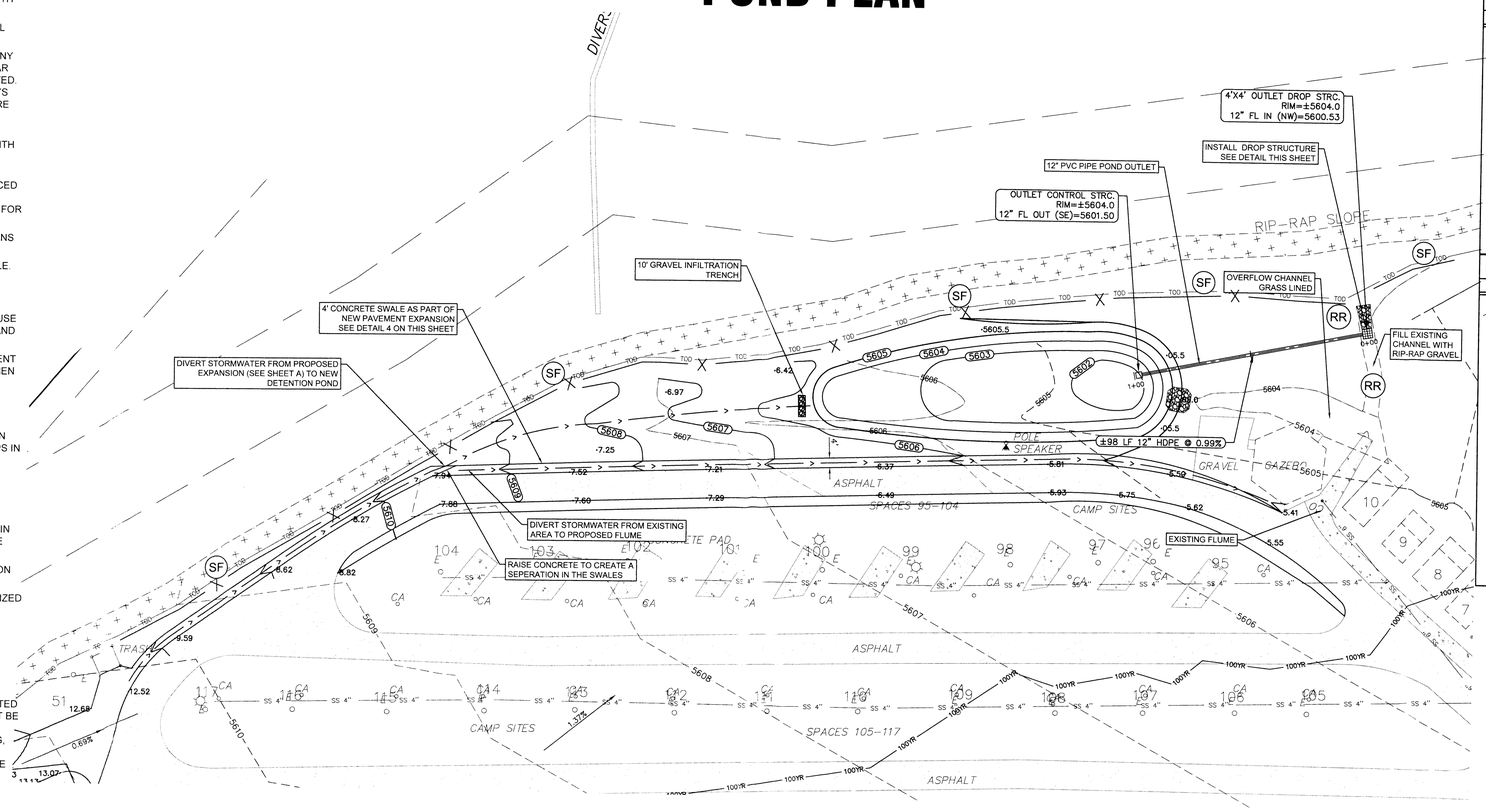
SHEET NUMBER
4 of 8

XXXXX

POND PLAN

CITY OF FOUNTAIN GRADING/EROSION CONTROL NOTES:

1. ALL GRADING AND EROSION CONTROL SHALL BE COMPLETED IN ACCORDANCE WITH THE CITY OF FOUNTAIN MUNICIPAL CODE SECTIONS 12.04.160 AND 12.10
2. ALL FILL AREAS SHALL BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY ONE (21) CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAT 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
4. EROSION CONTROL SHALL CONSIST OF SILT FENCES. FIBER ROLLS ROCK SOCKS, CHECK DAMS AND HAY BALES ETC. AS SHOWN ON THE DRAWING, AND TOPSOIL WITH GRASS SEED WHICH WILL BE WATERED UNTIL VEGETATION HAS BEEN REESTABLISHED.
5. EROSION CONTROL STRAW BALES, FIBER ROLES OR SILT FENCES S~HALL BE PLACED AT THE TOE AND DRAINAGE OUTFALL POINTS OF ALL SLOPES 4:1 OR STEEPER TO PREVENT SILTATION ON STREETS. REFER TO STORM WATER MANAGEMENT PLAN FOR DETAIL AND LOCATION OF EROSION CONTROL MEASURES.
6. CONTRACTOR SHALL COMPLY WITH ~ ALL LOCAL, COUNTY AND STATE REGULATIONS PERTAINING TO GRADING, DUST AND EROSION.
7. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME.
8. TOPSOIL SHALL BE STOCKPILED TO THE EXTENT PRACTICABLE ON THE SITE FOR USE ON AREAS TO BE REVEGETATED. ANY AND ALL STOCKPILES SHALL BE LOCATE-D AND PROTECTED FROM EROSIVE ELEMENTS.
9. AT ALL TIMES, THE PROPERTY SHALL BE MAINTAINED AND/OR WATERED TO PREVENT WIND-CAUSED EROSION. EARTHWORK OPERATIONS SHALL BE DISCONTINUED WHEN FUGITIVE DUST SIGNIFICANTLY IMPACTS ADJACENT PROPERTY IF EARTHWORK IS COMPLETE OR DISCONTINUED AND DUST FROM THE SITE CONTINUES TO CREATE PROBLEMS, THE OWNER/DEVELOPER SHALL IMMEDIATELY INSTITUTE MITIGATIVE MEASURES AND SHALL CORRECT DAMAGE TO ADJACENT PROPERTY.
10. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPS IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE MANUAL AND IN ACCORDANCE WITH THE EROSION AND STORMWATER QUALITY CONTROL PLAN APPROVED BY THE CITY OF FOUNTAIN, IF REQUIRED.
11. ALL EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION.
12. ALL EARTH DISTURBANCE SHALL BE DESIGNED. CONSTRUCTED. AND COMPLETED IN SUCH A MANNER SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
13. ALL EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS.
14. SUSPENDED SEDIMENT CAUSED BY ACCELERATED SOIL EROSION SHALL BE MINIMIZED IN RUNOFF WATER BEFORE IT LEAVES THE SITE.
15. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO THE STANDARDS AND SPECIFICATIONS PRESCRIBED IN THE MANUAL. AND IN ACCORDANCE WITH THE PERMANENT EROSION CONTROL FEATURES SHOWN ON THE EROSION AND STORMWATER CONTROL PLANS APPROVED BY THE CITY OF FOUNTAIN, IF REQUIRED.
16. ANY STREET OR DRAINAGE FACILITY WHICH HAS HAD EROSION SEDIMENT DEPOSITED IN IT DUE TO CONSTRUCTION, GRADING, OR OTHER DEVELOPMENT ACTIVITY. MUST BE CLEANED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR, DEVELOPER, HOMEBUILDER, OR WHOEVER IS RESPONSIBLE FOR THE CONSTRUCTION, GRADING, OR LAND DEVELOPMENT ACTIVITY. IF THE FACILITY IS NOT CLEANED IMMEDIATELY OR WITHIN A RESPONSIBLE PERIOD OF TIME AFTER NOTIFICATION BY THE CITY, THE CITY MAY PERFORM THE WORK OR HAVE THE WORK DONE AND BILL THE RESPONSIBLE PARTY.
17. IT IS THE RESPONSIBILITY OF THE OWNER TO ENSURE THAT VEHICLE TRACKING CONTROL IS IN PLACE, FUNCTIONAL, AND MAINTAINED THROUGHOUT THE CONSTRUCTION PHASE OF THIS PROJECT.
18. INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8,AND THE "CLEAN WATER ACT" (33USC 1344), REGULATIONS PROMULGATED. CERTIFICATIONS OR PERMITS ISSUED. IN ADDITION TO CITY OF FOUNTAIN REQUIREMENTS. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
19. ALL CONSTRUCTION CONCRETE WASH OUT SITES MUST INCORPORATE MINIMUM 10-MIL THICKNESS IMPERVIOUS LINED CONTAINMENT. CONCRETE TRUCKS SHALL NOT BE ALLOWED TO DUMP OUT REMNANT CONCRETE OR WASH OUT EQUIPMENT DIRECTLY ONTO GROUND OR PAVED SURFACES WITHOUT LINED CONTAINMENT.



CITY PUBLIC WORKS DEPT. ACCEPTANCE

THE PLANS SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTING AND SEALING THE PLANS IS SOLELY RESPONSIBLE FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.

DUANE GREENWOOD, PW DIRECTOR/CITY ENGINEER — DATE

VERTICAL DATUM:

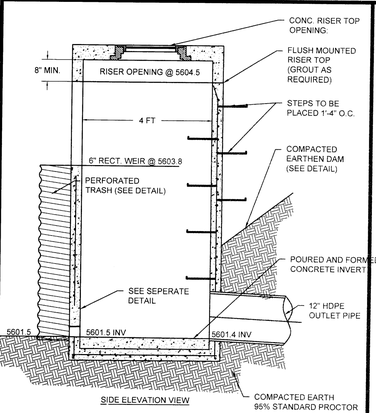
NGVD 29 BASED ON THE NGS BENCHMARK S 347 - ELEVATION 5601.42 FEET

EROSION CONTROL LEGEND

LINETYPES / SYMBOLS	DESCRIPTION
LOC	LIMITS OF CONSTRUCTION
LOX	LIMITS OF CLEARING
SIGN	SIGNAGE
SF	SILT FENCE
RR	RIPRAP
VTC	VEHICLE TRACKING PAD
SM	SEED & MULCH
SB	SEDIMENT BASIN
IP	INLET PROPTECTION
FSD	FULL-SPECTRUM DETENTION BASIN
CWA	CONCRETE WASHOUT AREA

GRADING LEGEND

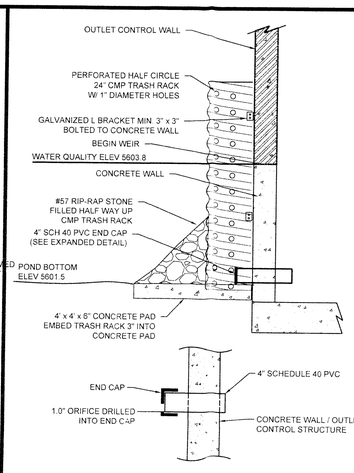
EXISTING	PROPOSED	DESCRIPTION
678	678	CONTOUR
	GB	GRADE BREAK / RIDGE
	BERM	BERM
	2.0%	SWALE
	2.0%	DRAINAGE SLOPE
x EG:905.25		EXISTING SPOT GRADE
x MEG:±905.25		MATCH EXISTING GRADE
	x FG	FINISH SPOT GRADE
	x	SOIL BORING
	TC: 509.25 TP: 508.75	TOP OF CURB TOP OF PAVEMENT
	TC: 509.25 TG: 508.75	TOP OF CURB TOP OF GRATE
	TW: 509.25 BW: 508.75	TOP OF WALL BOTTOM OF WALL
	TG: 507.50	TOP OF GRATE



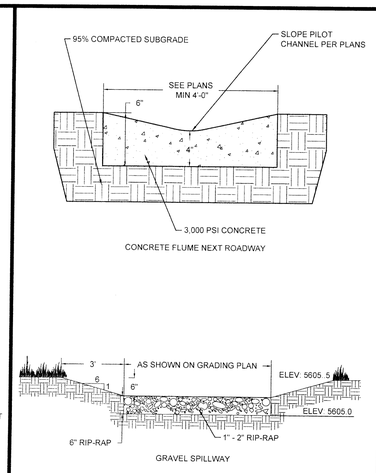
SIDE ELEVATION VIEW

NOTES:
1. CONTRACTOR SHALL EMBEDDED STRUCTURE INTO DAM.
2. DO NOT ORIENT STEPS DIRECTLY OVER INLET OR OUTLET OPENINGS.
3. STEPS MUST BE ORIENTED ON THE SAME SIDE OF STRUCTURE.
4. ALL INVERT AND INLET SIZES TO BE CONSTRUCTED PER APPROVED PLANS.

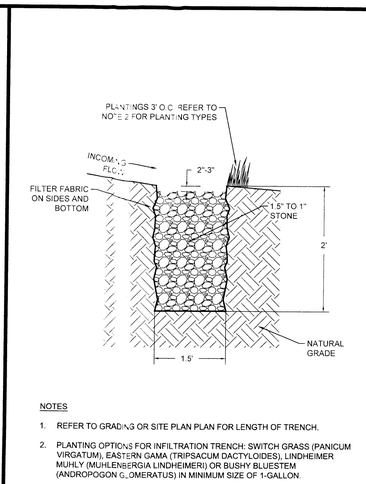
1/5 **OUTLET CONTROL DETAIL** N.T.S.



2/5 **TRASH RACK AND ORIFICE DETAIL** N.T.S.

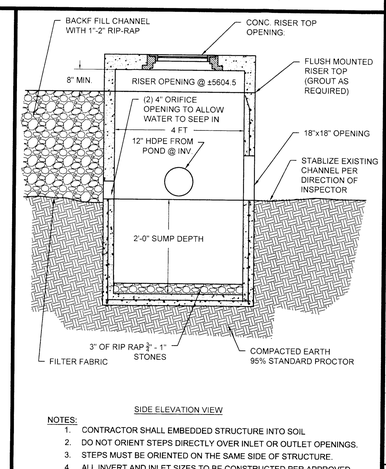


3/5 **CONCRETE SWALE & GRAVEL SPILLWAY** N.T.S.



NOTES
1. REFER TO GRADING OR SITE PLAN PLAN FOR LENGTH OF TRENCH.
2. PLANTING OPTIONS FOR INFILTRATION TRENCH: SWITCH GRASS (PANICUM VIRGATUM), EASTERN GAMA (TRIPSACUM DACTYLOIDES), LINDHEIMER MUHLY (MUHLENBERGIA LINDHEIMERI) OR BUSHY BLUESTEM (ANDROPOGON GERARDII) IN MINIMUM SIZE OF 1-GALLON.

4/5 **GRAVEL INFILTRATION TRENCH** N.T.S.



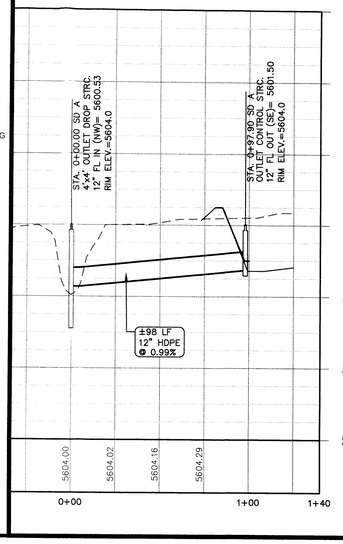
SIDE ELEVATION VIEW

NOTES:
1. CONTRACTOR SHALL EMBEDDED STRUCTURE INTO SOIL
2. DO NOT ORIENT STEPS DIRECTLY OVER INLET OR OUTLET OPENINGS.
3. STEPS MUST BE ORIENTED ON THE SAME SIDE OF STRUCTURE.
4. ALL INVERT AND INLET SIZES TO BE CONSTRUCTED PER APPROVED PLANS.

5/5 **OUTLET DROP STRUCTURE** N.T.S.

SD A

START:-0+50 | END:1+40
HORZ:1"=40' | VERT:1"=4'



DESIGN PROFESSIONAL
IMAGINE | DESIGN | BUILD
M3 ENGINEERING
2900 SOUTH CONGRESS
SUITE 203
AUSTIN, TEXAS 78704
PH: 512.820.3265
FIRM #18863
WWW.M3ENGINEERING.COM
CIVIL ENGINEERING | BUILDING DESIGN CONSTRUCTION MANAGEMENT

THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME
KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

LEGAL DESCRIPTION:LOT 1, BLOCK 1, BONAZANA FIL 02

PROJECT NUMBER
18006

DRAWING FILE
18006-GRAD.DWG

SCALE 1" = 30'
30 0 15 30

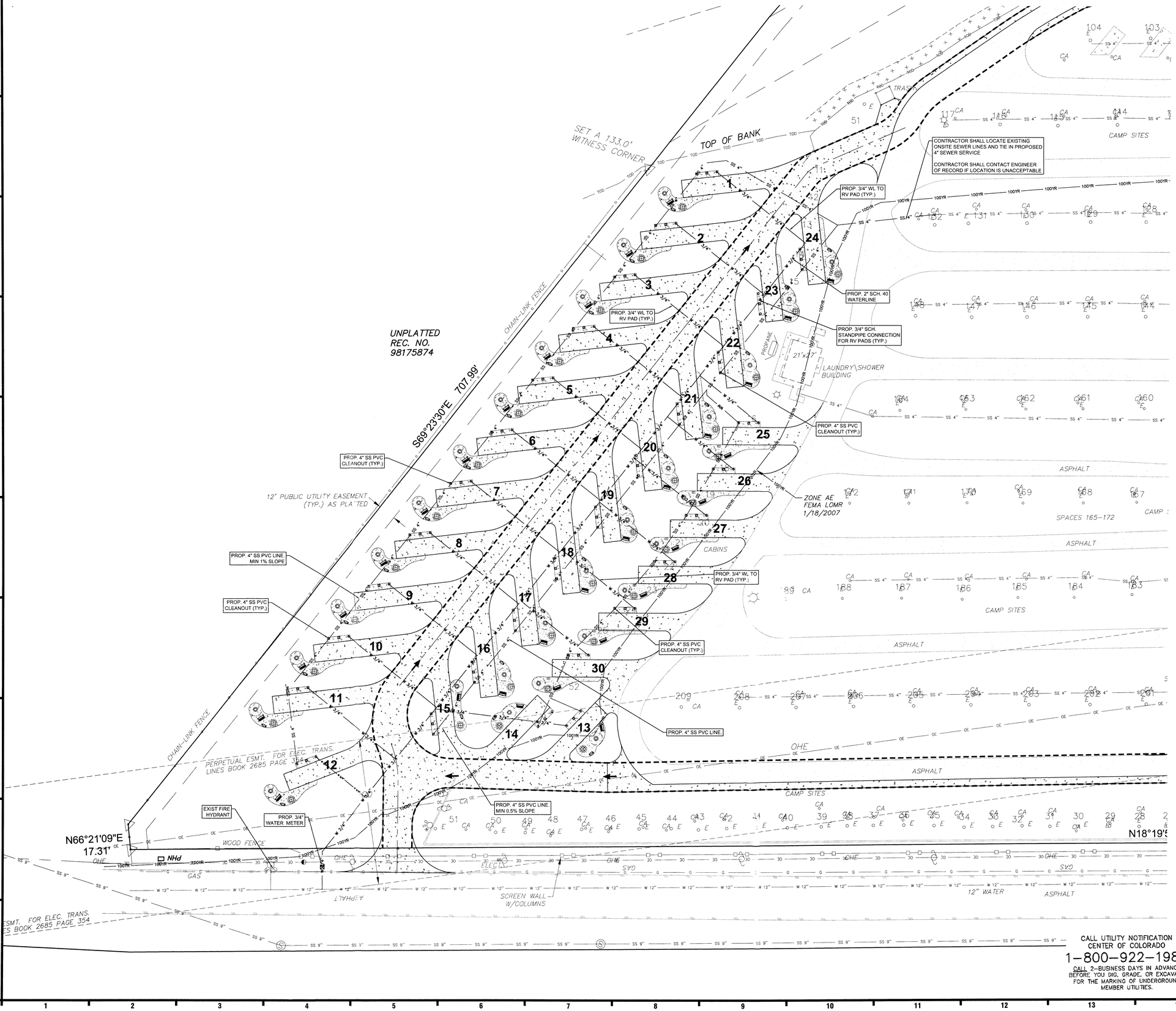
PROFESSIONAL SEAL
COLORADO REGISTERED ROY L. MOORE III 54971 EXP 10/31/20 PROFESSIONAL ENGINEER
11-20-19

PROJECT STATUS
SUBMITTAL 1

SHEET TITLE
DETENTION POND PLAN

SHEET NUMBER
5 of 8

XXXXX



GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SURVEY FEATURES
IPS		IRON PIN SET
IPF		IRON PIN FOUND
TP		CONTROL POINT
BM		BENCHMARK
ROM		RIGHT OF WAY MARKER
		BEARING & DISTANCE
		SITE
		CURB & GUTTER
		EDGE OF PAVEMENT
		SIDEWALK
		CENTERLINE
		FIRE LANE
		TREELINE
		SIGN
	_R @ 9.0'	PRKG. COUNT-REGULAR
	_HC @ 9.0'	PRKG. COUNT - HC
	_L @ 9.0'	PRKG. COUNT- LARGE
		TRAFFIC FLOW ARROWS
		H/C SYMBOL
		ADA RAMP
		ADA ROUTE
		BICYCLE PARKING
		BOLLARDS
		WHEEL STOPS
		LIGHT POLE
		RETAINING WALL
		FENCE W/ TYPE
		STORM
		STORM PIPE
		GRATE INLET
		CURB INLET
		SANITARY SEWER
		WASTEWATER & MANHOLE
		CLEAN-OUT
		FORCE MAIN
		WATER DISTRIBUTION
		WATER MAIN
		IRRIGATION LINE
		FIRE HYDRANT
		FIRE DEPT. CONNECTION
		METER BOX
		WATER FITTINGS & BENDS
		GATE VALVE & REDUCER
		POWER, GAS, TV
		ELECTRIC
		ELEC. MANHOLE & METER
		TELEPHONE
		TELEPHONE RISER
		CABLE
		CABLE TV RISER
		FIBER OPTIC
		UTILITY POLE & GUY WIRE
		LIGHT POLE
		GAS LINE
		GAS VALVE & METER
975		**TREE**
		TREE TO BE REMOVED
975		TREE TO BE SAVED

UTILITY NOTES

1. COORDINATE WITH CITY OF FOUNTAIN FOR ELECTRIC SERVICE CONNECTION.

VERTICAL DATUM:

NGVD 29 BASED ON THE NGS BENCHMARK S 347 - ELEVATION 5601.42 FEET

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

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

DESIGN PROFESSIONAL
IMAGINE | DESIGN | BUILD

M3 ENGINEERING
2900 SOUTH CONGRESS
SUITE 203
AUSTIN, TEXAS 78704
PH: 512.820.3265
FIRM #18863

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CIVIL ENGINEERING | BUILDING DESIGN
CONSTRUCTION MANAGEMENT

THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME
KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

LEGAL DESCRIPTION:LOT 1, BLOCK 1, BONAZANA FIL 02

PROJECT NUMBER
18006

DRAWING FILE
18006-UTIL.DWG

SCALE 1" = 30'
30 0 15 30

PROFESSIONAL SEAL
COLORADO REGISTERED TROY L MOORE III 54971 EXP 10/31/20 PROFESSIONAL ENGINEER
11-20-19

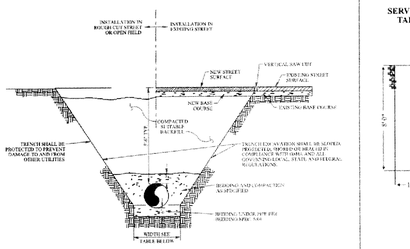
PROJECT STATUS
SUBMITTAL 1

SHEET TITLE
SITE UTILITY PLAN SHEET A

SHEET NUMBER
6 of 8

XXXXX

TYPICAL TRENCH CROSS SECTION

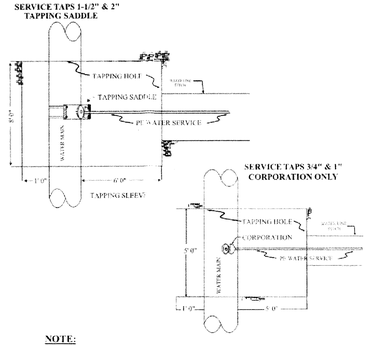


BOTTOM OF TRENCH WIDTH		
PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-3"	3'-9"
6"	1'-3"	3'-9"
8"	1'-3"	4'-1"
12"	1'-7"	4'-5"
16"	1'-8"	4'-9"
20"	2'-10"	5'-2"
24"	3'-2"	5'-6"

AN OVER EXCAVATED TRENCH SHALL BE REFILLED AND THOROUGHLY COMPACTED UNDER THE DIRECTION OF THE WATER DEPT. UNDER NO CIRCUMSTANCES WILL PIPE BE LAID IN A PROPOSED FILL AREA PRIOR TO IT BEING COMPLETELY FILLED. THE FILL WILL BE PLACED FIRST TO PROPOSED GRADE AND COMPACTED AS REQUIRED. A TRENCH THEN WILL BE EXCAVATED AND THE PIPE INSTALLED IN THE USUAL MANNER.

TYPICAL TRENCH CROSS SECTION		
DRAWN:	REVISED: AUG 2002	DWG - 15
DATE: NOV 1998	REVISED: JAN 2006	
SCALE: NONE	REVISED:	

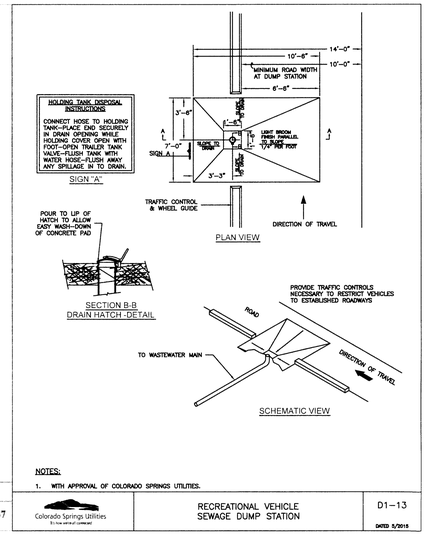
TAPPING DETAIL 3/4" THRU 2"



NOTE:

DIRECT TAPS TO THE WATER MAIN SHALL BE MADE ONLY WHEN THE STATIC WATER PRESSURE IS LESS THAN 100 PSI. TAPPING SADDLES SHALL BE USED WHENEVER THE PRESSURE IS 100 PSI OR GREATER. TAPPING SADDLES SHALL HAVE TWO STAINLESS STEEL BANDS WITH A BRASS OR BRONZE CORPORATION CONNECTION. (FORD 202 BS)

TAPPING DETAIL ¾" THRU 2"		
DRAWN:	REVISED: AUG 2002	DWG - 37
DATE: FEB 1999	REVISED: DEC 2005	
SCALE: NONE	REVISED:	

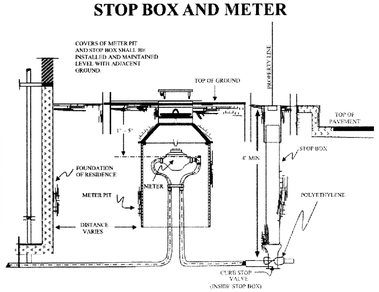


NOTES:

1. WITH APPROVAL OF COLORADO SPRINGS UTILITIES.

Colorado Springs Utilities	RECREATIONAL VEHICLE SEWAGE DUMP STATION	D1—13
		DATED 5/2015

INSTALLATION FOR SERVICE LINE STOP BOX AND METER



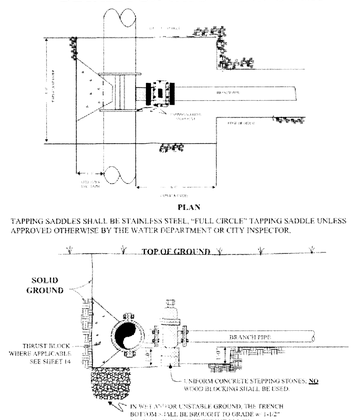
NOTE:

1.) SHOULD ANY SITUATION BE ENCOUNTERED OTHER THAN SPECIFICATION STANDARDS, NOTIFY THE WATER DEPARTMENT.

2.) SERVICE LINE FROM WATER MAIN TO CURB STOP OR PROPERTY LINE, WHICH EVER IS CLOSEST TO THE WATER MAIN IS THE RESPONSIBILITY OF THE DEPARTMENT. ALL OTHER PARTS OF THE WATER SERVICE LINE ARE THE RESPONSIBILITY OF THE CUSTOMER/OWNER FOR OPERATION AND MAINTENANCE.

INSTALLATION FOR SERVICE LINE STOP BOX AND METER		
DRAWN:	REVISED: AUG 2002	DWG - 38
DATE: FEB 1999	REVISED: JAN 2006	
SCALE: NONE	REVISED:	

DETAIL FOR TAPS 4" AND OVER



DETAIL FOR TAPS 4" AND OVER		
DRAWN:	REVISED: AUG 2002	DWG - 44
DATE: FEB 1999	REVISED:	
SCALE: NONE	REVISED:	

THRUST BLOCKS DATA

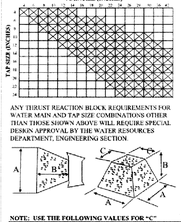
CONCRETE THRUST BLOCKS

WATER MAIN AND TAP SIZE COMBINATIONS WHICH REQUIRE A CONCRETE THRUST REACTION BLOCK BEHIND THE MAIN AT THE TAPPING SLEEVE OR SADDLE

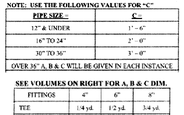
ALL WATER MAINS

☒ INDICATES CONCRETE THRUST BLOCK REQUIRED

MAIN SIZE (INCHES)



ANY THRUST REACTION BLOCK REQUIREMENTS FOR WATER MAIN AND TAP SIZE COMBINATIONS OTHER THAN THOSE SHOWN ABOVE WILL REQUIRE SPECIAL DESIGN APPROVAL BY THE WATER RESOURCES DEPARTMENT, ENGINEERING SECTION



NOTE: USE THE FOLLOWING VALUES FOR "C"

PIPE SIZE:	C:
12" & UNDER	1'—6"
16" TO 24"	2'—0"
30" TO 36"	3'—0"

OVER 36" A, B & C WILL BE GIVEN IN EACH INSTANCE

SEE VOLUMES ON RIGHT FOR A, B & C DIM.

FITTINGS	4"	6"	8"
TEE	1/4 yd.	1/2 yd.	3/4 yd.
90° BEND	1/4 yd.	3/4 yd.	1-1/4 yd.
45° BEND	1/4 yd.	1/2 yd.	3/4 yd.
22-1/2° BEND	1/4 yd.	1/4 yd.	1/4 yd.
11-1/4° BEND	1/4 yd.	1/4 yd.	1/4 yd.

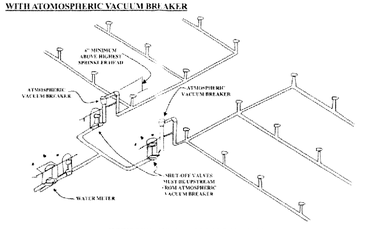
VOL (IN YDS.)	A	B if C= 1'-6"	B if C=2'-0"	B if C=3'-0"
¼	2'-8"	1'-7"	N/A	N/A
½	3'-2"	2'-5"	2'-0"	N/A
¾	4'-0"	2'-6"	2'-2"	N/A
1	4'-4"	3'-0"	2'-7"	2'-0"
1-1/4	4'-10"	3'-1"	2'-9"	2'-2"
1-1/2	5'-3"	3'-3"	2'-11"	2'-4"
1-3/4	5'-7"	3'-5"	3'-1"	2'-6"
2	5'-10"	3'-7"	3'-3"	2'-8"
2-1/4	6'-3"	3'-8"	3'-4"	2'-9"
2-1/2	6'-4"	3'-11"	3'-7"	3'-0"
2-3/4	6'-9"	3'-11"	3'-7"	3'-0"
3	6'-10"	4'-1"	3'-9"	3'-2"
3-1/4	7'-3"	4'-1"	3'-9"	3'-2"
3-1/2	7'-4"	4'-3"	3'-11"	3'-4"
3-3/4	7'-7"	4'-4"	4'-0"	3'-5"
4	7'-11"		4'-0"	3'-5"
4-1/4	8'-1"		4'-0"	3'-6"
4-1/2	8'-4"		4'-0"	3'-6"
4-3/4	8'-6"		4'-1"	3'-7"
5	8'-8"		4'-2"	3'-8"
5-1/4	8'-11"		4'-2"	3'-8"
5-1/2	9'-1"		4'-3"	3'-9"
5-3/4	9'-3"		4'-4"	3'-10"
6	9'-4"		4'-5"	3'-11"
6-1/4	9'-6"		4'-6"	4'-0"
6-1/2	9'-8"		4'-6"	4'-0"
6-3/4	9'-11"		4'-6"	4'-0"
7	10'-2"		4'-6"	4'-0"
7-1/4	10'-3"		4'-7"	4'-1"
7-1/2	10'-4"		4'-8"	4'-2"
7-3/4	10'-5"		4'-9"	4'-3"
8	10'-6"		4'-10"	4'-4"
8-1/4	10'-8"		4'-10"	4'-4"
8-1/2	10'-9"		4'-11"	4'-5"
8-3/4	10'-11"		4'-11"	4'-5"
9	11'-1"		4'-11"	4'-5"
9-1/4	11'-2"		5'-0"	4'-6"
9-1/2	11'-4"		5'-0"	4'-6"
9-3/4	11'-6"		5'-0"	4'-6"
10	11'-8"		5'-0"	4'-6"

ALL WATER MAINS WILL HAVE VOLUMES SHOWN ON PLAN & PROFILE DRAWINGS

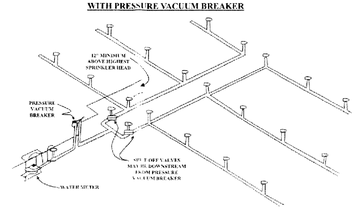
THRUST BLOCKS DATA		
DRAWN:	REVISED: AUG 2002	DWG - 50
DATE: FEB 1999	REVISED:	
SCALE: NONE	REVISED:	

LEVEL TERRAIN – MULTI-ZONE IRRIGATION SYSTEM

WITH ATOMOSPHERIC VACUUM BREAKER

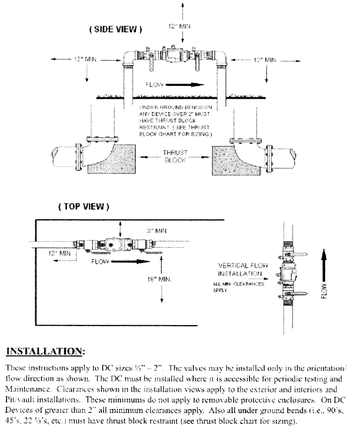


WITH PRESSURE VACUUM BREAKER



LEVEL TERRAIN – MULTI-ZONE IRRIGATION SYSTEM		
DRAWN	REVISED: AUG 2002	DWG - 52
DATE: FEB 1999	REVISED:	
SCALE: NONE	REVISED:	

DOUBLE CHECK VALVE "DC"



INSTALLATION:

These instructions apply to DC sizes ¾" – 2". The valves may be installed only in the orientation/ flow direction as shown. The DC must be installed where it is accessible for periodic testing and Maintenance. Clearances shown in the installation views apply to the exterior and interiors and Pit/vault installations. These minimums do not apply to removable protective enclosures. On DC Devices of greater than 2" all minimum clearances apply. Also all under ground bends (i.e., 90's, 45's, 22 ½'s, etc.) must have thrust block restraint (see thrust block chart for sizing).

DOUBLE CHECK VALVE "DC"		
DRAWN:	REVISED:	DWG - 53
DATE: JAN 2006	REVISED:	
SCALE: NONE	REVISED:	

GENERAL UTILITY NOTES:

1. ALL WATER AND SEWER INSTALLATIONS SHALL CONFORM TO CITY OF FOUNTAIN WATER &: FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION.
3. REVEGETATION OF ALL DISTURBED SLOPES SHALL BE DONE WITH DRY LAND GRASS SEED WITHIN 30 DAYS AFTER FINE GRADING IS COMPLETE.
4. STORM DRAIN PIPE SHALL BE RCP (CLASS III) UNLESS OTHERWISE NOTED.
5. STORM DRAIN PIPE BEDDING SHALL BE CLASS C.
6. SANITARY SEWER PIPE SHALL BE PVC ASTM D3034-SDR 35 OR ASTM F679 UNLESS OTHERWISE NOTED.
7. STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED.
8. ALL ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED.
9. WATER PIPES AND FITTINGS SHALL BE INSTALLED PER CITY OF FOUNTAIN SPECIFICATIONS. ALL TRENCH BEDDING, THRUST BLOCKS AND REVERSE ANCHORS SHALL BE INSTALLED PER CITY OF' FOUNTAIN STANDARDS. ALL WATER PIPE SHALL BE PVC SDR-14. DISINFECT ION AND TESTING SHALL BE COMPLETED PER CITY OF FOUNTAIN SPECIFICATIONS.
10. LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
11. CONTRACTOR SHALL MAKE WATER CONNECTIONS WITHOUT SHUTDOWN OR NOTIFY CITY OF FOUNTAIN AND AFFECTED RESIDENTS OF ANY SERVICE SHUTDOWNS NECESSARY TO CONNECT TO EXISTING LINES.
12. BENDS, DEFLECTION & CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO 10 FEET SEPARATION AT ALL POINTS REQUIRED. ALIGNMENT CONSTRUCTION STAKES SHALL BE PLACED AT 25' INTERVALS ALONG CURVES FOR PLACEMENT OF SEWER AND WATER LINES.
13. FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED PER CITY OF FOUNTAIN STANDARDS (5.188) AND SHALL INCLUDE LATERAL, VALVE, ELBOW. HYDRANT, THRUST BLOCKS & RESTRAINTS.
14. DUCTILE IRON PIPE FITTINGS AND HYDRANTS SHALL BE WRAPPED IN POLYETHYLENE.
15. SERVICE LINES SHALL BE INSTALLED PER CITY OF FOUNTAIN STANDARDS.
16. CONTRACTOR SHALL COORDINATE WITH GAS, ELECTRIC. TELEPHONE AND CABLE T.V. UTILITY SUPPLIERS FOR INSTALLATION OF ALL UTIUTIES. MINIMUM COVER FOR ALL UTILITIES SHALL BE 36".
17. UTILITY BEDDING SHALL BE PLACED PER CITY OF FOUNTAIN AND FOUNTAIN SD REQUIREMENTS. ALL SANITARY SEWER PIPELINE EMBEDMENT SHALL BE IN ACCORDANCE WITH THE FOUNTAIN SANITATION DISTRICT SEWER USE REGULATIONS AND STANDARD SPECIFICATIONS.
18. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
19. ELECTRONIC FILE OF SITE DRAWING IS AVAILABLE FROM ENGINEER FOR CONSTRUCTION STAKING PURPOSES.
20. REFER TO CITY OF FOUNTAIN SPECIFICATIONS FOR BACKFILL AND COMPACTION SPECIFICATIONS, ALSO MEET ALL CITY OF FOUNTAIN BACKFILL SPECIFICATIONS IN THE ROADWAY R.O.W.'S.
21. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS.
22. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL MATERIALS TO CITY/DISTRICT FOR APPROVAL PRIOR TO BEGINNING WORK.
23. WATER MAIN FITTINGS 5' OR LESS APART REQUIRE ALL-THREAD (2 EA. 3/4").
24. INSTALLATION OF CURVILINEAR SANITARY SEWER MAINS SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS.
25. INSTALL POLYGWRAP AS BOND BREAKER AT ALL THRUST BLOCKS.
26. ANY WATER LINE LOWERINGS UNDER STORM DRAIN SHALL MEET CITY OF FOUNTAIN SPECIFICATIONS. ANY STEEL SLEEVES IN ROADWAY R.O.W. NEED TOMEET 50-YEAR DESIGN LIFE MINIMUM. LOWER|NOS SHALL CONFORM TO CITY STANDARD DRAWING 20.
27. SEWER MAINS SHALL BE TV INSPECTED AFTER INSTALLATION FOR APPROVAL BY FOUNTAIN SANITATION DISTRICT.
28. THE WATER MAIN HAS BEEN DESIGNED TO PROVIDE FOR A MINIMUM OF 4-FEET OF CLEARANCE BETWEEN THE GUTTER UP AND THE CENTER LINE OF THE WATER MAIN. THE CONTRACTOR SHALL INSTALL THE WATER MAIN IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS, PROVIDING FOR A MINIMUM OF 4-FEET OF CLEARANCE AS DESIGNED.
29. STORM SEWER MAINS SHALL BE TV INSPECTED AFTER IN-STALLATION FOR APPROVAL BY THE CITY OF FOUNTAIN PUBLIC WORKS.
30. CURBS TO BE MARKED WITH "W" AND "S" FOR RESPECTIVE LOCATIONS OF SERVICE LINES TO LOTS FOR WATER AND SEWER.
31. A PRECONSTRUCTION CONFERENCE IS REQUIRED NO LESS THAN 7 CALENDAR DAYS PRIOR TO STARTİNG CONSTRUCTION OF THE WASTEWATER COLLECTION SYSTEM SHOWN ON THE SUBJECT PLANS. ATTENDANCE IS REQUIRED BY THE INSTALLATION CONTRACTORS REPRESENTATIVE AND THE DEVELOPERS/OWNERS REPRESENTATIVE WITH THE FOUNTAIN SANITATION DISTRICT REPRESENTATIVES & ALL UTILITY PROVIDERS.
32. COORDINATE ALL ROAD CLOSURES AND TRAFFIC CONTROL PLANS WITH CITY OF FOUNTAIN PUBLIC WORKS DEPARTMENT, 322-2036.
33. MANHOLE ENTRY PERMIT: THE FOUNTAIN SANITATION DISTRICT WILL AUTHORIZE THE CONTRACTOR TO ENTER DISTRICT-OWNED MANHOLES; HOWEVER, THE DISTRICT WILL NOT ISSUE AN ENTRY PERMIT TO THE CONTRACTOR FOR ANY CONFINED SPACES. PRIOR TO ANY ENTRY, THE CONTRACTOR SHALL PROVIDE HIS OWN PERSONNEL CAPABLE AND QUALIFIED TO ISSUE AN ENTRY PERMIT AND SHALL BE EQUIPPED FOR ENTRY INTO CONFINED SPACES. THE FOUNTAIN SANITATION DISTRICT WILL ASSUME NO RESPONSIBILITY FOR THE CONTRACTORS ENTRY INTO DISTRICT-OWNED MANHOLES.
34. GATE VALVES ARE REQUIRED ON EACH SIDE OF ALL TEES AND CROSSES WITHIN THE PROJECT.
35. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SECURITY OF THE EXISTING WASTEWATER PIPELINE SUCH THAT NO FOREIGN MATERIAL OF ANY MANNER MAY BE ALLOWED TO ENTER THE EXISTING ACTIVE WASTEWATER COLLECTION SYSTEM OF THE FOUNTAIN SANITATION DISTRICT. SHOULD ANY PIPE DEBRIS, DIRT, MUD, ROCKS, CONCRETE, HMA OR OTHER FOREIGN MATERIAL ENTER THE EXISTING PIPELINE OR ANY OTHER DOWNSTREAM SEGMENTS. ALL ACTIONS NECESSARY TO REMOVE AND RECTIFY ANY DAMAGE WHICH MAY BE CAUSED BY THAT MATERIAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER SYSTEM MATERIAL SPECIFICATIONS

ITEM	CITY SPECIFICATION REFERENCE	COMMENTS
WATER MAIN PIPE (DR-14)	SECTIONS 4.03	
WATER LINE GATE VALVES (CL-250)	SECTIONS 4.05	COUNTER-CLOCKWISE OPENING
WATER MAIN FITTINGS	SECTIONS 4.04	
CONCRETE THRUST BLOCKS	SECTIONS 4.09	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IS
FIRE HYDRANT ASSEMBLY	SECTIONS 4.07	3,000 PSI AVK OR KENNEDY PER BULLETIN 01-2015
STEEL CASING ASSEMBLY	SECTIONS 4.12	
WATER MAIN TRACER WIRE (6 GA COPPER)	SECTIONS 7.03	
WATER SERVICE PIPING (PE SDR14)	SECTIONS 7.03	REFER TO STANDARD DRAWING 12
WATER SERVICE VALVES (FORD 846-353 CURB STOPS)	SECTIONS 7.04	

DESIGN PROFESSIONAL

IMAGINE | DESIGN | BUILD

M3 ENGINEERING
2900 SOUTH CONGRESS
SUITE 203
AUSTIN, TEXAS 78704
PH: 512.820.3265
FIRM #18863

WWW.M3ENGINEERING.COM

CIVIL ENGINEERING | BUILDING DESIGN
CONSTRUCTION MANAGEMENT

THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME

KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

LEGAL DESCRIPTION:LOT 1, BLOCK 1, BONAZANA FIL 02

PROJECT NUMBER

18006

DRAWING FILE

18006-DETL.DWG

SCALE 1" = 60'

60 0 30 60

PROFESSIONAL SEAL

PROJECT STATUS

SUBMITTAL 1

SHEET TITLE

UTILITY DETAILS

SHEET NUMBER

7 of 8

XXXXX

EXISTING VEGETATION:

NATIVE GRASSES (APPROXIMATELY 50 PERCENT COVERAGE)

SEEDING MIX:

(UNLESS OTHERWISE NOTED ON LS PLANS)

GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
CRESTED WHEAT CRASS	EPHRAIM OR HYCREST	4.0 LBS
PERENNIAL RYE	LINN	2.0 LBS
WESTERN WHEAT GRASS	SARTON	3.0 LBS
SMOOTH BROME GRASS	LINCOLN OR MANCHAR	5.0 LBS
SIDEOATS GRAMA	EPHRAIM	2.5 LBS
	TOTAL:	16.5 LBS

SEEDING & FERTILIZER APPLICATION: DRILL SEED OR HYDRO-SEED PER CDOT SPEC. SECTION212.

MULCHING APPLICATION: CONFORM TO CDOT SPEC-SECTION 213.

SEDIMENT CONTROL MAITNENANCE PROGRAM:

	FREQUENCY:
PERIODIC SITE INSPECTIONS	BI-WEEKLY
RE-VEGETATION OF EXPOSED SOILS	WITHIN 21 DAYS OF GRADING
SEDIMENT REMOVAL FROM BMP'S	MONTHLY
REMOVAL OF BMP'S	AFTER STABILIZATION ACHIEVED

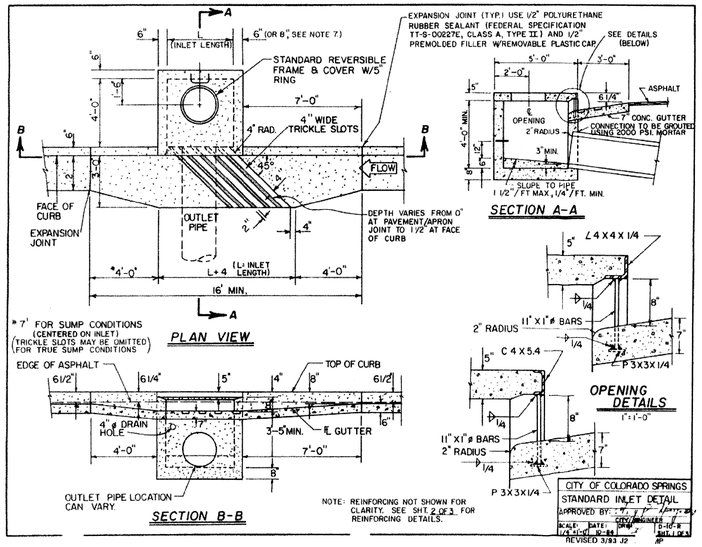
1. AND AFTER ANY PRECIPITATION OR SNOW MELT EVENT THAT CAUSES SURFACE EROSION.
2. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP AT ANY TIME THAT SEDIMENT OF DEBRIS ADVERSELY IMPACTS THE FUNCTION OF THE BMP

ESTIMATED TIME SCHEDULE:

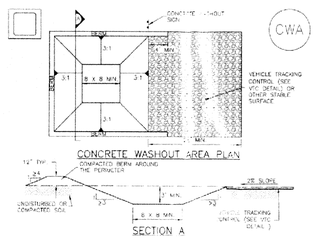
INSTALL BMP'S	MARCH, 2020
SITE GRADING	MARCH, 2020
SEEDING & MULCHING	MAY, 2020
STABILIZATION	MAY, 2020

TOTAL DISTURBED AREA: 2.75 ACRES

RECEIVING WATERS: FOUNTAIN CREEK



Concrete Washout Area (CWA) MM-1

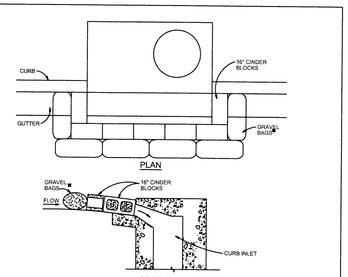


CWA-1, CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR CWA INSTALLATION LOCATION
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400 FEET OF ANY NATURAL DRAINAGEWAY, WATERWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELL OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER. THE MIL MIN. THICKNESS OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' (OPEN LEADING OUT OF THE SUBSURFACE PIT SHALL BE 10' BY 10') AND THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 12".
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARD THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE TO DIRECT CONCRETE TRUCK DRIVERS TO THE CWA LOCATION(S) AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA AND OPERATIONS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

NOTE:
CWA Shall Include An Impervious Liner



BLOCK AND GRAVEL BAG CURB INLET PROTECTION

BLOCK AND GRAVEL BAG CURB INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. CONCRETE BLOCKS ARE TO BE LAID AROUND THE INLET IN A SINGLE ROW ON THEIR SIDES, ABUTTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCK FACING OUTWARD.
3. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.
4. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
5. BAGS ARE TO BE MADE OF 1/4" INCH WIRE MESH LINED WITH GRAVEL ONLY) OR GEOTEXTILE.

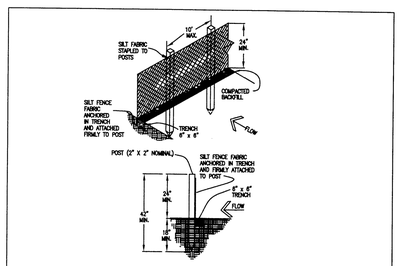
■ AN ALTERNATE 3/4" TO 1" GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality | Figure IP-3 Block & Gravel Bag Curb Inlet Protection Construction Detail and Maintenance Requirements

3-27



SILT FENCE

SILT FENCE NOTES

INSTALLATION REQUIREMENTS

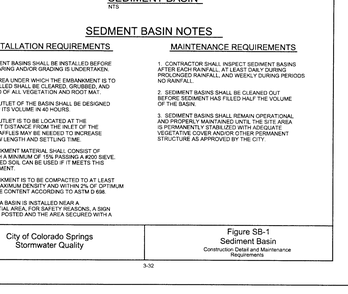
1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.
3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPHILL SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 8" AND SHALL NOT EXTEND MORE THAN 3' ABOVE THE ORIGINAL GROUND SURFACE.
6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.
7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND TO THE TOP SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 34 INCHES; HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality | Figure SF-2 Silt Fence Construction Detail and Maintenance Requirements

3-36



SEDIMENT BASIN
NTS

SEDMENT BASIN NOTES

INSTALLATION REQUIREMENTS

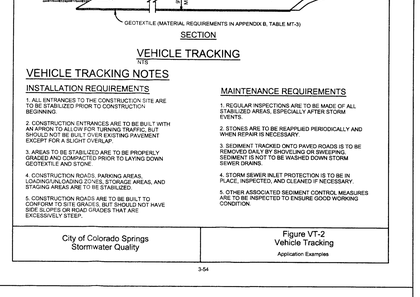
1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN.
2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. BAFFLES MAY BE INSTALLED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.
5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.
7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality | Figure SB-1 Sediment Basin Construction Detail and Maintenance Requirements

3-32



VEHICLE TRACKING
NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

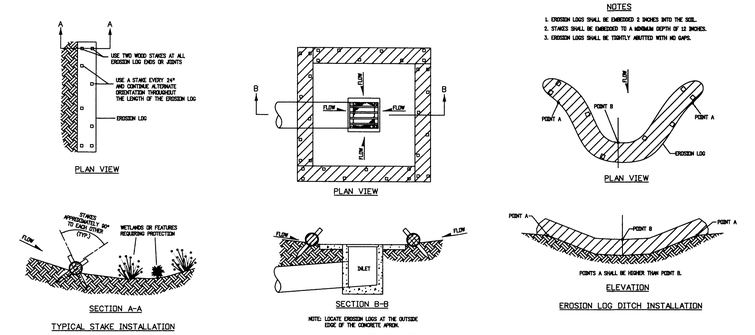
1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality | Figure VT-2 Vehicle Tracking Application Examples

3-54



EROSION LOG APPLICATIONS

Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.
Creation Date: 06/08/10 Initials: DD		Date:	Comments	4201 East Arkansas Avenue Denver, Colorado 80222 Phone: (303) 757-9083 Fax: (303) 757-9820	Temporary Erosion Control	M-208-1
Last Modification Date: 07/29/11 Initials: LTA	(SEE)	08/26/10	Revised to meet new water quality standards.			
Full Path: www.dot.state.co.us/DesignSupport/	(SEE)					
Drawing File Name: 208002002.dgn	(SEE)		Revised sheets 1-7.	Project Development Branch DD/LTA	Issued By: Project Development Branch on July 04, 2006	Sheet No. 2 of 12
CAD Ver: MicroStation V8 Scale: Not to Scale Units: English	(SEE)		Added sheets 8-12.			

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CIVIL ENGINEERING | BUILDING DESIGN CONSTRUCTION MANAGEMENT

THE JENKINS ORGANIZATION

ISSUE/REVISION RECORD

PROJECT NAME
KOA EXPANSION PHASE 1

8100 BANDLEY
FOUNTAIN, TEXAS 75087

MAP GRID # TBD
MAPSCO # TBD

PROJECT NUMBER
18006

DRAWING FILE
18006-DETL.DWG

SCALE **N.T.S.**

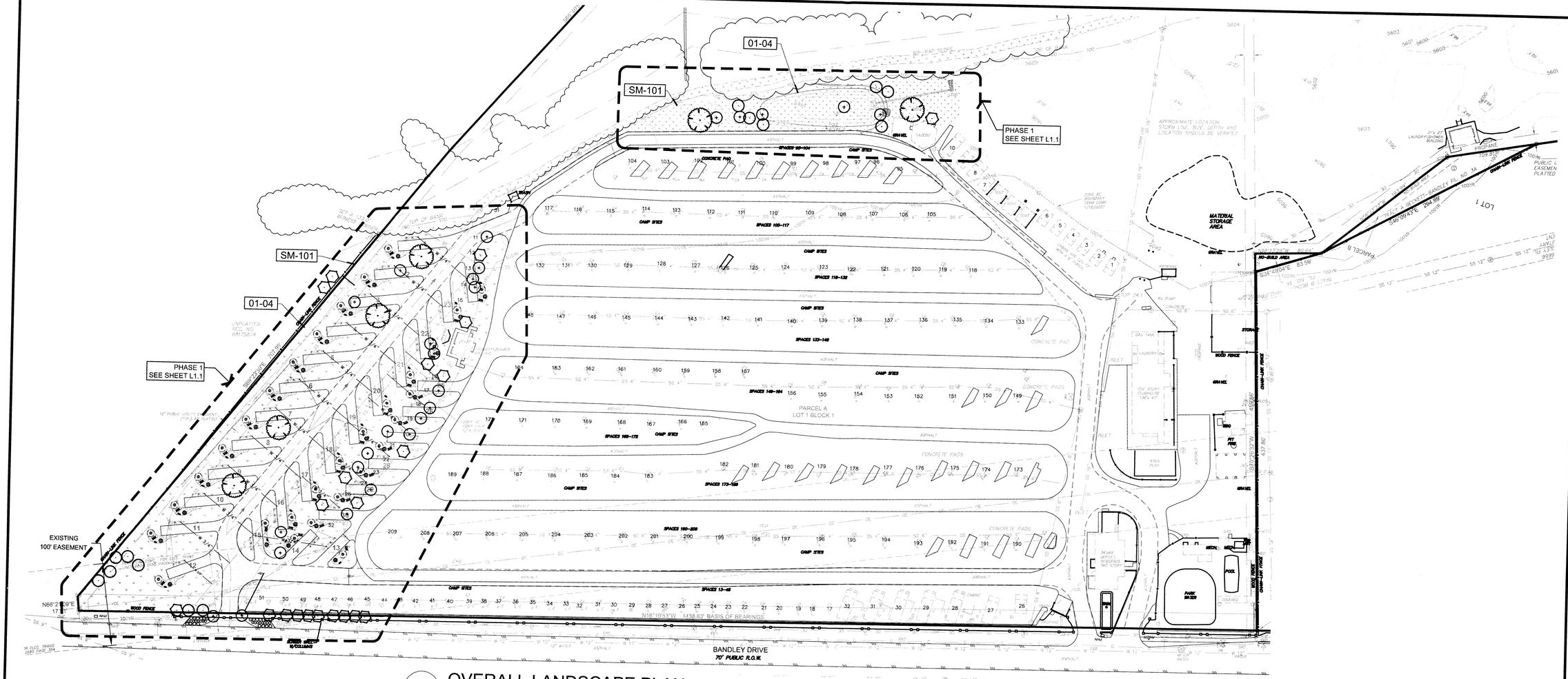
PROFESSIONAL SEAL
TROY L. MOORE III
COLORADO REGISTERED
54971
EXP 10/31/20
PROFESSIONAL ENGINEER
11-20-19

PROJECT STATUS
SUBMITTAL 1

SHEET TITLE
EROSION CONTROL DETAILS

SHEET NUMBER
8 of 8

XXXXX



OVERALL LANDSCAPE PLAN

SCALE: 1" = 60'

0 60 120 180

N

SITE CATEGORY REQUIREMENTS - PHASE 1

LANDSCAPE SETBACKS (or Double Frontage Lot Streetscapes)

Street Name or Zone Boundary (elev.)	Street Classification	Width (in ft.) Req./Prov.	Linear Footage	Tree/Feet Required	No. of Trees Req./Prov.
Bandley Dr	Minor Arterial	15 / 20	360 - PH 1	1 / 20	18 / 18 (11 Existing)*

Shrubs Required / Provided	Ornamental Grass Substitutes Required / Provided	Setback Plant Abbr. Denoted on Plan*	Percent Ground Plane Veg. Req. / Provided
36 / 36	N/a	LS-BD	50% / 85%

* Utility Easement limits shade tree planting. Small ornamental and evergreen trees have been provided in easement area.

MOTOR VEHICLE LOTS

No. of Vehicle Spaces Provided	Shade Trees (1/8) Required / Provided	Required Shade Tree Designation	Vehicle Lot Frontage (s)	Length of Frontage (ft.) (excluding driveways)
30	4 / 4	-	-	-

Frontage Screening Req / Provided (LF)	Length of Screening Wall or Berm Provided	Vehicle Lot Plant Abbr. on Plan	Percent Ground Plane Veg. Req. / Provided
-	322 LF Wall	-	-

INTERNAL LANDSCAPING

Net Site Area (SF) (less public R.O.W.)	Percent Min. Internal Area (%)	Internal Area (SF) Required / Provided	Percent Ground Plane Veg. Req. / Provided
357,200 (Phase 1)	5% of parking (226,719)	11, 315 / 24,350	50% / 59 %

LANDSCAPE BUFFERS & SCREENS - N/A

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY
01-04	SEED ALL DISTURBED AREAS WITH NATIVE LAWN MIX UNLESS OTHERWISE NOTED.	

SYMBOL	DESCRIPTION	QTY
SM-101	ALL SEEDED AREAS TO BE AMENDED AND HYDROSEEDED. PLACE EROSION CONTROL MAT ON ALL SLOPES EXCEEDING 4:1.	

PLANT SCHEDULE

QTY FOR REFERENCE ONLY. VERIFY ALL COUNTS PER PLAN

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL
	CO	6	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	2"CAL
	PE	13	PINUS EDULIS / PINON PINE	6` B&B	
	EX-REM	26	REMOVE AS INDICATED / EXISTING TREE TO BE REMOVED RECOMMENDATION	EX	
	EX-RET	21	TO REMAIN- PROTECT DURING CONSTRUCTION / EXISTING TREE TO REMAIN	EX	

SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE
	JB	8	JUNIPERUS SQUAMATA `BLUE STAR` / BLUE STAR JUNIPER	5 GAL
	PAL	16	PEROVSKIA ATRIPLICIFOLIA `LITTLE SPIRE` / DWARF RUSSIAN SAGE	5 GAL
	PF	12	POTENTILLA FRUTICOSA `GOLDFINGER` / GOLDFINGER POTENTILLA	5 GAL

GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT
	NLS	83,007 SF	NATIVE LAWN SEED MIX / PAWNEE BUTTES SEED CO NATIVE LAWN MIX 2-3 LBS PER 1000 SQUARE FEET. IRRIGATED SEED MIX.	SEED

MULCHES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT
	RM	619 SF	ROCK MULCH / RIVER ROCK 1"-2" PER OWNER APPROVAL. PLACE TO A UNIFORM DEPTH OF 3" OVER PERMEABLE WEED BARRIER FABRIC.	MULCH

1. ALL LANDSCAPING SHALL BE REASONABLY MAINTAINED AND ANY PLANT MATERIAL SHALL BE REPLACED WITHIN THIRTY (30) DAYS OF ITS DEMISE OR BY AN AGREED UPON DATE IF SEASONAL CONDITIONS PROHIBIT REPLACEMENT WITHIN THE THIRTY (30) DAY TIME REQUIREMENT.
2. THE MAINTENANCE OF LANDSCAPING IN THE PUBLIC RIGHT-OF-WAY IN ALL ZONING DISTRICTS SHALL BE THE RESPONSIBILITY OF THE ABUTTING PROPERTY OWNER.

Licensure Notes:

This document is for City review and approval only.

This document is not a construction drawing unless stamped by the Landscape Architect of record. Projects require a stamped set of construction documents for landscape improvement installation.

CITY FILE #

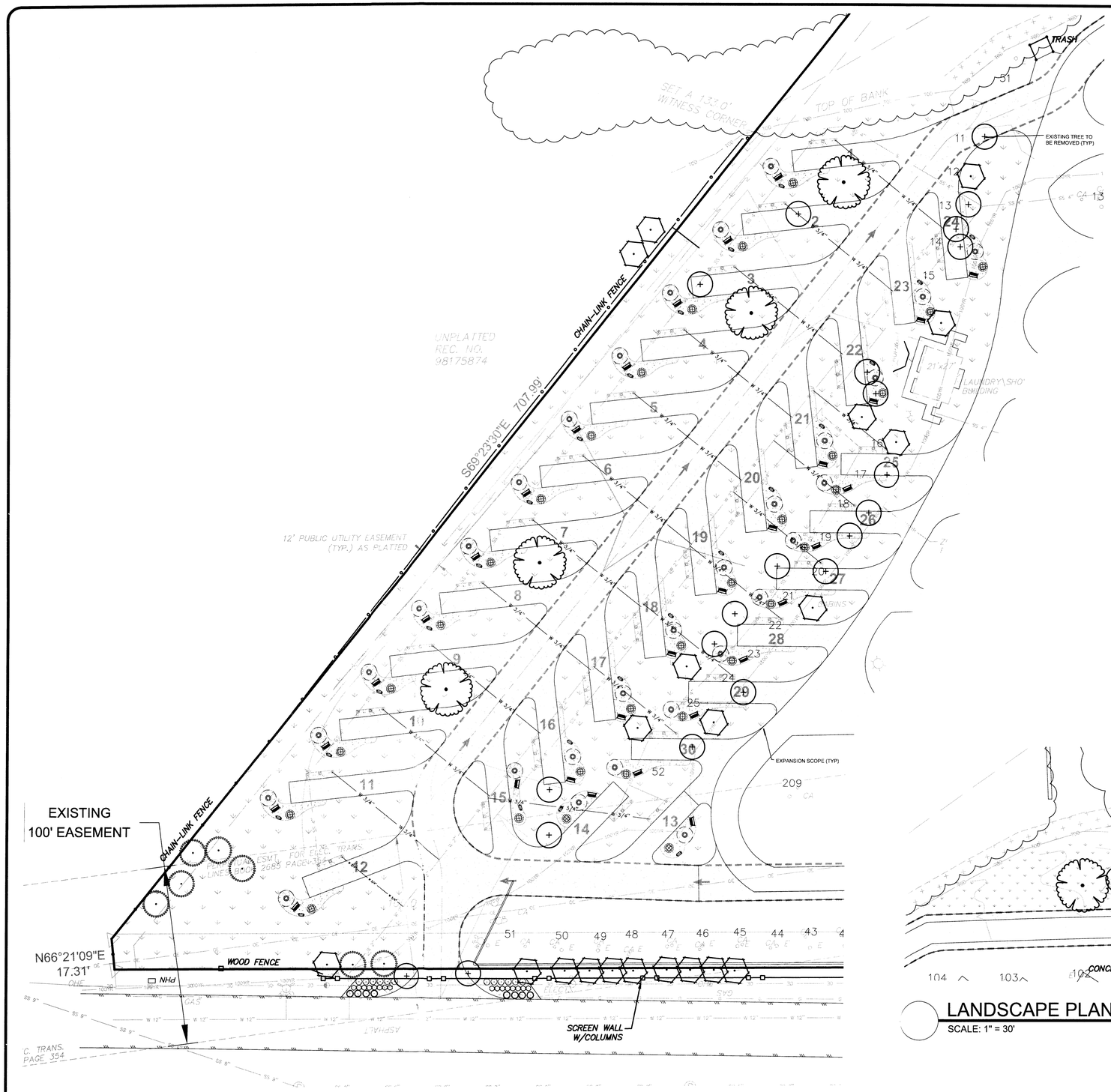
REVISIONS:

NDS
NATURAL DESIGN SOLUTIONS
Landscape Architecture
Land Planning and Design
5539 Cat Drive Longmont, CO 80503
(303) 443-0386 neil@ndscolorado.com

KOA CAMPGROUND EXPANSION - PHASE 1
FOUNTAIN, CO

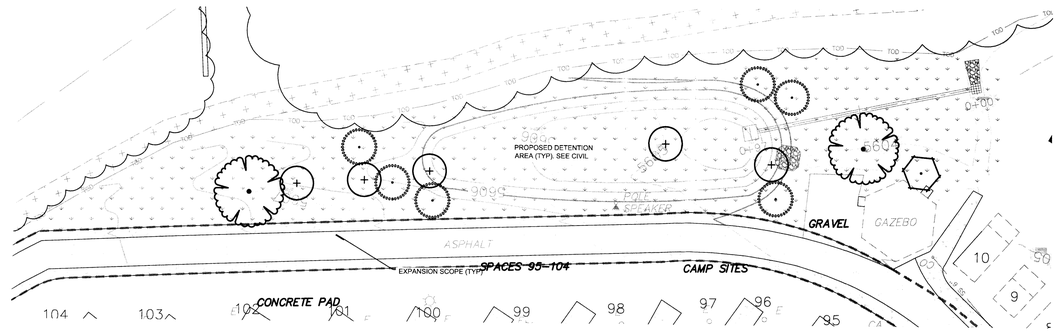
FINAL LANDSCAPE PLAN

PROJ. NO.:
DATE: 05.31.169
SCALE: See Sheet
DRAWN: JRO
CHKD BY: NAM
SHEET L1.0



LANDSCAPE PLAN ENLARGEMENT - PHASE 1

SCALE: 1" = 30'



LANDSCAPE PLAN ENLARGEMENT - DETENTION

SCALE: 1" = 30'

PLANT SCHEDULE

QTY FOR REFERENCE ONLY. VERIFY ALL COUNTS PER PLAN

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL
	CO	6	CELTIS OCCIDENTALIS / COMMON HACKBERRY	B & B	2"CAL
	PE	13	PINUS EDULIS / PINON PINE	6' B&B	
	EX-REM	26	REMOVE AS INDICATED / EXISTING TREE TO BE REMOVED RECOMMENDATION	EX	
	EX-RET	21	TO REMAIN- PROTECT DURING CONSTRUCTION / EXISTING TREE TO REMAIN	EX	

SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE
	JB	8	JUNIPERUS SQUAMATA `BLUE STAR` / BLUE STAR JUNIPER	5 GAL
	PAL	16	PEROVSKIA ATRIPLICIFOLIA `LITTLE SPIRE` / DWARF RUSSIAN SAGE	5 GAL
	PF	12	POTENTILLA FRUTICOSA `GOLDFINGER` / GOLDFINGER POTENTILLA	5 GAL

GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT
	NLS	83,007 SF	NATIVE LAWN SEED MIX / PAWNEE BUTTES SEED CO NATIVE LAWN MIX 2-3 LBS PER 1000 SQUARE FEET. IRRIGATED SEED MIX.	SEED

MULCHES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT
	RM	619 SF	ROCK MULCH / RIVER ROCK 1"-2" PER OWNER APPROVAL. PLACE TO A UNIFORM DEPTH OF 3" OVER PERMEABLE WEED BARRIER FABRIC.	MULCH

Licensure Notes:

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CITY FILE #

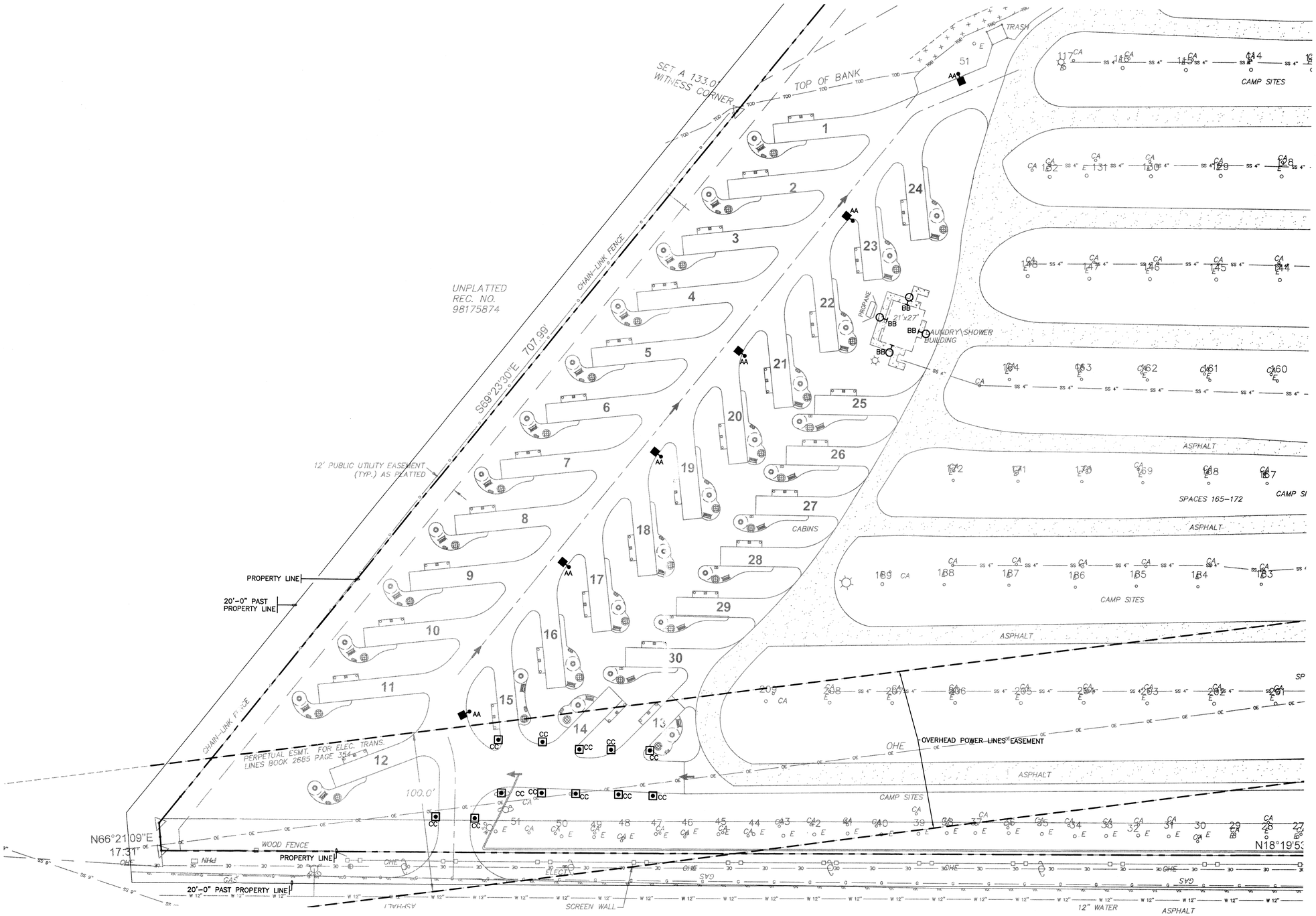
REVISIONS:

NATURAL DESIGN SOLUTIONS
Landscape Architecture
Land Planning . Irrigation Design
5539 Cortland Drive, Loveland, CO 80513
(303) 443-0366 . neil@ndscolorado.com

KOA CAMPGROUND EXPANSION - PHASE 1
FOUNTAIN, CO

FINAL LANDSCAPE PLAN

PROJ. NO.:	
DATE:	05.31.169
SCALE:	See Sheet
DRAWN:	JRO
CHKD BY:	NAM
SHEET	L1.1



PHOTOMETRIC SITE PLAN

0 15 30 60

Scale: 1"=30'

NORTH

DESIGN IN PROGRESS
NOT FOR CONSTRUCTION
05/15/2019

KOA FOUNTAIN: EXPANSION

8100 BANDLEY
FOUNTAIN, COLORADO

RESNUTT + ASSOCIATES, L.L.C.
ELECTRICAL ENGINEERS
4545 18th STREET SUITE 200
GREELEY, COLORADO 80634
GREELEY: (970) 330-3266

JOB	190
DATE	05/15/2019
DRAWN	CAD
CHECKED	WMC

PHOTOMETRIC SITE PLAN

E1P

Lumark

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

The Prevail LED area, site luminaire combines optical performance, energy efficiency and long term reliability in an advanced, patent pending modern design. Utilizing the latest LED technology, the Prevail luminaire delivers unparalleled uniformity resulting in greater pole spacing. A versatile mount standard arm facilitates ease of installation for both retrofit and new installations. With energy savings greater than 62%, the Prevail fixture replaces 150-450W metal halide fixtures in general area lighting applications such as parking lots, walkways, roadways and building areas.

SPECIFICATION FEATURES

Construction
Construction is comprised of a heavy-duty, single-piece die-cast aluminum housing. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. The die-cast aluminum door is tethered to provide easy access to the driver if replacement is required. A one-piece silicone gasket seals the door to the fixture housing. The optics is mounted on a versatile, aluminum plate that dissipates heat from the LEDs resulting in longer life of the fixture. The fixture is IP66 and 3G vibration rated (ANSI C136.31) to insure strength of construction and longevity in the selected application.

Optics
Precision molded, high efficiency optics are precisely designed to shape the distribution, maximizing efficiency and application spacing. Available in Type II, III, IV and V distributions with lumen packages ranging from 6,100 to 18,900 nominal lumens. Light engine configurations consist of 1 or 2 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L82/60,000 hours at 25°C) per IESNA TM-21. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical
LED drivers are mounted to the fixture for optimal heat sinking and ease of maintenance. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Class 1 electronic drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Available in 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 10kV/10 kA surge protection standard. 0-10V dimming driver is standard with leads external to the fixture. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options.

Mounting
Standard pole mount arm is bolted directly to the pole and the fixture slides onto the arm and locks in place with a bolt facilitating quick and easy installation. The versatile, patented, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the standard mounting arm enables wiring of the fixture without having to access the driver compartment. A knock-out in the standard mounting arm enables round pole mounting. Wall mount and mast arm mounting options are available. The mast arm adapter fits 2-3/8" O.D. tenon.

Finish
Housing and cast parts finished in five-stage super TGIC polyester powder coat paint. 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is bronze. Additional colors available in white, grey, black, dark platinum and graphite metallic.

Warranty
Five-year warranty.

PRV PREVAIL

LED

AREA / SITE / ROADWAY LUMINAIRE

DIMENSIONS

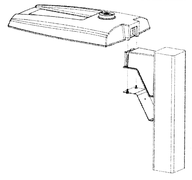
CERTIFICATION DATA
UL and cUL Wet Location Listed
IP66 Rated
3G Vibration Rated
ISO 9001
DesignLights Consortium® Qualified*
Dark Sky Approved (3000K CCT and warmer only)

ENERGY DATA
Electronic LED Driver
0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 and 60Hz,
347V-60Hz, 480V/60Hz
-40°C Minimum Temperature Rating
+40°C Ambient Temperature Rating

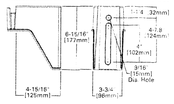
EPA
Effective Projected Area (Sq. Ft.): 0.75

SHIPPING DATA
Approximate Net Weight:
20 lbs. (9.09 kgs.)

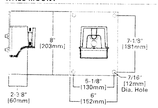
VERSATILE MOUNT SYSTEM



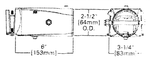
POLE MOUNT ARM



WALL MOUNT



MAST ARM MOUNT



MOUNTING CONFIGURATIONS AND EPAS

Wall Mount

Arm Mount Single EPA 0.75

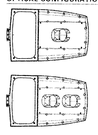
Arm Mount 2 @ 180° EPA 1.50

Arm Mount 2 @ 90° EPA 1.50

Arm Mount 3 @ 90° EPA 2.25

Arm Mount 4 @ 90° EPA 3.00

OPTICAL CONFIGURATIONS



POWER AND LUMENS

Light Engine		A15	A21	A40	A60
Nominal Power (Watts)		57W	81W	163W	163W
Input Current @ 120V (A)		0.49	0.7	1.23	1.34
Input Current @ 277V (A)		0.22	0.3	0.54	0.60
Input Current @ 347V (A)		0.18	0.2	0.45	0.49
Input Current @ 480V (A)		0.13	0.2	0.33	0.35
Type II	Lumens	9,139	13,0	16,073	16,830
	BUG Rating	B1-U0-G1	B2-U	B3-U0-G3	B3-U0-G3
Type III	Lumens	6,792	10,0	15,203	18,892
	BUG Rating	B1-U0-G2	B2-U	B2-U0-G3	B3-U0-G4
Type IV	Lumens	6,173	10,0	15,157	18,935
	BUG Rating	B1-U0-G2	B2-U	B2-U0-G4	B2-U0-G5
Type V	Lumens	6,393	10,0	15,697	19,610
	BUG Rating	B3-U0-G3	B4-U	B4-U0-G4	B5-U0-G4

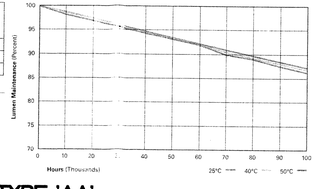
NOTE: Lumen output for standard bronze fixture color. Different housing colors may affect lumen output. IES files for the non-standard colors are available upon request.

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
25°C	> 96%	> 93%	> 92%	> 87%	> 260,000
40°C	> 96%	> 93%	> 92%	> 87%	> 258,000
50°C	> 95%	> 92%	> 91%	> 86%	> 250,000

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99



TYPE 'AA'

TUSV

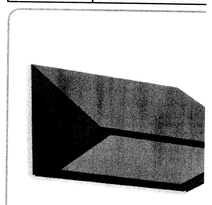
Type:

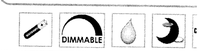
Job Name:

Construction:
- Steel housing and chassis
- Bottom lens is clear tempered glass

Light Source:
- LED
- Dimming (0 - 10v) to 10% **Included**

Notes:
- Integral mounting plate
- All aluminum construction (painted finish only)
- Photocell - (21) specify voltage 120v or 277v
- Optional battery backup
- Dark Sky compliant
- UL and CUL listed **WET** location
- LED Components
  - Replaceable Module
  - CRI > 80
  - Universal 120/277 volt standard
  - 5-Year Warranty on LED Components





TUSW-8	TUSW-10	TUSW-12
Height - 7"	Height - 8 ¾"	Height - 10 ½"
Width - 8 ¼"	Width - 10 ¾"	Width - 12 ¼"
Depth - 8 ¾"	Depth - 10 ¼"	Depth - 12"

ORDERING INFORMATION

Example: TUSW-12-LED-U-18W-3-W2-CEG

Model	Cage	Voltage	Lamping	Kelvin	Finish	Diffuser	Op
TUSW-8-LED		U 120/277v	7w LED - 900lm 14w LED - 1600lm (114 lm per watt)	3 3000K 4 4000K Optional 3 3500K	B1 Satin Black W2 Gloss White Z1 Satin Bronze Z3 Text Bronze Optional (See Price List) W1 Yolk W3 Text White B2 Text Black T4 Shimmer Gray M13 Anod Silver T6 Pewter W13 Pearl Beige P2 Brushed Alum P9 Brushed Nickel M16 Antique Brass	CEG Clear Tempered Glass	DIM LED Dim 42 All Al 21 Photo -01 1 -02 2 Batter BB10 1
TUSW-10-LED			7w LED - 930lm 14w LED - 1500lm 21w LED - 2400lm (114 lm per watt)				
TUSW-12 -LED			9w LED - 1000lm 18w LED - 2000lm 27w LED - 3000lm 36w LED - 4000lm (111 lm per watt)				

TYPE 'BB'

Invue

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

The Arbor Bollard from Invue brings architectural style to the pedestrian level. The Arbor Bollard can be used along with Arbor post top luminaires to provide a coordinated look sure to enhance any architectural setting. WaveStream™ LED optics present a pixilation free image replacing visible glare, while providing high levels of pavement illumination.

SPECIFICATION FEATURES

Construction
Top Housing: Low copper, cast aluminum top maintains strength and precision while providing for: rapid heat dissipation, vandal resistance and superior dayform. Lower Housing: Heavy 0.188" wall seamless extruded aluminum 4" O.D. shaft attaches to base via stainless steel fasteners. BASE: Rugged corrosion resistant extruded aluminum base mounts to foundation with three anchor bolts. Base features a pliable 1/2" thick neoprene leveling pad fitted to the bottom of base allows for sealing against water and dirt ingress regardless of minor deviations in grade of concrete pad.

Optics
Symmetric and asymmetric distributions are available using WaveStream LED optical technology. The optical waveguide is manufactured using precision injection molded acrylic for the ultimate level of glare control and visual comfort. Offered standard in 4000K (+/- 275K) CCT, optional 3000K minimum 80 CRI.

Electrical
LED driver(s) are mounted to electrical tray for easy installation and maintenance for 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Offered standard with 0-10V dimming driver and Eaton's proprietary circuit module designed to withstand 10kV of transient line surge. Luminaire is suitable for ambient temperature applications from -30°C (-22°F) to 40°C (104°F) and IP66 rated against the ingress of dust and water.

Controls
The Arbor Bollard options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. An integrated dimming and occupancy sensor is a standalone control option available in on/off (MSP) and bi-level dimming (MSP/DIM) operation. An optional handheld remote (ISRH) allows custom programming to suit all needs.

Mounting
Luminaire is mounted to 3 x 1/2" anchor bolts on a 2-3/8" bolt circle to with stand a 600 pound overturn moment. Order anchor bolts and installation template separately (ABAnchor).

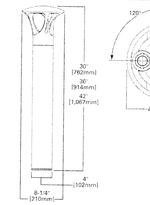
Finish
Eaton utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for Eaton to serve functionally as well as decorative. Good film appearance combinded with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention. RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard.

Warranty
Five-year warranty.

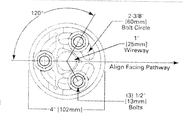
ABB ARBOR BOLLARD

PATHWAY LUMINAIRE

DIMENSIONS



BOLT CIRCLE ORIENTATION



CERTIFICATION DATA
UL/cUL Listed
IP66 Housing
ISO 9001
RoHS

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V 60Hz,
480V 60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

Approximate Net Weight:
19.25 lbs. [8.75 kgs.]

TD501002EN
2017-04-18 08:59:11

POWER AND LUMENS

Lumen/Distribution	B1 Symmetric	B2 Symmetric	B1 Asymmetric	B2 Asymmetric
Drive Current				
Power Wattage (Watts)	16W	32W	11W	23W
Input Current (mA) @ 120V	140	270	100	200
Input Current (mA) @ 208V	80	160	60	120
Input Current (mA) @ 240V	70	140	50	100
Input Current (mA) @ 277V	60	120	40	90
Power Wattage (Watts)	19W	37W	13W	27W
Input Current (mA) @ 347V	60	110	40	80
Input Current (mA) @ 480V	180	320	120	240
Optics				
Lumens	717	1,276	472	848
BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Calculated L70 (Hours)
25°C	>94%	>350,000
40°C	>93%	>250,000
50°C	>90%	>170,000

NOTE: Maintenance data applies to the highest drive current and represents the worst case at the highest wattage.

COLOR TEMPERATURE

Color Temperature (CCT)	CRI (Nominal)	Multiplier (Hours)
4000	70	1.00
3000	80	0.87

ABB ARBOR BOLLARD

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.97

ORDERING INFORMATION

Sample Number: ABB-B2-LED-42-D1-A-GM

Product Family	Lumen Output [1]	Source	Height	Voltage	Distribution	Color
ABB=Arbor Bollard	**B1**=Mid Lumen Output **B2**=High Lumen Output	**LED**	**30**=30" **36**=36" **42**=42"	**D1**=Dimming Driver (120-277V) [3] **347**=347V [3] **480**=480V [3,4]	**A**=Asymmetric **S**=Symmetric	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Custom Color [5]
Options (Add as Suffix)					**Accessories** (Order Separately)	
9030=90 CRI / 3000K CCT [6] **HA**=High Ambient [7] **MS/DIM-HB**=Motion Sensor for Dimming or Bi-Level Operation (Horizontal Detection) [8] **MS/DIM-2HB**=Twin Motion Sensors for 360° Dimming or Bi-Level Operation (Horizontal Detection) [8] **DIM**=0-10V Dimming Driver Leads Brought Out from Fixture					**ABAnchor**=Anchor Bolt Kit and Template [9] **ISRH**=Wireless Configuration Tool for Integrated Sensor (Occupancy Sensor Settings)	

NOTES:
1. Standard 4000K CCT minimum 70 CRI.
2. 0-10 dimming driver standard.
3. Requires the use of a step down transformer.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Custom RAL and powder coat color matching available. Consult your lighting representative at Eaton for more information.
6. Extended roof fitness styles. Use dedicated CLS files when performing layouts.
7. 50°C ambient rating.
8. The ISRH configuration tool is required to adjust parameters including high and low dimming levels, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
9. Contact your customer service representative at Eaton for advance shipping.

TYPE 'CC'

DESIGN IN PROGRESS
NOT FOR CONSTRUCTION
05/15/2019

KOA FOUNTAIN: EXPANSION

8100 BANDLEY
FOUNTAIN, COLORADO

RJE Nutt + ASSOCIATES, LLC.
ELECTRICAL CONSULTING ENGINEERS
4545 18th STREET SUITE 200
GREELEY, COLORADO 80634
GREELEY: (970) 330-3266

JOB	190
DATE	05/15/2019
DRAWN	CAD
CHECKED	WMC

FIXTURE CUT SHEETS

E2P