C & L ESTATES

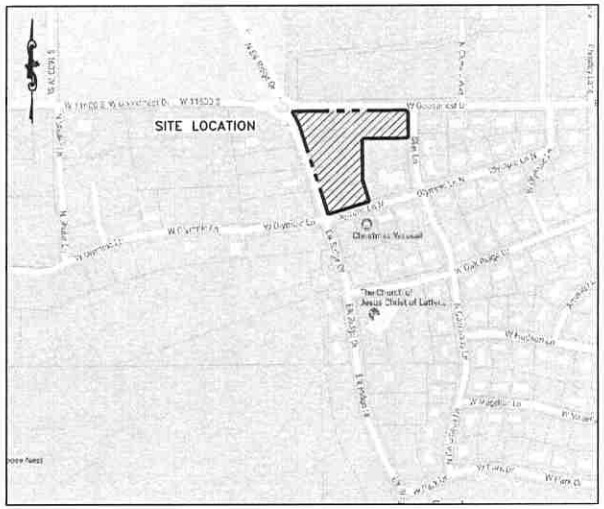
A RESIDENTIAL SUBDIVISION
ELK RIDGE, UTAH
FINAL PLAN SET
APRIL 2020

-SHEET INDEX-

SHEET	SHEET NAME
1	COVER
2	FINAL PLAT
3	EROSION CONTROL PLAN SHEET
4A	UTILITY PLAN SHEET
4B	UTILITY PLAN SHEET
5	RE-VEGETATION/RETENTION PLAN
6	DETAIL SHEET
7	DETAIL SHEET
8	DETAIL SHEET
PP-01	PLAN & PROFILE - ELK RIDGE DRIVE - STA. 10+00 TO STA. 13+50
PP-02	PLAN & PROFILE - ELK RIDGE DRIVE - STA. 13+50 TO STA. 16+50
BM-01	BEST MANAGEMENT PRACTICES

LEGEND
APPLIES TO ALL SHEETS

- SET SUBDIVISION MONUMENT
- FOUND BRASS CAP
- FOUND ALUMINUM CAP
- FOUND 5/8" IRON PIN
- FOUND 1/2" IRON PIN
- SET 5/8" IRON PIN
- SET 1/2" IRON PIN
- CALCULATED POINT, NOT SET
- EXISTING POWER POLE
- PROPOSED STREET LIGHT
- PROPOSED FIRE HYDRANT
- PROPOSED SIGN
- PROPOSED STREET SIGN
- PROPERTY BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY LINE
- LOT LINE
- SECTION LINE
- EASEMENT
- EXISTING DEED LINE
- EDP — EDGE OF PAVEMENT
- OHP — EXISTING OVER HEAD POWER
- X — EXISTING FENCE LINE
- EXISTING DITCH
- SS — EXISTING SANITARY SEWER W/MANHOLE
- SD — PROPOSED ADS STORM DRAIN W/MH
- 8"SS — PROPOSED PVC SDR-35 SEWER W/MH
- CUL — PROPOSED PVC CLASS-200 CULINARY WATERLINE



VICINITY MAP
-NTS-

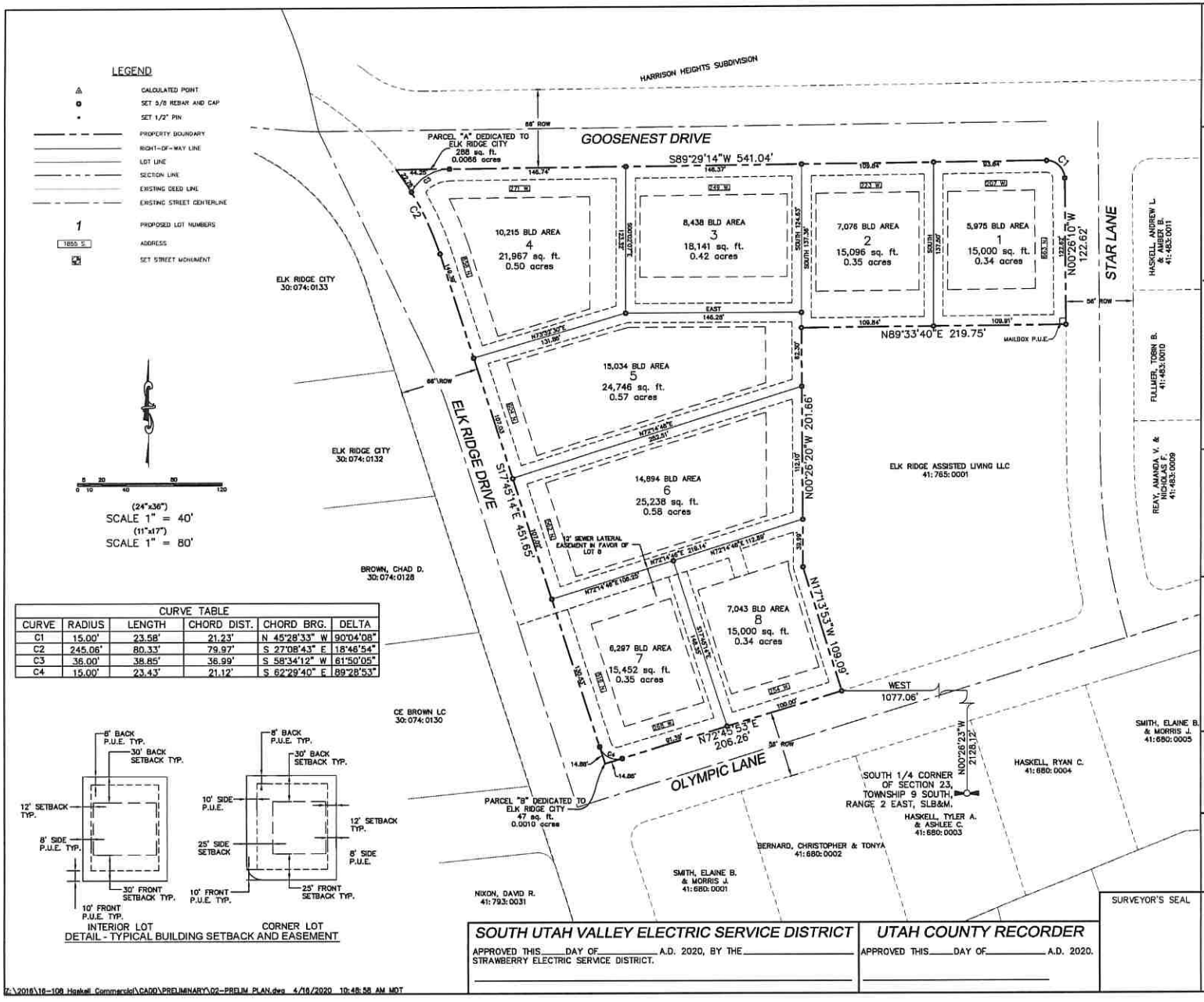
REGISTERED PROFESSIONAL ENGINEER
SCOTT D. PETERSON
No. 362274
5/27/20
STATE OF UTAH

DATA TABLE
ZONE CLASSIFICATION=C-1
PROPOSED ZONING=R-1-15000
TOTAL ACREAGE=3.47 ACRES
TOTAL # OF LOTS=8
UNITS/ACRE=2.30
ACREAGE OPEN SPACE=0.0 ACRES
ACREAGE IN ROADS=.01 ACRES
ACREAGE IN LOTS=3.46 ACRES

DEVELOPER
LEE HASKELL
901 GOOSENEST DR.
ELK RIDGE, UTAH
801-465-9452

SURVEYOR
BARRY PRETTYMAN
801-423-1040
251 W SR 198
SALEM, UT 84653

ATLAS ENGINEERING L.L.C.
PHONE: 801-655-0566
FAX: 801-655-0109
946 EAST 800 NORTH SUITE A
SPANISH FORK, UT 84660



DETAIL - TYPICAL BUILDING SETBACK AND EASEMENT

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD DIST.	CHORD BRG.	DELTA
C1	15.00'	23.58'	21.23'	N 45°28'33" W	90°04'08"
C2	245.06'	80.33'	79.97'	S 27°08'43" E	18°46'54"
C3	36.00'	38.85'	36.99'	S 58°34'12" W	61°50'05"
C4	15.00'	23.43'	21.12'	S 62°29'40" E	89°28'53"

SURVEYORS CERTIFICATE

I, BARRY L. PRETTYMAN DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 156406 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF SAID TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS AND THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THIS IS TRUE AND CORRECT.

DATE

BOUNDARY DESCRIPTION

BEGINNING AT A POINT WHICH LIES N00°26'23"W 2128.12 FEET ALONG THE ¼ SECTION LINE AND WEST 1077.06 FEET FROM THE SOUTH ¼ CORNER OF SECTION 23, TOWNSHIP 9 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE ALONG THE EXISTING BOUNDARY OF "HASKELL COMMERCIAL" THE FOLLOWING THREE (3) COURSES TO WIT: (1) N17°13'53"W 109.09 FEET, (2) N00°26'20"W 201.66 FEET (3) N89°33'40"E 219.75 FEET; THENCE N00°26'10"W 122.62 FEET; THENCE NORTHWESTERLY 23.58 FEET ALONG THE ARC OF A 15.00 FOOT RADIUS CURVE TO THE LEFT THROUGH THE CENTRAL ANGLE OF 90°04'08" THE CHORD BEARS N45°28'33"W 21.23 FEET; THENCE S89°29'14"W 541.04 FEET; THENCE SOUTHEASTERLY 80.33 FEET ALONG THE ARC OF A 245.06 FOOT RADIUS CURVE TO THE RIGHT THROUGH THE CENTRAL ANGLE OF 18°46'54" THE CHORD BEARS S27°08'43"E 79.97 FEET; THENCE S17°45'14"E 451.65 FEET; THENCE N72°45'53"E 206.26 FEET TO THE POINT OF BEGINNING. CONTAINS 3.47 ACRES.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, ALL OF THE UNDERSIGNED OWNER(S) OF ALL THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS, EASEMENTS AND OTHER PUBLIC AREAS AS INDICATED HEREON TO PAYSON CITY FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HAND(S) THIS DAY OF _____, A.D. 2020.

BY:

ACKNOWLEDGMENT

STATE OF UTAH
COUNTY OF UTAH } S.S.

ON THE ____ DAY OF _____, A.D. 2020, PERSONALLY APPEARED BEFORE ME _____, THE SIGNER(S) OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGED TO ME THAT THEY DID EXECUTE THE SAME.

A NOTARY PUBLIC COMMISSIONED IN THE STATE OF UTAH

COMMISSION# EXPIRES PRINTED NAME

LEGISLATIVE BODY

THE CITY COUNCIL OF ELK RIDGE CITY, COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS ____ DAY OF ____ A.D. 2020.

CITY RECORDER

PLANNING COMMISION APPROVAL

APPROVED THIS ____ DAY OF ____ A.D. 2020, BY THE ____ PLANNING COMMISSION.

DIRECTOR-SECRETARY CHAIRMAN, PLANNING COMMISSION

C & L ESTATES

A SINGLE FAMILY DEVELOPMENT
ELK RIDGE, UTAH COUNTY, UTAH
CONTAINING 8 LOTS AND 3.47 ACRES

SOUTH UTAH VALLEY ELECTRIC SERVICE DISTRICT

APPROVED THIS ____ DAY OF ____ A.D. 2020, BY THE ____ STRAWBERRY ELECTRIC SERVICE DISTRICT.

UTAH COUNTY RECORDER

APPROVED THIS ____ DAY OF ____ A.D. 2020.

SURVEYOR'S SEAL	CITY RECORDER SEAL	CITY ENGINEER SEAL	UTAH COUNTY RECORDER SEAL

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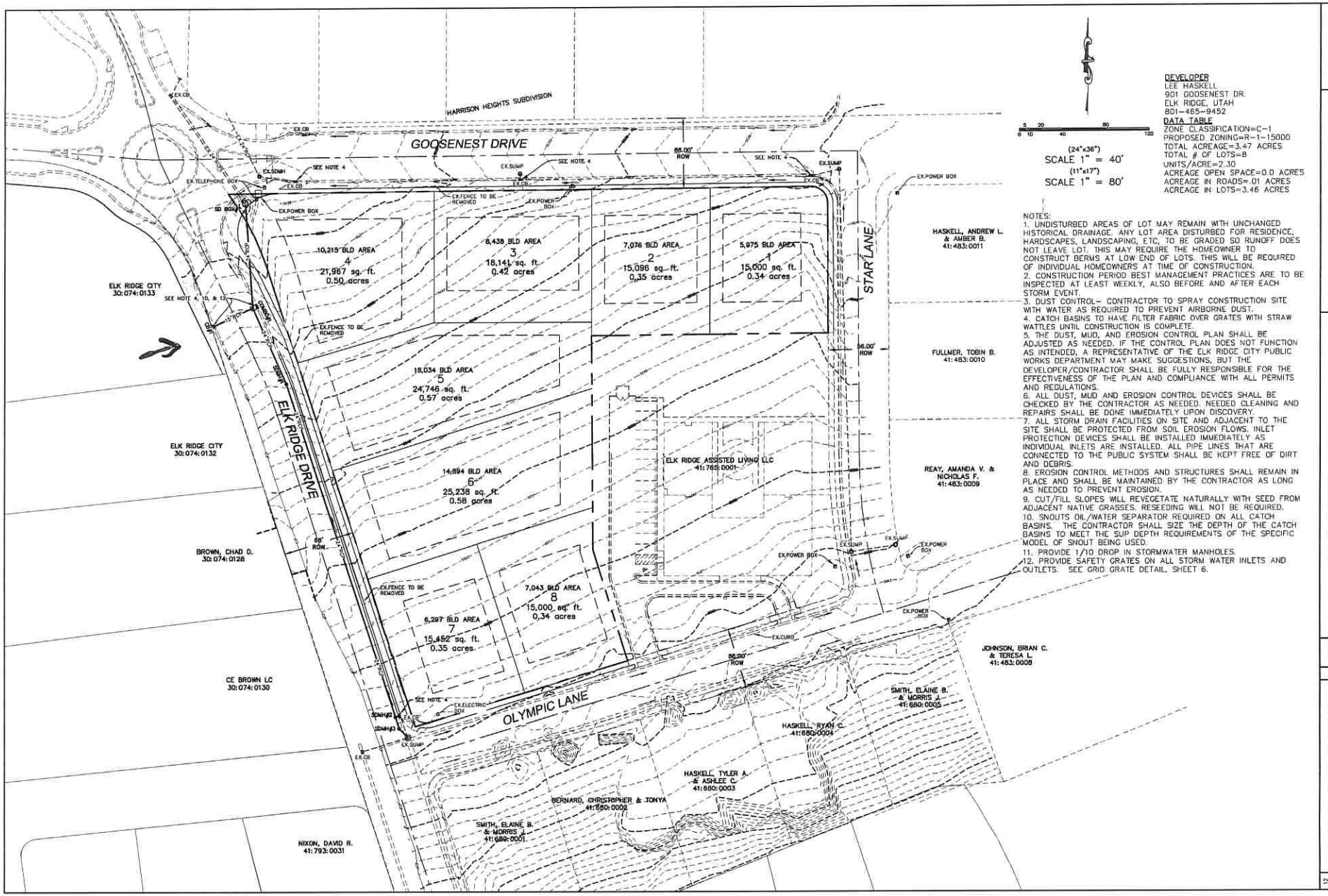

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

DEVELOPER
LEE HASKELL
901 GOOSENEST DR.
ELK RIDGE, UTAH
801-465-9452

DATA TABLE
ZONE CLASSIFICATION=C-1
PROPOSED ZONING=R-1-15000
TOTAL ACREAGE=3.47 ACRES
TOTAL # OF LOTS=8
UNITS/ACRE=2.30
ACREAGE OPEN SPACE=0.0 ACRES
ACREAGE IN ROADS=.01 ACRES
ACREAGE IN LOTS=3.46 ACRES

NOTES:
1. UNDISTURBED AREAS OF LOT MAY REMAIN WITH UNCHANGED HISTORICAL DRAINAGE. ANY LOT AREA DISTURBED FOR RESIDENCE, HARDSCAPES, LANDSCAPING, ETC, TO BE GRADED SO RUNOFF DOES NOT LEAVE LOT. THIS MAY REQUIRE THE HOMEOWNER TO CONSTRUCT BERMS AT LOW END OF LOTS. THIS WILL BE REQUIRED OF INDIVIDUAL HOMEOWNERS AT TIME OF CONSTRUCTION.
2. CONSTRUCTION PERIOD BEST MANAGEMENT PRACTICES ARE TO BE INSPECTED AT LEAST WEEKLY, ALSO BEFORE AND AFTER EACH STORM EVENT.
3. DUST CONTROL- CONTRACTOR TO SPRAY CONSTRUCTION SITE WITH WATER AS REQUIRED TO PREVENT AIRBORNE DUST.
4. CATCH BASINS TO HAVE FILTER FABRIC OVER GRATES WITH STRAW WATTLES UNTIL CONSTRUCTION IS COMPLETE.
5. THE DUST, MUD, AND EROSION CONTROL PLAN SHALL BE ADJUSTED AS NEEDED. IF THE CONTROL PLAN DOES NOT FUNCTION AS INTENDED, A REPRESENTATIVE OF THE ELK RIDGE CITY PUBLIC WORKS DEPARTMENT MAY MAKE SUGGESTIONS, BUT THE DEVELOPER/CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE EFFECTIVENESS OF THE PLAN AND COMPLIANCE WITH ALL PERMITS AND REGULATIONS.
6. ALL DUST, MUD AND EROSION CONTROL DEVICES SHALL BE CHECKED BY THE CONTRACTOR AS NEEDED. NEEDED CLEANING AND REPAIRS SHALL BE DONE IMMEDIATELY UPON DISCOVERY.
7. ALL STORM DRAIN FACILITIES ON SITE AND ADJACENT TO THE SITE SHALL BE PROTECTED FROM SOIL EROSION FLOWS. INLET PROTECTION DEVICES SHALL BE INSTALLED IMMEDIATELY AS INDIVIDUAL INLETS ARE INSTALLED. ALL PIPE LINES THAT ARE CONNECTED TO THE PUBLIC SYSTEM SHALL BE KEPT FREE OF DIRT AND DEBRIS.
8. EROSION CONTROL METHODS AND STRUCTURES SHALL REMAIN IN PLACE AND SHALL BE MAINTAINED BY THE CONTRACTOR AS LONG AS NEEDED TO PREVENT EROSION.
9. CUT/FILL SLOPES WILL REVEGETATE NATURALLY WITH SEED FROM ADJACENT NATIVE GRASSES. RESEEDING WILL NOT BE REQUIRED.
10. SNOUTS OIL/WATER SEPARATOR REQUIRED ON ALL CATCH BASINS. THE CONTRACTOR SHALL SIZE THE DEPTH OF THE CATCH BASINS TO MEET THE SUP DEPTH REQUIREMENTS OF THE SPECIFIC MODEL OF SNOUT BEING USED.
11. PROVIDE 1/10 DROP IN STORMWATER MANHOLES.
12. PROVIDE SAFETY GRATES ON ALL STORM WATER INLETS AND OUTLETS. SEE GRID GRATE DETAIL, SHEET 6.

SHEET NO. 3

EROSION CONTROL
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE:801-655-0566
FAX:801-655-0109
946 E. 1860 NORTH, SUITE A
SPANISH FORK, UT 84660

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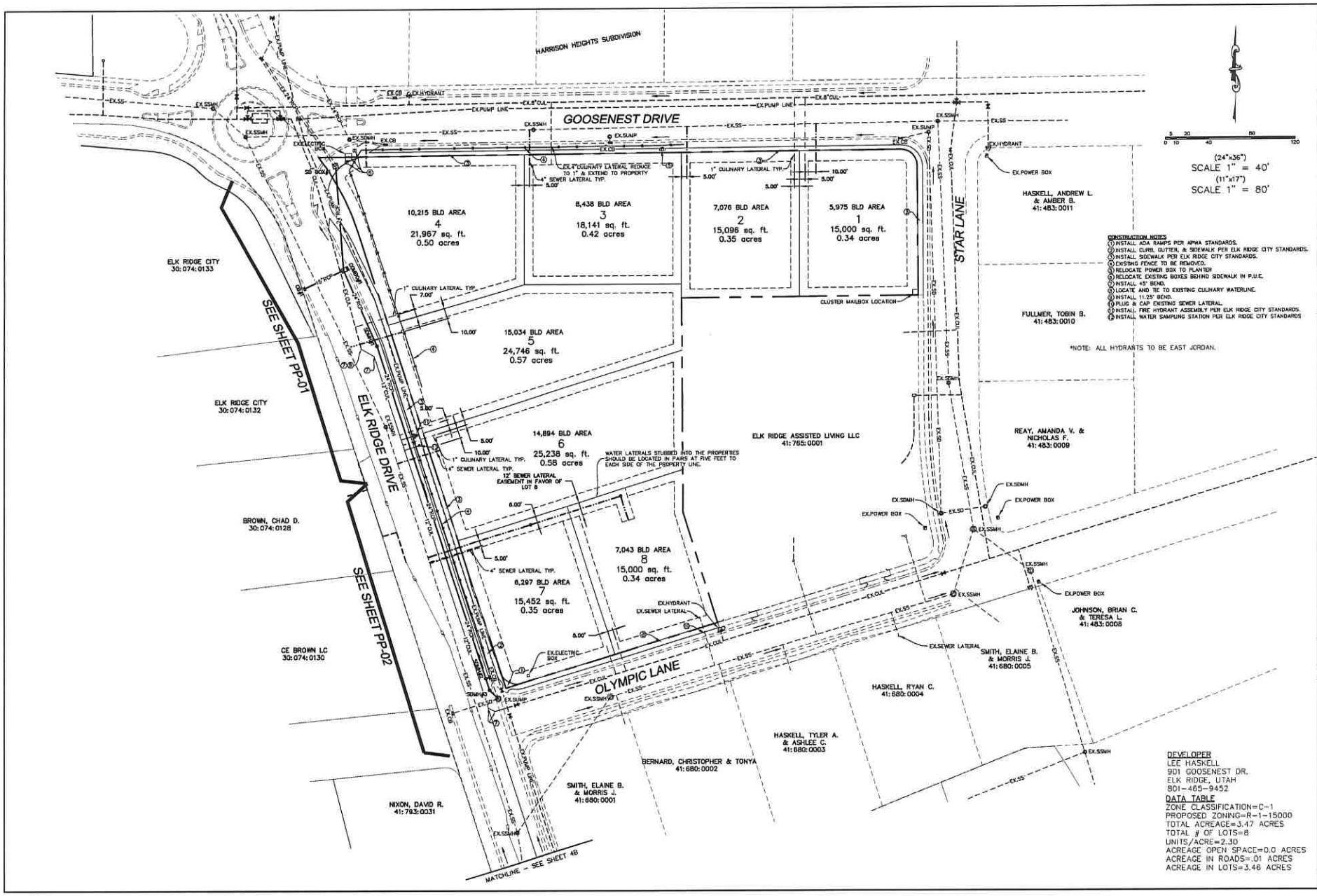

DEVELOPER
LEE HASKELL
901 GOOSENEST DR.
ELK RIDGE, UTAH
801-465-9452

DATA TABLE
ZONE CLASSIFICATION=C-1
PROPOSED ZONING=R-1-15000
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ACREAGE IN ROADS=.01 ACRES
ACREAGE IN LOTS=3.46 ACRES

SHEET NO. 4A

UTILITY PLAN SHEET
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE:801-655-0566
FAX:801-655-0109
946 EAST 800 NORTH SUITE A
SPANISH FORK, UT 84660

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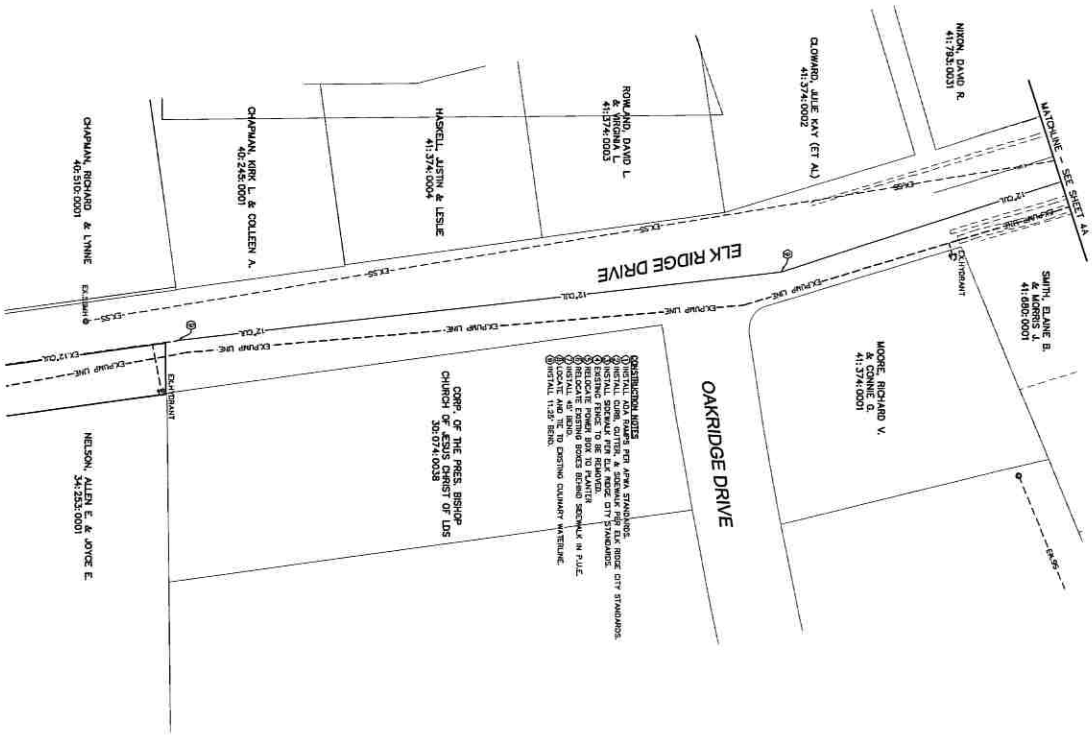

SCALE 1" = 80'
SCALE 1" = 40'
(11"x17")
(24"x36")

0 10 20 40 80 120

DEVELOPER
LEE HASKELL
901 COOSENEST DR.
ELK RIDGE, UTAH
801-465-9452

DATA TABLE
ZONE CLASSIFICATION=C-1
PROPOSED ZONING=R-1-15000
TOTAL ACREAGE=3.47 ACRES
TOTAL # OF LOTS=8
UNITS/ACRE=2.30
ACREAGE OPEN SPACE=0.0 ACRES
ACREAGE IN ROADS=.01 ACRES
ACREAGE IN LOTS=3.46 ACRES

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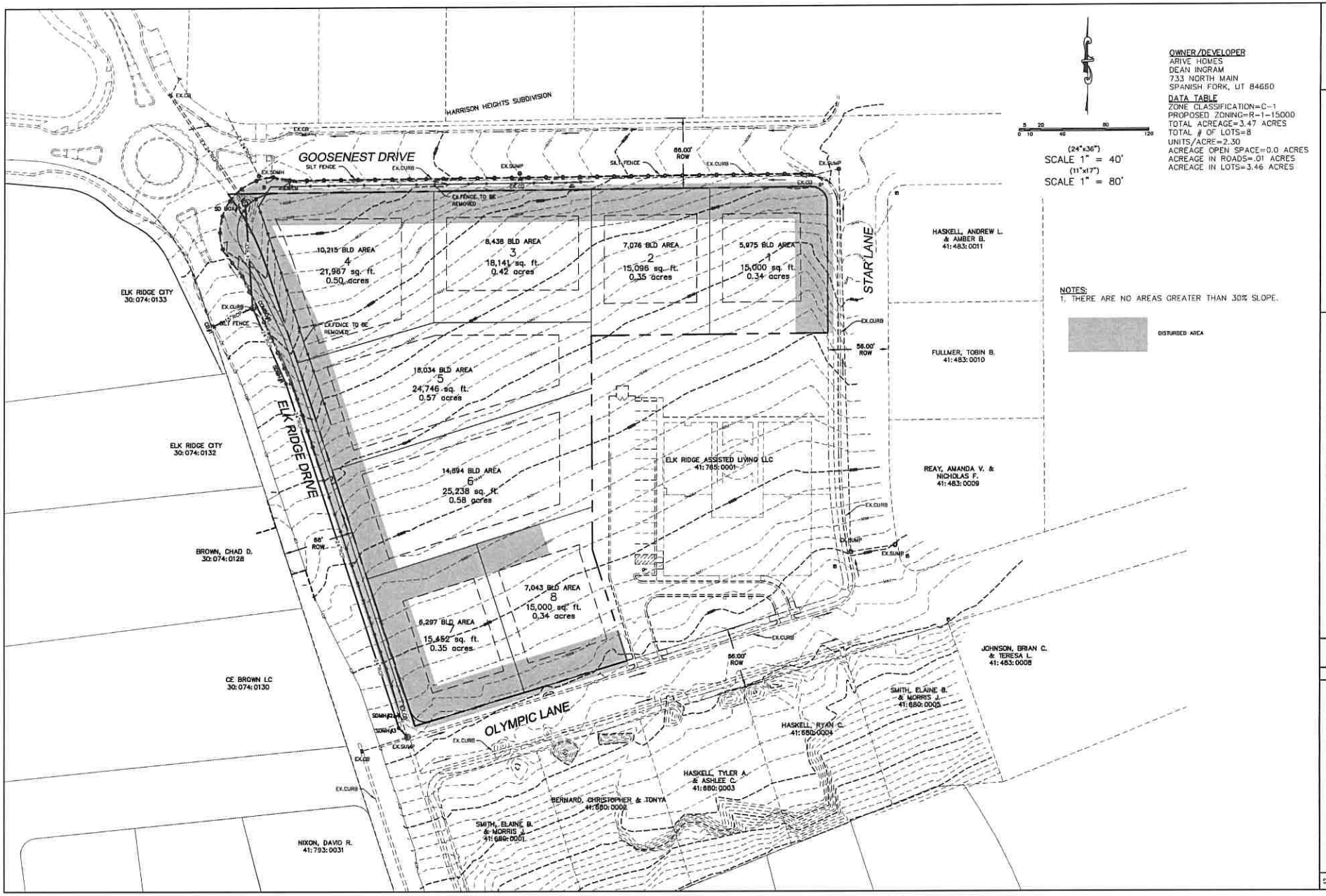
C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE: 801-655-0566
FAX: 801-655-0109
946 EAST 800 NORTH SUITE A
SPANISH FORK, UT 84660

UTILITY PLAN SHEET
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

SHEET NO.
4B



(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

0 10 40 80 120

OWNER/DEVELOPER
ARIVE HOMES
DEAN INGRAM
733 NORTH MAIN
SPANISH FORK, UT 84660

DATA TABLE
ZONE CLASSIFICATION=C-1
PROPOSED ZONING=R-1-15000
TOTAL ACREAGE=3.47 ACRES
TOTAL # OF LOTS=8
UNITS/ACRE=2.30
ACREAGE OPEN SPACE=0.0 ACRES
ACREAGE IN ROADS=.01 ACRES
ACREAGE IN LOTS=3.46 ACRES

NOTES:
1. THERE ARE NO AREAS GREATER THAN 30% SLOPE.

DISTURBED AREA

SHEET NO. 5

RE-VEGITATION/RETENTION PLAN
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE:801-655-0566
FAX:801-655-0109
946 EAST 800 NORTH SUITE A
SPANISH FORK, UT 84660

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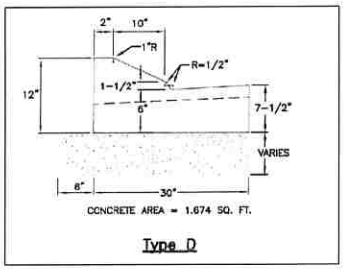

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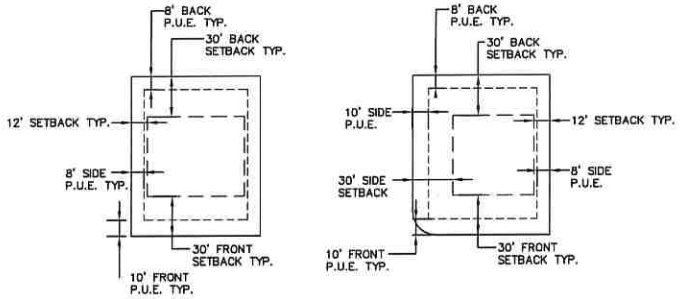
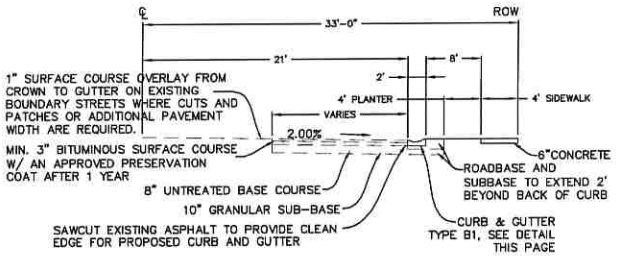


INTERIOR LOT CORNER LOT

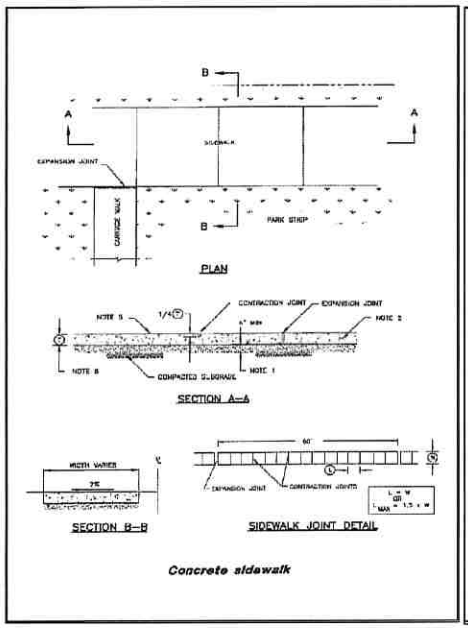
DETAIL - TYPICAL BUILDING SETBACK AND EASEMENT



*BASED ON THE REPORT, ONCE TOPSOIL IS STRIPPED, MOST OF THE NATIVE SOILS ARE SUITABLE TO BE USED AS SUB-BASE WHEN PROPERLY SCARIFIED AND COMPACTED. HOWEVER, LEAN CLAYS WERE ENCOUNTERED AT THE WEST SIDE OF THE PROJECT. LEAN CLAYS ARE NOT SUITABLE FOR SUB-BASE AND SHOULD BE REMOVED AND REPLACED WITH SUITABLE SUB-BASE MATERIAL PRIOR TO PLACING UNTREATED BASE COURSE.

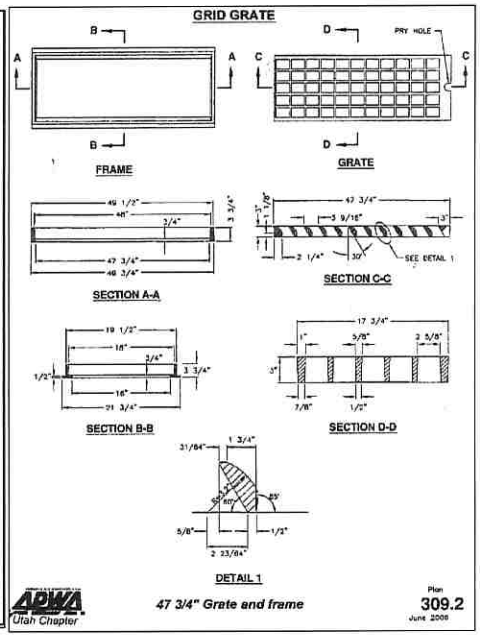
DETAIL - TYPICAL 66' ELK RIDGE DRIVE RIGHT-OF-WAY STREET SECTION

-NTS-



CONCRETE SIDEWALK STANDARD

1. UNTREATED BASE COURSE: Provide material specified in APW A Section 02050. Do not use gravel or sewer rock. Place per APWA Section 02322. Compact per APWA Section 02324 to a modified proctor density of 95-percent or greater. Maximum lift thickness is 8-inches before compaction.
2. CONCRETE: Class 4000 per APWA Section 03304. Place per APWA Section 02770. Cure per APWA Section 03390.
   A. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution, however, as spider cracks develop if air temperature exceeds 90 degrees F.
   B. Unless shown otherwise, provide 1/2-inch radius on concrete edges exposed to public view.
3. FINISH: Fine hair broom on longitudinal grades under 6% and rough hair broom on longitudinal grades over 6%.
4. DEPTH OF SIDEWALK (T):
   A. New construction: Nominal 6" in residential zones, 8" in non-residential zones.
   B. Removal and replacement construction: Match existing.



SHEET NO. 6

DETAIL SHEET
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE:801-655-0566
FAX: 801-655-0108
940 EAST 800 NORTH, SUITE A
SPANISH FORK, UT 84660

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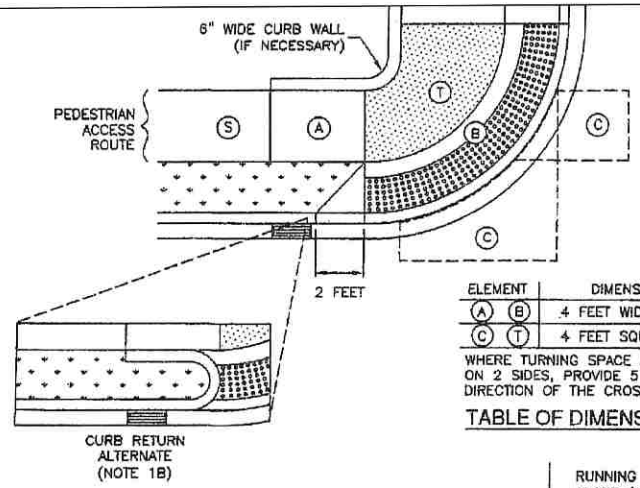
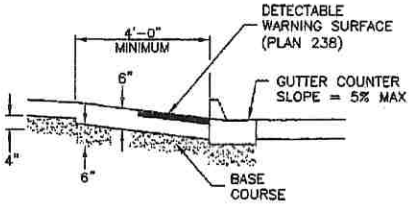


ELEMENT	DIMENSION
(A) (B)	4 FEET WIDE MINIMUM
(C) (T)	4 FEET SQUARE MINIMUM

WHERE TURNING SPACE IS CONSTRAINED ON 2 SIDES, PROVIDE 5 FEET IN THE DIRECTION OF THE CROSSWALK

TABLE OF DIMENSIONS

EXAMPLE C



MATERIALS

		RUNNING SLOPE (%) MAXIMUM	CROSS SLOPE (%) MAXIMUM
TURNING SPACE	(T)	2	2
BLENDED TRANSITION	(B)	5	2 (c)
CLEAR SPACE	(C)	5	2 (c)
SIDEWALK	(S)	STREET GRADE	2
FLARE	(F)	10	--
APPROACH	(A)	8.33	2

(a) RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. RUNNING SLOPE OF FLARE IS PARALLEL TO BACK OF CURB
(b) CROSS SLOPE IS PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAVEL
(c) SLOPE MAY EQUAL STREET OR HIGHWAY GRADE AT CROSSWALKS THAT ARE WITHOUT VEHICULAR YIELD OR STOP CONTROL

SLOPE TABLE

APWA Utah Chapter

Corner curb cut assembly

Plan
235.2
September 2011

SHEET NO. 7

DETAIL SHEET
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

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PHONE: 801-855-0566
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940 EAST 800 NORTH SUITE A
SPANISH FORK, UT 84660

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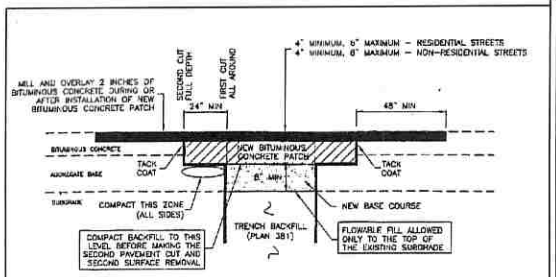
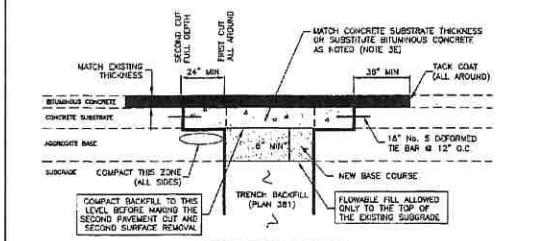


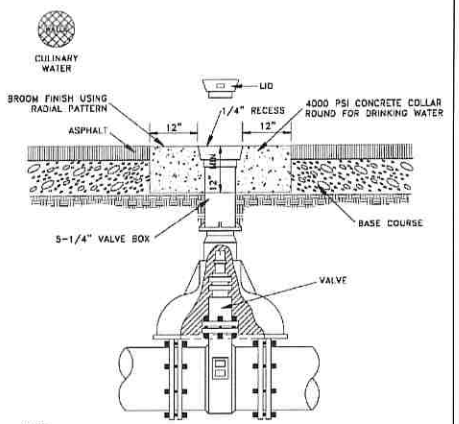
BITUMINOUS CONCRETE RESTORATION



COMPOSITE RESTORATION

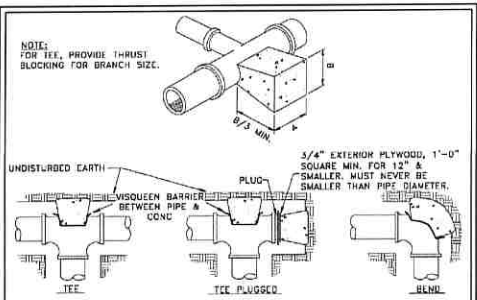
Bituminous pavement T-patch

1. **GENERAL**
   - A. Vertical cuts in bituminous pavement may be done by saw or pavement zipping. If cuts greater than 6 inches are necessary to prevent pavement "break off" consult ENGINEER for directions on handling additional costs.
   - B. Repair a T-patch restoration if any of the following conditions occur prior to final payment or at the end of the one year correction period.
     1) Pavement surface distortion exceeds 1/4-inch deviation in 10 feet. Repair option - plane off surface distortions, coat planed surface with a cationic or anionic mulsion that complies with APWA Section 32 12 03.
     2) Separation appears at a connection to an existing pavement or any Street Fixture. Repair option - blow separation clean and apply joint sealant, Plan 265.
     3) Cracks at least 1-foot long and 1/4-inch wide occur more often than 1 in 10 square feet. Repair option - blow clean and apply crack seal. Plan 265.
     4) Pavement raveling is greater than 1 square foot per 100 square feet. Repair option - Mill and inlay, APWA Sections 32 01 16.71 and 32 12 05.
2. **PRODUCTS**
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Flowable Fill: Target is 90 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
   - C. Reinforcement. No. 5, galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - D. Concrete: Class 4000, APWA Section 03 30 04.
   - E. Tack Coat: APWA Section 32 12 13.13.
   - F. Bituminous Concrete. APWA Section 32 12 05.
     1) Warm Weather Patch: PG64-22-DM-1/2, unless indicated otherwise.
     2) Cold Weather Patch: Modified MC-250-FM-1 as indicated in APWA Section 33 05 25.
3. **EXECUTION**
   - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Flowable Fill: Cure to initial set before placing aggregate base or bituminous pavement. Use in excavations that are too narrow to receive compaction equipment.
   - C. Tack Coat. Clean all horizontal and vertical surfaces. Apply full coverage all surfaces.
   - D. Pavement Placement: Follow APWA Section 32 12 16.13. Unless indicated otherwise, lift thickness is 3-inches minimum after compaction. Compact to 94 percent of ASTM D2041 (Rice density) plus or minus 2 percent.
   - E. Bituminous Concrete Substitution: If bituminous concrete is substituted for Portland cement concrete substrate, omit rebar and provide 1.25 inches of bituminous concrete for each 1 inch of Portland cement concrete. Follow paragraph E requirements.
   - F. Reinforcement. Required if thickness of existing Portland-cement concrete substrate is 6-inches or greater. Not required if 1) less than 6-inches thick, 2) if existing concrete is deteriorating, 3) if excavation is less than 3 feet square, or 4) if bituminous pavement is substituted for Portland-cement concrete substrate.
   - G. Concrete Substrate. Cure to initial set before placing new bituminous concrete patch.



NOTES:
1. RAISE VALVE BOX AND PLACE CONCRETE COLLAR AFTER PAVING OPERATION IS COMPLETED.
2. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED AND CONFORM TO AWWA STANDARDS C104-A21.4 THROUGH C550, LATEST EDITIONS AND C900 THROUGH C905, LATEST EDITIONS. [UAC R309-550-6 (3)].
3. BURIED GATE VALVES SHALL BE USED FOR LINES 10-INCHES AND SMALLER. BURIED BUTTERFLY VALVES SHALL BE USED FOR LINES 12-INCHES AND LARGER.
4. ISOLATION VALVES SHALL BE PROVIDED AT NO MORE THAN 500-FOOT INTERVALS IN COMMERCIAL DISTRICTS AND AT NOT MORE THAN ONE BLOCK OR 800-FOOT INTERVALS IN OTHER DISTRICTS. [UAC 309-550-9(8)].

CITY OF ELK RIDGE
VALVE BOX COLLAR DETAIL

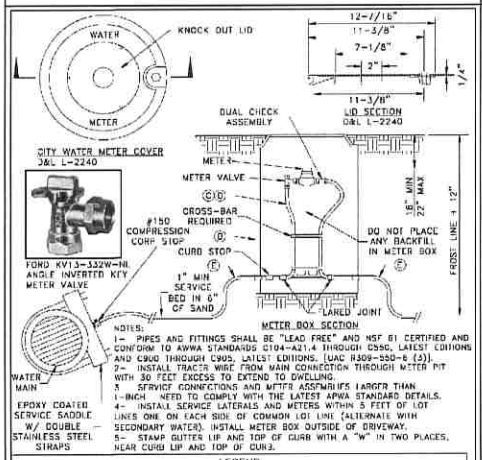


DIMENSIONS FOR THRUST BLOCKING

FITTING SIZES	TEES & PLUGS A	TEES & PLUGS B	90° BENDS A	90° BENDS B	45° BENDS & "Y"S A	45° BENDS & "Y"S B	22 1/2° BENDS A	22 1/2° BENDS B
4"	1'-6"	1'-6"	1'-6"	1'-6"	1'-3"	1'-3"	0'-6"	1'-0"	0'-6"
6"	2'-0"	1'-0"	2'-0"	2'-0"	2'-0"	1'-3"	1'-6"	1'-0"	1'-5"
8"	2'-0"	1'-6"	2'-5"	2'-5"	2'-5"	1'-8"	1'-8"	1'-0"	1'-5"
10"	2'-6"	2'-3"	2'-9"	2'-9"	2'-10"	2'-3"	1'-10"	1'-3"	2'-0"
12"	3'-0"	2'-9"	3'-6"	3'-6"	3'-5"	2'-6"	2'-4"	2'-0"	2'-6"
14"	3'-6"	3'-0"	4'-0"	4'-0"	3'-8"	3'-6"	2'-4"	2'-0"	2'-6"
16"	4'-0"	3'-6"	5'-0"	4'-0"	3'-6"	3'-0"	2'-6"	2'-1"
18"	4'-0"	4'-3"	6'-0"	4'-0"	4'-0"	3'-3"	2'-9"	2'-6"
20"	5'-0"	4'-3"	6'-0"	5'-0"	4'-3"	4'-0"	3'-0"	2'-8"
24"	6'-0"	5'-3"	8'-0"	5'-6"	6'-0"	4'-0"	4'-0"	3'-0"

NOTES:
1. THIS TABLE IS BASED ON 200 P.S.I. MAIN PRESSURE AND 2000 P.S.F. SOIL BEARING PRESSURE. ADJUST BEARING AREAS IN ACCORDANCE WITH SOIL CONDITIONS AND PRESSURES ENCOUNTERED.
2. USE POLYETHYLENE ENCASEMENT BETWEEN CONCRETE AND PIPE.
3. REFER TO CONCRETE STANDARD SPECIFICATIONS.
4. THE "THRUST BLOCKING DETAILS" IN NO WAY LIMITS THE LOCATION OR SIZE OF ADDITIONAL BLOCKING WHEN SO WARRANTED OR REQUIRED BY THE ENGINEER.
5. THRUST BLOCKS NEED TO BE INSPECTED BY CITY PRIOR TO BACKFILL.

CITY OF ELK RIDGE
THRUST BLOCK DETAIL

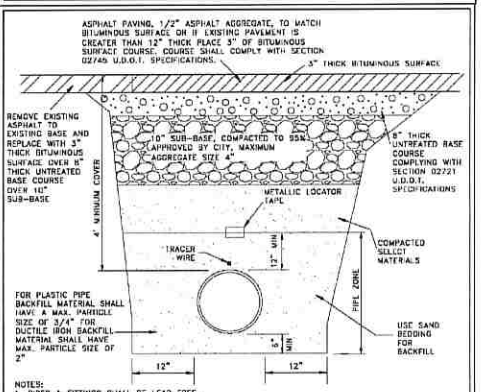


NOTES:
1- PIPES AND FITTINGS SHALL BE "LEAD FREE" AND NSF 61 CERTIFIED AND CONFORM TO AWWA STANDARDS C104-A21.4 THROUGH C550, LATEST EDITIONS AND C900 THROUGH C905, LATEST EDITIONS. [UAC R309-550-6 (3)].
2- INSTALL TRACER WIRE FROM MAIN CONNECTION THROUGH METER PIT WITH 36 FEET EXCESS TO EXTEND TO DWELLING.
3- SERVICE CONNECTIONS AND METER ASSEMBLIES LARGER THAN 1-INCH NEED TO COMPLY WITH THE LATEST APWA STANDARD DETAILS.
4- INSTALL SERVICE LATERALS AND METERS WITHIN 5 FEET OF LOT LINES ONE ON EACH SIDE OF COMMON LOT LINE (ALTERNATE WITH SECONDARY WATER). INSTALL METER BOX OUTSIDE OF DRIVEWAY.
5- STAMP GUTTER LIP AND TOP OF CURB WITH A "W" IN TWO PLACES, NEAR CURB UP AND TOP OF CURB.

LEGEND

No	*	ITEM	DESCRIPTION
(A)		FRAME AND COVER	CAST IRON COVER (GRASS)
(B)		METER BOX (21" DIAMETER) (30" TO 36" DEEP)	WHITE CORRUGATED PE
(C)		1" METER YOKE	DUAL CHECK ASSEMBLY REQUIRED
(D)		1" METER YOKE	OPTIONAL BACKFLOW PREVENTION PER AGENCY REQUIREMENTS
(E)		1" SERVICE LINE	HDPE IPS SDR 9

CITY OF ELK RIDGE
SERVICE CONNECTION & METER ASSEMBLY



NOTES:
1. PIPES & FITTINGS SHALL BE LEAD FREE.
2. ASBESTOS CEMENT PIPE SHALL NOT BE ALLOWED.
3. WATER MAINS & SEWER LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH.
4. ALL PIPES, FITTINGS & APPURTENANCES SHALL BE NSF-61 CERTIFIED AND CONFORM TO AWWA STANDARDS C104-A21.4 THROUGH C550, LATEST EDITIONS AND C900 THROUGH C905, LATEST EDITIONS. [UAC R309-550-6 (3)].
5. ALL NEW OR REPLACED WATER LINES SHALL BE FLUSHED & DISINFECTED PER AWWA STANDARD C651 LATEST EDITION.
6. MATERIAL THICKNESS MAY CHANGE AS DIRECTED BY THE CITY ENGINEER BASED UPON FINDINGS AND RECOMMENDATIONS IN GEOTECHNICAL REPORT.
7. FOR WATER METERS NOT CONNECTED TO FIRE HYDRANTS, THE MINIMUM LINE SIZE SHALL BE 4" IN DIAMETER, UNLESS THEY SERVE PICNIC SITES, PARKS, SEMI-DEVELOPED CAMPS, PRIMITIVE CAMPS, OR ROADWAY REST-STOPS. MINIMUM WATER MAIN SIZE SERVICING A FIRE HYDRANT LATERAL SHALL BE 8 INCHES IN DIAMETER UNLESS A HYDRAULIC ANALYSIS INDICATES THAT REQUIRED FLOW AND PRESSURES CAN BE MAINTAINED BY 6" LINES. [UAC R309-550-5(4)].
8. ALL TYPES OF INSTALLED PIPE SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C600 (LATEST EDITION).
9. UNDER NO CIRCUMSTANCES SHALL THE PIPE OR ACCESSORIES BE DROPPED INTO THE TRENCH.
10. CONSIDERATION SHALL BE GIVEN TO THE MATERIALS TO BE USED WHEN CORROSIVE SOILS OR WATERS WILL BE ENCOUNTERED. [UAC R309-550-5 (9)]

LOCATED IN SURFACED ROAD

CITY OF ELK RIDGE
UTILITY TRENCH FOR WATER MAIN

SHEET NO. 8

DETAIL SHEET
APRIL 2020

ELK RIDGE, UTAH
COUNTY, UTAH

C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE: 801-655-0566
FAX: 801-655-0076
946 E. 1100 NORTH SUITE A
SPANISH FORK, UT 84660

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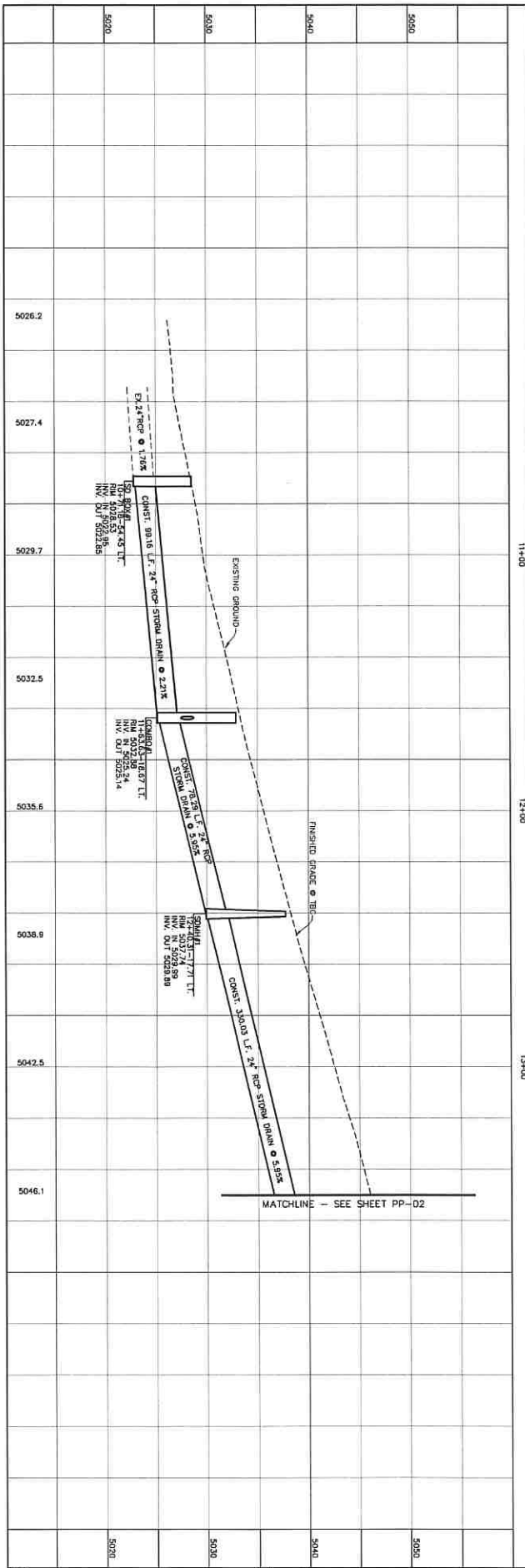

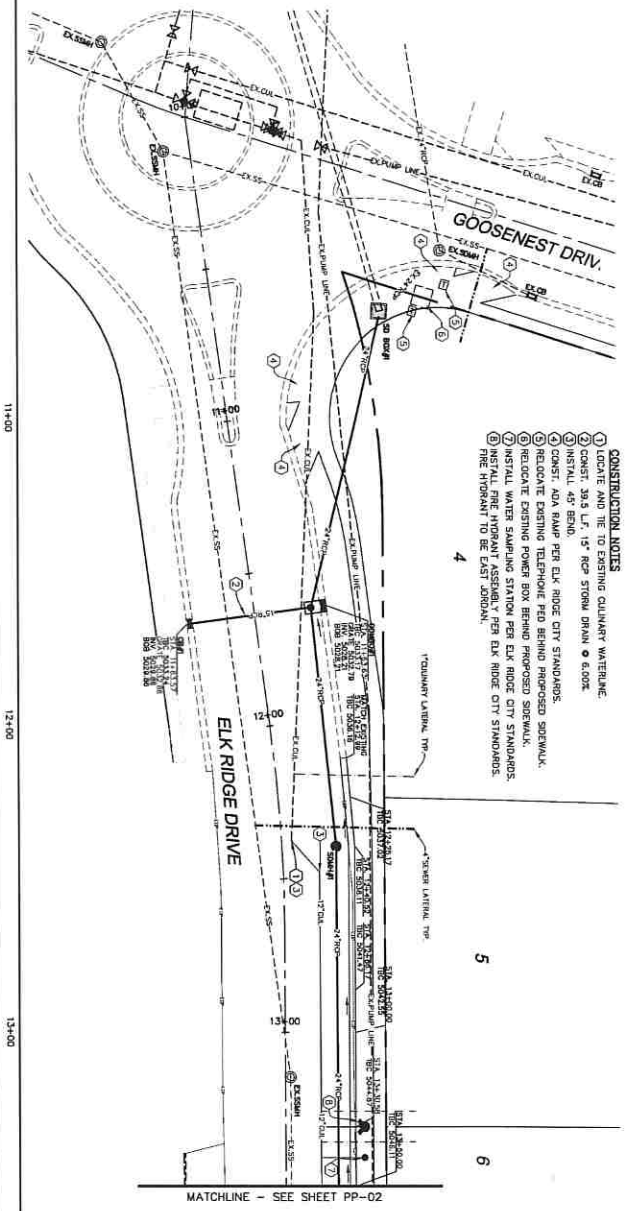

CONSTRUCTION NOTES

1. LOCATE AND TIE TO EXISTING CULINARY WATERLINE.
2. CONST. 39.5 L.F. 15" RCP STORM DRAIN @ 6.00%.
3. INSTALL 45° BEND.
4. CONST. ADA RAMP PER ELK RIDGE CITY STANDARDS.
5. RELOCATE EXISTING TELEPHONE PED BEHIND PROPOSED SIDEWALK.
6. RELOCATE EXISTING POWER BOX BEHIND PROPOSED SIDEWALK.
7. INSTALL WATER SAMPLING STATION PER ELK RIDGE CITY STANDARDS.
8. INSTALL FIRE HYDRANT ASSEMBLY PER ELK RIDGE CITY STANDARDS.

SCALE 1" = 20'
SCALE 1" = 40'

NO.	REVISIONS	BY	DATE
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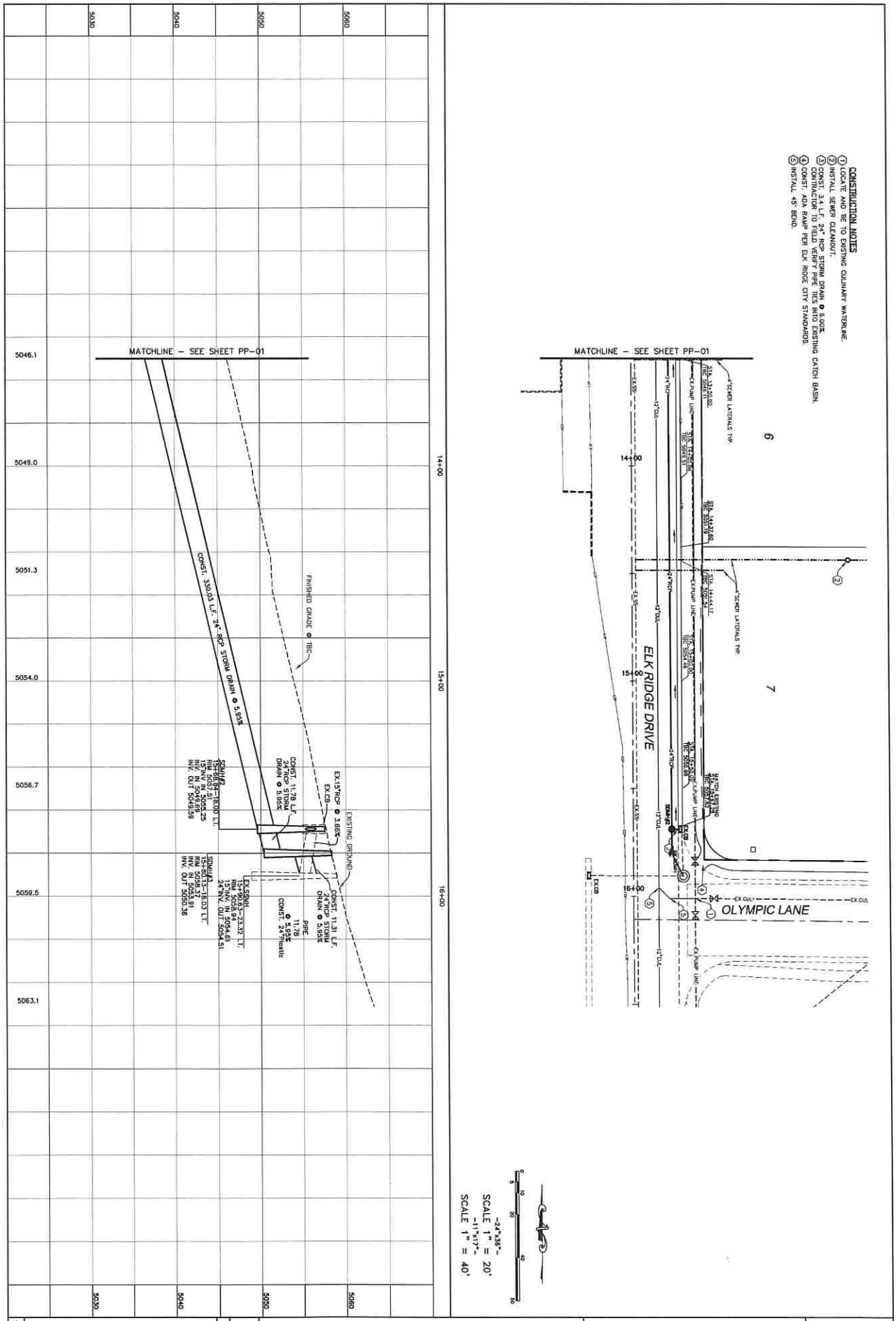
C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
PHONE: 801-655-0566
FAX: 801-655-0109
946 E. 800 N. SUITE A
SPANISH FORK, UT 84660

ELK RIDGE DRIVE
STA. 10+00 TO STA. 13+50

STREET PLAN & PROFILE

SHEET NO.
PP-01



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C & L ESTATES
A SINGLE FAMILY DEVELOPMENT

ATLAS ENGINEERING L.L.C.
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FAX: 801-655-0109
946 E. 800 N. SUITE A
SPANISH FORK, UT 84660

ELK RIDGE DRIVE
STA. 13+50 TO STA. 16+50

STREET PLAN & PROFILE

SHEET NO.
PP-02

BMP: Contaminated or Erodible Surface Areas — CESA

Description:
Prevent or reduce the discharge of pollutants to storm water from contaminated or erodible surface areas by keeping as much vegetation on site as possible, minimizing soil exposure time, stabilizing exposed soils, and preventing storm water runon and runoff.

Application:
Per BMP addresses soils which are not so contaminated as to exceed criteria but the site is eroding and carrying pollutants off in the storm water.

Installation/Application Criteria:
Contaminated or erodible surface areas can be controlled by:
- Preservation of natural vegetation.
- Re-vegetation.
- Removal of contaminated soils.
- Diversion/flow.

Limitations:
Disadvantages of preserving natural vegetation or re-vegetating include:
- Requires substantial planning to maximize and maximize the existing vegetation.
- May not be cost-effective with high land costs.
- Lack of rainfall and/or poor soils may limit the success of re-vegetated areas.

Maintenance:
Maintenance should be minimal, except possibly if irrigation of vegetation is necessary.

Objectives
- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☒ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

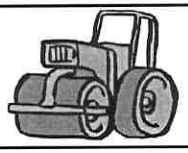
Targeted Pollutants
- ■ Sediment
- ■ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ■ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ■ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ■ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ■ Medium ☐ Low

BMP: Compaction — CP



Description:
Use of rolling, tamping, or vibration to stabilize fill materials and control erosion by increasing the soil density, increasing the density of soil improves soil strength, reduces long-term soil settlement, and provides resistance to erosion.

Applications:
- Stabilize fill material placed around various structures.
- Improve soil in place as foundation support for roads, parking lots, and buildings.

Installation/Application Criteria:
- Water/use soil moisture content at or optimum levels.
- Use proper compaction equipment.
- Install sediment control and storm water management devices below compacted areas and when basins/inlet devices above these areas. Drainage from compacted areas must be carefully planned to protect adjacent uncompacted soils.
- The surface of compacted areas should be scarified and seeded or mulched) and seeded to increase the infiltration of rainwater.

Limitations:
- Compaction tends to increase runoff.
- Over-compaction will hamper re-vegetation efforts.

Maintenance:
No maintenance required.

Objectives
- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

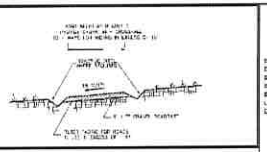
Targeted Pollutants
- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☒ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ☒ Capital Costs
- ☒ O&M Costs
- ☐ Maintenance
- ☒ Training

■ High ☐ Medium ☐ Low

BMP: Construction Road Stabilization — CR



Description:
Temporary stabilization of unpaved roadway by placement of gravel roadbase.

Application:
- On-site roadways used daily by construction traffic (may not apply to privately type use).
- Parking or staging areas susceptible to erosion due to traffic use.

Installation/Application Criteria:
- Grade temporary access road with 2% cross list, for two-way width provide crown.
- Provide roadside ditch and culvert (trench where required).
- Place 6 inches of 2inch to 4inch crushed rock on driving area.

Limitations:
- May require removal of gravel roadbase at completion of activities if final cover is not impervious.
- May require caution for surface storm water runoff.

Maintenance:
- Inspect after major rainfall events and at least monthly.
- Place additional gravel as needed and repair any damaged areas.
- Maintain any roadside drainage facilities.

Objectives
- ☒ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

Targeted Pollutants
- ■ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

- ■ High Impact
- ☐ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ■ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ☐ Training

■ High ☐ Medium ☐ Low

BMP: Concrete Waste Management — CWM

Description:
Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, containing on-site washout in designated area, and training employees and subcontractors.

Applications:
This BMP is applicable to all types of sites.

Installation/Application Criteria:
- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete or cement on site.
- Perform washout of concrete trucks off site or in designated area only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated areas.
- When washing concrete to remove fine particles and expose the aggregate, avoid discharging runoff by draining the water within a bermed or level area. (See Earth Berm Berker information sheet.)
- Train employees and subcontractors in proper concrete waste management.

Limitations:
- Off-site washout of concrete waste may not always be possible.

Maintenance:
- Inspect subcontractors to ensure that concrete waste are being properly managed.
- If using a temporary pit, dispose hardened concrete on a regular basis.

Objectives
- ☐ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

Targeted Pollutants
- ☐ Sediment
- ☐ Nutrients
- ☐ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ☐ Other Waste

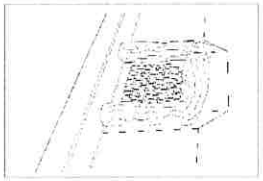
- ☐ High Impact
- ☐ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ☐ Capital Costs
- ☐ O&M Costs
- ☒ Maintenance
- ☒ Training

■ High ■ Medium ☐ Low

BMP: Inlet Protection – Wattle — IP-W

CONSTRUCTION



Description:
Sediment barrier erected around storm drain inlet.

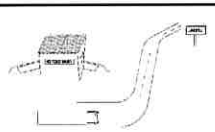
Application:
Construct at storm drainage inlets located down-gradient of areas to be disturbed by construction.

Installation/Application Criteria:
- Provide up-gradient sediment controls, such as silt fence during construction of inlet.
- When construction of curb and gutter and roadways is complete, install gravel filled wattles around perimeter of inlet

Limitations:
- Recommended maximum contributing drainage area of one acre
- Requires shallow slopes adjacent to inlet

Maintenance:
- Inspect inlet protection following storm event and at a minimum of once every 14 days.
- Remove accumulated sediment when it reaches 4 inches in depth.
- Look for bypassing or undercutting and repair or realign as needed.

BMP: Waste Disposal — WD



Description:
Controlled storage and disposal of solid waste generated by construction activities.

Application:
All construction sites.

Installation:
- Designate one or several waste collection areas with easy access for collection vehicles and personnel. Ensure no waterways or storm drainage inlets are located near the waste collection areas.
- Construct compacted earthen berm (See Earth Berm Berker BMP Fact Sheet), or similar perimeter containment around collection area for impoundment in the case of spills and to keep any windblown trash.
- Use water tight containers with covers to remain closed when not in use. Provide adequate containers for different waste types and ensure containers are labeled clearly.
- Instruct all on site personnel are aware of and utilize designated waste collection area properly and be informed are only (e.g. oil tools, hazardous, or recyclable materials shall be properly disposed of separately from general construction waste).
- Arrange for periodic pick-up, transfer and disposal or collected waste at an authorized disposal facilities. Be knowledgeable. Provide daily weekly in waste management activities.

Limitations:
- On-site personnel are responsible for correct disposal of waste.

Maintenance:
- Discuss waste management procedures at progress meetings.
- Collect site trash daily and dispose in covered containers at designated collection areas.
- Check containers for leakage or inadequate covers and replace as needed.
- Randomly check disposed materials for any unauthorized waste (e.g. toxic materials).
- During daily site inspections check that waste is not being incorrectly disposed of on-site (e.g. burial, burning, surface discharge, discharge to storm drain).

Objectives
- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☐ Minimize Disturbed Areas
- ☐ Stabilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

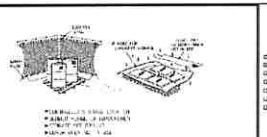
Targeted Pollutants
- ■ Sediment
- ■ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ■ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ■ Capital Costs
- ■ O&M Costs
- ☐ Maintenance
- ■ Training

■ High ■ Medium ☐ Low

BMP: Materials Storage — MS



Description:
Controlled storage of on-site materials.

Application:
- Storage of hazardous, toxic, and all chemical substances.
- Any construction site with outside storage of materials.

Installation/Application Criteria:
- Designate a secured area with limited access as the storage locations. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Berker Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- For active use of materials areas from the storage area ensure materials are not left idle. By on the ground and are covered when not in use. Follow interim drainage during use.

Limitations:
- Does not prevent contamination due to mishandling of products.
- Spill Prevention and Response Plan still required.
- Only effective if materials are actively stored in controlled locations.

Maintenance:
- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Verify that materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location.

Objectives
- ☒ Housekeeping Practices
- ☒ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Mobilize Disturbed Areas
- ☐ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☐ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

Targeted Pollutants
- ☐ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ☐ Oil & Grease
- ☐ Floatable Materials
- ■ Other Waste

- ■ High Impact
- ■ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ■ Capital Costs
- ■ O&M Costs
- ■ Maintenance
- ■ Training

■ High ■ Medium ☐ Low

BMP: Grading Practices — GP

Note: exposed from land grading activities are a key value able to erosion

Description:
Control soil erosion by minimizing the exposure of bare soil to erosive forces. This is done by:
1) limiting the amount of area disturbed at one time and minimizing the duration of time between the disturbance of soil and protection/stabilization of disturbed soils, and
2) using grading practices to protect vulnerable soils susceptible to storm water runoff.
Methods to achieve this are interceptor swales/berms, preservation of existing vegetation, temporary construction and sediment control practices.

Approach:
- Limit removal of vegetation and to have areas requiring grading. Re-preserve existing vegetation and reduce the velocity of surface runoff.
- Retain or remove sediment and debris and control measures on the site, establish what areas are to be graded at one time.
- If a construction buffer zone containing vegetation of the lower elevation of construction site can reduce the transport of sediment off site.
- Minimize soil compaction measures during the course of work to minimize the length of time soil is exposed to erosive forces.
- Cut/Fill work: If slopes will be cut/fill, turn or will stabilize/cover vacuum promptly after the initiation of cut.
- Establish a schedule governing the stabilization of disturbed slopes, both in terms of passage of time since commencement and completion of disturbance and/or time or planting/seeding.
- Leaving the surface of the cut/fill soil graded in a roughened condition can sometimes can reduce the quantity and velocity of storm water runoff.
- Prevent storm water runoff from running onto steep slopes from above.
- Avoiding steep cut or fill slopes that allow run off water (soil) will typically, a velocity to cut into and erode the slope.

Limitations:
- The specific approach to grading on agricultural site depends on the condition of the site and is evolving work, engineering judgment is necessary to design the appropriate land suited for each site.

Maintenance:
- Repairs are only need in very rare if the approved plan if erosion treatments appear when storm water runoff occurs.

Objectives
- ☐ Housekeeping Practices
- ☐ Contain Waste
- ☒ Minimize Disturbed Areas
- ☒ Stabilize Disturbed Areas
- ☒ Protect Slopes/Channels
- ☐ Control Site Perimeter
- ☒ Control Internal Erosion

Adapted from Salt Lake County BMP Fact Sheet

Targeted Pollutants
- ■ Sediment
- ☐ Nutrients
- ■ Toxic Materials
- ■ Other Waste
- ■ Debris and Trash

- ■ High Impact
- ■ Medium Impact
- ☐ Low or Unknown Impact

Implementation Requirements
- ☒ Capital Costs
- ☐ O&M Costs
- ☐ Maintenance
- ■ Training

■ High ☒ Medium ☐ Low

NO.	REVISIONS	BY	DATE
12			
11			
10			
9			
8			
7			
6			
5			
4			
3			
2			
1	PLANNING SUBMITTAL	BJT	4/14/2020

PROJECT NO. 19-1081 Related Commercial/Residential Developments BMP 1-Sheet

C & L ESTATES
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BEST MANAGEMENT PRACTICES

SPANISH FORK CITY, UTAH

SHEET NO. BM-01