Wednesday, April 13, 2022
Development Review Committee

DEVELOPMENT REVIEW COMMITTEE AGENDA
PUBLIC NOTICE is hereby given that the Development Review Committee of Spanish Fork, Utah, will hold a regular meeting at the Spanish Fork City Council Chamber, 40 South Main Street, Spanish Fork, Utah, commencing at 10:00 a.m. This meeting is not available to attend virtually.

1. Approval of Minutes

Subject	**A. March 30, 2022**
Meeting	Apr 13, 2022 - Development Review Committee
Category	1. Approval of Minutes
Access	Public
Type	Action, Minutes

Subject	**B. April 6, 2022**
Meeting	Apr 13, 2022 - Development Review Committee
Category	1. Approval of Minutes
Access	Public
Type	Action, Minutes

2. Minor Plat Amendment

Subject	**A. MEADOW CREEK RIDGE PHASE 5 FIRST AMENDMENT. The proposal involves adjusting the shared lot line between two existing lots within the Meadow Creek Ridge Development located at 1721 East 1600 North.**
Meeting	Apr 13, 2022 - Development Review Committee
Category	2. Minor Plat Amendment
Access	Public
Type	Action, Discussion

File Attachments
report.drc.meadowcreekridgephase5amended.4-13-2022.pdf (1,035 KB)
Meadow Creek Ridge Phase 5.pdf (1,189 KB)
Meadow Creek Ridge Phase 5 Amended 4-8-2022.pdf (300 KB)

3. Concept Review

Subject	**A. PEG DEVELOPMENT.**
Meeting	Apr 13, 2022 - Development Review Committee
Category	3. Concept Review
Access	Public
Type	Discussion

File Attachments
plan.concept.pegmultifamilydevlopment.3-14-2022.pdf (4,689 KB)

4. Discussion

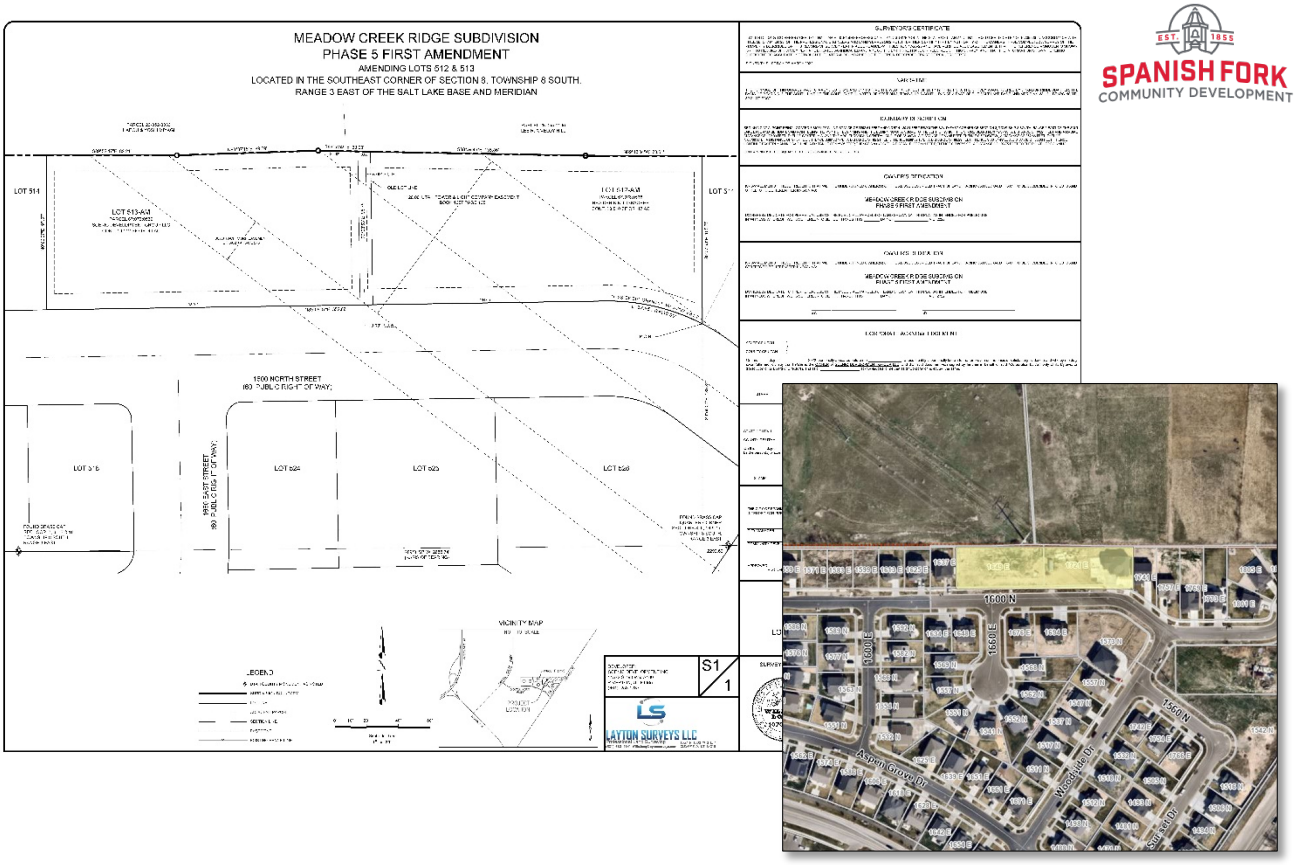
Subject	**A. CANYON GATE SITE IMPROVEMENTS**
Meeting	Apr 13, 2022 - Development Review Committee
Category	4. Discussion
Access	Public
Type	Discussion

File Attachments
civilplans.canyongate.9-24-18.pdf (25,277 KB)
Road and Utilities.pdf (2,799 KB)

Subject	**B. CENTRAL UTAH WATER.**
Meeting	Apr 13, 2022 - Development Review Committee
Category	4. Discussion
Access	Public
Type	Discussion

File Attachments
Water Efficiency Standards Notice.pdf (184 KB)
CUWCD Water Efficiency Standards.pdf (120 KB)

5. Adjourn



Meadow Creek Ridge Phase 5 Amended, Minor Plat Amendment Approval Request

April 13, 2022, Development Review Committee Meeting.

Located at 1721 East 1600 North, including 0.9 acres.

The subject property is zoned R-1-6.

The applicant has requested that a Minor Plat Amendment be approved.

Recommendation

That the proposed Minor Plat Amendment be approved based on the following findings and subject to the following conditions:

Finding

1. That the application conforms to the City's General Plan Designation and Zoning Map.

Conditions

1. That the applicant meets the City's Zoning requirements and Construction Standards.
2. That the applicant addresses any red-lines.

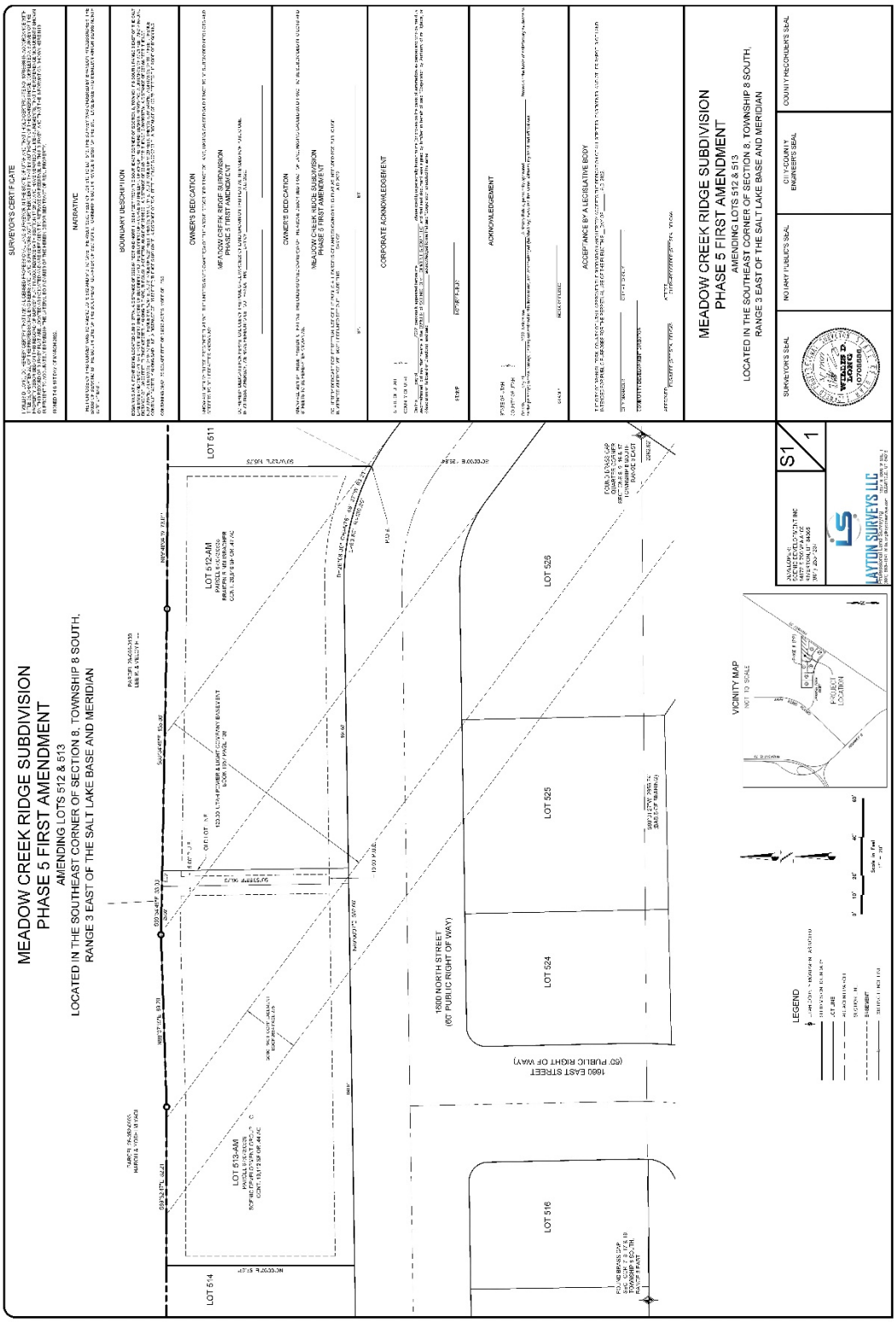
Key Issues

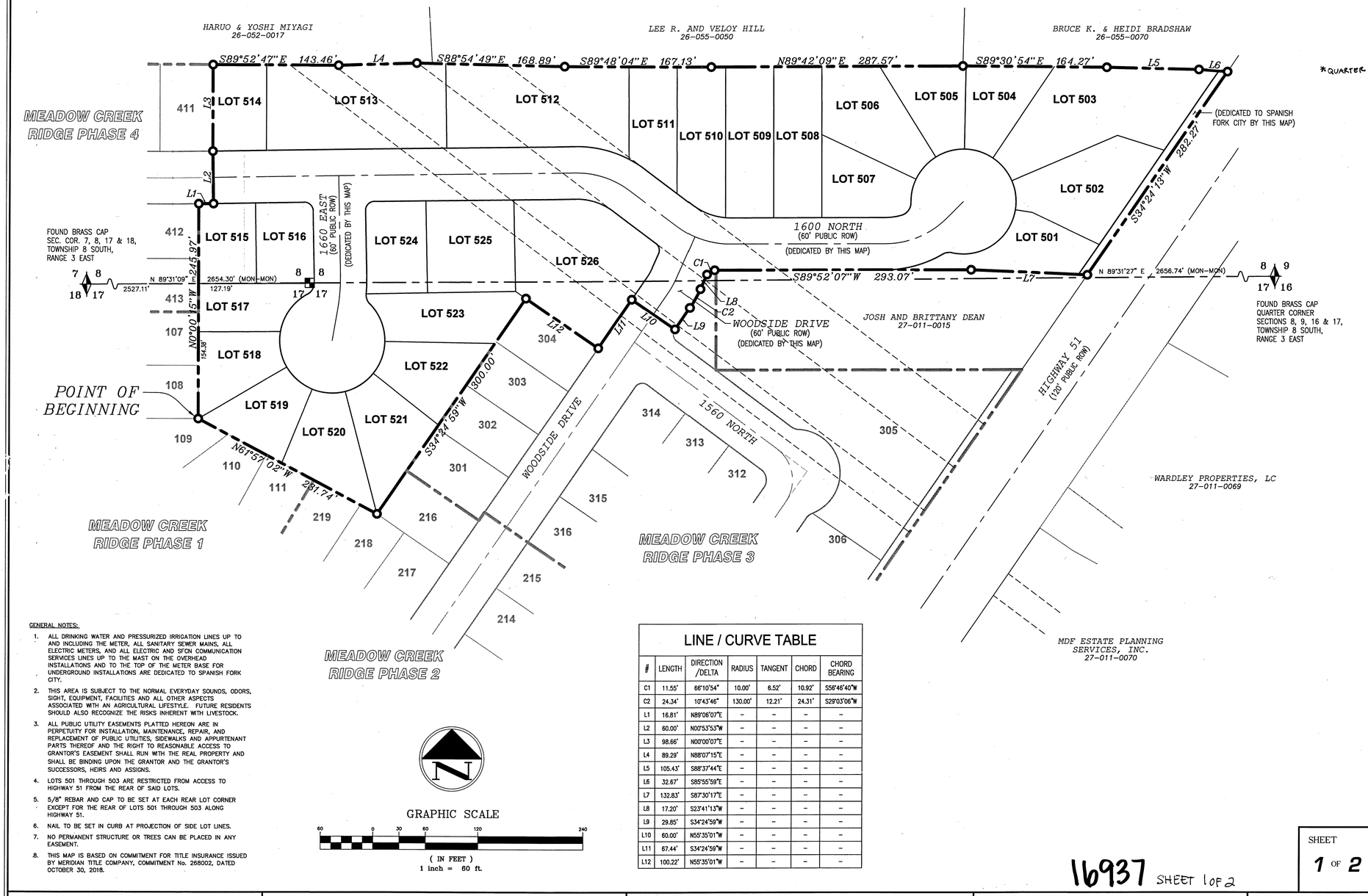
1. Utilities.

Exhibits

1. Plat.

Exhibit 1


MEADOW CREEK RIDGE SUBDIVISION
PHASE 5 FIRST AMENDMENT
AMENDING LOTS 512 & 513
LOCATED IN THE SOUTHEAST CORNER OF SECTION 8, TOWNSHIP 8 SOUTH,
RANGE 3 EAST OF THE SALT LAKE BASE AND MERIDIAN
SURVEYOR'S CERTIFICATE
NARRATIVE
BOUNDARY DESCRIPTION
OWNERS DEDICATION
CORPORATE ACKNOWLEDGEMENT
ACKNOWLEDGEMENT
ACCEPTANCE BY A LEGISLATIVE BODY
SURVEYOR'S SEAL
NOTARY PUBLIC'S SEAL
CITY/COUNTY ENGINEER'S SEAL
COUNTY RECORDER'S SEAL
LOT 511
LOT 512-AM
LOT 513-AM
LOT 514
LOT 516
LOT 524
LOT 525
LOT 526
1600 NORTH STREET
(66' PUBLIC RIGHT OF WAY)
1660 EAST STREET
(66' PUBLIC RIGHT OF WAY)
VICINITY MAP
NOT TO SCALE
PROJECT LOCATION
LEGEND
S1
1
LAYTON SURVEYS LLC



GENERAL NOTES:

1. ALL DRINKING WATER AND PRESSURIZED IRRIGATION LINES UP TO AND INCLUDING THE METER, ALL SANITARY SEWER MAINS, ALL ELECTRIC METERS, AND ALL ELECTRIC AND SFCN COMMUNICATION SERVICES LINES UP TO THE MAST ON THE OVERHEAD INSTALLATIONS AND TO THE TOP OF THE METER BASE FOR UNDERGROUND INSTALLATIONS ARE DEDICATED TO SPANISH FORK CITY.
2. THIS AREA IS SUBJECT TO THE NORMAL EVERYDAY SOUNDS, ODORS, SIGHT, EQUIPMENT, FACILITIES AND ALL OTHER ASPECTS ASSOCIATED WITH AN AGRICULTURAL LIFESTYLE. FUTURE RESIDENTS SHOULD ALSO RECOGNIZE THE RISKS INHERENT WITH LIVESTOCK.
3. ALL PUBLIC UTILITY EASEMENTS PLATTED HEREON ARE IN PERPETUITY FOR INSTALLATION, MAINTENANCE, REPAIR, AND REPLACEMENT OF PUBLIC UTILITIES, SIDEWALKS AND APPURTENANT PARTS THEREOF AND THE RIGHT TO REASONABLE ACCESS TO GRANTOR'S EASEMENT SHALL RUN WITH THE REAL PROPERTY AND SHALL BE BINDING UPON THE GRANTOR AND THE GRANTOR'S SUCCESSORS, HEIRS AND ASSIGNS.
4. LOTS 501 THROUGH 503 ARE RESTRICTED FROM ACCESS TO HIGHWAY 51 FROM THE REAR OF SAID LOTS.
5. 5/8" REBAR AND CAP TO BE SET AT EACH REAR LOT CORNER EXCEPT FOR THE REAR OF LOTS 501 THROUGH 503 ALONG HIGHWAY 51.
6. NAIL TO BE SET IN CURB AT PROJECTION OF SIDE LOT LINES.
7. NO PERMANENT STRUCTURE OR TREES CAN BE PLACED IN ANY EASEMENT.
8. THIS MAP IS BASED ON COMMITMENT FOR TITLE INSURANCE ISSUED BY MERIDIAN TITLE COMPANY, COMMITMENT No. 268002, DATED OCTOBER 30, 2018.

LINE / CURVE TABLE

#	LENGTH	DIRECTION /DELTA	RADIUS	TANGENT	CHORD	CHORD BEARING
C1	11.55'	66°10'54"	10.00'	6.52'	10.92'	S56°46'40"W
C2	24.34'	10°43'46"	130.00'	12.21'	24.31'	S29°03'06"W
L1	16.81'	N89°06'07"E	–	–	–	–
L2	60.00'	N00°53'53"W	–	–	–	–
L3	98.66'	N00°00'07"E	–	–	–	–
L4	89.29'	N88°07'15"E	–	–	–	–
L5	105.43'	S88°37'44"E	–	–	–	–
L6	32.67'	S85°55'59"E	–	–	–	–
L7	132.83'	S87°30'17"E	–	–	–	–
L8	17.20'	S23°41'13"W	–	–	–	–
L9	29.85'	S34°24'59"W	–	–	–	–
L10	60.00'	N55°35'01"W	–	–	–	–
L11	67.44'	S34°24'59"W	–	–	–	–
L12	100.22'	N55°35'01"W	–	–	–	–

SURVEYOR'S CERTIFICATE:

I, MARTIN W. SHEARER, DO HEREBY CERTIFY THAT I AM A LICENSED LAND SURVEYOR LICENSED TO PRACTICE IN THE STATE OF UTAH, AND THAT I HAVE MADE A SURVEY OF THE PARCEL OF LAND SHOWN AND DESCRIBED ON THIS MA I ALSO CERTIFY THAT BY AUTHORITY OF THE OWNERS OF SAID PARCELS, I HAVE DIVIDED THE PROPERTY INTO LOTS AND STREETS.

PROPERTY DESCRIPTION:

COMMENCING AT THE *SECTION CORNER COMMON WITH SECTIONS 8, 17, 18, AND 7, TOWNSHIP 8 SOUTH, RANGE 3 EAST, SALT LAKE BASE AND MERIDIAN AND RUNNING THENCE NORTH 89°31'09" EAST, ALONG THE SECTION LINE COMMON WITH SECTIONS 8 AND 17, A DISTANCE OF 2527.11 FEET; THENCE, SOUTH 00°00'15" EAST, A DISTANCE OF 154.38 FEET TO THE POINT OF BEGINNING FOR THIS DESCRIPTION, SAID POINT ALSO BEING THE REAR PROPERTY CORNER COMMON WITH LOTS 108 AND 109 OF THE MEADOW CREEK RIDGE PHASE 1 SUBDIVISION, RECORDED IN BOOK 49 AT PAGE 941, OF OFFICIAL RECORDS, THENCE, NORTH 00°00'15" WEST, A DISTANCE OF 245.97 FEET; THENCE, NORTH 89°06'07" EAST, A DISTANCE OF 16.81 FEET; THENCE, NORTH 00°53'53" WEST, A DISTANCE OF 60.00 FEET; THENCE, NORTH 00°00'07" EAST, A DISTANCE OF 98.66 FEET; THENCE, SOUTH 89°52'47" EAST, A DISTANCE OF 143.46 FEET; THENCE, NORTH 88°07'15" EAST, A DISTANCE OF 89.29 FEET; THENCE, SOUTH 88°54'49" EAST, A DISTANCE OF 168.89 FEET; THENCE, SOUTH 89°48'04" EAST, A DISTANCE OF 167.13 FEET; THENCE, NORTH 89°42'09" EAST, A DISTANCE OF 287.57 FEET; THENCE, SOUTH 89°30'54" EAST, A DISTANCE OF 164.27 FEET; THENCE, SOUTH 88°37'44" EAST, A DISTANCE OF 105.43 FEET; THENCE, SOUTH 85°55'59" EAST, A DISTANCE OF 32.67 FEET, TO THE WESTERLY LINE OF STATE ROUTE 51 (120.00 FEET WIDE); THENCE, SOUTH 34°24'13" WEST, ALONG SAID WESTERLY LINE, A DISTANCE OF 282.27 FEET; THENCE, NORTH 87°30'17" WEST, A DISTANCE OF 132.83 FEET; THENCE, SOUTH 89°52'07" WEST, A DISTANCE OF 293.07 FEET; THENCE, ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, HAVING A RADIUS OF 10.00 FEET; THROUGH A CENTRAL ANGLE OF 66°10'54", A DISTANCE OF 11.55 FEET (CHORD BEARS SOUTH 56°46'40" WEST, A DISTANCE OF 10.92 FEET); THENCE, SOUTH 23°41'13" WEST, A DISTANCE OF 17.20 FEET; THENCE, ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, HAVING A RADIUS OF 130.00 FEET, THROUGH A CENTRAL ANGLE OF 10°43'46", A DISTANCE OF 24.34 FEET (CHORD BEARS SOUTH 29°03'06" WEST, A DISTANCE OF 24.31 FEET); THENCE, SOUTH 34°24'59" WEST, A DISTANCE OF 29.85 FEET; THENCE, NORTH 55°35'01" WEST, A DISTANCE OF 60.00 FEET; THENCE, SOUTH 34°24'59" WEST, A DISTANCE OF 67.44 FEET; THENCE, NORTH 55°35'01" WEST, A DISTANCE OF 100.22 FEET; THENCE, SOUTH 34°24'59" WEST, A DISTANCE OF 300.00 FEET; THENCE, NORTH 61°57'02" WEST, A DISTANCE OF 231.74 FEET, TO THE POINT OF BEGINNING.

CONTAINS 7.756 ACRES

OWNERS DEDICATION:

KNOW ALL MEN BY THESE PRESENTS THAT WE, THE UNDERSIGNED OWNER(S) OF THE ABOVE DESCRIBED TRACT OF LAND, HAVING CAUSED SAID TRACT TO BE SUBDIVIDED INTO LOTS AND STREETS TO BE HEREAFTER KNOWN AS:

MEADOW CREEK RIDGE PHASE 5

DO HEREBY DEDICATE FOR PERPETUAL USE OF THE PUBLIC ALL PARCELS OF LAND SHOWN ON THIS PLAT AS INTENDED FOR PUBLIC USE.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUT HANDS THIS 28th DAY OF October A.D. 2019

Shon Rindlisbacher, managing member, Meadow Creek Subdivision, LLC

CORPORATE ACKNOWLEDGEMENT:

STATE OF UTAH)
COUNTY OF UTAH) S.S.

ON THE 28 DAY OF OCTOBER A.D. 2019 PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR SAID COUNTY OF UTAH IN SAID STATE OF UTAH, SHON RINDLISBACHER THE SIGNER OF THE ABOVE OWNERS DEDICATION, WHO AFTER BEING DULY SWORN, ACKNOWLEDGED TO ME THAT HE IS THE MANAGING MEMBER MEADOW CREEK SUBDIVISION, LLC A UTAH LLC CORPORATION, AND THAT SAID OWNER'S DEDICATION WAS SIGNED BY HIM IN BEHALF OF SAID LLC COMPANY WITH THE POWER AND AUTHORITY TO EXECUTE THE SAME.

NOTARY PUBLIC COMMISSIONED IN THE STATE OF UTAH NIC ABBOTT # 707074

JULY 5, 2023 MY COMMISSION EXPIRES:

SALTLAKE, UT NOTARY PUBLIC RESIDING AT:

ACKNOWLEDGEMENT:

STATE OF UTAH)
COUNTY OF UTAH) S.S.

ON THE 19th DAY OF December A.D., 2018 PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, IN AND FOR SAID COUNTY OF _____ IN THE STATE OF _____, THE SIGNER( ) OF THE ABOVE OWNER'S DEDICATION ___ IN NUMBER, WHO AFTER BEING DULY SWORN, ACKNOWLEDGED TO ME THAT SIGNED IT FREELY AND VOLUNTARILY FOR THE PURPOSES THEREIN MENTIONED.

MAP # 16937

ENT 120751:2020 Map # 16937
JEFFERY SMITH
UTAH COUNTY RECORDER
2020 Jun 30 9:16 am FEE 152.00 BY L
RECORDED FOR SPANISH FORK CITY CORPORATI

MY COMMISSION EXPIRES: NOTARY PUBLIC RESIDING AT:

ACCEPTANCE BY LEGISLATIVE BODY:

THE CITY OF SPANISH FORK, COUNTY OF UTAH, APPROVES THE 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 19th DAY OF December, A.D. 2018.

CITY MANAGER — CITY ATTORNEY

COMMUNITY DEVELOPMENT DIRECTOR

APPROVED ENGINEER (SEE SEAL BELOW) — ATTEST CLERK-RECORDER (SEE SEAL BELOW)

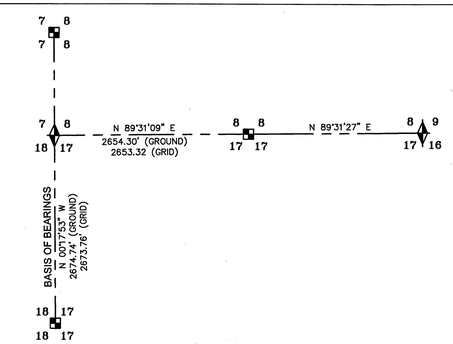
16937 SHEET 1 OF 2

SHEET 1 OF 2

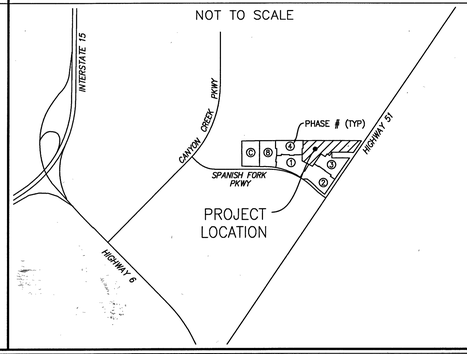
LEGEND & ABBREVIATIONS:

- BOUNDARY LINE
- MONUMENT LINE/CENTER LINE
- PUBLIC UTILITY & DRAINAGE EASEMENT (PUE&D)
- EASEMENT
- LOT LINE
- BUILDING SETBACK LINE
- R.O.W. LINE
- BOUNDARY CORNER, NOT SET UNLESS NOTED OTHERWISE
- ROW RIGHT OF WAY
- TYP TYPICAL
- MON MONUMENT
- 3389 W LOT ADDRESS
- (R) RADIAL
- (NR) NON RADIAL

BASIS OF BEARINGS DETAIL



LOCATION MAP



QUESTAR GAS COMPANY

QUESTAR APPROVES THIS PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS. QUESTAR MAY REQUIRE OTHER EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT CONSTITUTE ABROGATION OR WAIVER OF ANY OTHER EXISTING RIGHTS, OBLIGATIONS OR LIABILITIES PROVIDED BY LAW OR EQUITY. THIS APPROVAL DOES NOT CONSTITUTE ACCEPTANCE, APPROVAL OR ACKNOWLEDGEMENT OF ANY TERMS CONTAINED IN THE PLAT, INCLUDING THOSE SET FORTH IN THE OWNERS DEDICATION AND THE NOTES AND DOES NOT CONSTITUTE A GUARANTEE OF PARTICULAR TERMS OF NATURAL GAS SERVICE. FOR FURTHER INFORMATION PLEASE CONTACT QUESTAR'S RIGHT-OF-WAY DEPARTMENT AT 1-800-366-8532

APPROVED THIS _____ DAY OF _____, 20____.

QUESTAR GAS COMPANY

BY-_____

TITLE-_____

DEVELOPER:

CONTACT: BACH HOMES
(801) 727-9500

ENGINEER:

JT ENGINEERING

JT Engineering, PC
7886 South 2325 East
South Weber, Utah
ph 801.866.7702
jason@jtengpc.com

BASIS OF BEARINGS:

THE BEARING NORTH 00°17'53" WEST FROM THE WEST QUARTER OF SECTION 17 TO THE NORTHWEST CORNER OF SECTION 17 AS DERIVED FROM THE UTAH COUNTY SURVEYOR'S SECTION TIE SHEETS No. 62-52 AND No. 62-53 WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP. A MEASURED COMBINATION FACTOR OF 1.00036799 (GRID TO GROUND) WAS UTILIZED IN PREPARATION OF THIS MAP.

PHASE 5

MEADOW CREEK RIDGE

SUBDIVISION

SPANISH FORK UTAH COUNTY, UTAH

SCALE: 1" = 60 FEET

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY-COUNTY ENGINEER SEAL	COUNTY-RECORDER SEAL
PROFESSIONAL LAND SURVEYOR 10/4/19 No. 4848 MARTIN SHEARER STATE OF UTAH		EST. CITY 1855 SURROUND Spanish Fork, UTAH POURSELF ENGINEER	MUNICIPAL SEAL

THIS FORM APPROVED BY UTAH COUNTY AND THE MUNICIPALITIES THERIN

PATH: 04-MCR-PH5_PLAT.dwg PLOTTED: October 21, 2019 9:48AM

4117-P-35 T4150 RM

HARUO & YOSHI MIYAGI
26-052-0017

LEE R & VELOY HILL
26-055-0050

BRUCE & HEIDI BRADSHAW
26-055-0070

MEADOW CREEK RIDGE PHASE 4

S89°52'47"E 143.46' L4 S88°54'49"E 168.89' S89°48'04"E 167.13' N89°42'09"E 287.57' S89°30'54"E 164.27' L5 L6

LOT 514 6,010 SQ. FT.
LOT 513 19,885 SQ. FT.
LOT 512 19,737 SQ. FT.
LOT 511 6,837 SQ. FT.
LOT 510 8,916 SQ. FT.
LOT 509 9,496 SQ. FT.
LOT 508 9,505 SQ. FT.
LOT 506 10,388 SQ. FT.
LOT 505 6,640 SQ. FT.
LOT 504 6,786 SQ. FT.
LOT 503 18,929 SQ. FT.
LOT 507 7,175 SQ. FT.
LOT 502 11,708 SQ. FT.
LOT 501 7,637 SQ. FT.
LOT 515 6,030 SQ. FT.
LOT 516 6,084 SQ. FT.
LOT 524 7,275 SQ. FT.
LOT 525 10,580 SQ. FT.
LOT 526 19,510 SQ. FT.
LOT 517 6,049 SQ. FT.
LOT 523 6,778 SQ. FT.
LOT 518 6,828 SQ. FT.
LOT 522 7,616 SQ. FT.
LOT 519 6,999 SQ. FT.
LOT 521 8,429 SQ. FT.
LOT 520 8,157 SQ. FT.

411 412 413 107 108 109 110 111 219 218 217 216 301 302 303 304 305 314 313 312

30' PACIFICORP EASEMENT BOOK 488A PAGE 275
130' UTAH POWER & LIGHT COMPANY EASEMENT BOOK 165A PAGE 138

1600 NORTH (60' PUBLIC ROW) (DEDICATED BY THIS MAP)

1600 EAST (60' PUBLIC ROW) (DEDICATED BY THIS MAP)

WOODSIDE DRIVE (60' PUBLIC ROW) (DEDICATED BY THIS MAP)

1560 NORTH

HIGHWAY 51 (120' PUBLIC ROW)

S34°24'13"W 282.27' (DEDICATED TO SPANISH FORK CITY BY THIS MAP)

JOSH & BRITTANY DEAN
27-011-0015

WARDLEY PROPERTIES, LC
27-011-0069

130' UTAH POWER & LIGHT COMPANY EASEMENT BOOK 165A PAGE 275

100' QUESTAR GAS EASEMENT ENTRY NO. 50497:2003

30' PACIFICORP EASEMENT BOOK 488A PAGE 275

MEADOW CREEK RIDGE PHASE 1

MEADOW CREEK RIDGE PHASE 2

PROPOSED MEADOW CREEK RIDGE PHASE 3

ROAD 10' P.U.E. TYPICAL FRONT YARD 20' LIVING 25' GARAGE 15' LIVING 15' MIN. 10' 5' 20' GAGAGE 5' P.U.E.&D. TYPICAL SIDE YARD 25' 10' P.U.E. TYPICAL REAR YARD

NOTE: 10' AND 5' SIDE YARD SETBACK DISTANCES CAN BE SWAPPED, AS LONG AS 15' IS MAINTAINED BETWEEN BUILDINGS OF ADJACENT LOTS.

TYPICAL LOT SETBACK & DRAINAGE EASEMENT DETAIL

LEGEND & ABBREVIATIONS:

- BOUNDARY LINE
- MONUMENT LINE/CENTER LINE
- PUBLIC UTILITY & DRAINAGE EASEMENT (PUE&D)
- EASEMENT
- LOT LINE
- BUILDING SETBACK LINE
- R.O.W. LINE
- BOUNDARY CORNER, NOT SET UNLESS NOTED OTHERWISE
- ROW — RIGHT OF WAY
- TYP — TYPICAL
- MON — MONUMENT
- 3389 W — LOT ADDRESS
- (R) — RADIAL
- (NR) — NON RADIAL
- PUBLIC UTILITY EASEMENT REC. 3/14/18, ENTRY 24177:2018

LINE / CURVE TABLE

#	LENGTH	DIRECTION /DELTA	RADIUS	TANGENT	CHORD	CHORD BEARING
C1	11.55'	66°10'54"	10.00'	6.52'	10.92'	S56°46'40"W
C2	24.34'	10°43'46"	130.00'	12.21'	24.31'	S29°03'06"W
C3	15.65'	89°41'32"	10.00'	9.95'	14.10'	N46°03'07"W
C4	9.40'	3°10'08"	170.00'	4.70'	9.40'	N00°22'43"E
C5	15.60'	59°35'44"	15.00'	8.59'	14.91'	N31°45'39"E
C6	54.16'	51°42'56"	60.00'	29.08'	52.34'	S35°42'03"W
C7	42.10'	40°12'03"	60.00'	21.96'	41.24'	S10°15'26"E
C8	39.23'	37°27'56"	60.00'	20.35'	38.54'	S49°05'26"E
C9	38.49'	36°45'15"	60.00'	19.93'	37.83'	S86°12'01"E
C10	38.83'	37°04'36"	60.00'	20.12'	38.15'	N56°53'04"E
C11	39.35'	37°34'28"	60.00'	20.41'	38.65'	N19°33'32"E
C12	47.23'	45°06'21"	60.00'	24.92'	46.02'	N21°46'53"W
C13	299.39'	285°53'34"	60.00'	45.30'	72.31'	S81°23'16"E
C14	12.76'	48°44'44"	15.00'	6.80'	12.38'	S19°57'41"E
C15	22.55'	5°37'01"	230.00'	11.28'	22.54'	N01°36'10"E
C16	27.49'	7°52'26"	200.00'	13.76'	27.46'	N05°54'00"E
C17	18.94'	5°25'33"	200.00'	9.48'	18.93'	N07°07'27"E
C18	19.61'	5°37'01"	200.00'	9.81'	19.60'	N01°36'10"E
C19	11.06'	3°10'08"	200.00'	5.53'	11.06'	N00°22'43"E
C20	15.76'	90°18'23"	10.00'	10.05'	14.18'	S43°56'53"W
C21	46.26'	37°51'54"	70.00'	24.01'	45.42'	N71°57'56"W
C22	66.09'	37°51'54"	100.00'	34.30'	64.89'	N71°57'55"W
C23	85.91'	37°51'54"	130.00'	44.59'	84.36'	N71°57'55"W
C24	63.85'	28°08'30"	130.00'	32.58'	63.21'	N76°49'37"W

LINE / CURVE TABLE

#	LENGTH	DIRECTION /DELTA	RADIUS	TANGENT	CHORD	CHORD BEARING
C25	22.06'	9°43'24"	130.00'	11.06'	22.03'	N57°53'40"W
C26	13.11'	10°43'45"	70.00'	6.57'	13.09'	N29°03'06"E
C27	13.39'	76°43'11"	10.00'	7.91'	12.41'	N14°40'22"W
C28	18.73'	10°43'46"	100.00'	9.39'	18.70'	N29°03'06"E
C29	23.18'	13°16'49"	100.00'	11.64'	23.13'	S59°40'22"E
C30	41.57'	23°49'06"	100.00'	21.09'	41.27'	S78°13'20"E
C31	64.75'	37°05'55"	100.00'	33.56'	63.62'	S71°34'55"E
C32	39.71'	32°30'06"	70.00'	20.40'	39.18'	S69°17'01"E
C33	5.62'	4°35'49"	70.00'	2.81'	5.61'	S87°49'58"E
C34	18.86'	15°26'26"	70.00'	9.49'	18.81'	N82°08'54"E
C35	19.76'	75°29'48"	15.00'	11.61'	18.37'	N36°40'48"E
C36	27.54'	26°17'41"	60.00'	14.01'	27.29'	S12°04'44"W
C37	34.42'	32°52'04"	60.00'	17.70'	33.95'	S41°39'37"W
C38	34.42'	32°52'04"	60.00'	17.70'	33.95'	S74°31'41"W
C39	34.42'	32°52'04"	60.00'	17.70'	33.95'	N72°36'15"W
C40	34.42'	32°52'04"	60.00'	17.70'	33.95'	N39°44'11"W
C41	33.78'	32°15'26"	60.00'	17.35'	33.34'	N07°10'26"W
C42	97.78'	93°22'34"	60.00'	63.64'	87.32'	N55°38'34"E
C43	296.77'	283°23'57"	60.00'	47.39'	74.37'	N39°22'08"W
C44	11.23'	42°53'45"	15.00'	5.89'	10.97'	S80°52'58"W
C45	69.05'	30°26'01"	130.00'	35.36'	68.24'	N74°39'06"E
C46	26.95'	15°26'26"	100.00'	13.56'	26.87'	N82°08'54"E
C47	26.17'	14°59'36"	100.00'	13.16'	26.09'	N66°55'54"E
C48	78.54'	45°00'00"	100.00'	41.42'	76.54'	N67°22'07"E

LINE / CURVE TABLE

#	LENGTH	DIRECTION /DELTA	RADIUS	TANGENT	CHORD	CHORD BEARING
C49	25.42'	14°33'59"	100.00'	12.78'	25.35'	N52°09'07"E
L1	16.81'	N89°06'07"E	–	–	–	–
L2	60.00'	N00°53'53"W	–	–	–	–
L3	98.66'	N00°00'07"E	–	–	–	–
L4	89.29'	N88°07'15"E	–	–	–	–
L5	105.43'	S88°37'44"E	–	–	–	–
L6	32.67'	S85°55'59"E	–	–	–	–
L7	132.83'	S87°30'17"E	–	–	–	–
L8	17.20'	S23°41'13"W	–	–	–	–
L9	29.85'	S34°24'59"W	–	–	–	–
L10	60.00'	N55°35'01"W	–	–	–	–
L11	67.44'	S34°24'59"W	–	–	–	–
L12	100.22'	N55°35'01"W	–	–	–	–
L14	73.70'	N01°12'21"W	–	–	–	–
L15	39.79'	N01°12'21"W	–	–	–	–
L16	34.41'	N23°41'13"E	–	–	–	–
L17	18.17'	N23°41'13"E	–	–	–	–
L18	29.85'	S34°24'59"W	–	–	–	–
L19	20.00'	N81°02'43"W	–	–	–	–
L20	26.76'	N44°52'07"E	–	–	–	–
L21	37.64'	N09°50'14"E	–	–	–	–

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

PHASE 5

MEADOW CREEK RIDGE

SUBDIVISION

SPANISH FORK — UTAH COUNTY, UTAH

SCALE: 1" = 40 FEET

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY–COUNTY ENGINEER SEAL	COUNTY–RECORDER SEAL
PROFESSIONAL LAND SURVEYOR 10/21/19 No. 4848 JUSTIN W. SHEARER STATE OF UTAH			

THIS FORM APPROVED BY UTAH COUNTY AND THE MUNICIPALITIES THERIN

SHEET 2 OF 2

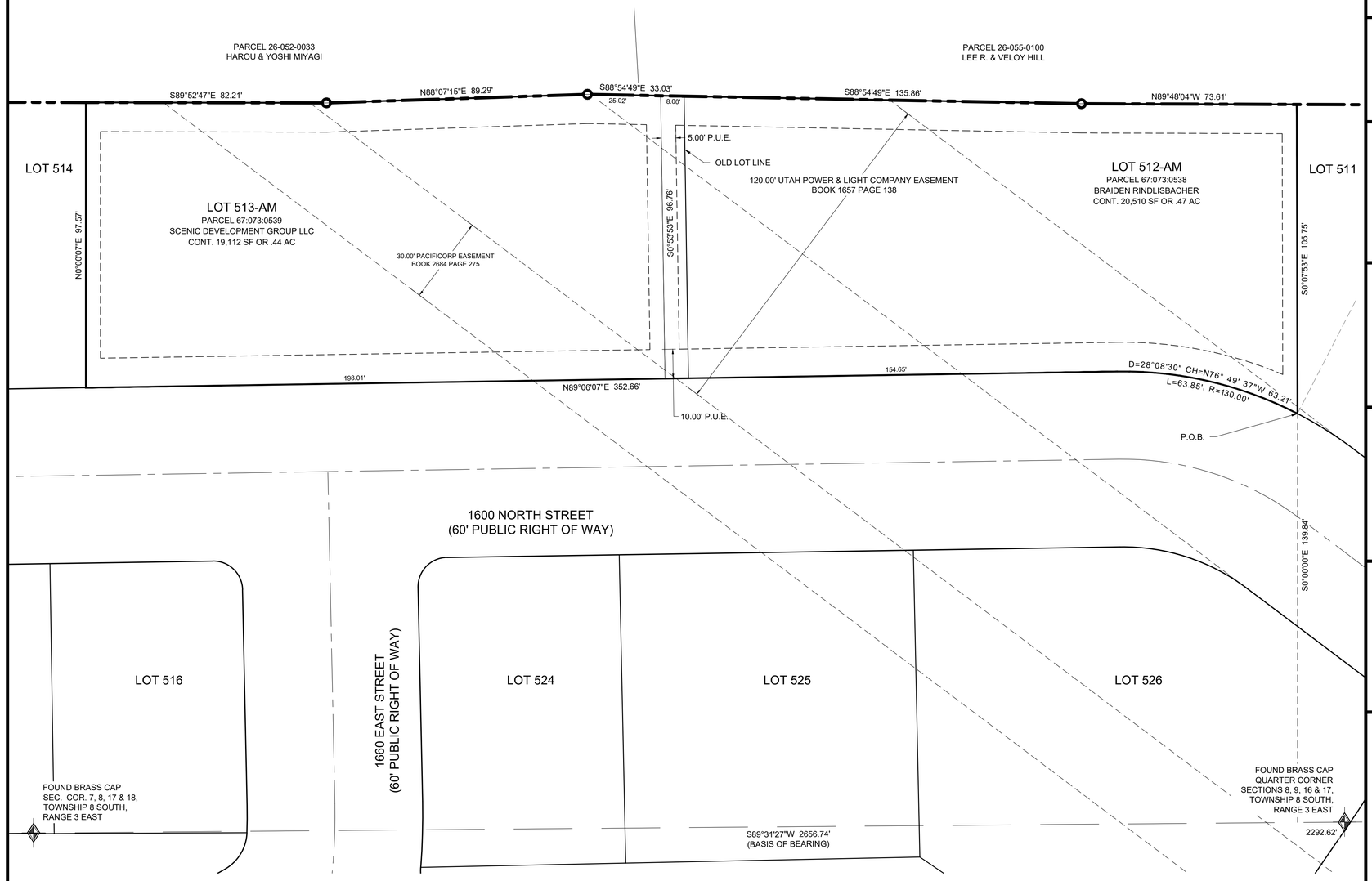
16937 SHEET 2 OF 2

PATH: 04-MCR-PH5_PLAT.dwg PLOTTED: October 21, 2019 9:45AM

MEADOW CREEK RIDGE SUBDIVISION
PHASE 5 FIRST AMENDMENT

AMENDING LOTS 512 & 513

LOCATED IN THE SOUTHEAST CORNER OF SECTION 8, TOWNSHIP 8 SOUTH,
RANGE 3 EAST OF THE SALT LAKE BASE AND MERIDIAN



LEGEND

- UTAH COUNTY MONUMENT AS NOTED
- SUBDIVISION BOUNDARY
- LOT LINE
- ADJACENT PARCEL
- SECTION LINE
- EASEMENT
- EXISTING FENCE LINE

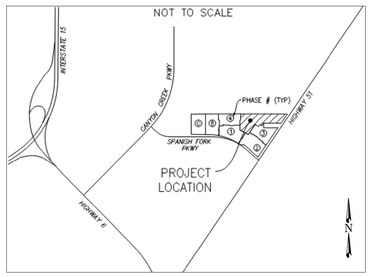
N

0' 10' 20' 40' 60'

Scale in Feet
1" = 20'

VICINITY MAP

NOT TO SCALE



SURVEYOR'S CERTIFICATE

I, WILLIS D. LONG, DO HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF UTAH AND THAT I HOLD CERTIFICATE NO. 10708886 IN ACCORDANCE WITH TITLE 58, CHAPTER 22, OF THE PROFESSIONAL ENGINEERS AND LAND SURVEYORS ACT; I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS I HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS RECORD OF SURVEY PLAT IN ACCORDANCE WITH SECTION 17-23-20 AND HAVE VERIFIED ALL MEASUREMENTS; THAT THE REFERENCE MONUMENTS SHOWN ON THIS RECORD OF SURVEY PLAT ARE LOCATED AS INDICATED AND ARE SUFFICIENT TO RETRACE OR REESTABLISH THIS SURVEY; AND THAT THE INFORMATION SHOWN HEREIN IS SUFFICIENT TO ACCURATELY ESTABLISH THE LATERAL BOUNDARIES OF THE HEREIN DESCRIBED TRACT OF REAL PROPERTY.

SIGNED THIS 1ST DAY OF MARCH 2022.

NARRATIVE

THE PURPOSE OF THIS SURVEY WAS TO AMEND LOTS 512 AND 513 TO GIVE THE WEST 33.00 FEET OF LOT 512 TO LOT 513. THE SURVEY WAS ORDERED BY BRANDON RINDLISBACHER. THE BASIS OF BEARING IS THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 8, TOWNSHIP 8 SOUTH, RANGE 3 EAST OF THE SALT LAKE BASE AND MERIDIAN WHICH BEARS NORTH 89°31'27" EAST.

BOUNDARY DESCRIPTION

BEGINNING AT A POINT BEING LOCATED S.89°31'27"W., A DISTANCE OF 2292.64 FEET AND NORTH 139.84 FEET FROM THE SOUTHEAST CORNER OF SECTION 8, TOWNSHIP 8 SOUTH, RANGE 3 EAST OF THE SALT LAKE BASE AND MERIDIAN, SAID POINT BEING THE POINT OF BEGINNING AND THE BEGINNING OF A CURVE TO THE LEFT, OF WHICH THE CHORD BEARS N.76°49'37"W., A DISTANCE OF 63.21 FEET AND A RADIAL DISTANCE OF 130.00 FEET; THENCE WESTERLY ALONG THE ARC, THROUGH A CENTRAL ANGLE OF 28°08'30", A DISTANCE OF 63.85 FEET; THENCE S.89°06'07"W., A DISTANCE OF 352.66 FEET; THENCE N.00°00'07"E., A DISTANCE OF 97.57 FEET; THENCE S.89°52'47"E., A DISTANCE OF 82.21 FEET; THENCE N.88°07'15"E., A DISTANCE OF 89.29 FEET; THENCE S.88°54'49"E., A DISTANCE OF 33.03 FEET; THENCE CONTINUE EASTERLY ALONG SAID LINE, A DISTANCE OF 135.86 FEET; THENCE S.89°48'04"E., A DISTANCE OF 73.61 FEET; THENCE S.00°07'53"E., A DISTANCE OF 105.75 FEET TO THE POINT OF BEGINNING.

CONTAINING 39,621.75 SQUARE FEET OR 0.9096 ACRES, MORE OR LESS.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, THE UNDERSIGNED OWNER(S) OF THE ABOVE DESCRIBED TRACT OF LAND, HAVING CAUSED SAID TRACT TO BE SUBDIVIDED INTO LOTS AND STREETS TO BE HEREAFTER KNOWN AS:

MEADOW CREEK RIDGE SUBDIVISION
PHASE 5 FIRST AMENDMENT

DO HEREBY DEDICATE FOR PERPETUAL USE OF THE PUBLIC ALL PARCELS OF LAND SHOWN ON THIS PLAT AS INTENDED FOR PUBLIC USE.
IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUT HANDS THIS _____ DAY OF _____ A.D. 2022.

_____ _____

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, THE UNDERSIGNED OWNER(S) OF THE ABOVE DESCRIBED TRACT OF LAND, HAVING CAUSED SAID TRACT TO BE SUBDIVIDED INTO LOTS AND STREETS TO BE HEREAFTER KNOWN AS:

MEADOW CREEK RIDGE SUBDIVISION
PHASE 5 FIRST AMENDMENT

DO HEREBY DEDICATE FOR PERPETUAL USE OF THE PUBLIC ALL PARCELS OF LAND SHOWN ON THIS PLAT AS INTENDED FOR PUBLIC USE.
IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUT HANDS THIS _____ DAY OF _____ A.D. 2022.

_____ _____
BY: BY:

CORPORATE ACKNOWLEDGEMENT

STATE OF UTAH)
§
COUNTY OF UTAH)

On this _____ day of _____ 2022, personally appeared before me _____, whose identity is personally known to me (or proven on the basis of satisfactory evidence) and who by me duly sworn/affirmed, did say that he/she is the OWNER of SCENIC DEVELOPMENT GROUP LLC, and that said document was signed by him/her in behalf of said *Corporation by Authority of its Bylaws, or (Resolution of its Board of Directors), and said _____ acknowledged to me that said *Corporation executed the same.

STAMP _____
NOTARY PUBLIC

ACKNOWLEDGEMENT

STATE OF UTAH)
§
COUNTY OF UTAH)

On this _____ day of _____ 2022, before me _____, A Notary Public, personally appeared _____, Proved on the basis of satisfactory evidence to be the person(s) whose name(s) (is/are) subscribed to this instrument, and acknowledged (he/she/they) executed the same. Witness my hand and official seal.

STAMP _____
NOTARY PUBLIC

ACCEPTANCE BY A LEGISLATIVE BODY

THE CITY OF SPANISH FORK, COUNTY OF UTAH, APPROVES THE 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. 2022.

_____ _____
CITY MANAGER CITY ATTORNEY

_____
COMMUNITY DEVELOPMENT DIRECTOR

APPROVED_____ ATTEST_____
ENGINEER (SEE SEAL BELOW) CLERK-RECORDER (SEE SEAL BELOW)

MEADOW CREEK RIDGE SUBDIVISION
PHASE 5 FIRST AMENDMENT

AMENDING LOTS 512 & 513

LOCATED IN THE SOUTHEAST CORNER OF SECTION 8, TOWNSHIP 8 SOUTH,
RANGE 3 EAST OF THE SALT LAKE BASE AND MERIDIAN

DEVELOPER:
SCENIC DEVELOPMENT INC
14572 S 790 W # A100
RIVERTON, UT 84065
(801) 253-1237

S1
1

LAYTON SURVEYS LLC
Professional Land Surveying
(801) 663-1641 Willis.long@laytonsurveys.com
1857 N 1000 W STE. 1
CLEARFIELD, UT 84015

SURVEYOR'S SEAL	NOTARY PUBLIC'S SEAL	CITY-COUNTY ENGINEER'S SEAL	COUNTY RECORDER'S SEAL
LICENSED PROFESSIONAL SURVEYOR STATE OF UTAH 3/1/2022 WILLIS D. LONG 10708886			

MGB+A
The Grassli Group

02 | 17 | 22

SPANISH FORK HORIZONTAL

PRELIMINARY SITE PLAN
OPTION 4.1

1"=150'-0"



Site Data:			Parking:	
1 Bedroom Units	101		Required Parking Spaces	510
2 Bedroom Units	56		Number of Provided Spaces	512
3 Bedroom Units	47		Garages Provided (60%)	122
Total Units	204			

CANYON GATE

LOCATED IN THE NORTHWEST QUARTER OF SECTION 28,
TOWNSHIP 8 SOUTH, RANGE 3 EAST,
SALT LAKE BASE AND MERIDIAN
SPANISH FORK CITY, UTAH COUNTY, UTAH

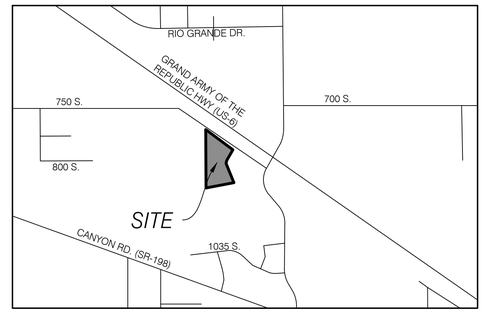
GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50ft.

NORTH





VICINITY MAP
N.T.S

OWNER/DEVELOPER:
PMJ COMPANIES
SANDY McCLEVE
5284 SOUTH COMMERCE DRIVE SUITE C-274
MURRAY, UT 84107
801-568-0900
sandy@pmjcompanies.com

DRAWING INDEX

COVER	COVER SHEET
CGN.01	GENERAL NOTES, LEGEND & ABBREVIATION
CSP.01	SITE PLAN
CSP.02	SITE ACCESS PLAN
CUP.01	UTILITY PLAN
CGD.01	GRADING & DRAINAGE PLAN
CGD.02	GRADING & DRAINAGE PLAN
CEP.01	EROSION CONTROL PLAN
CEP.02	EROSION CONTROL DETAILS
CDT.01	DETAILS & NOTES
CDT.02	DETAILS & NOTES
CDT.03	DETAILS & NOTES
CDT.04	DETAILS & NOTES
CDT.05	DETAILS & NOTES

CIVIL CONSTRUCTION PLANS

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE # 100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

DRAFT: TJB/HT	DESIGN: TJB/AGA	CHECK: MCP
DATE: 02/24/2017	DATE: 02/24/2017	DATE: 09/07/2018

PROJECT NO. 1802022

COVER

1 OF 14

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY REDLINES
2	09/07/18	REVISED PER CITY REDLINES

BENCHMARK ENGINEERING CONTACT: DALE K. BENNETT, PLS, PE

LINETYPES:

NEW | EXISTING

NEW	EXISTING	
		SECTION LINE
		PROPERTY LINE
		ADJACENT PL or LOT LINES
		RIGHT-OF-WAY LINE
		CENTERLINE of ROAD
		EASEMENT LINE
		CURB & GUTTER
		EDGE OF ASPHALT
		FENCE / WALL, STONE
		FENCE, BLOCK
		FENCE, BRICK
		FENCE, CHAIN
		FENCE, IRON
		FENCE, VINYL
X	X	FENCE, WIRE
		FENCE, WOOD
4475	4475	INDEX CONTOUR LINE
		INTERMEDIATE CONTOUR LINE
XX.XX TOC		SPOT ELEVATION
SS	SS	SANITARY SEWER LINE
SD	SD	STORM DRAIN LINE
W	W	WATER LINE
IRR	IRR	IRRIGATION LINE
OHP	OHP	OVERHEAD POWER LINE
UG	UG	UNDERGROUND POWER LINE
GAS	GAS	GAS LINE
T	T	TELEPHONE LINE
CATV	CATV	CABLE TELEVISION LINE
		DRAINAGE / DITCH CENTERLINE
		TREE LINE EDGE
FO	FO	FIBER OPTIC LINE
		PROPOSED ASPHALT
		PROPOSED CONCRETE

SYMBOLS:

NEW | EXISTING

- SECTION CORNER (FOUND)
- SECTION CORNER (NOT FOUND)
- STREET MONUMENT (FOUND)
- STREET MONUMENT (NOT FOUND)
- BRASS CAP MONUMENT
- POWER POLE & OVERHEAD POWER
- LIGHT POLE
- GUY WIRE
- TELEPHONE MANHOLE
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- CATCH BASIN
- DIRECTION OF DRAINAGE
- WATER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION VALVE
- GAS MANHOLE
- TREE

ABBREVIATIONS

BC	BAR & CAP	PUE	PUBLIC UTILITY EASEMENT
COR.	SECTION CORNER	R	RADIUS OF CURVE
CB	CATCH BASIN	RR	RAILROAD
CF	CUBIC FEET	ROW	RIGHT-OF-WAY
D	DELTA ANGLE	R/W	RIGHT-OF-WAY
EOA	EDGE OF ASPHALT	SMH	SEWER MANHOLE
EOC	EDGE OF CONCRETE	SD	STORM DRAIN
EX	EXISTING	SF	SQUARE FEET
FFE	FINISH FLOOR ELEVATION	TBC	TOP BACK OF CURB
FH	FIRE HYDRANT	TMH	TELEPHONE MANHOLE
FL	FLOW LINE	TOA	TOP OF ASPHALT
GB	GRADE BREAK	TOC	TOP OF CONCRETE
GW	GUY WIRE	TOF	TOP OF FOOTING
HW	HEAD WALL	TOE	TOE OF SLOPE
I.E.	INVERT ELEVATION	TOG	TOP OF GRATE
LIP	LENGTH OF CURVE	TOP	TOP OF SLOPE
L	LIP OF CURB	TOW	TOP OF WALL
LF	LINEAR FEET	TR	TELEPHONE RISER
LP	LOW POINT	UGP	UNDERGROUND POWER
M-M	MONUMENT TO MONUMENT	VPC	VERTICAL POINT OF CURVATURE
MH	MANHOLE	VPI	VERTICAL POINT INTERSECTION
MON.	SURVEY MONUMENT	VPT	VERTICAL POINT OF TANGENCY
OHP	OVERHEAD POWER	WM	WATER METER
PC	POINT OF CURVATURE	WV	WATER VALVE
PI	POINT OF INTERSECTION		
PP	POWER POLE		
PT	POINT OF TANGENCY		

NOTE:

IN THE EVENT THAT THE CONSTRUCTION NOTES CONFLICT WITH RESPONSIBLE DISTRICT OR AGENCY STANDARDS NOTES AND SPECIFICATIONS, THE DISTRICT OR AGENCY STANDARD NOTES AND SPECIFICATIONS GOVERN.

CAUTION NOTICE TO CONTRACTORS

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AN HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CALL BEFORE YOU DIG.
IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

CONSTRUCTION NOTES

RESPONSIBLE DISTRICTS OR AGENCIES AND APPLICABLE STANDARDS
CITY OR COUNTY- SPANISH FORK
WATER UTILITY COMPANY- SPANISH FORK CITY PUBLIC WORKS
SEWER- SPANISH FORK CITY PUBLIC WORKS
STORM DRAIN/GROUNDWATER- SPANISH FORK CITY PUBLIC WORKS
ELECTRICAL- SOUTH UTAH VALLEY ELECTRIC SERVICE DISTRICT
TELEPHONE- CENTURY LINK
NATURAL GAS- DOMINION ENERGY

APPLICABLE STANDARDS: APWA 2017 STANDARDS

GENERAL

1. ALL MATERIALS AND CONSTRUCTION IN THE PUBLIC RIGHT OF WAY SHALL BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.

2. CONTRACTOR AND APPLICABLE SUBCONTRACTORS SHALL ATTEND ALL PRE-CONSTRUCTION CONFERENCES AND PERIODIC PROGRESS MEETINGS. PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT RESPONSIBLE DISTRICT OR AGENCY FOR A PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL ALSO NOTIFY THE APPROPRIATE PROJECT CONTACTS (48) HOURS IN ADVANCE OF SAID MEETING.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC SAFETY AND OSHA STANDARDS.

4. THE CONTRACTOR SHALL FAMILIARIZE HIM/HER SELF WITH THE PLANS, THE GEOLOGY REPORTS AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL INSPECT THE SITE OF WORK PRIOR TO BIDDING TO SATISFY THEMSELVES BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS THEY MAY PREFER, OF THE LOCATION OF THE PROPOSED WORK, AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK.

CONDITIONS WHICH APPEAR TO THEM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, THEY SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING THEIR BID.

SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, THEY HAVE RELIED AND ARE RELYING ON THEIR OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON THEIR OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.

THE INFORMATION PROVIDED BY THE OWNER OR THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT THEY HAVE NOT RELIED SOLELY UPON OWNER OR ENGINEER FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING THEIR BID.

5. ALL WORK SHALL COMPLY WITH THE AMERICAN PUBLIC WORKS ASSOCIATION UTAH CHAPTER (APWA) MANUAL OF STANDARD SPECIFICATIONS 2017 EDITION AND THE MANUAL OF STANDARD PLANS 2017 EDITION. SAID STANDARD SPECIFICATIONS AND PLANS SHALL BE SUBSIDIARY TO MORE STRINGENT REQUIREMENTS BY APPLICABLE LOCAL JURISDICTION.

6. THE CONTRACTOR SHALL BE SKILLED AND REGULATORY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR, IT SHALL BE EXPECTED THAT THE PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE.

THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS ON THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN REGULAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR PECULIAR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHT-OF-WAY, EASEMENTS, AND/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN APPROPRIATE PERMITS WHERE APPLICABLE FOR ANY WORK DONE WITHIN RIGHT-OF-WAY OR EASEMENTS FROM THE CITY AND/OR UDOT. CONTRACTOR SHALL NOTIFY CITY, COUNTY, AND/OR STATE, 24 HOURS IN ADVANCE OF COMMUNICATING THE WORK, OR AS REQUIRED BY SAID PERMITS.

8. CONSTRUCTION STAKING FOR GRADING, CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAIN, WATER, AND ELECTROLIERS SHALL BE DONE BY THE OWNER'S SURVEYOR. THE CONTRACTOR SHALL NOTIFY THE SURVEYOR FORTY-EIGHT (48) HOURS IN ADVANCE OF THE NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS THAT IS ABOVE AND BEYOND STANDARD STAKING NEEDS, WILL BE SUBJECT TO AN EXTRA WORK BACK CHARGE TO THE CONTRACTOR. THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.

9. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER AND/OR ENGINEER.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.

11. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT OF EXISTING IMPROVEMENTS AND ANYTHING THAT HAS ALREADY BEEN CONSTRUCTED. THERE WILL BE NO EXTRA COST DUE THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.

12. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL; ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CONDUITS, CONDUCTORS, POINTS OF CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.

13. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER. ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATION REDLINES AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

UTILITIES

14. CONTRACTOR TO SPACE UTILITIES TO PROVIDE MINIMUM DISTANCES AS REQUIRED BY LOCAL, COUNTY, STATE, AND INDIVIDUAL UTILITY CODES.

15. ALL UTILITES INSTALLED IN ACCORDANCE WITH THE RESPONSIBLE DISTRICTS OR AGENCEIS STANDARDS AND SPECIFICATIONS.

16. COORDINATE ALL SERVICE LATERAL AND BUILDING CONNECTIONS WITH CORRESPONDING ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWING FOR LOCATION AND ELEVATION. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE ENCOUNTERED.

17. ALL STORM DRAIN MANHOLES AND CATCH BASINS ARE TO BE PRECAST CONCRETE FROM APPROVED LOCAL MANUFACTURER UNLESS OTHERWISE NOTED. AND COMPLY WITH CITY/COUNTY STANDARD

18. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR EQUAL UNLESS OTHERWISE NOTED.

19. ALL ELECTRICAL CONDUITS/LINES TO BE PVC SCH 40 OR BETTER.

20. ALL GAS LINES TO BE HDPE WITH COPPER TRACER WIRE AND DETECTA TAPE. TERMINATE TRACER WIRE AT APPROVED LOCATIONS.

21. ALL GAS LINE TAPS, VALVES AND CAPS TO BE FUSED USING ELECTRO - FUSION TECHNOLOGY.

22. ALL PHONE AND TV CONDUITS TO BE PVC SCH 40 OR BETTER.

23. NO GROUNDWATER OR DEBRIS TO BE ALLOWED TO ENTER THE NEW PIPE DURING CONSTRUCTION. THE OPEN END OF ALL PIPES IS TO BE COVERED AND EFFECTIVELY SEALED AT THE END OF EACH DAYS WORK.

24. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4' OR MORE AND SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 - EXCAVATIONS, AND SECTION 69 - TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.

25. PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.

26. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.

27. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES TO BE OPERATED UNDER THE DIRECTION OF THE CITY/COUNTY PUBLIC WORKS DEPARTMENT PERSONNEL ONLY.

28. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK, AND STREET PAVING.

SEWER

29. ALL SEWER LINE TO BE FLUSHED, PRESSURE TESTED TO 5 PSI VIDEO INSPECTED AND OTHERWISE TESTED IN ACCORDANCE WITH DISTRICT STANDARDS PRIOR TO PLACING IN SERVICE.

30. ALL SEWER PIPES ARE TO BE SDR-35 PVC PIPE.

31. SEWER MANHOLES, LATERALS AND CLEANOUTS TO BE INSTALLED PER RESPONSIBLE DISTRICT OR AGENCY STANDARDS. THE UNIT COST OF THE SEWER LATERAL INCLUDES CONNECTION TO THE SEWER MAIN. THE CLEANOUT RISER FOR EACH SERVICE SHALL BE INSTALLED BY THE CONTRACTOR.

32. DURING CONSTRUCTION OF THE SEWERLINE, WYES NEED TO BE INSTALLED FOR THE LATERALS. LATERALS ARE 4" AND NEED TO COME IN AT THE TOP OF THE PIPE WITH A WYE. (SEE RESPONSIBLE DISTRICT OR AGENCY STANDARDS)

WATER

33. WATERLINES TO BE PVC C-900. WATER LINES SHALL BE A MINIMUM OF 10' HORIZONTALLY FROM SEWER MAINS. CROSSINGS SHALL MEET STATE HEALTH STANDARDS. (MECHANICAL JOINTS REQUIRED WHEN LESS THAN 18" VERTICAL OR TEN FEET HORIZONTAL SEPARATION FROM SEWERLINE)

34. ALL WATERLINES SHALL BE 8" MINIMUM SIZE AND SERVICE LATERALS SHALL BE 1-1/2" MINIMUM UNLESS OTHERWISE NOTED.

35. WATER SERVICE LATERALS TO INCLUDE ALL BRASS SADDLE; CORP. STOP LATERAL, DOUBLE CHECK VALVE AND BACKFLOW PREVENTION DEVICE, AND SHUTOFF VALVE IN BOX NEAR BUILDING EDGE.

36. ALL WATERLINES SHALL BE 48" BELOW FINISH GROUND TO TOP OF PIPE. ALL VALVE BOXES AND MANHOLES SHALL BE RAISED OR LOWERED TO FINISH GRADE AND SHALL INCLUDE A CONCRETE COLLAR IN PAVED AREAS. ALL WATER LINES SHALL BE LOOPED AROUND GRAVITY LINES OR ROPED PER RESPONSIBLE DISTRICT OR AGENCY INSPECTOR.

37. CONTRACTOR TO NOTIFY RESPONSIBLE DISTRICT OR AGENCY FOR CHLORINE TEST PRIOR TO FLUSHING LINES, CHLORINE LEFT IN PIPE 24 HRS. MINIMUM WITH 25 PPM RESIDUAL. ALL TURNING OF MAINLINE VALVES, CHLORINATION, FLUSHING, PRESSURE TESTING, BACTERIA TESTING, ETC. TO BE COORDINATED WITH RESPONSIBLE DISTRICT OR AGENCY. ALL TESTS TO BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.

38. BOTTOM FLANGE OF FIRE HYDRANTS TO BE SET TO APPROXIMATELY 4 INCHES ABOVE BACK OF CURB ELEVATION. HYDRANTS TO INCLUDE TEE, 6" LINE VALVE, AND HYDRANT COMPLETE TO MEET RESPONSIBLE DISTRICT OR AGENCY STANDARDS, UNLESS OTHERWISE NOTED ON PLANS.

EXISTING UTILITIES

39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES SHOWN OR NOT SHOWN. THE INFORMATION SHOWN ON THE PLANS WITH REGARDS TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS WAS DERIVED FROM FIELD INVESTIGATION AND/OR RECORD INFORMATION. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE FACILITIES SHOWN AND ANY OTHER FACILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE ALL EXISTING UNDERGROUND UTILITIES RELATED TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, SEWER, STORM DRAIN, WATER IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES SO, THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. THE COST ASSOCIATED TO PERFORM THIS WORK SHALL BE INCLUDED IN EITHER THE LUMP SUMP CLEARING COST OR IN THE VARIOUS ITEMS OF WORK. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION BE MADE PRIOR TO CONSTRUCTION.

40. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

41. ALL UTILITY MANHOLE RIMS, CATCH BASIN GRATES AND VALVE BOX COVERS ARE TO BE ADJUSTED TO FIT THE FINISHED GRADE OF THE SITE.

42. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT ALL PIPES, WALLS, ETC. ARE ADEQUATELY BRACED DURING CONSTRUCTION.

CLEARING AND GRADING

43. CONTRACTOR SHALL PERFORM EARTHWORK IN ACCORDANCE WITH APWA 2017 STANDARD DRAWINGS AND STANDARD SPECIFICATIONS AND THE RECOMMENDED EARTHWORK SPECIFICATION FOUND IN THE PROFESSIONALLY PREPARED REPORT OF GEOTECHNICAL INVESTIGATION.

44. THE CONTRACTOR SHALL REMOVE ALL VEGETATION AND DELETERIOUS MATERIALS FROM THE SITE UNLESS NOTED OTHERWISE; ALL EXISTING WELLS AND SEPTIC TANKS SHALL BE REMOVED AND/OR ABANDONED PER THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL REGULATIONS. THE COST TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CLEARING COST.

45. SUBSOIL INVESTIGATIONS HAVE BEEN CONDUCTED AT THE SITE OF THE WORK. BEFORE FOOTING, FOUNDATION OR STRUCTURAL WALL CONSTRUCTION CAN COMMENCE, A REVIEW OF THE PROFESSIONALLY PREPARED REPORT OF THESE INVESTIGATIONS, MUST BE REVIEWED.

SOIL INVESTIGATIONS WERE CONDUCTED FOR DESIGN PURPOSES ONLY, AND THE DATA SHOWN IN THE REPORTS ARE FOR SUBSURFACE CONDITIONS FOUND AT THE TIME OF THE INVESTIGATION. THE OWNER AND ENGINEER DISCLAIM RESPONSIBILITY FOR THE INTERPRETATION BY THE CONTRACTOR OF DATA, SUCH PROJECTION OR EXTRAPOLATION, FROM THE TEST HOLES TO OTHER LOCATIONS ON THE SITE OF THE WORK, SOIL BEARING VALUES AND PROFILES, SOIL STABILITY AND THE PRESENCE, LEVEL AND EXTENT OF UNDERGROUND WATER FOR SUBSURFACE CONDITIONS DURING CONSTRUCTION OPERATIONS.

46. ALL PROPOSED ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO FINISHED SURFACE, THE CONTRACTOR IS RESPONSIBLE TO DEDUCT THE THICKNESS OF THE PAVEMENT STRUCTURAL SECTION FOR TOP OF SUB GRADE ELEVATIONS.

47. IF AT ANY TIME DURING CONSTRUCTION ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, WORK IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED FROM THE ENGINEER.

48. UNSUITABLE MATERIAL, SUCH AS TOP SOIL, WEATHERED BED ROCK, ETC., SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER (AND/OR ENGINEERING GEOLOGIST, WHERE EMPLOYED) FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.

49. NO TREES SHALL BE REMOVED OR DAMAGED WITHOUT SPECIFIC WRITTEN AUTHORIZATION FROM PROPERTY OWNER.

50. THE EXISTING TOPOGRAPHY ON THESE PLANS IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY BENCHMARK ENGINEERING AND LAND SURVEYING AND MAY HAVE BEEN MODIFIED SINCE THIS SURVEY WAS PERFORMED.

51. FILLS IN EXCESS OF 4 FEET IN THICKNESS AND BENEATH ALL FOUNDATIONS OR PAVEMENT SECTIONS SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D-1557 COMPACTION CRITERIA. ALL OTHER STRUCTURAL FILL LESS THAN 4 FEET IN THICKNESS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF THE ABOVE CRITERIA.

52. COMPACTION TESTING WILL BE ACCOMPLISHED BY THE CONTRACTOR, OR THE CONTRACTOR WILL HAVE SUCH TESTING ACCOMPLISHED BY A SEPARATE CONTRACTOR. TEST RESULTS WILL BE SUBMITTED FOR REVIEW WITHIN 24 HOURS AFTER TEST.

53. CONTRACTOR TO SUBMIT PROCTOR AND/OR MARSHALL TEST DATA 24 HOURS PRIOR TO TEST.

54. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON PLANS.

55. ALL SLOPES IN ADJOINING STREETS, DRAINAGE CHANNELS, OR OTHER FACILITIES SHALL BE GRADED NO STEEPER THAN 2 TO 1 FOR CUT AND FILL.

56. GRADES WITHIN ASPHALT PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF THE DESIGN GRADE. HOWEVER, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL PAVEMENT AREAS AND ALONG ALL CURBS. ALL CURBS SHALL BE BUILT IN ACCORDANCE TO THE PLAN. CURBS AND PAVEMENT AREAS WHICH DO NOT PROVIDE PROPER DRAINAGE MUST BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

57. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

58. WHERE NEW CURB AND GUTTER IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OR CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY; PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSE SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS, THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

59. SITE WORK SHALL MEET OR EXCEED OWNER'S SITE SPECIFICATIONS.

60. ALL CONCRETE TO HAVE A MINIMUM OF 28 DAY COMPRESSION STRENGTH OF 4000 PSI.

61. CUT SLOPES SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL

62. FILL SLOPES SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL

63. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT.

DEWATERING

64. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE AND MAINTAIN ALL MACHINERY, APPLIANCES AND EQUIPMENT TO MAINTAIN ALL EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION. THE CONTRACTOR SHALL DISPOSE OF THE WATER SO AS NOT TO CAUSE DAMAGE TO PUBLIC OR PRIVATE PROPERTY, OR TO CAUSE A NUISANCE OR MENACE TO THE PUBLIC OR VIOLATE THE LAW. THE DEWATERING SYSTEM SHALL BE INSTALLED AND OPERATED SO THAT THE GROUND LEVEL OUTSIDE THE EXCAVATION IS NOT REDUCED TO THE EXTENT WHICH WOULD CAUSE DAMAGE OR ENDANGER ADJACENT STRUCTURES OR PROPERTY. ALL COST FOR DEWATERING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIED DENSITY. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR ITS OPERATION: DEWATERING SYSTEM SHALL OPERATE CONTINUOUSLY UNTIL BACKFILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.

65. THE CONTRACTOR SHALL CONTROL SURFACE WATER TO PREVENT ENTRY INTO EXCAVATIONS. AT EACH EXCAVATION, A SUFFICIENT NUMBER OF TEMPORARY OBSERVATION WELLS TO CONTINUOUSLY CHECK THE GROUNDWATER LEVEL SHALL BE PROVIDED.

66. SUMPS SHALL BE NO DEEPER THAN 5 FEET AND SHALL BE AT THE LOW POINT OF EXCAVATION. EXCAVATION SHALL BE GRADED TO DRAIN TO THE SUMPS.

67. THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS OR "BOILS", DOES NOT OCCUR. DEWATERING SYSTEMS SHALL BE DESIGNED AND OPERATED SO AS TO PREVENT REMOVAL OF NATURAL SOILS. THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE PERFORMED IN SUCH A MANNER AS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL FOUNDATION SOILS, PREVENT DISTURBANCE OF COMPACTED BACKFILL, AND PREVENT FLOTATION OR MOVEMENT OF STRUCTURES, PIPELINES AND SEWERS. IF A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR DISPOSAL OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES, IT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.

68. ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PIPING AS TO PERMIT IMMEDIATE USE. IN ADDITION STANDBY EQUIPMENT AND APPLIANCES FOR ALL ORDINARY EMERGENCIES, AND COMPETENT WORKMEN FOR OPERATION AND MAINTENANCE OF ALL DEWATERING EQUIPMENT SHALL BE ON SITE AT ALL TIMES. STANDBY EQUIPMENT SHALL INCLUDE EMERGENCY POWER GENERATION AND AUTOMATIC SWITCH OVER TO THE EMERGENCY GENERATOR WHEN NORMAL POWER FAILS. DEWATERING SYSTEMS SHALL NOT BE SHUT DOWN BETWEEN SHIFTS, ON HOLIDAYS, ON WEEKENDS, OR DURING WORK STOPPAGES.

SITE SAFETY AND MAINTENANCE

69. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.

70. CONTRACTOR SHALL INSTALL EROSION CONTROLS (SILT FENCES, STRAW BALES, ETC) AS REQUIRED BY REGULATORY AGENCIES. SAID CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH AGENCY STANDARDS AND FOLLOWING BEST MANAGEMENT PRACTICES FOR ACTUAL PLACEMENT ON SITE. STRAW BALES SHOWN ON THESE DRAWINGS ARE INTENDED AS A MINIMUM REQUIREMENT. ADDITIONAL CONTROLS REQUESTED BY AGENCY INSPECTORS SHALL BE REQUIRED. DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTOR'S EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.

71. THE CONTRACTOR AGREES THAT:

A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.

B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.

C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.

D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM THE FINAL PAYMENT.

E. THEY SHALL RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL, PERMITS, RETESTING AND REINSPECTIONS AT THEIR OWN EXPENSE.

F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.

G. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

H. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTORS USE DURING CONSTRUCTION.

I. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.

72. FOR ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS, THE CONTRACTOR SHALL PRESERVE THE INTEGRITY AND LOCATION OF ANY AND ALL PUBLIC UTILITIES AND PROVIDE THE NECESSARY CONSTRUCTION TRAFFIC CONTROL. CONTRACTOR SHALL, THROUGH THE ENCROACHMENT PERMIT PROCESS, VERIFY WITH THE NECESSARY REGULATORY AGENCIES, THE NEED FOR ANY TRAFFIC ROUTING PLAN. IF PLAN IS REQUIRED, CONTRACTOR SHALL PROVIDE PLAN AND RECEIVED PROPER APPROVALS PRIOR TO BEGINNING CONSTRUCTION. WORK IN EASEMENT AND/OR RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID AND/OR RIGHT-OF-WAY. ALL CONSTRUCTION WORK IN UDOT RIGHT- OF -WAY SHALL BE SUBJECT TO INSPECTION BY THE STATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT INSPECTIONS TAKE PLACE WHERE AND WHEN REQUIRED AND TO INSURE THAT ALL WORK IS COMPLETED TO UDOT STANDARDS.

SURFACE IMPROVEMENTS:

73. SUBGRADE PREPARATION: SUBGRADE SHALL BE COMPACTED TO A 95% RELATIVE C0MPACTION TO A MINIMUM DEPTH OF 6" FOR ALL ON-SITE DEVELOPMENT. ALL OFF-SITE IMPROVEMENTS ARE TO BE DONE PER APWA STANDARDS.

74. AGGREGATE SUB-BASE: AGGREGATE SUB-BASE SHALL BE GRANULAR BACKFILL BORROW. AGGREGATE SUB-BASE MATERIAL SHALL BE CLEAN AND FREE FROM VEGETABLE MATTER AND OTHER DELETERIOUS SUBSTANCE. AGGREGATE SHALL COMPLY WITH THE GUIDELINE REQUIREMENTS FOR PAVEMENTS FOUND IN THE PROFESSIONALLY PREPARED OF THE SOILS INVESTIGATIONS COMPLETED ON THIS SITE.

75. AGGREGATE BASE: AGGREGATE BASE SHALL BE GRADE 3/4 UNTREATED BASE COURSE, AND COMPLY PREPARED REPORT OF THE SOILS INVESTIGATION PREPARED ON THIS SITE.

76. ALL MANHOLE RIMS, LAMPHOLES, VALVES AND MONUMENT BOXES, ETC. SHALL BE ADJUSTED TO FINISH GRADE AFTER STREET PAVING, UNLESS OTHERWISE NOTED. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR SAID FACILITIES.

77. ALL SIDEWALKS AND CROSSINGS TO MEET CURRENT ADA STANDARDS/ APWA STANDARDS.

78. PAYMENT FOR PAVEMENT WILL BE MADE ONLY FOR AREAS SHOWN ON PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE SPECIFICATIONS, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.

79. INSTALLATION OF STREET LIGHTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS.

80. PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS BUILT BY THESE PLANS AND SPECIFICATIONS THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER, CITY, AND POWER COMPANY TO HAVE THE ELECTRICAL SYSTEM AND ALL STREET LIGHTS ENERGIZED.

81. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO THE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.

82. STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH MUTCD & APWA 32 17 23.

83. DURING THE BIDDING PROCESS, CONTRACTOR TO REVIEW DESIGN SLOPES SHOWN FOR PAVEMENT AND WARRANTY THE PAVEMENT TO THE OWNER BASED UPON THE DESIGN SLOPES SHOWN HEREON. CONCERNS WITH SLOPES MUST BE BROUGHT DURING THE BIDDING PROCESS.

84. IT IS THE INTENT ON THESE PLANS THAT ALL PAVEMENT SLOPE TO A CATCH BASIN, INLET BOX OR OUT INTO A STREET.CONTRACTOR TO VERIFY FINISH SPOT ELEVATIONS AND NOTIFY ENGINEER IF THERE ARE DISCREPANCIES THAT WOULD CAUSE PUDDLING ON THE SITE.

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

DRAWN BY TJB
CHECKED BY MCP
FIELD CREW ZS/CL
DATE 05/24/18
DWG. FILE

0 0.5 1
SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK
ENGINEERING &
LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

GEN. NOTES
LEGEND &
ABBREV.



CONSTRUCTION KEY NOTES REFERENCE

NO.	DESCRIPTION	DETAIL
1	ASPHALT PAVEMENT WITH GRANULAR BASE	1/CDT.01
2	CONCRETE PAVEMENT WITH GRANULAR BASE	1/CDT.01
3	CONCRETE CURB AND GUTTER PER APWA #205 TYPE 'A'	
4	TRANSITION CURB & GUTTER FROM CATCH TO RELEASE	
5	RELEASE CURB & GUTTER	2/CDT.01
6	SIDEWALK PER APWA #231	
7	ADA RAMP	1/CDT.02
8	ADA SIGN	1/CDT.02
9	SAWCUT AND RESTORE ASPHALT AND APPROACH PER SPANISH FORK STD G-1	1/CDT.05
10	CONCRETE CURB WALL	2/CDT.05
11	CURB CUT	

NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

PROJECTED AREA TABLE

PARTICULARS	S.F.	%
BUILDING	27,047	14.5
HARDSCAPE	116,530	62.2
LANDSCAPE	43,677	26.8
TOTAL	187,254	100

PARKING COUNT

PARTICULARS	PROVIDED	
	STANDARD	ADA
PARKING STALLS	162	8
TOTAL	170	

TYPICAL NON-STRUCTURAL ROCK WALL (A)
SCALE: NTS

NOTES:
1. NOMINAL ROCK SIZES SHALL BE AT LEAST ONE THIRD (⅓) THE HEIGHT OF THE WALL.
2. IN SANDY OR SILTY SOILS A FILTER FABRIC SHALL BE PLACED BEHIND THE ROCK FACED SLOPE.
3. ROCK MUST BE ANGULAR AND FITTED TOGETHER TO INTERACT WITH ADJACENT ROCKS.
4. A MINIMUM SETBACK OF FOUR (4) FEET FROM BUILDING OR STRUCTURES SHALL BE MAINTAINED ABOVE OR BELOW THE ROCK FACED SLOPE.

CALL BEFORE YOU DIG.
IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com
BENCHMARK CIVIL

CANYON GATE

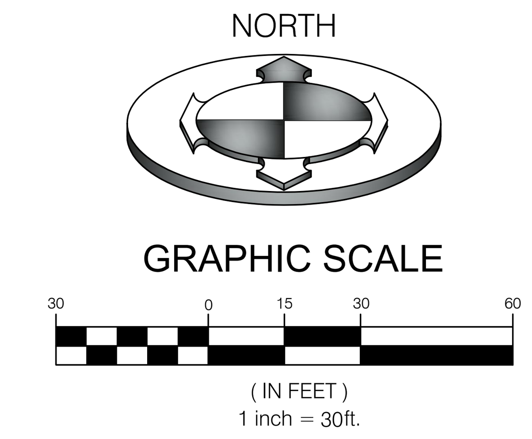
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

SITE
PLAN

CSP.01
3 OF 14





No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY	TJB
CHECKED BY	MCP
FIELD CREW	ZS/CL
DATE	05/24/18
DWG. FILE	

0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS
POULSEN
STATE OF UTAH

BENCHMARK CIVIL

BENCHMARK
ENGINEERING &
LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE

802 SOUTH 2550 EAST
SPANISH FORK, UTAH

CALL BEFORE YOU DIG.
IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

PROJECT NO. 1802022

SITE ACCESS PLAN

CSP.02
4 OF 14



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

CONSTRUCTION KEY NOTES REFERENCE

NO.	DESCRIPTION	DETAIL
1	GATE VALVE PER SPANISH FORK STDS. W-6 & W-8	2/CDT.03
2	2" WATER SERVICE LINE & METER PER SPANISH FORK STDS. W-12	4/CDT.01
3	8" PVC C-900 WATER MAIN	
4	6" PVC C-900 FIRELINE	
5	FIRE HYDRANT PER SPANISH FORK STDS. W-9	1/CDT.03
6	THRUST BLOCK PER SPANISH FORK STDS. W-1	3/CDT.03
7	12"x12"x8" TEE PER SPANISH FORK STDS.	
8	RESTRAINT PER SPANISH FORK STDS. W-2 OR W-3	6/CDT.01
9	6" PVC SDR-35 SEWER LATERAL (SLOPE @ MIN. 1%) PER SPANISH FORK STDS. SS-4	3/CDT.04
10	SEWER CLEAN OUT PER SPANISH FORK STDS. SS-4	3/CDT.04
11	4' SSMH PER SPANISH FORK STDS. SS-1	2/CDT.04
12	4' FLAT SSMH (OLDCASTLE OR EQUAL)	2/CDT.05
13	8" SDR-35 PVC SS	
14	PIV & FDC	
15	1" IRRIGATION METER PER SPANISH FORK STD. W-215	3/CDT.02
16	1" SDR-9 POLYETHYLENE PIPE	

NOTE A:
18" OF VERTICAL SEPERATION BETWEEN WATER AND SEWER LINES REQUIRED. LOOP WATER SYSTEM IF REQUIRED.

NOTE B:
12" OF VERTICAL SEPERATION BETWEEN WATER AND STORM LINES REQUIRED. LOOP WATER SYSTEM IF REQUIRED.

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION AND NOTIFY ENGINEER IF THIS POINT IS HIGHER THAN SHOWN ON THE PLANS FOR A REDESIGN.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
SEWER LINES WITH LESS THAN 4' OF COVER SHALL BE INSULATED

CALL BEFORE YOU DIG. IT'S FREE & IT'S THE LAW
BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

UTILITY PLAN

CUP.01
5 OF 14



NORTH

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20ft.

GRADING AND DRAINAGE KEY NOTES REFERENCE

NO.	DESCRIPTION	DETAIL
1	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
2	STORM DRAIN INLET BOX PER SPANISH FORK STDS SD-4	5/CDT.01
3	3'X3' CATCH BASIN	2/CDT.02
4	18F SNOUT	4/CDT.03
5	4'X4' CATCH BASIN	2/CDT.02
6	SINGLE HD R-TANK SYSTEM OR APPROVED EQUAL	1/CDT.04

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION AND NOTIFY ENGINEER IF THIS POINT IS HIGHER THAN SHOWN ON THE PLANS FOR A REDESIGN.

NOTE:
GRADING DOES NOT INCLUDE BUILDING FINISHED FLOOR ELEVATION, SIDEWALKS AND DOORS. BUILDING FOOTPRINT LOCATIONS ARE ESTIMATED LOCATIONS.

BENCHMARK:
BRASS CAP FOUND AT NORTHWEST CORNER OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 3 EAST. SALT LAKE BASE AND MERIDIAN.
ELEV = 4734.35
NAVD 29 DATUM

CALL BEFORE YOU DIG. IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
DESIGNED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.BenchmarkCivil.com

BENCHMARK CIVIL

CANYON GATE

802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

GRADING & DRAINAGE PLAN

CGD.01
6 OF 14

NOTE:
GRADING DOES NOT INCLUDE BUILDING FINISHED FLOOR ELEVATION, SIDEWALKS AND DOORS. BUILDING FOOTPRINT LOCATIONS ARE ESTIMATED LOCATIONS.

NOTE A:
IN THE EVENT OF A STORM EXCEEDING THE 25 YEAR EVENT, STORM WATER WILL BACK UP INTO THE STORM DRAIN SYSTEM AND THEN BUBBLE UP INTO CATCH BASIN #213. THE WATER WILL THEN FLOW DOWN A SWALE ALONG THE WEST PROPERTY LINE AND ONTO US-6.

CALCULATED DISCHARGE INTO GROUND: $Q = \frac{S(sf)}{P(sec/ft)}$

Percolation surface area	$S = 2(WH + LH) + WL$
Effective sump width (W)	58.56 ft
Effective sump length (L)	59.26 ft
Effective sump depth (H)	3.19 ft
Percolation surface area (S)	4,223.07 sf
Discharge	
Percolation rate (P)	2.00 min/in
Percolation surface area (S)	4,223.07 sf
Discharge (Q)	2.93 cfs
Allowable Discharge (Qa)	.68cfs/acre

HD R-Tank Underground Detention:

Number of Single Tanks =	777	Tank Depth =	1.44 ft
Number of Tanks Wide =	37	Tank Width =	1.31 ft
Number of Tanks Long =	21	Tank Length =	2.35 ft
		Volume per Tank =	4.22 cf
		Volume of Tanks =	**3,279 cf**
Stone above R-Tank =	1.50 ft	Total Depth =	3.19 ft
Stone around R-Tank =	5.00 ft	Total Width =	58.56 ft
Stone below R-Tank =	0.25 ft	Total Length =	59.26 ft
Volume of R-Tank System & Wrap (Total L*W*D) =			11,083 cf
Volume of Tanks Only =			3,279 cf
Void Ratio of Rock =			40%
Volume of Voids = (System&Wrap-Tanks)* Void Ratio =			3,121 cf
Total R-Tank System Volume (Tanks + Voids) =			**6,400 cf**
Is there adequate storage?		Storage Provided =	**6,400 cf**
		Req. Storage =	**6,388 cf** **YES**

STORM DRAINAGE CALCULATIONS
Rational Method (Q=CIA)

Area Identification (A)		Rational Coefficient (C)	C*A
Roof =	27,047	0.9	24342 S.F.
Pavement =	116,530	0.9	104877 S.F.
Landscaping =	43,677	0.2	8735.4 S.F.
Sum:	187254 S.F.	Sum:	137955 S.F.

NOAA ATLAS 14 (25 YEAR STORM) — **Allowable Discharge =** .70cfs/acre

Time (min)	Incremental Rainfall (in/hr)	Cumulative Rainfall (inches)	Rainfall Excess (cu.ft.)	Allowed Discharge (cu.ft)	Volume to Detain (cu.ft)
0	0.010	0.010	113	0	113
5	0.010	0.020	226	226	0
10	0.010	0.030	340	340	0
15	0.010	0.039	453	453	0
20	0.010	0.049	566	566	0
25	0.010	0.059	679	679	0
30	0.010	0.069	793	793	0
35	0.320	0.389	4472	1693	2780
40	0.253	0.642	7382	2593	4790
45	0.176	0.818	9409	3493	5916
50	0.112	0.931	10700	4393	**6307**
55	0.067	0.998	11470	5293	6177
60	0.051	1.049	12059	6193	5866
65	0.038	1.087	12500	7093	5407
70	0.030	1.117	12840	7993	4847
75	0.023	1.140	13100	8893	4207
80	0.021	1.160	13338	9793	3545
85	0.018	1.178	13542	10693	2849
90	0.015	1.193	13712	11593	2119
95	0.010	1.203	13825	12493	1332
100	0.010	1.212	13938	13393	545
105	0.010	1.222	14051	14051	0
110	0.010	1.232	14165	14165	0
115	0.010	1.242	14278	14278	0
120	0.010	1.252	14391	14391	0
125	0.010	1.262	14504	14504	0
130	0.010	1.272	14618	14618	0
135	0.010	1.281	14731	14731	0
140	0.010	1.291	14844	14844	0
145	0.010	1.301	14957	14957	0
150	0.010	1.311	15070	15070	0
155	0.010	1.321	15184	15184	0
160	0.010	1.331	15297	15297	0
165	0.010	1.340	15410	15410	0
170	0.010	1.350	15523	15523	0
175	0.010	1.360	15637	15637	0
180	0.010	1.370	15750	15750	0

NORTH

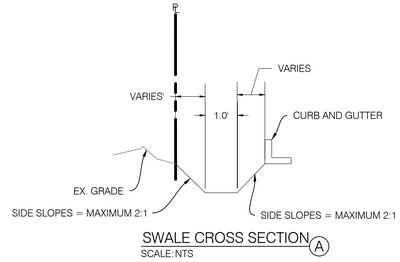
GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20ft.

GRADING AND DRAINAGE KEY NOTES REFERENCE

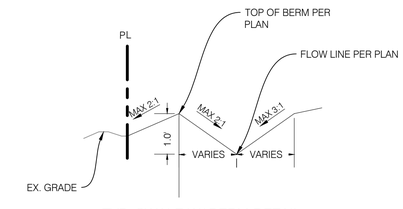
NO.	DESCRIPTION	DETAIL
1	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
2	STORM DRAIN INLET BOX PER SPANISH FORK STDS SD-4	5/CDT.01
3	3'X3' CATCH BASIN	2/CDT.02
4	18F SNOUT	4/CDT.03
5	4'X4' CATCH BASIN	2/CDT.02
6	SINGLE HD R-TANK SYSTEM OR APPROVED EQUAL	1/CDT.04

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION AND NOTIFY ENGINEER IF THIS POINT IS HIGHER THAN SHOWN ON THE PLANS FOR A REDESIGN.



SWALE CROSS SECTION (A)
SCALE: NTS



TYP. SWALE W/ BERM DETAIL (B)
SCALE: NTS

BENCHMARK:
BRASS CAP FOUND AT NORTHWEST CORNER OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 3 EAST. SALT LAKE BASE AND MERIDIAN.
ELEV = 4734.35
NAVD 29 DATUM

CALL BEFORE YOU DIG. IT'S FREE & IT'S THE LAW
BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
1 0.5 0

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

GRADING & DRAINAGE PLAN

CGD.02
7 OF 14



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

SWPPP KEY NOTES REFERENCE

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.

NO.	DESCRIPTION	DETAIL
1	CONCRETE WASTE MANAGEMENT	1/CEP.02
2	SEDIMENT BARRIER	2/CEP.02
3	MATERIALS STORAGE	3/CEP.02
4	PORTABLE TOILETS	4/CEP.02
5	SILT FENCE	6/CEP.02
6	TEMPORARY CONSTRUCTION ENTRANCE	7/CEP.02

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

BENCHMARK CIVIL

CANYON GATE

802 SOUTH 2550 EAST
SPANISH FORK, UTAH

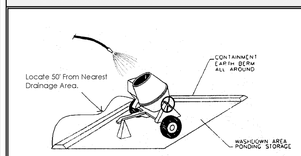
PROJECT NO. 1802022

EROSION CONTROL PLAN

CEP.01
8 OF 14

CALL BEFORE YOU DIG. IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811

BMP: Concrete Waste Management



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

APPLICATIONS:
This technique 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 areas 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 creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- Train employees and subcontractors in proper concrete waste management.

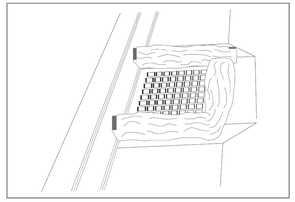
LIMITATIONS:
- Off-site washout of concrete wastes may not always be possible.

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

CONCRETE WASTE MANAGEMENT 1
SCALE: NTS

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.

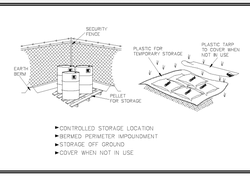
INSTALLATION/APPLICATION CRITERIA:
- Provide up-gradient sediment controls, such as silt fence during construction of inlet
- When construction of curb and gutter and roadways is complete, install gravel filled wattles around perimeter of inlet

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.

INLET PROTECTION WATTLE 2
SCALE: NTS

BMP: Materials Storage



DESCRIPTION:
Controlled storage of on-site materials.

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

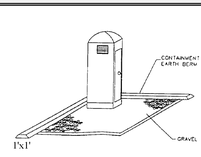
INSTALLATION/APPLICATION CRITERIA:
- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment 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 away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm 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 location.

MAINTENANCE:
- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Check 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.

MATERIALS STORAGE 3
SCALE: NTS

BMP: Portable Toilets



DESCRIPTION:
Temporary on-site sanitary facilities for construction personnel.

APPLICATION:
All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:
- Locate portable toilets in convenient locations throughout the site.
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

LIMITATIONS:
No limitations.

MAINTENANCE:
- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- Regular waste collection should be arranged with licensed service.
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

PORTABLE TOILETS 4
SCALE: NTS

BMP: Spill Clean-Up



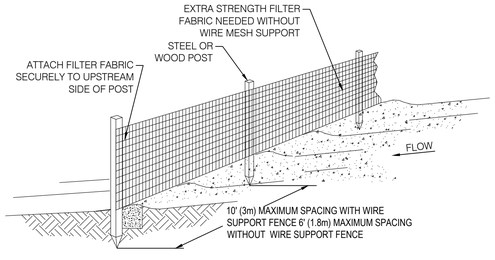
DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

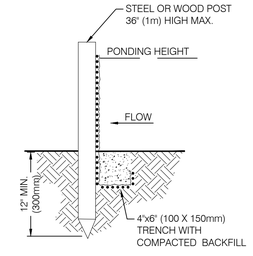
APPLICATION:
All sites

GENERAL:
- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

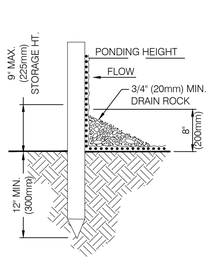
METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

SPILL CLEAN UP 5
SCALE: NTS





TRENCH DETAIL



INSTALLATION WITHOUT TRENCHING

NOT TO SCALE

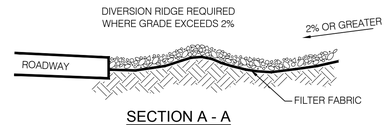
NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.

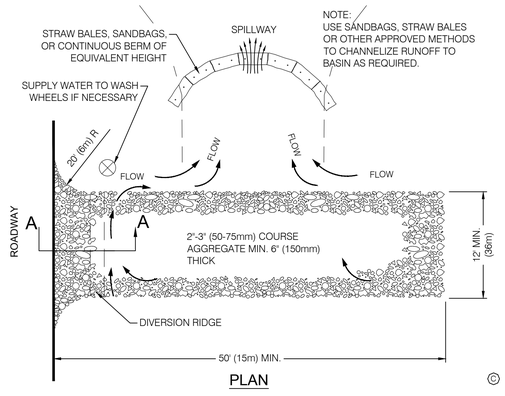
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

© REF: FROM 1994 JOHN McCULLAH

SILT FENCE 6
SCALE: NTS



SECTION A - A



PLAN

© REF: FROM 1994 JOHN McCULLAH

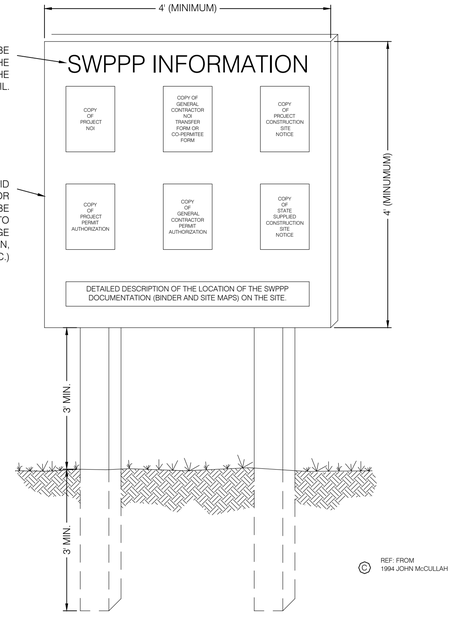
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT 7
SCALE: NTS





NOTES:
1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.

2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-TO TERMINATION (NOT) IS FILED FOR THE PERMIT.

3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.

4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.

5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY IF THE SWPPP INFORMATION SIGN.

© REF: FROM 1994 JOHN McCULLAH

SWPPP INFORMATION SIGN 8
SCALE: NTS

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

BENCHMARK CIVIL

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

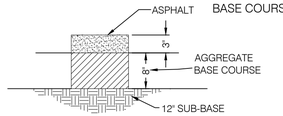
PROJECT NO. 1802022

EROSION CONTROL DETAILS

CEP.02
9 OF 14

ALTERNATE: STANDARD

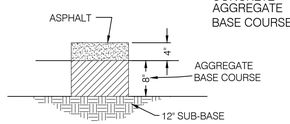
CONCRETE 5"
AGGREGATE 8"
BASE COURSE



LIGHT DUTY PAVEMENT
(PARKING STALLS)

ALTERNATE: STANDARD

CONCRETE 6"
AGGREGATE 8"
BASE COURSE

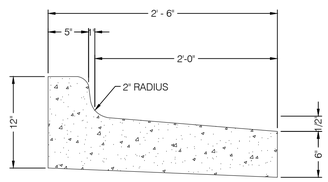


HEAVY DUTY PAVEMENT
(DRIVE LANES & DUMPSTER ENCLOSURE)

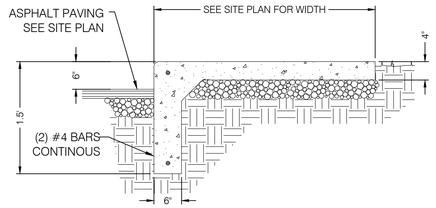
NOTE:
1. FOR REINFORCEMENT DESIGN OF PCC PAVEMENT SECTIONS SEE STRUCTURAL ENGINEER
2. FOR DOWEL DESIGN OF PCC PAVEMENT SECTIONS SEE GEOTECHNICAL ENGINEER.
3.SUBGRADE PREPARATION & PAVEMENT SHALL CONFORM WITH GEOTECHNICAL REPORT PREPARED BY PSI INC. DATED MARCH 14, 2018
4. CBR value of 2.6.

PAVEMENT SECTIONS (1)
SCALE: NTS

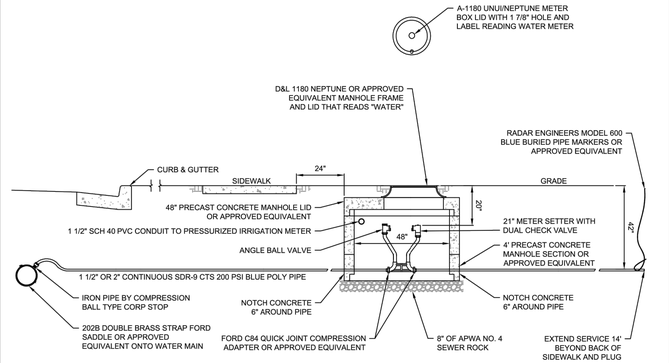
NOTE: 6" MIN. OF UNTREATED BASE COURSE REQ'D UNDER CURB AND GUTTER. COMPACT TO 95% ASSHTO T-180 - METHOD D.



TYPICAL RELEASE CURB & GUTTER (2)
SCALE: NTS

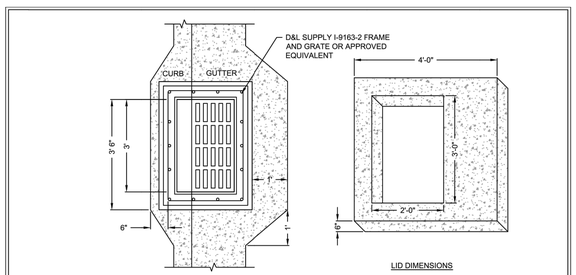


TYPICAL CONCRETE INTEGRAL SIDEWALK & CURB (3)
SCALE: NTS (APWA #205)



NOTES:
1. BURY CONDUIT 18" BELOW GRADE.
2. CONTRACTOR SHALL INSTALL 1 1/2" AND 2" METERS (METER TO BE PROVIDED BY SPANISH FORK CITY).
3. TYPE OF METER TO BE USED SHALL BE DETERMINED BY THE CITY.

1-1/2" TO 2" WATER METER & VAULT DETAIL (4)
SCALE: NTS



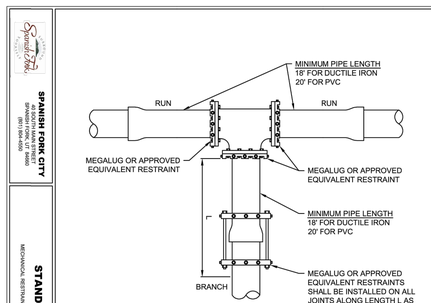
NOTES:
1. ALL STORM TRANSMISSION LINES SHALL RUN THROUGH STORM MANHOLES.
2. BOX SHALL BE SIZED ACCORDING TO TABLE ON STANDARD #32.
3. UNLESS OTHERWISE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER, #4 REBAR WILL BE SPACED AT MINIMUM OF 12" O.C. IN ALL DIRECTIONS IN CONCRETE, ALL REBAR SHALL OVERLAP A MINIMUM OF 14".

SPANISH FORK CITY
40 SOUTH MAIN STREET
SPANISH FORK, UT. 84660
(801) 804-4500

STANDARD DRAWING
STORM WATER INLET BOX

DRAWN:	JLR
DESIGN:	CJP
CHECK:	CMT
DATE:	8/21/17
SCALE:	NONE
STANDARD	SD-4

CURB INLET W/ SINGLE GRATE (5)
SCALE: NTS



CLASS A SOILS
GW: WELL GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
SW: WELL GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
GC: CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
SC: CLAYEY SANDS, SAND-CLAY MIXTURES

CLASS B SOILS
GP: POORLY GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
SP: POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
GM: SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
SM: SILTY SANDS, SAND SILT MIXTURES
CL: INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY LAYS, LEAN CLAYS
ML: INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS

PVC PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS															
SOIL CONDITION & DEPTH OF PIPE	12"-4"	12"-6"	12"-8"	12"-10"	12"-12"	10"-4"	10"-6"	10"-8"	10"-10"	8"-4"	8"-6"	8"-8"	6"-4"	6"-6"	4"-4"
CLASS A NATIVE SOIL - 2' BURY	20	20	24	66	104	20	20	42	80	20	20	60	20	31	20
CLASS A NATIVE SOIL - 4' BURY	20	20	20	20	38	20	20	20	21	20	20	20	20	20	20
CLASS B NATIVE SOIL - 2' BURY	20	20	57	150	150	20	20	74	118	20	34	91	20	55	23
CLASS B NATIVE SOIL - 4' BURY	20	20	20	74	74	20	20	29	56	20	20	40	20	20	20

DUCTILE IRON PIPE

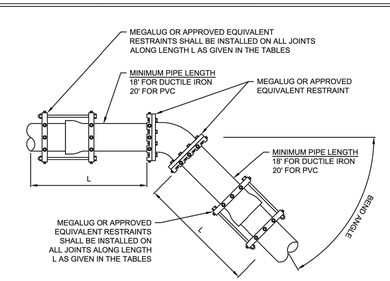
MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS															
SOIL CONDITION & DEPTH OF PIPE	12"-4"	12"-6"	12"-8"	12"-10"	12"-12"	10"-4"	10"-6"	10"-8"	10"-10"	8"-4"	8"-6"	8"-8"	6"-4"	6"-6"	4"-4"
CLASS A NATIVE SOIL - 2' BURY	18	18	18	43	67	18	18	27	52	18	18	39	18	20	18
CLASS A NATIVE SOIL - 4' BURY	18	18	18	18	21	18	18	18	18	18	18	18	18	18	18
CLASS B NATIVE SOIL - 2' BURY	18	18	38	100	100	18	18	49	78	18	23	60	18	36	18
CLASS B NATIVE SOIL - 4' BURY	18	18	18	49	49	18	18	19	37	18	18	27	18	18	18

NOTES:
1. ALL RESTRAINING DEVICES SHALL BE INSTALLED ACCORDING TO THESE REQUIREMENTS OR MANUFACTURER SPECIFICATIONS, WHICHEVER IS MOST CONSERVATIVE.
2. FOR TRANSITIONS BETWEEN PVC AND DUCTILE IRON PIPE USE THE PVC TABLE.
3. MECHANICAL RESTRAINTS FOR PIPE LARGER THAN 12" IN DIAMETER MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER.
4. MECHANICAL RESTRAINTS MAY ONLY BE USED ON PVC OR DUCTILE IRON PIPE.

SPANISH FORK CITY
40 SOUTH MAIN STREET
SPANISH FORK, UT. 84660
(801) 804-4500

STANDARD DRAWING
MECHANICAL RESTRAINING DEVICES FOR PRESSURE PIPE BENDS

DRAWN:	JLR
DESIGN:	CJP
CHECK:	CMT
DATE:	8/21/17
SCALE:	NONE
STANDARD	W-2



CLASS A SOILS
GW: WELL GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
SW: WELL GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
GC: CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
SC: CLAYEY SANDS, SAND-CLAY MIXTURES

CLASS B SOILS
GP: POORLY GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
SP: POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
GM: SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
SM: SILTY SANDS, SAND SILT MIXTURES
CL: INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY LAYS, LEAN CLAYS
ML: INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS

PVC PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS																							
SOIL CONDITION & DEPTH OF PIPE	11 1/4° BEND					22 1/2° BEND					45° BEND					90° BEND							
	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"
CLASS A NATIVE SOIL - 2' BURY	20	20	20	20	20	20	20	20	20	22	20	20	20	20	54	47	40	31	22				
CLASS A NATIVE SOIL - 4' BURY	20	20	20	20	20	20	20	20	20	20	20	20	20	20	35	29	24	20	20				
CLASS B NATIVE SOIL - 2' BURY	20	20	20	20	20	20	20	20	20	29	24	21	20	20	69	58	50	39	28				
CLASS B NATIVE SOIL - 4' BURY	20	20	20	20	20	20	20	20	20	20	20	20	20	20	48	41	34	26	20				

DUCTILE IRON PIPE

MECHANICAL RESTRAINT SPECIFICATION "L" IN FEET FOR BENDS ON SPECIFIED DIAMETERS																							
SOIL CONDITION & DEPTH OF PIPE	11 1/4° BEND					22 1/2° BEND					45° BEND					90° BEND							
	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"	12"	10"	8"	6"	4"			
CLASS A NATIVE SOIL - 2' BURY	18	18	18	18	18	18	18	18	18	19	18	18	18	18	45	39	33	26	19				
CLASS A NATIVE SOIL - 4' BURY	18	18	18	18	18	18	18	18	18	18	18	18	18	18	29	24	20	18	18				
CLASS B NATIVE SOIL - 2' BURY	18	18	18	18	18	18	18	18	18	24	21	18	18	18	58	50	42	33	24				
CLASS B NATIVE SOIL - 4' BURY	18	18	18	18	18	18	18	18	18	18	18	18	18	18	40	33	28	21	18				

NOTES:
1. ALL RESTRAINING DEVICES SHALL BE INSTALLED ACCORDING TO THESE REQUIREMENTS OR MANUFACTURER SPECIFICATIONS, WHICHEVER IS MOST CONSERVATIVE.
2. FOR TRANSITIONS BETWEEN PVC AND DUCTILE IRON PIPE USE THE PVC TABLE.
3. MECHANICAL RESTRAINTS FOR PIPE LARGER THAN 12" IN DIAMETER MUST BE DESIGNED BY A LICENSED ENGINEER.
4. ALL RESTRAINTS ON VERTICAL BENDS MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER.
5. MECHANICAL RESTRAINTS MAY ONLY BE USED ON PVC OR DUCTILE IRON PIPE.

RESTRAINT DETAILS (6)
SCALE: NTS

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

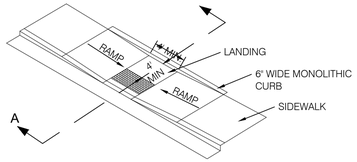
BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

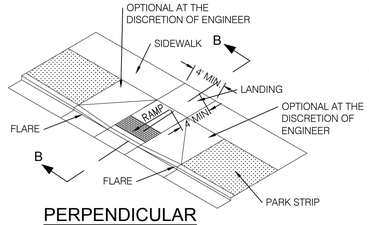
PROJECT NO. 1802022

DETAIL SHEET

CDT.01
10OF 14

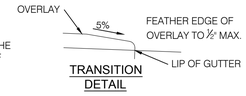


PARALLEL PEDESTRIAN RAMP

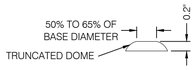


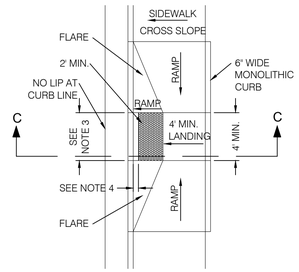
PERPENDICULAR PEDESTRIAN RAMP

FLARE IS ACCEPTABLE IN LIEU OF FULL HEIGHT CURB SEE LOCAL AGENCY REQUIREMENTS

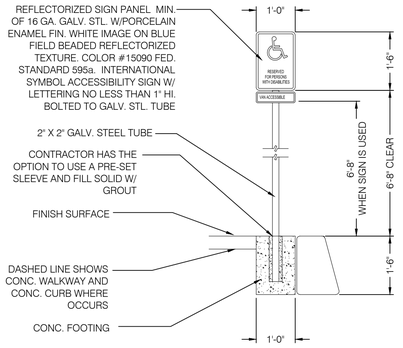


TRANSITION DETAIL





PEDESTRIAN ACCESS RAMP DETAIL



ADA SIGN POST DETAIL

SLOPE TABLE			
	ITEM	RUNNING SLOPE*	CROSS SLOPE
(L)	LANDING	1.5-2% (1V:48H) (b)	1.5-2% (1V:48H) (b)
(R)	RAMP	8.33% (1V:12H) (c)	1.5-2% (1V:48H) (d)
(T)	TRANSITION	5% (1V:20H) (a)	1.5-2% (1V:48H) (d)
	SIDEWALK	--	1.5-2% (1V:48H)
	FLARE	10% (1V:10H)	--

* RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL, WHILE CROSS SLOPE IS PERPENDICULAR TO PEDESTRIAN TRAVEL.

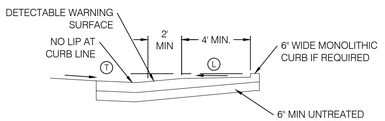
(a) TRANSITION RUNNING SLOPE NEEDS TO BE CONSTANT ACROSS ENTIRE CURB CUT. WARP GUTTER PAN TO MEET REQUIRED TRANSITION SLOPE AT CURB CUT (0.10' MAX. ABOVE FLOWLINE.)

EXCEPTION:

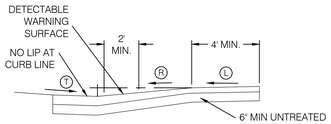
(b) IF SLOPE REQUIREMENTS CAN'T BE ACHIEVED ON MID-BLOCK RAMPS CONTACT THE ENGINEER.

(c) PARALLEL RAMPS ARE NOT REQUIRED TO EXCEED 15-FEET IN LENGTH.

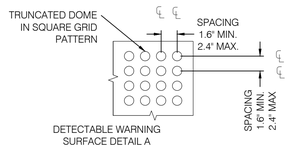
(d) CROSS SLOPE REQUIREMENT DOES NOT APPLY AT PERPENDICULAR RAMP MID-BLOCK CROSSING.



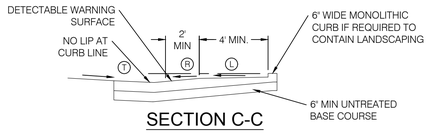
SECTION A-A



SECTION B-B



THIS DRAWING PRODUCED BY THE U.S. ACCESS BOARD



SECTION C-C



DIRECTION OF TRAVEL OR APPROACH

THIS DRAWING PRODUCED BY THE U.S. ACCESS BOARD



INTERNATIONAL SYMBOL OF ACCESSIBILITY

THIS DRAWING PRODUCED BY THE U.S. ACCESS BOARD

STANDARD ACCESS RAMP (1)

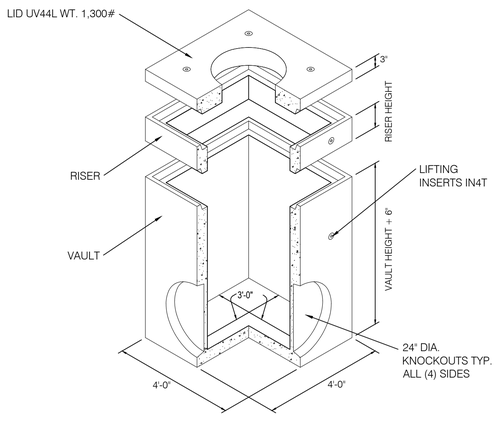
SCALE: NTS

NOTES:

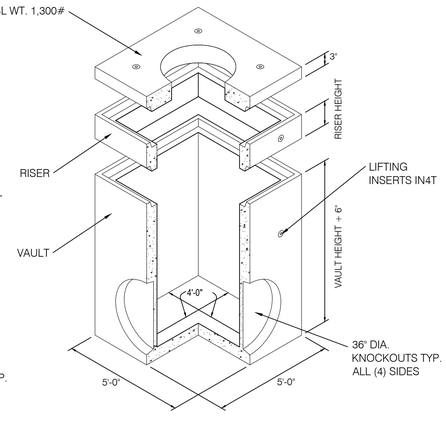
1. CONFIGURATION OF RAMPS AND LANDINGS MAY BE CHANGED BUT MUST MEET PEDESTRIAN RAMP DIMENSIONS AND SLOPE REQUIREMENTS. SPECIFIC SITE CONDITIONS WILL VARY. THE USE OF FLARES, CURBWALLS, ETC. ARE AT THE DISCRETION OF THE ENGINEER.
2. PERPENDICULAR AND PARALLEL PEDESTRIAN RAMPS SHOWN ON THIS DRAWING ARE ACCEPTABLE FOR USE AT MID BLOCK OR CORNER INSTALLATIONS.
3. PROVIDE DETECTABLE WARNING SURFACE FOR FULL WIDTH OF RAMP, LANDING OR CURB CUT. SEE DETAIL A FOR DETECTABLE WARNING SURFACE DIMENSIONS.
4. LOCATE DETECTABLE WARNING SURFACE SO THAT THE EDGE NEAREST THE STREET IS 4 TO 6 INCHES FROM THE TOP BACK OF CURB.
5. PROVIDE DETECTABLE WARNING SURFACE. COLOR SHALL BE YELLOW.
6. USE CLASS AA (AE) CONCRETE.
7. USE 6" MIN. DEPTH OR UNTREATED BASE COURSE UNDER ALL CONCRETE FLATWORK COMPACTED TO 96% MAXIMUM DRY DENSITY.

STRIPING SYMBOLS

SCALE: N.T.S.



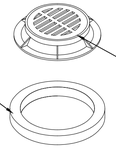
3'x3' CATCH BASIN



4'x4' CATCH BASIN

GRADE RING

HEIGHT	CODE	WEIGHT
4"	GR304	180#
6"	GR306	270#



RISER

HEIGHT	CODE	WEIGHT
1'	UV441R	1,350#
2'	UV442R	2,700#
3'	UV443R	4,050#
4'	UV444R	5,400#
5'	UV445R	6,750#
6'	UV446R	8,100#

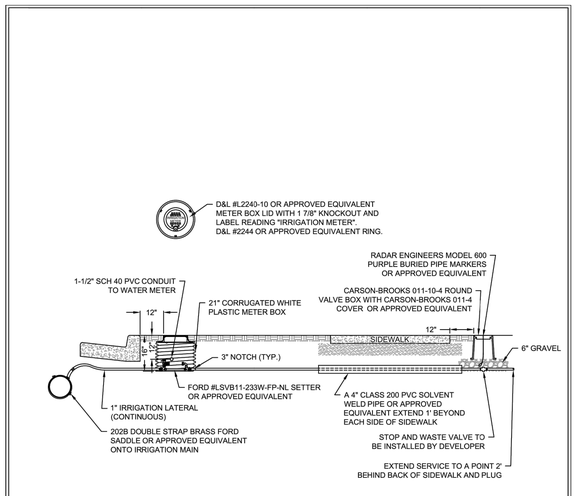
VAULT

HEIGHT	CODE	WEIGHT
3'	CB443	3,225#
4'	CB444	4,575#
5'	CB445	5,925#
6'	CB446	7,275#

NOTES:
1. CATCH BASINS ARE DESIGNED TO MEET ASTM C858 WITH AASHTO HS-20 LOADING.
2. OPENINGS MAY BE SIZED AND LOCATED AS REQUIRED.
3. OPTIONAL GRATING OR COVER MATERIAL MAY BE CAST IN AS REQUIRED.
4. CHECK HARDWARE SECTION FOR OPTIONAL ACCESSORIES.

CATCH BASIN DETAILS (2)

SCALE: NTS



NOTES:
1. IRRIGATION LATERAL SHALL BE 1" CONTINUOUS TYPE K COPPER OR SDR-9 CTS 200 PSI PURPLE POLYPROPYLENE PIPE.
2. STAINLESS STEEL LINER INSERTS SHALL BE REQUIRED INSIDE POLYPROPYLENE PIPE AT COMPRESSION FITTINGS.
3. ALL FITTINGS SHALL BE COMPATIBLE WITH SERVICE SIZE.
4. FOR PLANTER STRIPS LESS THAN 6' WIDE PLACE METER BOX IN CENTER OF PLANTER. WHERE THERE IS NO PLANTER, PLACE CENTER OF METER BOX 20" BEHIND SIDEWALK.
5. EXTEND 18 GAUGE WIRE 3' INTO METER BOX AND TAPE ENDS. BURY CONDUIT 12" BELOW GRADE.
6. IRRIGATION METERS LOCATED WITHIN THE DRIVEWAY SHALL HAVE A 48" PRECAST MANHOLE SECTION WITH D&L 1180 OR APPROVED EQUIVALENT MANHOLE FRAME AND LID THAT READS "IRRIGATION". LID SHALL BE RECESSED.

SPANISH FORK CITY, 40 SOUTH MAIN STREET, SPANISH FORK, UT 84660, (801) 804-4550	STANDARD DRAWING: 1" PRESSURIZED IRRIGATION SERVICE BOX AND LATERAL	DRAWN: AR; DESIGN: MHC; REVISION: ; DATE: 6/13/2018	SCALE NONE; STANDARD W-215

1" IRRIGATION METER (3)

SCALE: NTS (SP # W-215)

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS. ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

0 0.5 1

PROFESSIONAL ENGINEER 9/7/18 No. 10360773 M. CHRIS POULSEN STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

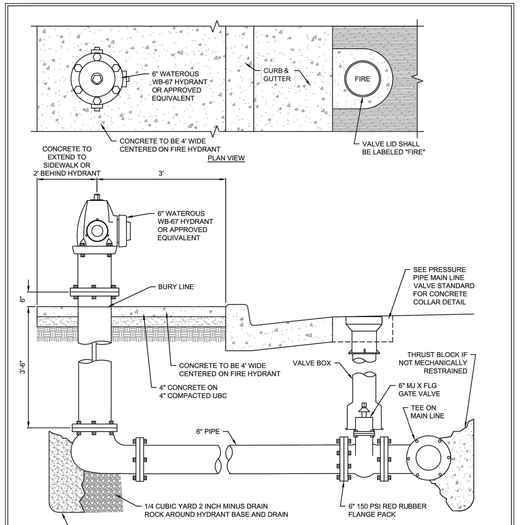
BENCHMARK CIVIL

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

DETAIL SHEET

CDT.02
11OF 14

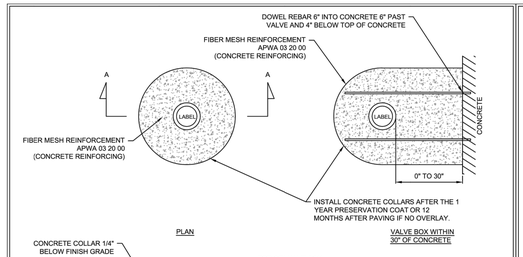


NOTES:

1. FIRE HYDRANTS SHALL BE PAINTED RED.
2. ALL BOLTS SHALL BE FREE FROM CONCRETE AND FULLY ACCESSIBLE.
3. IF THERE IS NOT A PLANTER STRIP, THE CENTER OF THE HYDRANT SHALL BE LOCATED 24" BEHIND THE SIDEWALK WITH A 4' BY 4' CONCRETE PAD CENTERED ON THE HYDRANT.
4. THERE SHALL BE NO OBSTACLES INCLUDING BUT NOT LIMITED TO POLES, UTILITY BOXES, TREES, FENCES, OR WALLS WITHIN 3' OF HYDRANT.
5. RISERS MAY ONLY BE USED WHEN AUTHORIZED BY THE CITY ENGINEER OR HIS/HER DESIGNEE.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT 84660 (801) 804-4500	STANDARD DRAWING FIRE HYDRANT	DRAWN: JLR DESIGN: CJP CHECK: CMT DATE: 6/21/17 SCALE: NONE STANDARD W-9

FIRE HYDRANT DETAIL (1)
SCALE: NTS

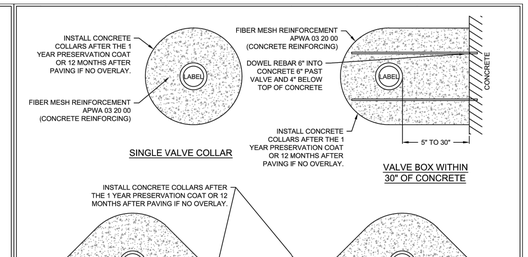


NOTES:

1. MECHANICAL RESTRAINTS SHALL BE INSTALLED ON BOTH SIDES OF EACH VALVE.
2. MECHANICALLY RESTAIN ALL JOINTS WITHIN 10' OF VALVE. EXCEPTION: IF VALVE IS TO BE INSTALLED INTO AN EXISTING MAIN, MECHANICALLY RESTRAIN JOINTS WITHIN 5' OF VALVE.
3. VALVE RINGS AND CONCRETE COLLARS SHALL BE PROTECTED BY A COVERING DURING A SEAL COAT.
4. LABEL ON LID SHALL READ "WATER" FOR DRINKING WATER MAIN VALVES, "FIRE" FOR FIRE LINE VALVES, "IRRIGATION" FOR PRESSURIZED IRRIGATION MAIN VALVES AND "DRAIN" FOR PRESSURIZED IRRIGATION DRAIN VALVES.
5. VALVE BOXES SHALL BE 2 PIECE, CAST IRON, SCREW ADJUSTABLE SLEEVE, 5 1/4" SHAFT WITH A DROP LID.
6. VALVE BOXES ON MAINS TOO SHALLOW FOR 2 PIECE BOXES SHALL HAVE A 10" SLIPTOP, D&L M-8056 OR APPROVED EQUIVALENT. THIS SHALL BE USED FOR PRESSURIZED IRRIGATION MAINS WITH 2' TO 4' OF COVER. VALVE BOX RISERS SHALL BE USED TO BRING TO FINAL GRADE.
7. PRESSURE ZONE VALVES SHALL HAVE A TRIANGLE VALVE BOX LID.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT 84660 (801) 804-4500	STANDARD DRAWING PRESSURE PIPE MAIN LINE VALVE	DRAWN: JLR DESIGN: CJP CHECK: CMT DATE: 6/21/17 SCALE: NONE STANDARD W-6

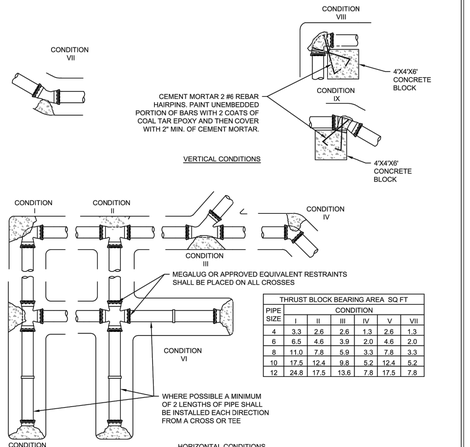
GATE VALVE DETAILS (2)
SCALE: NTS



NOTES:

1. VALVE RINGS AND CONCRETE COLLARS SHALL BE PROTECTED BY A COVERING DURING A SEAL COAT.
2. LABEL ON LID SHALL READ "WATER" FOR DRINKING WATER MAIN VALVES, "FIRE" FOR FIRE LINE VALVES, "IRRIGATION" FOR PRESSURIZED IRRIGATION MAIN VALVES AND "DRAIN" FOR PRESSURIZED IRRIGATION DRAIN VALVES.
3. VALVE BOXES SHALL BE 2 PIECE, CAST IRON, SCREW ADJUSTABLE SLEEVE, 5 1/4" SHAFT WITH A DROP LID.
4. VALVE BOXES ON MAINS TOO SHALLOW FOR 2 PIECE BOXES SHALL HAVE A 10" SLIPTOP, D&L M-8056 OR APPROVED EQUIVALENT. THIS SHALL BE USED FOR PRESSURIZED IRRIGATION MAINS WITH 2' TO 4' OF COVER. VALVE BOX RISERS SHALL BE USED TO BRING TO FINAL GRADE.
5. PRESSURE ZONE AND FIRE HYDRANT VALVES SHALL HAVE A TRIANGLE VALVE BOX LID.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT 84660 (801) 804-4500	STANDARD DRAWING VALVE COLLARS	DRAWN: JLR DESIGN: CJP CHECK: CMT DATE: 6/21/17 SCALE: NONE STANDARD W-8



THRUST BLOCK BEARING AREA SQ FT						
PIPE SIZE	CONDITION					
	I	II	III	IV	V	VII
4	3.3	2.6	2.6	1.3	2.6	1.3
6	6.5	4.6	3.9	2.0	4.6	2.0
8	11.0	7.8	5.9	3.3	7.8	3.3
10	17.5	12.4	9.8	5.2	12.4	5.2
12	24.8	17.5	13.6	7.8	17.5	7.8

NOTES:

1. MECHANICAL RESTRAINING DEVICES INSTALLED ACCORDING TO THE STANDARD DRAWINGS MAY BE USED IN PLACE OF CONCRETE THRUST BLOCKS. USE MECHANICAL RESTRAINING IN UNSTABLE SOILS.
2. ALL CONCRETE THRUST BLOCK BEARING FACES SHALL BE POURED AGAINST UNDISTURBED SOIL OR APPROVED COMPACTED BACKFILL.
3. A MINIMUM APWA CLASS 2000 PORTLAND CEMENT CONCRETE SHALL BE USED ON ALL HORIZONTAL THRUST BLOCKS AND APWA CLASS 4000 ON VERTICAL.
4. THRUST BLOCKS SHALL NOT INTERFERE WITH ACCESS TO JOINTS AND BOLTS.
5. FITTINGS SHALL BE ENCASED IN AN 8 MIL VINYL WRAP PLASTIC COVER.
6. ALL FITTING JOINTS SHALL BE MECHANICAL.
7. HORIZONTAL THRUST BLOCKS FOR PIPE WITH LARGER THAN 12" I.D. SHALL HAVE A DESIGN SUBMITTED THAT IS STAMPED BY A LICENSED PROFESSIONAL ENGINEER.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT 84660 (801) 804-4500	STANDARD DRAWING CONCRETE THRUST BLOCKS FOR PRESSURE PIPE	DRAWN: JLR DESIGN: CJP CHECK: CMT DATE: 6/21/17 SCALE: NONE STANDARD W-1

THRUST BLOCK DETAIL (3)
SCALE: NTS

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

0 0.5 1

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

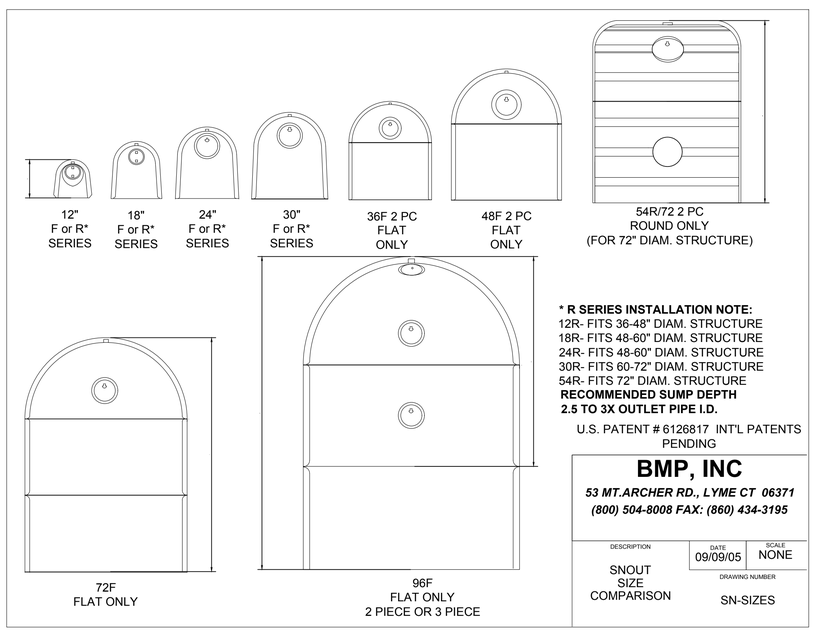
BENCHMARK CIVIL

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

DETAIL SHEET

CDT.03
12OF 14



*** R SERIES INSTALLATION NOTE:**
12R- FITS 36-48" DIAM. STRUCTURE
18R- FITS 48-60" DIAM. STRUCTURE
24R- FITS 48-60" DIAM. STRUCTURE
30R- FITS 60-72" DIAM. STRUCTURE
54R- FITS 72" DIAM. STRUCTURE
RECOMMENDED SUMP DEPTH
2.5 TO 3X OUTLET PIPE I.D.

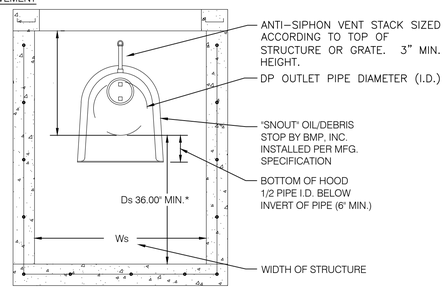
U.S. PATENT # 6126817 INT'L PATENTS PENDING

BMP, INC
53 MT.ARCHER RD., LYME CT 06371
(800) 504-8008 FAX: (860) 434-3195

DESCRIPTION	DATE	SCALE
SNOUT SIZE COMPARISON	09/09/05	NONE
	DRAWING NUMBER	SN-SIZES

SNOUT DETAILS (4)
SCALE: NTS

DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT



RULE # 1- AT AN ABSOLUTE MINIMUM, STRUCTURE INTERNAL DIMENSIONS MUST BE AT LEAST LARGE ENOUGH TO ACCOMODATE EXTERNAL DIMENSIONS OF THE SNOUT, AND ALLOW FOR A PERSON TO INSTALL IT. REFER TO BMP, INC. CAD DETAILS FOR PART DIMENSIONS.

RULE #2- USE ONLY 'F' SERIES SNOUTS FOR RECTANGULAR OR SQUARE STRUCTURES, AVAILABLE IN 12", 18", 24", 30", 48", 72" AND 96" SIZES. USE ONLY 'R' SERIES SNOUTS FOR ROUND STRUCTURES, AVAILABLE IN 12", 18", 24", 30", AND 54" SIZES.

*SUMP DEPTH (Ds)- SUMP DEPTH SHOULD BE A MINIMUM OF 36" FOR ANY NEW CONSTRUCTION FOR PIPES 12" AND LESS. FOR 15"-18" PIPE MIN. DEPTH SHOULD BE 48". OPTIMAL SIZING IS AT LEAST 2.5X TO 3X OUTLET PIPE DIAMETER (Dp) FOR MAXIMUM POLLUTANT REMOVAL EFFICIENCY AND MINIMAL CLEANOUT FREQUENCY.

STRUCTURE DIMENSIONS- PLAN DIMENSIONS FOR A STRUCTURE SHOULD BE UP TO 7X AREA OF OUTLET PIPE FOR MAXIMUM POLLUTANT REMOVAL EFFICIENCY AND MINIMAL CLEANOUT FREQUENCY.
(SEE "MAINTENANCE CONSIDERATIONS" DOCUMENT FOR MORE INFORMATION)

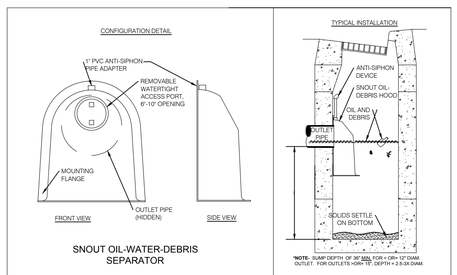
IMPORTANT NOTICE: DO NOT CONFUSE PIPE O.D WITH PIPE I.D. A SNOUT FITS OVER A PIPE, NOT IN IT. THUS, SNOUT MUST BE SIZED TO FIT OVER PIPE OPENING IN STRUCTURE. SNOUTS ARE AVAILABLE FOR ROUND STRUCTURES TO ACCOMODATE PIPES OF 54" O.D. MAX. FOR PIPES 54" O.D. AND ABOVE, USE SQUARE OR RECTANGULAR STRUCTURES.

SIZING EXAMPLES:

OUTLET HOLE SIZE	SNOUT SIZE
11.9" O.D. OR LESS	12 F or R (R FITS 36"-48" DIAM STRUCTURE)
12.0"-17.9" O.D.	18 F or R (R FITS 48"-60" DIAM STRUCTURE)
18.0"-23.9" O.D.	24 F or R (R FITS 48"-60" DIAM STRUCTURE)
24.0"-29.9" O.D.	30 F or R (R FITS 60"-72" DIAM STRUCTURE)
30.0"-35.9" O.D.	36F
30.0"-47.9" O.D.	48 F
30.0"-53.9" O.D.	54R/72 (FITS 72" DIAM STRUCTURE ONLY)
48.0"-71.9" O.D.	72F
72"-95.9" O.D.	96 F

BMP, INC.
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 504-8008 FAX: (860)434-3195

DESCRIPTION	DATE	SCALE
SNOUT SIZING CHART	09/09/05	NONE
	DRAWING NUMBER	SP-SI



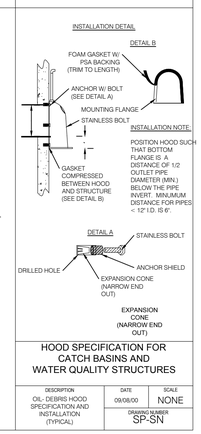
*NOTE- SUMP DEPTH OF 36" MIN. FOR < OR= 12" DIAM OUTLET. FOR OUTLETS >OR= 13", DEPTH = 2.5-3X DIAM.

SNOUT OIL-WATER-DEBRIS SEPARATOR

NOTES:

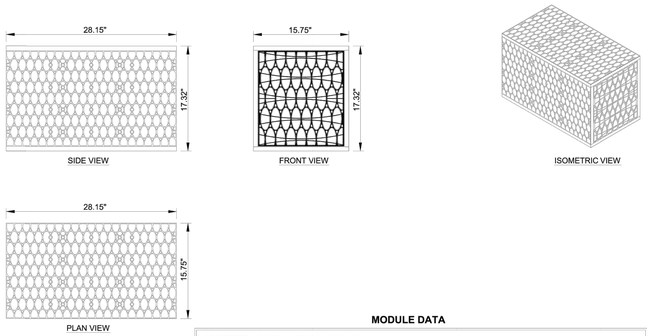
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   53 MT. ARCHER RD.
   LYME, CT 06371
   (860) 434-0277, (860) 434-3195 FAX
   TOLL FREE: (800) 504-8008 OR (888) 354-7585
   WEB SITE: www.bestmp.com
   OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
   INSTALLATION KIT SHALL INCLUDE:
   A. INSTALLATION INSTRUCTIONS
   B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
   C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
   D. 3/8" STAINLESS STEEL BOLTS
   E. ANCHOR SHIELDS

US Patent # 6126817



HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL- DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	09/08/00	NONE
	DRAWING NUMBER	SP-SN



MODULE DATA

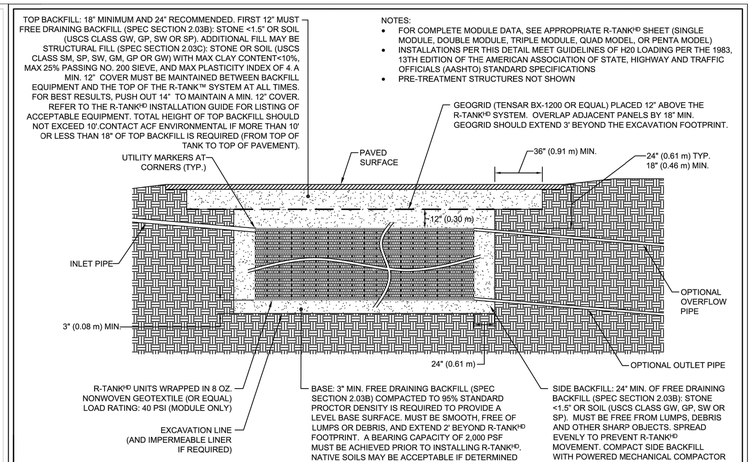
GEOMETRY: LENGTH = 28.15 IN. (715 MM)
WIDTH = 15.75 IN. (400 MM)
HEIGHT = 17.32 IN. (440 MM)
STORAGE VOLUME = 4.22 CF (119 L)
VOID INTERNAL VOLUME: 95%
VOID SURFACE AREA: 90%

LOAD RATING: 40 PSI, (MODULE ONLY)
HS25, (WITH ACF COVER SYSTEM)

MATERIAL: 85% RECYCLED POLYPROPYLENE

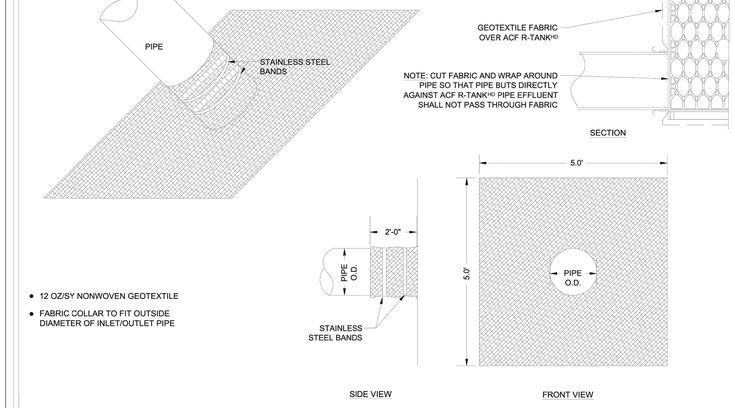
R-TANK^{HD} - SINGLE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



R-TANK^{HD} - H20 LOADS

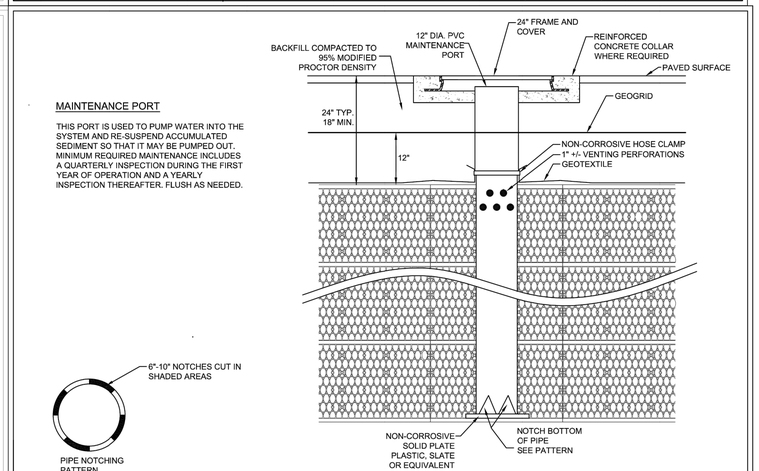
FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



- 12 OZ/SY NONWOVEN GEOTEXTILE
- FABRIC COLLAR TO FIT OUTSIDE DIAMETER OF INLET/OUTLET PIPE

FABRIC PIPE BOOT FOR R-TANK^{HD}

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com



MAINTENANCE PORT

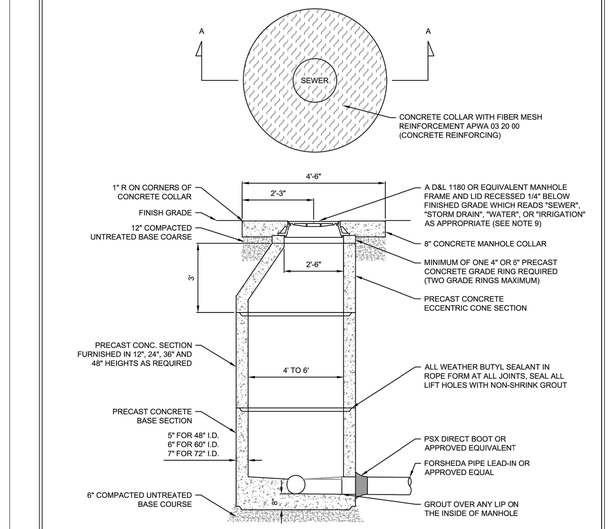
THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.

R-TANK^{HD} TYPICAL MAINTENANCE PORT

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com

HD R-TANK DETAIL (1)

SCALE: NTS

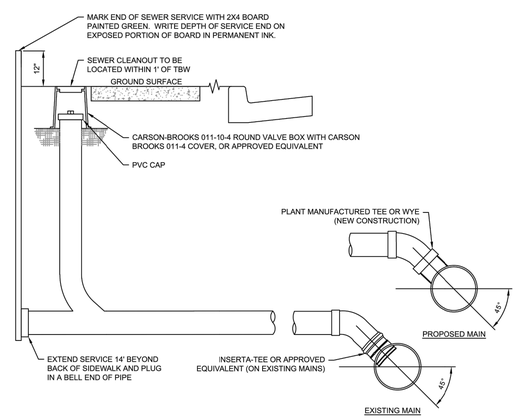


NOTES:
1. USE 4' I.D. MANHOLES FOR MAIN LINES LESS THEN 18" IN DIAMETER; 5' I.D. MANHOLES FOR MAIN LINES 18" TO 30" IN DIAMETER, AND 6' I.D. FOR MAIN LINES GREATER THAN 30" IN DIAMETER.
2. FLAT LIDS MAY BE USED IN LIEU OF ECCENTRIC CONES WHERE NECESSARY. FLAT LIDS SHALL BE OF ECCENTRIC DESIGN AND MEET H20 LIVE LOADING. NO FLAT RING AND COVERS WILL BE ALLOWED UNLESS APPROVED BY CITY ENGINEER OR HIS/HER DESIGNEE.
3. MANHOLE RIMS PLACED IN FIELDS SHALL HAVE SOLID LIDS AND BE BURIED 2 FEET DEEP.
4. MANHOLE RIMS OUT OF STREETS SHALL BE PLACED 4 INCHES ABOVE GRADE.
5. CONCRETE COLLAR AND RIM SHALL BE INSTALLED 1/4" BELOW PAVEMENT SURFACE AFTER THE 1 YEAR PRESERVATION COAT.
6. MANHOLE COLLARS AND RINGS SHALL BE PROTECTED BY A COVERING DURING A SEAL COAT.
7. CONCRETE COLLAR SHALL BE PLACED AFTER THE 1 YEAR PRESERVATION COAT WHEN APPLICABLE.
8. IN PAVED AREAS WITH A SLOPE GREATER THAN 5% USE AN EJIW 3624 TWIST BASE OR APPROVED EQUIVALENT.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT 84660 (801) 804-4550	STANDARD DRAWING MANHOLE	DRAWN: JLR; DESIGN: CJP; CHECK: CMT; DATE: 6/21/17	SCALE: NONE; STANDARD SS-1

4' SEWER MANHOLE DETAIL (2)

SCALE: NTS



NOTES:
1. THE MINIMUM SLOPE IS 2% FOR A 4" LATERAL AND 1% FOR A 6" LATERAL.
2. SEWER LATERALS SHALL HAVE A MINIMUM OF 42" OF COVER FROM FINISH GRADE AT PROPERTY LINE AND 36" AT PLUG.
3. INSERTA-TEE MAY ONLY BE USED WHEN APPROVED BY CITY ENGINEER.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT. 84660 (801) 804-4550	STANDARD DRAWING SEWER SERVICE	DRAWN: JLR; DESIGN: CJP; CHECK: CMT; DATE: 6/21/17	SCALE: NONE; STANDARD SS-4

SEWER CONNECTION DETAIL (3)

SCALE: NTS

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS PULSEN
STATE OF UTAH

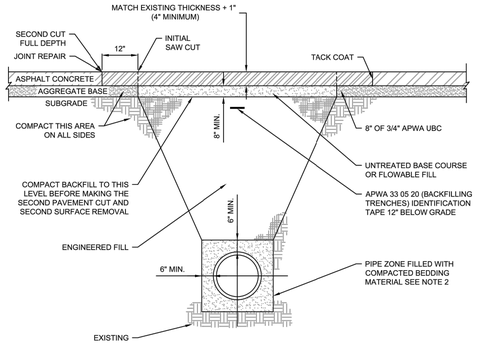
BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

CANYON GATE
802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

DETAIL SHEET

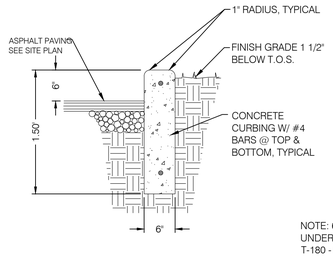
CDT.04
13OF 14



NOTES:
1. PAVEMENT CUTS SHALL BE A MINIMUM OF 3' X 3' AND ALSO BE MADE 12 INCHES OUTSIDE THE EDGE OF TRENCH FOR TRENCHES DEEPER THAN 4 FEET.
2. BEDDING MATERIAL SHALL EXTEND A MINIMUM OF 3" BELOW THE PIPE. FOR CONCRETE PIPE LARGER THAN 24" I.D. A MINIMUM OF 6" OF BEDDING MATERIAL SHALL BE PLACED BELOW THE PIPE. BEDDING MATERIAL PER 39.35.040 B.
3. ASPHALT SHALL BE CUT TO THE SPECIFIED WIDTH DURING PIPELINE CONSTRUCTION AND SUBSURFACE RESTORATION. THE FINAL SAW-CUT SHALL BE AN ADDITIONAL 12" WIDER THAN THE EXISTING TRENCH ON EACH SIDE, REMOVING THE ASPHALT AND PROCEEDING WITH THE REMAINDER OF THE RESTORATION.

SPANISH FORK CITY 40 SOUTH MAIN STREET SPANISH FORK, UT. 84660 (801) 804-4500	**STANDARD DRAWING** ASPHALT RESTORATION DEEP EXCAVATION & UTILITY POTHOLE REPAIR	DRAWN: JLR DESIGN: CJP CHECK: CMT DATE: 6/21/13 SCALE: NONE STANDARD G-1

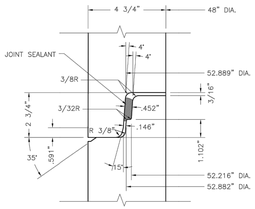
ASPHALT RESTORATION DETAIL 1
SCALE: NTS



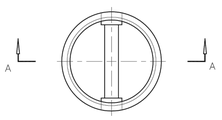
NOTE: 6" MIN. OF UNTREATED BASE COURSE REQD UNDER CURB AND GUTTER. COMPACT TO 95% ASSHTO T-180 - METHOD D.

POURED CONCRETE CURB REINFORCED W/ POLYPROPYLENE MULTIFILAMENT FIBERS.

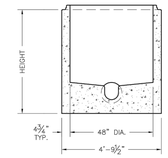
TYPICAL CONCRETE CURB WALL SECTION 2
SCALE: N.T.S.



48" DIA. MANHOLE JOINT DETAIL

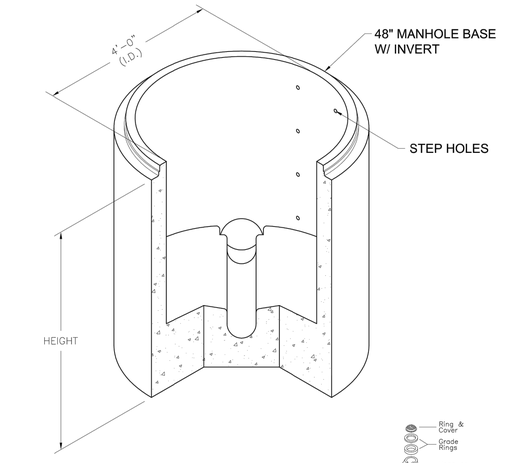


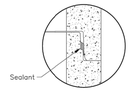
48" DIA. MANHOLE BASE W/ INVERT
PLAN VIEW



SECTION A-A

Oldcastle Precast 801 West 12th Street, Ogden, Utah 84404 Phone: 801-399-1171 Fax: 801-392-7849	**48" Base w/ Inv.** FILE NAME: 21ODMM48MHIBAS ISSUE DATE: 3/2010 www.oldcastleprecast.com	**48" Manhole Base w/ Invert** **2', 3', 4', 5' Heights** Copyright © 2010

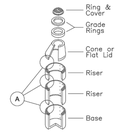




DETAIL A

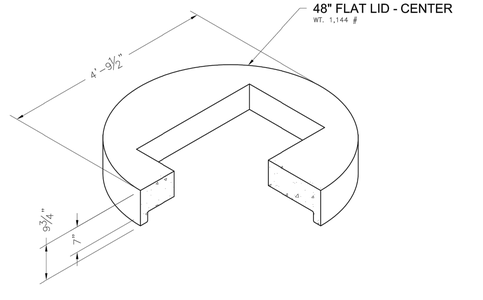
SECTION HEIGHT	SECTION WEIGHT
2'	4,448 #
3'	5,125 #
4'	6,643 #
5'	7,124 #

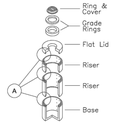
3' Monolithic

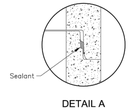


NOTES:
1. Manhole sections are designed to meet ASTM C478.
2. Openings may be sized and located as required.
3. Lifting insert type and location may change without notice.

Oldcastle Precast 801 West 12th Street, Ogden, Utah 84404 Phone: 801-399-1171 Fax: 801-392-7849	**48" Base w/ Inv.** FILE NAME: 21ODMM48MHIBAS ISSUE DATE: 3/2010 www.oldcastleprecast.com	**48" Manhole Base w/ Invert** **2', 3', 4', 5' Heights** Copyright © 2010



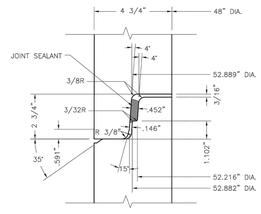




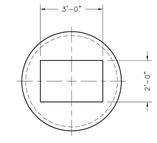
DETAIL A

NOTES:
1. Manhole sections are designed to meet ASTM C478.
2. Openings may be sized and located as required.
3. Lifting insert type and location may change without notice.

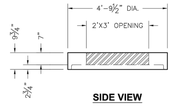
Oldcastle Precast 801 West 12th Street, Ogden, Utah 84404 Phone: 801-399-1171 Fax: 801-392-7849	**48" Center Lid** FILE NAME: 21ODMM48MHRLID ISSUE DATE: 3/2010 www.oldcastleprecast.com	**48" Manhole Flat Lid** **2' x 3' Rectangular Opening** **Centered** Copyright © 2010



48" DIA. MANHOLE JOINT DETAIL



48" DIA. MANHOLE FLAT LID
PLAN VIEW



SIDE VIEW

Oldcastle Precast 801 West 12th Street, Ogden, Utah 84404 Phone: 801-399-1171 Fax: 801-392-7849	**48" Center Lid** FILE NAME: 21ODMM48MHRLID ISSUE DATE: 3/2010 www.oldcastleprecast.com	**48" Manhole Flat Lid** **2' x 3' Rectangular Opening** **Centered** Copyright © 2010

4' DIAMETER FLAT MANHOLE 3
SCALE: NTS

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: TJB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 05/24/18
DWG. FILE:

0 0.5 1

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

BENCHMARK CIVIL

CANYON GATE

802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

DETAIL SHEET

CDT.05
14OF 14



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft

CONSTRUCTION KEY NOTES REFERENCE

NO.	DESCRIPTION	DETAIL
1	GATE VALVE PER SPANISH FORK STDS. W-6 & W-8	2/CDT.03
2	2" WATER SERVICE LINE & METER PER SPANISH FORK STDS. W-12	4/CDT.01
3	8" PVC C-900 WATER MAIN	
4	6" PVC C-900 FIRELINE	
5	FIRE HYDRANT PER SPANISH FORK STDS. W-9	1/CDT.03
6	THRUST BLOCK PER SPANISH FORK STDS. W-1	3/CDT.03
7	12"x12"x8" TEE PER SPANISH FORK STDS.	
8	RESTRAINT PER SPANISH FORK STDS. W-2 OR W-3	6/CDT.01
9	6" PVC SDR-35 SEWER LATERAL (SLOPE @ MIN. 1%) PER SPANISH FORK STDS. SS-4	3/CDT.04
10	SEWER CLEAN OUT PER SPANISH FORK STDS. SS-4	3/CDT.04
11	4' SSMH PER SPANISH FORK STDS. SS-1	2/CDT.04
12	4' FLAT SSMH (OLDCASTLE OR EQUAL)	2/CDT.05
13	8" SDR-35 PVC SS	
14	PIV & FDC	
15	1" IRRIGATION METER PER SPANISH FORK STD. W-215	3/CDT.02
16	1" SDR-9 POLYETHYLENE PIPE	

NOTE A:
18" OF VERTICAL SEPERATION BETWEEN WATER AND SEWER LINES REQUIRED. LOOP WATER SYSTEM IF REQUIRED.

NOTE B:
12" OF VERTICAL SEPERATION BETWEEN WATER AND STORM LINES REQUIRED. LOOP WATER SYSTEM IF REQUIRED.

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION AND NOTIFY ENGINEER IF THIS POINT IS HIGHER THAN SHOWN ON THE PLANS FOR A REDESIGN.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
SEWER LINES WITH LESS THAN 4' OF COVER SHALL BE INSULATED.

CALL BEFORE YOU DIG. IT'S FREE & IT'S THE LAW
BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811 BLUE STAKES

No.	DATE	DESCRIPTION
1	08/10/18	REVISED PER CITY COMMENTS
2	09/07/18	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DESIGNED BY TJB
CHECKED BY MCP
RELEASED ZSCL
DATE 05/24/18
DWG FILE

PROFESSIONAL ENGINEER
9/7/18
No. 10360773
M. CHRIS POULSEN
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com
BENCHMARK CIVIL

CANYON GATE

802 SOUTH 2550 EAST
SPANISH FORK, UTAH

PROJECT NO. 1802022

UTILITY PLAN

CUP.01
5 OF 14

CENTRAL UTAH WATER
CONSERVANCY DISTRICT

Al Mansell *Chair of the Board*
Shelley Brennan *Vice Chair of the Board*
Gene Shawcroft *General Manager / CEO*

Board of Trustees

G. Wayne Andersen
JR Bird
E James (Jim) Bradley
Shelley Brennan
Max Burdick
Kirk L Christensen
Steve Farrell
Steve Hanberg
Max Haslem
Nathan Ivie
Bill Lee
Al Mansell
Greg McPhie
Jim Riding
Jennifer Scott
Edwin Boyd Sunderland
Byron Woodland
Boyd Workman

December 7, 2021

To Whom it May Concern,

Starting in August 2021, Central Utah Water Conservancy District (District) offered two new rebate programs for homeowners within our service area to further increase water conservation efforts. These programs, Flip Your Strip and Localscapes Rewards, aim to educate homeowners about the benefits and design process of well-planned waterwise landscapes and to offset some of the cost to implement those landscapes. Living in a desert already comes with its challenges, but with recent drought conditions, more Utahns are recognizing the need to conserve our limited water supply and are looking for ways to cut back their usage, especially in their landscape. The cost of converting the typical residential landscape to something attractive and more efficient can be cost prohibitive to many homeowners. For these reasons we have developed rebate programs to be an asset to those wishing to make the switch. In the four months these programs have been available, we have received hundreds of applications and interest is rapidly increasing.

As we grow and develop in Utah it is imperative that we responsibly plan for water and growth together and the longer we wait the higher the cost will be to make meaningful changes to our water use that result in extending our limited supply. Many municipal codes for cities in Utah contain outdated landscaping ordinances that slow or restrict residents' efforts to conserve water and are not realistic for our region. The water efficiency standards in the attached document are designed to update or replace these outdated ordinances. Many cities such as Herriman, Draper, and Layton have already adopted these new standards and others are working towards the same goal. We believe these standards are critical for all cities and we recommend adoption and incorporation as soon as possible.

Our Landscape incentive programs are currently available on a limited basis to municipalities within our service area. To allow time for cities to make the necessary changes to their municipal codes, our rebate programs will continue to be offered to residents within our service area through 2022. However, starting January 1st, 2023, they will only be available to cities that have adopted the provided standards and have provided the District with the adopted language.

We are eager to continue providing this resource to as many residents as possible and are available to assist in this process if requested. For questions and support please contact Savannah Peterson at Savannah@cuwcd.com or by phone at 801-226-7151.

CENTRAL UTAH WATER
CONSERVANCY DISTRICT

December 7, 2021

Water Efficiency Standards

1. Purpose

The purpose of these Water Efficiency Standards is to conserve the public's water resources by establishing water conservation standards for indoor plumbing fixtures and outdoor landscaping.

2. Applicability

The following standards shall be required for all developer/contractor installed residential, commercial, institutional, and industrial construction, as applicable. The Outdoor Landscaping Standards shall also be required for new landscaping construction installed by homeowners.

3. Indoor Fixture Requirements

It is recommended and encouraged, but not mandated, that all new and future construction and future additions, remodels, or refurbishments install plumbing fixtures that have the WaterSense label, including: lavatory faucets, shower heads, sink faucets, water closets (tank and flushometer-valve toilets), and urinals, to the extent Utah law allows municipalities or local districts to require these fixtures.

4. Outdoor Landscaping Standards

All new and rehabilitated landscaping for public agency projects, private development projects, developer-installed landscaping in multi-family and single-family residential projects within the front and side yards, and homeowner provided landscape improvements within the front and side yards of single and two-family dwellings shall comply with the landscaping standards below:

Definitions

A. Activity Zones: Portions of the landscape designed for recreation or function, such as storage areas, fire pits, vegetable gardens, and playgrounds.

B. Active Recreation Areas: Areas of the landscape dedicated to active play where lawn may be used as the playing surface (ex. sports fields and play areas).

C. Central Open Shape: An unobstructed area that functions as the focal point of Localscapes and is designed in a shape that is geometric in nature.

D. Gathering Areas: Portions of the landscape that are dedicated to congregating, such as patios, gazebos, decks, and other seating areas.

E. Hardscape: Durable landscape materials, such as concrete, wood, pavers, stone, or compacted inorganic mulch.

F. Lawn: Ground that is covered with grass or turf that is regularly mowed.

G. Localscapes®: A landscaping approach designed to create locally adapted and sustainable landscapes through a basic 5-step approach (central open shape, gathering areas, activity zones, connecting pathways, and planting beds).

H. Mulch: Any material such as rock, bark, compost, wood chips or other materials left loose and applied to the soil.

I. Park Strip: A typically narrow landscaped area located between the back-of-curb and sidewalk.

J. Paths: Designed routes between landscape areas and features.

K. Planting Bed: Areas of the landscape that consist of plants, such as trees, ornamental grasses, shrubs, perennials, and other regionally appropriate plants.

L. Total Landscaped Area: Improved areas of the property that incorporate all the completed features of the landscape. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, and other non-irrigated areas intentionally left undeveloped.

5. Landscaping Requirements

A. All irrigation shall be appropriate for the designated plant material to achieve thehighest water efficiency. Drip irrigation or bubblers shall be used except in lawn areas. Drip irrigation systems shall be equipped with a pressure regulator, filter, flush-end assembly, and any other appropriate components.

B. Each irrigation valve shall irrigate landscaping with similar site, slope and soil conditions, and plant materials with similar watering needs. Lawn and planting beds shall be irrigated on separate irrigation valves. In addition, drip emitters and sprinklers shall be placed on separate irrigation valves.

C. Landscaped areas shall be provided with a WaterSense labeled smart irrigation controller which automatically adjusts the frequency and/or duration of irrigation events in response to changing weather conditions. All controllers shall be equipped with automatic rain delay or rain shut-off capabilities.

D. At least 3-4 inches of mulch, permeable to air and water, shall be used in planting beds to control weeds and improve the appearance of the landscaping.

E. At maturity, landscapes are recommended to have enough plant material (perennials and shrubs) to create at least 50% living plant cover at maturity at the ground plane, not including tree canopies.

F. Lawn shall not be installed in park strips, paths, on slopes greater than 25% or 4:1 grade, or be less than 8 feet wide at its narrowest point. To the extent reasonably practicable, lawn shall be free from obstructions (trees, signs, posts, valve boxes, etc.).

G. In residential landscapes, the landscaping shall adhere to the following Localscapes requirements:

i. If size permits, the landscaped areas of the front yard and back yard shall include a designed central open shape created by using lawn, hardscape, groundcover, gravel, or mulch.

ii. Gathering areas shall be constructed of hardscape and placed outside of the central open shape. In a landscape without lawn, gathering areas may function as the central open shape.

iii. Activity zones shall be located outside of the central open shape and shall be surfaced with materials other than lawn.

iv. Paths shall be made with materials that do not include lawn, such as hardscape, mulch, or other groundcover.

v. Lawn areas shall not exceed the greater of 250 square feet, or 35% of the total landscaped area.

vi. Small residential lots, which have no back yards, which the total landscaped area is less than 250 square feet, and which the front yard dimensions cannot accommodate the minimum 8 feet wide lawn area requirement of the landscaping requirements in section F, are exempt from the 8 feet minimum width lawn area requirement.

H. In commercial, industrial, institutional, and multi-family development common area landscapes, lawn areas shall not exceed 20% of the total landscaped area, outside of active recreation areas.

I. Certain special purpose landscape areas (e.g., stormwater management areas, etc.) may receive exceptions from the slope limitations and other elements of the landscaping requirements (see Paragraph F, above). Applications to receive exceptions are to be considered on a case-by-case basis.

J. These outdoor standards are not intended to conflict with other landscaping requirements as defined by Utah law, including stormwater retention requirements and low-impact development guidelines. Notwithstanding these outdoor standards, whenever any requirement may conflict with Utah law, such conflicting requirements shall not apply.